



Date: August 25, 2011

To: Thomas J. Bonfield, City Manager
Through: Theodore L. Voorhees, Deputy City Manager
From: Mark D. Ahrendsen, Transportation Director
Subject: Citizen’s Matter – DATA Service Changes for Routes 4 and 9

Executive Summary

The on-time performance of DATA Routes 4 and 9 has become a major concern with passengers, the service planning staff and DCTC, the fixed route contractor. An improvement in the reliability of the DATA system is critical to ensure that current passengers can make their connections at Durham Station and get to their destination on time. Improved reliability may also help attract new riders to the system.

Based upon observations at Durham Station, passenger and operator comments, and data from Automatic Passenger Counters (APCs), route modifications for Routes 4 and 9 were made. The service changes were implemented on August 13, 2011 without increasing the overall operating budget of DATA and the City of Durham.

The guiding principle that Triangle Transit staff used in recommending these changes was to minimize disruption to existing customers while achieving the on-time performance improvements that will make these routes reliable transportation options.

We will be looking again at service alternatives for residents affected by the changes to Routes 4 and 9 during the comprehensive operations analysis for the Designing Better Bus Service effort which is currently underway.

Background

Routes 4 and 9 have demonstrated difficulty maintaining their on-time performance during the day. The main purpose of the service changes is to address on time performance. The chart below shows the percentage of trips that arrive late at all timepoints along the route.

Table 1: Percent of Late Arrivals at all Timepoints

Route	Percent of Trips Arriving Late
4	45%
9	26%

Source: Weekday APC Data from Feb 2009-September 2010

During the monthly DATA service planning and efficiency meetings, service planning staff worked with DATA operators, the operations manager, and the customer service manager to identify the issues causing routes to be late. The service planners also analyzed Automatic Passenger Counter (APC) data to better identify the times of day when the on-time performance is most acute.

Triangle Transit planning and marketing staff communicated information about the service changes for Routes 4 and 9 through the following channels:

- Press Release
- Flyers posted on buses and at major bus stops and at stops that would be affected by proposed changes (English and Spanish versions posted)
- Overview of service change proposals posted to <http://data.gotriangle.org> and available on poster boards at public meetings
- Information posted to Facebook
- Binder available at Durham Station describing the changes
- Meetings with affected parties such as Carver Living Center
- Feedback from DATA operators
- Information provided at Durham Station monthly meetings

Five public information sessions were held at Durham Station:

- March 17, 6:30 a.m. – 8:00 a.m.
- March 29, 11:00 a.m. – 1:00 p.m.
- March 31, 4:30 p.m. – 6:30 p.m.
- April 6, 4:30 p.m. – 6:30 p.m.
- April 13, 6:30 a.m. – 8:00 a.m.

Notices of the August 13 service discontinuation were posted on August 1st at affected bus stops. Each notice included the nearest alternate stop. The discontinue notices were put out on August 1.

Issues/Analysis

Route 4

The on-time performance issue for Route 4 is particularly acute during the mid-day (9am-3pm) and PM peak (3-6pm) Mondays-Fridays. Route 4 runs late 45% of the time during the mid-day and 58% of the time during the PM peak. Average run times only exceed scheduled times on a regular basis between 3-4pm, but departure times captured by DCTC over the course of several days show consistent late departures of 5-15 minutes, particularly during the PM peak. Below is a chart that illustrates this issue.

Table 2: Route 4 Trip Statistics (Mon-Fri)

Time of Day	Average passengers per round-trip	Average actual round-trip time	Scheduled round-trip time	Average MPH	Route Length
AM Peak (5:30-9am)	41	49 min	55 min	14.1	12.3
Mid-day (9am-3pm)	53	52.3 min	55 min	13.1	12.3
PM Peak (3-6pm)	60	53.1 min	55 min	13	12.3
Night (6pm-12:30am)	38	49 min	55 min	14	12.3

Description of change:

Inbound Route 4 will continue straight on Roxboro Rd, in lieu of Pacific Avenue, Ben Franklin Boulevard, and Carver Street. See the map below:

Figure 1: Route 4 Service Change



Affected Parties/Mitigation:

Ben Franklin Blvd will now be served by Route 9 during daytime hours on Monday through Saturday. Service will not be provided at these locations after 7pm or on Sundays. At the existing six stops along Pacific Ave, Ben Franklin Blvd, and Carver St that will be served by the Route 9, there are 89 daily boardings on average according to the APC data. This is equivalent to 7% of the daily boarding activity on Route 4. The destinations along Ben Franklin Boulevard are primarily offices that are closed after 6pm.

Below please find the estimated daily boarding and alighting of passengers who are adversely affected by the August 13 service change for Route 4.

Direction	Stop Name	On	Off	Total
Inbound	E Carver St at Commons Blvd	28	18	45

We will be looking at other options for providing service to the residents who live in this vicinity as we undertake the comprehensive operations analysis for the Designing Better Bus Service effort.

Public Outreach and Comment:

77% of the comments received for this route during the public comment period were supportive of this change. Below is summary from riders associated with the service change for Route 4.

Route 4: Ben Franklin

- On Route 4, No one gets on or off at the Ben Franklin loop and it will save time.
- Route 4 and 17 needs better connections at Horton and Roxboro. Communicate with the other bus to allow transfers.
- Looks like a comprehensive and smart service of changes! Congrats!
- I think cutting out Ben Franklin Blvd. would get me downtown quicker.
- Need to leave the routes like they are! I ride all buses.

Route 9

On-time performance issue is particularly acute during the PM peak (3-6pm) Mondays-Saturdays. Route 9 runs late 35% of the time during the PM peak. However, average run times are well below scheduled times throughout the day. The on-time performance issues are thus more likely related to the fact that Route 9 is interlined with Route 11 and misplaced wait time within the route. Below is a chart that illustrates this issue.

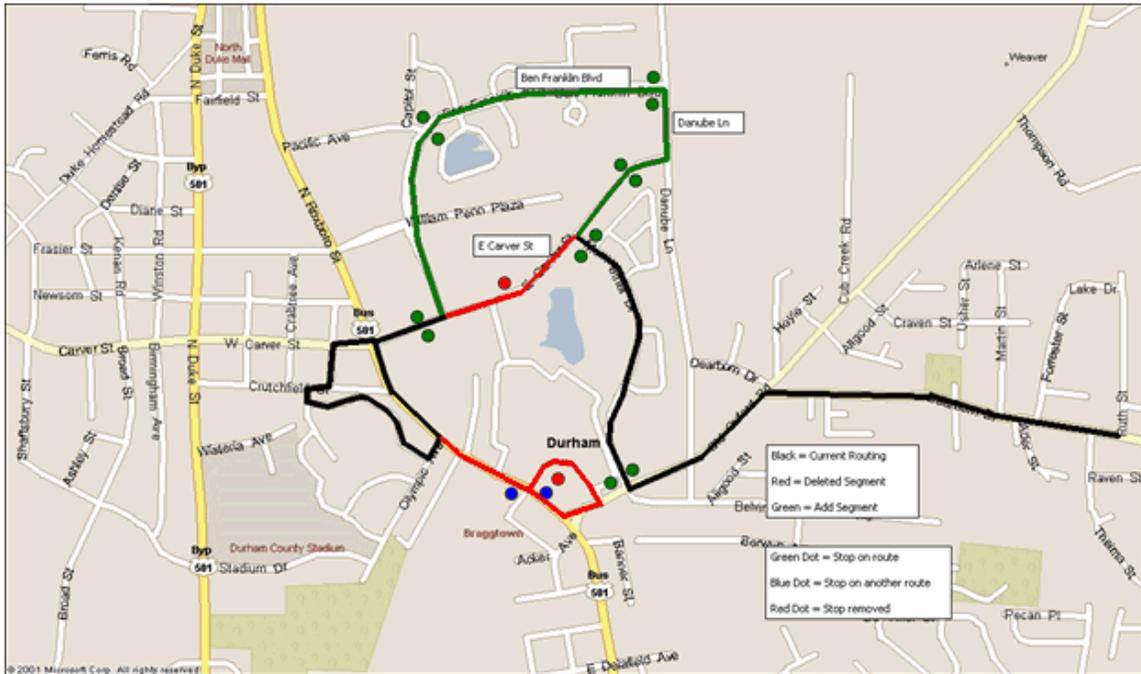
Table 3: Route 9 Trip Statistics (M-Sat)

Time of Day	Average passengers per round-trip	Average actual round-trip time	Scheduled round-trip time	Average MPH	Route Length
AM Peak (5:30-9am)	34	74 min	85 min	13.1	18.8
Mid-day (9am-3pm)	51	77 min	85 min	12.8	18.8
PM Peak (3-6pm)	55	74 min	85 min	12.7	18.8
Night (6pm-12:30am)	34	53 min	55 min	16	15.8

Description of change:

In an effort to improve the on-time performance of Route 4, this route will now serve the Ben Franklin Blvd area during the day and will not continue going into Oxford Commons Shopping Center at any time. A small segment of Carver Street would also no longer be served during the day. See the map below:

Figure 2: Route 9 Daytime Service Change



At night, on Sundays, and on certain holidays, Ben Franklin Boulevard and a segment of Carver Street will not be served. The medical offices located along Ben Franklin Blvd are primarily open during business hours. See the map below:

Figure 3: Route 9 Night/Sunday Service Change



Affected Parties/Mitigation:

At the Carver Living Center, there is an average of 3 boardings per day, which is 0.33% of the total boarding activity on the route. This section of Carver St will not have service during the weekdays from 6am-7pm, but there will be service going inbound during nights and Sundays. On weekdays, the alternate stop for these individuals is at Meriwether Dr at Carver St, located ¼ mile from the Carver Living Center.

The stop inside the Oxford Commons shopping center does not show any boardings on the average day on the Route 9 according to the APC data. Passengers wishing to access Oxford Commons Shopping Center can use the bus stops located at the intersection of Meriwether Dr at Old Oxford Hwy or by Route 4 on Roxboro Rd, both located less than ¼ mile from the front door of the Food Lion.

Below please find the estimated daily boarding and alighting of passengers who are adversely affected by the August 13 service change for Route 9

Direction	Stop Name	On	Off	Total
Inbound	E Carver St at Commons Blvd	7	3	10
Outbound	E Carver St at Commons Blvd	2	10	12

Public Outreach and Comment:

80% of the comments received for this option during the public comment period were supportive of the change to Route 9 during the day, while 76% were in favor of the proposed routing for Route 9 at night. Some comments expressed that the changes to the Route 9 at night were not enough to get the route to be on time. Below is summary from riders associated with the proposed service change for Route 9.

Route 9: Daytime Routing

- Route 9 Daytime It will be difficult during busy times to make the turn onto Carver and Ben Franklin outbound and inbound especially inbound around 330pm -530pm. Nothing that we can't overcome though.
- Need a new bus route to connection at Magnolia Pointe Apartments for the safety of the passengers in the area due to lack of walking pavement and lighting.
- Rides from Morrene Rd Apartments to Ben Franklin Blvd for doctor's appointments. Never out there after 7pm. Just concerned about getting the information about routing changes before they happen.
- Take Route 9 out of the Bluefield Community. Keep at night.

Route 9: Night/Sunday Routing

- I only ride Route 9 on Sundays and it is always late picking up at Dowd and N. Roxboro to the point that sometimes we miss the connections downtown. If this will improve timing so that the bus is on time and we get downtown on time so that we don't have to wait for an hour when late, then I am all for it.

- Route 9 at Night It would be great if the Route 9 went straight up Roxboro Rd on inbound putting a stop at Olympic and Roxboro and Carver and Roxboro bypassing going inside of Durham Regional. Very few people go into Durham Regional after 7pm. Route 4 already goes inside. By eliminating going inside Oxford Commons shopping center, the Route 9 still needs a little more help.
- Route 9 needs more time in it.

c: Harmon Crutchfield
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