



Agenda

1. Call to Order
2. Pledge of Allegiance
3. Invocation
4. Adjustment and approval of May 17, 2022 meeting agenda

PUBLIC COMMENT PERIOD

Notes on the Public Comment Period - Each speaker may speak up to 3 minutes, and the total comment period will be 15 minutes or less. Citizens should sign up with the Town Clerk to speak prior to the start of the meeting. Although the Council is interested in hearing your concerns, speakers should not expect Council action or deliberation on subject matter brought up during the Public Comment segment. Topics requiring further investigation will be referred to the appropriate town officials or staff and may be scheduled for a future agenda. Thank you for your consideration of the Town Council, staff, and other speakers.

RECOGNITIONS

5. Holly Springs High School Women's Soccer - SWAC 4A League Champions
6. National Public Works Week
7. Blood Drive Donation
8. Mental Health Awareness Month Proclamation

REQUESTS AND COMMUNICATIONS

9. Holly Springs Salamanders Season Kick-Off
10. Utility Asset Management Update

CONSENT AGENDA

11. Approve the minutes of the the May 3, 2022 business meeting.
12. Budget Amendment Report
13. Main Street Sidewalk Connector - 2023 LAPP Grant Municipal Agreement

PUBLIC HEARINGS

14. Comprehensive Transportation Plan (CTP) 22-CPA-01 and Traffic Study Policy 22-DPM-02 - Legislative Hearing
15. System Development Fee Report
16. Fiscal Year 2022-23 Budget Public Hearing
17. Developer Agreement with Duke Energy - Legislative Public Hearing
18. 7511 Woods Creek Road Annexation & Rezoning - Legislative Hearings

NEW BUSINESS

19. NC Biotechnology Center Partnership Development Grant

20. Committee and Board Appointments

OTHER BUSINESS

MANAGER'S REPORT

CLOSED SESSION -

ADJOURNMENT

In accordance with ADA regulations please contact the Town Clerk's office at least 48 hours before the meeting to request an auxiliary aid or service needed to participate in this meeting:

linda.mckinney@hollyspringsnc.gov 919-557-3900



Holly Springs Town Council

Town Council Meeting Agenda Cover Sheet

Agenda Item#: 5.

Recognitions

Title: Holly Springs High School Women's Soccer - SWAC 4A League Champions

Strategic Priority Area: Engaged, Healthy, & Active Community

Staff Resource: Adam Huffman, Parks & Recreation

Action(s):

No action requested.

Explanation:

- Recognize Holly Spring High School's Womens Soccer Team for winning the Southwest Wake Athletic Conference 4A League Championship.
- Coach Brian Miller will briefly share the season highlights and introduce players in attendance.

Background:

- Holly Springs has a tradition of recognizing our local student athletes for their achievements in youth sports. This effort also develops a strong sense of community pride.

Funding Source(s):

N/A

Attachment(s):

None



Holly Springs Town Council

Town Council Meeting Agenda Cover Sheet

Agenda Item#: 6.

Recognitions

Title: National Public Works Week

Strategic Priority Area: Organizational Excellence

Staff Resource: Paige Scott, Director, Public Works

Action(s):

Issue a Proclamation that May 15-21, 2022 shall be Public Works Week in Holly Springs.

Explanation:

- National Public Works Week honors the importance of public works services and the men and women who deliver these services.
- This year's theme is "Ready & Resilient" -- Public works professionals are always READY to serve their communities and RESILIENT as ever in their abilities to pick themselves up off the ground after encountering challenges.
- Public works professionals help keep communities strong by providing an infrastructure of services in transportation, water, wastewater and stormwater treatment, public buildings and spaces, parks and grounds, emergency management and first response, solid waste, and right-of-way management. They are what make our communities great places to live and work.
- The Mayor wishes to join with representatives of the American Public Works Association in proclaiming May 15-21, 2022 as Public Works Week in Holly Springs.

Background:

- The American Public Works Association (APWA) established National Public Works Week (NPWW) in 1960.
- The NPWW is used to energize and educate the public of the importance of public works to their daily lives: planning, building, managing and operating at the heart of their local communities to improve the everyday quality of life.
- This proclamation recognizes the important work done by the Public Works, Utilities & Infrastructure and Parks and Recreation Departments.

Funding Source(s):

N/A

Attachment(s):

1. National Public Works Week 2022.pub

Town of Holly Springs



A Proclamation By The Mayor

National Public Works Week—May 15 - 21, 2022

WHEREAS, public works professionals focus on infrastructure, facilities and services that are of vital importance to sustainable and resilient communities and to the public health, high quality of life and well-being of the people of Holly Springs; and,

WHEREAS, these infrastructure, facilities and services could not be provided without the dedicated efforts of public works professionals, who are engineers, managers and employees at all levels of government and the private sector, who are responsible for rebuilding, improving and protecting our nation's transportation, water supply, water treatment and solid waste systems, public buildings, and other structures and facilities essential for our citizens; and

WHEREAS, it is in the public interest for the citizens, civic leaders and children in Holly Springs to gain knowledge of and to maintain a progressive interest and understanding of the importance of public works and public works programs in their respective communities; and

WHEREAS, the year 2022 marks the 62nd annual National Public Works Week sponsored by the American Public Works Association/Canadian Public Works Association;

NOW, THEREFORE, I, Mayor Sean Mayefskie, do hereby proclaim May 15 - 21, 2022 as

National Public Works Week

in Holly Springs, and I urge all citizens to join me with representatives of the American Public Works Association/Canadian Public Works Association and government agencies in activities, events and ceremonies designed to pay tribute to our public works professionals, engineers, managers and employees and to recognize the substantial contributions they make to protecting our national health, safety, and quality of life.

Proclaimed this, the 17th day of May, 2022

IN WITNESS WHEREOF, I have
hereunto set my hand and caused the Seal of
the Town of Holly Springs, North Carolina to be
affixed on this 17th day of May, 2022.

Sean Mayefskie, Mayor



Holly Springs Town Council

Town Council Meeting Agenda Cover Sheet

Agenda Item#: 7.

Recognitions

Title: Blood Drive Donation

Strategic Priority Area: Safe & Friendly
Engaged, Healthy, & Active Community

Staff Resource: LeRoy Smith, Fire Chief, Paul Liquorie, Police Chief

Action(s):

Receive donation.

Explanation:

- In March, the Holly Springs Police and Fire departments and Rotary Club held a Blood Drive.
- In partnership with the Blood Connection, a \$20 donation was provided for each pint of blood donated.
- The blood drive raised a total of \$760.
- The Holly Springs Police Department has selected the Special Olympics to receive their share of the funds.
- The Holly Springs Fire Department has selected North Carolina First Responder Peer Support (NCFRPS) to receive their share of the funds.

Background:

- The Blood Connection is a non-profit organization, with a center in Raleigh, with a mission to support healthcare partners with adequate, safe, cost-effective blood supplies and services.

Funding Source(s):

Attachment(s):

None



Holly Springs Town Council

Town Council Meeting Agenda Cover Sheet

Agenda Item#: 8.

Recognitions

Title: Mental Health Awareness Month Proclamation

Strategic Priority Area: Organizational Excellence

Staff Resource: Council member Kristi Bennett, Mayor Mayefskie

Action(s):

Proclaim May as Mental Health Awareness Month in Holly Springs

Explanation:

- Mental Health Awareness Month was started in 1949 to reduce the stigma associated with mental health issues, and to encourage those who need help to seek it.
- President Biden proclaimed May as National Mental Health Awareness Month in 2022.

Background:

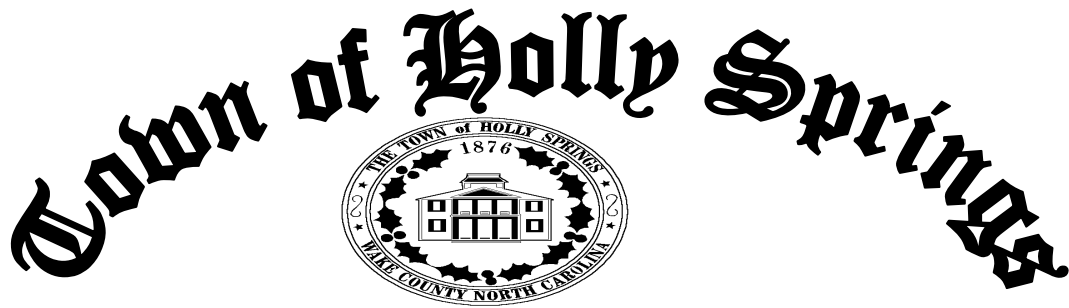
- The National Alliance on Mental Illness (NAMI) estimates that 1 in 5 adults in the U.S. have experienced mental illness.
- NAMI estimates that 90% of people who die by suicide have experienced symptoms of a mental health condition.
- The Veterans Administration says that 13.7% of suicides committed by adults in 2019 (their most recent figures) were committed by veterans.
- The organization Stop Soldier Suicide says that suicide is the second-leading cause of death for post-911 veterans.

Funding Source(s):

N/A

Attachment(s):

1. Mental Health Awareness Month



A Proclamation by the Mayor

Mental Health Awareness Month

WHEREAS, mental health is essential to everyone's overall health and well-being; and,

WHEREAS, all Americans experience times of difficulty and stress in their lives; and,

WHEREAS, those who serve in the armed services are exposed to physical, mental, and emotional trauma at rates higher than those in the general population; and,

WHEREAS, suicide is the second-leading cause of death for post-911 veterans, accounting for 22.3% of all deaths, according to the Stop Soldier Suicide organization; and,

WHEREAS, according to the Veterans Administration, 13.7% of suicides committed by adults in 2019 were committed by veterans; and,

WHEREAS, with early and effective treatment, those individuals with mental illnesses can recover and lead full, productive lives; and,

WHEREAS, each business, school, government agency, healthcare provider, organization, and citizen shares the burden of mental illnesses and has a responsibility to promote mental wellness and support prevention efforts.

NOW, THEREFORE I, Mayor Sean Mayefskie, do hereby proclaim May 2022 as

Mental Health Awareness Month

and I call upon the citizens of Holly Springs to recommit to increasing awareness and understanding of mental health, the steps our citizens can take to protect their own mental health, and to assist those around them with mental health concerns, and the need for appropriate and accessible services for all people with mental illnesses, particularly those who have served in the armed services.

Proclaimed this, the 17th day of May, 2022

IN WITNESS WHEREOF, I have
hereunto set my hand and caused the Seal of
the Town of Holly Springs, North Carolina to be
affixed on this 17th day of May, 2022

Sean Mayefskie, Mayor



Holly Springs Town Council

Town Council Meeting Agenda Cover Sheet

Agenda Item#: 9.

Requests & Communications

Title: Holly Springs Salamanders Season Kick-Off

Strategic Priority Area: Engaged, Healthy, & Active Community

Staff Resource: LeeAnn Plumer, Parks & Recreation

Action(s):

For information only. No action requested.

Explanation:

- Mike Birling, VP of Baseball Operations, will provide an overview of the upcoming Holly Springs Salamanders season scheduled to open at Ting Stadium on Thursday, May 26.

Background:

- The Town of Holly Springs has a partnership through a license agreement with the Holly Springs Salamanders, an affiliate of the Coastal Plain (Baseball) League, for the use of the stadium at Ting Park.
- The license agreement is for 10 years and became effective in May 2015.
- The field at Ting Stadium was recently named Dick Sears Field. Photos of the field with the name are attached.

Funding Source(s):

N/A

Attachment(s):

1. Naming of the field at Ting Stadium

Naming of the field at Ting Stadium - Dick Sears Field.





Holly Springs Town Council

Town Council Meeting Agenda Cover Sheet

Agenda Item#: 10.

Requests & Communications

Title: Utility Asset Management Update

Strategic Priority Area: Responsible & Balanced Growth

Safe & Friendly

Staff Resource: Sara Emig, Utilities and Infrastructure, Kendra Parrish, Utilities and Infrastructure

Action(s):

No action requested - for informational purposes only.

Explanation:

- The purpose of this agenda item is to provide an overview of asset management and an update on utility asset management initiatives included in the FY 23 proposed budget.
- Asset Management is the systematic and coordinated activities and practices through which an organization optimally and sustainably manages its assets and asset systems.
- Asset Management planning includes asset inventories, conditions assessments, data analysis, and establishment and implementation of proactive maintenance and replacement plans.
- The benefits of Asset Management are data-driven decisions, cost-effective utilization of limited financial resources and minimization of interruptions in service.
- Included in the FY 23 proposed budget are the following Utility Asset Management projects:
 - Asset inventory and data system updates to gain a better understanding of the assets.
 - Gap analysis to determine the needs to achieve asset management objectives
 - Development and implementation of a Strategic Asset Management Plan.
- On May 2, 2022, staff submitted applications for NC DEQ Division of Water Infrastructure, Asset Inventory and Assessment (AIA) grants in the amount of \$400,000, which, if awarded, will assist in funding utility asset management initiatives.

Background:

- Asset management and planning was a guiding principle of the development and infrastructure teams reorganization (October 2020), resulting in the creation of the Utilities & Infrastructure Department, including a Business Asset Management Division.
- As Holly Springs developed rapidly and assets were relatively new, asset maintenance was often reactive as issues arose. However, many of the town's assets are reaching an age where regular and proactive maintenance is necessary.
- The Risk & Resiliency Assessment (RRA) and Emergency Response Plan (ERP) for the water system were completed during the current fiscal year.

Town Council Business Meeting
May 17, 2022

- The RRA identifies potential hazards related to water facility infrastructure, including but not limited to monitoring practices, billing systems, chemical storage and general operations.

Funding Source(s):

N/A

Attachment(s):

None



Holly Springs Town Council

Town Council Meeting Agenda Cover Sheet

Agenda Item#: 11.

Consent Agenda

Title: Approve the minutes of the the May 3, 2022 business meeting.

Strategic Priority Area: Organizational Excellence

Staff Resource: Linda McKinney, Town Clerk

Action(s):

Approve the minutes of the Council's workshop meeting held May 3, 2022.

Explanation:

- Minutes in draft form are attached for the Council's review.
- If there are any corrections, please notify the Town Clerk in advance of Tuesday night's meeting so that corrected versions of the draft minutes can be circulated for review before adoption of the Consent Agenda.

Background:

Funding Source(s):

N/A

Attachment(s):

1. 5.3.22 minutes_notes



MINUTES

The Holly Springs Town Council met in regular session on Tuesday, May 3, 2022. Mayor Mayefskie presided, calling the meeting to order at 7 p.m. A quorum was established as the Mayor and four Council members were present in the Chamber as the meeting opened.

Council Members Present: Mayor Mayefskie, Mayor Pro Tem Dan Berry, Council members Aaron Wolff, Kristi Bennett, and Timothy Forrest.

Council Members Present by Electronic Means: Council member Shaun McGrath.

Staff Members Present in Chambers: Randy Harrington, *Town Manager*; Scott Chase, *Assistant Town Manager*; Daniel Weeks, *Assistant Town Manager*; John Schifano, *Town Attorney*; Linda McKinney, *Town Clerk* (recording the minutes); Mathew Mutter, *IT*; LeeAnn Plumer, *Director, Parks & Recreation*; Chris Champion, *Parks & Recreation*; Chris Hills, *Director, Development Services*; Paige Scott, *Director, Public Works*; Irena Krstanovic, *Director, Economic Development*; Kendra Parish, *Executive Director of Utilities and Infrastructure*; Corey Petersohn, *Administration*; Cassie Hack, *Director, Communications*; Kathy White, *Deputy Clerk*.

2. and 3. The Pledge of Allegiance was recited followed by an invocation by Mayor Mayefskie.

4. Agenda Adjustment: The May 3, 2022 meeting agenda was adopted with changes, if any, as listed: none.

Motion: Berry

Second: Wolff

Vote: Unanimous

Public Comment: At this time, an opportunity was provided for members of the audience who had registered to speak to address the Council, and the Clerk was asked for any written comments received prior to the meeting.

The following written comments were received: none

The following comments were received in person: none

RECOGNITIONS

5. SWAC State Basketball Champions

Chris Champion, Parks and Recreation, said that the 12U Girls and 16U Boys All-Star Basketball teams won the Statewide Athletics Committee (SWAC) state championship for their division. The teams came forward and were recognized.

6. Kids Appreciation Day 2022

Joe LoFaro said that the annual Kids Appreciation celebration is scheduled for May 7th. He spoke about the mission of Kiwanis, and described the events that would take place at Kids Appreciation Day on Saturday. He called up the Terrific Kids to be recognized. Mayor Mayefskie proclaimed May 7, 2022 Kids Appreciation Day in Holly Springs.

7. Apraxia Awareness Month Proclamation

Mayor Mayefskie said that childhood apraxia of speech is an extremely challenging speech disorder. Without appropriate speech therapy intervention, children with apraxia are at high risk for secondary impacts in reading, writing, spelling, and other school-related skills. He proclaimed May 14, 2022 Apraxia Awareness Day in Holly Springs and said that the proclamation would be mailed to Ms. Charmaine James.

8. Building Safety Month Proclamation

Chris Hills, Director of Development Services, said May is designated by the International Code Council as Building Safety Month. He gave background on the observation, and explained that it included building inspections, fire safety inspections, and trades inspections (plumbing, electrical, etc.) He said the month of May would see a social media campaign with building safety public service announcements, educational outreach at the Farmers Market, and regional shed competition assistance. Mayor Mayefskie proclaimed May as Building Safety Month in Holly Springs. Town inspectors who were present to accept the proclamation were Daniel Pope, Clyde Stephenson, Andrew Blackmon, Dusty Mills, Ricky Parson, and Mitchell Long. Antuan Dewar and Mike Ritter were unable to attend.

REQUESTS AND COMMUNICATIONS

9. UNC Rex Holly Springs Hospital Update

Roy Tempke, UNC Rex Holly Springs Hospital, gave a recap on the background of bringing the hospital to Holly Springs and said that they have been opened for six months now. He invited those who have not seen it yet to come visit. He said patient satisfaction is at the 90% percentile for hospitals of their size. He said that the Emergency Department was originally budgeted to accommodate 49 patients per day, but averages 63, with a single-day high of 88 last week. He said that 199 babies have been delivered so far and another 289 births are scheduled between January and the end of June. More than 828 surgeries have been performed since the hospital opened, averaging 8 per day.

Mr. Tempke said the hospital has a current staff of 375, more than half of whom live locally, and they are hiring for a variety of positions to reach full capacity. He said that coming next will be installing the MRI machine; adding a second C-section room; adding Level 2 NICU beds; opening the 5th floor. There is a need of staff to perform ultrasounds on weekends. And there is a potential addition of 24 beds on the seventh floor. He said they are planning for future growth including the possibility of another medical office building.

Mayor Mayefskie asked where people could go to apply for positions at the hospital. Mr. Tempke said to go to the UNC Rex Holly Springs Hospital website, and click "Jobs." Council member Wolff asked if the helipad had been used yet. Mr. Tempke said it has not been used yet, as there has not been the need. Mayor Pro Tem Berry said he wanted to publicly thank the hospital for helping complete the sidewalk on Main Street.

Consent Agenda

The Council passed a motion to approve all items on the Consent Agenda. The motion carried following a motion by Mayor Pro Tem Berry, a second by Council member Forrest and a unanimous vote. The following actions were affected:

10. Minutes – Council approved the minutes of the April 12, 2022 workshop meeting and the April 19, 2022 business meeting.

11. 7511 Woods Creek Rd. Voluntary Annexation A21-06 – The Council approved Resolution 22-21 directing the Town Clerk to investigate the sufficiency of annexation petition A21-06 and setting the public hearing for May 17, 2022.

A copy of Resolution 22-21 is attached to these minutes.

12. Village Gate Easement Purchase – The Council approved a budget amendment appropriating \$12,280 for purchase of right-of-way.

A copy of the Budget Amendment is attached to these minutes.

13. Fleet Services Budget Amendment – The Council approved a budget amendment appropriating \$200,000 for Public Works Fleet Maintenance for projected fuel and vehicle maintenance expenses.

A copy of the Budget Amendment is attached to these minutes.

NEW BUSINESS

14. Fiscal Year 2021-2022 Nonprofit Grants

MPT Dan Berry gave an overview of the Council's Civic Nonprofit Grant program and what it hopes to accomplish. He said that the Grant Committee met in April to consider applications for the Civic Nonprofit grants. Eleven applications were received. Council member Wolff said that the committee prioritized basic life needs when making their recommendations. MPT Berry discussed what each organization had requested the funding for, and the committee's recommended level of funding. The committee included in the recommendations the request made at the April 5th meeting by first grader Tyler Dublick for assistance with a robot for trash pickup during Kids Duty at Holly Grove Elementary School, recommending a grant to Kids Duty for supplies, and to the Holly Springs High School Robotics Club to build the robot.

Council member Forrest thanked the committee for its hard work.

Action: Motion to award grants to the following nonprofits in the following amounts, as recommended by Council's Grant Committee:

Recipient Organization	Amount
Holly Springs Community Band	\$2,000
Holly Spring Food Cupboard	\$2,500
Holly Springs High School Band	\$2,000
Holly Springs High School PTSA	\$1,500
LaunchHOLLYSPRINGS	\$1,000
South Wake Conservationists	\$2,000
Western Wake Crisis Ministry	\$5,000
For Girls Like Quaneisha	\$500
Holly Springs Civitan	\$500
YMCA Camp High Hopes	\$2,500
Hawktimus Prime (HSHS Robotics Club)	\$1,000
Holly Grove Elementary School Kids Duty	\$250
HSHS Boys to Men Mentorship Program	\$1,000

Motion by: Berry

Second by: Forrest

Vote: unanimous

OTHER BUSINESS

Mayor Mayefskie wished Town Manager Randy Harrington a happy birthday. He said that summer dress code would begin at the next meeting and continue through August, at least. He said on Sunday he attended the Capital Area Preservation event where the Norris Holland Hare House received a historic plaque.

Council member Forrest spoke about his attendance at CityVision in Wilmington, and the Citizen Engagement Award the Town won for the Holly Springs School historic marker.

Council member McGrath said that he attended a CAMPO meeting a few weeks ago. He said there are some good transportation projects that were approved, many of which will help Holly Springs. There was also discussion of the light rail program along the I-40 corridor, and he asked them to look at a spur route along US 1.

Mayor Mayefskie reminded people to go to the Kids Appreciation event Saturday from 11 – 3 at Sugg Farm Park.

MANAGER'S REPORT

Randy Harrington, Town Manager, said he had two items.

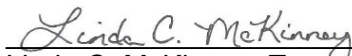
The International Food Truck event is this Friday from 5 – 9 at the cultural center. There will be over 15 vendors of international food, as well as entertainment. He thanked the Chamber of Commerce and Interfaith Alliance for their partnership in this event.

Second, next weeks' workshop is in the Council Chamber, not at the Law Enforcement Center. There is one item on the agenda, the budget presentation, and it should be a short workshop.

CLOSED SESSION: None.

Adjournment: MPT Berry made a motion to adjourn at 8:20 pm. It was seconded by Council member Wolff and passed with a unanimous vote.

Respectfully Submitted on Tuesday, May 17, 2022.



Linda C. McKinney, Town Clerk

Addenda pages as referenced in these minutes follow and are a part of the official record.



Holly Springs Town Council

Town Council Meeting Agenda Cover Sheet

Agenda Item#: 12.

Consent Agenda

Title: Budget Amendment Report

Strategic Priority Area: Organizational Excellence

Staff Resource: Corey Petersohn, Finance

Action(s):

Receive Report. No further action is required.

Explanation:

- The budget ordinance for the Town of Holly Springs authorizes the Town Manager to approve inter-department budget amendments within the same fund up to \$50,000 with notification to Town Council the following month.
- Each month, when applicable, the Budget Manager will provide Council a copy of these approved budget amendments from the preceding month.

Background:

- For the month of April there was one applicable budget amendment to report:
 - A budget amendment shifting funds from an unused central services expense account to cover administration expenses
- All reported amendments are less than \$50,000 and use existing approved operating funds.

Funding Source(s):

Approved Operating Budget

Attachment(s):

1. FY22 Budget Amendment - Administration

Town of Holly Springs Budget Amendment Request

BE IT ORDAINED by the Town Council of the Town of Holly Springs, North Carolina, that the following amendment be made to the annual budget ordinance for the fiscal year ending June 30, 2022.

Department: Administration

Date: 4/26/2022

Reason for Budget Amendment:

Shifting unused expenses in Central Services for additional townwide expenses in Town Manager's Office.

Expense			
Account #	Account Description	Increase	Decrease
10-410-82.12	General Fund Central Services Misc Expense		\$ 10,000
10-412-11-12.01	Admin - Professional Fees	\$ 5,500	
10-412-11-62.02	Admin - Dues & Subscriptions	\$ 2,000	
10-412-11-62.04	Admin - Supplies Department	\$ 2,500	
Total Expense:		\$ 10,000	\$ 10,000

Revenue			
Account #	Account Description	Increase	Decrease
Total Revenue:		\$ -	\$ -

Department Head Signature (or electronic submission)

Town Manager Signature (if necessary)

Finance Director Signature (if necessary)

Council Approved/Notified (if necessary)

Town Manager is authorized to transfer within a department without prior approval of Town Council.

Town Manager is authorized to approve transfers between departments within the same fund up to \$50,000.

All inter-departmental transfers will be reported to Town Council by the following month.

Amendments that change the total budget or departmental transfers over \$50,000 require Town Council approval.



Holly Springs Town Council

Town Council Meeting Agenda Cover Sheet

Agenda Item#: 13.

Consent Agenda

Title: Main Street Sidewalk Connector - 2023 LAPP Grant Municipal Agreement

Strategic Priority Area: Engaged, Healthy, & Active Community

Safe & Friendly

Responsible & Balanced Growth

Staff Resource: Tim Athy, Utilities and Infrastructure

Action(s):

Approve NCDOT Municipal Agreement for Main Street Sidewalk Connector (Arbor Creek Dr. to Trellis Pointe Dr.).

Explanation:

- In October 2021, the Town Council approved the submittal of Locally Administered Projects Program (LAPP) Grant applications to the Capital Area Metropolitan Planning Organization (CAMPO) for partner funds for the Main Street Sidewalk Connector (Arbor Creek Dr. to Trellis Pointe Dr.) project.
- The Town was awarded \$660,000 in LAPP Grant funds for the project.
- As part of NCDOT's administration of the LAPP Grant funds, NCDOT requires the following:
 - The awarded municipality sign a Municipal Agreement
 - The awarded municipality reimburse the NCDOT for review and oversight expenses of approximately 10% of the LAPP Grant or \$66,000
- Holly Springs has requested federal funding for the Main Street Sidewalk Connector (Arbor Creek Dr. to Trellis Pointe Dr.) project and has been designated to receive funds.
- NCDOT has agreed to administer the disbursement of said funds on behalf of the Federal Highway Administration (FHWA) for the project in accordance with the project scope of work and in accordance with the provisions set out in the Agreement.
- The governing board, by execution of the Agreements, agrees to participate in certain costs and to assume certain responsibilities outlined by the Agreements.
- Town funds are not required to enter into the Municipal Agreement with the NCDOT.

Background:

- Locally Administered Projects Program (LAPP) was first adopted by the NC Capital Area Metropolitan Planning Organization (MPO) on October 20, 2010. The program is used by the MPO to prioritize and program local transportation projects in the region that utilize federal funding and are the responsibility of the MPO. These projects are funded using federal funding sources directly attributed to the region with a minimum 20% local match.
- The Main Street Sidewalk Connector (Arbor Creek Dr. to Trellis Pointe Dr.) project

Town Council Business Meeting
May 17, 2022

proposes to fill in a 1,125' gap of existing 5' wide concrete sidewalk on the east side of N. Main Street.

- This project will be part of a cross-town sidewalk connector linking residents of neighborhoods south of the proposed 540 to Ting Park, the Town's Village District, and several parks and schools.
- As part of the Town's 2021 Greenway Master Plan, this project will provide a vital link to the Apex-Holly Springs Greenway Connector, which is considered as a Greenway Trails Community Connector, connecting the Greenway systems of Apex, Cary and Holly Springs.
- CAMPO approved LAPP grant funds for this project in the amount of \$660,000 for design engineering, right-of-way acquisition and construction.
- The total estimated cost of the project is \$825,000.
- Right-of-way acquisition from three parcels will be needed.
- It is anticipated that the design and right-of-way acquisition processes will be completed by the end of 2023 with construction anticipated in 2024.
- Upon a fully executed Municipal Agreement, the Town will select a design & survey consultant to provide construction plans.

Funding Source(s):

- LAPP Grant Funds
- Sidewalk, Pedestrian & Bike Safety PAYGO

Attachment(s):

1. MainSt_SW_Connector_LAPP_Muni_Agt
2. Project_Map

Executive Summary

The Executive Summary is a summation of this agreement and is not intended to be used as the agreement between the Department (North Carolina Department of Transportation) and the Party (Entity).

Entity: Town of Holly Springs

County: Wake

TIP: BL-0052

Project: Main Street Sidewalk Connector

Scope: construction of approximately 1,125 linear feet of sidewalk on the east side of N. Main Street from Arbor Creek Drive to Trellis Point Drive.

Eligible Activities:

PE	50275.1.1	Design
		Environmental
ROW	50275.2.1	ROW Acquisition
	50275.2.2	Utility Relocation
CON	50275.3.1	Construction
OTHER		
FEDERAL-AID	6107001	

Fund Source	Federal Funds Amount	Reimbursement Rate	Non-Federal Match \$	Non-Federal Match Rate
Congestion Mitigation and Air Quality	\$660,000	80 %	\$165,000	20 %
Total Estimated Cost		\$825,000		

Responsibility: The Town of Holly Springs shall be responsible for all aspects of the project.

NORTH CAROLINA

**LOCALLY ADMINISTERED PROJECT -
FEDERAL**

WAKE COUNTY

DATE: 4/21/2022

NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION

TIP #: BL-0052

AND

WBS Elements: PE 50275.1.1

ROW 50275.2.1

TOWN OF HOLLY SPRINGS

UTIL 50275.2.2

CON 50275.3.1

FEDERAL-AID NUMBER: 6107001

CFDA #: 20.205

Total Funds [NCDOT Participation] \$660,000

THIS AGREEMENT is made and entered into on the last date executed below, by and between the North Carolina Department of Transportation, an agency of the State of North Carolina, hereinafter referred to as the "Department" and the Town of Holly Springs, hereinafter referred to as the "Municipality".

WITNESSETH:

WHEREAS, Fixing America's Surface Transportation (FAST) Act allows for the allocation of federal funds to be available for certain specified transportation activities; and,

WHEREAS, the Municipality has requested federal funding for Main Street Sidewalk Connector, hereinafter referred to as the Project, in Wake County, North Carolina; and,

WHEREAS, subject to the availability of federal funds, the Municipality has been designated as a recipient to receive funds allocated to the Department by the Federal Highway Administration (FHWA) up to and not to exceed the maximum award amount of \$660,000 for the Project; and,

WHEREAS, the Department has agreed to administer the disbursement of said funds on behalf of FHWA to the Municipality for the Project in accordance with the Project scope of work and in accordance with the provisions set out in this Agreement; and,

WHEREAS, the Department has programmed funding in the approved Transportation Improvement Program for the Project; and,

WHEREAS, the governing board of the Municipality has agreed to participate in certain costs and to assume certain responsibilities in the manner and to the extent as hereinafter set out; and,

WHEREAS, this Agreement is made under the authority granted to the Department by the North Carolina General Assembly including, but not limited to, the following applicable legislation: General Statutes of North Carolina (NCGS) Section 136-66.1, Section 136-71.6, Section 160A-296 and 297, Section 136-18, Section 136-41.3 and Section 20-169, to participate in the planning, construction and/or implementation of the Project approved by the Board of Transportation.

NOW, THEREFORE, this Agreement states the promises and undertakings of each party as herein provided, and the parties do hereby covenant and agree, each with the other, as follows:

1. GENERAL PROVISIONS

FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY ACT

All parties to this Agreement, including contractors, subcontractors, and subsequent workforces, associated with any work under the terms of this Agreement shall provide reports as required by the Federal Funding Accountability and Transparency Act (FFATA) for this Project.

AGREEMENT MODIFICATIONS

Any modification to scope, funding, responsibilities, or time frame will be agreed upon by all parties by means of a Supplemental Agreement.

LOCAL PUBLIC AGENCY TO PERFORM ALL WORK

The Municipality shall be responsible for administering all work performed and for certifying to the Department that all terms set forth in this Agreement are met and adhered to by the Municipality and/or its contractors and agents. The Department will provide technical oversight to guide the Municipality. The Department must approve any assignment or transfer of the responsibilities of the Municipality set forth in this Agreement to other parties or entities.

PERSON IN RESPONSIBLE CHARGE

The Municipality shall designate a person or persons to be in responsible charge of the Project, in accordance with Title 23 of the Code of Federal Regulations, Part 635.105. The person, or persons, shall be expected to:

- Administer governmental project activities, including those dealing with cost, time, adherence to contract requirements, construction quality and scope of Federal-aid projects;

- Maintain knowledge of day to day project operations and safety issues;
- Make or participate in decisions about changed conditions or scope changes that require change orders or supplemental agreements;
- Visit and review the project in accordance with the project scope and scale;
- Review financial processes, transactions and documentation to reduce the likelihood of fraud, waste, and abuse;
- Direct project staff, agency or consultant, to carry out project administration and contract oversight, including proper documentation; and
- Be aware of the qualifications, assignments and on-the-job performance of the agency and consultant staff at all stages of the project.

The person in responsible charge must be a full-time employee of the Municipality, but the duties may be split among several employees, if necessary.

COMPLIANCE WITH STATE/FEDERAL POLICY

The Municipality, and/or its agent, including all contractors, subcontractors, or sub-recipients shall comply with all applicable Federal and State policies and procedures, stated both in this Agreement and in the Department's guidelines and procedures, including the *Local Programs Management Handbook*.

FAILURE TO COMPLY - CONSEQUENCES

Failure on the part of the Municipality to comply with any of the provisions of this Agreement will be grounds for the Department to terminate participation in the costs of the Project and, if applicable, seek repayment of any reimbursed funds.

2. SCOPE OF PROJECT

The Project consists of construction of approximately 1,125 linear feet of sidewalk on the east side of N. Main Street from Arbor Creek Drive to Trellis Point Drive.

The Department's funding participation in the Project shall be restricted to the following eligible items:

- Design
- Environmental Documentation
- ROW Acquisition
- Utility Relocation
- Construction

as further set forth in this Agreement.

3. FUNDING

PROGRAMMING AND AUTHORIZATION OF FEDERAL FUNDS

The funding currently programmed for the project in the State Transportation Improvement Program (STIP) is Congestion Mitigation and Air Quality. The funding source may be modified with the coordination and approval of the respective Metropolitan Planning Organization (MPO) and/or the Department prior to authorization of funds. The Department will authorize and reimburse federal funding based on the type of federal funding that is programmed in the STIP at the time of the authorization request. The Department will notify the Municipality of the type of federal funds authorized by issuing a Technical Amendment – Funds Authorization letter. A modification in the source of funds will have no effect on project responsibilities outlined in this agreement.

REIMBURSEMENT FOR ELIGIBLE ACTIVITIES

Subject to compliance by the Municipality with the provisions set forth in this Agreement and the availability of federal funds, the Department shall reimburse eighty percent (80%) of eligible expenses incurred by the Municipality up to a maximum amount of Six Hundred Sixty Thousand Dollars (\$660,000), as detailed below. The Municipality shall provide the non-federal match, as detailed in the FUNDING TABLE below, and all costs that exceed the total estimated cost.

FUNDING TABLE

Fund Source	Federal Funds Amount	Reimbursement Rate	Non-Federal Match \$	Non-Federal Match Rate
Congestion Mitigation and Air Quality	\$660,000	80 %	\$165,000	20 %
Total Estimated Cost		\$825,000		

WORK PERFORMED BY NCDOT

All work performed by the Department on this Project, including, but not limited to, reviews, inspections, and Project oversight, during any phase of the delivery of the Project, shall reduce the funding available to the Municipality under this Agreement. The Department will set aside ten percent (10%) of the total estimated cost, or \$82,500, to use towards the costs related to review and oversight of this Project, including, but not limited to review and approval of plans, environmental documents, contract proposals, engineering estimates, construction engineering and inspection oversight, and other items as needed to ensure the Municipality's appropriate compliance with state and federal regulations.

In the event that the Department does not utilize all the set-aside funding, then those remaining funds will be available for reimbursement to the Municipality at the above reimbursement rate. For all costs of work performed on the Project, whether incurred by the Municipality or by the Department, the Municipality shall provide the non-federal match. The Department will bill the Municipality for the non-federal match of any costs that the Department incurs on the Project and for any costs that exceed the Total Estimated Cost.

4. PERIOD OF PERFORMANCE

The Municipality has five (5) years to complete all work outlined in the Agreement from the date of authorization of Federal funds for the initial phase of work. Completion for this Agreement is defined as completion of all construction activities or implementation activities, acceptance of the project, and submission of a final reimbursement package to the Department.

If additional time is needed to complete the Project, then a supplemental agreement must be executed. The Department and/or FHWA reserves the right to revoke the funds awarded if the Municipality is unable to meet milestone dates included herein.

5. PRELIMINARY ENGINEERING AUTHORIZATION

If Preliminary Engineering is an eligible expense, then upon receipt of an executed agreement, the Department will authorize Preliminary Engineering funds and shall notify the Municipality, in writing, once funds have been authorized and can be expended. The Municipality shall not initiate any work, nor solicit for any professional services prior to receipt of written authorization from the Department to proceed. Any work performed, or contracts executed, prior to receipt of written authorization to proceed will be ineligible for reimbursement.

6. PROFESSIONAL AND ENGINEERING SERVICES

The Municipality shall comply with the policies and procedures of this provision if the Municipality is requesting reimbursement for the Preliminary Engineering contract or the Construction Contract Administration / Construction Engineering and Inspection contract.

PROCUREMENT POLICY

When procuring professional services, the Municipality must adhere to Title 2 Code of Federal Regulations Part 200; Title 23 of the Code of Federal Regulations, Part 172; Title 40 United States Code, Chapter 11, Section 1101-1104; NCGS 143-64, Parts 31 and 32; and the Department's *Policies and Procedures for Major Professional or Specialized Services Contracts*. Said policies and standards are incorporated in this Agreement by reference at www.fhwa.dot.gov/legisregs/legislat.html and www.ncleg.net/gascripts/Statutes/Statutes.asp.

- The Municipality shall ensure that a qualified firm is obtained through an equitable selection process, and that prescribed work is properly accomplished in a timely manner and at a just and reasonable cost.
- All Professional Services Firms shall be pre-qualified by the Department in the Work Codes advertised.
- A pre-negotiation audit will be conducted by the Department's External Audit Branch. The Municipality shall not execute a consultant contract until the Department's review has been completed.

SMALL PROFESSIONAL AND ENGINEERING SERVICES FIRMS REQUIREMENTS

Any contract entered into with another party to perform work associated with the requirements of this Agreement shall contain appropriate provisions regarding the utilization of Small Professional Services Firms (SPSF). This policy conforms with the SPSF Guidelines as approved by the North Carolina Board of Transportation.

- The Municipality shall not advertise nor enter into a contract for services performed as part of this Agreement, unless the Department provides written approval of the advertisement or the contents of the contract.
- If the Municipality fails to comply with these requirements, the Department will withhold funding until these requirements are met.

WORK BY ENTITY

If the Design, Planning, Contract Administration and/or Construction Engineering and Inspection required for this project will be undertaken by the Municipality, and the Municipality requests reimbursement, then the Municipality must submit a request and supporting documentation to the Department for review and approval, prior to any work being initiated by the Municipality.

7. PLANNING / ENVIRONMENTAL DOCUMENTATION

The Municipality shall prepare the environmental and/or planning document, including any environmental permits, needed to construct the Project, in accordance with the National Environmental Policy Act (NEPA) and all other appropriate environmental laws and regulations. All work shall be performed in accordance with Departmental procedures and guidelines. Said documentation shall be submitted to the Department for review and approval.

- The Municipality shall be responsible for preparing and filing with all proper agencies the appropriate planning documents, including notices and applications required to apply for those permits necessary for the construction of the desired improvements. Copies of approved permits should be forwarded to the Department.
- The Municipality shall advertise and conduct any required public hearings.
- If any permit issued requires that action be taken to mitigate impacts associated with the improvements, the Municipality shall design and implement a mitigation plan. The Department will determine if any mitigation costs are eligible for reimbursement. The Municipality shall bear all costs associated with penalties for violations and claims due to delays.
- The Municipality shall be responsible for designing an erosion control plan if required by the North Carolina Sedimentation Pollution Control Act of 1973, NCGS 113A, Article 4, incorporated in this Agreement by reference at www.ncleg.net/gascripts/Statues/Statutes.asp and obtaining those permits required thereby in order to construct the Project. During the construction of the improvements, the Municipality, and its contractors and agents, shall be solely responsible for compliance with the provisions of said Act and the plan adopted in compliance therewith.

8. DESIGN

CONTENT OF PLAN PACKAGE

The Municipality, and/or its agent, shall prepare the Project's plans, specifications, and a professional estimate of costs (PS&E package), in accordance with the Department's guidelines and procedures, and applicable Federal and State standards. All work shall be submitted to the Department for review and approval. The plans shall be completed to show the design, site plans, landscaping, drainage, easements, and utility conflicts.

9. RIGHT OF WAY / UTILITY AUTHORIZATION

If the costs of right of way acquisition or utility relocation are an eligible expense, the Municipality shall submit a letter of request to the Department to authorize and set up right of way and/or utility funding. The acquisition for right of way, construction easements, and/or utility relocation may be undertaken only after the Municipality receives written authorization from the Department to proceed.

10. PROJECT LIMITS AND RIGHT OF WAY (ROW)

The Municipality shall comply with the policies and procedures of this provision regardless of whether the Municipality is requesting reimbursement for the Right of Way phase of the Project.

SPONSOR PROVIDES ROW

The Municipality, at no liability whatsoever to the Department, shall be responsible for providing and/or acquiring any required ROW and/or easements for the Project.

ROW GUIDANCE

The Municipality shall accomplish all ROW activities, including acquisition and relocation, in accordance with the following: Title 23 of the Code of Federal Regulations, Part 710, Subpart B and Title 49 of the Code of Federal Regulations, Part 24, [Uniform Act] incorporated by reference at www.fhwa.dot.gov/legregs/directives/fapgtoc.htm; NCGS, Chapter 133, Article 2, Sections 133-5 through 133-18, Relocation Assistance, incorporated by reference at www.ncleg.net/gascripts/Statutes/Statutes.asp; and the North Carolina Department of Transportation Right of Way Manual.

APPRAISAL

The Municipality shall submit the appraisal to the Department for review and approval in accordance with Departmental policies and procedures.

CLEARANCE OF PROJECT LIMITS / ROW

The Municipality shall remove and dispose of all obstructions and encroachments of any kind or character (including hazardous and contaminated materials) from said ROW, with the exception that the Municipality shall secure an encroachment agreement for any utilities (which shall remain or are) to be installed within the Department's ROW, or follow other applicable approval process, for utilities within the Municipality's ROW. The Municipality shall indemnify and save harmless the Department, Federal Highway Administration, and the State of North Carolina, from any and all damages and claims for damages that might arise on account of said right of way acquisition, drainage, and construction easements for the construction of said Project. The Municipality shall be solely responsible for any damages caused by the existence of said material now and at any time in the future and will save the Department harmless from any legal actions arising as a result of this contaminated and/or hazardous material and shall provide the Department with documentation proving the proper disposal of said material.

RELOCATION ASSISTANCE

The Municipality shall provide relocation assistance services and payments for families, businesses, and non-profit organizations being displaced by the Project in full accordance with the Federal relocation requirements of Title 49 Code of Federal Regulations, Part 24 [Uniform Act], as amended. Relocation assistance services and payments may be accomplished by contract with any other municipal corporation, or State or Federal agency, rendering such services upon approval by the Department and Federal Highway Administration.

11. UTILITIES

The Municipality, and/or its agent, at no liability to the Department, shall relocate, adjust, relay, change or repair all utilities in conflict with the Project, regardless of ownership. All utility work shall be performed in a manner satisfactory to and in conformance with State and Federal rules and regulations, prior to Municipality beginning construction of the project. This Agreement does not modify or supersede any existing Utility Encroachment Agreements that may be in place.

12. RIGHT OF WAY / UTILITY / RAILROAD CERTIFICATION

The Municipality, upon acquisition of all right of way/property necessary for the Project, relocation of utilities, and coordination with the railroad shall provide the Department all required documentation (deeds/leases/easement/plans/agreements) to secure certification. Certification is only issued after all ROW is in public ownership or property is publicly accessible by a legal document; utilities in conflict with the project are relocated, or a plan for their relocation during construction has been approved; and coordination with the railroad (if applicable) has occurred and been documented.

13. CONTRACT PROPOSAL AND ENGINEER'S ESTIMATE

CONTRACT PROPOSAL

The Municipality shall develop a contract proposal that will be advertised for bids. The proposal shall comply with NCDOT Specifications and Standard Drawings as applicable to the Project. The proposal shall also contain provisions, as applicable, per Title 23 Code of Federal Regulations 633 and 635 to include, but not be limited to: FHWA 1273, Buy America, Davis-Bacon Wage Rates, Non-discrimination, DBE Assurances, Contractor Certification regarding suspension and debarment, and other provisions as required by the Department.

ENGINEER'S ESTIMATE

The Municipality shall develop an itemized engineer's estimate to show items referenced to the NCDOT Standard Specifications, if applicable, along with units and unit price. The engineer's estimate will be used as the basis for comparing bids received.

14. CONSTRUCTION AUTHORIZATION

The Municipality shall submit the required environmental and/or planning document, ROW certification, final construction plans, total contract proposal, and an estimate of Project costs (final PS&E package) to the Department for review and approval.

- After approval of all documentation, the Department will request construction authorization from the Federal Highway Administration.
- The Municipality shall not advertise for bids prior to receiving written construction authorization from the Department.

15. CONTRACTOR PROCUREMENT

ADVERTISE FOR BIDS

Upon receipt of written construction authorization from the Department, the Municipality may advertise the Project. The Municipality shall follow applicable Federal and/or State procedures pertaining to the advertisement of the Project, bid opening, and award of the contract, according to Title 2 of the Code of Federal Regulations, Part 200 and Title 23 of the Code of Federal Regulations, Part 633 and Part 635, incorporated by reference at www.fhwa.dot.gov/legsregs/directives/fapgtoc.htm; and NCGS, Chapter 143, Article 8 (Public Contracts), incorporated by reference at www.ncleg.net/gascripts/Statutes/Statutes.asp.

CONSTRUCTION CONTRACTOR REQUIREMENTS

All Contractors submitting bids on the project shall be pre-qualified by the Department. All proposed subcontractors must be pre-qualified before construction work begins. Any subcontractors who are proposed to meet the Disadvantaged Business Enterprise goal must be certified by the Department.

CONSTRUCTION SUBCONTRACTOR REQUIREMENTS

Any contract entered into with another party to perform work associated with the requirements of this Agreement shall contain appropriate provisions regarding the utilization of Disadvantaged Business Enterprises (DBEs), or as required and defined in Title 49 of the Code of Federal Regulations, Part 26 and the North Carolina Administrative Code. These provisions are incorporated into this Agreement by reference <https://connect.ncdot.gov/projects/Contracts/Pages/LGA-Projects.aspx>.

- The Municipality shall not advertise nor enter into a contract for services performed as part of this Agreement, unless the Department provides written approval of the advertisement or the contents of the contract.
- If the Municipality fails to comply with these requirements, the Department will withhold funding until these requirements are met.

AWARDING CONTRACT

After the advertisement of the Project for construction bids, the Municipality shall request concurrence from the Department to award the construction contract by submitting a letter along

with tabulated bids received depicting Disadvantaged Business Enterprises (DBE) goals, and a resolution recommending award of the Project to the lowest responsible, responsive bidder. The Department will review the submitted information and provide written approval to the Municipality prior to the contract being awarded by the Municipality.

DELAY IN PROCUREMENT

In the event the Project has not been let to contract within six (6) months after receiving construction authorization from the Department, the Municipality shall be responsible for documenting to the Department justification for project delay and that the Project remains in compliance with the terms of this Agreement, the approved plans and specifications, and current codes.

FORCE ACCOUNT

Force account work is only allowed when there is a finding of cost effectiveness for the work to be performed by some method other than a contract awarded by a competitive bidding process, or there is an emergency. Written approval from the Department is required prior to the use of force account by the Municipality. Federal Highway Administration regulations governing Force Account are contained in Title 23 Code of Federal Regulations, Part 635.201, Subpart B; said policy being incorporated in this Agreement by reference www.fhwa.dot.gov/legregs/directives/cfr23toc.htm. North Carolina General Statutes governing the use of Force Account, Chapter 143, Article 8 (Public Contracts) can be found at www.ncleg.net/gascripts/Statutes/Statutes.asp.

16. CONSTRUCTION

The Municipality, and/or its agents shall construct the Project in accordance with the plans and specifications of the Project as filed with, and approved by, the Department. During the construction of the Project, the procedures set out below shall be followed:

CONSTRUCTION CONTRACT ADMINISTRATION

The Municipality shall comply with the NCDOT Construction Manual as referenced at <http://www.ncdot.org/doh/operations/dp%5Fchief%5Feng/constructionunit/formsmanuals/construction/>, which outlines the procedures for records and reports that must be adhered to in order to obtain uniformity of contract administration and documentation. This includes, but is not limited to, inspection reports, material test reports, materials certification, documentation of quantities,

project diaries, and pay records. The Municipality, and/or its agent, shall perform the construction engineering, sampling and testing required during construction of the Project, in accordance with Departmental procedures, including the Department's Guide for Process Control and Acceptance Sampling and Testing. The Municipality shall document that said compliance was accomplished in accordance with State and Federal procedures, guidelines, standards and specifications.

RETAINAGE

The Municipality shall not retain any portion of a payment due the contractor.

SIGNAGE

The Municipality shall provide and maintain adequate signage and other warning devices for the protection of the public in accordance with the approved traffic control plans for the Project and the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways, or any subsequent revision of the same, published by the Federal Highway Administration and effective at the time of award of the contract.

SITE LAYOUT

The Municipality shall be responsible for ensuring that all site layout, construction work, and Project documentation are in compliance with applicable city, state and federal permits, guidelines, and regulations, including American Association of State Highway and Transportation Officials (AASHTO) guidelines and Americans with Disabilities Act (ADA) Standards for Accessible Design (www.usdoj.gov/crt/ada/stdspdf.htm).

RIGHT TO INSPECT

The Department and representatives of the Federal Highway Administration shall have the right to inspect, sample or test, and approve or reject, any portion of the work being performed by the Municipality or the Municipality's contractor to ensure compliance with the provisions of this Agreement. Prior to any payment by the Department, any deficiencies inconsistent with approved plans and specifications found during an inspection must be corrected.

CONTRACTOR COMPLIANCE

The Municipality will be responsible for ensuring that the contractor complies with all of the terms of the contract and any instructions issued by the Department or FHWA as a result of any review or inspection made by said representatives.

CHANGE ORDERS

If any changes in the Project plans are necessary, the Department must approve such changes prior to the work being performed.

SHOP DRAWINGS

Shop Drawings shall be submitted in accordance with the approved plans and specifications and may require review by the Designer.

17. CLOSE-OUT

Upon completion of the Project, the Municipality shall be responsible for the following:

FINAL INSPECTION

The Municipality shall arrange for a final inspection by the Department. Any deficiencies determined during the final field inspection must be corrected prior to final payment being made by the Department to the Municipality. Additional inspection by other entities may be necessary in accordance with the Department's guidelines and procedures. The Municipality shall provide the Department with written evidence of approval of completed project prior to requesting final reimbursement.

FINAL PROJECT CERTIFICATION

The Municipality will provide a certification to the Department that all work performed for this Project is in accordance with all applicable standards, guidelines, and regulations.

18. MAINTENANCE

The Municipality, at no expense or liability to the Department, shall assume all maintenance responsibilities for the Main Street Sidewalk Connector, or as required by an executed encroachment agreement.

19. REIMBURSEMENT

SCOPE OF REIMBURSEMENT

Activities eligible for funding reimbursement for this Project shall include:

- Design
- Environmental Documentation
- ROW Acquisition
- Utility Relocation
- Construction

REIMBURSEMENT GUIDANCE

The Municipality shall adhere to applicable administrative requirements of Title 2 Code of Federal Regulations, Part 200 (www.fhwa.dot.gov/legsregs/directives/fapgtoc.htm) "Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards." Reimbursement to the Municipality shall be subject to the policies and procedures contained in Title 23 Code of Federal Regulations, Part 140 and Part 172, which is being incorporated into this Agreement by reference at www.fhwa.dot.gov/legsregs/directives/fapgtoc.htm. Reimbursement to the Municipality shall be subject to the guidance contained in Title 2 Code of Federal Regulations, Part 170 (<http://edocket.access.gpo.gov/2010/pdf/2010-22705.pdf>) and Office of Management and Budget (OMB) "Federal Funding Accountability and Transparency Act" (FFATA). Said reimbursement shall also be subject to the Department being reimbursed by the Federal Highway Administration and subject to compliance by the Municipality with all applicable federal policy and procedures.

REIMBURSEMENT LIMITS

- **WORK PERFORMED BEFORE NOTIFICATION**

Any costs incurred by the Municipality prior to written notification by the Department to proceed with the work shall not be eligible for reimbursement.

- **NO REIMBURSEMENT IN EXCESS OF APPROVED FUNDING**

At no time shall the Department reimburse the Municipality costs that exceed the total funding per this Agreement and any Supplemental Agreements.

- **UNSUBSTANTIATED COSTS**

The Municipality agrees that it shall bear all costs for which it is unable to substantiate actual costs or any costs that have been deemed unallowable by the Federal Highway Administration and/or the Department's Financial Management Division.

- **WORK PERFORMED BY NCDOT**

All work performed by the Department on this Project, including, but not limited to, reviews, inspections, and Project oversight, shall reduce the maximum award amount of \$660,000 available to the Municipality under this Agreement. The Department will bill the Municipality for the non-federal match of any costs that the Department incurs on the Project and for any costs that exceed the Total Estimated Cost.

- **CONSTRUCTION ADMINISTRATION**

Reimbursement for construction contract administration will be made as governed by Departmental policy that limits reimbursement for construction contract administration to no more than fifteen (15%) percent of the actual construction contract of the Project. These costs will also include any cost overruns and charges to the Project by the Department during the Construction Phase.

- **CONSTRUCTION CONTRACT UNIT PRICES**

Reimbursement for construction contract work will be made on the basis of contract unit prices in the construction contract and any approved change orders.

- **RIGHT OF WAY**

Reimbursement will be limited to the value as approved by the Department. Eligible costs for reimbursement of Right of Way Acquisition include: realty appraisals, surveys, closing costs, and the agreed upon just compensation for the property, at the reimbursement rate as shown in the FUNDING TABLE.

- **FORCE ACCOUNT**

Invoices for force account work shall show a summary of labor, labor additives, equipment, materials and other qualifying costs in conformance with the standards for

allowable costs set forth in 2 CFR 200 “Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.” Reimbursement shall be based on actual eligible costs incurred with the exception of equipment owned by the Municipality or its Project partners. Reimbursement rates for equipment owned by the Municipality or its Project partners cannot exceed the Department’s rates in effect for the time period in which the work is performed.

BILLING THE DEPARTMENT

▪ PROCEDURE

The Municipality may bill the Department for eligible Project costs in accordance with the Department’s guidelines and procedures. Proper supporting documentation shall accompany each invoice as may be required by the Department. By submittal of each invoice, the Municipality certifies that it has adhered to all applicable state and federal laws and regulations as set forth in this Agreement.

Along with each invoice, the Municipality is responsible for submitting the FFATA Subrecipient Information Form, which is available at <https://connect.ncdot.gov/municipalities/Funding/Pages/default.aspx>.

▪ INTERNAL APPROVALS

Reimbursement to the Municipality shall be made upon approval of the invoice by the Department’s Financial Management Division.

▪ TIMELY SUBMITTAL OF INVOICES

The Municipality may invoice the Department monthly for work accomplished, but no less than once every six (6) months to keep the Project funds active and available. If the Municipality is unable to invoice the Department, then they must provide an explanation. Failure to submit invoices or explanation may result in de-obligation of funds.

▪ FINAL INVOICE

All invoices associated with the Project must be submitted within six (6) months of the completion of construction and acceptance of the Project to be eligible for reimbursement by the Department. Any invoices submitted after this time will not be eligible for reimbursement.

20. REPORTING REQUIREMENTS AND RECORDS RETENTION

PROJECT EVALUATION REPORTS

The Municipality is responsible for submitting quarterly Project evaluation reports, in accordance with the Department's guidelines and procedures, that detail the progress achieved to date for the Project.

PROJECT RECORDS

The Municipality and its agents shall maintain all books, documents, papers, accounting records, Project records and such other evidence as may be appropriate to substantiate costs incurred under this Agreement. Further, the Municipality shall make such materials available at its office and shall require its agent to make such materials available at its office at all reasonable times during the contract period, and for five (5) years from the date of payment of the final voucher by the Federal Highway Administration, for inspection and audit by the Department's Financial Management Section, the Federal Highway Administration, or any authorized representatives of the Federal Government.

21. OTHER PROVISIONS

REFERENCES

It will be the responsibility of the Municipality to follow the current and/or most recent edition of references, websites, specifications, standards, guidelines, recommendations, regulations and/or general statutes, as stated in this Agreement.

INDEMNIFICATION OF DEPARTMENT

The Municipality agrees to indemnify and hold harmless the Department, FHWA and the State of North Carolina, to the extent allowed by law, for any and all claim for payment, damages and/or liabilities of any nature, asserted against the Department in connection with this Project. The Department shall not be responsible for any damages or claims, which may be initiated by third parties.

DEBARMENT POLICY

It is the policy of the Department not to enter into any agreement with parties that have been debarred by any government agency (Federal or State). By execution of this agreement, the Municipality certifies that neither it nor its agents or contractors are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any Federal or State Agency or Department and that it will not enter into agreements with any entity that is debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction.

TITLE VI - CIVIL RIGHTS ACT OF 1964

The Municipality shall comply with Title VI of the Civil Rights Act of 1964, (Title 49 CFR, Subtitle A, Part 21). Title VI prohibits discrimination on the basis of race, color, national origin, disability, gender, and age in all programs or activities of any recipient of Federal assistance.

OTHER AGREEMENTS

The Municipality is solely responsible for all agreements, contracts, and work orders entered into or issued by the Municipality for this Project. The Department is not responsible for any expenses or obligations incurred for the Project except those specifically eligible for the funds and obligations as approved by the Department under the terms of this Agreement.

AVAILABILITY OF FUNDS

All terms and conditions of this Agreement are dependent upon, and, subject to the allocation of funds for the purpose set forth in the Agreement and the Agreement shall automatically terminate if funds cease to be available.

IMPROPER USE OF FUNDS

Where either the Department or the FHWA determines that the funds paid to the Municipality for this Project are not used in accordance with the terms of this Agreement, the Department will bill the Municipality.

TERMINATION OF PROJECT

If the Municipality decides to terminate the Project without the concurrence of the Department, the Municipality shall reimburse the Department one hundred percent (100%) of all costs expended by the Department and associated with the Project.

AUDITS

In accordance with 2 CFR 200 "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards," Subpart F – Audit Requirements, and the Federal Single Audit Act Amendments of 1996, the Municipality shall arrange for an annual independent financial and compliance audit of its fiscal operations. The Municipality shall furnish the Department with a copy of the annual independent audit report within thirty (30) days of completion of the report, but not later than nine (9) months after the Municipality's fiscal year ends.

REIMBURSEMENT BY MUNICIPALITY

For all monies due the Department as referenced in this Agreement, reimbursement shall be made by the Municipality to the Department within sixty (60) days of receiving an invoice. A late payment penalty and interest shall be charged on any unpaid balance due in accordance with NCGS 147-86.23.

USE OF POWELL BILL FUNDS

If the other party to this agreement is a Municipality and fails for any reason to reimburse the Department in accordance with the provisions for payment hereinabove provided, NCGS 136-41.3 authorizes the Department to withhold so much of the Municipality's share of funds allocated to Municipality by NCGS 136-41.1, until such time as the Department has received payment in full.

ENTIRE AGREEMENT

This Agreement contains the entire agreement between the parties and there are no understandings or agreements, verbal or otherwise, regarding this Agreement except as expressly set forth herein.

AUTHORIZATION TO EXECUTE

The parties hereby acknowledge that the individual executing the Agreement on their behalf is authorized to execute this Agreement on their behalf and to bind the respective entities to the terms contained herein and that he has read this Agreement, conferred with his attorney, and fully understands its contents.

FACSIMILE SIGNATURES

A copy or facsimile copy of the signature of any party shall be deemed an original with each fully executed copy of the Agreement as binding as an original, and the parties agree that this Agreement can be executed in counterparts, as duplicate originals, with facsimile signatures sufficient to evidence an agreement to be bound by the terms of the Agreement.

GIFT BAN

By Executive Order 24, issued by Governor Perdue, and NCGS 133-32, it is unlawful for any vendor or contractor (i.e. architect, bidder, contractor, construction manager, design professional, engineer, landlord, offeror, seller, subcontractor, supplier, or vendor), to make gifts or to give favors to any State employee of the Governor's Cabinet Agencies (i.e. Administration, Commerce, Environmental Quality, Health and Human Services, Information Technology, Military and Veterans Affairs, Natural and Cultural Resources, Public Safety, Revenue, Transportation, and the Office of the Governor).

22. SUNSET PROVISION

All terms and conditions of this Agreement are dependent upon, and subject to, the allocation of funds for the purpose set forth in the Agreement and the Agreement shall automatically terminate if funds cease to be available.

IT IS UNDERSTOOD AND AGREED that the approval of the Project by the Department is subject to the conditions of this Agreement, and that no expenditures of funds on the part of the Department will be made until the terms of this Agreement have been complied with on the part of the Municipality.

IN WITNESS WHEREOF, this Agreement has been executed, in duplicate, the day and year heretofore set out, on the part of the Department and the Municipality by authority duly given.

L.S. ATTEST:

TOWN OF HOLLY SPRINGS

BY: _____

DocuSigned by:
BY: Randy Harrington
9CC5161853BD40B...

TITLE: _____

TITLE: Town Manager

DATE: 04/25/2022

NCGS 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

This Agreement has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

(SEAL)

(FINANCE OFFICER)

Federal Tax Identification Number

Town of Holly Springs

Remittance Address:

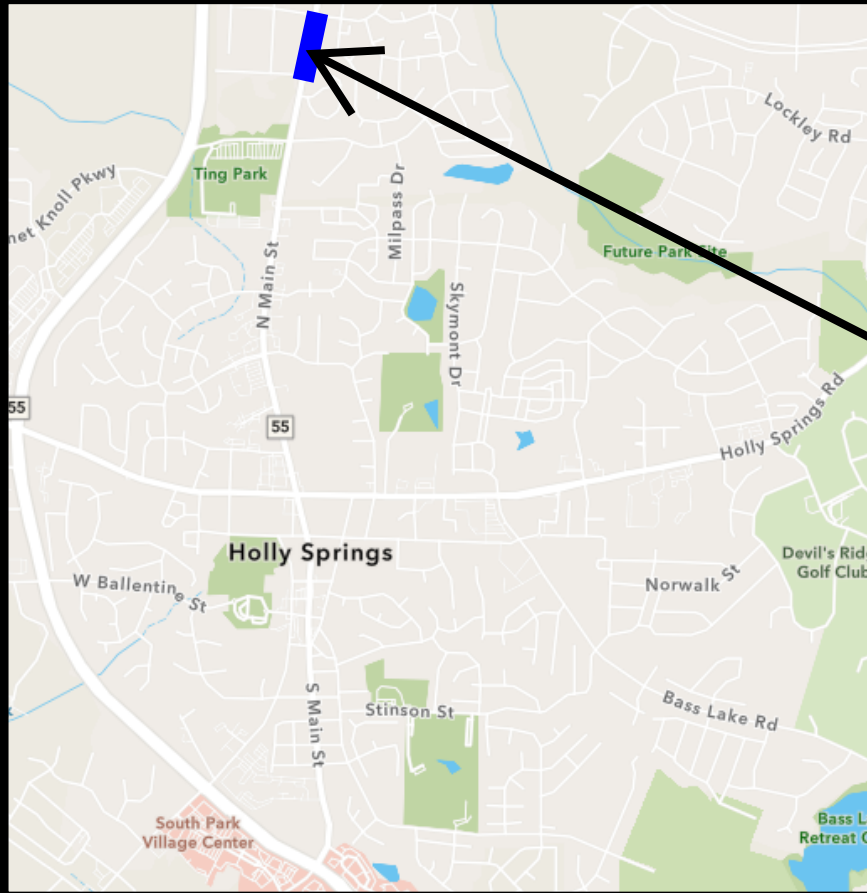
DEPARTMENT OF TRANSPORTATION

BY: _____
(CHIEF ENGINEER)

DATE: _____

APPROVED BY BOARD OF TRANSPORTATION ITEM O: 5/5/2022 (Date)

Main Street Sidewalk Connector - 2023 LAPP Grant Recipient



Ting Park



Holly Springs Town Council

Town Council Meeting Agenda Cover Sheet

Agenda Item#: 14.

Public Hearings

Title: Comprehensive Transportation Plan (CTP) 22-CPA-01 and Traffic Study Policy 22-DPM-02
- Legislative Hearing

Strategic Priority Area: Economic Prosperity & Diversity

Safe & Friendly

Responsible & Balanced Growth

Engaged, Healthy, & Active Community

Staff Resource: Sean Ryan, Development Services

Action(s):

1. Conduct Legislative Public Hearing
2. Adopt Resolution 22-22 to adopt Vision Holly Springs Comprehensive Plan Section 2: Comprehensive Transportation Plan
3. Adopt Resolution 22-23 to adopt the Traffic Study Policy

Explanation:

- A Comprehensive Transportation Plan (CTP) helps coordinate transportation improvements with future development, establishes transportation policies and programs, and identifies opportunities to secure funding for important transportation projects.
- The CTP is Section 2 of Vision Holly Springs, the Town's Comprehensive Plan. Other sections of Vision Holly Springs include Section 1: Land Use & Character Plan (updated in 2019) and the Parks, Recreation and Greenways Master Plan (updated in 2021).
- The CTP covers all modes of transportation (multimodal), including roadways, bicycle facilities, sidewalks and transit services .
- In September 2020, the town contracted with a consultant team led by Kimley-Horn to undertake a complete update to this section of the Comprehensive Plan.
- Over the course of the past 19 months, the consultant team conducted background data gathering and led community visioning workshops to understand the existing conditions and underlying factors that are impacting the transportation network within Holly Springs' planning area and the region, conducted a multimodal assessment of the Town's transportation network, performed targeted hot spot and safety analyses at key locations, and created an implementation plan that identifies investment priorities.
- The project involved considerable community participation, including the following:
 - Stakeholder interviews
 - Steering Committee Meetings
 - Public Workshops
 - Community Surveys
 - Pop-up events
 - Targeted mailers

- Town Council workshop discussions
- The consultant team's analysis of background factors, combined with the community's expressed vision and values, as well as best practices for community planning and development have resulted in the recommended draft plan.
- A multi-departmental Staff Technical Team has also provided ground-truthing and local insight to ensure the plan is consistent with other existing town-wide initiatives and strategies.
- In addition to the CTP update, Kimley-Horn has drafted a new Traffic Study Policy (formerly known as the Transportation Impact Analysis policy) to help guide the completion of traffic studies that are submitted with new development. The policy is a result of needs identified by the Planning Board and Town Council during workshop discussions, benchmarking with other communities, and best practices in conducting traffic studies.
- The Traffic Study Policy will be adopted as part of the Town's Development Procedures Manual (DPM).
- The Development Procedures Manual (DPM) was adopted in 2002, and recently amended with the new UDO, and contains the review procedures that correspond to the Unified Development Ordinance (UDO).
- As specified in Section 1 of the DPM, policy amendments to the document are approved by resolution of the Town Council.

Planning Board Recommendation:

The Planning Board discussed the following issues and concerns on 04/26/2022:

- Appreciation of the work completed on the plan and the incorporation of Planning Board comments throughout the planning process.
- Concern that the recommendation for improvements to the intersection at Old Holly Springs Apex Road / New Hill Road did not consider a roundabout. The Town's consultant was able to provide additional information on the recommendation and why a roundabout was not the final recommendation.
- If the Traffic Study Policy would require the Town or developer to conduct the study. The final policy requires the developer to conduct the study.

Planning Board Recommendation:

The Planning Board recommended approval (8-0-1)

Note: Following the Planning Board meeting, several technical corrections were made to Chapter 5 concerning the streetscape standards. The modifications did not substantially change the standards but did involve additional text guidance on streetscape standards such as gateway and wayfinding signs, street lights, and traffic signals.

Background:

- The Town of Holly Springs adopted Vision Holly Springs: Town of Holly Springs Comprehensive Plan in November 2007.
- Updates were most recently adopted in 2019 (Section 1: Land Use & Character Plan) and in 2021 (Section 3: Parks, Recreation and Greenways Master Plan).
- Section 2: Comprehensive Transportation Plan (CTP), was originally adopted in June 2011 with an amendment in July 2013.

Funding Source(s):

N/A

Attachment(s):

1. 22CPA01_Section2CTP_PB04262022
2. Vision Holly Springs Section 2: Comprehensive Transportation Plan
3. Resolution 22-22 _VisionHollySpringsSection2ComprehensiveTransportationPlan_22CPA01
4. Resolution 22-23 TrafficStudyPolicy 22DPM02



**Town of Holly Springs
Staff Report to the Planning Board**

**REQUEST FOR COMPREHENSIVE PLAN AMENDMENT
Vision Holly Springs Comprehensive Plan
Section 2: Comprehensive Transportation Plan (CTP)
22-CPA-01**

PETITIONER(S):

Town of Holly Springs
P.O. Box 8
Holly Springs, NC 27540

ANTICIPATED REVIEW SCHEDULE:

Planning Board: April 26, 2022
Public Hearing and Town Council Action: May 17, 2022

STAFF CONTACTS: Sean Ryan, Planning Manager

ATTACHMENTS:

Draft Comprehensive Transportation Plan

COMPREHENSIVE PLAN SECTION HISTORY

The Town of Holly Springs adopted Vision Holly Springs: Town of Holly Springs Comprehensive Plan in November 2007. Updates were most recently adopted in 2019 (Section 1: Land Use & Character Plan) and in 2021 (Section 3: Parks, Recreation and Greenways Master Plan).

Section 2: Comprehensive Transportation Plan (CTP), was originally adopted in June 2011 with an amendment in July 2013. A Comprehensive Transportation Plan helps coordinate transportation improvements with future development, establishes transportation policies and programs, and identifies opportunities to secure funding for important transportation projects. The plan covers all modes of transportation, including roadways, bicycle facilities, sidewalks and transit services.

PROJECT OVERVIEW

In September 2019, the town contracted with a consultant team led by Kimley-Horn to undertake a complete update to this section of the Comprehensive Plan. Over the course of the past 19-months, the consultant team conducted background data gathering and led community visioning workshops to understand the existing conditions and underlying factors that are impacting the transportation network within Holly Springs' planning area and the region, conducted a multimodal assessment of the Town's transportation network, performed targeted hot spot and safety analyses at key locations, and created an implementation plan that identifies investment priorities.

The project has involved considerable community participation, including the following:

- Stakeholder interviews
- Steering Committee Meetings
- Public Workshops
- Community Surveys
- Pop-up events

- Targeted mailers
- Town Council workshop discussions

The consultant team's analysis of background factors, combined with the community's expressed vision and values, as well as best practices for community planning and development have resulted in the recommended draft plan. A multi-departmental Staff Technical Team has also provided ground-truthing and local insight to ensure the plan is consistent with other existing Town-wide initiatives and strategies. The latest iteration of the draft plan attached to this report has been modified since the public draft was released in February. It incorporates the public feedback and includes further refinements to the text of the document, providing greater clarity and guidance.

In addition to the CTP update, Kimley-Horn has drafted a new Traffic Study Policy (formerly known as the Transportation Impact Analysis [TIA] policy) to help guide the completion of traffic studies that are submitted with new development. The policy is a result of needs identified by Planning Board and Town Council during workshop discussions, benchmarking with other communities, and best practices in conducting traffic studies. The Traffic Study Policy will be adopted as part of the Town's Development Procedures Manual (DPM).

PLANNING BOARD RECOMMENDATION TO THE TOWN COUNCIL

Motion that the Planning Board recommend the Town Council approve Comprehensive Plan Amendment 22-CPA-01 to replace the existing Section 2: Comprehensive Transportation Plan (2011/2013) of Vision Holly Springs with Section 2: Comprehensive Transportation Plan (2022) and to recommend approval of the Traffic Study Policy.

Vision Holly Springs

Comprehensive Plan



Section 2: Comprehensive Transportation Plan

May 2022

1. Introduction 3

2. Existing Conditions 13

3. Multimodal Assessment and Recommendations 25

 3.1 Transit 27

 3.2 Active Transportation 39

 3.3 Roadway 57

4. Implementation Plan 81

5. The Network Visualized 93

 5.1 Cross-Sections 95

 5.2 Streetscape Design Guide 137

Appendices *(see under separate cover)*

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1

WHAT'S INSIDE

Lays out a road map to implement the selected projects and policies

About this Plan

This CTP represents the final steps of the planning process providing direction to the Town of Holly Springs on how transportation projects, policies, initiatives, and best practices should be implemented moving through the next 5, 15, to 30 years. The plan is made up of four chapters with the first providing an introduction to the CTP and the second highlighting demographic and transportation conditions of today. Chapter 3 is broken into three sub-chapters that walk through the recommendations mode by mode, starting with transit, then active transportation, and ending with roadways and intersections. The fourth and final chapter sets up an action plan that prioritizes the projects into tiers and identifies funding opportunities and partners to implement projects. This plan is accompanied by an appendix that includes a glossary of terms, a summary of all outreach events, and additional technical documentation.

How do Holly Springs’ Plans Work Together?

The Town of Holly Springs has a variety of adopted plans that work in concert to establish visions and carry those forward into the policies, programs, and projects that are needed to implement change. The CTP was not created in isolation but rather as an integral piece of the Town’s Comprehensive Plan, *Vision Holly Springs*. The Comprehensive Plan strives to achieve the goals set forth in the Strategic Plan through six major components; the Land Use & Character Plan, the Comprehensive Transportation Plan, the Parks, Recreation and Greenways Master Plan, Community Facilities, Infrastructure & Utilities, and Natural Resources. These six elements are the visionary foundation to their respective topics and identify focus areas or projects to achieve the visions.

Traffic Impact Analysis Policy

Traffic impact analyses are tools used to evaluate the impacts of development projects on the surrounding transportation system and determine if improvements are required to mitigate those impacts to the network.

The Town of Holly Springs has developed the Traffic Study Policy to define the need for traffic analyses associated with proposed land development projects as well as guidelines for those studies. The Traffic Study Policy in full can be found in the Holly Springs Design and Construction Standards (EDCS).

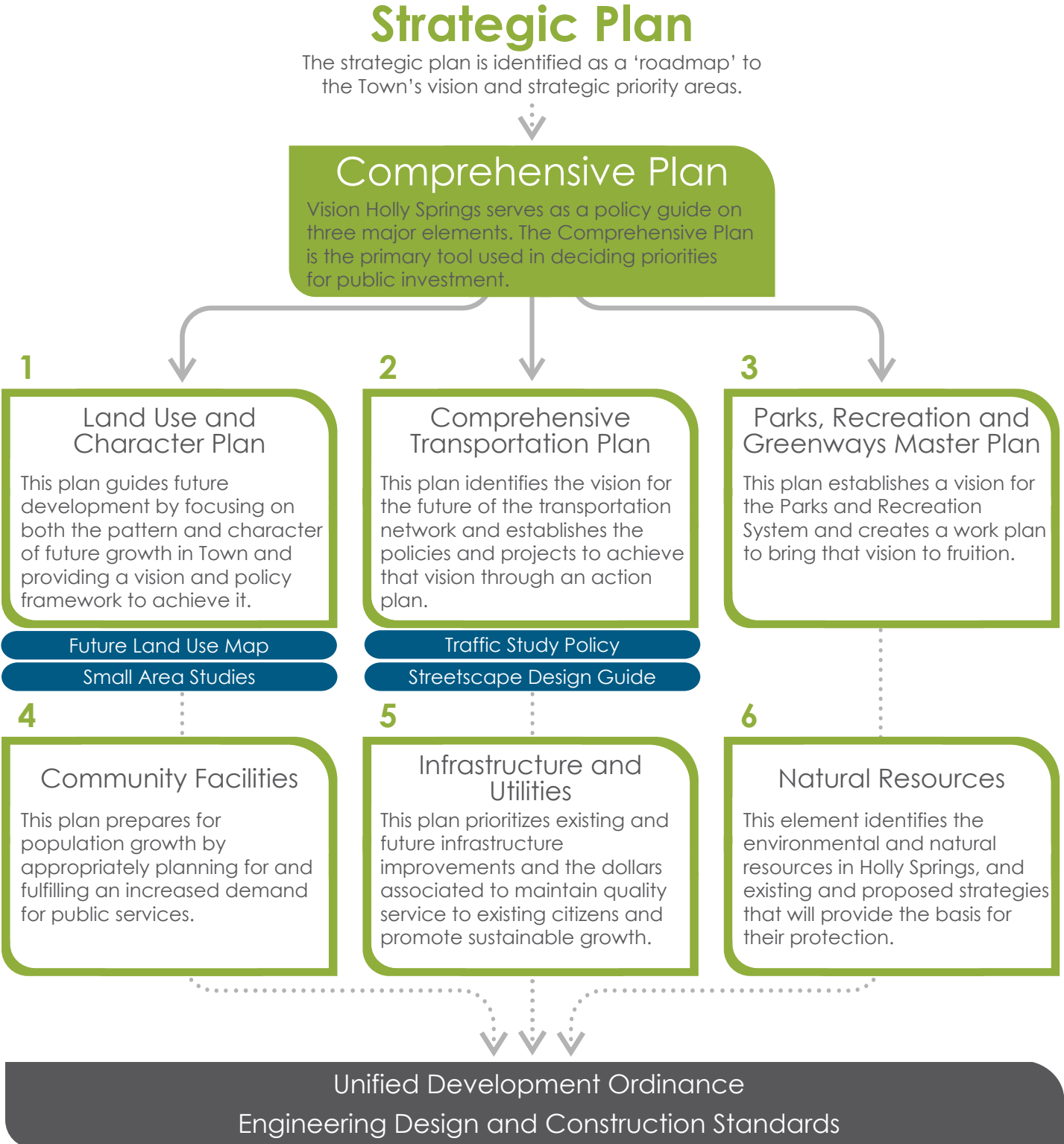
These take shape in documents such as the Future Land Use Map and small area studies like the Village District Area Plan (VDAP) as seen in the Land Use & Character Plan. In the CTP, these components include project recommendations maps and documents like the Traffic Impact Analysis (TIA) Policy and Streetscape Design Guide. These pieces also contribute to the Unified Development Ordinance (UDO) and the Engineering Design and Construction Standards (EDCS) which are necessary and actionable policy and design standard documents. While not a comprehensive representation, the graphic on the next page provides an overview of how the different plans fit together.

Streetscape Design Guide

Streetscape features include street lights, trees and landscaping, street furniture, and even public art. These features are the character-enhancing elements necessary to ensure a comprehensive and consistent theme for the Town's public realm, including public streets.

The Streetscape Design Guide was created to define what those features should look like for different road types to establish street components that are unique to the characteristics of the Town. The Streetscape Design Guide is included in Chapter 5.

Holly Springs Planning Documents



Connections to the Comprehensive Plan Sections

The CTP is incomplete without the planning that has already occurred in the other two sections of the Comprehensive Plan. The specific recommendations from the Parks, Recreation and Greenways Master Plan will be highlighted in Chapter 3.2 and the connections to the Land Use & Character Plan will be highlighted in Chapter 3.3 of this plan.

Why is an Update Needed?

A Growing and Changing Town

The Town of Holly Springs has developed into an integral part of southwestern Wake County. The region as a whole and the Town itself have continued to see unprecedented growth in the past 10 years, furthering the need to identify the biggest priorities to serve the existing and future needs of the Town.

With growth comes the on-the-ground development, some of which found its inception in the 2011 CTP. Since that time, quite a few of the transportation initiatives reflected in that plan have been completed. For example, NC 540 was just a line on a map and in 2022 it's under construction. The widening of Holly Springs Road is also underway with portions being built and others seeking funding. Additionally, the Town has its first ever public bus transportation service funded by Wake County, and operated by GoTriangle. This progress, among others, reflects the success of the 2011 CTP just as much as it warrants this update to ensure progress continues.

Continued Planning

As shown on the previous page, the Holly Springs CTP is one of a series of Town efforts to advance both the mission of the Comprehensive Plan and the Priority Areas outlined in the Town Council's Strategic Plan through targeted policy, programs, and project investments and the CTP's update is necessary to achieve this.

Holly Springs in the State



Technology in Transportation

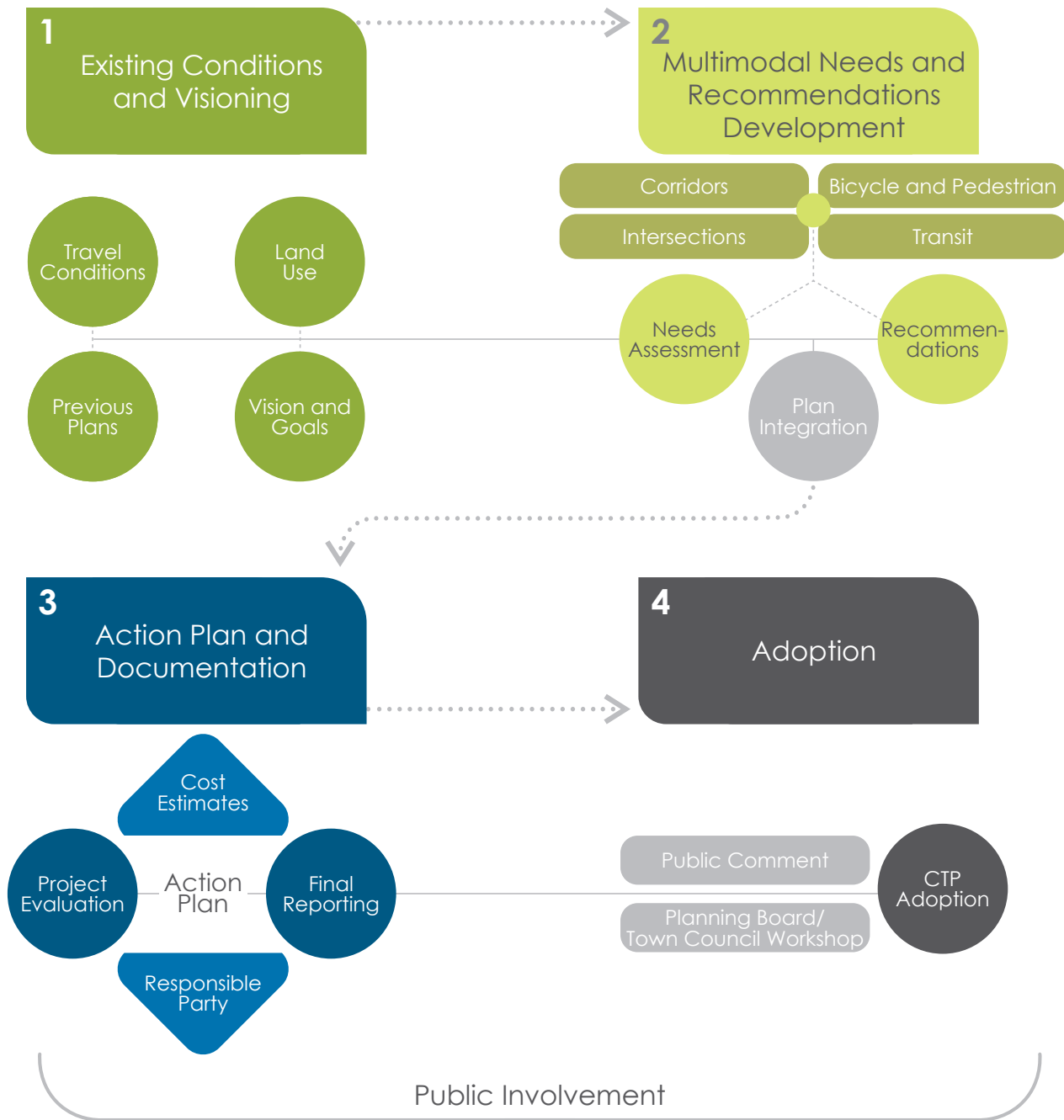
New since 2011 is the prevalence of technology in transportation. From the fiber in the ground to the apps on our phones, technology has transformed transportation in the last decade and is only projected to continue doing so in the future, especially with the advancement of the connected and autonomous vehicles. To stay competitive in change, the CTP establishes a Transportation Technology Vision as outlined in Chapter 3.

COVID-19

While not the impetus for the CTP, this planning process is unique in that it has occurred during an unprecedented time in transportation history. COVID-19 has had a great impact on the transportation system, with a larger portion of the workforce telecommuting, or working from home, than ever before, less traffic on the roads overall, a shift to the dominance of e-commerce, and a lasting effect on the global shipping and supply chain. Other changes included increased walking and biking which can be further facilitated by the CTP with the recommendation of supporting infrastructure such as sidewalks, greenways, and bike lanes. While many of the travel patterns have returned to pre-COVID norms, the CTP must consider the long term effects of COVID-19 and plan accordingly.

The Planning Process

The development of the CTP represents a collaborative effort to establish a vision for the Town's transportation network and identify a coordinated set of multimodal projects to achieve it. The planning process achieves this through four steps, the first of which analyzed socioeconomic conditions, assessed the current transportation network, and reviewed existing plans and policies. A vision and set of goals were then created to guide the direction of the CTP. Next, multimodal recommendations were developed based on the findings of the Existing Conditions Report, model data, existing and ongoing planning efforts, and public sentiment. Once the full set of recommendations were developed, a prioritization process was created as a tool to help guide decision makers as they advocate for future funding. Finally, the final CTP was documented and formally adopted by Town Council. The graphic below outlines the planning process for the Holly Springs CTP.



Community Engagement

The CTP is a community-driven plan at its core. Public involvement is key to the success of any planning process because without public support, a plan is not serving its intended audience. At the outset of the planning process, the CTP Project Team created a Public Involvement Plan that identified the people, scheduled the activities, and defined the measures of a successful engagement process. This plan framed public engagement around three main phases, described below. The full Public Involvement Plan can be found in Appendix B.

Phase 1 – Raising Awareness and Identifying Needs

Phase 1 of the engagement process revolved around raising awareness of the CTP and identifying transportation needs. It focused on outreach that informed the development of the goals, visioning, and priorities, shared the findings of the existing conditions analysis, and finally began the identification of needs for each transportation mode.

Phase 2 – Community Guidance and Direction

Phase 2 centered on the analysis of multimodal components and the formulation of draft recommendations. This phase was more technical in nature and focused on direction provided by the Steering Committee while involving smaller touch points with the public. Pop Up events and mini surveys occurred over the spring and summer months to keep the general public engaged in advance of Phase 3.

Phase 3 – CTP for the Community

Phase 3 focused on public buy-in on the draft recommendations and prioritization methodology. This phase included opportunities for the public to engage in the process by sharing feedback on the recommendations, as well as ultimately reviewing the final CTP document before its adoption.

"Residents enjoy having other modes of transportation aside from driving that are active."

"We would like public transportation options that takes us to Downtown Holly Springs or Raleigh and RTP."

"Create roadways and infrastructure that supports the booming population."

"Provide cohesion within the town with greenway connections to homes, local businesses, and public spaces that are safe for everyone."

People and Parties

The Public Involvement Plan identified key people and groups that were found to be crucial to the advancement of the engagement process and CTP, as described below.

Steering Committee

The Steering Committee served an advisory role in the development of the CTP by providing technical assistance based on its composition of subject matter experts and local knowledge and experience from its make-up of residents representing various facets of the community.

Key Stakeholders

Around 50 key stakeholders from a variety of organizations including advocacy groups, major employers, community groups, neighborhood organizations, and agencies were selected for small group meetings at the start of the CTP to provide a representative voice in needs identification and recommendations development.

Town Council and Planning Board

The Town Council and Planning Board reviewed the CTP's progress and provided comments at key milestones. At the Planning Board's recommendation the CTP was formally adopted by the Town Council.



25
Touch Points
Over 1,500
Participants

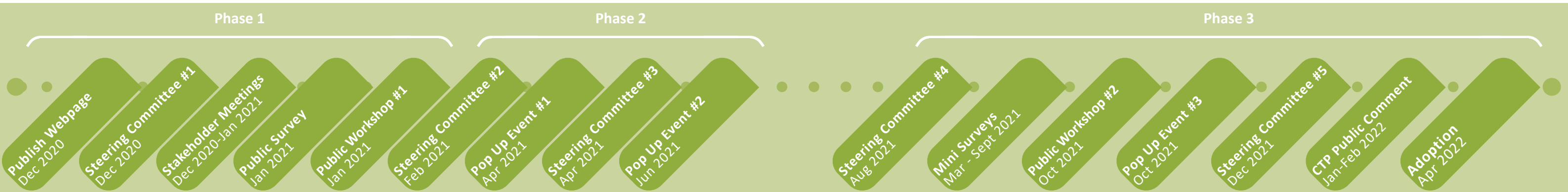
General Public

The general public that reside, work, recreate, and make up the community of Holly Springs were crucial in their engagement and investment in the CTP development process to create a transportation plan that is reflective of the community's needs.

Activities

A variety of events, or touch points, with the public were conducted throughout the process that ranged from a project webpage, newsletters, and surveys, to virtual public workshops and pop up events. These activities were purposefully organized to occur during major project milestones to ensure that the feedback collected was impactful to the process. A timeline of community engagement opportunities is shown below.

Public Engagement Timeline



Summaries of all engagement activities can be found in Appendix B.

Vision and Goals

Following Phase 1 Engagement, the CTP’s vision and accompanying goals were developed to ensure that they were informed by and for the community. They were formed based both on identified and ongoing needs and issues as well as future desires to strike a balance between short- and long-term objectives. Ultimately, the vision and goals represent what the residents of Holly Springs want for their transportation network and they serve as a compass throughout the development of the CTP. Where the vision guides the process to the desired outcome, the goals can be seen throughout the CTP in how they relate to recommendations and ultimately contribute to the prioritization of the projects.

Holly Springs CTP Vision Statement

“The Holly Springs Comprehensive Transportation Plan will provide a **safe, efficient, connected, and accessible** multimodal transportation network that plans for growth by taking a **holistic approach** to meet the needs of the Town’s residents, businesses, and visitors **both now and into the future.**”

Safe

Increase the safety of the transportation system by limiting crashes and providing dedicated facilities for pedestrians and bicyclists.



Connected

Enhance inter- and intra-Town travel options through the integration and connectivity of a multimodal transportation system.



Accessible

Ensure the transportation network provides affordable transportation options for all users, regardless of income, age, or ability.



Multimodal

Encourage a multimodal network by adopting a complete streets policy and providing inviting facilities for pedestrians, bicyclists, and transit users.



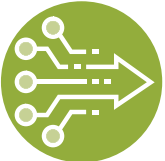
Efficient

Promote the efficient movement of vehicles in, out, and around Town through applicable design applications and strategic network planning.



Adaptive

Use intelligent transportation systems and innovative technology to create a resilient transportation system that is flexible to change.



Economic Development

Support the economic development and vitality of the area by ensuring multimodal access to local businesses and shopping destinations.



Integrated Planning

Plan cohesively and consistently to account for future growth by coordinating transportation and land use to promote sustainable and environmentally-responsible decision making.



Realistic

Develop a series of recommendations that maximize the available fiscal resources and streamline project delivery.



EXISTING CONDITIONS

WHAT’S INSIDE

Introduction

The introduction sets the stage for the existing conditions analysis and defines the study area of the CTP.

Demographics and Travel Patterns

This section highlights demographic trends in Holly Springs and compares them to that of the county and state.

Multimodal Transportation

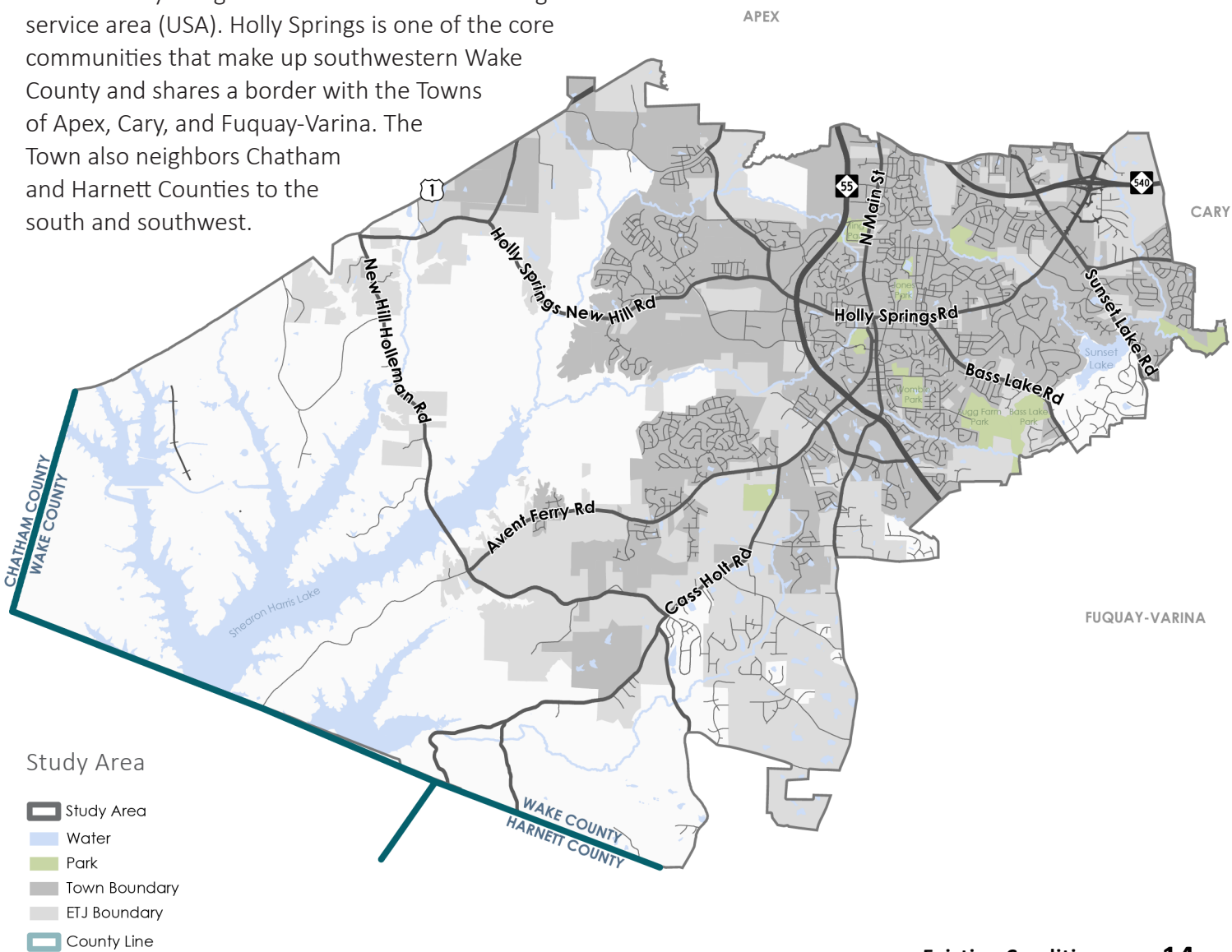
The content under this heading reflects portions of the full Existing Conditions Report including roadway mobility indicators, bicycle and pedestrian infrastructure, transit options, and safety in Holly Springs.

Introduction

Chapter two of the CTP presents background information on the state of transportation in Holly Springs as well as relevant socio-demographic trends that affect transportation. This chapter is not intended to be a full accounting of the Town’s infrastructure, nor is it intended to capture all information relevant to the process, but instead sets the stage for a conversation regarding current conditions, plans and practices, and the importance of mobility in Holly Springs. This foundation, along with input from the first round of public engagement, provides the information needed for the development of recommendations responsive to the needs and values of Holly Springs. The full Existing Conditions Report is found in Appendix C.

Study Area

The Holly Springs CTP takes a comprehensive look at mobility throughout the entire Town and its surrounding areas. The Study Area considers the transportation needs within the Town’s municipal boundaries as well as the Town’s Extraterritorial Jurisdiction (ETJ) and portions of surrounding unincorporated Wake County designated as the Town’s short range urban service area (USA). Holly Springs is one of the core communities that make up southwestern Wake County and shares a border with the Towns of Apex, Cary, and Fuquay-Varina. The Town also neighbors Chatham and Harnett Counties to the south and southwest.



Demographics and Travel Patterns

At a Glance

The demographic makeup of the community is crucial when considering transportation and mobility within Holly Springs. This section relies on the 2019 American Community Survey (ACS) 5-year estimates and the 2020 Decennial Census from the US Census Bureau to summarize relevant data for the community. This section provides a brief overview of the Town’s demographics, including major shifts and trends that will affect mobility in the coming decades.

Demographic Comparisons

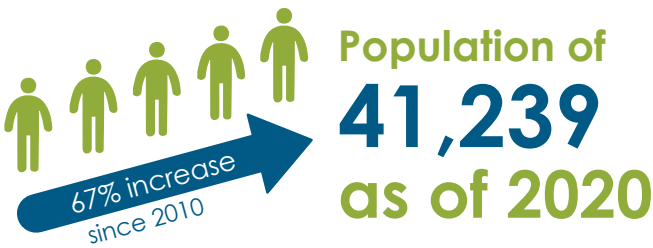
While analyzing demographic data it’s important to recognize the context of an area. To do so, demographic indicators for the Town of Holly Springs were compared against those of Wake County and the state of North Carolina. The following table displays these comparisons.

Demographics	Holly Springs	Wake County	North Carolina
Median Household Income	\$116,667	\$84,215	\$57,341
Racially Underrepresented Population ⁺	23.1%	41.2%	37.8%
Percent Limited English Proficiency	0.4%	2.5%	2.1%
Percent Individuals Below Poverty Level	3.4% [*]	9.1%	14.7%
Percent Youth (Under 18)	30.8%	24.2%	22.4%
Percent Elderly (65 and Over)	9.3%	11.3%	15.9%
Percent Disabled	5.6% [*]	8.6%	13.4%

^{*}This data was evaluated at the ACS Place level for the Town of Holly Springs as opposed to the Block Group level.
⁺This data was sourced from the 2020 Decennial Census Redistricting Data.

Population Growth

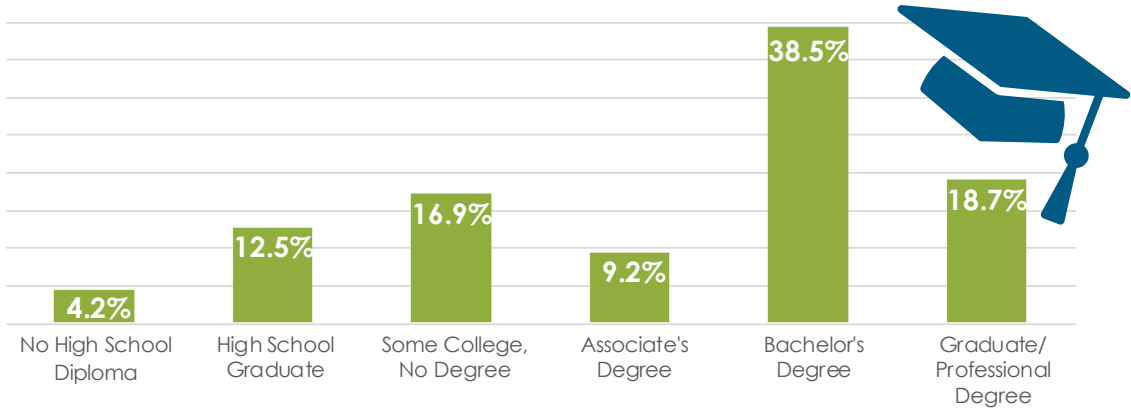
As of 2020, the population of Holly Springs was 41,239, up from 24,661 in 2010, according to the US Census. That’s an increase of over 67% in just 10 years. During this same 10 years, the population within Wake County increased by just 25%.



US Census: 2020 Decennial Census Redistricting Data

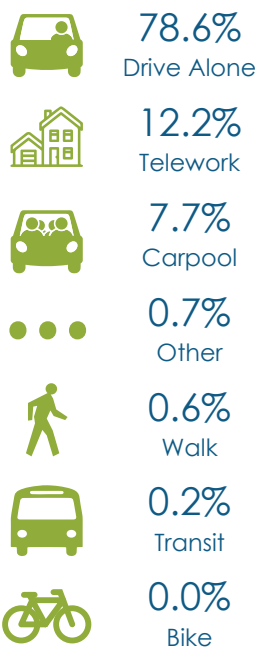
Educational Attainment

Educational attainment is an important indicator for the success and prosperity of an area. A town with a greater population of people with a bachelor’s degree or higher tends to have more job opportunities in a diversity of fields, stimulating a better economy in the area. Nearly 60% of Holly Springs residents, over the age of 25, have a bachelor’s degree or a degree at the graduate, professional, or doctoral level. This is significantly higher than the degree of attainment at these education levels for the state of North Carolina and about four percentage points higher than Wake County.



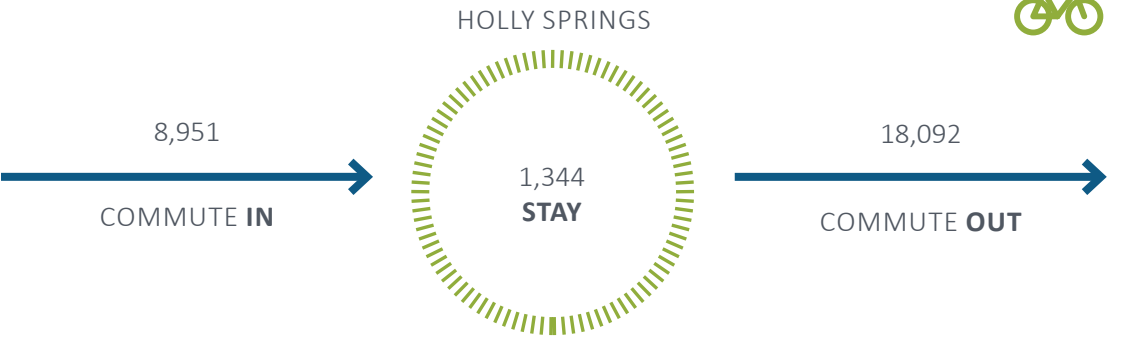
Mode Split

Over 78% of Holly Springs residents drive to work alone and the share of commuters bicycling and walking to work has remained relatively constant in recent years—approximately 0.6% of people walk to work and the percent that bike is negligible. Holly Springs has a lower share of active commuters than its peer communities in Wake County, due in part to many residents leaving for employment elsewhere in the region. Additionally, 12.2% of Holly Springs working residents telework. This is around two percentage points higher than many other Wake County communities.



Travel Flow

Suburban commuting patterns make up a significant portion of Holly Springs’ traffic. Just over 73% of Holly Springs residents travel greater than ten miles to work. Understanding the flow of traffic in, out, and within Town helps to identify the challenges and opportunities for transportation network improvements. Recommendations will be developed to improve travel within Holly Springs while keeping the needs of inter-regional commuters in mind.

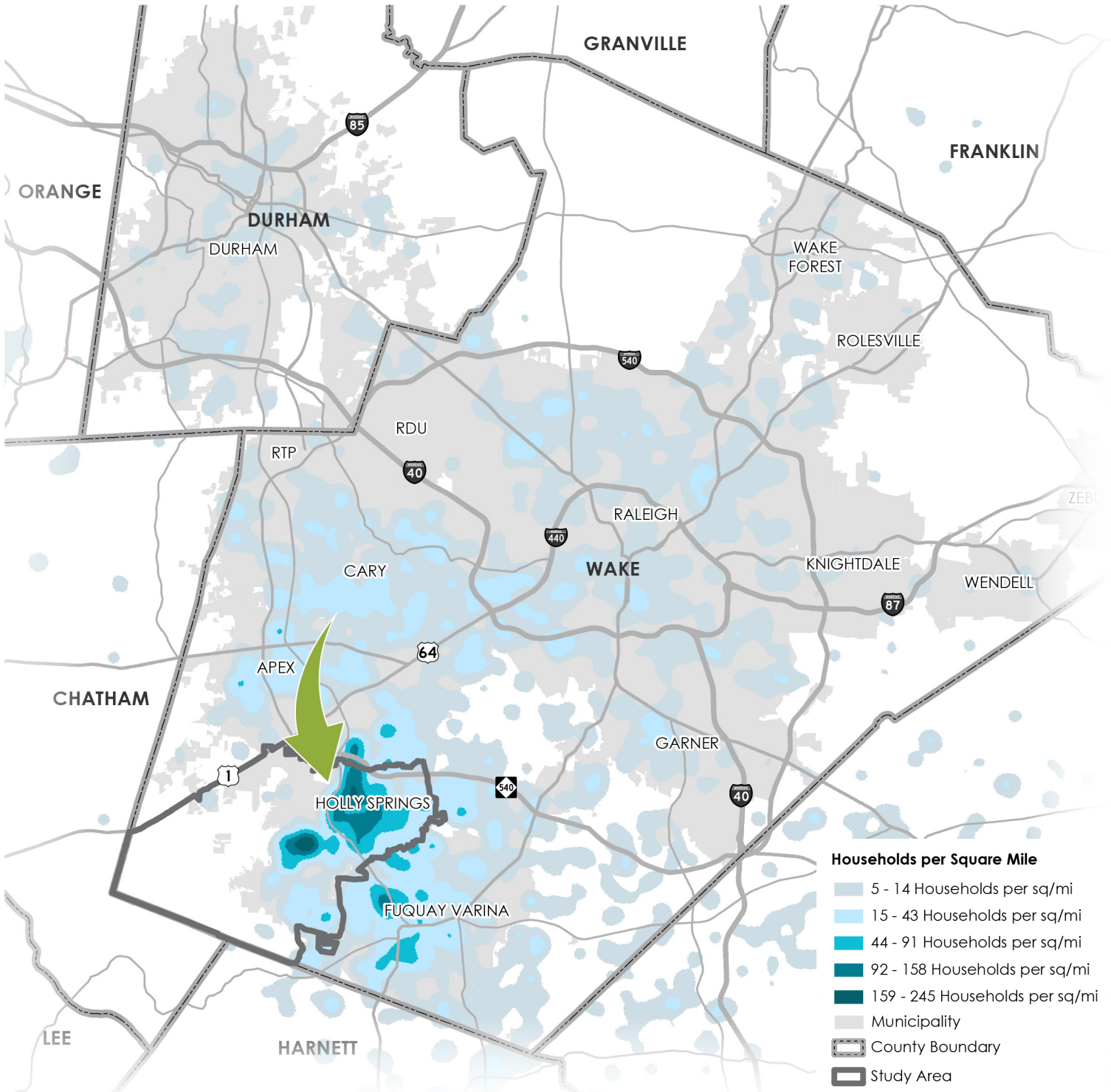


US Census: 2019 American Community Survey (ACS) 5-year estimates; US Census Bureau, Center for Economic Studies: On the Map, 2019

Where Holly Springs Workers Live

The map below shows the distribution of where those who work in Holly Springs live. Only 4.7% (1,344) of the working residents in Holly Springs stay in Holly Springs for work. Another 8,951 workers commute into Holly Springs from surrounding communities, many of those just outside the Study Area.

Households of Holly Springs Workers

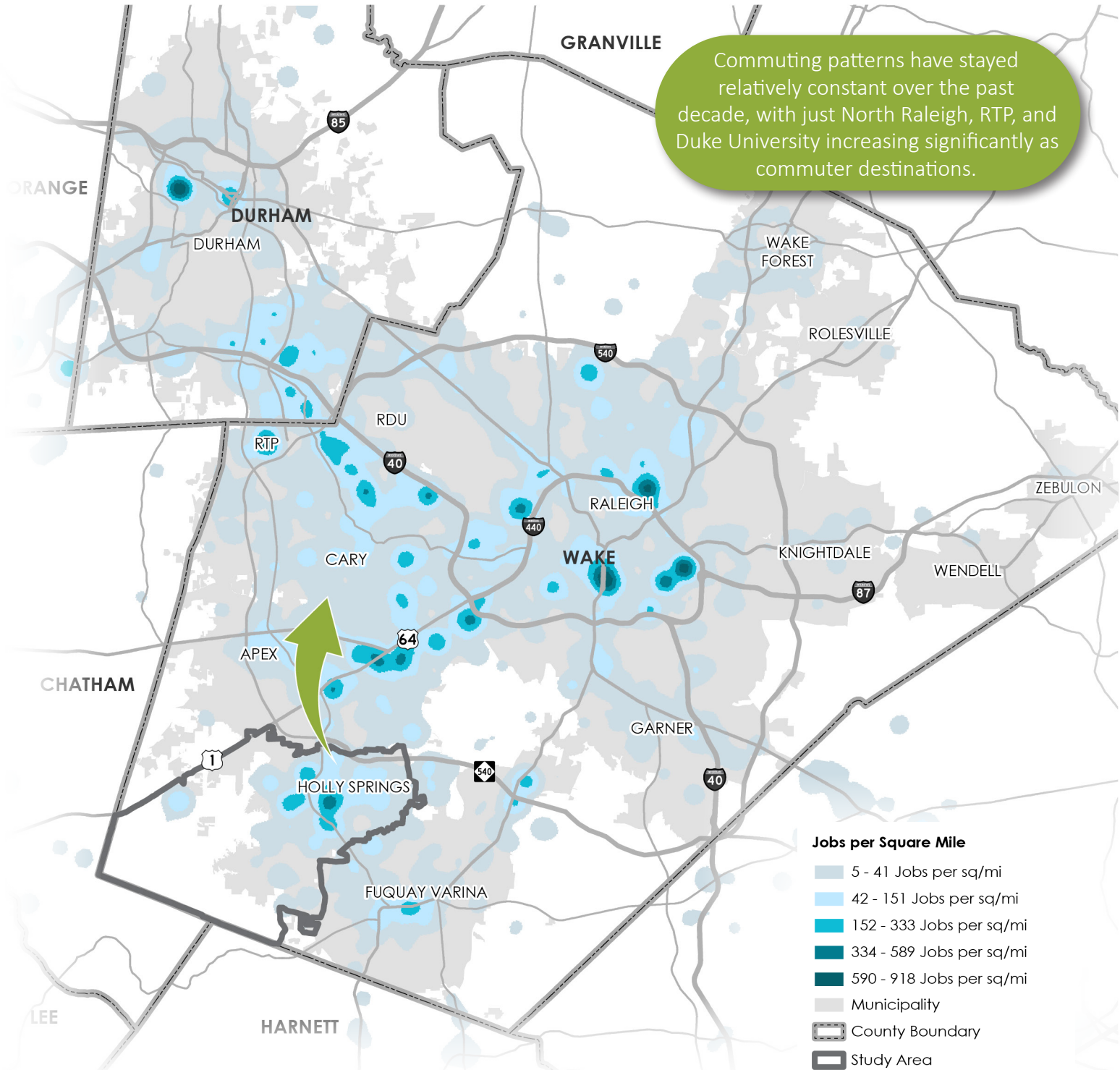


US Census Bureau, Center for Economic Studies: On the Map, 2019

Where Holly Springs Residents Work

More than 73% of Holly Springs residents leave Holly Springs and commute greater than 10 miles to work. This is further evidenced by the figure below, which shows the distribution of places around the region where Holly Springs residents traveled to work in 2019. Major workplace attractions include regional employment hubs such as Downtown Raleigh, Research Triangle Park (RTP), WakeMed, Duke Raleigh, and the area in Cary near the intersection of US 64 and US 1.

Workplaces of Holly Springs Residents



US Census Bureau, Center for Economic Studies: On the Map, 2019

Multimodal Transportation

The improved movement of people within and through the Town of Holly Springs is one of the main goals that the CTP strives to achieve. To create recommendations that support this goal, the state of mobility as it exists today has to be analyzed. Mobility can be measured in different ways using many metrics. This section looks at the transportation system through measures of quality, quantity, connectivity, traffic, and safety in order to create a picture of mobility in Holly Springs.

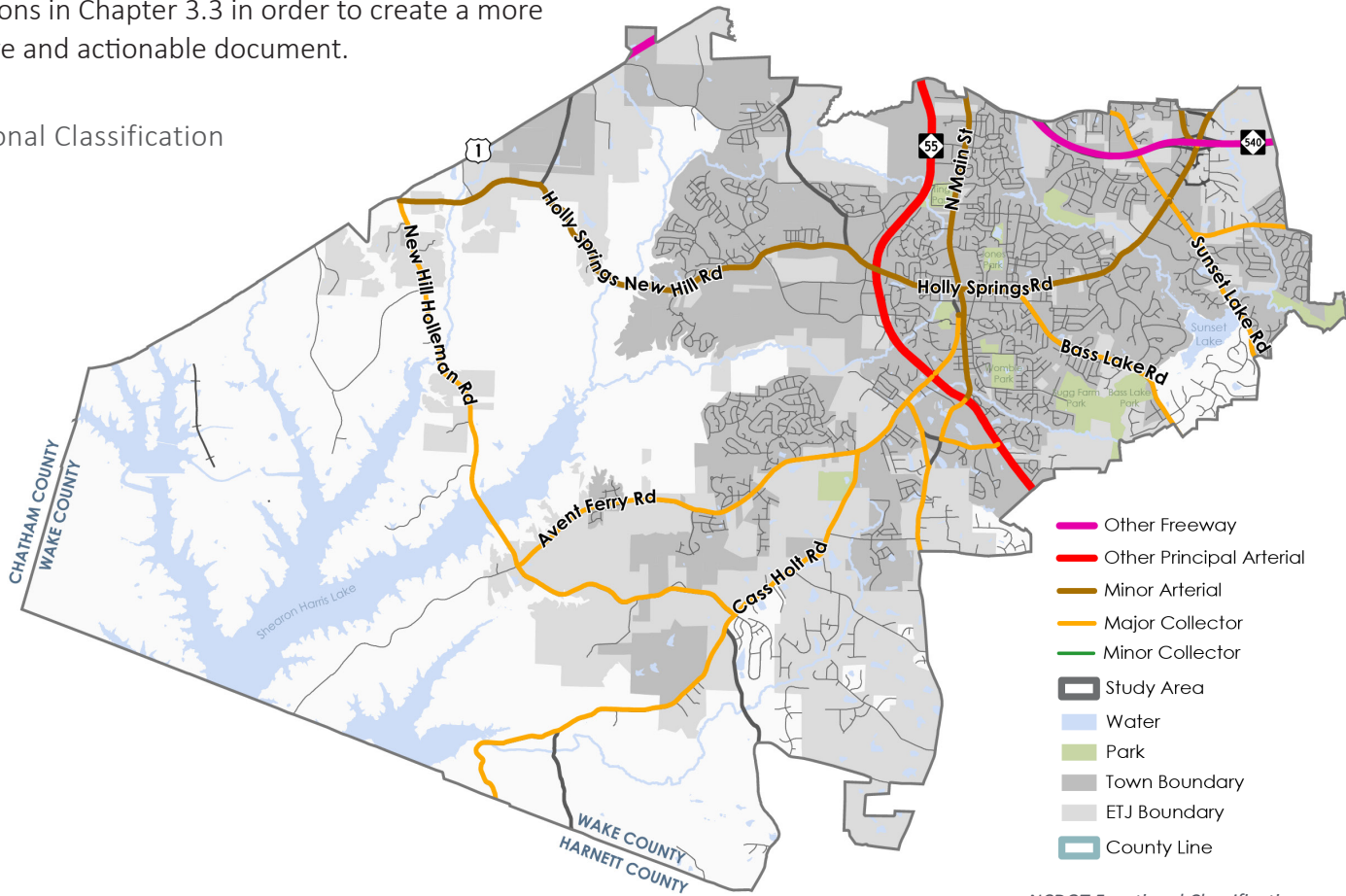
Roadways

Functional Classification

Functional classification is the process by which streets of different characteristics and usage are grouped into broad categories depending on the service they are intended to provide. The roadway character and traffic operation of streets defines these categories. Two major considerations for classifying arterials from neighborhood streets are access and mobility.

Classifying roadways by their function is a federal practice and an important one because of its implications on planning, designing, and funding of a project. The classified roads shown on the figure below are state-owned roadways; however, the 2011 CTP identified typologies such as thoroughfare, collector, and local streets that are not within the State highway maintenance system. These discrepancies in terminology can cause confusion when pursuing funding or communicating with the development community. The updated CTP bridges the gap between Town and state road classification definitions in Chapter 3.3 in order to create a more effective and actionable document.

Functional Classification

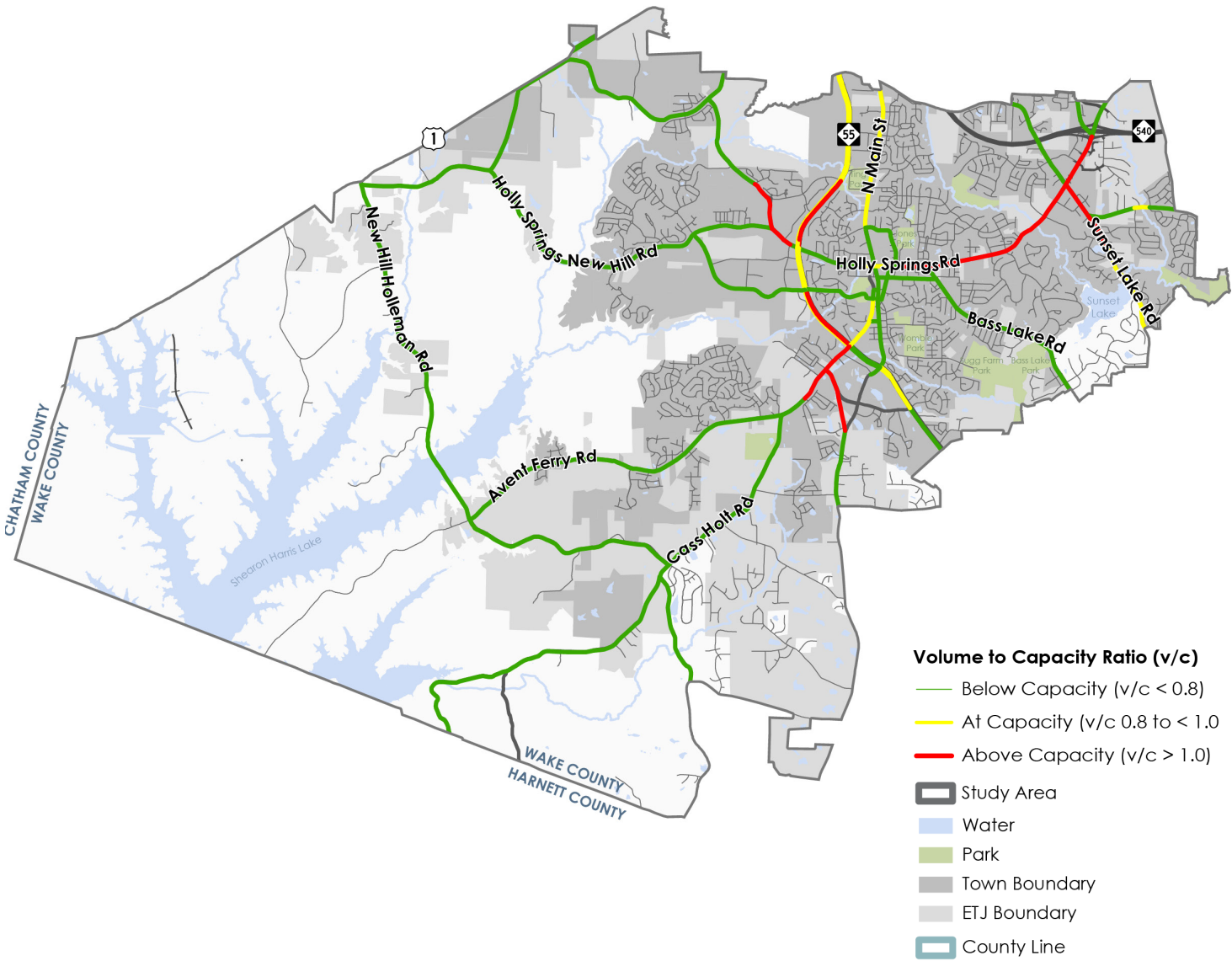


NCDOT Functional Classifications

Existing Volume to Capacity Ratio

Sophisticated models can simulate the interaction of estimated demand and available supply at a regional scale. The Triangle Regional Model comprises both the Raleigh urbanized area and the Durham-Chapel Hill urbanized area. For the purposes of this document, current congestion levels are derived from the Triangle Regional Model 2013 Base Year Model and are symbolized based on volume-to-capacity (V/C) ratios. The model represents the roadway network and traffic volumes as they were in 2013. Modeled traffic congestion provides system-level insights into congestion issues and can indicate corridors that warrant higher levels of study and analysis or capacity improvements. Roadways reflecting congested conditions (with a V/C above capacity) in the 2013 model include NC 55, Main Street, Holly Springs Road, and Sunset Lake Road.

2016 Congestion



Triangle Regional Model

Crash Frequency

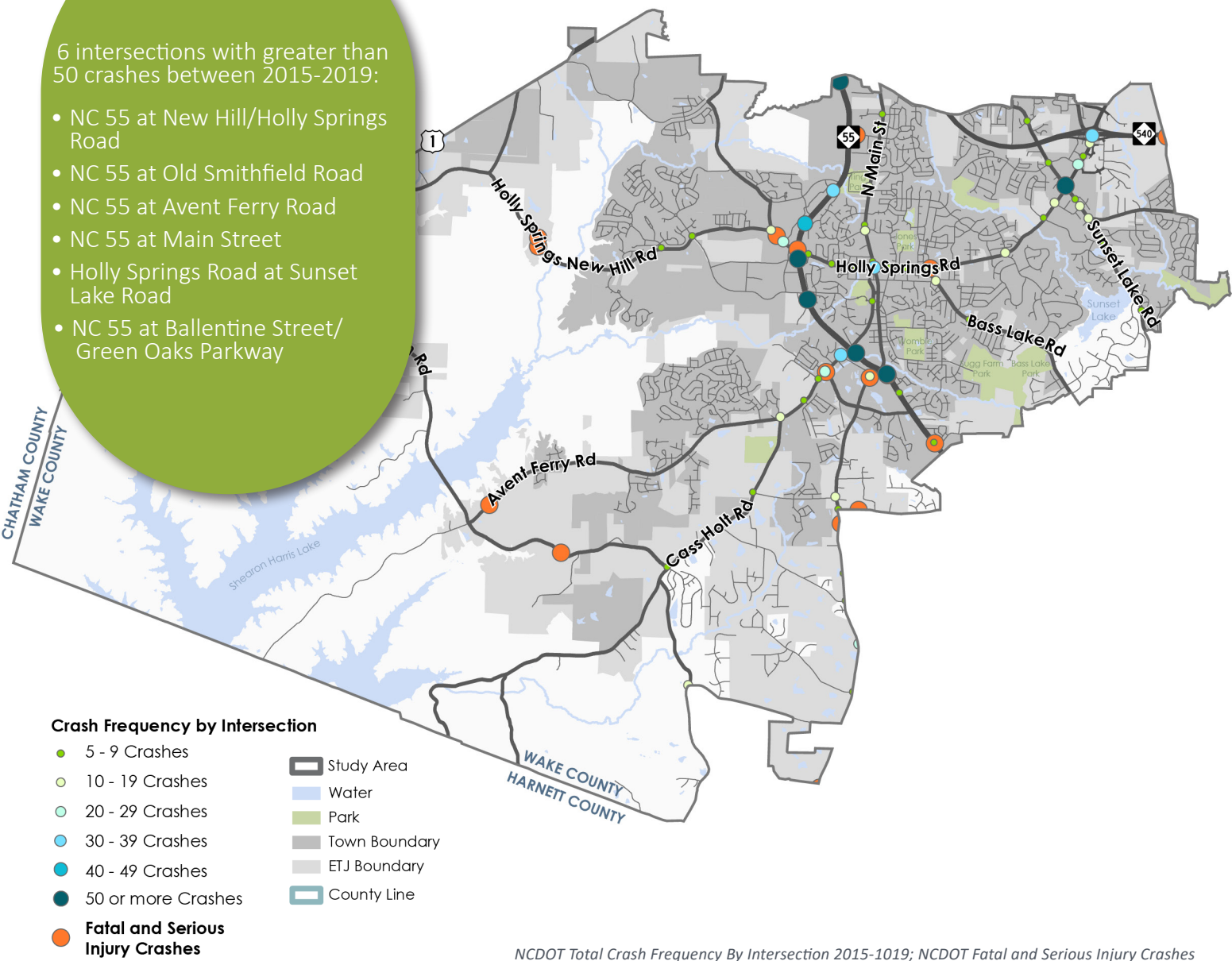
Traffic safety is a key component for community-wide mobility and accessibility. While not the only indicator of potential safety improvements, examining crash history and traffic patterns can help to identify locations that may benefit from design, operational, or signage-based safety recommendations. The data on the figure below indicates crashes at intersections along state owned roads where data was available.

NC 55 (GB Alford Highway) hosts the greatest frequency and severity of crashes within the study area. Between 2015-2019 a total of five fatalities and 14 serious injury crashes were reported. Of these, four crashes involved pedestrians—three of which resulted in a fatality—as can be seen on the figure below. Fifty percent were frontal impacts, and another 43% resulted from lane departures.

6 intersections with greater than 50 crashes between 2015-2019:

- NC 55 at New Hill/Holly Springs Road
- NC 55 at Old Smithfield Road
- NC 55 at Avent Ferry Road
- NC 55 at Main Street
- Holly Springs Road at Sunset Lake Road
- NC 55 at Ballentine Street/ Green Oaks Parkway

Crash Frequency by Intersection and Serious and Fatal Injury Crashes

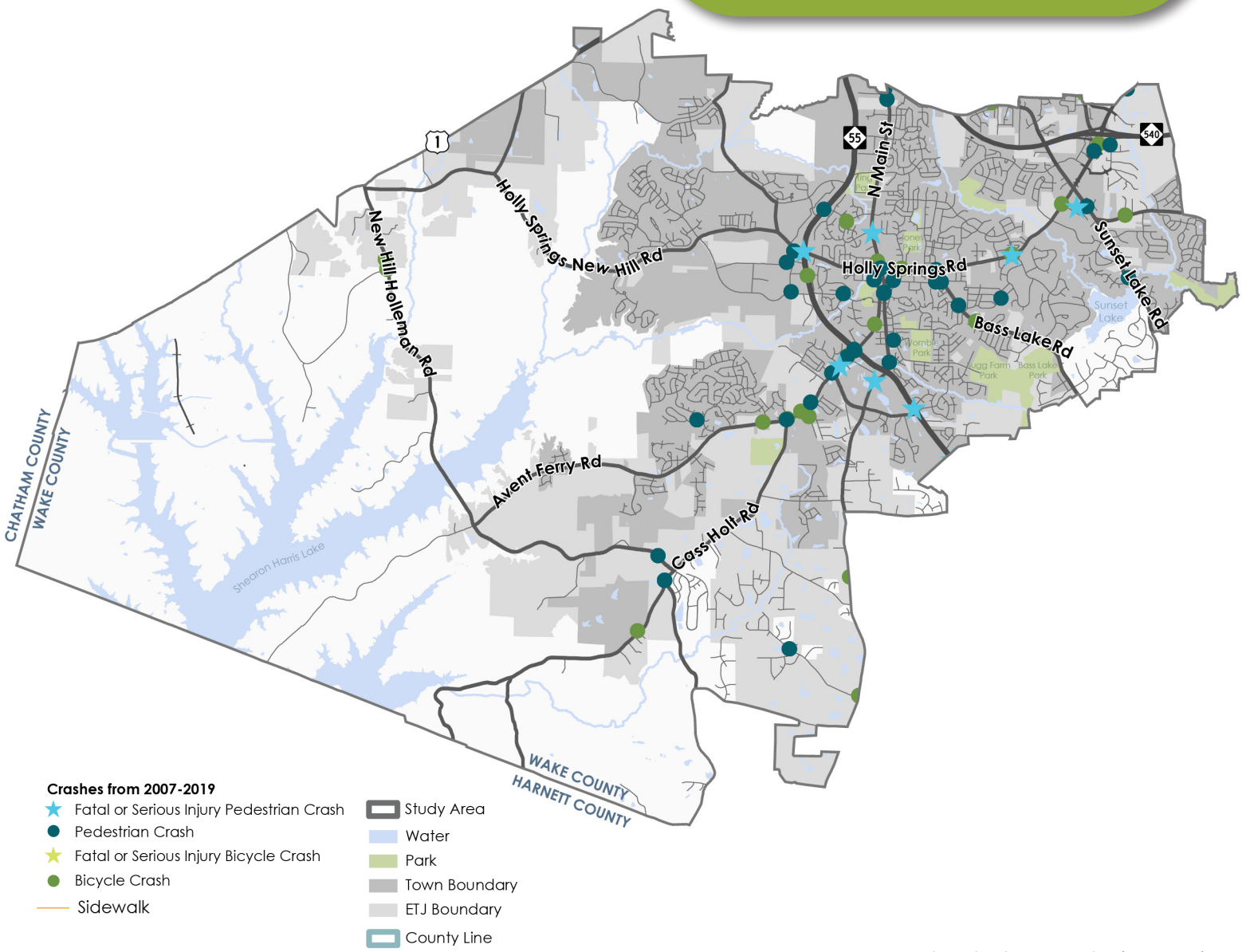


NCDOT Total Crash Frequency By Intersection 2015-2019; NCDOT Fatal and Serious Injury Crashes

Bicycle and Pedestrian Crashes

Improving overall safety and mobility of active transportation users requires a look beyond existing infrastructure. Analyzing the locations at which crashes involving bicyclists and pedestrians occur can help to identify where deficiencies in the existing bicycle and pedestrian networks exist or which gaps in the network would likely benefit more from safety improvement projects. Between 2007 and 2019, 24 bicycle crashes and 55 pedestrian crashes were reported in Holly Springs where data was available along state-owned roads. While there were no bicycle fatalities reported, there were five pedestrian fatalities reported over the 13-year crash history provided by the North Carolina Department of Transportation (NCDOT).

Bicycle and Pedestrian Crashes



NCDOT Bike and Pedestrian Crashes (2007-2019)

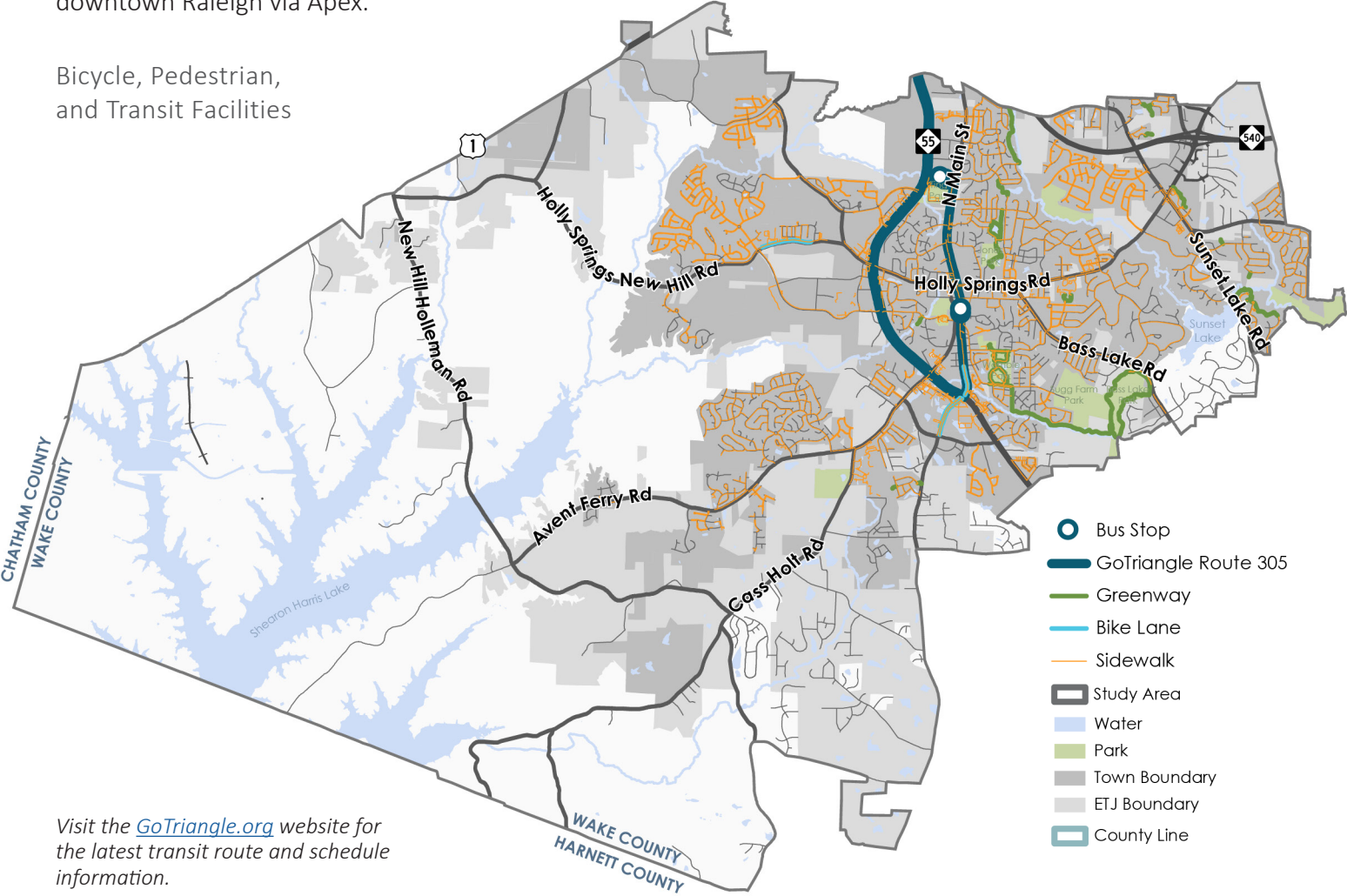
Approximately 42% of pedestrian crashes occurred during dark or dawn/dusk conditions. Nearly 36% of pedestrian and 54% of bicycle crashes occurred near or within an intersection.

Active Transportation and Transit

Planning for the future of Holly Springs incorporates a holistic view of transportation including multiple modes of travel and a variety of trip types. Priorities for the Town must be considered when planning a cohesive bicycle and pedestrian network. Holly Springs has taken significant strides in investing in active transportation. The recently completed Parks, Recreation and Greenways Master Plan establishes a strategic approach for Holly Springs’ investment in safe and connected facilities for all ages and abilities. Additionally, the Town’s efforts and partnership with the development community has allowed for an expansive sidewalk network of nearly 185 linear miles. The on-street bicycle network is more limited; however, recommendations outlined in Chapter 3.2 place a priority on filling gaps and expanding the multimodal network through complete streets design.

At its best, transit provides an efficient and inexpensive transportation mode for persons making the traditional suburban-to-urban commute and those traveling between key activity centers. It is important that public transit service remain a viable, efficient mobility option for those who need it most—senior citizens, the physically or economically disadvantaged, and other patrons who choose to ride. Holly Springs residents have limited options when it comes to public transit. With funding from Wake County, GoTriangle operates transit Route 305 during peak hours with service from Holly Springs' Downtown Village District and Ting Park, with connections to downtown Raleigh via Apex.

Bicycle, Pedestrian, and Transit Facilities



Visit the [GoTriangle.org](https://www.go-triangle.org) website for the latest transit route and schedule information.

GoTriangle



MULTIMODAL ASSESSMENT AND RECOMMENDATIONS

WHAT'S INSIDE

Introduction

The introduction sets the stage for this multi-part chapter by describing its structure and the role of technology in transportation.

3.1 Transit

This section walks through the transit analysis and recommendations for future study.

3.2 Active Transportation

This section details the on-street bicycle and pedestrian connections that are proposed as part of the CTP.

3.3 Roadway

The content under this heading focuses on roadway and intersection project recommendations.

Introduction

This chapter is the core of the CTP; it contains the outcomes of the planning process found through a true multimodal assessment informed both by data analysis and community desires. The result is a set of findings, best practices, and ultimate recommendations for the transportation system in Holly Springs. Given the CTP's multimodal emphasis, this chapter is organized by the different modes of transportation with dedicated sub-sections for transit, active transportation, and vehicles.

Emerging Transportation Technologies Vision

Though this chapter is broken up by mode, there are commonalities and themes between them, one of which being the potential application of technology. With *adaptive* as one of the CTP's goals, the Town sought to establish a vision for emerging transportation technologies in Holly Springs.

Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) is the use of technology to advance safety and mobility in transportation by integrating various communications and traffic management technologies into vehicles and infrastructure. ITS is a constantly evolving field due to the fast-paced nature of technology development, providing an array of possible solutions for a given need. Some of those solutions include connected vehicle applications, advanced signal system operations, active traffic management tools, and parking management solutions.

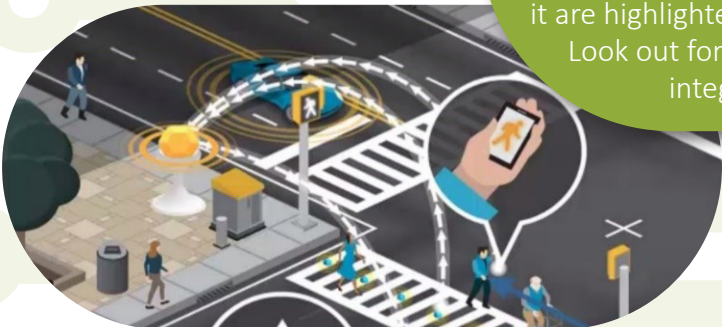
ITS and the Evolution of Transportation

The goal of an effective ITS deployment should always be centered on the Town's ability to employ a technology that best addresses a defined need. To support a long-term vision of ITS integration, a phased approach of interim system enhancements, technology expansions, and integration plans would prepare the Town with the appropriate system growth that leverages ITS as stepping stones to achieve a fully realized and integrated solution. The full Emerging Technologies Vision, found in Appendix D, lays out what this phased approach looks like in an Emerging Technologies Toolbox, as described below.



Technology Spotlight

The Emerging Technologies Toolbox is intended to guide the Town in assessing the applicability and maturity of emerging technologies as one step of a phased strategy to meet the Town's future vision. While the full toolbox is included in the appendix, the recommendations from it are highlighted throughout this chapter in *Technology Spotlights*. Look out for the **adaptive goal** to read about how ITS can be integrated into each mode of transportation!



Connectivity of Devices and Infrastructure, Source: USDOT

TRANSIT

WHAT’S INSIDE

Introduction

This section opens the chapter by establishing the importance of transit in the Town and region as a whole.

Transit Planning

This section reviews the transit planning efforts that are already established in the region.

Transit Analysis and Propensity

The content under this heading describes the findings of the transit-focused public outreach and data analysis.

Recommendations

Under this heading, the recommendations for transit are identified and described.

Future Study

This section identifies the next steps that need to be taken to further the transit recommendations included in this CTP.

Introduction

Growing Transit Market

Transit is a growing priority in the Triangle Region of Raleigh, Durham, Chapel Hill, and their surrounding metro areas. As the region becomes more connected in the industries it serves and the job opportunities it provides, the need to be able to travel between the various jurisdictions increases. This growing demand resulted in Wake County implementing a half-cent sales tax—or a 0.50% increase to its sales and use tax—in 2016 to be used for transit related benefits and improvements in the county. The funds anticipated to be collected through this tax were allocated in the 2016 Wake County Transit Plan which set into motion a community-transformative vision for the type and scale of transit services needed in Wake County based on the values and priorities of residents, employers, and regional stakeholders. In October 2021, Holly Springs saw the benefits of this tax with the implementation of GoTriangle’s Route 305 as part of the initiative in the Wake County Transit Plan to connect all county jurisdictions through transit.

Why Transit Matters

Transit creates necessary connections between people and places to enhance the quality of life for individuals and families. It provides access and opportunities to employment, healthcare, and other essential life services. At its best, a well connected transit system supports economic wellbeing for individuals and families, reduces congestion through a mode shift away from single-occupancy automobiles, and addresses challenges in mobility for transit-dependent households.

As Holly Springs’ population continues to grow, there’s an opportunity to enhance the transit system to address current and future challenges in the area with a reliable, fast, and easy to use service. Since transit can take multiple forms, this chapter analyzes transit need in Holly Springs and identifies potential solutions for the Town.



Transportation planning does not occur in isolation, meaning that the CTP uses previously adopted plans as the building blocks to the CTP's recommendations. In addition to the Previous Plan Review included in Appendix C, this section takes a look at regional plans specific to transit recommendations as they relate to Holly Springs.

Regional Transit Plans

2019 SWAS

The 2019 Capital Area Metropolitan Planning Organization (CAMPO) Southwest Area Study (SWAS) details the evolution of creating a connected and dynamic regional transit system. The study focused on fixed-route transit systems in the form of traditional, express, and bus-rapid-transit (BRT) options. Recommendations specific to Holly Springs include:

- Conducting a Transit Oriented Development (TOD) Study through NC 55
- Establishing local service from Holly Springs to Angier along NC 55
- Adding stops along NC 55 near Holly Springs Towne Center and the Shoppes at Holly Springs

2021 Wake County Transit Plan

The 2021 Wake County Transit Plan is an update of the 2016 plan mentioned on the previous page. This update prioritizes “Big Moves” to cross over municipal and county lines and provide regional public transportation connections. Big Move 2, as it relates to Holly Springs, was already accomplished with GoTriangle Route 305 providing direct peak-hour service to Town.

2021 FAST Network Study

The regional Freeway and Street-based Transit (FAST) network study developed illustrative FAST corridors which are opportune roadways for enhancing transit mobility and access with appropriate infrastructure improvements. The study designates NC 540 as a FAST Freeway in the long-term.

2021 Bus On Shoulder System (BOSS) Study

CAMPO's Bus on Shoulder System (BOSS) Implementation Blueprint identifies roadways for future study to include BOSS lanes, which is a low-cost strategy allowing buses to travel through congested arterial and freeway routes. Corridors recommended for further analysis include NC 55 and Main Street.

2050 MTP

The 2050 CAMPO Metropolitan Transportation Plan (MTP) proposes inter-regional transit improvements to connect Holly Springs to other municipalities. These new transit corridors include fixed-route transit services to Apex, Fuquay-Varina, Cary, and an internal Holly Spring route, with route connections to additional major municipalities. The 2050 MTP proposed transit can be seen on the map on pages 37-38.



Technology Spotlight

Technology can optimize transit with signal priority tools that modify traffic signal timing when buses or other transit vehicles arrive at a light. This prioritizes transit, increasing reliability and decreasing travel time. Transit Signal Priority can increase trust in transit and encourage more ridership.



Building off previous plans, the transit analysis described in this section examined the existing transit service in Town, local community input, key destinations, existing and predicted travel patterns, and demographic indicators to define needs and identify recommendations.

Key Destinations and Travel Patterns

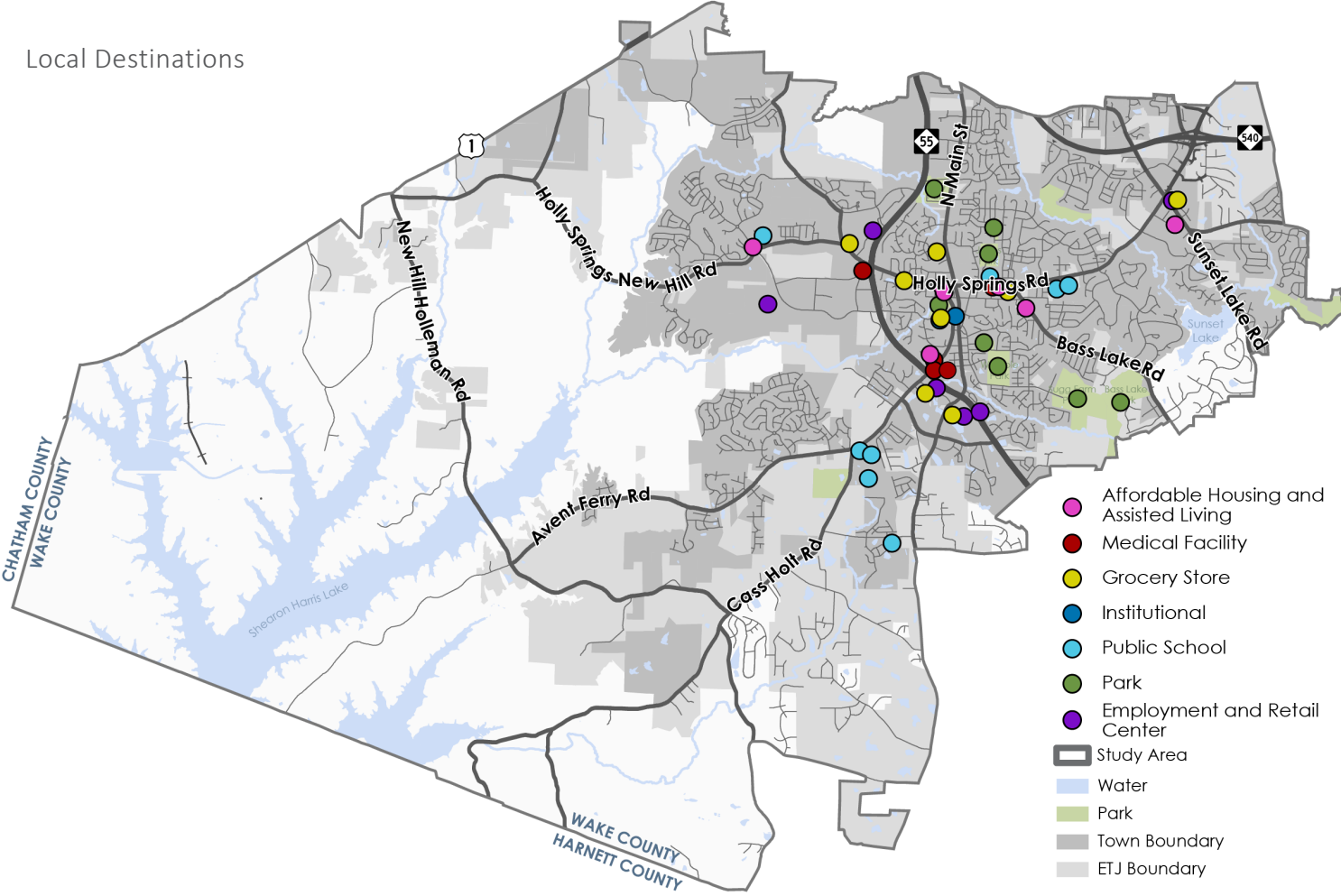
Key to a successful transit system is ensuring that it meets the needs of its riders by providing connections to local and regional destinations that they need to reach. Both qualitative and quantitative data and input sources were used to determine these locations.

Local Destinations

Local destinations are those within Town that residents need to reach. The key local destinations were identified through a combination of engagement feedback and cataloging employment areas, schools, recreation spots, and places that are more likely to have transit-dependent residents such as those living in affordable housing units or assisted-living homes.

Key local destinations include travel to the Downtown Village District, shopping centers, Town Hall, parks, grocery stores, and employment centers and business parks.

Local Destinations



Regional Destinations

Regional destinations are those of a bigger scale when compared to local destinations. These are typically considered other towns or cities, major employers, and travel hubs such as airports. Similar to local destinations, the key regional destinations for Holly Springs residents were identified through community feedback.

Travel Patterns

Another tool available for determining travel destinations are transportation models. Using the Triangle Regional Model and Traffic Analysis Zones (TAZs), the flow of travel to and from Holly Springs and the greater Triangle Region can be seen through a measure of average daily trips. Looking at these travel flows from the Triangle Regional Model 2013 Base Year Model and the predicted flows of 2045 provides insight into existing transit needs and a glimpse into the future market travel needs.

In 2013, the destinations with 5,000 or more daily trips to or from Holly Springs were Johnston County and Fuquay-Varina. By the year 2045, the average daily trips is expected to have increased by over 200% per destination with increased travel to Harnett County and North Raleigh, as shown in the table below.

Average Daily Trips

Major Destination	Average Daily Trips	
	Base Year 2013	Future Year 2045
Johnston County	12,600	41,190
Fuquay -Varina	10,590	28,270
Apex	10,220	34,750
Central Durham	6,990	22,200
Cary	6,750	35,030
North Raleigh	-	18,180
Harnett County	-	17,890

Transit Propensity

Transit propensity seeks to measure the potential demand for transit in an area, going beyond key destinations by also examining certain demographic characteristics in addition to population and employment density. Demographic characteristics considered for the propensity analysis mirror those used in the 2022 Wake County Bus Plan and were chosen based on their ability to predict transit use. The propensity groups are as follows: demographic cohorts as they relate to race and ethnicity, poverty level, vehicle ownership, and age; and population and employment density.

An adjustment factor was calculated for each propensity group using 2019 ACS 5-year estimates for both North Carolina and Wake County to measure transit demand relative to Holly Springs. The greater the adjustment factor, the more inclined the group is to rely on transit. The final adjusted propensity scores were used to map transit propensity in Holly Springs, as seen below where darker blue represents a higher propensity for people in that block group to take transit.

Propensity Groups

Race/Ethnicity - People in racially underrepresented groups are more likely to take transit.

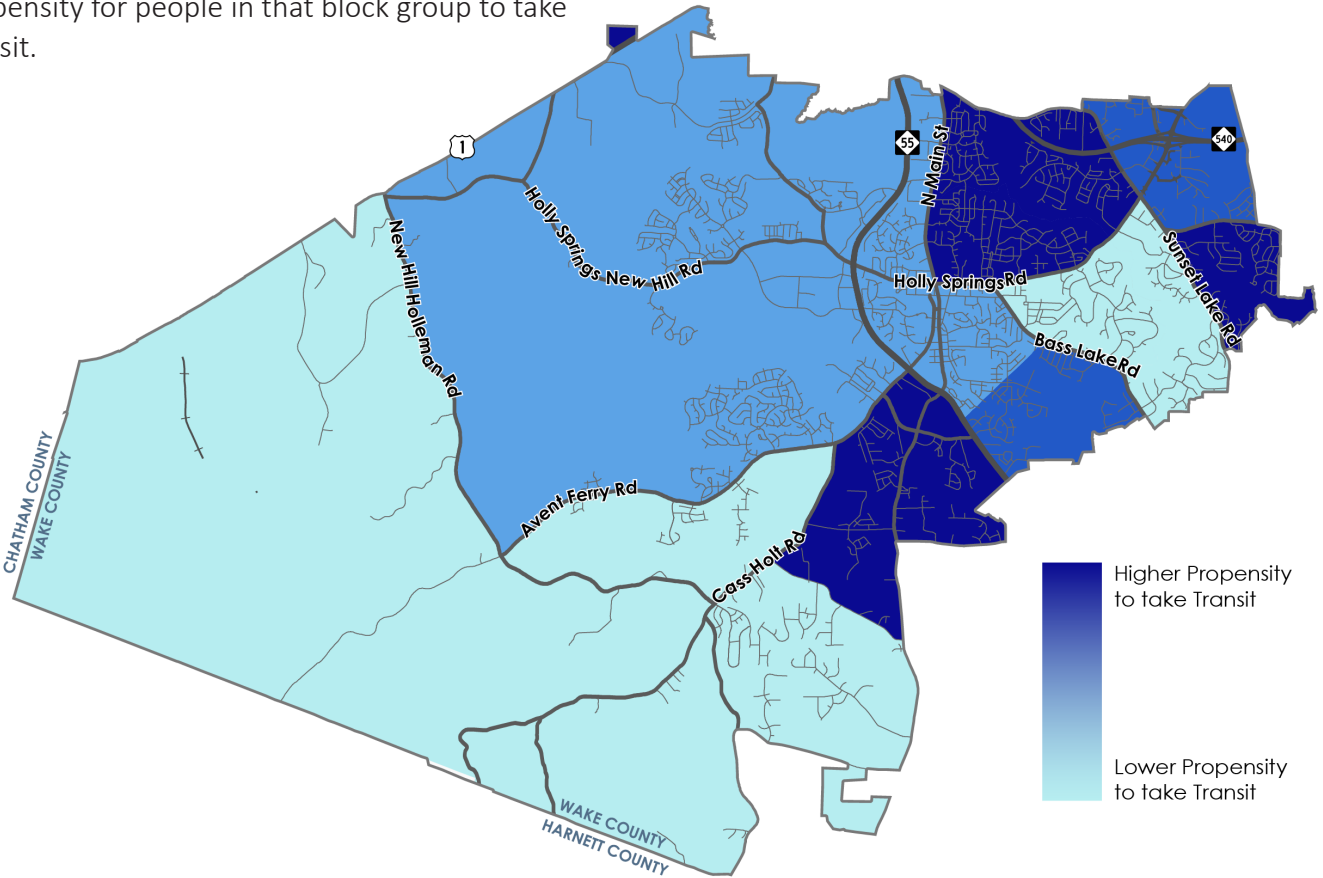
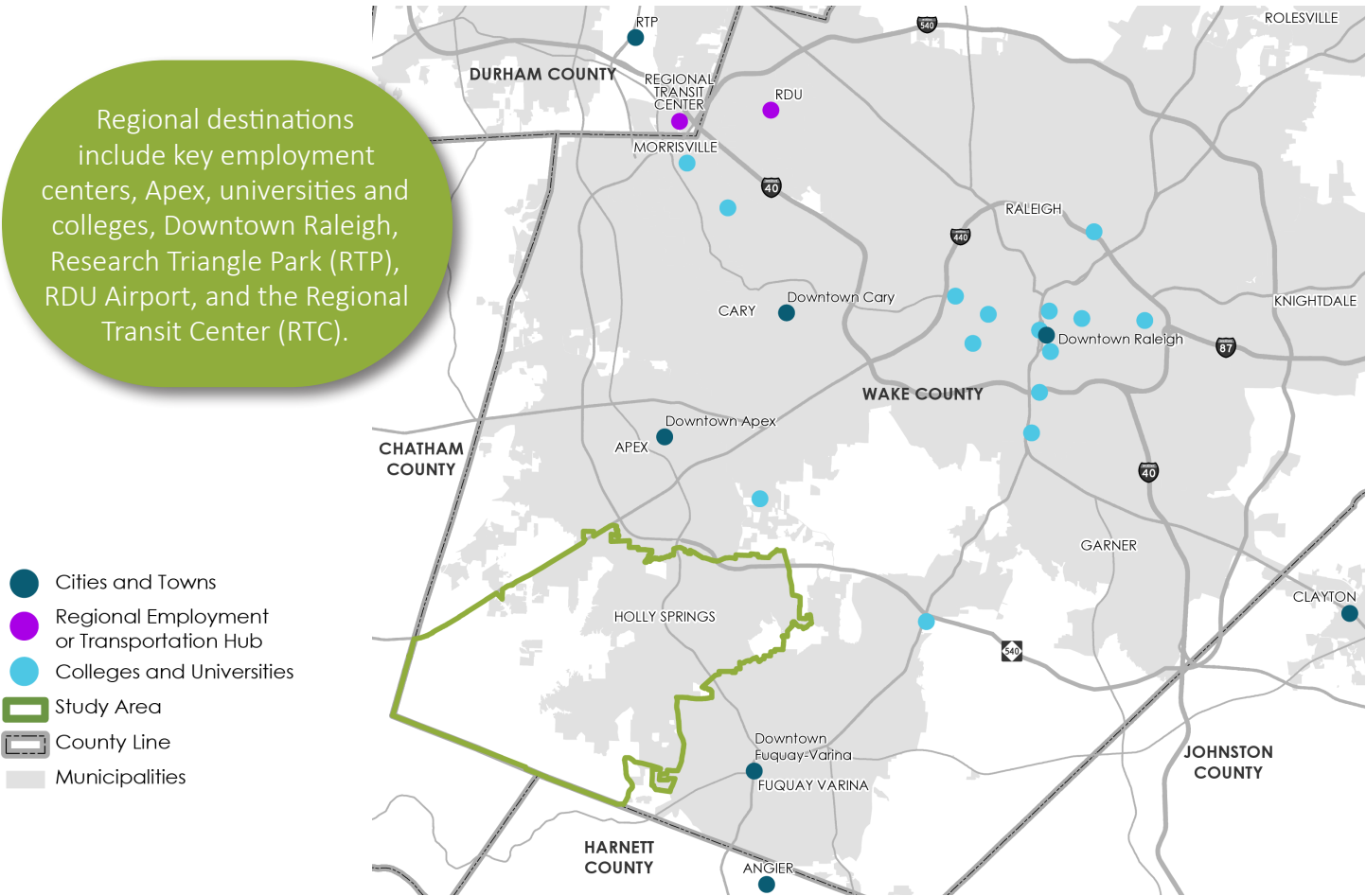
Poverty Level - People in poverty are more likely to take transit.

Vehicle Ownership - Households with fewer or no cars are more likely to take transit.

Age - In Wake County, people ages 20-24 were found most taking transit.

Population Density - Areas with more people per square mile

Employment Density - Areas with more job opportunities



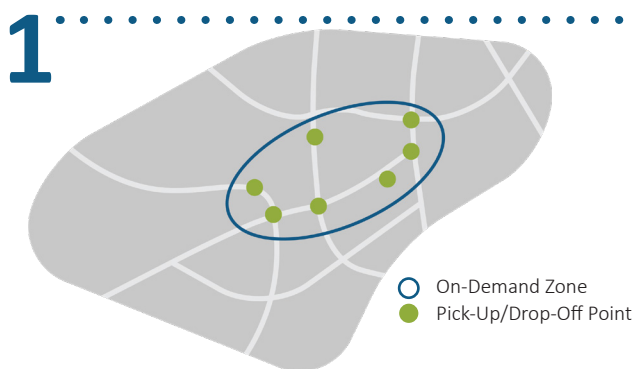
Recommendations

Transit Improvement Phases

The transit analysis ultimately found that Holly Springs would benefit most from a local transit service that provides residents the option to take transit for the purposes of traveling within Town. A local service would provide connections to grocery stores, recreation opportunities, assisted living homes, medical facilities, and other key places that are crucial destinations, especially for transit-dependent populations, and is intended to be an extension of the existing and proposed regional fixed-route service.

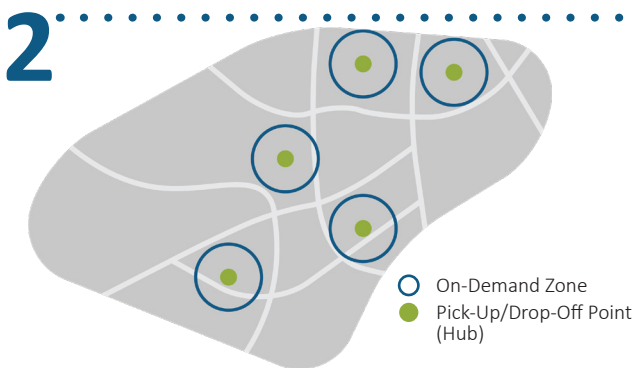
While a local service could take many forms, the CTP recommends implementing transit service in a three-phased approach—beginning with microtransit.

Microtransit is a small-scale public transportation service that offer flexible routes and on-demand scheduling.



Phase 1 Microtransit-Zone with Points

In this phase, a microtransit zone would be established that includes both pick-up and drop-off points within it. People could travel anywhere within the zone using a carpool car or shuttle as long as they are picked-up or dropped-off at one of the points. These points would be designated at key destinations. More details about Phase 1 are on the following page.



Phase 2 Microtransit-Zone to Zone with Hubs

In this phase there would be multiple smaller zones with established central pick-up/drop-off points, or hubs. Phase 2 allows for both inter- and intra-zonal travel. To travel between zones, people would need to be picked up or dropped off at a hub. Once inside a zone, riders could be picked up and dropped off anywhere within it.



Phase 3 Fixed Route-Bus Route and Bus Stops

The final phase takes the form of a more traditional bus route with fixed bus stops. The fixed bus route allows people to travel throughout Holly Springs while providing connections to the regional transit system. Phase 3 is intended to integrate with the proposed 2050 MTP transit recommendations.

These are illustrative examples only.

Phase 1

The map below shows Phase 1 with a designated on-demand zone and 11 pick-up/drop-off points. The points were strategically chosen to include key local destinations and existing transit stops to connect to the current fixed-route service. These points were selected based on public feedback where people were asked to rank 19 potential pick-up/drop-off locations. Once the top points were identified, the on-demand zone was defined to encompass them. The recommended zone is approximately 4.5 square miles in size and mainly captures pick-up and drop-off points in central Holly Springs.

Data Collection

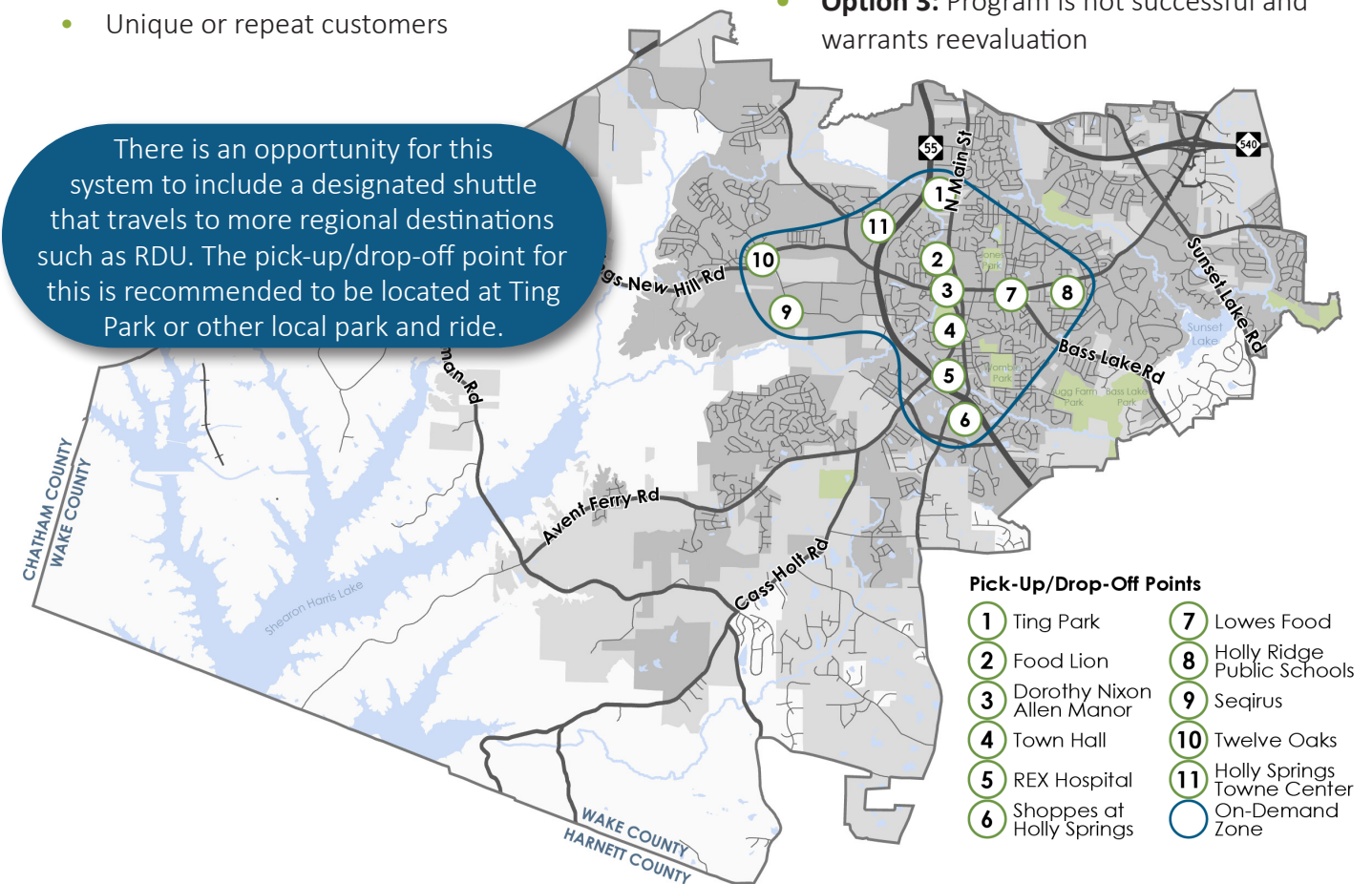
Phase 1 is intended to run as a temporary pilot program for about six months during which the Town would collect data to inform future phases. Data collection would include identifying the following:

- When people are traveling
- Popular origins and destinations
- Locations not included
- Average trip distance
- Unique or repeat customers

Data Findings

Though the findings of the data could vary and would need to be monitored closely, there are predicted to be three likely outcomes:

- **Option 1:** Data supports the continuation of the same program or similar with some adjustments
- **Option 2:** Data supports advancing to the next phase
- **Option 3:** Program is not successful and warrants reevaluation



Transportation Demand Management

What is TDM?

Transportation Demand Management (TDM) is about maximizing the efficient use of various transportation options to better utilize a multimodal network. TDM ultimately seeks to understand how people make their transportation decisions for the purposes of encouraging a mode-shift away from the single-occupancy vehicle and towards transit, ridesharing, walking, biking, and even teleworking options.

How TDM Works

TDM often takes shape in the form of strategies that include education and policies that complement infrastructure. These strategies aim to encourage and incentivize the use of alternative transportation modes. These strategies can be both traditional and innovative technology-based services, all with the goal of optimizing every mode in the transportation system.

TDM Strategies

The following TDM strategies are industry best practices that the Town should consider implementing:

Strategy Type	Strategy	Description
Cost-Based	Parking Fees	Price on-street parking fees based on demand.
	Transit Subsidies	Provide transit subsidies by teaming transit agencies up with universities, employers, and even neighborhoods to provide passes for lower fees to be paid by the partner organization.
Supply-Based	Roadway Reductions	Reduce the space on the road provided for cars as an incentive for motorists to shift to other modes. See page 42 for more information about "Rightsizing"
	Parking Reductions	Remove on-street parking and replace with a dedicated transit lane, bicycle lane, footpath, parklet, or other streetscaping (landscaping, lighting, seating, etc.).
Supportive	Trip Planning Assistance	Provide travelers with tools that inform them about traffic and mode choices to allow them to determine the right mode of travel for them based on particular needs. See <i>Technology Spotlight</i> below for an example.
	Education and Outreach	Foster awareness through educational programs, workshops, and community-outreach efforts. An example would be a local "Ride Your Bike to School Day."

Institute for Transportation & Development Policy, The BRT Planning Guide, 4th Edition



Technology Spotlight

Technology improves transit by providing real-time information. ITS solutions provide the live scheduling updates that transit riders rely on. While this information is provided by electronic signs at stations, smart phones bring the same information to the palm of our hand with apps that allow for the integration of information and payment options to streamline a trip. This technology is especially important for on-demand microtransit systems where there is no ability to depend on a fixed-route.



Future Study

Next Steps

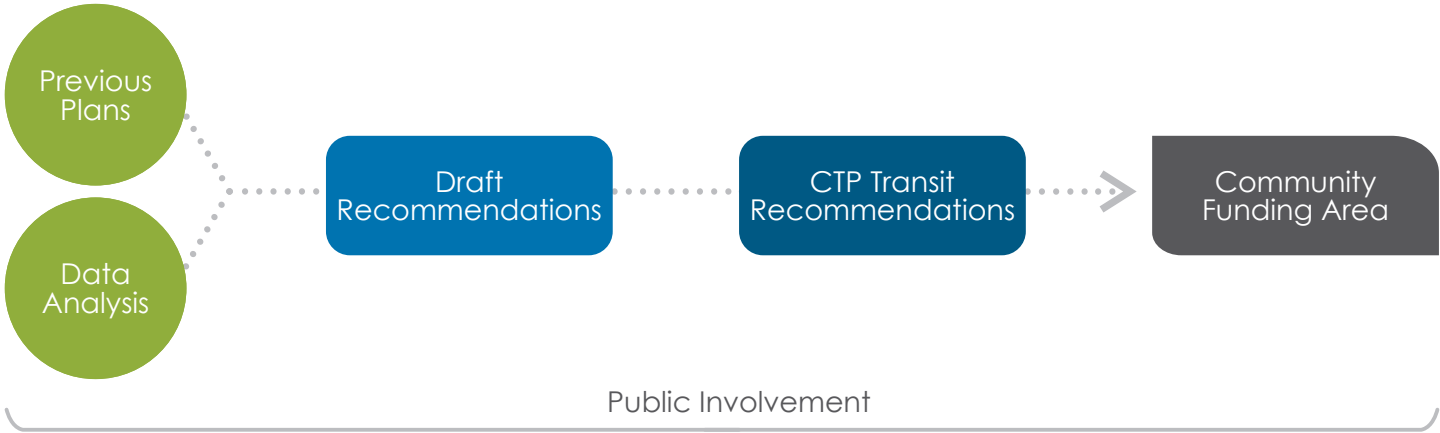
The transit analysis completed as part of this CTP is only the first step in planning a transit solution for the Town. Further study is needed to build upon these findings and add the necessary details to prepare for implementation. One area for expansion, for example, includes identifying partners. Phase 1 would require the help of partners to fund and provide the vehicles and technology needed to implement microtransit. Further study is needed to determine partners but examples include GoCary, Via Transportation, Uber, or Lyft, among others. Additional areas for future study include:

- Developing a service plan
- Building a financial model
- Calculating fares and other fees
- Creating a technology program

Funding Opportunity

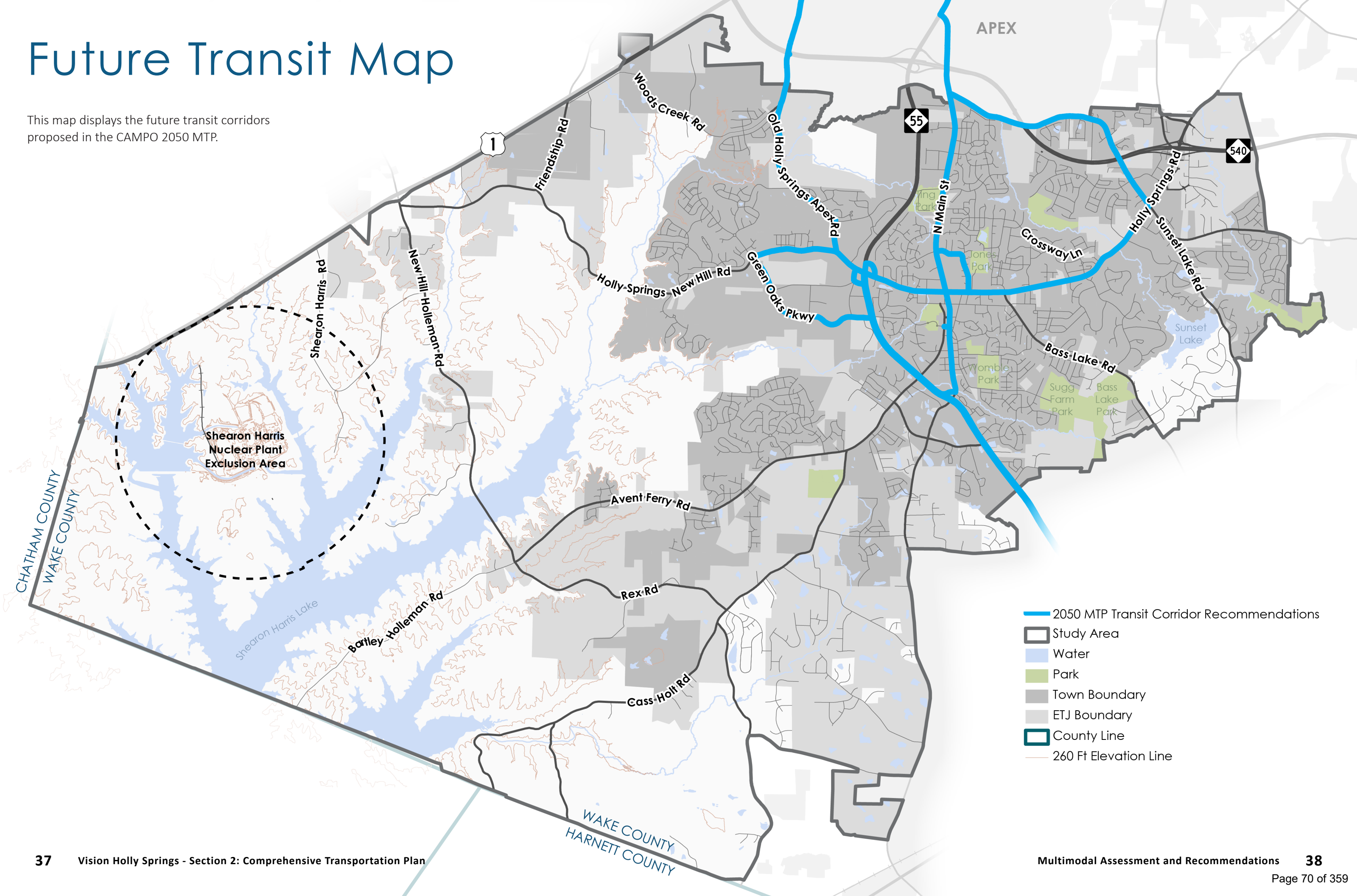
One option to seek funding for future study is for the Town to apply for money through the Community Funding Area, established in the Wake County Transit Plan. The Community Funding Area is a county-wide effort to enhance public transportation in the region. The funding serves as a match to create or accelerate transit services. With Community Funding the Town of Holly Spring will receive further feedback on transit best practices to ensure quality community connections and services.

Transit Planning Process and Next Steps



Future Transit Map

This map displays the future transit corridors proposed in the CAMPO 2050 MTP.



ACTIVE TRANSPORTATION

WHAT'S INSIDE

Introduction

This section introduces the benefits of active transportation.

Complete Streets

The content under this heading defines the Complete Streets approach and how it may be applied in Holly Springs.

Future Bicycle Network

This section identifies the types of bicycle facilities and the recommendations included in the CTP.

Future Pedestrian Network

This section identifies the types of pedestrian facilities and the recommendations included in the CTP.

Walkshed Analysis

This part explains the closer look at sidewalks the CTP took in the Downtown Village District.

Introduction

What is Active Transportation?

Active transportation refers to methods of transportation that are people-powered, such as walking and biking. Everyone uses active transportation at some point throughout their day, even if it's just to connect to another mode of transportation.

Active transportation provides important health, environmental, and economic benefits for the community, and it is important to provide both physical infrastructure and policies that allow users of all ages and abilities to make use of these options.

Recognizing the importance of providing a complete transportation system, the Holly Spring CTP reviews the Town's existing infrastructure and policies and provides recommendations on future investments that would further encourage use of active modes.

Community Benefits

Active transportation provides a myriad of benefits to the community as a whole, including:

- Improves public health by providing a healthy way to exercise and travel
- Reduces emissions by providing an alternative to car travel
- Promotes economic development by creating vibrant, walkable places
- Reduces household costs by providing a cost-effective travel alternative
- Provides accessible options for people with mobility challenges
- Improves safety by providing dedicated facilities for those choosing to walk or bike

The Projects and the Network

There are two full-page maps included in this section: the **Recommendations Map: Active Transportation** and the **Future Active Transportation Network Map**. The first map includes the delineated bicycle and pedestrian projects that are prioritized and included in Chapter 4, the *Implementation Plan*. The second map is a comprehensive representation of what the bicycle, pedestrian, and greenway network in Holly Springs is envisioned to be in it's ultimate build out.

This distinction is important because while the vision of the second map can't be achieved through this CTP alone, it includes recommendations from Vision Holly Springs Section 3: Parks, Recreation and Greenways Master Plan and captures the active transportation picture in one map.



Complete Streets

What Are Complete Streets?

Complete Streets is a nationwide policy approach that requires streets to be planned and designed to prioritize safety, comfort, and access to destinations for all people who use the street, regardless of their mode of transportation. Creating Complete Streets helps to ensure our community is accessible and welcoming for our most vulnerable populations, including children, older adults, people living with disabilities, and people who do not have access to a car. Among many benefits, Complete Streets make it easier for pedestrians to cross the street, enable people to walk or bike to jobs, shops, and schools, access transit, and move actively with assistive devices.

What does a Complete Street look like?

A Complete Street is not a single design, but rather a flexible approach to designing a street that best fits the surrounding community. Depending on the needs of each location, a Complete Street may include varying combinations of sidewalks, bike lanes, accessible bus stops, frequent/safe crossings, median islands, pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more. Under the Complete Streets approach, community needs are key in determining the final street design. As an example, a street near an elementary school or park may be very different from one that passes a major industrial complex.

How do we achieve Complete Street communities?

Transitioning current streets to Complete Streets requires collaboration between the public, government staff, and elected officials. Local transportation agencies must change their current approach to street design to enhance safety and mobility and promote true shared streets between all modes, not just motor vehicles. Applying Complete Streets policies to current streets does not have to be expensive or difficult: routine resurfacing and maintenance activities are excellent opportunities to implement road diets, or to include bike lanes and improved crosswalks where they previously didn't exist.



NCDOT has a Complete Streets Implementation Guide that allocates funding to construct bicycle and pedestrian facilities included in adopted plans, reinforcing the benefit of identifying Complete Street recommendations in the CTP.

Example of a Complete Streets Project in Kernersville. Source: NCDOT

What is Rightsizing?

Rightsizing, often referred to as “Road Diets,” is a Complete Streets strategy that makes use of existing roadway right-of-way to transform the roadway into a Complete Street. Rightsizing typically reduces the amount of roadway space devoted to cars along a corridor, and uses leftover space to add bike or pedestrian facilities such as sidewalks, bike lanes, or buffers. Road diets have additional benefits on many roadways, such as reducing the speed of traffic and improving safety for motorists.

Most rightsizing transforms four-lane roads to three-lane roads, but road diets can take a variety of approaches. Road diets can be a cost-effective solution to implementing on-street bike lanes, as most road diets are completed in conjunction with routine resurfacing and reconstruction projects.



Above: An example of a 4- to 3-lane road diet in Charlotte to make space for bike lanes

Implementation

Implementing Complete Streets projects is a multi-step process that sometimes requires communities to re-think how they approach transportation. As part of a comprehensive approach to developing recommendations for Complete Streets, the CTP process involved a review to identify steps Holly Springs should follow to implement quality Complete Streets projects. For the full policy review, see Appendix I.

- 1 Adopt a Complete Streets Policy
- 2 Restructure or revise related procedures, plans, regulations and processes
- 3 Develop new design policies and guides
- 4 Offer workshops and training opportunities
- 5 Create a committee to oversee implementation
- 6 Create a community engagement plan
- 7 Implement Complete Streets projects

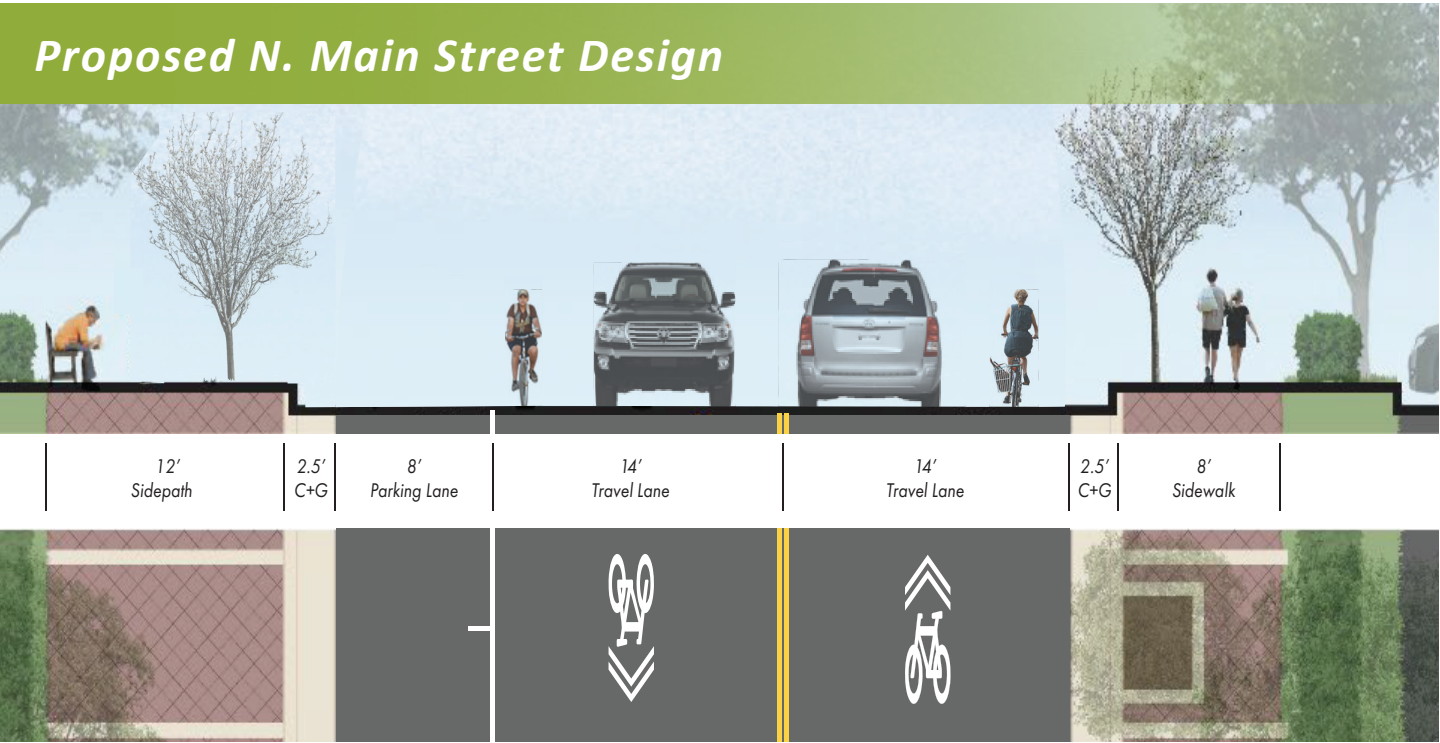
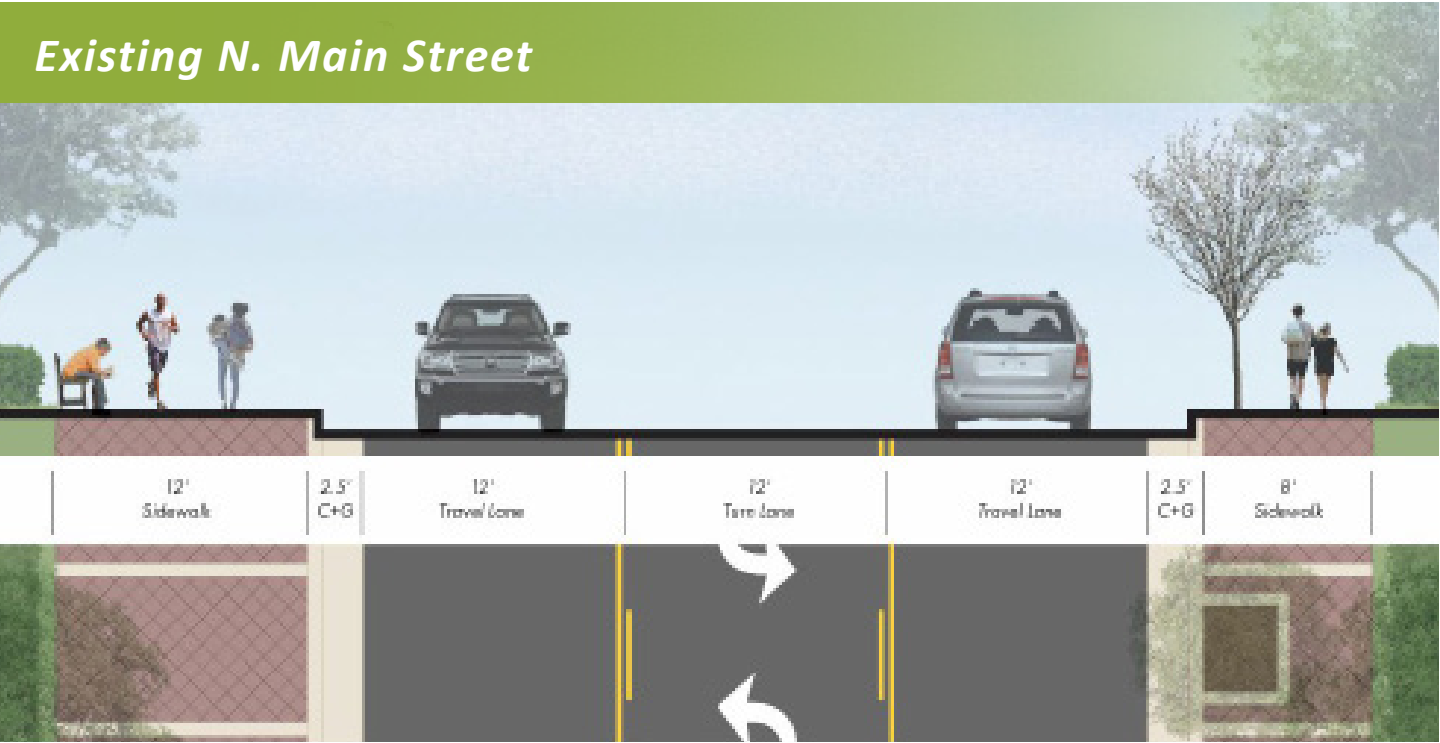
Main Street as a Complete Street

Main Street provides access to the center of the Holly Springs Downtown Village District, the core of the community. In 2005, the Town approved the Village District Area Plan (VDAP) that includes recommendations for future land use and transportation improvements to ensure that the character of Holly Springs is maintained as the community continues to grow. To align with the Town’s vision for a vibrant Downtown Village District, the Holly Springs CTP proposes transforming Main Street into a complete street.

Currently, N. Main Street from Holly Springs Road to Rogers Street features two travel lanes, a center turn lane, and sidewalks (as shown at right). The proposed road diet redesign for N. Main Street updates the three lane road into two travel lanes and creates two buffered one-way bike lanes to support bicycling as a viable transportation option in the heart of Holly Springs. This design makes use of the road’s existing right-of-way to more appropriately provide a great multimodal experience to support a vibrant commercial district.

The proposed features of this design include:

- ✓ Painted bicycle lane buffers to provide safe separation between vehicles and bicyclists, creating an extra measure of safety and comfort
- ✓ Streetscaping improvements and tree-lined medians to provide shade for pedestrians and reduce traffic speed
- ✓ Reduction from three lanes to two lanes, along with narrowing the existing travel lanes to slow traffic speeds
- ✓ This design and recommendations should be evaluated with the Village District Area Plan update, including further consideration of where to provide on-street parking.



Future Bicycle Network

Designed for Everyone and Anyone

Previous recommendations from the 2011 Holly Springs CTP accommodated bicyclists with facilities such as wider outside travel lanes on roadways. While these suggested improvements are useful for experienced riders, the 2022 CTP follows updated best practices by recommending facilities that are safe and welcoming for all users regardless of age and ability.

The Holly Springs CTP generally follows recommendations by the National Association of City Transportation Officials (NACTO) for when and where to implement different types of bike facilities. These facility types provide a wide variety of design options, allowing for roadway designs to adjust to meet the needs of the diverse population in Holly Springs.

Research has shown that cyclists follow a spectrum in terms of their level of experience and comfort using certain facilities. Some are completely comfortable riding on a roadway in mixed traffic, but the vast majority of people are much more comfortable on dedicated facilities that provide physical separation between cyclists and vehicles. These facilities are called “all ages and abilities” facilities, since they cater to the majority of cyclists, including those who might be uncomfortable riding round cars.

What does All Ages and Abilities look like?

Below is an example of two types of facilities that cater to different types of cyclists.



Recommended Bicycle Facilities

The Holly Springs CTP recommends implementing and updating bicycle facilities to four different facility types: sharrows, standard bike lanes, buffered bike lanes, and sidepaths. These facilities allow for a more connected and safer way of bicycle travel that also reduces competition and conflict with automobiles. Vision Holly Springs Section 3: Parks, Recreation and Greenway Master Plan features further information and implementation strategies for all four facility types.



Shared Lane Markings “Sharrows”

Shared lane markings or “sharrows,” are road markings used to indicate a shared traffic lane for bicycles and automobiles. Sharrows are most beneficial on low volume and low speed roads. Typically, the painted lane markings are accompanied with signage to alert both bicyclists and motorists of bikeway routes.



Standard Bike Lanes

Bike lanes allocate an exclusive space for bicyclists with a designated 5- to 6-foot striped lane, pavement markings, and signage to enable bicyclists to ride at their chosen speed without interference from traffic. Conventional bike lanes are located directly adjacent to motor vehicle travel and typically follow the same direction as traffic. Standard bike lanes create a separation between bicyclists and automobiles, but do not have a physical barrier between the two modes.



Buffered Bike Lanes

A buffered bike lane is a conventional bike lane paired with additional buffer space to separate the motor vehicle traffic lane and/or parking lane from the bicyclists. Buffered bike lanes typically use multiple pavement markings to create distinctions between bike and motor travel lanes. Buffered bike lanes can be incorporated on roads with higher travel speeds, higher travel volumes, and anywhere a standard bike lane is considered.



Sidepaths

Sidepaths are physically separated from vehicular travel through vegetated landscape strips, rumble strips, or urban furnishings like streetlights, wayfinding signage, or benches. Sidepaths provide paved off-road routes for users and are designed similar to roadways but feature lower speeds for mainly pedestrian and bicycle users.

Supporting Facilities

In order to maximize the efficiency and safety of bicycle facilities in a community like Holly Springs, bike facilities should be implemented with supporting facilities that complement and support their use. The use of dedicated supporting facilities should coincide with popular land uses around Holly Springs such as: the Downtown Village District, Neighborhood Centers, N. Main Street District, and other mixed-use centers. Examples of supporting facilities and best practices for implementation include:



Bicycle Signage and Markings

Traditional signage and markings for on-street bikeways increases the visibility of shared roads and bikeways to bicyclists and motorists. Wayfinding signs aid bicyclists travel to their destination and helps to familiarize users with the bicycle network. Signage should be located along streets or other facilities that are a part of the bicycle network.



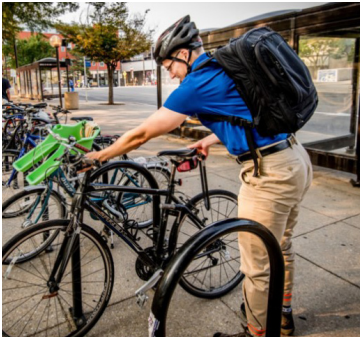
Bicycle Signals

Bicycle signals are similar in use to signals used at pedestrian crosswalks and those used for motorists. Signals are paired with loop detectors, camera detectors, or push buttons. The use of bicycle signals discourages unsafe maneuvers. Dedicated bicycle signals should be used where there is a high volume of bicyclists at peak hours or areas with high bike crashes.



Bike Boxes

Bike boxes enhance the turning ability and visibility of bicyclists to motorists at signalized intersections. By designating a space ahead of stopped traffic, bicyclists intending to turn left can better situate themselves for turns and reduce the risk for right-turning accidents between bicyclists and motorists at high volume intersections. Bike boxes should be located at intersections with dedicated bike lanes where a high turning volume is anticipated.



Bicycle Parking

As more bicycle facilities are constructed, bicycle usage will continue to grow creating an increased demand for bike parking near major destinations. Bicycle parking should be installed in safe and secure areas for both short-term parking needs such as popular shopping or dining locations, and long-term needs such as park and rides, places of employment, and schools.

Recommended Bicycle Network

The Holly Springs CTP identified recommendations to the bicycle network based on the goal of creating an active transportation network that supports mobility for all ages and abilities. The *Recommendations: Active Transportation* map at the end of this chapter details the bicycle projects to enhance travel by bike for users in the Town.

Bicycle network recommendations in the Holly Springs CTP were identified from a review of the current system, community feedback, and the ability for a project to connect to the Town’s existing greenway network.

Ensuring that updates to the bicycle network creates connectivity with existing greenways was proposed in the Parks, Recreation and Greenways Master Plan to improve the conditions of active transportation in Town. By connecting bicycle facilities both on and off streets, residents of Holly Springs have enhanced mobility throughout the Town with fewer limitations from gaps in connections between destinations.



Technology Spotlight

In the past decade, several technologies have emerged that allow communities to provide bicyclists and pedestrians a higher quality experience. Examples include counters to allow communities to gather data on how trails and facilities are used, real-time bicycle parking information, and advanced wayfinding systems to assist visitors.



Safe and Comfortable

The pedestrian network benefits everyone in the community by providing a safe and comfortable way to get to and from destinations. Even if you don't consider yourself a pedestrian, everyone makes use of sidewalks, crosswalks, and other pedestrian facilities at some time. The CTP recognizes how important walking is to a healthy and vibrant community, and strives to provide a complete pedestrian network that accommodates pedestrians of all ages and abilities.

While sidewalks and crosswalks are the main elements of the pedestrian network, there are many factors that contribute to a comfortable pedestrian atmosphere.

Supporting Facilities

Similar to the bicycle network, a variety of supporting facilities can help encourage more people to walk by creating an attractive and vibrant atmosphere. Benches, lighting, buffers, street trees, and other vegetation helps to create a pedestrian network that is safe, inviting, and comfortable. Wayfinding and signals with pedestrian buttons help to foster a safe and comfortable environment in a new atmosphere. As a whole, these elements are often called "streetscaping." Strategically placing these facilities throughout Holly Springs will benefit the mobility of residents throughout the area. Further guidance can be found in Chapter 5.



Traffic Calming

Traffic calming strategies work to slow vehicle speeds and volumes to create a safer and more inviting street, encouraging more people to walk and improving safety for pedestrians.

The Town of Holly Springs adopted the Neighborhood Traffic Calming and Pedestrian Safety Program policy to guide traffic-calming improvements on town roads and to make a safer pedestrian network. The program outlines traffic calming strategies based on level of investment.

Based on the policy guidelines, a wide variety of treatments may be incorporated in Holly Springs neighborhoods on new and existing roads. Options range from warning signage, pavement markings, roundabouts, and median islands between travel lanes along roads. Traffic calming should be considered when assessing a high-volume or high-speed street for ways to improve the pedestrian experience.



Left: Landscaping and street trees provide a welcoming pedestrian environment. Above: Curb extensions can be an effective traffic calming tool, as well as improve pedestrian safety.

Pedestrian Crossing Toolkit

The Pedestrian Crossing Toolkit for Holly Springs features safety measures to make it easier for people to get around. The recommended tools include changes along roadways and intersections to allow for a more secure pedestrian crossing. By implementing pedestrian-oriented design strategies on roads and at intersections, the Town of Holly Springs provides connections for residents to safely travel to work, school, or for recreation.



Conventional Crosswalks

Conventional crosswalks allow pedestrians to comfortably cross intersections by offering protection and visibility against motorists. Crosswalks can be marked simply with parallel lines, decorative or painted, or offer higher visibility to approaching vehicles with continental or zebra markings.



Midblock Crosswalks

Midblock crosswalks allow pedestrians to cross in places that are not commonly served by the existing traffic network and street design. Midblock crossings are typically accompanied by Rectangular Rapid Flashing Beacons (RRFB) to enhance safety with flashing lights. These types of crosswalks exist at key access points for schools, parks, or other areas that are challenging for high volumes of pedestrians to have comfortable access.



Pedestrian Refuge Islands

Pedestrian refuge "safety" islands allow for protected and comfortable points of rest for pedestrians across large intersections with multiple lanes. Islands reduce the exposure pedestrians face at intersections when the number of travel lanes increases. These are typically implemented when pedestrians have to cross three or more lanes of oncoming traffic.



Curb Extension

Curb extensions can be used to create a more narrow roadway to decrease pedestrian crossing time and distance across travel lanes. Extensions offer additional pedestrian protection as curb extensions increase visibility to drivers, as well as allow for additional streetscape opportunities. Low cost materials such as bollards can be used as a pilot at intersections heavily trafficked by both pedestrians and vehicles.

The *Recommendations: Active Transportation* map at the end of this chapter details the sidewalk projects to enhance travel for pedestrians in the Town.

Walkshed Analysis

A Closer Look at Sidewalk Needs

Sidewalks make up the backbone of the pedestrian transportation network, allowing people to move throughout Holly Springs on foot. While the CTP has sidewalk recommendations throughout Town, special attention was paid to the Downtown Village District to identify critical sidewalk priorities that further complete the network.

Gap Identification

Sidewalk needs were identified along all roadway segments that were reachable within either a 10- or 20-minute walk from Town Hall, which is the center of the Downtown Village District. Depending on the presence of any missing sidewalks, the roadways were either identified as complete or marked as sidewalk gaps.

Gap Prioritization

Once identified, the sidewalk gaps were prioritized based on three categories that address a range local needs: safety, access, and equity.

Safety

Prioritized sidewalk gaps along unsafe roadways with more crashes

Access

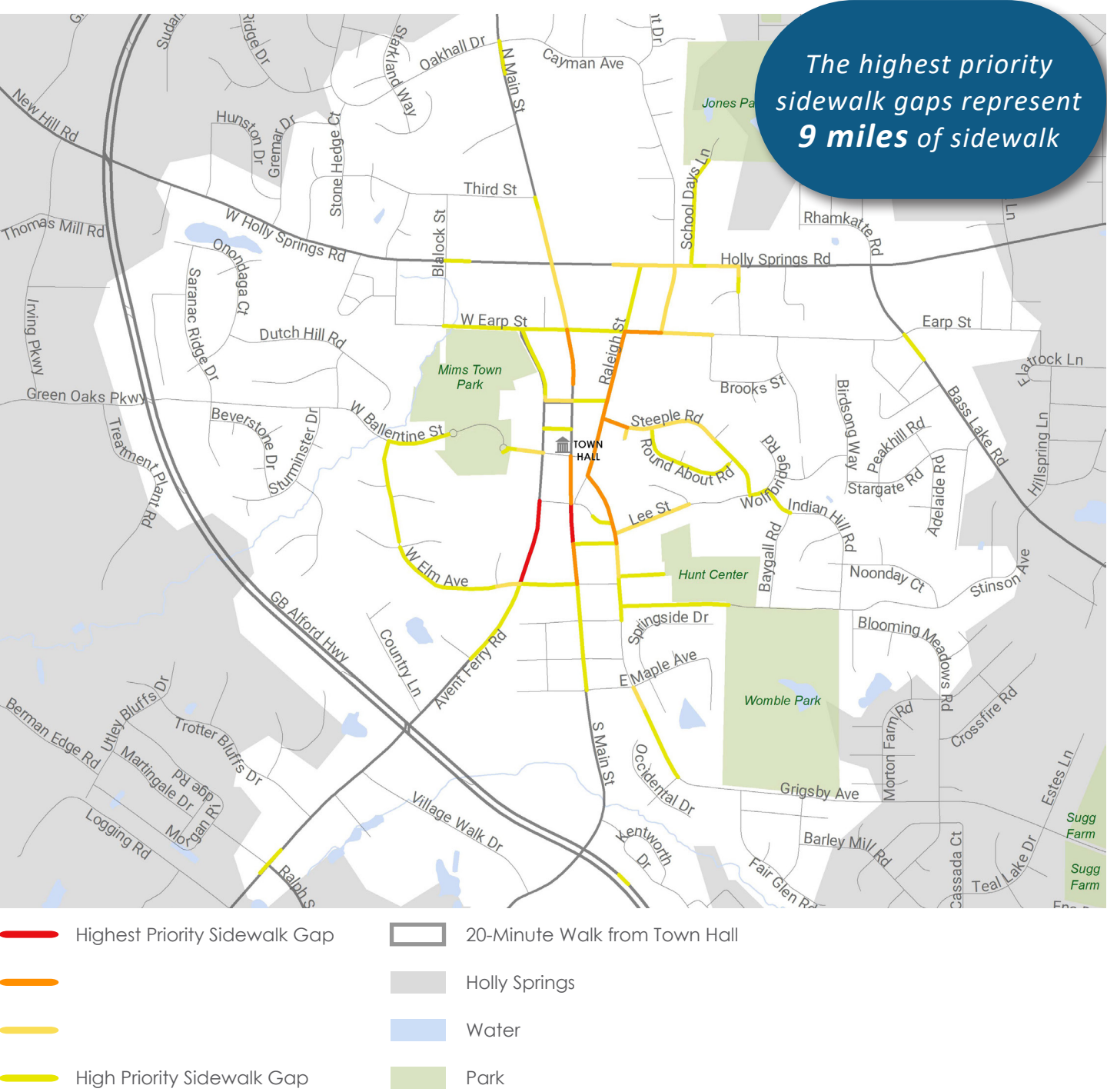
Emphasized the importance of connecting to key destinations



Equity

Highlighted improving sidewalk connectivity for people who may need it most

High Priority Sidewalk Gaps



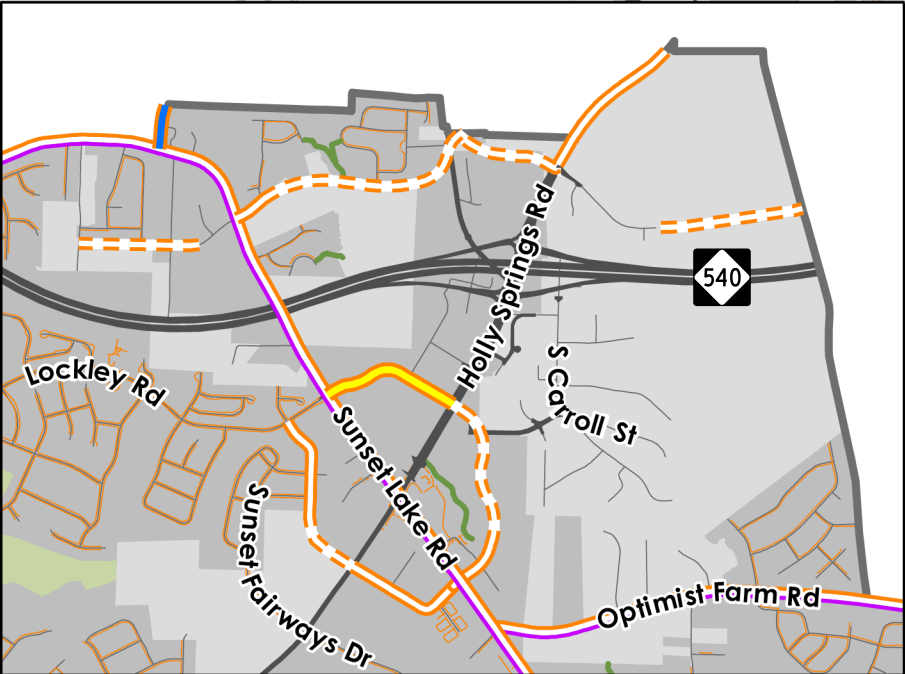
This map visualizes the high-priority sidewalk gaps identified through this analysis. For additional details on the scoring process, results, and final list of projects, see Appendix G.

It's important to note that the priority gap analysis is not reflected on the *Recommendations: Active Transportation* map shown on the next page because the projects on that map followed a separate prioritization process, detailed in Chapter 4.

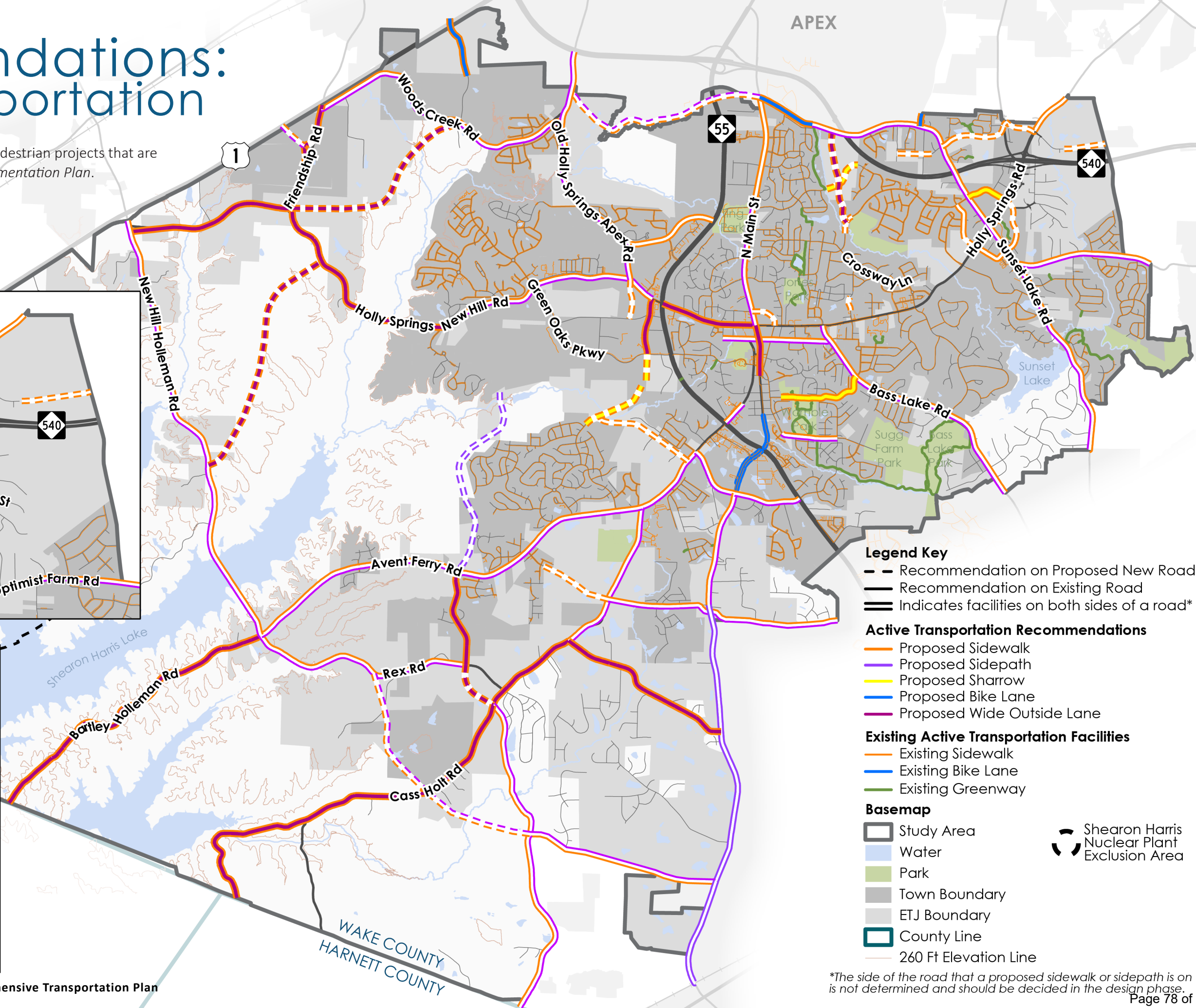
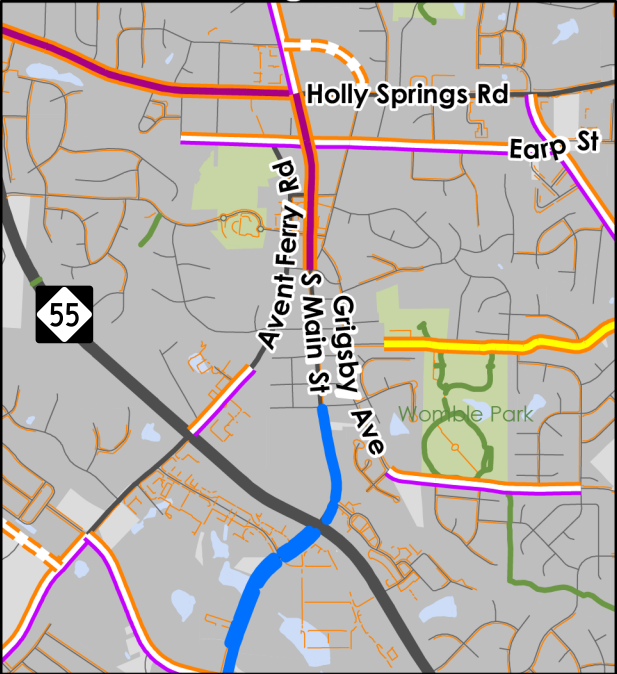
Recommendations: Active Transportation

This map includes the delineated bicycle and pedestrian projects that are prioritized and included in Chapter 4, the *Implementation Plan*.

Northeast Gateway



Downtown Village District



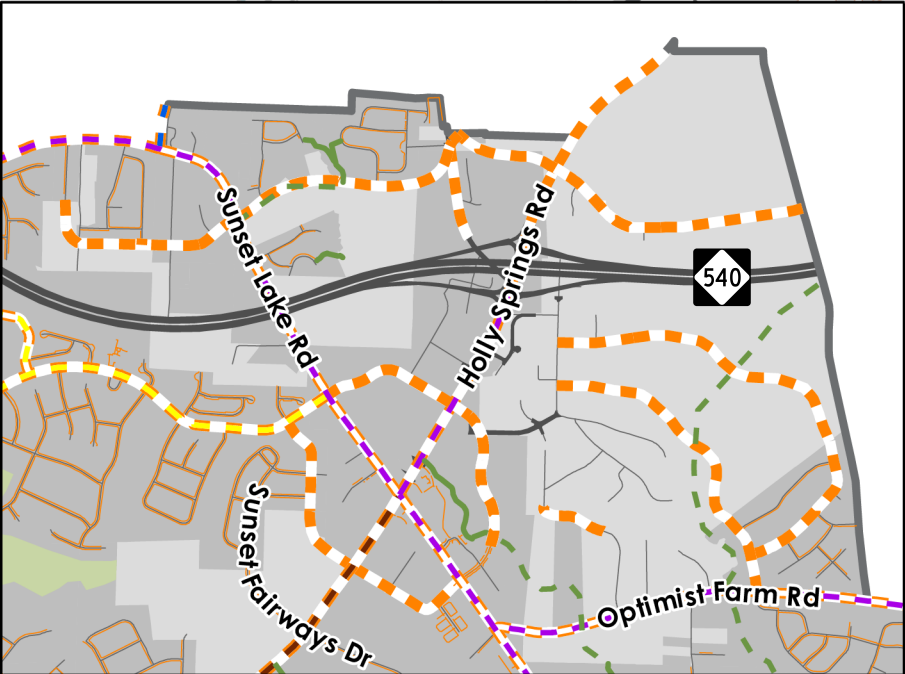
- Legend Key**
- Recommendation on Proposed New Road
 - Recommendation on Existing Road
 - == Indicates facilities on both sides of a road*
- Active Transportation Recommendations**
- Proposed Sidewalk
 - Proposed Sidepath
 - Proposed Sharrow
 - Proposed Bike Lane
 - Proposed Wide Outside Lane
- Existing Active Transportation Facilities**
- Existing Sidewalk
 - Existing Bike Lane
 - Existing Greenway
- Basemap**
- Study Area
 - Water
 - Park
 - Town Boundary
 - ETJ Boundary
 - County Line
 - 260 Ft Elevation Line
- Shearon Harris Nuclear Plant Exclusion Area

*The side of the road that a proposed sidewalk or sidepath is on is not determined and should be decided in the design phase.
Page 78 of 359

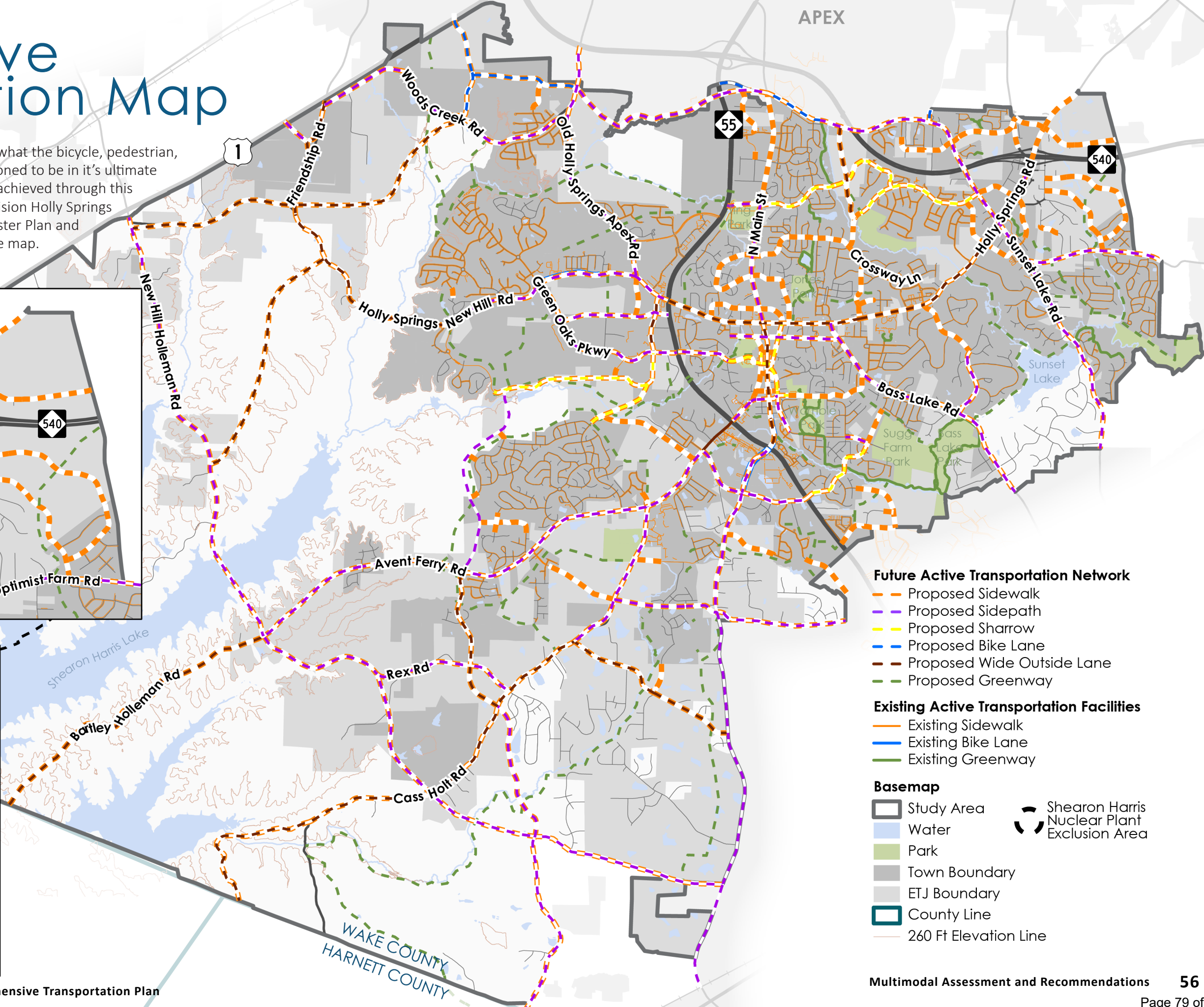
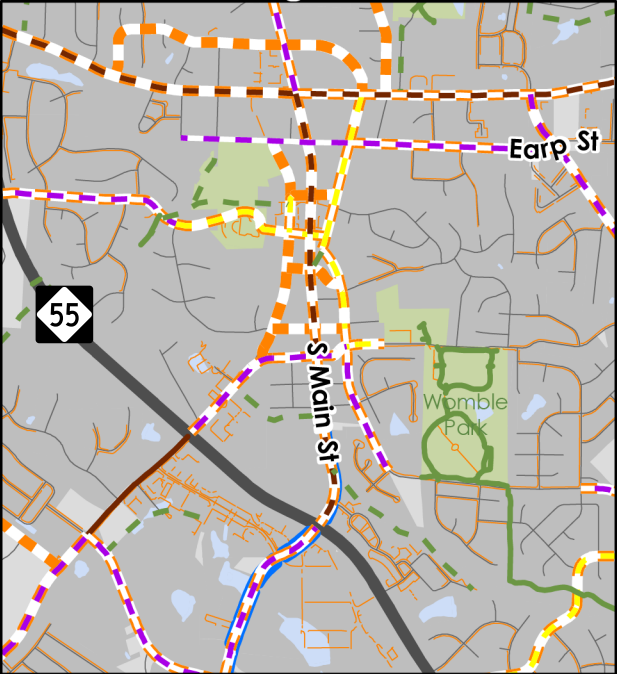
Future Active Transportation Map

This map is a comprehensive representation of what the bicycle, pedestrian, and greenway network in Holly Springs is envisioned to be in it's ultimate build out. While the vision of this map can't be achieved through this CTP alone, it includes recommendations from Vision Holly Springs Section 3: Parks, Recreation and Greenways Master Plan and captures the active transportation picture in one map.

Northeast Gateway



Downtown Village District



Future Active Transportation Network

- Proposed Sidewalk
- Proposed Sidepath
- Proposed Sharrow
- Proposed Bike Lane
- Proposed Wide Outside Lane
- Proposed Greenway

Existing Active Transportation Facilities

- Existing Sidewalk
- Existing Bike Lane
- Existing Greenway

Basemap

- Study Area
- Water
- Park
- Town Boundary
- ETJ Boundary
- County Line
- 260 Ft Elevation Line
- Shearon Harris Nuclear Plant Exclusion Area

3.3

WHAT'S INSIDE

This section outlines the site-specific recommendations to address safety concerns and mobility limitations at each intersection and interchange.

This distinction is important because while the vision of the second map can't be achieved through this CTP alone, it encompasses the cross-section elements that are both existing and proposed to capture the full transportation picture in one map.



Roadway Projects

The proposed roadway recommendations were developed considering safety and congestion data, environmental features, public feedback, and projections from the travel demand model. The future network aligns with the Town’s goals as well as the vision for the region.

The following pages identify on-street roadway improvements based on the type of project. The improvements are divided into six categories: center turn lane, road diet, parking, widening, new location, and realignment.

To fulfill the CTP’s vision of providing a safe, efficient, connected, and accessible multimodal transportation network, the proposed projects include provisions for bicycles and pedestrians where appropriate.

Center Turn Lane

A center turn lane, or two-way left turn lane, allows vehicles from both directions to turn left in the same lane.

Road Diet

As discussed in the previous section, N. Main Street is proposed to have two travel lanes down from the existing three to slow traffic and create a more pedestrian friendly space.

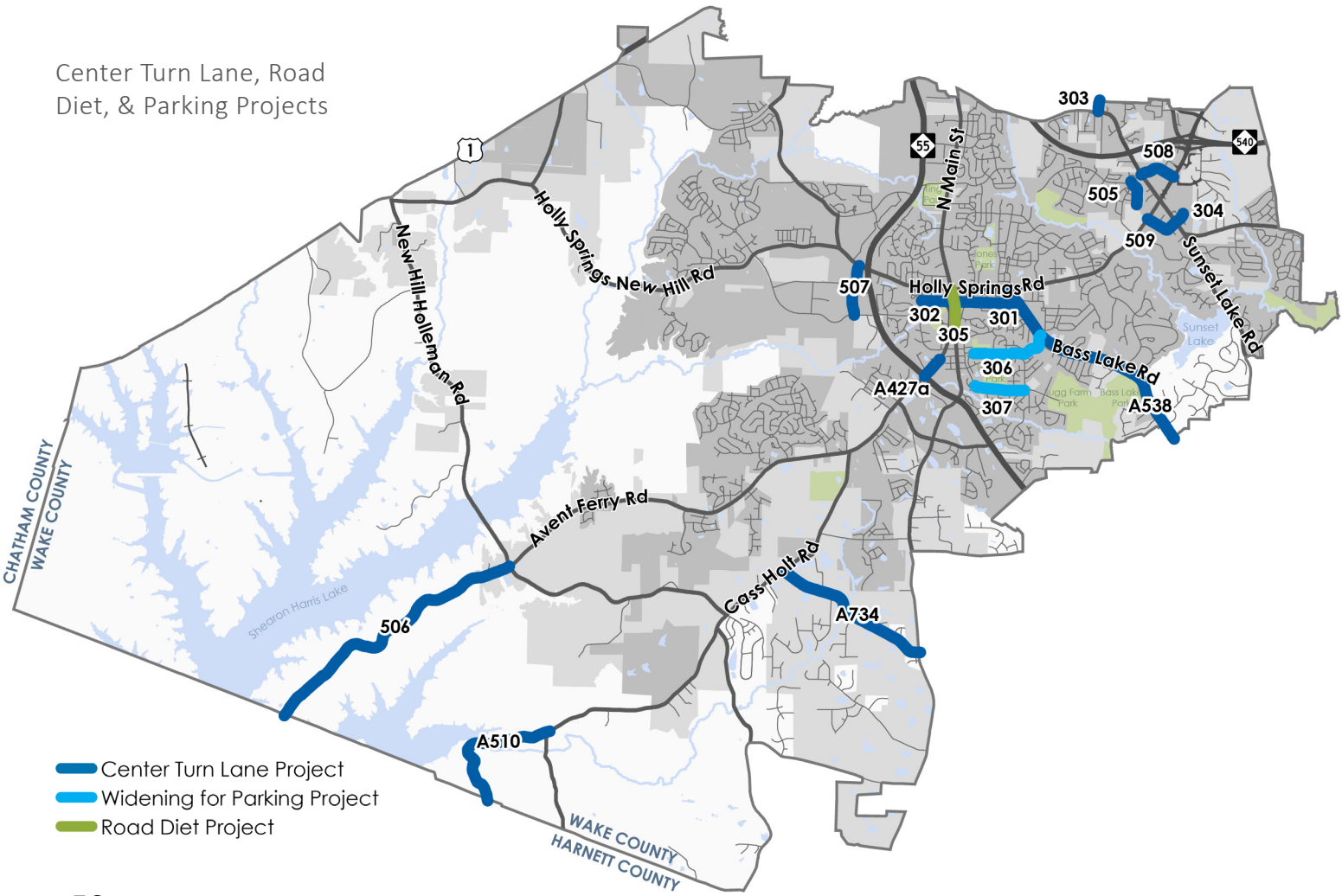
Parking

Parking projects are for the purpose of providing on-street parking near key destinations such as in the Downtown Village District or near Womble Park.

ID*	Facility	From	To	Recommendation	Length (mi)
A427a	Avent Ferry Road	GB Alford Highway	W Pine Avenue	Center Turn Lane	0.22
A510	Cass Holt Road	Chatham County Line	Sweet Springs Road	Center Turn Lane	1.41
A538	Bass Lake Road	Holly Springs Road	Town Limits	Center Turn Lane	2.26
A734	Rouse Road	Cass Holt Road	Piney Grove Wilbon Road	Center Turn Lane	1.58
302	W Earp Street	Burt Street	Raleigh Street	Center Turn Lane	0.42
303	Stephenson Road	Sunset Lake Road	Town Limits	Center Turn Lane	0.11
303	Stephenson Road	Sunset Lake Road	Town Limits	Center Turn Lane	0.11
304	Lassiter Road	Current Terminus	Sunset Lake Road	Center Turn Lane	0.16
505	Harvestwood Drive	Lockley Road	Current Terminus	Center Turn Lane	0.24
506	Bartley Holleman Road	Chatham County Line	New Hill Holleman Road	Center Turn Lane	2.78
507	Irving Parkway	New Hill Road	Green Oaks Parkway	Center Turn Lane	0.49
508	Lockley Road	Sunset Lake Road	Holly Springs Road	Center Turn Lane	0.35
509	Lassiter Road	Holly Springs Road	Sunset Lake Road	Center Turn Lane	0.33
305	N. Main Street	Holly Springs Road	Rogers Street	Road Diet	0.44
306	Stinson Avenue	Grigsby Avenue	Bass Lake Road	Parking	0.77
307	Grigsby Avenue	Maple Avenue	Blooming Meadows Road	Parking	0.48

*IDs written in **black** are included in the CAMPO 2050 MTP; IDs written in **green** are not included in the CAMPO MTP

Center Turn Lane, Road Diet, & Parking Projects



Roadway Projects

Widening

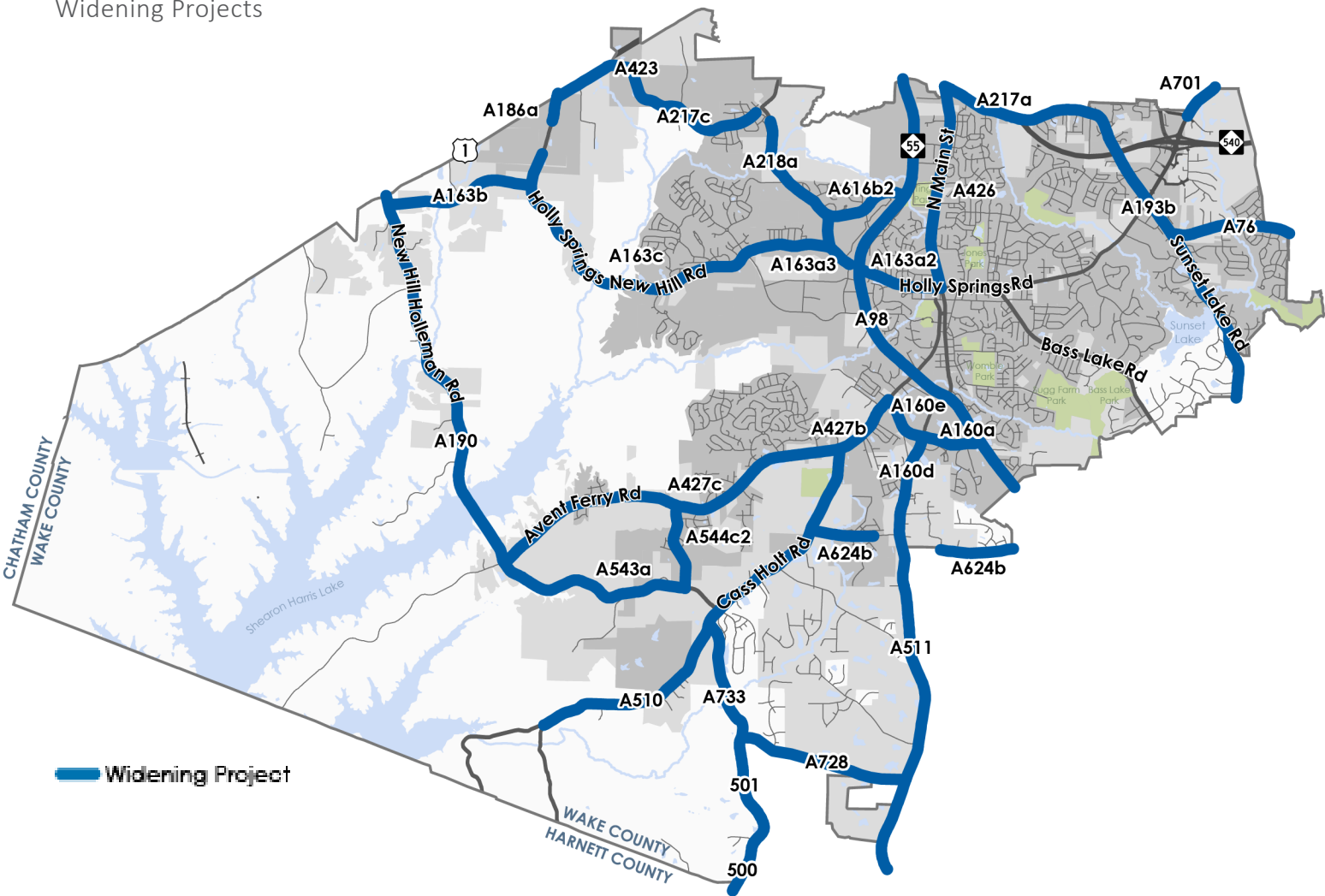
Widening projects are proposed to expand roadway capacity. In the CTP there are more than 65 widening projects throughout the study area.

Typically, widening projects may address higher volume of traffic along corridors that have high congestion. When roads are widened to

accommodate more vehicular traffic, it also presents an opportunity to add improvements for bicycles and pedestrians. Ensuring that roadway facilities are safe for all transportation users is essential to a holistic multimodal network.

The following map and accompanying table include future widening projects of the proposed network.

Widening Projects



ID*	Facility	From	To	Length (mi)
A76	Optimist Farm Road	Sunset Lake	Town Limits	1.18
A98	GB Alford Highway	Northern Town Limits	Southern Town Limits	4.73
A160a	Ralph Stephens Road	S. Main Street	GB Alford Highway	0.58
A160d	Piney Grove Wilbon Road	Brayton Park Place	Ralph Stephens Road	0.29
A160e	Ralph Stephens Road	Avent Ferry Road	S. Main Street	0.53
A163a2	W Holly Springs Road	GB Alford Highway	N. Main Street	0.83
A163a3	New Hill Road	Old Holly Springs Apex Road	Irving Parkway	0.25
A163b	Friendship Road	New Hill Holleman Road	Holly Springs New Hill Road	1.86
A163c	Holly Springs New Hill Road	Friendship Road	Old Holly Springs Apex Road	3.55
A186a	Friendship Road	New US 1 Interchange	US 1 Highway	0.28
A190	New Hill Holleman Road	Friendship Road	Avent Ferry Road	3.88
A193b	Sunset Lake Road	Optimist Farm Road	Town Limits	1.78
A217a	Sunset Lake Road	Optimist Farm Road	N. Main Street	2.95
A217c	Woods Creek Road	Woodfield Dead End Road	Old Holly Springs Apex Road	0.88
A218a	Old Holly Springs Apex Road	Old Holly Springs Apex Road Realignment	Holly Springs New Hill Road	1.49
A414b	Edwards Drive	Sunset Lake Road	Sunset Pointe Drive	0.08
A423	Woods Creek Road	Friendship Road	Woodfield Dead End Road	1.48
A426	N. Main Street	Sunset Lake Road	Holly Springs Road	2.02
A427b	Avent Ferry Road	Cass Holt Road	Ralph Stephens Road	0.68
A427c	Avent Ferry Road	New Hill Holleman Road	Cass Holt Road	3.69
A510	Cass Holt Road	Avent Ferry Road	Sweet Springs Road	4.31
A511	Piney Grove Wilbon Road	Brayton Park Place	Rail Road (RR)	4.14
A543a	Rex Road	New Landfill Drive	Buckhorn Duncan Road	0.83
A544c2	Buckhorn Duncan Road Ext	Avent Ferry Road	Rex Road	0.84
A616b2	Bennet Knoll Parkway	Old Holly Springs Apex Road	GB Alford Highway	0.81
A624b	Honeycutt Road	Cass Holt Road	Roanhigh Lane	0.62
A624b	Wade Nash Road	Town Limits	Basal Drive	0.55
A701	Holly Springs Road	Kildare Farm Road	Town Limits	0.39
A728	NC 751 Ext	Rex Road	Avent Ferry Road	1.13
A728	NC 751 Ext	Piney Grove Road	Buckhorn Duncan Road	1.67
A733	Buckhorn Duncan Road	Cass Holt Road	Burt Road	2.04
500	Buckhorn Duncan Road	NC 751 Ext	County Hollows Lane	0.53
501	Burt Road	Country Hollows Lane	Cass Holt Road	0.28

*IDs written in **black** are included in the CAMPO 2050 MTP; IDs written in **green** are not included in the CAMPO MTP
**Project listed primarily as Widening and includes Realignment recommendation.

Roadway Projects

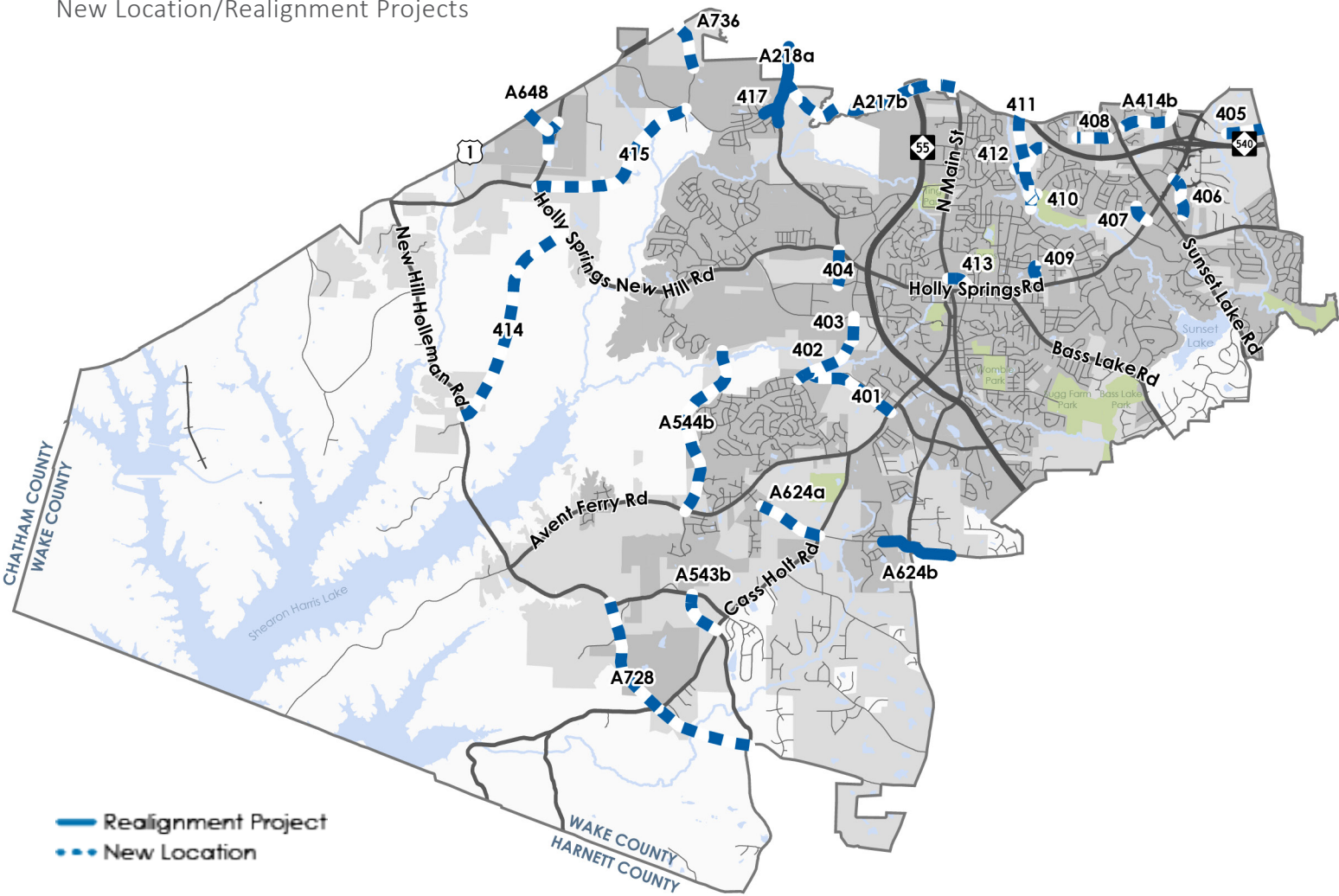
New Location/Realignment

In order to plan for the future, the Town must anticipate new connections to further enhance mobility. The new location and realignment projects can provide vehicular, pedestrian, and bicycle mobility options throughout the study area. New roadways act as linkages between heavily-traveled, existing corridors, providing additional north-south and east-west travel options through Town. The new corridors will provide alternative routes to developing areas, key destinations downtown, and greater connectivity between residential locations.

While realignment projects can bring these same benefits, they also aim to fix issues on existing roads by adjusting the alignment to improve safety or they are planned to create ideal ties into proposed new location roads.

The following map shows future new location and realignment projects of the proposed network.

New Location/Realignment Projects



ID*	Facility	From	To	Length (mi)
A217b	Old Smithfield Road Ext	Old Holly Springs Apex Road	N. Main Street	1.84
A218a	Old Holly Springs Apex Road**	NC 540	Old Holly Springs Apex Road	0.75
A414a	Kildaire Farm Road	Town Limits	Holly Springs Road	0.27
A414b	Edwards Drive Ext	Current Terminus	Kildaire Farm Road	0.52
A543b	Buckhorn Duncan Road Ext	Rex Road	Cass Holt Road	0.46
A544b	Avent Ferry Connector	Avent Ferry Road	Holly Springs New Hill Road	1.79
A624a	Honeycutt Road Ext	Cass Holt Road	Tigers Eye Way	0.63
A624b	Wade Nash Road/ Honeycutt Road Realignment	Roanhigh Lane	Sand Dune Way	0.70
A648	New Location Road	Friendship Road	Proposed US 1 Interchange	0.63
A728	NC 751 Ext	Buckhorn Duncan Road	Rex Road	2.14
A736	Woodfield Dead End Road	Woods Creek Road	Town Limits	0.94
401	Logging Road Ext	Avent Ferry Road	Evergreen View Drive Ext	0.90
402	Evergreen View Drive Ext	Current Terminus	Southern Access Road	0.60
403	Irving Parkway Ext	Green Oaks Parkway	Southern Access Road	0.23
404	Old Holly Springs Apex Road Ext	Holly Springs New Hill Road	Thomas Mill Road	0.34
405	Sancroft Drive Ext	Current Terminus	Pierce-Olive Road	0.35
406	Lassiter Road Ext	Holly Springs Road	Current Terminus	0.39
407	Harvestwood Drive	Current Terminus	Holly Springs Road	0.19
408	Edwards Drive Ext	Current Terminus	Heritage Meadows Lane	0.30
409	Flint Point Lane Ext	Current Terminus near Masden Road	Current Terminus near Landbridge Lane	0.12
410	Lockley Road Ext	Current Terminus	Creekvista Drive Terminus	0.17
411	New Connection	Lockley Road Ext	Sunset Lake Road	0.81
412	Anchor Creek Way Ext	Current Terminus	Terminus of Mystic Pine Place	0.36
413	Third Street Ext	N. Main Street	Holly Springs Road	0.26
414	New Location Road	New Hill Holleman Road	Holly Springs New Hill Road	2.12
415	Woodfield Dead End Road Ext	Holly Springs New Hill Road	Woods Creek Road	1.78
417	Woods Creek Road	Old Holly Springs Apex Road	Old Holly Springs Apex Road Realignment	0.15

*IDs written in **black** are included in the CAMPO 2050 MTP; IDs written in **green** are not included in the CAMPO MTP
**Project listed primarily as Realignment and includes Widening commendation.

Intersection Projects

Including improvements for intersections and interchanges is critical to the success of the future transportation network as they are the nodes of transfer between roadway connections. Needed improvements are most often identified due to safety concerns, operational deficiencies, and public experience and feedback.

The following table includes a list of suggested improvement types or treatments to alleviate

concerns at intersections or interchanges throughout the study area.

The project table on the following page lists the intersection projects recommended as part of the CTP. While the recommendation types for those intersections are sometimes specified, others remain as “intersection improvement” until further study can determine the best solution.

Standard Intersection Improvements

Improvement	Description
Driveway Consolidation	Curb cuts or driveways that are too close to an intersection should be consolidated or relocated to reduce the number of turning movements or potential crashes.
Improved Crossings	Danger to bicycles and pedestrians can be reduced by providing improved crossing facilities such as high-visibility, painted crosswalks, or median refuge islands. (See page 50 for Pedestrian Crossing Toolkit.)
Improve or Advance Signage	Providing advanced warning signs or installing reflective backplates on traffic signals can reduce crashes related to visibility issues.
Realignment	Roadways should be realigned to meet as close to a 90-degree angle as possible. This not only improves visibility but also the turning radius for larger vehicles or freight trucks.
Restricted Crossing U-Turn Intersection	A restricted crossing U-turn intersection (RCUT) intersection—also known as a super street intersection—restricts left-turn and through movements from the side street approach. The RCUT intersection can greatly improve the safety and efficiency of a roadway.
Roundabout	A Roundabout can reduce the number of serious crashes at intersections with many conflict points between vehicles and pedestrians while improving traffic flow in a circular movement.
Signalization	Some non-signalized intersections may be eligible for a traffic signal based on a signal warrant analysis. Signals may be warranted based on vehicular and pedestrian volumes or crash history.
Turn Lanes	The addition of turn lanes allows space for vehicles waiting to turn and reduces the risk of rear-end crashes.



Technology Spotlight

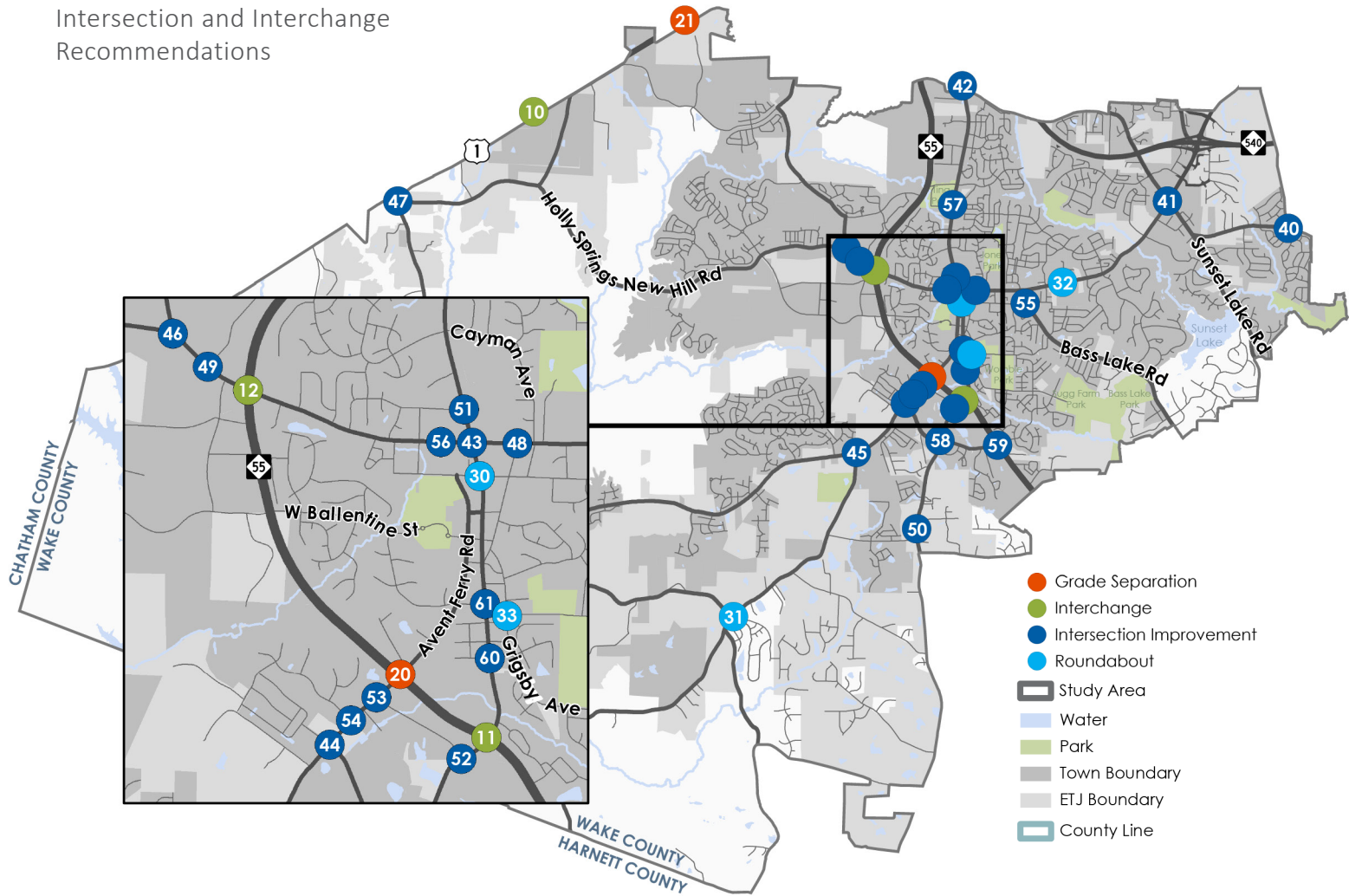
Emergency vehicle preemption (EVP) gives emergency response vehicles the green light upon approaching a signalized intersection while stopping opposing traffic with a red light. EVP prioritizes emergency vehicles to reduce the chance of a crash and decrease emergency response times.



ID	Recommendation	Cross-Street 1	Cross-Street 2	Cross-Street 3
10	Interchange	US 1	New Location Road	-
11	Interchange	NC 55	S. Main Street	-
12	Interchange	NC 55	New Hill Road	W Holly Springs Road
20	Grade Separation	NC 55	Avent Ferry Road	-
21	Grade Separation	US 1	Woodfield Dead End Road	-
30	Roundabout	N. Main Street	Earp Street	-
31	Roundabout	Cass Holt Road	Rex Road	-
32	Roundabout	Holly Springs Road	Cobble Point Way	-
33	Roundabout	Grigsby Avenue	Stinson Avenue	-
40	Intersection Improvement	Optimist Farm Road	Pierce Olive Road	-
41	Intersection Improvement	Holly Springs Road	Sunset Lake Road	-
42	Intersection Improvement	N. Main Street	Sunset Lake Road	-
43	Intersection Improvement	Holly Springs Road	N. Main Street	-
44	Intersection Improvement	Avent Ferry Road	Ralph Stephens Road	Paddock View Drive
45	Intersection Improvement	Avent Ferry Road	Cass Holt Road	Capeside Avenue
46	Intersection Improvement	New Hill Road	Old Holly Springs Apex Road	-
47	Intersection Improvement	New Hill Holleman Road	Friendship Road	-
48	Intersection Improvement	Holly Springs Road	Raleigh Street	-
49	Intersection Improvement	New Hill Road	Grand Hill Place	-
50	Intersection Improvement	Honeycutt Road	Wade Nash Road	Piney Grove Wilbon Road
51	Intersection Improvement	N. Main Street	Third Street	-
52	Intersection Improvement	S. Main Street	Village Walk Drive	-
53	Intersection Improvement	Avent Ferry Road	Village Walk Drive	-
54	Intersection Improvement	Avent Ferry Road	Trotter Bluffs Drive	-
55	Intersection Improvement	Bass Lake Road	Earp Street	-
56	Intersection Improvement	W Holly Springs Road	Dorothy Nixon Allen Manor Apartments Driveway	-
57	Intersection Improvement	N. Main Street	Steedmont Drive	-
58	Intersection Improvement	Ralph Stephens Road	S. Main Street	Piney Grove Wilbon Road
59	Intersection Improvement	NC 55	Ralph Stephens Road	Teal Lake Drive
60	Intersection Improvement	S. Main Street	Maple Avenue	-
61	Intersection Improvement	S. Main Street	Elm Avenue	-

Intersection Projects

Intersection and Interchange Recommendations



Hot Spot and Safety Studies

The Holly Springs CTP looked at specific locations where special attention was needed to understand the current conditions and future considerations. The locations were chosen because of existing safety concerns, anticipated development, and needed improvements. The following section includes a project sheet for each location. For the full details of the Hot Spot and Safety Studies, refer to Appendix H and I, respectfully.

Hot Spot Studies

There were four Hot Spot studies created for the CTP. At each location, an in-depth analysis was conducted to identify unique improvements to address concerns heard from the public and the Plan’s Steering Committee. The intersections are listed in the order they appear in the document:

- 1. NC 55 at W Holly Springs Road/New Hill Road
- 2. New Hill Road at Grand Hill Place and at Old Holly Springs Apex Road
- 3. Avent Ferry Road at Cass Holt Road/Capeside Avenue
- 4. N. Main Street at Third Street

Safety Studies

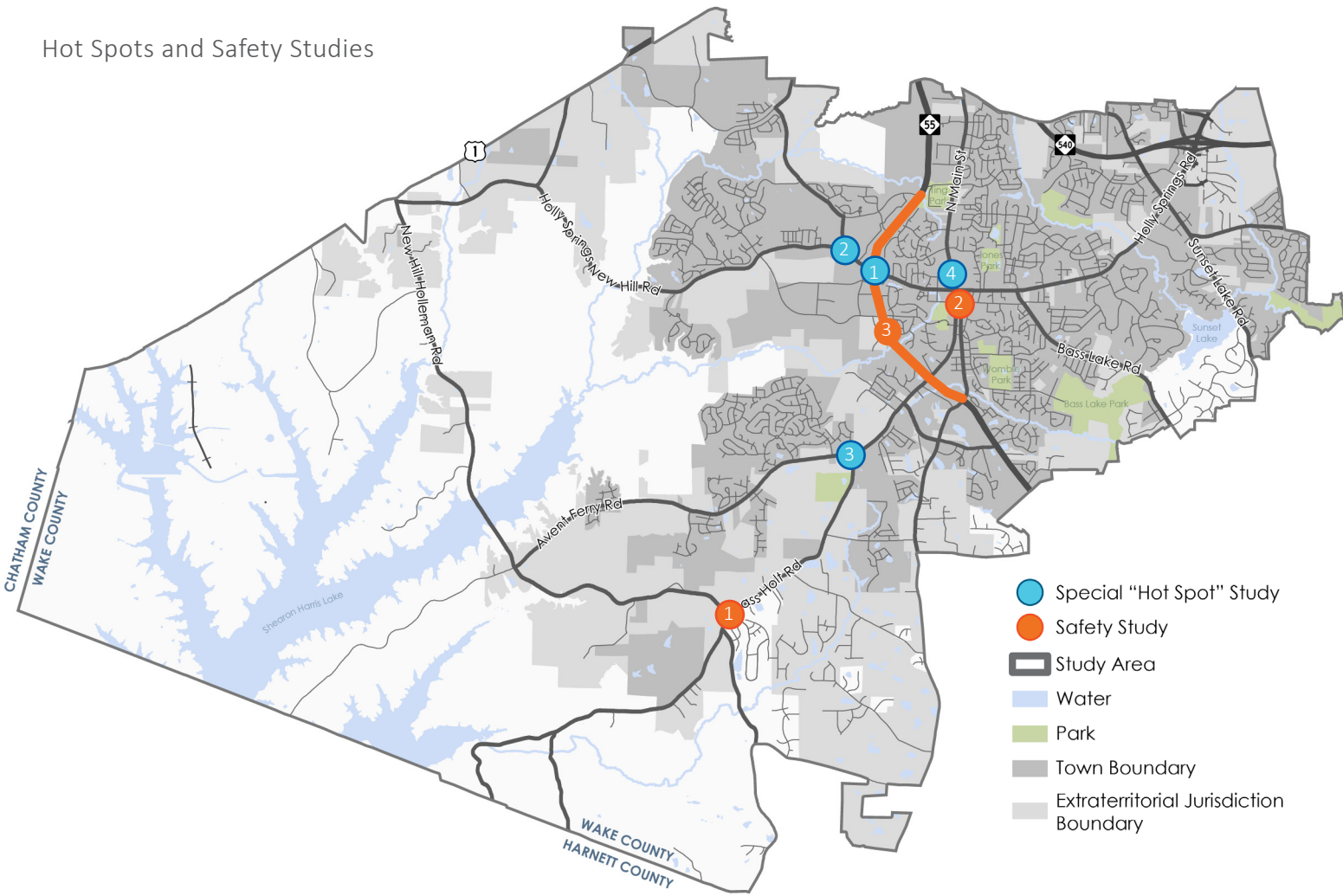
Potential locations of safety concern were first identified using NCDOT crash data and then narrowed to the three selected studies based on input from Town staff, stakeholders, and the public. The following locations are listed they appear in the document:

- 1. Cass Holt Road at Rex Road
- 2. N. Main Street at Earp Street
- 3. NC 55 from Bennet Knoll Parkway to Ralph Stephens Road/Teal Lake Drive

Map and Project Sheets

The figure on the following page shows the location of the Hot Spot and Safety Study locations. The following pages include project sheets for each of the identified locations. Each project sheets provides high-level information on the proposed improvement at each intersection identified by the map below.

Hot Spots and Safety Studies



NC 55 at W Holly Springs Road/New Hill Road

Existing Intersection Configuration

Configuration

The current configuration on NC 55 at W Holly Springs Road and New Hill Road is a traditional synchronized street with signals. This intersection is currently a type of Reduced Conflict Intersection and does not allow for left turns from New Hill Road or W Holly Springs Road.

In 2017, NCDOT drafted a potential interchange configuration for this intersection. A component of the CTP was to propose alternative interchange options for the northeast quadrant and compare potential impacts to the proposed NCDOT interchange.

Considerations

- NCDOT conceptual plans for square-loop intersection improvement
- On-going development near the intersection
- Congestion along W Holly Springs Road

Existing



NC 55 at Holly Springs Road/New Hill Road

Option #1

Improvements

- Tight Diamond Interchange
- Ramps east of NC 55
- Shift the ramp approximately 200 feet west of Earnie Lane

NCDOT Recommendation

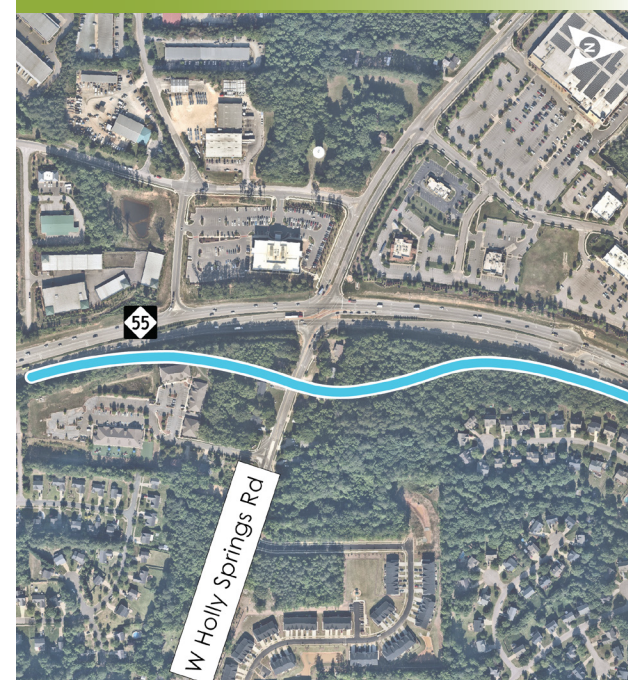
- Potential impacts to businesses south of W Holly Springs Road
- Fewer impacts than NCDOT alignment

Option #2

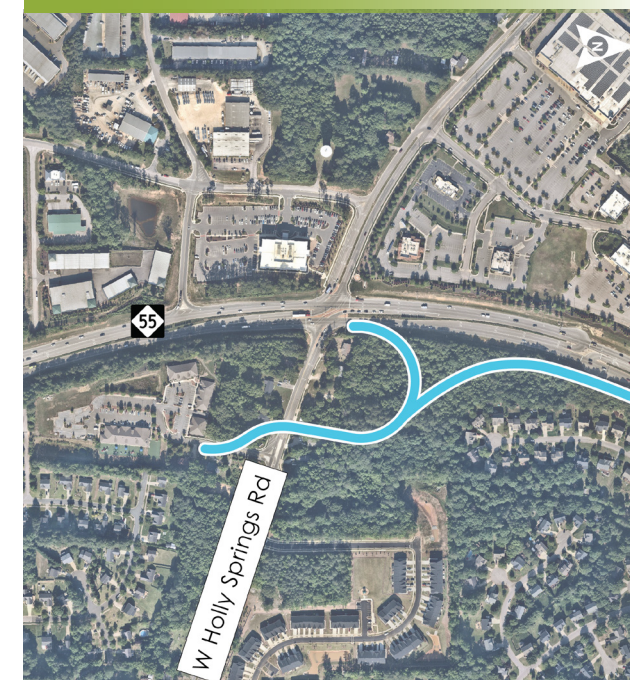
- Quarter Clover Interchange

- Potential impacts to parcel south of W Holly Springs Road
- Fewer impacts to parcels north of W Holly Springs Road
- Earnie Lane retains full access

Option #1



Option #2



The recommendations and designs on this page are conceptual only and not meant to be used for construction purposes. Further analysis and study is needed.

New Hill Road

Existing Intersection Configuration

Configuration

The current configuration at Grand Hill Place at New Hill Road is an unsignalized three-way intersection. At Old Holly Springs Apex Road at New Hill Road is a three-way intersection with a traffic signal.

Due to current and anticipated development, the existing configuration of these locations were flagged as safety concerns.

Considerations

- Existing three-way unsignalized intersection
- Concerns with safety
- Concerns with traffic turning off of Grand Hill Place

New Hill Road

At Grand Hill Place and Old Holly Springs Apex Road

Grand Hill Place

Near-Term Improvements

1. Add a traffic signal or limit cars from turning left onto New Hill Road

Long-Term Improvement

3. Reconfigure intersection to allow to turn left-in and right-in to Grand Hill Place and right-out only onto New Hill Road

Old Holly Springs Apex Road

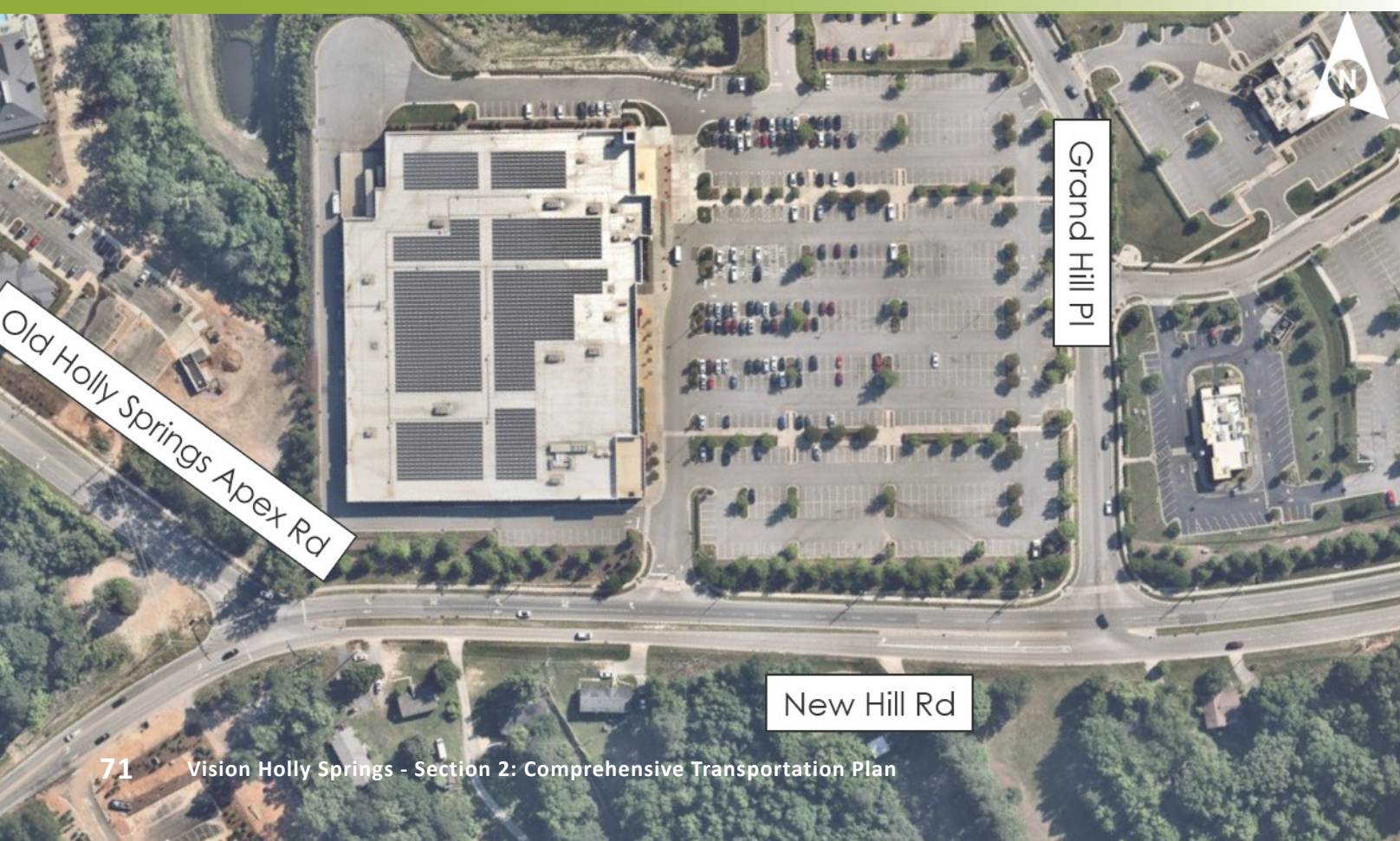
2. Allow for U-Turns on New Hill Road at Old Holly Springs Apex Road

4. Four-way intersection with a traffic signal

Estimated Cost: \$2,142,000

The recommendations and designs on this page are conceptual only and not meant to be used for construction purposes. Further analysis and study is needed.

Existing



Proposed



Avent Ferry Road at Cass Holt Road and Capeside Avenue

Configuration

This intersection is currently a four-way offset intersection with a traffic signal at Avent Ferry Road and Cass Holt Road and a stop sign on Capeside Avenue.

Considerations

- High congestion because of the nearby schools
- Offset intersection design can cause safety issues

Improvements

Near-Term

1. Only allow cars to turn right into and out of Capeside Avenue

Long-Term

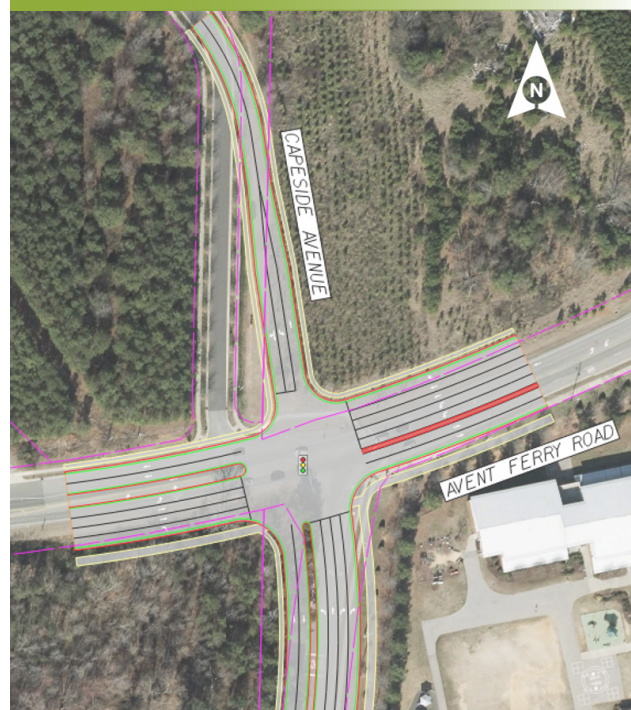
2. Realign either Capeside Avenue or Cass Holt Road to create a traditional, four-way intersection with a traffic signal

Estimated Cost: \$1,341,000

Existing



Proposed (Long-Term)



N. Main Street at Third Street

Configuration

The current intersection at N. Main Street and Third Street is a T-intersection where the roads meet. Third Street has a stop sign to turn onto N. Main Street.

Considerations

- Maintain Post Office access
- Potential connection to Raleigh Street
- Spacing of intersection on N. Main Street and impacts to traffic

Estimated Cost: \$10,000

Improvements

Near-Term

1. Convert to allow cars to turn left-in and right-in to Third Street and right-out onto N. Main Street
2. Convert to allow cars to turn left-in and right-in to Raleigh Street and right-out onto Holly Springs Road

Long-Term

3. Study the potential for a roundabout on N. Main Street, north of Third Street

Proposed (Near-Term)



The recommendations and designs on this page are conceptual only and not meant to be used for construction purposes. Further analysis and study is needed.

Cass Holt Road at Rex Road

Configuration

The location intersection is currently a four-way intersection with stop signs on both sides of Rex Road. There are no bicycle or pedestrian facilities.

Considerations

This intersection is identified by NCDOT as a high-severity crash location.

Improvements

Near-Term

- Remove sign obstructions (for example, by trimming trees)
- Add 'Intersection Ahead' signs
- Add stop sign and stop bar enhancements
- Add rumble strips or pavement markings

Long-Term

- Improve the visibility of the intersection
- Consider a single-lane roundabout

N. Main Street at Earp Street

Configuration

N. Main Street at Earp Street is currently a four-way intersection with stop signs on both sides of Earp Street. This intersection has provisions for pedestrians with both sidewalks and crosswalks.

Considerations

This intersection was identified as having high frontal impact crashes and an increase in crashes from 2018 to 2019.

Improvements

Near-Term

- Remove sign obstructions (for example, by trimming trees)
- Add 'Intersection Ahead' signs
- Add stop sign and stop bar enhancements
- Add rumble strips or pavement markings
- Evaluate reducing speed limit to 25 miles per hour

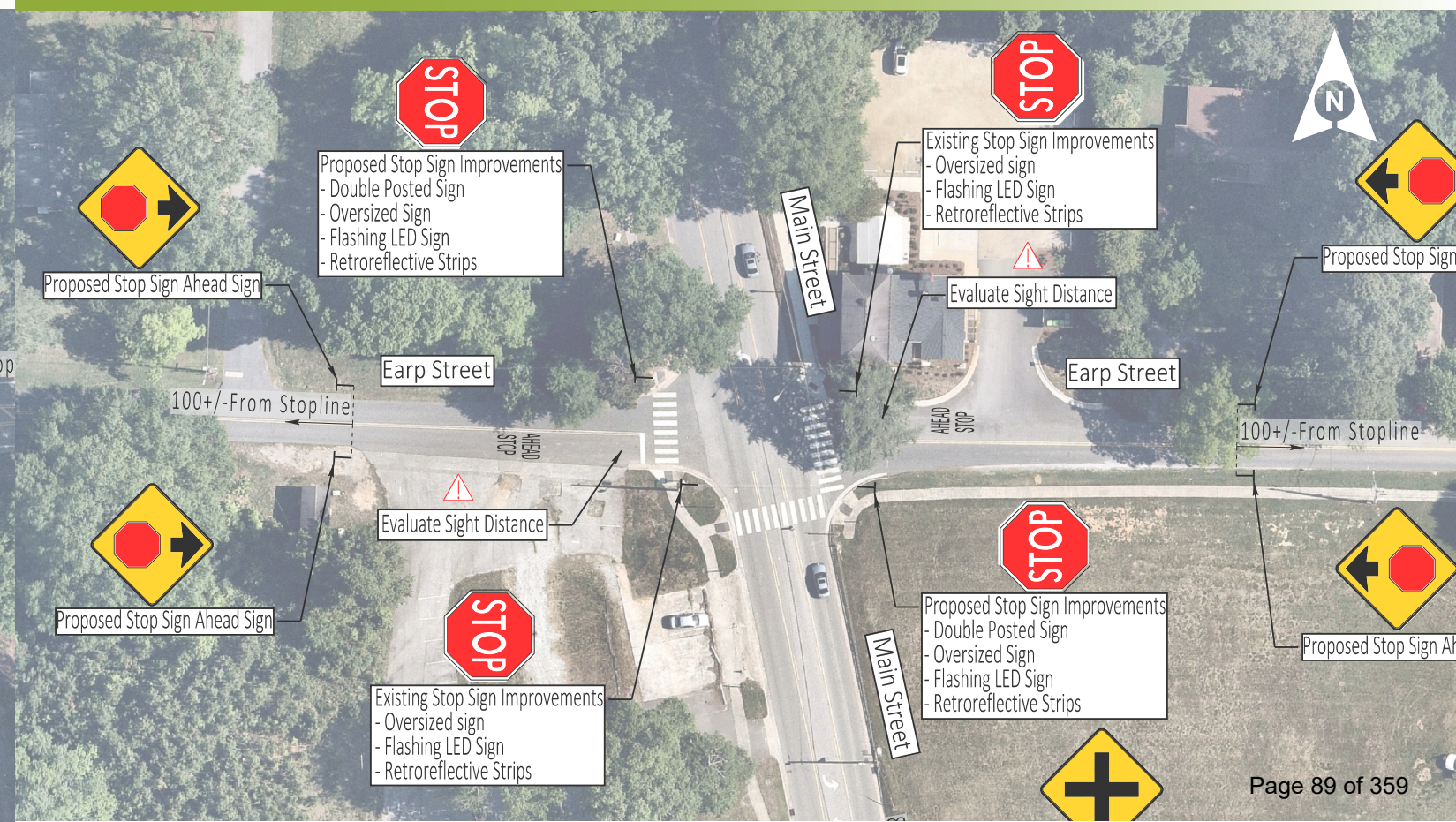
Long-Term

- Consider a single-lane roundabout

Proposed (Near-Term)



Proposed (Near-Term)



NC 55

From Bennet Knoll Parkway to Ralph Stephens Road/Teal Lake Drive

Configuration

This segment of NC 55 is about three miles long. It's a four-lane median divided roadway and operates as a synchronized street, type of Reduced Conflict Intersection, meaning it provides U-Turn options in place of conventional intersections.

Considerations

This segment of NC 55 and was chosen to be a Safety Study because the public identified NC 55 as a safety issue for pedestrians, particularly when trying to cross the road.

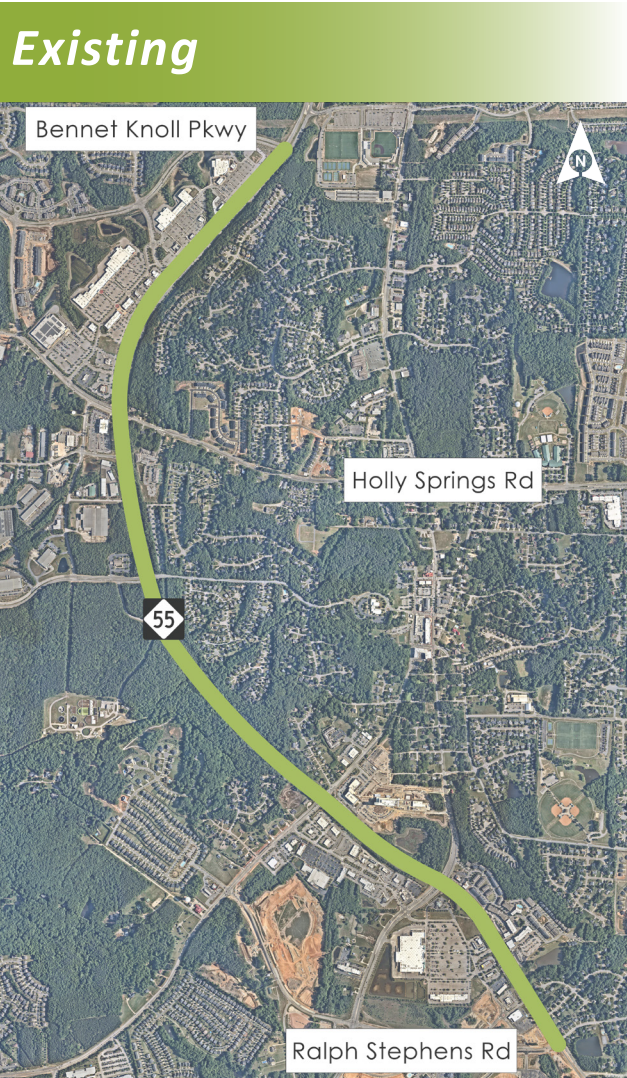
Best Practices

Near-Term

- Add high-visibility crosswalks
- Add set-back stop bars in slip lanes
- Add pedestrian crossing signs
- Prohibit cars from turning right on red

Long-Term

- Monitor need for pedestrian facilities
- Add pedestrian refuge island
- Add pedestrian accommodations such as crosswalks, push-buttons, and signals



Commitment to Safety

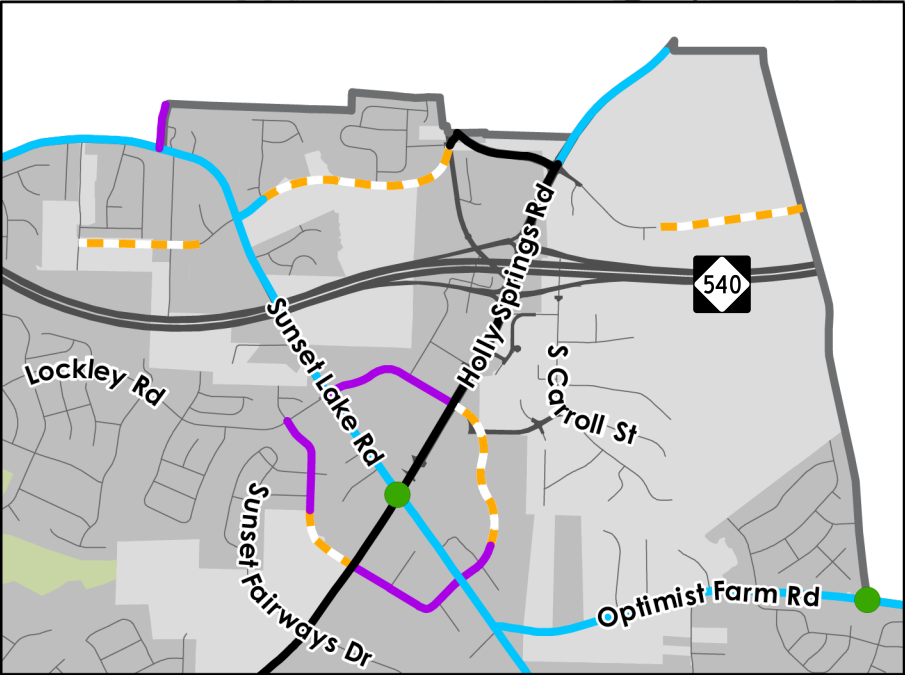
The Hot Spot and Safety Studies highlight a commitment to improving facilities for all users throughout Holly Springs. The Town will continue to commit resources to enhance safety for residents and visitors alike. For more information on pedestrian safety and improvements, refer to the Pedestrian Crossing toolkit on page 50 and Appendix I.



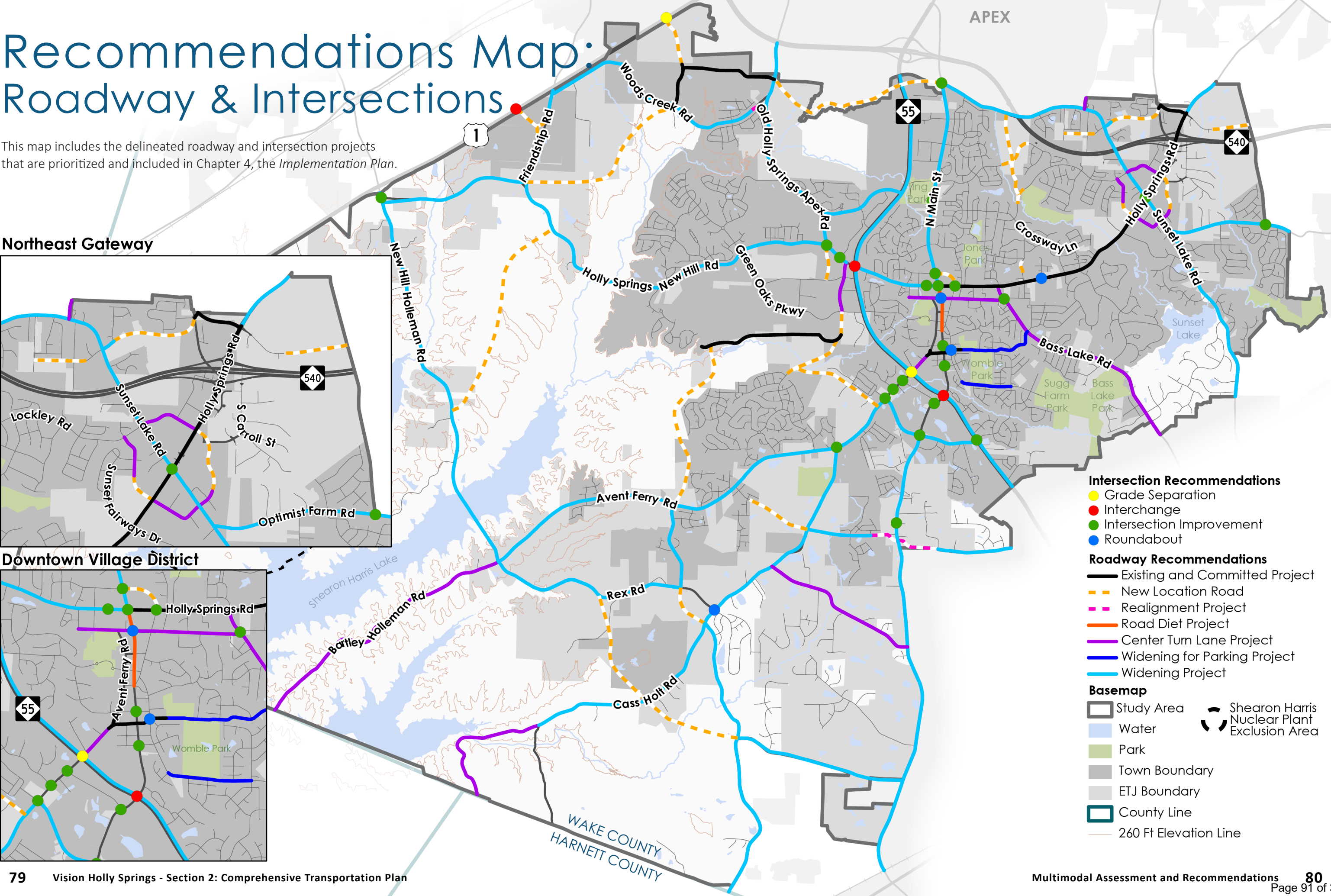
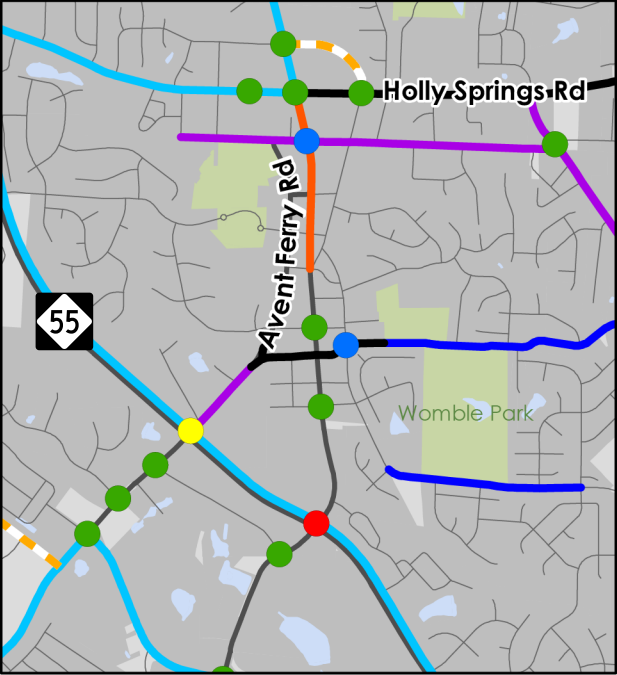
Recommendations Map: Roadway & Intersections

This map includes the delineated roadway and intersection projects that are prioritized and included in Chapter 4, the *Implementation Plan*.

Northeast Gateway



Downtown Village District



Intersection Recommendations

- Grade Separation
- Interchange
- Intersection Improvement
- Roundabout

Roadway Recommendations

- Existing and Committed Project
- New Location Road
- Realignment Project
- Road Diet Project
- Center Turn Lane Project
- Widening for Parking Project
- Widening Project

Basemap

- Study Area
- Water
- Park
- Town Boundary
- ETJ Boundary
- County Line
- 260 Ft Elevation Line
- Shearon Harris Nuclear Plant Exclusion Area

IMPLEMENTATION PLAN

WHAT'S INSIDE

Introduction

The introduction sets the stage for the implementation plan.

Funding Opportunities

This section highlights funding opportunities and structures that projects within the CTP may be able to leverage.

Project Prioritization

The content under this heading reflects the technical evaluation that was performed to evaluate projects and establish priorities.

Performance Measurement

This section sets the stage for the Town to track and report performance towards achieving the established vision and goals.

Introduction

A plan is only valuable if it facilitates implementation. The Holly Springs CTP outlines a framework of projects, policies, and next steps to assist elected leadership and Town staff with tools to advance mobility solutions for the good of the Holly Springs community. The success of the Holly Springs CTP hinges on the collaborative efforts of local, regional, and statewide agencies and partners to implement the projects and policies moving forward. One of the keys to implementation will be securing funding for the projects that are identified in the CTP by understanding the following:



Realistic Funding

Understanding funding options is a critical component of the CTP process. Holly Springs currently funds its transportation projects using various federal, state, and local sources. In addition to these more traditional sources, the Town leverages general obligation bonds, development standards, and private and developer contributions.



State and Regional Partnership Opportunities

Not all recommendations identified in the CTP will be the sole responsibility of the Town. For most recommendations, NCDOT will be the lead agency. It will be the Town's responsibility to work in close coordination with the Capital Area Metropolitan Planning Organization (CAMPO) to ensure that needs are reflected in the region's Metropolitan Transportation Plan (MTP), and as appropriate, submitted to the State for prioritization and inclusion in the Statewide Transportation Improvement Program (STIP).



Private Contributions

Developer contributions to the funding, construction, and implementation of transportation infrastructure are a large part of the Town's ability to remain a vibrant and growing community. By applying tools such as the Comprehensive Plan, the Unified Development Ordinance, and the Traffic Assessment requirements, the Town is able to clearly communicate with developers and identify improvements needed to accommodate new or infill growth while protecting the mobility of current residents and workers. When new developments are proposed in the Town, all efforts should be made to ensure that those new developments are consistent with the transportation recommendations from this plan and other transportation planning efforts.



Policy Changes

Policy recommendations, in conjunction with project recommendations, have been identified throughout the CTP. While many projects are funded through capital investments, policy recommendations may be implemented at little or no cost by the Town and have a large impact on the transportation network. Policy recommendations shape the future of the Town by contributing to the development of a multimodal network via development standards, encouraging new travel behavior through partnerships with local businesses and transit providers, and increasing operational efficiency by strategically deploying new technologies.

Funding Opportunities

Regional Partnership Projects

The majority of funding for transportation projects comes from NCDOT. To allocate funds, NCDOT has created a process that considers multimodal projects based on their impact.

The process NCDOT uses is called the Strategic Mobility Formula. This methodology allows NCDOT to allocate funds under the Strategic Transportation Investments (STI) law. The Strategic Prioritization Process (SPOT) is the methodology that NCDOT uses to develop the State Transportation Improvement Program (STIP). The process involves scoring all projects on a number of criteria and through three funding categories to address local, regional, and state needs.

Statewide Mobility

Statewide Mobility accounts for 40% of available funding. In this category, projects are scored solely on quantitative metrics.

Regional Impact

The Regional Impact accounts for 30% of available funding. The Regional Impact is scored similar to Division Needs except that quantitative data makes up 70% and local preference makes up 30% of the total project score.

Holly Springs is a part of Region C, which is made up of Divisions 5 and 6.

Division Needs

The Division Needs accounts for 30% of available funding. Projects are scored based on data and local preference. The quantitative and qualitative components are scored equally, each accounting for 50% of the total Division Needs score.

The projects identified in the Holly Springs CTP will compete with other Division 5 projects. The Division includes Wake, Durham, Franklin, Warren, Vance, Granville, and Person Counties. The majority of the Town's projects fall into this category.

While many major projects will be lead by NCDOT, it is the responsibility of the Town to use the CTP to inform development requirements for infrastructure improvements to the network, as well as anticipated right-of-way needs. It is also the responsibility of the Town to use this document to advocate for priority projects to CAMPO and NCDOT to ensure the needs are reflected in the region's MTP, and as appropriate, submitted to the State for prioritization and inclusion in the STIP.

Bond or Community Investment Program

In addition to leveraging federal and state funding, the Town has seen success with the \$40 million transportation bond referendum approved by voters in the Town in 2018. Bonds and the Community

Investment Program are a great starting point for small- to mid-size projects, as well as providing matching funds to leverage larger state and federal funding sources.

Development Driven Projects

Development should be supportive of transportation and mobility solutions outlined in the CTP. This requires careful consideration of right-of-way expectations to ensure the site can accommodate the proposed cross-section of the corridor, construction of the proposed corridor improvements, connections to the development itself, and support for affected critical connections and intersection improvements.

Many of the neighborhood connectors identified in this plan can and should be completed as a part of both new and re-development projects. The

importance of these links is the connection between point A and point B, rather than a specific alignment. The Town can work with independent developers on the path that is beneficial to both the incoming developments and the Town's desire for a more connected and complete network. While not all opportunities for neighborhood connectors are prioritized projects in this CTP, potential connections are shown on the *Cross-Section Map* on page 131 shown in the legend as *New Location LC-2A*.

Project Development

The majority of recommendations in the CTP will need to undergo further evaluation prior to implementation. The success of the Holly Springs CTP hinges on the ability of local, regional, and state stakeholders to collaborate on projects that will address the needs of the community. This plan acts as a guidebook for achieving the stated goals through incremental, but strategic actions.

Identify the Needs

- Comprehensive Transportation Plan

1

Identify Specific Solution(s)

- Planning studies, preliminary engineering, and environmental review

2

Develop Design and Specifications

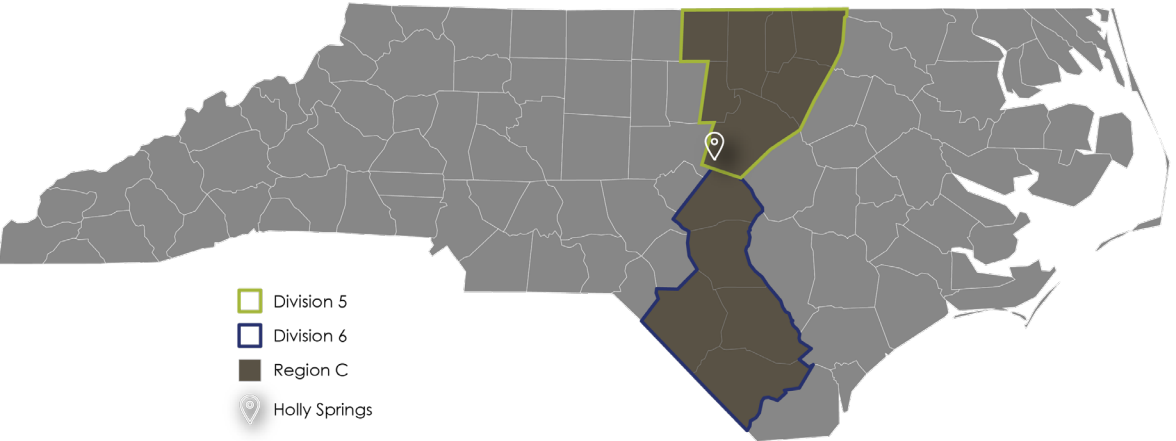
- Survey, final design drawings

3

Deliver Project

- Construction

4



Project Prioritization

Project Evaluation

Recognizing that our needs for enhanced transportation mobility often exceed the funding available to address them, it is of utmost importance to evaluate and identify the most effective projects for advancement. To assist the Town with identifying how best to advocate for and allocate future funding, the Holly Springs CTP includes a prioritization framework for roadway projects, including both quantitative and qualitative metrics, that will help guide the selection of projects that best advance the CTP's vision and goals.

The metrics used were defined using feedback received from Town staff, the Steering Committee, and members of the public. Special consideration was given to incorporate the criteria considered at the regional and statewide levels and to ensure alignment with the competitive scoring processes completed as part of the STIP and Locally Administered Projects Program (LAPP) process.

Criteria Weighting

Once prioritization metrics were identified, weighting values were determined for each of the metrics. These weighting values were based on input from the public, stakeholders, and Steering Committee as well as regional and state funding considerations.

Cost Estimates

Planning level cost estimates were prepared for each of the projects using per-mile constructions costs and cost contingencies for mobilization, engineering, right-of-way, and utilities. These estimations are intended to be high-level, order-of-magnitude estimates to be used for planning and prioritization purposes only. For each of the projects, further evaluation is needed to better-define the extent of the scope and costs. All planning-level costs provided for roadway recommendations are intended to represent present (year 2022) pricing and costs.

The following pages highlight the evaluation measures, corresponding weights, and the resultant near term projects from the data driven process. Detailed prioritization results and cost estimates can be found in Appendix J.

Environmental Justice

Environmental Justice (EJ) is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. This means that historically disadvantaged groups should not be disproportionately impacted by any resulting negative effects of a project included in this CTP. As a part of this process, demographic data within a quarter mile of each project was collected and scored to understand potential impacts to various demographic groups. While the scores indicate which projects may have more EJ considerations than others, this analysis is only meant to serve as a brief overview; an EJ assessment will ultimately need to be conducted during the project development phase of a project to fully understand the scope of impacts. This analysis is included in Appendix K of this document.

Project Evaluation Metrics, Weights, and Goal Relationships

Criteria	Weight	Measure	STI/SPOT	LAPP	CTP Goal
Congestion	10%	Existing V/C and V/C Reduction	✓	✓	
Safety	16%	Planning Level Safety Score	✓	✓	
Freight	4%	Existing and Proposed Freight Routes	✓		
Economic Development	10%	Future Land Use Map Character Types			
ITS Element	6%	Proposed ITS Improvements			
Bike/Ped	12%	Proposed Bike/Ped Improvements			
Transit	12%	Existing and Proposed Transit Routes			
Accessibility	8%	TAZ Population and Employment Data	✓		
Connectivity	14%	Access to Points of Interest			
Benefit-Cost	8%	Prioritization Score/ Cost	✓	✓	

 Safe

 Connected

 Accessible

 Multimodal

 Efficient

 Adaptive

 Economic Development

 Integrated Planning

 Realistic

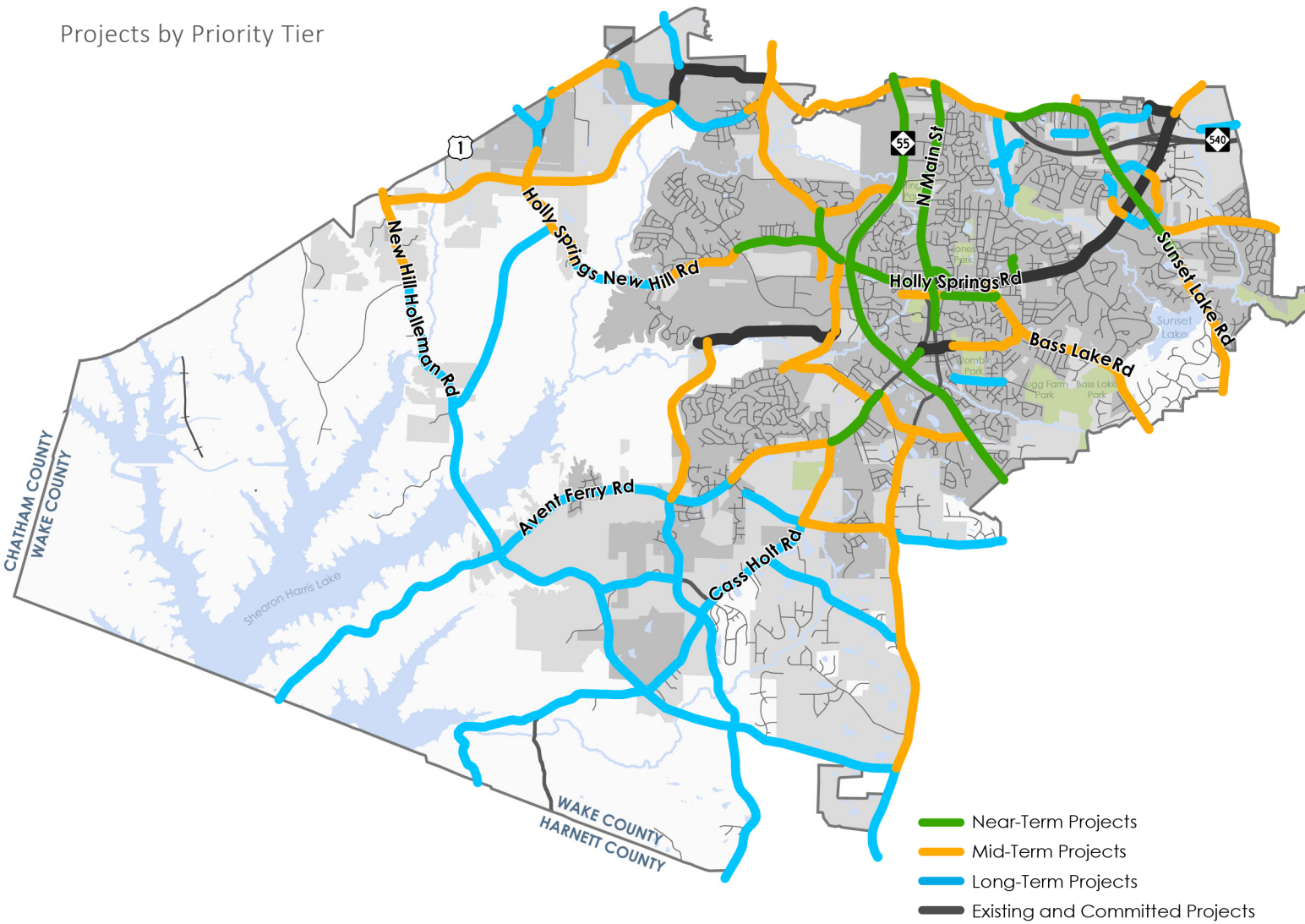
Near Term Projects

ID	Facility	From	To	Length (Mi)	Recommendation Type	Potential Funding Source/ Lead Agency*
A98	GB Alford Highway	Town Limits	Bennet Knoll Parkway	1.16	Widening/ Mobility	NCDOT
A98	GB Alford Highway	Bennet Knoll Parkway	New Hill Road/ Holly Springs Road	0.87	Widening	NCDOT
A98	GB Alford Highway	New Hill Road/ Holly Springs Road	Avent Ferry Road	1.21	Widening	NCDOT
A98	GB Alford Highway	Avent Ferry Road	S. Main Street	0.39	Widening/ Mobility	NCDOT
A98	GB Alford Highway	S. Main Street	Town Limits	1.11	Widening/ Mobility	NCDOT
A426	N. Main Street	Sunset Lake Road	Sportsmanship Way	1.00	Widening/ Mobility	NCDOT
A426	N. Main Street	Sportsmanship Way	Holly Springs Road	1.03	Widening/ Mobility	NCDOT
305	N. Main Street	Holly Springs Road	Rogers Street	0.44	Road Diet/ Mobility	ToHS Bond or LAPP Candidate/ToHS
A217a	Sunset Lake Road	Stephenson Road	NC 540	0.67	Widening/ Mobility	NCDOT
A217a	Sunset Lake Road	Holly Springs Road	Stephenson Road	1.07	Widening/ Mobility	NCDOT
A217a	Sunset Lake Road	Optimist Farm Road	Holly Springs Road	0.40	Widening/ Mobility	NCDOT
A193b	Sunset Lake Road	Optimist Farm Road	Sunset Fairway Drive	0.31	Widening/ Mobility	NCDOT
A427a	Avent Ferry Road	GB Alford Highway	W Pine Avenue	0.22	Center Turn Lane/Mobility	ToHS Bond or LAPP Candidate/ToHS
A427b	Avent Ferry Road	Cass Holt Road	Ralph Stephens Road	0.68	Widening/ Mobility	NCDOT/ToHS
A163a2	W Holly Springs Road	NC 55	N. Main Street	0.83	Widening/ Mobility	NCDOT and ToHS Partnership Project
A163a3	New Hill Road	Old Holly Springs Apex Road	Irving Parkway	0.25	Widening/ Mobility	General Fund or LAPP Candidate/ ToHS
A163c	Holly Springs New Hill Road	Green Oaks Parkway	Old Holly Springs Apex Road	0.85	Widening/ Mobility	Bond or LAPP Candidate/ToHS
A218a	Old Holly Springs Apex Road	Bennet Knoll Parkway	Holly Springs New Hill Road	0.32	Widening/ Mobility	General Fund or LAPP Candidate/ ToHS
301	Earp Street	Raleigh Street	Bass Lake Road	0.51	Center Turn Lane/Mobility	ToHS Bond or LAPP Candidate/ToHS
413	Third Street Extension	N. Main Street	Holly Springs Road	0.26	New Location	ToHS Bond or LAPP Candidate/ToHS
409	Flint Point Lane Extension	Current Terminus near Masden Road	Current Terminus near Landbridge Lane	0.12	New Location	General Fund or LAPP Candidate/ ToHS

*ToHS: Town of Holly Springs

Project Evaluation and Selection

The vision and goals established as a part of the CTP shall be the starting point for prioritizing all capital improvement projects. Project selection shall remain a data-driven process with a firm focus on continuous improvement and monitoring. The framework developed as a part of the CTP allows the Town to pick projects that have the most positive impact and set budgetary priorities.



Intersection Project Prioritization

In addition to the roadway projects, the intersection recommendations went through a similar—though not exact—prioritization process to determine near-, mid-, and long-term improvement opportunities for the Town.

First, Hot Spot and Safety Studies were identified as priorities for the near term to leverage the analysis and work that has been completed in the CTP. Then projects that already have or are likely to receive funding through an existing STIP or Bond project were also added to the near-term priority pool. Finally, the remaining projects went through a prioritization process using the criteria and measures detailed in the table below.

Once scores for each project were calculated, the intersections were grouped into three priority tiers as shown on the map on the following page. It's important to note that intersection projects are closely tied to roadway improvements. While the tiers represent a data-driven process intended to reflect community priorities, the Town should remain opportunistic in coordinating and improving intersection projects in tandem with roadway projects as they are funded.

The list of near-term projects is included on the next page. For more details and a list of all projects, see Appendix J.

Project Evaluation Metrics, Weights, and Goal Relationships

Criteria	Weight	Measure	CTP Goal
Safety	40%	NCDOT Planning Level Intersection Crash Data 2015-2019	
Freight	5%	Triangle Regional Freight Plan	
ITS Element	5%	CTP Proposed Projects	
Bike/Ped	25%	CTP Proposed Projects	
Connectivity	15%	Affordable Housing, Medical Facilities, Grocery Stores, Institutions, School, Parks, Employment and Retail	
Public Opinion	10%	Public outreach	

Safe

Connected

Accessible

Adaptive

Multimodal

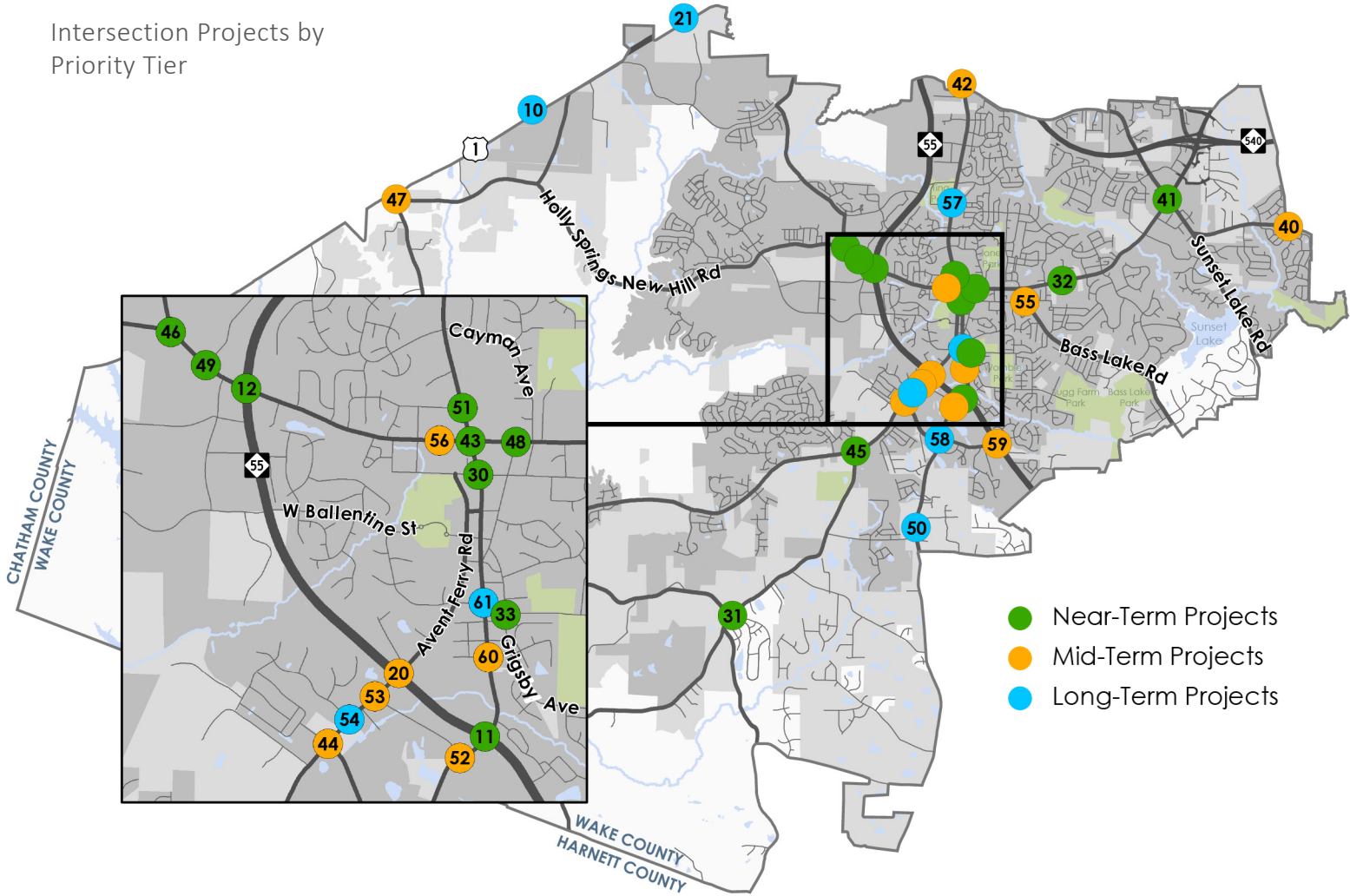
Efficient

Integrated Planning

Realistic

Economic Development

Intersection Projects by Priority Tier



Near Term Projects

ID	Location 1	Location 2	Location 3	Recommendation Type	Hot Spot/ Safety Study	2018 Bond Project
12	NC 55	New Hill Road	W Holly Springs Road	Interchange	✓	
41	Holly Springs Road	Sunset Lake Road		Intersection Improvement		
43	Holly Springs Road	N. Main Street		Intersection Improvement		✓
11	NC 55	S. Main Street		Interchange	✓	
45	Avent Ferry Road	Cass Holt Road	Capeside Avenue	Intersection Improvement	✓	
48	Holly Springs Road	Raleigh Street		Intersection Improvement	✓	
31	Cass Holt Road	Rex Road		Roundabout	✓	
46	New Hill Road	Old Holly Springs Apex Road		Intersection Improvement	✓	
49	New Hill Road	Grand Hill Place		Intersection Improvement	✓	
30	N. Main Street	Earp Street		Roundabout	✓	
32	Holly Springs Road	Cobble Point Way		Roundabout		✓
51	N. Main Street	Third Street		Intersection Improvement	✓	
33	Grigsby Avenue	Stinson Avenue		Roundabout		✓

Staying Accountable

Implementing the actions identified as part of the Holly Springs CTP will take coordination and commitment across Town departments and external agencies. It also includes an understanding of how the Town will know whether the projects and policies are helping to achieve the vision of the CTP. Establishing a performance measuring program for key goals ensures these actions are tied directly to the outcomes desired by Town leaders, stakeholders, and members of the community.

This approach offers the Town a methodology to routinely track and report the results of transportation investments and policies and use that information to make more informed decisions in the future. Ongoing data collection, evaluation, and reporting can build support for further investments with the public by increasing their understanding of various approaches and what works within different contextual constraints and conditions. In the early years of performance measurement, while the Town works to build datasets and train staff, reporting can be mostly qualitative and narrative in nature. This will allow for capacity building and elected leader awareness prior to the implementation of a more robust system.



Better Informed Decisions

Less money is wasted on things that are not proven to work. A dedicated data-driven approach provides enhanced understanding of system performance and which strategies have been effective, allowing for informed adjustments to projects, programs, and policies based on results.



Transparency

Reporting performance provides justification for programming and projects that work, allowing a better use of limited resources and allowing decision makers and the public to see where funding is going, why, and how it's performing.



Better Investments

Armed with on-going performance data and reporting the Town can demonstrate the long-term cost savings of quality infrastructure investments and highlight how this can prevent high-cost repairs in the future. The Town can determine whether objectives have been met through target attainment and support reexamination and refinement of the objectives and targets based on the results.

Performance Measures

Examples of potential qualitative and quantitative performance measures the Town can track are shown below for each goal.

Safe

- Record the types of traffic calming measures implemented along high-volume roads.
- Report on potholes filled on roads throughout the Town.
- Report on crash frequency and severity along Town-maintained roadways.



Connected

- Implement Phase 1 of the proposed transit service approach.
- Report on connected sidewalk gaps.



Accessible

- Report on new bicycle or bicycle supporting facilities.
- Develop a community engagement plan.



Multimodal

- Record visibility upgrades made to existing crosswalks.
- Adopt a complete streets policy.
- Report on ridership data for transit routes within the Town.



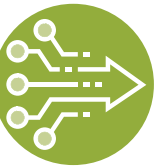
Efficient

- Identify the types of road reconfigurations and intersection improvement projects constructed along corridors.
- Document new emergency vehicle preemption technology integrated into traffic signals.



Adaptive

- Report on technology implemented to support parking and curbside management in the downtown area.
- Deploy a transit system app that supports Phase 1 and future transit operations.



Economic Development

- Announce new developments and any associated transportation improvements.



Integrated Planning

- Document public-private partnerships that result in transportation focused improvements.
- Revisit the CTP in 5 years to reevaluate goals and recommendations.



Realistic

- Detail the amount of money available through the bond.
- Report on grant or funding opportunities pursued.



THE NETWORK VISUALIZED

WHAT’S INSIDE

Introduction

The introduction sets the stage for this multi-part chapter by describing its structure.

5.1 Cross-Sections

This section walks through the roadway cross-sections.

5.2 Streetscape Design Guide

This subchapter contains the design guide for streetscaping in Holly Springs.

Introduction

This chapter is essential to project implementation because it communicates what the Town's roadways should look like. It does so in two parts: Cross-Sections and the Streetscape Design Guide. Chapter 5.1 details roadway cross-sections which identify what roadway elements a given street should have. This includes the number and width of lanes, bicycle and pedestrian facilities, and curb and gutter information among other details. Chapter 5.2 takes the cross-sections a step further by adding the streetscaping components that roads should include such as planting types, lighting, and needed furnishings to complete the public space.



5.1

WHAT'S INSIDE

This final section discusses roadway access control through proposed median break locations.

Roadway cross-sections are a vital component to a CTP because they determine the ultimate build-out of a project. This chapter culminates in defined cross-sections by first walking through street hierarchy and how the CTP creates classifications for all roadways in Town. The next section of the chapter describes the relationship between land use and transportation by tying into *Vision Holly Springs* and the Future Land Use Map. These two sections are vital components to creating cross-sections that fit the contexts of the surrounding area. After the cross-sections are detailed in their section, the chapter ends with the Median Breaks section which identifies potential locations in Town for vehicle access considerations.



Roadway Classifications

The two primary demands of any roadway network are to provide access while offering mobility options. These can be in competition with one another and therefore, provide challenges when attempting to balance the needs of an entire transportation network.

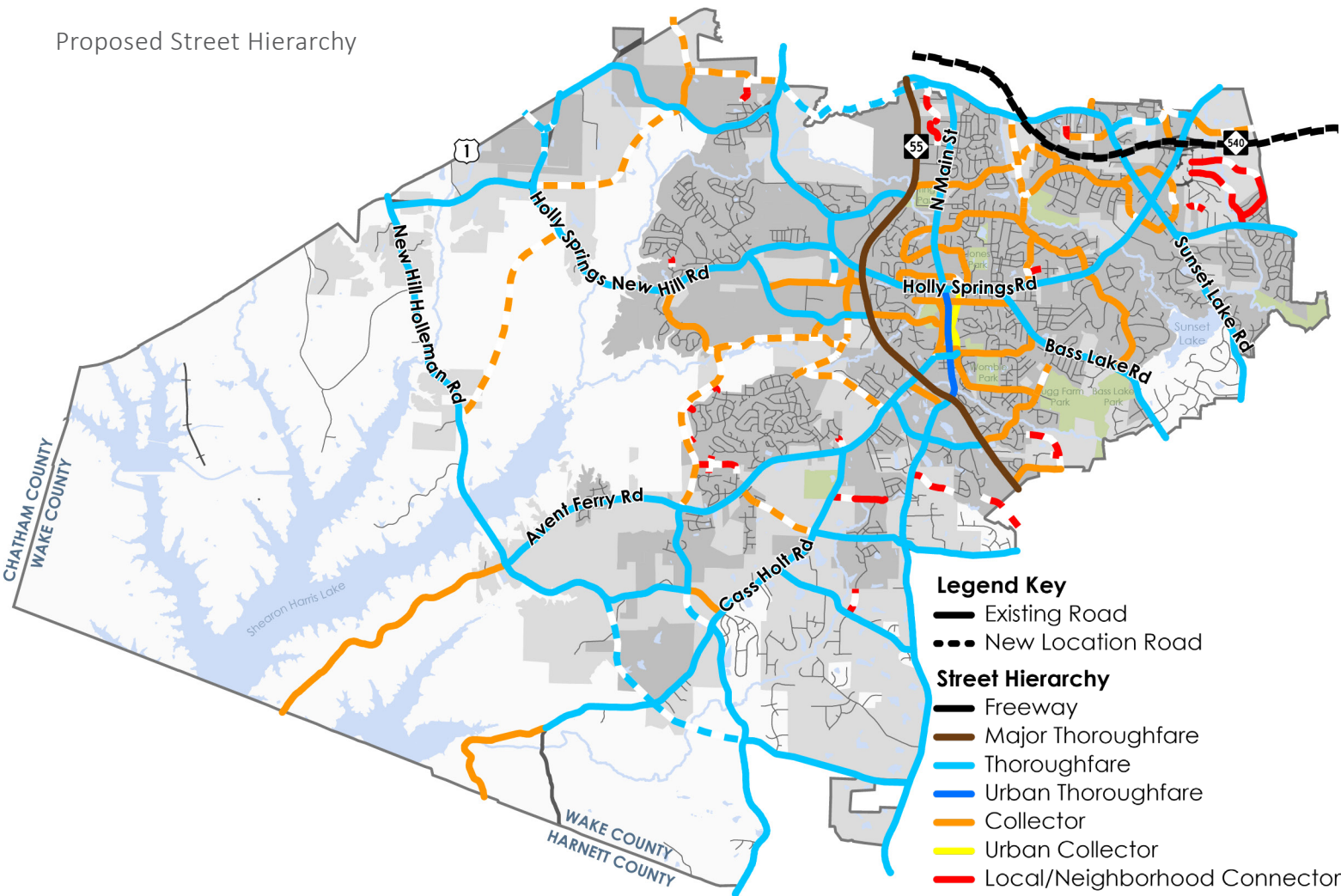
A way to provide enhanced access and mobility is by creating roadways that are responsive to the unique context and user needs along certain corridors. In Chapter 2, a functional classification system of the existing network as defined by NCDOT was shown. The street hierarchy created as part of this CTP considered both the NCDOT classification and local priorities to bridge the gap between them.

Proposed Street Hierarchy

The Town of Holly Springs’ street hierarchy is made up of four classifications:

- Major Thoroughfare
- Thoroughfare
 - Urban Thoroughfare
- Collector
 - Urban Collector
- Local/Neighborhood Connector

The map below shows the new street hierarchy for the Town of Holly springs and reflects the proposed changes to the transportation network.

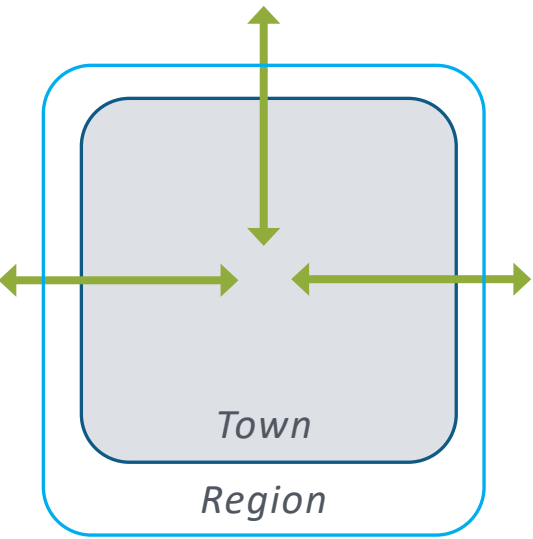


*The Freeway Location (NC 540) will not be included in the list on the following pages.

Major Thoroughfares

The following features are characteristic of a Major Thoroughfare:

- Has partial access control, limiting cars from making a variety of turning movements from and onto the road
- Includes a ditch-section median
- Accommodates traffic in and out of Town

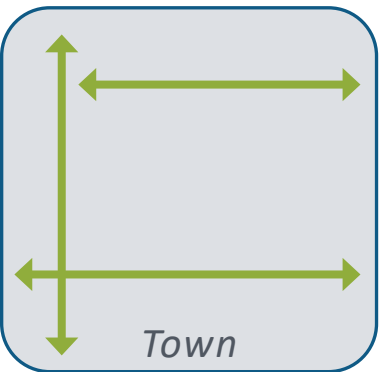


Classification	Major Thoroughfare
Local Examples	NC 55
Number of Lanes	6 travel lanes
Other Considerations	High traffic volumes

Thoroughfares

The following features are characteristic of a Thoroughfare:

- Offers balance between local access and moving people and goods through an area
- Has lower travel speeds and volumes than a Major Thoroughfare
- Is limited in roadway width by the built environment and land use context it serves
- Includes the Urban Thoroughfare sub-category which serves the purpose of carrying traffic through denser land-use areas with smaller footprints



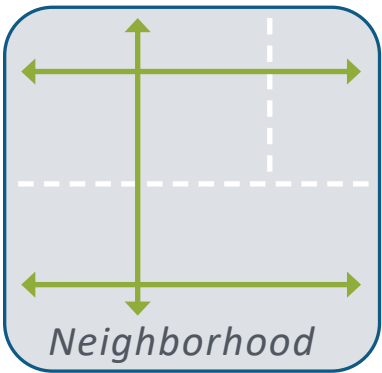
Classification	Thoroughfare
Local Examples	Holly Springs Road
Number of Lanes	2- 6 travel lanes
Other Considerations	Limitation on number of lanes

Roadway Classifications

Collector

The following features are characteristic of a Collector Street:

- Connects neighborhood traffic to destinations between existing neighborhoods
- Balances mobility and access by supporting local development
- Acts as a conduit for local traffic to connect to Thoroughfares
- Includes slower travel speeds
- Includes the Urban Collector category which serves the purpose of connectivity through denser land-use areas with smaller footprints



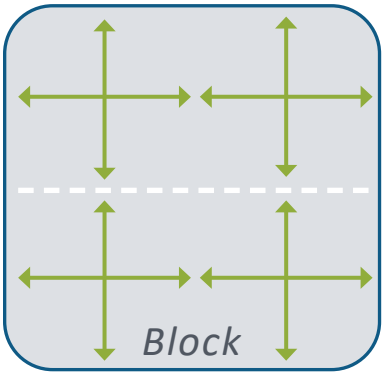
Classification	Collector
Local Examples	Grigsby Avenue
Number of Lanes	2 travel lanes to 2 travel lanes with a center turn lane
Other Considerations	Limitation on number of lanes

Local/Neighborhood Connectors

The following features are characteristic of a Local/Neighborhood Connector:

- Provide slow-moving, local streets
- Provide block-level, local access, and safe connectivity to higher order streets

In the CTP network recommendations, neighborhood connectors are short extensions of existing local streets to provide greater connectivity through predominately residential areas. Not all future neighborhood connectors are identified in this plan, and additional stub streets may be constructed and ultimately connected to provide further interconnectivity and travel choice.



Classification	Local
Local Examples	Round About Road
Number of Lanes	2 travel lanes
Other Considerations	Limitation on number of lanes

Classification and Funding

Federal funding programs use traditional roadway functional classifications to help determine eligibility for funding. The Town should update the functional classification to accurately reflect roadway network to stay competitive for funding opportunities. More information on transportation funding can be found in Chapter 4.

Understanding the category a road falls into within the street hierarchy provides insight to balance competing interests between right-of-way constraints, design features, and transportation modes. The type of street has direct impacts on the surrounding land uses. The next section highlights the connection between transportation and land use planning. By establishing the framework of street hierarchy, the CTP can more effortlessly propose complimentary cross-sections to achieve the vision for the Town of Holly Springs.



Technology Spotlight

Providing en route traveler information can be a key component in managing traffic and congestion. This technology has taken off in the past 10 years with the widespread availability of Global Positioning Systems (GPS) with live traffic updates in cars and on phones. Waze even partners with municipalities to better inform local travel information.



Connection between Transportation and Land Use

The connection between transportation and land use can highlight the synergies of long range planning. One goal of the CTP is to align the transportation recommendations with other Town policies. The strategic consideration of land use in the development of transportation recommendations was an intentional part of the planning process.

Vision Holly Springs Section 1: Land Use & Character Plan outlines various transportation needs in the Community Character Chapter. The overlapping themes between the CTP and the strategies highlighted in the Land Use & Character Plan are summarized below.



Elements Contributing to Character

The strategies and policies focus on how the built environment can further make Holly Springs a desirable place to live, work, and recreate. Elements that impact the character of a place include creating diverse land use patterns, investing in street and block patterns, and protecting open spaces and natural resources.



Transportation Network

The surrounding development should be considered in determining the character of a street. The street character should consider multimodal options and enhance mobility to and from destinations. An interconnected network can disperse traffic and reduce congestion.



Street and Block Patterns

Typically, urban areas have a street grid featuring smaller blocks with more intersections. Smaller grids can create more walkable, bikeable environments. Connectivity is achieved when drivers, cyclists, pedestrians, and emergency vehicles have different street options to reach a destination.



Parking Location

The community character is largely impacted by the location of parking. De-emphasizing static vehicles along a corridor can create pedestrian-friendly environments and attractive streetscapes. As the Town grows, placing parking behind the building frontage should be considered for all new developments. The Town could also consider using on-street parking as a buffer between cyclists and vehicles. The placement of parking should be guided by the Town’s development standards.

The following table shows the character types identified in the Vision Holly Springs Section 1: Land Use & Character Plan. Understanding the characteristics of the character types can provide further insight into how to best streamline transportation and land use planning.

Character Type Legend

- NA

Natural Area
- CN

Conservation Neighborhood
- RN

Residential Neighborhood
- MR

Mixed Residential Neighborhood
- MU

Mixed-Use Center
- NC

Neighborhood Center
- NM

N. Main Street District
- DV

Downtown Village District
- RC

Regional Center
- IV

Innovation Village
- B&I

Business & Industrial
- SU

Special Use

Transportation Characteristics

Element	NA	CN	RN	MR	MU	NC
Development Character	Rural	Rural	Suburban	Suburban	Suburban	Somewhat Urban
Curb	No	Yes	Yes	Yes	Yes	Yes
Street Pattern	Curvilinear	Curvilinear/Grid	Grid	Grid	Grid	Grid
Connectivity	Low	High in Center	Med	High	High	High
Connections Circulation	N/S	N/S	Neighbor./ Develop.	Neighbor./ Develop.	N/S	Internal Circulation
Mode Orientation	Auto	Multi-Modal	Multi-Modal	Multi-Modal	Auto/Transit	Multi-Modal
Sidewalks	Yes	Yes	Yes	Yes	Yes	Yes
Trails/Bike Paths	Some	Yes	Yes	Yes	Yes	Yes
Sidewalk/Sidepath Links	N/S	Residential Neighbor.	N/S	N/S	Adjacent Neighbor.	Adjacent Neighbor.
Plantings	Irregular/ Naturalistic	Formal Street Tree	Formal Street Tree	Formal Street Tree	Formal Street Tree	Formal Planting
Furnishings	No	N/S	N/S	N/S	N/S	N/S
Element	NM	DV	RC	IV	B&I	SU
Development Character	Urban	Urban	Urban	Urban	Industry	Dedicated by Site Use
Curb	Yes	Yes	Yes	Yes	Yes	
Street Pattern	Grid	Grid	Grid	Grid	Large Blocks	
Connectivity	High	High	High	High	Low	
Connections Circulation	N/S	N/S	N/S	N/S	N/S	
Mode Orientation	Multi-Modal	Multi-Modal	Multi-Modal	Multi-Modal	Auto	
Sidewalks	Yes	Yes	Yes	Yes	Yes	
Trails/Bike Paths	Yes	Yes	Yes	Yes	No	
Sidewalk/Sidepath Links	Adjacent Neighbor.	Adjacent Neighbor.	Adjacent Neighbor.	Adjacent Neighbor./ Commuting	Develop./ Adjacent Uses	
Plantings	Formal Street Tree	Formal Street Tree	Formal Street Tree	Formal Street Tree	N/S	
Furnishings	Seating/Bike Racks	Seating/Bike Racks	Seating/Bike Racks	Seating/Bike Racks	N/S	

The Elements of a Road

A cross-section outlines the design elements of a given roadway in the designated right-of-way. A road’s cross-section will include the number of lanes, presence of a median, provisions for bicycles and/or pedestrians, and other roadway elements that serve as a guideline during the project design phase.

Each cross-section has an identifier made up of 2-3 letters and one number. The letter/number combination represents classification and lanes (i.e., C-2B is a Collector Street with 2 Lanes and is the second of such combination). The different cross-sections are included in the table on the facing page.

The CTP was designed to be an adaptable planning document and for each cross-section, there may be more than one option. By building flexibility into the guiding planning document, the Town can be better equipped to make decisions in the future based on changing circumstances. This flexibility is also represented in the cross-section dimensions

which vary based on land use context. This gives the Town the ability to tailor roadway elements to the context that they are intended to serve while still holding developers to a set standard provided by the minimum dimensions allowable.

The following pages each include an example rendering of the cross-section and an accompanying table that identifies its specific design elements and dimensions, including both the minimum measurements and the options for a given land use context. Definitions of the design elements can be found in Appendix A, the Glossary of Terms.

This chapter should be used in tandem with the *Cross-Section Map* (page 131) and the recommendations tables in Appendix J, to create a full picture of a given project’s ultimate recommendation.

Cross-Section Options

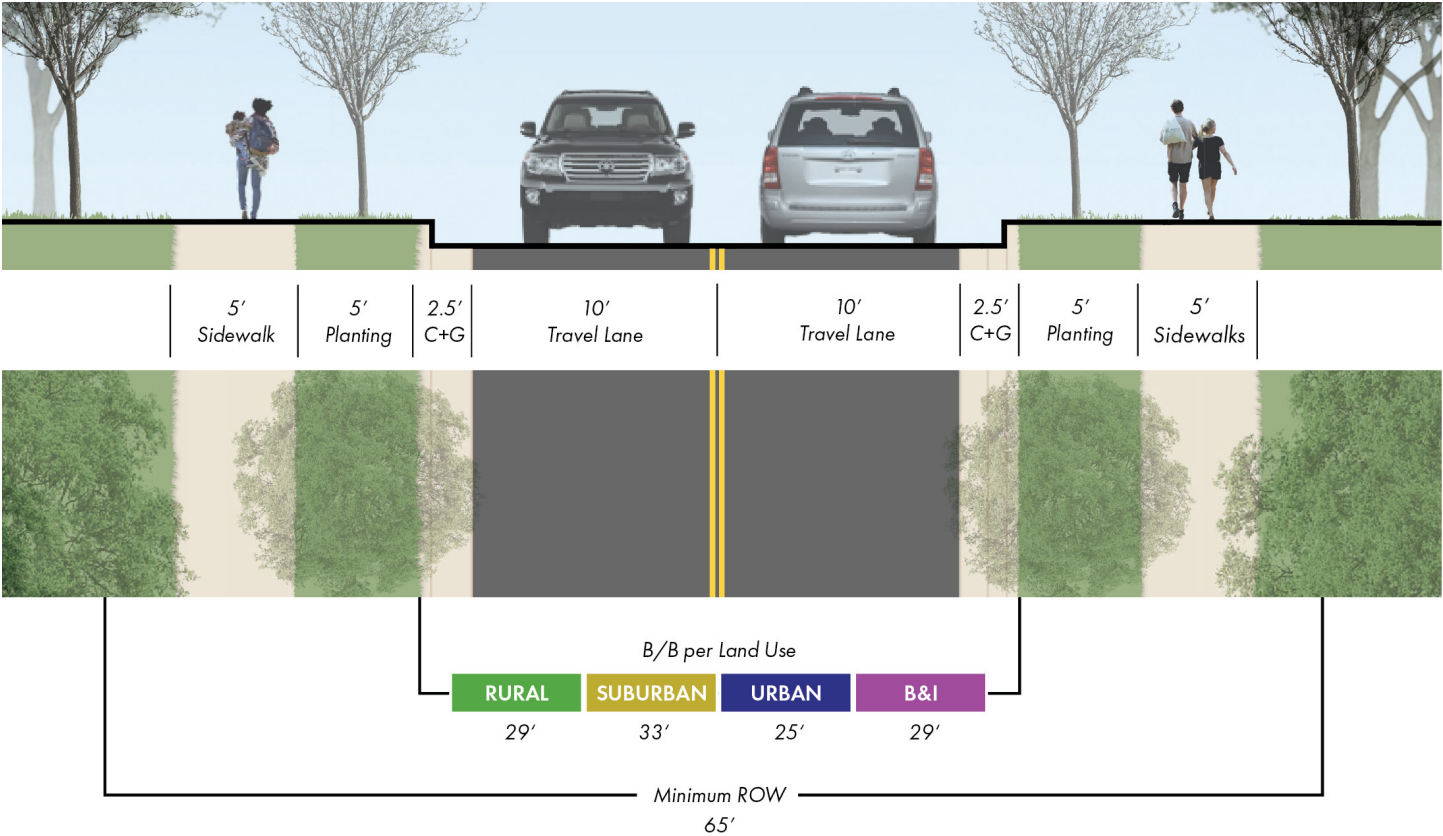
Cross-Section	Lanes	Classification	Median	Parking	Bike	Pedestrian	Load*
LC-2A	2	Local/Neighborhood Connector or Collector	No	N/A	None	Sidewalk 2 Sides	No Load
		Collector	No	N/A	Sharrow/WOL	Sidewalk 2 Sides	No Load
		Collector	No	N/A	Sidepath	Sidewalk 1 Side	No Load
UC-1A	1	Urban Collector	No	Parking 1 Side	None	Sidewalk 2 Sides	No Load
UC-1B	1	Urban Collector	No	Parking 2 Sides	None	Sidewalk 2 Sides	No Load
		Urban Collector	No	Parking 2 Sides	Sharrow/WOL	Sidewalk 2 Sides	No Load
UC-2A	2	Urban Collector	No	N/A	Sharrow/WOL	Sidewalk 1 Side	No Load
C-2A	2	Collector	No	N/A	Sharrow/WOL	Sidewalk 2 Sides	No Load
C-2B	2	Collector	No	Parking 1 Side	None	Sidewalk 2 Sides	No Load
		Collector	No	Parking 1 Side	Sharrow/WOL	Sidewalk 2 Sides	No Load
C-2C	2	Collector	No	Parking 2 Sides	Sharrow/WOL	Sidewalk 2 Sides	No Load
		Collector	No	Parking 2 Sides	Sidepath	Sidewalk 1 Side	No Load
C-2D	2	Collector	No	Parking 2 Sides	Bike Lanes	Sidewalk 2 Sides	No Load
C-3A	3	Collector	Turn Lane	N/A	Sharrow/WOL	Sidewalk 2 Sides; Ditch Section	Load
CT-3A	3	Collector	Turn Lane	N/A	Sidepath	Sidepath	Load
		Collector	Turn Lane	N/A	None	Sidewalk 2 Sides	Load
		Collector	Turn Lane	N/A	Sharrow/WOL	Sidewalk 2 Sides	Load
		Collector or Thoroughfare	Turn Lane	N/A	Sidepath	Sidewalk 1 Side	Load
CT-3B	3	Thoroughfare	Turn Lane	Parking 1 Side	Sidepath	Sidewalk 1 Side	Load
CT-3C	3	Collector or Thoroughfare	Turn Lane	N/A	Sharrow/WOL	Sidewalk 2 Sides	Load
UT-2A	2	Urban Thoroughfare	No	Parking 1 Side	Sharrow/WOL	Sidewalk 2 Sides	Load
T-4A	4	Thoroughfare	Raised Median	N/A	None	Sidewalk 2 Sides	Load
		Thoroughfare	Raised Median	N/A	Sidepath	Sidepath	Load
		Thoroughfare	Raised Median	N/A	Sidepath	Sidewalk 1 Side	Load
T-4B	4	Thoroughfare	Raised Median	N/A	Sharrow/WOL	Sidewalk 2 Sides	Load
T-6A	6	Thoroughfare	Raised Median	N/A	Sidepath	Sidewalk 1 Side	Load
		Thoroughfare	Raised Median	N/A	None	Sidewalk 2 Sides	Load
T-6B	6	Major Thoroughfare	Median	N/A	None	None	Load

*Load roads are intended to serve a main purpose of carrying/moving traffic; No Load roads are intended for providing connectivity to/from/between neighborhoods.
WOL = Wide Outside Lanes

LC-2A

Local/Neighborhood Connector or Collector | 2 Lanes

LC-2A Minimum



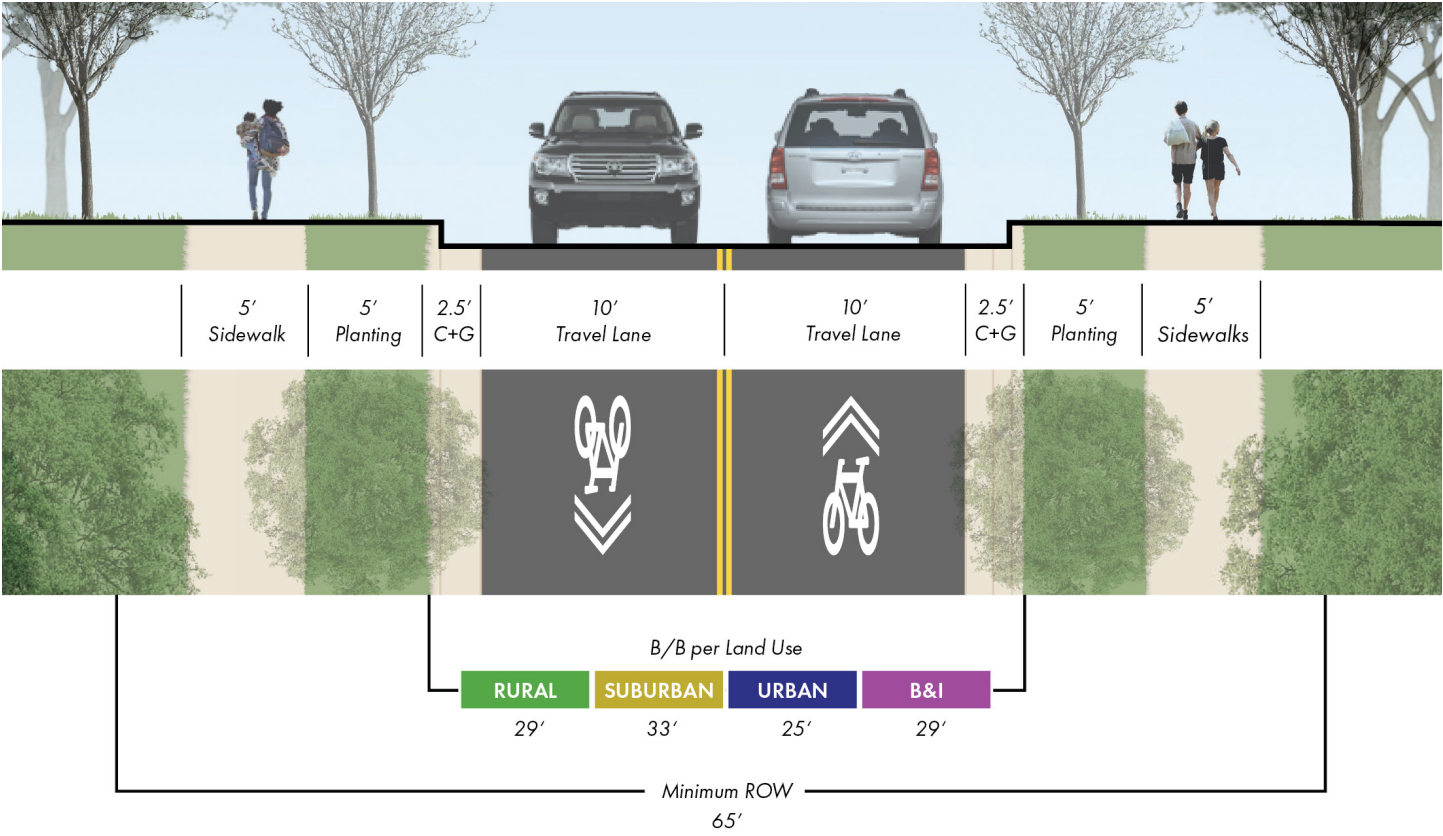
L-2A			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	65'	60'	65'	63'	58'
Back of Curb to Back of Curb (B/B)	Yes	25'	29'	33'	25'	29'
Travel Lanes	2 Lanes	10'	12'	14'	10'	12'
Center Turn Lane	No	-	-	-	-	-
Median	No	-	-	-	-	-
Curb and Gutter (C+G)	2 Sides	2.5'	2.5'	2.5'	2.5'	2.5'
Paved Shoulder	No	-	-	-	-	-
Planting	2 Sides	5'	6'	6'	8'	5'
On-Street Parking	Varies	-	-	Informal Parking	-	-
Sidepath	0-1 Side*	10'	10'	10'	10'	10'
Sidewalk	1-2 Sides*	5'	5'	6'	8'	5'
Bicycle Facility	Sharrow / Wide Outside Lane*		Included in Travel Lanes			

Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.

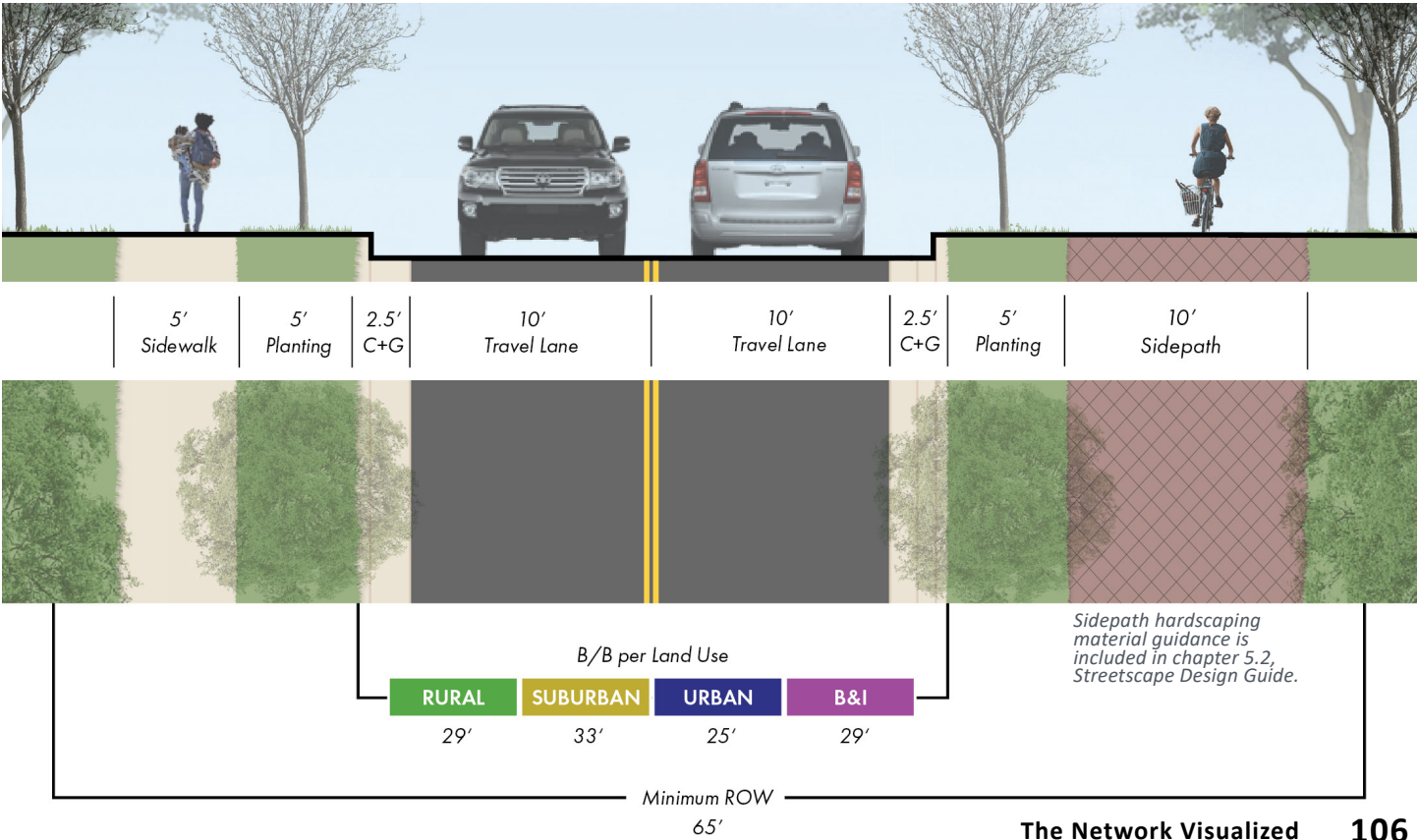
Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

*Reference recommendations table in Appendix J for cross-section elements to be included for a given project.

LC-2A Alt 1 Minimum



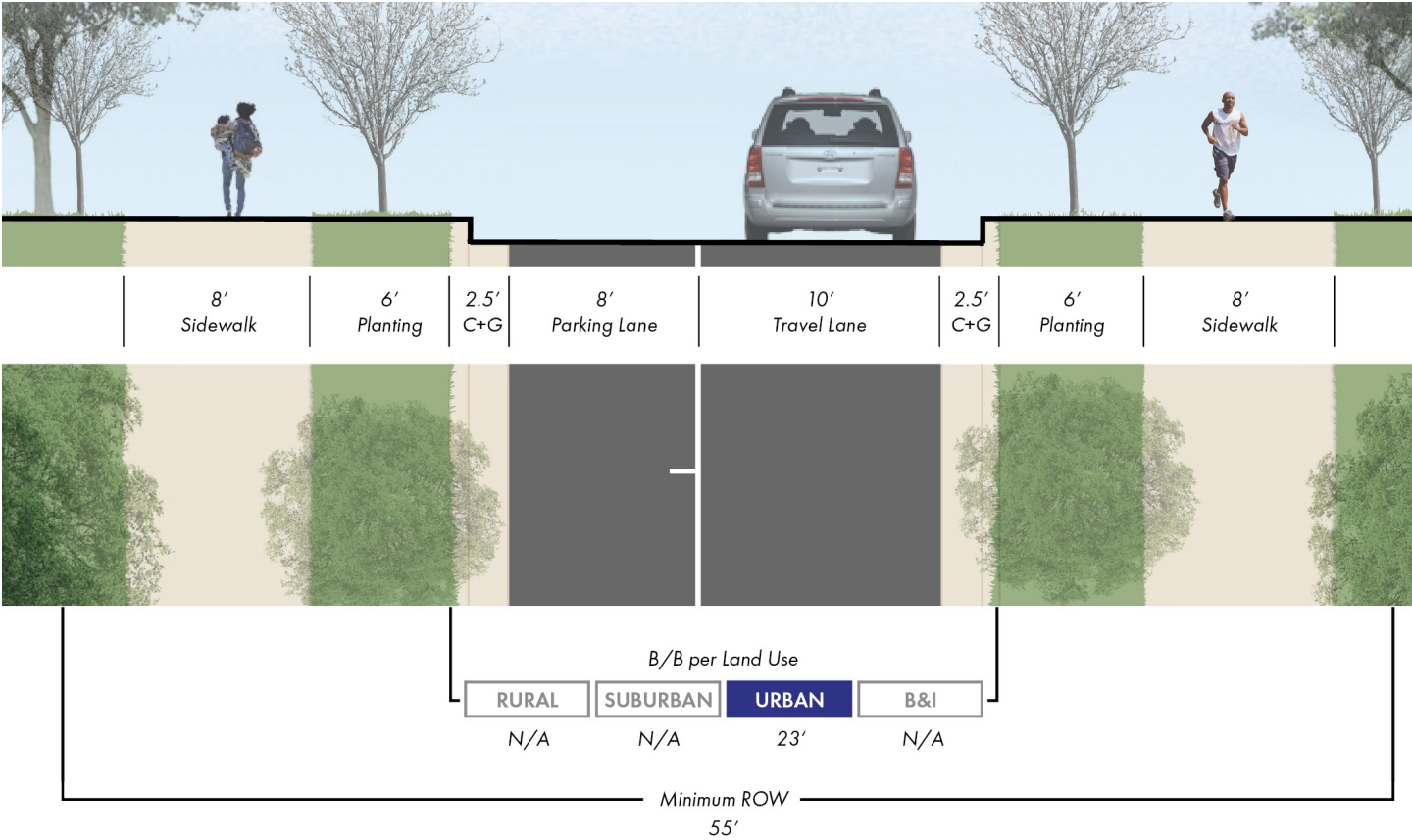
LC-2A Alt 2 Minimum



UC-1A

Urban Collector | 1 Lane (1-Way Use)

UC-1A Minimum



UC-1A			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	55'	N/A	N/A	55'	N/A
Back of Curb to Back of Curb (B/B)	Yes	23'			23'	
Travel Lanes	1 Lane (1-Way Use)	10'			10'	
Center Turn Lane	No	-			-	
Median	No	-			-	
Curb and Gutter (C+G)	2 Sides	2.5'			2.5'	
Paved Shoulder	No	-			-	
Planting	2 Sides	6'			6'	
On-Street Parking	1 Side	8'			8'	
Sidepath	No	-			-	
Sidewalk	2 Sides	8'			8'	
Bicycle Facility	No	-			-	

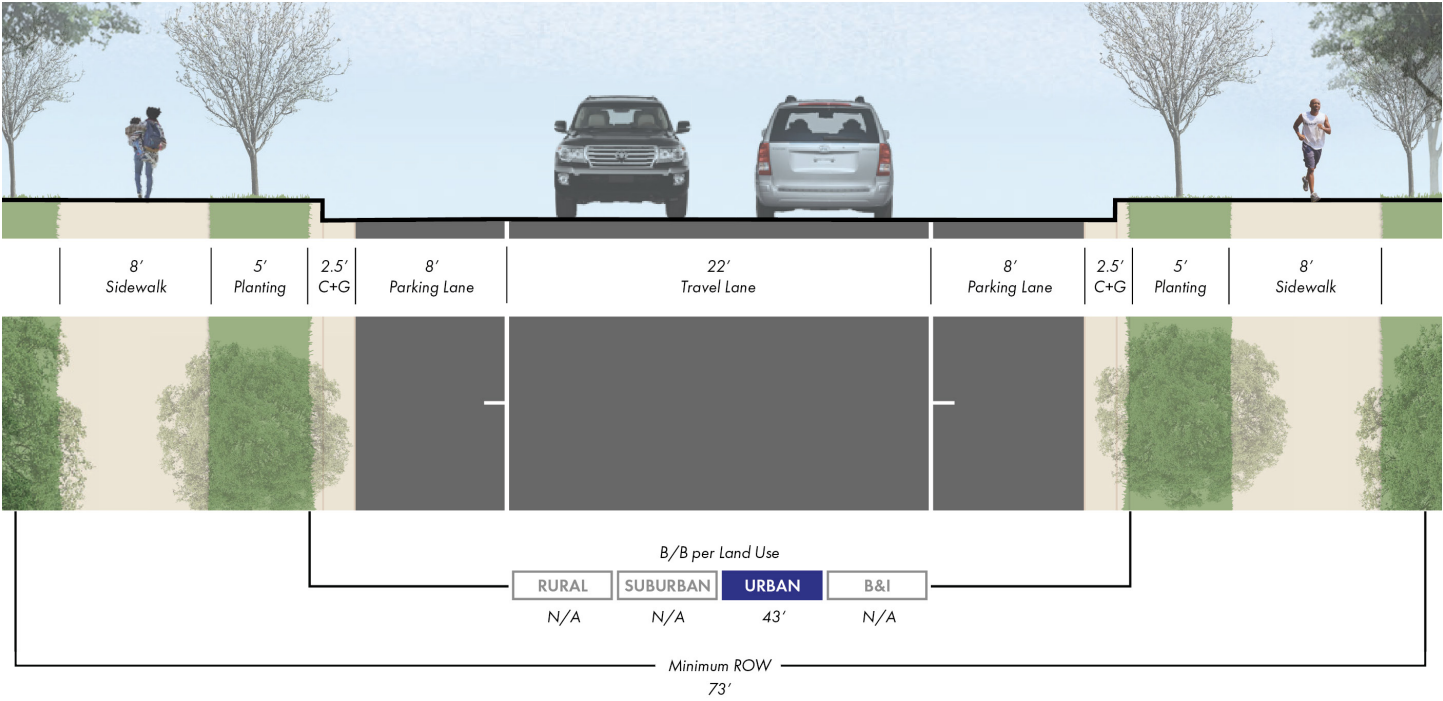
Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.

Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

UC-1B

Urban Collector | 1 Lane (2-Way Use)

UC-1B Minimum



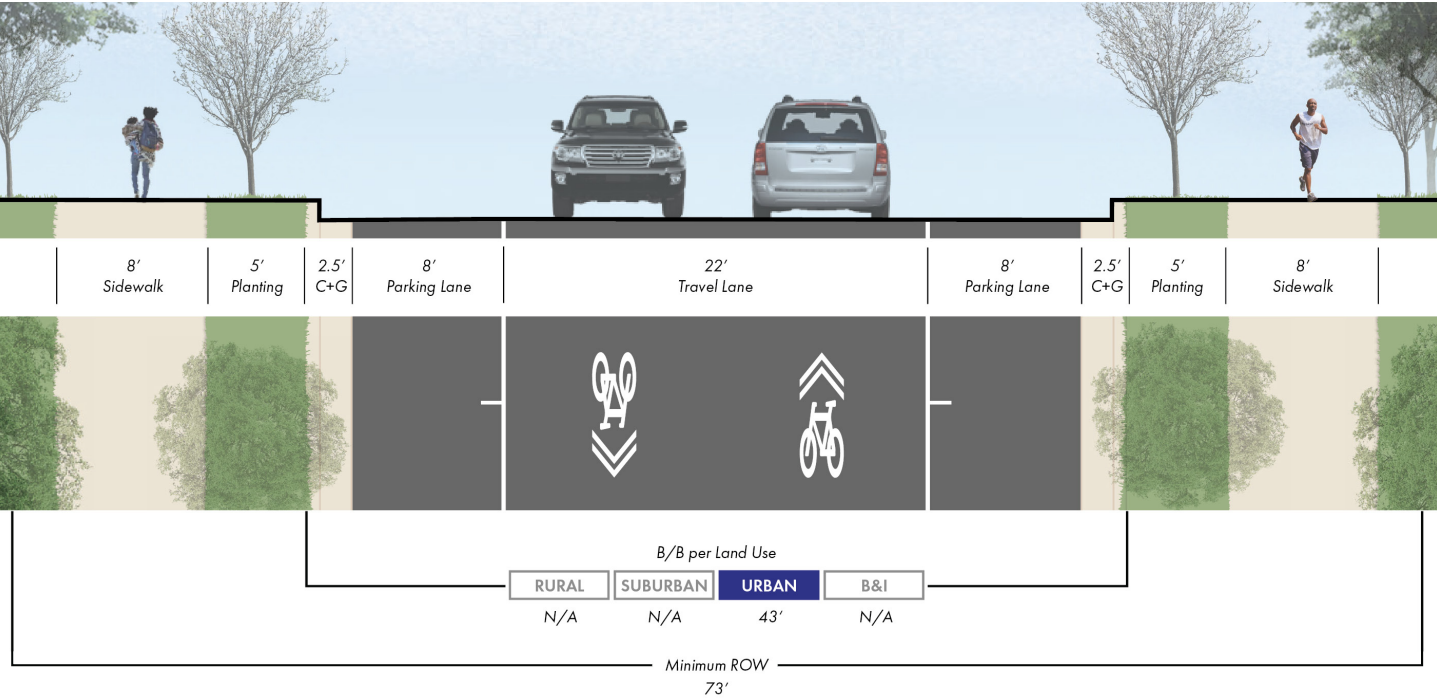
UC-1B			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	73'	N/A	N/A	73'	N/A
Back of Curb to Back of Curb (B/B)	Yes	43'			43'	
Travel Lanes	1 Lane (2-Way Use; Not Striped)	22'			22'	
Center Turn Lane	No	-			-	
Median	No	-			-	
Curb and Gutter (C+G)	2 Sides	2.5'			2.5'	
Paved Shoulder	No	-			-	
Planting	2 Sides	5'			5'	
On-Street Parking	2 Sides	8'			8'	
Sidepath	No	-			-	
Sidewalk	2 Sides	8'			8'	
Bicycle Facility	Sharrow / Wide Outside Lane*				Included in Travel Lanes	

Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.

Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

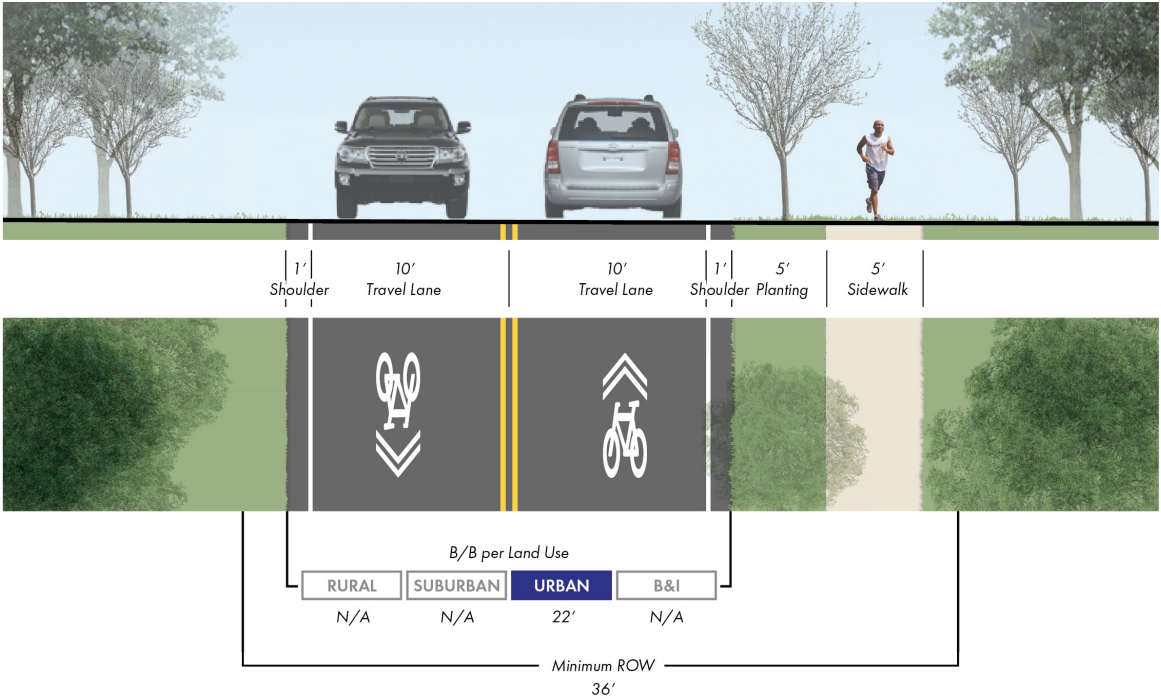
*Reference recommendations table in Appendix J for cross-section elements to be included for a given project.

UC-1B Alt 1 Minimum



UC-2A
Urban Collector | 2 Lanes

UC-2A Minimum



UC-2A			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	36'	N/A	N/A	36'	N/A
Back of Curb to Back of Curb (B/B)	Yes	22'			22'	
Travel Lanes	2 Lanes	10'			10'	
Center Turn Lane	No	-			-	
Median	No	-			-	
Curb and Gutter (C+G)	No	-			-	
Paved Shoulder	Yes	1'			1'	
Planting	1 Side	5'			5'	
On-Street Parking	No	-			-	
Sidepath	No	-			-	
Sidewalk	1 Side	5'			5'	
Bicycle Facility	Sharrow / Wide Outside Lane*				Included in Travel Lanes	

Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.

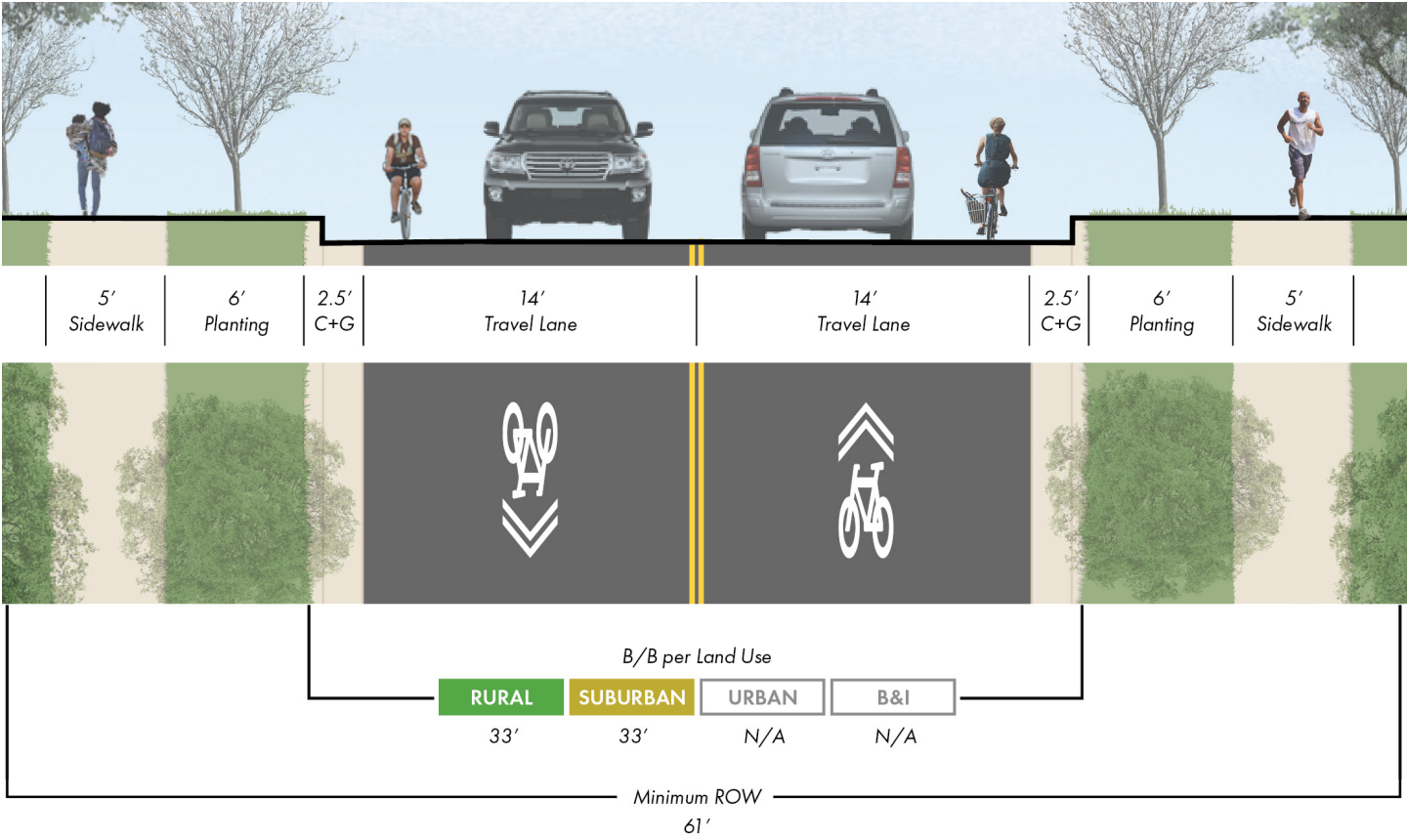
Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

*Reference recommendations table in Appendix J for cross-section elements to be included for a given project.

C-2A

Collector | 2 Lanes

C-2A Minimum



UC-1A			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	61'	59'	61'		
Back of Curb to Back of Curb (B/B)	Yes	33'	33'	33'		
Travel Lanes	2 Lanes	14'	14'	14'		
Center Turn Lane	No	-	-	-		
Median	No	-	-	-		
Curb and Gutter (C+G)	2 Sides	2.5'	2.5	2.5'		
Paved Shoulder	No	-	-	-	N/A	N/A
Planting	2 Sides	6'	6	6'		
On-Street Parking	No	-		-		
Sidepath	No	-		-		
Sidewalk	2 Sides	5'	5'	6'		
Bicycle Facility	Sharrows / Wide Outside Lane*		Included in Travel Lanes			

Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.

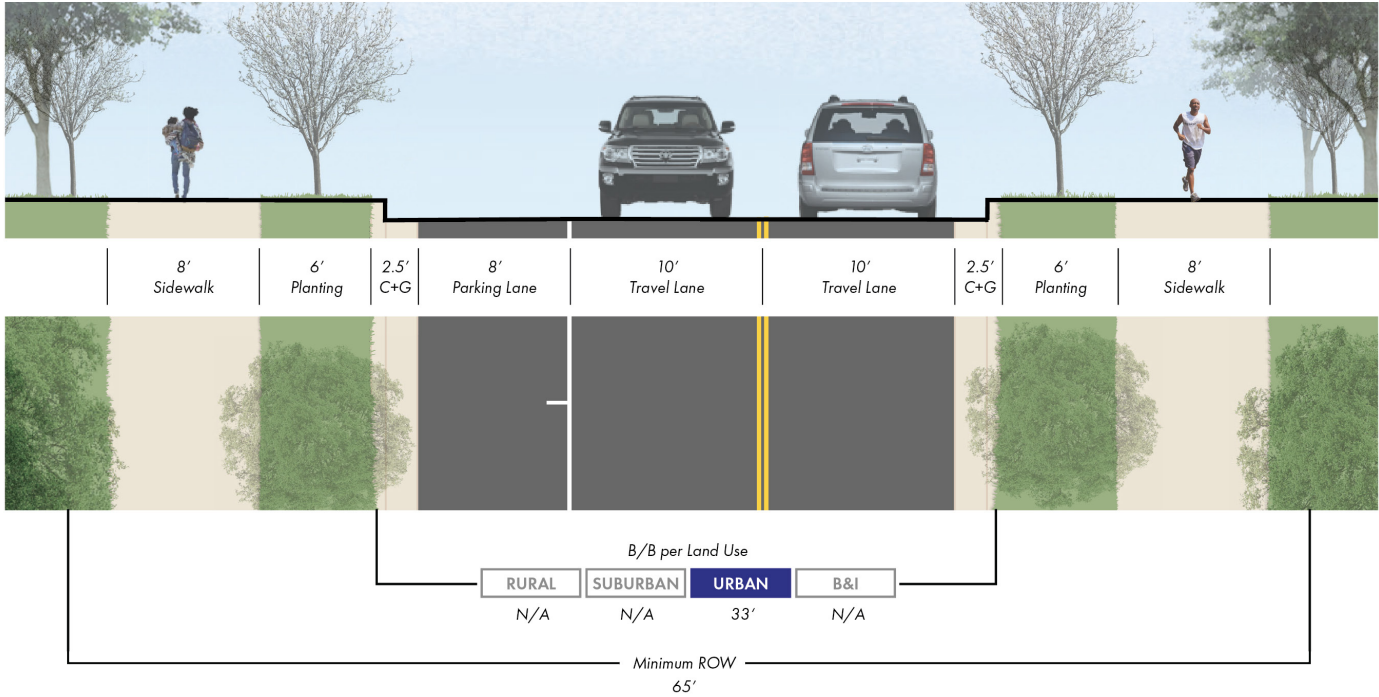
Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

*Reference recommendations table in Appendix J for cross-section elements to be included for a given project.

C-2B

Collector | 2 Lanes

C-2B Minimum



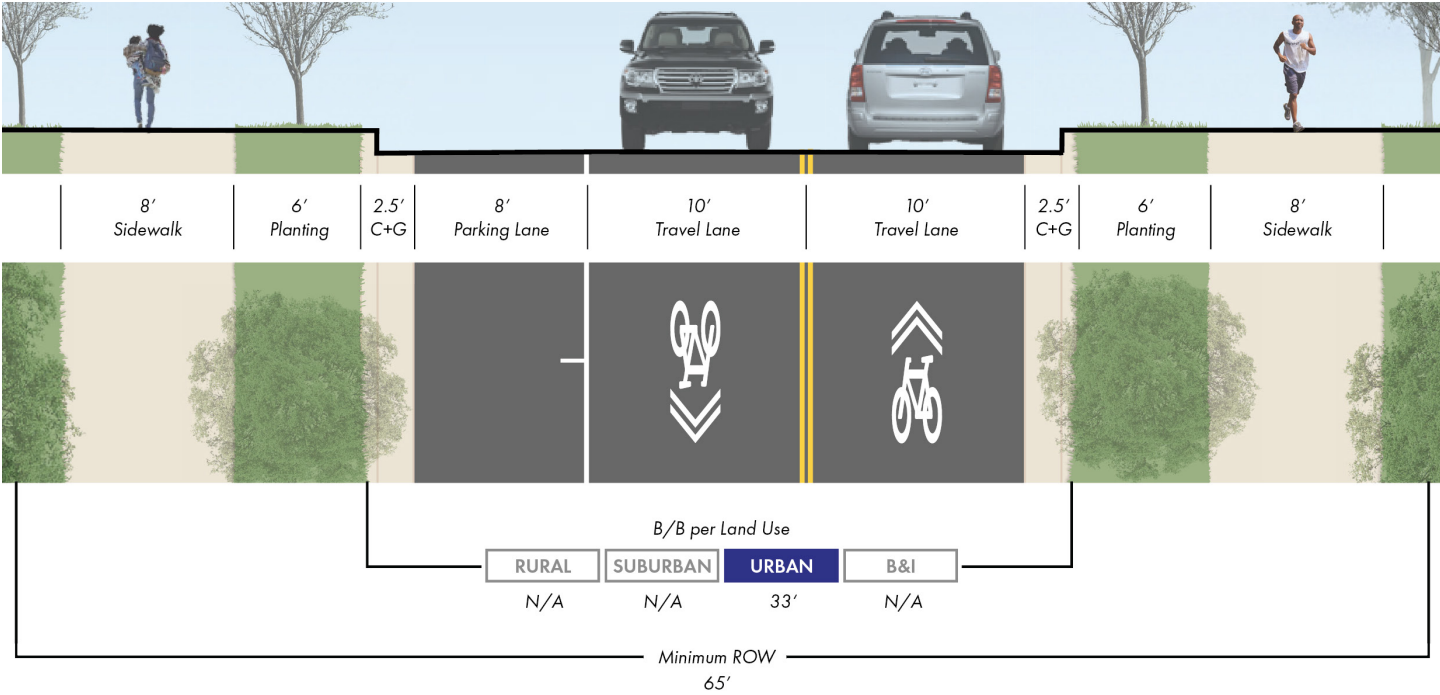
C-2B			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	65'			65'	
Back of Curb to Back of Curb (B/B)	Yes	33'			33'	
Travel Lanes	2 Lanes	10'			10'	
Center Turn Lane	No	-			-	
Median	No	-			-	
Curb and Gutter (C+G)	2 Sides	2.5'			2.5'	
Paved Shoulder	No	-	N/A	N/A	-	N/A
Planting	2 Sides	6'			6'	
On-Street Parking	1 Side	8'			8'	
Sidepath	No	-			-	
Sidewalk	2 Sides	8'			8'	
Bicycle Facility	Sharrows / Wide Outside Lane*				Included in Travel Lanes	

Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.

Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

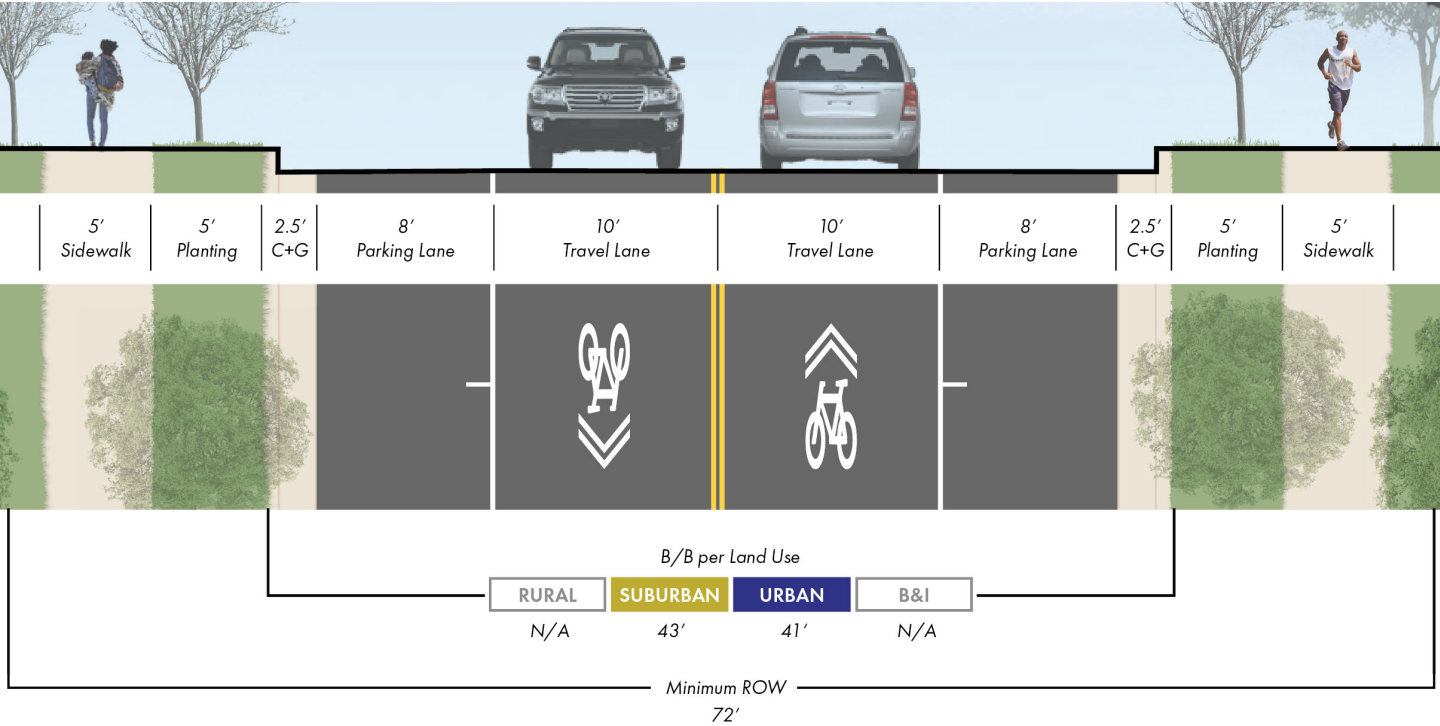
*Reference recommendations table in Appendix J for cross-section elements to be included for a given project.

C-2B Alt 1 Minimum



C-2C
Collector | 2 Lanes

C-2C Minimum



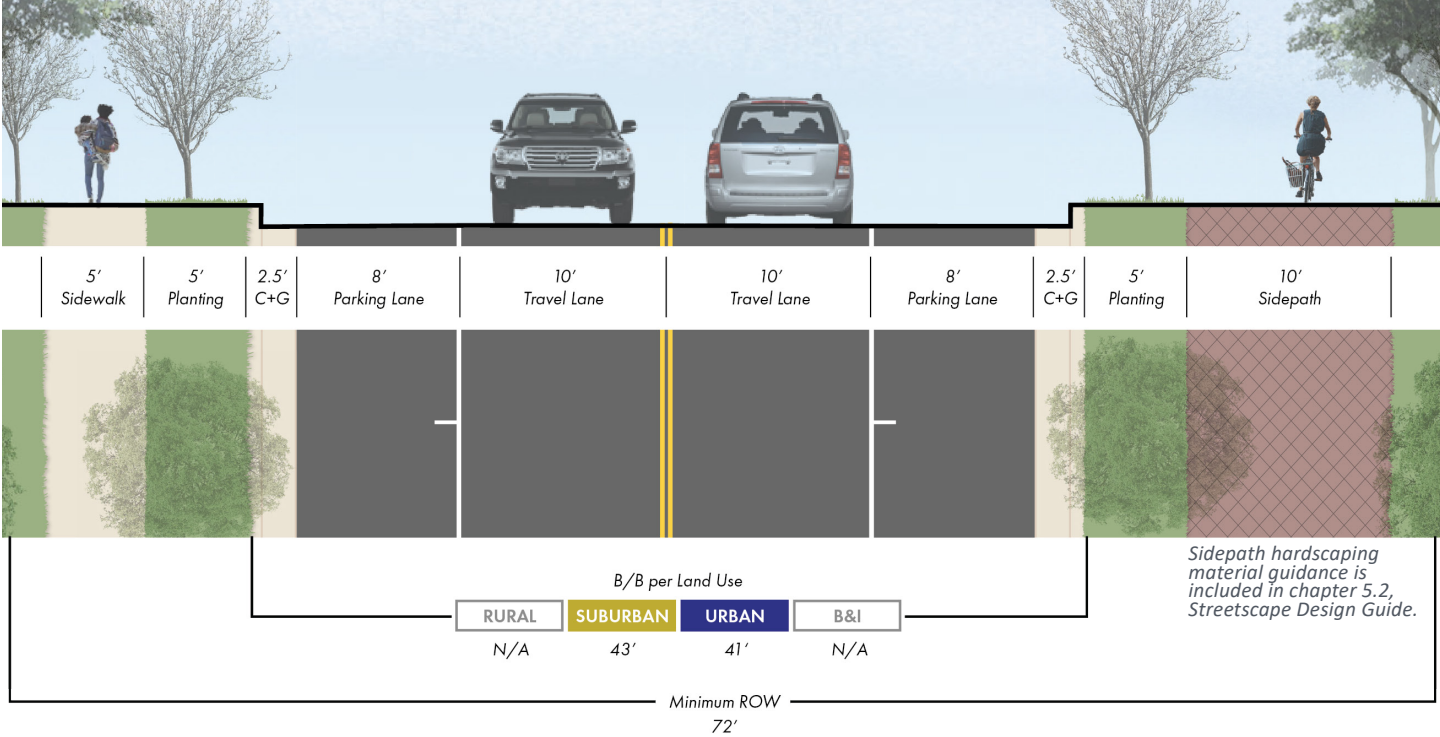
C-2C			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	72'	N/A	72'	61'	N/A
Back of Curb to Back of Curb (B/B)	Yes	41'		43'	41'	
Travel Lanes	2 Lanes	10'		11'	10'	
Center Turn Lane	No	-		-	-	
Median	No	-		-	-	
Curb and Gutter (C+G)	2 Sides	2.5'		2.5'	2.5'	
Paved Shoulder	No	-		-	-	
Planting	2 Sides	5'		5'	5'	
On-Street Parking	2 Sides	8'		8'	8'	
Sidepath	0-1 Side*	10'		10'	-	
Sidewalk	1-2 Sides*	5'		5'	8'	
Bicycle Facility	Sharrow / Wide Outside Lane*		Included in Travel Lanes			

Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.

Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

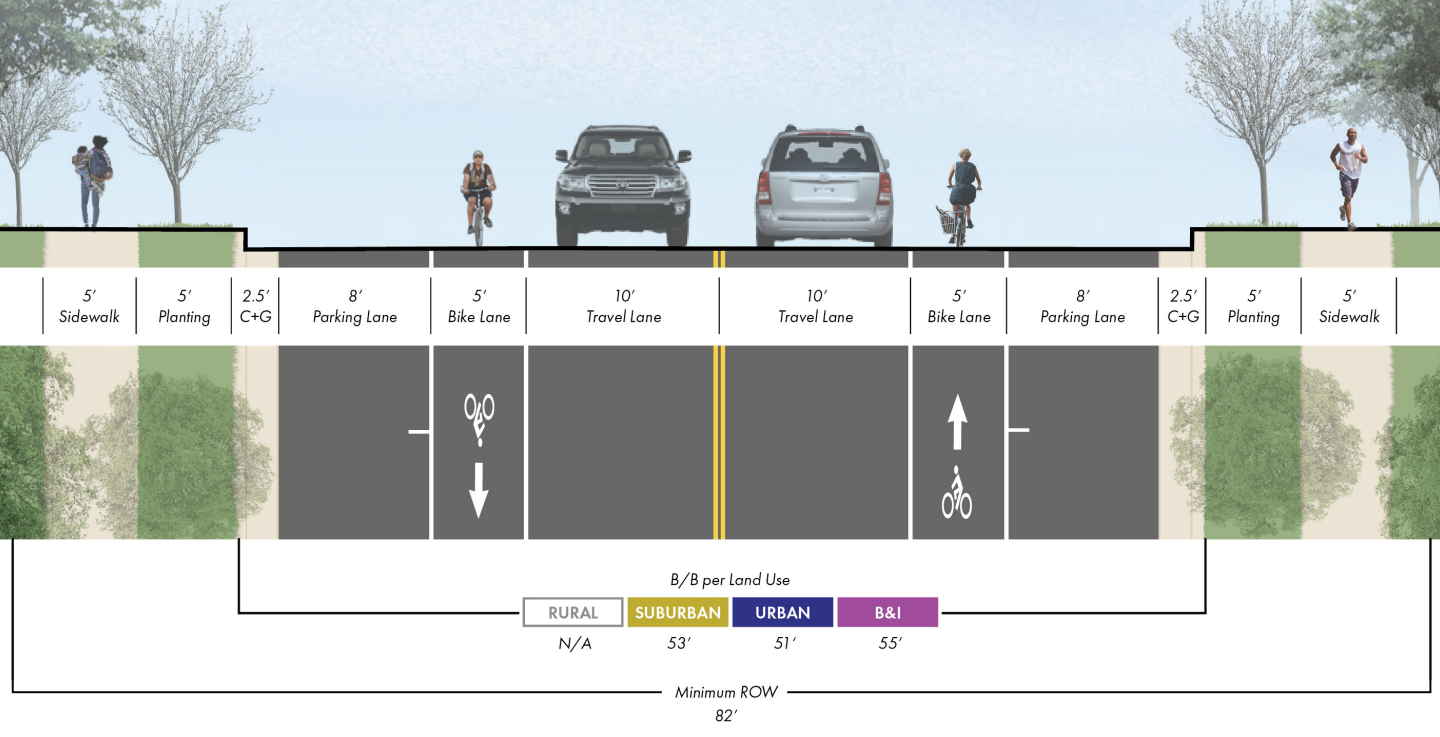
*Reference recommendations table in Appendix J for cross-section elements to be included for a given project.

C-2C Alt 1 Minimum



C-2D
Collector | 2 Lanes

C-2D Minimum



C-2D			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	81'	N/A	77'	81'	79'
Back of Curb to Back of Curb (B/B)	Yes	51'		53'	51'	55'
Travel Lanes	2 Lanes	10'		11'	10'	12'
Center Turn Lane	No	-		-	-	-
Median	No	-		-	-	-
Curb and Gutter (C+G)	2 Sides	2.5'		2.5'	2.5'	2.5'
Paved Shoulder	No	-		-	-	-
Planting	2 Sides	5'		5'	5'	5'
On-Street Parking	2 Sides	8'		8'	8'	8'
Sidepath	No	-		-	-	-
Sidewalk	2 Sides	5'		5'	8'	5'
Bicycle Facility	2 Bike Lanes	5'		5'	5'	5'

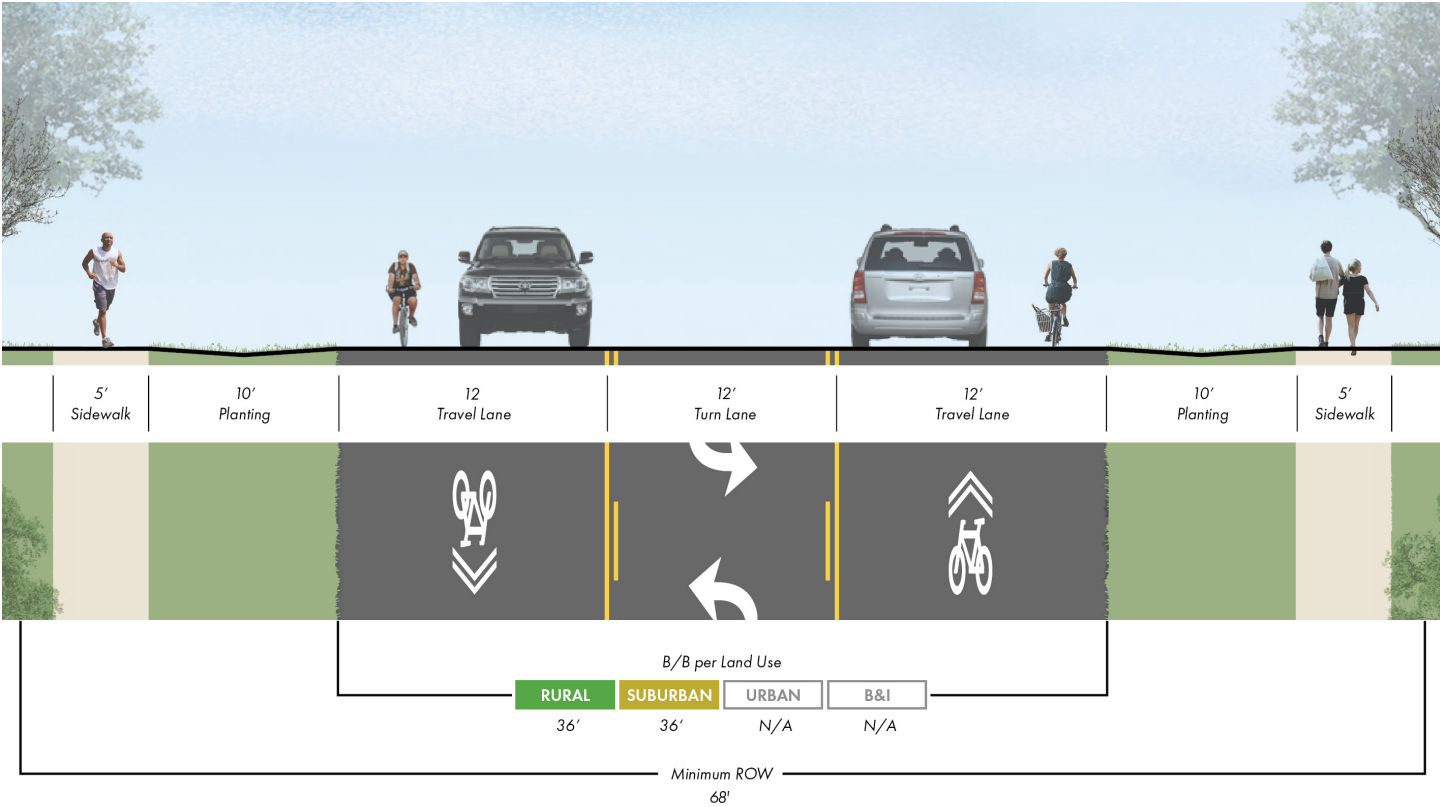
Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.

Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

C-3A

Collector | 3 Lanes

C-3A Minimum



C-3A			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	68'	66'	68'		
Back of Curb to Back of Curb (B/B)	Yes	36'	36'	36'		
Travel Lanes	2 Lanes	12'	12'	12'		
Center Turn Lane	Yes	12'	12'	12'		
Median	No	-	-	-		
Curb and Gutter (C+G)	-	-	-	-		
Paved Shoulder	Yes	Included in Travel Lanes	Included in Travel Lanes		N/A	N/A
Planting	2 Sides	10'	10'	10'		
On-Street Parking	No	-	-	-		
Sidepath	No	-	-	-		
Sidewalk	2 Sides	5'	5'	6'		
Bicycle Facility	Sharrows / Wide Outside Lane*		Included in Travel Lanes			

Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.

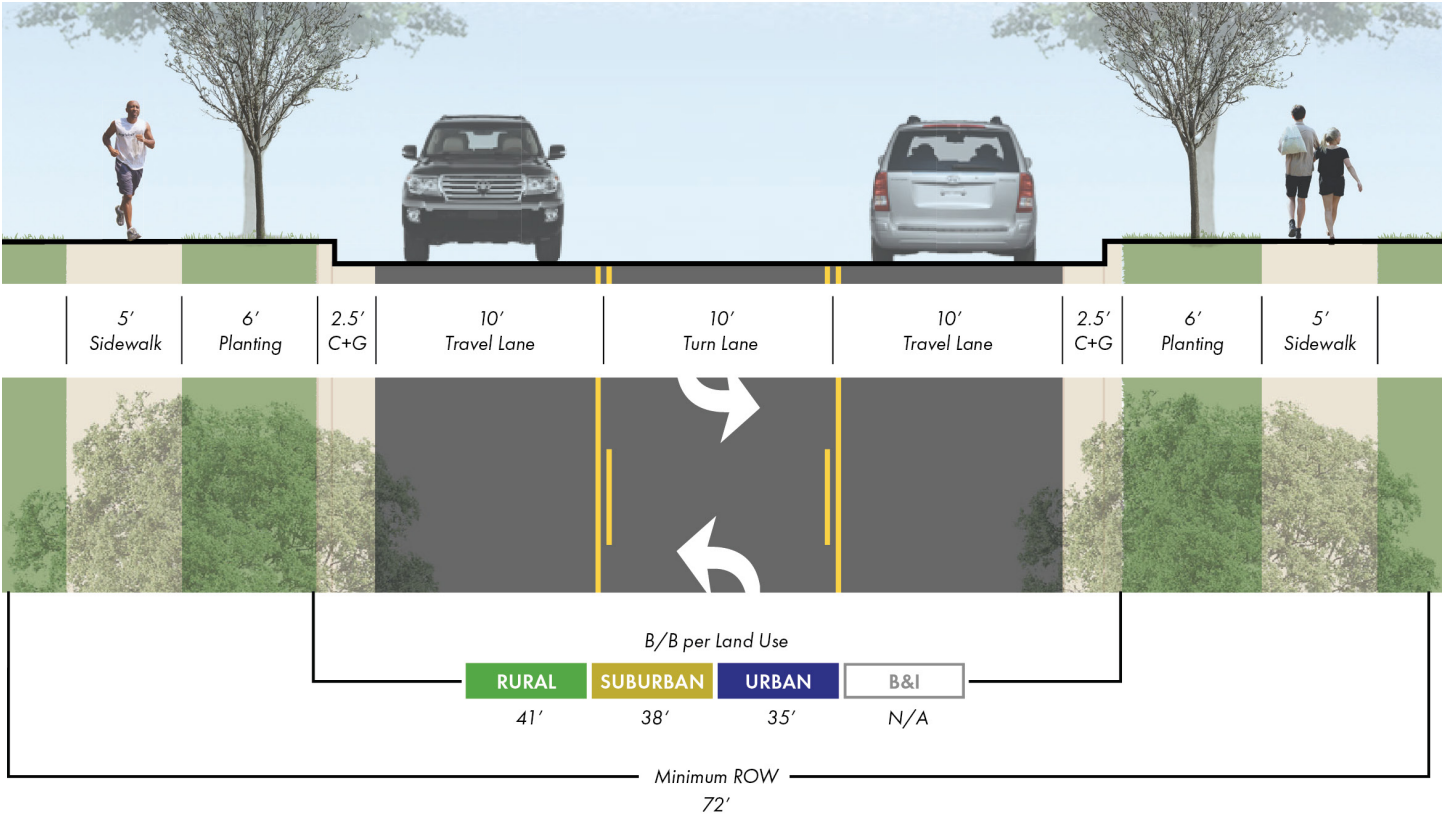
Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

*Reference recommendations table in Appendix J for cross-section elements to be included for a given project.

CT-3A

Collector or Thoroughfare | 3 Lanes

CT-3A Minimum



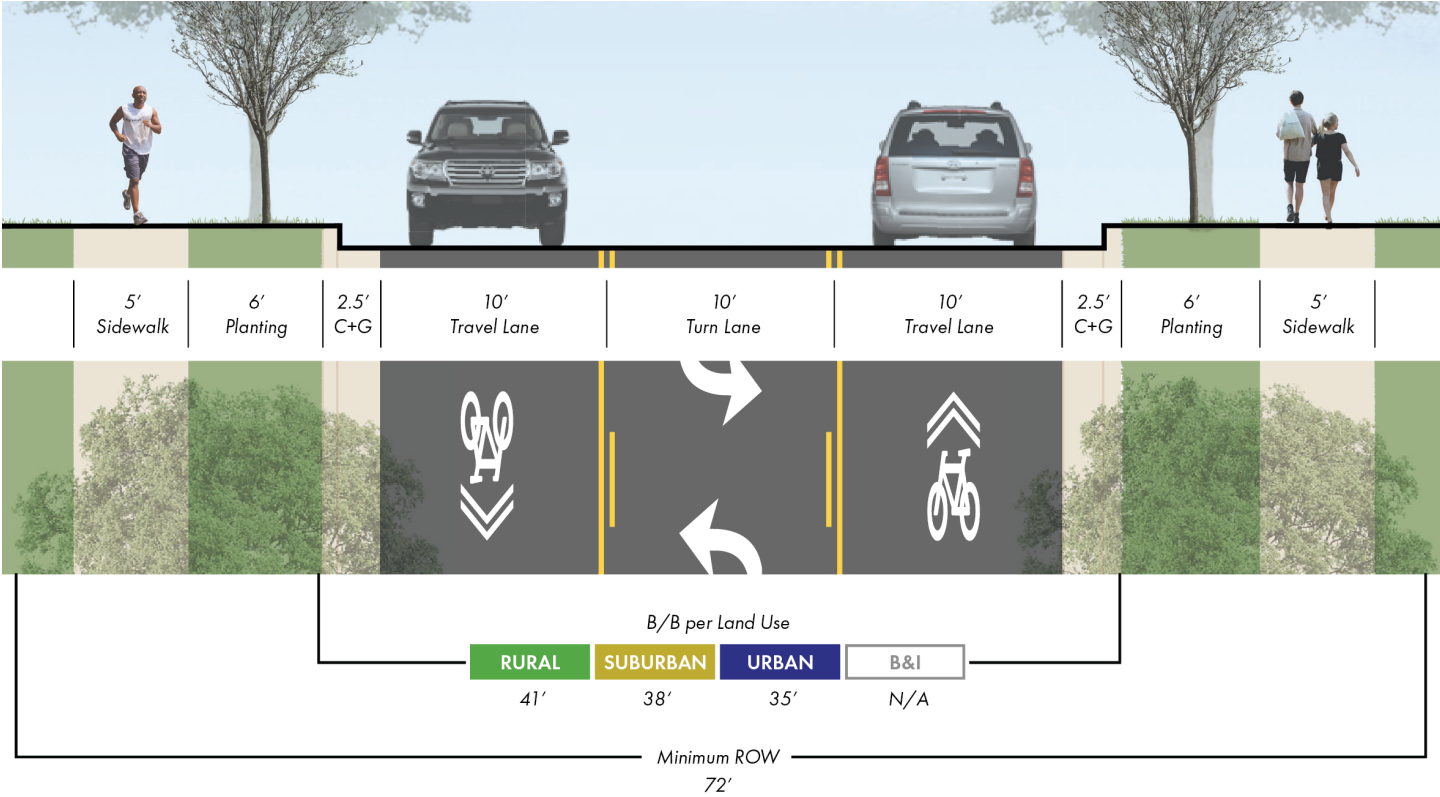
CT-3A			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	72'	72'	69'	71'	
Back of Curb to Back of Curb (B/B)	Yes	35'	41'	38'	35'	
Travel Lanes	2 Lanes	10'	12'	11'	10'	
Center Turn Lane	Yes	10'	12'	11'	10'	
Median	No	-	-	-	-	
Curb and Gutter (C+G)	2 Sides	2.5'	2.5'	2.5'	2.5'	
Paved Shoulder	No	-	-	-	-	N/A
Planting	2 Sides	6'	6'	6'	6'	
On-Street Parking	No	-	-	-	-	
Sidepath	0-2 Sides*	10'	10'	10'	10'	
Sidewalk	0-2 Sides*	5'	5'	5'	-	
Bicycle Facility	Sharrows / Wide Outside Lane*		Included in Travel Lanes	-	Included in Travel Lanes	

Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.

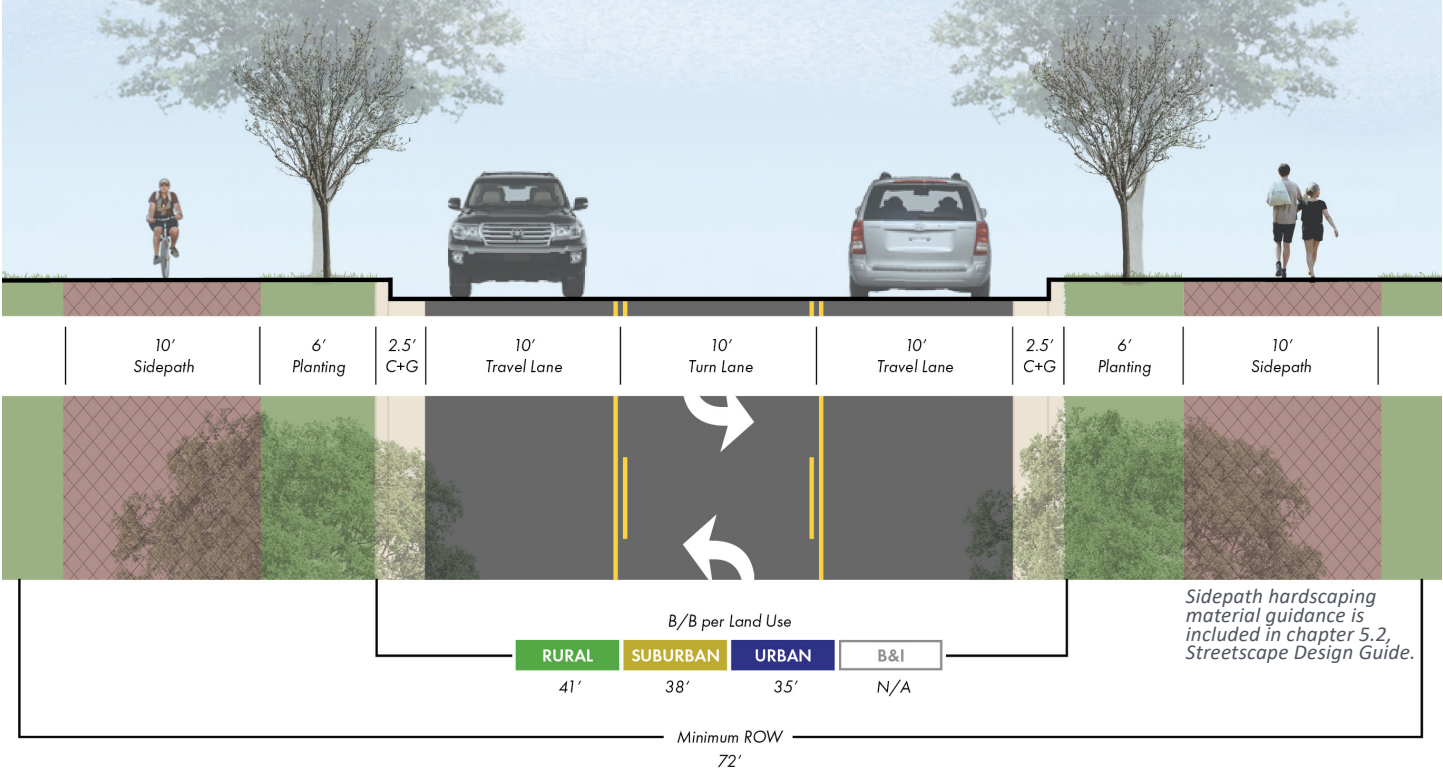
Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

*Reference recommendations table in Appendix J for cross-section elements to be included for a given project.

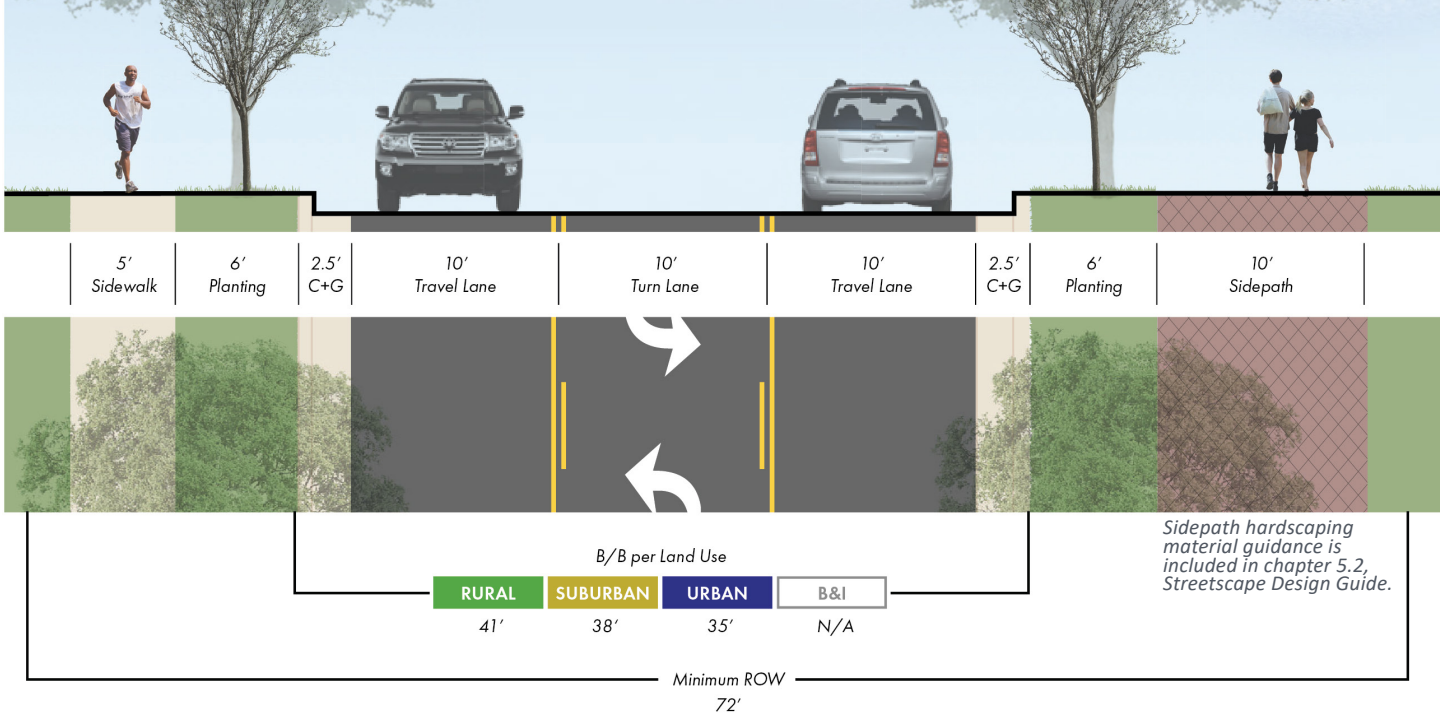
CT-3A Alt 1 Minimum



CT-3A Alt 3 Minimum



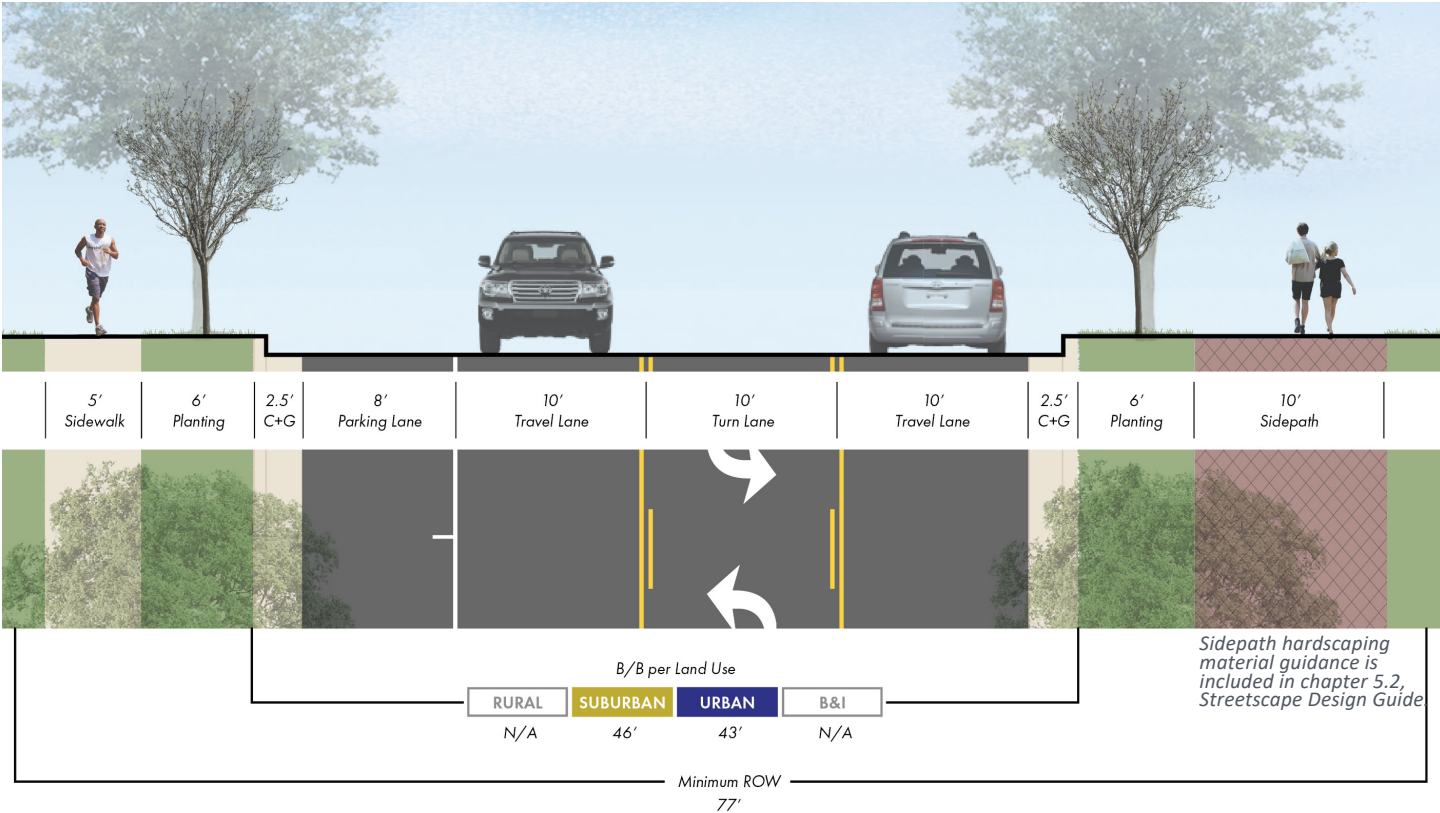
CT-3A Alt 2 Minimum



CT-3B

Collector or Thoroughfare | 3 Lanes

CT-3B Minimum



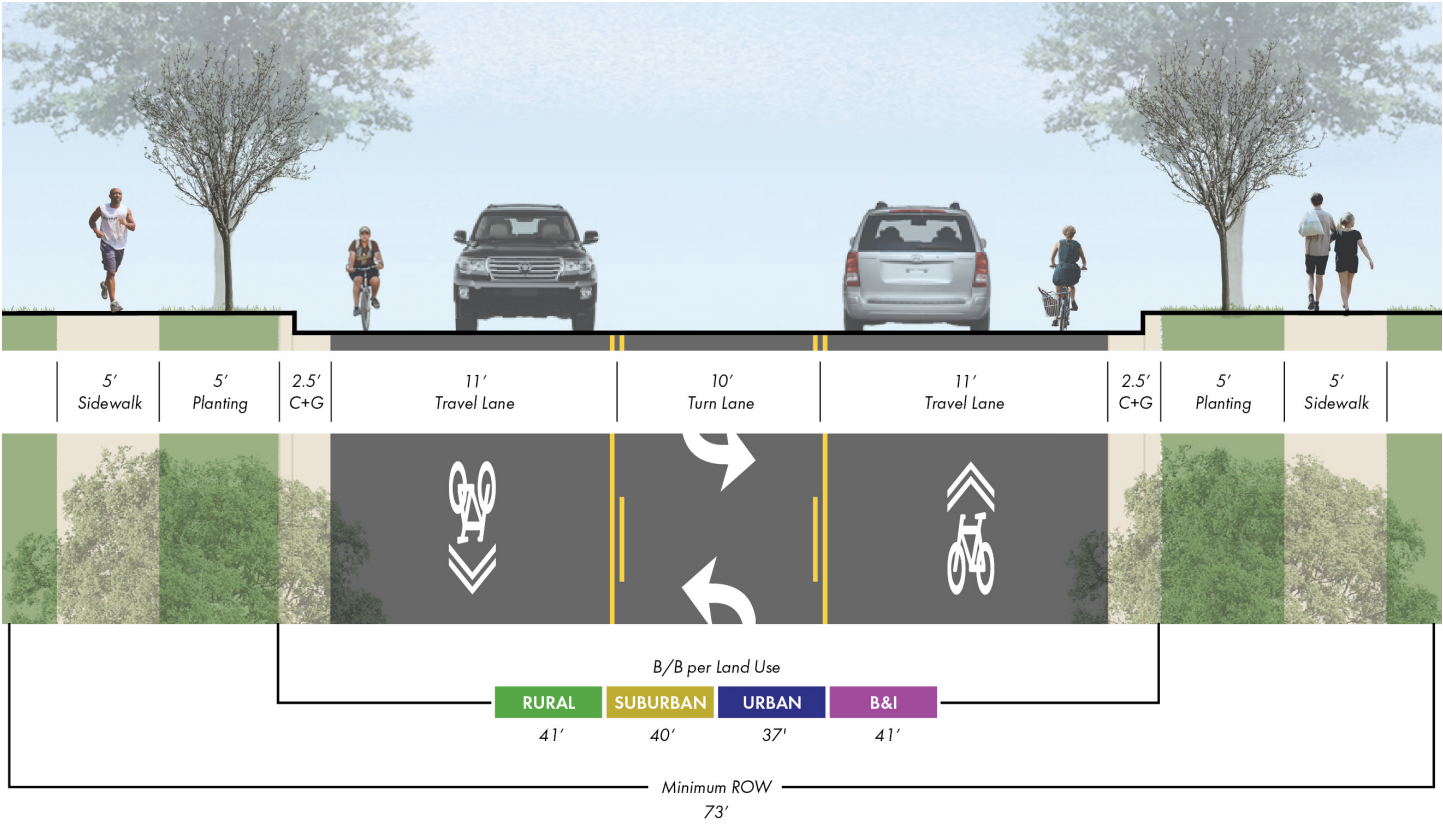
C-3B			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	77'	N/A	77'	77'	N/A
Back of Curb to Back of Curb (B/B)	Yes	43'		46'	43'	
Travel Lanes	2 Lanes	10'		11'	10'	
Center Turn Lane	Yes	10'		11'	10'	
Median	No	-		-	-	
Curb and Gutter (C+G)	2 Sides	2.5'		2.5'	2.5'	
Paved Shoulder	No	-		-	-	
Planting	2 Sides	6'		6'	6'	
On-Street Parking	Parking 1 Side	8'		8'	8'	
Sidepath	1 Side	10'		10'	10'	
Sidewalk	1 Side	5'		5'	8'	
Bicycle Facility	No	-		-	-	

Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.
Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

CT-3C

Collector or Thoroughfare | 3 Lanes

CT-3C Minimum



This cross-section includes the option to have a median in place of ongoing center turn lane. If warranted the minimum ROW would be 86.5'.

CT-3C			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	73'	67'	68'	73'	65'
Back of Curb to Back of Curb (B/B)	Yes	37'	41'	40'	37'	41'
Travel Lanes	2 Lanes	12'	12'	12'	11'	12'
Center Turn Lane	Yes	10'	12'	11'	10'	12'
Median	No	-	-	-	-	-
Curb and Gutter (C+G)	2 Sides	2.5'	2.5'	2.5'	2.5'	2.5'
Paved Shoulder	No	-	-	-	-	-
Planting	2 Sides	5'	6'	6'	8'	5'
On-Street Parking	No	-	-	-	-	-
Sidepath	No	-	-	-	-	-
Sidewalk	2 Sides	5'	5'	6'	8'	5'
Bicycle Facility	Sharrow / Wide Outside Lane*	Included in Travel Lanes				

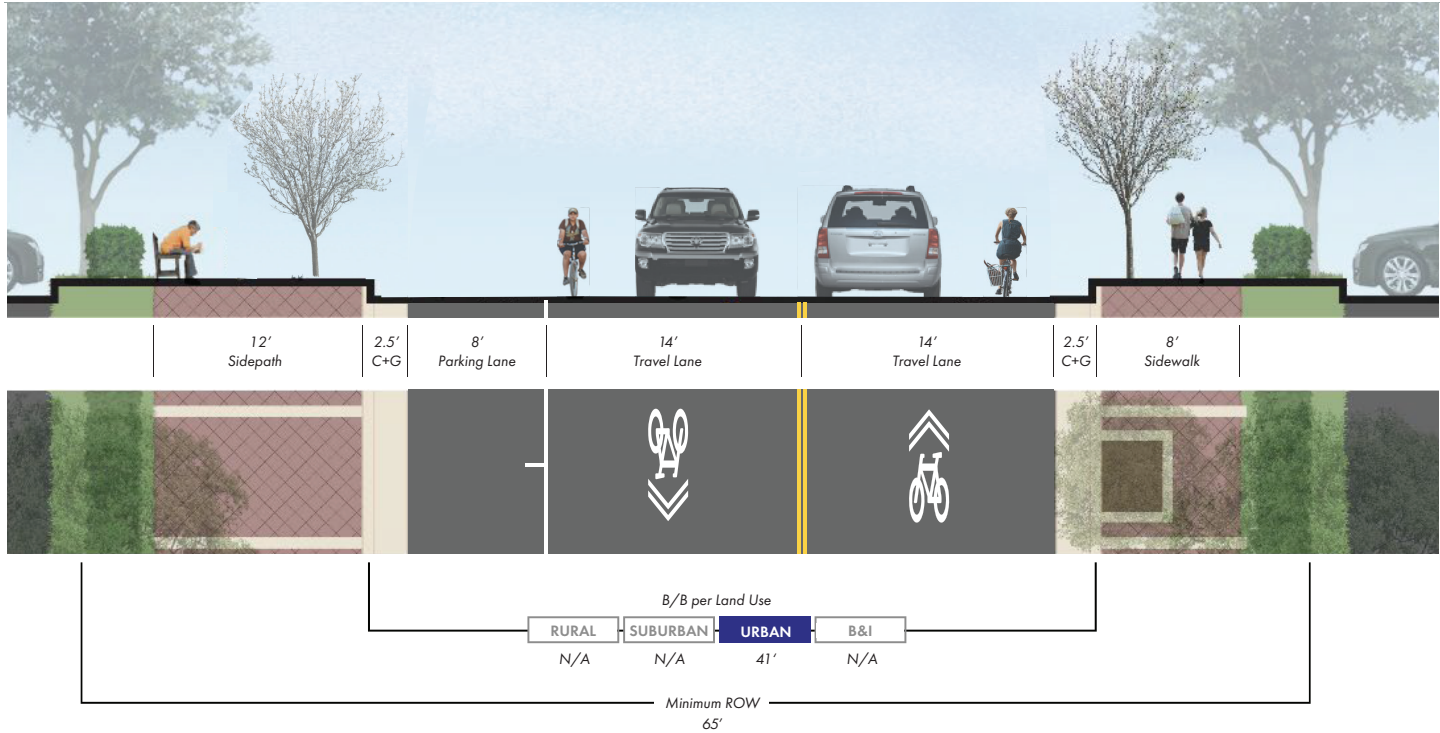
Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.
Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

*Reference recommendations table in Appendix J for cross-section elements to be included for a given project.

UT-2A

Urban Thoroughfare | 2 Lanes

UT-2A Minimum



UT-2A			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	65'	N/A	N/A	65'	N/A
Back of Curb to Back of Curb (B/B)	Yes	41'			41'	
Travel Lanes	2 Lanes	14'			14'	
Center Turn Lane	No	-			-	
Median	No	-			-	
Curb and Gutter (C+G)	2 Sides	2.5'			2.5'	
Paved Shoulder	No	-			-	
Planting	2 Sides	Included in Pedestrian Facilities			Included in Pedestrian Facilities	
On-Street Parking	1 Side	8'			8'	
Sidepath	1 Side	12			12'	
Sidewalk	1 Side	8'			8'	
Bicycle Facility	Sharrow / Wide Outside Lane*				Included in Travel Lanes	

Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.

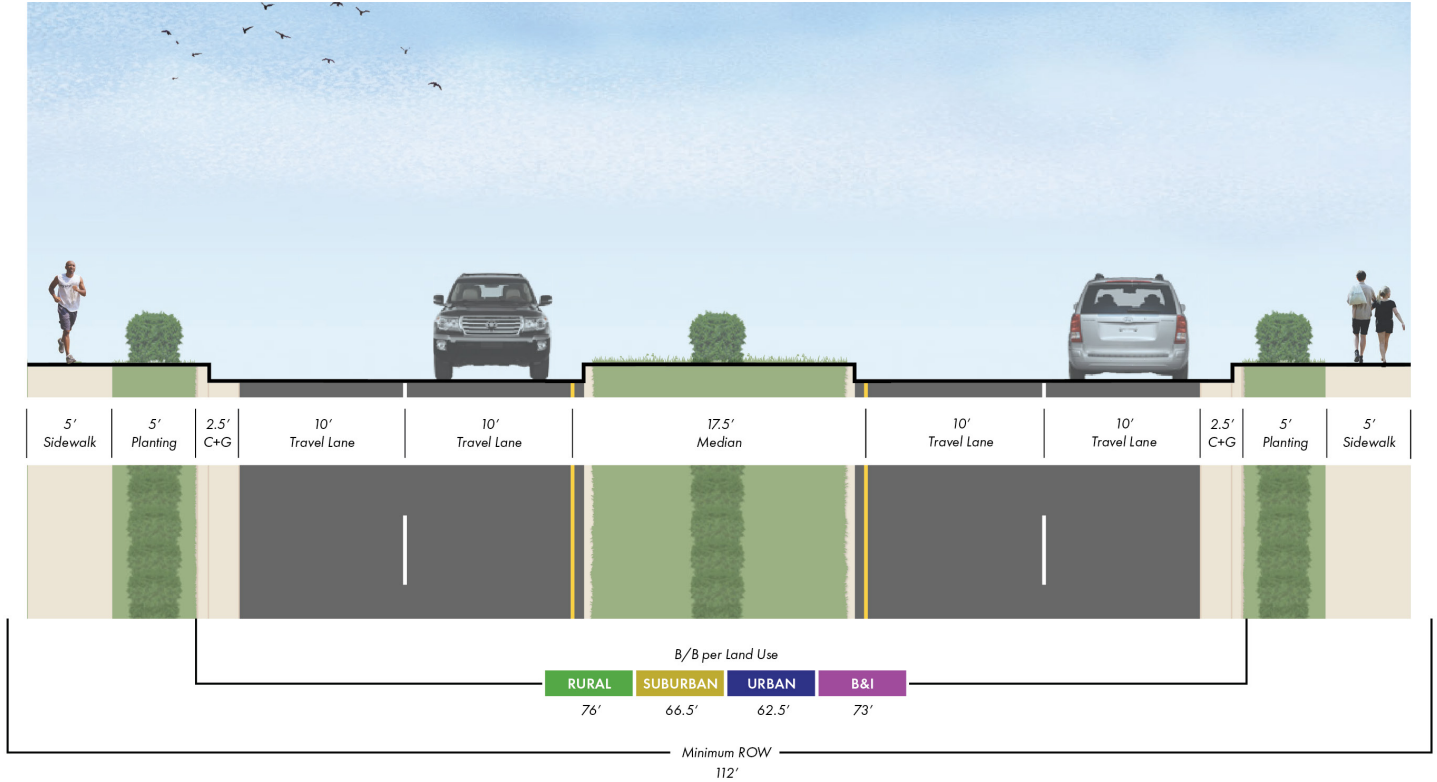
Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

*Reference recommendations table in Appendix J for cross-section elements to be included for a given project.

T-4A

Thoroughfare | 4 Lanes

T-4A Minimum



T-4A			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	112'	112'	103'	103'	107'
Back of Curb to Back of Curb (B/B)	Yes	73'	76'	66.5'	62.5'	73'
Travel Lanes	4 Lanes	10'	12'	11'	10'	12'
Center Turn Lane	No	-	-	-	-	-
Median	Yes	17.5'	23'	17.5'	17.5'	20'
Curb and Gutter (C+G)	2 Sides	2.5'	2.5'	2.5'	2.5'	2.5'
Paved Shoulder	No	-	-	-	-	-
Planting	2 Sides	5'	6'	6'	8'	5'
On-Street Parking	No	-	-	-	-	-
Sidepath	0-2 Sides*	10'	10'	10'	10'	10'
Sidewalk	0-2 Sides*	5'	5'	6'	8'	5'
Bicycle Facility	No	-	-	-	-	-

Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.

Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

*Reference recommendations table in Appendix J for cross-section elements to be included for a given project.

T-4A Alt 1 Minimum

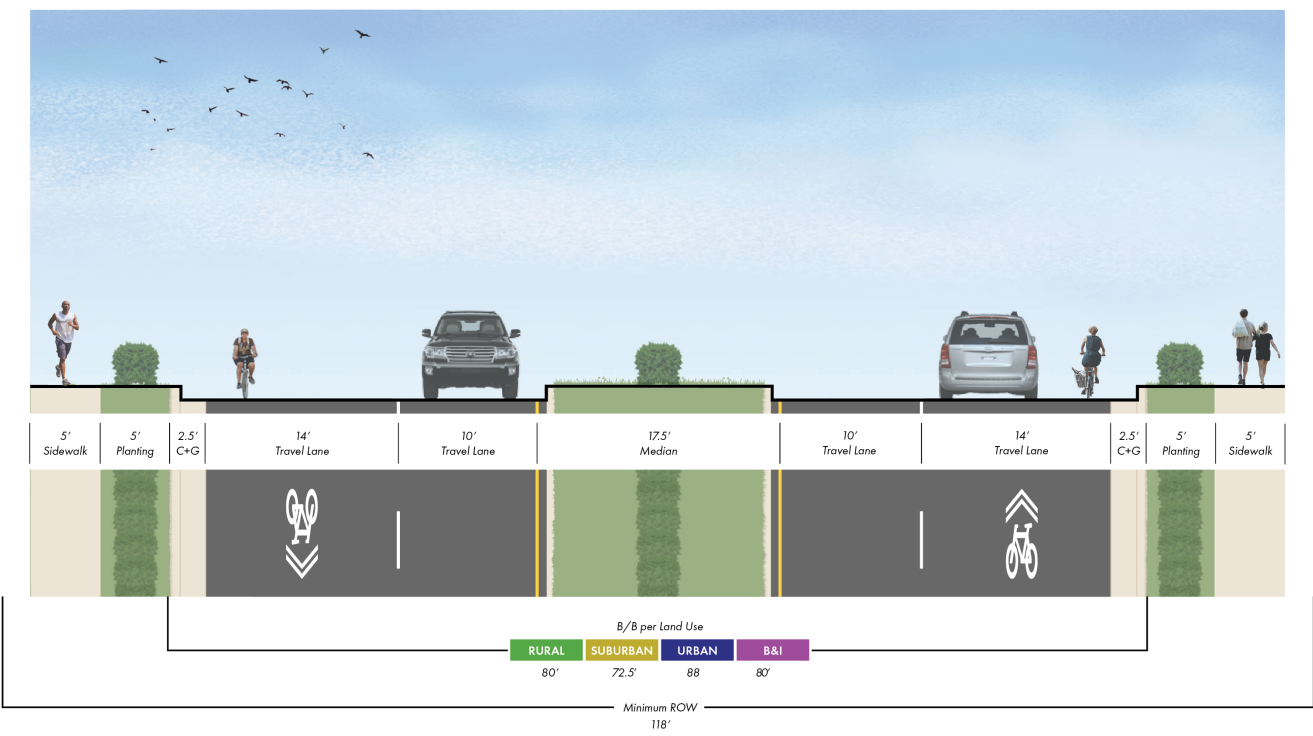


T-4A Alt 2 Minimum



T-4B
Thoroughfare | 4 Lanes

T-4B Minimum



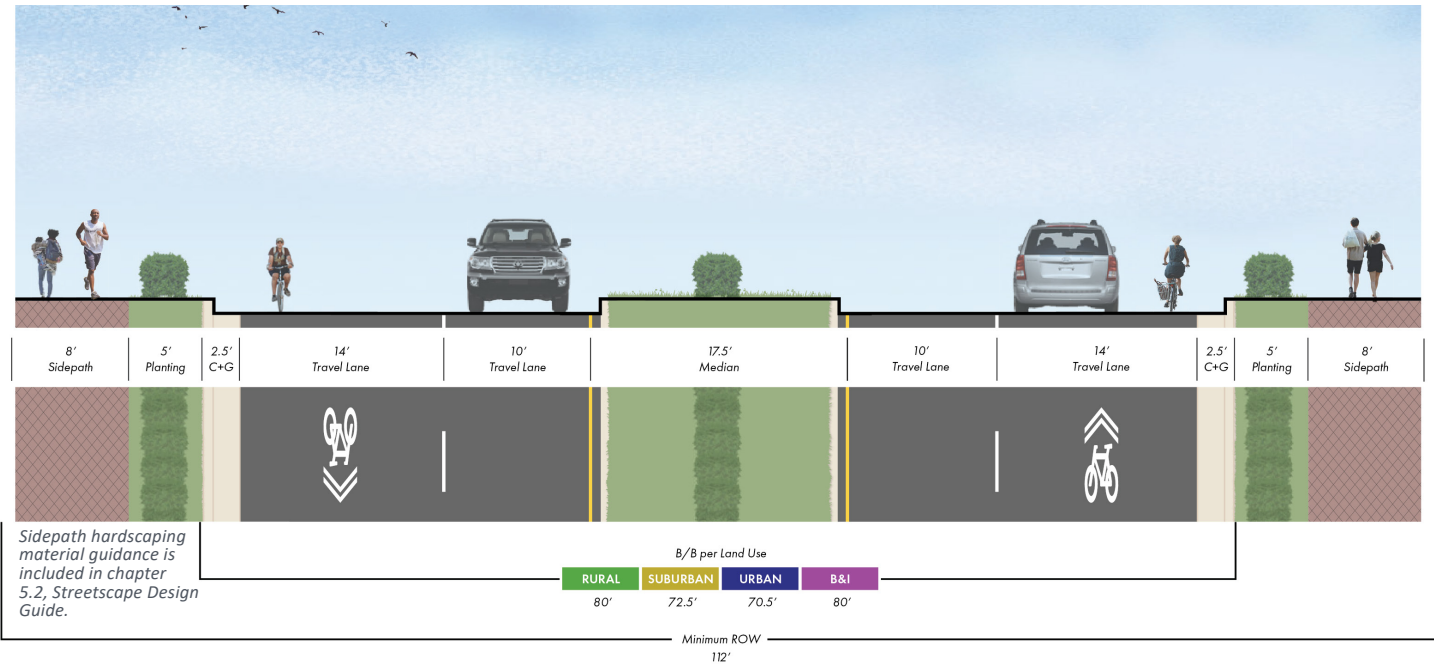
T-4B			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	112'	112'	105'	107'	104'
Back of Curb to Back of Curb (B/B)	Yes	70.5'	80'	72.5'	70.5'	80'
Travel Lanes (inside/outside)	4 Lanes	10'/14'	12'/14'	11'/14'	10'/14'	12'/14'
Center Turn Lane	No	-	-	-	-	-
Median	Yes	17.5'	23'	17.5'	17.5'	23'
Curb and Gutter (C+G)	2 Sides	2.5'	2.5'	2.5'	2.5'	2.5'
Paved Shoulder	No	-	-	-	-	-
Planting	2 Sides	5'	6'	6'	8'	5'
On-Street Parking	No	-	-	-	-	-
Sidepath	0-2 Sides*	8'	8'	8'	8'	-
Sidewalk	0-2 Sides*	5'	5'	6'	6'	5'
Bicycle Facility	Sharrow / Wide Outside Lane*		Included in Travel Lanes			

Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.

Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

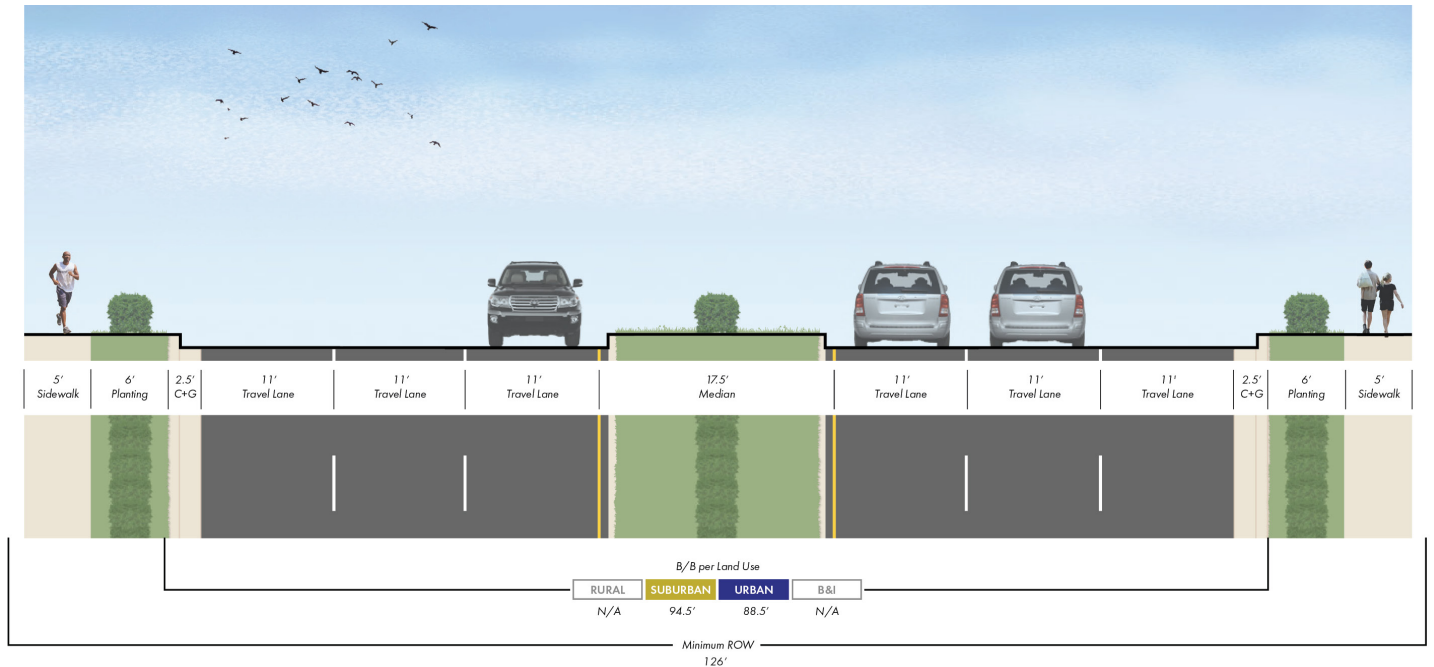
*Reference recommendations table in Appendix J for cross-section elements to be included for a given project.

T-4B Alt 1 Minimum



T-6A
Thoroughfare | 6 Lanes

T-6A Minimum



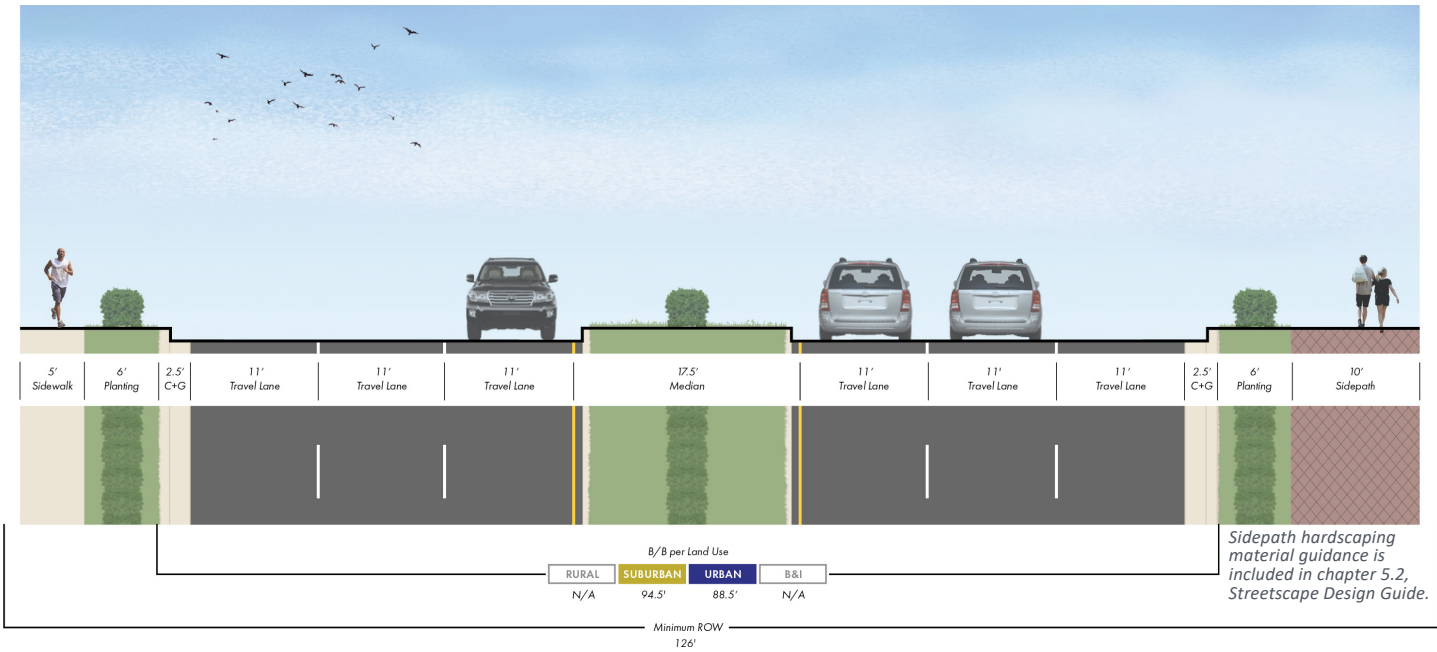
T-6A			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	126'	N/A	126'	121'	N/A
Back of Curb to Back of Curb (B/B)	Yes	88.5'		94.5'	88.5'	
Travel Lanes	6 Lanes	11'		12'	11'	
Center Turn Lane	No	-		-	-	
Median	Yes	17.5'		17.5'	17.5'	
Curb and Gutter (C+G)	2 Sides	2.5'		2.5'	2.5'	
Paved Shoulder	No	-		-	-	
Planting	2 Sides	6'		6'	6'	
On-Street Parking	No	-		-	-	
Sidepath	0-1 Side*	-		10'	10'	
Sidewalk	0-2 Sides*	5'		5'	6'	
Bicycle Facility	No	-		-	-	

Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.

Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

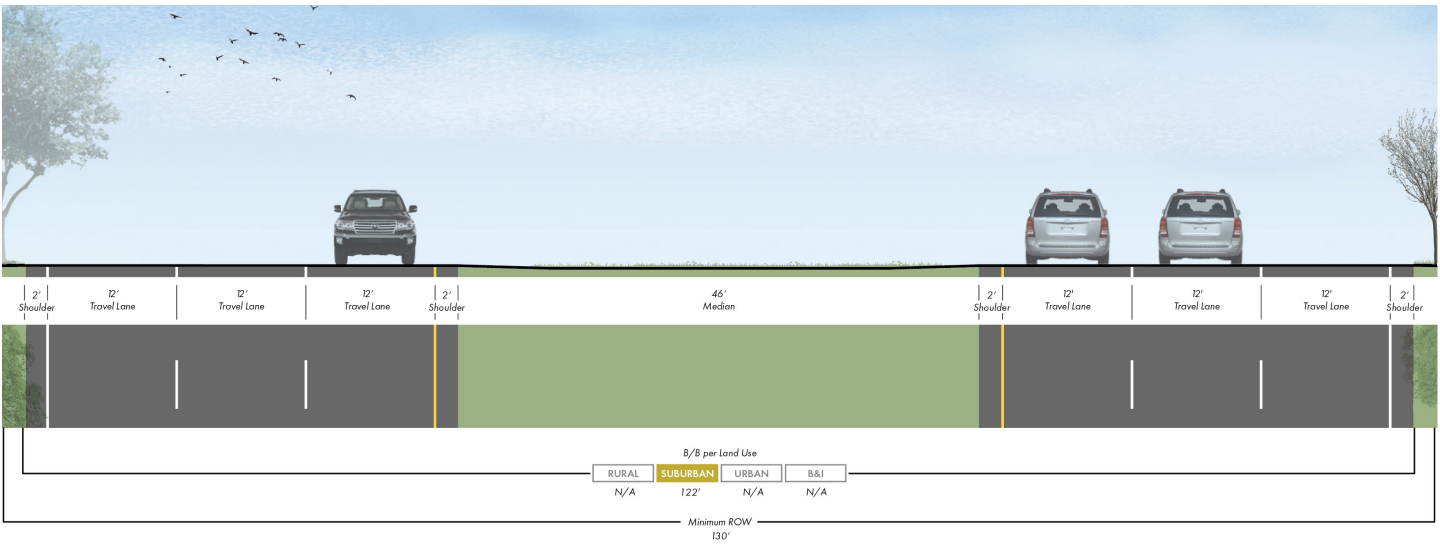
*Reference recommendations table in Appendix J for cross-section elements to be included for a given project.

T-6A Alt 1 Minimum



T-6B
Thoroughfare | 6 Lanes

T-6B Minimum



T-6B			Land Use Character Area			
Design Elements	Element Included	Minimum Dimension	Rural	Suburban	Urban	Business & Industrial
Right-of-Way (ROW)	Yes	130'	N/A	130'	N/A	N/A
Back of Curb to Back of Curb (B/B)	Yes	122'		122'		
Travel Lanes	6 Lanes	12'		12'		
Center Turn Lane	No	-		-		
Median	Yes	46'		46'		
Curb and Gutter (C+G)	No	-		-		
Paved Shoulder	2 Sides	2'		2'		
Planting	No	-		-		
On-Street Parking	No	-		-		
Sidepath	No	-		-		
Sidewalk	No	-		-		
Bicycle Facility	No	-		-		

Note 1: Right-of-Way (ROW) dimension accounts for an extra 2 feet of space on back side of cross-section elements on both sides to account for variables in design and construction (extra 4 feet total added to ROW). ROW is also rounded up to the nearest whole number.

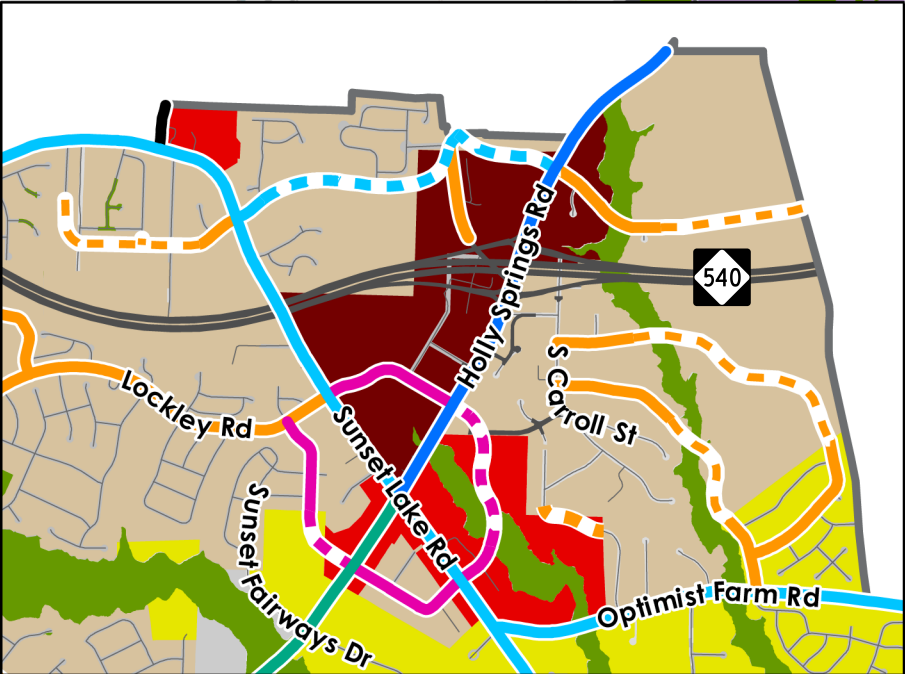
Note 2: Design elements and dimensions for Somewhat Suburban and Somewhat Urban land use characters should be considered with the respective Suburban and Urban categories.

Cross-Section Map

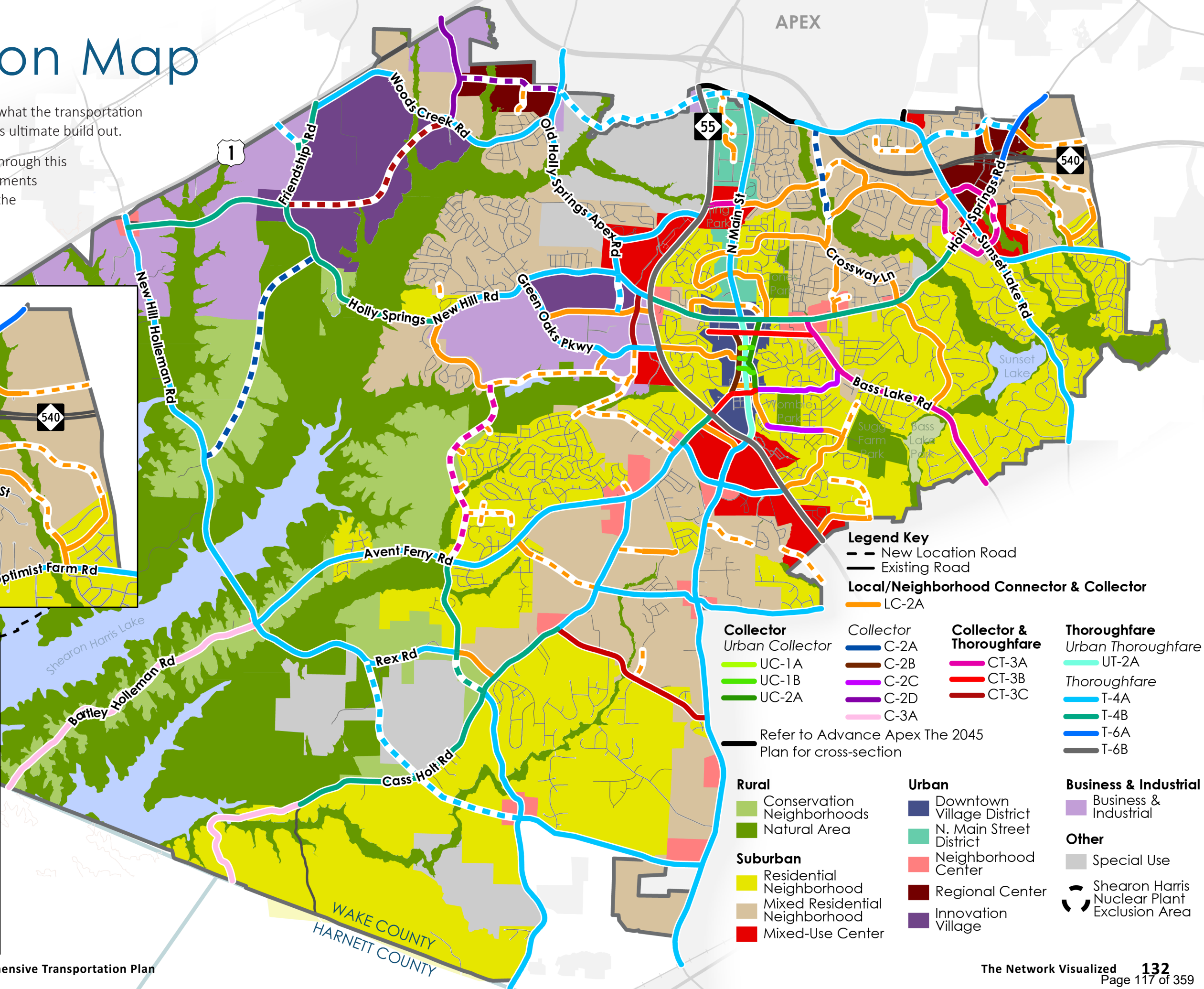
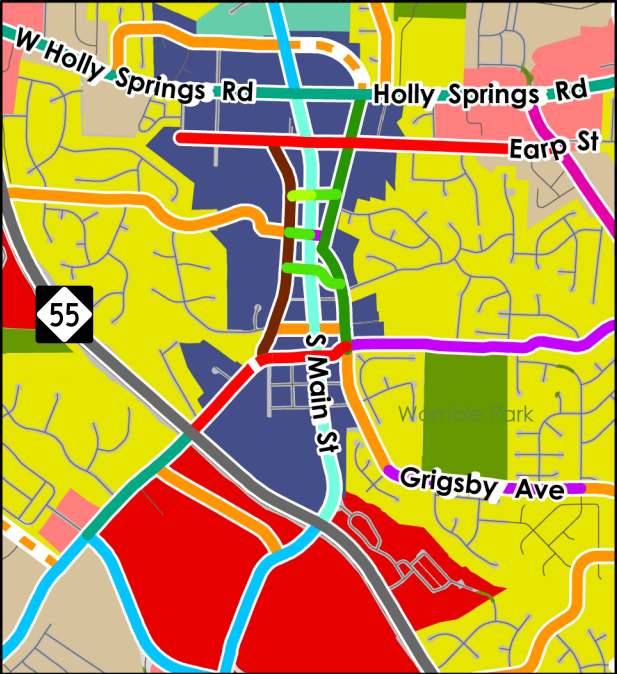
This map is a comprehensive representation of what the transportation network in Holly Springs is envisioned to be in its ultimate build out.

While the vision of this map can't be achieved through this CTP alone, it encompasses the cross-section elements that are both existing and proposed to capture the full transportation picture in one map.

Northeast Gateway



Downtown Village District



Legend Key

- New Location Road
- Existing Road

Local/Neighborhood Connector & Collector

- LC-2A

Collector

- Urban Collector
 - UC-1A
 - UC-1B
 - UC-2A
- Collector
 - C-2A
 - C-2B
 - C-2C
 - C-2D
 - C-3A

Collector & Thoroughfare

- CT-3A
- CT-3B
- CT-3C

Thoroughfare

- Urban Thoroughfare
 - UT-2A
- Thoroughfare
 - T-4A
 - T-4B
 - T-6A
 - T-6B

Refer to Advance Apex The 2045 Plan for cross-section

Rural

- Conservation
- Neighborhoods
- Natural Area

Suburban

- Residential Neighborhood
- Mixed Residential Neighborhood
- Mixed-Use Center

Urban

- Downtown Village District
- N. Main Street District
- Neighborhood Center
- Regional Center
- Innovation Village

Business & Industrial

- Business & Industrial

Other

- Special Use
- Shearon Harris Nuclear Plant Exclusion Area

Ways to Control Automobile Access

Medians are reserved areas that separate opposing lanes of traffic on roadways. Medians are used to control traffic movements and limit cars’ access to improve traffic flow. A median break is just as it sounds—a break in a median that increases access by allowing for cars to pass through. There are several different kinds of median breaks:

Median Crossover

The figure on the right shows a median crossover compared with a median with no break. The median crossover is a median with a gap that allows cars access to the other side of the road. This type of median break allows drivers to make a left-turns or U-turns if desired.

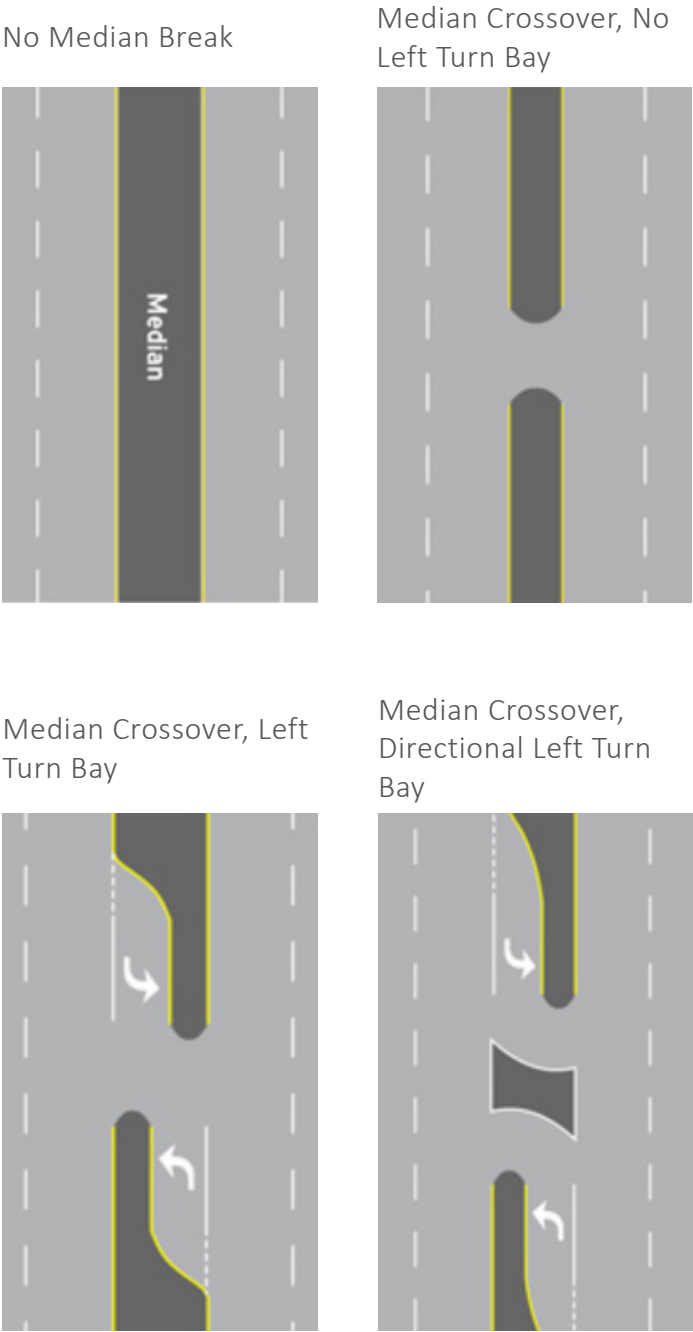
When new development occurs, it is important that vehicles have access to a site. By considering the location of a median crossover or median break during the design phase of a project, it will set reasonable expectations to how and where drivers can access a site.

Median Crossover with Left Turn Bay

The median crossover with left turn bay creates space for a queue of cars turning left. This type of median break is ideal for locations where there are many left-turning vehicles. In order to keep traffic moving, dedicated space for left-turning cars may be ideal.

Median Crossover with Directional Left Turn Bays

A median break with a directional left turn bay is a standard design used to enhance safety along a corridor. The break allows for queuing cars to make a protected left turn. The purpose of this design is to reduce the conflict of left-turning cars and to prevent head-on crashes.

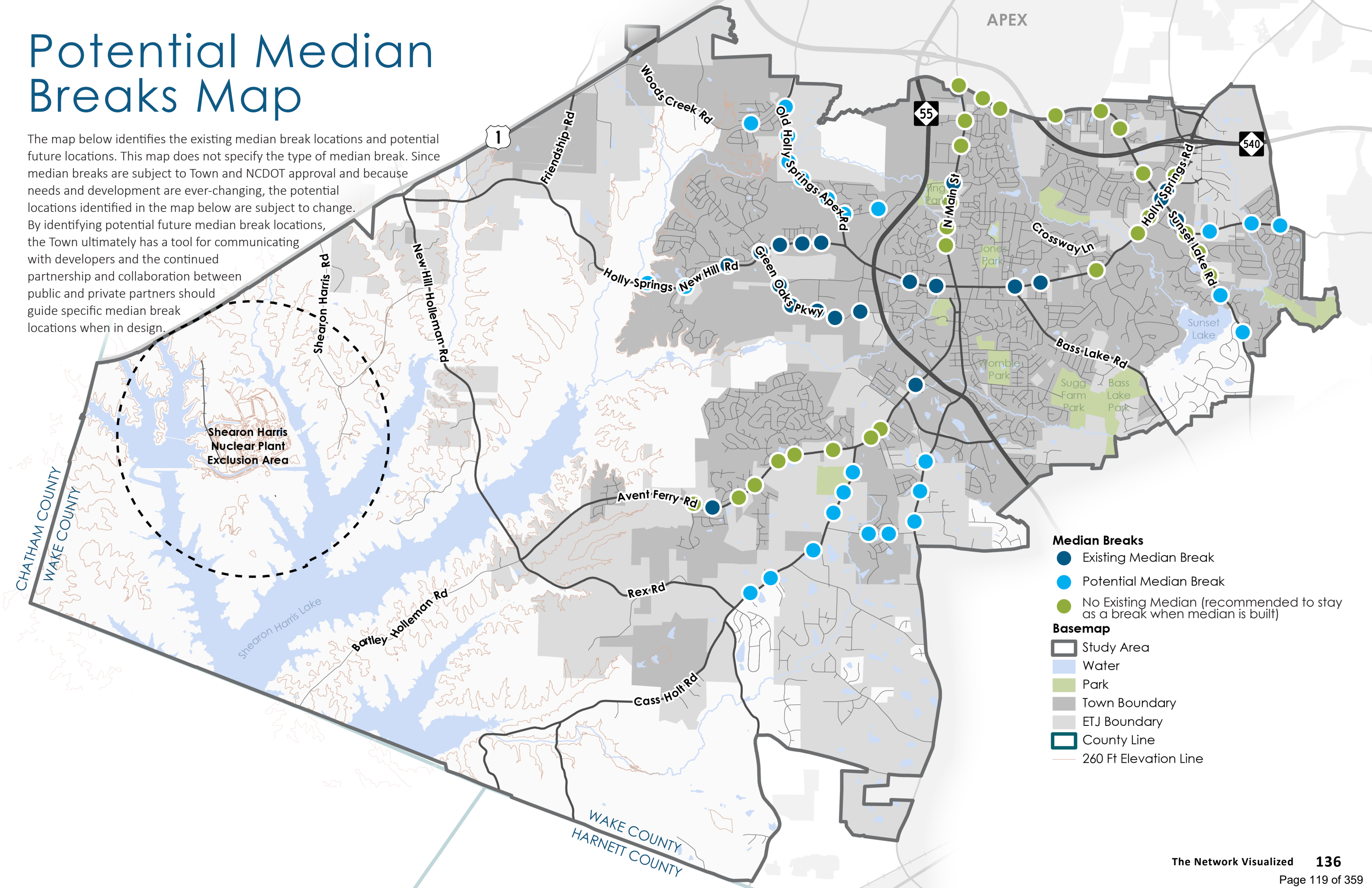


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U.S. Department of Transportation Federal Highway Administration (2014)

Potential Median Breaks Map

The map below identifies the existing median break locations and potential future locations. This map does not specify the type of median break. Since median breaks are subject to Town and NCDOT approval and because needs and development are ever-changing, the potential locations identified in the map below are subject to change. By identifying potential future median break locations, the Town ultimately has a tool for communicating with developers and the continued partnership and collaboration between public and private partners should guide specific median break locations when in design.



STREETSCAPE DESIGN GUIDE

WHAT'S INSIDE

Introduction

The introduction outlines the purpose of the streetscape design guide and when to use this chapter.

Existing Conditions

This section identifies the existing conditions of streetscapes through the Town and lessons learned from precedent examples.

Peer Review

This section highlights lessons learned from research of peer community streetscape design guidelines and public art policies.

Streetscape in Holly Springs

This section introduces the components of a great streetscape.

Street Typologies

This section explains how streetscapes should fit the contexts of the road classification.

Streetscape Elements

The content in the section outlines the intent and guidelines for streetscape components, allowing for the thoughtful design of streetscape with a high-level of quality.

Public Art

This content under this heading details components of public art and how it relates to place making in a street setting.

Introduction

The importance of streetscape design guidelines can be outlined through the improved safety, visual quality, and community character they will bring the Town of Holly Springs. With a goal of creating a unifying vision for near and long-term streetscape improvements across the Town, a framework has been provided for pedestrians, transit, lighting, furnishings, and community identify elements.

Purpose

Vision Holly Springs Section 1: Land Use & Character Plan identifies that improvements to the public realm can significantly influence the form and function of Holly Springs' neighborhoods, town and regional centers, and create a sense of place for those who live and work there. The "Public Realm" is the portion of the Town that is shared among all of its residents and visitors. It encompasses all of the streets and public outdoor spaces in Holly Springs, including parks, greens, plazas, public art, street furniture, lighting and public infrastructure. All of the elements described above contribute to the character of a place, and making clear decisions about what happens in the public realm is critical to maintaining and/ or transforming character. The need to create streetscape guidelines is rooted in the desire to improve the quality of public realm with underlying goals of improving pedestrian experiences and developing a cohesive aesthetic.

A significant challenge to improving the public realm is the existing character of the Town's public streets, which are currently designed primarily for moving automobiles quickly. This CTP calls for a number of changes to how the Town designs streets. Through expansion of proposed changes to include the full character of the right-of-ways, a better, more livable set of streets can be achieved.

As part of the streetscape design guidelines, a review of existing conditions, research of peer communities, and the development of a set of guidelines that address the character of the streetscape, medians, plantings, furnishings, etc. was completed. This set of guidelines establishes a framework that allows for flexibility of street type, conditions, and budget.

Derivative of CTP Recommendations

The CTP has evaluated the community's transportation network, planned for the future, and outlined a series of recommended improvements. This chapter of streetscape design guidelines is one of those recommendations. The goal of these guidelines is to build upon the recommendations of the CTP, and where possible, leverage projects to incorporate new streetscape standards for the comprehensive design of the public realm. A focus on these guidelines is the space within a street right-of-way between a building facade or property limits and the curb. This space may be activated by pedestrians on either side of a street, or it may be limited to pedestrian interaction such as a median. These guidelines are not to interfere with recommendations elsewhere in this CTP that impact travel lanes, intersections or other facilities within the limits of curbs.

When to use this Chapter

This set of streetscape design guidelines are not regulations that mandate specific forms or improvements. The guidelines contained in this chapter are to illustrate recommendations and principles of good streetscape design that encourage an attractive and successful public realm and should be incorporated into the Unified Development Ordinance or Engineering Design and Construction Standards.

As transportation projects are planned and designed within the public realm or right-of-way, Town staff, consultants, and residents are encouraged to review these guidelines for inspiration, as a problem-solving tool, and most importantly, a checklist for considerations. This chapter should be referenced during the planning and design stages to provide maximum benefits to any project.

Field Review

Streetscapes in Holly Springs are highlighted by a wide range of design aesthetics, furnishing types, and plant palettes. Additionally, there are several documents that influence how streetscapes are designed throughout the Town. Primary documents include:

- Vision Holly Springs Comprehensive Plan
 - Section 1: Land Use & Character Plan
 - Appendix C: Thoroughfare Planting Plan
 - Appendix D: Town Gateway Map
 - Appendix E: Village District Area Plan
 - Section 2: Comprehensive Transportation Plan
 - Section 3: Parks, Recreation and Greenways Master Plan
- Unified Development Ordinance
- Engineering Design and Construction Standards
- NCDOT Guidelines for Planting Within Highway Right-of-Way

Though these documents share a common goal of elevating the quality and consistency of streetscape design, they frequently conflict with one another and often result in mismatched guidance in safety, aesthetics, and branding.

Upon review of field conditions of existing streetscape types across Holly Springs, the following key takeaways were identified:

- Inconsistent aesthetics and branding
- Lack of use of durable materials
- Inefficiencies of maintenance
- Lack of consistency in safety requirements
- High ability to maintain quality streetscapes
- Limited use of public art to enhance community character
- Transition from heavily vehicle influenced streetscape scale to pedestrian or complete-street scale
- Emphasis on streetscape as a branding, economic development, and community character defining tool

Not all observations were negative as can be seen above. The Town's ability to maintain quality streetscape, use of public art, and noted transition of scale from vehicle dominance to pedestrian is positive. As shown in the following images, a wide range of streetscape types and components can be seen throughout the Town.

Although the Town is able to maintain many of the streetscapes to a high level of quality, there are inefficiencies in how some of the streetscapes are designed which add to the workload of maintenance crews and in some cases, may create unsafe conditions for crews due to a lack of incorporating best practices.

An example is a condition that was found in several streetscapes that consists of narrow strips of grass between planting beds and the curb. The purpose of these grass strips is to prevent mulch runoff into travel lanes and provide a visual barrier between the planting bed and street. These strips of sod are frequently too narrow to mow and require a crew member to walk with a line trimmer along travel lanes to cut grass. In addition, because of the harsh conditions of the streetscape, the grass is frequently thin and dying. An alternative best practice is to maintain a grass strip with a minimum width of 36" which is a common width of a mower's deck. This prevents the added need for a crew member to walk in the street to cut grass and still provides the benefits of containing mulch and providing a visual separation. Another alternative is to simply plant the full width of the bed to the curb and maintain the elevation of mulch below the curb height to prevent washouts.



Example of median plantings not designed to scale; Pine Grove-Wilbon Road at Brayton Park Place.



Example of small roundabout on Earp Street near Holly Springs Police Station.



Example of a drought-tolerant median planting along Avent Ferry Road south of US Hwy 55.



Example of inappropriate plantings with a 'hollies' theme along Main Street at Holly Springs Road.

Field Review

The following list identifies additional observations of existing streetscapes throughout Holly Springs. Notes specific to S. Main Street in the Downtown Village District are shown in the image below.

- Consistent 'holly' plant theme
- Significant visual barriers by median landscape not meeting NCDOT ROW planting requirements or requirements for local roadways
- Opportunities for public art to be incorporated
- High maintenance plant palette and lack of 'right sizing' plant species resulting in need to frequently trim shrubs and limb-up trees
- Lack of visual elements in existing roundabouts
- Existing public art not well sited for visibility
- Medians lack refuge islands for pedestrians
- Existing gateway elements include brick columns and entry signs in opposite corners of intersections
- Inconsistent color palette across gateway features
- Use of mono-textured plant palette around gateway features
- Large areas of exposed mulch
- Some plantings have reached their lifespans for successful growth in medians
- Plant massings do not match design speeds for corridors

South Main Street - Context Zone Challenges



Precedents and Lessons Learned

Methodology

Research was completed by studying regional and national precedents for communicating streetscape and landscape design, establishing public art polices, and implementation of streetscape design standards. A collection of local and national successful examples were reviewed and lessons learned identified. The following information consists of lessons referenced in the development of guidelines for Holly Springs.

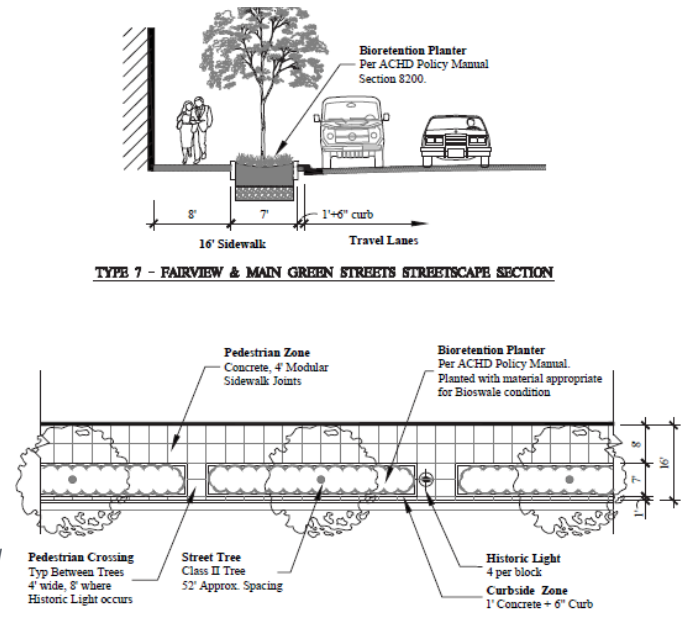


Streetscape Design

Streetscape design documents establish design vocabulary and streetscape character, as it relates to form and materials. As represented in chosen precedent documents, these design requirements are determined and presented in a variety of ways to serve as a design tool.

The Downtown Boise Streetscape Standards and Specifications Manual and the Hoboken Street Design Guide both begin with a master plan identifying street specific typologies. These documents then describe the characteristics expected for each street type to achieve well rounded streetscapes for pedestrians and vehicles as examples of complete streets.

The Connect Atlanta Plan outlines different design impacts from vehicles, transit, bikes, and pedestrians based upon existing context of the street. Items which influence the streetscape include vehicle access demand, on-site parking, driveway density, vehicle speeds, access demand, building form, and land-use. In contrast, other precedent examples are mostly area plans that establish design standards for specific areas. However, most guidelines can be applied throughout a community.



Precedents and Lessons Learned

Example of green infrastructure - Hoboken Street Design Guide

STREET DESIGN GUIDE

Green Infrastructure

Green infrastructure uses nature processes to properly capture, store, and filter stormwater. This is especially important in coastal regions like Hoboken, which experiences recurrent flooding and tidal conditions. Incorporating these opportunities into future street improvement projects can incrementally improve the City's stormwater management capabilities as well as provide vegetative greenery and improved aesthetics along urban corridors. Within the right-of-way, there are several opportunities to include green infrastructure as street projects are designed. The most common opportunities in Hoboken are defined below and referenced throughout the design manual. Through the Hoboken Design Planning process, all sites were identified as potential locations for green infrastructure installations. Future street improvement projects at these locations should reference Hoboken's design recommendations and be completed with a full feasibility analysis to determine the appropriate approach for each location.

How Bioswales Work

Bioswales are shallow, open, vegetated channels—often referred to as linear bioretention, as defined by the San Antonio River Authority. They are designed to treat runoff and remove pollutants, including trash, through a variety of physical, biological, and chemical treatment processes. The primary pollutant removal functions are filtration through soil media and infiltration. Bioswales can be used in place of traditional curbs and gutters to convey stormwater runoff; however, the primary objective of bioswales is to filter or infiltrate water and improve water quality. Bioswales can have a range of design variations with or without check dams, subsurface storage media, and underdrains, as shown in Figure 15. Use of an engineered soil media is recommended to improve water quality, reduce the runoff volume, and modulate the peak runoff rate, while also conveying excess runoff. Bioswales are typically planted with grasses, shrubs, and trees (or trees, refer to the City of Hoboken Street Tree Installation Specifications) that can withstand short periods of saturation (12 to 96 hours) followed by longer periods of drought. A typical bioswale cross section shown on the right can be implemented in the turning zone or in curb extensions at intersections (as shown throughout this guide).

Design Guidance

Bioswales are well-suited for green street retrofit projects because of their narrow linear design. They can be applied in multiple configurations including in the turning zone and in traffic calming features such as curb extensions at intersections and mid-block curb extensions.

Figure 15: Curb Extension Bioswale Cross Section (Source: Taha Tech)

Figure 16: Typical Stormwater Tree Cross Section (Source: Taha Tech)

Figure 17: Typical Stormwater Tree Cross Section (Source: Taha Tech)

49

North Jersey Transportation Planning Authority | City of Hoboken

The Downtown Streetscape Improvement Plan of Matthews, NC focuses on improvement of specific sites within the downtown design district related to materials and features of pedestrian zones. The Design Standards & Guidelines for Cherry Creek North Denver outlines value and goals to be supported by each design guideline based upon pedestrian connectivity, paving, scooters and bicycles, streetscape furniture, pedestrian lighting, and, art and garden places.

The Streetscape Design Standards for Nassau Street in Princeton, New Jersey focuses on the design of one specific historic street. This example was relevant to streets within the Village District Area Plan of Holly Springs. Streetscape design standards established for several different conditions along a street including landscape edges, alley crossings, and plaza edges.

All precedents researched serve as guides to creating safe, aesthetically pleasing, and implementable streetscapes design within communities.

Public Art

Public art is art installation in the right-of-way or a public easement funded and/or maintained by a public agency. Public art enhances the streetscape environment, offers social and educational opportunities, promotes tourism and community character, and in some cases, can discourage vandalism.

Chapel Hill and Wake Forest have appointed committees that spearhead development of public and cultural arts, and have either a cultural arts division and/or the parks and recreation departments leading efforts to collaboratively work with clubs and associations on public art opportunities. Each community clearly defines what public art is for the purpose of common ground among advocates and developed mission statements for guidance. Both communities have implemented a 'Percent for Public Art' ordinance which allocates 1% of capital construction projects for public art. Chapel Hill's plan further identifies location opportunities for public art.

Redmond, WA; 'Standing Leaves, Falling Light' by Barbara Gyrgutis; an example of monumental art installations.

Chapel Hill, NC 'Treescape' by Arlene Slaven; an example of a bench serving as public art.

Landscape

The Town of Cary Community Appearance Manual outlines design standards for landscape, lighting, and architectural compatibility. Within the landscape section, guidelines are determined by variables of spacing and density with species selection being led by a specific approved list. The focus of Cary's landscape design standards is preservation of existing vegetation, use of native species, and density of vegetation in relation to the specific land use of a streetscape area.

Example of median landscape in Cary, NC (Chapel Hill Rd)

The Street Trees, Tree Lawns, & Planting Beds Section of the Design Standards & Guidelines for Cherry Creek North (Denver) describes landscape as a tool of design that softens the urban context and introduces natural elements into the street environment. Street tree plantings are to be rhythmic in order and feature ornamental trees at

Example of roundabout landscape in Cary, NC (W. Chatham Street)

intersections. The Streetscape Design Standards for Nassau Street in Princeton, New Jersey outlines tree grate options for street trees, guidelines for mounted planting baskets on each light pole, and a recommendation to use movable planters as a visual screen or buffer alongside any outdoor dining area.

Example of streetscape in Cary, NC (South Harrison Ave.)

Implementation

The Downtown Boise Streetscape Standards and Specifications Manual outlines implementation strategies and includes details for construction coordination. The manual includes information for schedule, relevant contact information, guidelines for management of traffic during construction, expected construction schedule, contractor's responsibilities, and conditions of grant payment.

In 2014, Cary adopted a policy for median plantings. The purpose of the policy is to outline a criteria to ensure median plantings are completed in a priority manner. The following information makes up the criteria which may be relevant to Holly Springs as not all medians may be planted at the time of construction.

143 Vision Holly Springs - Section 2: Comprehensive Transportation Plan

The Network Visualized 144

Page 123 of 359

Precedents and Lessons Learned

Rank 1: High Traffic- Based upon average daily traffic (ADT) figures, a weighted assignment of points based on the following scale: 1 pt. for ADTs less than or equal to 10,000; 9 pts. for ADTs greater than 10,000 and less than or equal to 20,000; and 29 pts. for ADTs greater than 20,000.

Rank 2: Age- based upon age of median (not road), a weighted assignment of points based on the following scale: 1 pt. less than 10-years old; 6 pts. for greater than 10 and less than or equal to 20-years olds; 26 pts. for greater than 20-years old.

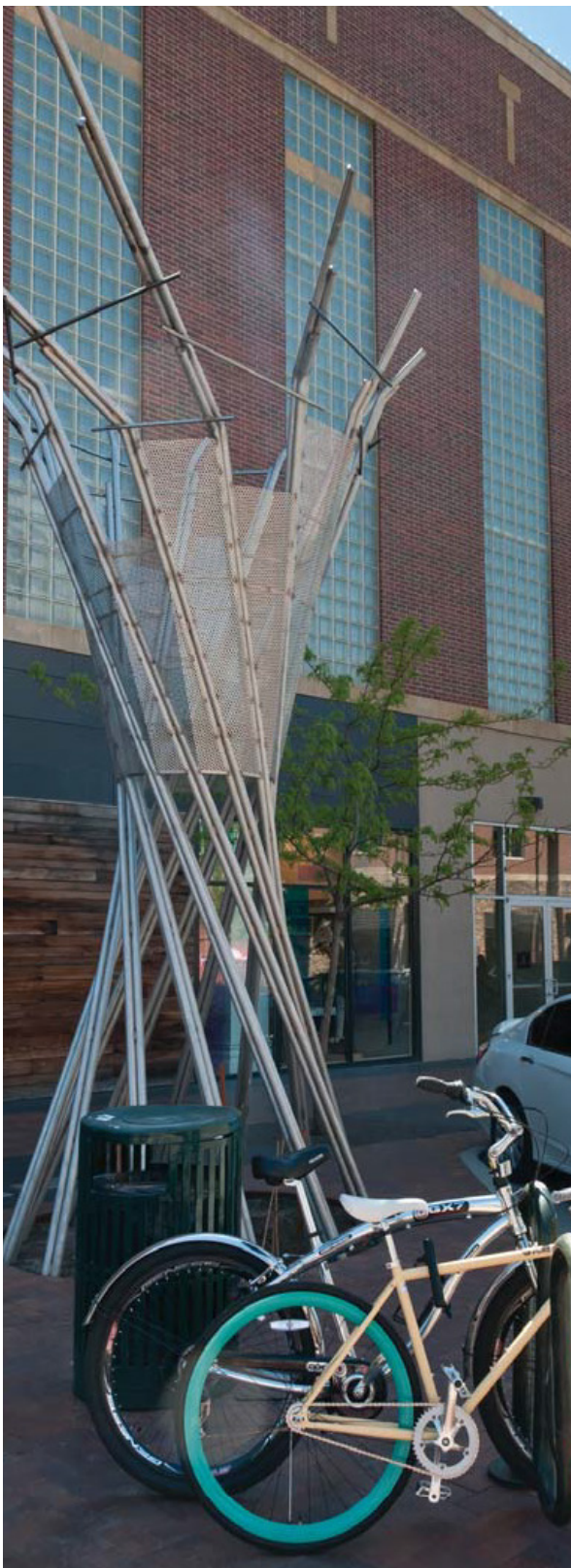
Rank 3: Contiguous - 17 pts. for segments of a median corridor that are planted although the entire corridor is not.

Rank 4: Citizen Input - 11 pts. for any citizen requests or inquiry to median status or condition.

The town also utilizes NCDOT guidelines for estimating construction costs annually for priority plantings. The town routinely divides median planting projects into smaller segments based upon annual funding capabilities.

Similarly, the Town of Wake Forest Public Art Vision Plan outlines implementation guidelines for the following items and can serve as point of reference for Holly Springs:

- Liaison and consultation with municipal agencies and departments
- Commissioning original works of art
- RFQ/RFP processes
- Peer Panel reviews
- Acquisition of public art
- Documentation of art (complete records)
- Technical feasibility (site selection, budget, durability, safety, quality, maintenance, diversity and credentials of art)
- Ownership of public art
- Deaccession of public art
- Siting public art
- Artist engagement
- Incentives
- Easements
- Maintenance and conservation
- Conflict of interests



Example of streetscape public art as a focal point. Downtown Boise Streetscape Standards and Specifications Manual.

Goals

The underlying goal of the Holly Springs Streetscape Design Guide is to improve the quality of the streetscapes throughout the Town. As part of this goal, the experiences of the public realm by pedestrian, cyclists, transit users, and vehicles will be improved.

Application of these design guidelines are intended to have a framing role in the design of streetscapes throughout Holly Springs. There are numerous factors which may require deviation from these guidelines to a degree. These include: impacts by horizontal metrics such as right-of-way or lane widths, utility conflicts, type of street, budget, and future actions by the Town which may build upon or modify these guidelines.

These guidelines are provided as a supplement to the CTP and other Town guiding documents. The following components of a typical streetscape are included in the guidelines:

- Sidewalk character
- Median, verge, and island plantings
- Hardscape medians
- Roundabouts
- Hardscapes
- Furnishings
- Green infrastructure
- Transit stops
- Lighting
- Gateways
- Public art

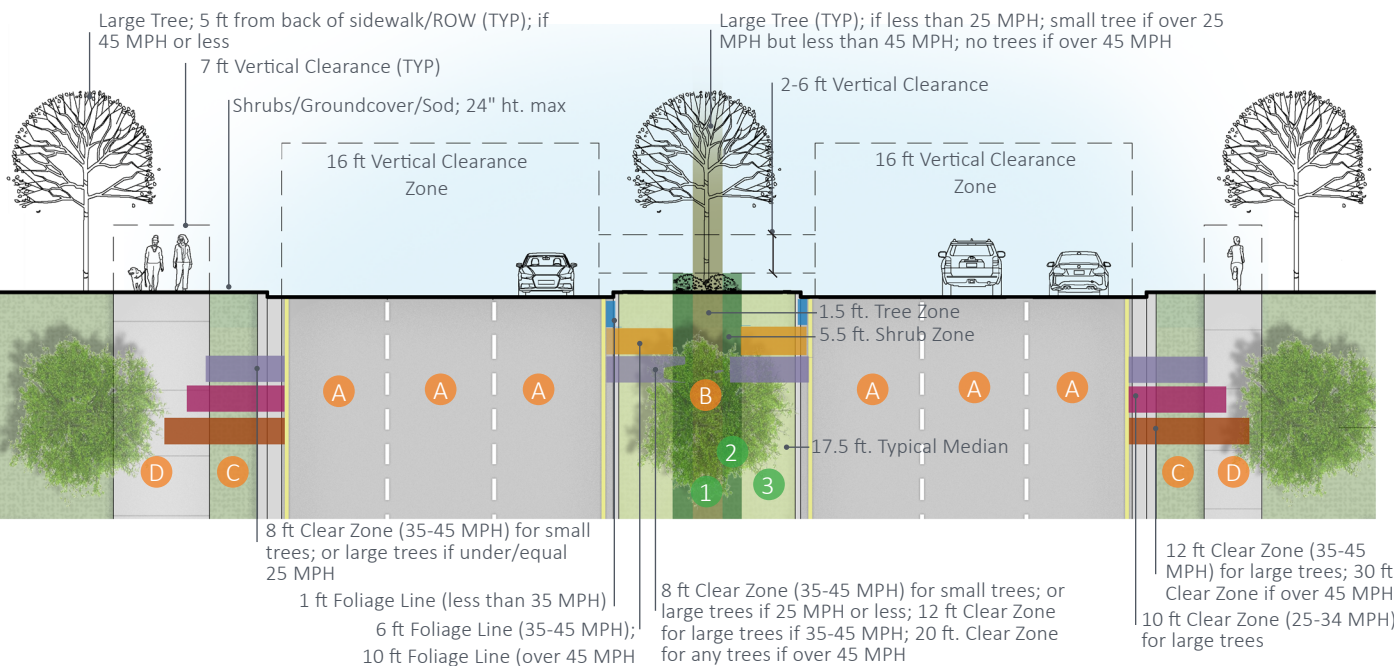
Street Classifications

Streetscapes, much like the entirety of the street, must be responsive to the unique context and user needs. Earlier in this chapter, a proposed street typology hierarchy was created and considered both NCDOT classification and local priorities to bridge the gap between them. These design guidelines are responsive to the three primary typologies identified in this CTP (but concepts could be applied to other typologies):

- Thoroughfares
- Collectors
- Local/Neighborhood Connectors

Thoroughfares

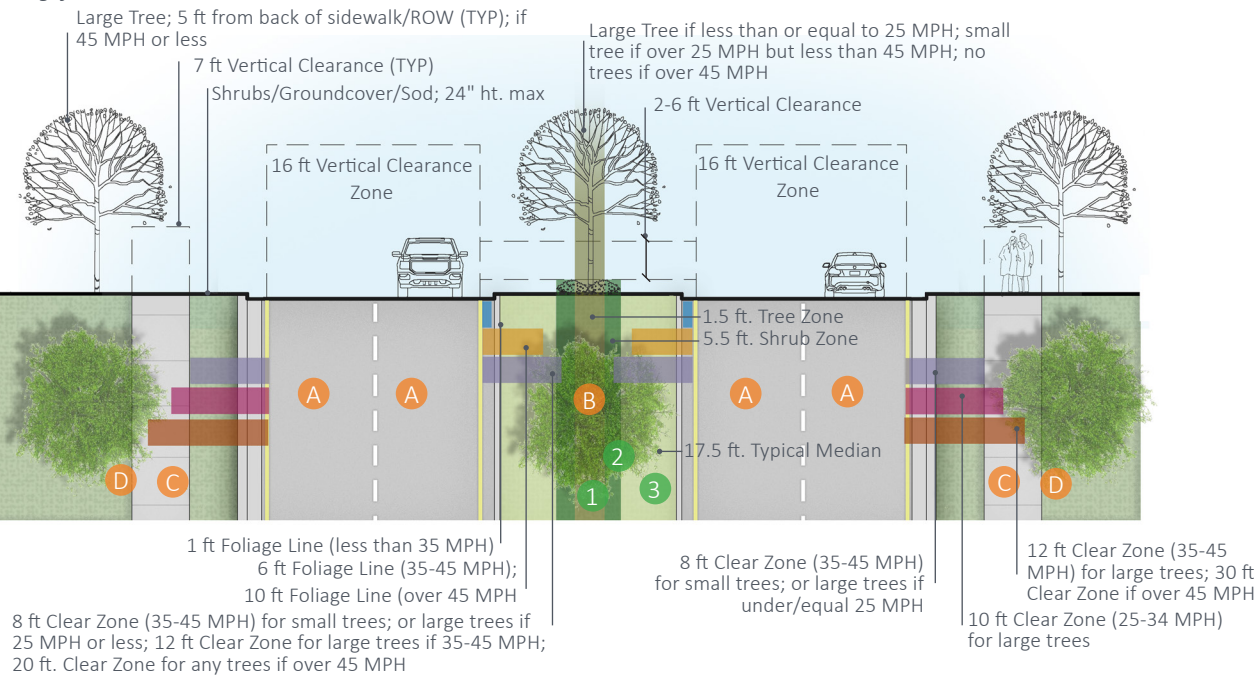
Major Thoroughfare T-6A Alt. 1



Legend

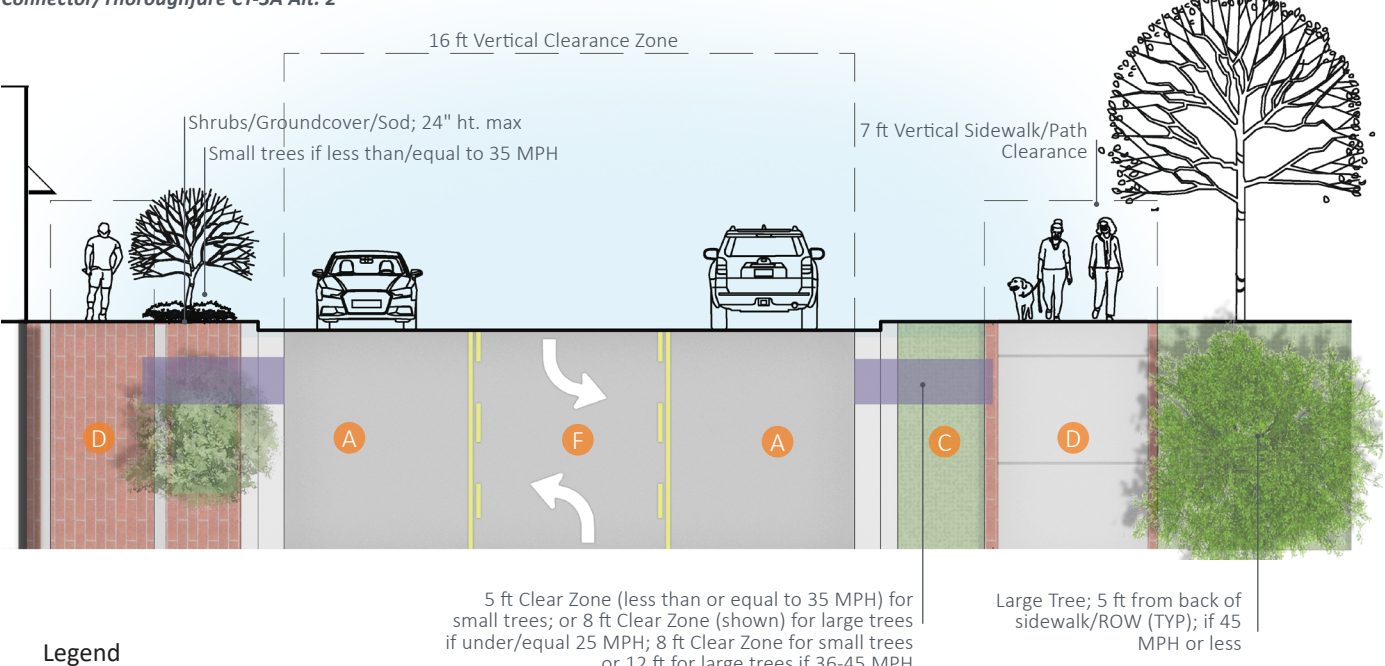
- A Travel Lane
- B Median
- C Verge/Tree lawn
- D Sidewalk/Side Path
- 1 Tree Zone; centerline of truck; 1.5 ft. width
- 2 Shrub Zone; 24" ht. max within site distances
- 3 Groundcover/Sod Zone; 12" ht. max; min. width of 3 ft of sod from back of curb

Thoroughfare T-4B Minimum



Collectors

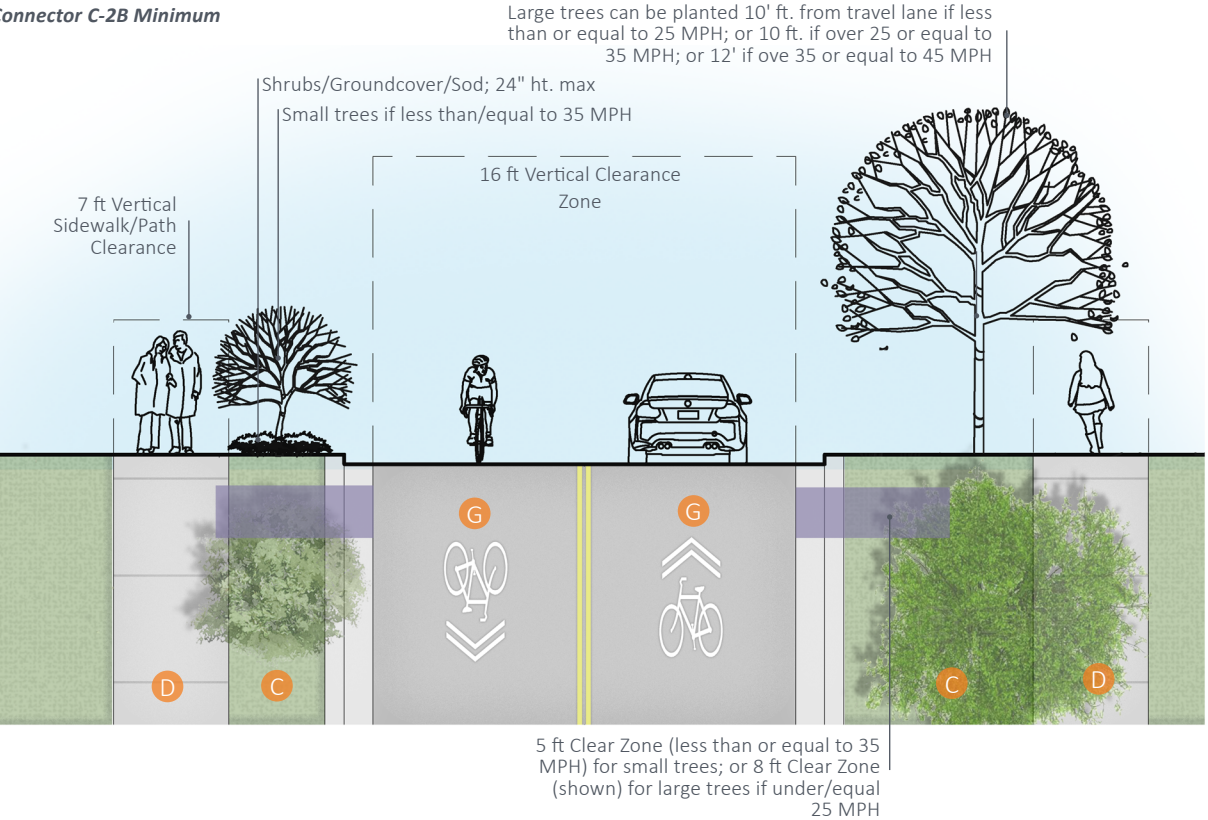
Connector/Thoroughfare CT-3A Alt. 2



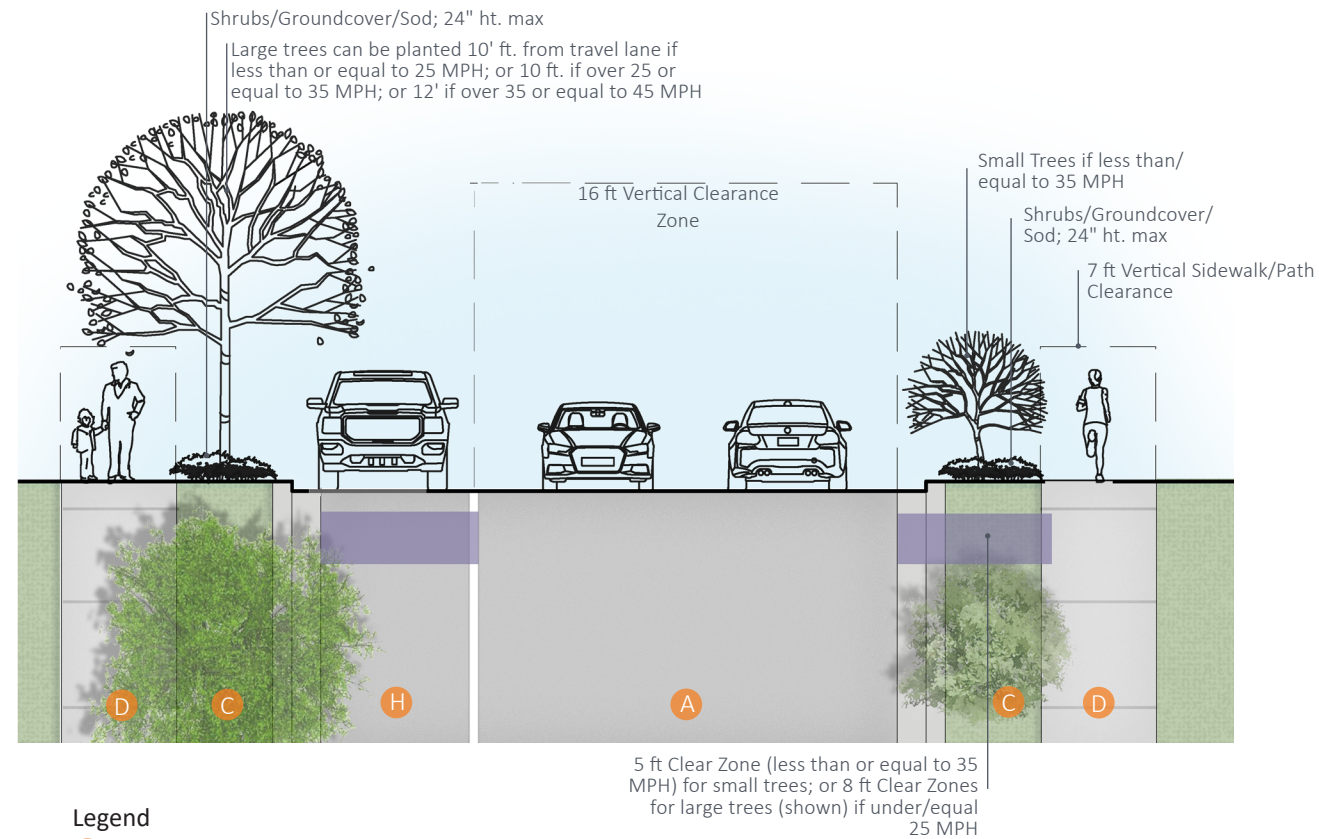
Legend

- A Travel Lane
- C Verge/Tree lawn
- D Sidewalk/Sidepath
- F Turn Lane
- G Sharrow

Connector C-2B Minimum



Connector C-1A Minimum



Typical Notes for all Sections:

1. Setbacks shown assume curb and gutter for all street sections. If curb and gutters are not being provided, clear zone distances will be greater. NCDOT Guidelines for Planting Within Highway Right-of-Way should be referenced.
2. Horizontal spacing recommendations for street trees and plantings are noted within the 'Median, Verge and Island Planting' section.
3. Selection of plant species for any streetscape should consider the typical mature size of the plant to ensure vertical clearances, horizontal setbacks and root clearances are achievable at the plant's mature size.
4. Trees and shrubs that produce fruit or nuts should be considered for areas with little or no pedestrian access such as medians. Fruit and nuts, though positives for wildlife, can pose a hazard to pedestrian and stain sidewalks.
5. If overhead power lines are present; trees/shrubs are limited to 15 ft. max vertical height within ROW for distribution lines; or 7 ft max. vertical height within wire zone and 15 ft max. vertical height in border zones for transmission lines.
6. Buried power lines should be considered to promote an improved visual aesthetics for streetscapes and allow for additional use of large canopy trees, placement of signage/wayfinding, and promote a more resilient infrastructure.
7. Tree roots and underground power lines often co-exist without problems. However, trees planted near underground lines could have their roots damaged if the lines need to be dug up for repairs. The biggest danger to underground lines occurs during planting. Similar to overhead power lines, trees should be planted with a setback from the buried power line. The distance a tree should be planted from the buried power line varies however. A setback equal to the mature spread of the tree or shrub should serve as the distance it should be planted from the marked buried power line. An example is if an oak tree has a typical mature spread of 30 feet, than the tree should be planted 30 ft from the buried line to encourage minimum future root damage should the power line need to be serviced. This is a general guideline and not a standard minimum requirement.
8. If underground utilities, i.e. water, sewer, stormwater, etc. are present in the Right-of-Way and/or verge/tree lawn, consideration should be given to the impact tree roots may have on the utility. In many cases, a setback, similar to that used for underground power lines should be utilized. Trees should not be planted directly above an underground utility pipe or line. Trees should be generally planted outside any permanent utility easement and/or a distance equal to the root spread or canopy spread of the tree, which ever is greatest.



Technology Spotlight

First launched in 2014, smart benches such as Soofa Benches, developed by the Massachusetts Institute of Technology (MIT) Media Lab, offer a comfortable place to sit and recharge your electric devices while enjoy a free wi-fi hot spot. Other smart benches will even count pedestrians on sidewalks or trail users.



Streetscape Components

A streetscape consists of a variety of components, that when combined properly create a dynamic and engaging space. Understanding and providing space for various components is essential in creating a successful streetscape. These components consist of the pedestrian realm along the sidewalk, providing space for walking, talking and dining, as well as furnishings, lighting, landscape and street trees. On-street parking, bicycle lanes, travel lanes, bus loading and unloading zones, all make-up the vehicular realm of the street. These two areas consisting of the pedestrian realm and vehicular realm, and their associated materials and finishes, should seamlessly fuse to create a thriving public space through the following:

- Providing orientation to its users.
- Balancing the competing needs of the street.

- Meeting the of a variety of interesting activities and uses that create a varied streetscape.
- Relating well to its bordering uses- allows for continuous activity.
- Encouraging human contact and social activities.
- Employing hardscape and/or landscape to great effect.
- Promoting safety of pedestrians and vehicles and promotes use.
- Promoting sustainability.
- Is well maintained, and capable of being maintained without excessive costs.
- Providing a memorable character.

Diagram: Typical Streetscape Components



- | | | |
|--------------------------|----------------------------------|----------------------------------|
| A Street Trees | E Landscape Beds | I Travel Lanes |
| B Lighting | F Walkway | J Dining Zone |
| C Furnishings | G On-Street Parking/Loading Zone | K Street Presence from Buildings |
| D Materials and Finishes | H Wayfinding | |

Sidewalk Character

Spatial configurations need to be considered to provide for a comfortable and accessible pedestrian realm. These configurations can vary from dining and walking areas, to the proper location of benches along a street. The diagrams to the right identify minimum space needed for various street furnishing scenarios, and should be used as a guideline for creation of these spaces.

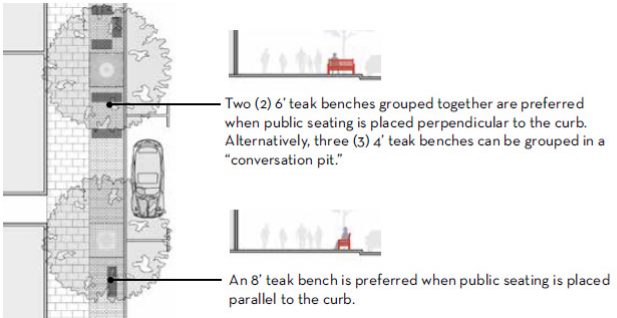
Where these dimensions are not attainable, the Town and property owner(s) should work together to provide an additional sidewalk easement. Outdoor dining areas should have a minimum 5 ft clear zone for walking with a 6 ft clear zone preferred. Tree grates may be used in order to obtain the desired dimensions.

Note: All dimensions are minimum standards for treatment.
**Step Strip and Shy Zone areas may vary depending upon available right of way widths.*

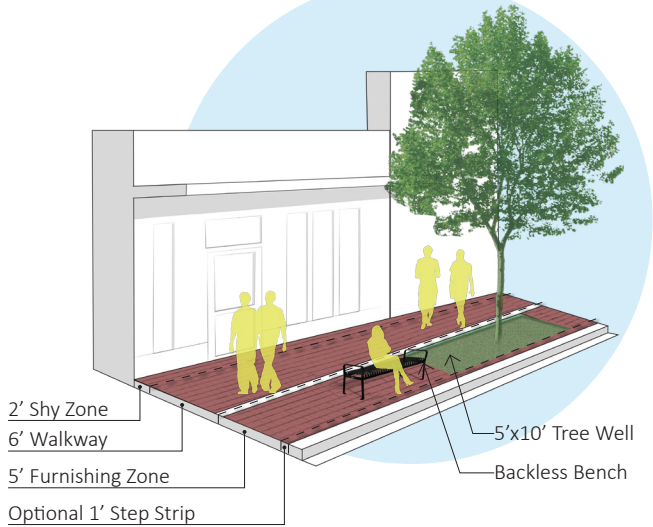
Example of conversation style streetscape seating (Princeton, NJ)



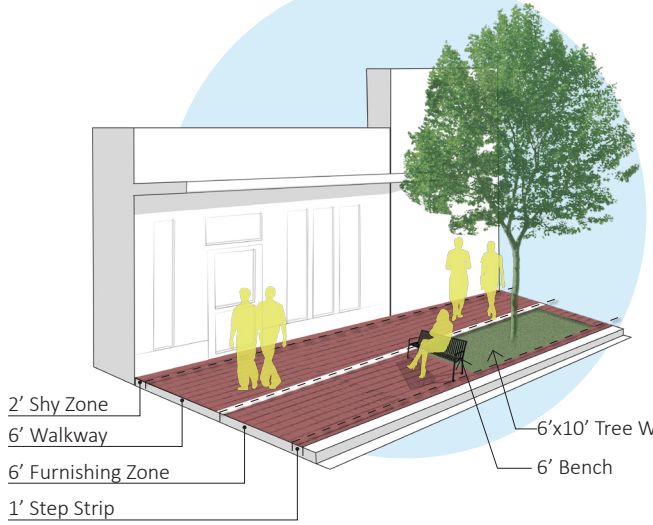
Public seating creates a comfortable, usable, and active environment where people can socialize.



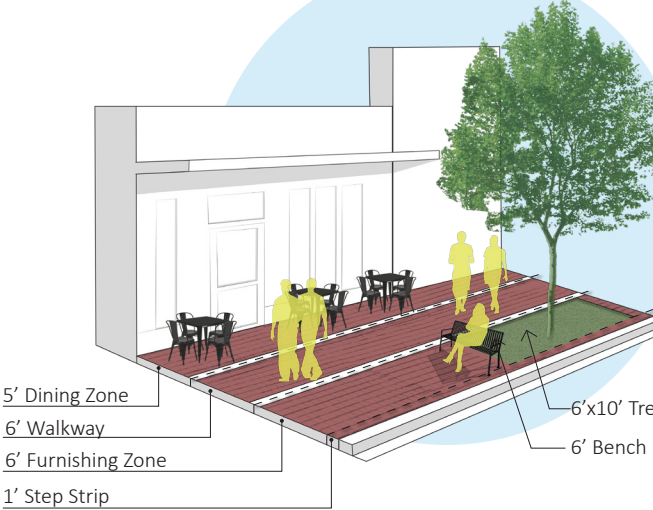
Minimum Right-of-Way



Typical Right-of-Way



Ideal Sidewalk



Median, Verge and Island Plantings

Plantings used throughout the public realm in Holly Springs should seek to enhance the native landscape, minimize water consumption, and reduce maintenance needs by 'right sizing' the plant to needs based upon mature growth conditions.

In order to ensure appropriate plants are selected, the following table provides suggested species categorized by planting zone. This information is intended to serve as a guide. Suggested species emphasize drought-tolerant plants and do not typically include hybrids, varieties, or cultivars. Instead, use can be based upon when performance may be significantly better than the primary species.

It is expected that this table is reviewed annually and updated to remove any species that have come be known for problems or develop a history of not preforming well in Holly Springs.

Use of mono-species planting schemes are not promoted within the public realm in Holly Springs. Planting palettes should follow the 10/20/30 guideline. The 10/20/30 guideline is intended to reduce risk of catastrophic plant loss due to pests. It suggests use of street trees, planting beds, or massing of shrubs should be no more than 10% of any one species, 20% of any one genus, or 30% of any family.

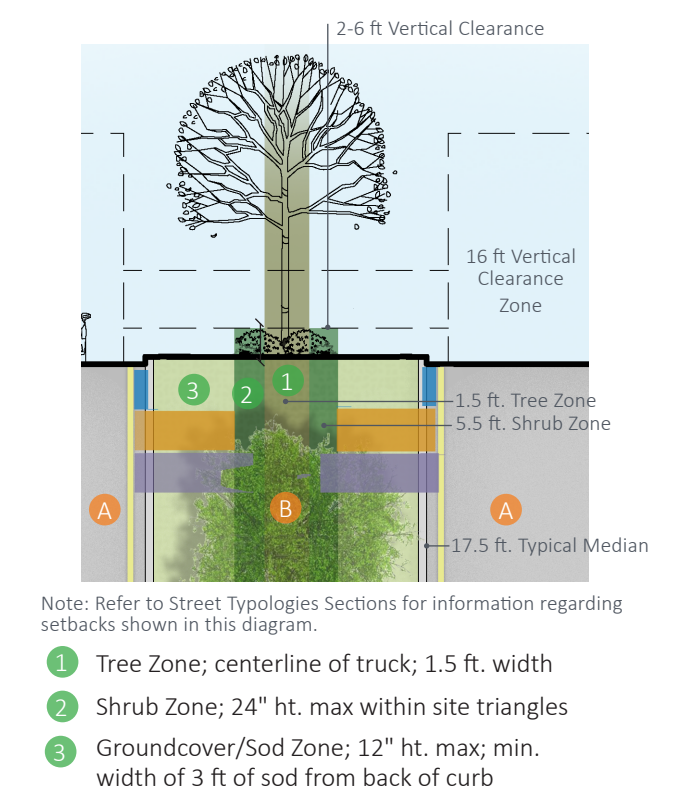
Use of multiple species has several additional benefits to the Town on top of healthier plantings. Some species can be emphasized for providing food for wildlife, while others can be used for their radiant fall color. Other species can provide faster growth rates or have the ability to adapt to extreme soil or moisture conditions.

Use of trees, primarily as street trees, is to serve as a framing element. A 1:2 or 1:1 ratio is ideal where the mature height of the street tree equals or half the width of the street. This ratio is a pleasing experience for all modes of travel from vehicles to pedestrians.

Streets trees should be planted at a spacing and massings scale reflective of the design speed of the roadway. In the Downtown Village District, street tree spacing should generally be 30 ft. where posted speeds are 25 MPH or less. 50 ft spacing is appropriate Town-wide for streets with posted speeds of 26-35 MPH, while spacing between 50-100 ft is appropriate for streets with speeds above 35 MPH. The spacing of trees creates a rhythmic ordering along the street and encloses the street space by defining edges. As

Species are categorized into three types in the table; trees, shrubs (and grasses), and groundcovers. The intent is to align plant type by reference number. Trees represent Zone 1, shrubs and grasses represent Zone 2, and groundcovers represent Zone 3. Zone 3 also includes sod. Within the tree and shrub categories, there are evergreen and deciduous subtypes. Trees are also divided into large and small or ornamental types. Height (H) and spread (S) figures for all plants are shown in feet.

Diagram: Typical Median Planting Scheme



1	Large Trees Species (Deciduous)	Mature Size (H/S)	Drought Tolerance
	Acer floridanum (Southern Sugar Maple)	30-40/20-25	High
	Acer rubrum (Red Maple)	35-60/20-50	Medium
	Betula nigra (River Birch)	40-80/30-60	Medium
	Carya ovata (Shagbark Hickory)	60-80/35-50	High
	Celtis occidentalis (Common Hackberry)	40-60/40-60	High
	Celtis laevigata (Southern Hackberry)	60-80/50-60	High
	Cladrastis lutea (American Yellowwood)	30-50/40-50	Medium
	Fagus grandifolia (American Beech)	60-80/40-60	Medium
	Fraxinus americana (White Ash)	50-100/40-80	Medium
	Fraxinus pennsylvanica (Green Ash)	50-60/30-40	High
	Gleditsia triacanthos inermis (Honey Locust- Thornless)	60-70/60-70	High
	Magnolia acuminata (Cucumber Magnolia)	50-70/30-50	Medium
	Nyssa sylvatica (Black Gum)	30-50/20-30	High
	Platanus x acerfolia (London Planetree)	50-60/40-50	Medium
	Quercus alba (White Oak)	70-75/40-50	High
	Quercus bicolor (Swamp White Oak)	50-60/50-60	High
	Quercus falcata (Southern Red Oak)	79-80/30-40	High
	Quercus imbricaria (Shingle Oak)	50-60/40-50	High
	Quercus laurifolia (Swamp Laurel Oak)	40-60/30-40	High
	Quercus lyrata (Overcup Oak)	40-60/40-60	High
	Quercus muehlenbergii (Chinkapin Oak)	50-60/50-60	High
	Quercus nigra (Water Oak)	50-80/40/60	High
	Quercus phellos (Willow Oak)	40-80/30-60	High
	Quercus prinus (Chestnut Oak)	60-70/60-70	High
	Quercus shumardii (Shumard Oak)	70-75/40-50	High

1	Large Trees Species (Deciduous)	Mature Size (H/S)	Drought Tolerance
	Quercus rubra (Northern Red Oak)	50-60/50-60	High
	Quercus velutina (Black Oak)	50-60/50-60	High
	Taxodium distichum (Bald Cypress)	50-80/30-50	High
	Tilia tomentosa (Silver Linden)	30-40/30-40	High
	Ulmus x (Princeton Triumph or Pioneer Elm)	40-50/30-40	High
	Ulmus parvifolia (Lacebark Elm)	50-70/40-50	High
1	Large Trees Species (Evergreen)	Mature Size (H/S)	Drought Tolerance
	Chamaecyparis thyoides (Atlantic Whitecedar)	40-50/10-20	Medium
	Ilex opeca (American Holly)	30-70/15-20	Medium
	Juniperus virginiana (Eastern Red Cedar)	40-50/8-20	High
	Magnolia grandiflora (Southern Magnolia)	50-80/40-60	Medium
	Quercus hemisphaerica (Darlington Oak)	40-60/30-40	High
	Quercus virginiana (Live Oak)	40-80/40-100	High
1	Small/Ornamental Trees Species (Deciduous)	Mature Size (H/S)	Drought Tolerance
	Acer leucoderme (Chalkbark Maple)	25-30 /15-20	High
	Amelanchier arborea (Downy Serviceberry)	15-25/15-20	Medium
	Amelanchier canadensis (Shadblow Serviceberry)	6-20/10-15	High
	Amelanchier laevis (Allegheny Serviceberry)	20-25 /25-35	Medium
	Carpinus caroliniana (American Hornbeam)	20-30 /20-30	High
	Cercis canadensis (Eastern Redbud)	20-30 /20-30	Medium
	Chionanthus virginicus (White Fringetree)	10-25 /10-20	Medium
	Cornus florida (Flowering Dogwood)	15-30 /10-25	Medium
	Crataegus crusgalli (Cockspur Hawthorn)	20-30 /20-35	High

1	Small/Ornamental Trees Species (Deciduous)	Mature Size (H/S)	Drought Tolerance
	Crataegus phaenopyrum (Washington Hawthorn)	20-30 /20-25	High
	Halesia carolina (Carolina Silverbell)	20-30 /15-20	High
	Hamamelis virginiana (Common Witchhazel)	20-30 /20-25	Medium
	Ilex decidua (Possum haw)	20-30 /15-20	High
	Lagerstroemia indica (Crape Myrtle)	10-30/10-20	Medium
	Magnolia virginiana (Sweetbay Magnolia)	10-25 /10-20	Medium
	Ostrya virginiana (American Hophornbeam)	25-40 /16-25	High
	Oxydendrum arboreum (Sourwood)	25-30 /20-25	Medium
1	Small/Ornamental Trees Species (Evergreen)	Mature Size (H/S)	Drought Tolerance
	Ilex cassine (Dahoon)	20-30-8-15	High
	Ilex vomitoria (Yaupon Holly)	10-20 /8-15	High
	Prunus caroliniana (Carolina Laurel Cherry)	20-30 /15-20	High
2	Shrub Species (Deciduous)	Mature Size (H/S)	Drought Tolerance
	Ceanothus americanus (New Jersey Tea)	3-4	High
	Deutzia gracilis (Slender Deutzia)	2-4	High
	Diervilla sessilifolia (Southern Bush-honeysuckle)	3-5	High
	Hydrangea arborescens (Smooth Hydrangea)	3-5	Medium
	Hypericum 'Hidcote' (Hidcote St. Johnswort)	3-4	High
	Hypericum prolificum (Shrubby St. Johnswort)	1-4	High
	Itea virginica (Virginia Sweetspire)	3-5	High
	Rhus aromatica (Fragrant Sumac)	2-6	High
	Rosa carolina (Carolina Rose)	3-6	High
	Spiraea x bumalda (Bumald Spirea)	2-3	High

2	Shrub Species (Deciduous)	Mature Size (H/S)	Drought Tolerance
	Spiraea nipponica 'Snowmound' (Snowmound Spirea)	3-5	High
	Spiraea thunbergii (Thunberg Spirea)	3-4	High
	Viburnum acerifolium (Mapleleaf Viburnum)	4-6	High
	Viburnum carlesii (Korean Spice Viburnum)	4-5	Medium
2	Shrub Species (Evergreen)	Mature Size (H/S)	Drought Tolerance
	Abelia x grandiflora (Glossy Abelia)	3-4	High
	Aucuba japonica (Dwarf Acucuba)	3-8	High
	Berberis julianae (Wintergreen Barberry)	5-6	High
	Berberis thunbergii (Japanese Barberry)	3-5	Medium
	Buxus microphylla var. japonica (Japanese Boxwood)	3-4	High
	Buxus sempervirens (Common Boxwood)	5-8	High
	Cryptomeria japonica 'Globosa Nana' (Dwarf Japanese Cryptomeria)	2-3	Medium
	Gardenia jasminoides 'Radicans' (Creeping Gardenia)	2-4	Medium
	Ilex cornuta 'Carissa' (Carissa Chinese Holly)	3-4	High
	Ilex cornuta 'Rotunda' 'Rotunda' (Dwarf Chinese Holly)	3-4	High
	Ilex crenata 'Compacta' (Compact Japanese Holly)	3-4	Medium
	Ilex crenata 'Green Lustre' (Green Lustre Japanese Holly)	3-5	High
	Ilex crenata 'Helleri' (Helleri Japanese Holly)	2-3	Medium
	Ilex crenata 'Hetzii' (Hetz Japanese Holly)	2-3	Medium
	Ilex vomitoria 'Nana' (Dwarf Yaupon Holly)	3-4	High
	Jasminum floridum (Showy Jasmine)	3-5	High

2	Shrub Species (Evergreen)	Mature Size (H/S)	Drought Tolerance
	Jasminum nudiflorum (Winter Jasmine)	3-4	High
	Juniperus davurica 'Expansa' (Parson's Juniper)	2	High
	Kerria japonica (Japanese Kerria)	3-5	High
	Pittosporum tobira 'Nana' (Dwarf Japanese pittosporum)	3-4	Medium
	Pyracantha koidzumii 'Santa Cruz' (Formosa Firethorn)	2-3	High
	Rhaphiolepis umbellata (R. indica) (Indian Hawthorne)	2-4	High
2	Ornamental Grasses Species	Mature Size (H/S)	Drought Tolerance
	Andropogon glomeratus (Bushy Bluestem)	3-6/2-3	High
	Andropogon virginicus (Broom Sedge)	2-4	High
	Carex morrowii (Japanese Sedge Grass)	1/1	High
	Chasmanthium latifolium (Northern Sea Oats)	3/2	High
	Elymus hystrix var. hystrix (Bottlebrush Grass)	2-5	High
	Muhlenbergia capillaris (Hairawn Muhly)	3/3	High
	Panicum virgatum (Switchgrass)	3-5/2-3	High
	Pennisetum alopecuroides (Fountain Grass)	3/2	High
	Pennisetum villosum (Feathertop Grass)	3/2	High
	Schizachyrium scoparium (Little Bluestem)	2/1	High
	Sorghastrum nutans (Indian Grass)	3/3	High
3	Ground Cover Species	Mature Size (H/S)	Drought Tolerance
	Euonymus fortunei var. coloratus (Wintercreeper)	6-18"/40-70	High
	Hedera helix (English Ivy)	6-12 "	High

Gaylussacia brachycera (Box Huckleberry)	6-18 "	High
Juniperus procumbens (Japanese Garden Juniper)	8-12 "	High
Juniperus squamata (Singleseed Juniper)	6-12 "	High
Liriope muscari (Liriope, Lilyturf)	8-15 "	High
Liriope spicatum (Spreading Liriope, Spreading Lilyturf)	8-15 "	High
Phlox subulata (Moss Phlox)	3-4 "	Medium
Vinca minor (Common Periwinkle)	5-6 "	High



Example of street trees

Hardscape Medians

Medians typically provide opportunities to provide an attractive element such as landscaping or public art. In some cases, safety requirements, width, or surrounding conditions do not allow for optimal median aesthetics. In these cases, concrete medians are frequently installed. For the Town of Holly Springs, these opportunities can be enhanced through creative applications of hardscapes for medians such as color and/or textured concrete, pavers, or natural materials such as pebbles or boulders.

Guidelines for hardscape include:

- Where conditions or restrictions do not allow for optimal conditions for landscaping, low maintenance hardscapes should be utilized.
- Hardscape medians should be visually distinct from surrounding roadway.
- Paver hardscape medians should be utilized within the Downtown Village District, while stamped concrete utilized Town-wide.



Example of existing roundabout hardscape apron at Earp Rd. Utilize for Town-wide



Example of paver hardscape median with running bond pattern and single soldier course border for use within Downtown Village District. Pavers should match sidewalk pavers.

Roundabouts

Besides enhanced safety, landscaping is one of the distinguishing features that gives roundabouts an aesthetic advantage over traditional intersections. Landscaping in the central island, in splitter islands (where appropriate), and along the approaches can benefit both public safety and community enhancement.

The landscaping of roundabouts and approaches throughout Holly Springs should:

- Make the central island more conspicuous.
- Improve the aesthetics of the area while complementing surrounding streetscapes as much as possible.
- Minimize introducing hazards to the intersection, such as trees, poles, walls, guide rail, statues, or large rocks.

- Avoid obscuring the form of the roundabout or the signing to the driver.
- Maintain adequate sight distances.
- Should not exceed a 6:1 slope within the central island per the requirements of the AASHTO Roadside Design Guide (9).
- Clearly indicate to the driver that they cannot pass straight through the intersection.
- Discourage pedestrian traffic through the central island.
- Avoid items in the central island that might tempt people to take a closer look.
- Help blind and visually impaired pedestrians locate sidewalks and crosswalks.

The central island landscaping can enhance the safety of the intersection by making the intersection a focal point and by lowering speeds. Plant material should be selected so that sight distance is maintained, including consideration of future maintenance requirements to ensure adequate sight distance for the life of the project. Large, fixed landscaping (trees, rocks, etc.) should be avoided in areas vulnerable to vehicle runoff or impacts.

Where hardscape aprons are required, the material should be different than the material used for sidewalks so that pedestrians are not encouraged to cross the circulatory roadway. Street furnishings that may attract pedestrians to the central island, such as benches or monuments with small text, should be avoided. If fountains or public art are considered for the central island, they must be designed in a way that will enable proper viewing from the perimeter of the roundabout. In addition, they must be located and designed to minimize the possibility of impact from vehicles.

Landscaping on the approaches to the roundabout can enhance safety by making the intersection a focal point and by reducing the perception of a high-speed through traffic movement. Plant material in the splitter islands (where appropriate) and on the right and left side of the approaches can help to create a funneling effect and induce a decrease in speeds approaching the roundabout. Landscaping in the corner radii helps to channelize pedestrians to the crosswalk areas and discourages pedestrians from crossing to the central island.

Legend

1

Focal Point

2

Shrub Zone; 24" ht. max

3

Groundcover/Sod Zone; 12" ht. max; min. width of 3 ft of sod from back of curb

4

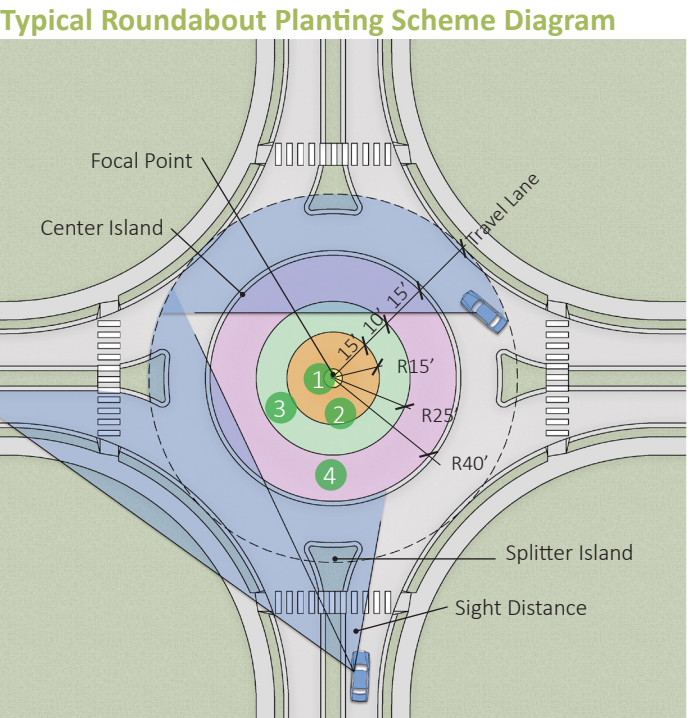
Hardscape apron; pavers, brick, mural stamped/colored concrete



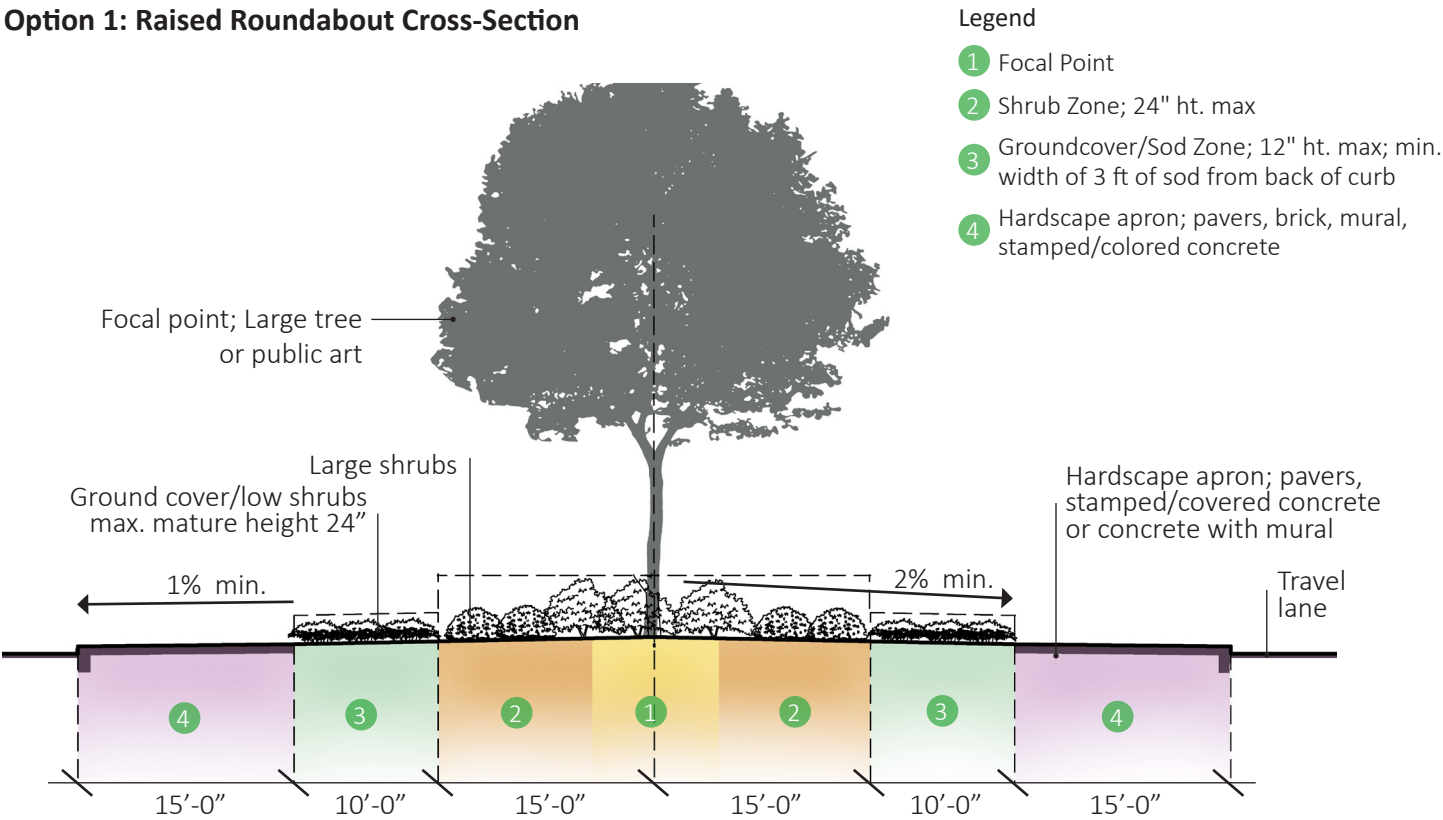
Aerial view of typical two-lane roundabout with focal point feature. Image by Brian McGuckin



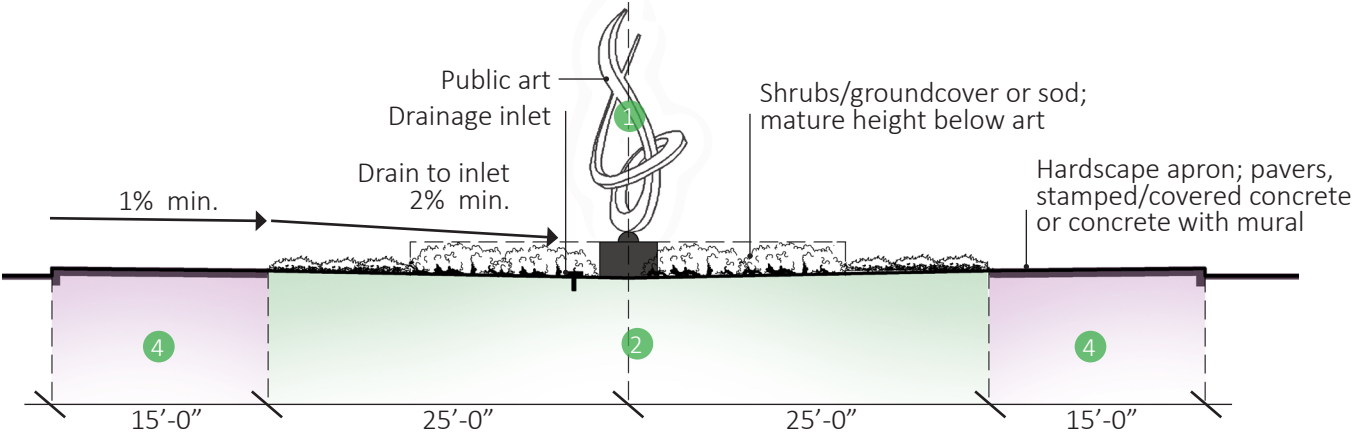
Example of aerial art within roundabout



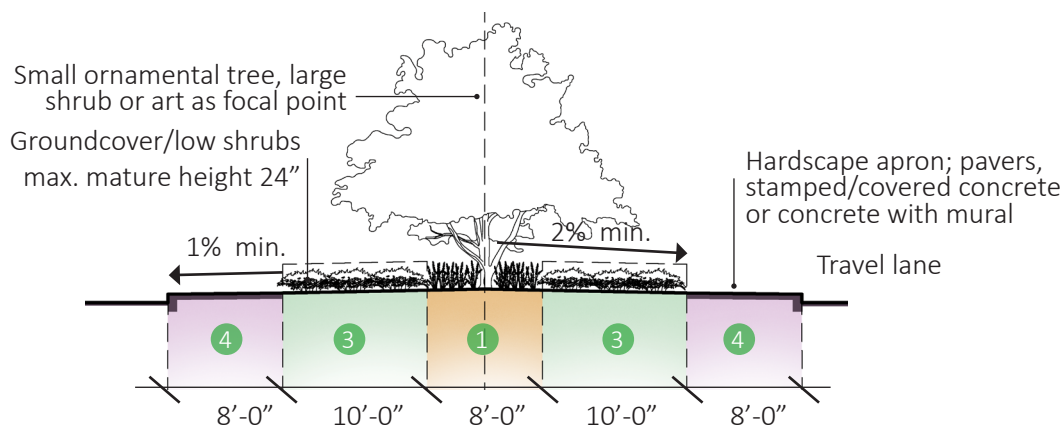
Option 1: Raised Roundabout Cross-Section



Option 2: Retention Roundabout Cross-Section



Option 3: Mini Roundabout Cross-Section



Hardscapes

The surface of pedestrian and multi-use paths are important, not just for aesthetics, but for safety. Consistency in surface materials, reduced number of transitions, and use of visually different materials to highlight important decision-making zones is critical. The hardscape used in Holly Springs has two distinct areas, town-wide and Downtown Village District, which differ in scale, materials, and aesthetics, but materials used in both should be durable.

In general, concrete should be used for most sidewalks and side paths within the streetscape outside of the Downtown Village District. The concrete should be heavy broom finished in perpendicular pattern. For sidewalks, a tooled joint scoring perpendicular to the flow of traffic should be provided, while a saw cut joint should be used on paths where cyclists or other wheeled devices may be present.

The following images highlight additional hardscape details:



Typical concrete sidewalk with single brick soldier course border; Downtown Village District Area use only. No brick soldier course border for town-wide use.



Typical permeable brick paver in herringbone pattern and single soldier edge course in furnishing zone of streetscape; Downtown Village District Area use only.



Typical brick paver in herringbone pattern in throughway/walking zone of streetscape; Downtown Village District Area use only.



Crosswalks: Typical stamped and surface coat treated asphalt. Surface color applied with Endurablend or equal product. For use town-wide and Downtown Village District



Typical stamped and colored concrete median hardscape. Brick pattern should be herringbone. For use Town-wide.



Typical custom manhole cover within sidewalk; Downtown Village District use only. Non-custom covers for town-wide use.

Furnishings

Furnishings are an integral element of defining the identity and character of a streetscape. Benches, bike racks, trash/recycling receptacles, tree grates, pay stations, bollards, and pet waste stations, all have to work with the rhythm of street trees, lighting, signage and wayfinding, and the surrounding environment of building facades to create a holistic palette that is welcoming and comfortable.

The general intent of streetscape furnishings are:

- To unify the public right-of-way with a unique character.
- To provide necessary items for pedestrian comfort and convenience.
- To ensure the public realm is clean, orderly, and presents an attractive appearance to visitors and users.
- To encourage use of the public realm, therefore, contributing to the economic vitality of the Town.

Design guidelines for streetscape furnishings include:

- Streetscape furnishings placement is encouraged in high-traffic corridors, mainly the Downtown Village District. Placement should be coordinated with businesses or other private property owners to ensure conflicts are avoided.
- Placement, quantity, and style of furnishings should consider the overall street context, existing elements of nearby buildings, and intended use.
- Consideration of functional needs for pedestrians, cyclists, and vehicles should be incorporated into the placement, dimensions, and quantity of furnishings.

The Downtown Village District Area Plan includes standards for furnishings which should be applied town-wide to promote consistency in appearance and reduce maintenance challenges. These include:

- **Bench**- Classic styled 4 ft or 6 ft length. Contoured bench with scrolled vertical steel slats in black finish. Where appropriate, a backless bench may be used in narrow furnishing zones. Placement of benches should be in conversational layouts to promote social spaces within the streetscape.
- **Litter Receptacle**- 36 gallon side opening litter receptacle with dome lid and black plastic liner in black finish. Recycle receptacle should be provided a separate receptacle and be provided in a blue finish.
- **Planter**- 18 gallon planter with black plastic liner in black finish.
- **Bike Rack**- Tubular steel single in black finish, in-ground mount.
- **Tree Grates** - 48" square grate and 36"x60" grate when additional sidewalk width is required).
- **Root Barrier** - Deep Root barrier should be used where necessary.
- **Pet Waste Station**- Poly trash receptacle, green fiberglass telescoping post, aluminum reflective pet sign and all necessary mounting.

Additional notes:

- A durable substitution for tree grates is belgian blocks. Use of belgian blocks reduces installation time, reduces material costs, is extremely durable, and can be easily removed to allow for healthy tree growth. Belgian blocks can also be used within the furnishing zone as a means to visually separate the space from the throughway/walking zone, for the step strip.
- Bike repair stations should be considered in high traffic corridors where either bike lanes or shared-use paths are located.
- Bike corrals should be considered in high traffic areas or near primary destinations. Corrals are located within the street in place of on-street parking.
- Consideration should be given for any urban streetscape within the Town for the placement of pay stations for on-street parking needs.
- Placement of benches along sidewalks outside of the Downtown Village District, should be set back from the sidewalk by at least two (2) feet to allow for users to comfortably be seated outside of the walkway.
- Placement of furnishings should be balanced with incorporation of green infrastructure systems such as stormwater planters/ bioswales.
- Consideration should be given to use of DeepRoot Silva Cells (or equal) where soils are compacted or additional paved spaces for furnishings is needed. A suspended paver system will allow for a continuous volume which promotes the greatest level of stormwater management and healthy trees.



Main Street, Greenville, South Carolina; Example of complete street streetscape



Park Ave., Winter Park, Florida; Example of complete street streetscape



Example of existing litter receptacles along S. Main Street, Holly Springs. Receptacles should be mounted on concrete pads as shown.



Example of existing bench and tree grate along S. Main Street, Holly Springs. Benches should be mounted on concrete pads as shown.

Green Infrastructure

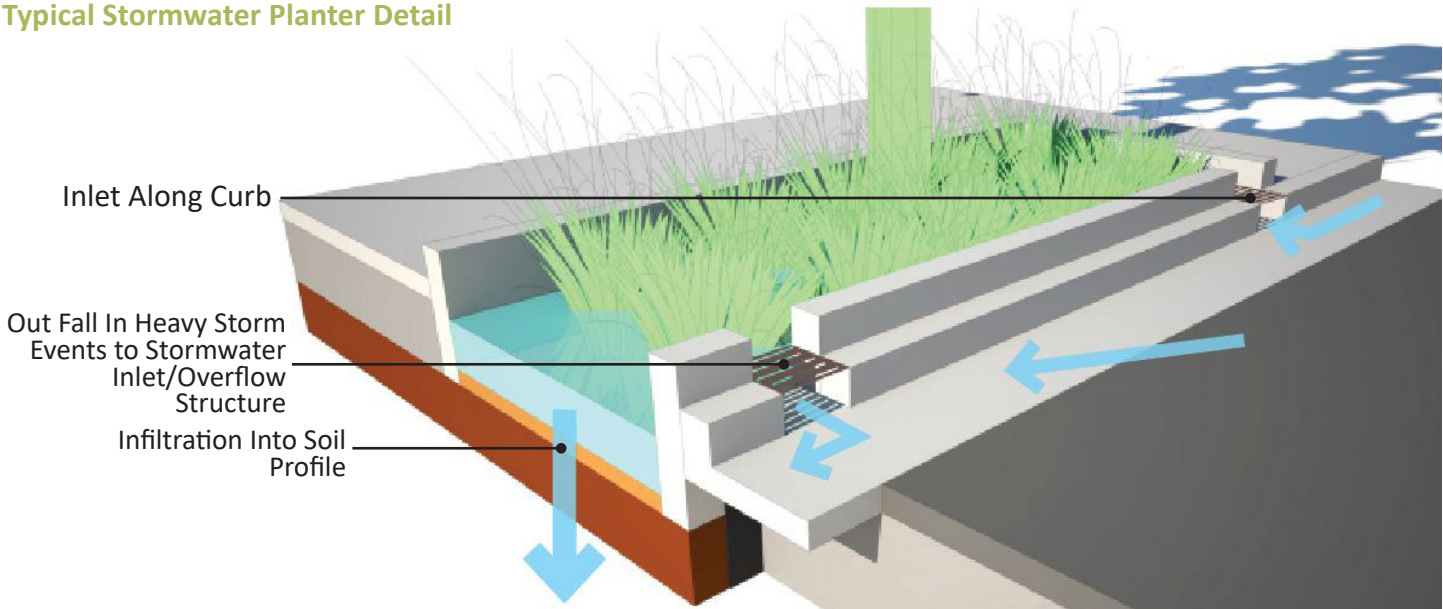
Green infrastructure uses natural processes to properly capture, store, and filter stormwater. Within the right-of-way, there are several opportunities to include green infrastructure as street projects are designed. Examples of green streetscape infrastructure include:

- Stormwater Planters/Bioswales
- Stormwater Bumpouts
- Stormwater Trees
- Green Gutters

Stormwater Planters

This green infrastructure treatment is appropriate for less intense street types such as collectors or local/neighborhood connectors. Stormwater planters are landscaped reservoirs used to collect, filter, and infiltrate stormwater run-off from the street. This system allows pollutants to settle and filter out as the water percolates through the planter soil and infiltrates into the ground.

Typical Stormwater Planter Detail



While stormwater planters help to achieve sustainability goals, they simultaneously serve as a visual amenity within the streetscape. Stormwater planters may be approximately 20 to 30 feet in length. Approximately 4- 6 linear feet shall be provided between stormwater planters to allow for pedestrian passage between the sidewalk and the curb zone alongside on-street parking spaces. Drought-tolerant, native ground cover and shrubs should be provided within stormwater planters. Plant materials should be chosen for seasonal color variety as well as texture and visual interest.

Stormwater planters collect and treat stormwater using bio-retention. These systems collect and filter stormwater through layers of mulch, soil, aggregate, and plant root systems, where pollutants such as bacteria, nitrogen, phosphorous, heavy metals, oil and grease are retained, degraded and absorbed. Treated stormwater is then infiltrated into the ground as groundwater (infiltration planter) or, if infiltration is not appropriate, discharged into a traditional stormwater system (flow-through planter). Stormwater planters do not require a large amount of space and can add aesthetic appeal and wildlife habitat to streetscapes.

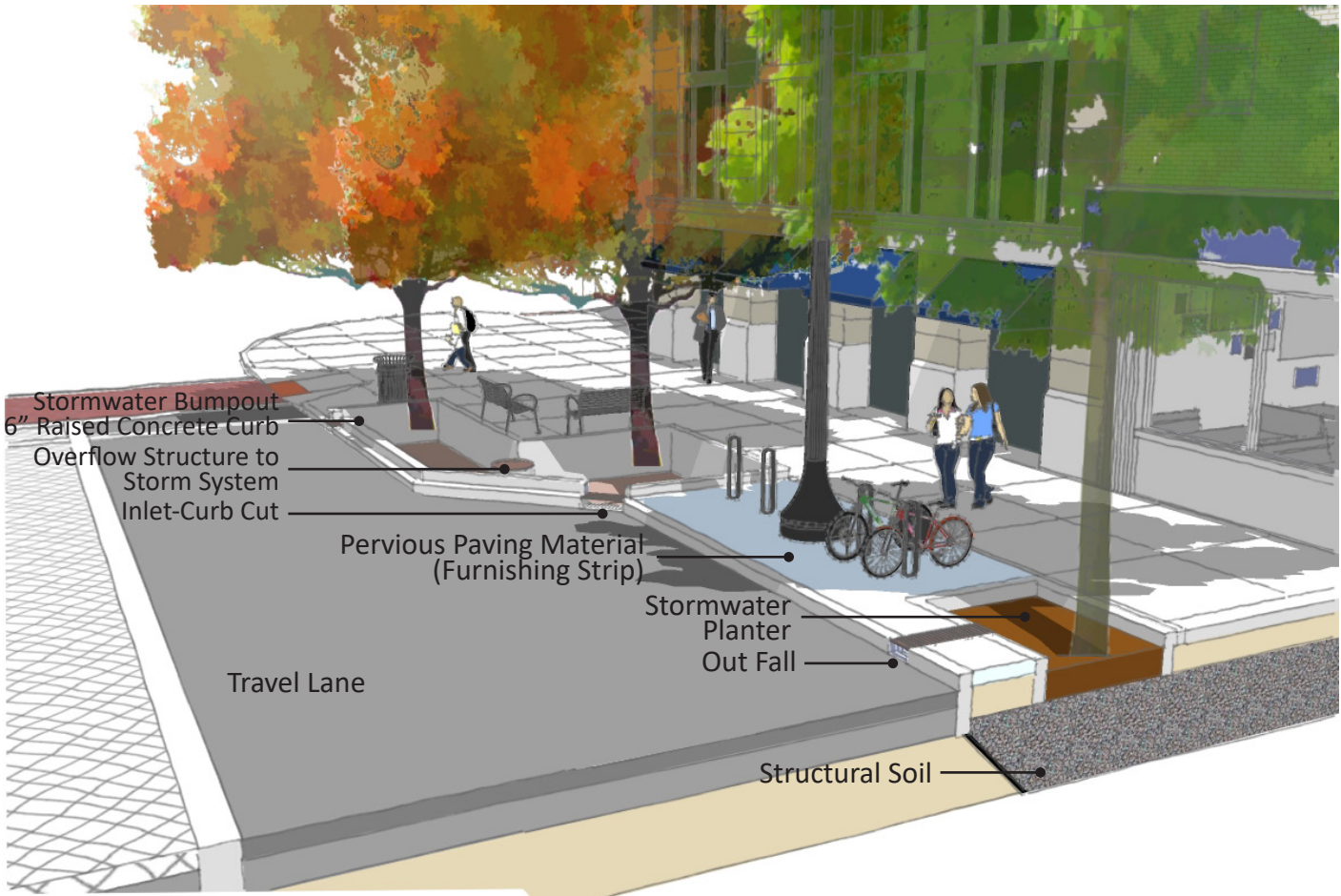
Stormwater Bump-outs

A stormwater bump-out is a landscaped curb extension that extends the existing curb line into the roadway. It is designed to manage stormwater runoff by setting the top of the planting media in the bump-out lower than the street’s gutter elevation and connecting the bump-out to one or more inlets (types vary), which allows stormwater runoff from the street to flow into the bump-outs. Runoff from the adjacent sidewalk can flow directly into the stormwater bump-out from the surface.



Example of stormwater bump-out. Source: Philadelphia Green Streets Design Manual

Source: Charles River Watershed Association-Low Impact Best management Practice Information Sheet, City of Portland (OR) Environmental Services-Green Streets Stormwater Management for Clean Rivers.



Comprehensive Green Infrastructure Options

Green Infrastructure

Stormwater bump-outs are designed to capture, slow, and infiltrate stormwater within a planted area or subsurface stone bed. Landscape plantings within the curb extension effectively take up some of the stormwater through their root systems. The remaining stormwater is temporarily stored within the curb extension until it either infiltrates or drains back to the sewer. In mid-block bump-outs, overflow exits through an opening on the downstream side, and flows into a nearby storm drain inlet.

Benefits

- Water filters through the planting soil, improving water quality.
- Provides a physical buffer between pedestrians and the street.
- Does not require encroachment into sidewalk area.
- Encourages slower vehicle speeds by physically and visually narrowing the street.
- Reduces pedestrian crossing distances when used at intersections.
- Provides an area within the right-of-way for smaller plantings in addition to street trees.

Potential Constraints and Considerations

- Must consider existing on-street parking conditions, street width, and vehicle turning radii.
- Alteration of existing curb line will directly impact existing street drainage patterns and bump-out design must ensure existing street drainage is not negatively impacted.
- Vegetation must accommodate adequate sight distances at intersections

Stormwater Trees

A stormwater tree is a street tree planted in a specialized tree pit installed in the sidewalk area. It is designed to manage stormwater runoff by placing the top of the planting media in the tree pit lower than the street’s gutter elevation and connecting the tree pit to an inlet (types vary), which allows stormwater runoff from the street into the tree pit.

Runoff from the adjacent sidewalk can flow directly into the tree pit from the sidewalk surface. Multiple tree pits can be designed in a series to maximize the potential for stormwater capture and treatment. Stormwater will either infiltrate or drain to a connection to the storm sewer network. If the stormwater tree is at capacity, runoff can bypass the stormwater tree inlet and enter other downstream storm drains.



Example of stormwater tree. Source: Philadelphia Green Streets Design Manual

Benefits

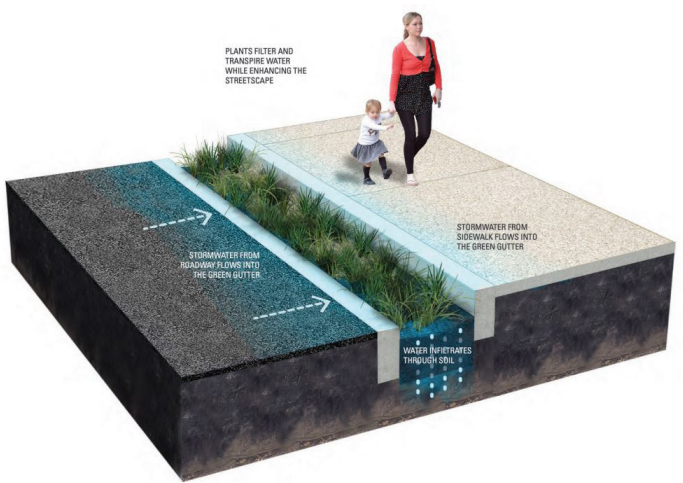
- Adds street trees to the streetscape.
- Requires only a small footprint and can therefore fit within a constrained site.
- Can accommodate steep topographic changes.
- Can fit between existing street furnishings such as signs, benches, hydrants and lights.

Potential Constraints and Considerations

- Limited stormwater management capacity.
- Recessed elevation of tree pit requires consideration for protecting pedestrians from step down to surface of planting media.

Green Gutter

A green gutter is a narrow and shallow landscaped strip along a street’s curb line. It is designed to manage stormwater runoff by placing the top of the planting media in the green gutter lower than the street’s gutter elevation allowing stormwater runoff from both the street and sidewalk to flow directly into the green gutter. An elevated curb can be used along the street side of the green gutter with openings along its length to allow runoff to flow into the green gutter.



Example of a green gutter. Source: Philadelphia Green Streets Design Manual

Green gutters can be designed to infiltrate and/or flow to the existing storm sewer. The system attenuates stormwater flows, provides storage and, in some cases, infiltration and evapotranspiration. In flow through green gutters, overflow runoff can be conveyed to the existing storm drain system, either through an underdrain tied to the existing storm drain system, or as shallow concentrated flow that is conveyed downstream to an existing inlet.

Benefits

- Provides a physical buffer between pedestrians and the street when an elevated street side curb is used.
- Does not require encroachment into sidewalk area.
- Provides an area within the right-of-way for smaller plantings.

Potential Constraints and Considerations

- Must consider existing on-street parking conditions and street width.
- Landscape materials must accommodate direct impact of gutter flow velocity.



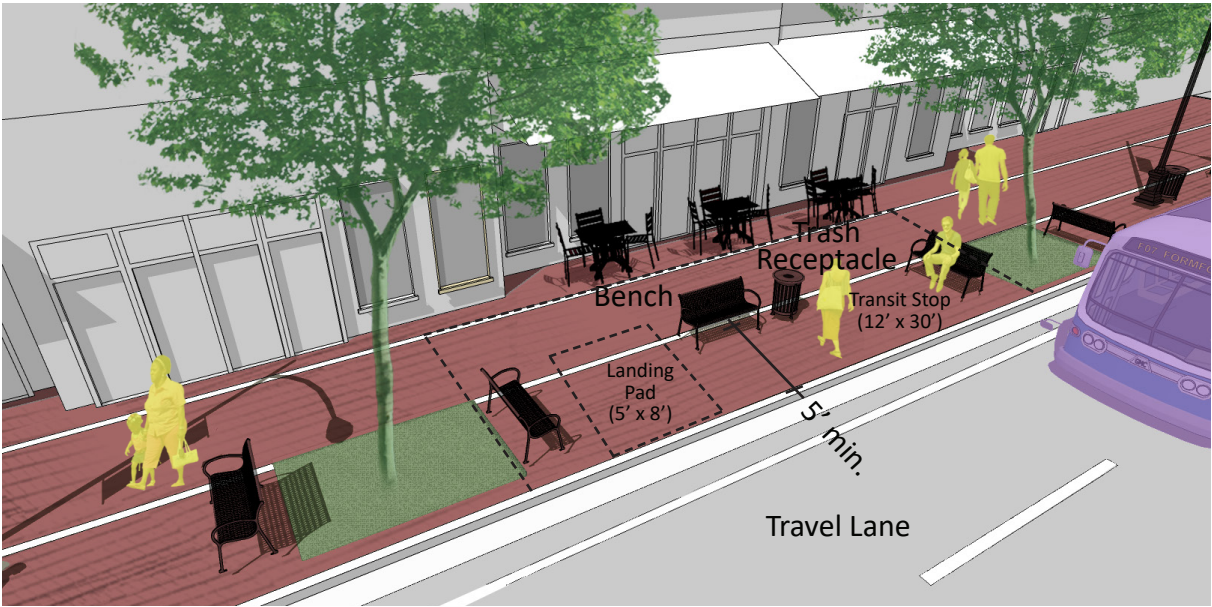
Example of stormwater bio-swale.

Transit Stops

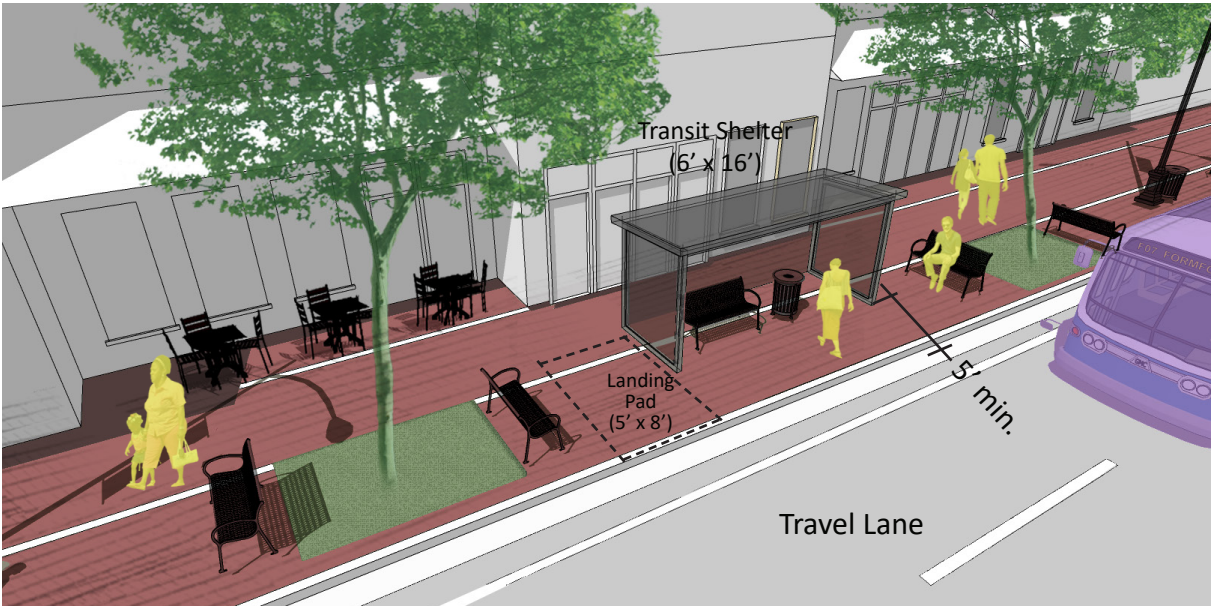
All transit or shuttle stops should be laid out in accordance with required dimensions for clear-zones, landing pads, shelters, benches, bike racks, and trash receptacles.

Transit shelters within the Downtown Village District should be black and match streetscape lighting and wayfinding style. Town-wide, shelters should incorporate town branding where possible.

Curbside in-line transit/shuttle stop



Curbside in-line transit/shuttle stop with shelter



Lighting

Street lighting has an important role in creating atmosphere, promoting safety, and branding for a community. Scale, style, lighting effect, and maintenance affect fixture requirements. Custom light poles, standard poles, specialty light fixtures, and pedestrian lighting all help to create a unified identity and consistent lighting level environment for the public right-of-way.

The intent of lighting should include the following:

- To provide a safety environment for pedestrians and vehicles that is pleasing to the eye and encourages activity.
- To provide aesthetic scale and framing of the streetscape during the day, creating a sense of place.

Guidelines for lighting include:

- Pedestrian lighting should be included within the Downtown Village District, consistent with prior adopted guidelines.
- Roadway lighting should be coordinated with NCDOT where applicable and utilize a consistent style.
- Spacing: Approximately 56' - 64' spacing in same alignment as street trees. Lights should be centered between trees. Conflicts with trees should be avoided.
- Duplex outlets should be provided for tree pits within the Downtown Village District Area to allow for low-voltage seasonal lighting of trees. Outlets should be located on low profile posts with lockable covers.
- Pedestrian and street light poles within the Downtown Village District Area should include duplex outlets located near the fixtures adjacent to brackets or banner bars to allow for the mounting of seasonal lighting to the pole with power source located near the mounting.

- Within the Downtown Village District Area duplex outlets should be located within adjacent landscape beds or tree pits, or located within ground vaults adjacent to loading areas or parallel parking areas that will be permitted for food truck use to allow for electrical connection upon permitted authorization.



Examples of street and pedestrian lighting. Left, typical Duke Energy smooth fiberglass pole and LED Roadway fixture, to be used town-wide. Right, typical pedestrian and street light for Downtown Village District; pedestrian light is the Mitchell LED Top Hat with ribs, bands, and medallions with 16 ft mounting; post is a Decorative Aluminum Style VI; street light is a Teardrop LED on a Decorative Tapered Metal pole in black.

Gateways & Wayfinding

Gateway elements enhance community branding and serve as welcome features for the Town. The Town has recently implemented new standards that combine wayfinding and gateway elements. Further implementation should be continued by identifying major intersections, major thoroughfares, and districts within the Town.

The intent of gateways should include the following:

- To provide a form of wayfinding that combines Town branding and character.
- To provide aesthetic scale and framing of major streetscapes and intersections.

Guidelines for gateways include:

- Gateway elements should be continued across the Town to include major points of interest.
- Gateway elements should incorporate public art where possible.

See *Vision Holly Springs Section 1: Land Use & Character Plan* Appendix D: Town Gateway Map for additional information.

Wayfinding signage within the Downtown Village District and thoroughfares should include a decorative post, black framing for street sign banner, and a black finish to the back of traffic signs. When possible signage should be grouped onto single poles to reduce signage clutter. Traffic signals poles and master arms should have a black finish with mounted street name banners and decorative poles.

Town-wide signage should following Manual of Uniform Traffic Control Devices or (MUTCD) and NCDOT guidelines. Traffic signs do not need to have black finishes, nor decorative poles, however, consolidation of signage where possible should be considered. Traffic signal poles and master arms outside the Downtown Village District and on corridor other than thoroughfares should be aluminum and mounted street name banners.



Example of new Town gateway elements (Sunset Lakes Rd. at Holly Springs Rd.)



Example of a gateway framing element.



Example of wayfinding signage style within Downtown Village District.

Aesthetics of the Street

Art in the public realm is an important part of the culture of a diverse community such as Holly Springs. While not only aesthetically pleasing, public art provides opportunities for local artists to contribute to the image and economics of the Town, and exposes residents and visitors to the diversity and culture that makes Holly Springs unique. The following are key goals that the Town has for managing public art along streetscapes:

- Provide diversity in public art. Different styles and mediums used to produce and display public art.
- Integrate of Art into the Community's Public Realm. Explore streetscapes, gateways, and intersections that would be ideal locations for public art installations, and other opportunities that may exist in conjunction with future projects.
- Establish a dedicated funding source for a Public Art Program.
- Commission distinctive works of art reflecting the character of the Town at priority locations.
- Enhance community participation in the public art process through engagement of the public.
- Create gateways to enhance community identity.
- Celebrate the Town's unique character, history and diversity through a broad range of public art projects.
- Enhancing the Town's urban design objectives by using public art to animate and activate streetscapes and public spaces.
- Promote the economic vitality of the Town by using public art to brand Holly Springs as a vibrant arts and cultural destination.

Why Public Art?

Many may see the definition of public art as “permanent art installed in public spaces,” but the definition and impact of public art on a community is much broader. Public art is a community investment in creativity that shapes, enhances, and activates public spaces. In its best realization, public art has the power to transform communities, invigorate and energize their populations, inspire passion and enthusiasm about the built environment, and engender ownership in artworks and the neighborhood at large. Public art has turned communities from anonymous series of spaces into rich landscapes reflecting history, embracing and honoring cultural differences, and teaching social values. Public art moves beyond improving aesthetic quality within neighborhoods and communities, by reinforcing social connections, and fostering improved health outcomes.



Example of crosswalk public art.



Example of large focal point public art as a gateway feature.

Diversity of Public Art

Public Art can take many forms and exists in a wide variety of public spaces. Common types of public art generally fall within one of the following categories:

- Sculpture
- Architecture
- Murals / Paintings
- Earthworks
- Memorials
- Signage
- Installation Art
- Interactive Art

Public art captures and reinforces the unique character of a place. The setting for public art should be considered as part of the experience of the art itself. The impact of the place, whether the comfort, noise, views, etc. all have a hand in the experience of art. Together the setting and the art create a memorable experience.



Example of intersection treatment as public art.

- The intent of any public art should include the following:
- To enrich the experience of the Town of Holly Springs whether it is a moment of visual pleasure while stopped at a traffic signal or by creating a space along a streetscape for pedestrians to site, relax, and linger.
- To contribute to the Town's sense of place by enhancing connections between people and the environment through art and distinctive landscape.
- Guidelines for public art include:
- **Materials:** Public art should consist of durable materials and where possible natural such as stone, wood, or metal should be used.
 - **Siting:** Public art should be sited to complement the surrounding environment. Art should not be a distraction to drivers or pedestrians or negatively impact the safety of the public. The scale of the art should be appropriate to the site. Consideration to art that serves as a terminus or focal point as space defining elements.
 - Within the Downtown Village District, refer to Figure 13: Focal Point Locations map of the Village District Area Plan for potential location for public art. Street furnishings such as benches or tree grates can integrate public art, as well as murals on building facades.
 - **Landscape:** Landscape should complement the art installation or serve as an extension or part of the art. Consideration to the mature size of landscape, maintenance requirements, and lifespan should be provided.
 - **Playful:** Public art should be approachable and challenging. It can incorporate seating, opportunities for children to play, water, or light.

Public Art Recommendations

- 1. Establishing an Identity:**
- 1.1 - Commission distinctive works of art reflecting the character of Holly Springs.
 - 1.2 - Concentrate public art projects at major thoroughfares, at major intersections, and at gateways.
 - 1.3 - Involve the public to provide input for the art program.
- 2. Funding Public Art:**
- 2.1 - Establish a dedicated funding source for Public Art. The following are examples of common funding programs from around the country:
 - Percent for art: More than 600 municipalities have enacted percent for art ordinances that allocate between 1/2% and 2% of capital improvement budgets for the arts. In 2002, Chapel Hill Town Council established the Town's Percent for Art Ordinance. This Ordinance allocates 1% of selected capital projects for the creation, fabrication/construction, installation, and maintenance of permanent works of public art. Funding for Percent for Art projects comes from each project's construction budget, which can include Federal, State, County, Town, and private support.
 - General Fund Allocation: This is the most common arts funding, particularly in small and mid-sized communities.
 - Dedicated Property Tax Allocation: St. Louis levies \$28 per \$1,000 real estate valuation dedicated to arts funding. It produces \$70 million annually.
 - Hotel/Motel Tax: The Buncombe County Tourism Development Authority contributed

- a \$600,000 lead grant from the county's hotel/motel tax toward the construction costs for Asheville's Moogseum.
- United Arts Fund: Charlotte, NC has a 'United Way'-style arts fund-raising program that produces \$11.2 million for arts grants in programming.
- Grant Funding: the National Endowment for the Arts (NEA), most state arts agencies, and many private and community foundations support arts programming and public art, although most require matching funding from the Town.
- 2.2 - Where not prohibited by funding source restrictions applicable to grants, bonds, loans or enterprise funds, monies appropriated for public arts should be pooled and expended on any public art project in the Town.
- 2.3 - Ensure proposed private donations of public art follow the same rigorous review process as other public art projects.
- 2.4 - Require a maintenance endowment for privately donated public art projects to ensure the long-term maintenance of the artwork.



Example of small roundabout public art using natural materials.

3. Administrating a Public Art Program:

- 3.1 - Consider contracting with the United Arts Council of Raleigh and Wake County.
- 3.2 - Alternatively, the Town could administer the program internally by creating an arts division in an appropriate Department, such as Parks and Recreation or Public Works.
- 3.3 - Create a Public Art Advisory Commission to review proposed public art projects and recommend them to Town Council for approval.
- 3.4 - Develop a Public Art Work Plan developed by the Public Art Advisory Commission.
- 3.5 - For capital projects, ensure early selection of the project artist so the artist can serve as part of the design team.
- 3.6 - Set aside 20% of the public art budgets in a segregated account for program administration, artist selection, community engagement and other related activities.
- 3.7 - Develop policies and guidelines relating to preserving artist freedom of expression and balancing artists' first amendment, moral and intellectual property rights with the rights of the Town to control its public spaces for future use and reuse; and limiting contractual waivers of artists' rights under the federal Visual Artists Rights Act and the federal Copyright Act.
- 3.8 - To the extent permitted by law, reserve an amount equal to 10% of the project budgets in separate account for collections management and conservation and maintenance of the public art collection
- 3.9 - Conduct a maintenance and curatorial survey of the entire public art collection at least once every five years.
- 3.10 - The public art program should include temporary public art projects, designed to introduce the program to the public.



Example of wall mural as public art, Vail, CO.



Example of streetscape furnishings (bike racks) as public art; Duncan McDaniel, Nashville, TN



Example of streetscape furnishings (benches) as public art.



Example of incorporating public art into street furnishings.



Example of temporary public art murals on plastic jersey barriers.

THE HOLLY SPRINGS COMPREHENSIVE TRANSPORTATION PLAN

Conclusion

The Holly Springs CTP revealed a shared understanding throughout the Town that an unwavering focus on balanced mobility solutions is critical to achieve the Town's vision and goals. The competition for limited resources makes transformative change of the Town's transportation network more challenging and even more important. No single department or agency in the Town can bear full responsibility for addressing the many actions necessary to address these challenges. Across all departments, measurable success will require the ability to see the connection between transportation and local challenges, a willingness to adapt to changing circumstances, an appetite for partnership building with regional and state agencies, and the readiness to act.





Resolution No. 22-22

Date Adopted:

Effective Date:

**RESOLUTION OF THE TOWN OF HOLLY SPRINGS TOWN COUNCIL
APPROVING AND ENACTING AMENDMENT 22-CPA-01 TO
VISION HOLLY SPRINGS: TOWN OF HOLLY SPRINGS COMPREHENSIVE PLAN
TO ADOPT SECTION 2: COMPREHENSIVE TRANSPORTATION PLAN**

WHEREAS, the Town of Holly Springs Town Council adopted *Vision Holly Springs: Town of Holly Springs Comprehensive Plan* in November 2007 and updated the plan in 2009 and 2018; and

WHEREAS, the Town of Holly Springs Town Council has maintained and updated *Vision Holly Springs: Town of Holly Springs Comprehensive Plan* by adopting Section 1: Land Use & Character Plan in 2019 and Section 3: Parks, Recreation and Greenways Master Plan in 2021; and

WHEREAS, *Vision Holly Springs: Town of Holly Springs Comprehensive Plan* Section 2: Comprehensive Transportation Plan (CTP), was originally adopted in June 2011 with an amendment in July 2013, and the Town Council has determined it is in the public's interest to update the Comprehensive Transportation Plan (CTP) to meet the needs of the community; and

WHEREAS, the Town Council appointed a Technical Steering Committee representing multi-modal transportation stakeholders who have dedicated time, effort, experience, talent and energy to provide feedback and input regarding the development of the new Plan; and,

WHEREAS, the proposed Section 2: Comprehensive Transportation Plan (CTP) covers all modes of transportation, including roadways, bicycle facilities, sidewalks and transit services and will help coordinate transportation improvements with future development, establishes transportation policies and programs, and identifies opportunities to secure funding for important transportation projects; and

WHEREAS, the Holly Springs Planning Board reviewed Section 2: Comprehensive Transportation Plan (CTP) at a Public Meeting on April 26, 2022 and recommended approval by a vote of 8-0-1; and

WHEREAS, in accordance with NCGS § 160D-601, the Town of Holly Springs held a legislative hearing on May 17, 2022 to consider Section 2: Comprehensive Transportation Plan (CTP); and

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF HOLLY SPRINGS, NORTH CAROLINA:

1. Vision Holly Springs: Town of Holly Springs Comprehensive Plan Section 2: Comprehensive Transportation Plan is hereby adopted.
2. This Plan repeals and replaces Vision Holly Springs: Town of Holly Springs Comprehensive Plan Section 2: Comprehensive Transportation Plan originally adopted in 2011, and all its amendments.
3. This resolution shall take effect immediately.

Adopted by the Holly Springs Town Council on this, the 17th day of May, 2022.

Town of Holly Springs by

ATTEST:

Sean Mayefskie, Mayor

Linda McKinney, Town Clerk





Resolution No. 22-23

Date Adopted:

Effective Date:

**RESOLUTION OF THE TOWN OF HOLLY SPRINGS TOWN COUNCIL
ADOPTING AMENDMENTS TO THE DEVELOPMENT PROCEDURES MANUAL**

WHEREAS, the Holly Springs Town Council, by Resolution 02-37 adopted on Nov. 8, 2002, adopted the Town of Holly Springs Development Procedures Manual; and

WHEREAS, Resolution 02-37 provides for periodic amendments to the Development Procedures Manual by resolution and at the discretion of the Holly Springs Town Council; and

WHEREAS, said amendments are as follows:

Part 1: Amend Table of Contents, by removing text in ~~strike through~~ and adding text in **bold**, to add the Traffic Study Policy, as follows:

2. ~~RESERVED FOR FUTURE USE~~ **TRAFFIC STUDY POLICY**

Part 2: Amend Chapter 2, by removing text in ~~strike through~~ and adding text in **bold**, to add the Traffic Study Policy, as follows:

1. Introduction and Purpose

Traffic studies are tools used to evaluate the impacts of land development projects on the surrounding transportation system and determine if improvements are required to mitigate those impacts to the network.

The Town of Holly Springs has developed this Traffic Study Policy to define the need for traffic studies associated with proposed land development projects as well as guidelines for those studies. This policy is intended to provide transparent criteria for traffic studies performed in the Town, establish clear expectations through this process in the Town, and to ensure consistency with the Comprehensive Plan and other adopted Town plans and policies.

The Unified Development Ordinance Administrator (Administrator) shall administer this policy. The Administrator may elect to utilize professional services from a traffic consultant to administer portions of this policy on behalf of the Town.

2. Responsible Party Qualifications

Traffic studies must be signed and sealed by a Professional Engineer (PE) licensed in the State of North Carolina with relevant traffic engineering experience. The Administrator reserves the right to make a determination as to whether a particular engineer meets this criterion.

3. Traffic Study Thresholds & Study Area

The Unified Development Ordinance (UDO) defines three tiers of traffic studies as follows:

1. Tier 1: Trip Generation and Distribution Assessment (TGDA): For developments that are not expected to generate significant site traffic or have significant impacts at off-site intersections. This tier of Traffic Study would require a summary of the anticipated trip generation and site traffic distribution but would not require any capacity analysis.
2. Tier 2: Site Specific Traffic Assessment (SSTA): For developments when site traffic is sufficient to potentially necessitate improvements to the transportation network only in the immediate vicinity of the site. This tier of Traffic Study would typically require analysis of site driveways and critical nearby intersections in a limited study area and would require coordination through the Town's Traffic Study scoping process.
3. Tier 3: Traffic Impact Analysis (TIA): For developments when site traffic is sufficient to potentially necessitate improvements to the transportation network beyond only site access points or adjacent intersections. This tier of Traffic Study would typically require analysis of critical intersections within at least a 1-mile radius of the site and would require coordination through the Town's Traffic Study scoping process.

Thresholds for required traffic studies will be determined based upon the amount of site-generated vehicular traffic as defined in Table 1 below. The calculations of net new external vehicular trips as used in this section shall be based on the current Institute of Transportation Engineers (ITE) Trip Generation Manual. If an applicable ITE land use is not available or contains limited data, or if additional use-specific trip generation is provided, an alternative trip generation methodology may be approved by the Administrator.

Table 1				
Traffic Study Tiers				
Tier	Title	Trip Generation Threshold		Required Study Area
		Daily (vpd.)	Peak Hour (veh.)	
1	Trip Generation and Distribution Assessment (TGDA)	300-499	30-49	No intersection analysis required
2	Site Specific Traffic Assessment (SSTA)	500-999	50-99	Site access points and critical nearby intersections
3	Traffic Impact Analysis (TIA)	1,000+	100+	Site access points and critical intersections within at least a 1-mile radius

Critical nearby intersections for Tier 2 studies are those in such proximity to the proposed development that, in the opinion of the Administrator, will be sufficiently impacted to warrant inclusion in the analysis.

The Administrator reserves the right to require additional or alternative studies on a case-by-case basis including, but not limited to, scenarios in which development is proposed near schools, in areas with significant crash history, or where known severe traffic conditions or other safety concerns exist currently.

4. Traffic Study Screening, Scoping, and Memorandum of Understanding

Prior to conducting any assessment or analysis for submittal, the Applicant shall complete a "Request for Traffic Study Scoping" form to initiate the Traffic Study scoping process with the Administrator to discuss the Traffic Study requirements. The Administrator will determine which Traffic Study tier will be required and, once determined, the Applicant or Applicant's Consultant will schedule a Traffic Study scoping meeting if either an SSTA or TIA is required. If applicable based on the site location, the Applicant shall also coordinate with the North Carolina Department of Transportation (NCDOT) to confirm additional study requirements and scope elements.

Following the Traffic Study scoping meeting, the Applicant shall submit a Memorandum of Understanding (MOU) or similar document that outlines the required scope of the project. The MOU shall be reviewed by the Administrator and NCDOT (if appropriate) before performing the Traffic Study. If significant changes are made to the parameters documented in the MOU, a revised MOU shall be provided by the Applicant for review and approval by the Administrator and NCDOT (if appropriate). If a required analysis is not submitted within 6 months of the Traffic Study scoping meeting, a new Traffic Study scoping meeting and updated MOU may be required.

5. General Traffic Study Requirements

While the Administrator may require additional elements for inclusion through the Traffic Study scoping process, Table 2 below provides a summary of the typical scope items to be included for each Traffic Study tier.

Table 2 Typical Traffic Study Elements			
Traffic Study Tier	Tier 1 (TGDA)	Tier 2 (SSTA)	Tier 3 (TIA)
Site and Study Area Summary			
Project Location Map & Description	X	X	X
Existing & Proposed Uses and Access	X	X	X
Study Area Roadway Summary (Speed Limit, ADT, etc.)	X	X	X
Existing Condition			
Existing Roadway Network and Signal Timings		X	X
Traffic Counts		X	X
Future Year No-Build (Background) Condition			
Ambient Traffic Growth		X	X
Approved Development Site Traffic		X	X

Roadway/Signal Improvements by Others		X	X
Future Year Build Condition			
Estimated Trip Generation	X	X	X
Anticipated Trip Distribution	X	X	X
Future Year + 5 Conditions (No-Build and Build)			
Additional Growth to Build + 5 Study Year			X
Recommendations and Conclusions			
Capacity Analysis Summary		X	X
Improvement Recommendations & Diagram		X	X
Additional Traffic Study Considerations			
Traffic Signal Warrant Analysis		If Applicable	
Turn Lane Warrant Analysis		If Applicable	
Multimodal Analysis		To be determined by Administrator	
Crash Data Review		To be determined by Administrator	

X – Required Elements

6. Typical Memo/Traffic Study Contents

A. Required Elements for all Traffic Studies (Trip Generation and Distribution Assessment (Tier 1), Site Specific Traffic Assessment (Tier 2) and Traffic Impact Analysis (Tier 3) Elements)

The following elements related to the site and study area shall be included in the memorandum for all Traffic Studies:

i. Applicant/Project Information

Includes the project name, location, name of the applicant, and date of the Traffic Study and the name, contact information, registration number (individual or firm), signature, and seal of a duly qualified and registered professional engineer in the State of North Carolina.

ii. Project Description:

Includes a detailed description of the development, including site location and all access points, existing and proposed uses for the site, and anticipated completion dates (including phasing). This section shall also include a map depicting the location and surrounding roadway network. A conceptual development plan shall also be provided with the memorandum by the Applicant.

iii. Methodology Summary:

Includes a summary of trip generation calculations and anticipated site traffic distribution for project trips.

Figures and maps shall be included as needed to depict site traffic distribution and percent and assignment at site access points.

iv. Results and Conclusions

Includes a detailed summary of results and recommendations.

B. Additional Elements for Site Specific Traffic Assessment (Tier 2) and Traffic Impact Analysis (Tier 3) Elements

In addition to the elements required for all Traffic Studies, the following elements related to the site and study area shall be included for Tier 2 and 3 Traffic Studies:

i. Table of Contents

Tier 2 and Tier 3 studies shall include a Table of Contents that lists the section headings, figures, tables, and appendices included in the Traffic Study.

ii. Executive Summary

Includes a general description of the development location, Traffic Study scope, Traffic Study horizon years, general description of the Traffic Study findings, and a summary and graphic depicting mitigation recommendations. Technical publications, calculations, documentation, data reporting, and detailed design shall not be included in this section.

iii. Project Description

This section shall include a description of the study area roadway network (including speed limits, functional classifications, AADT volumes, etc.), a location map depicting the location, study intersections (including site driveway locations), and surrounding roadway network

iv. Methodology Summary

Includes a summary of inputs and methodology incorporated in the Traffic Study. This shall include discussion related to traffic volume data sources, volume development methodology (including approved developments, growth rate, etc.), and site traffic distribution.

Figures and maps should be included as needed to depict study condition volumes and laneage as well as site traffic distribution and assignment.

v. Additional Traffic Study Considerations

If during the Traffic Study scoping meeting or while performing the required analysis it is determined that additional traffic study considerations are required for inclusion (such as traffic signal warrant analyses, turn lane warrant analyses, multimodal analyses, crash data reviews, etc.), summaries of those additional items shall be documented in the report.

vi. Results and Conclusions

Includes a detailed summary of results of the capacity analysis as well as other applicable required analyses (queue, traffic signal warrant, crash data, multimodal, etc.) evaluated as part of the Traffic Study. Unless otherwise noted, level-of-service (LOS) and delay shall be reported for all signalized intersections and approaches at study area

intersections. Based on the Highway Capacity Manual (HCM), LOS for unsignalized intersections is not defined as a whole; instead, only the individual stop-controlled or yield approaches shall be reported from HCM through the Synchro analysis.

The Traffic Study shall also provide a description of the findings regarding impacts of the proposed project on the existing and future transportation system and describe the location, nature, and extent of all mitigation measures recommended to be performed as part of the development to achieve required mitigation thresholds, including a graphic depicting recommended mitigation.

vii. Appendices

Includes the MOU and other applicable documents. Tier 2 and Tier 3 studies shall provide Appendices that include applicable study documents. These sections should include, but are not limited to, scoping documents, traffic count data, approved development data, analysis results (Synchro analysis LOS reports, etc.), and traffic signal plans and timing data. Documents related to additional traffic study considerations (crash data, traffic signal warrant analyses, etc.) should be included as applicable.

7. Traffic Study Methodology

The following summary details the methodology expected to be used in required traffic study:

A. Existing Condition Analysis

The following elements shall be considered in existing condition analyses required in Tier 2 and Tier 3 Traffic Studies:

i. Traffic Counts

Unless otherwise approved by the Administrator, count data shall be no more than 12 months old and shall be collected for the peak periods of the proposed development.

It is expected that counts will be performed in 15-minute intervals on weekdays (Tuesday through Thursday) when schools are in session and not impacted by significant events that would affect normal traffic patterns (holidays, severe weather, special events, road closures, etc.). For most projects the typical peak conditions occur between 7:00 to 9:00 AM and 4:00 to 6:00 PM, though site-specific conditions may necessitate additional or alternate count timeframes at the direction of the Administrator. For example, 12-hour turning movement counts may be required if a traffic signal warrant analysis is required as part of the Traffic Study, or weekend peak counts may be required for projects with special event peaks or significant traffic peaks on weekends.

Traffic count data shall be included in the Appendix of the Traffic Study, and existing peak hour volumes shall be depicted in a figure included in the Traffic Study.

ii. Existing Roadway Network

Existing signal plans and timing data shall be obtained from NCDOT or collected in the field with permission from NCDOT. This data, along with existing study area intersection laneage, shall be incorporated in existing analyses per NCDOT Congestion Management Unit guidelines.

It is recommended that a site visit is conducted to confirm the existing network and to observe existing traffic conditions. Existing study intersection configurations (including turn lanes, storage lengths, and intersection control) shall be depicted on a figure included in the Traffic Study.

B. Future No-Build (Background) Condition Analysis

The following elements shall be considered in background condition analyses required in Tier 2 and Tier 3 Traffic Studies:

i. Volume Development

Future year background traffic volumes shall be forecasted using historical growth rate information, regional models, and/or Traffic Studies for development approved by the Town but not yet built.

Background Traffic Growth: Unless otherwise approved by the Administrator, a 5% annual growth rate shall be accounted for each movement at study intersections.

Approved Development Traffic: The approved developments and transportation projects to be included in the background conditions shall be determined during the Traffic Study scoping meeting. Approved development traffic information used in the development of the future year background traffic volumes shall be included in the appendix of the Traffic Study

On a case-by-case basis, additional analysis scenarios may be required by the Administrator that consider the impact of significant pending but not-yet-approved projects in the study area.

Future year base traffic volumes, background traffic growth, and other development volumes shall be depicted in a figure (or figures) included in the Traffic Study.

ii. Roadway Network

Transportation improvements assumed in the future-year background conditions analysis may include those improvements with an expected completion date concurrent with that of the development and funded by the Town of Holly Springs, NCDOT, or indicated as a required condition of approval from another nearby development application. Only projects approved by the Administrator at the Traffic Study scoping meeting may be included in the analysis as future existing infrastructure. Those improvements committed by other projects must be clearly identified in the Traffic Study as approved offsite development road improvements.

Planned infrastructure projects that are unfunded, or otherwise not expected to be completed prior to the identified development Traffic Study horizon year, may be mentioned in the traffic study but the description shall specifically identify that these projects are not included in the background condition.

C. Build-out Condition Analysis

Unless otherwise approved by the Administrator, future year conditions for a single-phase development shall be analyzed for the year the development is expected to be at full occupancy (build-out year) and, for Tier 3 Traffic Studies, 5 years after the build-out year (build-out + 5).

The following elements shall be considered in build-out condition analyses required in Tier 2 and Tier 3 Traffic Studies:

i. Volume Development

Trip Generation: Trip generation for the proposed land use(s) should be calculated using data published in the latest version of the Institute of Transportation Engineers' (ITE) Trip Generation Manual. Data limitations, data age, choice of peak hour of adjacent street traffic, choice of independent variable, and choice of average rate versus equation shall be discussed at the Traffic Study scoping meeting. Consistent with NCDOT trip generation methodology, collection of local data may be if appropriate validation is provided by the applicant to support them. Any deviation from ITE trip generation rates shall be discussed in the Traffic Study scoping meeting and documented in the MOU, if approved by the Administrator and NCDOT. For school sites, trip generation and peak hour factor (PHF) methodology shall be based on guidance from the NCDOT Municipal School Transportation Assistance (MSTA) group unless alternative methodology is approved.

Unless otherwise approved by the Administrator, internal capture and pass-by reductions shall be applied per guidance in the most current Trip Generation Handbook published by the ITE or per guidance from the National Cooperative Highway Research Program (NCHRP). The internal capture reductions shall be applied before pass-by trips are calculated, and pass-by trips associated with the development program may not exceed 10% of the peak-hour volume reported for the adjacent public street network. Evaluation of diverted trips may apply depending on the specifics of each site.

Mode split, which is based on an estimated volume of trips anticipated to use transportation modes other than automobiles (such as bikes, pedestrians, and transit), may be considered on a case-by-case basis. The Administrator may approve a mode-split reduction as part of the Traffic Study scoping process, and mode split calculations shall be applied prior to accounting for pass-by trips.

A trip generation table summarizing all trip generation calculations for the project shall be included in the Traffic Study.

Trip Distribution and Assignment: Trip distribution assumptions should be developed based on a review of the development plan, existing traffic patterns in the project vicinity, and surrounding land uses. Based on the proposed development, multiple trip distributions may be referenced for differing land use types. Regardless of methodology, the procedures followed and logic for estimating trip distribution percentages must be well-documented in the Traffic Study. Overall site trip distribution percentages proposed for the surrounding transportation network shall be discussed during the Traffic Study scoping meeting and shall be approved by the Administrator and NCDOT (if appropriate) before proceeding with the Traffic Study.

If the project will be built in phases, traffic assignments shall be reported for each phase and subject to Section 8 (Period of Validity), below. Pass-by traffic shall be included at the driveways and access points.

ii. Roadway Network

In addition to the improvements included in the background condition, laneage in the build-out condition should include signal and roadway improvements recommended to be performed as part of the development. Those improvements must be clearly identified in the Traffic Study and in figures as recommended development improvements. See Section 7.F for mitigation measure recommendation standards.

D. Capacity Analysis Inputs

Level-of-Service (LOS) and delay are the primary measures of effectiveness for impacts to the transportation system, and those measures are defined by the most current edition of the Highway Capacity Manual (HCM). Unless otherwise noted, Synchro LOS and delay shall be reported for all signalized intersections and approaches identified in the study area. Based on HCM, LOS for unsignalized intersections is not defined as a whole; instead, only the individual stop-controlled or yield approaches should be reported based on the HCM reports determined through the Synchro analysis. SimTraffic delay results may also be accepted subject to approval by the Administrator.

Existing signalized intersections shall be modeled based on existing signal timing plans provided by either the Town or NCDOT. Existing signal timing plans shall be included in the appendix of the Traffic Study. If a signalized study intersection is part of a coordinated traffic signal system, it must be analyzed as such under all conditions. Optimized signal timings and signal phasing may be incorporated as part of the future analysis scenarios provided that those changes could be made without degradation to other corridor intersections.

Unless otherwise approved, analysis methodology identified by the NCDOT MSTA group shall be used for analyses associated with school sites, including drop-off and pick-up operations and peak hour factor (PHF) inputs. Unless otherwise directed by NCDOT, actual peak hour factors (PHF) per turning movement counts may be used in the Traffic Study. Right-turns on red (RTOR) may be incorporated in the Traffic Study for existing intersections where currently permitted in the field or at new signalized intersections where it is reasonable to expect that condition can be accommodated, if confirmed with NCDOT.

Other standard practices and default input values for evaluating signalized intersections shall be consistent with the most recent guidelines published by the NCDOT, Traffic Engineering and Safety Systems Branch, Congestion Management Unit ("Capacity Analysis Guidelines").

Unless otherwise approved, all traffic studies submitted to the Town shall use Synchro/SimTraffic or HCS analysis software for signalized and unsignalized intersections and SIDRA or Vissim software for roundabouts consistent with policies released by the NCDOT. A narrative, table, and map shall be prepared that summarizes the methodology and measured conditions at the intersections reported in LOS, intersection and approach signal delay for signalized intersections, and approach delay for unsignalized intersections.

Volume development calculations should be included in the appendix of the Traffic Study.

E. Additional Analyses

Traffic Signal Warrant Analysis – The Administrator and NCDOT may consider potential signal locations at the Traffic Study scoping meeting. Furthermore, even if a traffic signal warrant analysis was not specifically identified through the scoping process, the Administrator may require traffic signal warrant analyses upon completion of the Traffic Study if a traffic signal is recommended for installation as part of the study. However, traffic flow progression is of paramount importance when considering a new traffic signal location. A new traffic signal should not cause an undesirable delay to the surrounding transportation system. Installation of a traffic signal at a new location shall be based on the application of warrant criteria contained in the most current edition of the Manual on Uniform Traffic Control Devices (MUTCD) and engineering judgment. Traffic signal warrants shall be included in the appendix of the Traffic Study. Additionally, spacing of traffic signals within the Town must adhere to NCDOT requirements. Pedestrian movements must be considered in the evaluation, and adequate pedestrian clearance provided in the signal cycle split assumptions. If a traffic signal warrant analysis is recommended in the Traffic Study, the Administrator and/or NCDOT may decide to defer a traffic signal warrant analysis until after the development has opened in order to use actual turning movement counts at an intersection.

Turn Lane Warrant Analysis – At new site driveways, a turn-lane warrant analysis shall be performed based on projected build-out traffic volumes and site thoroughfare improvements. This turn-lane warrant analysis shall reference the NCDOT Driveway Manual or other approved industry standards.

Multimodal Analysis – If a multimodal analysis is identified as a requirement in the Traffic Study scoping meeting, the Administrator will provide information on the required scope and methodology of the analysis. The traffic engineer will provide an assessment and discussion of current multimodal LOS conditions in the report as well as a description of how the proposed development will impact multimodal LOS.

Crash Data Review – A summary of crash data (type, number, and severity) for the most recent 5-year period may be required on a case-by-case basis at the direction of the Administrator. Traffic Engineering Accident Analysis System (TEAAS) reports should be obtained from NCDOT or with permission from NCDOT. For locations with prevalent crash types and/or frequency, a discussion shall be included describing factors that may be contributing to the incidents. Depending on the timeline for obtaining these crash reports, this summary may be provided as an update to the Traffic Study.

F. Mitigation Measure Recommendations

Mitigation Measure Recommendations – This section of the Traffic Study shall provide a description of the Traffic Study's findings regarding impacts of the proposed project on the existing and future transportation system and describe the location, nature, and extent of all mitigation measures identified per the thresholds identified below. to improve and/or maintain the future year background conditions level-of-service (LOS) conditions through phasing and ultimate build-out of the project. This mitigation will be based on a comparison of the levels-of-service (LOS) in the background and build-out year condition scenarios. The development is only required to mitigate transportation deficiencies caused by the projected impact of their

proposed development, and not unacceptable background conditions (LOS E-F) or other deficiencies caused by offsite development within the defined study area. For multi-phase developments, the capacity analyses scenarios shall address the phasing of improvements for each phase of development.

The Traffic Study shall identify improvements to the roadway network if at least one of the following conditions exists when comparing future year build-out conditions to future year no-build (background) conditions for overall intersection or intersection approaches:

- the background condition is LOS C-D and the total average delay at an intersection or individual approach increases by 25% or more, while maintaining the same LOS.
- the background condition is LOS E-F and the total average delay at an intersection or individual approach increases by 15% or more, while maintaining the same LOS.
- the LOS degrades by at least two levels between background and build-out but remains LOS D or better at project build-out.
- the LOS degrades from an acceptable LOS (A-D) in the background condition to an unacceptable LOS (E-F) in the build-out condition.

If an intersection or approach operates at LOS E-F in the existing or background conditions and there are identified but not fully funded improvements at that location as part of other developments, fees-in-lieu may be required of the project based on proportionate impact at that location.

The Administrator and NCDOT will review the identified improvements in the final version of the Traffic Study and will have the ultimate determination in the scope of the required mitigation measures.

For cases in which implementation of an improvement is infeasible or is otherwise not required by the Administrator, the Administrator may require payment of fees-in-lieu (discussed in a later section of this Policy) based on the project's percent impact.

Mitigation measures shall be identified for the build-out + 5 scenario to meet the criterion above but will not be used for informational purposes only.

A narrative and table shall be prepared that summarizes the methodology and measured conditions at the intersections reported in LOS and average control delay for each intersection and approach. A narrative and map shall also be prepared that describes and illustrates recommended improvements, by development phase if necessary, for mitigating the projected impact of the proposed development.

G. Transportation Mitigation Agreement (TMA) and Mitigation Implementation

Upon completion of the Traffic Study, certain on or off-site transportation mitigation measures may be required as recommended by the Traffic Study. The Applicant's Consultant shall prepare a Transportation Mitigation Agreement (TMA) which will summarize the following the results of the study, including:

- Development plan (land uses and intensities),
- Phasing and timing of development (if applicable),
- Site access and points of ingress/egress,

- On and off-site improvements required to adequately mitigate the project impacts to the Town's transportation system, including vehicular, pedestrian, and bicycle improvements, and
- Trigger points and deadlines for construction of any improvements if improvements are planned to be phased,
- Payment of fees in lieu of required improvements (if applicable).

The TMA must be prepared by the Applicant and provided to the Administrator prior to action by the decision-making body for the project. The TMA must be signed by the applicant and the Administrator prior to submittal of Civil Construction Drawings unless otherwise approved by the Administrator.

The required mitigation shall be designed and constructed by the Applicant at the Applicant's expense.

H. Payment of Fees in Lieu of Required Improvements

In some limited circumstances, a payment of fee-in-lieu may be recommended by the Administrator to the decision-making body. The amount of payment shall be 100% of the actual installation and construction cost of completing such improvements (unless otherwise approved). In cases in which payment of only proportional fee-in-lieu is proposed, the development's contribution should be calculated based on the impact necessitating improvements, such as the impact to a minor-street left-turn (or approach) volume where traffic signal installation is considered or the proportion of site traffic relative to build-out traffic volumes on a movement where an improvement is identified.

Cost estimates for required improvements shall be calculated by a registered professional engineer licensed in the State of North Carolina and provided to the Administrator for review before TMA approval.

8. Period of Validity

The Traffic Study will be deemed valid as long as the associated development plan is valid. However, updates may be required to the Traffic Study to address impacts associated with modifications to the development that would impact traffic operations for the site. These changes may include, but are not limited to, changes in land uses that result in increases in trip generation or significantly different entering and exiting trip patterns (e.g., a change from a residential use to an office use) or changes to site access. For phased development, these changes could include circumstances in which net new peak hour external trips for a proposed phase of development exceed phasing assumed in the Traffic Study by more than 5% (while still remaining less than the total trips analyzed for the overall development). For projects requiring rezoning, updated analyses may be required even if previous studies considered developments generating equivalent or higher volumes of peak hour trips.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF HOLLY SPRINGS, NORTH CAROLINA:

1. That it adopts and enacts the amendments as specified within this resolution to the Town of Holly Springs Development Procedures Manual; and,
2. This resolution shall take effect immediately.

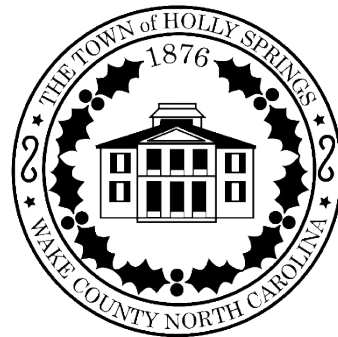
Adopted by the Holly Springs Town Council on this, the 17th day of May, 2022.

Town of Holly Springs by

ATTEST:

Sean Mayefskie, Mayor

Linda McKinney, Town Clerk





Holly Springs Town Council

Town Council Meeting Agenda Cover Sheet

Agenda Item#: 15.

Public Hearings

Title: System Development Fee Report

Strategic Priority Area: Economic Prosperity & Diversity

Organizational Excellence

Responsible & Balanced Growth

Safe & Friendly

Staff Resource: Kendra Parrish, Utilities and Infrastructure, Seann Byrd, Utilities and Infrastructure, Rachel Ingham, Utilities and Infrastructure

Action(s):

- Open and close the Public Hearing for the proposed Water and Wastewater System Development Fee Update Report (dated March 2021) prepared for the Town.

Explanation:

- In compliance with House Bill 436 (HB 436), the Town conducts periodic System Development Fee (SDF) studies.
- HB 436 defines the parameters of how much future growth burden related to public utilities (water and wastewater) infrastructure the development community will bear. The town must at all times adhere to these parameters.
- The March 2021 Water and Wastewater System Development Fee Update Report, prepared by Freese and Nichols Inc., calculated fees based on modifications to the Town's Land Use and Character Plan, Water and Wastewater Capital Improvement Plan, and project funding policies.
- The Town Council heard the results of the March 2021 report and proposed increases to the SDF less than the maximum allowable SDF in the study.
- The proposed SDF shifts some of the cost of system growth expansion and maintenance from existing customers to the development community in line with utility rate best practices that will enhance the financial sustainability of the utility system.
- Proposed SDF per the 2021 SDF Report:
 - RESIDENTIAL - New development of a single family residential home is increasing from \$7,795 {\$4,054 (water) and \$3,741 (wastewater)} to \$11,700 {\$6,084 (water) and \$5,616 (wastewater)} for 3/4" meter
 - NON-RESIDENTIAL - The proposed fees for non-residential connections will increase at the same percentage basis as RESIDENTIAL for all meter sizes over FY20/21 rates

Background:

- In 2017, the North Carolina General Assembly passed House Bill 436.
 - The Bill added Article 8 (System Development Fees or SDFs) to Section 162A of the General Statutes, to establish a uniform approach for local governments to calculate and implement SDFs for public water and wastewater systems.
 - SDFs are defined as the charge imposed on each new water and wastewater development to offset the incremental cost of replacing existing and/or constructing new assets to provide capacity that will continue to meet the demands placed on the system. Since system capacity must, without exception, exceed customer demands, the major infrastructure components providing this capacity must be planned and constructed well in advance to keep pace with the anticipated demand on the system.
- In 2018, the independent engineering firm Freese and Nichols Inc. completed the initial System Development Fee Report. The report was adopted on June 19, 2018 and resulted in SDF of \$7,795 , a decrease of approximately 20% from the previously enforced capacity replacement fee.
- In 2019, the Vision Holly Springs Comprehensive Plan, Future Land Use Map was updated to preserve and enhance the character of Holly Springs while addressing growth in a way that provided, protected, and improved the quality of life for all citizens.
- In 2020, an update to the SDF report was undertaken by the same consultant, taking into consideration the changes in the town's development and infrastructure needs.
- In 2021, Freese and Nichols completed the draft document; however, the recommendation was to wait for updates to SDFs until the Town engaged in a comprehensive utility rate study.
- In 2021, the Town embarked upon a rate study, which showed a significant gap between SDFs collected and the anticipated cost of infrastructure needs. Findings were presented to Town Council for further consideration.
- On April 1, 2022, the SDF updated report was advertised for public comment on the town's website.
- Publication for a 45 day comment period and a public hearing are the two requirements of HB436, prior to adoption of the new fees.
- The new SDF of \$11,700 and corresponding increases to advanced meter sizes for both residential and non-residential will be adopted as part of the FY 23 budget.

Funding Source(s):

N/A

Attachment(s):

1. FINAL_HLY19604 System Development Fee UpdateReport_03012021



Innovative approaches
Practical results
Outstanding service

Water and Wastewater System Development Fee Update Report

March 2021

Prepared for:

Town of Holly Springs



Prepared by:

FREESE AND NICHOLS, INC.
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Water and Wastewater System Development Fee Update Report

March 2021

TOWN OF HOLLY SPRINGS
128 S. Main Street
Holly Springs, North Carolina 27540

FRESE AND NICHOLS, INC.
1017 Main Campus Drive, Suite 1200
Raleigh, North Carolina 27606
FNI Project Number: HLY19604

TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY	1-1
2.0	INTRODUCTION.....	2-1
3.0	GROWTH ASSUMPTIONS.....	3-4
3.1	Service Area.....	3-4
3.2	Historical Population	3-6
3.3	Projected Population.....	3-6
3.4	Land Use	3-8
4.0	CAPITAL IMPROVEMENTS PLAN	4-1
4.1	Water Demand and Wastewater Flow Projections	4-1
4.2	Water and Wastewater System Improvements	4-6
5.0	SYSTEM DEVELOPMENT FEE ANALYSIS.....	5-1
5.1	Service Units.....	5-1
5.2	Gallons per Service Unit	5-2
5.3	Credit Calculation	5-3
5.4	Assets.....	5-4
5.5	System Development Fee: Incremental/Marginal Method	5-4
5.6	System Development Fee: Buy In Method	5-7
5.7	System Development Fee: Combined Method	5-8
5.8	Maximum Allowable System Development Fees.....	5-9

LIST OF TABLES

Table 1-1: Maximum Allowable System Development Fees per SU.....	1-1
Table 3-1: Historical Population.....	3-6
Table 3-2: Town of Holly Springs Population Projections.....	3-7
Table 4-1: Historical Water Demands	4-2
Table 5-1: Service Unit Equivalencies	5-2
Table 5-2: Water and Wastewater Service Units.....	5-2
Table 5-3: Water- Gallons per Day per SU	5-3
Table 5-4: Wastewater- Gallons per Day per SU	5-3
Table 5-5: Water and Wastewater Assets	5-4
Table 5-6: Water System SDF Projects for Incremental/Marginal Method	5-5
Table 5-7: Wastewater System SDF Projects for Incremental/Marginal Method.....	5-6
Table 5-8: Water System Buy-In Costs.....	5-8
Table 5-9: Wastewater System Buy-In Costs	5-8
Table 5-10: Water and Wastewater SDF Costs- Combined Method	5-9
Table 5-11: Maximum Allowable Water and Wastewater System Development Fees	5-9
Table 5-12: Maximum Allowable System Development Fees per Meter Size	5-9

LIST OF FIGURES

Figure 3-1: Service Area	3-5
Figure 3-2: Expected Future Development Map	3-9
Figure 4-1: Water System Development Fee Capital Improvements.....	4-13
Figure 4-2: Wastewater System Development Fee Capital Improvements	4-14
Figure 4-3: Reuse System Development Fee Capital Improvements	4-15

1.0 EXECUTIVE SUMMARY

The purpose of this report is to document the methodology used in updating the water and wastewater system development fees for the Town of Holly Springs. The Town initially evaluated and adopted a system development fee (SDF) in 2017. Since that time, the Town has internally updated their list of Capital Improvement Plan¹ (CIP) projects to address future needs. Additionally, several rehabilitation and modernization projects have been identified prompting a re-evaluation of the current fee in accordance with the North Carolina General Statutes (NCGS) Chapter 162A, Article 8, for the establishment of water and wastewater system development fees (see section 2.0 below for more detail). Also in accordance with Chapter 162A, the Town has retained Freeze and Nichols, Inc. (FNI) to perform the analysis. For the purposes of this study, a 20-year planning horizon (2020-2040) was used. Based on the results of the study, the maximum allowable system development fees per Service Unit² (SU) are as shown in **Table 1-1**:

Table 1-1: Maximum Allowable System Development Fees per SU

Method	Water SDF	Wastewater SDF	Total SDF
Incremental/Marginal	\$11,185	\$4,090	\$15,275
Buy-In	\$1,674	\$3,927	\$5,601
Combined	\$12,859	\$8,017	\$20,876

2.0 INTRODUCTION

House Bill 436 (HB 436) regarding system development fees was passed by the General Assembly of North Carolina in 2017. The Bill amended Chapter 162A, Article 8 of the NCGS and defines a system development fee as “a charge or assessment for service imposed with respect to new development to fund costs of capital improvements necessitated by and attributable to such new development, to recoup costs of existing facilities which serve such new development, or a combination of those costs.” The statute also requires that should a municipality desire to

¹The “Capital Improvement Plan” (CIP) projects discussed in this report were developed for this system development fee update. The CIP projects referenced herein are not the same as the Town’s adopted “Capital Investment Program,” although they may inform future projects for consideration.

²The term Service Unit (SU) is used throughout this report to indicate an equivalent residential unit (ERU). The previous System Development Fee Study utilized the term ERU. The terms SU and ERU are synonymous.

implement a SDF, an analysis must be performed and fee adoption by the corresponding local government occur, and this fee be re-evaluated and updated every five years or less. Chapter 162A, Article 8, allows the calculation of fees based on the below methods for a 10- to 20-year planning horizon:

- Incremental/Marginal Cost – This method requires new development to pay the proportional share of new capital costs that are attributable to new development.
- Buy-In – This method requires new development to pay a proportional share of the capital costs previously incurred by the local government unit that allows sufficient capacity to serve the new development.
- Combined – This method uses a combination of the incremental/marginal cost and the buy-in method.

Further, the statute allows fees to be calculated based on a planning horizon of not less than 10-years and not more than 20 years. The statute also identifies system development fee expenditures. The following items have been identified as costs the revenue from system development fees may be spent on:

- Construction contract price
- Surveying and engineering fees
- Land acquisition costs
- Principal and interest on bonds, notes, or other obligations issued by or on behalf of the local government unit to finance the costs above
- Fees paid to the consultant preparing or updating the system development fee analysis
- Previously completed capital projects for which capacity exists (buy-in method)
- Capital rehabilitation projects (buy-in method)

The Town's previous fee utilized the incremental/marginal methodology. Proposed CIP projects to support future growth require increasing system capacity. Additionally rehabilitation and modernization improvements are needed to prolong the longevity of the existing systems. During this update, the buy-in method, incremental/marginal method, and combined method were all evaluated; the combined method was determined to be most appropriate.

3.0 GROWTH ASSUMPTIONS

Population and land use are important elements in the analysis of water and wastewater systems. Water demands and wastewater flows depend on the residential population and commercial development served by the systems and therefore, influence the sizing and location of system infrastructure. An understanding of population growth, along with land use and expected development patterns, provides the basis for projecting future water demands and wastewater flows.

3.1 Service Area

Figure 3-1 illustrates the SDF service area analyzed for the Town's water and wastewater systems. The SDF service area presented was utilized for development of the Town's water and wastewater SDF CIP projects and may differ from other service areas utilized by the Town.

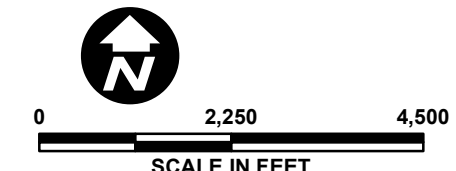
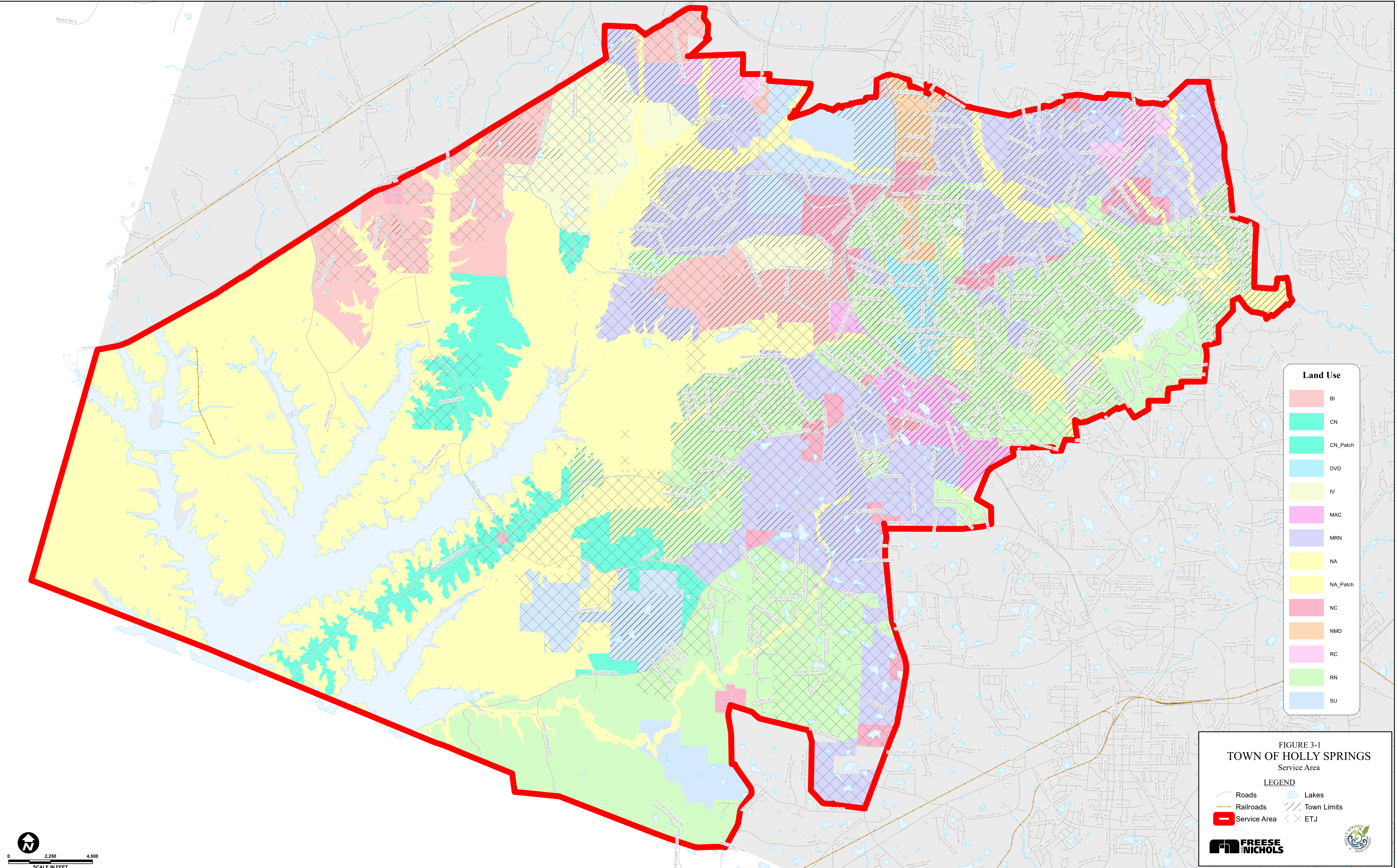


FIGURE 3-1
TOWN OF HOLLY SPRINGS
Service Area

LEGEND

- Roads
- Railroads
- Service Area
- Lakes
- Town Limits
- ETJ

FREESE NICHOLS

HOLLY SPRINGS
North Carolina

3.2 Historical Population

Population data for years 2011-2019 was obtained from the Town of Holly Springs Planning and Zoning Department. Based on the data, the Town experienced an average annual growth rate of 5% over the past nine years. **Table 3-1** presents the historical populations for the Town of Holly Springs.

Table 3-1: Historical Population*

Year	Population	Population Growth	Growth Rate
2011	25,283	622	3%
2012	26,210	927	4%
2013	27,807	1,597	6%
2014	29,649	1,842	7%
2015	31,129	1,480	5%
2016	33,103	1,974	6%
2017	35,067	1,964	6%
2018	36,973	1,906	5%
2019	38,757	1,784	5%
Average	-	1,566	5%
<i>*Source: Town of Holly Springs Dept. of Planning and Zoning (Updated July 31, 2019)</i>			

3.3 Projected Population

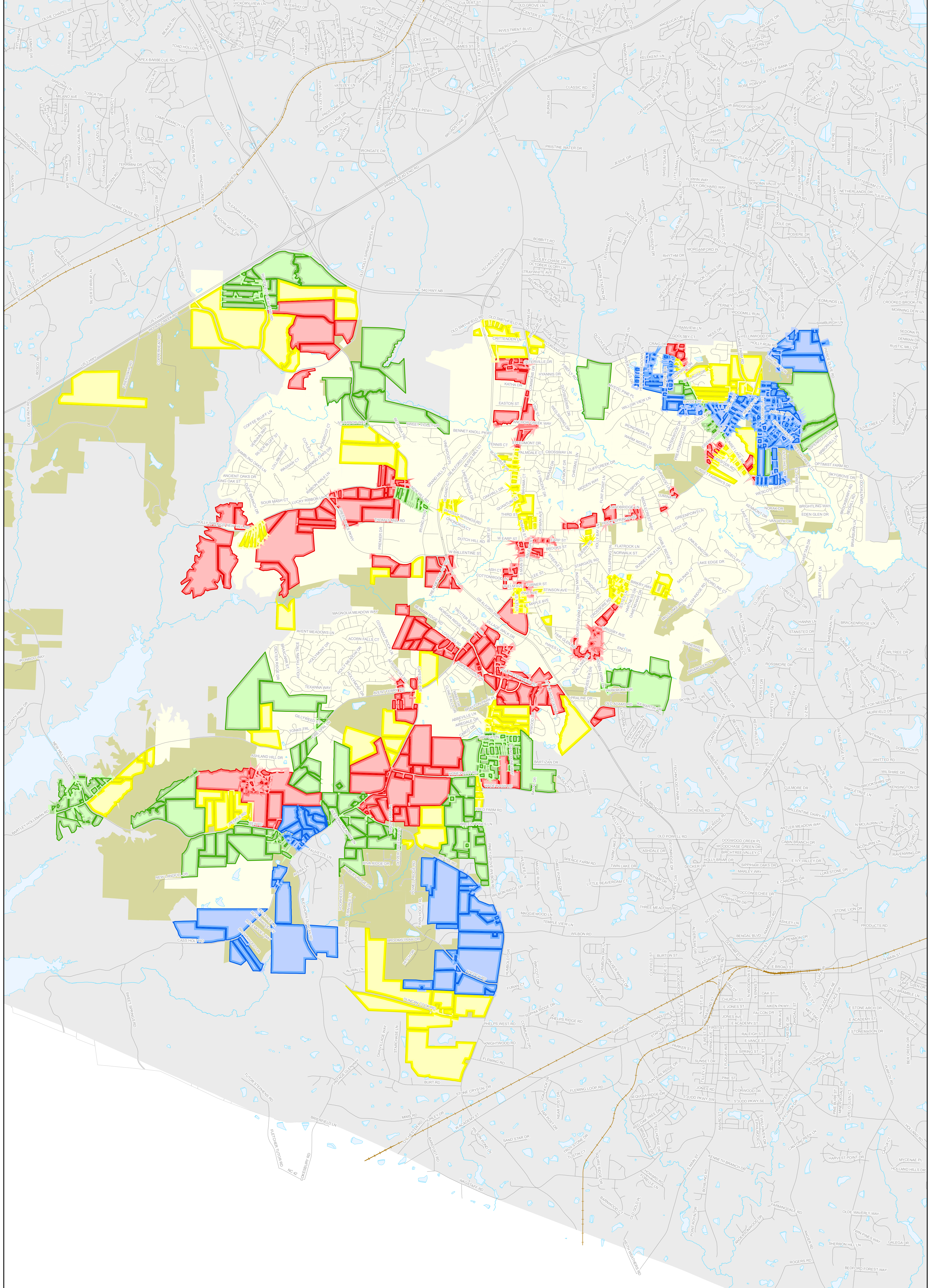
In 2019, the Town's Planning and Zoning Department prepared long range population projections through the year 2060. FNI reviewed the population projections and found them to be reasonable based on historical trends and anticipated growth patterns in the triangle-area. For the purposes of this study, FNI utilized the Town's population projections for 2020-2025, 2030, and 2040. Intermediate years within the planning horizon were estimated using straight-line interpolation. **Table 3-2** summarizes the population projections for the Town of Holly Springs service area. Years denoted with an asterisk correlate with the projections provided by the Town.

Table 3-2: Town of Holly Springs Population Projections

Year	Total Population	Average Annual Population Growth	Average Annual Growth Rate
2020*	41,726	2,969	7.7%
2021*	45,058	3,332	8.0%
2022*	47,164	2,106	4.7%
2023*	48,841	1,677	3.6%
2024*	50,519	1,678	3.4%
2025*	53,264	2,745	5.4%
2026	54,571	1,307	2.5%
2027	55,909	1,339	2.5%
2028	57,281	1,372	2.5%
2029	58,686	1,405	2.5%
2030*	60,126	1,440	2.5%
2031	61,375	1,249	2.1%
2032	62,650	1,275	2.1%
2033	63,951	1,301	2.1%
2034	65,280	1,328	2.1%
2035	66,636	1,356	2.1%
2036	68,020	1,384	2.1%
2037	69,433	1,413	2.1%
2038	70,876	1,442	2.1%
2039	72,348	1,472	2.1%
2040*	73,851	1,503	2.1%
Average	-	1,671	3.1%
*Source: Town of Holly Springs Dept. of Planning and Zoning Long-Range Population Projections (Updated July 31, 2019)			

3.4 Land Use

The Town provided current land use information from the newly updated and adopted *Vision Holly Springs Comprehensive Plan* and the current Official Zoning Map, in addition to details about expected future developments within the 20-year planning horizon. This information was used to evaluate water and wastewater system needs in various areas of the Town throughout the planning period. **Figure 3-2** highlights parcels within the Town's service area expected to develop from 2020-2040. For the purposes of this study, all future growth and corresponding increases in water demands and wastewater flows were assumed to occur within the identified growth areas.



Planning Horizon

- 15-20 Yr
- 10-15 Yr
- 5-10 Yr
- < 5 Yr

FIGURE 3-2
TOWN OF HOLLY SPRINGS
EXPECTED FUTURE DEVELOPMENT AREAS

LEGEND

- Roads
- Lakes
- Railroads
- Holly Springs ETJ

0 2,250 4,500
SCALE IN FEET



4.0 CAPITAL IMPROVEMENTS PLAN

As part of this study, the Town's existing water and wastewater system development fee capital improvements plan³ (CIP) was updated to facilitate quality water and wastewater service that promotes residential and commercial development. Through this process, additional needs were identified and costs for projects previously identified were adjusted for the current bidding climate, based on industry trends and recently bid local projects. The recommended improvements will provide the required capacity and reliability to meet projected water and wastewater demands through year 2040 and beyond.

4.1 Water Demand and Wastewater Flow Projections

Historical water demand information and historical wastewater flow information was provided by the Town and analyzed by FNI. Historical water and wastewater data, along with population projections and land use information were used to develop future water demands and wastewater flows based on projected average day per capita use and assumed peaking factors.

Table 4-1, Table 4-2 and Table 4-3 present the historical water demands, water demand projection assumptions and projected water demands, respectively.

Table 4-4, Table 4-5 and Table 4-6 present the historical wastewater flows, wastewater flow projection assumptions and projected wastewater flows for the Town, respectively.

³ The "Capital Improvement Plan" (CIP) projects discussed in this report were developed for this system development fee update. The CIP projects referenced herein are not the same as the Town's adopted "Capital Investment Program," although they may inform future projects for consideration.

Table 4-1: Historical Water Demands

Year	Water Service Area Population	Average Day Demand (MGD)	Average Day Demand (gpcd)	Maximum Day Demand (MGD)	Peaking Factor (MD:AD)
2011	25,283	1.8	70	3.6	2.0
2012	26,210	1.8	70	4.1	2.2
2013	27,807	1.8	66	3.5	1.9
2014	29,649	2.1	72	4.8	2.2
2015	31,129	2.8	90	5.4	1.9
2016	33,103	3.1	94	4.7	1.5
2017	35,067	3.0	85	4.4	1.5
2018	36,973	2.7	73	5.2	1.9
2019	38,757	2.9	75	4.7	1.6
AVERAGE	-	2.4	77	4.5	1.9

Table 4-2 Water Demand Projection Assumptions

Gallons per Capita per Day	Maximum Day to Average Day Peaking Factor	Peak Hour to Maximum Day Peaking Factor
77	1.9	1.5

Table 4-3 Projected Water Demands

Year	Water Service Area Population	Average Day Demand (MGD)	Maximum Day Demand (MGD)	Peak Hour Demand (MGD)
2020	41,726	3.2	6.1	9.2
2021	45,058	3.5	6.6	9.9
2022	47,164	3.6	6.9	10.4
2023	48,841	3.8	7.1	10.7
2024	50,519	3.9	7.4	11.1
2025	53,264	4.1	7.8	11.7
2026	54,571	4.2	8.0	12.0
2027	55,909	4.3	8.2	12.3
2028	57,281	4.4	8.4	12.6
2029	58,686	4.5	8.6	12.9
2030	60,126	4.6	8.8	13.2
2031	61,375	4.7	9.0	13.5
2032	62,650	4.8	9.2	13.7
2033	63,951	4.9	9.4	14.0
2034	65,280	5.0	9.6	14.3
2035	66,636	5.1	9.7	14.6
2036	68,020	5.2	10.0	14.9
2037	69,433	5.3	10.2	15.2
2038	70,876	5.5	10.4	15.6
2039	72,348	5.6	10.6	15.9
2040	73,851	5.7	10.8	16.2

Table 4-4 Historical Wastewater Flows

Year	Service Area Population	Average Daily Flow (MGD)	Average Daily Flow (gpcd)	Maximum Day Flow (MGD)	Peaking Factor (MD: AD) [Wastewater Plant]
2011	25,283	1.4	53	2.5	1.9
2012	26,210	1.5	55	3.5	2.4
2013	27,807	1.6	59	2.9	1.8
2014	29,649	1.9	63	3.8	2.0
2015	31,129	2.1	67	3.8	1.8
2016	33,103	2.2	67	6.9	3.1
2017	35,067	2.2	63	6.6	3.0
2018	36,973	2.6	70	4.6	1.8
2019	38,757	2.6	67	4.0	1.5
AVERAGE	31,553	2.0	63	4.3	2.1

Table 4-5 Wastewater Flow Projection Assumptions

Gallons per Capita per Day	Peak Wet Weather: Average Day Peaking Factor
60	2.5*

**Peaking factor of 2.5 is in accordance with NCDEQ requirements for minimum wastewater peaking factor.*

Table 4-6 Projected Wastewater Flows

Year	Service Area Population	Average Daily Flow (MGD)	Peak Wet Weather Flow (MGD)
2020	41,726	2.5	6.3
2021	45,058	2.7	6.8
2022	47,164	2.8	7.1
2023	48,841	2.9	7.3
2024	50,519	3.0	7.6
2025	53,264	3.2	8.0
2026	54,571	3.3	8.2
2027	55,909	3.4	8.4
2028	57,281	3.4	8.6
2029	58,686	3.5	8.8
2030	60,126	3.6	9.0
2031	61,375	3.7	9.2
2032	62,650	3.8	9.4
2033	63,951	3.8	9.6
2034	65,280	3.9	9.8
2035	66,636	4.0	10.0
2036	68,020	4.1	10.2
2037	69,433	4.2	10.4
2038	70,876	4.3	10.6
2039	72,348	4.3	10.9
2040	73,851	4.4	11.1

4.2 Water and Wastewater System Improvements

The Town worked with FNI to develop a comprehensive list of proposed water and wastewater capital improvement projects to meet projected needs through 2040. FNI evaluated these projects for their applicability to system development fees. Based on this evaluation and further discussion with Town staff, the list of projects was then narrowed to only include those driven by growth and development in the Town or rehabilitation/modernization upgrades to existing system components.

A summary of the costs for each CIP project required for the 20-year growth period for both the water and wastewater systems are shown in **Table 4-7** and **Table 4-8**. Costs were inflated to the anticipated year of construction or project implementation. Proposed 20-year water system projects are shown on **Figure 4-1**, the proposed 20-year wastewater projects are shown on **Figure 4-2**, and proposed 20-year reuse projects⁴ are shown on **Figure 4-3**.

⁴ Water reuse projects are identified on a separate exhibit for clarity. Water reuse projects are included in the water system development fee analysis.

Table 4-7 Water System Development Fee Eligible Projects

#	Project Name	Project Description	Estimated Cost
1	Honeycutt Rd Waterline	4,650 LF of 24" waterline along Honeycutt Rd between Piney Grove Wilbon Rd and Cass Holt Rd.	\$1,940,000
2	Cass Holt Rd Waterline Extension, Phase A	Extend ~5,500 LF of 12" waterline south from Holly Springs High School along Cass Holt Road to the intersection of Cass Holt Road and Rouse Rd.	\$1,110,000
3	Honeycutt Rd Tank	New 1 MG elevated water storage tank near intersection of Cass Holt Rd. and Honeycutt Rd.	\$4,889,000
4	Harnett County Booster Pump Station Improvements	Booster Pump Station capacity expansion increase of ~5 MGD.	\$3,294,000
5	Sunset Road Missing Link	Extend ~3,000 LF of 12" waterline along Sunset Road.	\$455,000
6	New Water Supply-Regional Provider	The Town will need additional water supply to sustain growth projections. A separate study was performed that may provide additional water supply from another regional provider.	\$32,050,000
7	12" Waterline Bypass Pumping Project on NC 55	Add quick connection points to allow emergency bypass pumping from Fuquay Varina to Holly Springs	\$260,000
8	Hydraulic Model Update	Update the Town's Existing Hydraulic Water Model to assist the town with planning for water infrastructure needs to meet future growth; Update for newly completed projects and upcoming improvements.	\$149,000
9	AWWA Risk & Resiliency Plan	Required Risk and Resiliency Plan for water system operation.	\$131,000
10	System Development Fee Update	Analysis and development of Town system development fees for water and wastewater.	\$29,400
11	Water Various Studies	Various Water System studies to analyze future system needs; these studies constitute preliminary engineering design for water improvements.	\$696,000
12	Water Supply Plan Annual Update	In accordance with the Town's state permit as a water provider, the Town must complete the Annual Water Supply Plan.	\$52,000
13	Holly Springs New Hill Rd. Waterline Extension	Extend ~12,600 LF of 12" waterline along Holly Springs New Hill Rd from the intersection with Ancient Oaks Dr to the intersection with Friendship Rd.	\$2,278,000
14	Waterline Connection: Avent Ferry Road to Green Oaks Parkway	Extend ~1,400 LF of 12" waterline between Avent Ferry Road and Green Oaks Parkway.	\$324,000
15	Waterline Connection: Pine Ave to School Tank	Extend ~5,600 LF of 20" waterline from the intersection of Pine Avenue and Main Street to the School water storage	\$1,956,000

		tank, running east along Pine Avenue, north along Grigsby Ave, north along Raleigh St, east along Holly Springs Rd, and north along School Days Ln to the School tank.	
16	Old Holly Springs Apex Rd and Woods Creek Rd Loop	Extend 9,700 LF of new 12" waterline north along Old Holly Springs Apex Rd from the intersection with Ivy Arbor Way, west along Woods Creek Rd, and south to connect with Green Oak Parkway.	\$2,016,000
17	Rouse Rd Waterline	Extend ~8,400 LF of 12" waterline along Rouse Rd between Piney Grove Wilbon Rd and Cass Holt Rd.	\$2,497,000
18	Cass Holt Rd Waterline Extension, Phase B	Extend ~4,300 LF of 12" waterline southwest along Cass Holt Rd from the intersection with Rouse Rd to the intersection with Rex Rd.	\$1,283,000
19	Rex Rd Waterline	Extend ~13,400 LF of 12" waterline along Rex Rd from the intersection with Cass Holt Rd to the intersection with Avent Ferry Rd.	\$3,291,000
20	Avent Ferry Rd Waterline Extension	Extend ~11,500 LF of 12" waterline along Avent Ferry Rd from the intersection with Diggory Dr to the intersection with Rex Rd.	\$2,895,000
21	East Loop Pierce Olive Waterline Connection	Extend ~6,800 LF of 12" waterline along Pierce Olive Rd between Holly Springs Rd and Olive Tree Ln.	\$2,014,000
22	Water Supply from Apex	The Town will need additional water supply to sustain growth projections. A 2 MGD allocation from Jordan Lake is available. The water will be transported thru and received from the Town of Apex system. Improvements will be required to receive the additional allocation as well as purchase of treatment capacity from Apex.	\$16,206,000
23	Holly Springs Road at Sunset Fairways Waterline Upsize	Replace ~ 305 LF of 12" water line with 16" water line to remove system bottleneck.	\$85,000
24	Holly Springs Road between Lumina and Linksland	Install approximately 850 LF of 12" water line along Holly Springs Road between Lumina and Linksland.	\$148,000
25	Burt St. & Earp St.	Install approximately 1,085 LF of 12" waterline from the intersection of Burt St and W Holly Springs Rd to W. Earp St. and along Earp St.	\$190,000
26	Avent Ferry Rd Extension Waterline- Mim's House to Earp St.	Extend approximately 525 LF of 8" water line along Avent Ferry Road from Mim's House to Earp St.	\$95,000
27	Earp St. Waterline Connection (Alford St)	Replace approximately 525 LF of 2" water line with 8" water line.	\$95,000
28	Duncan Cook Rd Waterline	Extend ~8,800 LF of 12" waterline along Duncan Cook Rd between Buckhorn Duncan Rd and Piney Grove Wilbon Rd.	\$2,565,000
29	Buckhorn Duncan Rd Waterline	Extend ~6,500 LF of 12" waterline along Buckhorn Duncan Rd between Duncan Cook Rd and Cass Holt Rd.	\$2,014,000

30	Cass Holt Rd Waterline Extension, Phase C	Extend ~825 LF of 12" waterline along Cass Holt Rd from the intersection with Rex Rd to the intersection with Buckhorn Duncan Rd.	\$222,000
31	New Hill Holleman Rd Waterline	Extend ~28,000 LF 12" Waterline along New Hill Holleman Road from the intersection with Avent Ferry Road to the intersection with Friendship Road. From there, the line will run east along Friendship Road to the intersection with Holly Springs New Hill Road.	\$10,685,000
32	Waterline Loop- West of Carolina Springs	Extend approximately 14,500 LF of 12" water line west of Carolina Springs along Woods Creek Road and Friendship Road.	\$2,471,000
33	Quantum Street Waterline	Extend approximately 600 LF of 8" water line along Quantum Street to connect with the existing 16" water line.	\$79,000
34	Holly Acres to Beech Hill Ct.	Extend approximately 300 LF of 6" water line along from Holly Acres to Beech Hill Ct.	\$40,000
		Water Capacity Improvement Projects Subtotal	\$98,504,400
1R	1 MG Reuse Elevated Storage Tank	Construction of 1 MG Elevated Storage Tank for Reuse.	\$4,889,000
2R	16" Reuse WL- Old Holly Springs Apex Rd. Extension	2,360 LF of 16" Reuse Water Line	\$272,000
3R	Reuse Woods Creek Road Extension	Extend 6,880 LF of 12" Reuse Waterline along Woods Creek Road.	\$590,000
		Reuse Capacity Improvement Projects Subtotal	\$5,751,000
A	Water Quality Roof Replacement	Replace the Water Quality Facility roof.	\$31,000
B	Apex Meter Replacement Project	Replace the Apex flow meter.	\$208,000
C	Repair Network Tower	Annual maintenance fee for 3 base stations, signal repeaters and meter replacement costs.	\$600,000
D	Downtown Area AC Replacement	Replace AC water line pipe in the downtown area.	\$75,000
E	Johnson St. Waterline	Extend approximately 500LF of 12" water line along Johnson Street.	\$97,000
		Water Rehab/Modernization Projects Subtotal	\$1,011,000
		TOTAL	\$105,266,400

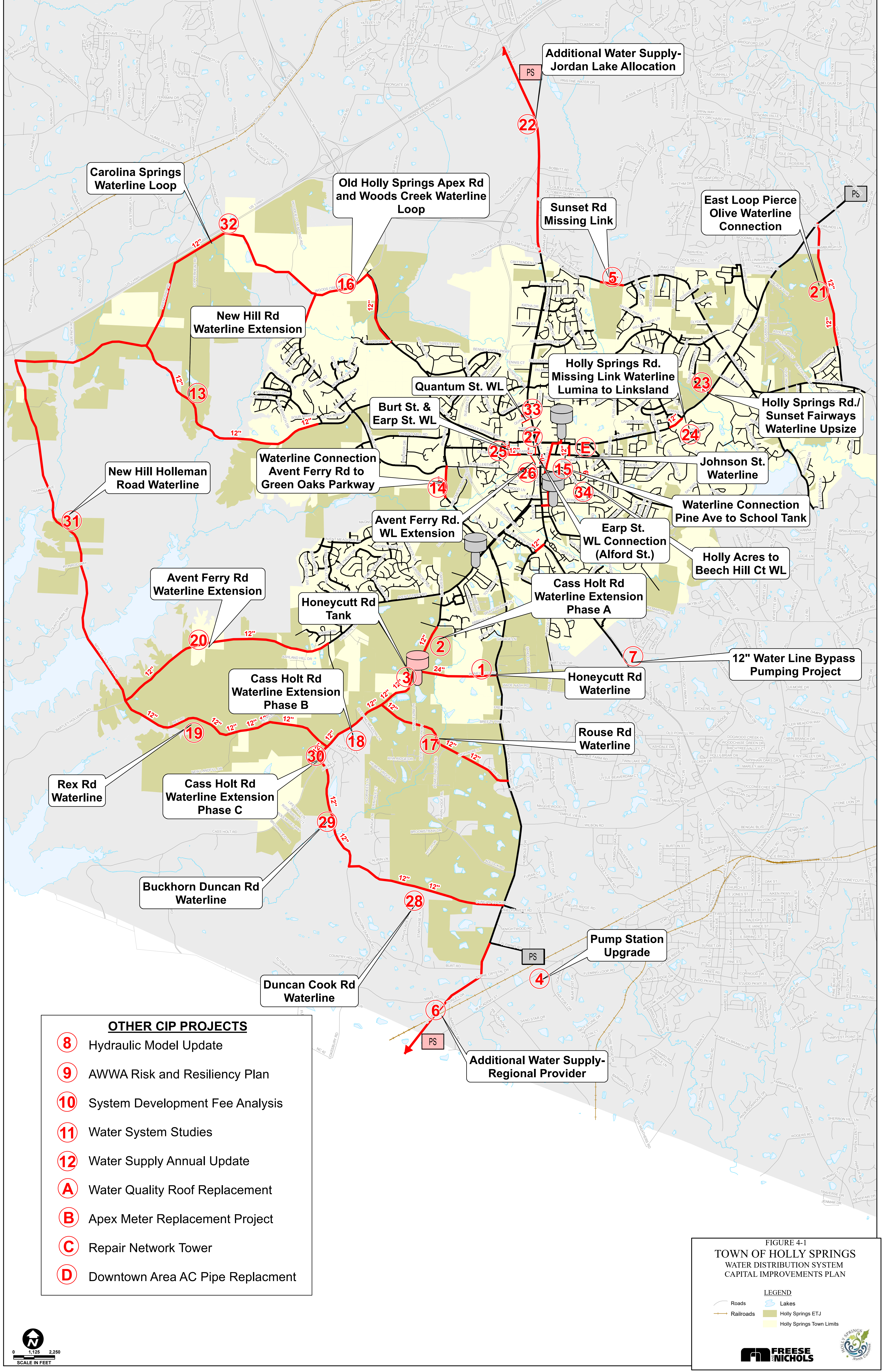
Table 4-8 Wastewater System Development Fee Eligible Projects

#	Project Name	Project Description	Estimated Cost
1	Avent Ferry PS Improvements Ph. II (Force Main)	Expand Avent Ferry PS capacity from 709 gpm to 1600 gpm by replacing the existing section of 8" SSFM (~10,000 LF) with a parallel section of 20" SSFM to the WWTP. This improvement will alleviate pressure/headloss in the system and increase pumping capacity of the station; This expansion will also allow an increase in service area to the Avent Ferry PS; Minor pump upgrades including new impellers may be needed.	\$2,599,000
2	East Regional PS	New pump station and associated improvements to redirect gravity flow to the station and tie back into the existing force main.	\$4,560,000
3	12 Oaks Pump Station Expansion- Ph. II	Expand the 12 Oaks Pump Station from 1350 gpm to 2320 gpm.	\$5,083,000
4	Sunset Ridge Pump Station Expansion-Ph. II	Install parallel lines.	\$449,000
5	Basal Creek Pump Station Expansion- Ph. IIA	Expand Basal Creek PS capacity from 320 gpm to 957 gpm. Construct new 16" gravity main from Garrison PS to Wildwood PS and take Garrison PS offline.	\$2,760,000
6	Basal Creek Pump Station Expansion- Ph. III (Remaining)	Expand Basal Creek PS capacity from 957 gpm to 1136 gpm. Parallel the existing force main with a new 12" force main along Piney Grove to Morgan Park.	\$1,143,000
7	Bass Lake PS Upgrade Ph. III (Parallel Interceptor)	Install 18" gravity outfall parallel to the existing 18" gravity outfall along Bass Lake.	\$2,274,000
8	Friendship Pump Station and Force Main Connection	New 0.5 MGD PS and 8" force main to serve certified site on Friendship Road.	\$2,751,000
9	HS Business Park PS Upgrade Ph. II	Expand the HS Business Park PS to 4050 gpm to continue to serve new development.	\$3,738,000
10	Carolina Springs PS #1	New 1.5 MGD PS and 10" force main.	\$3,570,000
11	Carolina Springs PS #2	New 1 MGD PS and 8" force main to Carolina Springs #1 PS.	\$1,494,000
12	Wastewater Studies	Various wastewater studies to plan for future growth in the Town. These studies serve as preliminary design engineering for future system upgrades.	\$600,000
13	Townwide Wastewater Master Plan and Model	Wastewater master plan and system model to plan for future system needs.	\$500,000
14	West Side Sewer Study	Comprehensive sewer study including the western side of the collection system. This study provides necessary information for future capacity increases and serves as preliminary engineering for future design projects.	\$300,000

Town of Holly Springs

15	Utle Creek Water Reclamation Facility Upgrade & Expansion	Expand Utle Creek WRF treatment capacity from 6 MGD to 8 MGD.	\$25,000,000
16	Avent Ferry PS Improvements- Ph. III	Expand Avent Ferry PS from 1600 gpm to 2500 gpm. New wet well, pumps, electrical upgrades and 4,000 LF of 16" parallel force main.	\$7,933,000
17	Buckhorn Creek North PS	New 5.25 MGD pump station, force main, and gravity sewer.	\$3,941,200
18	Norris Branch PS	New 1.5 MGD pump station, 12" force main to Avent Ferry pump station, and 16" gravity main.	\$4,593,000
19	Utle Creek Regional PS	Proposed 4.5 MGD pump station, 16" force main, and gravity sewer. The future Utle Creek PS may allow the existing 12 Oaks PS and Business Park PS to be taken offline.	\$8,908,000
20	Rouse Road PS	New 6.5 MGD pump station, 24" force main, and 36" gravity main. Construction of the Rouse Road pump station may allow the Honeycutt Road PS and Basal Creek PS to be taken offline.	\$10,843,000
21	Middle Creek PS- Ph. II	Expand PS capacity from 750 gpm to 1965 gpm.	\$711,000
22	Union Ridge Pump Station Expansion- Ph. II	Expand Union Ridge PS from 750 gpm to 1200 gpm.	\$116,000
23	Sunset Ridge Pump Station Expansion-Ph. III	Pump upgrade to expand Sunset Ridge PS capacity from 1700 gpm to 1930 gpm.	\$524,000
24	Bass Lake PS Upgrade Ph. IV	Expand PS capacity from 1,200 gpm to 2069 gpm.	\$299,000
25	Utle Creek WRF Master Plan	Master plan for the Utle Creek WRF.	\$85,000
26	12 Oaks Pump Station Expansion- Ph. III	Upsizing of sanitary sewer lines flowing to the 12 Oaks PS.	\$2,410,000
27	Buckhorn Creek East PS	Proposed 2.75 MGD pump station, 16" force main to Buckhorn Creek North pump station, and 24" gravity sewer from Rouse Rd pump station. It is assumed that the construction of Buckhorn Creek East will allow the Rouse Road pump station to be taken offline.	\$4,089,600
28	White Oak PS	New 8.5 MGD pump station, 24" force main to Avent Ferry PS, and 36" gravity sewer. The White Oak PS will receive flow from the Little White Oak PS.	\$9,645,400
29	Little White Oak PS	2.75 MGD Pump Station, 16" force main, and gravity main. The Little White Oak PS will pump flow to the White Oak PS.	\$5,963,000
30	Union Ridge Pump Station Expansion- Ph. III	Expand Union Ridge PS from 1200 gpm to 1411 gpm.	\$308,000
		Capacity Improvement Projects Subtotal	\$117,190,200

A	Inflow and Infiltration Maintenance & Rehabilitation Projects	Repair of existing sewer collection system, permit requires 10% inspection a year	\$2,000,000
B	Business Park FM Repair	Monitor and repair sanitary sewer force main where corrosive gases have caused weakening of the pipes.	\$750,000
C	Estes Outfall Ph. I	Stream bank restoration along the unnamed tributary leading to Bass Lake. At location 1, erosion has exposed a waterline and needs to be addressed.	\$50,000
D	Estes Outfall Ph. II	Stream bank restoration along the unnamed tributary leading to Bass Lake. At location 2, a sanitary sewer line is at risk of being exposed by erosion.	\$50,000
E	WWTP Conversion from SCADA Radios to Fiber	Convert WWTP SCADA radios to fiber.	\$40,000
F	Pump Station SCADA Fiber Connections	Fiber SCADA connections at pump stations.	\$1,115,000
G	WRF Ph. II	Monitor/Repair SS line running between MHs at headworks of facility. Pipes have shown signs of corrosion.	\$50,000
H	UCWRF Odor Control Improvement	Design/Construction of Odor Control Upgrade	\$4,729,943
Rehab/Modernization Projects Subtotal			\$ 8,784,943
TOTAL			\$125,975,143



Carolina Springs
Waterline Loop

Old Holly Springs Apex Rd
and Woods Creek Waterline
Loop

Additional Water Supply-
Jordan Lake Allocation

East Loop Pierce
Olive Waterline
Connection

New Hill Rd
Waterline Extension

Sunset Rd
Missing Link

Holly Springs Rd.
Missing Link Waterline
Lumina to Linksland

Holly Springs Rd./
Sunset Fairways
Waterline Upsize

New Hill Holleman
Road Waterline

Waterline Connection
Avent Ferry Rd to
Green Oaks Parkway

Burt St. &
Earp St. WL

Johnson St.
Waterline

Waterline Connection
Pine Ave to School Tank

Avent Ferry Rd.
WL Extension

Earp St.
WL Connection
(Alford St.)

Holly Acres to
Beech Hill Ct WL

Avent Ferry Rd
Waterline Extension

Honeycutt Rd
Tank

Cass Holt Rd
Waterline Extension
Phase A

12" Water Line Bypass
Pumping Project

Cass Holt Rd
Waterline Extension
Phase B

Honeycutt Rd
Waterline

Rouse Rd
Waterline

Rex Rd
Waterline

Cass Holt Rd
Waterline Extension
Phase C

Buckhorn Duncan Rd
Waterline

Duncan Cook Rd
Waterline

Pump Station
Upgrade

Additional Water Supply-
Regional Provider

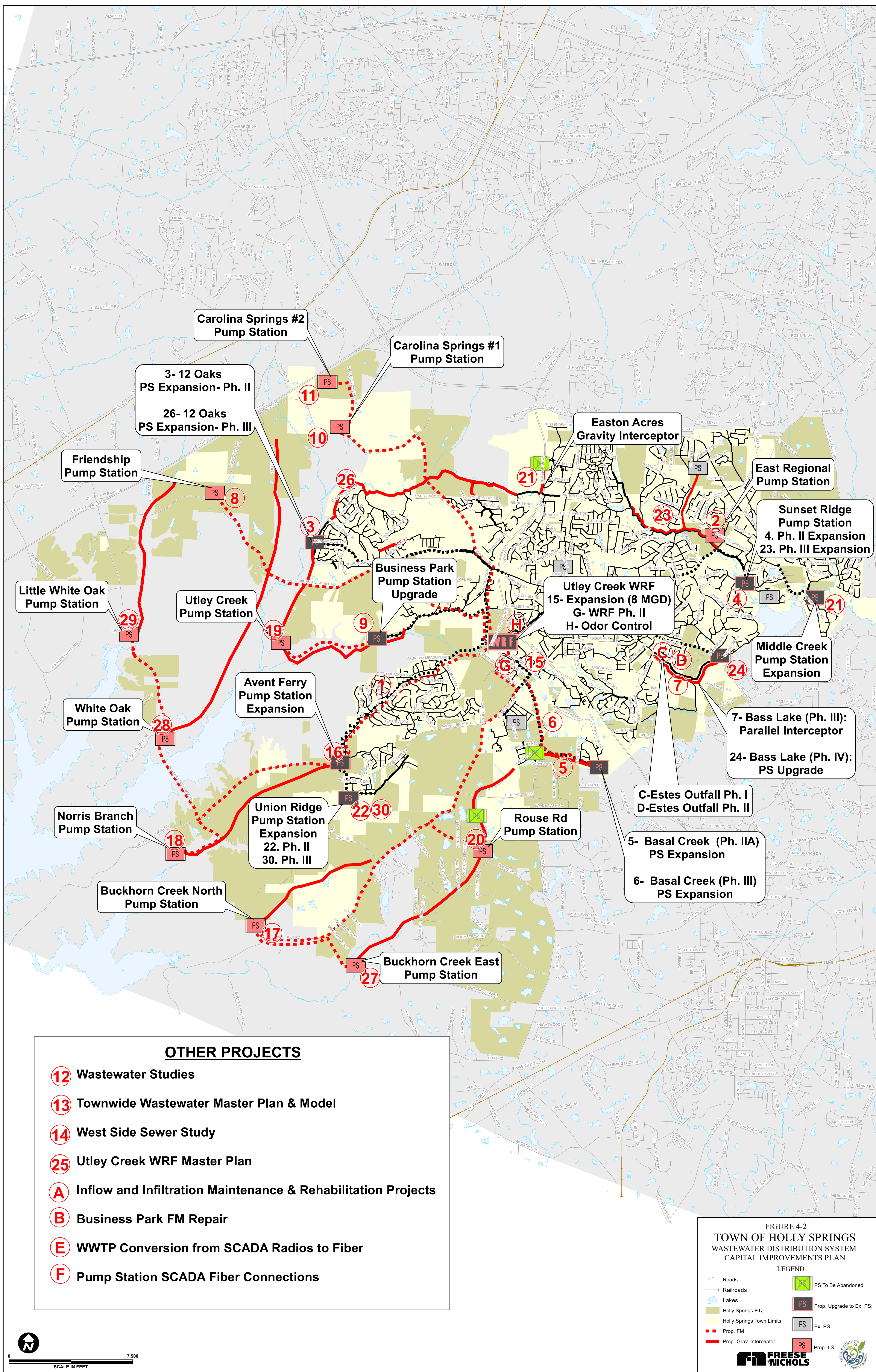
OTHER CIP PROJECTS

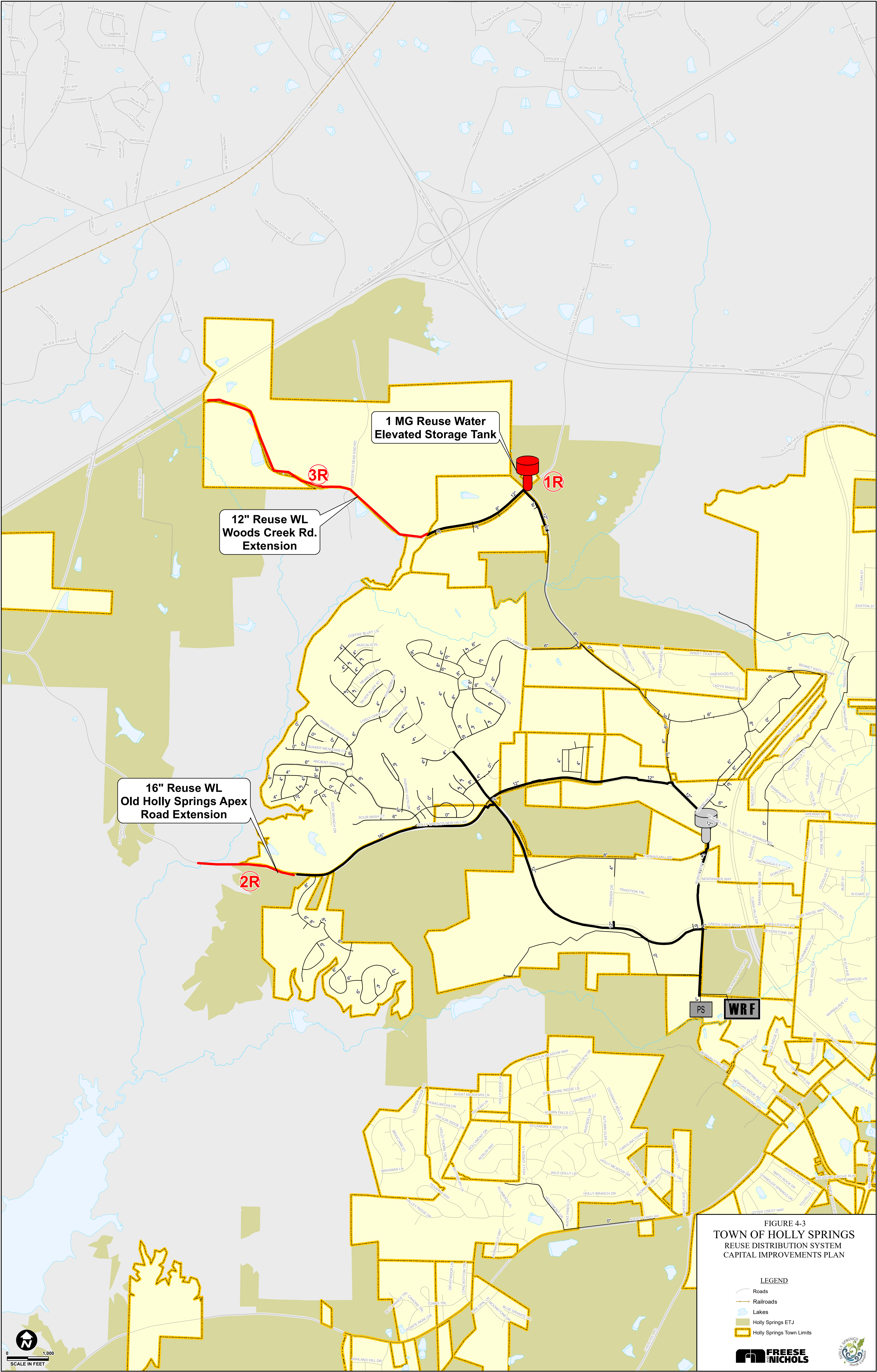
- 8 Hydraulic Model Update
- 9 AWWA Risk and Resiliency Plan
- 10 System Development Fee Analysis
- 11 Water System Studies
- 12 Water Supply Annual Update
- A Water Quality Roof Replacement
- B Apex Meter Replacement Project
- C Repair Network Tower
- D Downtown Area AC Pipe Replacment

FIGURE 4-1
TOWN OF HOLLY SPRINGS
WATER DISTRIBUTION SYSTEM
CAPITAL IMPROVEMENTS PLAN

LEGEND

- Roads
- Lakes
- Railroads
- Holly Springs ETJ
- Holly Springs Town Limits





5.0 SYSTEM DEVELOPMENT FEE ANALYSIS

The System Development Fee was analyzed using the three allowable methods:

1. Incremental/Marginal
2. Buy-In
3. Combined

The system development fee analysis requires the determination of the utilization of existing and proposed projects as defined by the capital improvement plan to serve new development over the planning horizon. In this case, the planning horizon has been defined as 20-years. For existing or proposed projects, the system development fee is calculated as a percentage of the project cost, based upon the percentage of the project's capacity required to serve development projected to occur between 2020 and 2040. Capacity serving existing development and development projected for more than 20 years in the future cannot be charged to system development fees.

5.1 Service Units

A critical factor used to determine the maximum system development fee is a service unit⁵. A service unit (SU) is defined as the service equivalent to a water connection for a single-family residence. It is used to calculate both water and wastewater system development fees.

The service associated with public, commercial, and industrial connections is converted into service units based upon the capacity of the meter used to provide service. The number of service units required to represent each meter size is based on the maximum continuous operating capacity of the appropriate meter type. The Town primarily uses Master Meter multi-jet meters for sizes 2-inch and smaller. Master Meter octave meters are typically used for sizes greater than 2-inches. Master Meter specification sheets for these meter types were used to determine the maximum continuous operating capacity. The service unit equivalent for each meter size used by the Town is listed in **Table 5-1**.

⁵ The term Service Unit (SU) is used throughout this report to indicate an equivalent residential unit (ERU). The previous System Development Fee Study utilized the term ERU. The terms SU and ERU are synonymous.

Table 5-1: Service Unit Equivalencies

Meter Size	Maximum Continuous Operating Capacity (gpm) ⁽¹⁾	Service Unit Equivalent
3/4"	15	1.0
1"	30	2.0
1-1/2"	75	5.0
2"	120	8.0
3"	500	33.3
4"	1,000	66.7
6"	1,600	106.7
8"	2,800	186.7
10"	5,500	366.7

⁽¹⁾Maximum continuous operating capacity is based on Master Meter specification sheets.

Typically, in Holly Springs, single-family residences are served with 3/4-inch water meters. Larger meters represent multi family, commercial, and industrial water use. The Town provided data that included a meter count of their active water meters at the end of calendar year 2019. **Table 5-2** shows the 2019 water and wastewater meter counts and equivalent service units.

Table 5-2: Water and Wastewater Service Units

Meter Size	2019 Residential Meters	2019 Non-Residential Meters	2019 Total Meters	2019 Equivalent Service Units
3/4"	14,909	1,603	16,512	16,512
1"	3	211	214	428
1 1/2"	1	150	151	755
2"	2	140	142	1,136
3"	1	11	12	400
4"		4	4	267
6"		6	6	640
8"		2	2	373
10"		1	1	367
Total	14,916	2,128	17,044	20,878

5.2 Gallons per Service Unit

Calculation of maximum allowable fees is based on gallons of water and wastewater used by each SU on a daily basis multiplied by the calculated cost per gallons per day per SU (gpd/SU). For the

purposes of this study, the gpd/SU for water and wastewater is shown in **Table 5-3** and **Table 5-4**, respectively.

Table 5-3: Water- Gallons per Day per SU

Component	Value
2020 SU	20,878
2020 Max Day Demand (MGD)	6.1
gpd/SU	292.2

Table 5-4: Wastewater- Gallons per Day per SU

Component	Value
2020 SU	20,878
2020 Peak Wet Weather Flow (MGD)	6.3
gpd/SU	301.8

5.3 Credit Calculation

NCGS Chapter 162A, Article 8 outlines the procedures and requirements for calculating maximum allowable system development fees to recover costs associated with capital improvement projects needed due to growth over the planning horizon. The statute also requires a plan that addresses possible duplication of payments for capital improvements. This plan must provide a credit for the portion of revenues generated by new development that is used for the payment of eligible improvements, including payment of debt. This credit must not be any less than twenty-five percent (25%) of the cost of capital improvements. Per the requirements, the credit is only to be applied to the proposed capital improvement projects used in the incremental/marginal method.

Funding sources for the capital improvement projects listed in this report are unknown at this time. A credit calculation was performed for both the water and wastewater fees. Based on the calculations, the applicable credit in both cases was less than the required minimum; therefore, a 25% credit was applied.

5.4 Assets

Based on information provided by the Town of Holly Springs Financial Department, the total combined water and sewer system is valued at \$145,314,828 and has a depreciation of \$39,683,386 for a total depreciated book value of \$106,672,352. This information was used as the basis of the Buy-In and Combined Methods and is broken down further in **Table 5-5** below.

Table 5-5: Water and Wastewater Assets

Asset	Value	Depreciation	2019 Book Value
Water Distribution System	\$52,467,853	\$16,158,539	\$37,374,985
Wastewater Treatment Plant	\$32,660,218	\$4,283,779	\$28,656,340
Wastewater Collection System	\$60,186,757	\$19,241,068	\$40,641,027
Water Dist. System, WW Collection System, and WWTP	\$145,314,828	\$39,683,386	\$106,672,352

5.5 System Development Fee: Incremental/Marginal Method

The system development fee analysis for the incremental / marginal method requires the determination of the utilization of proposed projects as defined by the capital improvement plan to serve new development over the planning horizon. In this case, the planning horizon has been defined as 20-years. For proposed projects, the system development fee is calculated as a percentage of the project cost, based upon the percentage of the project's capacity required to serve development projected to occur between 2020 and 2040. Capacity serving development projected for more than 20 years in the future cannot be charged to system development fees. Based on the water system projects, their respective capacities and projected use over the next 20-year planning horizon, a cost of \$38.28 per gpd, inclusive of the required credit, has been calculated as shown in **Table 5-6** below.

Table 5-6: Water System SDF Projects for Incremental/Marginal Method

#	Project Name	Capital Cost	% Applicable to SDF	Adjusted Cost	Capacity (gpd)	\$/gpd
1	Honeycutt Rd Waterline	\$1,940,000	42%	\$814,800	622,260	\$1.31
2	Cass Holt Rd Waterline Extension, Phase A	\$1,110,000	44%	\$483,643	234,552	\$2.06
3	Honeycutt Rd Tank	\$4,889,000	23%	\$1,148,546	1,000,000	\$1.15
4	Harnett County Booster Pump Station Improvements	\$3,294,000	36%	\$1,185,840	5,000,000	\$0.24
5	Sunset Road Missing Link	\$455,000	6%	\$28,600	234,552	\$0.12
6	New Water Supply- Regional Provider	\$32,050,000	100%	\$32,050,000	2,000,000	\$16.03
7	12" Waterline Bypass Pumping Project on NC 55	\$260,000	10%	\$26,000	234,552	\$0.11
8	Hydraulic Model Update	\$149,000	100%	\$149,000	6,700,000	\$0.02
9	AWWA Risk & Resiliency Plan	\$131,000	100%	\$131,000	6,700,000	\$0.02
10	System Development Fee Update	\$29,400	100%	\$29,400	6,700,000	\$0.00
11	Water Various Studies	\$696,000	100%	\$696,000	6,700,000	\$0.10
12	Water Supply Plan Annual Update	\$52,000	100%	\$52,000	6,700,000	\$0.01
13	Holly Springs New Hill Rd. Waterline Extension	\$2,278,000	7%	\$148,681	234,552	\$0.63
14	Waterline Connection: Avent Ferry Road to Green Oaks Parkway	\$324,000	13%	\$41,194	234,552	\$0.18
15	Waterline Connection: Pine Ave to School Tank	\$1,956,000	67%	\$1,318,499	385,234	\$3.42
16	Old Holly Springs Apex Rd and Woods Creek Rd Loop	\$2,016,000	14%	\$287,047	234,552	\$1.22
17	Rouse Rd Waterline	\$2,497,000	23%	\$563,680	234,552	\$2.40
18	Cass Holt Rd Waterline Extension, Phase B	\$1,283,000	8%	\$97,435	234,552	\$0.42
19	Rex Rd Waterline	\$3,291,000	15%	\$506,376	234,552	\$2.16
20	Avent Ferry Rd Waterline Extension	\$2,895,000	1%	\$33,979	234,552	\$0.14
21	East Loop Pierce Olive Waterline Connection	\$2,014,000	1%	\$28,691	234,552	\$0.12
22	Water Supply from Apex	\$16,206,000	100%	\$16,206,000	2,000,000	\$8.10
23	Holly Springs Road at Sunset Fairways Waterline Upsize	\$85,000	18%	\$15,300	214,216	\$0.07
24	Holly Springs Road between Lumina and Linksland	\$148,000	14%	\$21,143	234,552	\$0.09
25	Burt St. & Earp St.	\$190,000	2%	\$3,815	234,552	\$0.02

Town of Holly Springs

26	Avent Ferry Rd Extension Waterline- Mim's House to Earp St.	\$95,000	18%	\$17,371	80,746	\$0.22
27	Earp St. Waterline Connection (Alford St)	\$95,000	7%	\$6,921	80,746	\$0.09
28	Duncan Cook Rd Waterline	\$2,565,000	28%	\$710,966	234,552	\$3.03
29	Buckhorn Duncan Rd Waterline	\$2,014,000	20%	\$408,885	234,552	\$1.74
30	Cass Holt Rd Waterline Extension, Phase C	\$222,000	19%	\$42,497	234,552	\$0.18
31	New Hill Holleman Rd Waterline	\$10,685,000	10%	\$1,068,500	234,552	\$4.56
32	Waterline Loop- West of Carolina Springs	\$2,471,000	2%	\$49,420	234,552	\$0.21
33	Quantum Street Waterline	\$79,000	6%	\$4,740	80,746	\$0.06
34	Holly Acres to Beech Hill Ct.	\$40,000	8%	\$3,314	37,891	\$0.09
1R	1 MG Reuse Elevated Storage Tank	\$4,889,000	9%	\$415,853	1,000,000	\$0.42
2R	16" Reuse WL- Old Holly Springs Apex Rd. Extension	\$272,000	3%	\$9,059	214,216	\$0.04
3R	Woods Creek Road Extension	\$590,000	10%	\$60,379	234,552	\$0.26
Subtotal		\$104,330,400		\$58,939,575	50,672,545	\$51.04
Credit (\$25%)						(\$12.76)
TOTAL						\$38.28

Similarly, the wastewater system projects were evaluated and a cost of \$13.55 per gpd, inclusive of required credit, was calculated as shown in Table 5-7 below.

Table 5-7: Wastewater System SDF Projects for Incremental/Marginal Method

#	Project Name	Capital Cost	% Applicable to SDF	Adjusted Cost	Capacity (gpd)	\$/gpd
1	Avent Ferry PS Improvements Ph. II (Force Main)	\$2,599,000	83%	\$2,168,632	1,283,040	\$1.69
2	East Regional PS	\$4,560,000	43%	\$1,949,148	4,250,000	\$0.46
3	12 Oaks Pump Station Expansion- Ph. II	\$5,083,000	58%	\$2,956,650	1,396,800	\$2.12
4	Sunset Ridge Pump Station Expansion-Ph. II	\$449,000	75%	\$336,750	743,483	\$0.45
5	Basal Creek Pump Station Expansion- Ph. IIA	\$2,760,000	24%	\$673,350	917,280	\$0.73
6	Basal Creek Pump Station Expansion- Ph. III (Remaining)	\$1,143,000	0%	\$0	257,760	\$0.00
7	Bass Lake PS Upgrade Ph. III (Parallel Interceptor)	\$2,274,000	54%	\$1,218,440	1,151,000	\$1.06

8	Friendship Pump Station and Force Main Connection	\$2,751,000	0%	\$0	500,000	\$0.00
9	HS Business Park PS Upgrade Ph. II	\$3,738,000	0%	\$0	3,332,000	\$0.00
10	Carolina Springs PS #1	\$3,570,000	84%	\$3,004,492	1,500,000	\$2.00
11	Carolina Springs PS #2	\$1,494,000	63%	\$943,006	1,000,000	\$0.94
12	Wastewater Studies	\$600,000	100%	\$600,000	6,000,000	\$0.10
13	Town-wide Wastewater Master Plan and Model	\$500,000	100%	\$500,000	6,000,000	\$0.08
14	West Side Sewer Study	\$300,000	100%	\$300,000	6,000,000	\$0.05
15	Utle Creek Water Reclamation Facility Upgrade & Expansion	\$25,000,000	100%	\$25,000,000	8,000,000	\$3.13
16	Avent Ferry PS Improvements- Ph. III	\$7,933,000	0%	\$0	1,296,000	\$0.00
17	Buckhorn Creek North PS	\$3,941,200	66%	\$2,611,774	5,250,000	\$0.50
18	Norris Branch PS	\$4,593,000	21%	\$964,356	1,500,000	\$0.64
19	Utle Creek Regional PS	\$8,908,000	79%	\$7,017,100	4,500,000	\$1.56
20	Rouse Road PS	\$10,843,000	32%	\$3,488,129	6,500,000	\$0.54
21	Middle Creek PS- Ph. II	\$711,000	24%	\$167,764	1,749,600	\$0.10
22	Union Ridge Pump Station Expansion- Ph. II	\$116,000	0%	\$0	648,000	\$0.00
23	Sunset Ridge Pump Station Expansion-Ph. III	\$524,000	0%	\$0	331,200	\$0.00
24	Bass Lake PS Upgrade Ph. IV	\$299,000	3%	\$9,491	1,251,360	\$0.01
25	Utle Creek WRF Master Plan	\$85,000	100%	\$85,000	6,000,000	\$0.01
26	12 Oaks Pump Station Expansion- Ph. III	\$2,410,000	63%	\$1,521,116	3,663,899	\$0.42
27	Buckhorn Creek East PS	\$4,089,600	100%	\$4,089,600	2,750,000	\$1.49
28	White Oak PS	\$9,645,400	0%	\$0	8,500,000	\$0.00
29	Little White Oak PS	\$5,963,000	0%	\$0	2,750,000	\$0.00
30	Union Ridge Pump Station Expansion- Ph. III	\$308,000	0%	\$0	303,840	\$0.00
Subtotal				\$59,604,798		\$18.07
Credit (25%)						(\$4.52)
TOTAL						\$13.55

5.6 System Development Fee: Buy In Method

The existing water and wastewater systems have existing capacity for new development to buy in. Additionally, the Town is planning a series of rehabilitation and modernization projects to prolong the longevity of existing water and wastewater system assets. Based on the 2019 financial information provided by the Town of Holly Springs, the existing water distribution

system has a depreciated value of \$37,374,985 as shown in **Table 5-5** above. Utilizing this information, a cost of \$5.73 per gpd/SU was calculated to be applied to the Buy In method as shown in **Table 5-8**.

Table 5-8: Water System Buy-In Costs

Asset	Book Value	Planned Rehab Projects	Total Cost	Capacity (gpd)	\$/gpd
Water Distribution System	\$ 37,374,985	\$ 1,011,000	\$38,385,985	6,700,000	\$ 5.73
TOTAL	\$ 37,374,985	\$ 1,011,000	\$38,385,985	6,700,000	\$ 5.73

The depreciated value of the wastewater collection system is \$69,297,367. **Table 5-9**, summarized the Town's planned rehabilitation/modernization projects and the calculation of \$13.01 to be applied to the wastewater Buy-In Method.

Table 5-9: Wastewater System Buy-In Costs

Asset	Book Value	Planned Rehab Projects	Total Cost	Capacity* (gpd)	\$/gpd
Wastewater Treatment Plant	\$ 28,656,340	\$ 4,819,943	\$33,476,283	6,000,000	\$ 5.58
Wastewater Collection System	\$ 40,641,027	\$ 3,965,000	\$ 44,606,027	6,000,000	\$ 7.43
TOTAL	\$ 69,297,367	\$ 8,784,943	\$ 78,082,310		\$ 13.01

**Wastewater system capacity based on Uteley Creek Wastewater Reclamation Facility capacity (6 MGD)*

5.7 System Development Fee: Combined Method

Since there is sufficient capacity in the system to provide service to future developments and additional projects are needed in the future, the combined method was evaluated. Based on information developed for the Incremental and Buy-In costs, the combined costs for water and wastewater are as shown in **Table 5-10**.

Table 5-10: Water and Wastewater SDF Costs- Combined Method

Method	Water System (\$/gpd/SU)	Wastewater System (\$/gpd/SU)
Incremental/Marginal	\$38.28	\$13.55
Buy-In	\$5.73	\$13.01
Total (Combined)	\$44.01	\$26.56

5.8 Maximum Allowable System Development Fees

Based on the calculations summarized in the preceding sections (incremental/marginal, buy-in and combined methods) the maximum allowable system development fees for water and wastewater in the Town of Holly Springs are shown in **Table 5-11**.

Table 5-11: Maximum Allowable Water and Wastewater System Development Fees

Method	Water SDF	Wastewater SDF	Total SDF
Incremental/Marginal	\$11,185	\$4,090	\$15,275
Buy-In	\$1,674	\$3,927	\$5,601
Combined	\$12,859	\$8,017	\$20,876

Utilizing the Service Unit Equivalencies shown in **Table 5-1** and the maximum system development fees as shown in **Table 5-11**, the maximum allowable fee per meter size and method is presented in **Table 5-12**. The maximum allowable fees presented in **Table 5-12**, include the required 25% developer credit.

Table 5-12: Maximum Allowable System Development Fees per Meter Size

Meter Size	Service Unit Equivalent	Water			Sewer			TOTAL
		Incremental/Marginal	Buy-In	Combined	Incremental/Marginal	Buy-In	Combined	Combined
3/4"	1.0	\$11,185	\$1,674	\$12,859	\$4,090	\$3,927	\$8,017	\$20,876
1"	2.0	\$22,370	\$3,348	\$25,718	\$8,180	\$7,854	\$16,034	\$41,752
1-1/2"	5.0	\$55,925	\$8,370	\$64,295	\$20,450	\$19,635	\$40,085	\$104,380
2"	8.0	\$89,480	\$13,392	\$102,872	\$32,720	\$31,416	\$64,136	\$167,008
3"	33.3	\$372,833	\$55,800	\$428,633	\$136,333	\$130,900	\$267,233	\$695,867
4"	66.7	\$745,667	\$111,600	\$857,267	\$272,667	\$261,800	\$534,467	\$1,391,733
6"	106.7	\$1,193,067	\$178,560	\$1,371,627	\$436,267	\$418,880	\$855,147	\$2,226,773
8"	186.7	\$2,087,867	\$312,480	\$2,400,347	\$763,467	\$733,040	\$1,496,507	\$3,896,853
10"	366.7	\$4,101,167	\$613,800	\$4,714,967	\$1,499,667	\$1,439,900	\$2,939,567	\$7,654,533
12"	366.7	\$4,101,167	\$613,800	\$4,714,967	\$1,499,667	\$1,439,900	\$2,939,567	\$7,654,533



Holly Springs Town Council

Town Council Meeting Agenda Cover Sheet

Agenda Item#: 16.

Public Hearings

Title: Fiscal Year 2022-23 Budget Public Hearing

Strategic Priority Area: Organizational Excellence

Staff Resource: Corey Petersohn, Finance

Action(s):

Open / close public hearing to receive input from the public on the Fiscal Year 2022-2023 Recommended Operating Budget and Community Investment Plan.

Explanation:

- Per NCGS 159-12(B), before adopting the budget ordinance, the board shall hold a public hearing at which time any persons who wish to be heard on the budget may appear.
- The recommended operating budget totals \$88,492,877 and includes the following key recommendations:
 - Significant investment in and commitment to recruiting and retaining a talented workforce in a challenging labor market
 - 28 new staff positions to serve population growth, development related work demand, and run town business support operations
 - Focus on updating service models and customer experiences
 - Yard Waste Collection
 - Creation of a Customer Care Center for service needs of inquiries
 - Parks & Recreation event/activities and park/playground amenities
 - No property tax rate change

Background:

- The Town Manager presented the recommended budget to the Mayor and Council on May 10, 2022.
- North Carolina General Statute requires that the Town Council adopt a new, annual fiscal year budget by July 1.
- Next steps include a budget workshop on May 24 at 6pm at the Law Enforcement Center.
- The anticipated budget adoption is scheduled for the June 7 Council meeting at 7pm at Town Hall.

Funding Source(s):

- N/A

Attachment(s):

1. FY23 Recommended Presentation - FINAL



Fiscal Year 2022-23
**Recommended Operating &
Community Investment Plan Budget**
Randy Harrington, Town Manager

Overview

- **Purpose:** Receive the Manager's Recommended Budget
- **Outline:**
 - Key Takeaways and Overview
 - Operating Budget Highlights
 - Community Investment Plan (CIP) Highlights
 - Other Recommendations



Key Takeaways

- Significant investment in and commitment to recruiting and retaining a talented workforce in a challenging labor market
- 28 new staff positions to serve population growth, development related work demand, and run town business support operations
- Focus on updating services models and customer experiences
 - Yard waste collection
 - Creation of a Customer Care Center for service needs or inquiries
 - Parks & Recreation event/activities and park/playground amenities
- No property tax rate change



Strategic Plan

Vision:

Holly Springs offers an unmatched quality of life that reflects the joys of small town living in a safe, family-friendly community that residents and businesses are proud to call home.

Priorities



Community Survey

2021 Town of Holly Springs Community Survey Findings Report

Presented to the Town of
Holly Springs, North Carolina
January 2022



WHAT RESIDENTS THINK ABOUT LIFE IN HOLLY SPRINGS

All percentages represent a rating of 4 or 5, on a 5-point scale.

Light blue indicates average Atlantic region rating.

Green shade indicates national average.



Say it's a great
place to live



Say it's a great
place to raise
children



Satisfied with
quality of town
services

TOP COMMUNITY PRIORITIES



1. Management of Traffic



2. Management of Growth/Development



3. Walking and Biking Trails

4. Adequacy of Street Lighting

5. Maintenance of Town Streets

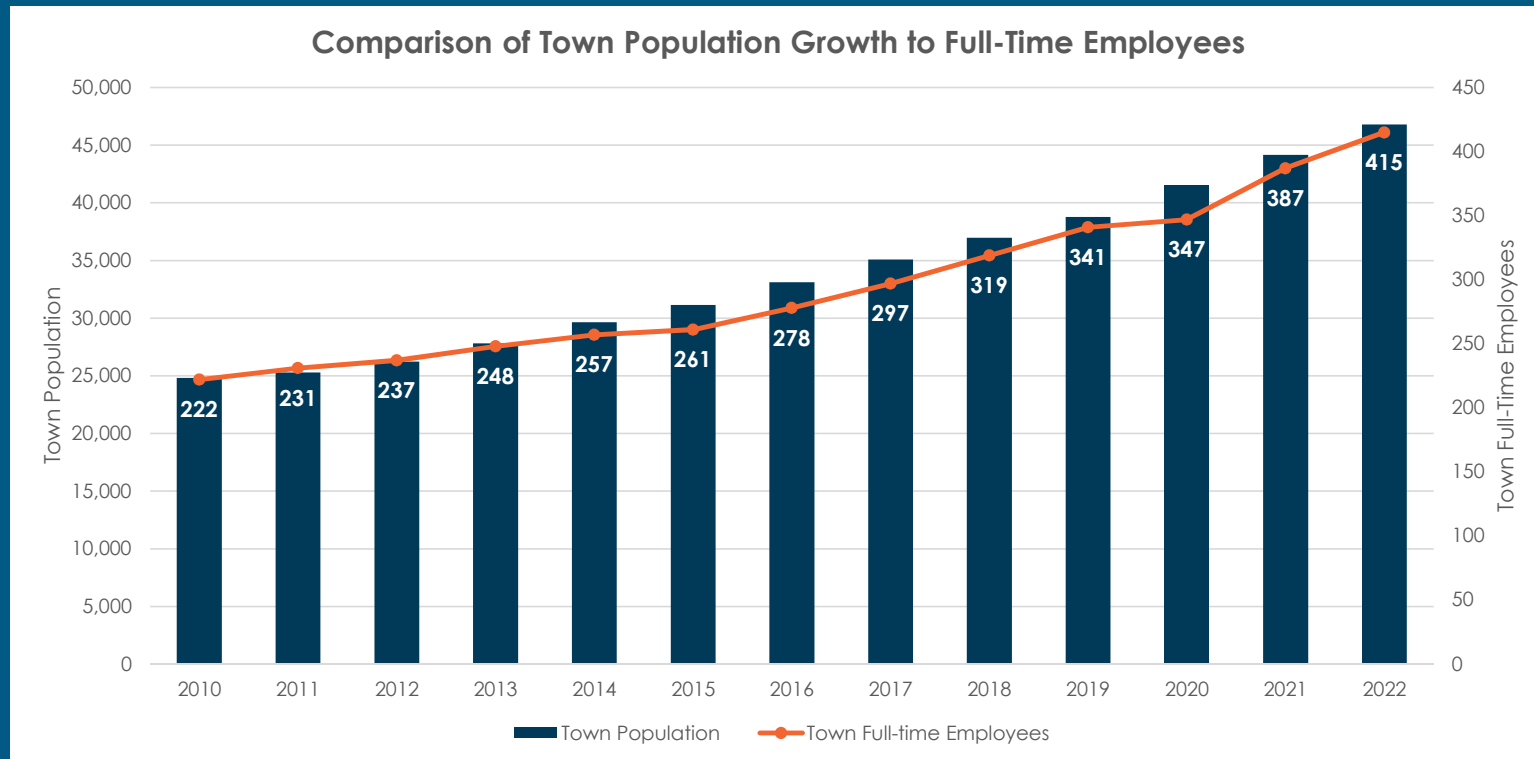
6. Visibility of Police in Neighborhoods



Holly Springs – What a Year!



Keeping Pace with Growth

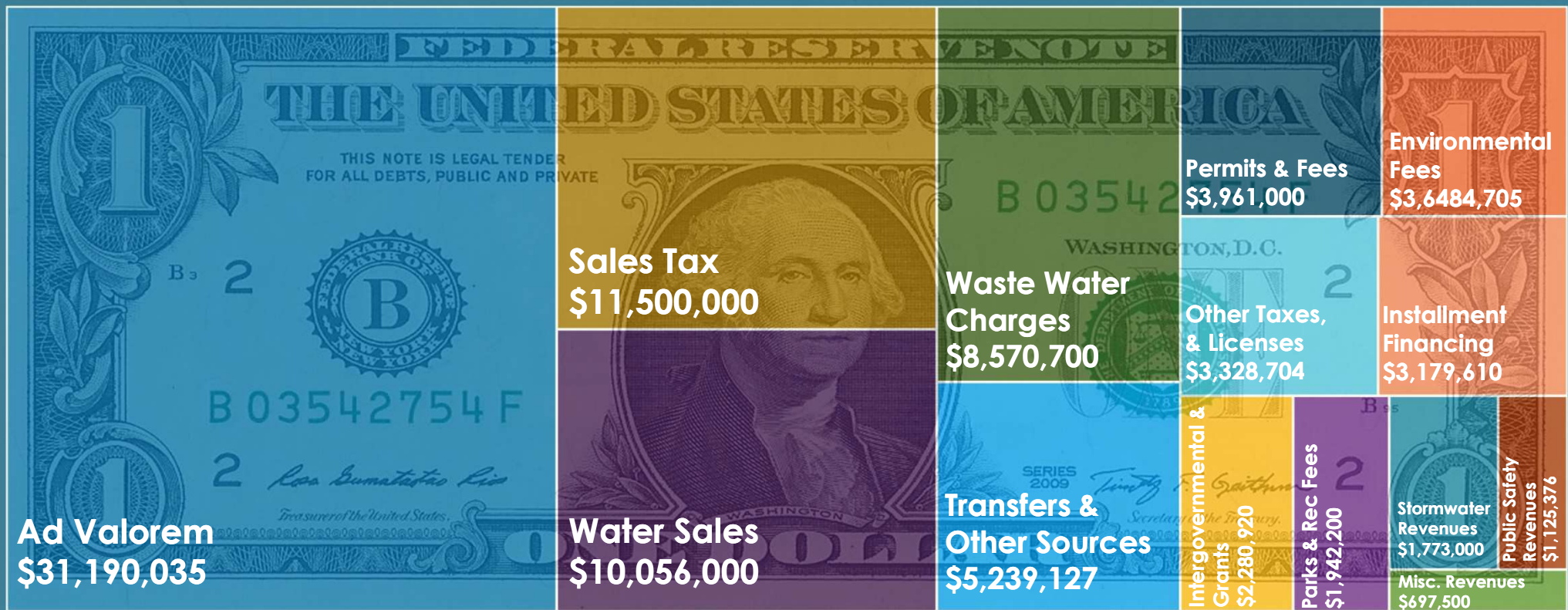


*Note - 2021 Population is estimated and 2022 is projected by Development Services Staff.
Full-time employees for 2022 reflects the Manager's recommended positions.*



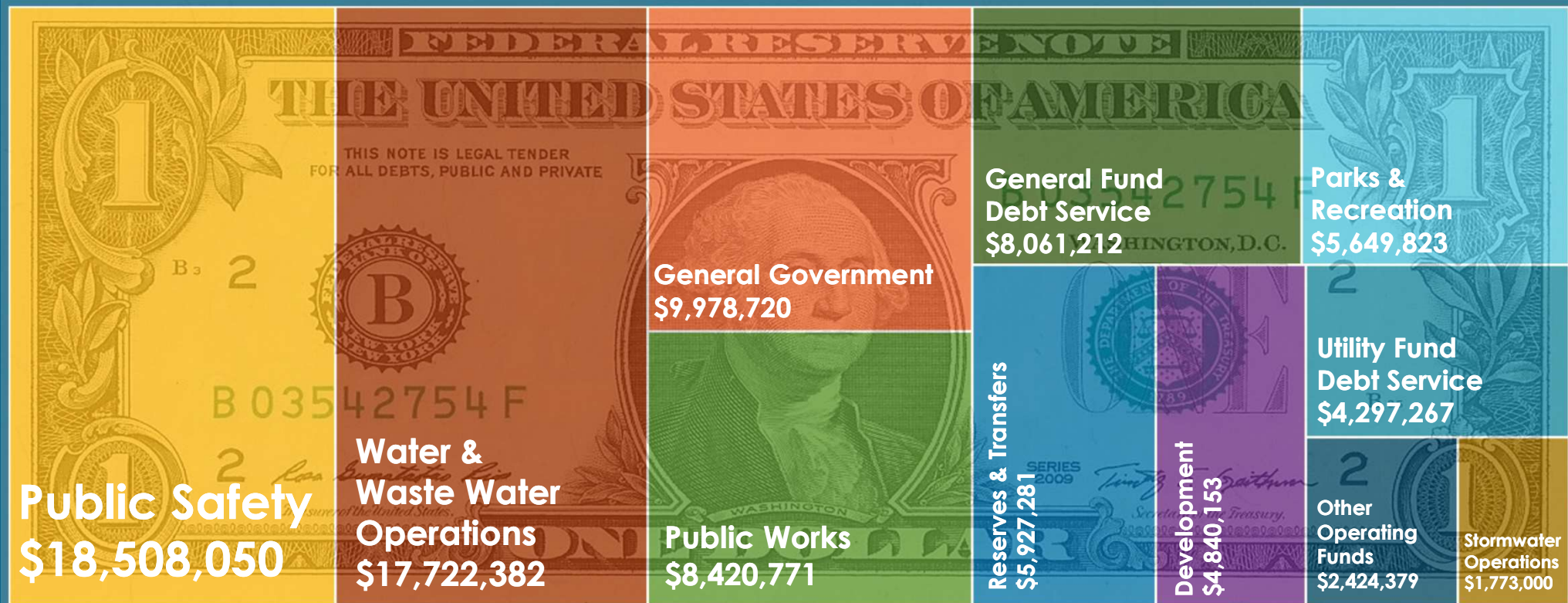
Total Operating Revenues - \$88,492,877

Revenues (Where money comes from)

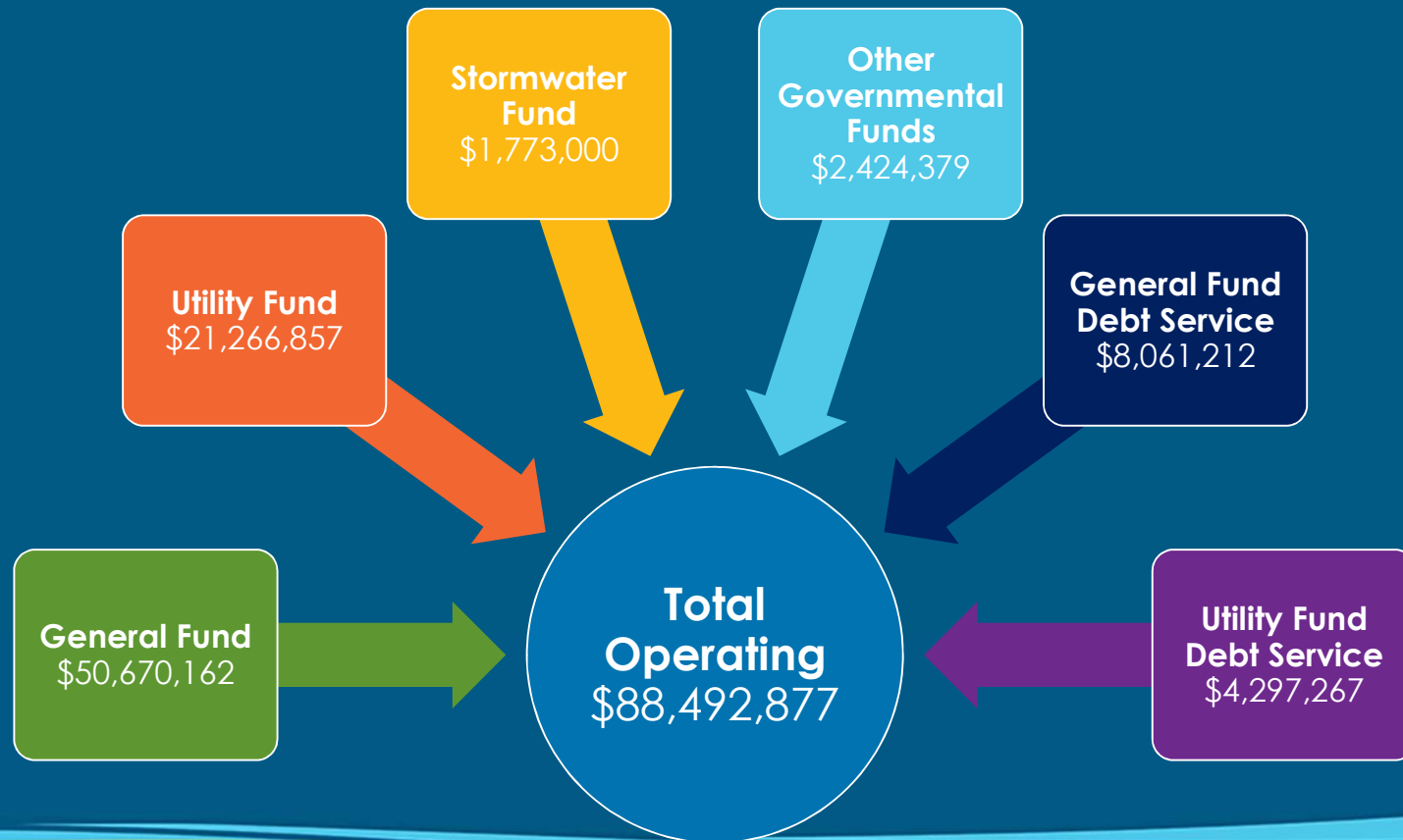


Total Operating Expenditures - \$88,492,877

Expenditures (What money is spent on)

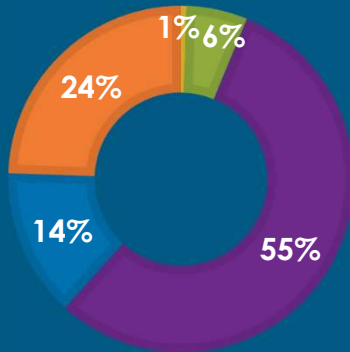


Total Operating Budget by Fund



New Operating Expenditure Highlights by Strategic Priority Area

GENERAL FUND
\$9,144,260

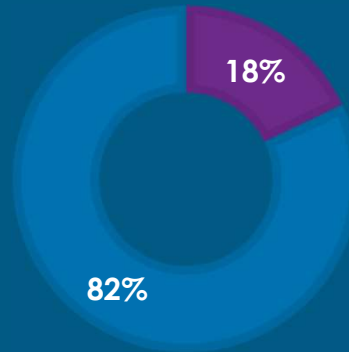


Economic Prosperity & Diversity



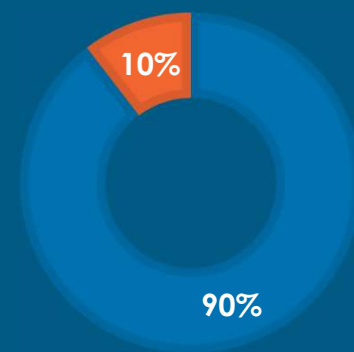
Engaged, Healthy & Active Community

UTILITY FUND
\$4,277,317



Organizational Excellence

STORMWATER FUND
\$705,726



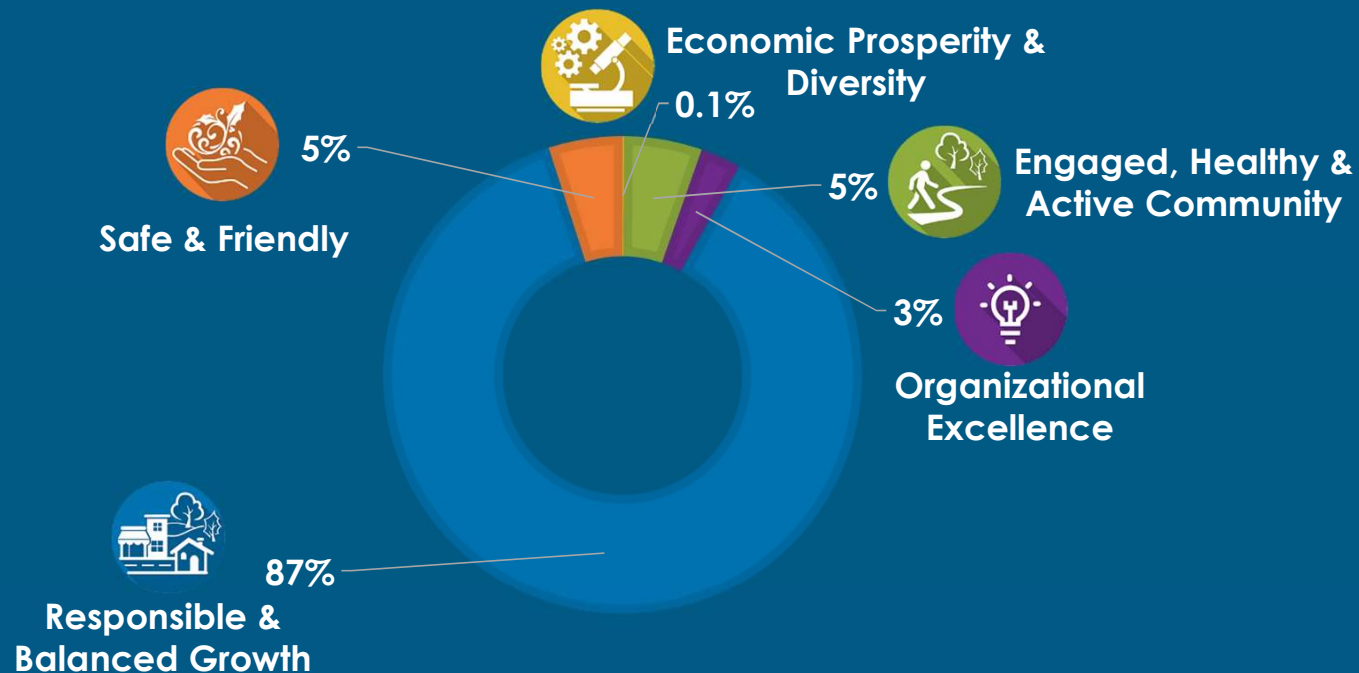
Responsible & Balanced Growth



Safe & Friendly



Community Investment Plan Highlights by Strategic Priority Area (\$62,713,551)*



*Total cost is only for elements of projects funded in FY2022-23 and is net of Fleet Replacement items in the CIP that are budgeted in FY2022-23 Operating Funds.



Operating Budget Highlights that Will Enhance Everyday Life



Town of
HOLLY SPRINGS

Recruit and Retain a Talented Workforce

- **Pay & Classification Study:** Ensure market competitiveness; 76% of Town employees recommended to receive an adjustment in July to updated market levels
- **Pay for Performance:** Employee adjustments between 0-6% based on performance
- **Health Insurance:**
 - **Rebidding of health insurer;** New health insurance cost share pool to increase economies of scale, buying power, and mitigate future insurance cost increases
 - **New plan option;** high deductible/lower cost employee option to increase affordability for family coverage
- **Educational Advancement:** Tuition reimbursement increase to \$1,500/yr.
- **Video:** Who we are and what we do!



<https://vimeo.com/706715683/f5742563b9>



Elevated Parks and Recreation Programming and Activities Focus



- **Two new positions** that will focus on recreational activities and events programming
- **Special Event Funding** to expand our multi-cultural event offerings
- **Management structure realignment** that creates two assistant director roles, one focused on Programs & Events and the other on Operations and Facilities



Simplifying Customer Service

- New **Customer Care Center** to serve as an efficient, single source for residents and businesses to inquire about Town service requests and questions
- Four (4) team members (two new positions with two reallocated staff)
- Anticipated launch of the Customer Care Center in Spring of 2023



Modernization of Yard Waste Collection



- Why change to a roll-out cart service model?
 - Requirement to achieve compliance with Town's Federal Stormwater management permit
 - Improved roadway traffic safety
 - Improved neighborhood aesthetics
 - Easier containment of yard debris
 - Reduced wear and tear on Town yard waste collection equipment
 - Improved worker safety for Town employees
 - More financially sustainable service model
- Budget funds the new equipment, carts, free drop-off center, and community outreach



Maintaining a Premier Level of Public Safety

- Recent Community Satisfaction Survey noted **management of traffic** as the most important thing the Town should focus on in the coming year
- **Two new traffic unit officers** to help address neighborhood speeding and assist with other traffic safety needs
- Provide access to **mental health wellness services** for police officers who experience human tragedy and crisis on a regular basis
- **Fire truck replacement** of a 2001 ladder truck



Investments that Build a Great Community



Town of
HOLLY SPRINGS

Public Facilities



- **Fire Station 3 (\$11.2M)** – new station near Carolina Springs, approximately 13,000 sq. ft
- **Operations Campus Phase I (\$30M)** – design of the campus is anticipated to begin in FY2022-23
- **Americans with Disabilities Act (ADA) improvements (\$100,000)** – Implement the Town's ADA Transition Plan to retrofit facilities and other public infrastructure



Parks and Recreation

- **Hunt Center Lobby Area Renovation (\$250,000)** – Improvements to central check-in experience, safety, and facility pedestrian flow
- **Sugg Farm Park Amenities (\$125,000)** – Community garden and nature play areas as outlined in the Sugg Farm Master Plan
- **Mims Park Trails and Signage (\$150,000)** – Clearer signage and delineation of natural trails as outlined in Mims Park Master Plan



Parks and Recreation - Continued



Note - concept design plan and not a final approved design plan

- **Cass Holt Rd. Park Partial Design (\$2M)** - Funding from Parks & Recreation Reserves proposed to advance planning and design until such time that a full funding source can be identified
- **Playground Rehabilitation, Sunshades, and Amenities (\$350,000)** - The playing surfaces at Womble Park and Jones Park are recommended to be replaced along with replacement of play structures and installation of benches and play area shading at Womble Park



**Playground
Rehabilitation, Sunshades,
& Amenities**

**Priority
Greenway
Connections**

**Mims Park
Natural Trails**

**Hunt Center
Lobby Area
Renovations**

**Cass Holt Road Park
Partial Design**

**Sugg Farm
Nature Play**

Community Garden

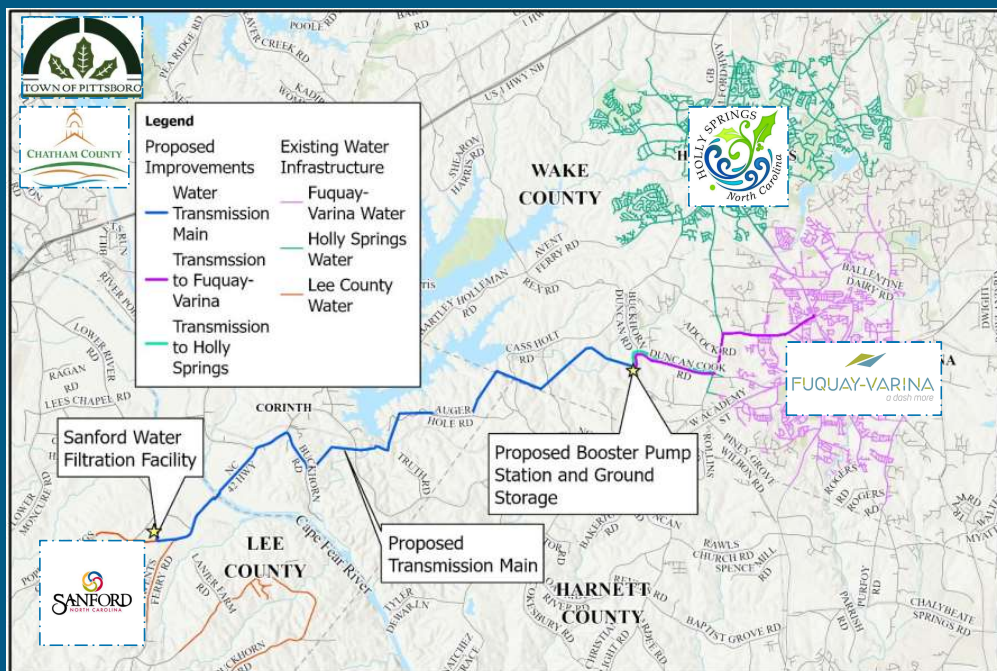


Transportation

- **Intelligent Transportation System (ITS) (\$250,000)** – Phase III software purchase to build-out the Town's ITS to help manage and monitor traffic congestion
- **Transportation Bond Projects Underway** – Major improvements to Holly Springs Road (east) are now underway. Final design continues on Main Street right turn lane, Avent Ferry Road Realignment, and NC55 Bypass right turn lane
- **Holly Springs Road (central and west segments)** – Council has prioritized next road widening enhancements funded by the Town for Holly Springs Road between NC55 Bypass and Flint Point Lane



Water, Sewer, and Stormwater



- **Securing our Future Water Supply** – Water Access in the Triangle Region (WATR) Partnership – 4 million gallons per day (MGD) of additional water supply planned for Holly Springs
- **\$11.5M in Anticipated Financing** - finalize the 2 MGD water supply increase from Harnett County (\$8M) and Business Park Pump Station Upgrades (additional \$3.5M)
- **Utleigh Creek Water Reclamation Facility (UCWRF) Upgrade Design (\$1M)** - advance design of a 2 MGD treatment capacity upgrade
- **Other Master Planning to Ensure a Safe and Available Water Supply** - First stage of a utility asset management plan (\$300,000) along with planning for a future expansion of the Town's reclaimed water system (\$120,000)

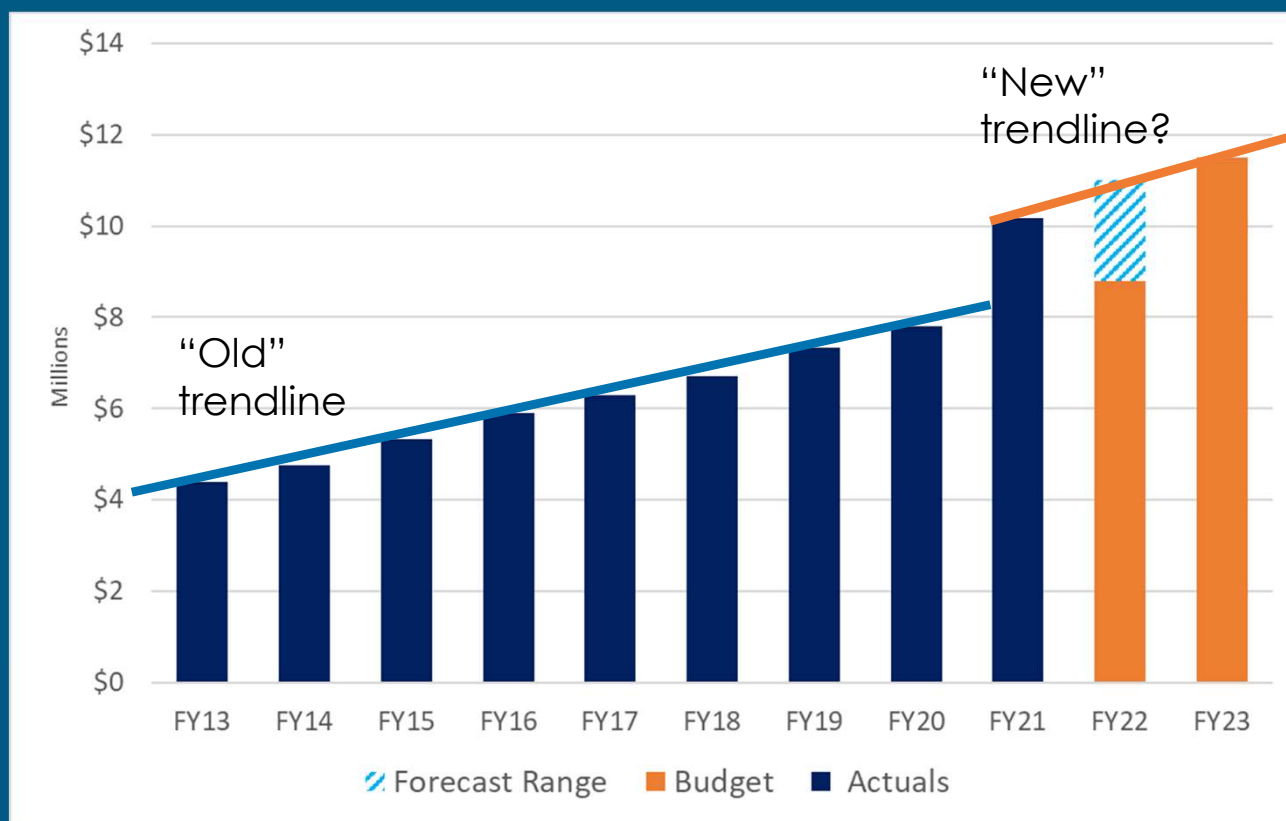


Financial Investments to Deliver Excellent Public Service

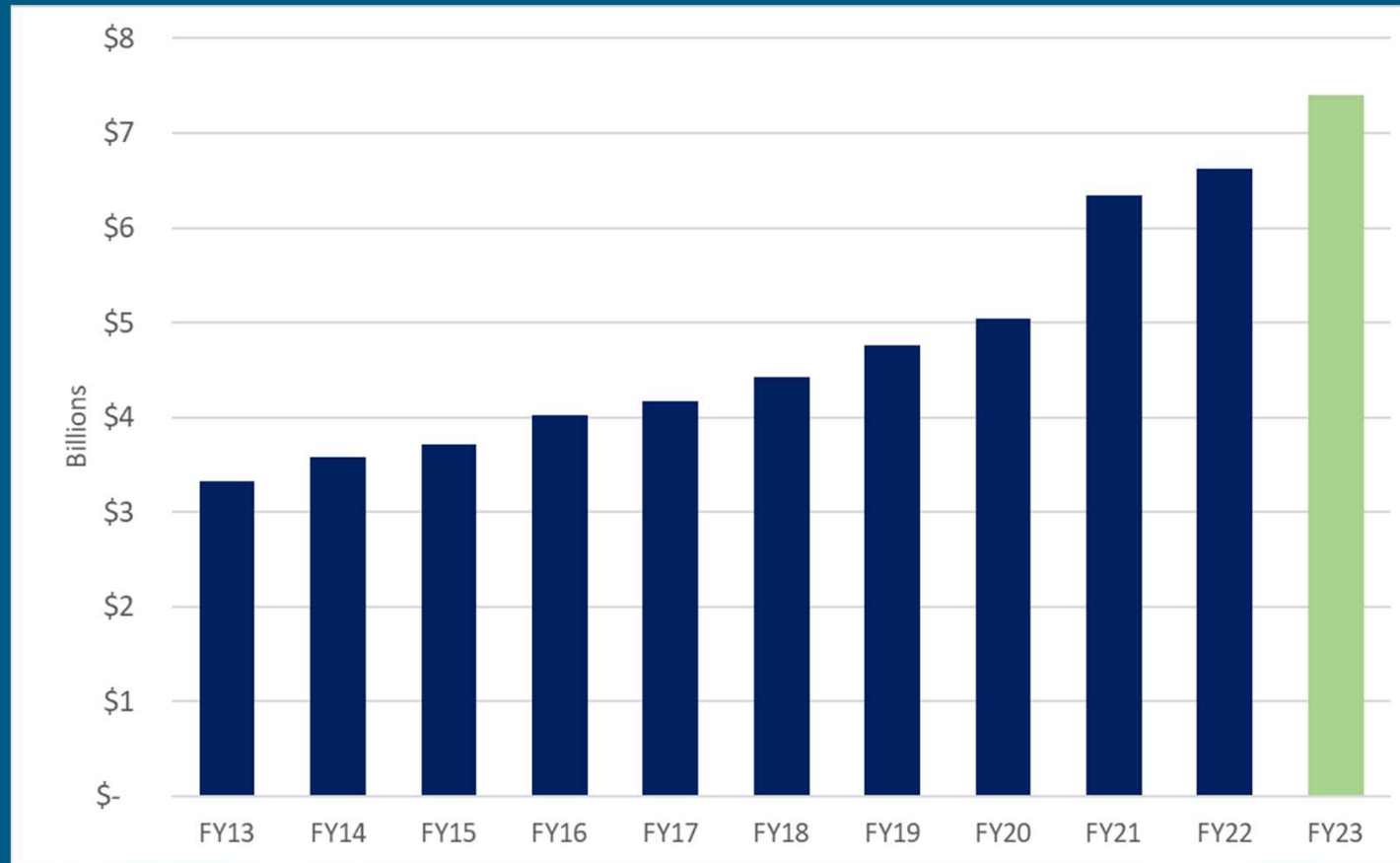


Town of
HOLLY SPRINGS

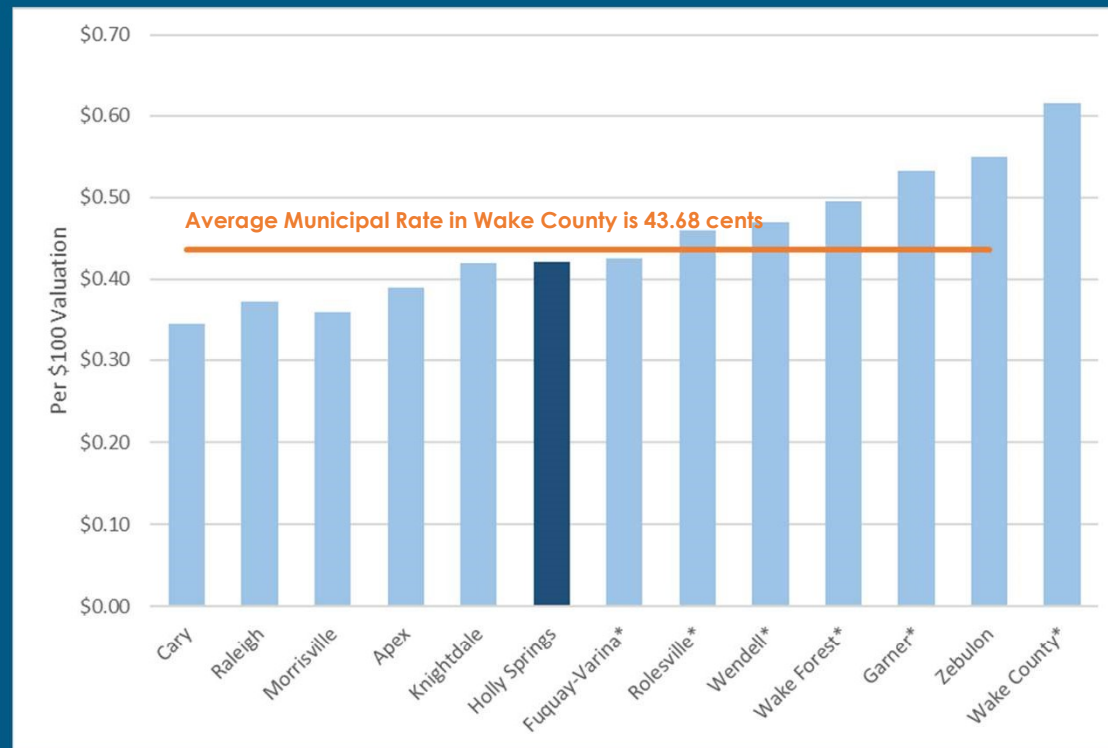
Sales Tax Revenue Projections



Total Property Valuation



Wake County Property Tax Rate Comparisons



*Denotes property tax rates already recommended for FY23



Water and Sewer Rate Adjustments

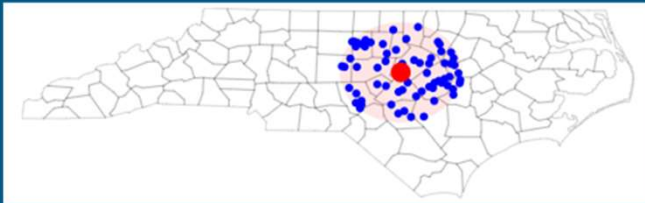
- **Water and Sewer Fees** - New water and sewer rates and charges model recommended to better match industry best practices and more fairly allocate access fee charges (August 1st implementation):

In-Town Resident (4,000 gal / Month)	Current Rate / Month	Recommended Rate / Month	Difference / Month
Access Fee	26.00	24.80	(1.20)
Volume Rate	37.52	40.58	+3.06
Total Water & Sewer Bill	\$63.52	\$65.38	+\$1.86

- **System Development Fee** – Town Council endorsed fee increase to modernize and rebalance the cost-share of development between new and existing utility customers. The typical, new ¾-inch water connection fee would increase from \$7,795 to \$11,700.

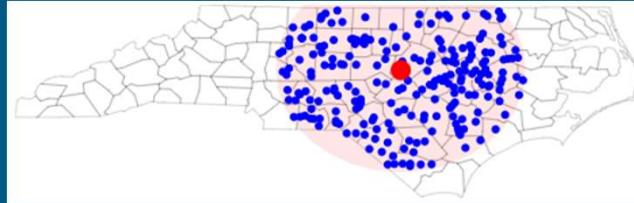


Water/Sewer Rate Comparison



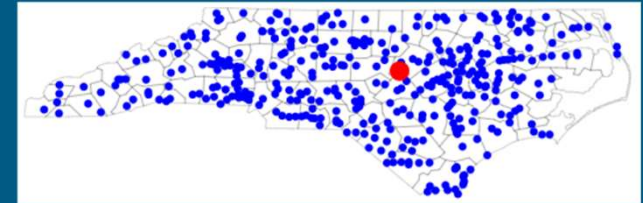
50-Mile Radius

Median Bill: \$71.00



100-Mile Radius

Median Bill: \$71.59



All State Utilities

Median Bill: \$70.52

- Median Holly Springs residential (4000 gal/month) utility customer's bill is **\$65.38**
- Typical Holly Springs residential bill is 7-9% lower than the median bill for other utility customers within 50-mile, 100-mile, and statewide.



Other Budget Highlights



Town of
HOLLY SPRINGS

Recommended, New Personnel Investments (28 positions)

General Fund

- (2) Police Officers
- Assistant Town Attorney
- Risk Manager
- Park & Rec Program Assistant
- Recreation Program Specialist
- Public Works Manager - Facilities
- Public Works Manager - Business Manager
- Public Works - Administrative Assistant
- Budget Analyst
- Human Resource Analyst
- Communications Specialist
- Accountant
- Grants Writer
- Planner I

Utility Fund

- Customer Care Manager*
- Customer Service Specialist*
- IT Business Systems Analyst*
- Engineering Manager
- Program Specialist
- Environmental Technician
- Development Inspector*
- Development Services Manager – Engineering*
- Development Services Supervisor – Inspections*

*Denotes a position cost-shared with other funds

Stormwater Fund

- Stormwater Crew leader
- (2) Utility Technicians
- Environmental Technician



American Rescue Plan Act (ARPA) Summary

Original Allocations

**\$11.5M for Water &
Sewer Projects**

\$0.4M for Stormwater

**~\$0.1M Unallocated
TBD Projects**

Updated, Recommended Project Allocations	Amount (\$ millions)
12 Oaks Pump Station Upgrade Ph 2	\$3.50
Holly Springs / Fuquay-Varina Water Conveyance	3.00
Sanford Water Capacity – Design	2.50
Holly Springs Road (East) – Forcemain	2.46
Bass Lake Dam Spillway Enhancement Project	0.40
Town Hall HVAC System Replacement	0.19
Total	\$12.05



Conclusion



Town of
HOLLY SPRINGS

Fee Adjustments for a Typical Residence

Fee Category	FY22 Approved	FY23 Recommended	Difference
Garbage	9.98	10.58	+0.60
Recycling	5.13	4.74	(0.39)
Yard Waste	4.00	4.50	+0.50
Water & Waste Water	63.52	65.38	+1.86
Stormwater	5.20	5.20	0.00
Monthly Total	\$87.83	\$90.40	+\$2.57
Daily Total	\$2.89	\$2.97	+\$0.08



Total Taxes and Fees by Example Home Tax Value

Category	\$100,000	\$362,684	\$500,000
Property Taxes	421.60	1,529.08	2,108.00
Garbage/Recycling/Yard Waste Fees	237.84	237.84	237.84
Water/Waste Water Charges	784.56	784.56	784.56
Stormwater Fee	62.40	62.40	62.40
Total (annual)	\$1,506.40	\$2,613.88	\$3,192.80
Total (monthly)	\$125.53	\$217.82	\$266.07
Total (daily)	\$4.13	\$7.16	\$8.75

**Average home value based on Wake County Tax Administration as of January 1, 2021 (most recent data available).*



Key Takeaways

- Significant investment in and commitment to recruiting and retaining a talented workforce in a challenging labor market
- 28 new staff positions to serve population growth, development related work demand, and run town business support operations
- Focus on updating services models and customer experiences
 - Yard waste collection
 - Creation of a Customer Care Center for service needs or inquiries
 - Parks & Recreation event/activities and park/playground amenities
- No property tax rate change



Thank you!



Town of
HOLLY SPRINGS

Next Steps

Date	Time	Meeting	Location
May 17	7:00 p.m.	Budget Public Hearing	Council Chambers
May 24	6:00 p.m.	Budget Workshop	Law Enforcement Center
June 7	7:00 p.m.	Scheduled Budget Adoption	Council Chambers

For More Information

Visit our website at:

<http://www.hollyspringsnc.gov>

Contact the Town Clerk:

Phone: (919) 557-3900





Holly Springs Town Council

Town Council Meeting Agenda Cover Sheet

Agenda Item#: 17.

New Business

Title: Developer Agreement with Duke Energy - Legislative Public Hearing

Strategic Priority Area: Responsible & Balanced Growth

Economic Prosperity & Diversity

Staff Resource: Elizabeth Goodson, Development Services, John Schifano, Town Attorney

Action(s):

- Conduct Legislative Public Hearing
- Approve / deny / defer Development Agreement with Duke Energy

Explanation:

- A new Unified Development Ordinance (2022 UDO) was effective March 1, 2022. Over the next 12-24 months, there will be a crossover period where some projects are able to utilize the old UDO (2002 UDO) due to state statutes. This section of the cover sheet will be utilized to specify the UDO version (2002 or 2022) and the approval type that Town Council is considering for each respective case.
 - Applicable Ordinance: 2022 UDO
 - Process: Legislative
- Duke Energy has submitted a Special Use Permit (SUP) and Development Plan (DP) for the Holly Springs Utley Creek Substation at 1520 Avent Ferry Road.
- The Holly Springs Utley Creek Substation will provide electric services for FujiFilm Diosynth Biotechnologies and additional users in the western Holly Springs area.
- The required SUP and DP for this project are expected to go before the Board of Adjustment at their July meeting (date to be determined).
- It has been determined through the review of the DP that a Development Agreement is needed to identify the process and timing of certain development standards that would typically be reflected on the development plan.
- The proposed Development Agreement will address the following:
 - The portion of road on this tract as shown on the Comprehensive Transportation Plan from Avent Ferry Road north to the road known as the Southern Access Road. The agreement obligates Duke Energy to dedicate the rights of way for the road but does not require the company to construct the road.
 - The portion of greenway on this tract as shown on the Parks and Recreation Master Plan. The agreement obligates Duke Energy to dedicate easements for the Greenway in the future, but does not require the company to build the greenway.
 - Modifying fencing standards to no longer require an opaque wall, as the proposed substation is greater than 1000 feet from any developed parcels.

Background:

- The subject property is zoned RR Rural Residential.
- The Unified Development Ordinance allows Utility/Infrastructure (Major) uses located in the RR Rural Residential district by grant of a Special Use Permit from the Board of Adjustment.
- Utility/Infrastructure uses require additional development standards in the RR Rural Residential District, including the following buffering standards: "All treatment operations, power generation, and electrical substations shall occur behind a minimum 6 feet high opaque wall."
- The Unified Development Ordinance requires "where a future right-of-way is identified in the Comprehensive Plan or other applicable plan, new development shall reasonably adhere to the conceptual alignment, provide such right-of-way, design and construction with proportionality. Design and construction must conform to all of the Street Network Requirements of the Engineering Design & Construction Standards."
- The Comprehensive Transportation Plan identifies a new location thoroughfare connecting Avent Ferry Road and the FujiFilm Diosynth Biotechnologies Southern Access Road, a portion which is located on the property proposed for the Holly Springs Utley Creek Substation.
- The Parks, Recreation and Greenways Master Plan identifies a new Greenway location on the property.

Funding Source(s):**Attachment(s):**

1. Development agreement for Duke Progress Substation _Town Council Version (1)

PREPARED BY/RETURN TO: JOHN SCHIFANO, ROD BOX 105

STATE OF NORTH CAROLINA
COUNTY OF WAKE

**DEVELOPMENT AGREEMENT REGARDING INFRASTRUCTURE CONSTRUCTION AND FEE
REIMBURSEMENT
(N.C. GEN. STAT. § 160D-1001 *et seq.*)**

BY AND BETWEEN

THE TOWN OF HOLLY SPRINGS

and

DUKE ENERGY PROGRESS INC

THIS AGREEMENT (the “Agreement”), made and entered into this _____ day of May, 2022, by and between the **TOWN OF HOLLY SPRINGS**, a North Carolina Municipal corporation, hereafter referred to as the “Town” and **DUKE ENERGY PROGRESS, LLC, a North Carolina limited liability corporation**, hereafter referred to as the “Developer.” The Town and the Developer are collectively referred to herein as the “Parties.”

WITNESSETH:

WHEREAS, the Developer is the fee simple owner of two tracts of land held currently used for electric power creation and/or distribution known by Wake County PINs 0638452323 and 0638780892 and Real Estate ID 0239448 and 0182670 (the “Property”), and the Developer, or their successors or assigns, will be requesting approval of a plan to develop a portion of this Property, approximately 66.44 acres in size and located in an area described in Exhibit A (the “Site”) for an electric power substation, in a manner consistent with the plan prepared by the Developer attached hereto as Exhibit B and the terms of this agreement; and,

WHEREAS, a portion of the Site is currently located within the extraterritorial and planning limits of the Town and the Developer has petitioned the Town to annex the Site; and,

WHEREAS, the Property is not currently not served by the Town potable water and sewer service; and,

WHEREAS, the Developer desires careful integration between public and private capital facilities planning, financing and construction, and further desires sufficient assurances that development

standards, ordinances, policies and procedures remain stable throughout the extended period of development; and,

WHEREAS, it is beneficial to both the Town and Developer to construct certain on-site and off-site infrastructure improvements relative to the Project to enable the safe and reliable provision of electricity to the Town, as well as other infrastructure; and,

WHEREAS, the Town requires, pursuant to N.C.G.S. § 160D and its Unified Development Ordinance (“UDO”), the dedication and construction of streets and rights of way and other infrastructure and for the distribution of population and traffic in such a manner that it will avoid congestion and overcrowding and will create conditions essential to public health, safety, and the general welfare; which may be accomplished through private drives and cross access easements across the property and,

WHEREAS, the Town has enacted a subdivision control ordinance, pursuant to N.C.G.S. §160D-801 which provides for the orderly control of growth and development in the Town in general and on the Developer’s parcel; and,

WHEREAS, the Town is authorized to enter into this contract pursuant to N.C.G.S. §§ 160A-16, 160A-1001 *et seq.* and may contract with the Developer to carry out the public purposes set forth herein pursuant to N.C.G.S. §160A-20.1. A public hearing on this Agreement was held on May 17, 2022 and after consideration of the facts brought forth during the hearing, together with the promises and inducements contained herein, Town Council of Holly Springs has determined that it is in the best interests of its citizens to enter into this Agreement; and,

WHEREAS, the Town requires certain fees to be paid upon development of land and for the granting of a building permit, said fees being listed in the Town’s annual budget and as listed as Exhibit C, and the Developer, in consideration of the foregoing benefits enjoyed by this Agreement hereby agrees that it (i) is familiar with these fees as currently listed on the Town’s website pursuant to its annual adopted budget ordinance, (ii) does not dispute the reasonableness of these fees as currently listed; and (iii) notwithstanding any reimbursements discussed below or any fees reduced or waived via an economic development agreement between the Town and the Developer, hereby agrees to timely pay all normal and customary fees to the extent applicable to the Developer in connection with its development of the Project at such time as the applicable fee becomes due to the Town in the ordinary course of development unless otherwise provided for herein; and,

WHEREAS, the Town considers the Project favorable to the Town because of the retention of and expansion of local employment in the Town, the significant amount of non-residential uses that this substation will support. Further, the Developer have agreed to incorporate several needed public infrastructure improvements (“Public Improvements,” as described below) in the vicinity of the Property which will serve the Site, the Developer’s customers, other adjoining properties, and generally benefit the town as a whole; and,

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein the Town and the Developer agree as follows:

ARTICLE I

1. **Definitions:** The terms below shall have the following meanings as used herein:

- a. Actual Costs: The amount of true costs actually incurred for construction of a certain project described herein upon final completion and approved by the Town, inclusive of the cost of acquiring easements or rights of way from those not party to this agreement, but exclusive of any administrative costs (i.e., profit and overhead) of the Developer, or any project construction contingency. Any such costs which herein after are agreed to be reimbursed or otherwise paid by the Town shall be audited by the Town under generally accepted accounting principles for governments for a period of three (3) years after the last act under this Agreement. The Developer ' right of reimbursement for Actual Costs pursuant to the terms of this Agreement is contingent upon the Developer first receiving from the Town advance written consent to the expected cost of an applicable transaction before the cost is incurred, provided, that such consent shall not be unreasonably withheld or delayed by the Town.
- b. Development: Generally defined as the planning for or carrying out of a building activity, the making of a material change in the use or appearance of any structure or property, or the dividing of land into two or more parcels. "Development," as designated in a law or development permit, includes the planning for and all other activity customarily associated with it unless otherwise specified. When appropriate to the context, "Development" refers to the planning for or the act of developing or to the result of development. Specifically, in this Agreement, the term "Development" refers to the construction by the Developer of all building activities associated with the concept plan.
- c. Development Permit: A building permit, zoning permit, subdivision approval, special use permit, variance, or any other official action of the Town having the effect of permitting the development of property.
- d. Land Development Regulations: Ordinances and regulations enacted by the Town for the regulation of any aspect of development and includes zoning, subdivision, or any other land development ordinances, including but not limited the Town of Holly Springs Unified Development Ordinance ("UDO").
- e. Laws: All ordinances, resolutions, regulations, comprehensive plans, land development regulations, policies, and rules adopted by the Town affecting the development of property, and includes laws governing permitted uses of the property, density, design, and improvements.
- f. NCDOT: the North Carolina Department of Transportation.
- g. Offsite Infrastructure: The public sanitary sewer gravity line, all potable waterlines, and other Town-owned equipment or facilities not located on the Property.
- h. Person: An individual, corporation, business or land trust, estate, trust, partnership, association, two or more persons having a joint or common interest, State agency, or any legal entity.

- i. Concept Plans: Concept Plan as used in this Agreement refers to the Development Plan for the Development previously submitted by Developer to the Town and attached hereto as Exhibit B.
- j. Public Infrastructure: The public sanitary sewer gravity line, all potable waterlines, and other Town-owned equipment or facilities, and road improvements or fees in lieu required by the Town or NCDOT, either located on the Property, in an easement, or not located on the property for the Public's good.
- k. Public Benefit: The construction and dedication of Public Infrastructure and utility infrastructure by the Developer, the retention and addition of local jobs, an increase in commercial and retail uses as well as Affordable Housing which furthers the Town's strategic planning efforts, and in the case of the commercial portion of the Property, the additional financial revenue of the Town brought by the incremental ad valorem tax value of the Property.
- l. Property: All real property shown or described in Exhibit A, which is subject to land-use regulation of the Town and includes any improvements, fixtures, or structures customarily regarded as a part of real property.
- m. Project: The Developer plans to develop the Property in the manner described in Concept Plans, and as approved by the Town of Holly Springs through its normal development process. Specifically this Project consists of creation of an electric power substation as shown on plans attached here as Exhibit B.

ARTICLE II DESCRIPTION OF DEVELOPMENT AGREEMENT

1. **SCOPE**: The legal description of the Property subject to this agreement and the names of its legal and equitable property owners are contained in Exhibit A.
2. **TERM**: The duration of the agreement is for ten (10) years. The parties are not precluded from entering into subsequent development agreements that may extend the original duration period. Condition precedent to this Agreement are: (1) that the Town approves the voluntary annexation of the Property (Annexation 22-AP-3), (2) that the Town approves Developer's application for a Special Use Permit for an electric power substation on the Property; and (3) that the duly authorized representatives execute this agreement with ten (10) days of the Town Council action.
3. **DEVELOPMENT PERMITTED USES**: The proposed use of the Property is an electric power substation. The bulk of the Property is zoned Rural Residential ("RR"). The remainder of the Property will be zoned RR once it is annexed into the Town.
4. **SEWER IMPROVEMENTS**: NONE.
5. **WATER IMPROVEMENTS**: NONE.
6. **TRANSPORTATION IMPROVEMENTS**: The Developer's obligations to design, permit and construct the following onsite Public Infrastructure improvements relating to Transportation are

modified as follows:

- a. Through the ordinary course of Development, the Developer would be obligated, pursuant to the Town's UDO, to design, permit, and construct roads accessing the Site to the specifications provided by the Town through the Town's Comprehensive Transportation Plan. Because certain land dedication and construction work on the Property may requires review by the North Carolina Utilities Commission (the "NCUC"), the Developer agrees to dedicate enough real property in fee to the Town at such time as the Town has decided the location of the road shown on Exhibit C. Such dedication shall be made within 30 days of the latter of (i) the Town's request, and (ii) submittal of an informational filing to and receipt of a determination of no objection from the NCUC and Public Staff. The Town shall be responsible, at its sole cost, for the design, permitting, and construction of public roads or other improvements within any public rights-of-way on the Site.
7. **BUILDING HEIGHT:** Buildings shall be restricted to single story.
8. **PARCEL SUBDIVISION:** Developer shall not be allowed to subdivide the Site. To the extent that the Developer installs any Public Infrastructure on the Site, the Developer shall record a plat indicating the location of the Public Infrastructure, however no subdivision shall be created without prior approval of the Town.
9. **ANNEXATION:** The Parties agree that the Site shall be annexed through the approval of a petition for voluntary annexation prior to the commencement of construction of the electric power substation on the Property. The Developer has submitted a petition for voluntary annexation of the Site. The Town shall schedule for approval of the voluntary annexation petition so that the Town Council hearings for these matters will occur within 45 days of the execution of this Agreement.
10. **REQUIRED PERMITS:** A description of all development permits approved or needed:
 - a. Developer shall secure all special use permits, construction drawing approval, erosion and sedimentation control, grading approval, and building permits as necessary under the land development regulations in existence of the time of such permit application. Town shall aid Developer in securing all encroachment permits as required by the NCDOT, the North Carolina Department of Environmental Quality, or other state or federal agencies, as required for roads, sewer, and water. The failure of this Agreement to address a particular permit, condition, term, or restriction does not relieve the Developer of the necessity of complying with the law governing their permitting requirements, conditions, terms, or restrictions.
11. **PARKS AND RECREATION LAND DEDICATION.** The Town as part of its UDO requires land dedication for parks and recreation purposes, or a fee in lieu of such dedication at the discretion of the Town Council. Additionally, pursuant to the UDO, the Town requires greenways to be constructed when Development occurs on a parcel that is within an area described by the Parks and Recreation Master Plan. The Property and Site are located in an area which requires construction of a greenway trail pursuant to the requirements of the UDO as a condition of Development. Because of the NCUC Review required for the transfer of land on the Property, the Developer agrees to cooperate with the Town to effectuate the

Town's acquisition of a greenway easement for pedestrian ingress & egress and construction of a greenway in the future, at the expense of the Town, in a location generally shown on Exhibit D. Such cooperation shall include dedication of land for such greenway easement at a location mutually agreeable to the Town and Developer.

12. TERMS REQUIRED FOR PUBLIC SAFETY: Developer shall provide such sufficient egress and ingress to the Site through the Property or other public rights of way to satisfy the requirements of the town's Fire Chief and Police Chief, as indicated by their assent in the development review process.

13. WALLS AND BUFFERING. The Town as part of its UDO requires that electric power substations be surrounded by a minimum 6 feet high opaque wall. To increase safety and facilitate maintenance of the electric power substation on the Site, the Town and Developer agree that the electric power substation on the Site will occur behind a minimum 6 foot high fence. The fence is not required to be opaque.

14. HISTORIC STRUCTURES: None exist on the Site.

a. None

15. DEVELOPMENT SCHEDULE

a. Development of the electrical power substation shall commence promptly after required permits are obtained.

ARTICLE III DEVELOPER'S DUTIES

1. For any offsite infrastructure constructed by the Developer, the Developer shall design, permit, and construct the infrastructure in the location approved by the Town and as shown on plans (to be submitted), according to engineering best practices, requirements of the Town, and requirements of the North Carolina Department of Environmental Quality (NCDEQ) and any other regulatory agency. For any land owned or controlled by the Developer, the Developer shall secure and dedicate to the Town all necessary easements for the construction and perpetual maintenance of the infrastructure referenced. For any land not owned by or controlled by the Developer, the Town shall convey such land owned by the Town to the Developer or secure all necessary easements on land owned by third parties for the construction and perpetual maintenance of the infrastructure referenced in a timely manner so as not to delay the completion of the Developer's Duties set out in this Article III.

2. Except for the Public Infrastructure to be constructed by the Town at the Town's costs pursuant to Sections 6 and 11 of Article II of this Agreement, Developer shall construct in a workmanlike manner the Onsite Public Infrastructure according to the design specifications and criteria of the Town which are existing at the time of this agreement, as well as full compliance with any NCDEQ requirements. Said infrastructure, together with any and all appurtenances, easements, and equipment associated with the project required for public dedication shall be dedicated to the Town in a manner consistent with the development plan and in a manner in accordance with the Town's standards.

3. The Developer shall construct the public infrastructure according to the plans, the terms of this Agreement, and specifications submitted in a manner consistent with the standards of the Town which are in effect at the time of this Agreement.

4. The Developer (or its successors and/or assigns) shall pay all development fees for the development at the time they would otherwise ordinarily be due (or as otherwise amended pursuant to this Agreement) and in an amount that is determined by the fee schedule approved in the annual budget which is in effect at the time of this Agreement. Notwithstanding, in the event said fees are waived via an Economic Development Agreement this provision shall not be applicable. Developer shall not be required to make a payment-in-lieu of street construction costs or pay a fee in lieu of greenway construction costs.

ARTICLE IV GENERAL TERMS

1. All of the Developer ' obligations under this Agreement, including but not limited to the obligations under Articles II and III of this Agreement, are contingent upon the Town's approval of the Developer's petition for annexation of the Site, approval of the Special Use Permit and approval of a Site Plan and Building Permits.

2. All reimbursements, if any, for this project shall be provided on the basis of final documented Actual Costs, as approved by the Director of Engineering, in accordance with this agreement. Any opinions of project cost included in this agreement are based upon preliminary designs and are approximate.

3. The Developer shall be responsible for the complete design and construction of each project, including all surveying, design, permitting, plat preparation and recordation, testing, engineering, bidding, construction, inspection, acceptance, easement maps and documents, construction management, construction administration, and all other necessary functions to ensure complete-in-place, fully functional projects built and operational in accordance with Town and State standards and approved plans for the project. The costs of all of these items shall be borne by the Developer and shall not be subject to reimbursement or participation by the Town, except as specifically described herein.

4. In the course of installing the sewer line or any other work on easements obtained by the Town and under the Town's ownership, the Developer shall operate under permission to encroach onto a Town easement and shall hold the Town harmless.

5. The Developer agrees to protect, defend, indemnify and hold the Town of Holly Springs and its officers, employees and agents free and harmless from and against any and all losses, penalties, damages, settlements, costs, charges, professional fees, or other expenses or liabilities of every kind in character and arising out of or relating to any and all claims, liens, demands, obligations, actions, proceedings, or causes of actions of every kind and character in connection with or arising directly out of the entry onto and performance of work on the easements of the Town.

6. The Town agrees to protect, defend, indemnify and hold the Developer and its officers, employees and agents free and harmless from and against any and all losses, penalties, damages, settlements, costs, charges, professional fees, or other expenses or liabilities of every kind in character and arising out of or relating to any and all claims, liens, demands, obligations, actions, proceedings, or

causes of actions of every kind and character made by third parties in connection with or arising from the injury to (including death of) persons or physical damage to property arising out of the performance of Town's obligations under this Agreement by the Town, its agents, employees and contractors (collectively, "Claims"), except to the extent any such Claims arise out of the negligence or willful misconduct of the Developer, or its agents, employees or contractors, or any third party. The Town further agrees to investigate, handle, provide defense for and respond to, any such Claims at its sole expense and agrees to bear all other costs and expenses related to such Claims, even if such Claims are groundless, false, or fraudulent but only to the extent the same are not expressly excluded as set forth herein.

7. All projects shall be subject to the Town's policies and procedures regarding Town acceptance and warranty on infrastructure.

8. It shall be the responsibility of the Developer to ensure that all regulatory approvals for each project are in place before beginning construction.

9. The Town Manager is authorized to make decisions in regard to approvals, including changes to this Agreement in order to complete the scope of work required, within his authority granted by the Town Council, except as otherwise stated herein or required by Town ordinance.

10. The Town shall secure all necessary easements for the infrastructure projects that are the subject of this Agreement.

ARTICLE V OTHER

1. All projects shall be subject to the Town's policies and procedures regarding Town acceptance and warranty on Offsite Infrastructure. This Agreement shall not modify the warranty and acceptance procedures established by the Town through the Engineering Standards in place at the time of this agreement. It shall be the responsibility of the Developer to ensure that all regulatory approvals for each project are in place before beginning construction.

2. All notices, reports, and other communications given pursuant to this Agreement shall be in writing and shall either be mailed by first class mail, postage prepaid, certified or registered with return receipt requested, or delivered in person to the intended addressee. Notice sent by certified or registered mail shall be effective upon the date of delivery indicated on the return receipt. Notice given in any other manner shall be effective upon actual receipt by the addressee.

3. This development agreement does not provide for the application of subsequently enacted Laws, ordinances, development policies, practices, procedures or standards. The Laws, ordinances, development policies, practices, procedures and standards applicable to the development of the Project are those in force at the time of the execution of this Agreement, in the manner prescribed by Holly Springs Ordinance 14-164.

4. Notices under this agreement shall be to the following:

FOR THE TOWN:

FOR THE Developer :

Randy J. Harrington
Town Manager
PO Box 8
Holly Springs, NC 27540
Reference:

Micah Retzlaff
Lead Siting Manager—Transmission
Duke Energy Progress, LLC
410 South Wilmington Street
Raleigh, NC 27601

5. This Agreement shall be governed by and construed in accordance with the law of the State of North Carolina. The Parties consent to the jurisdiction of Superior Court Division of the General Court of Justice located in Wake County, North Carolina in the event a dispute arises between them regarding the terms of this Agreement.

6. If any paragraph or part of this Agreement is found void or unenforceable, the remainder of this Agreement shall continue in full force and effect.

7. This Agreement shall be binding upon and inure to the benefit of the Parties hereto, their heirs, successors and assigns.

8. This Agreement contains the entire agreement of the parties and there are no representations, inducements or other provisions other than those expressed in writing.

9. Exhibit List: The following exhibits are hereby incorporated by reference:

EXHIBIT A:	Map of the Site.
EXHIBIT B:	Concept Plan.
EXHIBIT C:	Potential Locations of Future Roadway.
EXHIBIT D:	Location of Future Greenway.

IN WITNESS WHEREOF, the parties have executed this Agreement the day and year first above written.

TOWN OF HOLLY SPRINGS

(Town Seal)

BY: _____
Randy J. Harrington, Town Manager

ATTEST:

Linda Mckinney, Town Clerk
Kathy White, Deputy Town Clerk

This document is sufficient as to form.

John P. Schifano, Town Attorney

This instrument has been pre-audited in the manner proscribed by the Local Government Finance Act.

Antwan Morrison
Finance Director

NORTH CAROLINA
WAKE COUNTY

I, a Notary Public of the County and State aforesaid, certify that _____ personally came before me this day and acknowledged that she is the Town Clerk/Deputy Town Clerk of the Town of Holly Springs, and that the seal affixed to the foregoing instrument in writing is the corporate seal of said Town, and that said writing was signed and sealed by her in behalf of said corporation by its authority duly given and the said person acknowledged this writing to be the act a deed of said corporation.

WITNESS my hand and official stamp (or seal), this the __ day of _____

Notary Public

My Commission Expires: _____

DUKE ENERGY PROGRESS, LLC.

(Seal)

By: _____
Name: _____
Title: VP

I, a Notary Public, certify that _____, personally came before me this day and acknowledged that she is the _____ of Duke Energy Progress, LLC, a North Carolina limited liability company, and that she, as such officer, being authorized to do so, executed the foregoing on behalf of the limited liability company.

WITNESS my hand and official stamp (or seal), this the __ day of _____, 2022

Notary Public

_____, Notary Public
Typed/Printed Name

[Official Seal]

My Commission expires: _____

EXHIBIT A

Map of Site

[illegible][illegible]

ADJOURN OWNERSHIP TABLE						
AGE	FN LN	ONSET	SEIZURE	PHASE	BOX OF WAFS	DATE
1	06071503	THOMAS JACOB WOLF AND HENRIK ROSENBERG	1098	2006	2004	01/01
2	06071503	JAMES WILSON AND STEVEN GREGORY BASS	16015	2015	2005	01/01
3	06071503	JOHN F. TREVINO AND MICHAEL TREVINO	1065	1983	2000	01/01
4	06071504	HARVEY KARPIS AND BEN ELLIS	1621	1935	2004	01/01
5	06071514	JACOB F. BUSTIN AND WITOLD J. KOWAL	1501	1501	2005	01/01
6	06071514	DANIEL CRONIN NON-INDICATED AND WIT J. KOWAL	17223	2000	2006	01/01
7	06071514	LEONIA NON-INDICATED				
8	06071514	CHRISTOPHER A. BOGGER AND WIT JOHN A. BOGGER	19191	2001	2004	01/01
9	06071505	YOUNG LASHARIS	16001	2006	2004	01/01
10	06071505	VALERIE J. LASSER AND WIT PETER J. LASSER	17119	1972	2004	01/01
11	06071505	HERB H. PETERSON U.S.	15001	1982	2004	01/01
12	06071507	DAVID E. SULLIVAN AND WIT JERRY A. SULLIVAN	15801	1980	2005	01/01
13	06071507	SPENCER PORTER THOMAS	16801	1981	2005	01/01
14	06071507	DAVID LEE DREYER AND WIT KENNETH DUFFINSON DREYER	19111	1981	2004	01/01
15	06071505	KAY LEE AND WIT CLAUDE L. LEE	15004	1344	2004	01/01
16	06071505	CHRISTOPHER A. SARGIS AND WIT KENNETH A. SARGIS	16111	1981	2005	01/01
17	06071505	SHARON L. WALKER AND WIT K. WALKER	16001	1981	2004	01/01
18	06071504	ELIASH W. TOLSON	11110	1931	2004	01/01
19	06071504	ROBERT L. TOLSON AND WIT TOLSON L. TOLSON	15108	15108	2004	01/01
20	06071504	WALTER H. HILL AND WIT HILL	14101	1978	2004	01/01
21	06071504	DONALD J. SLECHTA AND WIT SLECHTA J. SLECHTA	15001	459	2010	01/01
22	06071507	CHRISTOPHER A. PETERS AND WIT ALAN L. PETERS	16404	2004	2010	01/01
23	06071507	BRUNO W. DUBOIS AND WIT DUBOIS	17001	1959	2010	01/01
24	06071504	JOHN W. BASS JR AND WIT TERRY BASS	16011	459	2010	01/01
25	06071505	PHILIP RUTHER AND WIT TERRY RUTHER	17011	2178	2010	01/01

THE COORDINATOR
PROJECTS OF THE
COMMITTEE OF
NATIONALLY
NOTIFYING
CONVICTS
IS
ONE
ALL UNDER
DEFERRED

THIS SHALL BE NO FILING IN THE DIRECTION OF PERMANENT STRUCTURES IN THE AREAS OF MAJOR COUNTY FLOOD HAZARD ZONES OR FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) 100 YEAR FLOOD ZONE INTO A FLOOD STUDY IS APPROVED BY MAJOR COUNTY AND/OR FEMA [14-14-12(A)-(E)]

BEFORE LOCATING A BUILDING PERMIT FOR LOTS MARKED BY AN "A" FLOODING THE BUILDER MAY NEED TO OBTAIN A FLOOD HAZARD AREA USE PERMIT FROM THE MAJOR COUNTY ENVIRONMENTAL SERVICES. THE BUILDER'S ARCHITECT AND/OR SURVEYOR (AS APPROPRIATE) MUST CERTIFY ON ANY PERMIT THAT ALL FLOOD HAZARD REQUIREMENTS ARE MET [14-14-12(A)-(E)]

THIS CONTOUR BROWN IS THE HOLOGRAVED LINE ESTABLISHED AS PART OF THE WARREN PLANT PROJECT, DOWN BASE OF PROJECT WAS MARKED FOR FURTHER REFERENCE SEE ON THE PL. IN 1015, PL. 26A, OR SEE PL. 633 AND MAKE REFERENCE.

[illegible]

N/F
PG. 000603033
DUKE ENERGY CORPORATION, LLC
DB 1847, PG. 497
(PAGES 2, 601-1182)

TOTAL AREA TO BE CONVEYED
AREA-86.613 ACRES +/- (±) (2012)
AREA-86.447 ACRES +/- (±) (2012)
HORIZONTAL PLANE

[illegible]

Exhibit B Concept Plan

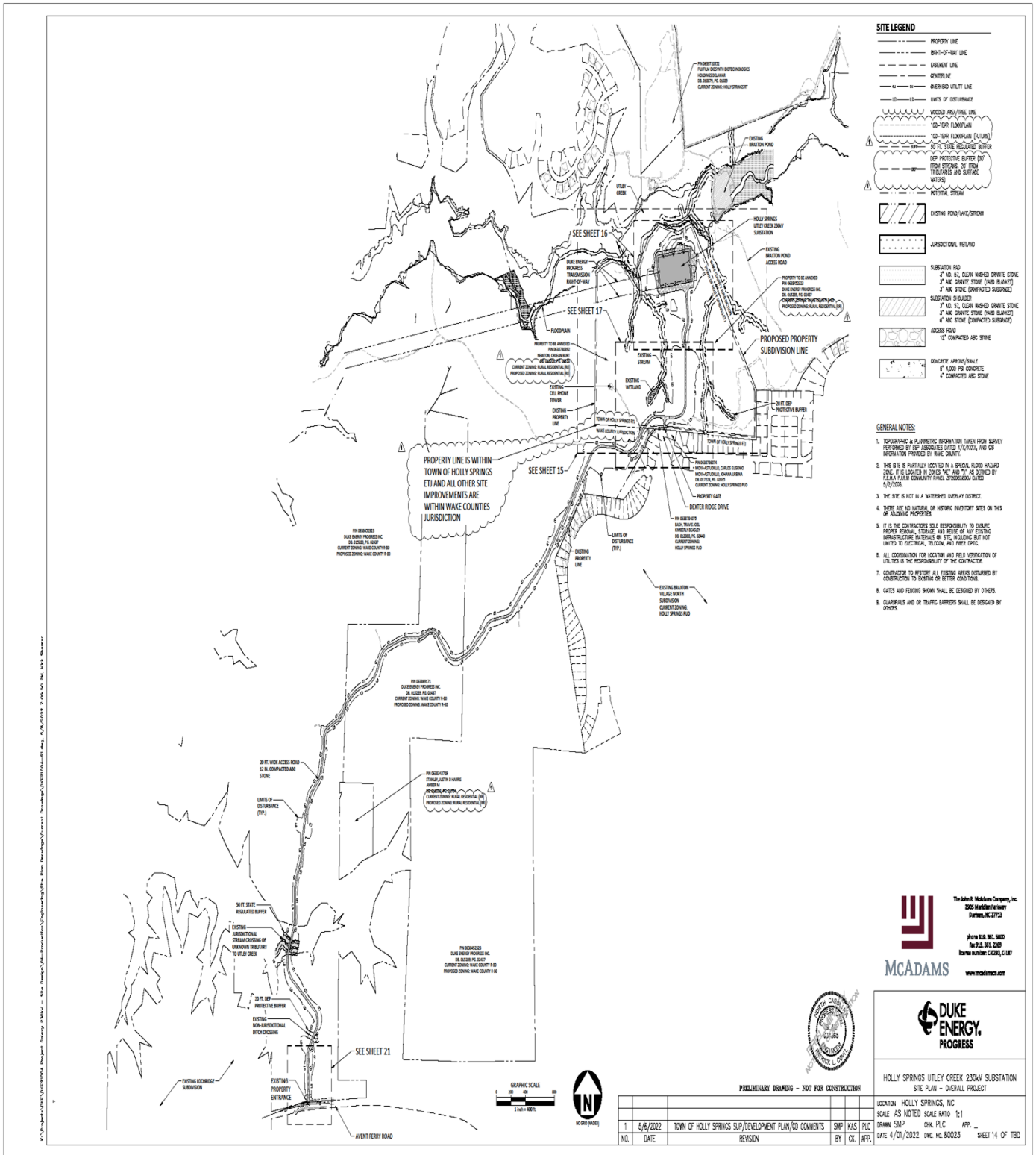
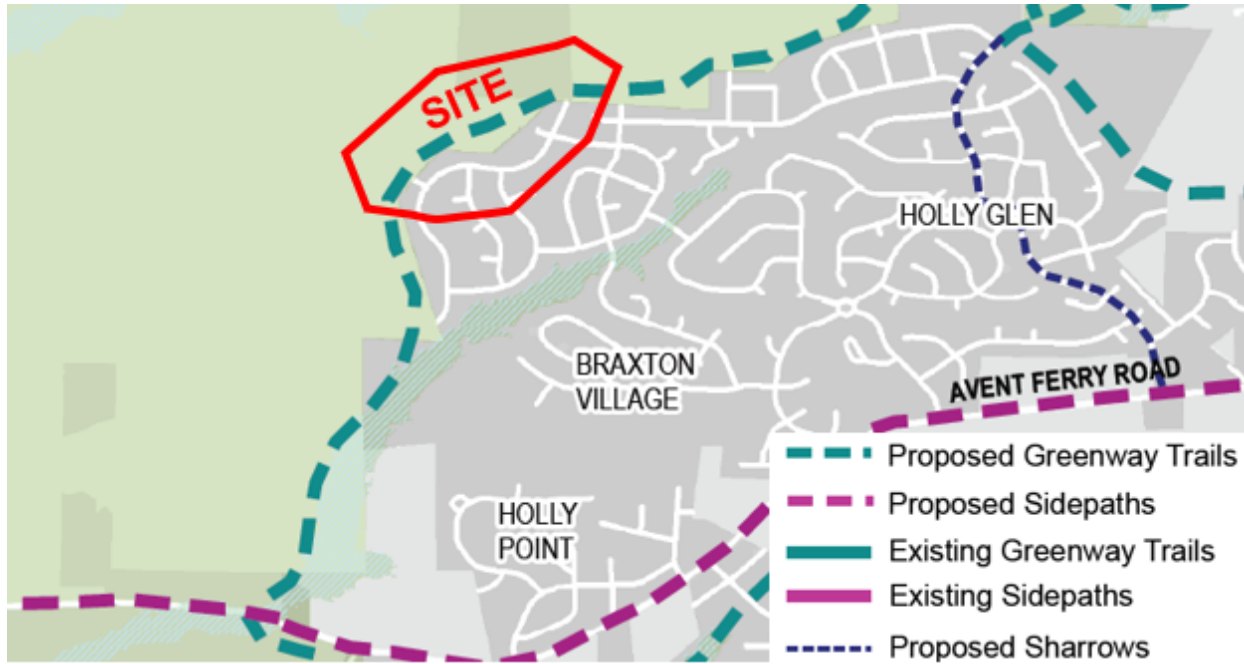


Exhibit C
Potential Locations of Future Roadway



Exhibit E
Location of Future Greenway





Holly Springs Town Council

Town Council Meeting Agenda Cover Sheet

Agenda Item#: 18.

Public Hearings

Title: 7511 Woods Creek Road Annexation & Rezoning - Legislative Hearings

Strategic Priority Area: Responsible & Balanced Growth

Staff Resource: Bronwyn Bishop, Development Services, Cheryl Caines, Development Services, Rachel Jones, Development Services

Action(s):

Open public hearings (for rezoning and annexation) and continue to June 7, 2022 Council meeting.

Explanation:

- A new Unified Development Ordinance (2022 UDO) was effective March 1, 2022. Over the next 12-24 months, there will be a crossover period where some projects are able to utilize the old UDO (2002 UDO) due to state statutes. This section of the cover sheet will be utilized to specify the UDO version (2002 or 2022) and the approval type that the Council is considering for each respective case.
 - Applicable Ordinance: 2002 UDO
 - Process: Legislative, Rezoning
- Annexation
 - The Town has received a petition for voluntary annexation of 81.07+/- acres, located at 7511 Woods Creek Road.
 - The property is owned by DC Goodwin Farm Ltd., Sandra Gail and Alfred Goodwin.
 - Annexation is being requested pursuant to plans to develop the property.
- Rezoning
 - The request is to rezone the property from RR Rural Residential to BRT CU Business & Research Technology Conditional Use.
 - The project area consists of three parcels of about 81 acres and is located on Woods Creek Road adjacent to the Woods Creek Elementary School site.
 - The Future Land Use Map designates the property as Innovation Village, which has employment uses surrounded by neighborhoods of varying densities.
 - The proposed BRT district offers the opportunity to develop an employment area for an Innovation Village.
 - The petitioner has proposed conditions that restrict incompatible uses, require minimum building heights, and require open space/pedestrian path connection to ensure future development will include the Innovation Village characteristics.
- Development Agreement
 - A Development Agreement is being drafted to address the adequacy of utility and transportation facilities associated with this rezoning and annexation request.
 - This agreement will be presented at the June 7th meeting with this item.

Planning Board Recommendation (Rezoning only)

The Planning Board recommended approval of the item (8-0).

The Planning Board discussed the following issues and concerns on 04/26/22.

- Future of Copperhead Road, which is now a private road.
- Impacts on neighboring property owners, specifically a neighboring farm.
- Required landscape buffer between the existing residential uses and future employment uses.

Background:

- The property is contiguous with Town Limits.
- Staff has received feedback from all departments and there are no issues with this annexation.
- The property meets all statutory requirements for annexation.
- The property was brought into the ETJ on April 21, 2015 (Resolution 15-18).

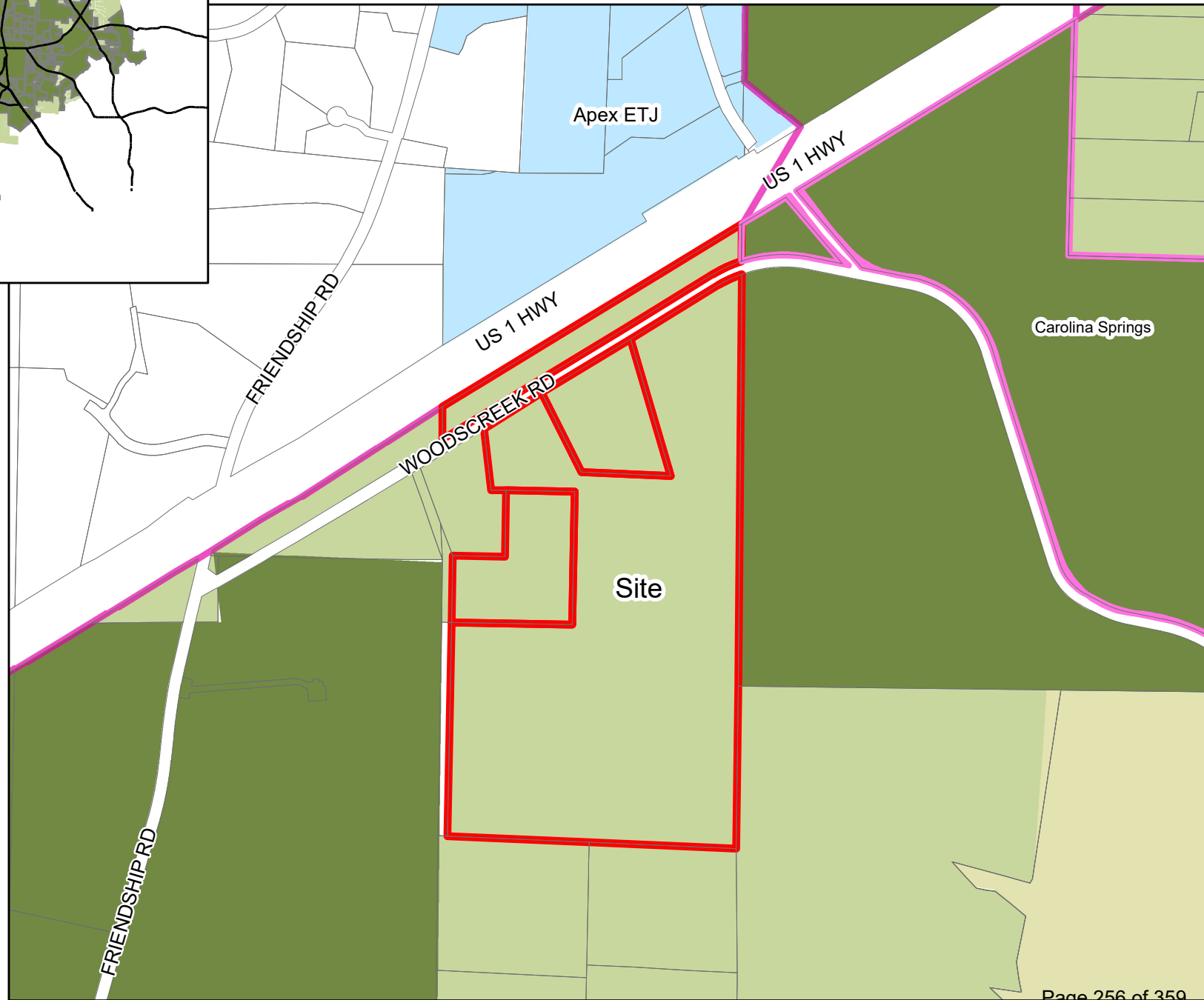
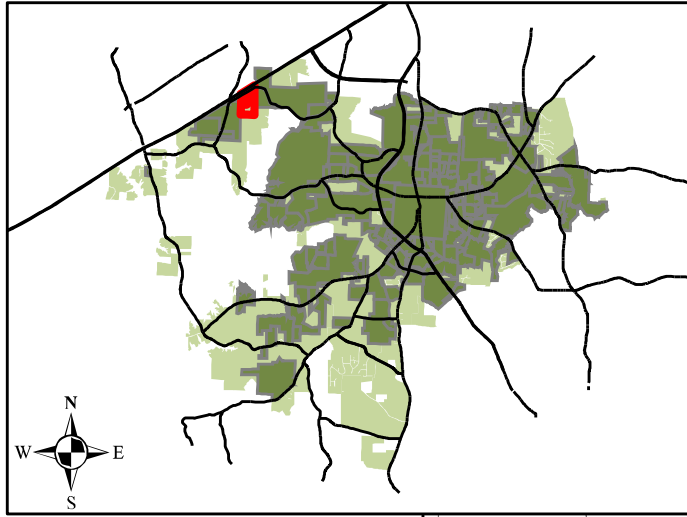
Funding Source(s):

N/A

Attachment(s):

1. A21-06 map
2. A21-06 - DC Goodwin - Ordinance-draft
3. 21REZ04_7511 Woods Creek Rd_Ord
4. 21REZ04_7511 Woods Creek Rd _PB04262022 Staff Report
5. 21REZ04_7511 Woods Creek Rd_Petition

A 21-6 | Goodwin | 81.07 acres



Legend

-  Annexation Property Site
-  Subdivisions
-  Lakes
-  GIS_Basem...
-  GIS_Basem...
-  Short Range Urban Service Area



Annexation Ordinance No.: **A21-06**

Please mail after recordation to:

Town of Holly Springs
Town Clerk's Office
P. O. Box 8
Holly Springs, NC 27540

**An Ordinance to Extend the Corporate Limits
of the Town of Holly Springs, North Carolina**

WHEREAS, the Town Council of the Town of Holly Springs has been petitioned pursuant to the provisions of N.C.G.S. 160A-31 to annex the area described herein; and

WHEREAS, the Town Council of the Town of Holly Springs has directed the Town Clerk to investigate the sufficiency of the petition for annexation; and

WHEREAS, following the certification of the sufficiency of the petition by the Town Clerk, the Town Council fixed a date for a public hearing on the question of annexation and caused a notice thereof to be published in a paper of general circulation in the Town of Holly Springs once ten days prior to the date of the hearing; and

WHEREAS, the Town Council found as a fact following public hearing on the matter that the petition for annexation is sufficient and meets all of the requirements set forth in N.C.G.S. 160A-31;

**NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF HOLLY SPRINGS,
NORTH CAROLINA:**

Section 1. By virtue of the authority granted by N.C.G.S. 160A-31, the following described territory is hereby annexed and made part of the Town of Holly Springs effective as of the 17th day of May 2022.

Legal Description for Voluntary Annexation

Being 81.07 +/- acres located along Wood Creek Rd. as shown on the map recorded in Book of Maps ____, Page ____ in the Wake County Register of Deeds office.

Adopted this, the 17th day of May, 2022.

ATTEST TO:

Linda C. McKinney, Town Clerk

Sean Mayefskie, Mayor

I, Linda C. McKinney, Town Clerk of the Town of Holly Springs, do hereby certify that the foregoing is a true and accurate copy of an annexation ordinance duly adopted by the Town Council of the Town of Holly Springs, North Carolina, at a meeting held May 17, 2022, at 7 o'clock p.m. at the Town Hall in the Town of Holly Springs.

IN WITNESS WHEREOF, I have here unto set my hand and have caused the official corporate seal of said Town to be affixed, this the 17th day of May, 2022.

Linda C. McKinney, Town Clerk

Town of Holly Springs by

Sean Mayefskie, Mayor

ATTEST:

Linda McKinney, Town Clerk





Ordinance No. 22-04

Date Submitted: June 7, 2022

Date Adopted: June 7, 2022

**AN ORDINANCE TO AMEND SECTIONS OF THE CODE OF ORDINANCES
TO MODIFY APPENDIX A: UNIFIED DEVELOPMENT ORDINANCE: OFFICIAL ZONING MAP
AND ADOPT THE COMPATIBILITY STATEMENT REQUIRED BY
NORTH CAROLINA GENERAL STATUTES 160D-605**

WHEREAS, the Town of Holly Springs Town Council adopted *Vision Holly Springs: Town of Holly Springs Comprehensive Plan* in November 2007 and updated the plan in 2009 and 2018; and

WHEREAS, the Town of Holly Springs has received a request to modify the Official Zoning Map for 81.07 acres of Wake County PINs 0730131203, 0730145033, and 0730124768 from RR Rural Residential to BRT CU Business & Research Technology Conditional Use; and

WHEREAS, the *Vision Holly Springs: Town of Holly Springs Comprehensive Plan* designates said parcels on the *Future Land Use Map* as Innovation Village; and

WHEREAS, the requested District proposes land uses that are consistent with the adopted *Vision Holly Springs: Town of Holly Springs Comprehensive Plan Future Land Use Map*, and

WHEREAS, the Holly Springs Planning Board reviewed this request at a Public Meeting on April 26, 2022 and recommended approval by a vote of 8-0; and

WHEREAS, an opportunity for public input into the suggested amendment has been offered in a public hearing before the Town Council; and

WHEREAS, after considering the recommendation of the Holly Springs Planning Board and the public input offered in a public hearing before the Town Council, the Town Council finds amending the Official Zoning Map will meet the development needs of the community and help achieve the *Vision Holly Springs: Town of Holly Springs Comprehensive Plan, Future Land Use Map* indicates this property as Innovation Village and the BRT district, with the conditional use restrictions offered by the owner, provides the opportunity to actively balance commercial and industrial development with conservation when promoting land use decisions that will enable the Town to develop a sustainable balanced tax base; and

WHEREAS, the Town Council finds the proposed amendment of the Official Zoning Map is reasonable and in the public interest by providing opportunities to expand the nonresidential tax base, generate economic activity for the community, and provide a unique and integrated development; and

THEREFORE, BE IT ORDAINED by the Holly Springs Town Council of the Town of Holly Springs, North Carolina, that the Unified Development Ordinance of the Town is amended as follows:

Part 1: Amend Unified Development Ordinance Section 1.20, C. Official Zoning Map with the following rezoning request: ##21-REZ-04 to change the zoning of PINs# 0730131203, 0730145033, and 0730124768 from RR Rural Residential to BRT CU Business & Research Technology Conditional Use, with the following owner offered conditions:

1. The following uses shall not be permitted as Primary Uses (uses as defined in UDO Section 13.3):
 - (a) Animal Boarding and Outdoor Kennel
 - (b) Neighborhood Recycling Collection Point
 - (c) Large Vehicle and Heavy Equipment Sales and Service
2. Development shall include a minimum of 10 percent open space (the "Total Open Space"). The Total Open Space may be spread throughout the development and connected by sidewalks and/or pedestrian pathways to promote a well-connected pedestrian network.
3. If surface parking is shared by multiple properties/tenants, a shared parking agreement shall be executed governing the use of the surface parking.
4. Development shall have a minimum building height of 25 feet
5. All buildings shall have access to sidewalks and/or pedestrian paths
6. If the property is developed for the uses and intensities contemplated in the Transportation Impact Analysis prepared by Timmons Group and finalized with the Goodwin rezoning 21-REZ-04 (the "TIA"), the development shall include the construction of, or payment of a fee in lieu, for the road improvements recommended by the TIA.
7. The development will increase biodiversity in perimeter buffers and open space areas by providing a variety of species for the canopy, understory, and shrub levels. Native and adaptive plant species shall be provided within these areas to minimize death from disease and to provide increased habitat and food sources for insects and animals. A minimum of 70% of provided plants shall be native species. No invasive species shall be permitted.
8. Drought resistant warm season grasses shall be planted throughout the development to minimize irrigation and chemical use.

TRACT 1

7.14 ACRES

PROPERTY OF ALFRED KENT GOODWIN & SANDRA GAIL GOODWIN
(DB 17529 PG 2614)

Beginning on a 3/4" capped iron pipe found with tac, being the northeastern most property corner of Alfred Kent Goodwin & Sandra Gail Goodwin (DB 17529, PG 2614), having North Carolina State Plane Coordinates of N: 703,613.52' E: 2,031,367.84'; thence North 88°58'00" West, 340.65 feet to a 1/2" capped iron pipe found with tac, thence South 1°04'17" West, 329.74 feet to a 1/2" bent iron pipe found; thence North 89°00'27" West, 259.37 feet to a 1/2" iron pipe found on the eastern 60' right-of-way line Copperhead Road; thence continuing along the eastern 60' right-of-way line Copperhead Road South 0°59'13" West, 330.62 feet to a 3/4" iron pipe found; thence leaving the eastern 60' right-of-way line Copperhead Road South 89°01'02" East, 600.33 feet to a 1" capped iron pipe found with tac; thence North 1°00'11" East, 660.01 feet to the Point Of Beginning containing 7.14 acres, more or less.

TRACT 2

6.01 ACRES

PROPERTY OF ALFRED KENT GOODWIN & SANDRA GAIL GOODWIN
(DB 17529 PG 2614)

Beginning on a 1/2" iron pipe found, being the southeastern most property corner of Alfred Kent Goodwin & Sandra Gail Goodwin (Tract 2) (DB 17529, PG 2614), having North Carolina State Plane Coordinates of N: 703,685.83' E: 2,031,846.08'; thence North 87°25'21" West, 443.98 feet to a 1/2" iron pipe found; thence North 26°39'28" West, 441.22 feet to a 1/2" iron pipe found in the southern 60' public right-of-way line of Woods Creek Road (SR 1154); thence continuing along the southern 60' public right-of-way line of Woods Creek Road (SR 1154) North 58°53'09" East, 514.22 feet to a 1/2" iron pipe found; thence leaving the southern 60' public right-of-way line of Woods Creek Road (SR 1154) South 16°29'09" East, 709.16 feet to the Point Of Beginning containing 6.01 acres, more or less.

TRACT 3

70.32 ACRES

PROPERTY OF D.C. GOODWIN FARM
(DB 14057 PG 1499)

Beginning on a 3/4" capped iron pipe found with tac, a common corner between Alfred Kent Goodwin & Sandra Gail Goodwin (DB 17529, PG 2614) and D.C. Goodwin Farm (DB 14057 PG 1499), having North Carolina State Plane Coordinates of N: 703,613.52' E: 2,031,367.84'; thence North 88°58'00" West, 414.79 feet to a 1/2" capped iron pipe found with tac, passing through a 1/2" capped iron pipe found on line with tac at 340.65 feet; thence North 6°49'34" West, 305.02 feet to a 1/2" iron pipe found in the southern 60' public right-of-way line of Woods Creek Road (SR 1154); thence along and with the southern 60' public right-of-way line of Woods Creek Road (SR 1154) South 58°28'41" West, 241.74 feet to a 1/2" iron pipe found; thence leaving the southern 60' public right-of-way line of Woods Creek Road (SR 1154) North 0°24'19" East, 232.89 feet to a 1/2"

capped iron pipe found with tac in the southern variable width public right-of-way line of U.S. Highway 1, passing through a 3/8" iron rod found at 70.72 feet; thence continuing along the southern variable width public right-of-way line of U.S. Highway 1 the following four (4) courses and distances:

North 58°34'11" East, 125.27 feet to a concrete monument found;

North 58°35'21" East, 806.84 feet to a concrete monument found;

North 58°36'41" East, 581.69 feet to a concrete monument found;

North 58°33'34" East, 227.50 feet to a 1/2" iron pipe found;

thence, leaving the southern variable width public right-of-way line of U.S. Highway 1, South 0°36'31" West, 131.83 feet to a 1" capped iron pipe found; thence South 0°31'43" West, crossing Woods Creek Road (SR 1154), 2,161.37 feet to a 1" iron pipe found, passing through a 1/2" iron pipe found on line at 52.68 feet, marking the northern 60' public right-of-way line of Woods Creek Road (SR 1154) and passing through a 1/2" capped iron pipe found on line at 116.30 feet, marking the southern 60' public right-of-way line of Woods Creek Road (SR 1154); thence South 0°27'16" West, 808.40 feet to a concrete monument found; thence North 87°31'27" West, 1,434.50 feet to a 1/2" capped iron pipe found in the eastern 60' right-of-way line Copperhead Road, passing through a 1/2" iron pipe found on line at 747.30 feet; thence, continuing along the eastern 60' right-of-way line Copperhead Road North 0°59'13" East, 1,065.75 feet to a 3/4" iron pipe found; thence leaving the eastern 60' right-of-way line Copperhead Road South 89°01'02" East, 600.33 feet to a 1" capped iron pipe found with tac; thence North 1°00'11" East, 660.01 feet to the Point Of Beginning

containing 70.32 acres, more or less.

Part 2:

REPEAL OF CONFLICTING ORDINANCES

All ordinances or parts of the Unified Development Ordinance of the Town of Holly Springs conflicting or inconsistent with the provisions of this rezoning ordinance are hereby repealed.

Part 3:

SEVERABILITY

If any section, part of a section, paragraph, sentence, clause, phrase, or word of this Ordinance is for any reason held or declared to be unconstitutional, inoperative or void, such holdings shall not affect the remaining portion of this Ordinance and it shall be construed to have been the legislative intent to pass the Ordinance without such unconstitutional, invalid or inoperative part therein, and the remainder of this Ordinance after the exclusion of such part or parts shall be deemed to be held valid as if such part or parts had not been included therein, or if this Ordinance or any of the provisions thereof shall be held inapplicable to any person, group of persons, property, kind of property, circumstances, or set of circumstances, such holdings shall not affect the applicability thereof to any other person, property or circumstances.

Part 4:

INCLUSION IN UDO

It is the intention of the Town Council entered as hereby ordained, that the provisions of this Ordinance shall become and be made part of the Unified Development Ordinance of the Town of Holly Springs, North Carolina; that the Section(s) of this Ordinance may be

renumbered or relettered to accomplish such intention, and that the word “Ordinance” may be changed to “Section, or “Article” or other word.

Part 5:

EFFECTIVE DATE

The provisions of this ordinance shall become effective June 7, 2022 in accordance with the laws of the State of North Carolina.

Adopted this, the 7th day of June, 2022.

Town of Holly Springs by

Sean Mayefskie, Mayor

ATTEST:

Linda McKinney, Town Clerk





Town of Holly Springs Staff Report to the Planning Board

REQUEST FOR ZONE MAP CHANGE 7511 Woods Creek Rd. (Goodwin) Development 21-REZ-04

APPLICANT(S):

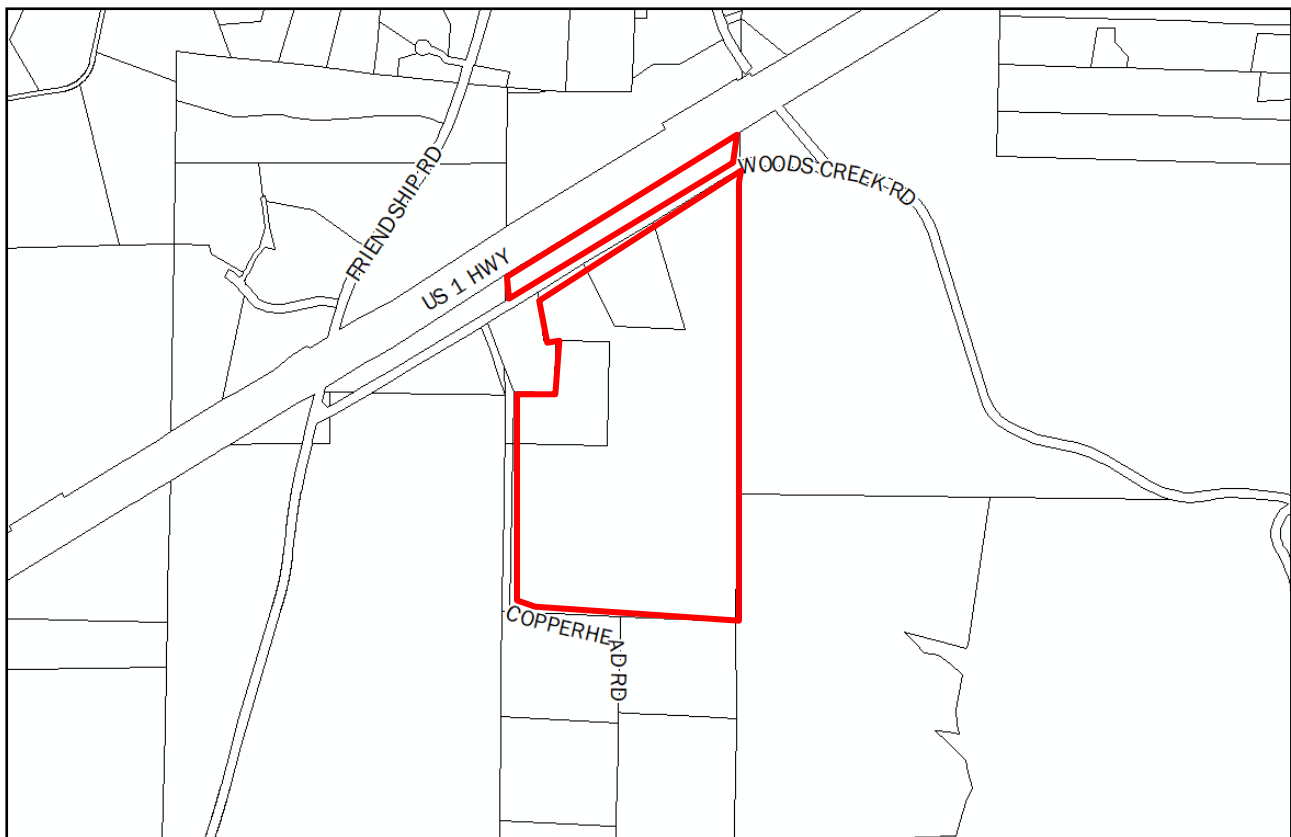
Chase Kerley
Crescent Communities
227 W Trade St. #1000
Charlotte, NC 28202

OWNER(S):

Sarah Gail Goodwin Trustee
Alfred Kent Goodwin Trustee
274 May Farm Rd.
Pittsboro, NC 27312

OWNER(S):

DC Goodwin Farm Ltd
Partnership
226 Woodside Dr.
Harrisburg, NC 28075

LOCATION:

☐ Within Corporate Limits of Holly Springs

☒ Within Holly Springs ETJ

☒ Annexation Pending

ANTICIPATED REVIEW SCHEDULE:

Planning Board: April 26, 2022

Town Council: May 17, 2022

STAFF CONTACTS: Cheryl Caines, Senior Planner
Rachel Jones, Development Review Engineer

ATTACHMENTS:

Petition for Zoning Map Change
Statement of Zoning Compatibility
Neighborhood Meeting Report

PARCEL INFORMATION			
OWNER	PARCEL #	ZONING	AREA
Sarah Goodwin Trustee	0730131203	RR Rural Residential	7.13± acres
Alfred Goodwin Trustee	0730145033	RR Rural Residential	6.01± acres
DC Goodwin Farm Limited Partnership	0730124768	RR Rural Residential	67.93± acres
TOTAL			81.07± acres

ADJACENT PROPERTY SITE DATA		
	ZONING	EXISTING LAND USE
Subject Property	RR Rural Residential	Vacant Residential
North	RR Rural Residential Town of Apex (across Hwy 1)	Residential
South	RR Rural Residential	Vacant Residential
East	RR Rural Residential	Public School
West	RR Rural Residential Beyond Copperhead Rd.: CB Community Business BRT Business Research Technology	Private Access Road (Copperhead Rd.) Vacant Vacant

PROPERTY HISTORY

ETJ History

Resolution: 15-18

Approved by Town Council on: April 21, 2015

Note: This project was submitted before the new UDO became effective on March 1, 2022. The rezoning request was reviewed for compliance against the 2002 UDO in place at time of application. The requested zoning district of BRT Business & Research Technology is based on the new UDO. The application was processed as a Conditional Use; therefore, the zoning will be BRT CU Business & Research Technology Conditional Use.

PROJECT OVERVIEW

The request is to rezone three properties totaling approximately 81.07 acres from RR Rural Residential to BRT Business & Research Technology CU Conditional Use. The three parcels are located south of US Hwy 1 along Woods Creek Road. One of the parcels is developed with a single-family dwelling, but the other two parcels are vacant. No particular development is proposed at this time. The applicant has proposed voluntary conditions to address compatibility with Future Land Use Plan goals.

Developer Commitments:

A Conditional Use District allows the Petitioner to place specific conditions on the property that are more restrictive than the minimum zoning regulations in the Town's Unified Development Ordinance. Once a Petitioner has placed such conditions with the Zoning Map Change request, they cannot be removed or modified to reduce the restriction. During the review and consideration process the Petitioner may add additional conditions or make the proposed conditions more restrictive, however, additional conditions or regulations cannot be added to the Petition by Planning Board or Town Council.

The property owner has offered conditions as described below:

1. The following uses shall not be permitted as Primary Uses (uses as defined in UDO Section 13.3):
 - (a) Animal Boarding and Outdoor Kennel
 - (b) Neighborhood Recycling Collection Point
 - (c) Large Vehicle and Heavy Equipment Sales and Service
2. Development shall include a minimum of 10 percent open space (the "Total Open Space"). The Total Open Space may be spread throughout the development and connected by sidewalks and/or pedestrian pathways to promote a well-connected pedestrian network.
3. If surface parking is shared by multiple properties/tenants, a shared parking agreement shall be executed governing the use of the surface parking.
4. Development shall have a minimum building height of 25 feet
5. All buildings shall have access to sidewalks and/or pedestrian paths
6. If the property is developed for the uses and intensities contemplated in the Transportation Impact Analysis prepared by Timmons Group and finalized with the Goodwin rezoning 21-REZ-04 (the "TIA"), the development shall include the construction of, or payment of a fee in lieu, for the road improvements recommended by the TIA.
7. The development will increase biodiversity in perimeter buffers and open space areas by providing a variety of species for the canopy, understory, and shrub levels. Native and adaptive plant species shall be provided within these areas to minimize death from disease and to provide increased habitat and food sources for insects and animals. A minimum of 70% of provided plants shall be native species. No invasive species shall be permitted.
8. Drought resistant warm season grasses shall be planted throughout the development to minimize irrigation and chemical use.

PLANNING & ZONING

Vision Holly Springs Comprehensive Plan

Land Use & Character

The Land Use & Character plan designation for these properties is Innovation Village.

Innovation Village abandons the idea of a conventional business or industrial park and imagines a mixed-use village that concentrates employment uses in a discernible center surrounded by one or more neighborhoods that support a variety of home densities and choices — including live-work units in the employment center. The design, scale, character, and intensity of development in the Innovation Village emphasizes technology, creativity, and innovation, and may support a corporate headquarters, research and development campus, manufacturing center, or other center of excellence and the nearby retail businesses and housing options needed for its employees.

Zone Map Change Analysis

The proposed BRT: Business & Research Technology district will allow for the development of employment uses consistent with the Innovation Village Character Area. The applicant has proposed

conditions to limit uses that would not promote the vision for the Innovation Village. Additional conditions are proposed to ensure consistency with the Innovation Village such as open space that is spread across the development site and connected by pathways, encouragement of shared parking, and buildings having a minimum height of 25 feet.

PARKS & RECREATION

Greenways (UDO Section 7.6)

A 10' wide sidepath will be required along Woods Creek Road in accordance with the approved Greenway Masterplan.

Civil Improvements

Potable Water Service:

Potable water service will be provided with the development of this site. The Developer will design and construct a watermain extension across the project site frontage and continue the extension to connect to existing watermain along Woods Creek Rd. and Friendship Rd., completing a loop in the network. A hydraulic water model and Fire Flow Analysis Report will be required with the Subdivision Plan and Development Plan. The Town is coordinating with the Developer to determine the approximate water demands needed with the build out of the project.

Reclaimed Water Service:

This project is in the Town's Reuse Service Area. Reclaimed water service will be provided to this development through connection to future reclaimed watermain along Friendship Rd., and existing reclaimed watermain along Woods Creek Rd. The reclaimed watermain will be extended through the site to serve the development. A hydraulic water model Report will be required with the Subdivision Plan and Development Plan. The Town is coordinating with the Developer to determine the approximate water demands needed with the build out of the project.

Sanitary Sewer Service:

Sanitary Sewer service will be provided to this development through construction of a new sanitary sewer pump station and forcemain. It is anticipated that the proposed forcemain will tie into the gravity sewer main that will be installed along Friendship Rd. as part of the Friendship Master Plan. Sanitary sewer will be routed through the site to provide service to the buildings once developed. A Sanitary Sewer Evaluation and Preliminary Design Report has been completed with the Rezoning; however, more detailed design will be provided with the Subdivision and Development Plans. The Town and Developer are continuing coordination and final revisions are expected to be finalized prior to Town Council.

Transportation:

In accordance with the Town's Unified Development Ordinance (UDO), this development is required to dedicate right-of-way and design and construct half of the ultimate street cross section along their property frontage along Woods Creek Rd. per the Town's Comprehensive Transportation Plan (CTP). The ultimate street cross section along Woods Creek Rd. is 4-lane, median divided thoroughfare. A Traffic Impact Analysis (TIA) has been provided with this Rezoning. The TIA was reviewed by the NCDOT and the Town. The following provides an overview of improvements expected with the development of the project.

- Woods Creek/Friendship Rd.:
 - Northbound right turn lane
 - Construction of, or proportionate fee toward future traffic signal
- Turn lanes at Site Access 1, 2, 3 and 4 on Woods Creek Rd.
- Construction of, or proportionate fee toward future traffic signal at Holly Springs New Hill Rd./Friendship Rd.
- New Hill Holleman/Friendship Rd.

- Southbound dual left turn lane and additional through lane
- Northbound right turn lane

Environmental and Stormwater:

This project is required to meet the Town of Holly Springs NPDES Ph. II Post Construction Stormwater Ordinance. Located in the Neuse River Basin, this project will be subject to all applicable requirements of that basin.

REQUESTED ACTION

ACTION #1: ZONE MAP CHANGE REQUEST

PLAN CONSISTENCY STATEMENT:

The requested zone map change from RR Rural Residential to BRT CU Business & Research Technology Conditional Use is consistent with the Vision Holly Springs Comprehensive Plan and Future Land Use Map designation of Innovation Village which allows for the development of employment centers and large-scale and small-scale industrial uses.

ZONE MAP CHANGE PETITION MOTION:

Motion that the Planning Board recommend the Town Council approve/deny Zone Map Change Petition #21-REZ-04 to change the zoning of approximately 81 acres from RR Rural Residential to BRT CU Business & Research Technology Conditional Use with the conditions offered by the applicant and as further described below, of Wake County PINs 0730131203, 0730145033, 0730124768.

From RR Rural Residential to BRT CU Business & Research Technology Conditional Use:

TRACT 1

7.14 ACRES

PROPERTY OF ALFRED KENT GOODWIN & SANDRA GAIL GOODWIN

(DB 17529 PG 2614)

Beginning on a 3/4" capped iron pipe found with tac, being the northeastern most property corner of Alfred Kent Goodwin & Sandra Gail Goodwin (DB 17529, PG 2614), having North Carolina State Plane Coordinates of N: 703,613.52' E: 2,031,367.84'; thence North 88°58'00" West, 340.65 feet to a 1/2" capped iron pipe found with tac, thence South 1°04'17" West, 329.74 feet to a 1/2" bent iron pipe found; thence North 89°00'27" West, 259.37 feet to a 1/2" iron pipe found on the eastern 60' right-of-way line Copperhead Road; thence continuing along the eastern 60' right-of-way line Copperhead Road South 0°59'13" West, 330.62 feet to a 3/4" iron pipe found; thence leaving the eastern 60' right-of-way line Copperhead Road South 89°01'02" East, 600.33 feet to a 1" capped iron pipe found with tac; thence North 1°00'11" East, 660.01 feet to the Point Of Beginning containing 7.14 acres, more or less.

TRACT 2

6.01 ACRES

PROPERTY OF ALFRED KENT GOODWIN & SANDRA GAIL GOODWIN

(DB 17529 PG 2614)

Beginning on a 1/2" iron pipe found, being the southeastern most property corner of Alfred Kent Goodwin & Sandra Gail Goodwin (Tract 2) (DB 17529, PG 2614), having North Carolina State Plane Coordinates of N: 703,685.83' E: 2,031,846.08'; thence North 87°25'21" West, 443.98 feet to a 1/2" iron pipe found; thence North 26°39'28" West, 441.22 feet to a 1/2" iron pipe found in the southern 60' public right-of-way

line of Woods Creek Road (SR 1154); thence continuing along the southern 60' public right-of-way line of Woods Creek Road (SR 1154) North 58°53'09" East, 514.22 feet to a 1/2" iron pipe found; thence leaving the southern 60' public right-of-way line of Woods Creek Road (SR 1154) South 16°29'09" East, 709.16 feet to the Point Of Beginning containing 6.01 acres, more or less.

TRACT 3
70.32 ACRES
PROPERTY OF D.C. GOODWIN FARM
(DB 14057 PG 1499)

Beginning on a 3/4" capped iron pipe found with tac, a common corner between Alfred Kent Goodwin & Sandra Gail Goodwin (DB 17529, PG 2614) and D.C. Goodwin Farm (DB 14057 PG 1499), having North Carolina State Plane Coordinates of N: 703,613.52' E: 2,031,367.84'; thence North 88°58'00" West, 414.79 feet to a 1/2" capped iron pipe found with tac, passing through a 1/2" capped iron pipe found on line with tac at 340.65 feet; thence North 6°49'34" West, 305.02 feet to a 1/2" iron pipe found in the southern 60' public right-of-way line of Woods Creek Road (SR 1154); thence along and with the southern 60' public right-of-way line of Woods Creek Road (SR 1154) South 58°28'41" West, 241.74 feet to a 1/2" iron pipe found; thence leaving the southern 60' public right-of-way line of Woods Creek Road (SR 1154) North 0°24'19" East, 232.89 feet to a 1/2" capped iron pipe found with tac in the southern variable width public right-of-way line of U.S. Highway 1, passing through a 3/8" iron rod found at 70.72 feet; thence continuing along the southern variable width public right-of-way line of U.S. Highway 1 the following four (4) courses and distances:

North 58°34'11" East, 125.27 feet to a concrete monument found;

North 58°35'21" East, 806.84 feet to a concrete monument found;

North 58°36'41" East, 581.69 feet to a concrete monument found;

North 58°33'34" East, 227.50 feet to a 1/2" iron pipe found;

thence, leaving the southern variable width public right-of-way line of U.S. Highway 1, South 0°36'31" West, 131.83 feet to a 1" capped iron pipe found; thence South 0°31'43" West, crossing Woods Creek Road (SR 1154), 2,161.37 feet to a 1" iron pipe found, passing through a 1/2" iron pipe found on line at 52.68 feet, marking the northern 60' public right-of-way line of Woods Creek Road (SR 1154) and passing through a 1/2" capped iron pipe found on line at 116.30 feet, marking the southern 60' public right-of-way line of Woods Creek Road (SR 1154); thence South 0°27'16" West, 808.40 feet to a concrete monument found; thence North 87°31'27" West, 1,434.50 feet to a 1/2" capped iron pipe found in the eastern 60' right-of-way line Copperhead Road, passing through a 1/2" iron pipe found on line at 747.30 feet; thence, continuing along the eastern 60' right-of-way line Copperhead Road North 0°59'13" East, 1,065.75 feet to a 3/4" iron pipe found; thence leaving the eastern 60' right-of-way line Copperhead Road South 89°01'02" East, 600.33 feet to a 1" capped iron pipe found with tac; thence North 1°00'11" East, 660.01 feet to the Point Of Beginning containing 70.32 acres, more or less.

TOWN OF HOLLY SPRINGS

REZONING, COMPREHENSIVE PLAN/ UDO AMENDMENT PETITION

 DPM Appendix #A.02
 Supplement #15
 December 2018

 The current Filing Fees can be found on-line in the Town of Holly Springs Fee Schedule: <http://www.hollyspringsnc.us/planning>
Petition Type (check one- each request must be on separate petitions)

- ☒ Zoning Map Change: ☒ General Use District **or** ☐ Conditional Use District/Permit
☐ Comprehensive Plan Amendment (check all that apply)
☐ Text Amendment ☐ Future Land Use Plan Map Amendment
☐ Area/Corridor Plan Map Amendment / Name: _____
☐ UDO Amendment (UDO Section: _____)

Project Information

 Project Name: Goodwin Development

 Project Location: 7511 WOODS CREEK RD, Apex, NC 27539
Use street address. If none, use the closest intersection
☐ Within Corporate Limits ☐ Within Holly Springs ETJ ☒ Pending Annexation
 PIN: 0730124768, 0730131203, 0730145033 Real Estate ID: 0025804, 0378578, 0098013

 Project Acreage: (Rounded to nearest tenth) 81.07 AC Partial Parcel: ☒ No ☐ Yes

Scoping Meeting Date: _____ Concept Meeting Date: _____

If the Concept Meeting Date is not within 8 weeks of the submittal date, another Concept Meeting is required prior to submittal.
Petition Request

 Current Zoning: R-30

 Proposed Zoning: BRT

 Current Future Land Use Designation: Innovation Village

 Proposed Future Land Use Designation: Innovation Village

Area Plan Designation (if applicable): _____

 Waivers Requested: ☒ No ☐ Yes- Specify UDO Section Number(s): _____

If yes, complete and attach appropriate Waiver Petition(s) from Waiver Packet
Petition Contact Information (complete each contact in its entirety- please print or type)

Project Applicant/Contact

 (check one) ☐ Owner ☐ Owner's Agent ☒ Design Professional ☒ Developer ☐ Other _____

Is the applicant applying on behalf of the property owner(s)? ☒ Yes ☐ No If yes, please complete the Affidavit of Property Owner Consent form and attach. If applicant contact is not the Owner or representing the Owner(s), please complete Property Owner Notification Affidavit and attach.

 Name Chase Kerley

 Company Crescent Communities

 Mailing Address 227 W Trade St #1000

 City Charlotte

 State NC

 Zip 28202

 Telephone # (980) 321-6284

 E-Mail CKERLEY@CrescentCommunities.com

 How would you like to receive staff review comments? ☒ E-Mail ☐ US Mail

 How would you like to receive Official Action Notices? ☒ E-Mail ☐ US Mail- Certified

Property Owner(s) if different than Applicant/Contact-REQUIRED attach additional sheets if necessary

 Name Sandra Gail

Company _____

 Mailing Address 274 MAY FARM RD

 City Pittsboro

 State NC

 Zip 27312

Telephone # _____

E-Mail _____

 How would you like to receive staff review comments? ☒ E-Mail ☐ US Mail

 How would you like to receive Official Action Notices? ☒ E-Mail ☐ US Mail- Certified

Owner's Authorization (Required for Conditional Use Zoning or Conditional Use Permit)

Owner's Signature(s)

PIN/REID

Date

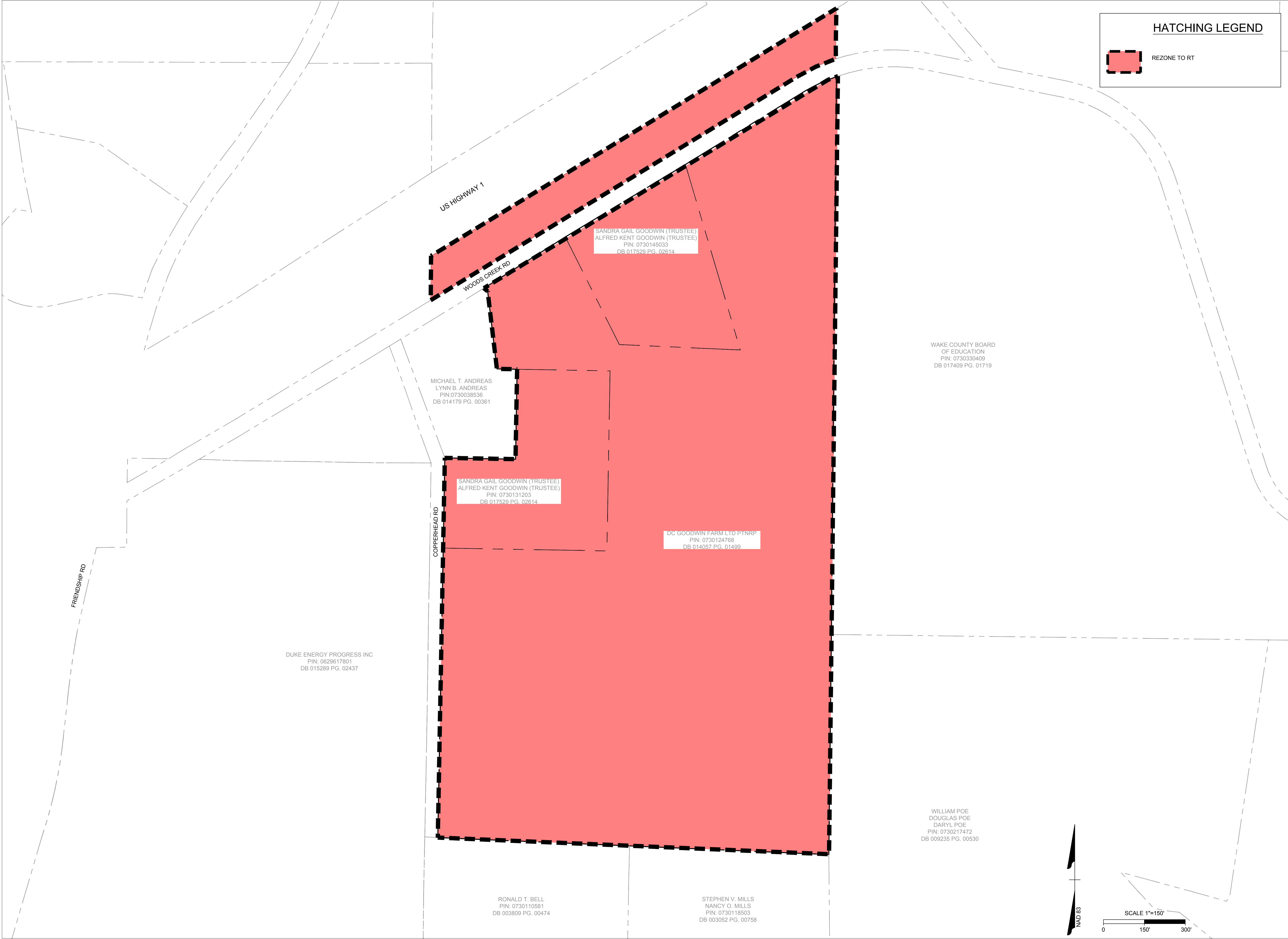
0730124768
7-28-21

DocuSigned by:

DocuSigned by:

Al Goodwin
Sandra Goodwin
0730131203, 0730145033

2022-Feb-14 | 12:24 PST



HATCHING LEGEND

REZONE TO RT

PRELIMINARY PLANS
FOR REVIEW ONLY

DO NOT USE FOR CONSTRUCTION

THIS DRAWING PREPARED AT THE
RALEIGH OFFICE
5410 Trinity Road, Suite 102 Raleigh, NC 27607
TEL 919.866-9951 FAX 919.935-5665 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

DATE

11/08/2021

DRAWN BY

-

DESIGNED BY

-

CHECKED BY

B. HALL

SCALE

AS SHOWN

TIMMONS GROUP

GOODWIN PARCEL
7511 WOODS CREEK ROAD, APEX, NORTH CAROLINA 27539
REZONING EXHIBIT

JOB NO.
48801

SHEET NO.
EX-1

These plans and associated documents are the exclusive property of TIMMONS GROUP and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of TIMMONS GROUP.

Page 271 of 359

Zoning Consistency Statement

Project Information

Project Name: Goodwin Development
Proposed Zoning District: BRT
Proposed Land Use/Density: Research Technology Campus
Future Land Use Map Design: Innovation Village
Future Land Use /Density: Innovation Village

Petitioner's Response

Executive Summary

The proposed rezoning builds upon the goals of Comprehensive Plan by improving the Holly Springs Innovation Village for future major employers. This rezoning will allow Holly Springs to have a globally competitive business park that will promote positive growth throughout the community.

Section 1: Future Land Use & Community Character

- The BRT rezoning provides a contiguous area to where the Future Land Use Plan has called for BRT
- The BRT rezoning of this property will help set an anchor point for the future Innovation Village area called out on the Future Land Use Plan. This will help attract future employers and will provide a base point for this area to grow and expand.

Section 2: Transportation

- By attracting the major employers desired by the Town, this rezoning will meet Transportation's goal of supporting the economic vitality of Town by making this area a globally competitive business park.
- Providing multiple entry points off Woods Creek Road disperses potential traffic in the area increasing safety and limiting any impact on the performance of surrounding intersections.
- Improvements on existing roadways will meet the current requirements and support the goals of the long range transportation plan for the area.

Section 3: Parks & Recreation and Open Space

- The site will be designed to limit impact on wetlands and natural features
- The site plan will encourage the use and preservation of native plants in the ROW, buffers and setbacks wherever possible with our architectural standards and plans for road way buffers
- Though the security requirements and final development plans of individual employers within the park will need to be considered, we will encourage the allowance of greenway easements within the ROW of the new public roads and along the Woods Creek Road to help with the long term acquisition goals of the Greenway Master Plan of connecting Apex to Holly Springs.

Section 4: Community Facilities

- This rezoning will help increase the commercial tax base of the Town allowing it to continue to make facility investments throughout the community

Section 5: Infrastructure & Utilities

- This project will add new reclaimed water, domestic water, sanitary and public road infrastructure to the park to make it more “pad-ready” and attractive to the world class employers desired by the Town connecting and expanding the Town’s water, sewer and reclaimed networks.
- There will be road improvements along the frontage of the property and other surrounding areas based on the findings of the TIA and agreement between Town, NCDOT and developer.

Section 8: Natural Resources

- The infrastructure will be laid out to avoid as much of the wetland and natural buffers as possible
- Site Plan will aim to preserve and utilize native species within ROWs and Buffers throughout project as much as possible
- Will encourage use of native species in the landscape plans for each subsequent development plan through the architectural standards of the project
- Development will be sensitive to the existing natural resources including large tree stands and drainage-ways
- Low-impact design techniques and sustainable stormwater practices will be incorporated.

Submitted by:

Date: 4/7/22

Will Altman
Timmons Group

Proposed Rezoning Conditions
21-REZ-04
7511 Woods Creek Road

1. The following uses shall not be permitted as Primary Uses (uses as defined in UDO Section 13.3):
 - (a) Animal Boarding and Outdoor Kennel
 - (b) Neighborhood Recycling Collection Point
 - (c) Large Vehicle and Heavy Equipment Sales and Service
2. Development shall include a minimum of 10 percent open space (the “Total Open Space”). The Total Open Space may be spread throughout the development and connected by sidewalks and/or pedestrian pathways to promote a well-connected pedestrian network.
3. If surface parking is shared by multiple properties/tenants, a shared parking agreement shall be executed governing the use of the surface parking
4. Development shall have a minimum building height of 25 feet
5. All buildings shall have access to sidewalks and/or pedestrian paths
6. If the property is developed for the uses and intensities contemplated in the Transportation Impact Analysis prepared by Timmons Group and finalized with the Goodwin rezoning 21-REZ-04 (the “TIA”), the development shall include the construction of, or payment of a fee in lieu, for the road improvements recommended by the TIA.
7. The development will increase biodiversity in perimeter buffers and open space areas by providing a variety of species for the canopy, understory, and shrub levels. Native and adaptive plant species shall be provided within these areas to minimize death from disease and to provide increased habitat and food sources for insects and animals. A minimum of 70% of provided plants shall be native species. No invasive species shall be permitted.
8. Drought resistant warm season grasses shall be planted throughout the development to minimize irrigation and chemical use.

NOTIFICATION TO PROPERTY OWNER

Dear Property Owner,

I am requesting the Holly Springs Town Council to rezone your property described by:

Wake County Real Estate ID# 0025804, 0378578, 0098013

and PIN 0730124768, 0730131203, 0730145033

located at 7511 WOODS CREEK RD, Apex, NC 27539

from R-30 (existing zoning district) to
RT (proposed zoning district).

The public hearing before the Holly Springs Town Council on the matter will
be heard on TBD (date) at 7:00 PM.

Additional information can be obtained by contacting the Holly Springs
Department of Planning & Zoning at (919) 557-3908.

Thank you,

Signature of Applicant:

Date:



11/8/21

Name Chace Kerley

Company

Crescent

Mailing Address 601 S. Tryon St. Suite 900

City CLT

State

NC

Zip

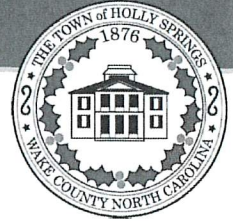
28202

Telephone # (704) 299-2306

Fax # ()

E-Mail

ckerley@crescentcommonsites.com

TOWN OF HOLLY SPRINGS
ZONING PETITIONDPM Appendix #A.02
Supplement #15
December 2018**AFFIDAVIT OF OWNER NOTIFICATION**

The following Affidavit of Owner Notification shall be provided at time of petition submittal if the Applicant is requesting a Zoning Map Change for property(s) he/she does not own at the time of the petition submission.

The following form or a separately prepared document in substantially the same form may be used for submitting the Notice of the requested Zoning Map Change and the public hearing in association with a request for a Zoning Map Change to the property owner(s). The form must be sent to the owner(s) via certified mail. This Affidavit is to be signed by the Applicant of the requested Zoning Map Change and have attached thereto the USPS green certified mail receipt and a copy of the form sent to the owner(s) to ensure that all record owners of the property have been notified by the Applicant(s).

For DPZ Use only

Project # _____

Date Received: _____

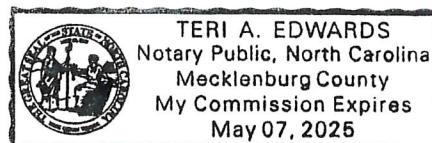
AFFIDAVITSTATE OF NORTH CAROLINA
COUNTY OF WAKE

I hereby certify to the Town of Holly Springs that the owner of the property described by Wake County Real Estate ID 0025804, 0378578, 0098013 and PIN 0730124768, 0730131203, 0730145033 was served the notification attached to this Affidavit indicating the requested zoning map change petition and public hearing date and time. As evidence of the service of the notification, I hereby attach the return receipt from the certified mailing of this notice.

This the 8th day of November, 2021.Applicant Signature [Signature]Printed name of Applicant Chace Kerley**NOTARY STATEMENT**Sworn to and subscribed before me the 8th day of November, 2021.Notary Public in and for the State of North Carolina. My Commission expires: May 7, 2021

Teri A. Edwards, TERI A. EDWARDS
Notary Public Printed

Seal



AFFIDAVIT OF OWNER CONSENT



If the Owner(s) of the subject property is giving authorization for another person to apply for a Conditional Use District and/or Conditional Use Permit on their property, this affidavit must be completed and signed by all record owners of the subject property.

The persons listed below do hereby appear before a Notary Public and swear or affirm that they are the legal owners of the described property, and further give authorization to

Chase Kerley of Crescent Communities
(Name of Representative) (Name of Company)

to submit a Petition for Zoning Map Change to a Conditional Use District and/or for a Conditional Use Permit for my (our) property from

R-30 to BRT
(Current Zoning District) (Proposed Zoning District)

and to offer additional use and/or standard restrictions as a part of the request for a Conditional Use Permit.

For DPZ Use only

Project # _____

Date Received:

Signature of Owner(s):

See attached signature pages

Wake County PIN/REID:

0730124768/ 0025804

0730131203/ 0378578

0730145033/ 0098013

Per conversations with the Town Attorney, this Conditional Use Permit form is being used to convert 21-REZ-04 from a General Use rezoning case to a Conditional rezoning case. Conditional Use Districts (which require a Conditional Use Permit ("CUP")) have been eliminated as an authorized zoning district by N.C. Gen. Stat 160D-703(b). Conditional Districts are allowed and Conditional rezoning cases are approved through a legislative process. N.C. Gen. Stat 160D-703(b). Accordingly, this Conditional rezoning case will not require a CUP or quasi-judicial hearing and will be reviewed and approved legislatively.

[Owner Signature Pages to Affidavit of Owner Consent]

PIN 0730124768/REID 0025804

D.C. GOODWIN FARM,
a North Carolina Limited Partnership

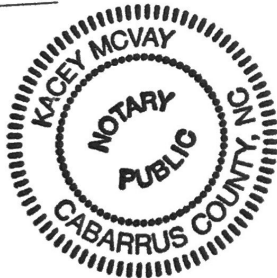
By: Sue G. Reading
Its Partner - LC

STATE OF North Carolina
Cabarrus COUNTY

I certify that the following person personally appeared before me this day and acknowledged to me that he or she voluntarily signed the foregoing document for the purpose stated therein and in the capacity indicated: Sue G. Reading, Partner LC

Date: 3/1/22

[Affix Notary Stamp or Seal]

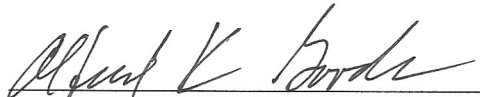


Kacey McVay
Kacey McVay, Notary Public
My Commission Expires: 2/28/23

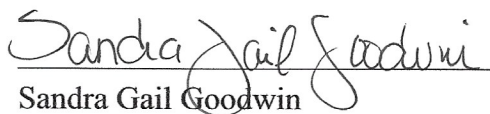
PIN 0730131203/REID 0378578

PIN 0730145033/REID 0098013

Alfred Kent Goodwin and Sandra Gail Goodwin, Trustees of the Alfred Kent Goodwin and Sandra Gail Goodwin Family Trust dated August, 2, 2019



Alfred Kent Goodwin

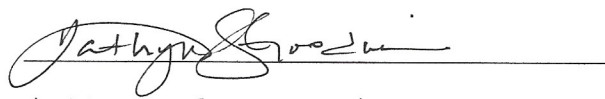


Sandra Gail Goodwin

STATE OF NC
WAKE COUNTY

I certify that the following person personally appeared before me this day and acknowledged to me that he or she voluntarily signed the foregoing document for the purpose stated therein and in the capacity indicated: Alfred Kent Goodwin and Sandra Gail Goodwin.

Date: 02/24/2022


Kathryn S. Goodwin, Notary Public

[Affix Notary Stamp or Seal]

My Commission Expires: 03/08/2025



CONDITIONAL USE PERMIT

The following Conditional Use Permit form or a separately prepared document in substantially the same form may be used for submitting the Conditional Use Permit Restrictions Statement in association with a request for a Conditional Use District. The attached form is intended to meet the recording standards of the Wake County Register of Deeds.

If there are no changes to the Conditional Use Permit at the Public Hearing, the Department of Planning & Zoning will have the Review Officer sign the Permit and return it to the Applicant for recording in accordance with the Town of Holly Springs Development Procedures Manual.



If there are minor changes to the Conditional Use Permit approved at the Public hearing, the Applicant must modify the Permit to reflect the changes that were made and return the revised Permit to the Department of Planning & Zoning within ten (10) business days for Review Officer signature prior to recording in accordance with the Town of Holly Springs Development Procedures Manual.

An additional public hearing shall be required If the changes being required or requested are of such a substantial nature as to effect any of the following: the type of use, greater than 10% change in the overall density, significant alterations to site access, or hours of operation. If an additional public hearing is required, then the Petitioner shall modify the permit and cover the cost of republishing public notice.

Standard Document Criteria

A standard document meets the following criteria. If a document fails to meet any one of these criteria, the non-standard document fee will be added.

- Paper size is 8.5" x 11" or 8.5" x 14"
- Blank margin of 3" at top of first page.
- Blank margin of at least 1/4" on remaining sides of first page and on all sides of subsequent pages.
- Typed or printed in black on white paper in a legible font.
- A font size no smaller than 9 point shall be considered legible.
- Blanks in an instrument may be completed in pen and corrections to an instrument may be made in pen.
- One-sided only.
- Instrument type is stated at center of first page.

Prepared By: Timmons Group (William Altman)
5410 Trinity Road, Suite 102
Raleigh, NC 27607

Returned To: Town of Holly Springs Department of Planning & Zoning
P.O. Box 8
Holly Springs, NC 27540

Instrument Type: Other – Conditional Use Permit

TOWN OF HOLLY SPRINGS
ZONING PETITION

DPM Appendix #A.02
Supplement #15
November 2018

CONDITIONAL USE PERMIT



In accordance with the Town of Holly Springs Unified Development Ordinance, the Owner of the real estate located in the Town of Holly Springs, North Carolina, or its extra-territorial jurisdiction, which is described below, offers the following use and development standard restrictions for the following described parcel of real estate:

LEGAL DESCRIPTION: Legal description noted in the Wake County Register of Deeds office within Book 014057, Page 014999; Book 017529, Page 02614; Book 017529, Page 02614.

Property Owner: Sandra Gail Goodwin, Alfred Kent Goodwin, Sue G Readling - DC Goodwin Farm Ltd PTNRP

Property Descriptions: Vacant, agricultural

PIN(s): 0730124768, 0730131203, 0730145033

WRITTEN STATEMENT / TERMS OF CONDITIONAL USE PERMIT:

1. See attached list of zoning conditions.

2. Per conversations with the Town Attorney, this Conditional Use Permit form is being used to convert 21-REZ-04 from a General Use rezoning case to a Conditional rezoning case. Conditional Use Districts (which require a Conditional Use Permit ("CUP")) have been eliminated as an authorized zoning district by N.C. Gen. Stat 160D-703(b). Conditional Districts are allowed and Conditional rezoning cases are approved through a legislative process. N.C. Gen. Stat 160D-703(b). Accordingly, this Conditional rezoning case will not require a CUP or quasi-judicial hearing and will be reviewed and approved legislatively.

3.

4.

5.

The terms and conditions contained in this instrument shall run with the land, be binding on the Owner of the above-described real estate, subsequent owners, heirs, devisees, grantees, lessees, and licensees of the above-described real estate and other persons acquiring an interest therein. The terms of this conditional use permit may be modified or terminated by a decision of the Town of Holly Springs Town Council made at a public hearing after proper notice has been given and in connection with a petition for zoning map change.

The terms and conditions contained in this instrument shall be effective upon the approval of the conditional use district on the subject real estate and the approval of this Conditional Use Permit by the Town Council pursuant to the Town of Holly Springs Unified Development Ordinance, and shall continue in effect until modified or terminated by the Town of Holly Springs Town Council.

The terms and conditions of this instrument may be enforced by the Town of Holly Springs Town Council.

This Conditional Use Permit shall be retained in the office of the Department of Planning & Zoning of the Town of Holly Springs, North Carolina and shall constitute additional restrictions on the use and development of the subject real estate.

See attached owner signature pages

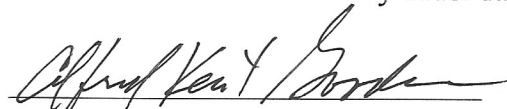
[Owner Signature Pages to Rezoning Conditions]

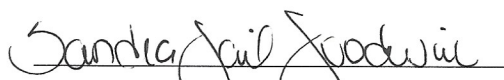
In witness whereof, Owner has executed this instrument this 1st day of March, 2022.PIN 0730124768/REID 0025804D.C. GOODWIN FARM,
a North Carolina Limited PartnershipBy: Sue G. Reading
Its Partner LCSTATE OF North
Cabarrus COUNTYI certify that the following person personally appeared before me this day and acknowledged to me that he or she voluntarily signed the foregoing document for the purpose stated therein and in the capacity indicated: Sue G Reading, Partner LCDate: March 1, 2022Sharon Bailey
Notary PublicMy Commission Expires: June 13, 2022.

PIN 0730131203/REID 0378578

PIN 0730145033/REID 0098013

Alfred Kent Goodwin and Sandra Gail Goodwin, Trustees of the Alfred Kent Goodwin and Sandra Gail Goodwin Family Trust dated August, 2, 2019


Alfred Kent Goodwin


Sandra Gail Goodwin

STATE OF NC
WAKE COUNTY

I certify that the following person personally appeared before me this day and acknowledged to me that he or she voluntarily signed the foregoing document for the purpose stated therein and in the capacity indicated: Alfred Kent Goodwin and Sandra Gail Goodwin.

Date: 02/26/2022


Kathryn S. Goodwin, Notary Public

[Affix Notary Stamp or Seal]

My Commission Expires: 03/08/2025



NEIGHBORHOOD MEETING REPORT



Before submitting an application, the Petitioner must hold at least one (1) neighborhood meeting and submit to Development Services a written summary report of the neighborhood meeting.

☒ Neighborhood Meeting Date: 3/3/2022
Time: 5:00 PM
Location: Virtual-zoom

For DS Use only

Project # _____

Date Received: _____

☐ Complete ☐ Incomplete

Notification of Owners:

1. The Petitioner or Petitioner's Agent shall prepare a Neighborhood Meeting Notification to be sent via first class mail to the owner(s) of the land specified on the Petition, owner of land within a 300 foot radius of the subject property, and any homeowners association or property owners association that represents any parcels within that area as shown on the county tax listings.
2. The Notice shall include the date, time, and location of the Neighborhood Meeting; the name of the Petitioner; the location of the proposed request (address, tax property identification number, or metes and bounds description); and an explanation of the nature of the request.
3. The Notice shall be deposited in the mail not less than ten (10) days nor more than 25 days before the date of the Neighborhood Meeting.
4. The applicant shall post a sign on the property with the Time, date, and location of the neighborhood meeting.

☒ Date of Notification Mailing: 2/11/2022

Conduct of Meetings:

At the Neighborhood Meeting, the Petitioner shall explain the proposal and petition, answer any questions, respond to concerns neighbors have about the petition and proposed resolutions to these concerns. Town Staff will not attend the Neighborhood Meeting.

Summary of Issues:

See attached document for comments and persons that attended the meeting.

Attach Additional Sheets as needed

Changes made to the Petition by the Petitioner as a result of the meeting:

N/A

Attach Additional Sheets as needed

Additional attachments required for the report:

- ☒ A listing of those persons and organizations that were sent notification about the Neighborhood Meeting.
- ☒ A copy of the signed attendance list that includes names and addresses of those in attendance.

Neighborhood Meeting Report Prepared by:

Preparer's Signature(s)

Date

3/7/22

March 7, 2022

Goodwin Development- Neighborhood Meeting Notes

Wake County Parcel Identification Numbers – [0730124768, 0730131203, 0730145033]

Attendees

Will Altman, Timmons Group

Blake Hall, Timmons Group

Chase Kerley, Crescent Communities

Elizabeth McMillan, Crescent Communities

Mike Andreas, Neighboring parcel owner- 0730038536

Lynn Andreas, Neighboring parcel owner- 0730038536

Comments and Concerns

1. Concerns about layout and concept along their property and what the impacts would be.
2. What impacts will there be since they will be running a small organic farm in the industrial area?
 - What will the 50' buffer look like?
 - How will the runoff from the design effect their property?
3. They want to be updated as we move forward with design.
4. What is the timeline for the start of construction.
5. They are encouraged and excited to follow along.



5410 Trinity Road
Suite 102
Raleigh, NC 27607

P 919.866.4951
F 919.859.5663
www.timmons.com

February 11, 2022

RE: SITE ZONING REQUEST

Wake County Parcel Identification Numbers – [0730124768, 0730131203, 0730145033]

Dear Property Owner,

We are writing to advise you that Timmons Group, Inc is preparing to submit to the Town of Holly Springs to request a zoning change for 3 parcels totaling approximately 81.07 acres at 7511 Woods Creek Rd, Apex, NC 27539.

- 67.93 acre portion of PIN # 0730124768
- 7.13 acre portion of PIN # 0730131203
- 6.01 acre portion of PIN # 0730145033

This rezoning application is requesting to change the parcels from their current zonings of R-30 (Residential) to BRT (Research and Technology). This rezoning request is to allow for commercial/office buildings.

You are receiving this notice as a property owner within close proximity of this site so that we may invite you to an informational meeting, where we will present the details of the rezoning request. We will have an open discussion with you and your neighbors to address any questions or concerns you may have.

The neighborhood meeting will be held **virtually via zoom meeting at 5:00pm on March 3, 2022**. Zoom meeting information is provided on the reverse of this page.

Respectfully,

Will Altman, PE
Timmons Group
william.altman@Timmons.com



5410 Trinity Road
Suite 102
Raleigh, NC 27607

P 919.866.4951
F 919.859.5663
www.timmons.com

[Join Zoom Meeting](#)

Password: 999268

Phone one- US: [+13017158592](tel:+13017158592) or [+13126266799](tel:+13126266799)
tap:

Meeting URL: <https://timmons.zoom.us/j/99320659161?pwd=dIZCbDhNUjVVbk1NNXZEaGpWSTQrUT09>

Join by Telephone

For higher quality, dial a number based on your current location.

Dial:

US: +1 301 715 8592 or +1 312 626 6799 or +1 646 558 8656 or +1 253 215 8782 or +1
346 248 7799 or +1 669 900 9128

Meeting ID: 993 2065 9161

Password: 999268

[International numbers](#)

Join from SIP:

Meeting ID: 993 2065 9161

SIP: 99320659161@zoomcrc.com

Password: 999268

SITE ZONING REQUEST

Zoom Meeting – March 3, 2022, 5:00pm

Wake County Parcel Identification Numbers – [0730124768, 0730131203, 0730145033]



Holly Springs Town Council

Town Council Meeting Agenda Cover Sheet

Agenda Item#: 19.

New Business

Title: NC Biotechnology Center Partnership Development Grant

Strategic Priority Area: Economic Prosperity & Diversity

Staff Resource: Irena Krstanovic, Director, Economic Development

Action(s):

- Accept North Carolina Biotechnology Center Partnership Development Grant for \$100,000 for the benefit of Holly Springs High School
- Approve Agreements - (1) Grant Agreement between NC Biotech and the Town to receive \$100,000 & (2) Performance Agreement between the Town and Amgen
- Authorize the Town Manager, Attorney, and Finance Director to sign and execute the two agreements

Explanation:

- The NC Biotechnology Center's Partnership Development Grant (PDG) was one incentive offered as part of a state-wide Economic Development incentive package to attract Amgen to North Carolina.
- Upon approval, the PDG will award Amgen \$100,000 to establish or accelerate activities that positively impact both the company and the local community, related to life sciences and create jobs.
- Amgen has chosen to use the grant funds to provide kits to students at Holly Springs High School through their Amgen Biotech Experience Program (ABE). ABE provides curriculum, equipment, professional development and support to bring biotechnology to the classroom. This helps students to learn about core technologies used by scientists so they will better understand the role of biotechnology, the impact of the industry, and how they may fit into this.
- The Grant Agreement defines the parameters for distribution of the grant funds. The grant will be distributed to the town by the NC Biotechnology Center.
- The Performance Agreement is between the Town and Amgen and addresses the following:
 - The disbursement of the Grant Funds by the town for the:
 - the use of the Grant Funds by the Company;
 - the Company's performance in creating or attracting new jobs in the Town;
 - the circumstances under which the Company will be required to repay the Grant Funds; and
 - The Company's reporting obligations

Background:

- Amgen announced Holly Springs as its chosen location for its next biologic drug substance facility in August 2021.
- Amgen has proposed to make a capital investment of \$550 million and create 355 jobs.
- The Town Council approved Amgen's Development Plan 21-DP-08 on November 30, 2021.
- The Town Council participated in Amgen's Groundbreaking Ceremony on March 7, 2022.
- The Partnership Development Grant (PDG) is designed to support North Carolina communities in attracting life science jobs and investment.
- The PDG is a performance-based program centered on net new job growth in North Carolina as a part of a defined company expansion or relocation project.

Funding Source(s):

Grant funds of \$100,000 to be received from the NC Biotech Center

Attachment(s):

1. Project Titan_NCBiotech PDG Grant Agreement_FINAL_20220503
2. Project Titan_NCBiotech PDG Performance Agreement_FINAL_20220502

NORTH CAROLINA BIOTECHNOLOGY CENTER PARTNERSHIP DEVELOPMENT GRANT GRANT AGREEMENT

This GRANT AGREEMENT (this “**Agreement**”) is entered into this ____ day of _____, 2022, by and between the Town of Holly Springs, North Carolina (hereinafter referred to as the “**Local Unit of Government**” or “**LUG**”) and the North Carolina Biotechnology Center (hereinafter referred to as the “**Center**”).

This Agreement defines the parameters for distribution of a Partnership Development Grant from the Center to the Local Unit of Government to support job creation through Project Titan (the “**Project**”) in collaboration with Amgen Inc. (hereinafter referred to as the “**Company**”).

For purposes of this Agreement, the following definitions shall apply:

Award Letter of Intent: The letter provided by the Center to the Local Unit of Government and the Company indicating the Center’s intent to award the Grant.

Performance Agreement: The Performance Agreement between the Local Unit of Government and the Company. This Agreement outlines the parameters of performance by the Company as required by the Local Unit of Government as the recipient and administrator of the Center grant.

Use of Funds: The budget agreed to between the Center, the Local Unit of Government and the Company which specifies how Grant Funds are to be used.

Jobs Start Date or JSD: The specific date upon which the Company will initially certify existing jobs. This date is the start date for a three (3) year period in which the Company has to create the number of new jobs promised (i.e., the Minimum Job Requirement). This date is incorporated into the Performance Agreement. The JSD is 01/01/2024.

Jobs End Date or JED: The specific date that is three (3) years following the Jobs Start Date. This date is also incorporated into the Performance Agreement. The JED is 12/31/2026.

Number of Jobs Created: This figure is an amount equal to the number of jobs certified at the JED minus the number of jobs certified at the JSD. The number of jobs certified at any time hereunder represents current full-time employees of the Company based in the geographic area of the Local Unit of Government. Number of Jobs Created represents net new full-time jobs at the Company based in the geographic area of the Local Unit of Government and cannot include employees transferred or relocated from another Company site in North Carolina unless otherwise agreed to by the Center, Local Unit of Government and Company.

Minimum Job Requirement: This figure is the number of new jobs based in the geographic area of the Local Unit of Government expected to be created by the Company. The Minimum Job Requirement is one hundred seventy-nine (179).

New Minimum Job Requirement. This figure is the actual Number of Jobs Created based on the calculation as defined above, but shall not be an amount greater than the original Minimum Job Requirement, and which shall become the minimum number of jobs to be maintained for one (1) year after the Jobs End Date.

End of Maintenance Date or EOM: The specific date that is one (1) year after the Jobs End Date. This date marks the end of the jobs maintenance period in which the Company is required to maintain the New Minimum Job Requirement. The EOM date is 12/31/2027.

Grant End Date or GED: The final date of this Agreement upon which all requirements will be met. The GED is 04/30/2028.

WITNESSETH:

THAT, WHEREAS, the Center's mission is to provide long-term economic and societal benefits to North Carolina by supporting biotechnology research, business and education statewide; and

WHEREAS, biotechnology is characterized by the application of the principles of engineering and technology to the life sciences to solve problems and make products; and

WHEREAS, the Center provides direct and indirect financial assistance and support to persons and firms seeking to become involved in biotechnology/life science businesses and entrepreneurial opportunities in North Carolina; and

WHEREAS, the Company, engaged in the business of the research, development and commercialization of human therapeutics and based in Thousand Oaks, CA is establishing a new biomanufacturing facility in Holly Springs, NC] and the Center has agreed to provide a Partnership Development Grant (the "**Grant**") through the Local Unit of Government for the benefit of the Company to induce the Company to expand and maintain new business operations in Holly Springs, NC; and

WHEREAS, the Local Unit of Government has agreed to be the responsible pass-through agency and to administer the Grant; and

WHEREAS, the Company is expected to create one hundred seventy-nine (179) new full-time jobs related to the life sciences in Holly Springs, NC and is expected to generate significant tax revenue for Holly Springs, NC; and

WHEREAS, the Local Unit of Government acknowledges that economic support such as the Grant serves as an important means for municipalities to attract businesses and develop local economies; and

WHEREAS, the Center desires to help the Local Unit of Government to attract new life science jobs and investment through the Grant which accordingly would constitute a public purpose; and

WHEREAS, information provided by the Company and the Local Unit of Government to the Center indicates that the Project represents a competitive project for which the Center's support is significant to the Town of Holly Springs, NC; in creating or attracting one hundred seventy-nine (179) new full-time jobs related to the life sciences;

NOW, THEREFORE, in consideration of the mutual promises and such other valuable consideration as shall be set out herein, the parties hereto do mutually agree to the following terms and conditions:

1. Scope of the Project. The scope of the Project shall be clearly outlined in Exhibit A and Exhibit B which are an integral part of this Agreement.

Exhibit A provides specific details of the Project including (1) the planned Use of Funds, (2) Certification of jobs at the Jobs Start Date, Jobs End Date and at End of Maintenance Date, and (3) milestones expected to be achieved.

Exhibit B provides a general outline of the Project through the following three documents: (1) the Center Letter of Intent to support the Project, (2) the Center Letter of Affirmation confirming the intent to fund, and (3) a copy of the signed Performance Agreement.

By executing this Agreement, the Local Unit of Government hereby agrees to (a) disburse to the Company the Grant funds (the "**Grant Funds**") unless otherwise agreed to by the Center, Local Unit of Government and Company as specified in Exhibit A, (b) enter into the Performance Agreement with the Company, which Performance Agreement shall include, without limitation, a requirement that the Company repay the Grant Funds received from the Local Unit of Government in the event that the Company fails to meet the established Minimum Jobs Requirement and shall contain other terms consistent with this Agreement, and (c) negotiate in collaboration with the Center and the Company the Use of Funds.

2. Period of Agreement. The effective period of this Agreement shall commence on the execution of this Agreement and shall terminate no later than six (6) years following the date of execution, and may be subject to earlier termination as provided herein.

3. Grant Amount. The amount of the Grant the Center grants to the Local Unit of Government is one hundred thousand dollars (\$100,000) and such amount is to be paid in a single lump sum within thirty (30) days of the Center receiving the deliverables set forth in Paragraph 1 above. It is agreed between the parties that the above-referenced sum shall represent the total amount of this Agreement, except as such amount may be amended in accordance with the terms of this Agreement.

4. Funding and Method of Payment.

(a) Prior to transferring the Grant Funds to the Local Unit of Government, the deliverables set forth in Paragraph 1 above (including Exhibit A and Exhibit B) shall have been provided to the Center by the Local Unit of Government and the Company, as applicable, in form

and substance reasonably satisfactory to the Center. Upon satisfaction of such deliverable requirements, the Center will transfer the full amount of the Grant to the Local Unit of Government within thirty (30) days thereafter.

(b) All Grant Funds received by the Local Unit of Government from the Center must be transferred to and expended by the Company no later than the Jobs End Date, unless otherwise agreed to by the Center, Local Unit of Government, and Company as specified in Exhibit A. Any unexpended Grant Funds as of the Jobs End Date shall be obtained by the Local Unit of Government from the Company and returned to the Center. Such amounts shall be paid by the Local Unit of Government to the Center no later than ninety (90) days after the Local Unit of Government receives the funds from the Company.

(c) As of the Jobs End Date, the Local Unit of Government shall require the Company to certify the number of jobs as of the Jobs End Date and to provide evidence of such number if requested by the Local Unit of Government or the Center. If the Company does not satisfy the Minimum Job Requirement, then the Company shall be required to pay the Local Unit of Government five hundred and fifty-nine dollars (\$559) for each job below the established Minimum Job Requirement threshold. If any such payment is due, the Local Unit of Government shall require it to be paid by the Company no later than sixty (60) days after the Jobs End Date, and such amount shall be returned to the Center by the Local Unit of Government no later than ninety (90) days after the Local Unit of Government receives the funds from the Company.

5. Reporting.

(a) Interim Reports. The Local Unit of Government shall require the Company to provide annual reports documenting the Company's receipt and expenditure of Grant Funds, as outlined in Exhibit A (a copy of which must be provided to the Center), during each of the three (3) years during which the Company is creating the new jobs. The requirements of these reports shall be as outlined in the Performance Agreement, and shall, at a minimum, provide an accounting of the use of Grant Funds to verify expenditure for purposes for which they were granted, descriptions of activities and accomplishments undertaken related to use of Grant Funds, and the number of full-time employees of the Company based in the designated Project locale during the year.

(b) Final Report. The Local Unit of Government shall require the Company to provide a final report at the End of Maintenance Date, a copy of which must be provided to the Center. The final report is due no later than ninety (90) days following the EOM. The final report must document final use of the Grant Funds, as outlined in Exhibit A, and summarize the overall benefits to the Local Unit of Government of the Grant, including the total number of jobs created and maintained under the Project and certified to the Local Unit of Government. If at the End of Maintenance Date, the Company has failed to maintain the New Minimum Job Requirement, the Company shall be required to pay the Local Unit of Government five hundred and fifty-nine dollars (\$559) for each job below the established New Minimum Job Requirement threshold. If any such payment is due, the Local Unit of Government shall require it to be paid by the Company not more than sixty (60) days after the End of Maintenance Date, and such amount shall be returned to the

Center by the Local Unit of Government no later than ninety (90) days after the End of Maintenance Date.

(c) Audit Requirements and Reporting; Site Visits.

i. Audit Requirements and Reporting. The Local Unit of Government shall require the Company to expend the funds provided by this agreement only for the purposes for which they were granted. The Local Unit of Government and the Company are subject to the requirements of N.C.G.S. Sections 143C-6.21, -6.22, and -6.23. The Local Unit of Government shall require the Company to comply with all the rules and reporting requirements established by statute or administrative rules from time to time, including the foregoing Sections of N.C.G.S. 143C and 09 NCAC Subchapter 03M.0205 (as such statutes, rules and requirements may be amended from time to time). For convenience, the current reporting thresholds applicable to the Grant, established for recipients and subrecipients receiving State funds, are stated below:

At least \$25,000 but less than \$500,000 (Level II)—A recipient or subrecipient that receives, holds, uses, or expends State funds in an amount of at least twenty-five thousand (\$25,000) or greater but less than five hundred thousand dollars (\$500,000) within its fiscal year must comply with the reporting requirements established by this Subchapter including: (a) a certification completed by the recipient or subrecipient stating that the State funds were received, held, used, or expended for the purposes for which they were granted; (b) an accounting of the State funds received, held, used, or expended; and (c) a description of activities and accomplishments undertaken by the recipient or subrecipient with the State funds, including reporting on any performance measures established in the contract. All reports shall be filed with the disbursing agency in the format and method specified by the agency no later than three months after the end of the recipient's or subrecipient's fiscal year.

Such thresholds and requirements may change from time to time and the Local Unit of Government and the Company should review the applicable statutes, rules and requirements to determine the then-applicable thresholds and reporting requirements.

ii. Site Visits. The Local Unit of Government shall require the Company to permit site visits to the location of the Project by Center staff or representatives of the LUG no more than one (1) time per year for the Center to monitor and confirm compliance with the terms of this Agreement and the Performance Agreement, including, without limitation, with respect to the use and expenditure of the Grant Funds by the Company. The Company shall be given ten (10) days advance notice of any site visit, which will be scheduled during regular business hours unless other mutually acceptable arrangements are agreed upon.

6. Amendments. Any and all additions, deletions or other changes in this Agreement shall be effectuated by written amendment signed by the parties to this Agreement.

7. Project Records. The Local Unit of Government shall retain all financial records, supporting documents, and other pertinent Project records related to the Grant for a period of five (5) years from the date of termination of this Agreement. In the event such records are audited, all Project records shall be retained beyond the five-year period until any and all audit findings have been resolved. The Local Unit of Government agrees to make available to the Center, or its designated representative, all of its records which relate to the Project, and agrees to allow the Center or said representative to audit, examine and copy any and all data, documents, proceedings, records and notes of activity relating in any way to the Project. Access to these records shall be allowed upon request at any time during normal business hours and as often as the Center or said representative may deem necessary.

8. Liabilities and Loss. The Center assumes no liability with respect to accidents, bodily injury, illness, breach of contract or any other damages or loss, or with respect to any claims arising out of or resulting from the gross negligence or willful misconduct of the Local Unit of Government under this Agreement or the Company under the Performance Agreement, whether with respect to persons or property of the Local Unit of Government, or third parties. The Local Unit of Government agrees to obtain and maintain insurance or otherwise protect itself or others as it may deem desirable. Further, the Center assumes no liability with respect to accidents, bodily injury, illness, breach of contract, or any other damages or loss, or with respect to any claims or losses arising out of the use of funds. Except to the extent caused by the negligence or willful misconduct of the Center or its agents, the LUG will, to the extent and limits of its insurance and any legal limitations, indemnify, defend, and hold harmless the Center and its agents from and against any and all claims, actions, damages, losses, orders, judgements, liability, and expenses arising from the acts or omissions of the Center or its agents.

9. Availability of Funds. It is understood that the Center's obligation to pay any amounts under this Agreement is contingent upon the availability of funds for such purpose. The Center depends on sources for funding that are beyond its control. In the event that total funding in support of the Center falls below the level available when this commitment was made, the Center and the Local Unit of Government shall work with the Company in good faith to determine whether this Agreement should be terminated or whether it is expected funds will be available in the future. All obligations of the Center to make payments under this Agreement shall cease as of the date of such termination.

10. Entire Agreement. This Agreement supersedes all prior agreements between the Center and the Local Unit of Government, and expresses their entire understanding with respect to the transactions contemplated herein, and shall not be amended, modified or altered except pursuant to a writing signed by both parties.

11. Headings. The headings in this Agreement are for purposes of reference only and shall not limit or otherwise affect the meaning hereof.

12. Notice. All notices required or permitted to be delivered hereunder shall be in writing and shall be (i) personally delivered, (ii) sent by email or facsimile (with a copy sent the

same day by certified mail, postage prepaid), or (iii) sent by Federal Express or other nationally recognized overnight delivery service, addressed as follows:

If to the Center, to: William Bullock, Sr VP Economic Development
North Carolina Biotechnology Center
15 T. W. Alexander Drive
Research Triangle Park, NC 27709-3547
Email: bill_bullock@ncbiotech.org
Fax: 919-549-8852

If to the Local Unit:
of Government, to : Irena Krstanovic, Economic Development Director
Town of Holly Springs
P.O. Box 8
Holly Springs, NC 27540
Email: irena.krstanovic@hollyspringsnc.gov

or addressed to such other address or to the attention of such other individual as the Center or the Local Unit of Government shall have specified in a notice delivered pursuant to this Paragraph 12. Notice shall be deemed effective on the date dispatched if by personal delivery, on the date transmitted by email or facsimile (if confirmed by mail pursuant to this Paragraph 12) or two (2) days after mailing if by Federal Express or other nationally recognized overnight delivery service.

13. Termination. Notwithstanding any other provisions of this Agreement, the parties may terminate this Agreement by mutual consent; provided, however, such termination will not affect the obligation to provide the funds to the Company, unless the Company waives its rights to such funds in writing. Such termination right is in addition to the Center's other termination rights set forth in Paragraph 9. On termination, any ongoing obligations such as recordkeeping requirements described in Paragraph 7 shall continue. All obligations of the Center to advance funds under this Agreement shall cease as of the date of any such termination, and the Local Unit of Government agrees that, as a result of such termination, the Center shall not be liable to the Local Unit of Government for any compensation, losses, damages, or reimbursement of any kind.

14. Execution. This Agreement may be executed in one or more counterparts, each of which, when executed, shall be deemed an original, and such counterparts, together, shall constitute one and the same Agreement which shall be sufficiently evidenced by one of such original counterparts.

15. Assignment. The rights, duties and obligations of the parties under this Agreement shall inure to the benefit of the parties and shall be binding upon their successors and permitted assigns. There are no third party beneficiaries to this Agreement. Neither this Agreement nor the respective rights, duties, obligations, and responsibilities of the Local Unit of Government may be transferred or assigned, in whole or in part, by the Local Unit of Government to any other person, firm or organization (including sub-agents) without the prior written consent of the Center. In the event of a permitted assignment, the assignee shall not be relieved of any of its duties or obligations

under this Agreement, and such assignee shall agree to abide by the standards contained in the Uniform Administration of State Grants Subchapter.

16. Construction. This Agreement shall be construed and governed by the laws of the State of North Carolina, excluding its conflict of law principles.

[Signatures appear on following page]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

TOWN OF HOLLY SPRINGS

By: _____

Print Name: _____

Title: _____

Federal Employer Identification Number: _____

NORTH CAROLINA BIOTECHNOLOGY CENTER

By: _____

Print Name: _____

Title: _____

Exhibit A

1. Use of Funds

PDG funds will support the establishment and implementation of the Amgen Biotech Experience (ABE) in Holly Springs High School. This hands-on life sciences program will provide meaningful exposure for local high school students to explore the methods scientists use to create biotechnology medicines, using commercial/research grade equipment and supplies, and ultimately increasing awareness of potential careers at Amgen.

The Education Training Center will receive the grant funding on Amgen's behalf to execute the Holly Springs ABE program while supporting ongoing training, and ordering and maintaining additional materials for the program on Amgen's behalf as needed.

Item	No.	Description	Total Cost
Lab equipment and glassware	Approximately 45 items	- Centrifuge - Vortex mixer - Water baths - Digital scales - Electronic pipettes - Incubator - Shaker - Photo capture system - Erlenmeyer flasks - Glass bottles - Storage Bins - Test tube racks - Others	Approximately \$ 45,000
Lab supplies and consumables	Approximately 50 items (approximately 1.5-2 yrs supply)	- Chemical Reagents and Raw Materials - Microcentrifuge tubes - Autoclave bags - Dry ice - Nitrile gloves - Petri dishes - Pipette tips - Others	
Training	- Program Lead - Approximately 25 educators (initial wave)	- Lead (equipment set up/maintenance, materials preparation, etc) - Teachers per ABE's curriculum	Approximately \$ 30,000
Special needs and/or program sustainability	As needed	- Additional training - Appliances (if needed) - Replenishment/storage of supplies/consumables	Approximately \$ 25,000
TOTAL			\$100,000 *

2. Job Creation & Investment Certification Worksheet

- a. Jobs Start Date (JSD) 01/01/2024
- b. Jobs End Date (JED) 12/31/2026
- c. End of Maintenance Date (EOM) 12/31/2027
- d. Grant End Date (GED) 04/30/2028
- e. **# jobs on JSD*** _____
- f. # jobs 1 year from JSD _____
- g. Expenditure of funds 1 year from JSD \$ _____
- h. Description of use of funds 1 year from JSD _____
- i. # jobs 2 years from JSD _____
- j. Expenditure of funds 2 years from JSD \$ _____
- k. Description of use of funds 2 years from JSD _____
- l. **# jobs 3 years from JSD (JED)*** _____
- m. Expenditure of funds 3 years from JSD \$ _____
- n. Description of use of funds 3 years from JSD _____
- o. # jobs on JED minus # jobs on JSD _____
- p. Minimum Job Requirement on JED _____
- q. Was Minimum Job Requirement met? _____
- r. New Minimum Job Requirement _____
- s. **# jobs at EOM*** _____
- t. Was New Minimum Job Requirement met? _____
- u. Description of geographic area(s) where project will locate and new jobs will be created:

Holly Springs, NC

*** # Jobs on JSD, # Jobs on JED, and # Jobs at EOM must all be certified in accordance with the terms of the Grant Agreement and as outlined in the following pages.**

Jobs on JSD

The number of existing full-time employees at the Company based in the geographical area of the Local Unit of Government administering the Grant Funds on the JSD. The JSD is the start date for a three (3) year period in which the Company has to create the number of new full-time jobs promised (i.e., Minimum Job Requirement). The JSD is 01/01/2024. # Jobs on the JSD is _____ and must be certified below by a senior executive of the company:

Amgen Inc.

By: _____

Print Name: _____

Title: _____

Date: _____

Jobs on JED

The number of existing full-time employees at the Company based in the geographical area of the Local Unit of Government administering the Grant Funds on the JED (three years from the JSD). The JED is _____. # Jobs on the JED is 12/31/2026 as certified by a senior executive of the company:

By: _____

Print Name: _____

Title: _____

Date: _____

Jobs at EOM

The number of existing full-time employees at the Company based in the geographical area of the Local Unit of Government administering the Grant Funds at EOM (one year from the JED). The EOM date is _____. # Jobs at the EOM is 12/31/2027 as certified by a senior executive of the company:

By: _____

Print Name: _____

Title: _____

Date: _____

3. Milestones Description

Key Project Milestones	Completion (Quarter/Year)
Start procuring ABE equipment and initial consumables/materials	Q3 2022
Start Training HS educators	Q3 2022
Equipment and initial consumables/materials ready to use	Q3 2022
Official launch of ABE in Holly Springs High School (first student wave)	Q3 2022

Key Hiring Milestones	Completion (Quarter/Year)
Hire ~48 new FTEs	Q4 2024
Hire ~31 additional FTEs (Total = ~78)	Q4 2025
Hire ~101 additional FTEs (Total = ~179)	Q4 2026

Exhibit B

(attached)

**NORTH CAROLINA BIOTECHNOLOGY CENTER PARTNERSHIP DEVELOPMENT GRANT
PERFORMANCE AGREEMENT**

This Performance Agreement (this “**Performance Agreement**”) is entered into on the _____ day of _____, 2022, by and between the Town of Holly Springs, North Carolina, (the “**Local Unit of Government**” or “**LUG**”) and Amgen Inc. (the “**Company**”).

WHEREAS, the Company is engaged in the business of the research, development and commercialization of human therapeutics; and

WHEREAS, the LUG has been awarded a one hundred thousand dollar (\$100,000) Partnership Development Grant (the “**Grant**”) from the North Carolina Biotechnology Center (the “**Center**”), to support an incentive from the LUG to induce the Company to establish, expand, and maintain a business operation in Holly Springs, NC (the “**Project**”); and

WHEREAS, the LUG has agreed to administer the Grant pursuant to the terms and conditions of a Grant Agreement (attached hereto as Attachment 1 and incorporated into this Performance Agreement as if fully set forth herein) between the LUG and the Center; and

WHEREAS, terms contained in the Grant Agreement between the LUG and the Center require the LUG to enter into a Performance Agreement with the Company to address the following:

- (1) the disbursement of the Grant Funds (as defined below) by the LUG to the Company;
- (2) the use of the Grant Funds by the Company;
- (3) the Company’s performance in creating or attracting new jobs in the LUG;
- (4) the circumstances under which the Company will be required to repay the Grant Funds; and
- (5) the Company’s reporting obligations.

NOW THEREFORE, the LUG and the Company knowingly and willingly enter into this Performance Agreement for the purposes set forth above, and hereby agree to the following terms and conditions:

1. Disbursement of Funds.

(a) The Parties understand that the LUG is to receive the Grant Funds from the NC Biotechnology Center. As soon as practicable after receipt of the Grant Funds, the LUG shall disburse to the Company the full sum of one hundred thousand dollar (\$100,000) in one lump sum, constituting the full amount of the Grant Funds as an economic development incentive (the “**Grant Funds**”), unless otherwise agreed to as described in Exhibit A of the Grant Agreement.

(b) The obligation to disburse any amount to the Company under this Performance Agreement is contingent upon the availability of funds to the Center for such purpose, and the payment of such funds to the LUG to administer to the Company.

(c) For purposes of this Performance Agreement, all documents referred to as Exhibit A of the Grant Agreement between the LUG and the Center shall be considered a part of this Performance Agreement as if fully set forth herein. Funds awarded under the Grant Agreement will not be transferred by the Center to the LUG prior to the completion of the documents required by the Grant Agreement (including those referred to in Exhibit A thereto), which shall be completed and certified where required.

2. Use of Funds.

(a) The Grant Funds shall be used by the Company to support its business activities that relate to the life sciences and to create and attract life science-related jobs based in the geographic area of the LUG. The Grant Funds shall be used in a manner that provides sustainable benefit to both the Company and LUG in support of growth of the area's life science community. Acceptable uses of Grant Funds are project dependent based on, but not limited to, company/project size, status, and resources. Examples include, without limitation, support for talent preparation and optimization, infrastructure investments, community education, improvements of facilities, and the acquisition of equipment (placed in service and remaining in service in North Carolina for a minimum of three (3) years), each in support of the Company's life science operations and LUG's life science community. Grant Funds shall only be used for the purposes for which they are granted.

(b) All Grant Funds must be expended by the Company no later than the date exactly three (3) years following the specific date upon which the Company initially certifies existing jobs (the "**Jobs Start Date**"). This date exactly three (3) years following the Jobs Start Date shall be referred to as the "**Jobs End Date.**" In the event that the Company does not expend the funds or any part of the funds by the Jobs End Date, the Company shall return the remaining funds to the LUG immediately and in no event later than 10 days after the Jobs End Date.

3. Company Performance.

(a) As of the Jobs End Date, the Company shall employ at least one hundred seventy-nine (179) new full-time persons above and beyond the number of employees based in the geographic area of the LUG as of the Jobs Start Date (the "**Minimum Job Requirement**"). The Company shall certify the number of jobs as of the Jobs End Date and provide evidence of such number if requested by the LUG or the Center. As used herein, (i) "**Number of Jobs Created**" means an amount equal to the number of jobs certified by the Company at the Jobs End Date minus the number of jobs certified by the Company at the Jobs Start Date and (ii) "**New Minimum Job Requirement**" means the actual Number of Jobs Created, but shall not be an amount greater than the original Minimum Job Requirement. The number of jobs certified at any time hereunder is the number of jobs of the Company based in the geographic area of the LUG. Number of Jobs Created represents net new full-time jobs at the Company based in the geographical area of the LUG and

cannot include employees transferred or relocated from another Company site in North Carolina unless otherwise agreed to by the Center, the LUG, and the Company.

(b) As of the date one (1) year following the Jobs End Date (the “**End of Maintenance Date**”), the Company shall employ no fewer full-time persons based in the geographic area of the LUG than the New Minimum Job Requirement. The Company shall certify the number of jobs as of the End of Maintenance Date and provide evidence of such number if requested by the LUG or the Center.

4. Repayment by the Company.

(a) If the Company does not satisfy the Minimum Job Requirement and maintain the Minimum Job Requirement up to and including the Jobs End Date, then the Company shall pay the LUG five hundred and fifty-nine dollars (\$559) for each job below the established Minimum Job Requirement threshold. Any such payment shall be due from the Company to the LUG no more than sixty (60) days following the Jobs End Date.

(b) If the Company does not maintain the New Minimum Job Requirement and maintain the Minimum Job Requirement up to and including the End of Maintenance Date, then the Company shall pay the LUG five hundred and fifty-nine dollars (\$559) for each job below the New Minimum Job Requirement. Any such payment shall be due from the Company to the LUG no more than sixty (60) days following the End of Maintenance Date.

5. Reporting Obligations; Site Visits.

(a) The Company shall provide the LUG with annual reports documenting the Company’s receipt and expenditure of Grant Funds during the year and the number of full-time employees of the Company based in the LUG during the year. Upon request, the Company shall provide the LUG with any supporting documentation such as copies of forms filed with the N.C. Employment Security Commission. Such reports shall be received, annually, by the LUG no later than thirty (30) days following each anniversary of the Jobs Start Date. The Company shall also provide the LUG with a summary report no later than ninety (90) days following the Jobs End Date documenting final use of the Grant Funds and summarizing the overall uses and benefits to the LUG of the Grant, including the total number of jobs created over the three (3) year period beginning on the Jobs Start Date. Any unexpended Grant Funds as of the Jobs End Date shall be remitted by the Company to the LUG within sixty (60) days after the Jobs End Date. Any use of Grant Funds by the Company not satisfying the requirements as described in Section 2 above are due from the Company to the LUG no later than one-hundred sixty (160) days following the Jobs End Date. In addition, the Company shall provide the LUG with a final report no later than ninety (90) days following the End of Maintenance Date which shall include relevant employment information related to the requirements set forth above.

(b) The Company shall retain all financial records, supporting documents, and other pertinent Project records related to the Grant for a period of five (5) years from the date of termination of this Performance Agreement. In the event such records are audited, all Project

records shall be retained beyond the five-year period until any and all audit findings have been resolved. The Company agrees to make available to the LUG, or its designated representative, all of its records pertaining to Grant Fund expenditures which relate to the Project, and agrees to allow the Center, the LUG, or designated representative(s) of either or both no more than one (1) time per year during the term of this Agreement to audit, examine and copy any and all data, documents, proceedings, records and notes of activity relating specifically to Grant Fund expenditures which relate to the Project. Access to these records shall be allowed upon ten (10) days advance request at any time during normal business hours.

(c) The Company hereby acknowledges and agrees that the staff of each of the LUG and the Center shall be permitted to make site visits to the location of the Project one (1) time per year during the term of this Agreement to monitor and confirm compliance with the terms of the Grant Agreement and this Performance Agreement, including, without limitation, with respect to the use and expenditure of the Grant Funds by the Company. The Company shall be given ten (10) days advance notice of any site visit, which will be scheduled during regular business hours unless other mutually acceptable arrangements are agreed upon.

6. Applicable Law. This Performance Agreement shall be construed and enforced under the laws of the State of North Carolina, excluding its conflict of law principles.

7. Notice. All notices required or permitted to be delivered hereunder shall be in writing and shall be (i) personally delivered, (ii) sent by email or facsimile (with a copy sent the same day by certified mail, postage prepaid), or (iii) sent by Federal Express or other nationally recognized overnight delivery service, addressed as follows:

LUG:

Irena Krstanovic, Economic Development Director
Town of Holly Springs
P.O. Box 8
Holly Springs, NC 27540

Email: irena.krstanovic@hollyspringsnc.gov

Company:

Amgen Inc.
Mailstop 28-5-A
One Amgen Center Drive
Thousand Oaks, CA 91320
Attn: DROC Law (Business Contracting)
Email: law.operations@amgen.com

With a copy to:

Vorys, Sater, Seymour and Pease LLP
52 E. Gay Street
Columbus, OH 43215
Attention: Scott J. Ziance

or addressed to such other address or to the attention of such other individual as the LUG or the Company shall have specified in a notice delivered pursuant to this Section 7. Notice shall be deemed effective on the date dispatched if by personal delivery, on the date transmitted by email or facsimile (if confirmed by mail pursuant to this Section 7) or two (2) days after mailing if by Federal Express or other nationally recognized overnight delivery service.

8. Term and Termination. This Performance Agreement shall remain in effect for a period of six (6) years, unless sooner terminated. This Performance Agreement may be terminated or extended upon written consent of each of the Company, the LUG and the Center.

9. Indemnification. In its role as the administrator of the economic incentive grant from the Center to the Company, the LUG shall have no liability, whatsoever, resulting from the acts or omissions of the Company, its agents or employees, and in the event that a claim or lawsuit is filed against the LUG for the gross negligence or willful misconduct arising out of or resulting from acts or omissions of the Company, its agents or employees that are directly related to the economic incentive grant from the Center to the Company, the Company shall defend and indemnify the LUG for any costs, expenses, or liability associated therewith. The Company agrees to obtain and maintain insurance or otherwise protect itself or others as it may deem desirable.

10. Compliance with the Law. The Company shall take all actions necessary to fully comply with the applicable requirements contained in Chapter 143C of the North Carolina General Statutes, including the rules and reporting requirements thereunder (including, without limitation, 09 NCAC Subchapter 03M.0205) (as such statutes, rules and requirements may be amended from time to time). For convenience, the current reporting thresholds applicable to the Grant, established for recipients and subrecipients receiving State funds, are stated below:

At least \$25,000 but less than \$500,000 (Level II)—A recipient or subrecipient that receives, holds, uses, or expends State funds in an amount of at least twenty-five thousand (\$25,000) or greater but less than five hundred thousand dollars (\$500,000) within its fiscal year must comply with the reporting requirements established by this Subchapter including: (a) a certification completed by the recipient or subrecipient stating that the State funds were received, held, used, or expended for the purposes for which they were granted; (b) an accounting of the State funds received, held, used, or expended; and (c) a description of activities and accomplishments undertaken by the recipient or subrecipient with the State funds, including reporting on any performance measures established in the contract. All reports shall be filed with the disbursing agency in the format and method specified by the agency no later than three months after the end of the recipient's or subrecipient's fiscal year.

Such thresholds and requirements may change from time to time and the Company should review the applicable statutes, rules and requirements to determine the then-applicable thresholds and reporting requirements.

[Signatures appear on the following page]

IN WITNESS WHEREOF, each of the parties hereto have executed this Performance Agreement as of the date below, effective as the date first above written.

LUG:

TOWN OF HOLLY SPRINGS

By: _____

Name: _____

Title: _____

Date: _____

COMPANY:

AMGEN INC.

By: _____

Name: _____

Title: _____

Date: _____

Attachment 1
(Project Titan Grant Agreement between Center and LUG)



Holly Springs Town Council

Town Council Meeting Agenda Cover Sheet

Agenda Item#: 20.

New Business

Title: Committee and Board Appointments

Strategic Priority Area: Engaged, Healthy, & Active Community
Responsible & Balanced Growth

Staff Resource: Linda McKinney, Town Clerk

Action(s):

1. Appoint three people to the Holly Springs Parks and Recreation Advisory Committee for three-year terms from July 1, 2022 to June 30, 2025.
2. Appoint two people to the Tree Advisory Committee for three-year terms ending June 30, 2024.
3. Recommend that the Wake County Board of Commissioners appoint a person to a midterm opening for an ETJ member of the Board of Adjustment for a term ending February 29, 2024.

Explanation:

- The Parks and Recreation Advisory Committee (PRAC) has three full-term vacancies that need to be filled due to terms expiring June 30, 2022.
- The Tree Advisory Committee (TAC) has two openings for three-year terms ending June 30, 2024, and one opening for a Junior Member for a term ending June 30, 2023.
- The Board of Adjustment (BOA) has a mid-term opening for an ETJ Regular Member for a term ending February 29, 2024, due to the resignation of the current ETJ Regular member.
- After advertising on the Town's website, through social media and other means, the Clerk's office received 9 applications for the PRAC, three for regular members of the TAC; no applications for the Junior member of the TAC; and two applications for the ETJ Regular member of the BOA..
- Town Council is asked to review the applications for the vacancies and, at the Council's discretion, appoint new members to the PRAC, TAC and recommend one ETJ Regular member of the Board of Adjustment to the Wake County Board of Commissioners.

Background:

- The Parks and Recreation Advisory Committee was created to advise the Council and serve as a liaison between town officials and the citizens of Holly Springs and the surrounding area.
- The Committee serves at the pleasure of the Town Council, and consists of nine members, appointed by Council to three-year terms.

- The Tree Advisory Committee was created in November of 2018 and consists of five members appointed by Council to three-year terms and one junior member serving a one-year term.
- Annual appointments to the Board of Adjustment are made in January of each year, and midterm openings are filled as needed.

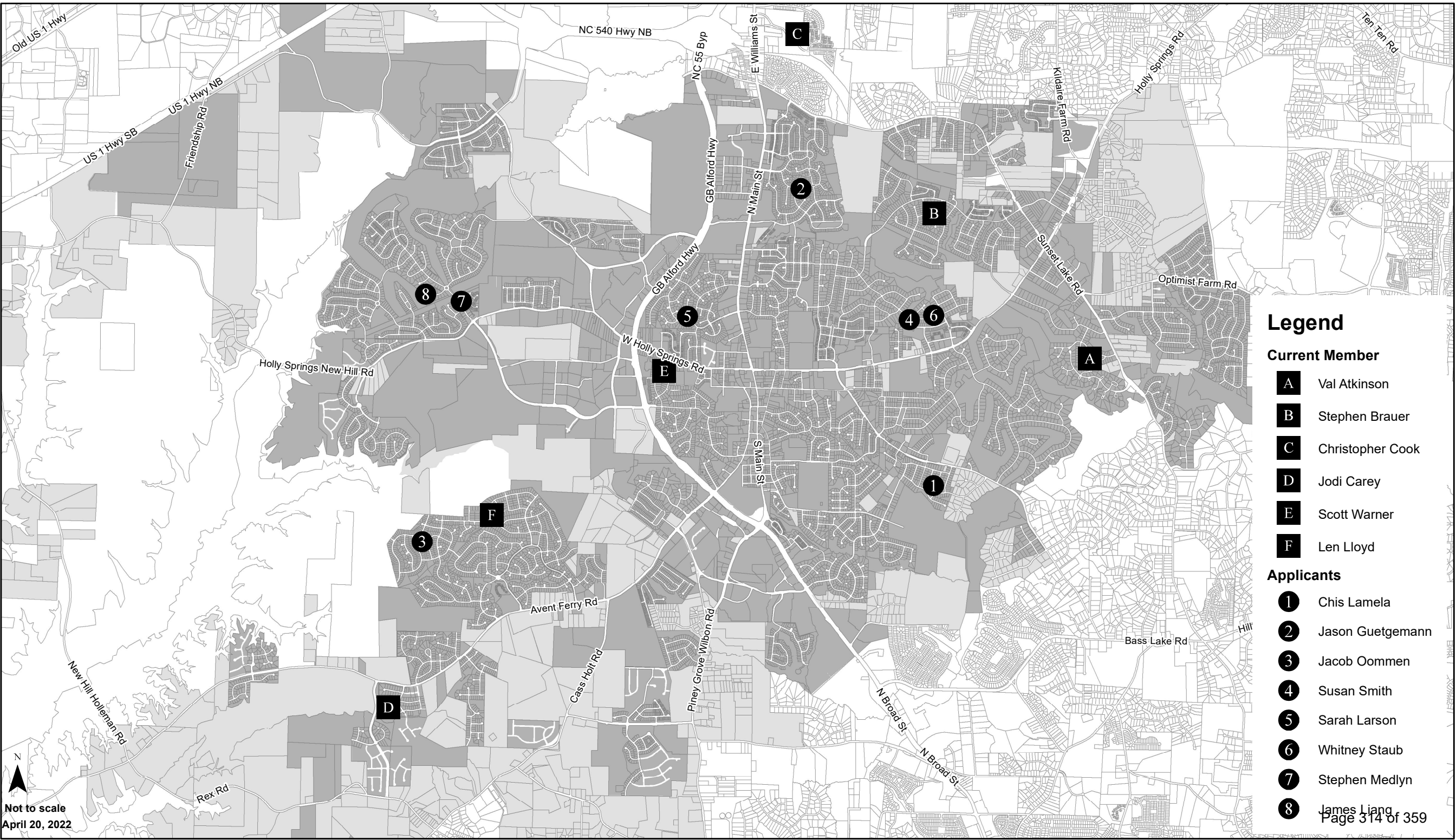
Funding Source(s):

N/A

Attachment(s):

1. 2022_PRAC applicant map
2. PRAC Combined applications
3. 2022_TACBoardAppointment map
4. TAC combined applications
5. BoA ETJ Combined applications
6. 2022_mid-term ETJ BoardAppointment map

Parks & Rec Committee



Legend

Current Member

- A Val Atkinson
- B Stephen Brauer
- C Christopher Cook
- D Jodi Carey
- E Scott Warner
- F Len Lloyd

Applicants

- 1 Chis Lamela
- 2 Jason Guetgemann
- 3 Jacob Oommen
- 4 Susan Smith
- 5 Sarah Larson
- 6 Whitney Staub
- 7 Stephen Medlyn
- 8 James Liang

Application to Serve on Parks & Rec Advisory

Please check one:	New applicant, never served on the Committee
Applicant Name	Chris Lamela
E-mail	chris.lamela@gmail.com
Address	Street Address: 124 Park Bluff Dr City: Holly Springs State: NC Zip Code: 27540
I reside within the	Corporate limits of Holly Springs
How long have you lived in Holly Springs?	3 years
Name of neighborhood	Logan's Manor
Home/Cell phone	(773) 968-4026
Current employer	None
Job title / occupation	Homemaker
Please provide a brief overview about why you are interested in serving (or continuing to serve) on the Parks & Recreation Advisory Committee.	I recently retired from AT&T after 20 years and am looking for my next adventure. My son is involved in sports in town and this is a great way to expand the athletic opportunities for all residents.
List any current or past volunteer activities including experience you have serving on boards or committees related to municipal governments. If you're a current member (applying for a 2nd term) please list out your involvement on the Committee during your	Volunteer baseball coach.

1st term beyond attending monthly meetings.

What do you see as the responsibilities of this committee and what do you hope to accomplish if appointed?

Expand athletic opportunities for all Holly Spring residents. I hope to be an asset to the committee and the community I serve.

Do you have any personal or business interest(s) that could create a conflict of interest (either real or perceived if you are appointed?

No

Have you taken the opportunity to attend any committee meetings prior to the notice of this vacancy?

No

Signature



Date & time

02/24/2022 2:16 PM

How did you find out about this opportunity?

Twitter

View [view all your submissions](#) easily.

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Application to Serve on Parks & Rec Advisory

Please check one:	New applicant, never served on the Committee
Applicant Name	Oommen Jacob
E-mail	jk_jac@yahoo.com
Address	Street Address: 112 linwater way City: Holly Springs State: NC Zip Code: 27540
I reside within the	Corporate limits of Holly Springs
How long have you lived in Holly Springs?	5years
Name of neighborhood	Braxton village
Home/Cell phone	(703) 309-6146
Current employer	Uspto
Job title / occupation	Patent exaniner
Please provide a brief overview about why you are interested in serving (or continuing to serve) on the Parks & Recreation Advisory Committee.	With lot of developments coming to the Holly springs, I would like to provide my input to the P and R, regarding allocation of resources, use and maintenance of facilities, and new facilities. My opinions are based on my observations and findings in view do the circumstances of the past couple of years in particular. I would specifically like to address these issues and, further suggest or advise or how the P and R can and help in providing programs or facilities that address specific age groups, teens and elderly.
List any current or past volunteer activities including experience you have serving on boards or committees related to municipal governments. If	N/a

you're a current member
(applying for a 2nd term)
please list out your
involvement on the
Committee during your
1st term beyond attending
monthly meetings.

What do you see as the
responsibilities of this
committee and what do
you hope to accomplish if
appointed?

Meeting requirements of All age groups.
Meeting requirements of All population groups.
Meeting requirements or at least attempting to
address the issues faced. If appointed I will strive
towards achieving these goals.

Do you have any personal
or business interest(s) that
could create a conflict of
interest (either real or
perceived if you are
appointed?

No

Have you taken the
opportunity to attend any
committee meetings prior
to the notice of this
vacancy?

No

Signature



Date & time

03/23/2022 11:18 AM

How did you find out
about this opportunity?

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Application to Serve on Parks & Rec Advisory

Please check one:	New applicant, never served on the Committee
Applicant Name	James Liang
E-mail	JMCL73@yahoo.com
Address	Street Address: 105 Morning Oaks City: Holly Springs State: North Carolina Zip Code: 27540
I reside within the	Corporate limits of Holly Springs
How long have you lived in Holly Springs?	Moved to Holly Springs on May 17, 2021
Name of neighborhood	12 Oaks
Home/Cell phone	(760) 212-6001
Current employer	Raleigh Emergency Medicine Associates
Job title / occupation	Emergency Medicine Physician
	Liang Curriculum Vitae as of 2 APR 2022.doc
Please provide a brief overview about why you are interested in serving (or continuing to serve) on the Parks & Recreation Advisory Committee.	Being a member of the Parks & Recreation Advisory Committee is an excellent opportunity to be involved in purposeful community service. I have always enjoyed and utilized the parks and recreation services for the cities that I have lived in. With being a new member of the Holly Springs, being a member of this committee will also provide invaluable education, insight, and awareness about many of the awesome events that occur in Holly Springs. Additionally, I would be privileged to provide assistance in whatever capacity I can to help with these events.
List any current or past volunteer activities including experience you	I am currently on the Holly Springs Police Counsel Advisory Group. I have never participated in board or committee membership related to municipal

have serving on boards or committees related to municipal governments. If you're a current member (applying for a 2nd term) please list out your involvement on the Committee during your 1st term beyond attending monthly meetings.	governments. I retired from the US Navy. With moving around regularly, there was never an opportunity to part of something like this. I have been on many hospital committees.
What do you see as the responsibilities of this committee and what do you hope to accomplish if appointed?	The P&R committee are advisors to the town council regarding issues, ideas for park development/enhancement and for recreational programs that serve the people of the city. As a new member to the committee and having no true municipal committee experience the main goal I have initially is to learn, be a voice and potentially a fresh look to assist with P&R programs/projects.
Do you have any personal or business interest(s) that could create a conflict of interest (either real or perceived if you are appointed?	No
Have you taken the opportunity to attend any committee meetings prior to the notice of this vacancy?	No
Signature	
Date & time	04/02/2022 3:14 PM
How did you find out about this opportunity?	Facebook

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James Michael Liang, D.O.

Phone: (760) 212 - 6001

E-mail: JMCL73@yahoo.com

105 Morning Oaks Drive

Holly Springs, NC 27540-7990

NPI: 1043263387

EDUCATION

- Midwestern University, Arizona College of Osteopathic Medicine, Doctor of Osteopathic Medicine, August 1999 to June 2004
- Marquette University, Bachelor of Science in Biomedical Engineering, August 1995 to May 1999

GRADUATE MEDICAL EDUCATION

- Emergency Medicine Residency, Naval Medical Center San Diego, September 2009 to February 2013
 - Positions/Collaterals Held
 - Cadaver / Vivarium Lab Coordinator
 - House Staff Counsel (Emergency Department (EMD) Representative)
- Family Medicine Internship, Naval Hospital Camp Pendleton, June 2004 to June 2005

Occupational Experience

- **Raleigh Emergency Medicine Associates (REMA): September 2021 to Present**
 - Staff Emergency Medicine Physician
 - 41 bed Emergency Department (UNC Rex Raleigh)
 - 26 bed Emergency Department (UNC Rex Holly Springs)
- **Transition from active-duty military to civilian sector, move to new city: May 2021 to September 2021**
- **Naval Hospital Rota, Spain: September 2018 to May 2021**
 - Staff Emergency Medicine Physician
 - 6 bed Emergency Department
 - Positions Held:
 - Department Head (Sept 2020 to March 2021): Supervisor for over 30 personnel, \$51,000 annual budget
 - Senior Medical Officer (December 2018 to March 2021): Lead proctor for 5 providers
 - Collateral Duties Held:
 - Credentials Committee Chairperson (Nov 2019 to March 2021); member (Dec 2018 to Nov 2019)
 - Pharmacy and Therapeutics Committee Chairperson (May 2019 to January 2021)
 - Medical Executive Committee member (May 2019 to March 2021)
 - Team STEPPS master instructor

- Emergency Medical Technician Instructor
 - Sick call screeners course Instructor
 - ♦ Deployment: Gulf of Guinea medical engagement for subject matter exchange, African Partnership Station: June 2019 to August 2019
- **Naval Medical Center Camp Lejeune: August 2016 to September 2018**
 - Staff Emergency Medicine Physician
 - 23 Bed Level II Emergency Department
 - ~54,000 patient encounters per year
 - Positions Held:
 - Senior Medical Officer (May 2018 to September 2018): Lead proctor for 23 providers
 - Assistant Department Head (October 2016 to June 2017)
 - Collateral Duties Held:
 - Medical Staff Quality Committee member (October 2016 to June 2017)
 - ♦ Deployment: NATO Role 3 Multinational Medical Unit Kandahar, Afghanistan: July 2017 to April 2018
 - Staff Emergency Medicine Physician in support of Resolute Support
 - 12 Bed Level 1 Trauma Hospital
 - Position Held:
 - Director of Medical Services: Supervisor to Emergency Department, Internal Medicine, and lead liaison to US Army Primary Care Clinic NATO Role 3 Multinational Medical Unit Kandahar, Afghanistan (July 2017 to April 2018)
 - Collateral Duties Held:
 - Public Affairs Committee
 - **US Naval Hospital Okinawa, Japan: March 2014 to July 2016**
 - Staff Emergency Medicine Physician
 - 17 Bed Level II Emergency Department
 - ~22,000 patient encounters per year
 - Positions Held:
 - Department Head (March 2015 to June 2016): Supervisor for over 55 personnel (active duty and government service)
 - Senior Medical Officer (November 2014 to June 2016): Lead proctor for 15 providers (Physicians and Physician Assistants)
 - Emergency Medical Services (EMS) Director (April 2014 to Nov2014): Supervisor for 7 EMS stations
 - Collateral Duties Held:
 - Critical Care Committee member (April 2014 to Oct 2014)
 - Credentials Committee member (Nov 2014 to June 2016)
 - Medical Executive Committee (MEC) Directorate Medical Services representative (Oct 2014 to June 2016)
 - Medical Staff Quality Committee member (August 2015 to June 2016)
 - Team STEPPS master trainer: instructed over 100 personnel on Team STEPPS strategies
 - Emergency Medical Technician instructor
 - **Naval Medical Center San Diego: March 2013 to March 2014**

- Staff Emergency Medicine Physician
- 48 Bed Level II Emergency Department
- ~70,000 patient encounters per year
- ♦ Deployment: Helmand Province, Afghanistan in support of Operation Enduring Freedom (OEF): July 2013 to Dec 2013
- Positions Held:
 - Shock Trauma Platoon leader: organized and supervised over 20 personnel for the treatment of US and coalition service members
 - **Marine Aviation Logistics (MALS) - 16: August 2007 to August 2009**
 - General Medical Officer/ General Practitioner
 - ♦ Deployment: Iraq in support of Operation Iraqi Freedom (OIF): January 2008 to August 2008
 - Primary care provider for United States Marine Corp (USMC) aviation squadron
 - **1st Battalion, 5th Marines: July 2005 to August 2007**
 - General Medical Officer / General Practitioner
 - ♦ Deployment: 31st Marine Expeditionary Unit (MEU), Okinawa, Japan: July 2006 to Jan 2007
 - Primary care provider for USMC infantry battalion
 - **USS Nicholson (DD-982): July 1993 to July 1994**
 - Engineman 3rd Class Petty Officer
 - ♦ Deployment: United Arab Emirates /Persian Gulf: Mechanic and lab technician for engineering operations for a United States Naval ship

PUBLICATIONS

- Soma Overdose, ACEP Toxicology Newsletter, September 2012.
- Broncho pleural Fistula, Western Journal Emergency Medicine, September 2013, 14(5): 409-410.
- Hip Pain Secondary to Small Bowel Fistula to Pelvis, Western Journal Emergency Medicine, November 2014, 15(7):874-875.
- Silent Killer: Case Report of Acute Gastrostomy Tube Erosion, Western Journal Emergency Medicine, March 2015, 16(2):318-319.
- Adult Intussusception Secondary to Inflammatory Fibroid Polyp, Western Journal Emergency Medicine, July 2015, 16(4): 582-583.

PROFESSIONAL ORGANIZATIONS

- American Academy of Emergency Medicine (AAEM)-Fellow
- American College of Emergency Physicians (ACEP)-Fellow

CONFERENCE PRESENTATIONS

- High Flow Nasal Cannula, Naval Hospital Rota medical staff conference February 2021
- “Abdominal Pain in Adolescent Female: Ovarian Torsion”, Rady’s Regional Pediatric Conference, San Diego, California, August 2011.
- “Silent Killer: A Case Report of Acute PEG Tube Erosion” American Academy Emergency Medicine 21st Scientific Assembly, poster presentation, March 2015

MILITARY SCHOOLS/TRAINING

- Recruit Training Command, Great Lakes Illinois: August to September 1992
- Engineman A school and advanced school: September 1992 to June 1993
- Cargo Elevator Maintenance School: June 1993 to July 1993
- Broadened Opportunity Officer Selection and Training (BOOST): August 1994 to July 1995
- Naval Reserve Officer Training Corp (NROTC) Marquette University: August 1995 to May 1999
- Combat Casualty Care Course: June 2005
- Field Medical Services Officer Course: July 2005
- Global Medicine Course: February 2006
- Joint Operations Medical Manager's Course: June 2014
- Team STEPPS master trainer course: February 2015
- Advanced Medical Department Course: Nov 2015
- Navy Individual Augment Combat Training: July 2017
- Navy Trauma Training Center: August 2017
- Naval Expeditionary Medical Training Institute: September 2017
- Navy Leadership & Ethics: Senior Leadership Course: January 2021

LICENSES AND CERTIFICATES

- Board Certified by American Board of Emergency Medicine (ABEM) September 2024
- North Carolina medical license

AWARDS

- Navy Achievement Medal: August 2008
- Japanese Internship Emergency Department teaching award March 2015
- Henry Jackson Foundation Navy Hero of Military Medicine: May 2016
- Navy Commendation Medal: July 2016, April 2018, May 2021
- Army Achievement Medal: April 2018
- Humanitarian Service Medal: Oct 2020

Military Qualifications/Appointments

- Fleet Marine Force Qualified Officer (FMFQ): January 2007
- Executive Medicine: November 2015
- Adjunct Assistant Professor of Military/Emergency Medicine Uniformed Services University of the
- Health Sciences: January 2017

Online Course Certifications

- Camera, Exposure, and Photography
- Camera Control
- Principles of Photo Composition & Digital Image Post-Production
- Photography Techniques: Light, Content, and Sharing

Personal Information/Interests/Hobbies

- Wife: Kimberly, Son: Hayden (born 2011), Daughter: Emma (born 2013)
- Interests/Hobbies: Travel, Tennis, Comic Books, Toy collecting, Biking, Scrapbooking, photography
- Volunteer Activities: Member of Police Counsel Advisory Group, Holly Springs (January 2022 to Present)

Application to Serve on Parks & Rec Advisory

Please check one:	Current member, reapplying for second term
Applicant Name	Jason Guetgemann
E-mail	jguetgemann@yahoo.com
Address	Street Address: 100 Malmedy Dr City: Holly Springs State: NC Zip Code: 27540
I reside within the	Corporate limits of Holly Springs
How long have you lived in Holly Springs?	15 1/2 years
Name of neighborhood	Arbor Creek
Home/Cell phone	(919) 758-4514
Work phone	(919) 218-6672
Current employer	State of North Carolina-DHHS
Job title / occupation	Regional Consultant
Please provide a brief overview about why you are interested in serving (or continuing to serve) on the Parks & Recreation Advisory Committee.	I believe that having excellent parks and recreation facilities, and programs are vital to the current and long-term growth of a town. I have enjoyed being part of the PRAC for the past several years. I feel that serving on this committee is a way for me to give back to the town that our family enjoys every day.
List any current or past volunteer activities including experience you have serving on boards or committees related to municipal governments. If you're a current member (applying for a 2nd term)	Past volunteer activities: - Raleigh Rescue Mission -Catholic Parish Outreach -Meals on Wheels Committee Involvement: -Master Plan public meetings -Dog Park opening

please list out your involvement on the Committee during your 1st term beyond attending monthly meetings.	-Cass Holt Road Park public tour -Tour of Raleigh-Cary Jewish Community Center -Tree Trail at Ting Park -Bass Lake Day-setup
What do you see as the responsibilities of this committee and what do you hope to accomplish if appointed?	The responsibilities of this committee are to gather and represent the interest of town residents to HS Parks and Recreation staff as well as town council members. My goal is to continue to represent community needs and advocate for parks and recreation resources to benefit and increase mental and physical well-being for town residents.
Do you have any personal or business interest(s) that could create a conflict of interest (either real or perceived if you are appointed?)	No
Have you taken the opportunity to attend any committee meetings prior to the notice of this vacancy?	Yes
Signature	
Date & time	03/09/2022 5:47 PM
How did you find out about this opportunity?	I'm currently serving on the board.

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Application to Serve on Tree Advisory Committee

Applicant Name	Linda Hewitt
E-mail	lehewitt18@gmail.com
Address	Street Address: 101 Waterpoint Road City: Holly Springs State: NC Zip Code: 27540
I reside within the	Corporate limits of Holly Springs
How long have you lived in Holly Springs?	since June 2020
Name of neighborhood	Linda Hewitt
Home/Cell phone	(412) 445-2479
Current employer	S.U.N.Y. Empire State College/SUNY Empire Online
Job title / occupation	Adjunct Instructor in Child Development
Have you served on this board in the past?	No
List any education, work experience or qualifications you have relevant to the Tree Board - specifically in regard to urban forestry, trees or landscape.	My career background is in Child Development and the social sciences. I have a lifelong enthusiasm and love for trees, sparked by seeing my first Redwood tree at age 6. I'm familiar with the many benefits of trees, which range from reducing air and water pollution to enhancing people's mental health.
List any current or past volunteer activities in which you are / were involved.	Prior to moving to Holly Springs, I volunteered on a weekly basis with a Food and Clothing Bank and an After-School Program. Since 2021, I have participated in Letters Against Isolation, which involves writing to seniors in residential settings.
What do you see as the responsibilities of this board and what do you	The Committee assists the town in adhering to the Tree City USA standards, in planting, maintaining and preserving trees and forests, and in educating

hope to accomplish if appointed?

the public about these efforts. I could contribute in the areas of publicity and education involving children and families; ensuring the Tree City standards are being met; and by using my skills in writing, research and attention to detail to help the Committee reach its goals.

Do you have any personal or business interest(s) that could create a conflict of interest (either real or perceived if you are appointed?

No

Have you taken the opportunity to attend any board meetings prior to the notice of this vacancy?

Yes

Signature



Date & time

04/04/2022 2:46 PM

How did you find out about these opportunities?

Holly Springs Website, email

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Application to Serve on Parks & Rec Advisory

Please check one:	New applicant, never served on the Committee
Applicant Name	Sarah Larson
E-mail	sarah.lar.son@hotmail.com
Address	Street Address: 112 Volta Pl City: Holly Springs State: NC Zip Code: 27540
I reside within the	Corporate limits of Holly Springs
How long have you lived in Holly Springs?	8 years
Name of neighborhood	Oak Hall
Home/Cell phone	(605) 868-4106
Current employer	Larson household
Job title / occupation	Currently I am the manager of our Larson household where I now oversee part-time remote learning for a 3rd grader, a 1st grader, and a preschooler. Other duties include menu planning, prepping, and serving; general house and yard maintenance; budgeting and spending.
	Sarah.Lar.Son Resume NC '22.pdf
Please provide a brief overview about why you are interested in serving (or continuing to serve) on the Parks & Recreation Advisory Committee.	My family and I love Holly Springs and are very active in the area. I would like to continue my civil involvement by supporting the Parks and Recreation Department and to help development public awareness of the benefits this Town entity provides in enhancing the quality of life for all residents in and around Holly Springs. Sometimes you don't choose the Town, the Town chooses you.

List any current or past volunteer activities including experience you have serving on boards or committees related to municipal governments. If you're a current member (applying for a 2nd term) please list out your involvement on the Committee during your 1st term beyond attending monthly meetings.	Finding Patience - the Musical, Stage Manager, Holly Springs, NC: January 2022 – Present (Performances in June 2022) Cultural Arts Society of Fuquay-Varina, Board Member, Fuquay-Varina, NC: September 2021 – Present Oak Hall Community HOA Board of Directors, Vice President, Holly Springs, NC: October 2020 – Present HALF n HALF, Holly Springs, NC, Home Brew Club, President and Founder: June 2015 – Present Oak Hall Community Social Committee Chair, Holly Springs, NC: September 2014 – January 2016 Fellowship of the Brew, Watertown SD Home Brew club, President and Founder: January 2011 – January 2012 Watertown SD Convention and Visitor's Bureau Hospitality Committee: March 2011 – January 2012 The Watertown SD Chamber of Commerce Ambassador Chair: September 2011 – January 2012 I have also worked for the Town of Chapel Hill and their Parks and Rec department. And I was the Program Manager for the Downtown Association in Brookings, SD.
---	---

What do you see as the responsibilities of this committee and what do you hope to accomplish if appointed?	I would be a committed and active member of the Advisory Committee as we would serve as liaisons between the Town of Holly Springs and its citizens. I would want to embody the mission as stated to enhance the quality of life of Holly Springs residents as the Town continues to grow; especially as we create additional recreational space with the new Cass Holt Rd Park.
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Do you have any personal or business interest(s) that could create a conflict of interest (either real or perceived if you are appointed?	No
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Have you taken the opportunity to attend any committee meetings prior to the notice of this vacancy?	No
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Signature



Date & time

03/24/2022 2:25 PM

How did you find out about this opportunity?

Previously applied

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Sarah Larson

112 Volta Pl. Holly Springs, NC 27540

605.868.4106

sarah.lar.son@hotmail.com

Education

South Dakota State University, Brookings SD

September 2003 – May 2008

Completed a Bachelor of Science in Journalism degree with an emphasis in Advertising

Relevant coursework in Advertising, Digital Media, Photography, Marketing Campaigns, Human Resources, Broadcast and News Writing

Manchester Metropolitan University, Manchester UK

September 2007 – December 2007

University Exchange Program

Relevant coursework in Brand Management, Creative Brand Strategies, Direct and Relationship Marketing

Employment

Mason Jar Lager Company, Fuquay-Varina, NC – Events Assistant

January 2019 – August 2019

Worked hands on with the owners and bar staff to coordinate on site events, of all sizes, including: pop up markets, outdoor movies, fitness classes, musical entertainment, fundraisers, etc.

Draft Line Brewing Company, Fuquay-Varina, NC – Events Coordinator

May 2015 – January 2016

Responsible for coordinating on site and off site events, of all sizes, through costumer interaction, community involvement, as well as advertising and marketing through print and online media. Additional duties include, but aren't limited to: cash handling, bar tending, and brewing.

Chapel Hill Downtown Partnership, Chapel Hill Parks & Rec – Downtown Cultural Arts & Events Coordinator

January 2014 – April 2014

Responsible for planning, coordinating and supervising activities for the business district of the Chapel Hill Downtown Partnership in coordination with the Chapel Hill Parks and Rec Dept. Managed and supervised volunteers, interns and temporary staff. Assisted in marketing of special events and programs, while developing promotional materials and maintaining program budgets. Negotiated contract terms and conditions with vendors and program partners.

Venerts Hotel Management, Watertown SD – Director of Sales for: Country Inn & Suites, Quality Inn & Suites

March 2011 – January 2012

Conducted outside sales calls and prospecting; planned and executed events; participated in local associations, Chamber of Commerce events, Convention and Visitor Bureaus, and state tourism committees. Used marketing tools, social media and other programs effectively to sell the hotels, increase exposure and to increase revenue; created and supported an effective Sales and Marketing Plan.

Downtown Brookings Inc., Brookings SD – Marketing Intern: May 2007 – August 2007

Program Manager: June 2008 – January 2009

Created multi-media advertisements, developed a working marketing plan for the 2008 summer streetscape for Downtown Brookings. As Program Manager: Met with downtown business owners, worked closely with city, state and university entities, committees and Board of Directors, managed administrative aspects, implemented organizations goals: Design, Economic Enhancement, Organization and Promotion.

SDSU University Program Council, Brookings SD

May 2004 – May 2007

Hobo Day Grand Pooba, Showcase Coordinator, Community Service Coordinator

Planned and marketed events, developed and coordinated themes, maintained committees, oversaw the implementation of many events throughout the year and worked closely with faculty, city, county, state entities and numerous student organizations.

Clubs and Committees

Finding Patience - the Musical, Stage Manager, Holly Springs, NC: January 2022 – Present (Performances in June 2022)

Cultural Arts Society of Fuquay-Varina, Board Member, Fuquay-Varina, NC: September 2021 – Present

Oak Hall Community HOA Board of Directors, Vice President, Holly Springs, NC: October 2020 – Present

HALF n HALF, Holly Springs, NC, Home Brew Club, President and Founder: June 2015 – Present

Oak Hall Community Social Committee Chair, Holly Springs, NC: September 2014 – January 2016

Fellowship of the Brew, Watertown SD Home Brew club, President and Founder: January 2011 – January 2012

Watertown SD Convention and Visitor's Bureau Hospitality Committee: March 2011 – January 2012

The Watertown SD Chamber of Commerce Ambassador Chair: September 2011 – January 2012

Skills

Creative Writing and Public Speaking; Ad Development and Social Media Marketing; Event and Party Planning; PC and Mac Knowledge; Great people skills with previous work experience in retail stores, community theater, restaurants, bars, breweries, medical offices, universities, preschools, city and state offices, banks, hotels, and also the military.

References

Amanda Fletcher, *Senior Events Manager at Dude Solutions*. Amanda.Fletcher@dudesolutions.com 919.616.8716

Tammy Sanderford, *Community Manager with Professional Properties Management*, tsanderford@ppmral.com 919.848.4911

Application to Serve on Parks & Rec Advisory

Please check one:	New applicant, never served on the Committee
Applicant Name	Stephen Medlyn
E-mail	shmedlyn@yahoo.com
Address	Street Address: 908 Green Oaks Pkwy City: Holly Springs State: North Carolina Zip Code: 27540
I reside within the	Corporate limits of Holly Springs
How long have you lived in Holly Springs?	4 yr in July
Name of neighborhood	12 Oaks
Home/Cell phone	(812) 202-3750
Current employer	Retired
Job title / occupation	Sales Management
Please provide a brief overview about why you are interested in serving (or continuing to serve) on the Parks & Recreation Advisory Committee.	I have always been involved in civic and church duties and feel that those that can provide a skill or asset, need to volunteer for projects and roles within their community. I have over 40 yrs of sales management and have worked on many cross functional team to reach corporate goal and ongoing vision. I was a Public Administration major in college and now that I am retired and no longer traveling extensively, I want to give back to the community. We fell in love with Holly Springs and felt like it was home before even moving to the area. With all the growth coming to this area, I think the park system is a great way to enhance the family experience to our town.

I have just recently retired and due to prior high travel requirements, I have not been able to become active in events or meeting that have taken place during the week. For this reason I have not been able to attend meetings.

List any current or past volunteer activities including experience you have serving on boards or committees related to municipal governments. If you're a current member (applying for a 2nd term) please list out your involvement on the Committee during your 1st term beyond attending monthly meetings.

Habitat for Humanity - 11 yrs
Hope Community Church - Small Group Leader
Hope Community Church - Safety Team
Hope Community Church - Food Pantry
Wake Co Back Pack Buddies - Schools

What do you see as the responsibilities of this committee and what do you hope to accomplish if appointed?

I think the role is to set the vision for the current park locations as well as events and usage for the property. I think the committee needs to understand to needs of the residents to ensure their needs are met and the parks are utilized to their fullest potential.

If on the board, my goal would be be help drive the processes and to offer insights to help direct the department.

Do you have any personal or business interest(s) that could create a conflict of interest (either real or perceived if you are appointed?

No

Have you taken the opportunity to attend any committee meetings prior to the notice of this vacancy?

No

Signature



Date & time

03/30/2022 5:10 PM

How did you find out about this opportunity?

Email

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Application to Serve on Parks & Rec Advisory

Please check one:	Current member, reapplying for second term
Applicant Name	Susan Smith
E-mail	susankerrigansmith@gmail.com
Address	Street Address: 237 Kingsrport Road City: Holly Springs State: NC Zip Code: 27540
I reside within the	Corporate limits of Holly Springs
How long have you lived in Holly Springs?	21 Years
Name of neighborhood	Sunset Ridge North
Home/Cell phone	(919) 259-5787
Work phone	(919) 670-4018
Current employer	L&E Research
Job title / occupation	Recruiter
	SKS Resume 2022.docx
Please provide a brief overview about why you are interested in serving (or continuing to serve) on the Parks & Recreation Advisory Committee.	I have really enjoyed the last 3 years on the PRAC board. I have learned so much about this community. I have been very engaged in all the events and meetings pertaining to this board over the course of my term. Two of those years I have served as the chairperson. This role has given me the wonderful opportunity to work closely with the Director of PRAC and staff. This role has allowed me to gain new insight from the community to help guide PRAC initiatives in our town. I am most proud of our board work on the PRAC Master Plan. I believe that the master plan will help grow our town offerings in a way that will positively impact health, wellness, and sports for generations to

	come. I would like to continue serving on this board and keep moving forward with all our important goals.
List any current or past volunteer activities including experience you have serving on boards or committees related to municipal governments. If you're a current member (applying for a 2nd term) please list out your involvement on the Committee during your 1st term beyond attending monthly meetings.	I have really enjoyed the last 3 years on the PRAC board. I have learned so much about this community. I have been very engaged in all the events and meetings pertaining to this board over the course of my term. Two of those years I have served as the chairperson. This role has given me the wonderful opportunity to work closely with the Director of PRAC and staff. This role has allowed me to gain new insight from the community to help guide PRAC initiatives in our town. I am most proud of our board work on the PRAC Master Plan. I believe that the master plan will help grow our town offerings in a way that will positively impact health, wellness, and sports for generations to come. I would like to continue serving on this board and keep moving forward with all our important goals.
What do you see as the responsibilities of this committee and what do you hope to accomplish if appointed?	I have served as the Chair of the PRAC board for two of my three-year term. I also served during my first year on the board as the liaison to TAC. I have taken an active role in the meetings and conversations about the PRAC Master Plan, as well as the Greenways, Arbor Day Celebrations, Holly Fest, Dog Park Opening, and Ting Tree Trail. I have also served for three years on the HOA board in my neighborhood.
Do you have any personal or business interest(s) that could create a conflict of interest (either real or perceived if you are appointed?	No
Have you taken the opportunity to attend any committee meetings prior to the notice of this vacancy?	Yes
Signature	
Date & time	03/23/2022 2:53 PM
How did you find out about this opportunity?	Currently serving on the board

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Susan Kerrigan Smith

(919) 259-5787 • susankerrigansmith@gmail.com
LinkedIn: www.linkedin.com/in/susankerrigansmith

Versatile business professional with expertise in sales, project management, marketing communications, and event management.
Excellent leadership, organizational, communications, and problem-solving skills with experience across a variety of markets.

PROFESSIONAL EXPERIENCE

L&E Research - Raleigh, NC (October 2018 - Present)

National market research company

National Recruiter - B2B Specialist

- Responsible for full lifecycle recruiting for market research studies, utilize in depth knowledge of LinkedIn recruiting tools and Zoom Info to secure recruits.
- Implement highly successful cold calling strategies with a proven ability to find candidates outside of the normal methods.
- Liaison to sales teams and senior management regarding bid feasibility and options that align with internal priorities.
- Responsible for recruiting consumers, B2B and medical participants with successful results.
- Provide knowledge as a mentor to fellow recruiters and provide training to new hires.
- Work with stakeholders in Fortune 500 companies to gather criteria and identify ideal candidates.

The Produce Box - Raleigh, NC (January 2017- October 2018)

Regional food delivery service company

Marketing Communications Manager

- Used analytics tools from Facebook and Google to provide sales and marketing metrics to the executive team.
- Set pricing, created food pairings, and wrote descriptions for 40-60 items offered to members each week.
- Designed and wrote copy for weekly email campaign with distribution to over 15K members with an average 40-50% open rate.
- Wrote and designed content for company blogs while adhering to current SEO standards.
- Created email templates in Mail Chimp to replace 15 paper newsletters to save company \$35,000 annually.
- Managed marketing support staff and develop training materials for employees and customers.
- Helped Develop new UI for online ordering.

L&E Research - Raleigh, NC (September 2015- January 2017)

National market research company

National Recruiter

- Successfully recruited for challenging projects in B2B and medical studies.
- Designed training for new recruits on B2B methods and marketing.
- Implemented training and roll-out of new texting policies.

Whisk Carolina. - Cary NC (August- 2013 – August 2015)

High-end kitchen store

Assistant Manager

- Integral part of opening new store location including staff training, setting up sales floor and back room.
- Assisted with product ordering and inventory management.
- Created successful sales and marketing materials to drive growth including in-store signage, print ads and social media.
- Managed team of 18 employees, floor set up and displays, overseeing in store events.

PLUM DISTRICT - Raleigh, NC (October 2011 – January 2013)

Daily deal sales and marketing company targeting moms.

District Sales Consultant

- Identified and worked with local merchants to establish and sell daily deals targeted at families in Raleigh.
- Managed accounts using Salesforce.
- Obtained bonuses as a top district performer and exceeded sales quotas.

Susan Kerrigan Smith

(919) 259-5787 • susankerrigansmith@gmail.com
LinkedIn: www.linkedin.com/in/susankerrigansmith

- Wrote daily deal ad copy & selected photos for the national website.
- Negotiated contracts with merchants and marketed their deals through social media.

GREEN TREE CREATIVE DESIGN - Holly Springs, NC (January 2001- January 2017)

Graphic design, marketing, branding,
and consulting company.

Owner and Designer

- Implemented project management procedures that resulted in creation of a standard naming convention, time management software, and a client database for Opinion Lab.
- Created brochures, catalogs, direct mail, presentations and consulted on web projects for Fortune 500 companies.
- Developed training materials and taught classes on Adobe Acrobat to Fortune 500 companies.
- Produced a 200-page book and created a new system for the Chicago Board of Education. The online system cut the cost of future publications in half.

FORSYTHE TECHNOLOGY - INC. (Corporate Headquarters) Skokie, IL (May- 1999 – February 2000)

Large independent IT integrator.

Marketing Director

- Oversaw booth creation and collateral material development for national trade show with a \$200k budget.
- Managed all corporate events and in-house promotional items.
- Administered a mid-year sales incentive program, with a combined budget of nearly \$1 million dollars.
- Created and launched an online process for ordering promotional items in first two months on the job.
- Planned over 20 national/local sales, training, and vendor partner meetings.

ANIXTER INC. (Corporate Headquarters) Glenview, IL (January 1992- May 1999)

An \$8 billion global distributor of networking, security, electrical and electronic solutions.

Director of Creative Services

- Provided art direction and project management for marketing communications activities including trade show booths, promotional items, web development, marketing collateral, and presentations.
- Managed a team of seven designers and multiple freelancers.
- Managed agency relationships to ensure quality projects on time and within budget.

Marketing Communications Manager

- Leveraged new vendor relationships to reduce supply costs by 25%.
- Managed graphics-related aspects of an online catalog project, for a global audience.

Graphic Designer Anixter Marketing/Training Group

- Created corporate standards and process training for designers located around the world.

Boards and Associations

- Chairperson for a nine-member Parks and Recreation Advisory Board, for Holly Springs, NC representing 40,000 residents.
- Vice President of HOA in Sunset Ridge North, a neighborhood of 600 homes.

Education

Hope College — Holland, MI — BA: Sociology, Business Administration

Application to Serve on Parks & Rec Advisory

Please check one:	New applicant, never served on the Committee
Applicant Name	Whitney Staub
E-mail	whitney.staub@gmail.com
Address	Street Address: 308 Crossway Ln City: Holly Springs State: NC Zip Code: 27540
I reside within the	Corporate limits of Holly Springs
How long have you lived in Holly Springs?	17yrs
Name of neighborhood	Whitney Staub
Home/Cell phone	(919) 924-2348
Current employer	Habitat for Humanity
Job title / occupation	Restore Associate
Please provide a brief overview about why you are interested in serving (or continuing to serve) on the Parks & Recreation Advisory Committee.	I am interested in serving on Parks & Rec committee because I have watched this town evolve into a thriving community. I raised my children here and would not have survived if not for the many open spaces and the programs at the rec center. I would love to be able to continue to plan these spaces well and make room for a symbiotic relationship between growth and preservation for all to enjoy!
List any current or past volunteer activities including experience you have serving on boards or committees related to municipal governments. If you're a current member (applying for a 2nd term) please list out your	PTA volunteer for many years. Food Bank volunteer. SPCA volunteer.

involvement on the Committee during your 1st term beyond attending monthly meetings.

What do you see as the responsibilities of this committee and what do you hope to accomplish if appointed?

I see the responsibilities and the hope as one in the same... To provide and serve the HS community with safe, public recreational spaces for all ages.

Do you have any personal or business interest(s) that could create a conflict of interest (either real or perceived if you are appointed?

No

Have you taken the opportunity to attend any committee meetings prior to the notice of this vacancy?

No

Signature



Date & time

03/30/2022 10:35 AM

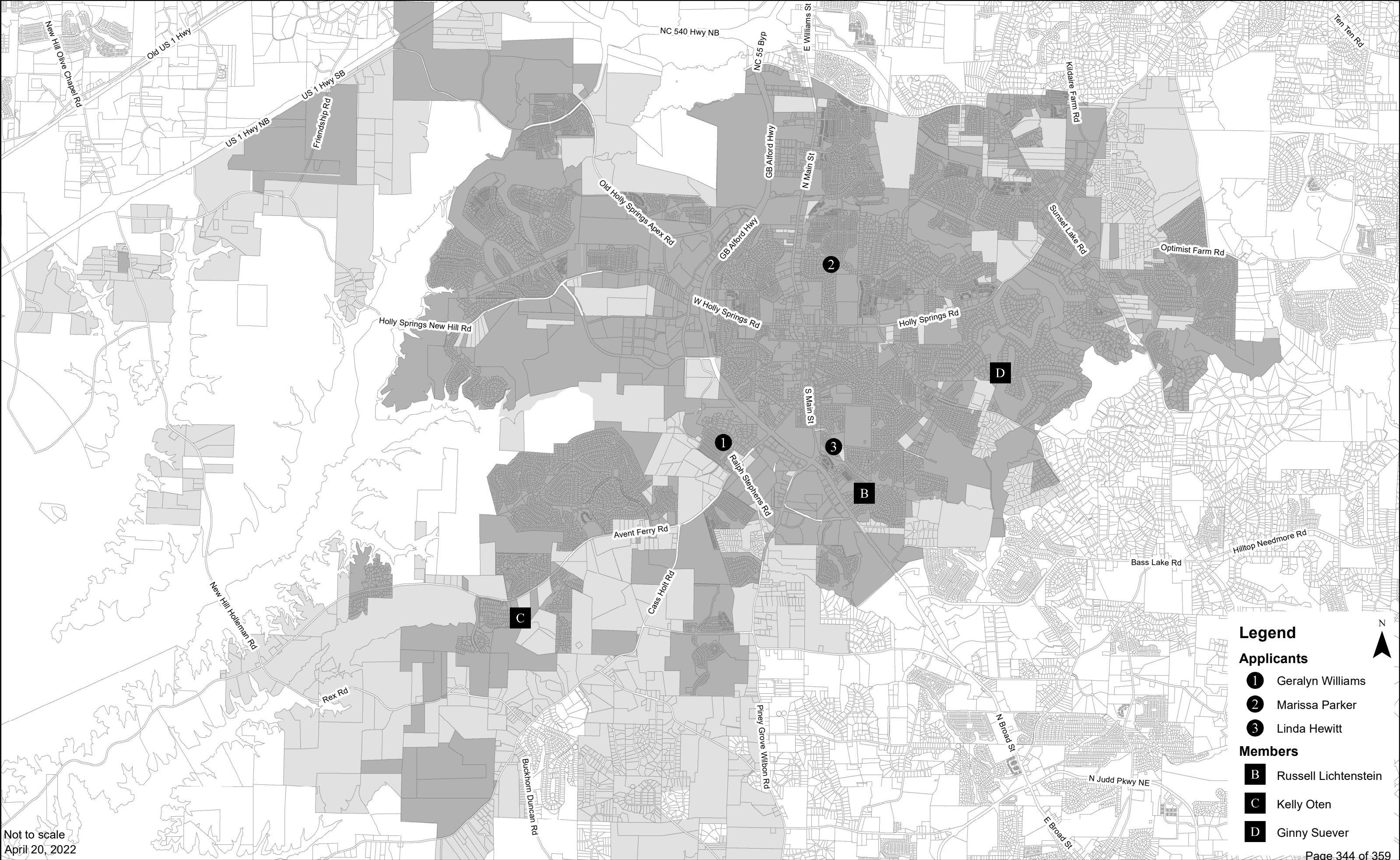
How did you find out about this opportunity?

email

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Tree Advisory Committee Applicants



Application to Serve on Tree Advisory Committee

Applicant Name	Geralyn Williams
E-mail	gerr.williams@gmail.com
Address	Street Address: 148 Morgan Ridge Road City: Holly Springs State: NC Zip Code: 27540
I reside within the	Corporate limits of Holly Springs
How long have you lived in Holly Springs?	2 years
Name of neighborhood	Morgan Park
Home/Cell phone	(310) 968-1047
Current employer	Wake County Public School (Green Level High School)
Job title / occupation	English Teacher
	Geralyn Williams Resume.pdf
Have you served on this board in the past?	No
List any education, work experience or qualifications you have relevant to the Tree Board - specifically in regard to urban forestry, trees or landscape.	I don't have formal training in urban forestry, trees, or landscape, but I am an avid learner and I am very interested in preserving our trees in Holly Springs. I am Jewish, and we have four different holidays dedicated to trees. My favorite holiday is Tu Bishvat, the new year of the trees. This past Tu Bishvat, my daughter asked how I am fulfilling the Jewish ideal of Tikkun Olam, or making the world a better place. I started thinking about how I can set that example for her of improving the world on a micro-level here in Holly Springs, and so would like to join the committee to do anything that I can to help support the Tree Board's mission for tree preservation and maintenance.

List any current or past volunteer activities in which you are / were involved.	I previously volunteered in my daughter's public school and religious school classrooms (pre-COVID). Once the pandemic began, I stopped volunteering and eventually returned to the workforce this past August.
What do you see as the responsibilities of this board and what do you hope to accomplish if appointed?	The responsibilities of the board are to outreach to the community via events such as Arbor Day and the street tree replacement program, and to advise the town about the removal of diseased or dead trees and the planting of new individual trees and tree species. If I am appointed, I hope to focus on community events such as Arbor Day and Hollyfest. I am currently a high school teacher (although in Cary, not Holly Springs), and I really admire Gen Z's commitment to caring for the environment. I would like to outreach to the younger members of the town of Holly Springs--although they are not the homeowners, they inspire and move the older population in town to act, the way my daughter has inspired me to be introspective about the depth to which I am fulfilling my obligation to care for the world.
Do you have any personal or business interest(s) that could create a conflict of interest (either real or perceived if you are appointed)?	No
If yes, please explain.	Not applicable
Have you taken the opportunity to attend any board meetings prior to the notice of this vacancy?	No
Signature	
Date & time	03/08/2022 6:50 PM
How did you find out about these opportunities?	Holly Springs Instagram

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GERALYN WILLIAMS

ENGLISH/LANGUAGE ARTS TEACHER

Contact

Cell: (310) 968-1047
Email: gerr.williams@gmail.com

Teaching Credentials

North Carolina Professional Educator's Initial License – Language Arts (Grades 6-9) and English (Grades 9-12)
Expires 6/20/2024

California Teaching Credential – Professional Clear Secondary Credential in Language Arts/English (Grades 6-12)
Expires 2/1/2024

Current Experience

9TH - 10TH GRADE ENGLISH TEACHER

Green Level High School, Cary, NC | 2021-Present

- I currently teach grade-level and honors-level English I and II courses.

Accomplishments

- In addition to grade-level language arts classes, I created and implemented an elective writing course in which students spent the year planning, writing, and self-publishing an original novel as part of National Novel Writing Month.
- Volunteered as Academic Decathlon Coach.
- Consistently delivered growth year to year on STAR computer adaptive tests in a school with historically low growth due to high levels of achievement. Average increase in scaled score: 88, average increase in grade equivalency: 1.3 (August-June 2018).

Between 2018-2021, I paused my career to stay home with my children, but remained active in the educational field by offering tutoring and volunteering at my daughter's elementary school.

Career Highlights

5TH - 8TH GRADE LANGUAGE ARTS TEACHER

Notre Dame Academy, Los Angeles, CA | 2012-2018

- Developed and designed all 5th – 8th language arts and reading units using Understanding by Design and ATLAS software.
- Analyzed quarterly STAR computer adaptive test results to modify learning goals based on results.

6TH - 8TH GRADE LANGUAGE ARTS TEACHER

Holy Trinity School, Los Angeles, CA | 2010-2012

- Contributed to the school's organization and design as a member of the WCEA/WASC Accreditation Leadership Team.
- In addition to teaching grade-level courses, served as the Language Arts Coordinator to provide ELA training to teachers and disaggregate ELA unit tests data for grades K-5.

7TH - 8TH GRADE LANGUAGE ARTS TEACHER

St. Joseph School, Hawthorne, CA | 2008-2010

- Taught both a grade-level and honors-level language arts and literature course for each grade.

Education

MOUNT SAINT MARY'S UNIVERSITY

Master of Science in Education | 2011-2013

Specialization: Instructional Leadership
Thesis: Efficacy of a Flipped Language Arts Classroom

MOUNT SAINT MARY'S UNIVERSITY

Bachelor of Arts in English | 2004-2008

Graduated Cum Laude

Relevant Tech Skills

Google Classroom, Canvas, Google Workspace, Microsoft Office including Excel, Quickbooks, and Canva.

Application to Serve on Tree Advisory Committee

Applicant Name	Linda Hewitt
E-mail	lehewitt18@gmail.com
Address	Street Address: 101 Waterpoint Road City: Holly Springs State: NC Zip Code: 27540
I reside within the	Corporate limits of Holly Springs
How long have you lived in Holly Springs?	since June 2020
Name of neighborhood	Linda Hewitt
Home/Cell phone	(412) 445-2479
Current employer	S.U.N.Y. Empire State College/SUNY Empire Online
Job title / occupation	Adjunct Instructor in Child Development
Have you served on this board in the past?	No
List any education, work experience or qualifications you have relevant to the Tree Board - specifically in regard to urban forestry, trees or landscape.	My career background is in Child Development and the social sciences. I have a lifelong enthusiasm and love for trees, sparked by seeing my first Redwood tree at age 6. I'm familiar with the many benefits of trees, which range from reducing air and water pollution to enhancing people's mental health.
List any current or past volunteer activities in which you are / were involved.	Prior to moving to Holly Springs, I volunteered on a weekly basis with a Food and Clothing Bank and an After-School Program. Since 2021, I have participated in Letters Against Isolation, which involves writing to seniors in residential settings.
What do you see as the responsibilities of this board and what do you	The Committee assists the town in adhering to the Tree City USA standards, in planting, maintaining and preserving trees and forests, and in educating

hope to accomplish if appointed?

the public about these efforts. I could contribute in the areas of publicity and education involving children and families; ensuring the Tree City standards are being met; and by using my skills in writing, research and attention to detail to help the Committee reach its goals.

Do you have any personal or business interest(s) that could create a conflict of interest (either real or perceived if you are appointed?

No

Have you taken the opportunity to attend any board meetings prior to the notice of this vacancy?

Yes

Signature



Date & time

04/04/2022 2:46 PM

How did you find out about these opportunities?

Holly Springs Website, email

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Application to Serve on Tree Advisory Committee

Applicant Name	Marissa Parker
E-mail	marissajean13@gmail.com
Address	Street Address: 505 Sandy Point Way City: Holly Springs State: NC Zip Code: 27540
I reside within the	Corporate limits of Holly Springs
How long have you lived in Holly Springs?	2 years
Name of neighborhood	Windward Point
Home/Cell phone	(252) 452-2681
Current employer	Self employed
Job title / occupation	Homeschool teacher and DIY enthusiast
Have you served on this board in the past?	No
List any education, work experience or qualifications you have relevant to the Tree Board - specifically in regard to urban forestry, trees or landscape.	Bachelor of Science in Environmental Biology and Landscape Geography Masters in GIS and Remote Sensing
List any current or past volunteer activities in which you are / were involved.	At schools Cub Scouts US Coast Guard ESL adult learners
What do you see as the responsibilities of this board and what do you	I feel that it's the upmost importance to maintain our current native tree population, get more native trees planted in areas of concern, and educate and involve the public so that they have a vested

hope to accomplish if appointed?	interest. Having a community garden and/or growing non-invasive fruit trees in lower income neighborhoods would be a dream goal.
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Do you have any personal or business interest(s) that could create a conflict of interest (either real or perceived if you are appointed?)	No
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Have you taken the opportunity to attend any board meetings prior to the notice of this vacancy?	No
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Signature	
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Date & time	04/03/2022 12:52 PM
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Application to Serve on Board of Adjustment

Applicant Name	Paul Kuhn
E-mail	pkuhn1975@gmail.com
Address	Street Address: 1305 Bass Lake Road City: Holly Springs State: NC Zip Code: 27540
How long have you lived in Holly Springs?	9 years
Name of neighborhood	Wake County
Home phone	(919) 270-8631
Current employer	Town of Cary
Job title / occupation	Capital Program Manager
I reside within the	Extraterritorial jurisdiction (ETJ) of Holly Springs
	Resume 2022 (S).pdf
Have you served on this board in the past?	No
List any education, work experience or qualifications you have relevant to the Board of Adjustment.	Registered Landscape Architect and work for Cary doing planning, design and construction.
List any current or past volunteer activities in which you are / were involved.	PreCovid did items with Church and Kids (coaching, etc) and then with work have lead volunteer boards.
What do you see as the responsibilities of this board and what do you hope to accomplish if appointed?	Looking to keep Holly Springs and Wake County as great places to live and raise family. Give back to the community I live in. I have attended some Council meetings and other public meetings and with my work have participated in Quasi-Judicial hearings in the past so partly familiar with the process.
Do you have any personal or business interest(s) that	No

could create a conflict of interest (either real or perceived if you are appointed?

Have you taken the opportunity to attend any board meetings prior to the notice of this vacancy?

No

Signature



Date & time

04/14/2022 6:35 PM

How did you find out about these opportunities?

Webpage

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PAUL KUHN

1305 Bass Lake Road, Holly Springs, NC

EDUCATION AND TRAINING

Kansas State University, Manhattan, KS

Graduated in May 2000

- _ Bachelor of Landscape Architecture – GPA 3.38
- _ Minor in Community Planning
- _ PROFESSIONAL LANDSCAPE ARCHITECT #1323-North Carolina

_ UNC Municipal and County Administration Graduate – Class of 2016

_ Various conferences and classes on topics including but not limited to Architecture, Complete Streets, Greenway and Park Design, Fire Station Design, Human Resources, ICMA, Public Works, Smartcities, Stormwater, Technology, Transit, & Urban Design

PROFESSIONAL WORK EXPERIENCE

Urban Research & Development Corporation, Bethlehem, PA

June 2000 to October 2004

- _ Planning & Landscape Architecture Firm approximately 15 staff
- _ Role: project manager involved in all aspects from proposal writing, client relations, data gathering, grant applications, production in CAD/GIS and Graphics, and construction administration
- _ Landscape Architecture License in 2004
- _ Type of Projects: Comprehensive Plans, Economic Development, Parks, Retirement Communities & Streetscapes

Town of Cary, NC

November 2004 to Present

- _ Parks Planner/Project Manager – 2004 to 2012
- _ Parks Planning Manager – 2012 to 2014
- _ Facilities Design & Construction Manager 2014 to 2021
 - Over \$100 Million worth of Projects per year
 - Work with interdepartmental staff teams, citizens, boards, committees and Town Council to complete capital projects
 - Coordinate with surrounding communities including Chatham County, Wake County, and Town of Apex on Interlocal Agreements and other intragovernmental relationships
 - Cary is a growing community with a population of over 170,000. Existing facilities that we oversee for new and major renovations includes 34 Parks; 6 special park facilities, 4 Sport Venues, 9 staffed park facilities including several historic facility sites; 9 Fire Stations; Public Works Operation Center; coordinate with Utilities on their structures at 3 treatment facilities, 1 water plant and 39 pump stations; and 135,000 square foot Town Hall complex with a two parking decks in downtown Cary



PAUL KUHN

1305 Bass Lake Road, Holly Springs, NC

SKILLS

Budgeting

- _ Develop and oversee both capital (\$1 B) and operations budgets (\$5.5 M)
- _ Assist and identify projects and funding sources for grant applications including LAPP and Wake County Hotel Motel Tax plus many others
- _ Oversaw 2012 Cary Community Bond Referendum implementation for Parks (\$15.8 Million) and Fire (\$6.4 Million) including assisting in receiving approximately \$7 Million in funding to leverage bond funding. Also assisted with some of the (\$57.6 Million) transportation projects.
- _ Developed and educated public for the 2019 Shaping Cary's Tomorrow Bond (Parks \$112 M; Transportation \$113M)

Organization

- _ Well organized in developing short-term and long-term plans and identifying key milestones that need to be hit for projects to proceed
- _ Understand how long tasks should take, to predict reasonable timeframes

Project Management

- _ Scoping New Projects, Coordination with Staff & Other Departments, RFQ Development and Review, Contract Negotiation with Consultant & Contractors, Managing Consultants, Grants, Scheduling Projects, Citizen Interaction, Public Speaking, Design Critiques of Consultant & In-House Projects, Report Documentation, Historical & Environmental Documentation, Planning & Permitting Approvals, Specifications Preparation & Review, Bidding Procedures, Construction Administration, Asset Management

Staff Coach/Team Leader

- _ Consensus builder and collaborator
- _ Hire and train new staff
- _ Motivate and encourage staff to attain individual potential
- _ Conduct performance evaluations including critical conversations
- _ Leading diverse teams to create innovative projects

Technology

- _ AutoCAD, GIS, Microsoft Office Suite, Salesforce (beginner) and many other specific software

AWARDS & INTERESTS

- _ Employee of the Year Nominee in 2016 -Town of Cary
- _ LEAD Graduate - Class of 2016 – Town of Cary
- _ Star Spot Award in 2017 – Town of Cary
- _ Member - American Society of Landscapes Architect
- _ Traveling - Visited all 50 states and several foreign countries by my 18th birthday
- _ Outdoor Enthusiast – Bicycling/Walking, Gardening & Yard Work
- _ Community Service with Family – Horses for Hope, Royal Ambassadors, UPWARD Basketball



PAUL KUHN

1305 Bass Lake Road, Holly Springs, NC

PLANNING

- ✓ Staff liaison for Greenway Committee (2012 – 2015)
- ✓ Presenter to Parks, Recreation and Cultural Resources Board for Development Review and Capital Projects
- ✓ Team member on various plans including Alston Plan, Cary/Chatham Land Use Plan, Cary Community Plan
- ✓ Staff Review team have reviewed Plats, Development Review, Calculating Fees and Payments and partnering on design recommendations to meet standards
 - Some of the major projects involved with include Cary Towne Mall, Copperleaf, Twin Lakes, One Walker/One Walnut, MetLife Campus, Regency Park Developments, SAS various building additions, plus numerous subdivisions
 - Oversaw portions of staff report for rezonings related to park payment in lieu including participating in some quasi-judicial hearings

Application to Serve on Board of Adjustment

Applicant Name	Whitney Bascom
E-mail	whitney_k_ward@yahoo.com
Address	Street Address: 5301 Yorkville Court City: Holly Springs State: NC Zip Code: 27540
How long have you lived in Holly Springs?	5.5 years
Name of neighborhood	Grove Park Village
Home phone	(425) 829-6548
Current employer	N/A
Job title / occupation	Homemaker
I reside within the	Extraterritorial jurisdiction (ETJ) of Holly Springs
Have you served on this board in the past?	No
List any education, work experience or qualifications you have relevant to the Board of Adjustment.	I have a Bachelor's degree in Geography -Travel and Tourism that included a handful of city planning classes. Since moving to Holly Springs I have been a busy stay at he mother to 3. I have a strong desire to aid in the development of my community.
List any current or past volunteer activities in which you are / were involved.	For the last 15 years I have volunteered in many different capacities within my Church. Including teaching, administrative work, event planning, and several years as a youth/teen leader. I am active with the Holly Grove Elementary PTA. I volunteered as a soccer coach for my daughter through Holly Springs Parks and Rec.
What do you see as the responsibilities of this	I have a strong love for my community. I have 3 children who have been growing up l'm Holly

board and what do you hope to accomplish if appointed?	Springs and will continue to grow up in Holly Springs. As our town grows I feel passionate about helping make decisions that will encourage that growth to be a positive asset to the community as a whole both future and existing.
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Do you have any personal or business interest(s) that could create a conflict of interest (either real or perceived if you are appointed?)	No
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Have you taken the opportunity to attend any board meetings prior to the notice of this vacancy?	No
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Signature	
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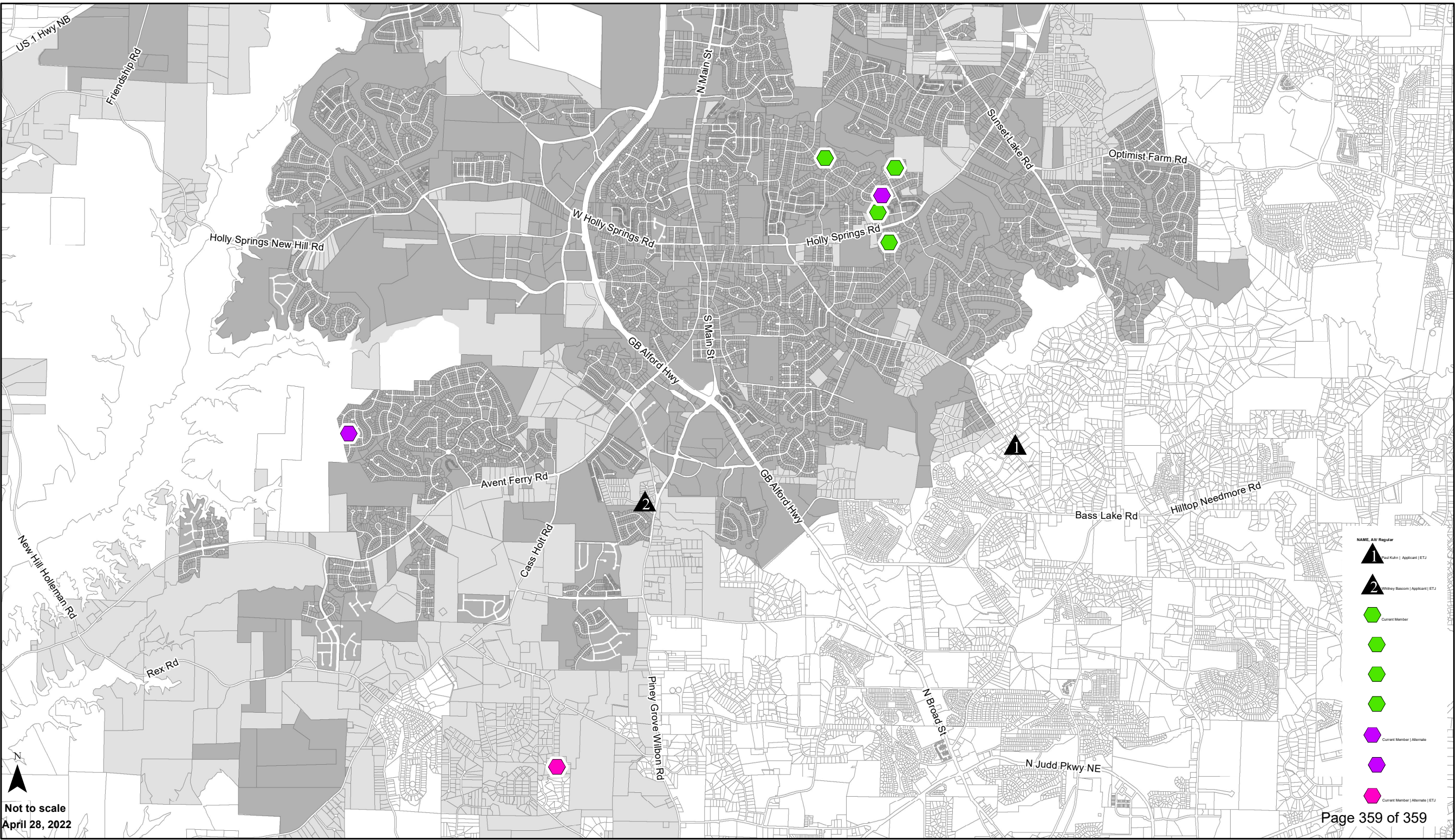
Date & time	04/25/2022 6:10 PM
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How did you find out about these opportunities?	Town of Holly Springs Instagram page
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Board Applicants



- NAME, Alt | Regular
- 1 Paul Kuhn | Applicant | ETJ
 - 2 Whitney Bascom | Applicant | ETJ
 - Current Member
 - Current Member | Alternate
 - Current Member | Alternate | ETJ