



Rockingham County Analysis



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Background

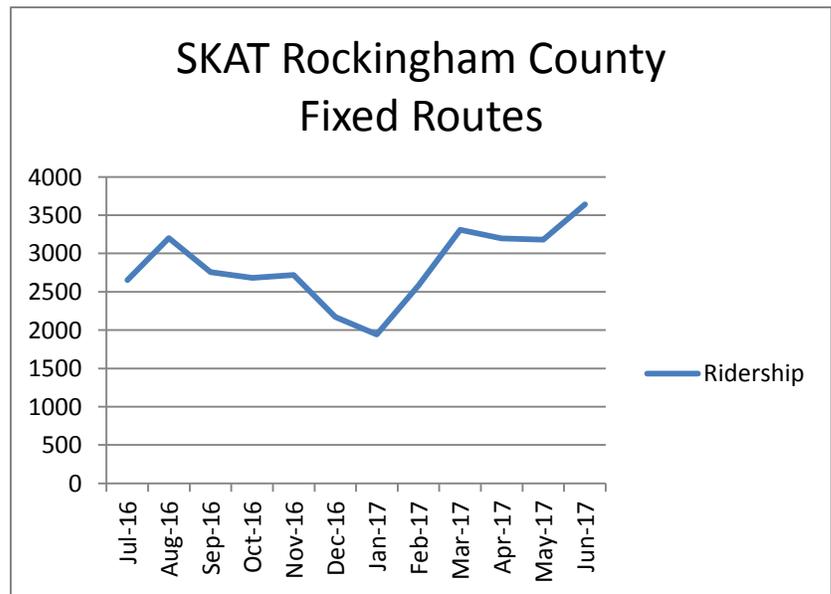
There are 7,468 residents of Rockingham County that commute into Greensboro for work (4,793 from the eastern half of the county). Presently, Rockingham County does not have commuter transit service connecting into the Triad region's PART Express system. Major employers for many of these commuters exist in or on the edge of downtown Greensboro; the primary three being Greensboro City Government, Moses Cone Hospital and Lorillard Tobacco.

Purpose

This report was created to detail the potential opportunity for extending the PART Express commuter transit service into Rockingham County.

Ridership

It is difficult to gauge ridership on a commuter service which has never existed. Rockingham County presently operates three local circulator transit services and three inter-municipal transit services throughout the county. This ridership is not an indicator of commuter ridership into an urban county; however, the success of the county fixed route transit system is an indicator of the acceptance of transit by the residents of Rockingham County.



Commuting Patterns

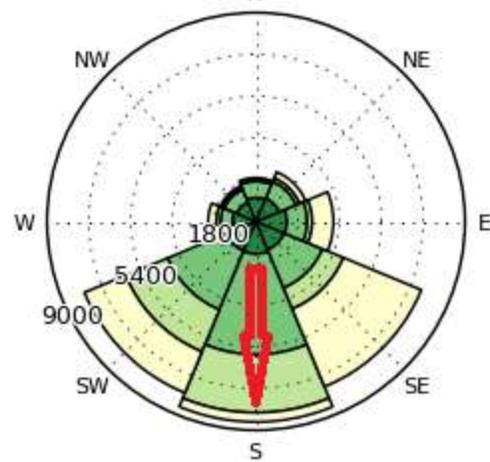
The commuting patterns of Rockingham County residents is generally focused within the county and directed to the south into Guilford County and the City of Greensboro. The radial chart on the following page shows the distance and direction of Rockingham County residents' commute to work in 2015. The red line indicates groups that are likely traveling to Greensboro.

Jobs by Distance - Home Census Block to Work Census Block 2015

	Count	Share
Total Primary Jobs	35,595	100.0%
Less than 10 miles	9,455	26.6%
10 to 24 miles	12,310	34.6%
25 to 50 miles	6,154	17.3%
Greater than 50 miles	7,676	21.6%



Job Counts by Distance/Direction in 2015
All Workers



Service Alternatives

The largest urban centers in Rockingham County are in the Eastern half of the county. Due to this geographic distribution of population, and the overall commuter flow map of the County; PART sees the greatest potential for commuter transit service in the eastern section of the County. This does not mean that commuter transit service in the Western half of the County would not be successful, simply that a first route planned for Rockingham County should serve Eden, Reidsville and Greensboro (connecting to other cities on PART Express from Greensboro).

PART's general set up for service on a new Rural Express route would typically include three trips serving Rockingham County, and a major employment area (in this case Greensboro) in the morning, two trips midday and three trips in the early evening (3-2-3 trip configuration—see Appendix A). This service requires one bus, but headways during peak travel times are about two hours.

Another possibility for service for Rockingham County Commuters is an expanded version of the standard Rural Express model: five trips serving Rockingham County and Greensboro in the morning, two trips midday, and five late afternoon/evening trips (5-2-5 trip configuration—see Appendix B). This expanded version would allow hourly headways for the morning and afternoon/evening peak commuting times. This version requires two buses and the overall operational costs would increase. From past experience, PART realizes that any rural service short of supplying hourly headways would suffer greatly due to its unattractiveness to riders.

Service Type	Trips/day	Peak Headway	Service Hours/day
3-2-3	7	2 hours	6.99
5-2-5	12	1 hour	10.45

Through studying commutes from Eden and Reidsville into Greensboro, PART staff found that the majority of these workers were traveling to three locations: Moses Cone Hospital, Lincoln Financial and Lorillard Tobacco. Each of these institutions, as well as Eden and Reidsville, are easily served along a general north/south route along US29.

The Rockingham Express route is designed to take 50 to 55 minutes to operate one trip. There are relatively few stops along the route given its length. The route would start from the Eden Hospital (Morehead Memorial) travel through Reidsville; stopping at the connection point to the Reidsville-Wentworth bus operated by Rockingham County on those runs where this local bus's operation coincides with the Express's schedule (limited to three times in one day). PART Express would also stop at the Commonwealth Brand factory, Annie Penn Hospital and a park and ride lot at the intersection of Hwy 29 and Barnes Street—all in Reidsville. After entering Guilford County, PART Express would serve the Browns Summit park and ride lot and then Moses Cone Hospital, a central spot in downtown Greensboro, the Galyon Depot/GTA hub, NC A&T University and the Lorillard factory before returning to Rockingham County.

The Rockingham Express route attempts to meet several network goals:

1. Serve education and medical facilities within the communities PART connects.
2. Connect central business districts (Reidsville and GSO in this case—Eden has three separate CBDs which would be difficult to serve in a timely manner) of the communities PART serves to the nearest major employment center(s).
3. Design introductory service which serves the greatest number of potential commuters.
4. Create and maintain a connected (spatially and temporally) and efficient network, linking people of the Piedmont Triad with the greatest number of opportunities.

Financial Analysis

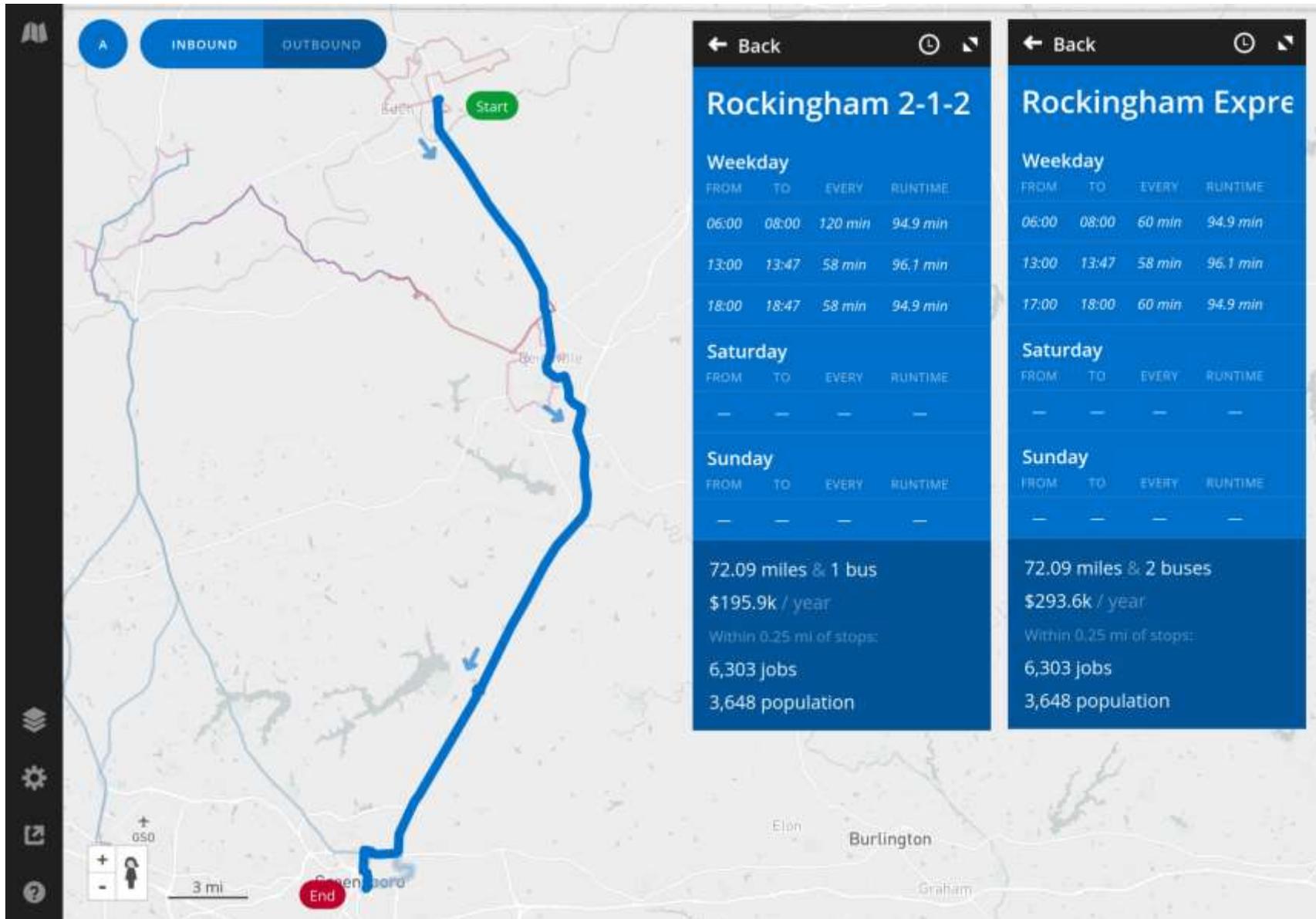
The first alternative, a 3-2-3 service would constitute 6.99 revenue hours each day. The estimated PART Direct Cost for FY18 is \$196K. Using a service year of 255 days there will be approximately 1, 781 revenue hours annually.

The 5-2-5 set up would include 3.48 additional revenue hours per weekday. This would increase cost an additional \$97.6K/year; for a total of 293.6K/year.

Because vehicle registration fees are a potential way to fund transit in North Carolina; best case scenarios for funding the two levels of service described in this document would be:

Number of Vehicles	Registration Fee	Potential Transit Funding
78806	\$1.00	\$78,806
	\$2.00	\$157,612
	\$3.00	\$236,418
	\$4.00	\$315,224
	\$5.00	\$394,030
	\$6.00	\$472,836
	\$7.00	\$551,642
	\$8.00	\$630,448

1. The cost of the general introductory service option (3-2-3) could be funded by a local match of \$2.00 vehicle registration fee in Rockingham County.
2. The cost of the higher level of introductory service (5-2-5) described above could be funded by a local source of \$3.00 vehicle registration fee in Rockingham County.

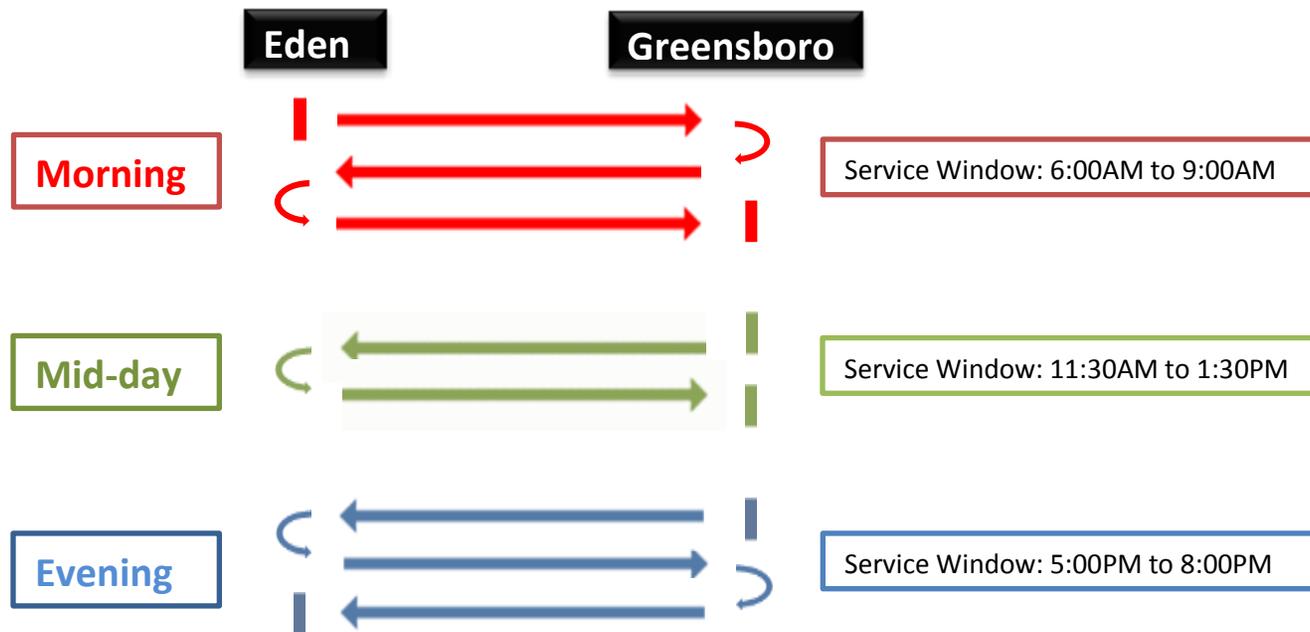


Appendix A 3-2-3 Configuration

Draft Schedule for Rockingham Route 3-2-3 (minimum introductory route configuration)

Southbound				
Morehead Memorial	Annie Penn	Reedy Fork	Moses Cone	Greensboro Depot
6:00AM	6:15	6:34	6:45	6:47
8:00	8:15	8:34	8:45	8:47
1:00PM	1:15	1:34	1:45	1:48
6:00	6:15	6:34	6:45	6:47

Northbound			
Greensboro Depot	Reedy Fork	Annie Penn	Morehead Memorial
7:00AM	7:14	7:33	7:48
12:00PM	12:14	12:33	12:48
5:00	5:14	5:33	5:48
7:00	7:14	7:33	7:48



Appendix B 5-2-5 Configuration

Draft Schedule for Rockingham Route 5-2-5 (introductory route configuration)

Southbound					Northbound			
Morehead Memorial	Annie Penn	Reedy Fork	Moses Cone	Greensboro Depot	Greensboro Depot	Reedy Fork	Annie Penn	Morehead Memorial
6:00AM	6:15	6:34	6:45	6:47	7:00AM	7:14	7:33	7:48
7:00	7:15	7:34	7:45	7:47	8:00	8:14	8:33	8:48
8:00	8:15	8:34	8:45	8:47	12:00PM	12:14	12:33	12:48
1:00PM	1:15	1:34	1:45	1:48	4:00	4:14	4:33	4:48
5:00	5:15	5:34	5:45	5:47	5:00	5:14	5:33	5:48
6:00	6:15	6:34	6:45	6:47	6:00	6:14	6:33	6:48

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5-2-5 Configuration (cont.)

