Southwest Area Study 2018

SOUTHWEST AREA STUDY

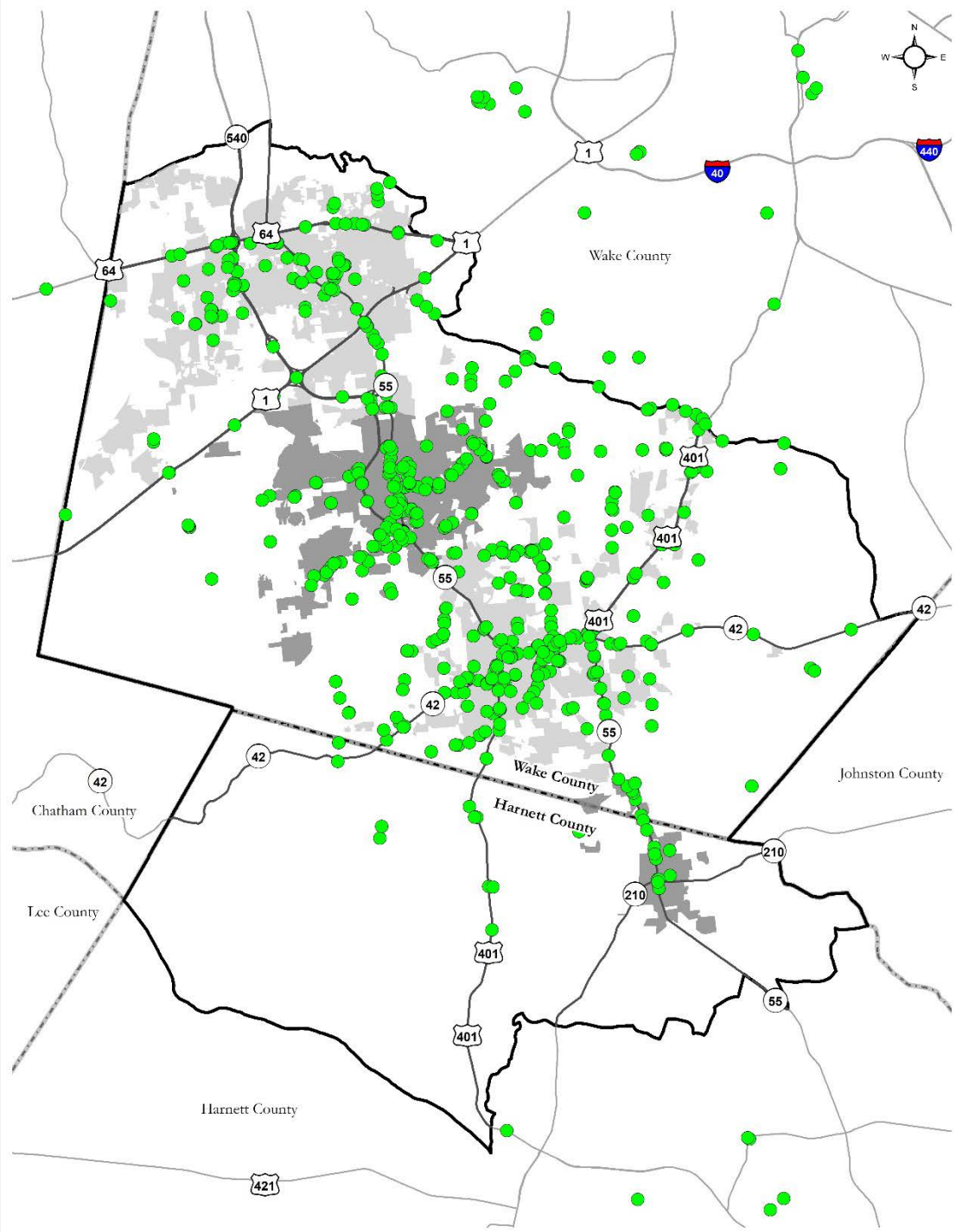
SOT MEETING NO. 3
JANUARY 30, 2019

AGENDA

1. Opening Remarks & Welcome
2. Study Status
3. Summary of Public Input
4. Roadways, Bikeways, and Pathways
5. Transit - recommendations
6. Safe Routes to School - recommendations
7. Hot Spot Studies – Summary of Options

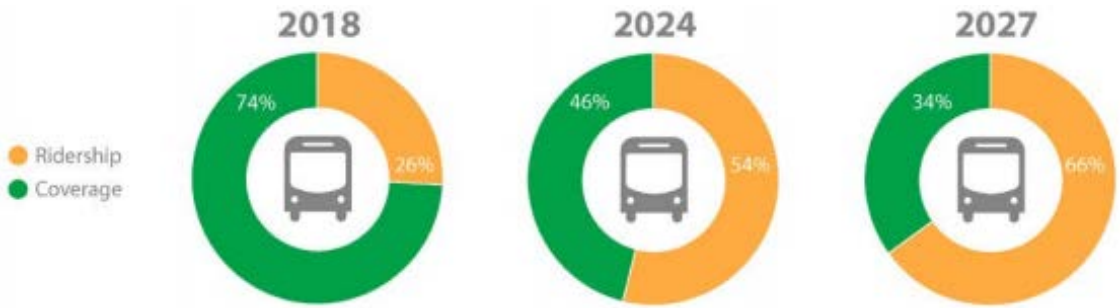
Adjourn

PUBLIC INPUT COMMENTS



TRANSIT

PRELIMINARY RECOMMENDATIONS



WAKE BUS PLAN

- Provides a phased approach to achieving the goals of the Wake Transit Vision Plan through 2027
- Includes Capital and Operating Plans
- Emphasizes transition from coverage-focused service to ridership-focused service

EXISTING SERVICE

Route 311*
Apex – Regional Transit Center

Current Service:

Peak Hour Service
5:45-9:10am,
3:45-7:10pm

30 minute headway

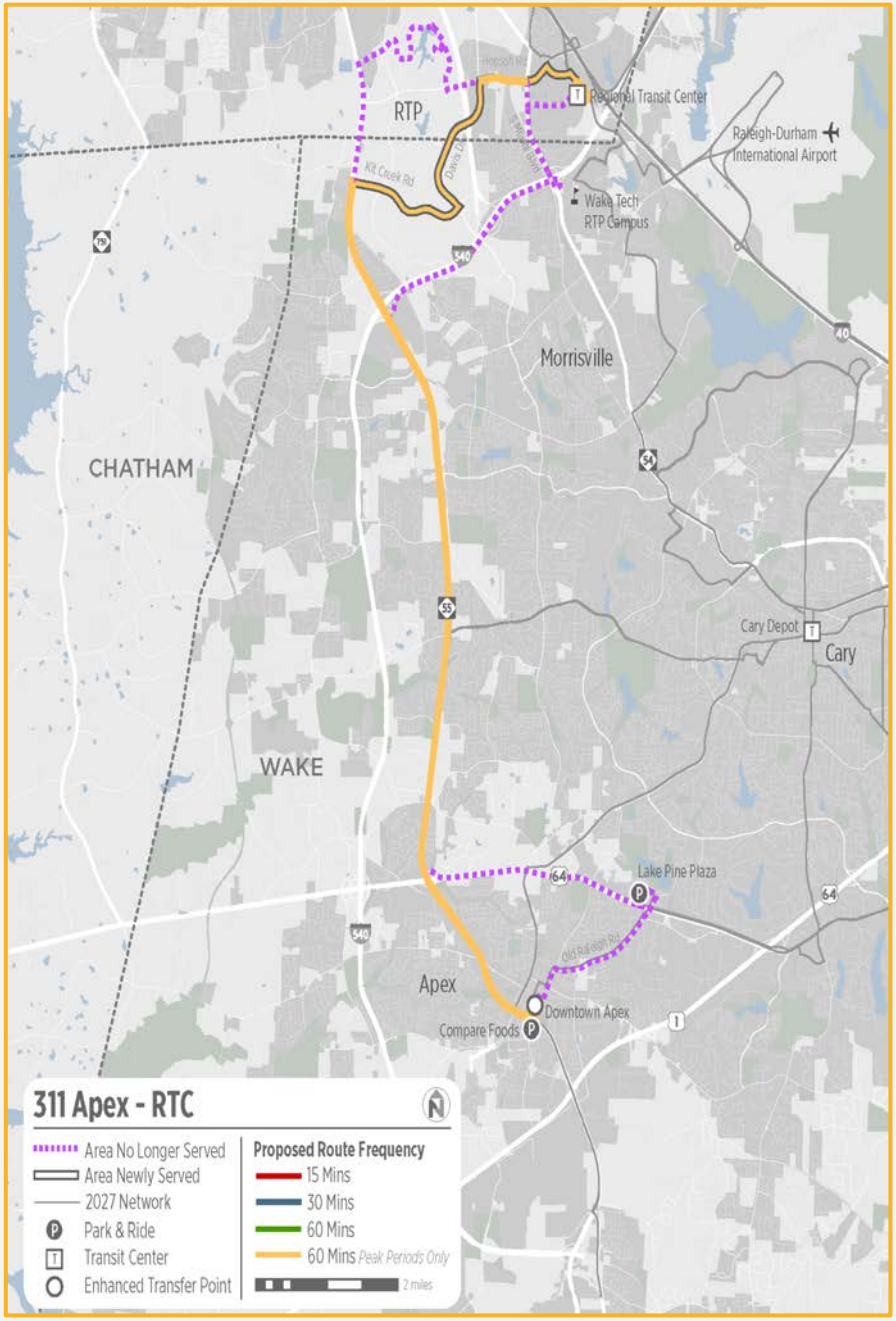
Modified Service:

Peak Hour Service
6-9am,
3:30-6:30pm

AM Service:
3 northbound trips,
1 southbound trip

PM Service:
1 northbound trip,
3 southbound trips

Park-and-Ride Access:
Compare Foods Park-and-Ride



* Details shown for a route realignment / service change in FY 2020 related to implementation of Route HSX

EXISTING SERVICE

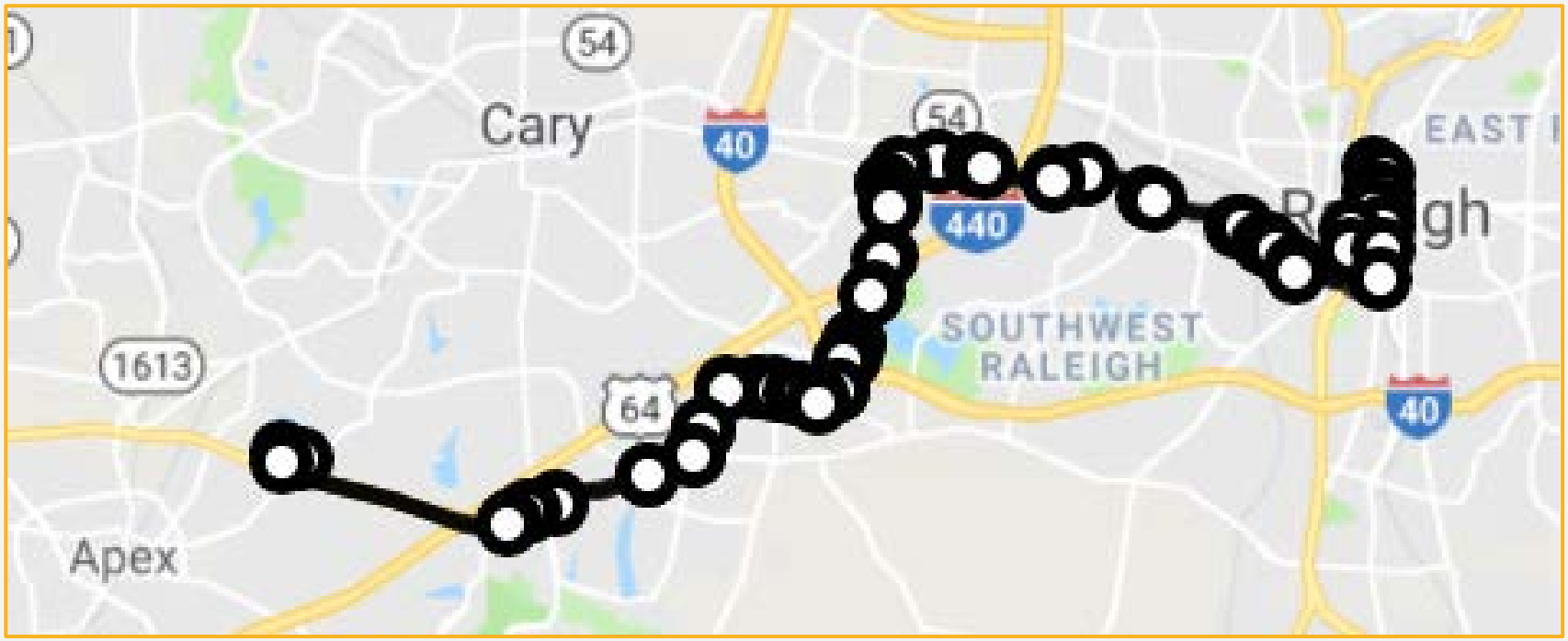
Route 305
Lake Pine – Cary - Raleigh

Peak Hour Service*

Varying headway, usually ~60 minutes with a 30 minute headway at 8am
Service Span: 6-9:30am, 4-7:30pm

<u>Park-and-Ride Access:</u>
Lake Pine Plaza Park-and-Ride

**All-Day and Weekend Service Programmed for FY 2021*



EXISTING SERVICE

Route FRX
Fuquay-Varina – Raleigh Express

Peak Hour Service

AM Service:

3 trips to Raleigh
(6:05, 6:35, 7:35am)

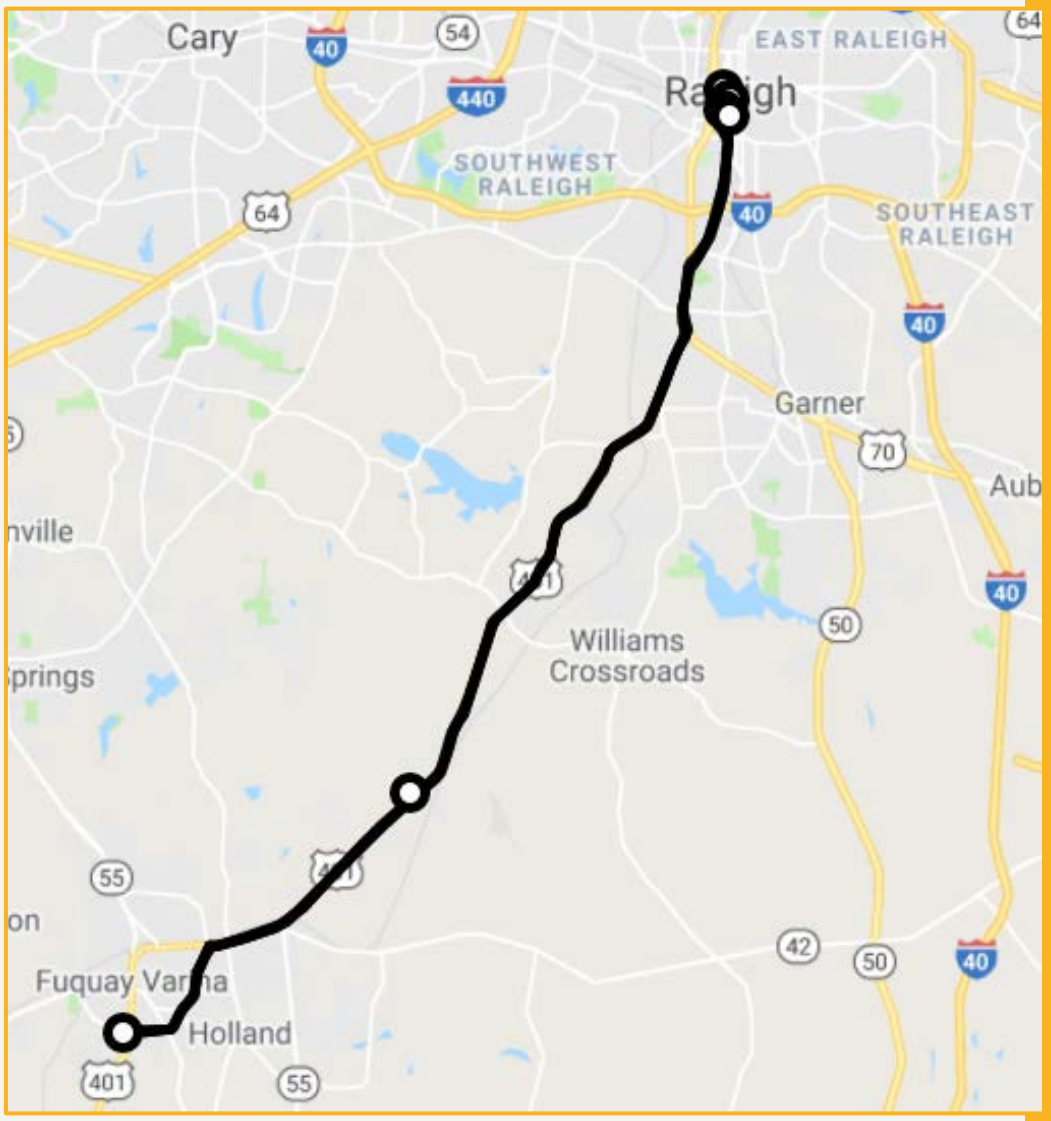
1 trip to Fuquay-Varina
(6:50am)

PM Service:

1 trip to Raleigh
(5:10pm)

3 trips to Fuquay-Varina
(4:10, 5:10, 6:10pm)

Park-and-Ride Access:
Fuquay-Varina South Park-and-Ride
Hilltop Food Lion Park-and-Ride*



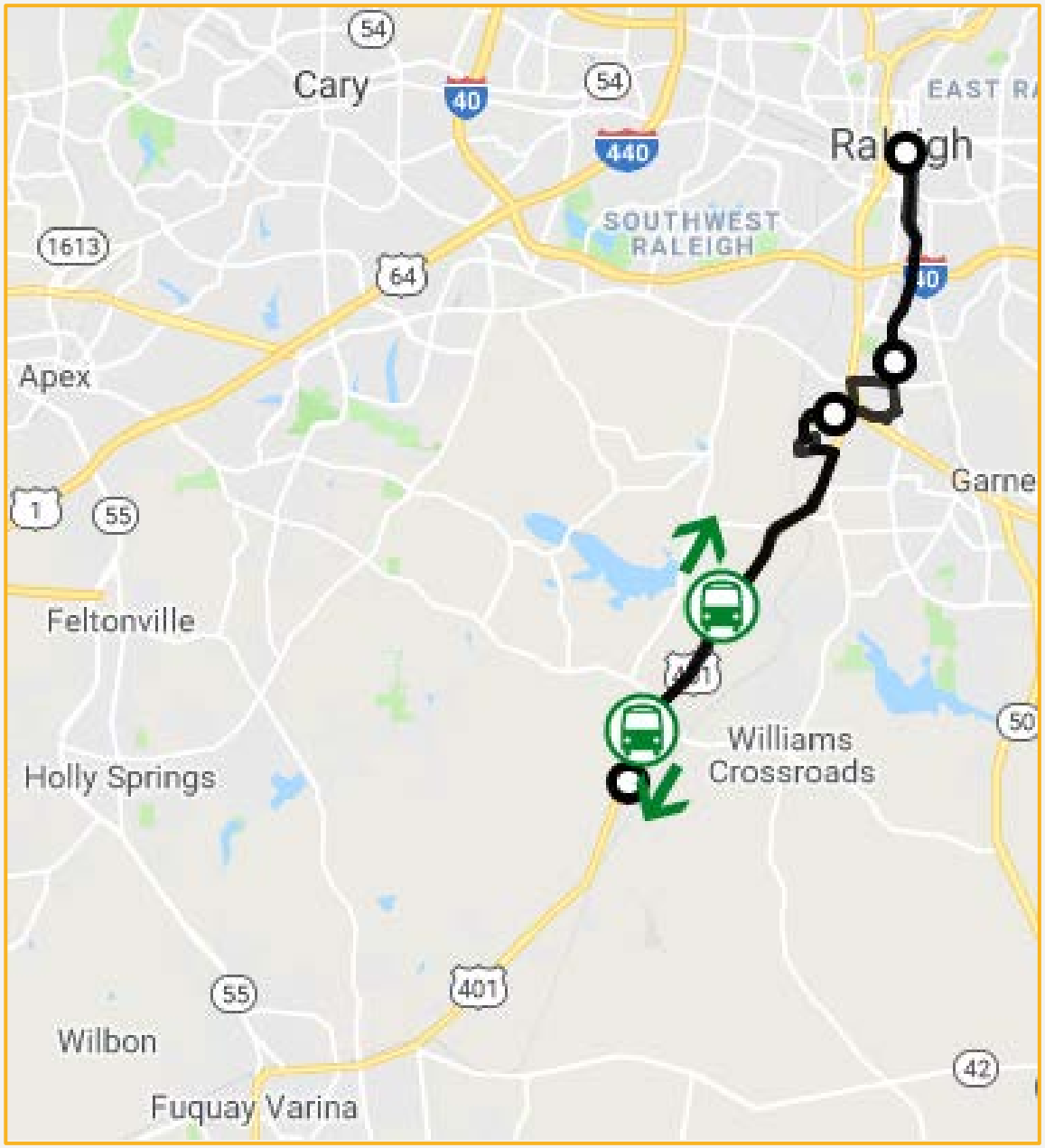
* The Draft FY 2020 Wake Transit Work Plan includes a project moving this Park-and-Ride to the Wake Tech Campus

EXISTING SERVICE

Route 40X
Wake Tech Express

Span of Service:
6:15am - 6:45pm

30 minute headway



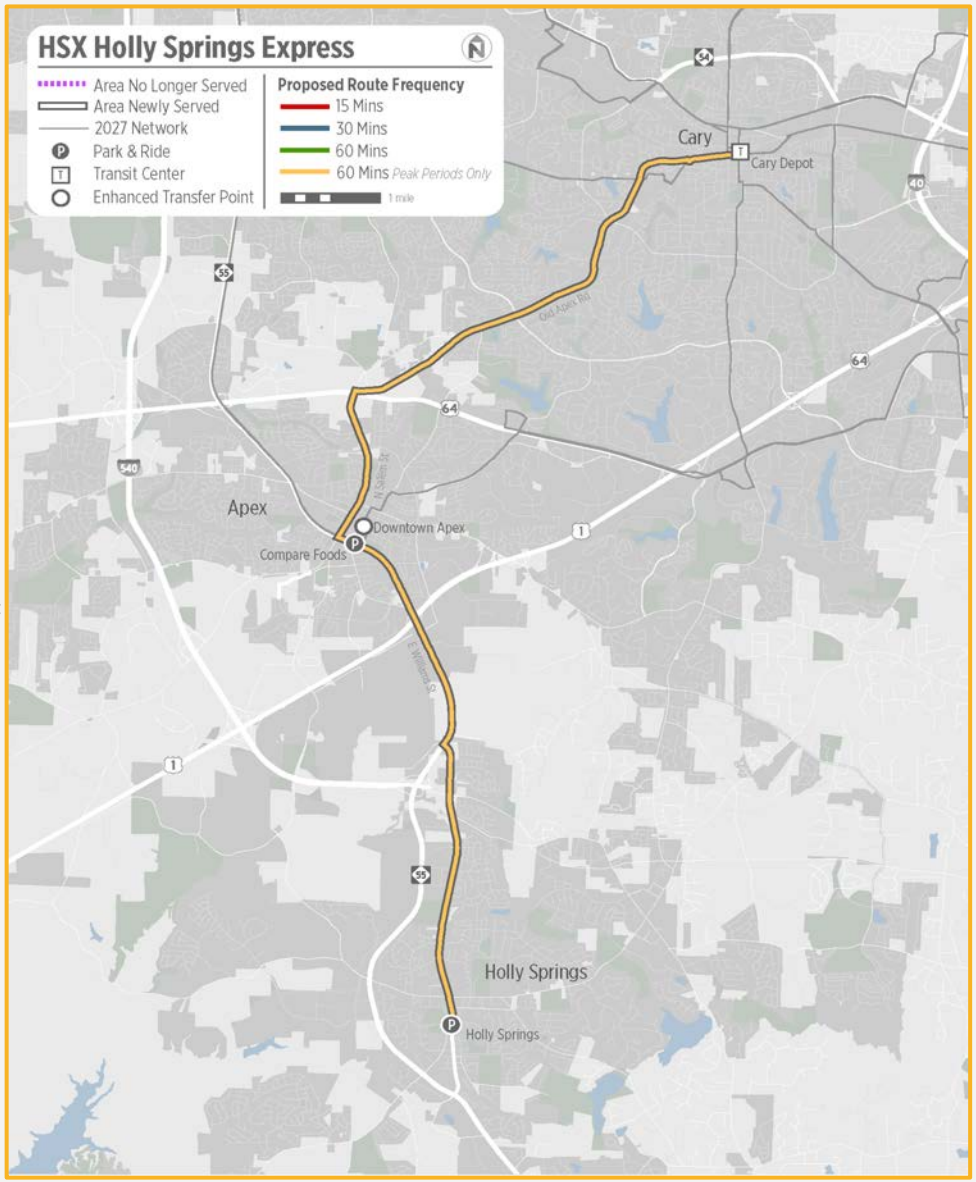
NEW SERVICE

Proposed in Draft FY 2020 Wake Transit Work Plan

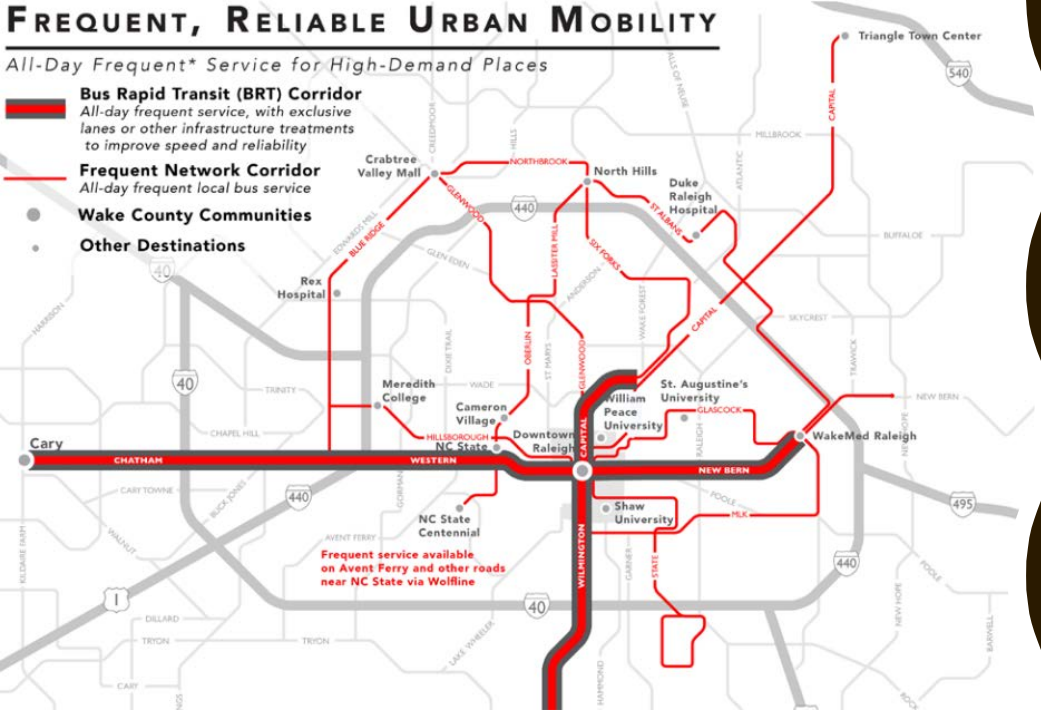
Route HSX
Holly Springs – Apex – Cary Express

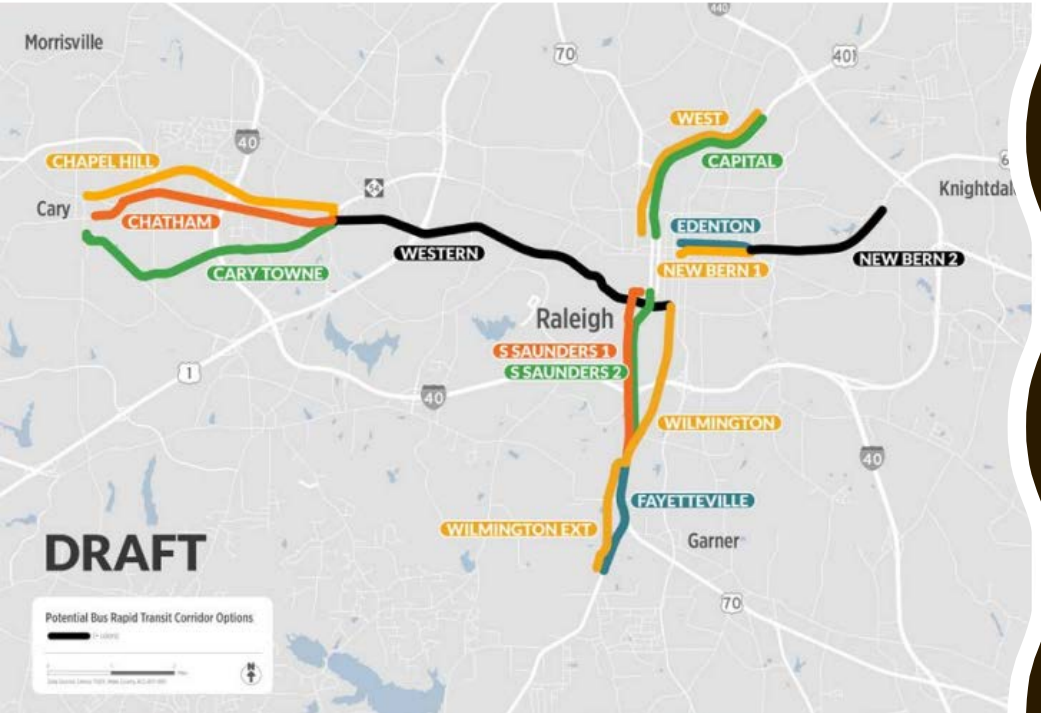
Span of Service: 6-9am, 4-7pm
1 Hour Headway

<u>Park-and-Ride Access</u>
Compare Foods Park-and-Ride
Holly Springs Express Park-and-Ride*



*Proposed in Draft FY 2020 Work Plan





BUS RAPID TRANSIT

- The City of Raleigh has been designated as the BRT project sponsor
- Specific project phasing being determined, but will begin with New Bern corridor
- Could serve as a "spine" for some transit service to/from Southwest area

COMMUNITY FUNDING AREA PROGRAM

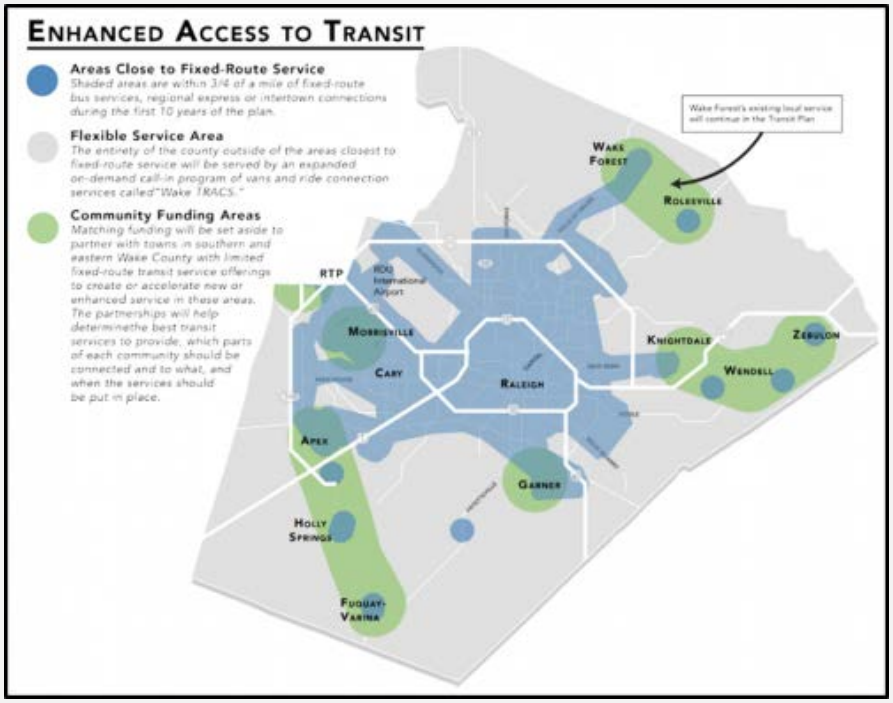
HTTP://WWW.CAMPO-NC.US/FUNDING/CFAP

The Community Funding Area Program provides an opportunity for areas in Wake County that would otherwise have limited fixed-route transit services to create or accelerate public transportation services and programs.

Eligible communities participate in a competitive process to receive match funding for planning, capital, operating, or combined capital/operating transit projects.

Eligible Communities:

- Apex
- Fuquay-Varina
- Garner
- Holly Springs
- Knightdale
- Morrisville
- Research Triangle Park
- Rolesville
- Wake Forest
- Wendell
- Zebulon

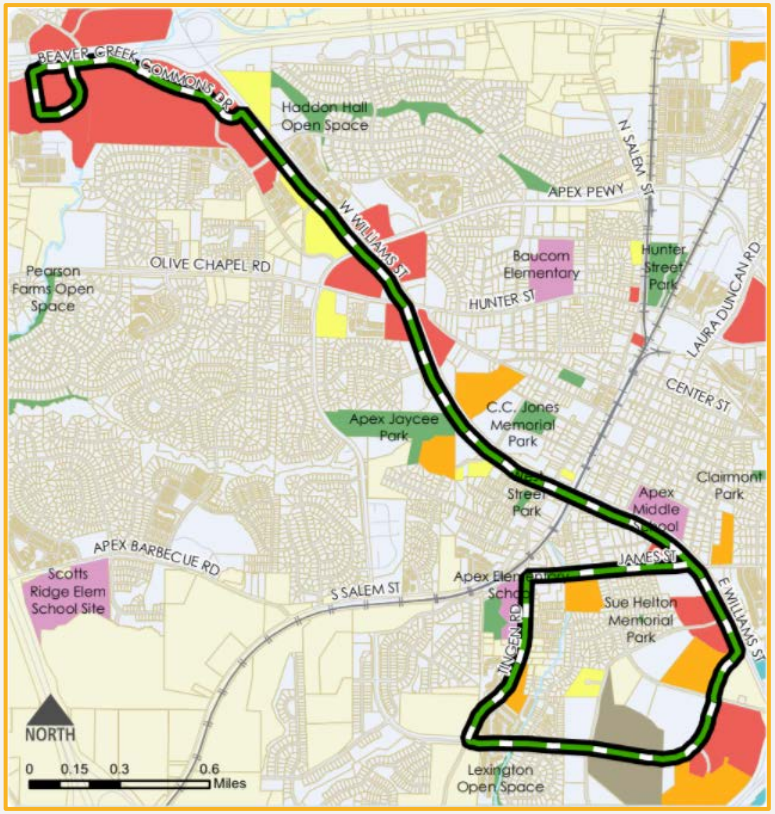


COMMUNITY FUNDING AREA PROGRAM

FY 2019 / FY 2020 CALL FOR PROJECTS

Apex

Submitting a planning project to determine specific service details for a circulator route

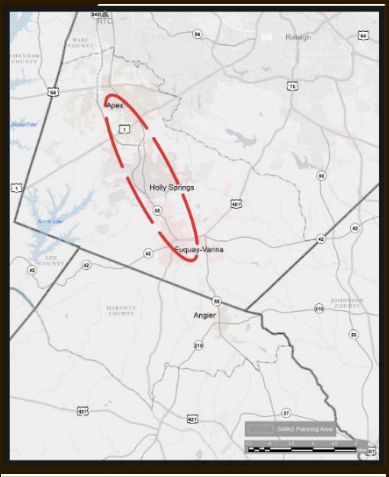


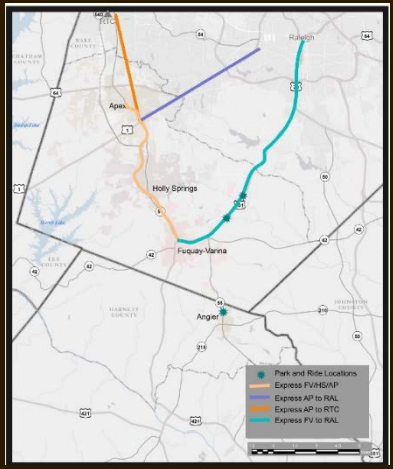
Fuquay-Varina

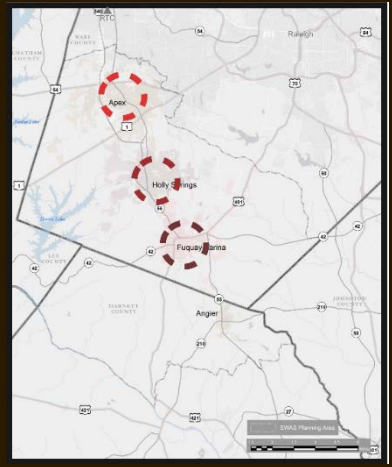
Submitting a planning project to consider the feasibility of implementing microtransit services

BY 2025

- Park and ride lots (Intersection of US 401 and NC 55 (Fuquay); Wake Technical Community College – US 401 (Fuquay); NC 55 North of Downtown (Angier)
- Community Funding Area Options:
  - Independent local circulator for Fuquay-Varina, Holly Springs and Apex;
  - Joint circulator between Fuquay-Varina and Apex.
  - Micro-Transit Option for individual or joint communities
- Bus route Apex to Raleigh (enhance frequency -30 minutes)
- Bus route Apex to RTC (extending current route) (maintain hour headways)
- Express route providing peak hour service between Holly Springs, Apex, and Cary (planned – Operate three hours in AM &PM)
- Continue Express route on US 401 (enhance existing); Add second evening run & add stop at Wake Technical College
- Study feasibility for high priority transit options between RTC and Fuquay-Varina
- Transit-Orientated Development study along NC 55 from Cary to Angier; Establish service from results

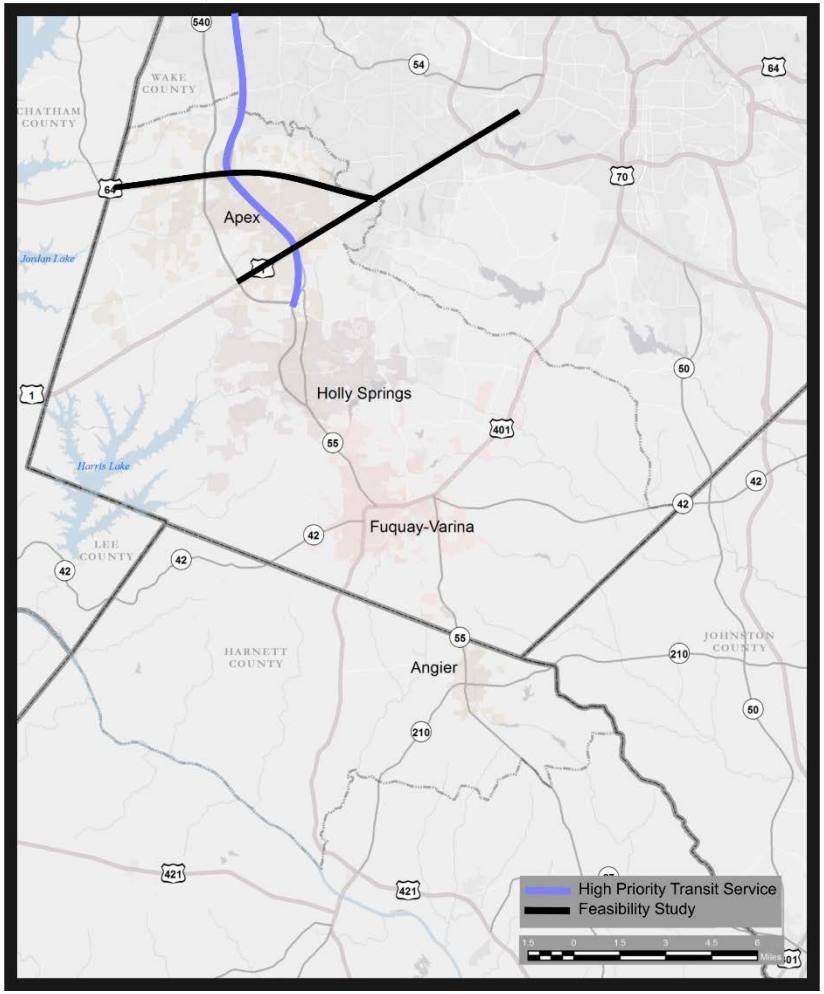






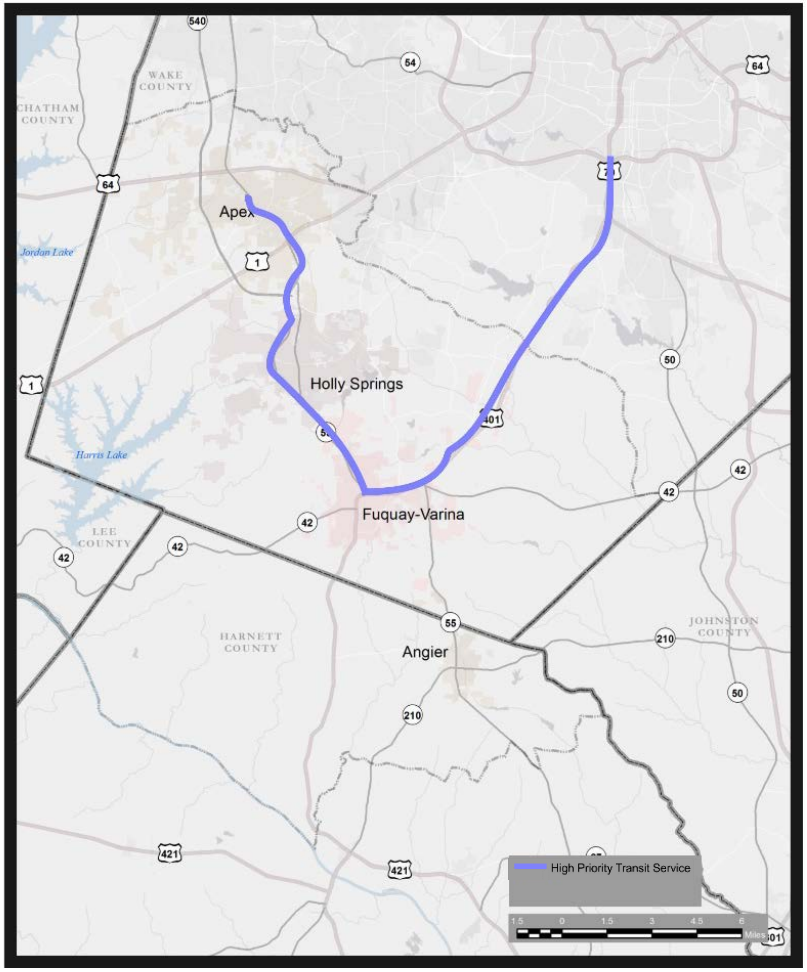
BY 2035

- Extend high priority transit service between RTC to Apex (potentially Veridea Parkway area)
- Add third evening run to Fuquay – Raleigh Express route
- Install signal pre-emption on NC 55
- Feasibility study for high priority transit service on US 64/US 1 and US 401
- Modify or replace existing local service with On-Demand Micro-Transit

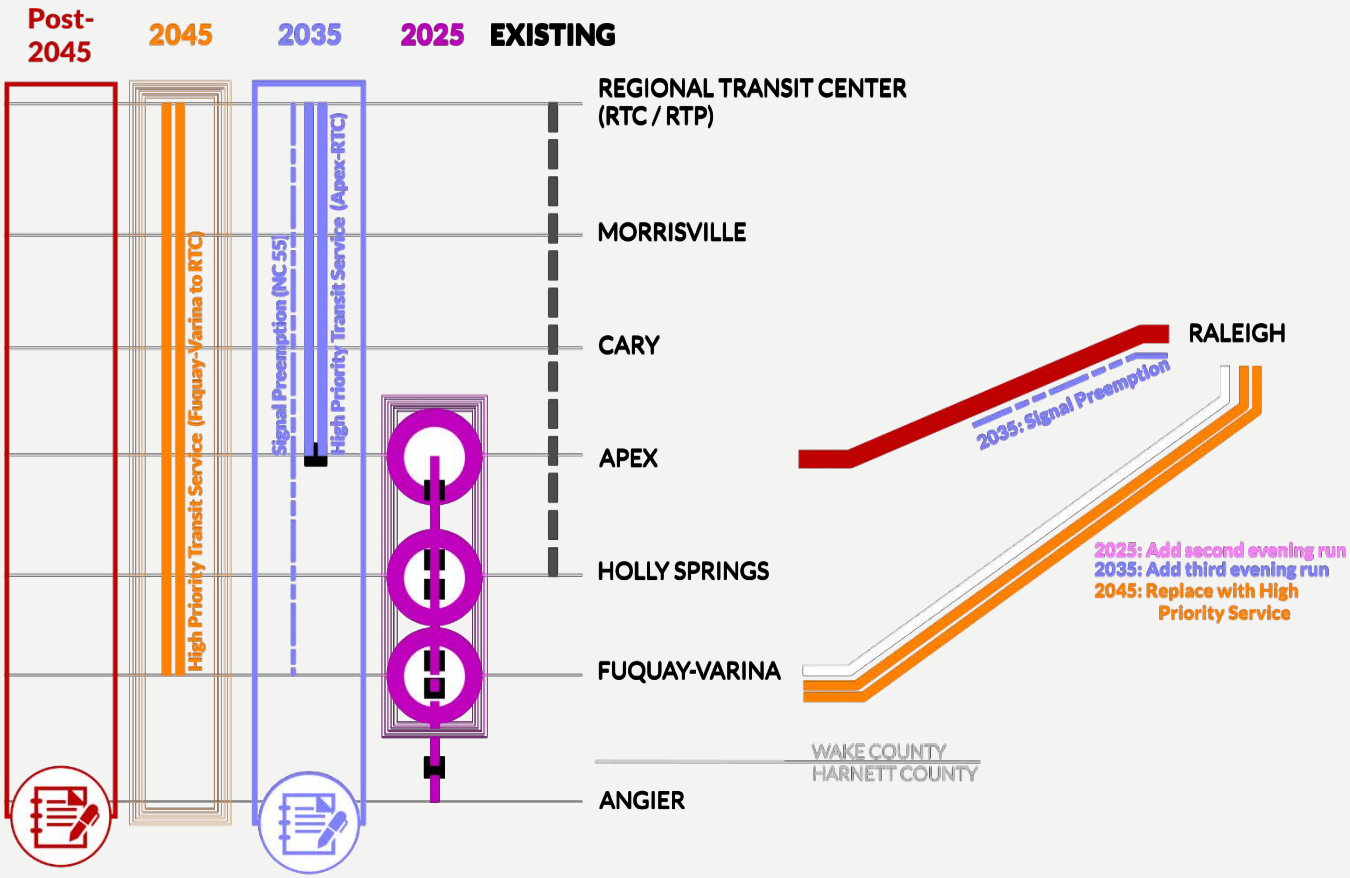


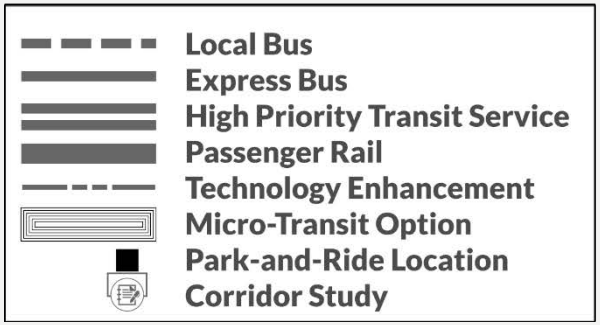
BY 2045

- Improve high priority transit service (lane dedication/signal bypass/stops)
- Extend high priority transit service from Apex to Fuquay-Varina
- Expand On-Demand Micro-Transit services for two mile buffers along US 55/NC540 high priority transit routes
- Establish high priority transit service from Raleigh to Garner to Fuquay-Varina along US 401
- **2045: Passenger Rail (Apex-Raleigh); adjust service tailored to innovations, travel patterns to further connect region**



SUMMARY OF TRANSIT





SAFE ROUTES

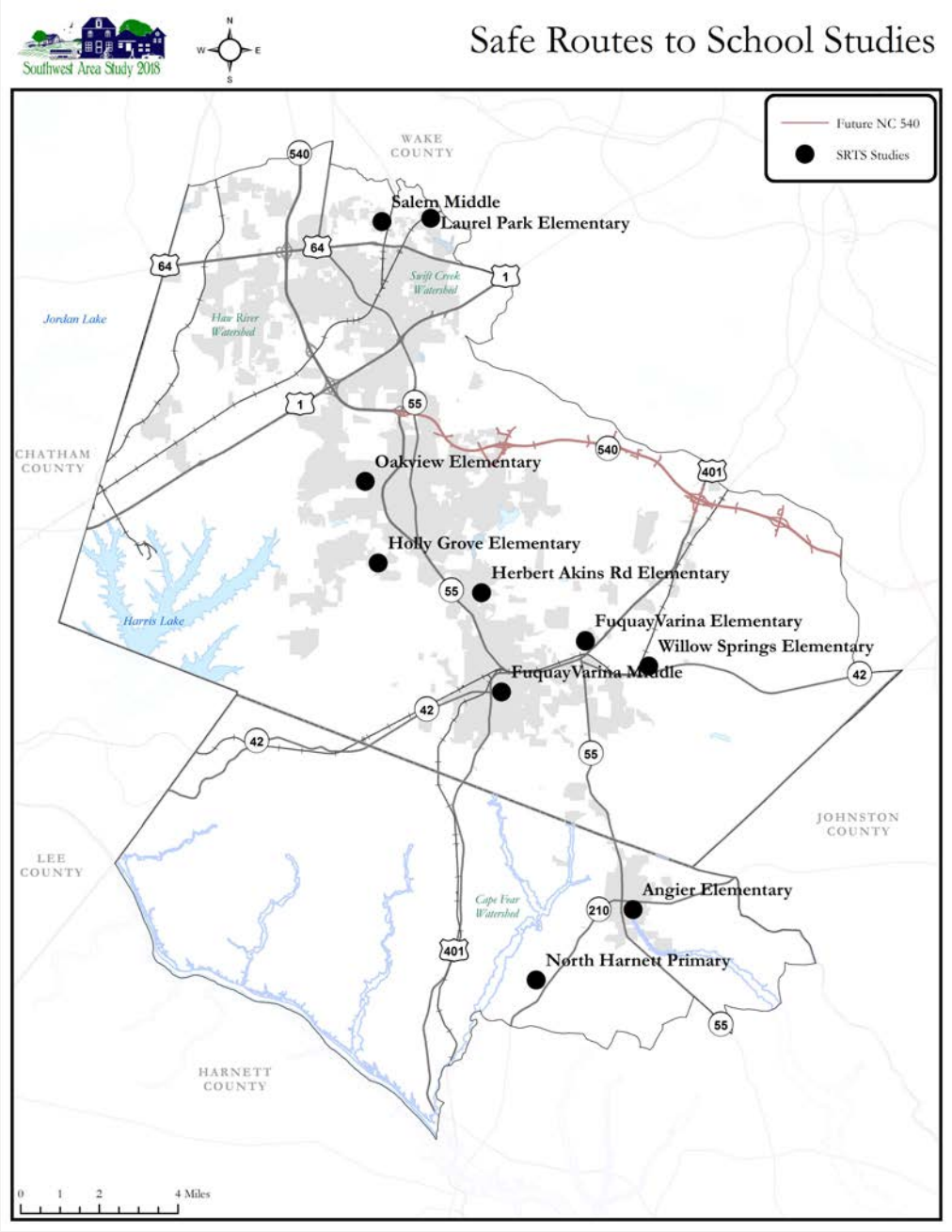
TO OUR SCHOOLS

WHY?

- Identify routes from major residential agglomerations to the school
- Issues and barriers to walking and cycling to or from each school
- Provide recommendations at intersections, network elements, and school ingress/egress points to improve the safety conditions along each route

SCHOOLS AND LOCATIONS

- Salem Middle – Apex
- Laurel Park Elementary – Apex
- Oakview Elementary – Holly Springs
- Holly Grove Elementary – Holly Springs
- Herbert Akins Road Elementary – Fuquay-Varina
- Fuquay-Varina Elementary – Fuquay-Varina
- Fuquay-Varina Middle – Fuquay-Varina
- Angier Elementary – Angier
- North Harnett Primary – Harnett County
- Willow Springs Elementary – Wake County

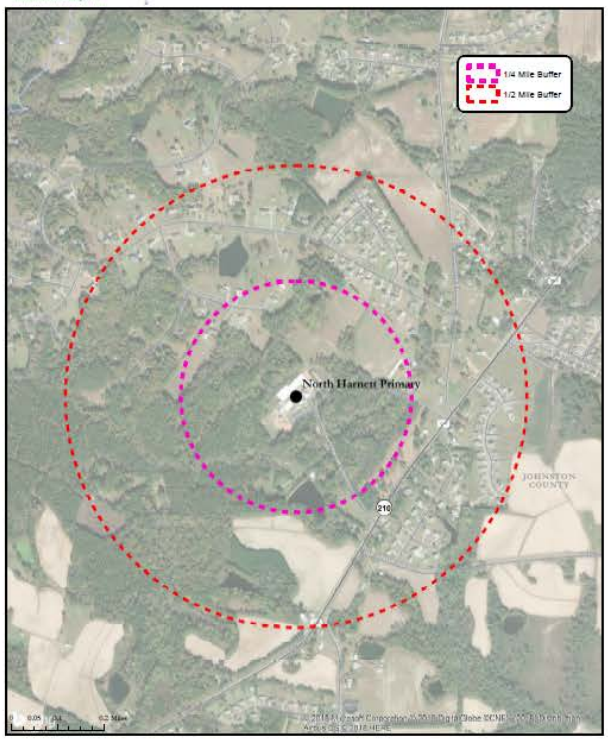


WHAT'S NEEDED:

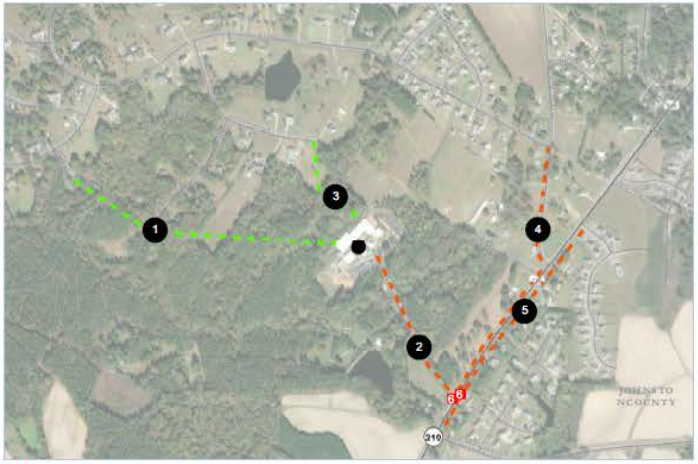
- ✓School Zone Signs
- ✓Sidewalks & Connections
- ✓High Viz Crossings
- ✓Walk/Bike Events
- ✓Discussions with Administration on Best Practices

SAMPLE OUTPUT

Safe Routes to School Studies



NORTH HARNETT PRIMARY



Address: 282 N. Harnett School Rd, Angier
Grade Levels: K-5
Current Enrollment: 439
Capacity: 475
Arrival/Dismissal Times: 7:55am/3:10am

Identified Concerns

North Harnett Primary is located off of Hwy 210. The area is primarily rural, yet two residential neighborhoods are located to the east and north of the school site. A large tract of land located to the west of the school has the potential for development. No sidewalks are available within a half-mile of the school. Several houses are located within 1/4-mile of the school but there is a lack of roadways that connect to the school without students being forced onto Hwy 210.

Summary of Recommendations

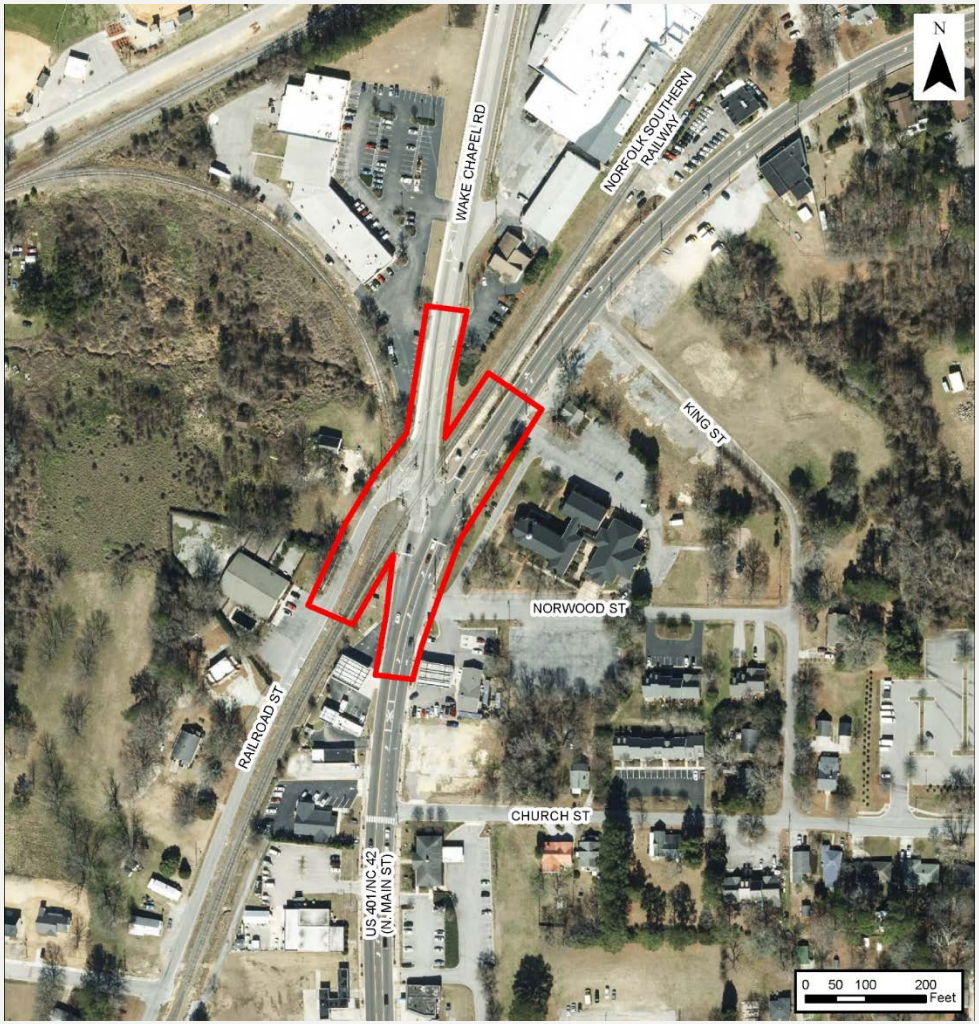
Sidewalks on school property, Hwy 210, and James Norris Rd. Greenways are recommended for any future development adjacent to the site as well as connecting the school to the residential development just north of the school.

Map ID	Recommendation	Cost
1	Greenway connection	$424,000
2	Sidewalk along school entrance road	$275,000
3	Greenway connection	$151,000
4	Sidewalk along James Norris Rd	$207,000
5	Sidewalk on both sides of Hwy 210	$616,000
6	High visibility crosswalks	$5,080

NORTH HARNETT PRIMARY

HOT SPOTS

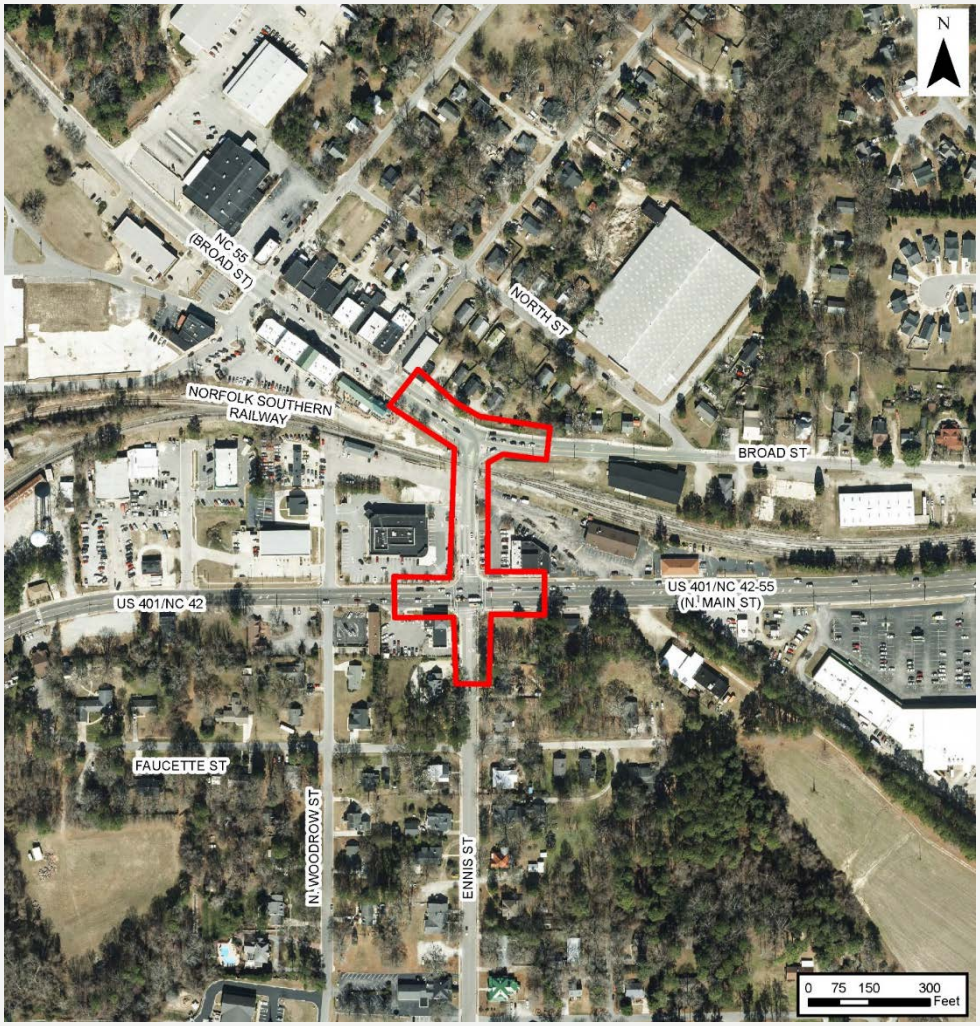
PRELIMINARY RECOMMENDATIONS



HOT-SPOT
MAIN STREET AT WAKE CHAPEL ROAD

Skewed approaches compounded by railroad crossing. Historic properties North of the intersection that could be impacted with realignment options

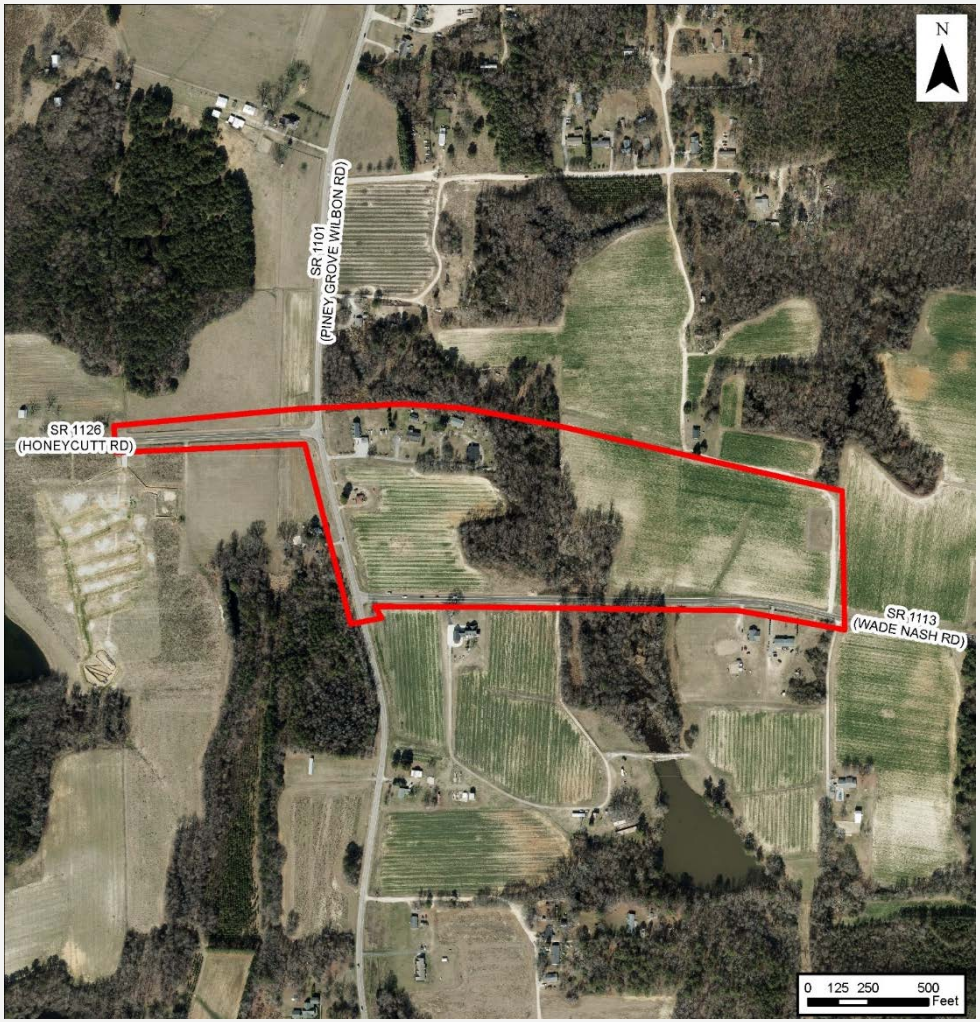
- **Option 1** – Railroad Street becomes Right-In/Right-Out (RIRO)
- **Option 2** – Realign Wake Chapel to church driveway (and Railroad Street as RIRO)



HOT-SPOT
BROAD ST AT ENNIS ST

Gateway approach to downtown. Railroad crossing and development in all quadrants. Significant commuter traffic patterns

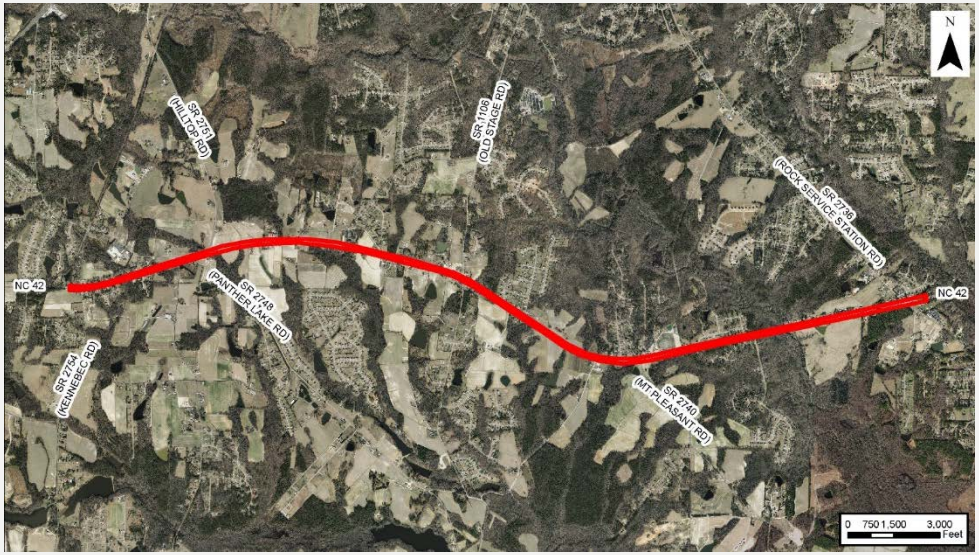
- **Option 1** – Adjust train sensor location to prevent unnecessary blocking
- **Option 2** – ITS investment including dynamic wayfinding messaging north and east of Judd Pkwy with travel times

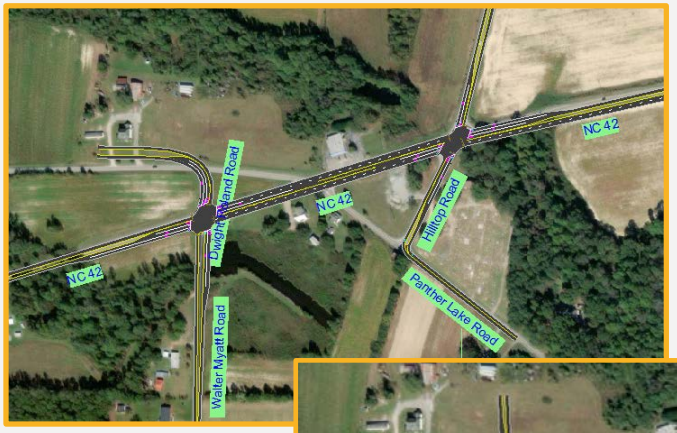


HOT-SPOT
PINEY GROVE WILBON RD AT HONEYCUTT RD / WADE NASH RD

Significant north/south commuter route; realignment of Honeycutt and Wade Nash to create east/west connector; school in SW quad; residential and support development planned

- **Option 1** – signalize offset intersections with planned four lane cross sections plus turn lanes
- **Option 2 –** realign Honeycutt Rd and Wade Nash Road to the north





HOT-SPOT
NC 42

Varying growth rates across the corridor base on model; intersection improvements gearing up to 4 lane divided on NC 42; realign roads to remove redundant intersections

- **Option 1 –** intersection improvements (turn lanes, dual through lanes with drop lanes)
- **Option 2 –** realign Dwight Rowland Rd / Walter Myatt Rd / Hilltop Rd area

NC 42
Walter Myatt Road
Dwight Roland Road
NC 42
Hilltop Road
Panther Lake Road
NC 42

HOT-SPOT
NC 55: US 1 TO TECHNOLOGY DRIVE

from SWAS2012

Some uncertainty about level and type of development and demand; new development at south end and existing intersection movements were noted at public workshop

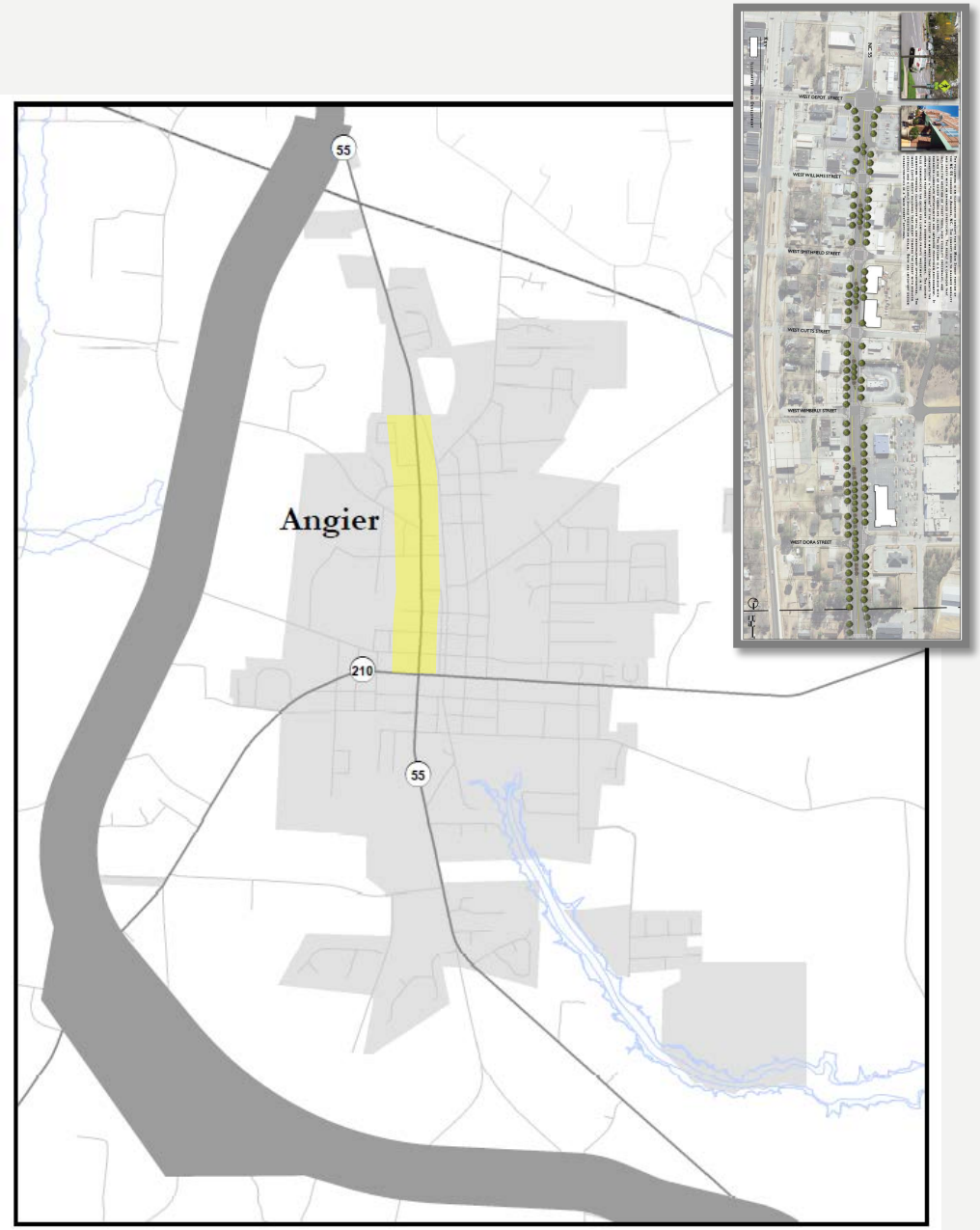
Recommendation 1 – 6-Lane Super Street

Recommendation 2 – Interchange at Jessie Drive Extension/NC 55. Bridge at Technology Dr. /NC 55

Recommendation 3 – Collector Streets connectivity enhancements (through development)

Recommendation 4 – DDI or SPUI at NC 55/US 1

***2045 MTP Model Data: 7,800vpd-14,000vpd on Jessie Drive 2045MTP**



HOT-SPOT
NC 55 (ANGIER)

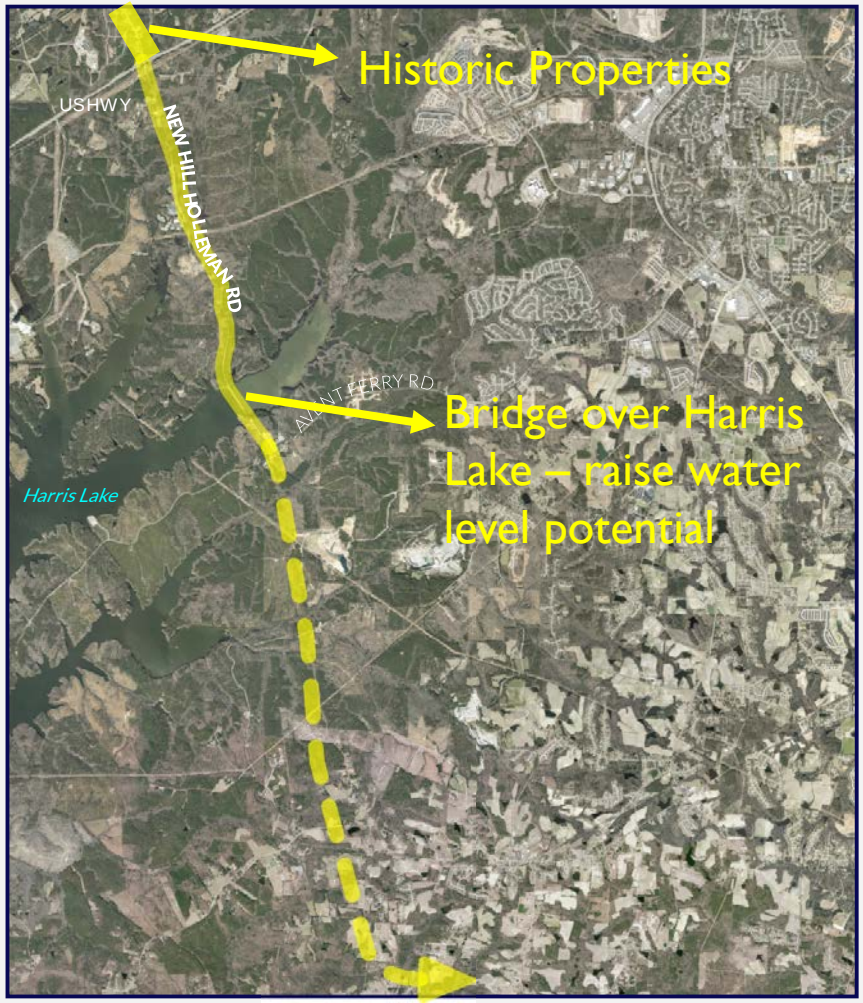
US 401 South Extension, Angier Bypass (different than currently shown in MTP mapping); studying cross-street design linking NC 55 to Bypass

Recommendation 1 – NC 55: 2 – 3 lane cross section with bike lanes

Recommendation 2 - SWAS (2012) works based on model traffic

Recommendation 3 – Redesign intersections to roads connecting to Bypass

***2045 MTP Model Data w/ Angier Bypass: 8,000vpd on Angier Bypass & 9,000vpd on NC 55**



HOT-SPOT
NC 751: US 64 TO US 401 (F-V)

Using Concept Station to aid in alignment development; early model runs indicated strong (14,000+) volumes on south end

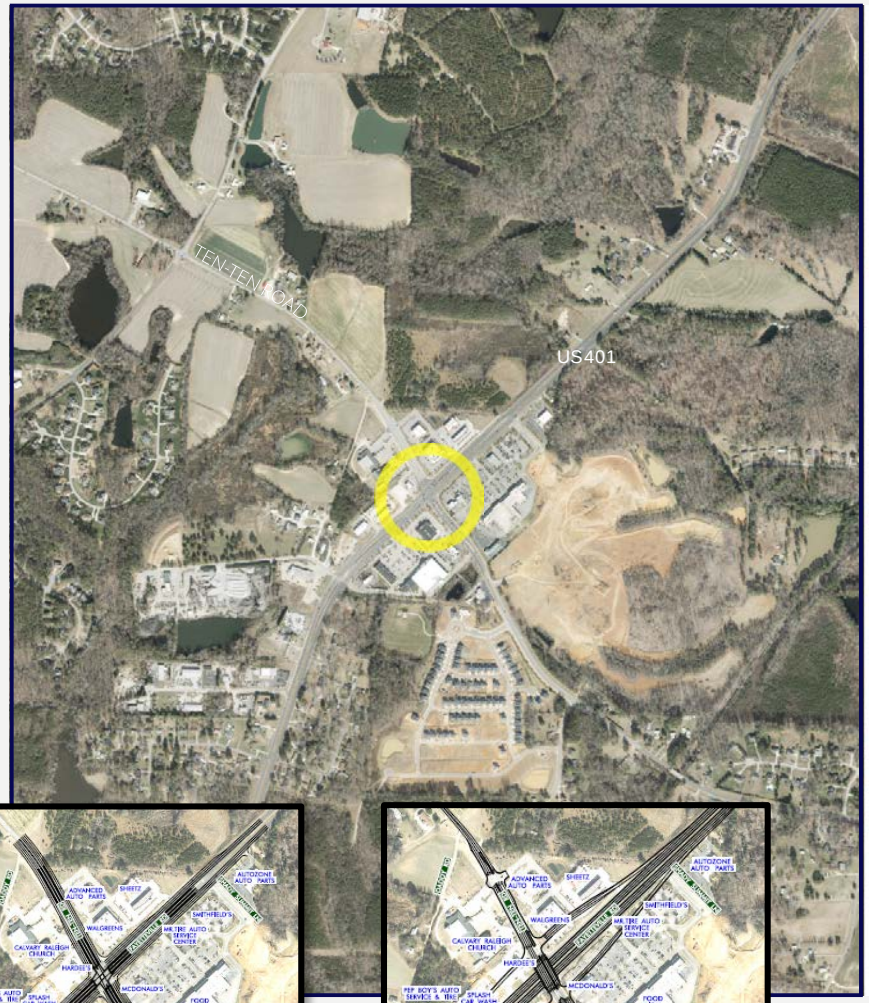
Recommendation 1 – NC 751 route designation

Recommendation 2 – Four lane divided with partial control access

Recommendation 3 – 4.4 miles of new location

Recommendation 4 – Harris Lake water elevation may require significant bridge work

***2045MTP Model Data:10k-30k vpd on NC 751 w/ Fuquay Bypass**



Center-Turn Overpass

Tight Diamond

HOT-SPOT
US 401/TEN-TEN ROAD

Also being studied through NCDOT Feasibility Study process including traffic simulations

Recommendation 1 – Continuous Flow Intersection (CFI), Square Loop, Bypass, Tight Diamond options being studied

Recommendation 2 – CFI requires driveway and parking modifications

Recommendation 3 – 2 or 3-phase signals

***2045MTP Model: 6-lanes carrying 80,000 vpd**

NEXT MEETING

WEDNESDAY
APRIL 10
3:00 TO 4:30 PM

GENERAL DISCUSSION