



Title VI Service Change Equity Analysis Fall 2016 Choose-Up / Route 52

Finding:

For the Fall 2016 choose-up, eight proposed service changes meeting the “major service change” threshold were analyzed to determine whether they might negatively impact minorities or low income individuals. One proposed change, the elimination of Route 52, has been found to have a disparate impact on minorities.

Background:

On January 15, 2016 the RIPTA Board of Directors approved an updated Title VI Program in keeping with the requirements of Federal Transit Agency (FTA) Circular 4702.1B. Pursuant to this Program, service changes meeting the definition of “Major Service Change” must be analyzed to determine their potential for negatively impacting minorities or low income populations.

RIPTA defines major service change as follows:

1. The establishment of new transit lines
2. Within an 18 month period, cumulative increases or decreases of more than 25% in the annual transit revenue vehicle miles operated on a corridor
3. Within an 18 month period, cumulative increases or decreases of more than 25% in the annual number of service hours scheduled on a corridor

Once a major service change has been identified, potential adverse effects are considered. RIPTA defines an adverse effect as a geographical or time-based reduction in service impacting more than 20 passengers that includes:

1. Span of service reductions of more than one hour total
2. Frequency reductions of more than fifty percent (50%)
3. Route segment eliminations that results in a walk of over 1/2-mile to the nearest bus stop from the former stop
4. Re-routing that results in a walk of over 1/2-mile to the nearest bus stop from the former stop
5. Route elimination

Service changes with adverse effects are then analyzed to determine whether the change will have a disparate impact on minority populations or a will place a disproportionate burden on low income populations.

Pursuant to RIPTA's policy, a disparate impact occurs when more than 33.6% of the population bearing adverse effects belongs to minority groups. This policy is designed to reflect populations that meaningfully exceed the statewide service area average of 23.6% minority.

RIPTA defines a disproportionate burden as occurring when more than 23.6% of the population bearing adverse effects belongs to low-income groups. This policy is designed to reflect populations that meaningfully exceed the service area average of 13.6% low-income individuals, based on 2010 U.S. Census data. The disproportionate burden policy applies only to low-income populations that are not also minority populations.

RIPTA has created a profile for each of its routes using 2010 U.S. Census data, indicating the potential minority and non-minority ridership within Census blocks intersecting a half-mile radius of bus stops. The table below lists RIPTA's routes serving populations exceeding the minority and/or low income thresholds noted above.

Routes Meeting Thresholds for "Minority/Low Income" Route Status

Route	Minority	Low Income	Route	Minority	Low Income
1	Yes		50	Yes	Yes
3			51	Yes	
6	Yes	Yes	52	Yes	
8X			54		
9X			55	Yes	
10X	Yes	Yes	56	Yes	Yes
R Line	Yes	Yes	57	Yes	
12X			58		
13			59X		
14			60		
17	Yes	Yes	61X		
18	Yes	Yes	63		
19	Yes	Yes	64		
20	Yes	Yes	65X		
21			66		
22	Yes		67		
27	Yes	Yes	71	Yes	
28	Yes	Yes	72	Yes	Yes
29			73	Yes	
30	Yes		75	Yes	
31	Yes	Yes	76	Yes	
32			78		
33			80	Yes	
34			87		Yes
35			92	Yes	Yes
40			95X		
49		Yes			

The above policies were developed with the participation of members of Rhode Island's minority, low-income, and limited English proficiency (LEP) communities; RIPTA commits to maintaining an ongoing relationship with organizations representing these communities as well as inviting public comment on proposed fare changes and major service changes.

Proposed Major Service Changes for Fall 2016 Choose-Up

Three times each year, RIPTA makes adjustments to service in response to changing community conditions, demand for service, and to optimize transit operations consistent with RIPTA's adopted service standards. For the Fall 2016 choose-up, eight proposed changes meet the definition of major service change.

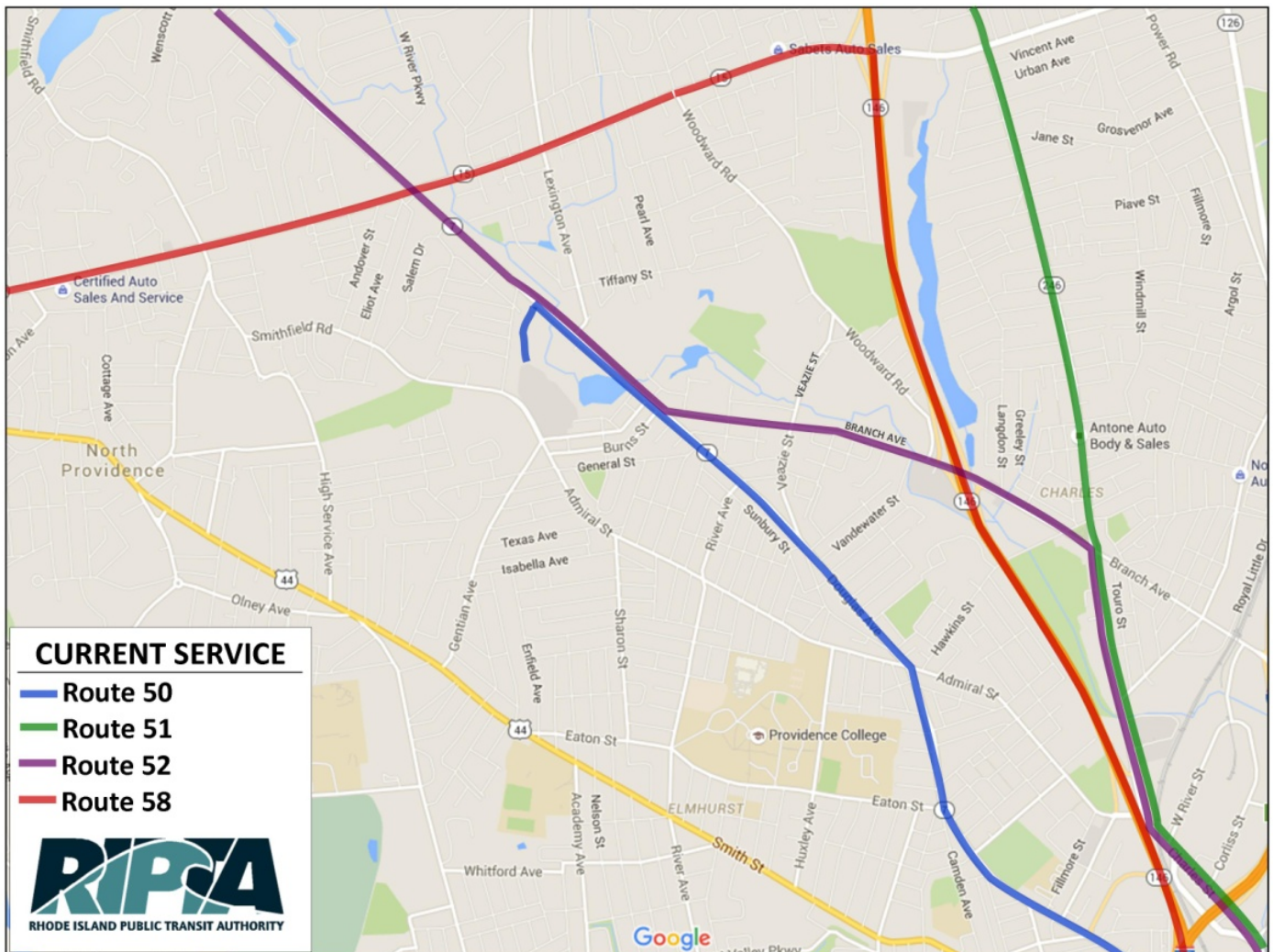
- **Route 32 East Providence/Wampanoag:** Routes 32 and 34 are proposed to be merged into one route, Route 34, resulting in the elimination of Route 32. The new Route 34 would maintain coverage to the same areas as Route 32.
- **Route 33 Riverside:** Frequency reduction of 25%; rerouting to be part of the service trunk connecting the east side of Providence to East Providence.
- **Route 34 East Providence:** Routes 32 and 34 are proposed to be merged into one route, Route 34. The new Route 34 will cover the same areas as Route 32, and be extended to provide new access to jobs and shopping in Seekonk, MA.
- **Route 40 Butler/Elmgrove:** Route is proposed to be merged with Route 92 Federal Hill/East Side. The merger would result in an increase of service frequency from 60 minutes to 40 minutes.
- **Route 50 Douglas Avenue:** This route is proposed to merge with Route 52, operating along its current alignment to Shaw's on Douglas Avenue, operating every 20 minutes as it currently does, and every other trip continues to Bryant University.
- **Route 52 Branch Avenue:** This route is proposed to merge with Route 50. Service to Bryant University would be on Route 50; service on Branch Avenue would be on a revised Route 58 alignment, and service on Charles Street would continue to be Route 51, along with the revised Route 58.
- **Route 66 URI/Galilee:** Increase in service hours of about 25% to accommodate anticipated increase in ridership due to the opening of a new nursing school in Providence.
- **Route 92 Federal Hill/East Side:** The 92 is proposed to be rerouted and merged with Route 40. Eastbound from Kennedy Plaza via Memorial Boulevard to Eddy Street, turns east to Point Street and Wickenden Street, then via Wayland Avenue to Wayland Square and continue north via the current Route 40 alignment. This option solves some longstanding scheduling problems with Route 40 while maintaining service to the same markets. The 20 minute frequency currently on Route 92 is maintained, and service to Butler Hospital would increase from 60 to 40 minutes.

Of these major service changes, three have been determined to have potentially adverse effects: Routes 32, 40, and 52. Of these three, only one involves either a minority or low income route: Route 52. The following section of this report provides a service equity analysis of the proposed changes to Route 52.

Route 52 Title VI Service Change Equity Analysis

Proposed Service Change: Route 52 is proposed to merge with Route 50, with service to Bryant University on Route 50, service on Branch Avenue on a revised Route 58 alignment, and service on Charles Street continuing to be provided on Route 51, along with the revised Route 58. The following maps depict (1) current service in the affected area, (2) simple elimination of Route 52, and (3) the proposed enhanced service plan.

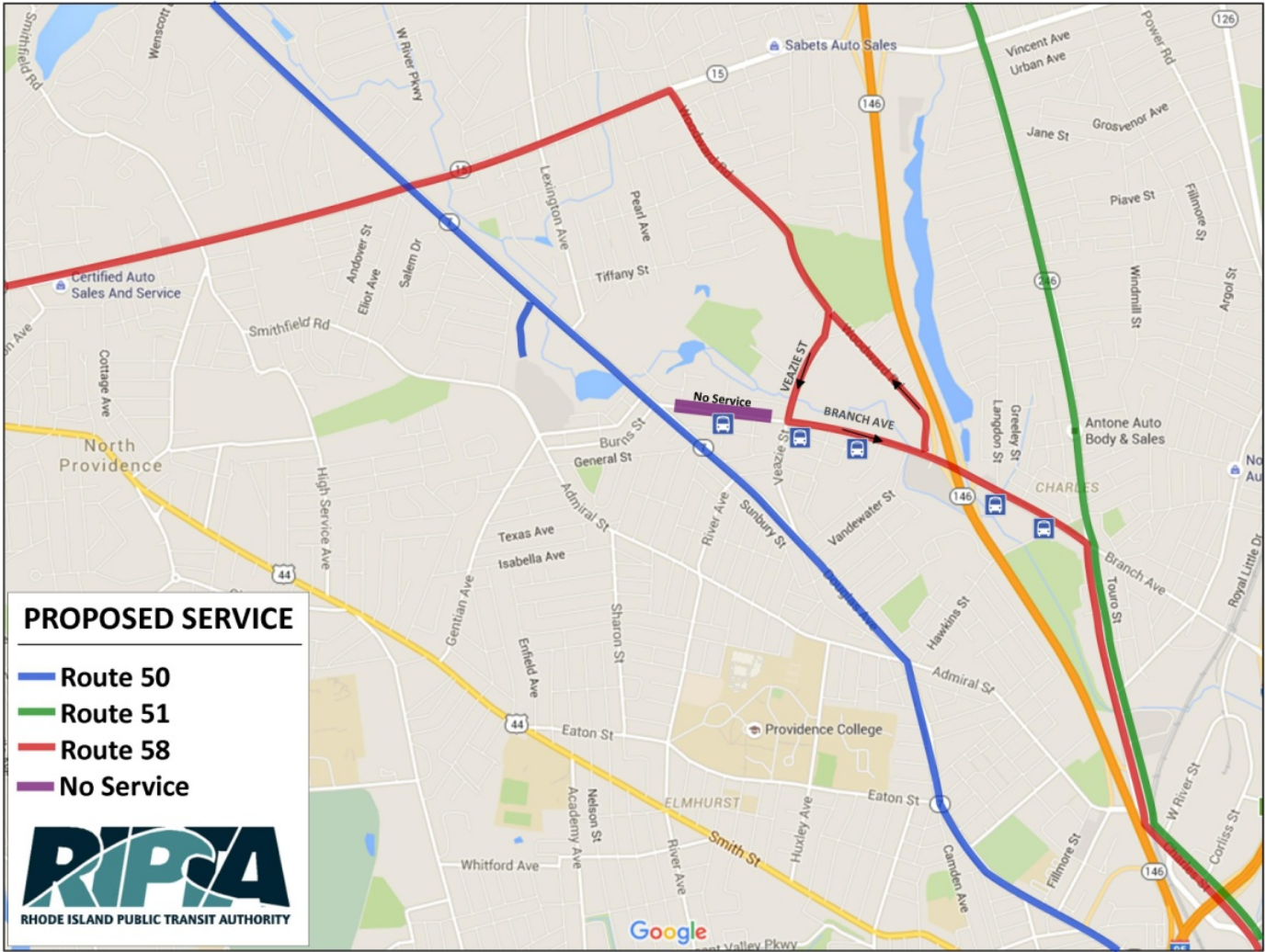
Current Service



Elimination of Route 52



Proposed Enhanced Service Plan



Although rerouting Route 58 maintains coverage to most of Branch Avenue, the frequency is not equivalent. Route 52 currently operates an irregular schedule, with an average frequency of every 43 minutes weekdays, 80 minutes on Saturdays, and 75 minutes on Sundays. On weekdays, Route 58 operates every 50 minutes in the peak and about every two hours midday. There is no Saturday or Sunday service.

There are a total of 97 boardings on Branch Avenue inbound weekday trips. The table below shows the average boardings per weekday on inbound Route 52 trips. Based on the current service proposal, only the stop located near side Wild Street would no longer be served. This stop is about a 950-ft walk to the nearest bus stop on Douglas Avenue.

Bus Stop	Inbound Boardings/Alightings
Branch Avenue near side Wild Street	15 / 0
Branch Avenue far side Veazie Street	33 / 2
Branch Avenue near side Abram Street	40 / 8
Branch Avenue opposite #525 Branch Avenue	9 / 5
Branch Avenue far side Hawkins Street	0 / 1

Service Change Rationale: In 2012, RIPTA conducted a Comprehensive Operational Analysis which recommended, among other proposed service adjustments, the consolidation of Routes 52 and 50, as follows:

ROUTE 52 | BRANCH / BRYANT UNIVERSITY

Route 52 operates between Bryant University in Smithfield and Kennedy Plaza in downtown Providence, traveling primarily on Douglas Turnpike, Douglas Avenue, Branch Avenue and Charles Street.

Proposed Changes: To reduce duplication and provide more consistent service, Route 52 would be combined with Route 50 Douglas Avenue and extended to Bryant University via Douglas Pike, with a combination of short trip service to the North Providence Shaw’s and long trip service to Bryant College.

- Consolidate Route 52 with Route 50 Douglas service by extending Route 50 to Bryant University along Route 52’s alignment on Douglas Avenue and Douglas Pike. The merged route would be designated Route 50 Douglas/Bryant College.
- Alternate weekday daytime service between long trips to Bryant University, and short trips to the Shaw’s on Smithfield Road, with service to Shaw’s every 22-23 minutes and to Bryant University every 45 minutes
- Operate all weekday evening and weekend service every 45 minutes between Bryant University and downtown Providence.
- Decouple Route 50 and Route 28 Hartford to allow service levels to be better matched with demand and to improve on-time performance.
- Provide service to the main entrance of Fidelity Investments in Smithfield on select AM and PM trips.
- Discontinue poorly utilized Metcalf Court variant service in Providence to enable the provision of service with consistent schedules.

(Source: RIPTA 2013 COA, Nelson\Nygaard Consulting Associates Inc.)

ROUTE 50 | DOUGLAS AVENUE (RENAME ROUTE 50 DOUGLAS AVE/BRYANT UNIVERSITY)

Route 50 Douglas Ave provides service between the Shaw's supermarket on Smithfield Road in North Providence and Kennedy Plaza.

Proposed Changes: To reduce duplication and provide more consistent service, Route 50 would be combined with Route 52 Branch Avenue/Bryant University and extended to Bryant University via Douglas Pike:

- Consolidate Route 50 with Route 52 Branch Avenue service by extending Route 50 to Bryant University along Route 52's alignment on Douglas Avenue and Douglas Pike. The merged route would be designated Route 50 Douglas/Bryant College.
- Alternate weekday daytime service between long trips to Bryant University, and short trips to the Shaw's on Smithfield Road, with service to Shaw's every 22-23 minutes and to Bryant University every 45 minutes
- Operate all weekday evening and weekend service every 45 minutes between Bryant University and downtown Providence.
- Decouple Route 50 and Route 28 Hartford to allow service levels to be better matched with demand and to improve on-time performance.
- Provide service to the main entrance of Fidelity Investments in Smithfield on select AM and PM trips.

(Source: RIPTA 2013 COA, Nelson\Nygaard Consulting Associates Inc.)

The above recommendations are substantially the same as what is currently being proposed with two exceptions. The first difference is that proposed frequency would improve to 20 minutes on short trips, and every 40 minutes on the longer trips to Bryant University. The second major difference is that RIPTA proposes to continue providing service to most of Branch Avenue by re-routing route 58.

Extending Route 50 every other trip to serve Bryant University, and removing Route 52 from this service area, results in a more consistent frequency and therefore more easily predictable service. However, by doing this, Route 52 would only then exist to serve a 1.15-mile portion of Branch Avenue. Therefore, not eliminating route 52 would be inconsistent with RIPTA's service standards and would be an unjustifiable duplication of service.

Alternatives Analysis: Several alternatives were considered in scoping this route change proposal but were found not to be feasible due to issues such as road geometry. For example, RIPTA explored serving a portion of Branch Avenue by operating via Douglas Avenue to Branch Avenue but it was found that this turn cannot be safely made by a 40-foot bus. Other nearby streets were also found to be problematic for fixed route bus service. No alternative was identified that could provide the overall operational benefit to the system while providing a less disparate impact to minorities.

Finding of disparate impact: Because Route 52 meets RIPTA’s adopted threshold for “minority route” status, serving a minority population more than 33.6% higher than that of RIPTA’s service area average minority population of 23.6%, the proposed elimination of Route 52 will have a disparate impact on minorities.

Geographic Area	% Minority
Route 52 Service Area	39.8%
RIPTA Statewide Service Area	23.6%

Note: 2010 U.S. Census data; minority population within Census blocks intersecting a one-half mile radius of bus stops.

Mitigation Measures: Because simply eliminating Route 52 would have a substantial adverse effect on RIPTA’s riding public, especially minority riders, the proposed service change incorporates modifications to Routes 50 and 58 to mitigate the negative impacts of the route elimination.

As part of this service change, RIPTA decided it is important that some level of service on Branch Avenue be maintained. This resulted in the current proposal to reroute bus 58 to serve the majority of bus stops on Branch Avenue. The route will operate inbound via Mineral Spring Avenue, right to Woodward Road, right to Veazie Street to Branch Avenue and then continue to downtown Providence via Charles Street. This proposal allows for inbound service to serve all but one of the Branch Ave bus stops; however, the outbound service would not serve Veazie Street due to a problematic right turn, and would instead turn right on to Woodward Road. The result is that passengers who would normally alight a bus near Abram Street would instead alight at Woodward Road, which is a distance of about 815 feet, or less than one quarter-mile. Passengers who would normally use the Veazie Street stop would be best accommodated using the Douglas Avenue service, a distance of about 1,250 feet, also less than one quarter-mile.

The proposed changes aim to minimize impacts while meeting service guidelines and distributing resources throughout the service area as equitably as possible. The proposal reflects the best route design to minimize potential adverse impacts. Concentrating service on one corridor also allows RIPTA to provide the university and the entire corridor with faster and more direct service to Providence.

RIPTA Staff Recommendation:

It is recommended that the proposed elimination of Route 52, together with the above-described associated service enhancements to Routes 50 and 58, be authorized.