



# REGIONAL PLANNING COMMISSION

## COMPREHENSIVE OPERATIONAL ANALYSIS

### Final Report

May 2012



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# EXECUTIVE SUMMARY

## BRIEF INTRODUCTION OF PROJECT

As population and businesses have returned to Jefferson and Orleans parishes post-Katrina, both New Orleans Regional Transit Authority (RTA) and Jefferson Parish Transit's (JeT) ridership demand patterns have been changing. In reaction to this, the Regional Planning Commission (RPC) initiated a Comprehensive Operational Analysis (COA) to collect primary travel demand data for existing users of RTA and JeT services, and to complete an assessment of how well current services were operating.

In general, transit use has been increasing to the point that existing service levels in the existing route network are insufficient to handle the passenger demand in many corridors. To quantify how the existing system was operating, ridership patterns were examined for each route. A ridecheck and timecheck were conducted during September 2011 on all JeT bus routes and select RTA bus routes. An assessment of performance was completed for each route, and suggestions to improve regionwide connectivity, improvements in passenger travel time, and adding capacity to areas in need was developed.

Additionally, transit travel demand data was collected via an on-board intercept survey that was distributed on every route operated by both systems. Over 7,200 riders were interviewed, and origin and destination patterns, rider demographics, transfer patterns, and comments were collected.

## PERFORMANCE SUMMARY

RTA operates a system of 32 bus routes and 3 streetcar lines within the cities of New Orleans and Kenner. In 2011, the system carried about 47,000 riders on weekdays, 38,000 on Saturdays, and 27,000 on Sundays. Table ES-1 lists each of the routes along with their headways. Base headways are generally between 30 and 60 minutes, although the streetcar lines and a handful of bus routes operate more frequently. Service spans are generally long, with many routes operating until midnight or later. All routes operate daily except for 108 Algiers Local, 32 Leonidas, and 60 Hayne.

JeT provides service on 12 fixed routes in Jefferson Parish, operating 11 bus routes on weekdays, 6 on Saturdays, and 4 on Sundays. Routes are classified based on whether they operate on the Eastbank or Westbank. JeT carries about 6,800 riders on weekdays, 3,100 on Saturdays, and 1,200 on Sundays. Table ES-2 lists the headway for each route. Headways are highly variable, with peak headways ranging from 20 minutes to a high of 78 minutes. Service begins at 5:20 AM and ends at 10:32 PM.

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Table ES-1 RTA Headways & Span of Service

Route	Name	Weekday Headway				Saturday Headway	Sunday Headway
		AM Peak	Base	PM Peak	Evening	Base	Base
2	Riverfront Streetcar	37	20	37	37	12	12
5	Marigny/Bywater	53	53	53		52	52
10	Tchoupitoulas	30	60	30	60	60	60
11	Magazine	16	21	16	60	21	21
12	St. Charles Streetcar	10	8	8	10-15	8-10	8-10
15	Freret	35	60	35	60	60	60
16	Claiborne	30	60	30	60	60	60
24	Napoleon	30	30	30	30	30	30
27	Louisiana	20	40	40	80	70	70
28	M. L. King	45	45	45	45	45	45
32	Leonidas	70	70	70	---	---	---
39	Tulane	20	30	20	60	30	30
45	Lakeview	30	30	30	30	30	30
47-48	Canal Streetcar	6-20	10	10	10-20	10	10
51-52	St-Bernard - Paris Ave. & St Bernard - St. Anthony	15-25	30	15-25	30-60	40	40
55	Elysian Fields	30-40	30-40	30-40	30-40	60	60
57	Franklin	36	36	36	66-73	72	72
60	Hayne	60	60	60	60	---	---
62	Morrison Express	30	45	30	90	45	45
63	New Orleans East Owl	---	---	---	1 trip	1 trip	1 trip
64	Lake Forest Express	45	90	45	90	45	45
80	Louisa	70	70	70	70	70	70
84	Galvez	40	40	40	80	40	40
88	St. Claude - Jackson Barracks	20	20	20	30-60	30	30
91	Jackson - Esplanade	30	30	30	60-120	60	60
94	Broad	20-25	20-24	20-25	20-30	45	45
100	Algiers Loop Owl	---	---	---	2 trips	2 trips	2 trips
101	Algiers Loop	60	60	60	60	60	60
102	General Meyer	30-36	36	30-36	55-90	72	72
108	Algiers Local	60	60	60	60	120	
114-115	General DeGaulle - Tullis & General DeGaulle - Sullen	19-25	19-23	10-25	23-28	19-23	19-23
201	Kenner Loop	46-49	48	46-49	46-49	46	81

Source: RTA Timetables

Table ES-2 JeT Route Headways and Span of Service

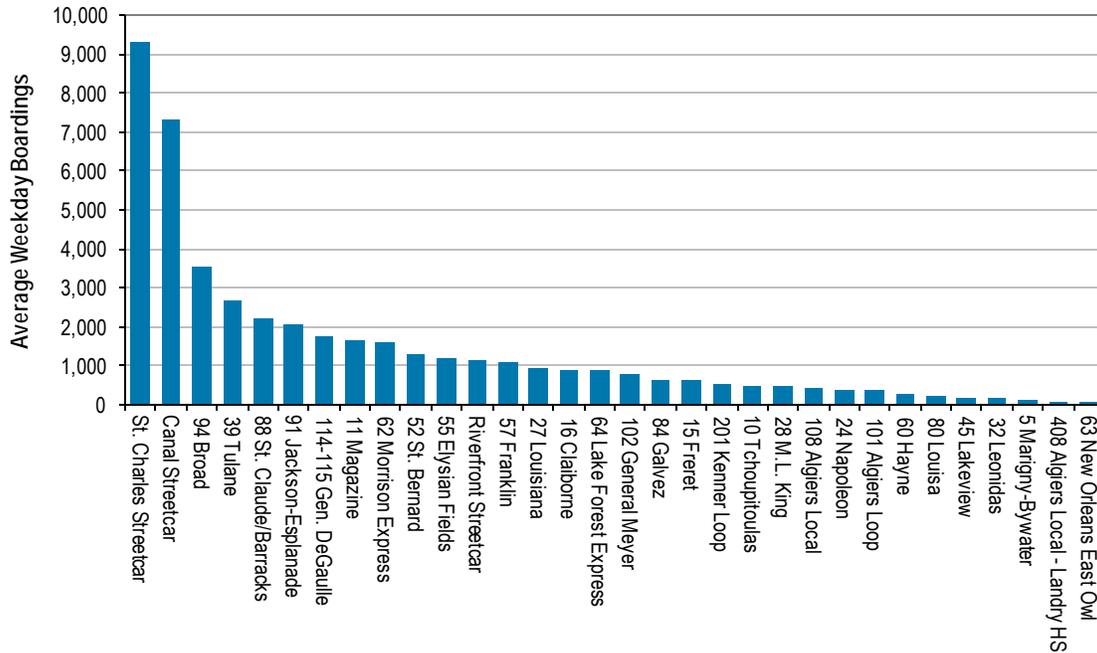
Route	Name	Weekday Headway				Saturday Headway	Sunday Headway
		AM Peak	Base	PM Peak	Evening	Base	Base
E1	Veterans	22	30	25	75-93	44	75
E2	Airport	24-31	36	25-32	58-64	32	64
E3	Kenner Local	20	30	25	70	32	68-72
E4	Metairie Road	40	40	40	40	---	---
E5	Causeway	30	60	30	30	50	---
E8	Clearview	71-78	71-83	71-78	---	---	---
W1	Avondale	69	69	69	---	---	---
W2	Westbank Expressway	30	64	30	61-98	64	---
W3	Lapalco	30	40	30	51-120	64	---
W8	Terrytown	30	60	30	86-109	---	---
W10	Huey P. Long	74	74	77	---	---	---

Source: JeT Timetables

## RTA Performance Summary

Figure ES-1 presents average weekday boardings by route. The St. Charles and Canal streetcar lines carry significantly more riders than other services (9,300 and 7,300 weekday boardings, respectively). The bus routes with the highest ridership are the 94 Broad (3,500), 39 Tulane (2,700), and 88 St. Claude/Barracks (2,200).

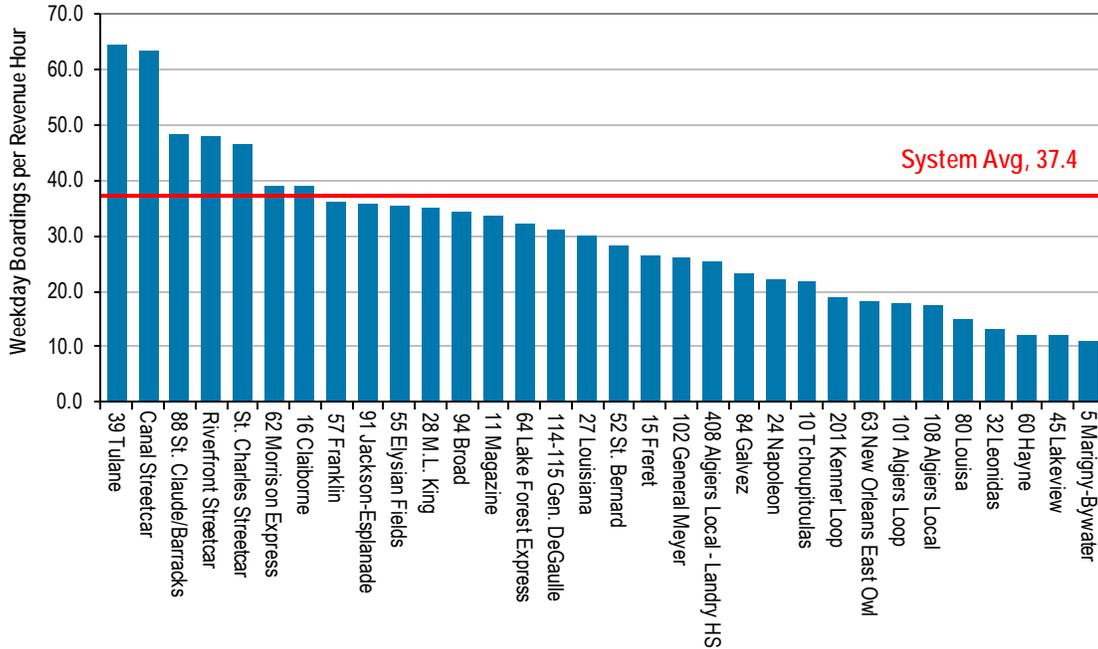
Figure ES-1 RTA Average Weekday Boardings by Route (2011)



Source: RTA 2011 Year End Performance Report

Weekday productivity by route, measured in boardings per revenue hour, is shown in Figure ES-2. The most productive route is the 39 Tulane with almost 65 boardings per hour. Second-highest is the Canal Streetcar with about 63 boardings per hour, followed by 88 St. Claude/Barracks (48 boardings per hour), the Riverfront Streetcar (48 boardings per hour), and the St. Charles Streetcar (46 boardings per hour). The least productive routes are the 5 Marigny-Bywater, 32 Leonidas, 45 Lakeview, and 60 Hayne.

Figure ES-2 RTA Weekday Boardings per Revenue Hour by Route (2011)



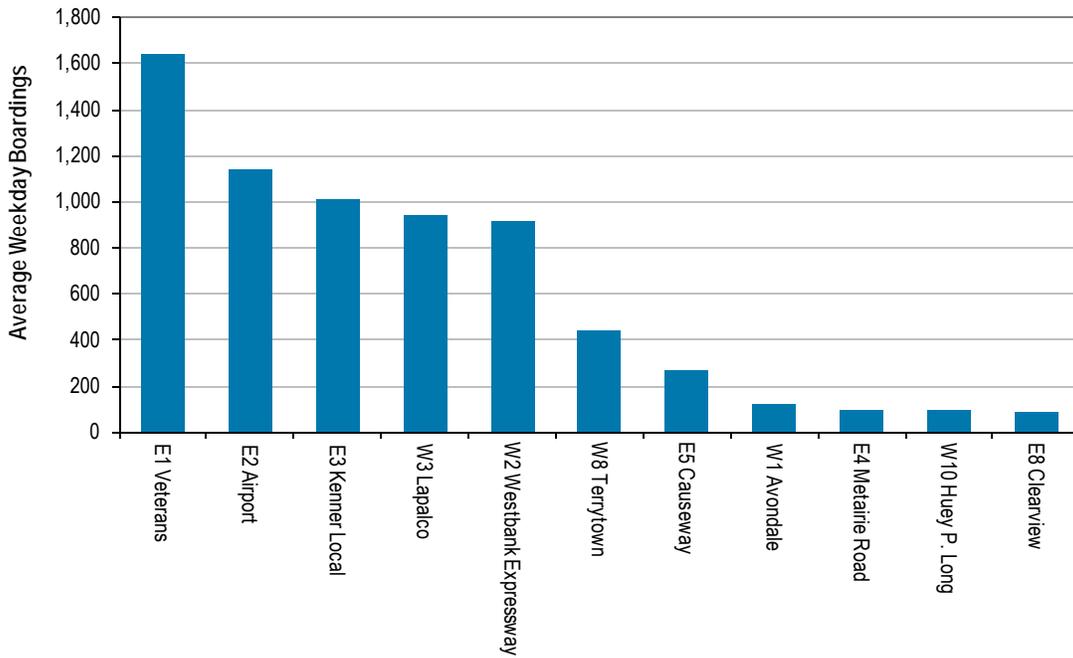
Source: RTA 2011 Year End Performance Report

## JeT Performance Summary

Figure ES-3 presents average weekday boardings by route. E1 Veterans carries significantly more riders than any other route, with about 1,600 weekday boardings. The second highest route is E2 Airport, with about 1,110 weekday boardings. The four lowest-ridership routes each carry about 100 riders on weekdays: W1 Avondale, E4 Metairie Road, W10 Huey P. Long, and E8 Clearview.

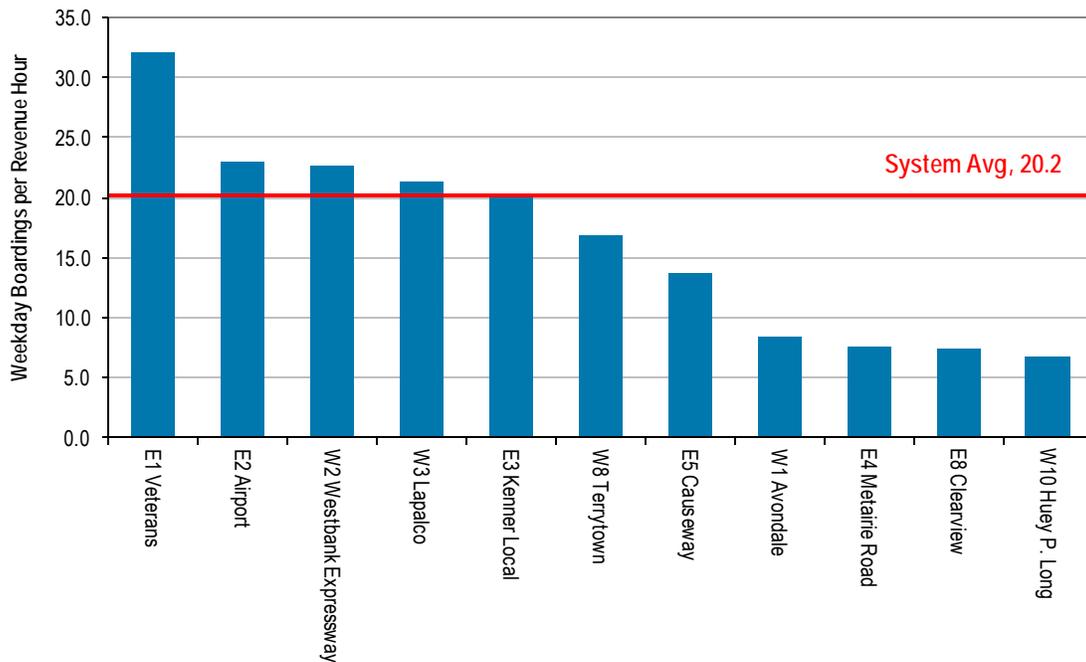
Weekday productivity by route, measured in boardings per revenue hour, is shown in Figure ES-4. The ranking of routes in this chart is similar to the ranking in Figure ES-3. E1 Veterans has the highest productivity, with about 32 boardings per revenue hour. E2 Airport and W2 Westbank Expressway each have about 23 boardings per revenue hour, while W3 Lapalco has about 21. The lowest performing routes are W1 Avondale, E4 Metairie Road, E8 Clearview, and W10 Huey P. Long, all of which operate at less than 10 passengers per revenue hour.

Figure ES-3 JeT Average Weekday Boardings by Route (2011)



Source: 2011 JeT Performance Data

Figure ES-4 JeT Weekday Boardings per Revenue Hour by Route



Source: 2011 JeT Performance Data

## Passenger Overcrowding on RTA Routes

As ridership has continued to grow, capacity has become a major issue. RTA measures load factors on a monthly basis to assess which routes have on-going load challenges. Table ES-3 shows the extent of the capacity issues. Figures are annual averages for year 2011. Only routes that exceed a 0.85 annual load factor in any time period are shown. Annual average load factor exceeding 0.85, imply repeated instances in which monthly load factors are close or higher than 1, where standees are common.

Table ES-3 2011 Annual Load Factors

Route	Weekday Peak	Weekday Midday	Saturday	Sunday
# 11 Magazine	1.17	0.55	0.52	0.32
# 12 St. Charles	0.88	0.73	0.84	0.72
# 27 Louisiana	0.86	0.62	0.39	0.24
# 39 Tulane	1.87	0.97	0.81	0.54
# 47-48 Canal Streetcar	1.21	0.88	0.80	0.90
# 52 St. Bernard/Senate-L.C. Simon	0.98	0.58	0.64	0.46
# 57 Franklin	0.95	0.65	0.61	0.42
# 62 Morrison Express	0.96	0.84	0.73	0.60
# 88 St. Claude/Jackson Barr	1.49	0.75	0.66	0.55
# 91 Jackson-Esplanade	1.43	1.10	0.99	0.65
# 94 Broad	1.32	0.95	1.12	0.82
# 114-15 Gen. DeGaulle	1.21	0.58	0.41	0.37
# 201 Kenner Loop	0.70	0.87	0.52	0.49
System Average	0.80	0.61	0.61	0.61
Bus Average	0.79	0.56	0.44	0.32
Streetcar Average	0.85	0.66	0.72	0.65

## On-Time Performance on JeT Routes

Table ES- 4 presents on-time performance data collected during the September 2011 ridecheck. On-time is defined as zero to five minutes late. JeT's system average on-time percentage is low, at just 52.5 percent. E4 Metairie Road has the highest on-time percentage at 71.9 percent; W10 Huey P. Long has the lowest, at just 15.9 percent. This is largely due to construction on the Huey P. Long Bridge. Early trips and late trips are common on JeT systems. Highlighted cells represent over 10 percent of trips arriving early and over 20 percent of trips arriving late. All routes have problems, indicating a pervasive issue with schedules and runtime variability in the system.

Table ES- 4 JeT Route On-Time Performance

Route	% On-Time	% Early	% Late
E1 Veterans	69.5%	17.2%	13.3%
E2 Airport	46.8%	16.7%	36.5%
E3 Kenner Local	46.2%	17.8%	36.0%
E4 Metairie Road	71.9%	16.7%	11.4%
E5 Causeway	69.3%	18.4%	12.3%
E8 Clearview	61.6%	18.3%	20.1%
W1 Avondale	58.3%	24.0%	17.7%
W2 Westbank Expy	45.1%	10.8%	44.1%
W3 Lapalco	36.7%	6.5%	56.8%
W8 Terrytown	56.6%	22.8%	20.6%
W10 Huey P. Long	15.9%	1.1%	83.0%

Source: September 2011 Ridecheck

## INTERCEPT SURVEY

An intercept survey was conducted to better understand regional transit origin-destination patterns, trip purpose, demographics, access mode, and transfer patterns. One of RPC's main goals was to use this data to update the travel demand model.

A sample survey was developed in coordination with RPC staff and the consultant responsible for the travel demand model. The survey was pretested in mid-September 2011. A sampling plan was followed that ensured that data on every route operated by RTA and JeT was collected. The sampling plan stratified respondents by route, direction, and time of day. A total of 7,225 surveys were collected; the main findings are discussed below:

### Rider Profile

- The typical rider is female, representing 55 percent of riders.
- Roughly three quarters of respondents (75%) on both RTA and JeT routes identified themselves as black or African American, with a slightly higher portion of RTA riders than JeT riders.
- RTA riders, on average, have lower incomes than JeT riders. Roughly 50 percent of riders on both systems make less than \$35,000 a year.

### Trip Purpose

- 87 percent of respondents used only RTA routes during their trip, 7 percent used only JeT routes, and 6 percent used both RTA and JeT Routes
- Just under 40 percent of all respondents indicated that work trips were their trip purpose. JeT riders were much more likely to be using transit service for work purposes, with over 50 percent indicating a work trip.

- Over 50 percent of those who travel to a university listed Delgado Community College, and 16 percent listed Southern University at New Orleans. Approximately one quarter (25%) of those listing Delgado Community College as an origin or destination, were JeT riders.

### **Access to/from Bus Stops**

- Over 95 percent of RTA riders and 90 percent of JeT stated that they walked to the stop where their trip started.
- On average that they walked 2.9 blocks. JeT riders walked a slightly longer distance, 3.2 blocks, than RTA riders, who averaged 2.8 blocks.
- Over 96 percent of all riders stated that they walk from the stop to their destination, though slightly more RTA riders walk than JeT riders.

### **Transfers**

- During the highest ridership time period, midday, more than 50 percent of all trips required at least one transfer. Approximately 10 percent of riders require two or more transfers.
- JeT riders transfer more frequently than RTA riders. Over 20 percent of JeT riders transfer twice, compared to only 11 percent for RTA riders.
- Sixty-three percent (63%) of JeT riders transfer at least once. By comparison, 52 percent of RTA riders transfer at least once.
- Of the 20 percent of JeT riders who stated that they use 3 or more buses (transfer more than once), 87.5 percent were riders who used both transit systems to complete their trip.

Both the number of transfers between systems and the origin-destination travel patterns that result from plotting survey responses show that transit travel markets are regional in nature and not exclusively local. The data also suggest that JeT is largely dependent on RTA for passengers. This is a key finding that highlights a major issue for riders using both systems: the difference in fare and lack of a fare agreement between systems is a major deterrent of transit use.

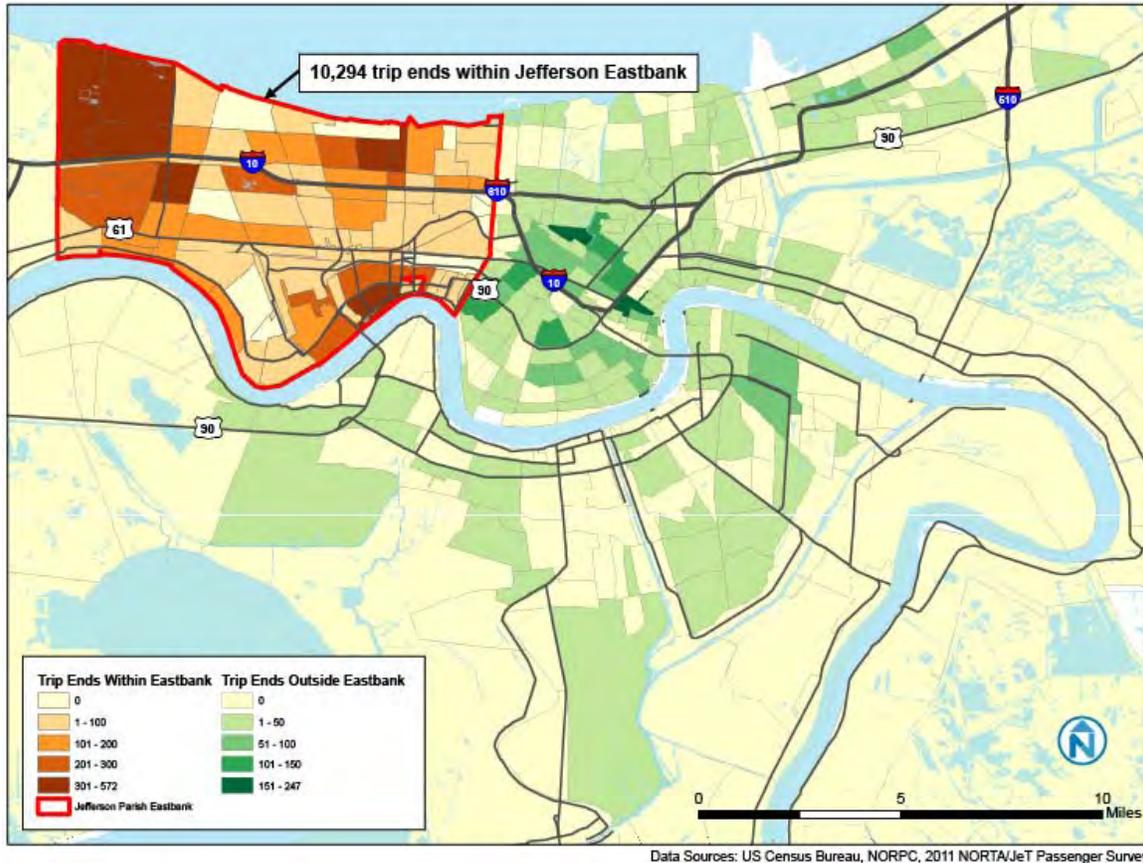
Different fare structures and the need to pay a double fare, in addition to irregular headways operated on both systems, make transferring between JeT and RTA a major inconvenience and a major barrier for ridership growth in the system.

A series of maps were created, using origin and destination data from the survey, to show origins and destinations for transit trips traveling between selected areas of the city and the remainder of the region. A sample map is provided in Figure ES-5 below.

## **SERVICE RECOMMENDATIONS**

Both service operators in Jefferson Parish and Orleans Parish, JeT and RTA, have had significant challenges over the past years as they have restored services after Katrina. However, funding levels for operations are significantly less than what they were prior to Katrina, meaning that as population and employment levels continue to rise, the ability of either agency to respond to ridership growth has been hampered. In many areas, services are running at capacity.

Figure ES-5 Origins and Destinations by TAZ for Trips to/from Jefferson Parish Eastbank



An examination of background data, including ridership levels and trends, on-time performance, transfer patterns, and overall travel patterns, revealed several structural service issues.

- **Regional Connectivity** – The intercept survey showed a strong regional market. It did not show an “RTA” market or “JeT” market, but rather the market is one and the same. JeT depends on RTA to deliver substantial numbers of passengers, and RTA routes connecting with JeT are heavily dependent on the JeT riders.
- **JeT and RTA Fare Integration** – Fares are different for JeT and RTA, which can be typical for neighboring agencies. There is no fare integration agreement between the two agencies, which forces passengers to pay two full fares when travelling between parishes. Moreover, the fare differences result in both JeT and RTA making routing decisions to protect “their” customers, which leads to inefficient route decisions and inadequately used capacity in certain corridors.
- **Transfer Challenges** - The intercept survey confirmed this and often showed a dependence on multiple transfers. Irregular schedule times and on-time performance challenges make transfers between routes difficult, whether transfers take place in the RTA or JeT systems, or between systems.
- **Capacity Issues** – The Canal and St. Charles Streetcars, nine RTA routes (including Routes 11, 16, 39, 62, 64, 88, 94, 102, and 114), and three JeT routes (including E1, W2, and W3) were regularly operating over capacity during select times of the day.

This section summarizes service recommendations for addressing regional connectivity and capacity in New Orleans and Jefferson Parish Eastbank and Westbank. Service recommendations presume closer cooperation between RTA and JeT services to maximize existing resource utilization and a reduction in duplication of services. In particular, it is assumed that a form of fare integration will be introduced to reduce transfer penalties. Service alternatives were developed to be cost neutral scenarios and organized by service area, including: New Orleans East, Algiers, Eastbank & Kenner, Westbank, and Lakeview, Carrolton, Tulane and CBD.

## **New Orleans East**

Service recommendations for New Orleans East address the following issues:

- Irregular non-clockface headways, on Route 62 and Route 64, making access to transit difficult to most residents in New Orleans East.
- Circuitous and one-directional routings on Routes 60, 64, and 94 (at Michoud Boulevard) lengthening passenger trips and walking distances to access service; they also make service harder to understand and unattractive to most users.
- Duplication of service along Morrison Road and Little Woods (Routes 60 and 62) reduces system efficiency while not providing a distinctive market function for each route.
- Route 94 has high demand and overcrowding issues from Read Boulevard & Chef Menteur Highway to Washington Avenue & Broad Street.
- Routes 62 and 64 have high demand in the peak direction (AM inbound and PM outbound).
- Respond to changes in land use. A new Walmart at I-10/Bullard Avenue is projected to open in the next year, which will be one of New Orleans East's first large shopping destinations since Katrina.

## **Resource Impacts**

Proportionally, service changes result in a slightly lower level of service hours for weekdays, and higher number of service hours for weekends. This is mostly due to the increase in one-way trips that result from more regular frequencies, even though peak vehicle requirements remain constant. Recommendations would result in 232 less service hours per year, for a -0.3 % reduction in service. Figures are for a sketch level of scheduling and thus service changes are largely cost-neutral. Figure ES-6 below illustrates the service changes.

Figure ES-6 New Orleans East Service Changes



## Algiers & Algiers Point

Service recommendations for Algiers & Algiers Point address the following issues:

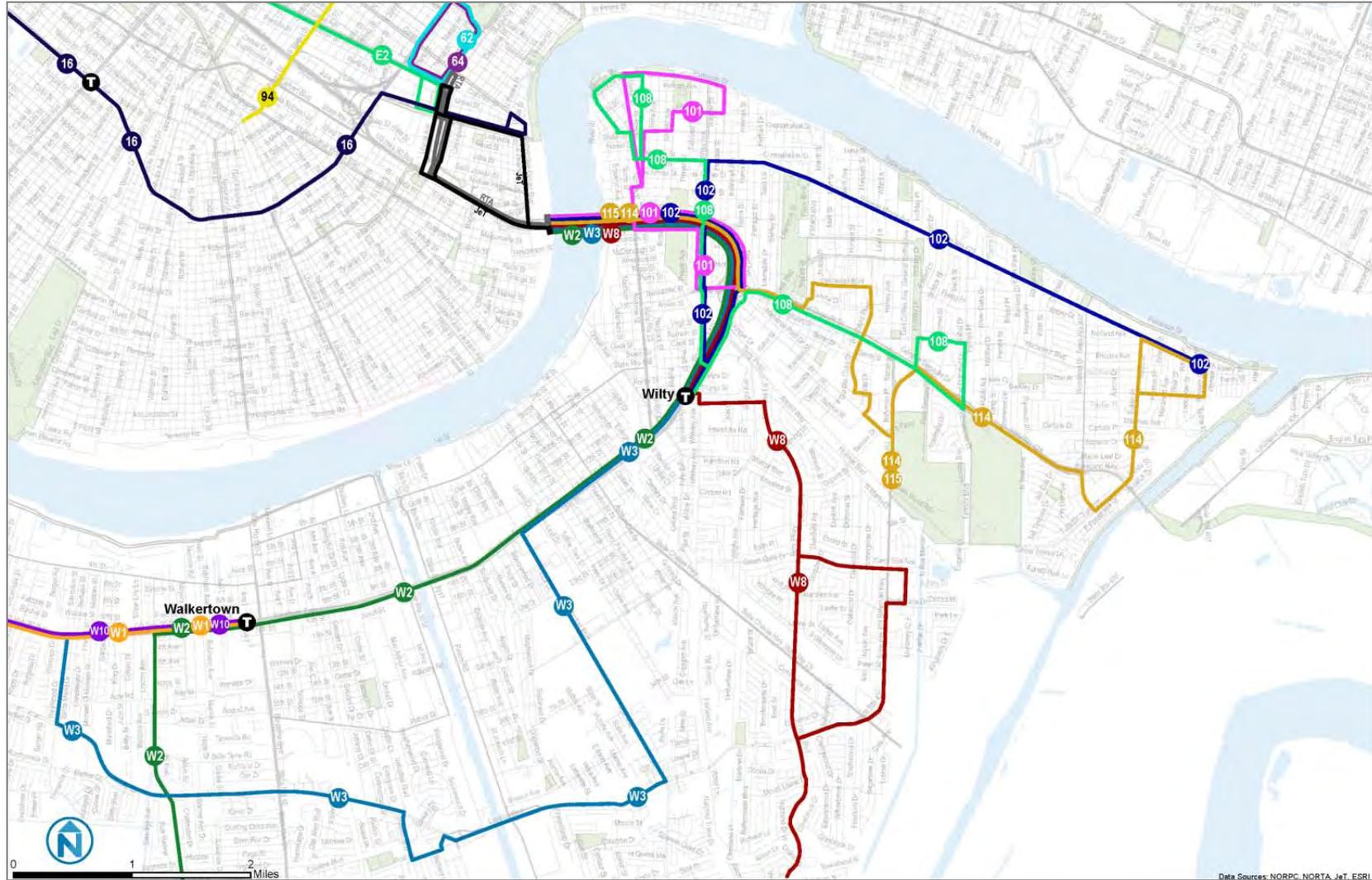
- Connections to JeT are limited to Route 108. Ridership patterns and origin-destination survey results show latent demand for increased and improved connections between Algiers Point/Algiers and Gretna/Terrytown in Jefferson Parish.
- Service is spread over many different corridors in Algiers Point, although walkability, street connectivity, and neighborhood accessibility conditions allow for consolidation into fewer corridors that maximize travel opportunities.
- Service is also spread over many corridors in Algiers (Routes 108, 114, and 115), which maximizes coverage but results in infrequent service on all corridors and lower ridership.
- Service is highly duplicated in the south end of Algiers (Bennett Loop).

### Resource Impacts

The recommended scenarios improve frequency on corridors that warrant more service. Recommendations seek to improve connectivity with JeT's Westbank service, to give Algiers residents more access to employment and shopping destinations.

The Algiers recommendations would result in a 1.5% increase in service hours compared to today. Costing figures are sketch level only and account for vehicles operating complete roundtrips from beginning to end of service. Figure ES-7 below illustrates the service changes with a sub-option for Route 108.

Figure ES-7 Algiers Service Changes – With Route 108 Option C



## **Westbank**

Service recommendations for Westbank address the following issues:

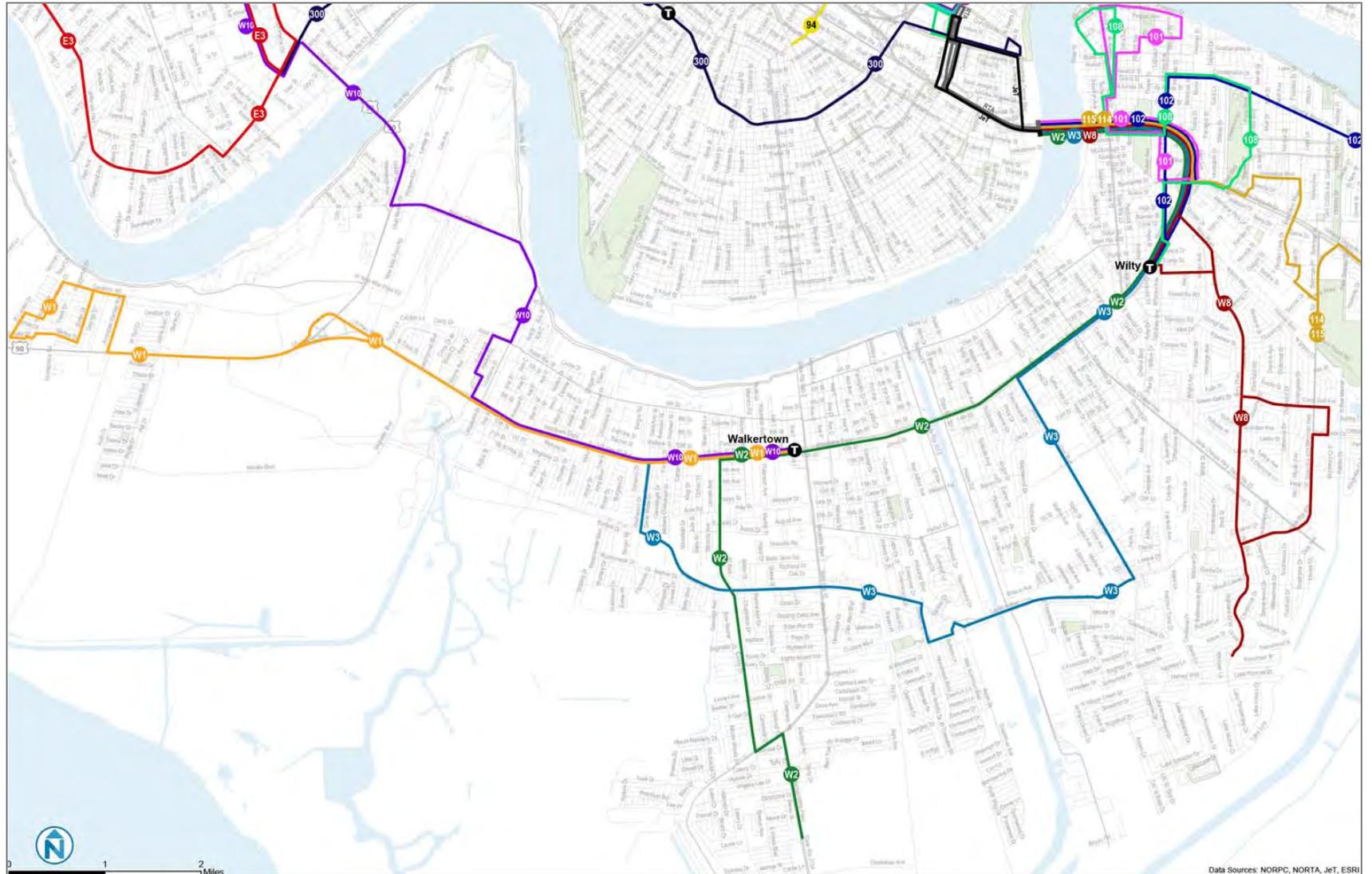
- Most Westbank routes have irregular headways and low frequency service (less than hourly service), which create major inconveniences for riders using the service (they need to carry or memorize a schedule), but especially for making connections between routes.
- Transfers are extremely difficult during midday and Saturday, with routes operating at headways greater than 60 minutes. In this environment, a missed connection means a long wait time for users and a great inconvenience.
- Origin-destination survey results show that many passengers have destinations outside of Westbank; thus, improving connectivity between routes and accessibility to the regional network are major design goals of service improvements.

### **Resource Impacts**

Proportionally, service changes result in 750 additional service hours per year. This is mostly due to the increase in one-way trips that result from more regular frequencies, even though peak vehicle requirements remain constant.

Costing figures are sketch level only and account for vehicles operating complete roundtrips from the beginning to the end of service. Actual scheduling and blocking of vehicles may reduce service hours required, and thus the costing can be considered cost-neutral. Figure ES-8 below illustrates the service changes.

Figure ES-8 Westbank Service Changes



## Eastbank & Kenner

Service recommendations for Eastbank & Kenner address the following issues:

- A large percentage of Eastbank riders are traveling to/from New Orleans, and thus rely on timely connections between JeT routes and on transfers with RTA service.
- Most Eastbank routes have irregular headways that are very inconvenient for riders, because they need to carry or memorize a schedule, but worse they make transfers difficult and time consuming.
- Several route segments (E3 and 201) have higher levels of service than ridership warrants. This creates inefficiency in the system.
- Service in Kenner (Route 201) is not well integrated into the regional network and travel market. Completing a trip outside Kenner requires a transfer between RTA and JeT, and paying two full fares because they have different fare structures.
- Also, there is route duplication between JeT and RTA along Claiborne. Most Route E3 riders going to New Orleans get off at Carrollton to transfer to either Route 16 – Claiborne or Route 39 – Tulane. Route E2 duplicates Route 39 between Carrollton and the New Orleans CBD.

## Resource Impacts

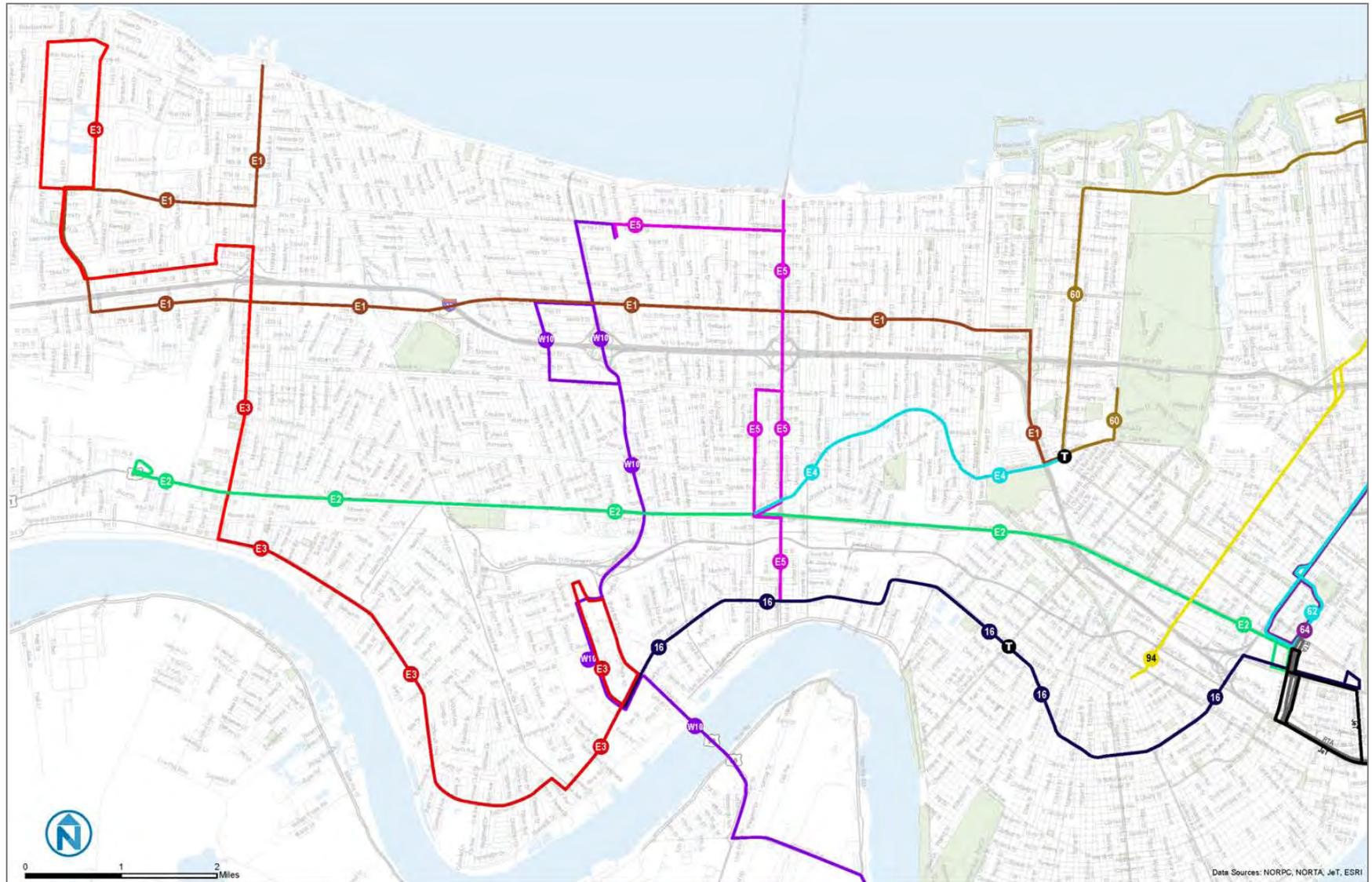
Service changes would result in a slightly lower number of service hours for weekdays (-1.2%), but a higher number of service hours for weekends (increases of 10.5 and 15.7 % respectively). Much of this is due to the increase in one-way trips that results from more regular frequencies, even though peak vehicle requirements remain constant. Service changes would result in 800 additional service hours per year, for RTA and JeT combined, for a 1.1% increase in service. Costing figures are sketch level only, and thus the costing of service recommendations can be considered cost-neutral on an overall basis.

The most significant service change in this area is the extension of Route 16 to Elmwood, and the elimination of the Kenner service which would be taken over by JeT via extensions of E1 and E3 (see Figure ES-9 below). These service changes would not be cost neutral on an individual system basis, as JeT would have higher costs than today and RTA would have lower costs. This however creates a number of benefits for the system and its patrons, as follows:

- **Regional Connectivity to Employment Areas:** service changes would provide direct access to more jobs. New Orleans and Kenner residents can now access jobs in Elmwood with a one-seat ride. In addition, Kenner residents can more easily access employment areas on Veterans Boulevard.
- **Less Transfers between Bus Routes:** Westbank residents can access Veterans Boulevard and East Jefferson General Hospital with a one-seat ride. Kenner residents can get to New Orleans without having to transfer. New Orleans residents can access Ochsner Medical Center on Jefferson Highway without having to transfer.
- **Kenner Mobility Dramatically Improved:**
  - **Fares.** Currently, passengers traveling between Kenner and New Orleans could pay more than two fares. With Route E1 extended into Kenner, only one fare is required to make this trip.

- **Less Transfers.** Thirty-five percent of Route 201 riders transfer to JeT now. The need to transfer as often would be reduced, reducing travel times for passengers heading to or from Kenner.
- **Directness of Service.** Route 201, the Kenner Loop, is circuitous and forces riders to take long, out-of-direction trips. The revised service in Kenner would provide bi-directional, direct trips, also reducing travel times.
- **Regular Headways.** Most Kenner residents would have more frequent bus service than they have today.
- **Ridership on both JeT and RTA will increase:** Improving service directness and connections to where people want to go, reducing the need to transfer, and reducing in-vehicle travel time will all provide incentives for people to ride transit more often. Using the same resources as today, Eastbank services will carry more passengers.

Figure ES-9 Eastbank/Kenner Service Changes



## Lakeview, Carrollton, Tulane, CBD

### Lakeview

Major design issues in this part of the service area are low route productivity on both Route 45 and Route 60, at about 8-10 passengers per revenue hour each. Also, a large one-directional loop operation on Route 45 makes access to transit difficult and lengthens trips for everyone by riding around the loop to reach a destination. In addition, JeT Route E-2 duplicates Route 45 between Cemeteries and Veterans Boulevard.

### Carrollton

Major design issues in the Carrollton Avenue corridor are the lack of a continuous bus route or street car line serving the corridor from end to end. All of Carrollton Avenue gets service, but this service is discontinuous and provided at varying service frequencies. In addition, there is considerable duplication between services, in particular between Route 32 – Leonidas operating a low 70-minute frequency and frequent services such as the St. Charles Streetcar operating every 10 minutes and Route 39 – Tulane operating every 20 minutes.

### Tulane

Tulane University is a major employment center in the City and the region; however it is only accessible from downtown New Orleans via Route 15 and the St. Charles Streetcar, and from the Carrollton and Claiborne transfer center (JeT Route E3 and Route 39 – Tulane) via the St. Charles Streetcar.

Route connections from other city areas, such as Mid-City, Elysian Fields, and Saint Claude are very limited, although on board surveys, transfer patterns and US Census Bureau LEHD data show the need for more direct connections from these locations.

### New Orleans CBD

Transit service in the New Orleans CBD is characterized by Canal Street and the streetcar operating as a major spine and dividing line for transit services. This is justified by the protection of the French Quarter from heavy vehicle traffic and as a pedestrian destination. Most transit services operate around the boundaries of the French Quarter with routes providing east-west service along Rampart and Decatur.

On the west side of Canal Street, in the CBD proper, transit operates on almost every street, connecting the Garden District with downtown through all major corridors, including Freret/La Salle, St. Charles, Magazine and Tchoupitoulas. Without exception, all routes end at Canal Street. Therefore, riders traveling to other parts of the city are forced to transfer in downtown.

From a network design perspective this is not a bad outcome per se, but it does create some problems for the system such as excessive bus circulation and recovery time needs in downtown that add to running time and cost, and it does create some inconveniences for riders making crosstown trips. Also, a number of bus routes have an end in and around the short block between Tulane and Canal, along Loyola and Elk, which functions as the biggest transit center in the system; although no passenger waiting facilities and infrastructure are provided.

With the advent of the Loyola/Rampart streetcar running through this short block and transit center, there is an opportunity for the system to review its design, transfer activity and bus operations around the intersection of Canal and Loyola.<sup>1</sup>

### **Resource Impacts**

Service change recommendations are broken down into two different scenarios:

**Scenario 1 – Cost Neutral Scenario:** utilizing approximately the same number of revenue hours and peak vehicles.

- Proportionally, service changes would result in the same number of service hours for weekdays, and a slight increase in hours for weekends, for an overall increase of 600 hours annually, with all of the increase coming from more weekend service.

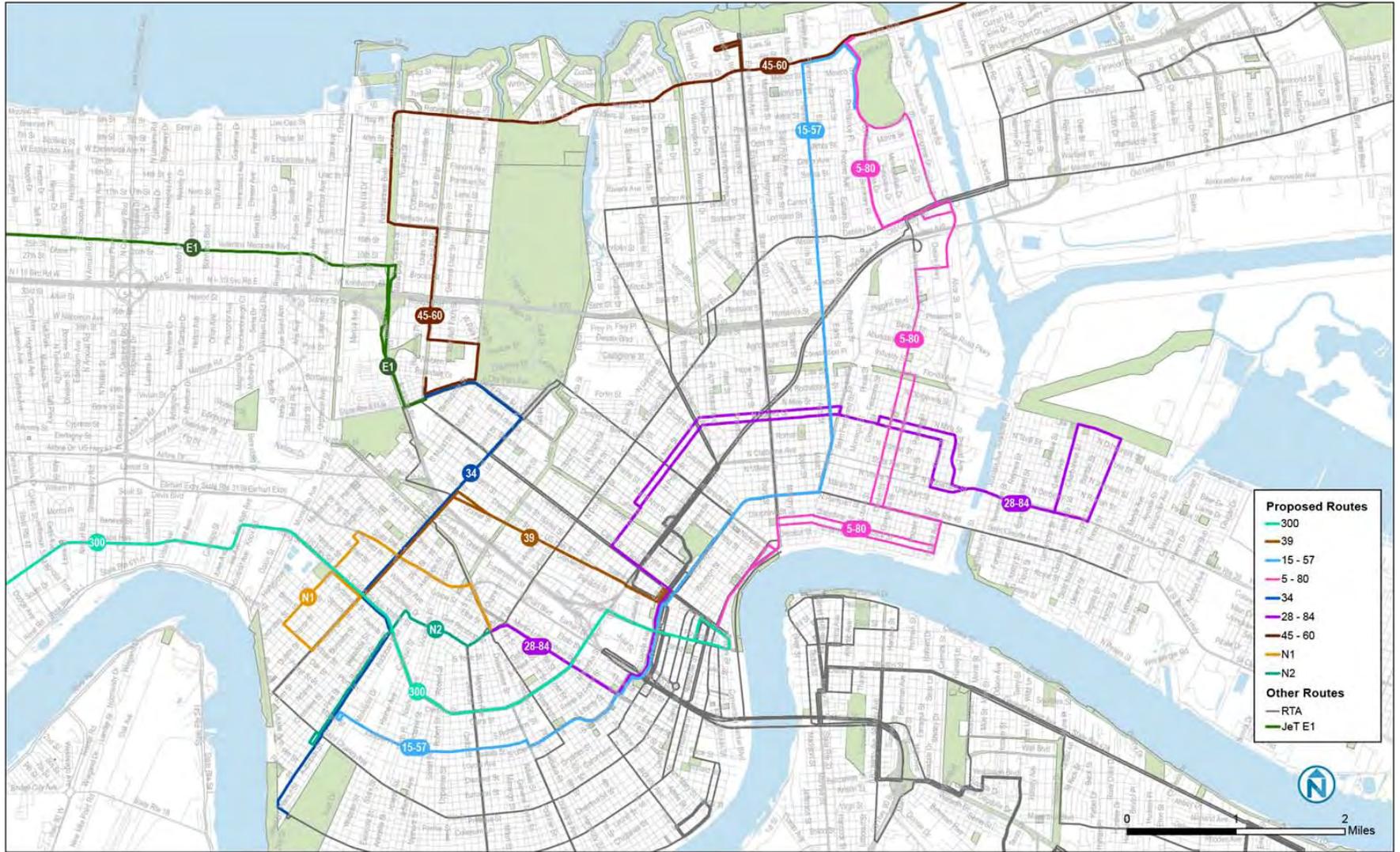
**Scenario 2 – 3 Additional Vehicles:** utilizing 3 additional vehicles for a large increase in service hours (about a 25% increase).

- Three additional vehicles are required to provide this service. Changes would result in an overall increase of 14,000 hours annually.

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<sup>1</sup> For a longer discussion, analysis and potential redevelopment of this location see the New Orleans Mobility and Parking Study, Final Report. Prepared for the New Orleans Downtown Development District by Nelson\Nygaard Consulting Associates. In particular, the South Rampart Street Transit Mall, Proposed Option #2.

Figure ES-10 New Orleans CBD and Mid City – Additional Vehicles Scenario



## PHASED IMPLEMENTATION

Service recommendations are recommended for a phased implementation over a three-year period (2013 - 2015). In general, routes that depend on development of new land use and transportation infrastructure can be implemented next year, while those depending on a fare agreement will likely take two years to implement. New service requiring additional resources (service hours and vehicles) are expected for implementation in three years, as increased funding becomes available.

### Year 1 (2013)

#### New Orleans East

- The key for improving service in New Orleans East is the new Bullard Walmart, which will become the focal point of service.
- Changes to New Orleans East routes should coincide with that opening, which is anticipated for Fall 2013.
- Implement recommendations for Routes 60, 62, 64, and 94.

#### Westbank

- Westbank recommendations should be timed to the opening of the Huey Long Bridge, so that all changes happen at the same time.
- Implementation is programmed for mid-2013.
- Implement recommendations for Routes W1, W2, W3, W8, and W10.

#### Gentilly & CBD

Interlining of routes should occur in phases. In 2013, the following routes can be interlined:

- Routes 28/84
- Routes 55/51/52
- Routes 5/80

### Year 2 (2014)

#### Algiers

- Algiers recommendations require JeT and RTA coming to agreement on revenue sharing on regional service.
- Working out the details for such an agreement can typically take a year. Implementation is programmed for 2014.
- Implement changes for Routes 101, 102, 108, 114, and 115.

#### Eastbank & Kenner

- Eastbank recommendations require JeT and RTA coming to an agreement on revenue sharing on regional services.
- Working out the details for such an agreement can typically take a year. Implementation is programmed for 2014.

- Implement changes for Routes 201, E1, E2, E3, E4, E5, and E8.

### **Lakeview**

- Recommendations for Route 45 require JeT and RTA coming to agreement on revenue sharing on regional service, so that access to shopping from Cemeteries and RPC on one fare is maintained.
- Working out the details for such an agreement can typically take a year. Implementation is programmed for 2014.
- Implement changes to Routes 45 and 60.

### **Gentilly & CBD**

The stop consolidation process on Route 55 is anticipated to take more time. In 2014, the following routes should be interlined:

- Routes 15/55

### **Year 3 (2015)**

#### **Carrollton & Tulane**

- Creating a new route to connect two major transit hubs - Carrollton/S. Claiborne and Cemeteries – could happen within existing funding.
- However, due to concerns of reducing service to the Leonidas area, additional resources are necessary to implement this service.
- A 2015 implementation date is anticipated for the Carrollton and Tulane area recommendations.
- Implement changes to Routes 15, 27, 32, and 39, and new Routes 34, N1 – Earhart, N2 – Broadway.

## **LATENT DEMAND ANALYSIS**

The purpose of the analysis was to assess general demand in the regional transit network and the level of service needed to meet that demand. The analysis was conducted on a route-by-route and time of day basis through a series of four steps:

1. Analyze performance
2. Propose service improvements
3. Assess the cost-efficiency of improvements
4. Ranking and prioritization

Three general strategies were proposed for service improvements: regularize headways, increase midday service, and wholesale increase in service frequency.

Service improvements are quantified for their operating cost impacts (i.e. additional service hours and vehicles) as well as for their ridership gain potential (i.e. latent demand) through an analysis of service elasticity factors affecting demand.

Routes are ranked based on the likelihood of generating estimated demand levels, through an evaluation of market conditions around each route – represented by population and employment

density levels, and on cost-efficiency and return on investment, through the quantification of marginal costs per boarding.

Then routes are prioritized for implementation based on their level of significance in the network, in three tiers: (1) regional connectivity, (2) crosstown, and (3) local circulation. Table ES-5 below shows routes with latent demand, sorted by implementation tier and priority.

### **Cost-Efficiency and Productivity Impacts**

Addressing latent demand could generate a gain of 11,100 daily passengers, a 20 percent increase in ridership, while only adding 13 percent in operating costs (about \$28,000 daily). This would result in an overall increase in service productivity of 3.4 passengers per service hour, and an increase of 1.6 percent in the farebox recovery ratio, for a system average of 25 percent. In other words, if RTA and JeT had the resources, these would be very cost-effective and cost-efficient service additions. Every new passenger would be costing the system \$2.51, well below the system average of \$4.15 per passenger.

**COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT**  
Regional Planning Commission

Table ES-5 Implementation Priority (Step 4)

Route Number	System Name	Route Description	Service Performance - 2011 Ridecheck					Impl. Priority	
			Boardings per Service Hour					Priority Index	Connectivity Tier
			AM Peak	Base	PM Peak	Evening	Weekday		
16	RTA	Claiborne	48.5	48.4	64.3	23.5	47.7	11	1
E1	JeT	Veterans	48.6	41.3	46.7	34.9	43.9	8	1
88	RTA	St. Claude - Jackson Barracks	65.6	56.7	72.9	53.0	62.0	8	1
E2	JeT	Airport	30.4	27.5	30.1	19.1	28.2	8	1
E3	JeT	Kenner Local	29.6	28.0	25.3	16.1	27.4	8	1
W2	JeT	Westbank Expressway	33.7	21.9	23.5	19.6	25.2	8	1
114-115	RTA	General DeGaulle - Tullis & General DeGaulle - Sullen	36.4	30.7	33.8	23.2	31.8	7	1
94	RTA	Broad	50.2	43.6	50.8	26.1	42.2	7	1
W3	JeT	Lapalco	38.8	27.3	34.1	22.7	29.7	6	1
60	RTA	Hayne	15.5	11.5	14.8	6.4	12.7	6	1
62	RTA	Morrison Express	43.9	42.2	34.3	30.8	39.2	5	1
102	RTA	General Meyer	45.2	30.5	41.2	27.9	35.0	5	1
64	RTA	Lake Forest Express	34.3	36.9	33.9	28.5	34.6	3	1
11	RTA	Magazine	37.7	41.6	35.3	26.4	36.8	12	2
15	RTA	Freret	36.7	33.7	32.4	17.9	30.0	10	2
39	RTA	Tulane	72.7	74.2	70.7	70.0	67.5	9	2
55	RTA	Elysian Fields	43.8	43.7	45.9	32.9	40.4	9	2
E8	JeT	Clearview	14.7	10.2	8.6		10.9	9	2
32	RTA	Leonidas	13.6	16.7	20.3	4.7	15.9	9	2
84	RTA	Galvez	34.8	31.4	31.7	20.0	30.2	8	2
27	RTA	Louisiana	48.1	40.2	58.9	26.4	39.1	7	2
51-52	RTA	St-Bernard - Paris Ave. & St. Bernard - St. Anthony	30.2	22.4	28.6	11.7	23.7	7	2
201	RTA	Kenner Loop	20.0	21.1	23.1	19.4	21.2	7	2
W10	JeT	Huey P. Long	16.5	8.6	10.0	9.4	11.8	7	2
57	RTA	Franklin	50.3	44.6	50.4	31.9	42.8	6	2
W1	JeT	Avondale	14.8	8.2	18.8	8.0	11.8	6	2
5	RTA	Marigny/Bywater	12.4	13.1	9.9	20.9	12.5	12	3
28	RTA	M.L. King	34.4	49.6	41.3	21.4	42.4	8	3
108	RTA	Algiers Local	16.5	17.4	18.1	12.5	16.7	8	3
80	RTA	Louisa	26.0	11.6	32.3	15.4	18.9	7	3
45	RTA	Lakeview	18.8	10.2	21.2	4.8	14.7	7	3
91	RTA	Jackson - Esplanade	45.6	43.1	45.8	52.9	44.1	8	
2	RTA	Riverfront Streetcar	20.8	131.2	131.4	120.0	117.0	7	
12	RTA	St. Charles Streetcar	33.5	60.4	75.2	49.1	56.3	7	
10	RTA	Tchoupitoulas	39.4	29.2	40.7	17.4	30.0	6	
47-48	RTA	Canal Streetcar	68.6	79.3	101.7	76.1	80.0	6	
E5	JeT	Causeway	21.9	19.3	20.4	17.9	20.0	6	
24	RTA	Napoleon	34.6	27.1	31.9	15.8	24.3	5	
101	RTA	Algiers Loop	19.3	13.9	13.7	13.0	15.4	4	
W8	JeT	Terrytown	26.0	23.7	23.9	9.3	22.0	4	
100	RTA	Algiers Loop Owl					13.3	3	
E4	JeT	Metairie Road	17.1	9.7	10.3	2.3	10.8	3	
63	RTA	New Orleans East Owl					20.7	2	

Above Latent Demand Threshold

## CORRIDOR SPEED IMPROVEMENTS

Most transit systems in growing communities are experiencing a gradual slow down of service. Many agencies lose one percent or more per year in average revenue operating speed, due to a combination of increased traffic congestion and rising patronage, which increases dwell times at stops and time wasted in traffic at major street intersections.

Traditionally, transit agencies have set aside a portion of their expansion resources for “headway maintenance,” which means adding time to schedules so that buses have more time to complete

their cycle (complete a round trip). Longer cycle times over time require adding more buses to the route to maintain service frequency or headways. This may be the only solution to a running time problem in the short term, but it does nothing to arrest the downward slide in operating speeds.

For these reasons, every major transit agency needs a comprehensive speed-protection strategy. The goal of such a strategy should be to set and maintain an average service speed policy on every route even as congestion, ridership, and other factors increase. The policy speed, of course, would vary by corridor, but the slowest services – urban arterials – are also the most crowded, so even the loss of one mile-per-hour in speed can have cost and ridership impacts.

Most operating speed enhancements are capital development projects; these include signal technology enhancements and right-of-way improvements such as bypass lanes or queue jumps at intersections. However, a seemingly mundane element of service design, stop spacing and placement at intersections, is an extremely important consideration in keeping transit moving.

Spacing and location of transit stops strikes many people as so mundane that it is often treated as a detail to be left to the operational department that installs bus stops. Yet, stop location and spacing requires a carefully thought-out policy that is then implemented consistently throughout the system. Running-time savings due to efficient spacing and location of stops could be substantial on the busiest routes in the system where operating speed issues are likely to be most costly (for example Routes 11, 55, and 57).

A wide variety of tools are available to protect transit from traffic delay. The most common are:

- Merging delay from stops
- Traffic signal priority
- Queue bypass at major signals
- Bus-only lanes and HOV lanes
- Peak-hour parking restrictions

## **BRT Corridors and Speed Improvements**

BRT implementation includes all types of transit priority and speed improvement measures such as: stop spacing reduction to 0.5 – 1.0 mile between stops, location of stops in the farside of the intersection, curb bulb outs to stop in the lane of traffic and avoid merging delay, signal progression timing, bus signal priority, queue jumps, and other measures. The experience around the country shows that up to 30 to 40 percent improvement in operating speeds can be obtained from the application of all these measures in concert.

The Los Angeles Metro Rapid Bus experience shows that about 15 percent of the improvement comes from reducing stops, locating them in the farside of the intersection, and spacing them not closer than 0.5 mile apart. Another 15 percent improvement in speed comes from the bus signal priority and signal re-timing of the corridor.

Four corridors were selected for analysis of potential BRT implementation (Figure ES-11 at the end of this chapter). Corridors were analyzed for their BRT implementation potential based on ridership demand and operating characteristics. Potential speed improvement and runtime reduction benefits were estimated from reduction in stops alone (assuming a 0.5 mile spacing average). Runtime savings estimates are presented in Table ES-6. A recommendation is provided in relation to the potential for BRT implementation in each corridor.

- **E1 Veterans Boulevard:** This corridor is long enough for implementation of BRT service. Stop reduction and signal priority have the potential to reduce 30 percent of runtime or about 11 minutes. However, runtime savings would not be sufficient for riders to wait and use the BRT service over the local on a typical 5 mile trip. Its potential as a BRT corridor is limited.
- **E3 Jefferson Highway + Route 16 Claiborne:** The corridor is long enough for implementation of BRT service. Stop reduction and signal priority have the potential to reduce up to 50 percent of runtime or about 25 minutes. Runtime savings would be attractive for riders to wait and use the BRT service over the local on a typical 3 mile trip. Therefore its potential as a BRT corridor is very good.
- **Route 94 Broad + Route 24 Napoleon:** The corridor is long enough for implementation of BRT service. Stop reduction and signal priority have the potential to reduce over 30 percent of runtime or about 20 minutes. Runtime savings would be very attractive for riders to wait and use the BRT service over the local on a typical 5 mile trip. Its potential as a BRT corridor is excellent.
- **Route 88 Rampart/St Claude:** The corridor is too short for implementation of BRT service. Stop reduction and signal priority have the potential to reduce over 30 percent of runtime, but that equates to only 6 minutes. Runtime savings would not be attractive enough for riders to wait and use the BRT service over the local on a typical 3 mile trip. Its potential as a BRT corridor is very limited.

Table ES-6 Runtime Savings from 0.5 Mile Stop Spacing

Route	Length in Miles *	Number of Stops	BRT Stop Spacing	# of BRT Stops	BRT Dwell Time	BRT Runtime	Runtime Reduction	Difference in Minutes
E1	9.0	58	0.50	18	9.0	36.5	15.1%	5.5
E3 + 16	16.5	134	0.50	33	16.5	45.0	37.8%	17.0
94 + 24	19.0	98	0.50	38	19.0	61.5	17.1%	10.5
88	5.0	36	0.50	10	5.0	21.5	18.6%	4.0

\* Accounts for portion of the corridor in which there is a route operating today only. Proposed corridors have alignment modifications that do not match the current route structure. Modifications will have impacts on running time, stop spacing and potential savings that need to be evaluated further.

## Stop Consolidation Corridors

In addition to BRT corridors we also analyzed several crosstown corridors in New Orleans that were identified in need of speed improvements to increase schedule reliability and provide regular headways. Corridors were analyzed for their potential speed improvement and runtime reduction benefits from reduction in stops alone (assuming a standard 0.2 mile spacing average). Runtime savings estimates are presented in Table ES-7. A recommendation is provided in relation to stop consolidation and other measures to maximize runtime savings:

- **Route 11 Magazine:** Based on current headways, runtime savings are significant for a route operating a regular 15 minute frequency. There is potential for extension and combination with Route 88 St Claude, in which case a BRT implementation may accrue significant travel time benefits for riders to use it.

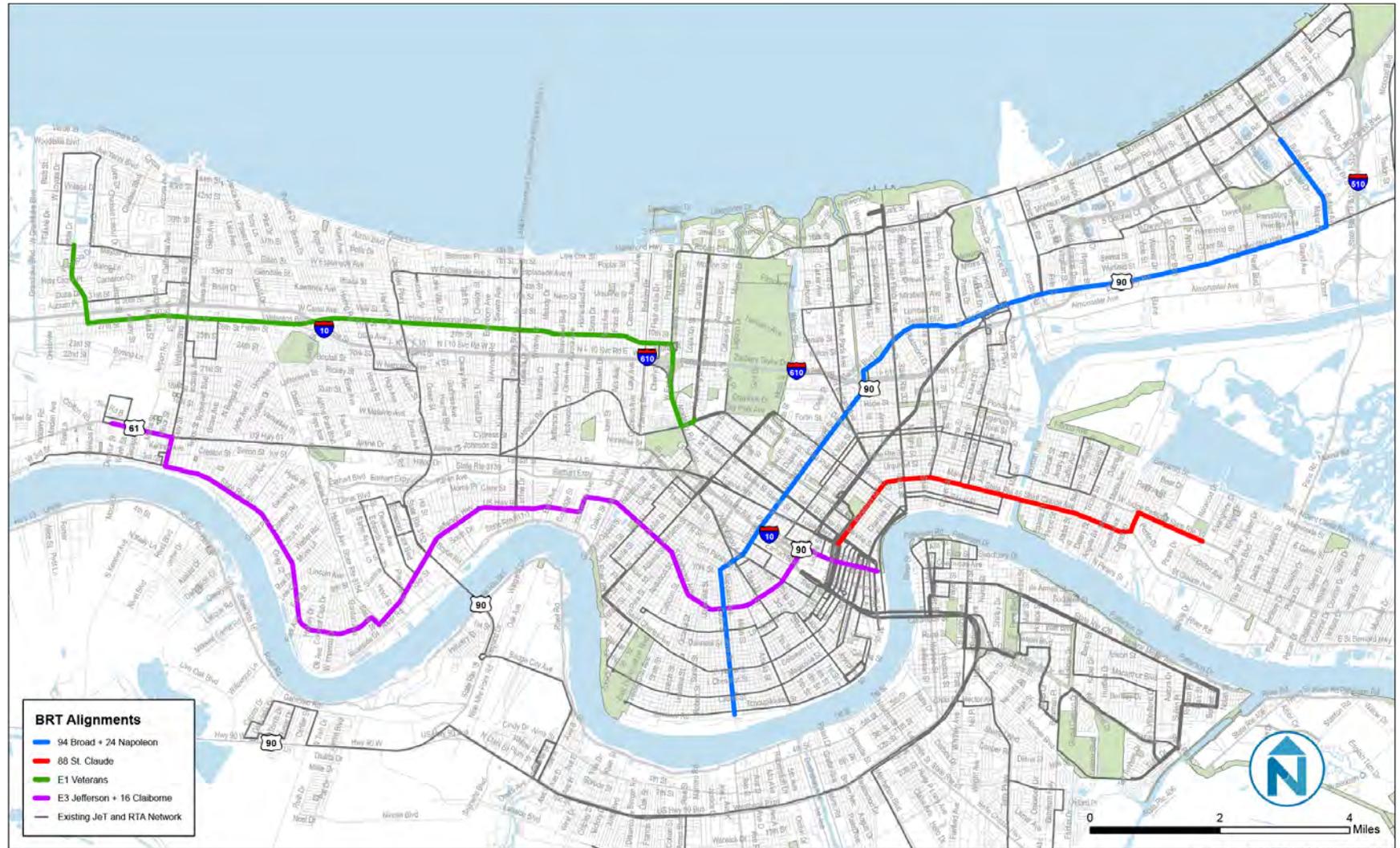
- **Route 55 Elysian Fields:** Runtime savings from stop consolidation are not significant. The route requires either a more aggressive consolidation to every 4 stops per mile, or changes in alignment to reduce cycle time, or implementation of other priority measures.
- **Route 57 Franklin:** Runtime savings are significant to reduce cycle time and get it closer to 30 minutes. However small changes in routing are still required to reduce runtime and provide a regular cycle time. Interlining with Route 15 Freret should be sufficient to provide a consistent cycle and headway and better travel times between Gentilly, downtown and Tulane-Loyola.

Table ES-7 Runtime Savings from 0.2 Mile Stop Spacing

Route	Length in Miles *	# of Stops	Stop Spacing	Stop Spacing Target	Dwell Time Reduction	Adjusted Runtime	Runtime Reduction	Difference in Minutes
11	6.0	41	0.15	0.20	37%	25.8	10.7%	3
55	6.0	38	0.16	0.21	33%	29.1	8.1%	2
57	7.0	52	0.13	0.20	49%	27.3	15.6%	4

\* Accounts for portion of the corridor in which there is a route operating today only. Proposed corridors have alignment modifications that do not match the current route structure. Modifications will have impacts on running time, stop spacing and potential savings that need to be evaluated further.

Figure ES-11 Proposed BRT Corridors





# 1 INTRODUCTION

The Regional Planning Commission (RPC) initiated a Comprehensive Operational Analysis (COA) to collect primary travel demand data for existing users of New Orleans Regional Transit Authority (RTA) and Jefferson Parish Transit (JeT) services and to complete an assessment of how well current services were operating.

One of RPC's goals of the project was to have quantifiable travel demand data. This was collected via an on-board intercept survey that was distributed on every route operated by both systems. Over 7,200 riders were interviewed. Origin / destination patterns, rider demographics, ridership patterns, and comments were collected.

As population and businesses have returned to both parishes, RTA and JeT's ridership patterns have been changing. In particular, demand has been increasing to the point that existing service levels in the existing route network are insufficient to handle the demand. To quantify how the existing system was operating, ridership patterns were examined for each route. Ridership and on-time performance data were collected for all JeT routes. For RTA, existing ridership counts existed, but new data were collected on those routes showing dramatic ridership growth. Data were collected for about one quarter of RTA routes

An assessment of each route was completed, and suggestions to improve regionwide connectivity, improvements in passenger travel time, and adding capacity to areas in need were developed. Improvement scenarios were developed for all areas currently being served.

In addition, a latent demand analysis was conducted to determine latent demand for additional service on routes in both systems.

A full description of these elements is found in each of the seven chapters in this document.

1. Introduction
2. Overview of RTA and JeT Service
3. Route Profiles
4. Ridership Activity Maps
5. Intercept Survey Summary
6. Service Change Recommendations
7. Latent Demand Analysis



## 2 OVERVIEW OF RTA AND JET SERVICE

The existing performance of RTA and JeT routes is summarized in this chapter, including headways, span of service, ridership, productivity, and where available, on-time performance. For RTA, the data presented in this section are based on 2011 year end data. For JeT, the data stem from the September 2011 ridership count. Each agency is discussed separately.

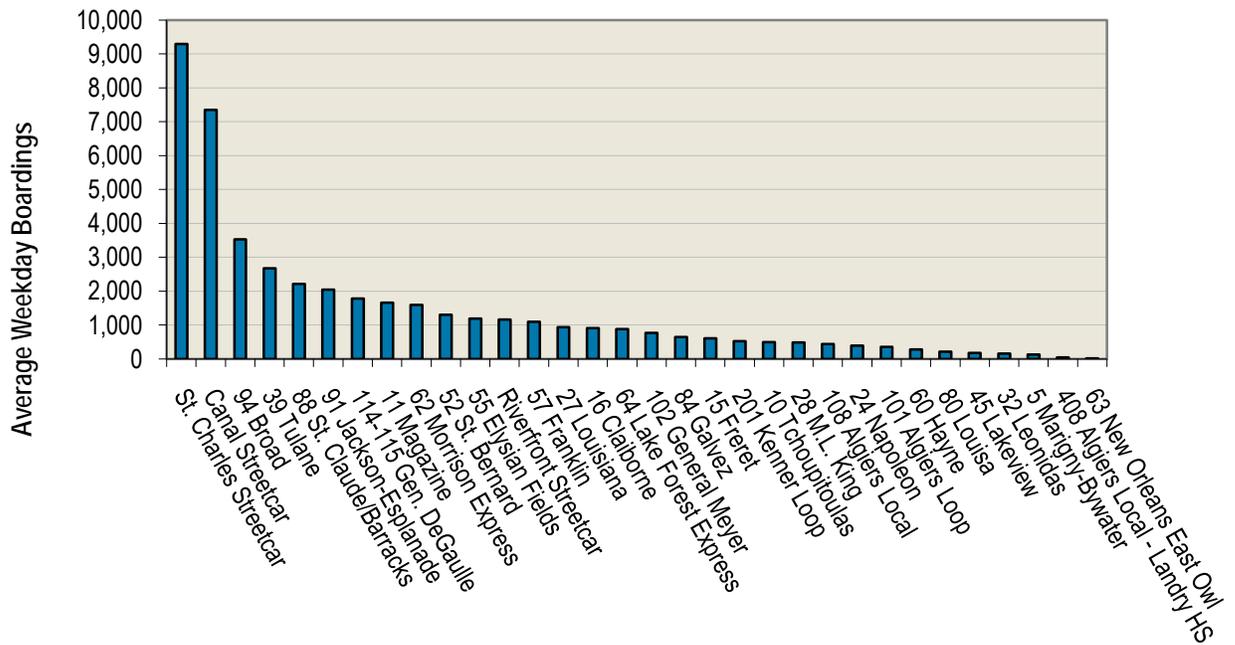
### NEW ORLEANS REGIONAL TRANSIT AUTHORITY

RTA operates a system of 32 bus routes and 3 streetcar lines within the cities of New Orleans and Kenner. In 2011, the system carried about 47,000 riders on weekdays, 38,000 on Saturdays, and 27,000 on Sundays. Table 2-1 lists each of the routes along with their headways and span of service. Base headways are generally between 30 and 60 minutes, although the streetcar lines and a handful of bus routes operate more frequently. Service spans are generally long, with many routes operating until midnight or later. All routes operate daily except for 108 Algiers Local, 32 Leonidas, and 60 Hayne.

Figure 2-1 presents average weekday boardings by route. The St. Charles and Canal streetcar lines carry significantly more riders than other services (9,300 and 7,300 weekday boardings, respectively). The bus routes with the highest ridership are the 94 Broad (3,500), 39 Tulane (2,700), and 88 St. Claude/Barracks (2,200).

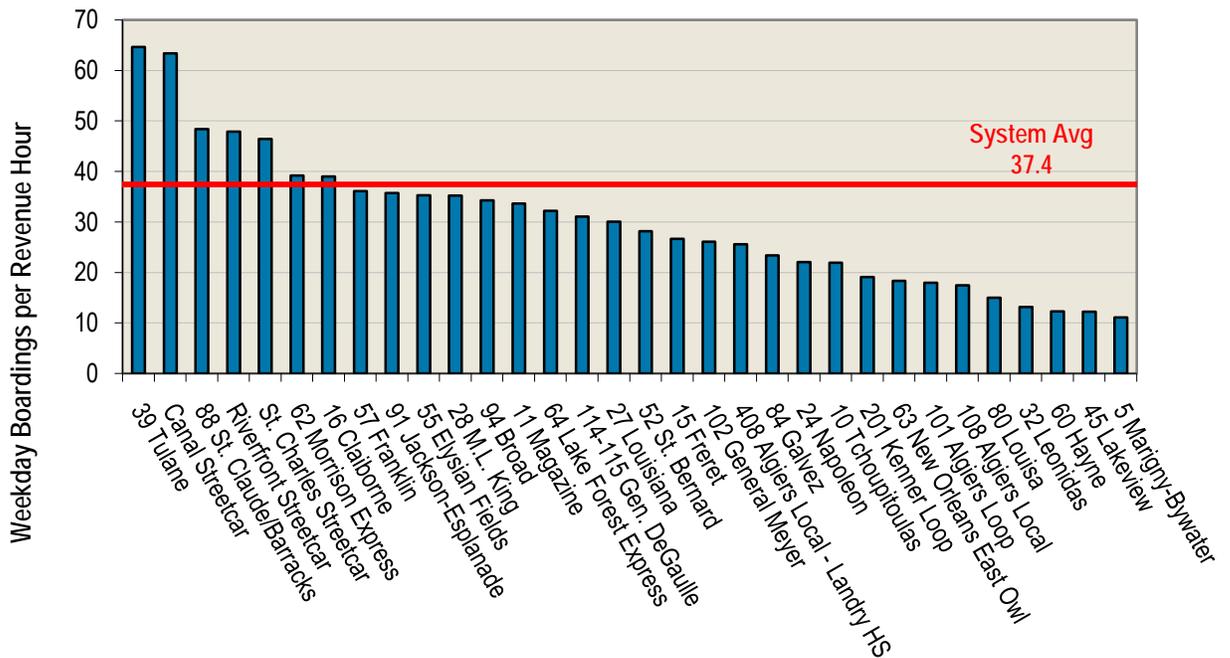
Weekday productivity by route, measured in boardings per revenue hour, is shown in Figure 2-2. The most productive route is the 39 Tulane, with almost 65 boardings per hour. Second-highest is the Canal Streetcar, with about 63 boardings per hour, followed by 88 St. Claude/Barracks (48 boardings per hour), the Riverfront Streetcar (48 boardings per hour), and the St. Charles Streetcar (46 boardings per hour). The least productive routes are the 5 Marigny-Bywater, 32 Leonidas, 45 Lakeview, and 60 Hayne.

Figure 2-1 RTA Average Weekday Boardings by Route (2011)



Source: RTA 2011 Year End Performance Report

Figure 2-2 RTA Weekday Boardings per Revenue Hour by Route (2011)



Source: RTA 2011 Year End Performance Report

**COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT**  
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Table 2-1 RTA Headways & Span of Service

Route	Name	Weekday Headway				Saturday Headway	Sunday Headway	Span of Service		
		AM Peak	Base	PM Peak	Evening	Base	Base	Weekday	Saturday	Sunday
2	Riverfront Streetcar	37	20	37	37	12	12	7:10A – 10:27P	7:10A – 10:27P	7:10A – 10:27P
5	Marigny/Bywater	53	53	53		52	52	6:38A – 6:54P	8:14A – 5:41P	8:14A – 5:41P
10	Tchoupitoulas	30	60	30	60	60	60	5:45A – 11:30P	7:15A – 11:15P	7:15A – 11:15P
11	Magazine	16	21	16	60	21	21	5:26A – 12:07A	5:53A – 12:07A	5:53A – 12:07A
12	St. Charles Streetcar	10	8	8	10-15	8-10	8-10	24 hours	24 hours	24 hours
15	Freret	35	60	35	60	60	60	6:00A – 10:41P	6:11A – 10:11P	6:11A – 10:11P
16	Claiborne	30	60	30	60	60	60	5:45A – 10:40P	5:45A – 10:40P	5:45A – 10:40P
24	Napoleon	30	30	30	30	30	30	6:10A – 12:33A	6:10A – 12:33A	6:10A – 12:33A
27	Louisiana	20	40	40	80	70	70	5:45A – 12:17A	5:40A – 11:06P	5:40A – 11:06P
28	M. L. King	45	45	45	45	45	45	5:50A – 8:02P	5:50A – 8:02P	5:50A – 8:02P
32	Leonidas	70	70	70	---	---	---	6:24A – 7:05P	---	---
39	Tulane	20	30	20	60	30	30	5:26A – 1:53A	6:08A – 1:50A	6:08A – 11:50P
45	Lakeview	30	30	30	30	30	30	6:00A – 8:55P	6:00A – 8:55P	7:30A – 7:25P
47-48	Canal Streetcar	6-20	10	10	10-20	10	10	5:03A – 3:33A	5:03A – 3:33A	5:03A – 3:33A
51-52	St-Bernard - Paris Ave. & St. Bernard - St. Anthony	15-25	30	15-25	30-60	40	40	5:32A – 11:16P	5:36A – 11:06P	5:36A – 11:06P
55	Elysian Fields	30-40	30-40	30-40	30-40	60	60	5:15A – 12:17A	5:32A – 10:58P	5:32A – 10:58P
57	Franklin	36	36	36	66-73	72	72	5:36A – 12:12A	5:50A – 10:52P	5:50A – 10:52P
60	Hayne	60	60	60	60	---	---	5:23A – 7:59P	---	---

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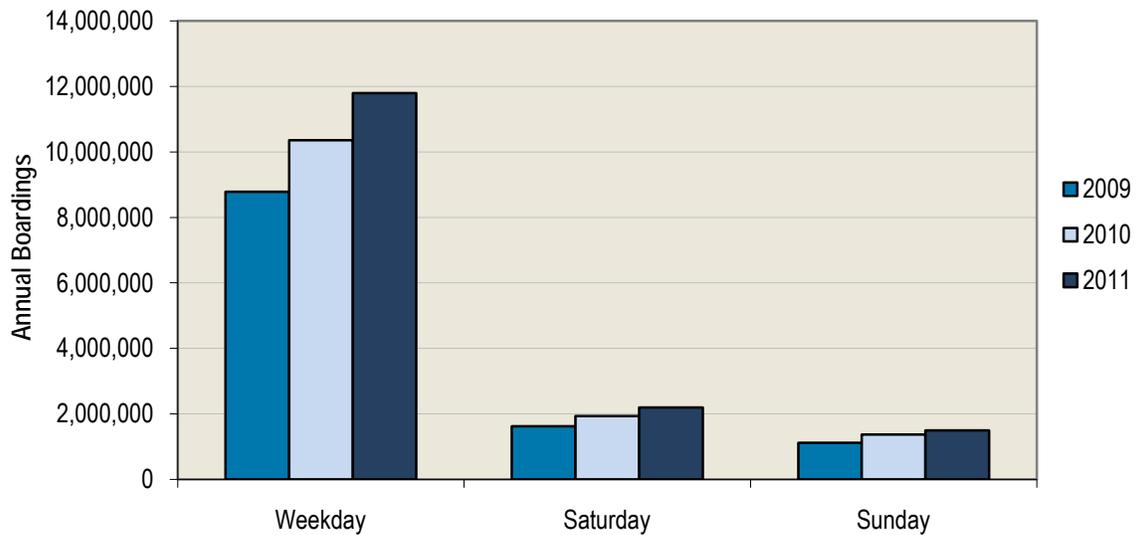
Route	Name	Weekday Headway				Saturday Headway	Sunday Headway	Span of Service		
		AM Peak	Base	PM Peak	Evening	Base	Base	Weekday	Saturday	Sunday
62	Morrison Express	30	45	30	90	45	45	5:23A – 12:05A	5:50A – 10:52P	5:50A – 10:52P
63	New Orleans East Owl	---	---	---	1 trip	1 trip	1 trip	12:10A – 1:36A	12:10A – 1:36A	12:10A – 1:36A
64	Lake Forest Express	45	90	45	90	45	45	5:05A – 12:05A	5:05A – 12:05A	5:05A – 12:05A
80	Louisa	70	70	70	70	70	70	6:34A – 9:09P	6:34A – 9:09P	6:34A – 9:09P
84	Galvez	40	40	40	80	40	40	5:45A – 9:52P	5:47A – 9:52P	5:47A – 9:52P
88	St. Claude - Jackson Barracks	20	20	20	30-60	30	30	5:14A – 1:45A	5:44A – 1:45A	5:44A – 11:45P
91	Jackson - Esplanade	30	30	30	60-120	60	60	5:01A – 12:46A	5:01A – 11:50P	5:01A – 11:50P
94	Broad	20-25	20-24	20-25	20-30	45	45	4:43A – 2:55A	4:56A – 1:49A	4:56A – 1:49A
100	Algiers Loop Owl	---	---	---	2 trips	2 trips	2 trips	10:17P – 1:29A	10:17P – 1:29A	10:17P – 1:29A
101	Algiers Loop	60	60	60	60	60	60	5:02A – 10:17P	5:02A – 10:17P	5:02A – 10:17P
102	General Meyer	30-36	36	30-36	55-90	72	72	5:20A – 9:59P	5:56A – 9:59P	5:56A – 9:59P
108	Algiers Local	60	60	60	60	120		6:10A – 7:27P	7:27A – 6:20P	---
114-115	General DeGaulle - Tullis & General DeGaulle - Sullen	19-25	19-23	10-25	23-28	19-23	19-23	5:08A – 9:30P	5:08A – 9:30P	5:08A – 9:30P
201	Kenner Loop	46-49	48	46-49	46-49	46	81	5:35A – 8:04P	5:55A – 8:04P	6:52A – 7:53P

Source: RTA Timetables

**Ridership Growth**

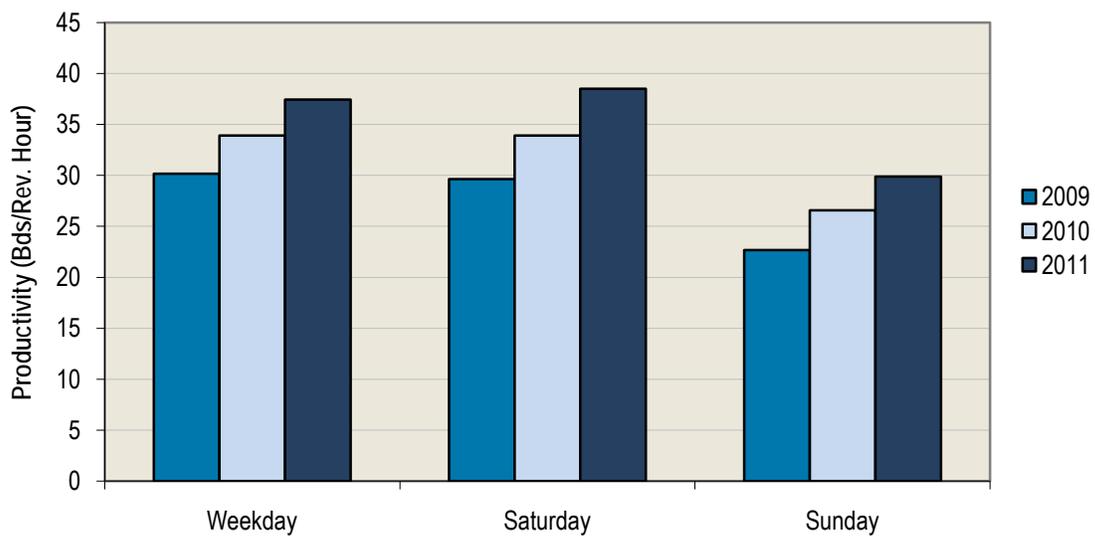
RTA ridership growth has been tremendous over the past several years. Between 2009 and 2010, systemwide ridership went up by 18.5%. The growth trend continued between 2010 and 2011, as ridership grew by an additional 13.4% (Figure 2-3). Route productivity also increased by 13.2% between 2009 and 2010 and another 11.1% between 2010 and 2011. The increased productivity numbers, in conjunction with the ridership gains, shows that RTA services are being utilized more effectively.

Figure 2-3 2009 to 2011 RTA Ridership Trends



Source: RTA 2011 Year End Performance Report

Figure 2-4 2009 to 2011 RTA Productivity Trends



Source: RTA 2011 Year End Performance Report

**COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT**  
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As ridership has continued to grow, capacity has become more of an issue. RTA measures load factors on a monthly basis to assess which routes have on-going load challenges. Anytime a load factor exceeds 1, standees are common. Table 2-2 shows the extent of the capacity issues.

Table 2-2 2011 Annual Load Factors

Route	Weekday Peak	Weekday Midday	Saturday	Sunday
# 2 Riverfront	0.45	0.35	0.53	0.34
# 5 Marigny-Bywater	0.39	0.32	0.20	0.14
# 10 Tchoupitoulas	0.38	0.35	0.30	0.22
# 11 Magazine	1.17	0.55	0.52	0.32
# 12 St. Charles	0.88	0.73	0.84	0.72
# 15 Freret	0.48	0.45	0.28	0.19
# 16 S. Claiborne	0.66	0.61	0.48	0.34
#24 Napoleon	0.28	0.17	0.10	0.07
# 27 Louisiana	0.86	0.62	0.39	0.24
# 28 M.L.King	0.48	0.39	0.27	0.20
# 32 Leonidas	0.30	0.24		
# 39 Tulane	1.87	0.97	0.81	0.54
# 45 Canal / Lakeview	0.60	0.24	0.29	0.11
# 47-48 Canal Streetcar	1.21	0.88	0.80	0.90
# 52 St. Bernard/Senate-L.C. Simon	0.98	0.58	0.64	0.46
# 55 Elysian Fields	0.80	0.65	0.56	0.40
# 57 Franklin	0.95	0.65	0.61	0.42
# 60 Haynes	0.61	0.43		
# 62 Morrison Express	0.96	0.84	0.73	0.60
# 64 Lake Forest	0.79	0.64	0.53	0.41
# 80 Louisa	0.36	0.32	0.20	0.12
# 84 Galvez	0.70	0.48	0.32	0.22
# 88 St. Claude/Jackson Barr	1.49	0.75	0.66	0.55
# 91 Jackson-Esplanade	1.43	1.10	0.99	0.65
# 94 Broad	1.32	0.95	1.12	0.82
# 100-101 Algiers Loop/Owl	0.35	0.30	0.24	0.19
# 102 Alg./G.M.	0.66	0.49	0.37	0.26
# 114-15 Gen. DeGaulle	1.21	0.58	0.41	0.37
# 108 Algiers Local	0.59	0.46	0.32	
# 201 Kenner Loop	0.70	0.87	0.52	0.49
System Average	0.80	0.61	0.61	0.61
Bus Average	0.79	0.56	0.44	0.32
Streetcar Average	0.85	0.66	0.72	0.65

## JEFFERSON PARISH TRANSIT

JeT provides service on 12 fixed routes in Jefferson Parish, operating 11 on weekdays, 6 on Saturdays, and 4 on Sundays. Routes are classified based on whether they operate on the Eastbank or Westbank:

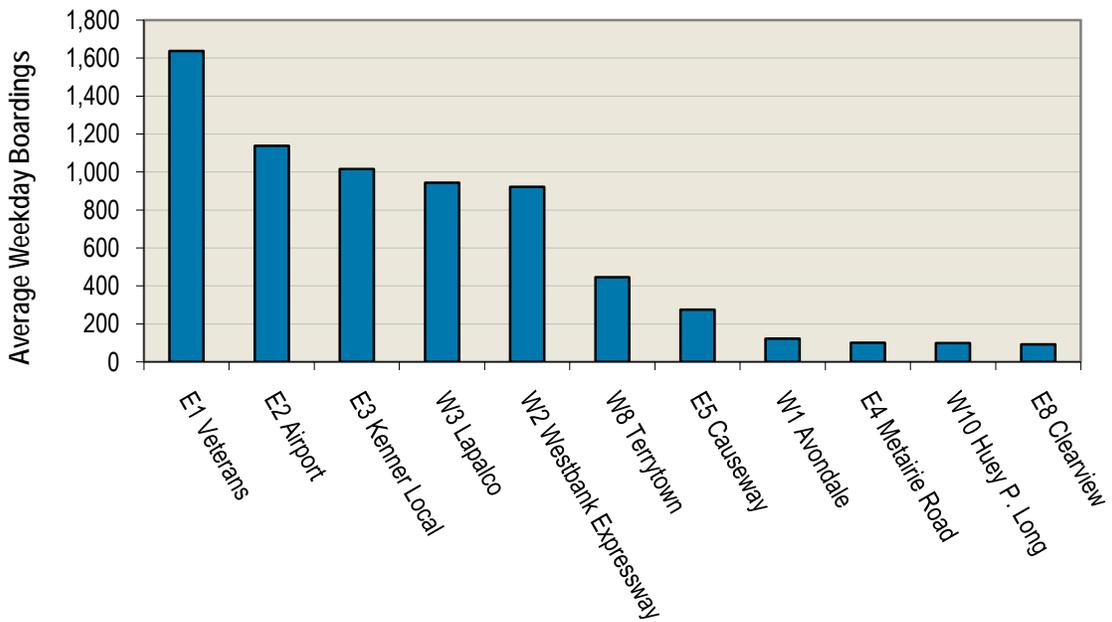
- Eastbank routes include:
  - E1 Veterans
  - E2 Airport
  - E3 Kenner Local
  - E4 Metairie Road
  - E5 Causeway Boulevard
  - E8 Clearview Parkway
- Westbank routes include:
  - W1 Avondale
  - W2 Westbank Expressway
  - W3 Lapalco
  - W8 Terrytown
  - W10 Huey P. Long
  - WSL Westbank Sunday Loop

JeT carries about 6,800 riders on weekdays, 3,100 on Saturdays, and 1,200 on Sundays. Table 2-3 lists the headway and service span for each route. Headways are highly variable, with peak headways ranging from 20 minutes to a high of 78 minutes. Service begins at 5:20 AM and ends at 10:32 PM.

Figure 2-5 presents average weekday boardings by route. E1 Veterans carries significantly more riders than any other route, with about 1,600 weekday boardings. The second highest route is E2 Airport, with about 1,110 weekday boardings. The four lowest-ridership routes each carry about 100 riders on weekdays: W1 Avondale, E4 Metairie Road, W10 Huey P. Long, and E8 Clearview.

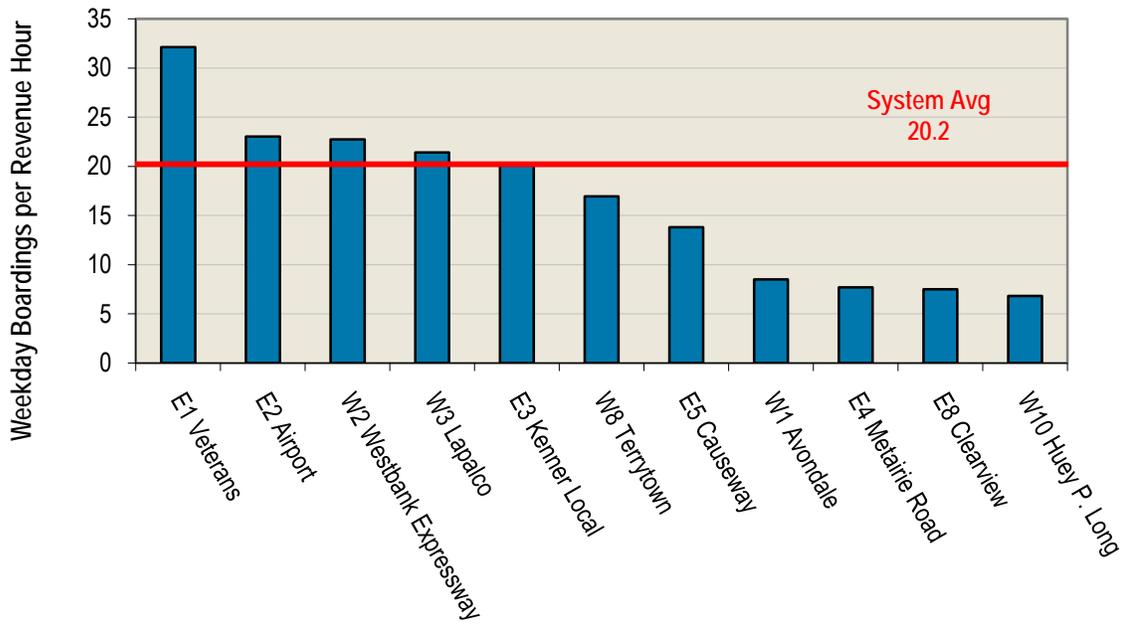
Weekday productivity by route, measured in boardings per revenue hour, is shown in Figure 2-6. The ranking of routes in this chart is similar to the ranking in Figure 2-5. E1 Veterans has the highest productivity, with about 32 boardings per revenue hour. E2 Airport and W2 Westbank Expressway each have about 23 boardings per revenue hour, while W3 Lapalco has about 21. The lowest performing routes are W1 Avondale, E4 Metairie Road, E8 Clearview, and W10 Huey P. Long, all of which operate at less than 10 passengers per revenue hour.

Figure 2-5 JeT Average Weekday Boardings by Route (2011)



Source: 2011 JeT Performance Data

Figure 2-6 JeT Weekday Boardings per Revenue Hour by Route



Source: 2011 JeT Performance Data

Source: September 2011 Ridecheck

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Table 2-3 JeT Route Headways and Span of Service

Route	Name	Weekday Headway				Saturday Headway	Sunday Headway	Span of Service		
		AM Peak	Base	PM Peak	Evening	Base	Base	Weekday	Saturday	Sunday
E1	Veterans	22	30	25	75-93	44	75	5:40A – 10:18P	6:11A – 10:18P	7:17A – 10:18P
E2	Airport	24-31	36	25-32	58-64	32	64	5:20A – 10:18P	6:24A – 10:18P	7:28A – 10:18P
E3	Kenner Local	20	30	25	70	32	68-72	5:22A – 9:33P	5:54A – 9:31P	7:39A – 9:31P
E4	Metairie Road	40	40	40	40	---	---	6:23A – 6:58P	---	---
E5	Causeway	30	60	30	30	50	---	6:30A – 7:22P	7:00A – 7:26P	---
E8	Clearview	71-78	71-83	71-78	---	---	---	6:05A – 5:51P	---	---
W1	Avondale	69	69	69	---	---	---	6:05A – 7:44P	---	---
W2	Westbank Expressway	30	64	30	61-98	64	---	5:39A – 9:33P	7:20A – 9:33P	---
W3	Lapalco	30	40	30	51-120	64	---	5:38A – 10:19P	7:11A – 10:19P	---
W8	Terrytown	30	60	30	86-109	---	---	5:35A – 10:32P	---	---
W10	Huey P. Long	74	74	77	---	---	---	5:31A – 7:02P	---	---

Source: JeT Timetables

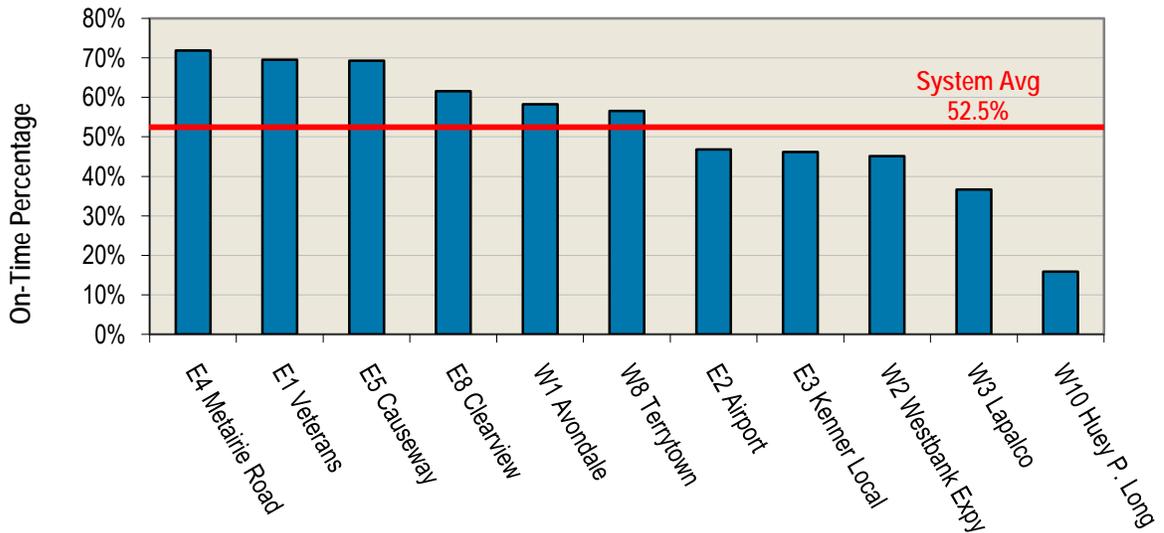
Table 2-4 and Figure 2-7 present on-time performance data collected during the September 2011 ridecheck. The system average on-time percentage is low, at just 52.5%. E4 Metairie Road has the highest on-time percentage at 71.9%; W10 Huey P. Long has the lowest, at just 15.9%. This is largely due to construction on the Huey P. Long Bridge.

Table 2-4 JeT Route On-Time Performance

Route	% On-Time	% Early	% Late
E1 Veterans	69.5	17.2	13.3
E2 Airport	46.8	16.7	36.5
E3 Kenner Local	46.2	17.8	36.0
E4 Metairie Road	71.9	16.7	11.4
E5 Causeway	69.3	18.4	12.3
E8 Clearview	61.6	18.3	20.1
W1 Avondale	58.3	24.0	17.7
W2 Westbank Expy	45.1	10.8	44.1
W3 Lapalco	36.7	6.5	56.8
W8 Terrytown	56.6	22.8	20.6
W10 Huey P. Long	15.9	1.1	83.0

Source: September 2011 Ridecheck

Figure 2-7 JeT Route On-Time Percentage



### 3 ROUTE PERFORMANCE SUMMARY

This chapter details the performance of each route operated by RTA and JeT, including descriptions, characteristics, and statistics for each RTA and JeT route. For each route, a text summary is followed by maps showing the weekday ridership activity, and tables showing ridership breakouts by time of day and by segment. When available, on-time performance data is also presented.

For RTA routes, two different data sources were used for stop level ridership. In the summer of 2010, RTA conducted ridership counts. For routes that showed significant ridership growth, or different patterns due to new alignments, a supplemental ridership count was conducted in September 2011. This represented approximately one quarter of RTA's routes.

RTA has developed a series of performance indicators that help it measure whether or not a route is performing. The measures include:

- Service Effectiveness – i.e. how many riders are there per unit of service provision. RTA categorizes routes according to the route frequency. If a route performs at 125% of its grouping, service additions should be considered. Likewise, if a route performs at 75% of its headway average, service adjustments should be considered.
- Seat Utilization – i.e. the number of passengers compared to the number of seats, which is a measure of how crowded vehicles are. If routes operate over 140% of seats available, service additions should be considered.
- Subsidy per Boarding – i.e. what is the net cost to provide the service. If a route is at 25% of the system subsidy average, corrective action should be considered.

This performance summary refers to several instances where low-performing routes do not meet RTA's standards, or also when routes exceed the standards. All references are to the 2010 end of year summary.

Data for all JeT routes as collected in September 2011.

## Route 2 Riverfront Streetcar

### Route Description

The Riverfront Streetcar connects the French Market area in the French Quarter with the Convention Center. Service is seven days a week.

Based on 2010 annual data, weekday productivity on the Riverfront Streetcar is about 43.5 boardings per hour. Saturday productivity is higher, at 78.4 boardings per hour.

### Route Characteristics

Ridership on the Riverfront Streetcar is much lower before 9 AM than it is during the rest of the day.

The highest ridership stops are at the French Market and at Canal Street. Most stops have more than 100 combined boardings and alightings. The segment between Thalia and Canal has less ridership activity than the segment between Canal and the French Market.

The majority (86 percent) of transfers from the Riverfront Streetcar are to the Canal and St. Charles Streetcars.

Trip level ridership data showed some trips with standees, but the majority of trips do not have capacity issues. The maximum load on any given trip was 69 riders.

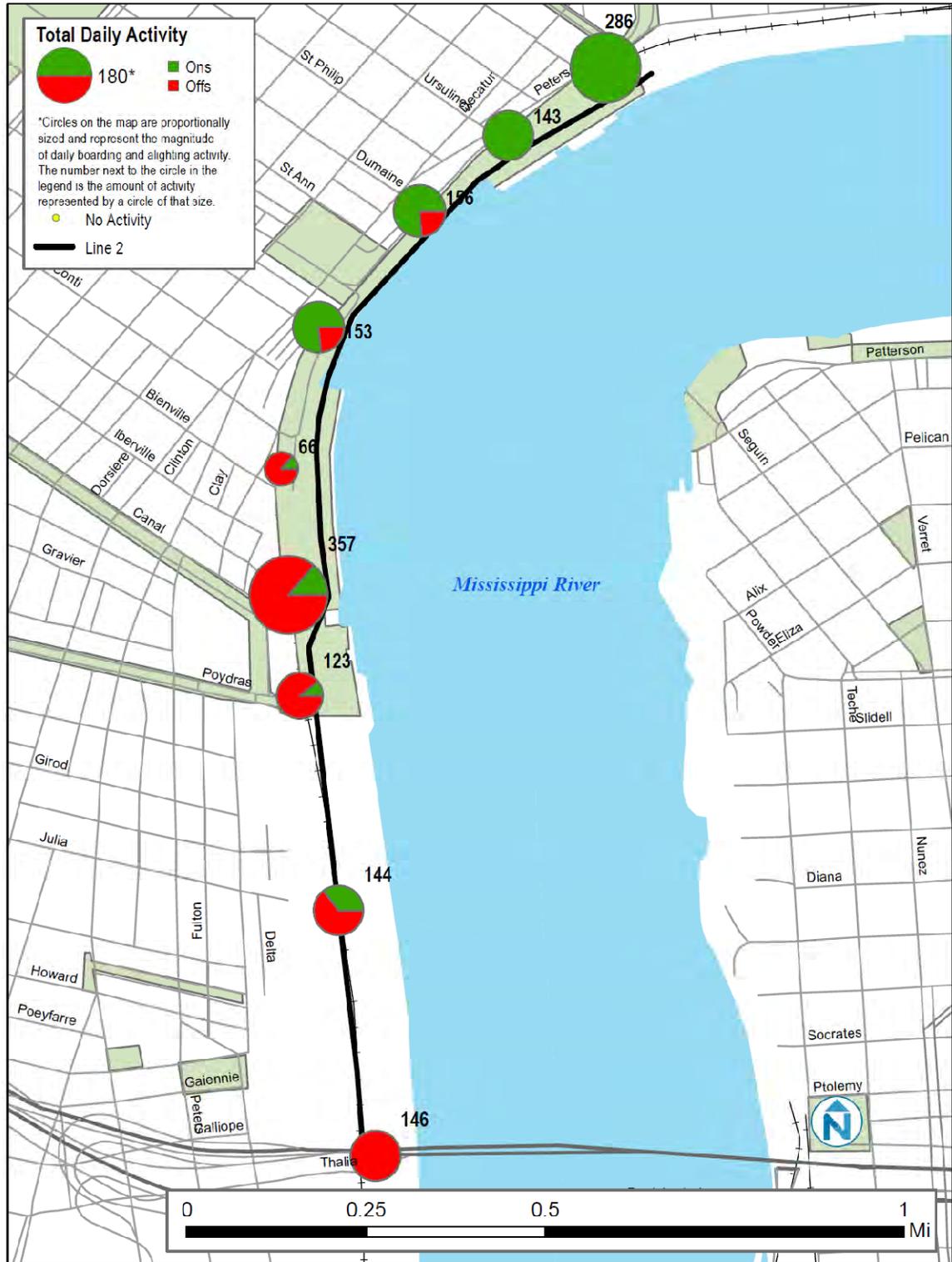
The Riverfront Streetcar is targeted toward the tourist market and connections between the French Quarter and the Convention Center. The transfer pattern and the higher weekend ridership confirm that tourist ridership predominates.

<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	1,176
Saturday	2,099
Sunday	939
2010 Weekday Boardings / Hour	43.5
<b>Service Frequency</b>	
AM Peak	27 min
Weekday Base (9:00A – 6:50P)	20 min
Evening	37 min
Weekend Base (9:00A – 6:50P)	12 min
<b>Service Span</b>	
Weekday	7:10A – 10:27P
Saturday	7:10A – 10:27P
Sunday	7:10A – 10:27P

**NORTA Line 2 Riverfront Streetcar Northbound Boarding & Alighting Activity**



### NORTA Line 2 Riverfront Streetcar Southbound Boarding & Alighting Activity

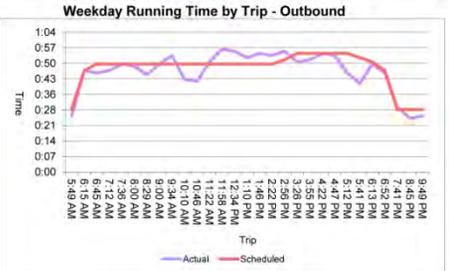
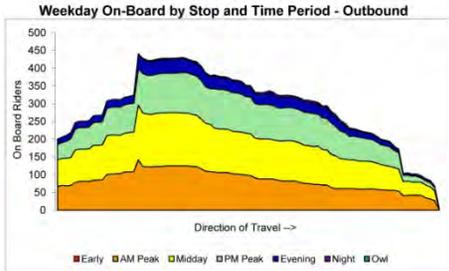
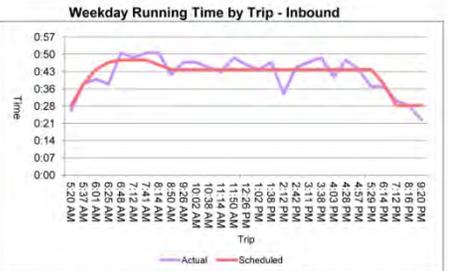
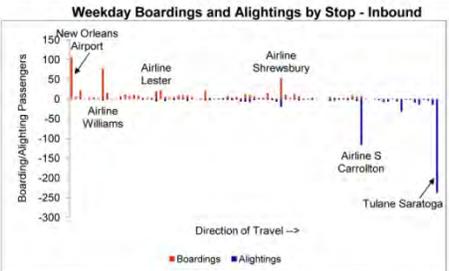
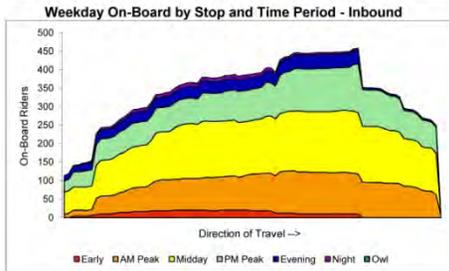


# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

## Regional Planning Commission

Line E2	Passenger Summary										
	Total					Productivity		Maximum On-Board Loading			
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max. Total Passengers On Board	Location	Dir
<b>Total</b>	1198	1198		42.5			28.2		458	Airline & Monroe	I
<b>By Direction</b>											
Inbound	613	605		19.3			31.8		458	Airline & Monroe	I
Outbound	585	593		23.2			25.2		441	Tulane & S Carrollton	O
<b>By Segment</b>											
1 New Orleans Airport & to Airline & Lester	312	267		8.9			34.9				
2 Airline & Lester to Airline & Shrewsbury	275	300		12.4			22.0				
3 Airline & Shrewsbury to Airline & S Carrollton	284	160		10.6			26.9				
4 Airline & S Carrollton to Tulane & Saratoga	329	471		11.6			28.3				
<b>By Time Period</b>											
AM	308	308		10.1			30.4		142	Tulane & S Carrollton	O
Midday	431	431		15.7			27.5		168	Airline & Palm	I
PM	319	319		10.6			30.1		133	Airline & Monroe	I
Eve	97	97		5.1			19.1		40	Tulane & S Carrollton	O
Night	16	16		1.0			16.6		10	Airline & Eisenhower	I
Owl											O

Line E2	Operations Summary		
	Schedule		
	% On-Time	% Early	% Late
<b>Total</b>	46.8%	16.7%	36.5%
<b>By Direction</b>			
Inbound	53.9%	12.1%	34.0%
Outbound	39.7%	21.3%	39.0%
<b>By Segment</b>			
1 New Orleans Airport & to Airline & Lester	44.8%	10.3%	44.8%
2 Airline & Lester to Airline & Shrewsbury	39.7%	12.1%	48.3%
3 Airline & Shrewsbury to Airline & S Carrollton	51.7%	22.4%	25.9%
4 Airline & S Carrollton to Tulane & Saratoga	46.3%	25.9%	27.8%



## Route 12 St. Charles Streetcar

### Route Description

The St. Charles Streetcar connects downtown New Orleans at Canal Street to Claiborne Avenue via St. Charles and Carrollton. Service is seven days a week.

Based on 2010 annual data, weekday productivity on the St. Charles Streetcar is 43.4 boardings per hour. On Saturday it is higher, at 48.6 per hour, and Sunday's is 41.3 per hour.

### Route Characteristics

The St. Charles Streetcar has the highest weekday ridership and shortest headways of all RTA routes on both weekdays and weekends. As the lone RTA streetcar line operating historic streetcars, it owes much of its ridership to the tourist market.

Based on January 2011 ridership counts, ridership is extremely strong on the terminal segments. Ridership is steady on the entire route. The strong ridership at the route termini is likely a result of strong transfer activity. Other transfer points such as Jackson, Louisiana, and Napoleon show heavy ridership activity; other busy stops are at Loyola University and St. Charles/Carrollton.

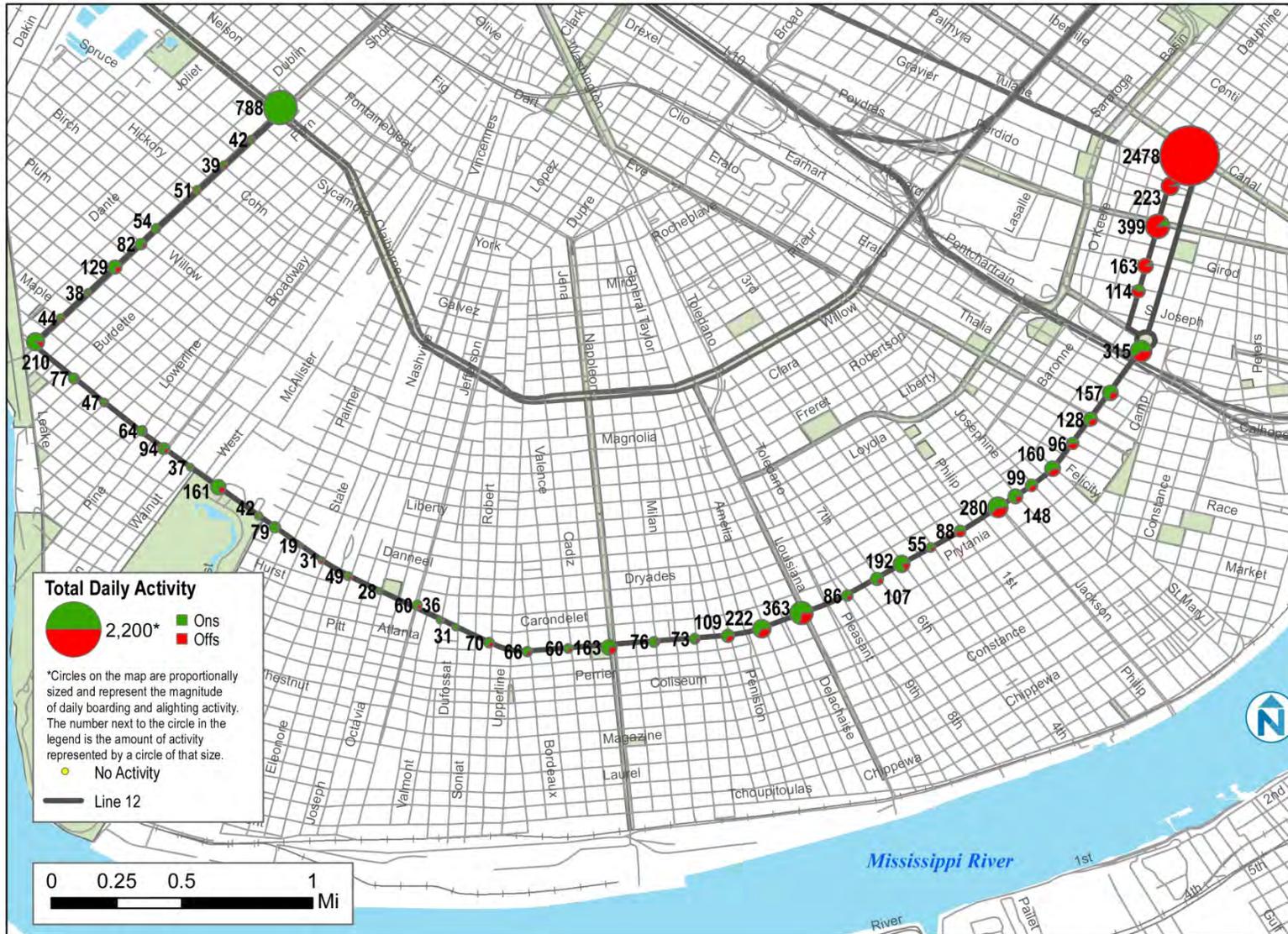
Ridership productivity during midday and the afternoon peak is nearly double that of the morning peak. This pattern is likely a result of the tourist market, which heavily utilizes the St. Charles line. Overall, both morning and nighttime productivity are good, at over 33 passengers per hour. Service is frequent throughout the day. Anecdotal evidence showed that the St. Charles line has service disruptions that cause streetcar bunching and result in irregular headways.

The St. Charles Streetcar generates heavy transfer activity, particularly to routes serving the downtown core. Forty percent of transfer activity is to the Canal Streetcar and Route 39 Tulane, the latter of which connects near each St. Charles Line terminal.

Capacity can be a major issue on the St. Charles Streetcar, with 12 trips carrying maximum loads of 60 or greater. The biggest recorded load was 87. Heavy loads typically occur in midday and PM peak periods, owing to high demand among both tourists and regular riders alike.

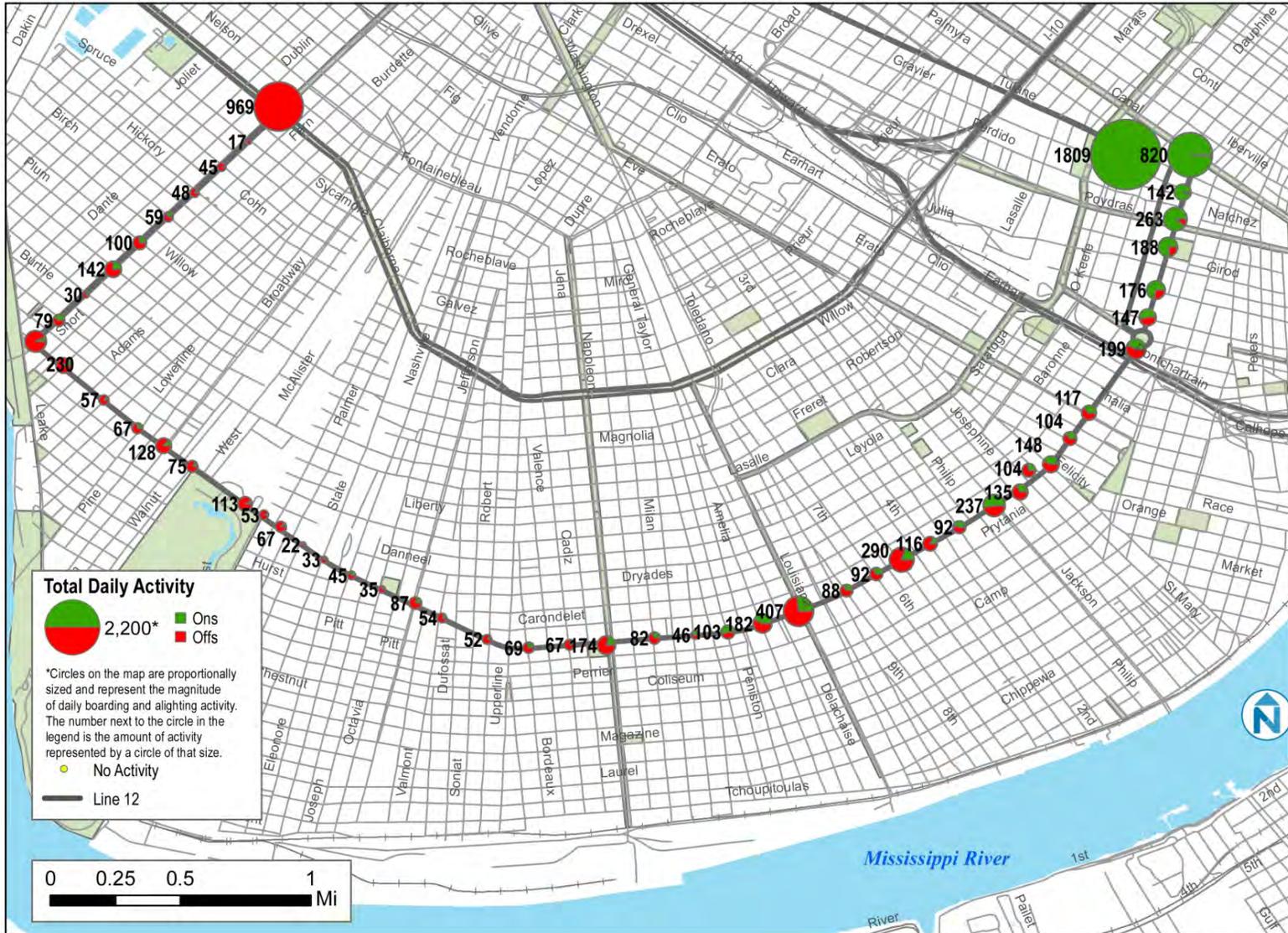
<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	9,069
Saturday	9,269
Sunday	6,600
2010 Weekday Boardings / Hour	43.4
<b>Service Frequency</b>	
AM Peak	10 min
PM Peak	8 min
Base	8 min
Evening	10-15 min
Night	20 min
Owl	30 min
<b>Service Span</b>	
Weekday	24 Hours
Saturday	24 Hours
Sunday	24 Hours

### NORTA Line 12 St. Charles Streetcar Inbound Boarding & Alighting Activity



Data Sources: U.S. Census Bureau, NORPC, ESRI

### NORTA Line 12 St. Charles Streetcar Outbound Boarding & Alighting Activity



Data Sources: U.S. Census Bureau, NORPC, ESRI

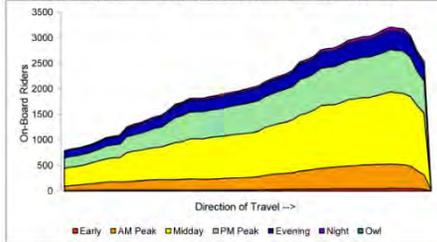
# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

## Regional Planning Commission

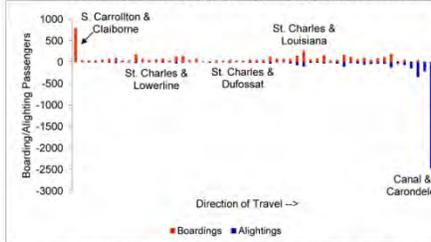
Line 12	Passenger Summary								
	Total				Productivity		Maximum On-Board Loading		
Weekday Line Profile	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board
<b>Total</b>	9257	9198	164.5				56.3	3.209	3,209
<b>By Direction</b>									
Inbound	4548	4495	80.6				56.4	3,209	St. Charles & Lee Circle & I
Outbound	4709	4703	84.0				56.1	3,139	St. Charles & St. Joseph & O
<b>By Segment</b>									
1 S. Carrollton & Claiborne & 0 to S. Carrollton & Willow & 0	1002	1210	12.0				83.8		
2 S. Carrollton & Willow & 0 to St. Charles & Broadway & 0	725	748	23.9				30.3		
3 St. Charles & Broadway & 0 to St. Charles & Jefferson & 0	681	765	23.9				28.5		
4 St. Charles & Jefferson & 0 to St. Charles & Napoleon & 0	342	397	17.9				19.1		
5 St. Charles & Napoleon & 0 to St. Charles & Louisiana & 0	768	695	17.9				42.8		
6 St. Charles & Louisiana & 0 to St. Charles & Jackson & 0	972	834	17.9				54.3		
7 St. Charles & Jackson & 0 to Canal & Carondelet & 0	4767	4549	46.8				101.8		
<b>By Time Period</b>									
AM	1204	1199	36.0				33.5	479	St. Charles & Erato & I
Midday	4120	4108	68.3				60.4	1441	St. Charles & Julia & O
PM	2424	2386	32.3				75.2	882	St. Charles & Lee Circle & O
Eve	1100	1100	22.4				49.1	434	St. Charles & Erato & O
Night	224	224	5.7				39.5	88	St. Charles & Felicity & O
Owl									O

Line 12	Operations Summary Schedule		
	% On-Time	% Early	% Late
<b>Total</b>	100.0%		
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 S. Carrollton & Claiborne & 0 to S. Carrollton & Willow & 0	100.0%		
2 S. Carrollton & Willow & 0 to St. Charles & Broadway & 0	100.0%		
3 St. Charles & Broadway & 0 to St. Charles & Jefferson & 0	100.0%		
4 St. Charles & Jefferson & 0 to St. Charles & Napoleon & 0	100.0%		
5 St. Charles & Napoleon & 0 to St. Charles & Louisiana & 0	100.0%		
6 St. Charles & Louisiana & 0 to St. Charles & Jackson & 0	100.0%		
7 St. Charles & Jackson & 0 to Canal & Carondelet & 0	100.0%		

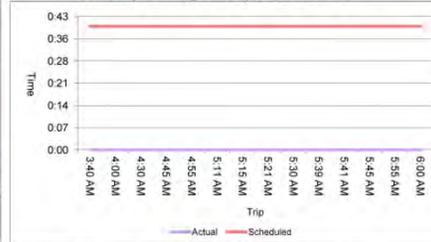
Weekday On-Board by Stop and Time Period - Inbound



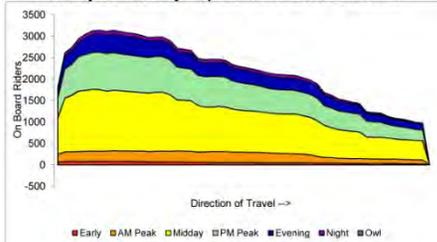
Weekday Boardings and Alightings by Stop - Inbound



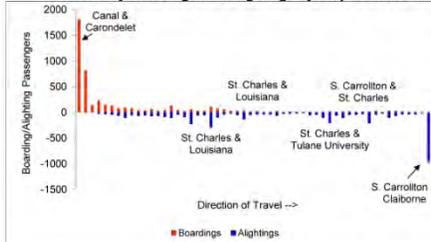
Weekday Running Time by Trip - Inbound



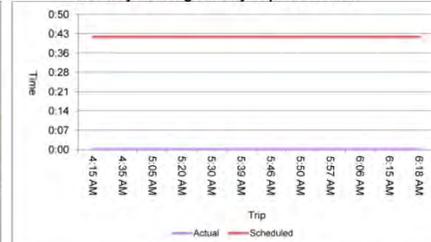
Weekday On-Board by Stop and Time Period - Outbound



Weekday Boardings and Alightings by Stop - Outbound



Weekday Running Time by Trip - Outbound



## Routes 47-48 Canal Streetcar

### Route Description

The Canal Streetcar connects downtown New Orleans and the riverfront with the Cemeteries area and City Park via separate branches from Canal Street. Service operates seven days a week.

Based on 2010 annual data, weekday productivity is about 57.8 boardings per hour. Saturday productivity is 52.4 boardings per hour, and Sunday's is equal to weekdays, at 57.8 per hour.

### Route Characteristics

The Canal Streetcar is the most productive streetcar route. Ridership productivity is strong throughout the route and by time of day. The downtown segment between Rampart and the terminus by the river is the most productive, with 110 passengers per hour. The Carrollton branch has the lowest productivity at 52.7 boardings per hour. A contributing factor to the Carrollton branch's lower ridership is the irregular frequency, as most streetcar trips travel to Cemeteries.

Route productivity is heaviest midday and the PM peak. AM peak ridership at 68.6 boardings per hour is less productive than in the evenings, at 76.1.

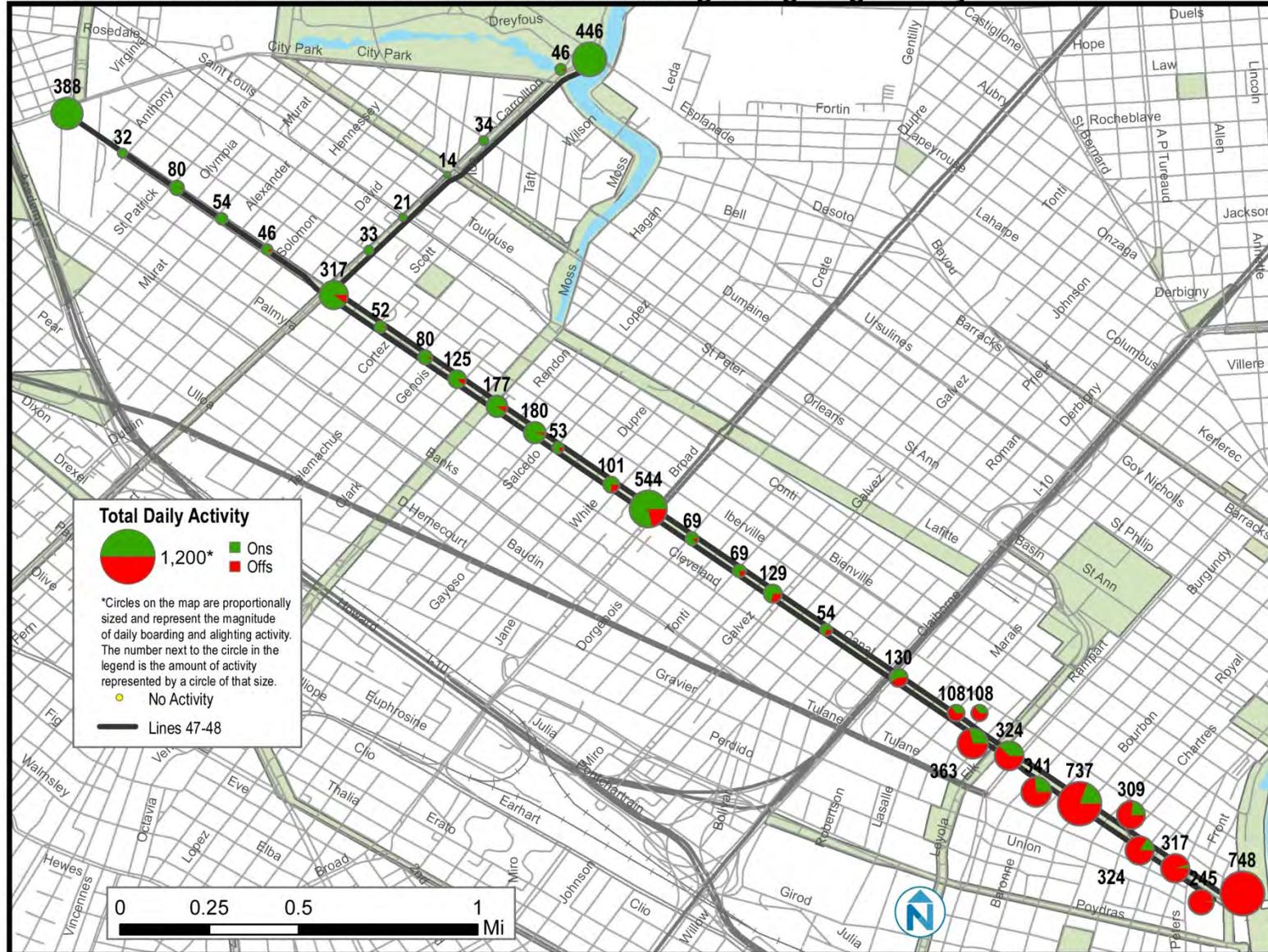
Headways are frequent along the trunk. Headways are irregular on both the Carrollton and Cemeteries branches, which can complicate easy transfers to other routes.

Other high ridership stops not in the downtown core include Broad, Carrollton, City Park, and Cemeteries. All of these stops are transfer points to other routes. Approximately half of transfers from the Canal Streetcar go to the St. Charles Streetcar, or routes 39, 88, or 94.

The streetcars have heavy loads, with 23 trips (17 inbound) carrying loads of 50 or more passengers. Two inbound trips had maximum loads of 74 passengers. Heavy loads are common on inbound trips throughout the day, while outbound trips see their heaviest loads in the evenings and PM peaks.

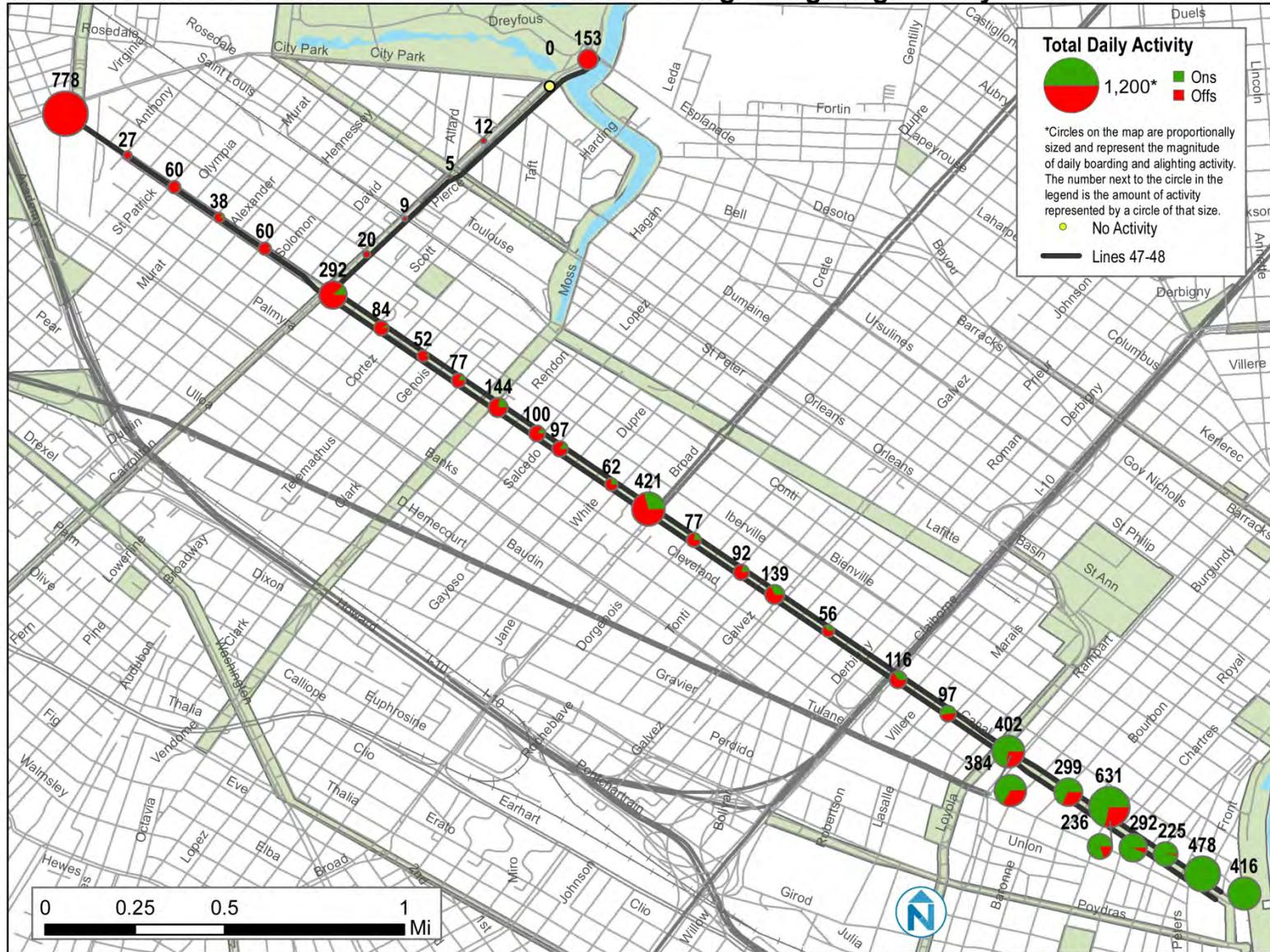
<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	7,572
Saturday	5,884
Sunday	3,292
2010 Weekday Boardings / Hour	57.8
<b>Service Frequency</b>	
AM Peak	6-20 min
PM Peak	10 min
Base	10 min
Evening	10-20 min
<b>Service Span</b>	
Weekday	5:03A – 3:33A
Saturday	5:03A – 3:33A
Sunday	5:03A – 3:33A

**NORTA Lines 47-48 Canal Streetcar Inbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

**NORTA Lines 47-48 Canal Streetcar Outbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

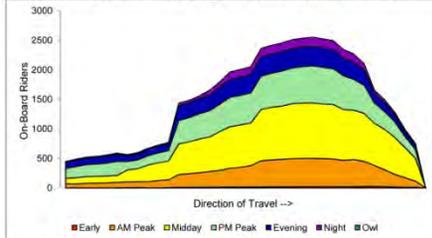
# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

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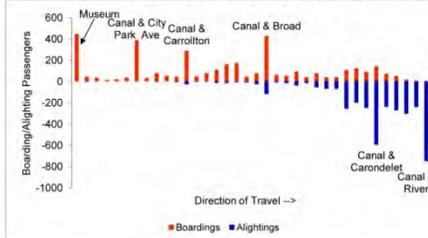
Line 47-48  Weekday Line Profile	Passenger Summary								
	Total				Productivity		Maximum On-Board Loading		
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max. Total Passengers On Board
<b>Total</b>	6846	6846		85.6			80.0	2,554	Location: Canal & S. Claiborne & Dir: I
<b>By Direction</b>									
Inbound	3599	3599		43.2			83.4	2,554	Canal & S. Claiborne & I
Outbound	3247	3247		42.4			76.6	2,195	Canal & Marais & O
<b>By Segment</b>									
1 & Museum to & Canal & Carrollton	591	202		8.2			71.6		
2 Canal & City Park Ave & 0 to Canal & Carrollton & 0	603	960		11.5			52.7		
3 Canal & Carrollton & 0 to Canal & Broad & 0	1250	1227		18.6			67.2		
4 Canal & Broad & 0 to Canal & Rampart & 0	1672	1265		28.0			59.6		
5 Canal & Rampart & 0 to Canal & River & 0	2730	3192		24.9			109.5		
<b>By Time Period</b>									
Early	46	46		2.5			18.3	25	Canal & Carondelet & I
AM	971	971		14.2			68.6	480	Canal & S. Prieur & I
Midday	2599	2599		32.8			79.3	937	Canal & S. Claiborne & I
PM	1845	1845		18.2			101.7	644	Canal & Marais & O
Eve	967	967		12.7			76.1	336	Canal & Basin & O
Night	418	418		7.8			53.6	211	Canal & Rampart & O
Owl									O

Line 47-48  Weekday Line Profile	Operations Summary Schedule		
	% On-Time	% Early	% Late
	<b>Total</b>	100.0%	
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 & Museum to & Canal & Carrollton	100.0%		
2 Canal & City Park Ave & 0 to Canal & Carrollton & 0	100.0%		
3 Canal & Carrollton & 0 to Canal & Broad & 0	100.0%		
4 Canal & Broad & 0 to Canal & Rampart & 0	100.0%		
5 Canal & Rampart & 0 to Canal & River & 0	100.0%		

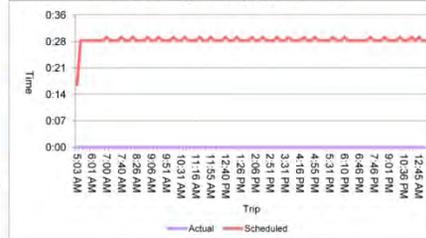
Weekday On-Board by Stop and Time Period - Inbound



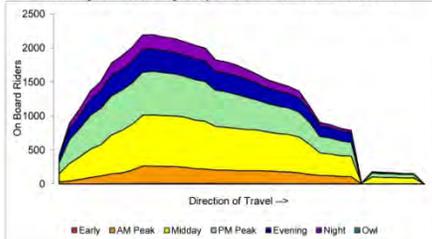
Weekday Boardings and Alightings by Stop - Inbound



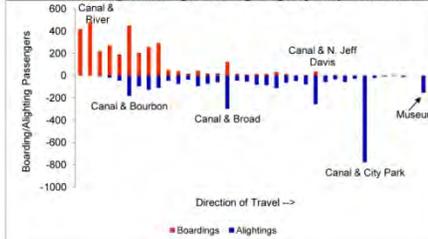
Weekday Running Time by Trip - Inbound



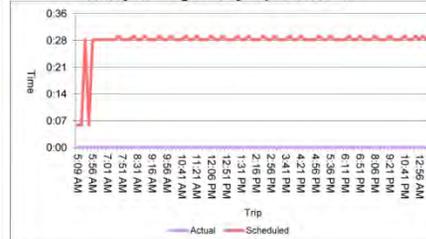
Weekday On-Board by Stop and Time Period - Outbound



Weekday Boardings and Alightings by Stop - Outbound



Weekday Running Time by Trip - Outbound



## Route 5 Marigny/Bywater

### Route Description

Route 5 connects Convention Center Boulevard with the Marigny and Bywater neighborhoods via Peters and Decatur Streets through the French Quarter, operating near the riverfront out to Poland Avenue.

Based on 2010 annual data, weekday productivity on Route 5 is 9.6 boardings per hour. Weekend productivity is worse, with Sunday operating at 4.6 boardings per hour.

### Route Characteristics

Route 5 does not currently meet RTA's service standards for productivity or for subsidy per boarding.

The highest ridership stops on the route were at Poland / St Claude and at Canal. The segment on Convention Center Boulevard had seven boardings throughout a weekday, making it the lowest ridership segment on an already low-ridership route.

Route 5 duplicates the Riverfront Streetcar between the Convention Center and French Market. The Streetcar carries significantly more ridership in this segment. Route 5 is duplicated by Route 55 Elysian Fields between Dauphine and Canal. Route 55 has more ridership activity between Dauphine and Canal than does Route 5. Route 5 is only 0.35 mile from St. Claude, which operates more frequently than Route 5.

The routes with the most transfer activity to Route 5 include the Canal Streetcar, the St. Charles Streetcar, and Route 11 Magazine.

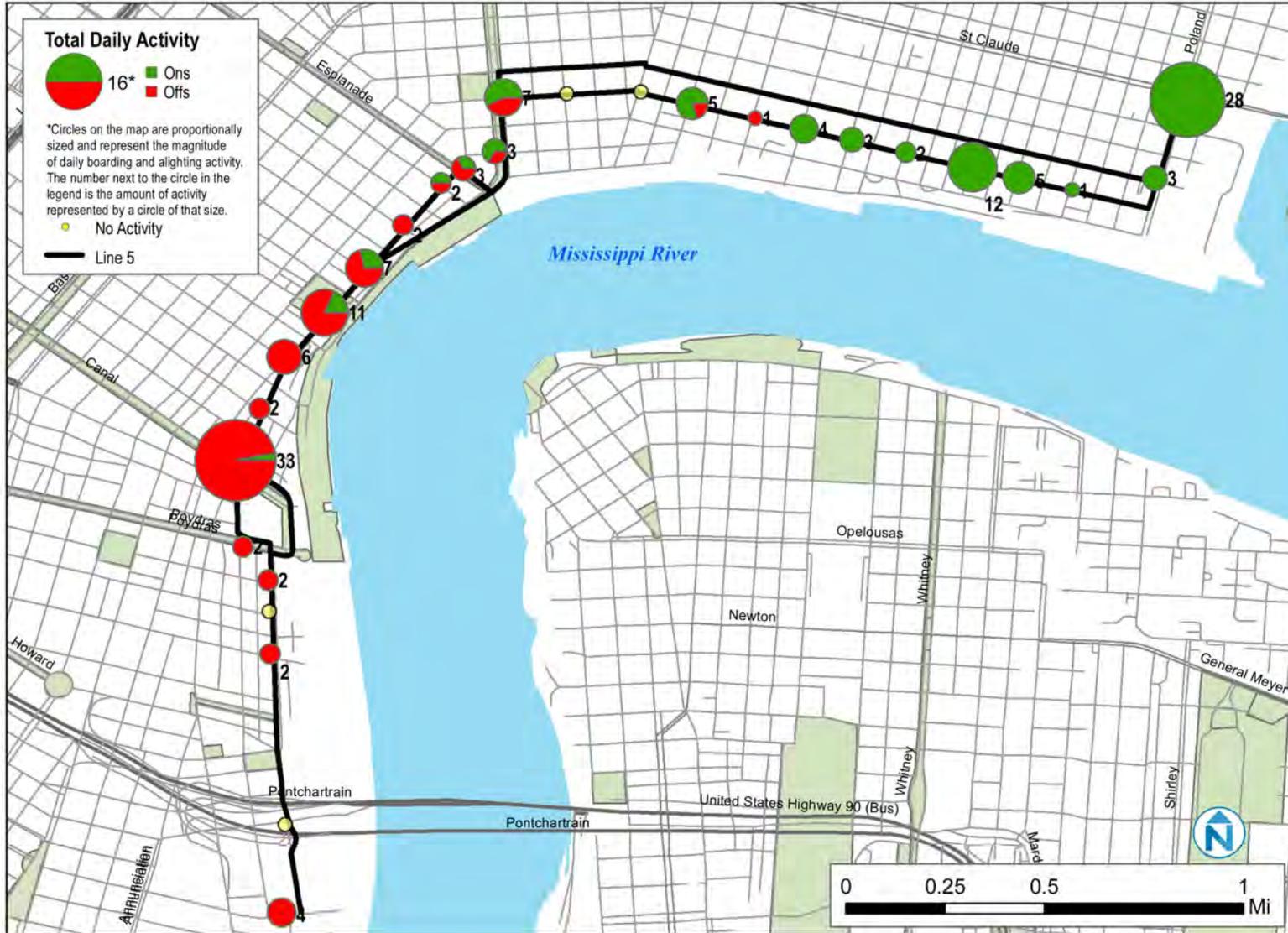
Route 5 has no capacity issues. The maximum load on any given trip was 12 riders.

The 53-minute headways ensure that transfers to other routes will be difficult to randomly time throughout the day.

<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	127
Saturday	91
Sunday	37
2010 Weekday Boardings / Hour	9.6
<b>Service Frequency</b>	
AM and PM Peak	53 min
Weekday Base	53 min
Weekday Evening	N/A
Weekend Base	52 min
<b>Service Span</b>	
Weekday	6:38A – 6:54P
Saturday	8:14A – 5:41P
Sunday	8:14A – 5:41P



### NORTA Line 5 Marigny-Bywater Inbound Daily Boarding and Alighting Activity



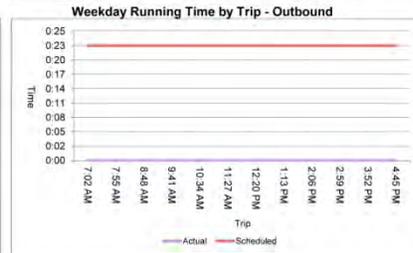
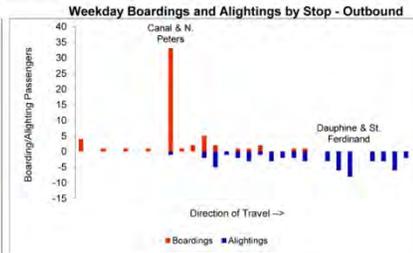
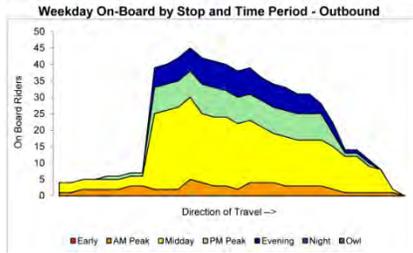
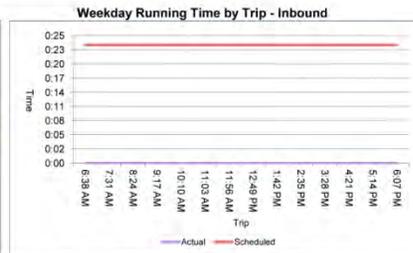
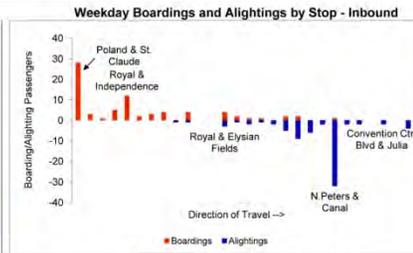
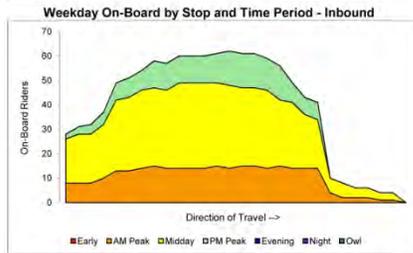
Data Sources: U.S. Census Bureau, NORPC, ESRI

# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

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Line 5	Passenger Summary										
	Total						Productivity			Maximum On-Board Loading	
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max. Total Passengers On Board	Location	Dir
<b>Total</b>	131	131		10.5			12.5		62	Elysian Fields & Decatur &	I
<b>By Direction</b>											
Inbound	75	75		5.1			14.6		62	Elysian Fields & Decatur &	I
Outbound	56	56		5.4			10.4		45	Decatur & St. Peter &	O
<b>By Segment</b>											
1 Poland & St. Claude & 0 to Decatur & Esplanade & 0	74	53		4.0			18.7				
2 Decatur & Esplanade & 0 to N.Peters & Canal & 0	49	36		3.7			13.1				
3 N.Peters & Canal & 0 to Convention Ctr. & Henderson & 0	8	42		3.3			2.4				
<b>By Time Period</b>											
AM	28	28		2.3			12.4		15	Royal & Clouet &	I
Midday	69	69		5.3			13.1		35	Royal & St. Ferdinand &	I
PM	26	26		2.6			9.9		14	Elysian Fields & Decatur &	I
Eve	8	8		0.4			20.9		8	Decatur & Dumaine &	O
Night											O
Owl											O

Line 5	Operations Summary		
	Schedule		
	% On-Time	% Early	% Late
<b>Total</b>	100.0%		
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 Poland & St. Claude & 0 to Decatur & Esplanade & 0	100.0%		
2 Decatur & Esplanade & 0 to N.Peters & Canal & 0	100.0%		
3 N.Peters & Canal & 0 to Convention Ctr. & Henderson & 0	100.0%		



## Route 10 Tchoupitoulas

### Route Description

Route 10 connects the French Quarter with the Audubon Zoo via Tchoupitoulas. Wal-Mart and the Children’s Hospital are two major destinations on the route. Route 10 operates seven days a week.

Based on 2010 annual data, weekday productivity on Route 10 is 19.2 boardings per hour.

### Route Characteristics

Route 10 does not currently meet RTA’s service standards for weekday productivity (boardings per hour).

The highest ridership stops on the route were at Canal, the Wal-Mart, and the stops around Joseph Street (by the Children’s Hospital). The segment between Wal-Mart and Napoleon has productivity levels equal to one quarter of the remaining segments. Most of the ridership on Route 10 is concentrated on the ends, with the Wal-Mart stop being the only big stop in the middle of the route.

Route 10 does not stay on Tchoupitoulas between downtown and the Wal-Mart, and instead uses Annunciation and Race. There are few riders on Annunciation. Between the Wal-Mart and Napoleon, large sections of the route front a wall that surrounds the riverfront industrial area, which reduces the ridership potential of the route and is a primary reason ridership is so low in this segment. Overall, Route 10 is only 0.4 miles from Route 11 Magazine in the western portion of the route. It is likely that many potential Route 10 patrons are walking to the more frequent service offered by Route 11.

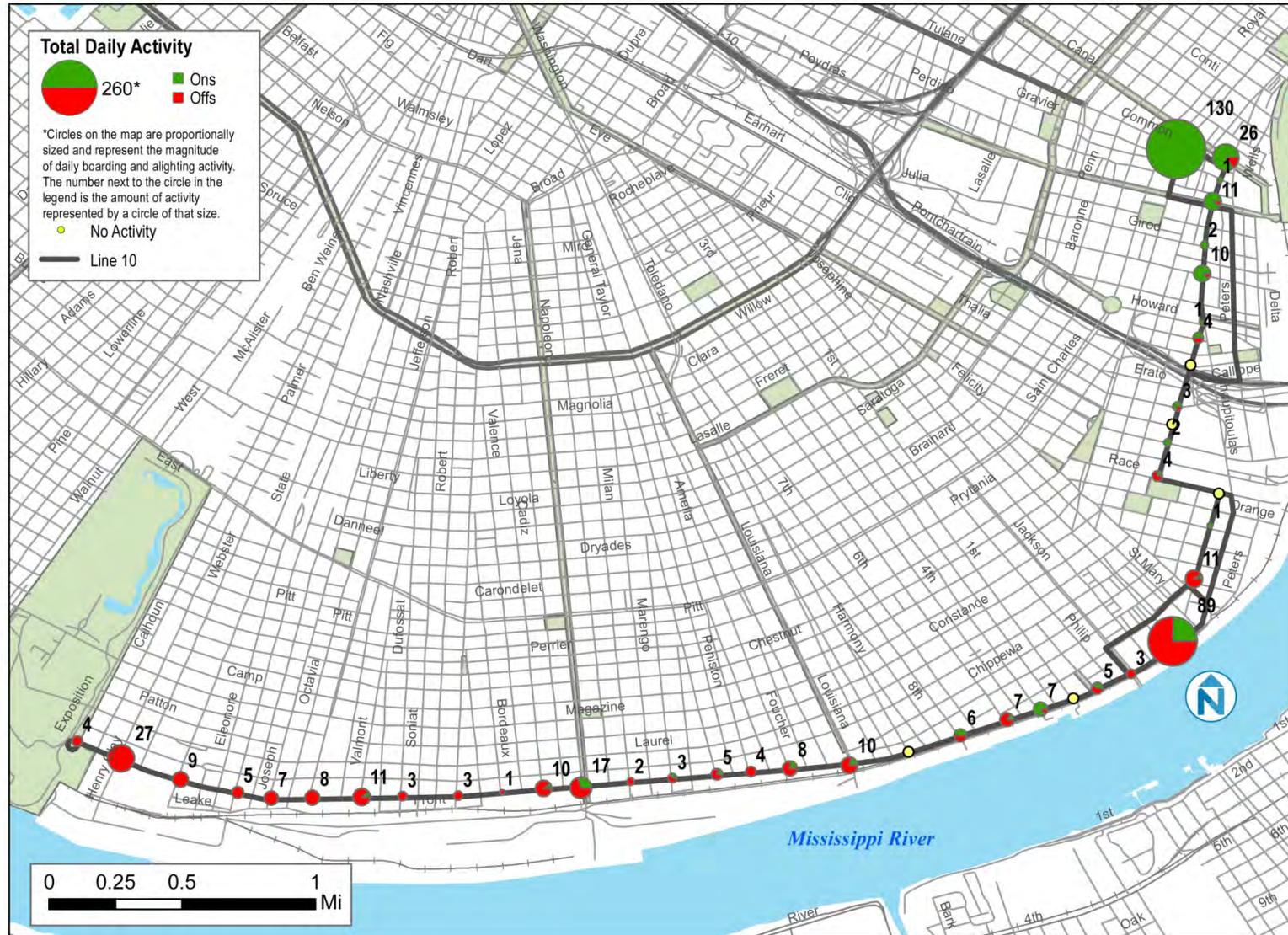
The routes with the most transfer activity to Route 10 include the Canal Streetcar, Route 91 Jackson-Esplanade, and Route 27 Louisiana.

Route 10 has no capacity issues. The maximum load on any given trip was 23 riders.

<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	542
Saturday	395
Sunday	186
2010 Weekday Boardings / Hour	19.2
<b>Service Frequency</b>	
AM and PM Peak	30 min
Weekday Base	60 min
Weekday Evening	60 min
Weekend Base	60 min
<b>Service Span</b>	
Weekday	5:45A – 11:30P
Saturday	7:15A – 11:15P
Sunday	7:15A – 11:15P



### NORTA Line 10 Tchoupitoulas Outbound Boarding & Alighting Activity



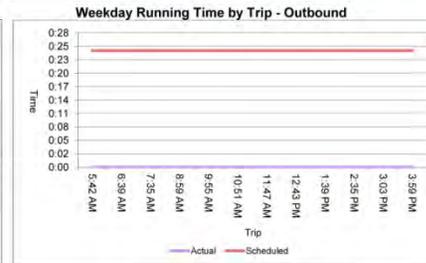
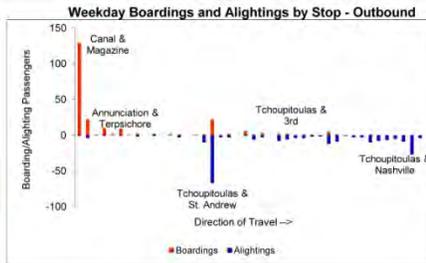
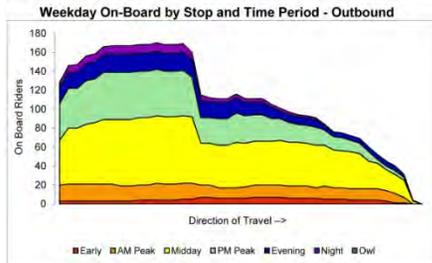
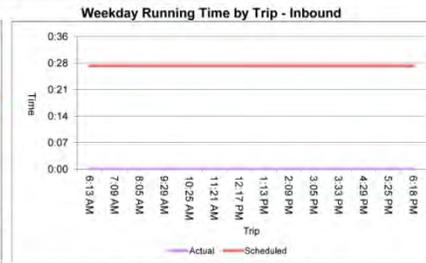
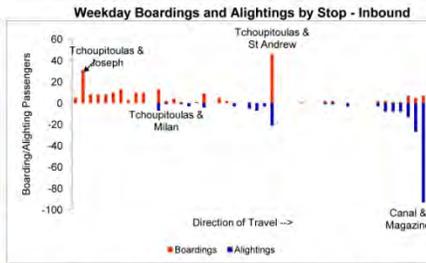
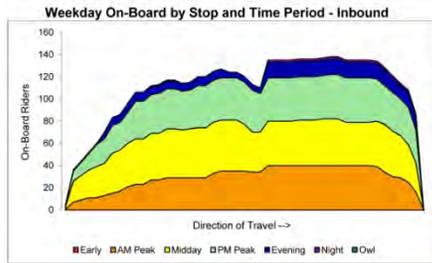
Data Sources: U.S. Census Bureau, NORPC, ESRI

# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

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Line 10	Passenger Summary								
	Total				Productivity		Maximum On-Board Loading		
Weekday Line Profile	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max. Total Passengers On Board
<b>Total</b>	450	450		15.0			30.0		170
<b>By Direction</b>									
Inbound	220	220		7.9			27.7		138
Outbound	230	230		7.1			32.5		170
<b>By Segment</b>									
1 Audubon Park & 0 to Tchoupitoulas & Napoleon & 0	113	98		2.6			43.2		
2 Tchoupitoulas & Napoleon & 0 to Tchoupitoulas & Louisiana & 0	27	38		2.9			9.3		
3 Tchoupitoulas & Louisiana & 0 to Tchoupitoulas & St Andrew & 0	29	38		2.6			11.2		
4 Tchoupitoulas & St Andrew & 0 to Canal & Magazine & 0	281	276		7.3			38.4		
<b>By Time Period</b>									
AM	88	88		2.2			39.4		40
Midday	167	167		5.7			29.2		71
PM	127	127		3.1			40.7		50
Eve	46	46		2.7			17.4		19
Night	14	14		1.3			10.8		9
Owl									

Line 10	Operations Summary Schedule		
	% On-Time	% Early	% Late
<b>Total</b>	100.0%		
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 Audubon Park & 0 to Tchoupitoulas & Napoleon & 0	100.0%		
2 Tchoupitoulas & Napoleon & 0 to Tchoupitoulas & Louisiana & 0	100.0%		
3 Tchoupitoulas & Louisiana & 0 to Tchoupitoulas & St Andrew & 0	100.0%		
4 Tchoupitoulas & St Andrew & 0 to Canal & Magazine & 0	100.0%		



## Route 11 Magazine

### Route Description

Route 11 connects the French Quarter with the Audubon Zoo via Magazine. With the exception of the one-way street operation in the Garden District and downtown New Orleans, Route 10 operates exclusively on Magazine. Route 11 operates seven days a week.

Based on 2010 annual data, weekday productivity on Route 11 is 34.1 boardings per hour.

### Route Characteristics

Weekday route productivity is better in the segment between Louisiana and downtown New Orleans than the segments west of Louisiana.

The highest ridership stop on the route is at Canal. This route has ridership activity along the entire route, with the stops by St. Andrew and Napoleon being the stops with the highest ridership outside of downtown.

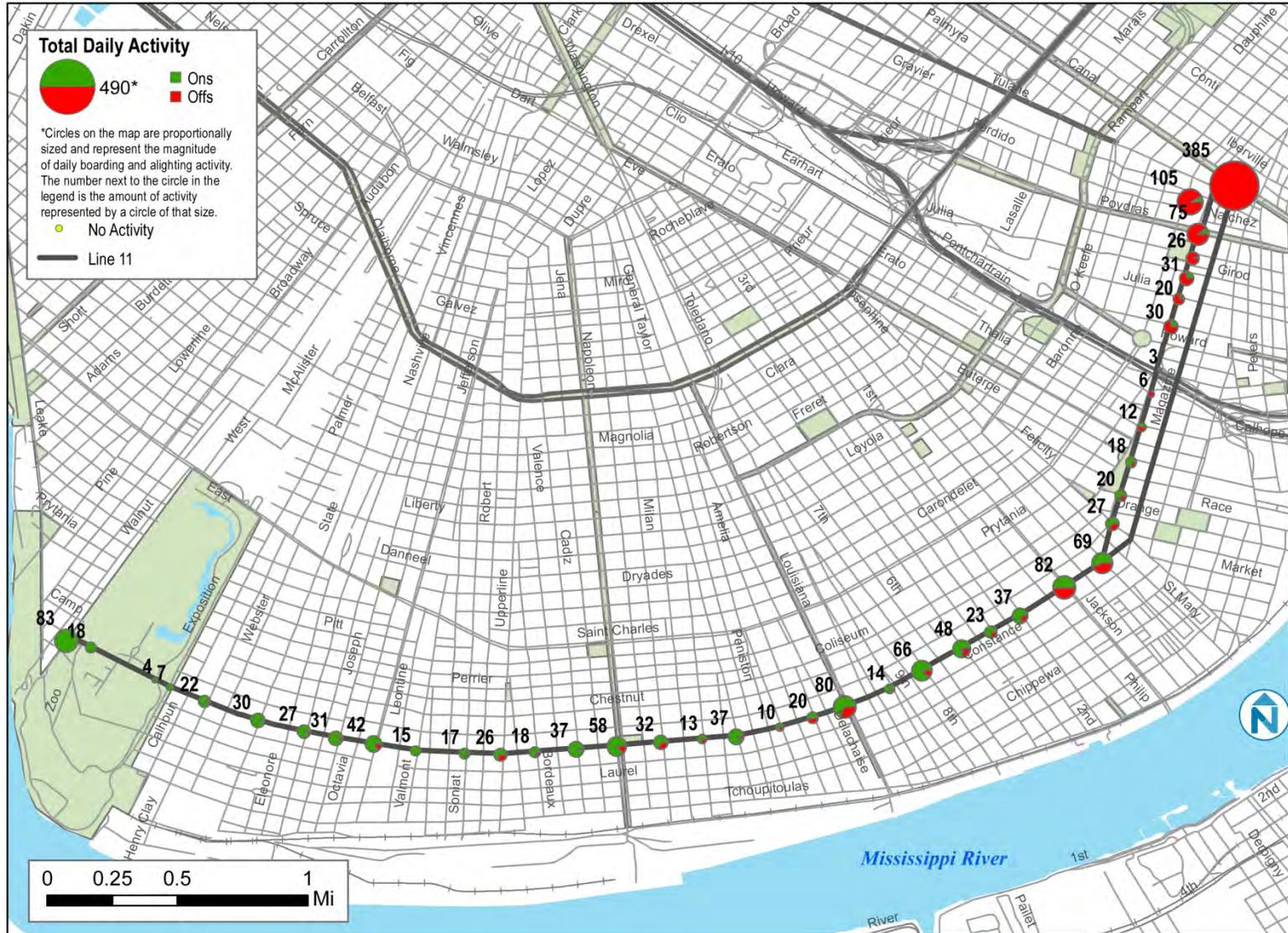
Route 11 is 0.4 miles from the St. Charles Streetcar and 0.4 miles from Route 10 Tchoupitoulas for large portions of its route. The Zoo stop allows for transfers to Route 32 Leonidas, but there are few other destinations at the route terminus.

The routes with the most transfer activity to Route 11 include the Canal Streetcar, Route 91 Jackson-Esplanade, and Route 27 Louisiana.

There are several trips on Route 11 that have standees. The maximum load on any given trip was 40 riders.

<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	1,685
Saturday	1,365
Sunday	638
2010 Weekday	
Boardings / Hour	34.1
<b>Service Frequency</b>	
AM and PM Peak	16 min
Weekday Base	21 min
Weekday Evening	60 min
Weekend Base	21 min
<b>Service Span</b>	
Weekday	5:26A – 12:07A
Saturday	5:53A – 12:07A
Sunday	5:53A – 12:07A

**NORTA Line 11 Magazine Inbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI



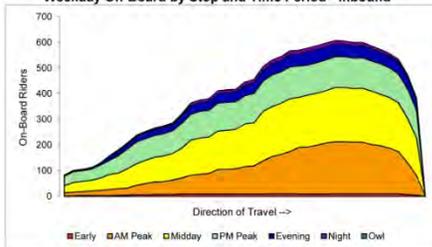
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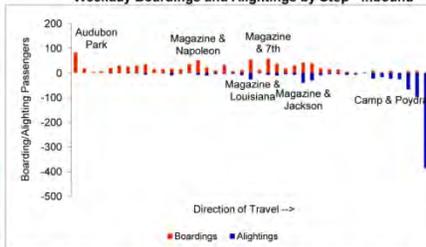
Line 11	Passenger Summary										
	Total				Productivity		Maximum On-Board Loading				
<b>Weekday Line Profile</b>	<b>Total</b>	1654	1654								
	<b>By Direction</b>										
	Inbound	862	862	23.5			36.7		607	Camp & Terpsichore &	I
	Outbound	792	792	21.4			37.0		537	Magazine & Callope &	O
	<b>By Segment</b>										
	1 Audubon Park & 0 to Magazine & Napoleon & 0	391	441	15.4			25.4				
	2 Magazine & Napoleon & 0 to Magazine & Louisiana & 0	188	139	6.3			29.7				
	3 Magazine & Louisiana & 0 to Magazine & Jackson & 0	287	229	6.5			44.4				
	4 Magazine & Jackson & 0 to Canal & Magazine & 0	788	845	17.5			44.9				
	<b>By Time Period</b>										
	AM	388	388	10.3			37.7		202	Camp & Terpsichore &	I
	Midday	696	696	16.8			41.6		242	Magazine & St. Andrew &	O
PM	378	378	10.7			35.3		137	Magazine & Thalia &	O	
Even	123	123	4.7			26.4		53	Magazine & St. Joseph &	O	
Night	56	56	2.5			22.4		36	Magazine & Julia &	O	
Owl											

Line 11	Operations Summary			
	Schedule			
<b>Weekday Line Profile</b>	<b>Total</b>			
	<b>By Direction</b>			
	Inbound	100.0%		
	Outbound	100.0%		
	<b>By Segment</b>			
	1 Audubon Park & 0 to Magazine & Napoleon & 0	100.0%		
2 Magazine & Napoleon & 0 to Magazine & Louisiana & 0	100.0%			
3 Magazine & Louisiana & 0 to Magazine & Jackson & 0	100.0%			
4 Magazine & Jackson & 0 to Canal & Magazine & 0	100.0%			

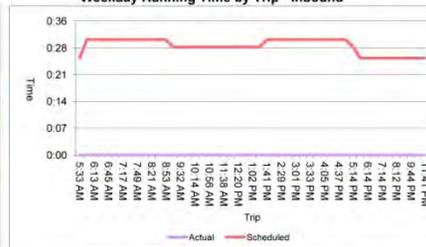
**Weekday On-Board by Stop and Time Period - Inbound**



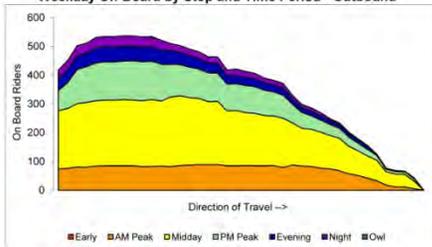
**Weekday Boardings and Alightings by Stop - Inbound**



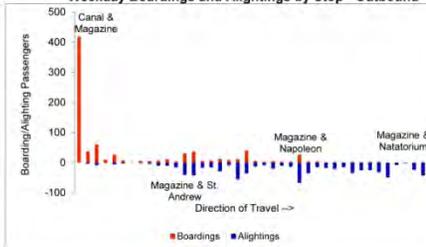
**Weekday Running Time by Trip - Inbound**



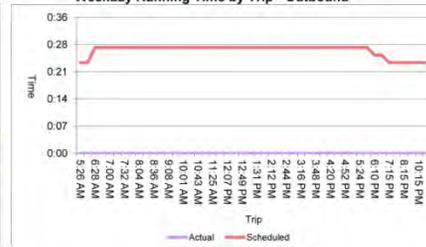
**Weekday On-Board by Stop and Time Period - Outbound**



**Weekday Boardings and Alightings by Stop - Outbound**



**Weekday Running Time by Trip - Outbound**



## Route 15 Freret

### Route Description

Route 15 provides service seven days a week between Canal and Rampart streets in downtown New Orleans, and the intersection of Freret and Broadway Streets near the campuses of Tulane and Loyola Universities.

Based on September 2011 data, weekday ridership on Route 15 is about 30.0 passengers per service hour.

### Route Characteristics

Route productivity does not vary between the morning, midday, and afternoon weekday times, indicating that the drop in headway from 34 minutes during peaks to 60 minutes during off-peak is appropriate for this route.

The highest ridership stops are in downtown New Orleans on Tulane and Loyola University's campus. The segment between Jackson and Howard is the least productive on the route, with approximately one third fewer passengers per hour than all other route segments.

Route 15 uses Carondelet between Poydras and Felicity, which is only one block from St. Charles, which has much more frequent service. The Carondelet deviation adds time and does not generate significant ridership.

The three routes with the most transfers to Route 15 are the Canal Streetcar, Route 91 Jackson-Esplanade, and Route 88 St. Claude.

According to the September 2011 ridership count, the maximum load on Route 15 was 28 passengers. Overcrowding does not appear to be an issue.

According to the September 2011 data collected, 71.2 percent of Route 15 trips operate between zero and five minutes late. Early running is more of an issue than late running. Late running is concentrated in the afternoon peak time.

### Route Statistics

#### Riders

September 2011:	
Weekday	595
Saturday	743
Sunday	358
2010 Weekday Boardings / Hour	22.3
Sept. 2011 Weekday Boardings / Hour	30.0

#### Service Frequency

Weekday Peak	34 min
Weekday Base	60 min
Evening	60 min
Weekends	60 min

#### Service Span

Weekday	6:00A – 10:41P
Saturday	6:11A – 10:11P
Sunday	6:11A – 10:11P

#### On-Time Performance

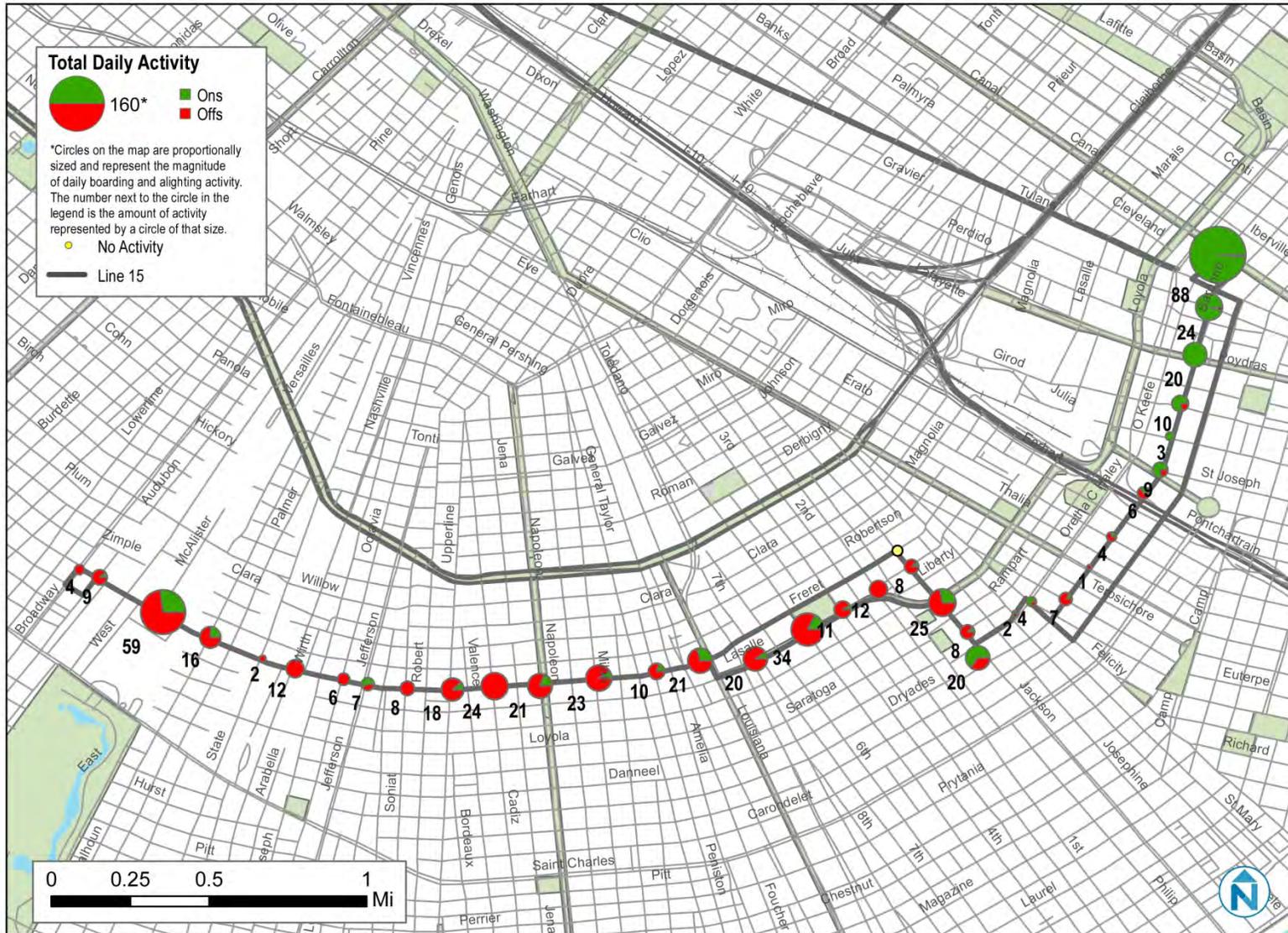
September 2011 Data:	
On-Time:	71.2 %
Early:	17.8 %
Late:	11.0 %

### NORTA Line 15 Freret Inbound Boarding & Alighting Activity



Data Sources: U.S. Census Bureau, NORPC, ESRI

### NORTA Line 15 Freret Outbound Boarding & Alighting Activity



Data Sources: U.S. Census Bureau, NORPC, ESRI

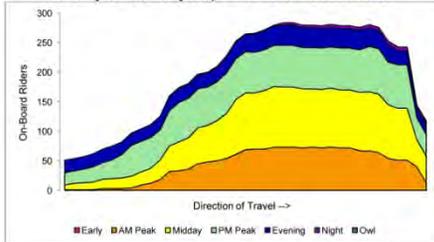
# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

## Regional Planning Commission

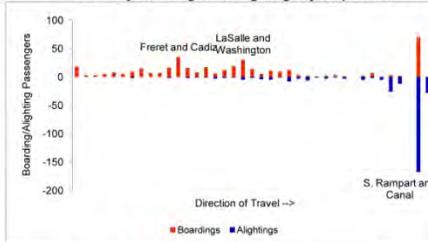
Line 15	Passenger Summary										
	Total			Productivity			Maximum On-Board Loading				
Weekday Line Profile	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max. Total Passengers On Board	Location	Dir
<b>Total</b>	614	630		20.5			30.0	284	284	Jackson and O. C. Haley &	I
<b>By Direction</b>											
Inbound	386	302		11.0			35.2	284	284	Jackson and O. C. Haley &	I
Outbound	228	328		9.5			24.0	280	280	Baronne and Howard &	O
<b>By Segment</b>											
1 Freret and Broadway & 0 to Freret and Napoleon & 0	162	159		5.6			29.1				
2 Freret and Napoleon & 0 to LaSalle and Washington & 0	96	100		3.2			30.3				
3 LaSalle and Washington & 0 to Jackson and O. C. Haley & 0	92	78		3.2			28.6				
4 Jackson and O. C. Haley & 0 to Carondelet and Howard & 0	32	41		3.1			10.4				
5 Carondelet and Howard & 0 to Canal and University Place & 0	232	252		5.4			43.0				
<b>By Time Period</b>											
AM	164	160		4.5			36.7	73	73	Jackson and S. Saratoga &	I
Midday	204	200		6.1			33.7	103	103	Jackson and S. Saratoga &	I
PM	174	192		5.4			32.4	112	112	Baronne and Erato &	O
Eve	61	63		3.4			17.9	42	42	Baronne and Girod &	O
Night	11	15		1.2			9.6	15	15	Baronne and Poydras &	O
Owl											O

Line 15	Operations Summary		
	Schedule		
Weekday Line Profile	% On-Time	% Early	% Late
<b>Total</b>	71.2%	17.8%	11.0%
<b>By Direction</b>			
Inbound	71.2%	17.4%	11.4%
Outbound	71.2%	18.2%	10.6%
<b>By Segment</b>			
1 Freret and Broadway & 0 to Freret and Napoleon & 0	72.7%	18.2%	9.1%
2 Freret and Napoleon & 0 to LaSalle and Washington & 0	63.6%	27.3%	9.1%
3 LaSalle and Washington & 0 to Jackson and O. C. Haley & 0	61.4%	29.5%	9.1%
4 Jackson and O. C. Haley & 0 to Carondelet and Howard & 0	77.3%	11.4%	11.4%
5 Carondelet and Howard & 0 to Canal and University Place & 0	70.5%	13.6%	15.9%

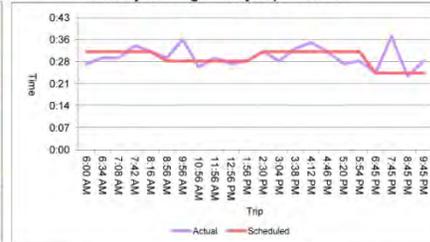
Weekday On-Board by Stop and Time Period - Inbound



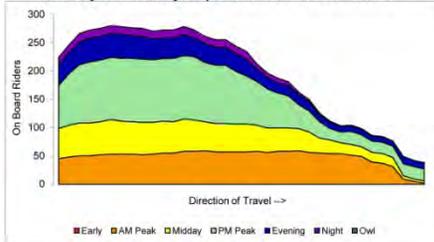
Weekday Boardings and Alightings by Stop - Inbound



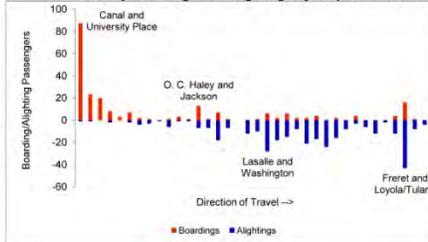
Weekday Running Time by Trip - Inbound



Weekday On-Board by Stop and Time Period - Outbound



Weekday Boardings and Alightings by Stop - Outbound



Weekday Running Time by Trip - Outbound



## Route 16 S. Claiborne

### Route Description

Route 16 connects downtown New Orleans with the St. Charles Streetcar terminus at S. Claiborne / Carrollton. The route travels on Poydras and S. Claiborne for almost the entire length. Route 16 operates seven days a week.

Based on 2010 annual data, weekday productivity on Route 16 is 36.2 boardings per hour.

### Route Characteristics

Route 16's productivity is better between Carrollton and Washington than between Washington and downtown New Orleans. In both the inbound and outbound directions, the peak loads for Route 16 are by MLK, not in downtown New Orleans. Ridership productivity is strong during all time periods, with the afternoon peak carrying the most riders.

The highest ridership stops on the route are at the route termini of Canal and at S. Claiborne / Carrollton. The Napoleon and MLK stops both had high activity as well.

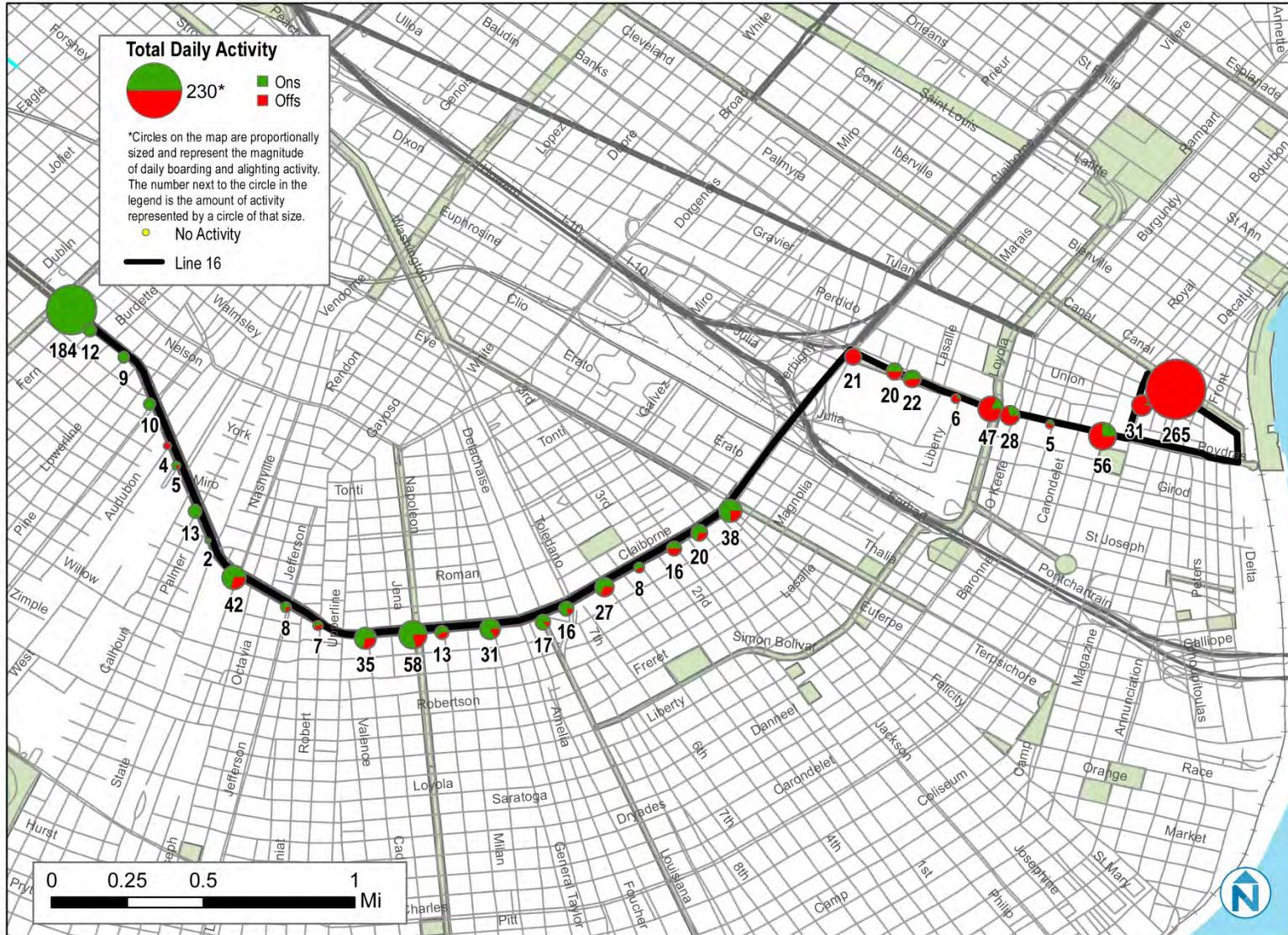
The high ridership at both endpoints indicates that many passengers are transferring to and from Route 16 from other routes.

The routes with the most transfer activity to Route 16 include the Canal and St. Charles Streetcars, and Route 39 Tulane. The ridership pattern also suggests high transfers to JeT Route E-3 as well as transfers to and from ferries, shown by the relatively high ridership on Convention Center Boulevard.

There are several trips on Route 16 that have standees. The maximum load on any given trip was 50 riders, which was on one 7:20 AM inbound trip. Several trips in both directions approached seating capacity in the PM peak.

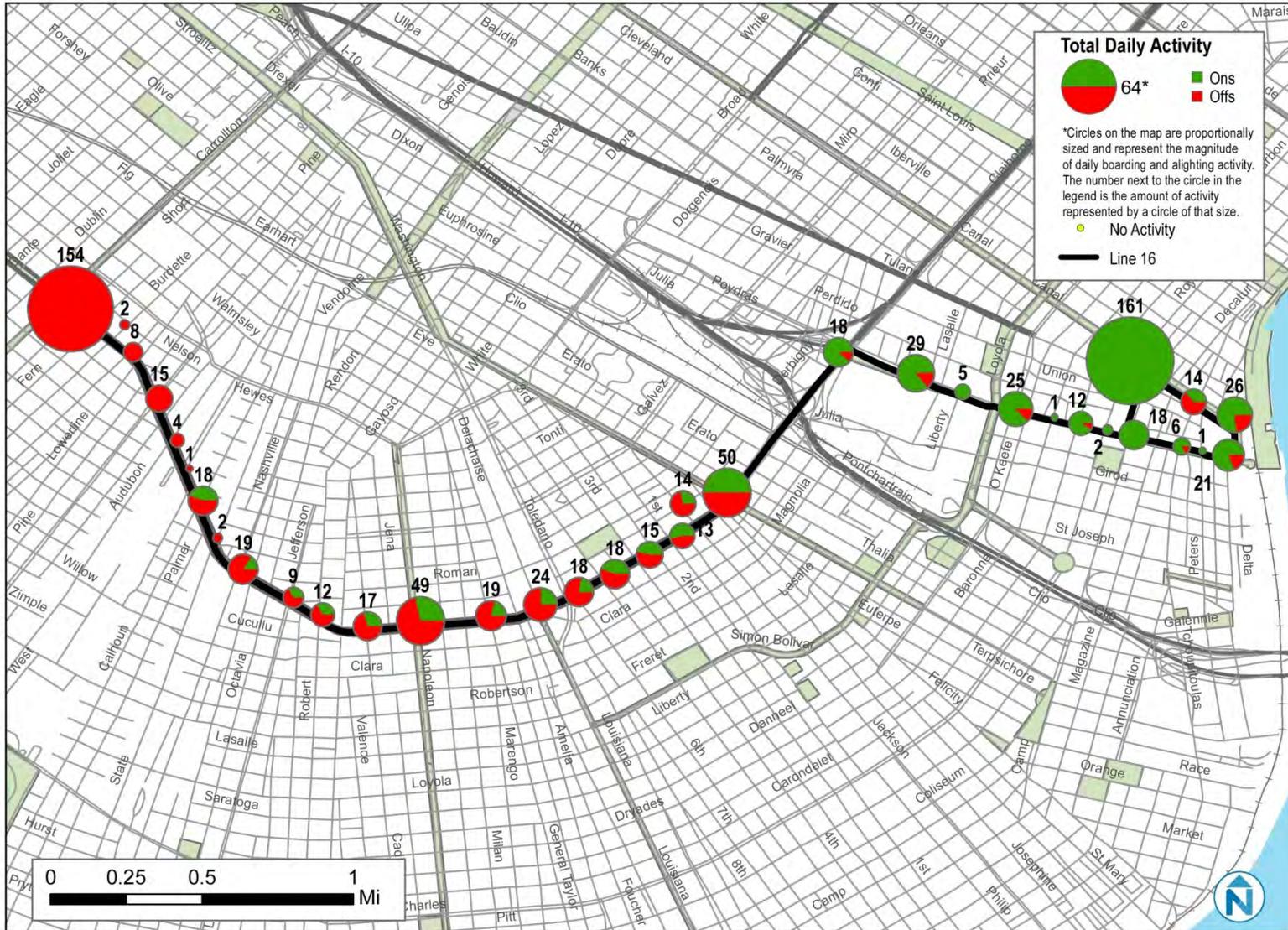
<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	1,055
Saturday	597
Sunday	288
2010 Weekday Boardings / Hour	36.2
<b>Service Frequency</b>	
AM and PM Peak	30 min
Weekday Base	60 min
Weekday Evening	60 min
Weekend Base	60 min
<b>Service Span</b>	
Weekday	5:45A – 10:40P
Saturday	5:45A – 10:40P
Sunday	5:45A – 10:40P

### NORTA Line 16 S. Claiborne Inbound Boarding & Alighting Activity



Data Sources: U.S. Census Bureau, NORPC, ESRI

NORTA Line 16 S. Claiborne Outbound Boarding & Alighting Activity



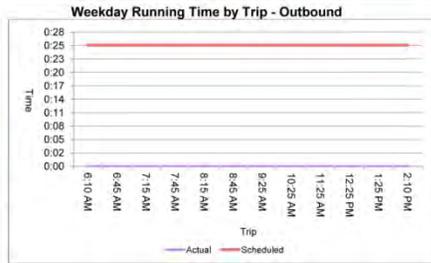
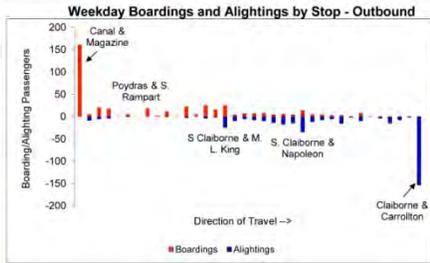
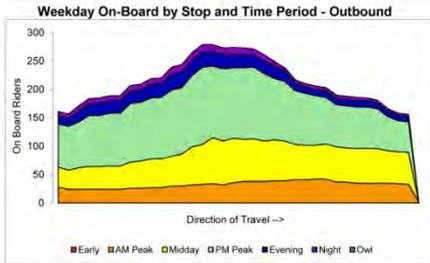
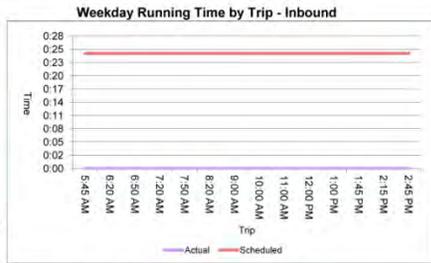
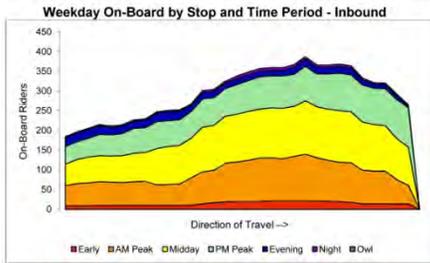
Data Sources: U.S. Census Bureau, NORPC, ESRI

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Line 16	Passenger Summary								Maximum On-Board Loading		
	Total				Productivity						
Weekday Line Profile	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max. Total Passengers On Board	Location	Dir
<b>Total</b>	949	947		19.9			47.6		387	S. Claiborne & Felicite &	I
<b>By Direction</b>											
Inbound	538	538		9.6			56.1		387	S. Claiborne & Felicite &	I
Outbound	411	409		10.3			39.8		279	S. Claiborne & Poydras &	O
<b>By Segment</b>											
1 Claiborne & Carrollton & 0 to S. Claiborne & Napoleon & 0	336	305		5.5			61.5				
2 S. Claiborne & Napoleon & 0 to S. Claiborne & Washington & 0	130	84		2.4			54.2				
3 S. Claiborne & Washington & 0 to S. Claiborne & Felicite & 0	88	75		2.4			36.7				
4 S. Claiborne & Felicite & 0 to Canal & Magazine & 0	395	483		10.0			39.5				
<b>By Time Period</b>											
AM	227	225		4.7			48.5		119	S. Claiborne & Felicite &	I
Midday	308	308		6.4			48.4		135	S. Claiborne & Felicite &	I
PM	301	301		4.7			64.3		136	S. Claiborne & Poydras &	O
Eve	69	69		2.9			23.5		28	Poydras & S. Rampart &	O
Night	23	23		1.3			18.4		13	Poydras & Liberty &	O
Owl											O

Line 16	Operations Summary		
	Schedule		
Weekday Line Profile	% On-Time	% Early	% Late
<b>Total</b>	100.0%		
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 Claiborne & Carrollton & 0 to S. Claiborne & Napoleon & 0	100.0%		
2 S. Claiborne & Napoleon & 0 to S. Claiborne & Washington & 0	100.0%		
3 S. Claiborne & Washington & 0 to S. Claiborne & Felicite & 0	100.0%		
4 S. Claiborne & Felicite & 0 to Canal & Magazine & 0	100.0%		



## Route 24 Napoleon

### Route Description

Route 24 is a crosstown route that travels from Tchoupitoulas to the intersection of Washington and S. Broad, primarily via Napoleon. Route 24 operates seven days a week.

Based on 2010 annual data, weekday productivity on Route 24 is 21.8 boardings per hour. Saturday productivity is only 12.0 boardings per hour and Sunday is 9.1 boardings per hour.

### Route Characteristics

Route 24 does not meet RTA's productivity standards for weekday, Saturday, or Sunday service.

Route 24's productivity is better between Broad and Claiborne than between Tchoupitoulas and St. Charles. Evening productivity is low, primarily because buses operate every 30 minutes, the same level as during daytime, instead of having a lower level of service.

The two highest ridership stops are at the route termini at Broad and at Tchoupitoulas, which suggests many riders on Route 24 are transferring to other routes at these locations. The St. Charles, Magazine, and Claiborne stops also have high ridership.

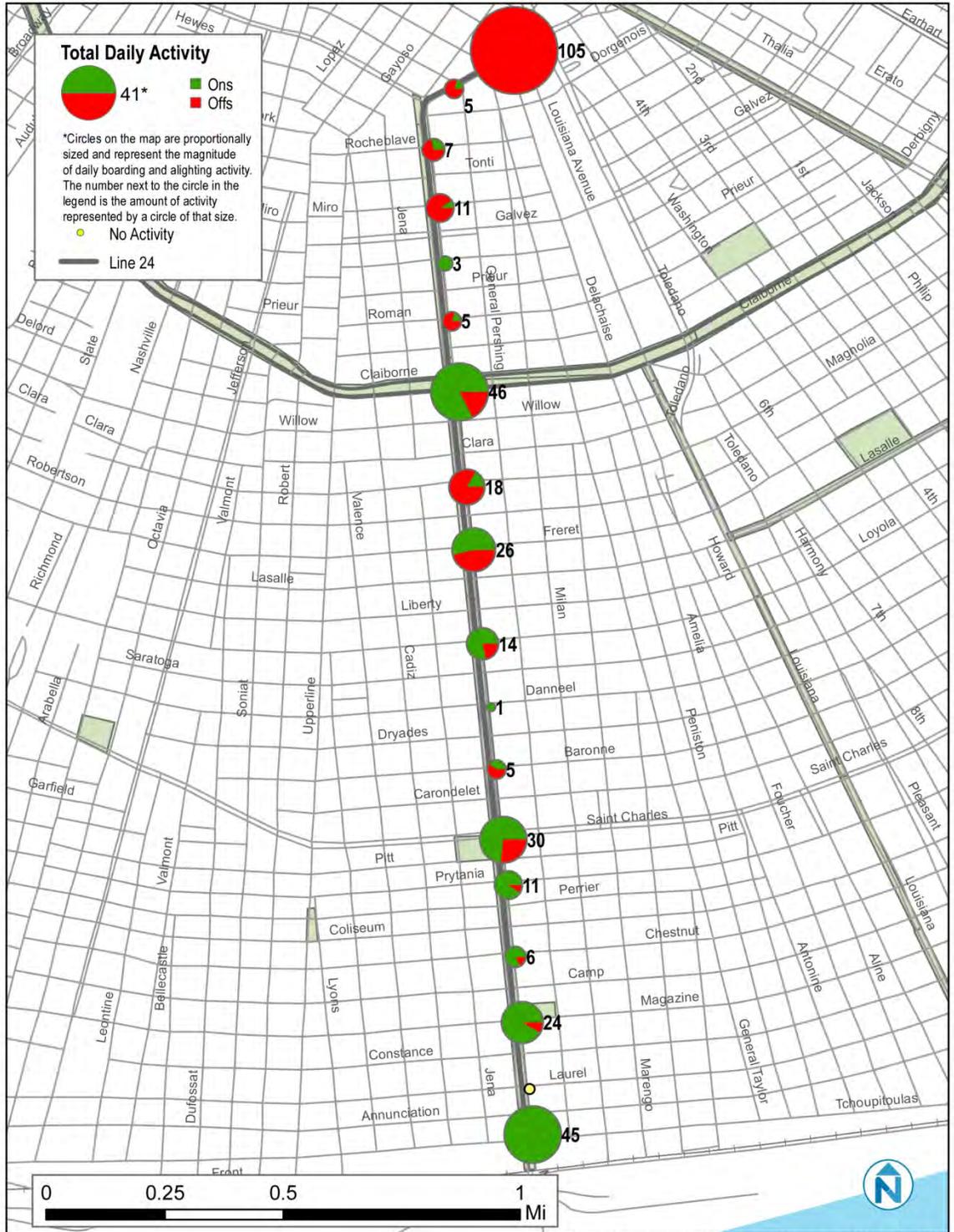
Transfers are most common to the Route 94 Broad, the St. Charles Streetcar, and Route 11 Magazine.

Route 24 is one of the shorter RTA routes at 2.9 miles one-way. The short route length is a likely contributor to lower ridership, because other than Ochsner Baptist Hospital and the Rosa Keller Library, there are few destinations on the route.

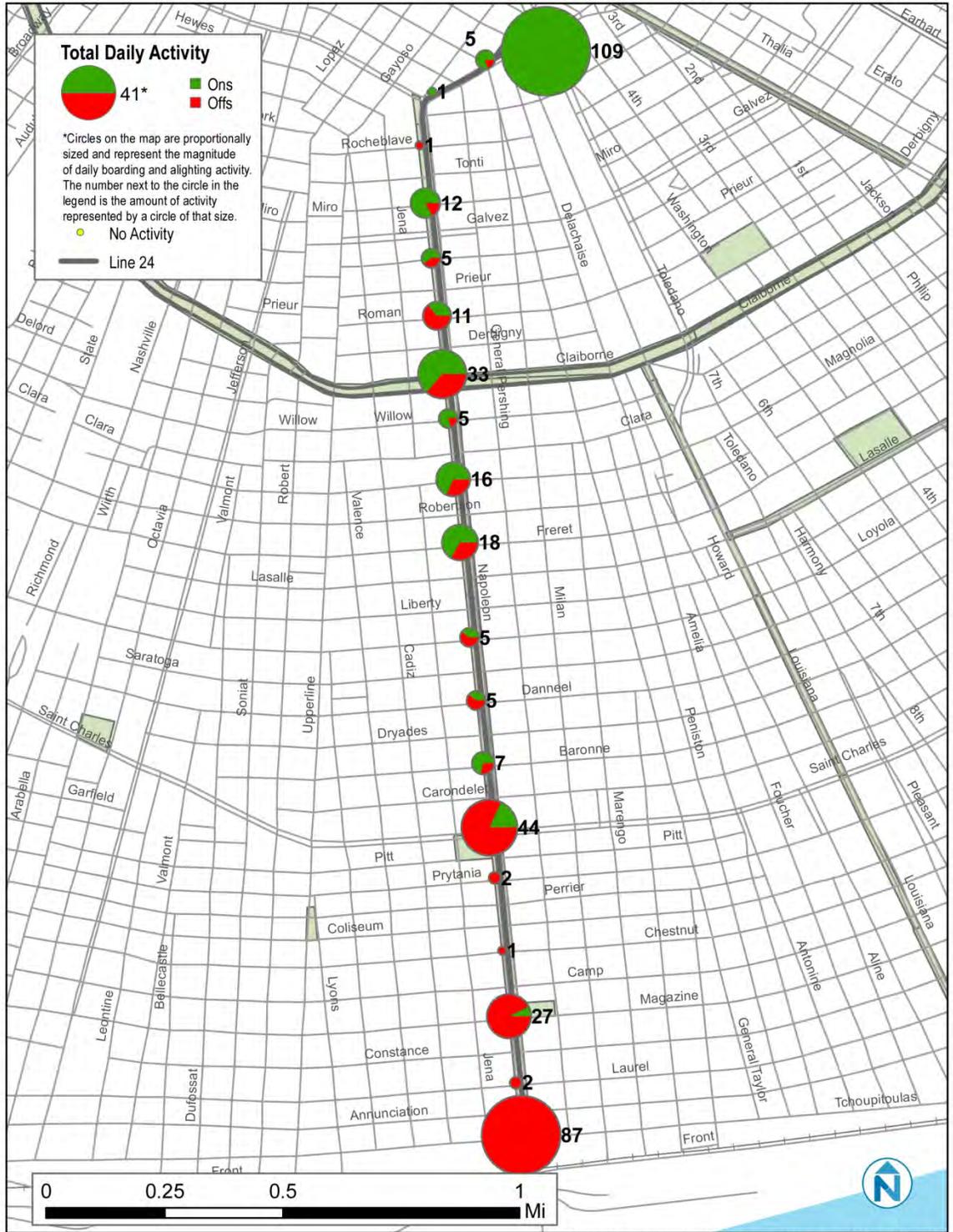
Route 24 does not have any capacity issues. Most trips have a maximum load of fewer than 10 riders per trip. The highest load was 16 passengers.

<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	459
Saturday	289
Sunday	122
2010 Weekday Boardings / Hour	21.8
<b>Service Frequency</b>	
AM and PM Peak	30 min
Weekday Base	30 min
Weekday Evening	30 min
Weekend Base	30 min
<b>Service Span</b>	
Weekday	6:10A – 12:33A
Saturday	6:10A – 12:33A
Sunday	6:10A – 12:33A

### NORTA Line 24 Napoleon Northbound Boarding & Alighting Activity



**NORTA Line 24 Napoleon Southbound Boarding & Alighting Activity**

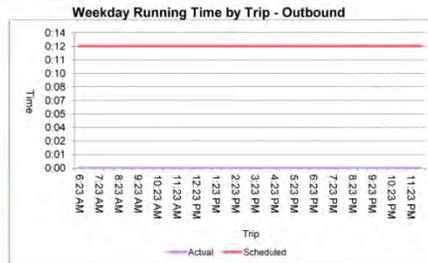
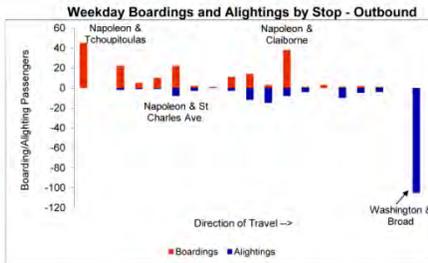
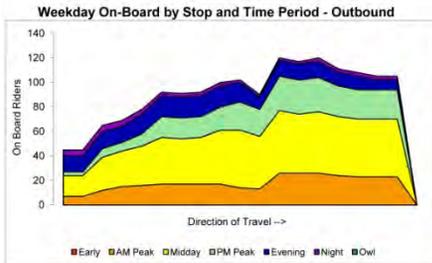
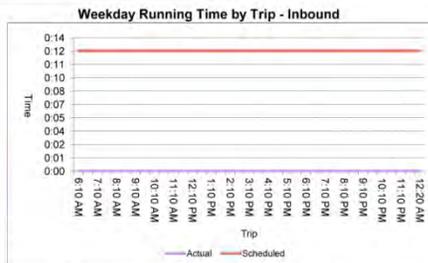
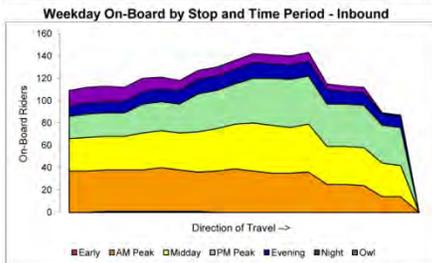


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Line 24	Passenger Summary								Maximum On-Board Loading	
	Total				Productivity					
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location
<b>Total</b>	379	379	15.6			24.3		143	Napoleon & Baronne &	I
<b>By Direction</b>										
Inbound	198	198	7.8			25.4		143	Napoleon & Baronne &	I
Outbound	181	181	7.8			23.2		120	Napoleon & Claiborne &	O
<b>By Segment</b>										
1 Washington & Broad & 0 to Napoleon & S. Claiborne & 0	177	149	5.5			32.4				
2 Napoleon & S. Claiborne & 0 to Napoleon & St Charles & 0	110	73	5.5			20.1				
3 Napoleon & St Charles & 0 to Napoleon & Tchoupitoulas & 0	92	157	4.9			18.9				
<b>By Time Period</b>										
AM	90	90	2.6			34.6		39	Napoleon & S. Johnson &	I
Midday	141	141	5.2			27.1		51	Napoleon & Claiborne &	O
PM	83	83	2.6			31.9		43	Napoleon & Danneel &	I
Eve	41	41	2.6			15.8		17	Napoleon & St Charles Ave. &	O
Night	23	23	2.6			8.8		14	Washington & Broad &	I
Owl										O

Line 24	Operations Summary Schedule		
	Weekday Line Profile		
	% On-Time	% Early	% Late
<b>Total</b>	100.0%		
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 Washington & Broad & 0 to Napoleon & S. Claiborne & 0	100.0%		
2 Napoleon & S. Claiborne & 0 to Napoleon & St Charles & 0	100.0%		
3 Napoleon & St Charles & 0 to Napoleon & Tchoupitoulas & 0	100.0%		



## Route 27 Louisiana

### Route Description

Route 27 provides service seven days a week between Delgado Community College and the Garden District by the intersection of Louisiana and Tchoupitoulas.

Based on 2010 annual data, weekday productivity on Route 27 is 26.8 boardings per hour. Saturday productivity is 18.2 boardings per hour and Sunday is 11.4 boardings per hour.

### Route Characteristics

Weekday boardings per service hour are consistently high throughout the day. Productivity on trips after 9 PM is less than 10 passengers per hour.

Route 27 is consistently productive along its entire length. The largest passenger loads are in the middle of the route, with the route sections between Cemeteries and Delgado and between St. Charles and Tchoupitoulas having lower loads. Ridership turnover in the middle part of the route shows that this route serves a variety of markets, including feeder service and a crosstown function.

The highest ridership points are at St. Charles, Broad, and Tulane. This corresponds with the connections to the three routes with the highest transfer volumes the St. Charles Streetcar, Route 94 Broad, and Route 37 Tulane.

Route 27 duplicates Route 91 Jackson-Esplanade between Cemeteries and Delgado Community College.

With the exception of a one-hour period during the morning peak, Route 27 operates every 40 minutes, which makes effective and timely transfers to most routes difficult.

Route 27's on-time performance is influenced by the number of early trips, as almost 18 percent of trips arrive early at timepoints. Early trips are common midday in both the inbound and outbound direction.

There are no capacity issues on Route 27. The maximum load on any given trip was 36 passengers.

### Route Statistics

#### Riders

Avg. 2011 Ridership:	
Weekday	1,214
Saturday	418
Sunday	195
2010 Weekday Boardings / Hour	26.8
Sept. 2011 Weekday Boardings / Hour	39.1

#### Service Frequency

AM Peak	20 min
PM Peak	40 min
Weekday Base	40 min
Weekday Evening	80 min
Weekend Base	70 min

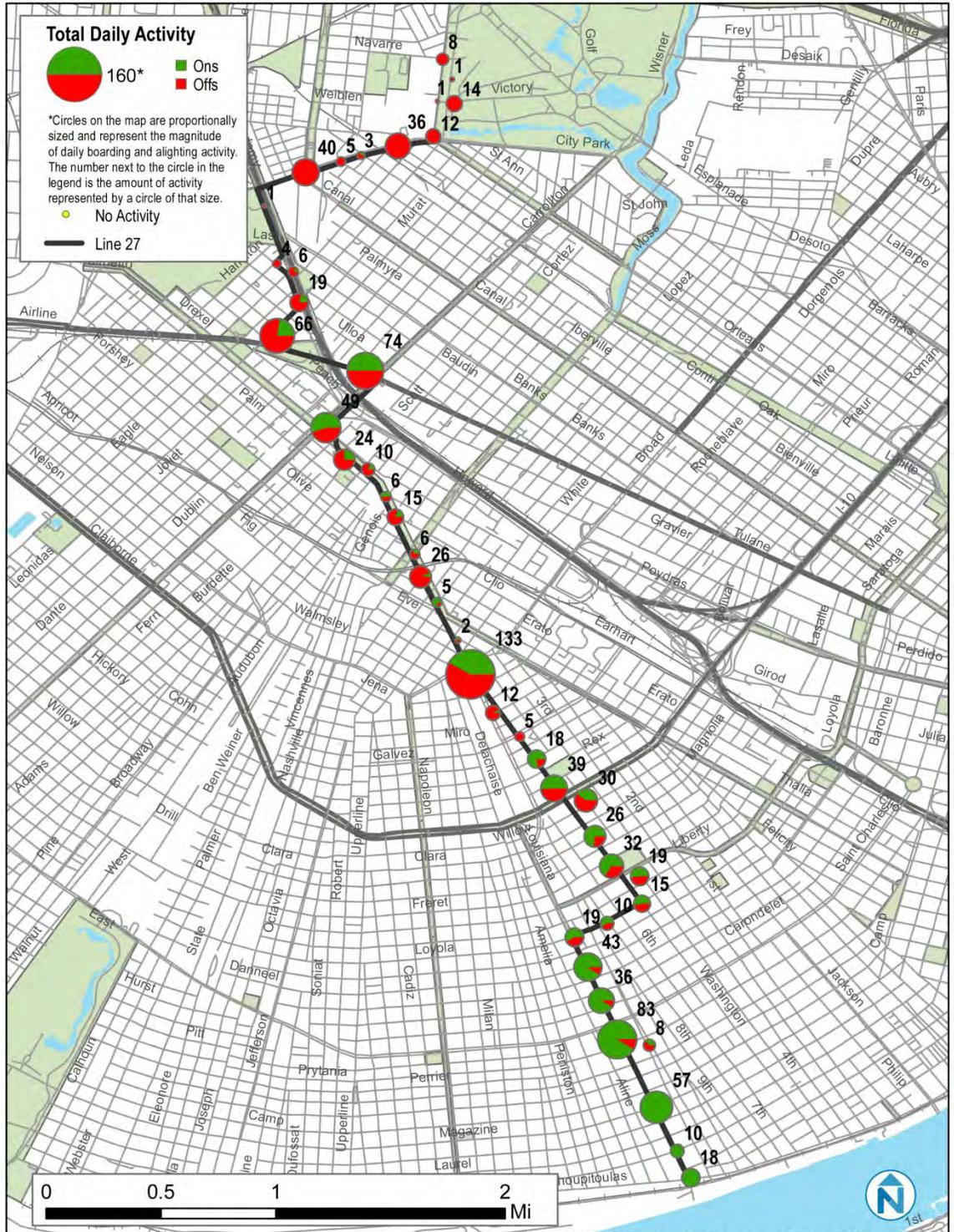
#### Service Span

Weekday	5:45A – 12:17A
Saturday	5:40A – 11:06P
Sunday	5:40A – 11:06P

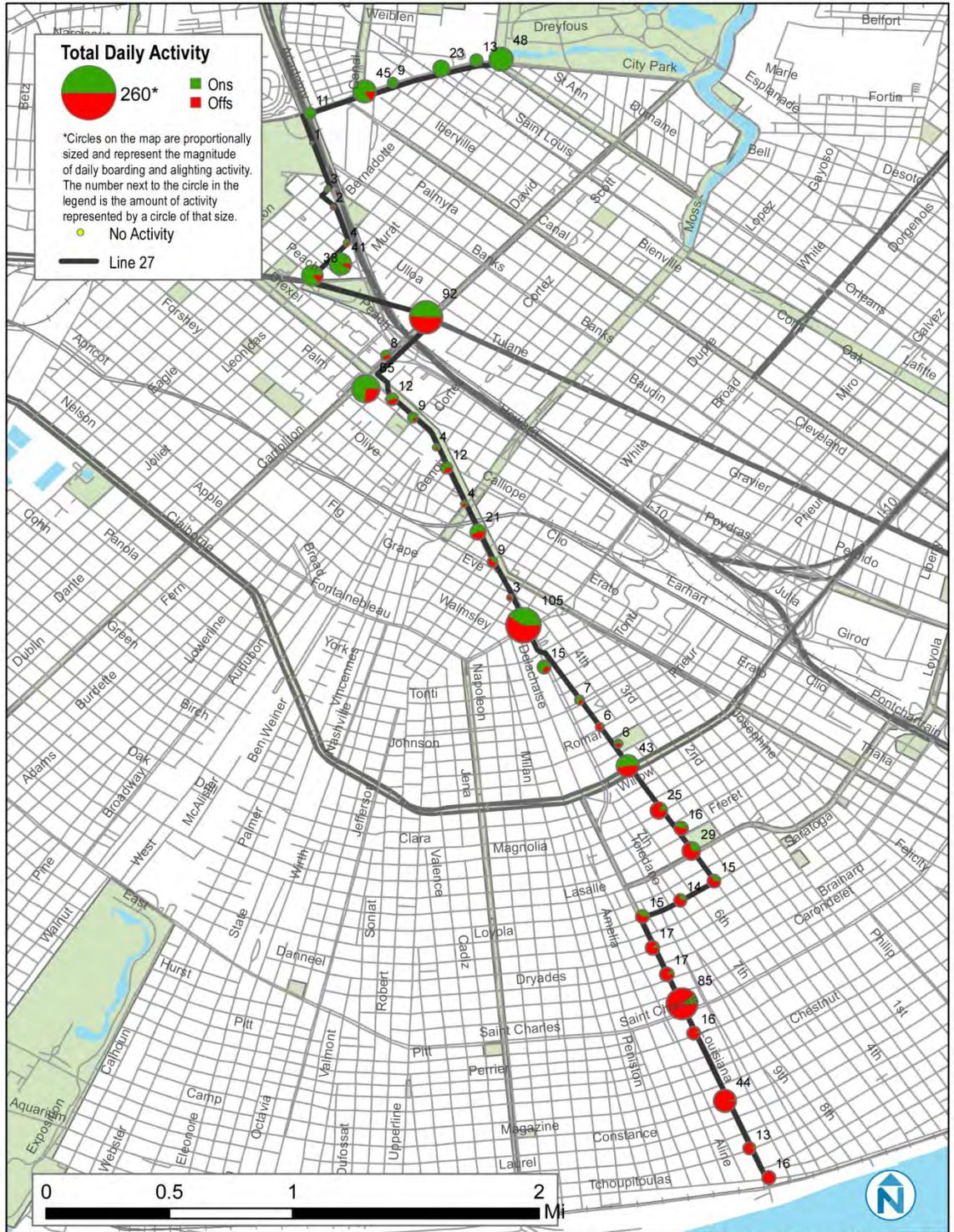
#### On-Time Performance

On-Time:	73.5 %
Early:	17.7 %
Late:	8.8 %

**NORTA Line 27 Louisiana Northbound Boarding & Alighting Activity**



### NORTA Line 27 Louisiana Southbound Boarding & Alighting Activity

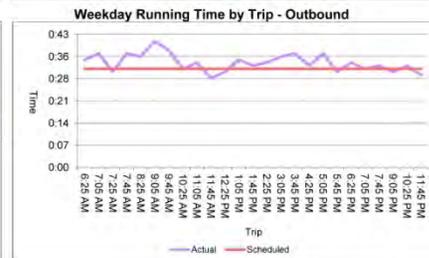
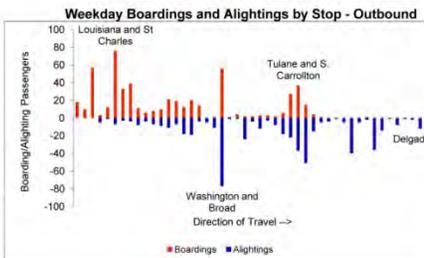
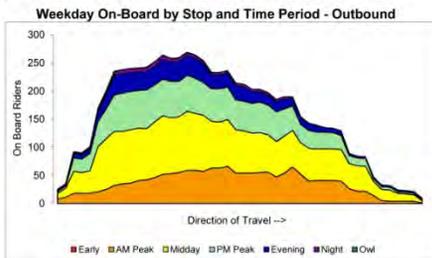
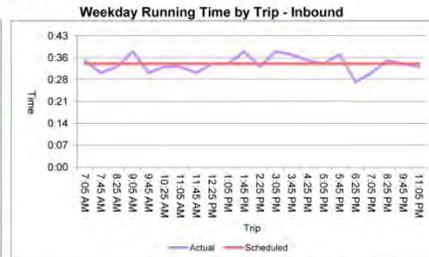
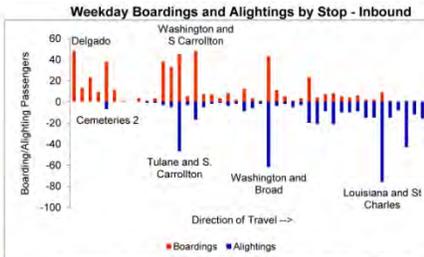
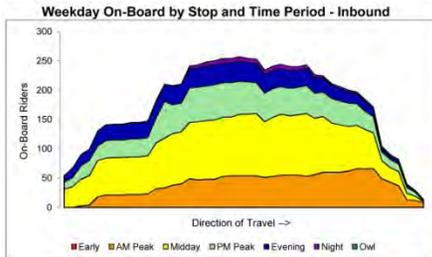


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Line 27	Passenger Summary									
	Total						Productivity		Maximum On-Board Loading	
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location
<b>Weekday Line Profile</b>										
<b>Total</b>	1032	1023		26.4			39.1		269	Washington and S Prieur & O
<b>By Direction</b>										
Inbound	498	491		13.6			36.6		257	Washington and S. Rendon & I
Outbound	534	532		12.8			41.7		269	Washington and S Prieur & O
<b>By Segment</b>										
1 Delgado & 0 to Cemeteries 2 & 0	84	121		3.5			26.9			
2 Cemeteries 2 & 0 to S. Carrollton and Dixon & 0	257	204		6.6			38.7			
3 S. Carrollton and Dixon & 0 to Washington and Broad & 0	175	199		3.9			44.7			
4 Washington and Broad & 0 to Washington and Claiborne & 0	110	133		2.8			39.8			
5 Washington and Claiborne & 0 to Louisiana and St Charles & 0	284	190		5.9			48.5			
6 Louisiana and St Charles & 0 to Louisiana and Tchoupitoulas & 0	112	176		3.1			35.7			
<b>By Time Period</b>										
AM	239	232		5.0			48.1		66	Loyola and Louisiana & I
Midday	398	397		9.9			40.2		107	Washington and Claiborne & I
PM	259	259		4.4			58.9		69	Washington and LaSalle & O
Eve	116	115		4.4			26.4		36	Washington and S Derbigny & O
Night	18	18		2.2			8.2		7	Washington and Pine & I
Owl	2	2		0.5			3.7		2	Louisiana and St Charles & O

Line 27	Operations Summary		
	Schedule		
	% On-Time	% Early	% Late
<b>Weekday Line Profile</b>			
<b>Total</b>	73.5%	17.7%	8.8%
<b>By Direction</b>			
Inbound	67.5%	19.5%	13.0%
Outbound	79.4%	16.0%	4.6%
<b>By Segment</b>			
1 Delgado & 0 to Cemeteries 2 & 0	68.1%	19.1%	12.8%
2 Cemeteries 2 & 0 to S. Carrollton and Dixon & 0	66.0%	25.5%	8.5%
3 S. Carrollton and Dixon & 0 to Washington and Broad & 0	74.5%	14.9%	10.8%
4 Washington and Broad & 0 to Washington and Claiborne & 0	72.3%	19.1%	8.5%
5 Washington and Claiborne & 0 to Louisiana and St Charles & 0	83.0%	8.5%	8.5%
6 Louisiana and St Charles & 0 to Louisiana and Tchoupitoulas & 0	76.6%	19.1%	4.3%



## Route 28 M.L. King

### Route Description

Route 28 is a short route that connects the intersection of S. Broad and Washington to downtown New Orleans, primarily via Martin Luther King Jr. Boulevard and Loyola. Route 28 operates seven days a week.

Based on 2010 annual data, weekday productivity on Route 28 is 36.2 boardings per hour. Saturday productivity is only 24.3 boardings per hour and Sunday is 15.5 boardings per hour.

### Route Characteristics

Route 24 has strong ridership activity at both route termini at Broad and Canal. Ridership is more oriented toward to and from downtown, but it is clear that riders originating from MLK are using Route 28 to get to and from other transfer points. The highest ridership points are at Broad, Canal, and at the intersection of Simon Bolivar and MLK.

Route productivity is highest during the midday, which suggests that commute trips are not the predominant pattern of the route.

The razing of the Calliope project has resulted in little ridership on Earhart between Broad and Galvez in either north or southbound direction.

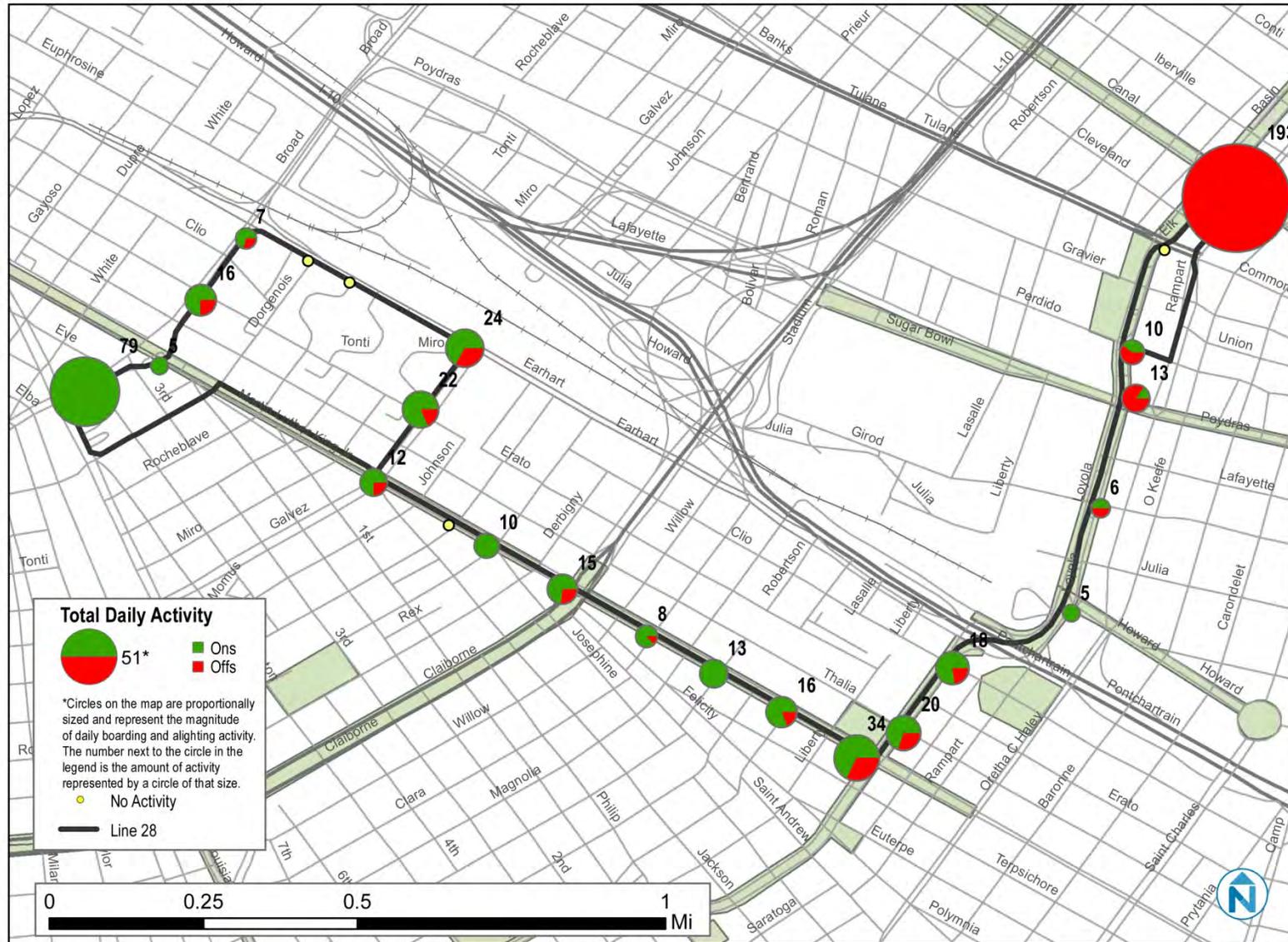
Route 28 is short, with an average one-way end to end distance of 2.9 miles. It does not appear that there are many origins and destinations on the route, meaning many passengers transfer. The routes with the most transfers to Route 28 are Route 94 Broad, the Canal Streetcar, and Route 39 Tulane. The frequency of 45 minutes inhibits regular transfer patterns.

Route 28 requires 40 minutes to traverse 5.8 miles, which equates to an average speed of 8.7 miles per hour, which is low given the level of ridership.

Route 28 does not have any capacity issues. The highest load was 24 passengers.

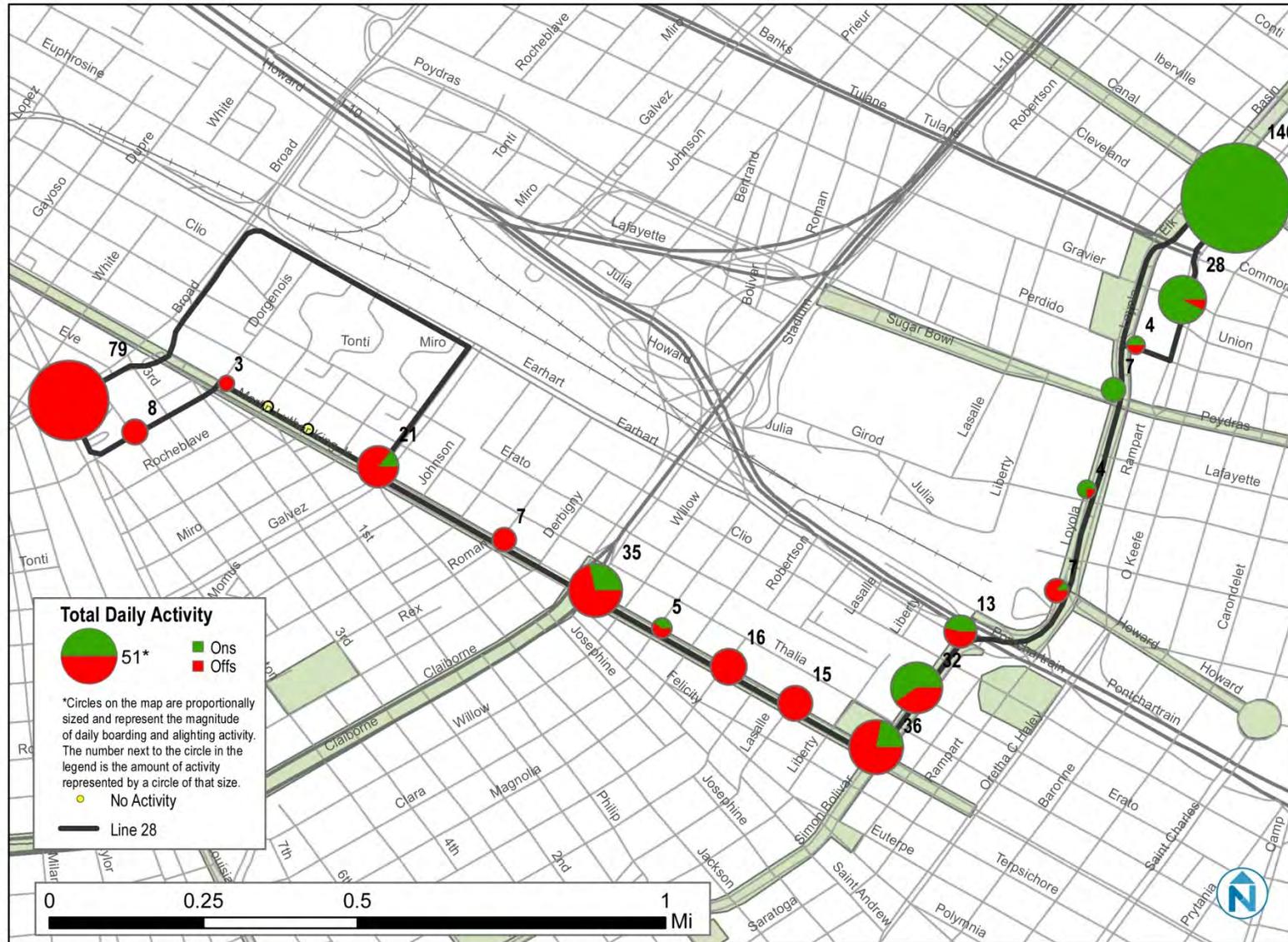
<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	523
Saturday	366
Sunday	215
2010 Weekday Boardings / Hour	36.2
<b>Service Frequency</b>	
AM and PM Peak	45 min
Weekday Base	45 min
Weekday Evening	45 min
Weekend Base	45 min
<b>Service Span</b>	
Weekday	5:50A – 8:02P
Saturday	5:50A – 8:02P
Sunday	5:50A – 8:02P

### NORTA Line 28 MLK Jr. Inbound Boarding & Alighting Activity



Data Sources: U.S. Census Bureau, NORPC, ESRI

**NORTA Line 28 MLK Jr. Outbound Boarding & Alighting Activity**



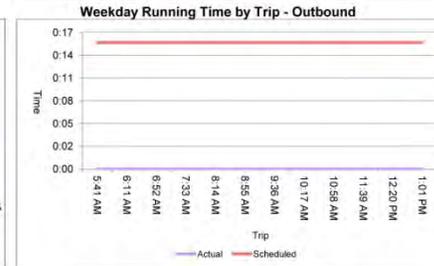
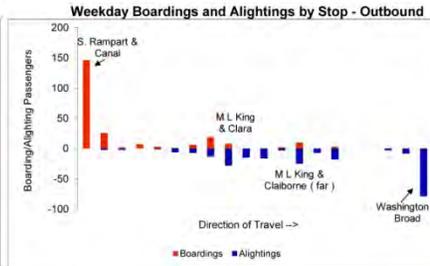
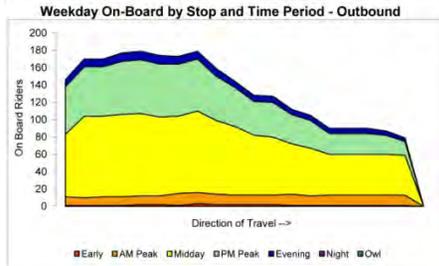
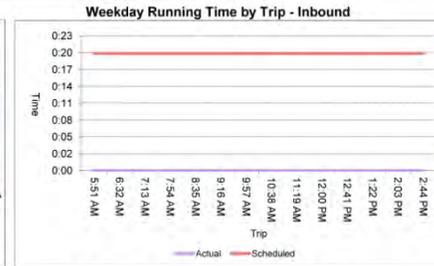
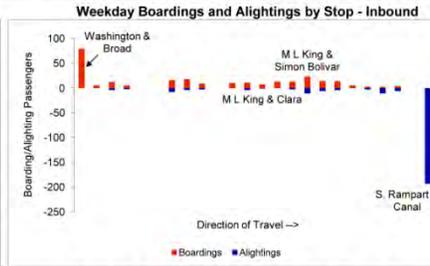
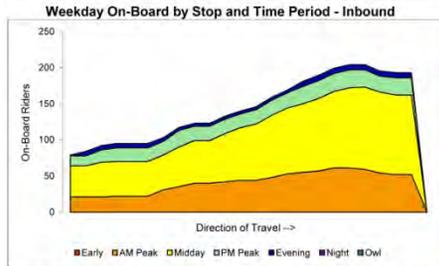
Data Sources: U.S. Census Bureau, NORPC, ESRI

# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

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Line 28	Passenger Summary										
	Total					Productivity			Maximum On-Board Loading		
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location	Dir
<b>Weekday Line Profile</b>											
<b>Total</b>	496	496		11.7			42.3		204	Loyola & Howard &	I
<b>By Direction</b>											
Inbound	263	263		6.7			39.5		204	Loyola & Howard &	I
Outbound	233	233		5.1			46.0		179	Loyola & Girod &	O
<b>By Segment</b>											
1 Washington & Broad & 0 to M L King & S. Claiborne & 0	167	161		4.0			41.8				
2 M L King & S. Claiborne & 0 to Loyola & Howard & 0	131	117		3.7			35.7				
3 Loyola & Howard & 0 to S. Rampart & Canal & 0	198	218		4.3			45.7				
<b>By Time Period</b>											
AM	94	94		2.7			34.4		61	Simon Bolivar & Clio &	I
Midday	268	268		5.4			49.6		114	Loyola & Girod &	I
PM	110	110		2.7			41.3		62	Loyola & Girod &	O
Eve	20	20		0.9			21.4		10	Loyola & Poydras &	O
Night											O
Owl											O

Line 28	Operations Summary		
	Schedule		
<b>Weekday Line Profile</b>			
<b>Total</b>	% On-Time	% Early	% Late
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 Washington & Broad & 0 to M L King & S. Claiborne & 0	100.0%		
2 M L King & S. Claiborne & 0 to Loyola & Howard & 0	100.0%		
3 Loyola & Howard & 0 to S. Rampart & Canal & 0	100.0%		



## Route 32 Leonidas

### Route Description

Route 32 connects the Audubon Zoo with the Beauregard Circle at City Park/Museum. The route travels both on Carrollton as well as through neighborhood streets on Leonidas and Monroe. Route 32 operates on weekdays only.

Based on 2010 annual data, weekday productivity on Route 32 is 10.1 boardings per hour.

### Route Characteristics

Route 32 is defined as a lifeline service, hence its productivity of only 10.1 passengers per hour meets RTA's ridership standards.

Route 32 has low ridership throughout the day. The 9:22 AM northbound trip was the only trip with a good load (30 passengers). This trip accounted for almost 19 percent of the total route ridership.

The highest ridership stops are at the route termini, St. Charles/Carrollton, and at Canal. The routes with the highest transfer rates include Route 11 Magazine, the St. Charles and Canal Streetcars, as well as Route 39 Tulane.

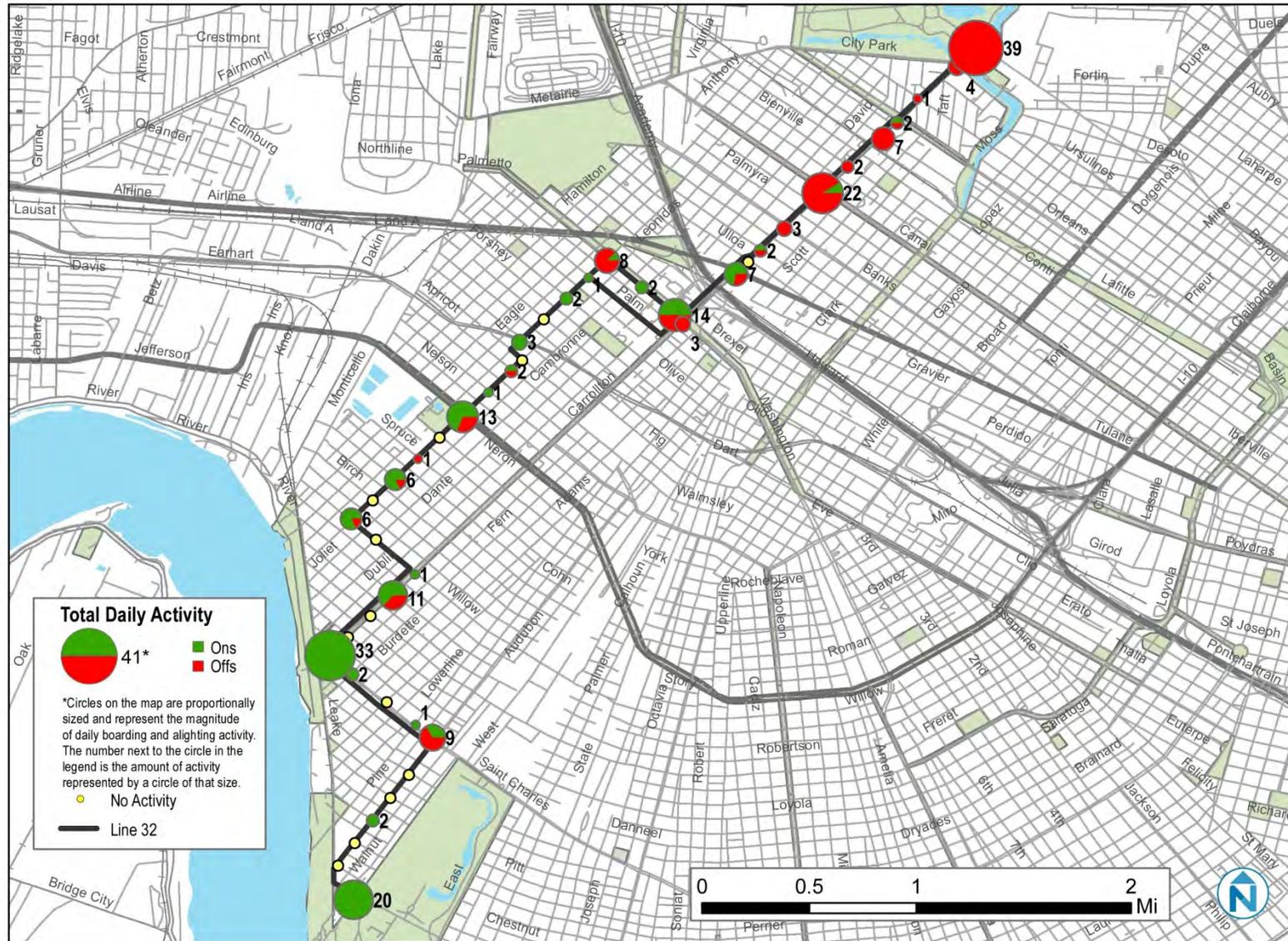
Route 32's frequency is every 70 minutes, which is generally inadequate to attract more than lifeline type passengers.

Route 32 duplicates the St. Charles Streetcar between Broadway and Willow, and also duplicates the Canal Streetcar between Canal and the City Park/Museum stop. In addition, the majority of Route 32 is within 0.35 miles of other, more frequent routes. Given the ridership levels at stops on the St. Charles Streetcar and Route 39, it is appears that many passengers are walking to more frequent service rather than use Route 32.

Route 32 does not have any capacity issues. The highest load was 30 passengers.

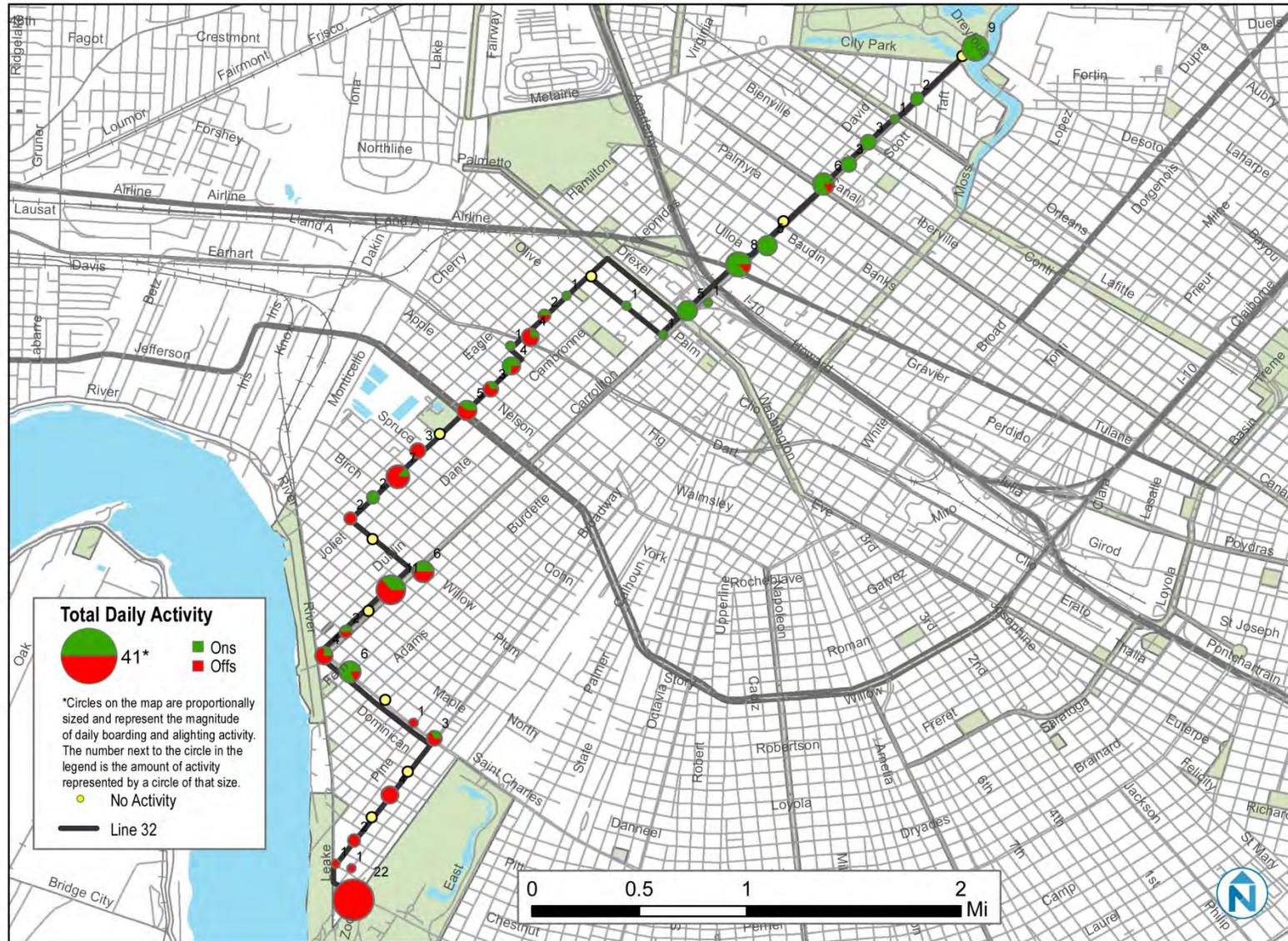
<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership: Weekday	197
2010 Weekday Boardings / Hour	10.1
<b>Service Frequency</b>	
AM and PM Peak	70 min
Weekday Base	70 min
Weekday Evening	N/A
Weekend Base	N/A
<b>Service Span</b>	
Weekday	6:24A – 7:05P

### NORTA Line 32 Leonidas Northbound Boarding & Alighting Activity



Data Sources: U.S. Census Bureau, NORPC, ESRI

**NORTA Line 32 Leonidas Southbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

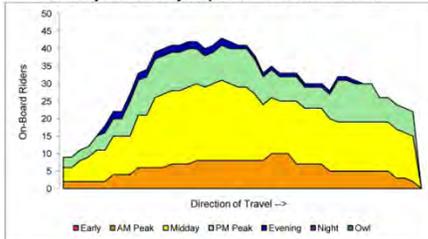
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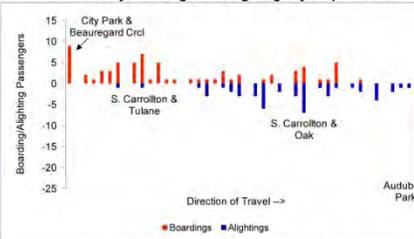
Line 32	Passenger Summary									
	Total						Productivity		Maximum On-Board Loading	
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location
<b>Total</b>	186	186	11.7				15.9	78		Monroe & Palm & O
<b>By Direction</b>										
Inbound	71	71		5.9			12.1	43		Leonidas & Apricot & I
Outbound	115	115		5.9			19.6	78		Monroe & Palm & O
<b>By Segment</b>										
1 City Park & Beaugard Crcl. & 0 to S. Carrollton & Canal & 0	21	74		1.4			15.0			
2 S. Carrollton & Canal & 0 to S. Carrollton & Palmetto & 0	31	18		1.8			17.7			
3 S. Carrollton & Palmetto & 0 to Leonidas & S. Claiborne & 0	35	19		2.9			11.9			
4 Leonidas & S. Claiborne & 0 to S. Carrollton & St. Charles & 0	64	32		2.9			21.8			
5 S. Carrollton & St. Charles & 0 to Audubon Park & 0	35	43		2.6			13.6			
<b>By Time Period</b>										
AM	29	29		2.1			13.6	17		Monroe & Palm & O
Midday	98	98		5.9			16.7	45		S. Carrollton & Tulane & O
PM	54	54		2.7			20.3	20		Monroe & Palmetto & O
Eve	5	5		1.1			4.7	2		N Carrollton & Bienville & I
Night										O
Owl										O

Line 32	Operations Summary		
	Schedule		
	% On-Time	% Early	% Late
<b>Total</b>	100.0%		
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 City Park & Beaugard Crcl. & 0 to S. Carrollton & Canal & 0	100.0%		
2 S. Carrollton & Canal & 0 to S. Carrollton & Palmetto & 0	100.0%		
3 S. Carrollton & Palmetto & 0 to Leonidas & S. Claiborne & 0	100.0%		
4 Leonidas & S. Claiborne & 0 to S. Carrollton & St. Charles & 0	100.0%		
5 S. Carrollton & St. Charles & 0 to Audubon Park & 0	100.0%		

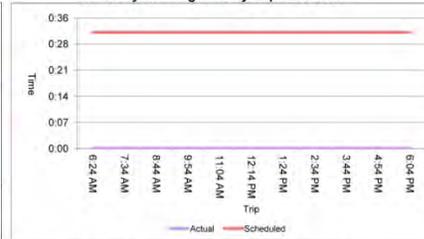
Weekday On-Board by Stop and Time Period - Inbound



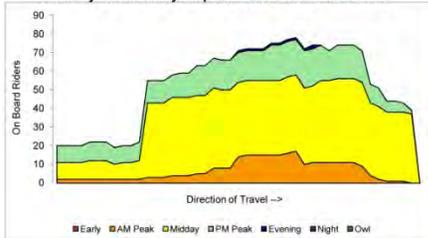
Weekday Boardings and Alightings by Stop - Inbound



Weekday Running Time by Trip - Inbound



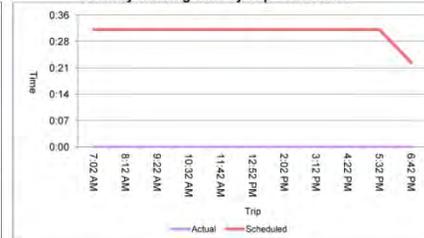
Weekday On-Board by Stop and Time Period - Outbound



Weekday Boardings and Alightings by Stop - Outbound



Weekday Running Time by Trip - Outbound



## Route 39 Tulane

### Route Description

Route 39 connects downtown New Orleans with western New Orleans, and serves Tulane, S. Carrollton, and a portion of S. Claiborne. Route 39 operates seven days a week.

Based on 2010 annual data, weekday productivity on Route 39 is 55.7 boardings per hour.

### Route Characteristics

Route 39's ridership is outstanding throughout the day. Route productivity remains over 70 passengers per hour from 6:00 AM to 9:00 PM.

The only low productivity segment on the route is between Mistletoe and S. Carrollton. Interestingly, this segment only has 67 boardings, but also 150 alightings (not including the Carrollton stop). This ridership imbalance probably has to do with transfers to JeT Route E-3 taking place.

Most stops between Carrollton and downtown have high ridership. The highest ridership stops are at S. Claiborne, Tulane, Broad, and at Rampart in downtown.

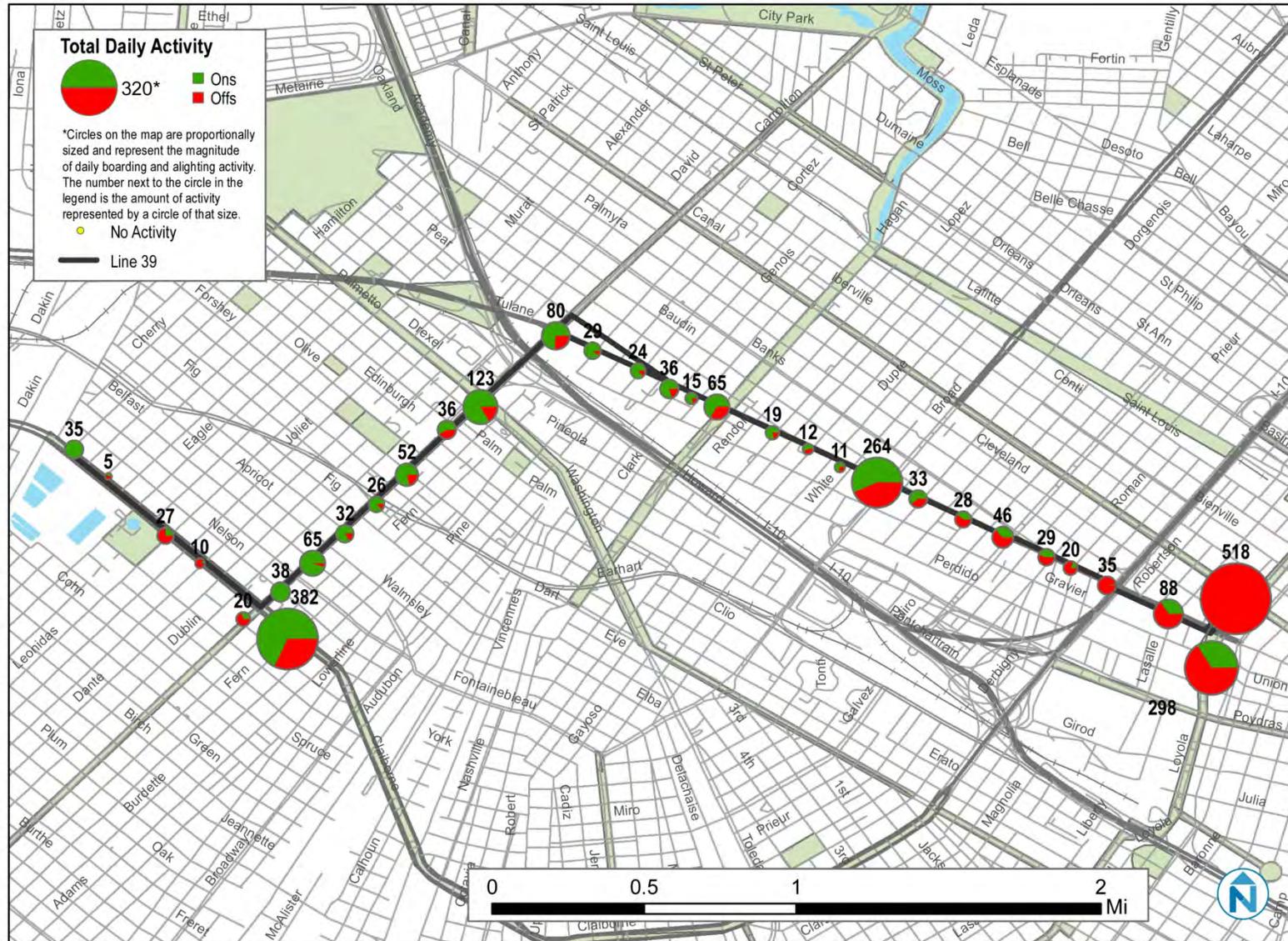
The highest ridership stops correspond to the places where transfers rates are high. The routes transferred to most often are the St. Charles and Canal Streetcars, as well as Route 84 Galvez and Route 94 Broad. The transfer data does not include Jefferson Transit routes. The ridership data suggests that the high ridership at Tulane/Carrollton is due to transfers to JeT Route E-2. Likewise, a portion of the ridership at S. Claiborne / Carrollton is due to transfers with JeT Route E-3.

Route 39 duplicates JeT Route E-3 between Mistletoe and Carrollton. Likewise, on weekdays, JeT Route E-2 operates between downtown New Orleans and Tulane / Carrollton. Route E-2 allows drop-offs in the inbound direction and pickups in the outbound direction, so it does not directly compete for ridership.

Route 39 has standees on several trips throughout the day. In addition, the number of consecutive trips with maximum loads of 30 passengers or more suggests the need for additional service on Route 39. The highest load recorded in the data was 45 passengers.

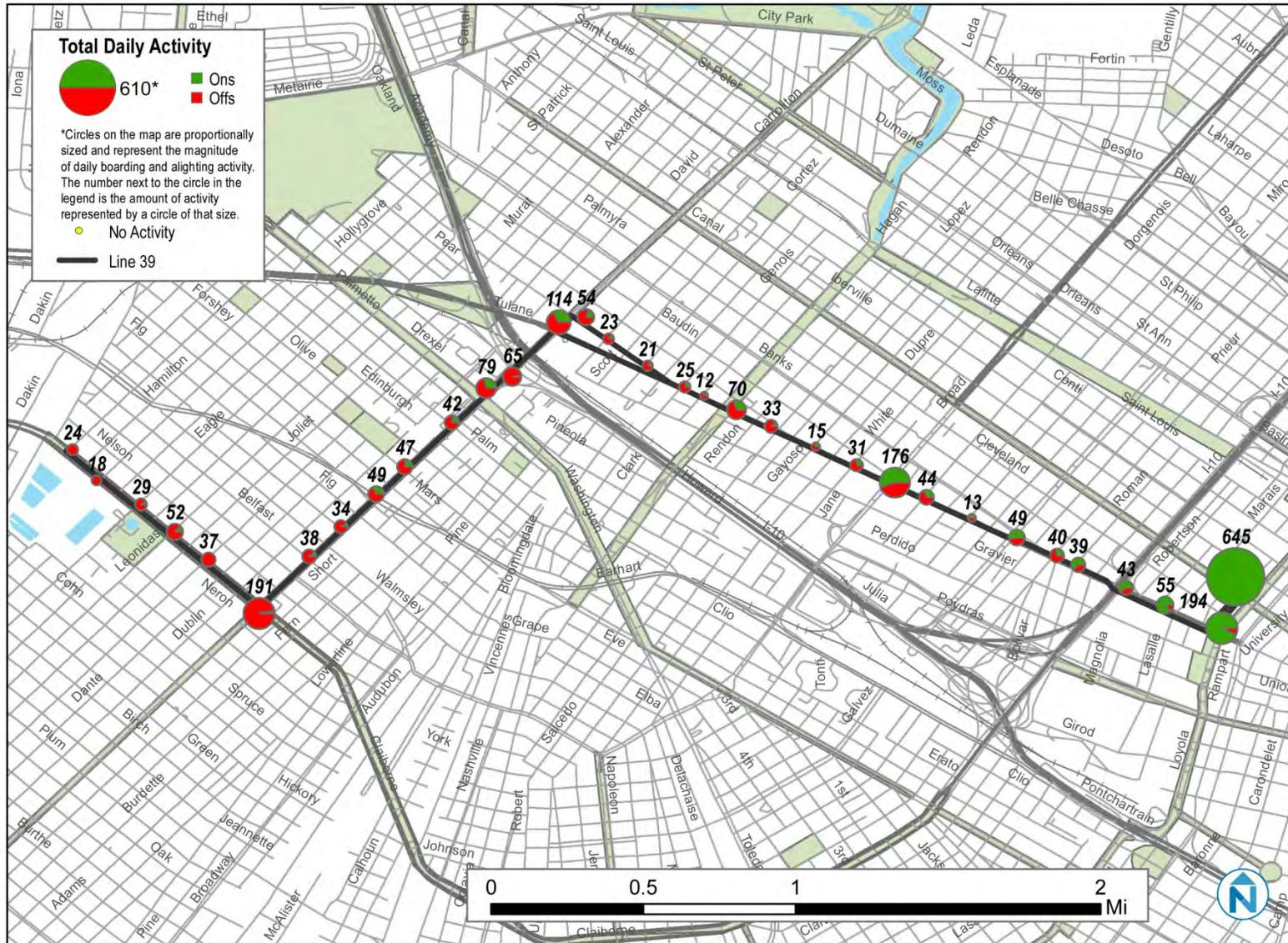
<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	3,015
Saturday	1,303
Sunday	605
2010 Weekday Boardings / Hour	55.7
<b>Service Frequency</b>	
AM and PM Peak	20 min
Weekday Base	30 min
Weekday Evening	60 min
Weekend Base	30 min
<b>Service Span</b>	
Weekday	5:26A – 1:53A
Saturday	6:08A – 1:50A
Sunday	6:08A – 11:50P

### NORTA Line 39 Tulane Inbound Boarding & Alighting Activity



Data Sources: U.S. Census Bureau, NORPC, ESRI

### NORTA Line 39 Tulane Outbound Boarding & Alighting Activity



Data Sources: U.S. Census Bureau, NORPC, ESRI

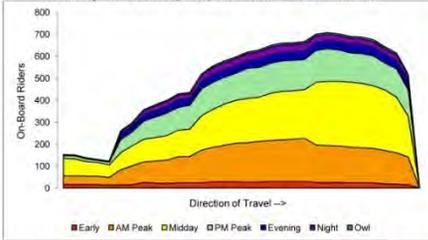
# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

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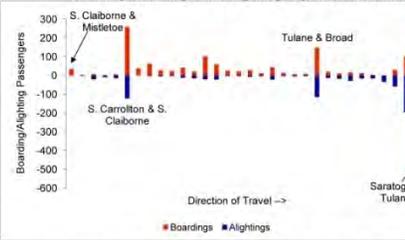
Line 39  Weekday Line Profile	Passenger Summary										
	Total					Productivity		Maximum On-Board Loading			
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location	Dir
<b>Total</b>	2451	2451	0	36.3	0	0	67.6	0	874	Tulane & S. Roman &	O
<b>By Direction</b>											
Inbound	1192	1309	0	19.3	0	0	61.7	0	708	Tulane & S. Dorgenois &	I
Outbound	1259	1142	0	16.9	0	0	74.4	0	874	Tulane & S. Roman &	O
<b>By Segment</b>											
1 S. Claiborne & Mitletote & 0 to S. Carrollton & S. Claiborne & 0	67	361	0	12.1			5.5				
2 S. Carrollton & S. Claiborne & 0 to S. Carrollton & Washington & 0	536	384	0	7.9			67.4				
3 S. Carrollton & Washington & 0 to Tulane & Broad & 0	520	533	0	10.0			51.9				
4 Tulane & Broad & 0 to Saratoga & Canal & 0	1328	1153	0	12.2			109.0				
<b>By Time Period</b>											
Early AM	115	107	0	2.7	0	0	42.9	0	33	Elk Place & Tulane &	O
AM	548	536	0	7.5	0	0	72.7	0	197	Tulane & S. White &	I
Midday	852	870	0	11.5	0	0	74.2	0	296	Tulane & S. Galvez &	I
PM	562	564	0	8.0	0	0	70.7	0	211	Tulane & Broad &	O
Eve	258	258	0	3.7	0	0	70.0	0	153	Tulane & Broad &	O
Night	107	107	0	2.5	0	0	43.7	0	51	Tulane & S. Villere &	O
Owl	9	9	0	0.5	0	0	19.3	0	9	Tulane & S. Jeff Davis &	I

Line 39  Weekday Line Profile	Operations Summary		
	Schedule		
	% On-Time	% Early	% Late
<b>Total</b>	100.0%	0.0%	0.0%
<b>By Direction</b>			
Inbound	100.0%	0.0%	0.0%
Outbound	100.0%	0.0%	0.0%
<b>By Segment</b>			
1 S. Claiborne & Mitletote & 0 to S. Carrollton & S. Claiborne & 0	100.0%	0.0%	0.0%
2 S. Carrollton & S. Claiborne & 0 to S. Carrollton & Washington & 0	100.0%	0.0%	0.0%
3 S. Carrollton & Washington & 0 to Tulane & Broad & 0	100.0%	0.0%	0.0%
4 Tulane & Broad & 0 to Saratoga & Canal & 0	100.0%	0.0%	0.0%

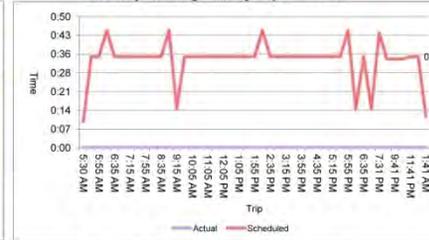
Weekday On-Board by Stop and Time Period - Inbound



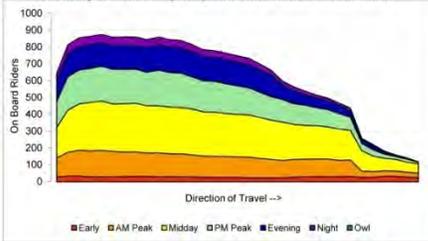
Weekday Boardings and Alightings by Stop - Inbound



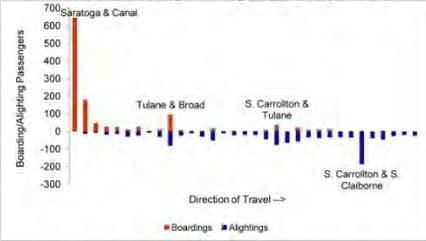
Weekday Running Time by Trip - Inbound



Weekday On-Board by Stop and Time Period - Outbound



Weekday Boardings and Alightings by Stop - Outbound



Weekday Running Time by Trip - Outbound



## Route 45 Lakeview

### Route Description

Route 45 operates as a big loop connecting the Lakeview area with Cemeteries and commercial areas on Veterans. Route 45 operates seven days a week.

Based on 2010 annual data, weekday productivity on Route 45 is 10.4 boardings per hour. Saturday productivity is 7.9 boardings per hour and Sunday productivity is 5.7 boardings per hour.

### Route Characteristics

Route 45 does not meet RTA's service standards for ridership productivity or subsidy per boarding. One of the reasons for the lower weekend productivity numbers is that service levels do not decrease on weekends, even though passenger demand clearly does.

Productivity of the morning and afternoon peaks is roughly double that of the midday and evening periods. The segment between Veterans Boulevard and Cemeteries is the most productive. The highest ridership stops were at Cemeteries and at Carrollton / Veterans. Large stretches of Canal had little ridership.

More than 50 percent of the transfer activity to Route 45 is from the Canal Streetcar. The only other route with significant transfer activity is Route 91 Jackson – Esplanade.

Route 60 Hayne duplicates Route 45 between Robert E. Lee and Cemeteries. While Route 60 does not operate as frequently, it does offer bi-directional service on Canal in this segment. JeT Route E-2 duplicates Route 45 between Veterans / Carrollton and Cemeteries. Riders boarding at this stop can choose either line to reach Cemeteries. Transfers from JeT, however, do not work on RTA routes.

There was not a single trip on Route 45 that had a maximum load of 10 passengers or more. Vehicle capacity is not an issue for this route.

<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	192
Saturday	137
Sunday	61
2010 Weekday Boardings / Hour	10.4
<b>Service Frequency</b>	
AM and PM Peak	30 min
Weekday Base	30 min
Weekday Evening	30 min
Weekend Base	30 min
<b>Service Span</b>	
Weekday	6:00A – 8:55P
Saturday	6:00A – 8:55P
Sunday	7:30A – 7:25P

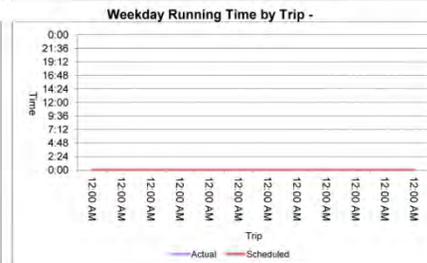
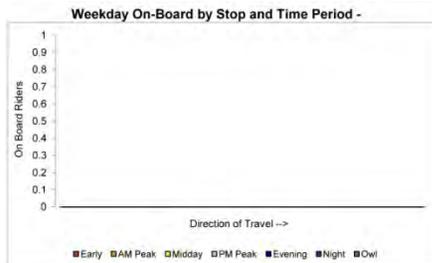
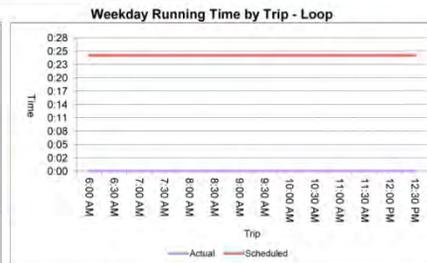
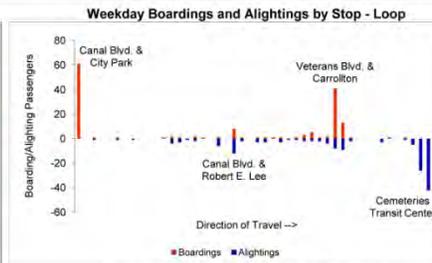
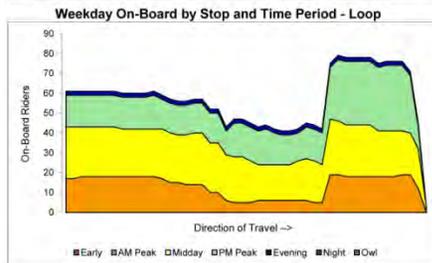


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Line 45	Passenger Summary								
	Total					Productivity		Maximum On-Board Loading	
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board
<b>Weekday Line Profile</b>									
<b>Total</b>	153	150		10.4			14.7		79
<b>By Direction</b>									
Loop	153	150		10.4			14.7		79
<b>By Segment</b>									
1 Canal Blvd. & City Park & 0 to Canal Blvd. & Robert E. Lee & 0	71	19		5.0			14.2		
2 Canal Blvd. & Robert E. Lee & 0 to Veterans Blvd. & Carrollton & 0	25	35		4.0			6.2		
3 Veterans Blvd. & Carrollton & 0 to Cemeteries Transit Center & 0	57	96		3.5			16.3		
<b>By Time Period</b>									
AM	47	47		2.5			18.8		19 Veterans Blvd. & Carrollton & L
Midday	51	48		5.0			10.2		28 Veterans Blvd. & Carrollton & L
PM	53	53		2.5			21.2		33 Academy & Country Club Dr. & L
Eve									
Night	2	2		0.4			4.8		2 Canal Blvd. & City Park & L
Owl									

Line 45	Operations Summary		
	Schedule		
<b>Weekday Line Profile</b>			
<b>Total</b>			
<b>By Direction</b>			
Loop	100.0%		
<b>By Segment</b>			
1 Canal Blvd. & City Park & 0 to Canal Blvd. & Robert E. Lee & 0	100.0%		
2 Canal Blvd. & Robert E. Lee & 0 to Veterans Blvd. & Carrollton & 0	100.0%		
3 Veterans Blvd. & Carrollton & 0 to Cemeteries Transit Center & 0	100.0%		



## Route 51 and 52 St. Bernard – Paris Ave. & St. Bernard – St. Anthony

### Route Description

Routes 51 and 52 concurrently provide service between UNO and downtown New Orleans. Between St. Bernard/Broad and Canal, both routes have identical alignments. Between St. Bernard and Broad, the routes diverge and serve two separate corridors, the Paris Avenue and the St. Bernard/Mirabeau/St. Anthony area. Both routes operate seven days a week.

Based on 2010 annual data, weekday productivity on Route 52 is 25.9 boardings per hour. Route 51 is a relatively new variation on Route 52 that was implemented to serve additional destinations, a school in particular.

### Route Characteristics

Route 52's productivity was more than twice as high between Broad and downtown New Orleans as on the segment between UNO and Broad. Morning and afternoon peak productivity was more than a third higher than midday productivity, suggesting that a commuter market predominates. This is somewhat surprising, considering UNO is an all-day destination.

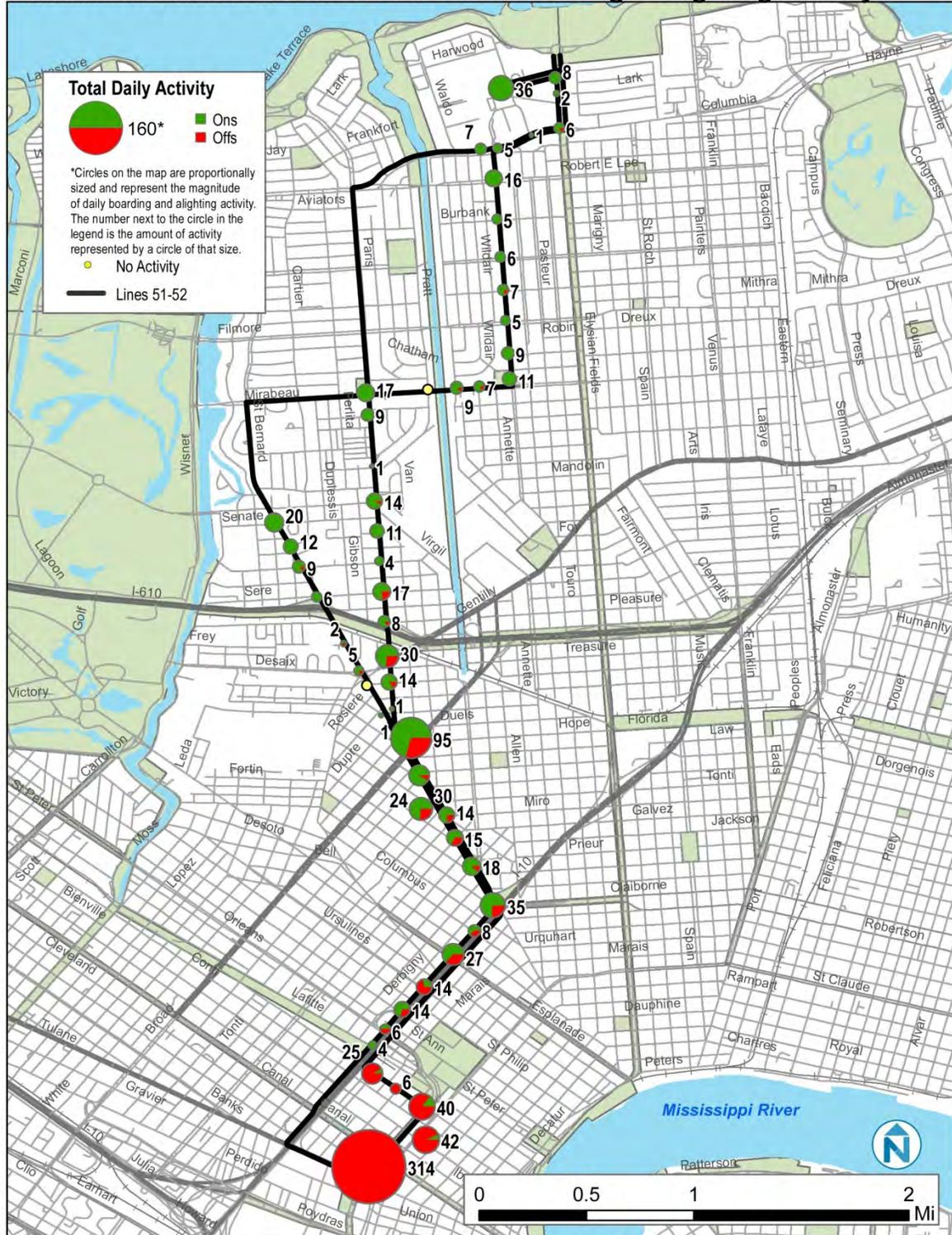
Frequency on the core segment between Broad and downtown New Orleans is generally 30-minute service or less. The two separate alignments between Broad and UNO receive much less frequent service, and the headways are irregular, making it difficult to plan trips. For instance, during midday, waits for Route 51 can be up to 85 minutes. Likewise, Route 52 waits varies between 30 or 50 minutes. Such a varied frequency is detrimental to building consistent ridership.

The significant transfer patterns between Routes 51 and 52 are to the St. Charles and Canal Streetcars, Route 39 Tulane, and Route 94 Broad.

Only two trips had maximum loads of more than 30 passengers, with the maximum load being 38 passengers.

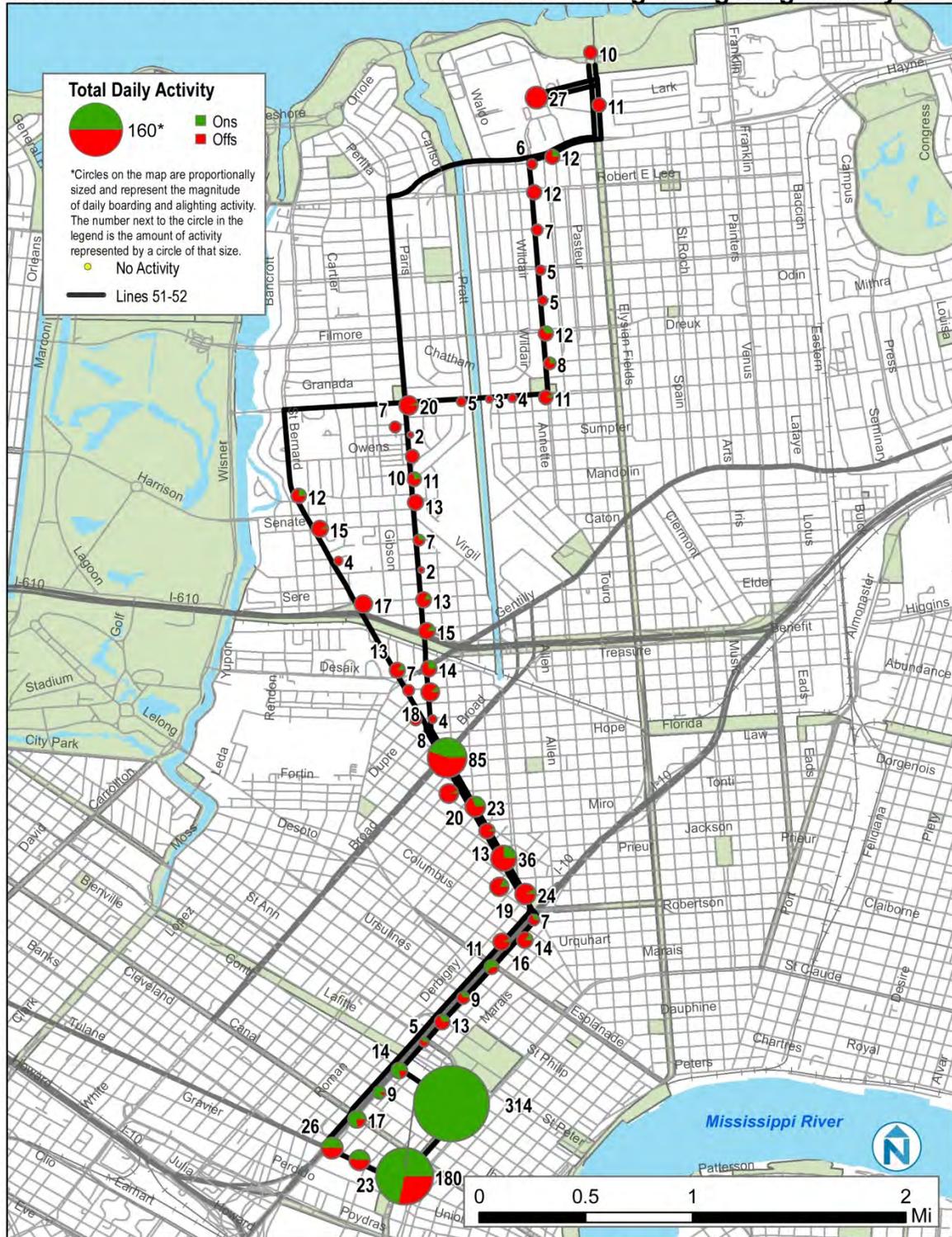
<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	1,576
Saturday	923
Sunday	421
2010 Weekday Boardings / Hour	25.9
<b>Service Frequency</b>	
AM and PM Peak	15-25 min
Weekday Base	30 min
Weekday Evening	30-60 min
Weekend Base	40 min
<b>Service Span</b>	
Weekday	5:32A – 11:16P
Saturday	5:36A – 11:06P
Sunday	5:36A – 11:06P

**NORTA Line 51-52 St. Bernard Inbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

**NORTA Line 51-52 St. Bernard Outbound Boarding & Alighting Activity**



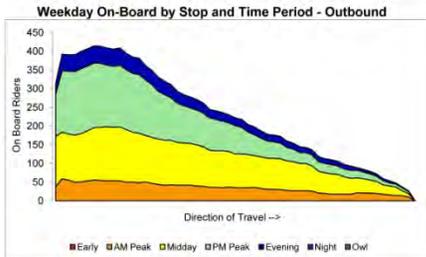
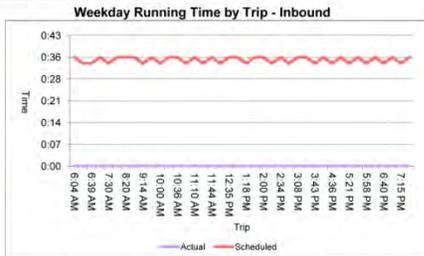
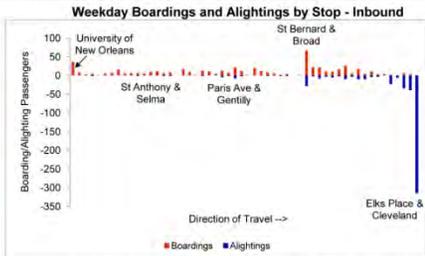
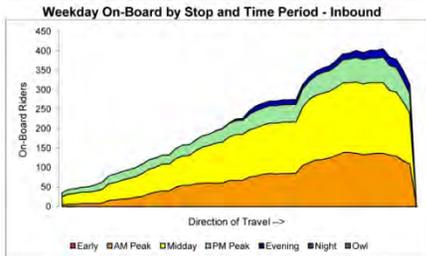
Data Sources: U.S. Census Bureau, NORPC, ESRI

# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

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Line 51-52	Passenger Summary							Maximum On-Board Loading			
	Total				Productivity			Maximum On-Board Loading			
Weekday Line Profile	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location	Dir
<b>Total</b>	1140	1140		48.2			23.7	415		N. Claiborne & St Louis &	O
<b>By Direction</b>											
Inbound	526	526		23.4			22.4	405		N. Claiborne & Lafitte &	I
Outbound	614	614		24.8			24.8	415		N. Claiborne & St Louis &	O
<b>By Segment</b>											
1 University of New Orleans & 0 to Mirabeau & Paris & 0	147	151		13.0			11.3				
2 Mirabeau & Paris & 0 to St Bernard & Broad & 0	222	236		16.5			13.5				
3 St Bernard & Broad & 0 to St. Bernard & Claiborne & 0	173	165		6.7			26.0				
4 St. Bernard & Claiborne & 0 to Elks Place & Cleveland & 0	598	588		12.0			49.8				
<b>By Time Period</b>											
AM	274	274		9.1			30.2	139		St. Bernard & Claiborne &	I
Midday	478	478		21.4			22.4	183		N. Claiborne & Esplanade &	I
PM	305	305		10.7			28.6	174		Claiborne & Canal &	O
Eve	83	83		7.1			11.7	46		Claiborne & Canal &	O
Night											O
Owl											O

Line 51-52	Operations Summary		
	Schedule		
Weekday Line Profile	% On-Time	% Early	% Late
<b>Total</b>	100.0%		
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 University of New Orleans & 0 to Mirabeau & Paris & 0	100.0%		
2 Mirabeau & Paris & 0 to St Bernard & Broad & 0	100.0%		
3 St Bernard & Broad & 0 to St. Bernard & Claiborne & 0	100.0%		
4 St. Bernard & Claiborne & 0 to Elks Place & Cleveland & 0	100.0%		



## Route 55 Elysian Fields

### Route Description

Route 55 connects UNO and downtown New Orleans via Elysian Fields and Decatur. Route 55 operates seven days a week.

Based on 2010 annual data, weekday productivity on Route 55 is 34.5 boardings per hour. Weekend productivity is almost as good as weekday productivity, at 33.0 boardings per hour on Saturday and 27.2 boardings per hour on Sundays.

### Route Characteristics

The overall route productivity is consistent throughout the day, at over 40 boardings per hour. The most productive route segment is in downtown between Canal and St. Claude, and the least productive segment is between Gentilly and UNO. Despite some variations, none of the segments can be called weak performers.

The schedule for Route 55 is inconsistent varying between 30 and 40 minute headways throughout the day. This irregularity makes transferring more difficult.

The highest ridership stops are at Canal, St. Claude, Gentilly, and at UNO. Route 55's maximum loading point for the entire route is at St. Claude, not in downtown New Orleans.

The highest transfer patterns are to Route 94 Broad and Route 88 St. Claude. The Canal and St. Charles Streetcars are the other two high transfer routes.

Route 55's alignment goes through the French Quarter on Decatur, where it can be negatively affected by parades, tourists, and other Quarter-induced disruptions. Approximately two thirds of all riders on Route 55 at St. Claude are headed to the Canal stops. In addition, Route 55 duplicates Route 5 through the French Quarter between Canal and Dauphine.

Route 55 has two trips with maximum loads of 36 passengers. One occurred inbound in the morning peak, and one occurred outbound around 3:00 PM. Given those times, it is likely that school kids are a reason for this load.

### Route Statistics

#### Riders

Avg. 2011 Ridership:	
Weekday	1,322
Saturday	727
Sunday	386

2010 Weekday Boardings / Hour	34.5
-------------------------------	------

#### Service Frequency

Weekday Peaks	30-40 min
Weekday Base	30-40 min
Weekday Evening	30-80 min
Weekend Base	60 min

#### Service Span

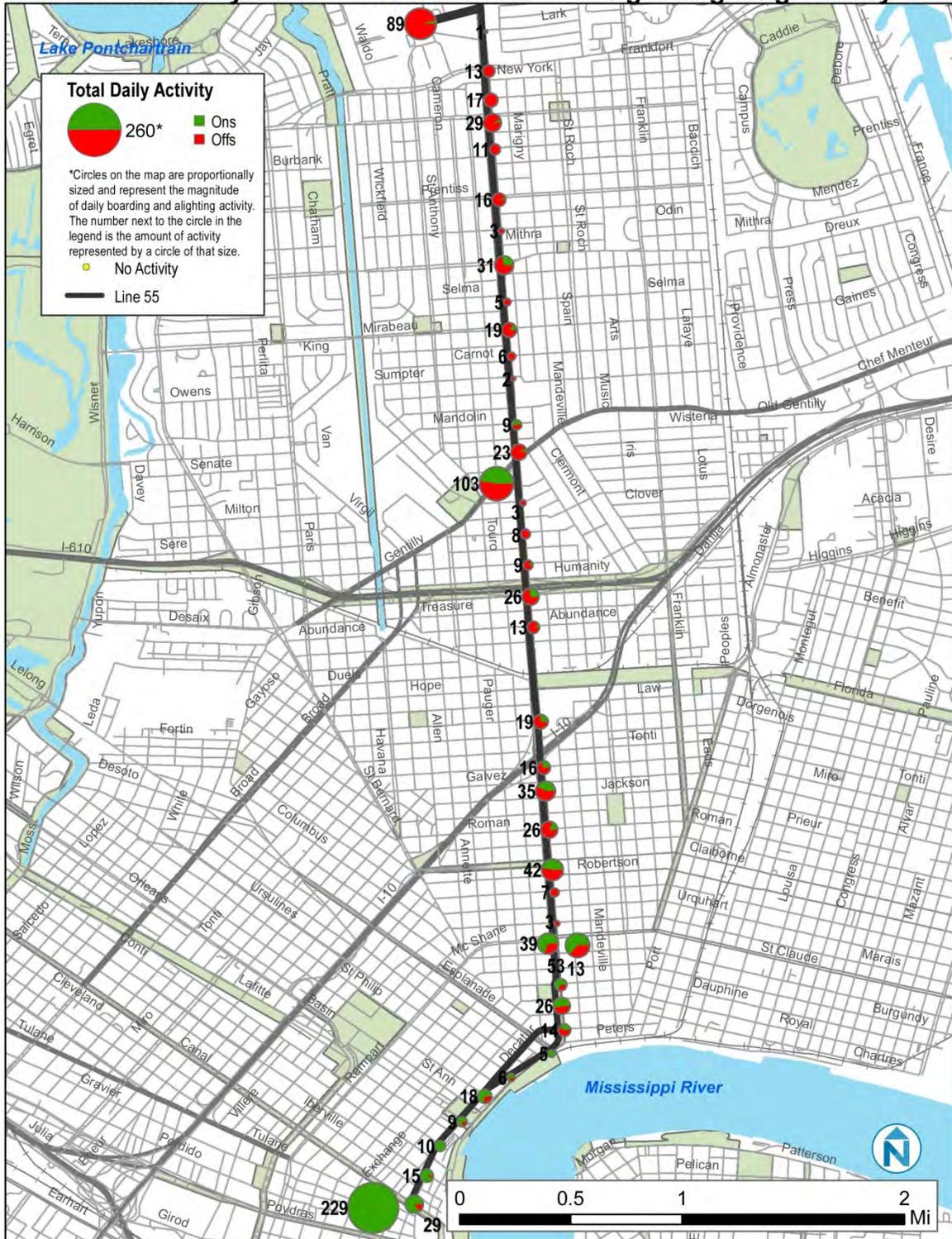
Weekday	5:15A – 12:17A
Saturday	5:32A – 10:58P
Sunday	5:32A – 10:58P

**NORTA Line 55 Elysian Fields Inbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

**NORTA Line 55 Elysian Fields Outbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

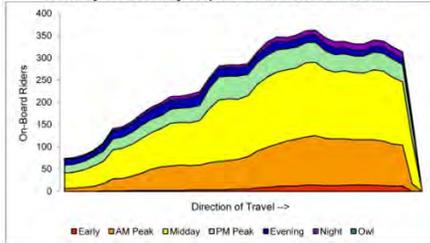
# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

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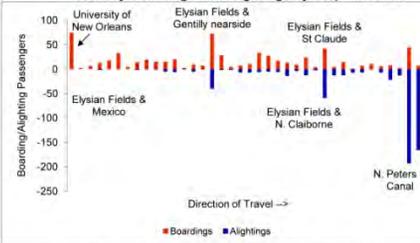
Line 55  Weekday Line Profile	Passenger Summary										
	Total					Productivity		Maximum On-Board Loading			
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location	Dir
<b>Total</b>	1168	1163		28.9			40.5		362	Elysian Fields & N. Villere &	I
<b>By Direction</b>											
Inbound	639	634		14.5			44.2		382	Elysian Fields & N. Villere &	I
Outbound	529	529		14.4			36.7		326	Elysian Fields & St. Claude &	O
<b>By Segment</b>											
1 University of New Orleans & 0 to Elysian Fields & Gentilly nearside & 0	323	334		10.6			30.6				
2 Elysian Fields & Gentilly nearside & 0 to Elysian Fields & N. Galvez & 0	232	170		5.6			41.4				
3 Elysian Fields & N. Galvez & 0 to Elysian Fields & St. Claude & 0	135	118		4.2			32.3				
4 Elysian Fields & St. Claude & 0 to Canal & Tchoupitoulas & 0	478	541		9.4			51.0				
<b>By Time Period</b>											
AM	230	230		5.2			43.8		111	Elysian Fields & N. Villere &	I
Midday	505	500		11.6			43.7		167	Elysian Fields & N. Claiborne &	I
PM	241	241		5.3			45.9		74	N. Peters & Esplanade &	O
Eve	138	138		4.2			32.9		62	N. Peters & St. Louis &	O
Night	38	38		2.6			14.5		14	Elysian Fields & St. Claude &	I
Owl											O

Line 55  Weekday Line Profile	Operations Summary		
	Schedule		
<b>Total</b>	% On-Time	% Early	% Late
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 University of New Orleans & 0 to Elysian Fields & Gentilly nearside & 0	100.0%		
2 Elysian Fields & Gentilly nearside & 0 to Elysian Fields & N. Galvez & 0	100.0%		
3 Elysian Fields & N. Galvez & 0 to Elysian Fields & St. Claude & 0	100.0%		
4 Elysian Fields & St. Claude & 0 to Canal & Tchoupitoulas & 0	100.0%		

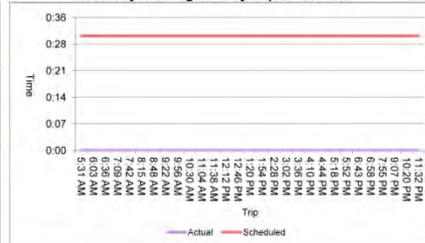
Weekday On-Board by Stop and Time Period - Inbound



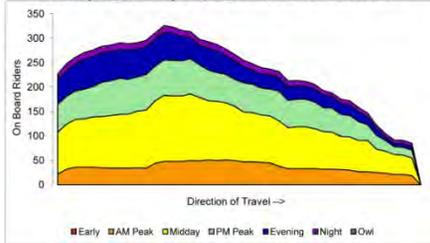
Weekday Boardings and Alightings by Stop - Inbound



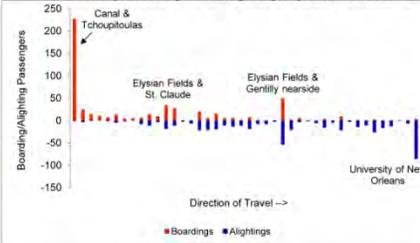
Weekday Running Time by Trip - Inbound



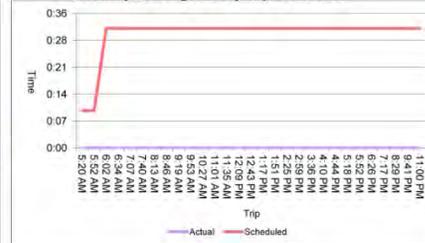
Weekday On-Board by Stop and Time Period - Outbound



Weekday Boardings and Alightings by Stop - Outbound



Weekday Running Time by Trip - Outbound



## Route 57 Franklin

### Route Description

Route 57 provides service seven days a week between downtown New Orleans and Southern University, via the University of New Orleans-East Campus.

Based on 2010 annual data, weekday ridership on Route 57 is about 37.0 passengers per service hour.

### Route Characteristics

Route productivity is steady throughout the day, with only marginal differences between peak and midday times. The least productive segment on the route was north of Gentilly, serving the UNO Arena and the SUNO campus.

The highest ridership stop is in downtown at Rampart. Other high ridership locations are at Gentilly, St. Claude/Franklin, and at the SUNO campus.

Between downtown New Orleans and the intersection of St. Claude / Franklin, Route 57 duplicates Route 88 St. Claude. Route 88 is more frequent, and has correspondingly higher ridership in this segment.

Route 57's frequency is irregular, with a base of a bus every 36 minutes. This frequency is difficult to remember and makes transferring to other routes more difficult.

The Canal Streetcar, Route 94 Broad, Route 88 St. Claude, Route 91 Jackson-Esplanade, and Route 39 Tulane are the routes with the highest transfer activity to Route 57.

Route 57 has good on-time performance, with only 3 percent of trips operating late. Early arrivals are mostly on the midday outbound trips.

Route 57 had two trips with 39 passengers on board or more, both were in the outbound direction. The maximum load was 40 passengers. It appears that this trip was due to school kids, as the load of 39 passengers traveled from Canal to Elysian Fields.

### Route Statistics

#### Riders

Avg. 2011 Ridership:	
Weekday	1,267
Saturday	686
Sunday	322

2010 Weekday Boardings / Hour	37.0
-------------------------------	------

#### Service Frequency

Weekday Peaks	36 min
Weekday Base	36 min
Weekday Evening	66-73 min
Weekend Base	72 min

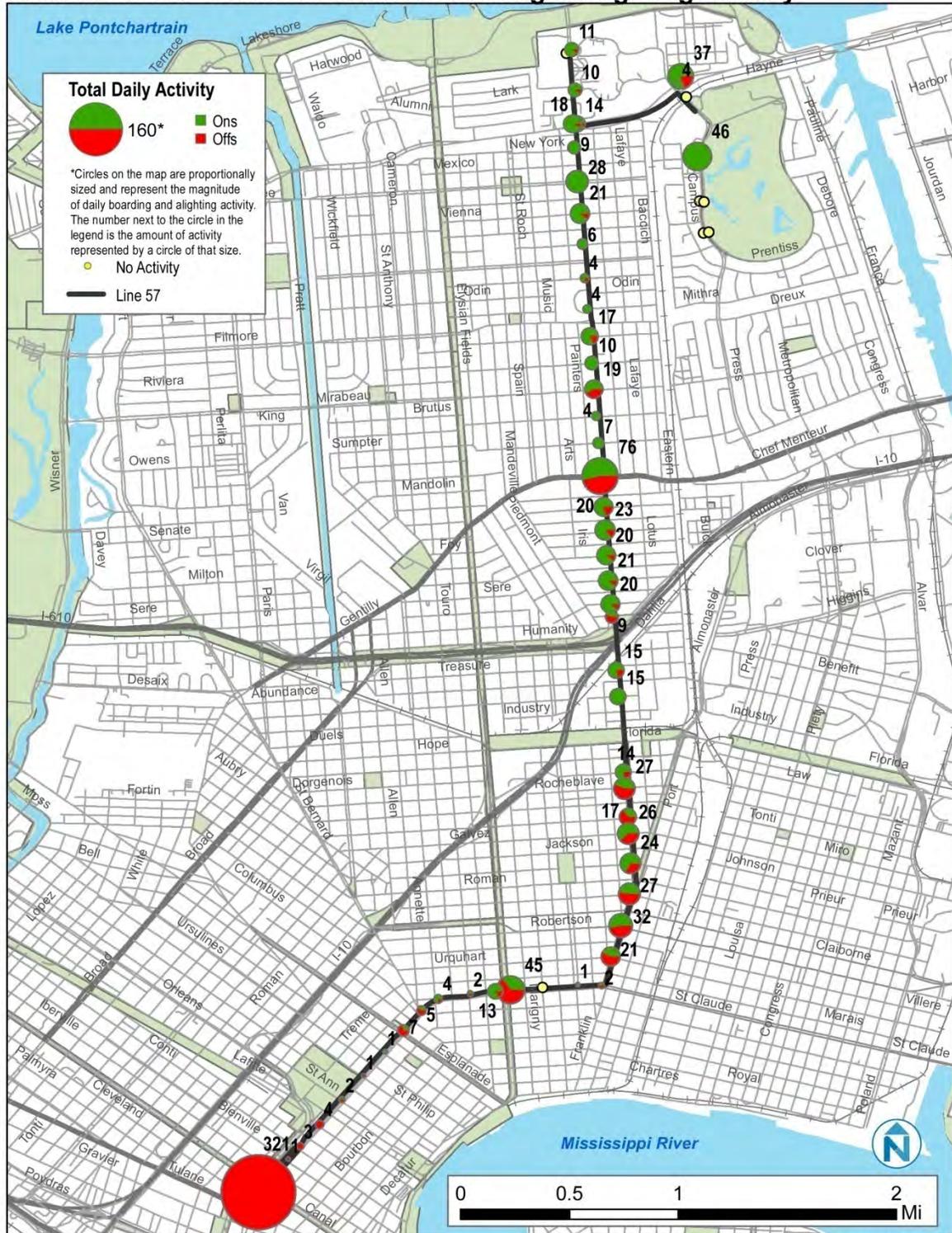
#### Service Span

Weekday	5:36A – 12:12A
Saturday	5:50A – 10:52P
Sunday	5:50A – 10:52P

#### On-Time Performance

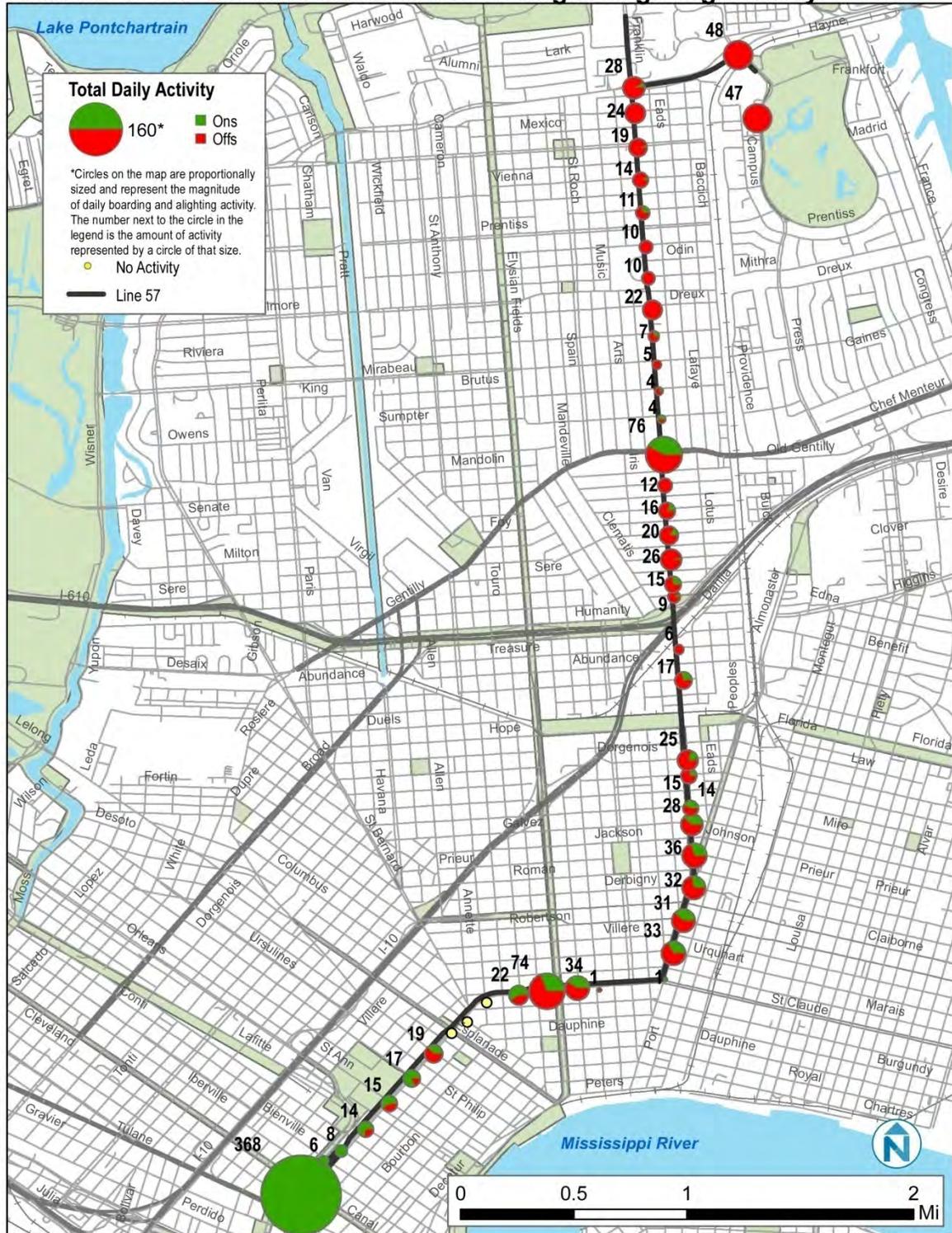
On-Time:	83.4 %
Early:	13.6 %
Late:	3.0 %

### NORTA Line 57 Franklin Inbound Boarding & Alighting Activity



Data Sources: U.S. Census Bureau, NORPC, ESRI

### NORTA Line 57 Franklin Outbound Boarding & Alighting Activity

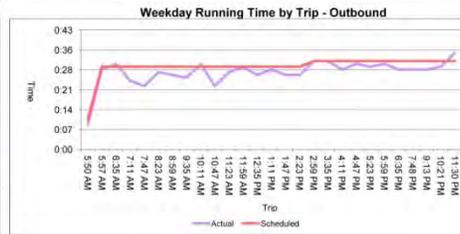
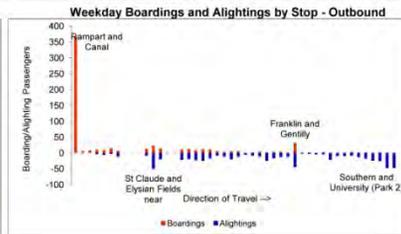
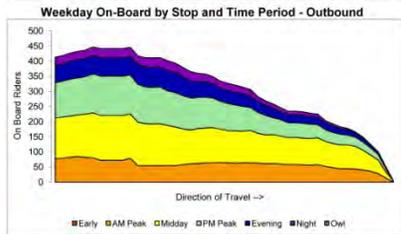
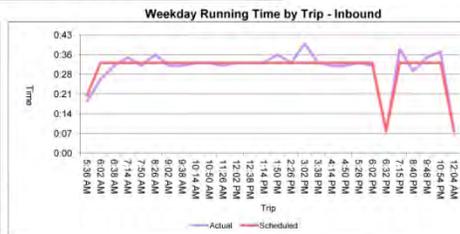
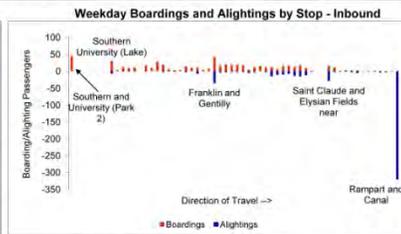
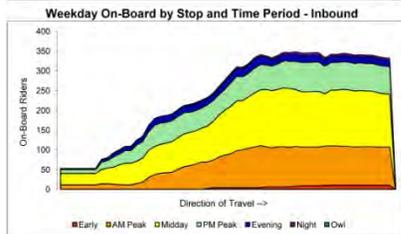


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Line 57	Passenger Summary										
	Total					Productivity		Maximum On-Board Loading			
Weekday Line Profile	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location	Dir
<b>Total</b>	1169	1526		27.3			42.9	446		N. Rampart and Saint Philip &	O
<b>By Direction</b>											
Inbound	546	542		13.9			39.3	348		Franklin and N. Robertson &	I
Outbound	623	984		13.4			46.6	446		N. Rampart and Saint Philip &	O
<b>By Segment</b>											
1 Southern and University (Park 2) & 0 to Franklin and Gentilly & 0	288	310		9.3			30.8				
2 Franklin and Gentilly & 0 to Franklin and N. Galvez & 0	234	246		4.3			54.0				
3 Franklin and N. Galvez & 0 to Saint Claude and Elysian Fields near & 0	154	221		4.3			35.5				
4 Saint Claude and Elysian Fields near & 0 to Rampart and Canal & 0	472	406		9.9			47.7				
5											
6											
<b>By Time Period</b>											
AM	264	405		5.3			50.3	107		Franklin and N. Dorgenois &	I
Midday	468	587		10.5			44.6	149		Franklin and N. Prieur &	I
PM	273	339		5.4			50.4	130		N. Rampart and Governor Nicholls &	O
Eve	108	120		3.4			31.9	67		Franklin and Urquhart &	O
Night	46	55		2.7			17.0	32		Franklin and Urquhart &	O
Owl											

Line 57	Operations Summary		
	Schedule		
Weekday Line Profile	% On-Time	% Early	% Late
<b>Total</b>	82.6%	14.0%	3.4%
<b>By Direction</b>			
Inbound	85.7%	9.8%	4.5%
Outbound	79.5%	18.2%	2.3%
<b>By Segment</b>			
1 Southern and University (Park 2) & 0 to Franklin and Gentilly & 0	80.0%	14.5%	5.5%
2 Franklin and Gentilly & 0 to Franklin and N. Galvez & 0	84.9%	13.2%	1.9%
3 Franklin and N. Galvez & 0 to Saint Claude and Elysian Fields near & 0	82.7%	13.5%	3.8%
4 Saint Claude and Elysian Fields near & 0 to Rampart and Canal & 0	80.6%	17.3%	1.9%
5			
6			



## Route 60 Hayne

### Route Description

Route 60 connects New Orleans East with SUNO, UNO, and the Lakeview area. Route 55 operates on weekdays only.

Based on 2010 annual data, weekday productivity on Route 60 is 8.1 boardings per hour. In 2010, weekend service was still operating on Route 60, but due to poor productivity, weekend service resources were invested in extending Route 60 from UNO to Lakeview.

### Route Characteristics

According to 2010 data, Route 60 operated below RTA's performance standards in boardings per hour and subsidy per passenger. The recent extension of the route from UNO to Delgado Community College has doubled ridership in the past year.

Route 60 connects several smaller ridership activity areas with long stretches of minimal activity between them. Delgado Community College, UNO, and SUNO were the biggest ridership generators. Route productivity is marginally better in the peaks than the midday time period.

One of the defining characteristics of Route 60 is a 13.8 mile long one-way terminal loop in East New Orleans. The one-way loop is designed to serve Hayne between Downman and Paris, which can only be served in westbound direction due to the levee on the north side of the road. The eastbound trip is mostly on Morrison, which is 0.4 miles south of Hayne. Typically, in a loop the number of ons and offs at each stop are equal, as people ride around the loop to reach their destinations. Route 60 does not have this pattern, which indicates that walking from Morrison to Hayne is currently occurring on a regular basis.

Route 60 duplicates other routes in several different areas, and this duplication may be contributing to lower ridership. Between Cemeteries and Robert E Lee, Route 60 duplicates Route 45. In East New Orleans, Routes 62 uses Morrison between Bullard and Downman, and also makes the Hayne, Curran, Paris, and the I-10 Service Road loop. Route 62 has substantially higher ridership on Morrison than does Route 60, which may have to do with the destination served, higher frequency and the fact that the two directions of Route 62 do not operate 0.4 miles apart.

The Canal Streetcar, Route 91 Jackson-Esplanade, Route 55 Elysian Fields, Route 57 Franklin and Route 62 Morrison Express were the top transfer patterns.

### Route Statistics

#### Riders

Avg. 2011 Ridership:	
Weekday	424

2010 Weekday Boardings / Hour	8.1
-------------------------------	-----

#### Service Frequency

Weekday Peaks	60 min
---------------	--------

Weekday Base	60 min
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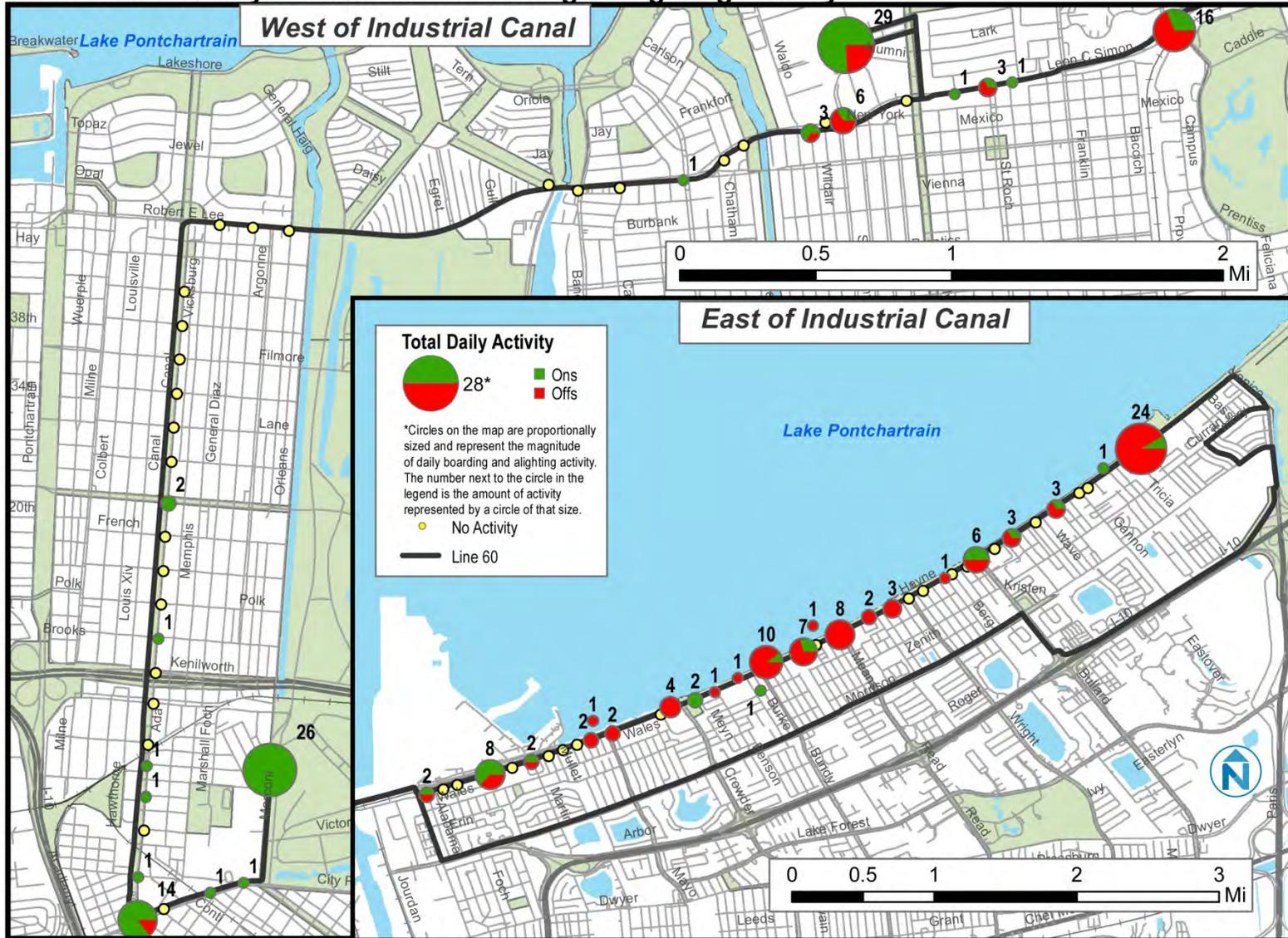
Weekday Evening	60 min
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Weekend Base	N/A
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#### Service Span

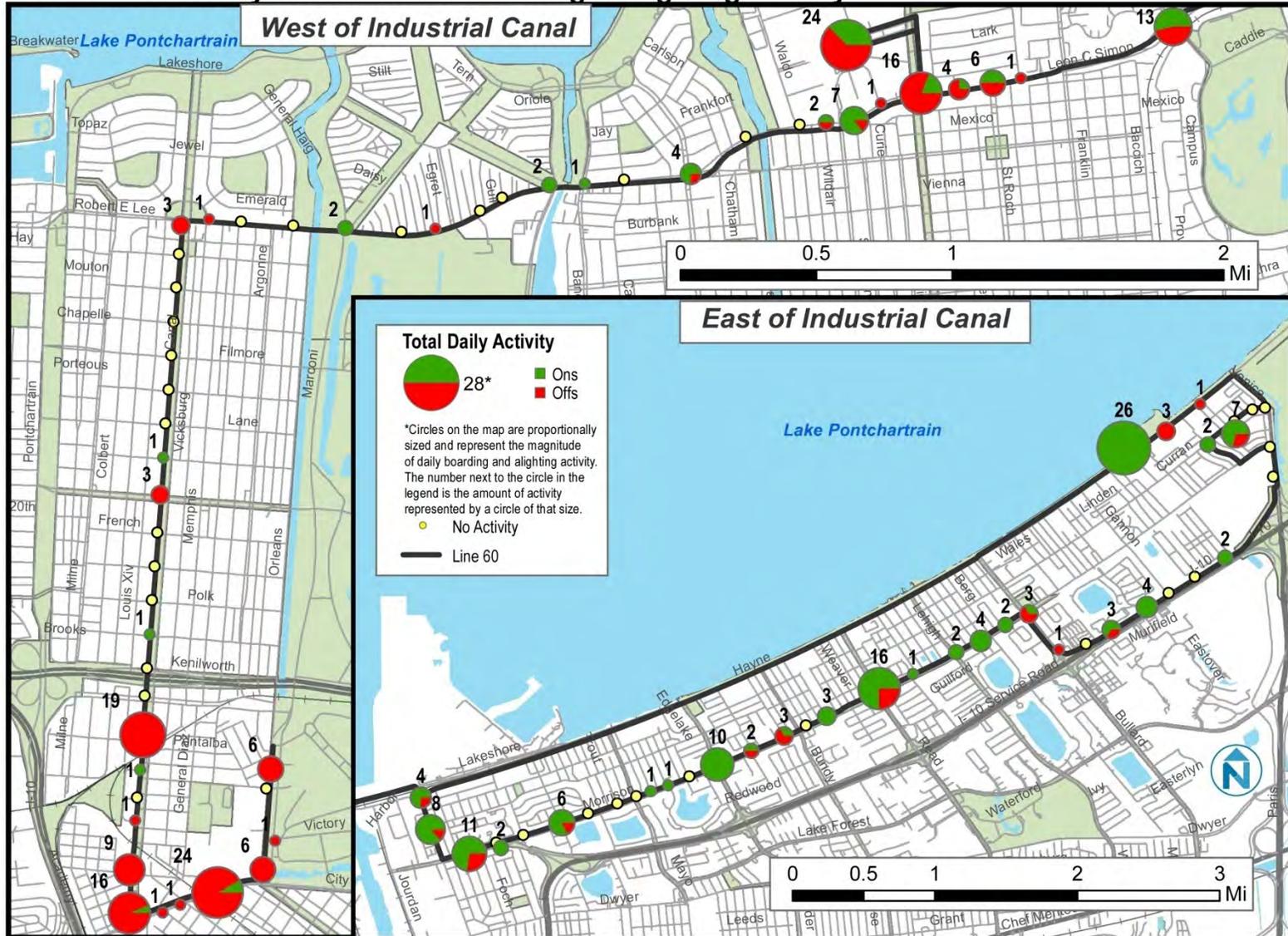
Weekday	5:23A – 7:59P
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**NORTA Line 60 Hayne Eastbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

**NORTA Line 60 Hayne Westbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

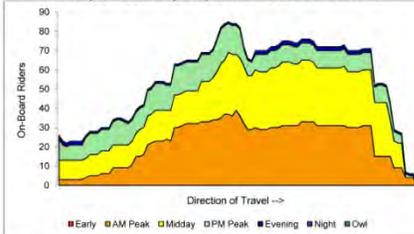
## COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

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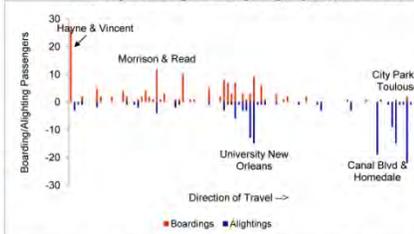
Line 60	Passenger Summary										
	Total					Productivity			Maximum On-Board Loading		
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location	Dir
<b>Total</b>	268	268	21.1				12.7	85		L. C. Simon & Press &	I
<b>By Direction</b>											
Inbound	152	152	11.4				13.4	85		L. C. Simon & Press &	I
Outbound	116	116	9.8				11.9	71		& L. C. Simon & Mandeville	O
<b>By Segment</b>											
1 Hayne & Vincent & 0 to Downman & Hayne & 0	126	109	7.7				16.3				
2 Downman & Hayne & 0 to L. C. Simon & Press & 0	8	12	1.3				6.2				
3 L. C. Simon & Press & 0 to University New Orleans & 0	51	37	1.7				29.7				
4 University New Orleans & 0 to R.E. Lee & Beaugard & 0	25	24	1.9				13.0				
5 R.E. Lee & Beaugard & 0 to R. E. Lee & Canal & 0	6	3	1.9				3.1				
6 R. E. Lee & Canal & 0 to City Park & Canal Blvd. & 0	21	37	3.8				5.5				
7 City Park & Canal Blvd. & 0 to Delgado & 0	31	46	1.9				16.2				
<b>By Time Period</b>											
AM	78	78	5.0				15.5	39		L. C. Simon & St. Roch &	I
Midday	91	91	7.9				11.5	33		R.E. Lee & Beaugard &	I
PM	82	82	5.6				14.8	32		& L. C. Simon & Elysian Fields	O
Eve	17	17	2.7				6.4	11		& L. C. Simon & Music	O
Night											O
Owl											O

Line 60	Operations Summary Schedule		
	Weekday Line Profile		
	% On-Time	% Early	% Late
<b>Total</b>	100.0%		
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 Hayne & Vincent & 0 to Downman & Hayne & 0	100.0%		
2 Downman & Hayne & 0 to L. C. Simon & Press & 0	100.0%		
3 L. C. Simon & Press & 0 to University New Orleans & 0	100.0%		
4 University New Orleans & 0 to R.E. Lee & Beaugard & 0	100.0%		
5 R.E. Lee & Beaugard & 0 to R. E. Lee & Canal & 0	100.0%		
6 R. E. Lee & Canal & 0 to City Park & Canal Blvd. & 0	100.0%		
7 City Park & Canal Blvd. & 0 to Delgado & 0	100.0%		

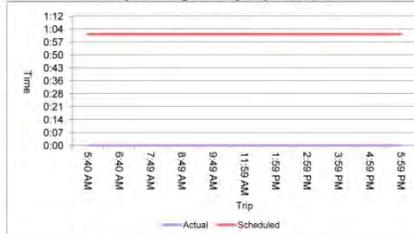
Weekday On-Board by Stop and Time Period - Inbound



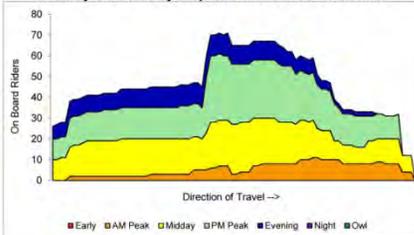
Weekday Boardings and Alightings by Stop - Inbound



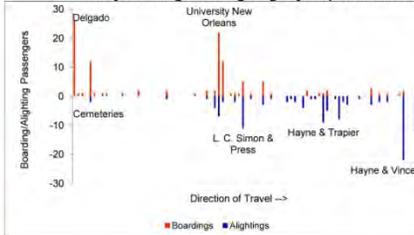
Weekday Running Time by Trip - Inbound



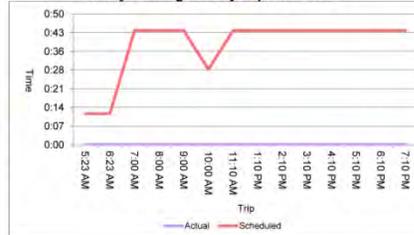
Weekday On-Board by Stop and Time Period - Outbound



Weekday Boardings and Alightings by Stop - Outbound



Weekday Running Time by Trip - Outbound



## Route 62 Morrison Express

### Route Description

Route 62 connects New Orleans East with downtown New Orleans. Between the Industrial Canal and downtown New Orleans, Route 62 operates mostly on I-10. Route 62 operates seven days a week.

Based on 2010 annual data, weekday productivity on Route 62 is 34.3 boardings per hour. This is particularly impressive due to the long freeway running segment. Saturday productivity is 27.4 boardings per hour and Sunday's is 18.4 boardings per hour.

### Route Characteristics

Route 62 is a hybrid between a neighborhood collector route and an express trip to downtown New Orleans. In New Orleans East, Route 62 has a large terminal loop. Large portions of this loop are duplicated by Route 60 Hayne. Route 62 carries more people in this area than does Route 60.

Route 62 makes a deviation to an apartment complex on Bundy. There are over 80 boardings and alightings at this stop.

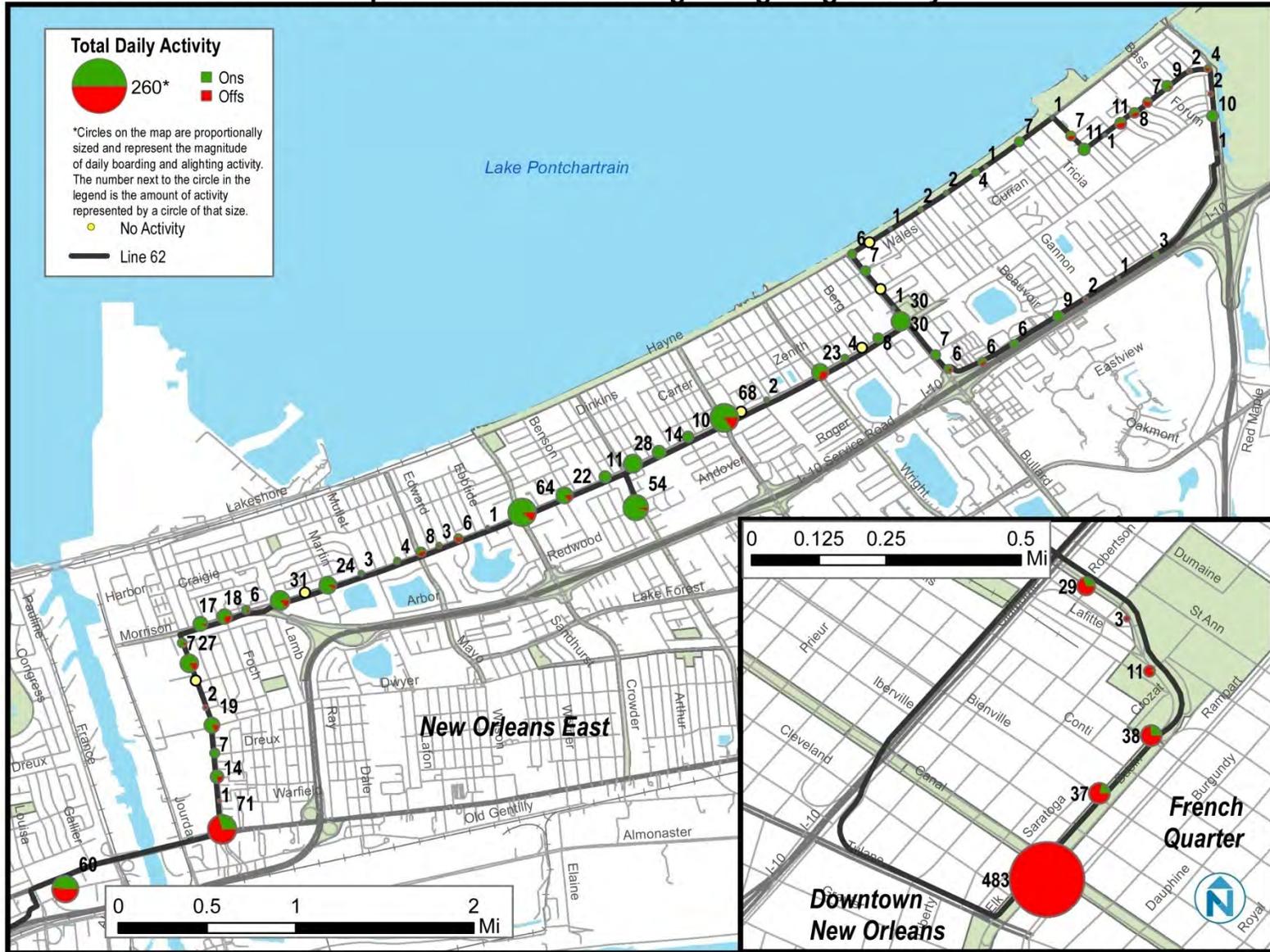
Route 62's productivity is higher in the morning and midday than in the afternoon peak. The first six inbound trips each had maximum loads of more than 36 passengers. The first trip had a maximum load of 40 passengers, which indicates latent demand for an earlier trip.

Ridership on the Hayne/Paris/I-10 Service Road is weaker than on the remaining segments. The most productive segment is between the Winn Dixie and downtown New Orleans, the express portion of the route. This confirms that the express portions of the route are being heavily used. Route 64 also provides express service from Winn Dixie to downtown New Orleans.

Route 94 Broad and the Canal Streetcar had the most transfers to and from Route 62. It is likely that New Orleans East riders on Route 94 are transferring to Route 62 for the faster ride to downtown New Orleans. Other high transfer routes include the Canal and St. Charles Streetcars and Route 39 Tulane.

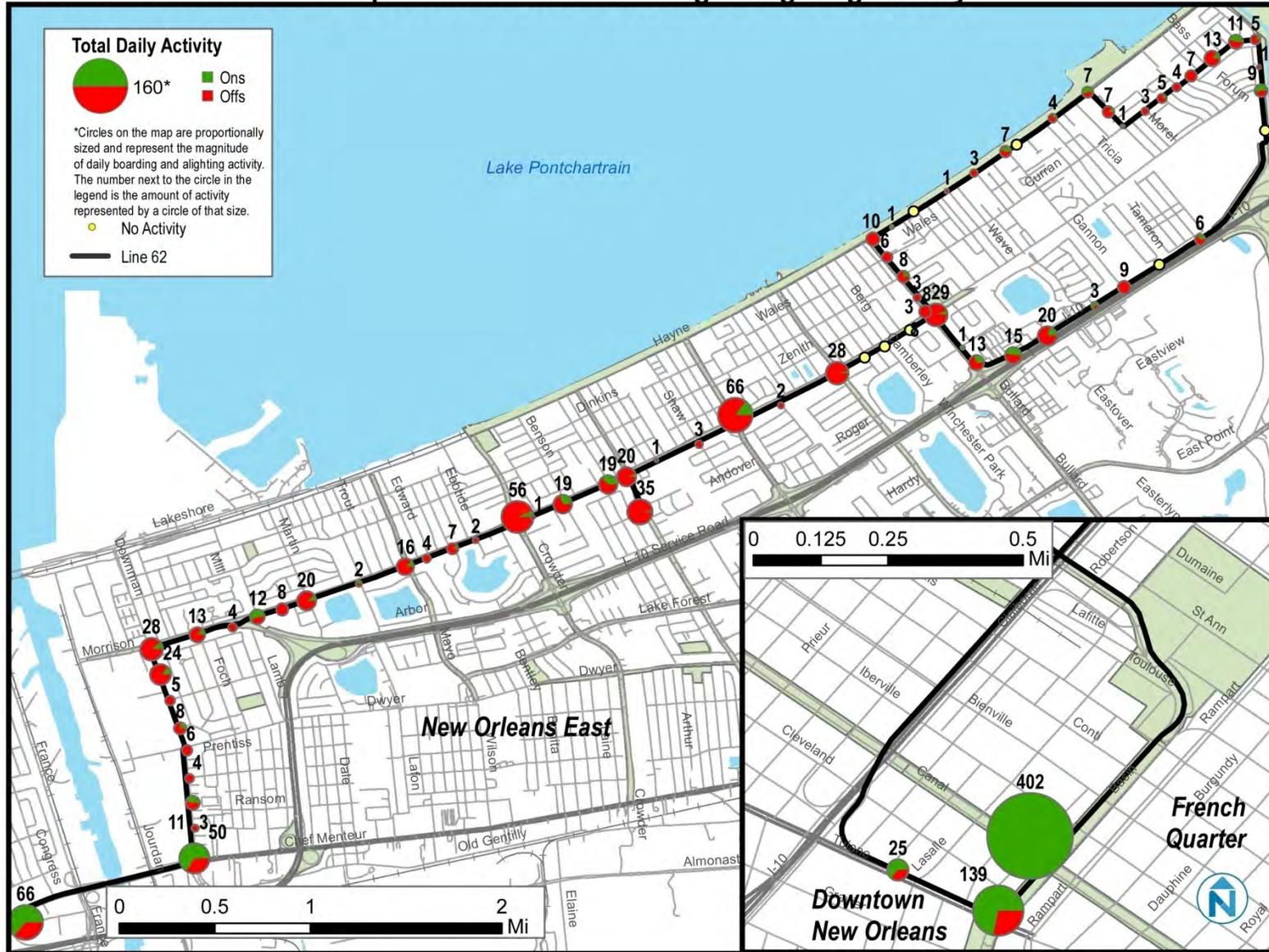
<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	1,758
Saturday	1,249
Sunday	608
2010 Weekday Boardings / Hour	34.3
<b>Service Frequency</b>	
Weekday Peaks	~30 min
Weekday Base	~45 min
Weekday Evening	~90 min
Weekend Base	45 min
<b>Service Span</b>	
Weekday	5:23A – 12:05A
Saturday	5:50A – 10:52P
Sunday	5:50A – 10:52P

**NORTA Line 62 Morrison Express Inbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

**NORTA Line 62 Morrison Express Outbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

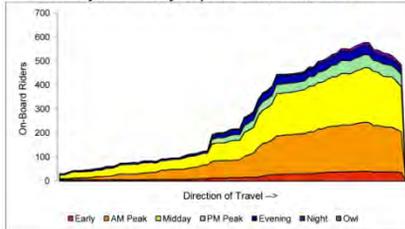
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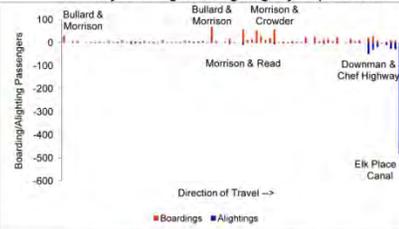
Line 62X	Passenger Summary							Maximum On-Board Loading	
	Total			Productivity			Maximum On-Board Loading		
Weekday Line Profile	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board
<b>Total</b>	1441	1441		36.8			39.2		577
<b>By Direction</b>									
Inbound	741	741		17.4			42.5		577
Outbound	700	700		19.4			36.1		504
<b>By Segment</b>									
1 Bullard & Morrison & 0 to Bullard & E. Barrington & 0	191	267		8.5			22.6		
2 Bullard & E. Barrington & 0 to Morrison & Read & 0	118	92		4.4			27.0		
3 Morrison & Read & 0 to Morrison & Crowder & 0	211	150		3.9			54.6		
4 Morrison & Crowder & 0 to Downman & Chef Highway & 0	283	206		9.3			30.5		
5 Downman & Chef Highway & 0 to Winn Dixie & 0	63	74		2.8			22.2		
6 Winn Dixie & 0 to Elk Place & Canal & 0	575	652		10.3			56.1		
<b>By Time Period</b>									
AM	318	318		7.3			43.9		204
Midday	572	572		13.6			42.2		228
PM	266	266		7.8			34.3		129
Even	166	166		5.4			30.8		91
Night	74	74		2.8			26.1		54
Owl									

Line 62X	Operations Summary Schedule		
	% On-Time	% Early	% Late
<b>Total</b>	100.0%		
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 Bullard & Morrison & 0 to Bullard & E. Barrington & 0	100.0%		
2 Bullard & E. Barrington & 0 to Morrison & Read & 0	100.0%		
3 Morrison & Read & 0 to Morrison & Crowder & 0	100.0%		
4 Morrison & Crowder & 0 to Downman & Chef Highway & 0	100.0%		
5 Downman & Chef Highway & 0 to Winn Dixie & 0	100.0%		
6 Winn Dixie & 0 to Elk Place & Canal & 0	100.0%		

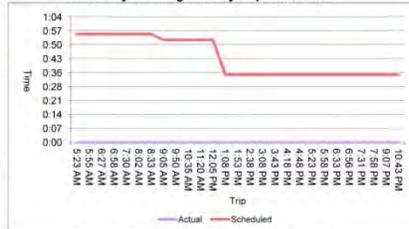
Weekday On-Board by Stop and Time Period - Inbound



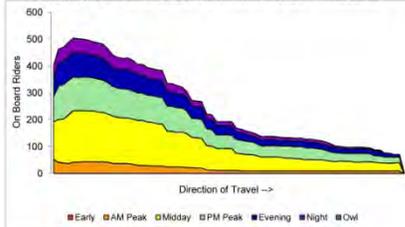
Weekday Boardings and Alightings by Stop - Inbound



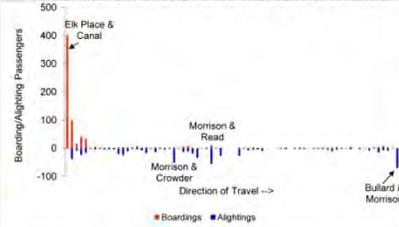
Weekday Running Time by Trip - Inbound



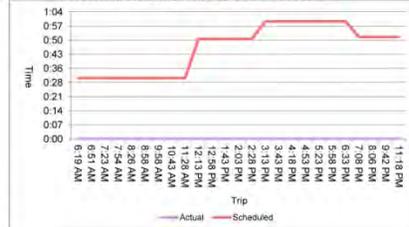
Weekday On-Board by Stop and Time Period - Outbound



Weekday Boardings and Alightings by Stop - Outbound



Weekday Running Time by Trip - Outbound



## Route 63

### New Orleans East Owl

#### Route Description

Route 63 is an owl route that connects downtown New Orleans to New Orleans East. In New Orleans East, the route makes a large coverage loop that travels in the Route 60, 62, and 64 service areas. One trip operates seven days a week.

Based on September 2011 ridership counts, weekday productivity on Route 62 is 20.2 boardings per hour. No data is available for ridership on Saturdays and Sundays.

#### Route Characteristics

Route 63 is a route making one trip nightly. In order to maximize coverage, it makes a number of deviations and loops that comprise a large loop between Downman/Dwyer and Paris Road/I-10.

Route 63 makes deviations to apartment complexes on Bundy from both Lake Forest and Morrison. Another deviation occurs on Bullard from Lake Forest to Dwyer. It does not appear that these deviations generate ridership activity.

The most productive segment of this route is between downtown New Orleans and Winn-Dixie, the segment which produces all but four of the boardings. The boarding patterns make it clear that most patrons are using Route 63 to return home.

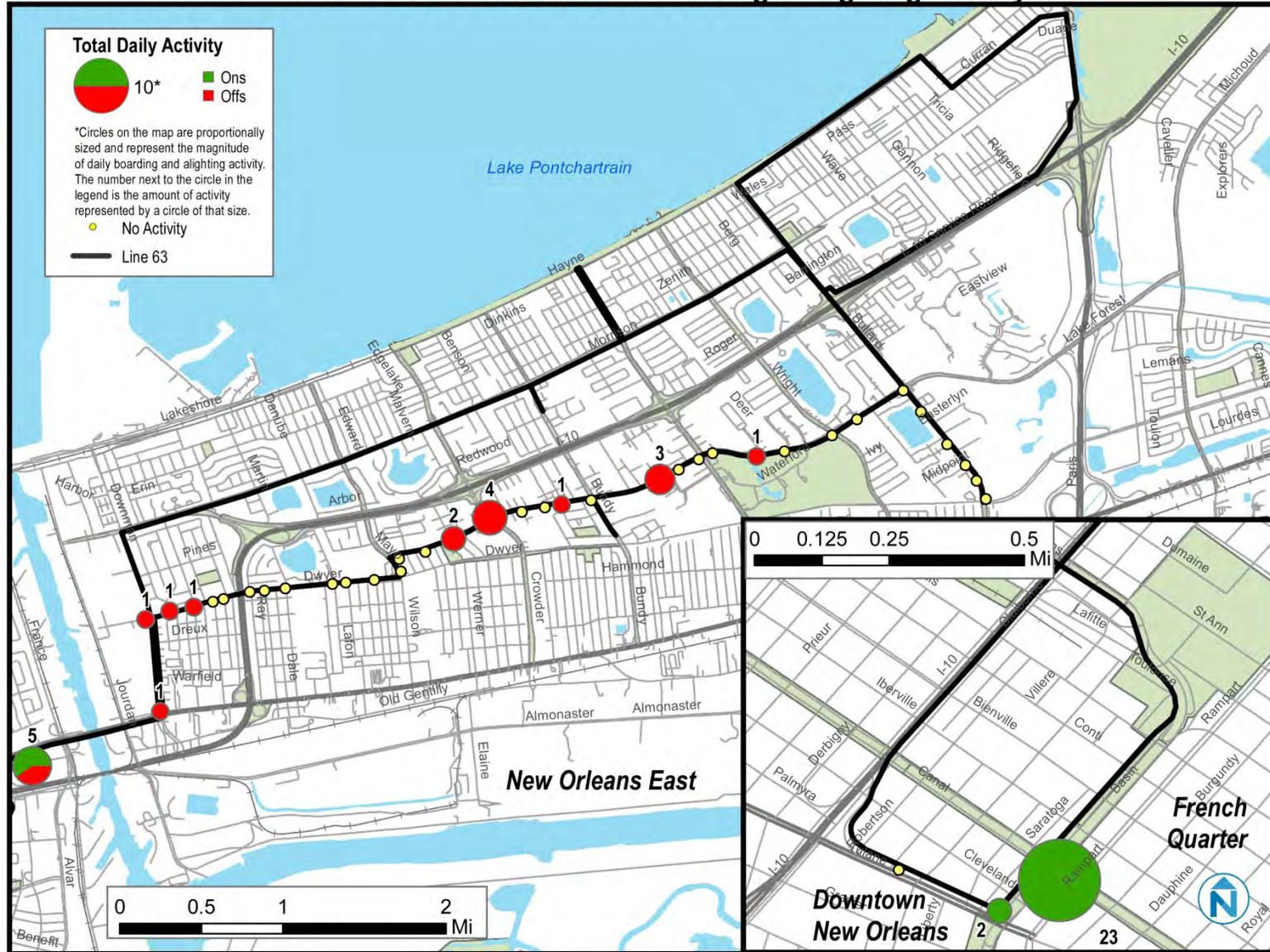
Route 94 Broad and the Canal Streetcar had the most transfers to and from Route 63. Another high transfer route includes Route 39 Tulane.

Route 63 does not appear to have late arrivals. However, nearly 90 percent of trips arrived early to scheduled timepoints.

<b>Route Statistics</b>	
<b>Riders</b>	
Sept. 2011 Ridership Counts:	
Weekday	34
Sept. 2011 Weekday Boardings / Hour	20.2
<b>Service Frequency</b>	
Weekday Peaks	N/A
Weekday Base	N/A
Weekday Evening	N/A
Weekend Base	N/A
<b>Service Span</b>	
Weekday	12:10A – 1:36A
Saturday	12:10A – 1:36A
Sunday	12:10A – 1:36A
<b>On-Time Performance</b>	
On-Time:	11.1 %
Early:	88.9 %
Late:	0.0 %



**NORTA Line 63 New Orleans East Owl Outbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

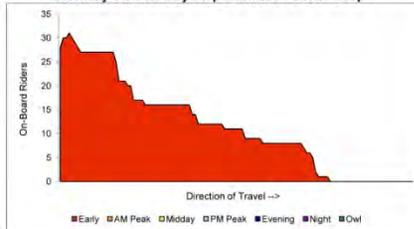
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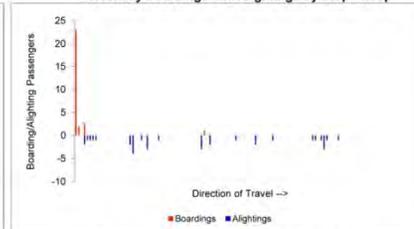
Line 63	Passenger Summary								
	Total			Productivity			Maximum On-Board Loading		
<b>Weekday Line Profile</b>									
<b>Total</b>	29	34	1.4			20.2	31		
<b>By Direction</b>									
Loop	29	34	1.4			20.2	31	Winn Dixie and Desire Street &	L
<b>By Segment</b>									
1 EkPlace and Canal & 0 to Winn Dixie and Desire Street & 0	25		0.2			150.0			
2 Winn Dixie and Desire Street & 0 to Lake Forest and Crowder & 0	3	8	0.2			12.9			
3 Lake Forest and Crowder & 0 to Dwyer and Bullard & 0		9	0.2						
4 Dwyer and Bullard & 0 to Bullard and Lakeland Hospital & 0			0.1						
5 Bullard and Lakeland Hospital & 0 to Hayne and Vincent & 0	1	6	0.2			6.7			
6 Hayne and Vincent & 0 to Morrison and Read & 0		5	0.3						
7 Morrison and Read & 0 to Read and Hayne & 0		1	0.0						
8 Read and Hayne & 0 to Downman and Chef Highway & 0		5	0.3						
9									
10									
<b>By Time Period</b>									
AM									
Midday									
PM									
Eve									
Night									
Owl	29	34							

Line 63	Operations Summary Schedule		
	<b>Weekday Line Profile</b>		
<b>Total</b>	11.1%	88.9%	0.0%
<b>By Direction</b>			
Loop	11.1%	88.9%	0.0%
<b>By Segment</b>			
1 EkPlace and Canal & 0 to Winn Dixie and Desire Street & 0		100.0%	
2 Winn Dixie and Desire Street & 0 to Lake Forest and Crowder & 0		100.0%	
3 Lake Forest and Crowder & 0 to Dwyer and Bullard & 0		100.0%	
4 Dwyer and Bullard & 0 to Bullard and Lakeland Hospital & 0		100.0%	
5 Bullard and Lakeland Hospital & 0 to Hayne and Vincent & 0		100.0%	
6 Hayne and Vincent & 0 to Morrison and Read & 0		100.0%	
7 Morrison and Read & 0 to Read and Hayne & 0		100.0%	
8 Read and Hayne & 0 to Downman and Chef Highway & 0		100.0%	
9			
10			

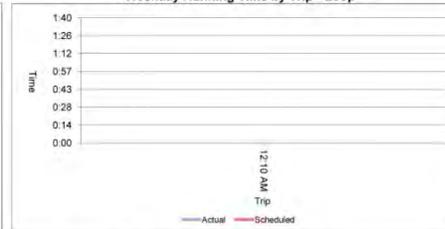
Weekday On-Board by Stop and Time Period - Loop



Weekday Boardings and Alightings by Stop - Loop



Weekday Running Time by Trip - Loop



Weekday On-Board by Stop and Time Period -



Weekday Boardings and Alightings by Stop -



Weekday Running Time by Trip -



## Route 64 Lake Forest Express

### Route Description

Route 64 connects New Orleans East with downtown New Orleans, largely serving areas south of I-10 on Dwyer and Lake Forest. Between the Industrial Canal and downtown New Orleans, Route 64 operates mostly on I-10. Route 64 operates seven days a week.

Based on 2010 annual data, weekday productivity on Route 64 is 28.5 boardings per hour. This is impressive due to the long freeway running segment. Saturday productivity is 21.1 boardings per hour and Sunday's is 17.5 boardings per hour.

### Route Characteristics

Productivity on Route 64, based on September 2011 ridership counts, is consistent throughout the day, with daytime boardings per hour ranging between 34 and 37, and 26 and 28 during evening/night hours.

Ridership, though weaker on the terminal loop, is strong throughout the route, indicating strong termini and mid-route ridership, particularly on Read and Lake Forest Boulevards. Seventy percent of the ridership boards or alights in downtown New Orleans, indicating that the express run is an important part of the route.

Route 64 runs at irregular 45 or 90 minute frequencies throughout its span of service, making schedule transfers to other routes difficult.

Route 94 Broad and the Canal Streetcar were the most popular transfers to and from Route 64. It is likely that New Orleans East riders on Route 94 are transferring to Route 64, much like 62, for the faster ride to downtown New Orleans. Another high transfer route is the Route 39 Tulane.

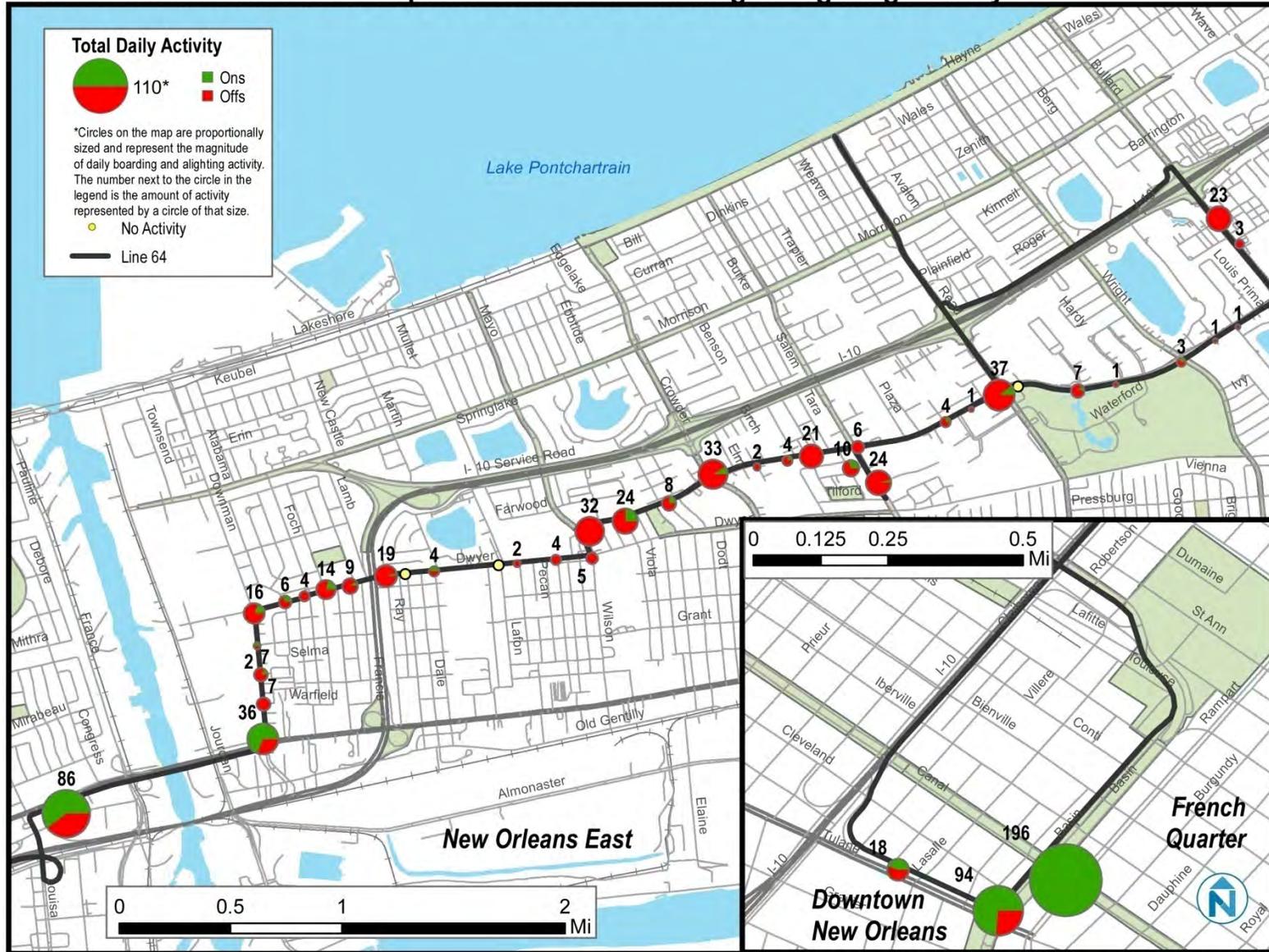
Route 64 has poor on-time performance, with almost 25 percent of trips arriving late. Late trips are most common in the AM peak and midday, whereas early trips are more common in the afternoon. It appears that more scheduled running time is necessary prior to 3 PM.

Route 64 had one inbound AM peak trip carrying 43 passengers and an outbound PM peak trip carrying 42 passengers.

<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	1,022
Saturday	890
Sunday	435
2010 Weekday Boardings / Hour	28.5
<b>Service Frequency</b>	
Weekday Peaks	45 min
Weekday Base	90 min
Weekday Evening	90 min
Weekend Base	45-90 min
<b>Service Span</b>	
Weekday	5:05A – 12:05A
Saturday	5:05A – 12:05A
Sunday	5:05A – 12:05A
<b>On-Time Performance</b>	
On-Time:	57.6 %
Early:	17.7 %
Late:	24.7 %



**NORTA Line 64 Lake Forest Express Outbound Boarding & Alighting Activity**



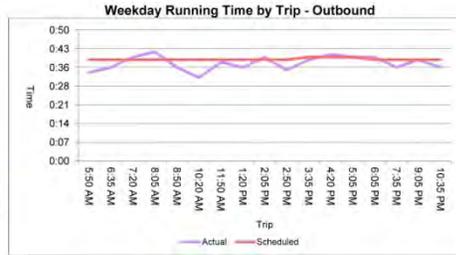
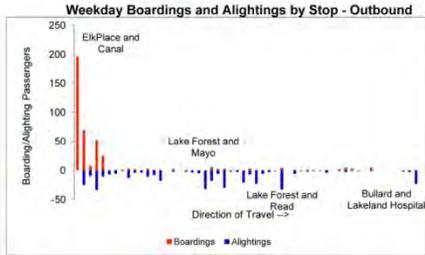
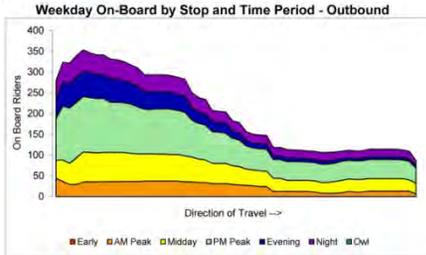
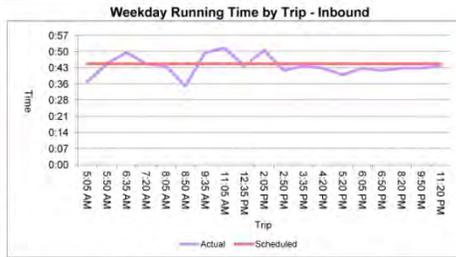
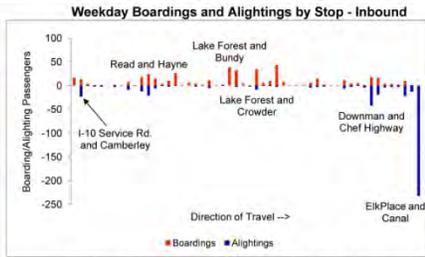
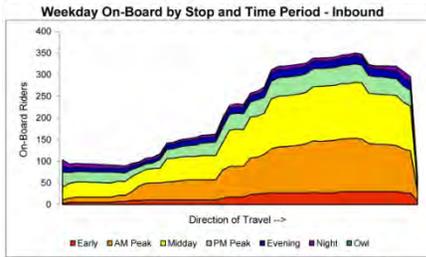
Data Sources: U.S. Census Bureau, NORPC, ESRI

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Line 64	Passenger Summary										
	Total					Productivity			Maximum On-Board Loading		
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location	Dir
<b>Total</b>	851	872		24.6			34.7		353	Downman and Chef Highway &	O
<b>By Direction</b>											
Inbound	448	472		13.5			33.2		350	Downman and Filmore &	I
Outbound	403	400		11.1			36.5		353	Downman and Chef Highway &	O
<b>By Segment</b>											
1 Bullard and Lakeland Hospital & 0 to Read and Lake Forest & 0	176	170		7.0			25.1				
2 Read and Lake Forest & 0 to Lake Forest and Crowder & 0	97	107		4.0			24.4				
3 Lake Forest and Crowder & 0 to Downman and Chef Highway & 0	199	188		5.8			34.1				
4 Downman and Chef Highway & 0 to Winn Dixie and Desire Street & 0	70	76		1.8			38.9				
5 Winn Dixie and Desire Street & 0 to ElkPlace and Canal & 0	309	331		6.7			46.0				
6											
<b>By Time Period</b>											
AM	192	195		5.6			34.3		123	Downman and Filmore &	I
Midday	258	254		7.0			38.9		130	Downman and Selma &	I
PM	190	222		5.6			33.9		134	Winn Dixie and Desire Street &	O
Eve	101	101		3.6			28.5		60	Winn Dixie and Desire Street &	O
Night	74	71		2.8			28.4		52	Winn Dixie and Desire Street &	O
Owl											O

Line 64	Operations Summary		
	Schedule		
	% On-Time	% Early	% Late
<b>Total</b>	57.6%	17.7%	24.7%
<b>By Direction</b>			
Inbound	62.3%	23.7%	14.0%
Outbound	52.9%	11.8%	35.3%
<b>By Segment</b>			
1 Bullard and Lakeland Hospital & 0 to Read and Lake Forest & 0	63.9%	16.7%	19.4%
2 Read and Lake Forest & 0 to Lake Forest and Crowder & 0	50.0%	27.8%	22.2%
3 Lake Forest and Crowder & 0 to Downman and Chef Highway & 0	55.6%	25.0%	19.4%
4 Downman and Chef Highway & 0 to Winn Dixie and Desire Street & 0	58.3%	16.7%	25.0%
5 Winn Dixie and Desire Street & 0 to ElkPlace and Canal & 0	55.6%	16.7%	27.8%
6			



## Route 80 Louisa

### Route Description

Route 80 Louisa is a crosstown route connecting the Bywater neighborhood with the Park and Lake campuses of Southern University. The route operates largely on Louisa and Press. Route 80 operates on the same schedule seven days a week.

Based on 2010 annual data, weekday productivity on Route 80 is 12.0 boardings per hour. Saturday productivity is 7.5 boardings per hour and Sunday's is 4.4 boardings per hour.

### Route Characteristics

Route 80 is a coverage route that operates infrequently. Ridership is correspondingly low. Route 80 has one of the poorest raw ridership levels in the RTA system; at 244 riders per weekday, it only carries more riders than routes 5, 32, and 45. It did not do enough to meet RTA's performance standards for weekend productivity and subsidy per passenger, based on year 2010 data.

Route 80 features a mid-route loop between Pontchartrain Park and Chef Menteur Highway. It is the least productive part of the route, as it can force long, out of direction trips, and serves only 9.4 boardings per hour. All other segments board at least 20 per hour.

Route 80 is most productive during peak periods. Southbound ridership indicates a tendency of riders to transfer to Route 88 St. Claude, which generates the heaviest amount of transfer activity to and from Route 80. Route 94 Broad is the only other line with significant transfers to and from route 80.

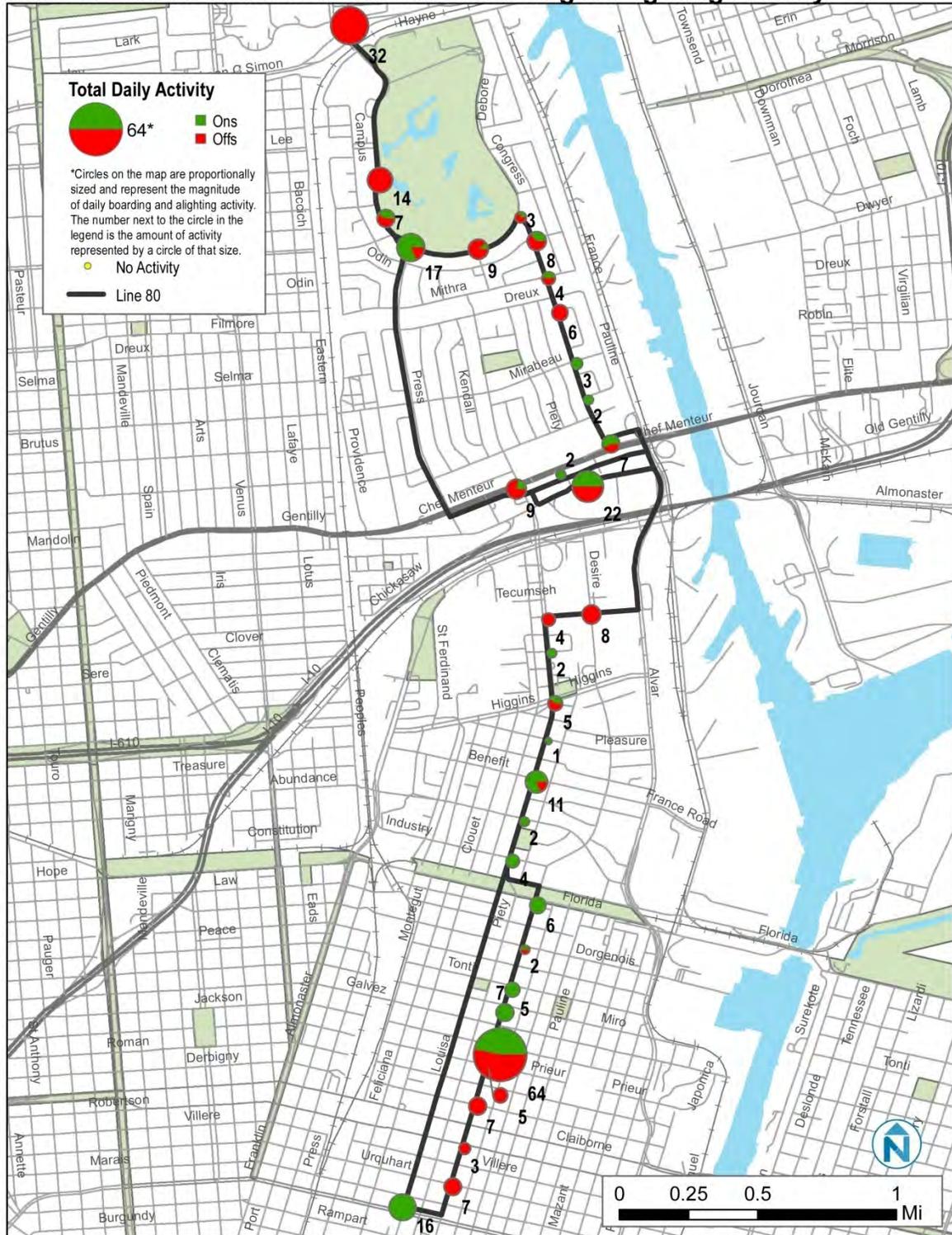
Frequencies operate at an irregular 70 minutes during the entire span of service, making transfers to other routes difficult.

Route 80 features an unusual mid-route layover northbound at Desire and Galvez. Ridership counts are high, but this may be due to its official southbound terminal status, with through passengers being counted twice as both boarding and alighting. This correlates with the relative lack of transfers between routes 80 and 84.

There are no capacity issues on route 80, as the largest load it carried during passenger counts was 18.

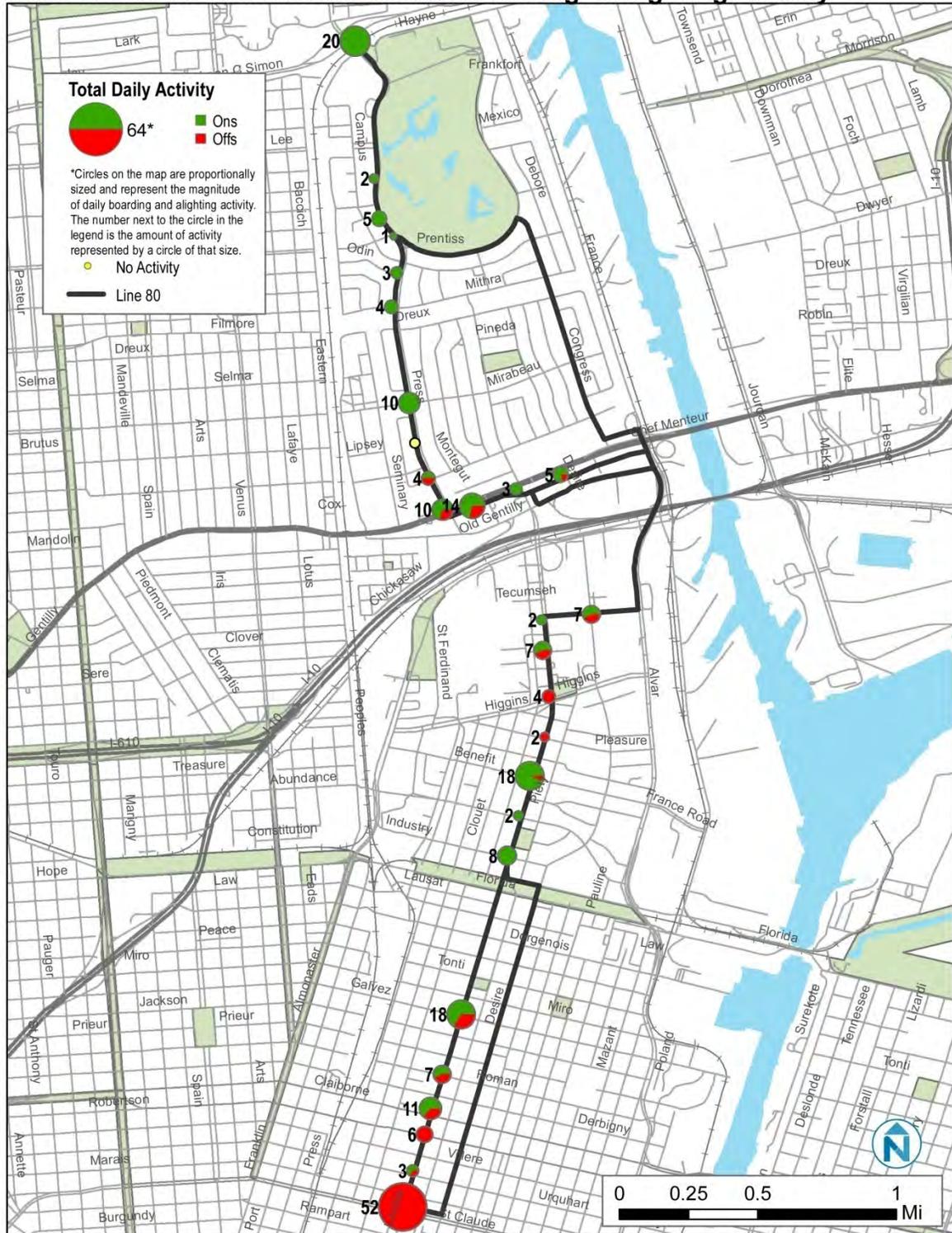
<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	244
Saturday	163
Sunday	71
2010 Weekday Boardings / Hour	12.0
<b>Service Frequency</b>	
Weekday Peaks	70 min
Weekday Base	70 min
Weekday Evening	70 min
Weekend Base	70 min
<b>Service Span</b>	
Weekday	6:34A – 9:09P
Saturday	6:34A – 9:09P
Sunday	6:34A – 9:09P

**NORTA Line 80 Louisa Northbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

**NORTA Line 80 Louisa Southbound Boarding & Alighting Activity**



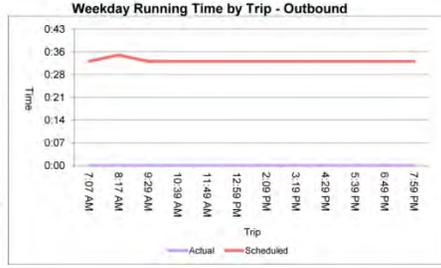
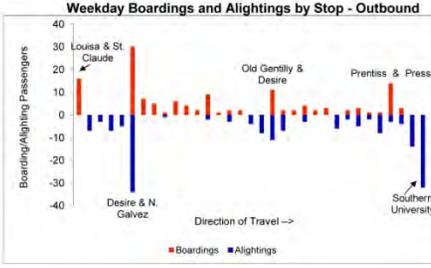
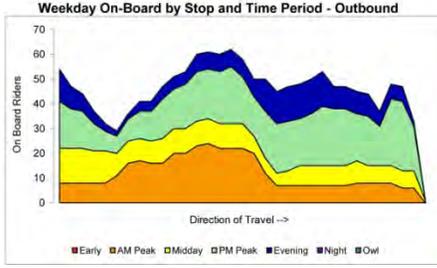
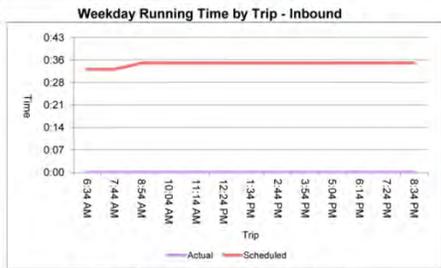
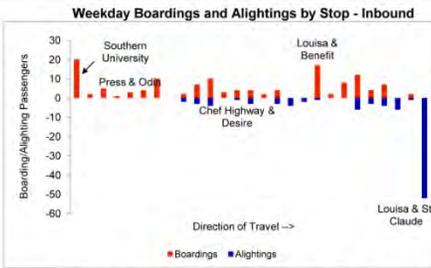
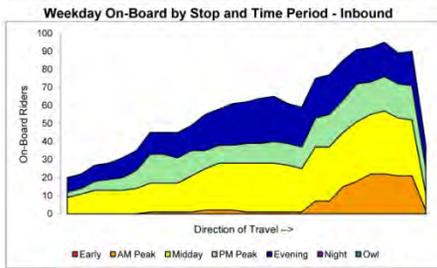
Data Sources: U.S. Census Bureau, NORPC, ESRI

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Line 80	Passenger Summary										
	Total					Productivity			Maximum On-Board Loading		
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location	Dir
<b>Weekday Line Profile</b>											
<b>Total</b>	266	266	14.1				18.9		95	Louisa & N. Claiborne &	I
<b>By Direction</b>											
Inbound	133	95	6.7				20.0		95	Louisa & N. Claiborne &	I
Outbound	133	171	7.4				17.9		62	Louisa & Acacia &	O
<b>By Segment</b>											
1 Southern University & 0 to Chef Highway & Desire & 0	102	88	4.8				21.4				
2 Chef Highway & Desire & 0 to Louisa & Higgins & 0	31	40	3.3				9.4				
3 Louisa & Higgins & 0 to Louisa & N Galvez & 0	92	44	3.3				27.9				
4 Louisa & N Galvez & 0 to Louisa & St. Claude & 0	41	94	1.9				21.2				
<b>By Time Period</b>											
AM	58	58	2.2				26.0		24	Louisa & Pleasure &	O
Midday	72	67	6.2				11.6		35	Louisa & N. Claiborne &	I
PM	93	98	2.9				32.3		28	Press & Pressburg &	O
Eve	43	43	2.8				15.4		25	Chickasaw & Louisa &	I
Night											O
Owl											O

Line 80	Operations Summary		
	Schedule		
<b>Weekday Line Profile</b>			
<b>Total</b>	100.0%		
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 Southern University & 0 to Chef Highway & Desire & 0	100.0%		
2 Chef Highway & Desire & 0 to Louisa & Higgins & 0	100.0%		
3 Louisa & Higgins & 0 to Louisa & N Galvez & 0	100.0%		
4 Louisa & N Galvez & 0 to Louisa & St. Claude & 0	100.0%		



## Route 84 Galvez

### Route Description

Route 84 Galvez connects the Lower 9<sup>th</sup> Ward with downtown New Orleans, largely serving areas along Galvez and Miro streets. It accesses the Lower 9<sup>th</sup> Ward via the Claiborne Avenue Bridge. Route 84 operates seven days a week.

Based on 2010 annual data, weekday productivity on Route 84 is 19.1 boardings per hour. Saturday productivity is 11.5 boardings per hour and Sunday's is 7.9 boardings per hour. Weekday ridership counts in September 2011 indicate a significant improvement from this, showing a productivity of 30.3 per hour.

### Route Characteristics

Based on September 2011 ridership counts, Route 84 shows strong ridership throughout peak and midday periods, carrying over 31 passengers per hour. Clearly, ridership has grown since 2010. Productivity falls significantly after 6pm, to under 20 boardings per hour.

Approximately 46 percent of passengers board or alight in downtown New Orleans. Ridership is strong throughout the route, peaking at Tulane/Loyola, and at transfer points inbound of Franklin.

Headways operate at irregularly at 40/80 min at all times, making transfers to other routes difficult.

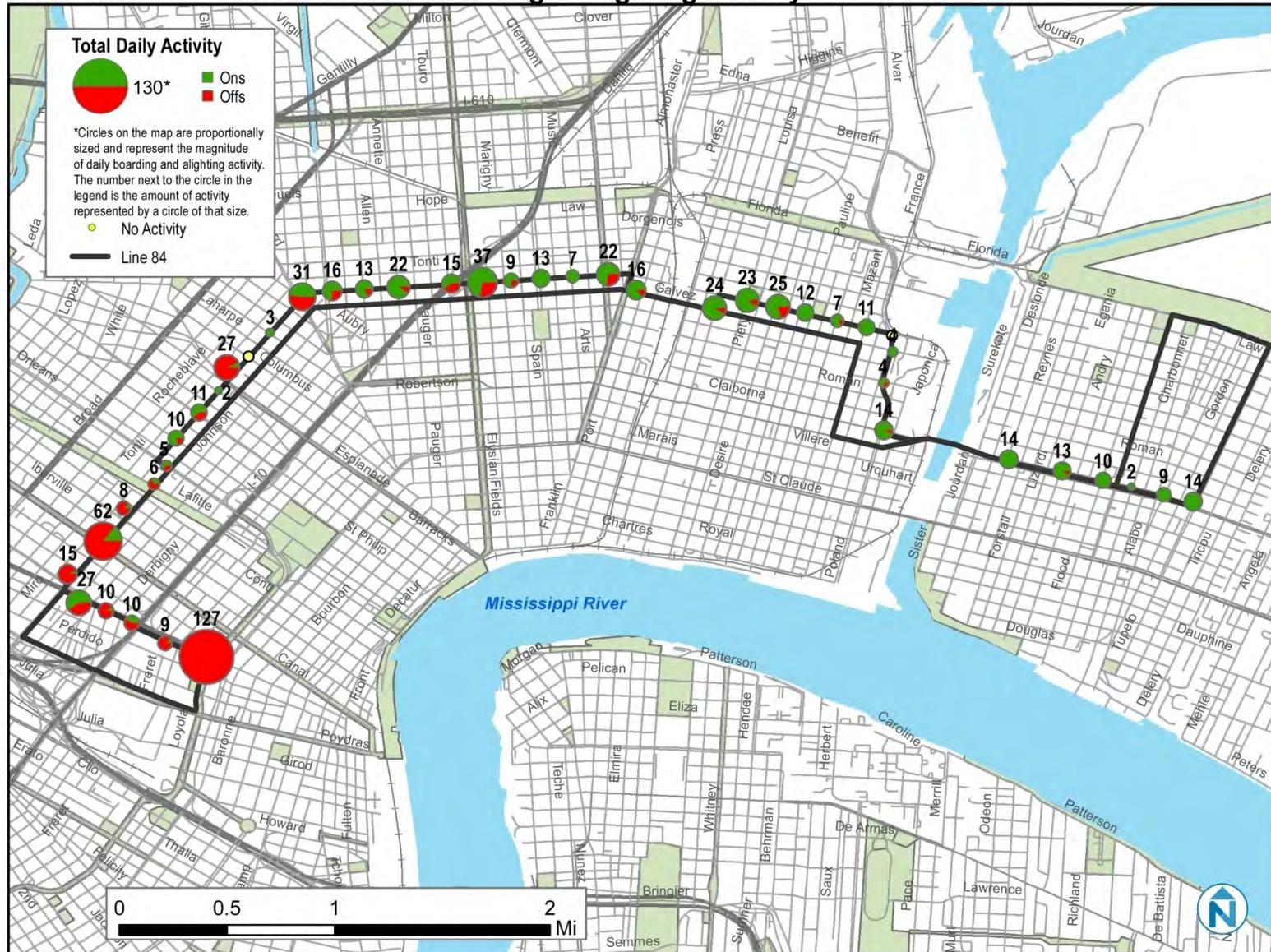
The heaviest transfer activity for Route 84 comes to and from Route 39 Tulane and the Canal Streetcar. Other routes generating significant transfer activity include the St. Charles Streetcar and Route 91 Jackson-Esplanade. Three of these include some of RTA's most frequent routes.

Route 84 operates on-time 79 percent of the time. Late running is relatively rare and most heavily concentrated on the inbound peak.

There are no capacity issues on route 84, as the largest load it carried during passenger counts was 33.

<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	813
Saturday	430
Sunday	211
2010 Weekday Boardings / Hour	19.1
<b>Service Frequency</b>	
Weekday Peaks	40 min
Weekday Base	40 min
Weekday Evening	80 min
Weekend Base	40 min
<b>Service Span</b>	
Weekday	5:45A – 9:52P
Saturday	5:47A – 9:52P
Sunday	5:47A – 9:52P
<b>On-Time Performance</b>	
On-Time:	78.9 %
Early:	12.6 %
Late:	8.5 %

**NORTA Line 84 Galvez Inbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI



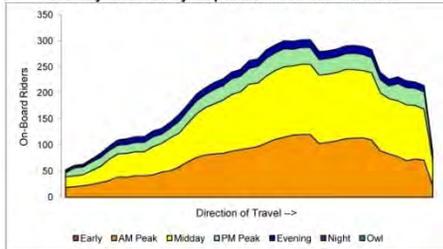
# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

## Regional Planning Commission

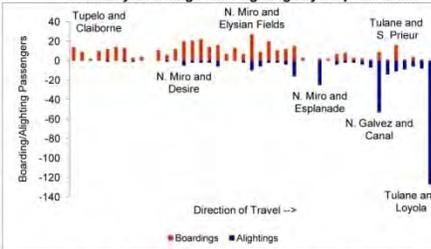
Line 84	Passenger Summary							Maximum On-Board Loading
	Total				Productivity		Max Total Passengers On Board	
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length		
<b>Weekday Line Profile</b>								
<b>Total</b>	768	749	25.4			30.3	302	
<b>By Direction</b>								
Inbound	384	335	11.6			33.2	302	N. Miro and Lapeyrouse & I
Outbound	384	414	13.8			27.8	302	N. Galvez and Saint Bernard & O
<b>By Segment</b>								
1 Tupelo and Claiborne & 0 to N. Miro and Franklin & 0	243	247	10.1			24.0		
2 N. Miro and Franklin & 0 to S. Miro and Saint Bernard & 0	165	139	4.9			33.7		
3 S. Miro and Saint Bernard & 0 to N. Galvez and Canal & 0	156	93	5.3			29.7		
4 N. Galvez and Canal & 0 to Tulane and Loyola & 0	204	270	5.3			38.9		
<b>By Time Period</b>								
AM	192	188	5.5			34.8	120	N. Miro and Lapeyrouse & I
Midday	339	313	10.8			31.4	136	N. Galvez and Columbus & O
PM	152	163	4.8			31.7	85	N. Galvez and Saint Bernard & O
Eve	72	74	3.6			20.0	49	N. Galvez and Saint Bernard & O
Night	11	11	0.7			16.9	9	S. Galvez and Tulane & O
Owl								O

Line 84	Operations Summary		
	Schedule		
	% On-Time	% Early	% Late
<b>Weekday Line Profile</b>			
<b>Total</b>	78.9%	12.6%	8.5%
<b>By Direction</b>			
Inbound	74.3%	11.4%	14.3%
Outbound	83.5%	13.8%	2.8%
<b>By Segment</b>			
1 Tupelo and Claiborne & 0 to N. Miro and Franklin & 0	75.0%	13.6%	11.4%
2 N. Miro and Franklin & 0 to S. Miro and Saint Bernard & 0	72.7%	15.9%	11.4%
3 S. Miro and Saint Bernard & 0 to N. Galvez and Canal & 0	83.3%	11.9%	4.8%
4 N. Galvez and Canal & 0 to Tulane and Loyola & 0	76.2%	14.3%	9.5%

**Weekday On-Board by Stop and Time Period - Inbound**



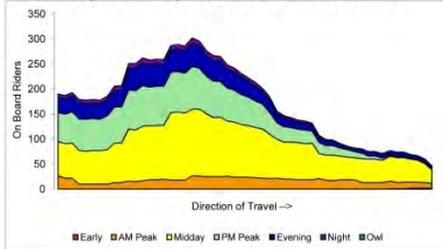
**Weekday Boardings and Alightings by Stop - Inbound**



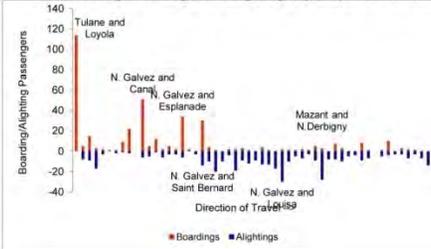
**Weekday Running Time by Trip - Inbound**



**Weekday On-Board by Stop and Time Period - Outbound**



**Weekday Boardings and Alightings by Stop - Outbound**



**Weekday Running Time by Trip - Outbound**



## Route 88 St. Claude-Jackson Barracks

### Route Description

Route 88 St. Claude connects the Lower 9th Ward with downtown New Orleans along the St. Claude Corridor. It accesses the Lower 9th Ward via the St. Claude Avenue Bridge.

Based on 2010 annual data, weekday productivity on Route 88 is 45.8 boardings per hour. Saturday productivity is 46.8 boardings per hour and Sunday's is 36.0 boardings per hour.

### Route Characteristics

Based on September 2011 ridership counts, weekday ridership is strong at all times of day and by segment. The most inbound segment between Canal and Esplanade is especially productive, at 97.8 boardings per hour. Ridership east of Esplanade is lower, but still showing high levels of productivity. Sixty-five percent of all ridership on Route 88 boards or alights at the downtown terminal, indicating orientation to that location. Other busy stops include Aycock, near/far sides at Elysian Fields, Franklin, Esplanade, and non-transfer stops at Forstall and Alvar.

Parts of Route 88 duplicate two other RTA routes; segments inbound of Franklin duplicate Route 57, and further in the French Quarter duplicate Route 91, inbound of Esplanade.

Transfer activity is primarily from the St. Charles and Canal Streetcars, and Route 39 Tulane.

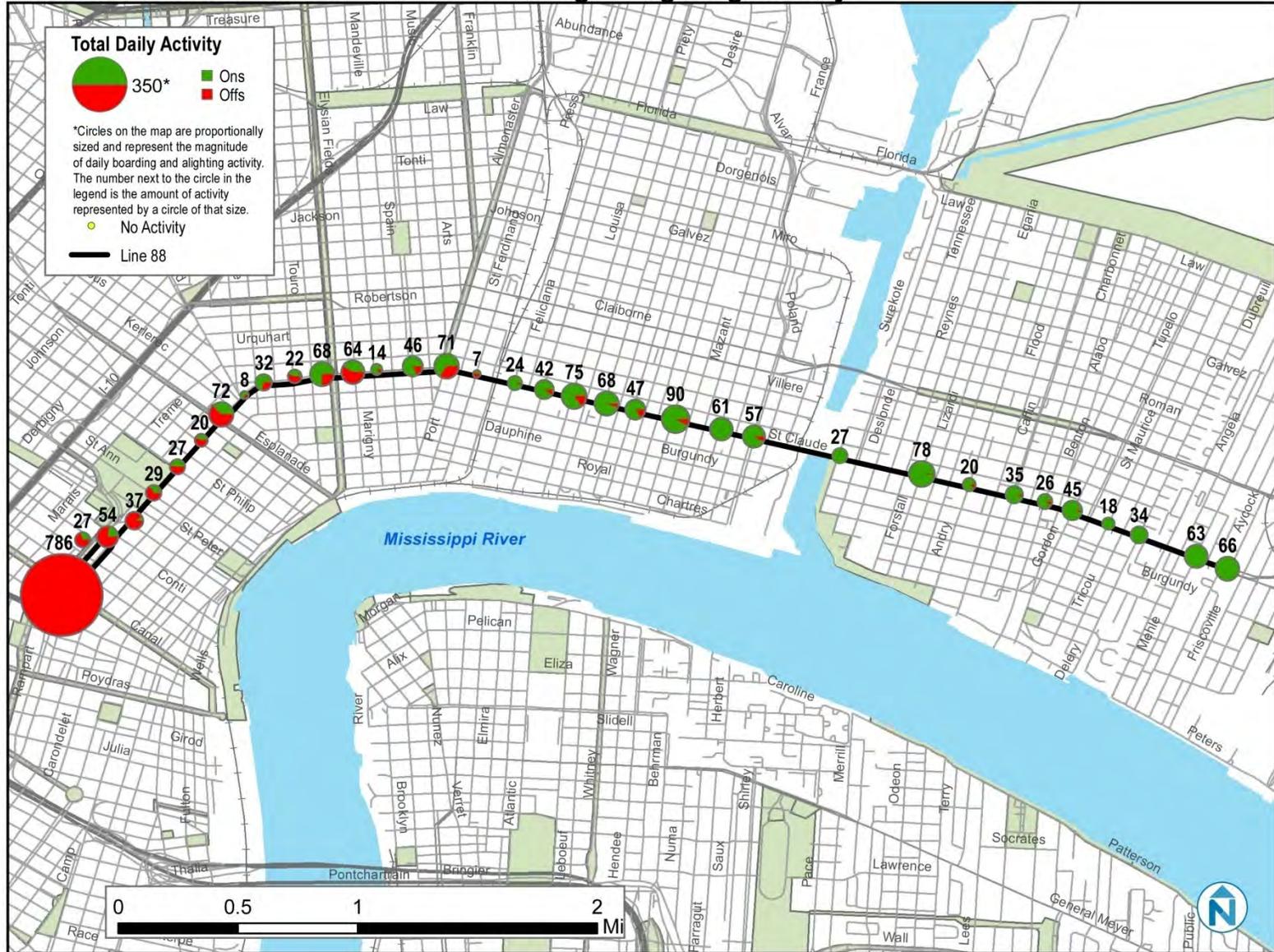
Buses run on regular 20-minute headways during peak periods, and at 30 or occasionally 60 minutes during off-peak periods, which simplifies transfers.

Approximately 62 percent of Route 88 trips arrive between zero and five minutes late. A similar number of trips are early and late. Late trips occur in the peak direction in peak periods, and some midday; early trips are common at other times.

Route 88 has severe capacity issues, particularly outbound after 3:00 PM. There are two full trips with loads of 46 and 53 in the inbound AM peak. There were eight outbound trips between 3:30 and 10:30 PM with loads of 37 passengers or more, with the 5:00 PM trip carrying a maximum load of 61 passengers.

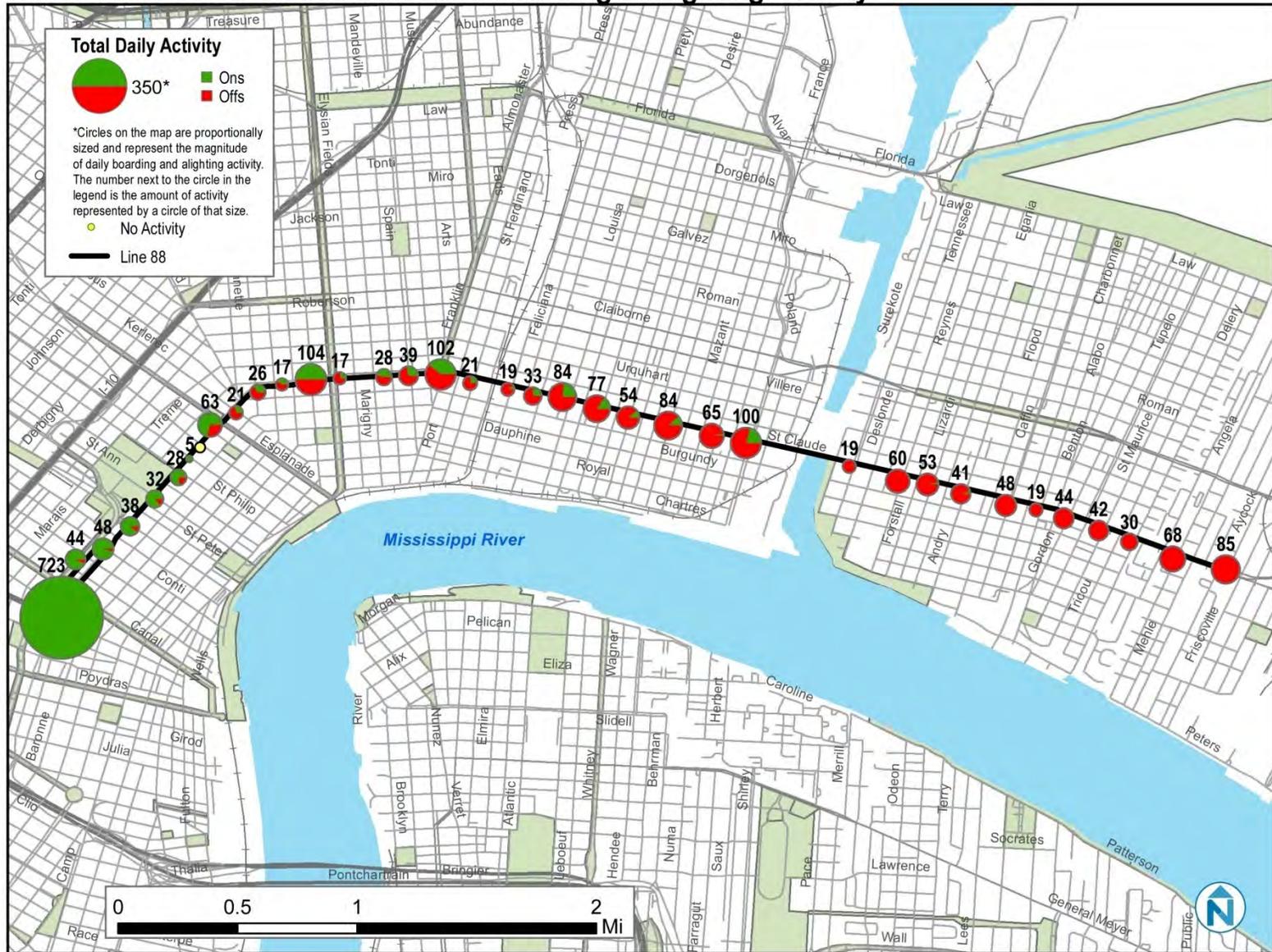
<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	2,467
Saturday	1,708
Sunday	859
2010 Weekday Boardings / Hour	45.8
<b>Service Frequency</b>	
Weekday Peaks	20 min
Weekday Base	20 min
Weekday Evening	30-60 min
Weekend Base	30 min
<b>Service Span</b>	
Weekday	5:14A – 1:45A
Saturday	5:44A – 1:45A
Sunday	5:44A – 11:45P
<b>On-Time Performance</b>	
On-Time:	61.9 %
Early:	17.2 %
Late:	20.9 %

**NORTA Line 88 St. Claude Inbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

**NORTA Line 88 St. Claude Outbound Boarding & Alighting Activity**



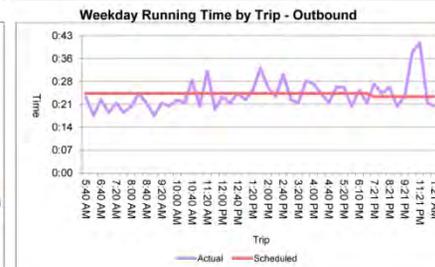
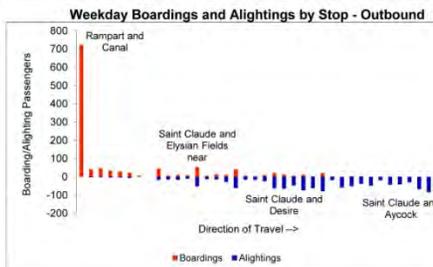
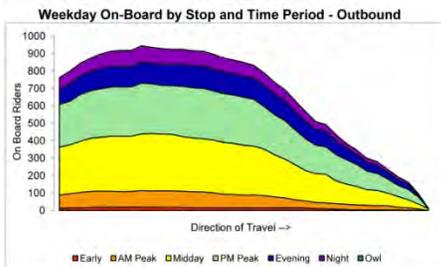
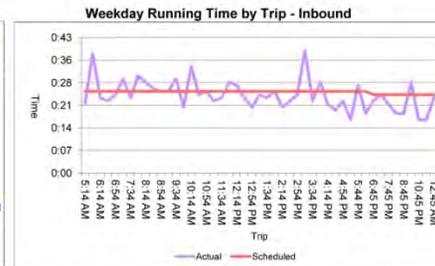
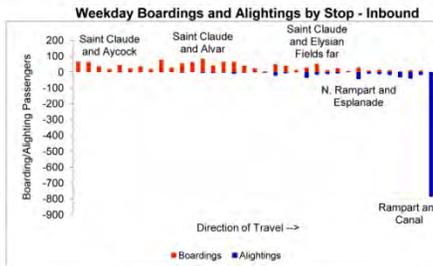
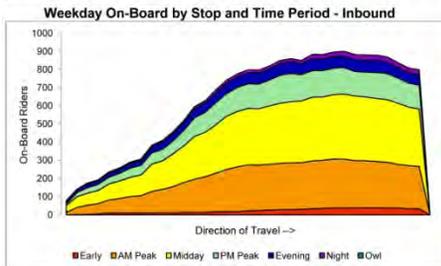
Data Sources: U.S. Census Bureau, NORPC, ESRI

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Line 88	Passenger Summary									
	Total					Productivity		Maximum On-Board Loading		
<b>Weekday Line Profile</b>	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location
<b>Total</b>	2307	2334	37.2				62.1	945		N. Rampart and Esplanade & O
<b>By Direction</b>										
Inbound	1130	1130	18.9				59.7	900		McShane and Saint Bernard & I
Outbound	1177	1204	18.2				64.6	945		N. Rampart and Esplanade & O
<b>By Segment</b>										
1 Saint Claude and Aycock & 0 to Saint Claude and Poland & 0	431	590	11.0				39.3			
2 Saint Claude and Poland & 0 to Saint Claude and Louisa & 0	351	336	7.8				44.8			
3 Saint Claude and Louisa & 0 to N. Rampart and Esplanade & 0	544	419	10.8				50.3			
4 N. Rampart and Esplanade & 0 to Rampart and Canal & 0	981	989	10.0				97.8			
<b>By Time Period</b>										
AM	446	443	6.8				65.6	270		McShane and Saint Anthony & I
Midday	867	881	15.3				56.7	359		McShane and Saint Bernard & I
PM	558	559	7.7				72.9	291		N. Rampart and Esplanade & O
Eve	241	247	4.6				53.0	127		Saint Claude and Spain & O
Night	128	137	2.9				44.9	94		N. Rampart and Esplanade & O
Owl										O

Line 88	Operations Summary		
	Schedule		
<b>Weekday Line Profile</b>	% On-Time	% Early	% Late
<b>Total</b>	61.9%	17.2%	20.9%
<b>By Direction</b>			
Inbound	65.1%	17.4%	17.4%
Outbound	58.7%	17.0%	24.3%
<b>By Segment</b>			
1 Saint Claude and Aycock & 0 to Saint Claude and Poland & 0	55.3%	20.2%	24.5%
2 Saint Claude and Poland & 0 to Saint Claude and Louisa & 0	56.4%	25.5%	18.1%
3 Saint Claude and Louisa & 0 to N. Rampart and Esplanade & 0	58.5%	18.1%	23.4%
4 N. Rampart and Esplanade & 0 to Rampart and Canal & 0	55.3%	20.2%	24.5%



## Route 91 Jackson-Esplanade

### Route Description

Route 91 Jackson-Esplanade connects Cemeteries with the Garden District/Uptown Wal-Mart, via City Park, Esplanade, downtown New Orleans, and Jackson Avenue.

Based on 2010 annual data, weekday productivity on Route 91 is 31.9 boardings per hour. Saturday productivity is 29.5 boardings per hour and Sunday's is 20.5 boardings per hour.

### Route Characteristics

Based on January 2011 ridership counts, productivity is consistent throughout most of the day. Productivity on the route is consistently strong, except for the segment between Broad and Cemeteries. Route 91 is essentially two different routes that are combined. Between Wal-Mart and Rampart is one distinct market and between Rampart and Cemeteries is the other.

Route 91 directly duplicates other routes in only one location, on Rampart Street between Canal and Esplanade, shared with Routes 57 and 88. Since Route 91 continues in both directions, the markets served are different.

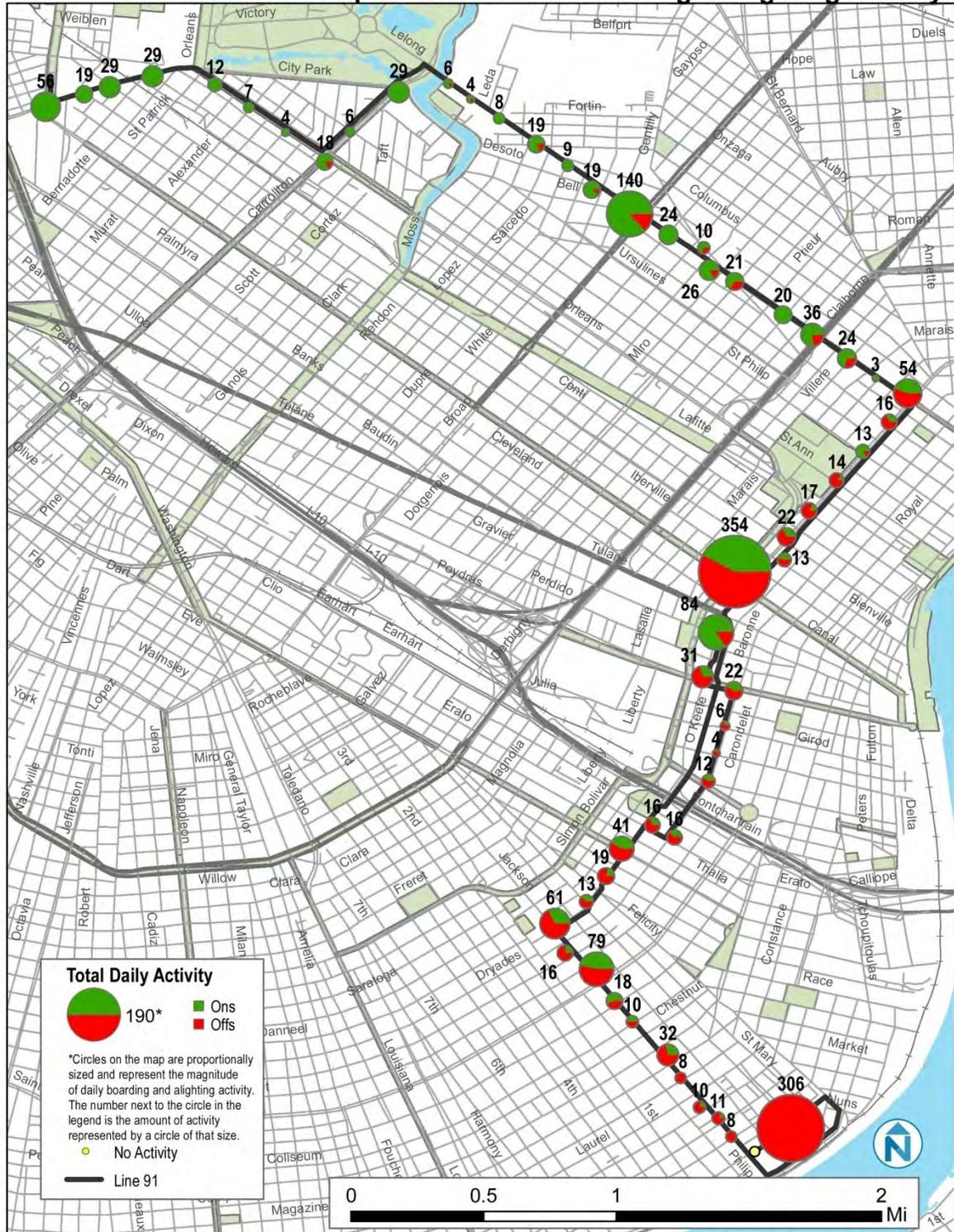
Ridership is heavily downtown oriented, with approximately half of riders boarding or alighting between Poydras and Canal in the New Orleans CBD. The terminal loop serving Wal-Mart sees major ridership activity as well, serving as the origin or destination of approximately 35 percent of trips. Other major ridership points include Esplanade/Broad and Jackson/St. Charles, which generate the greatest amount of transfer activity to and from Route 91.

Buses on Route 91 run at regular frequencies throughout the span of service, simplifying schedule memorization and transfers to other routes at all times.

Route 91 does not have capacity issues, as the largest load it carried during ridership counts was 33.

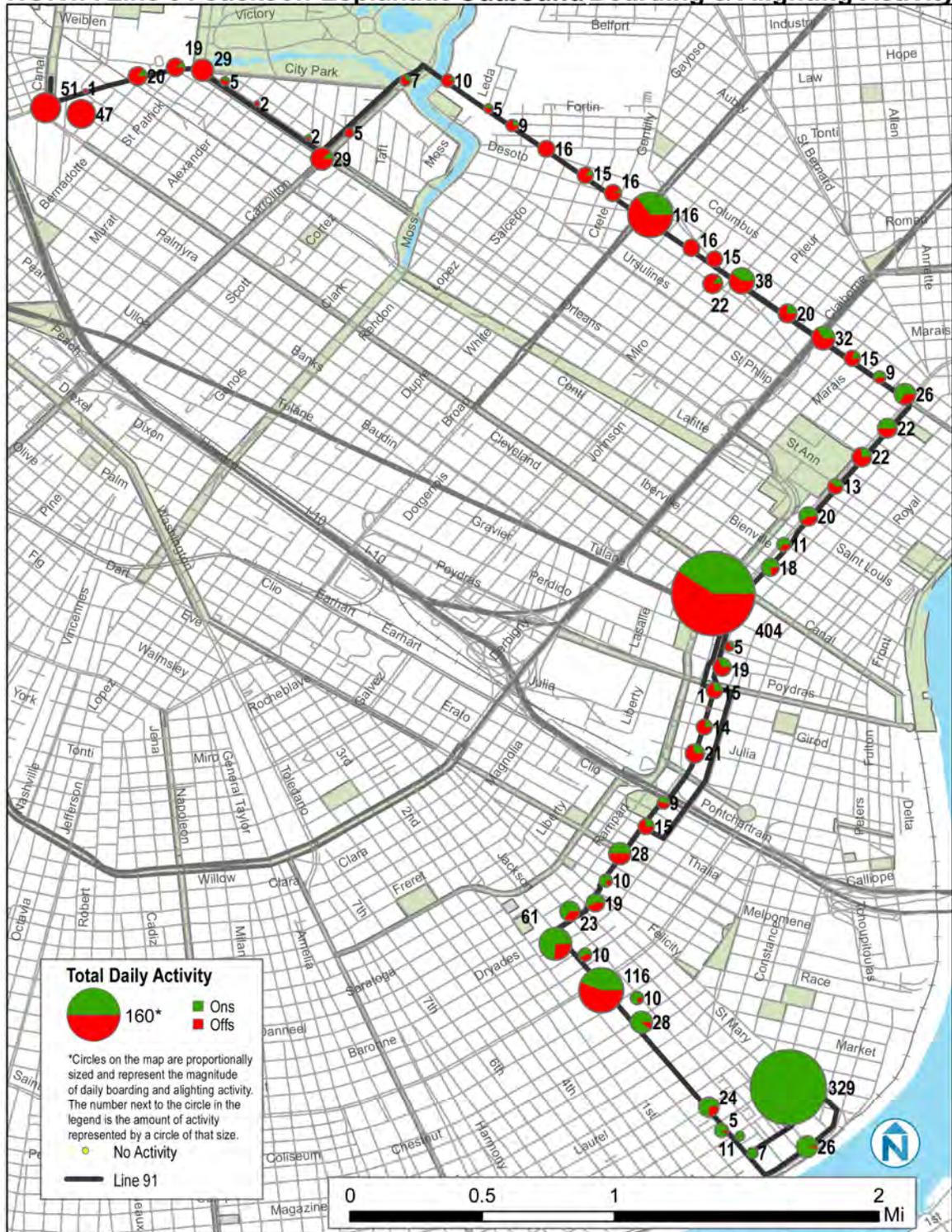
<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	2,564
Saturday	1,160
Sunday	859
2010 Weekday Boardings / Hour	31.9
<b>Service Frequency</b>	
Weekday Peaks	30 min
Weekday Base	30 min
Weekday Evening	60-120 min
Weekend Base	60 min
<b>Service Span</b>	
Weekday	5:01A – 12:46A
Saturday	5:01A – 11:50P
Sunday	5:01A – 11:50P

**NORTA Line 91 Jackson-Esplenade Inbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

**NORTA Line 91 Jackson-Esplanade Outbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

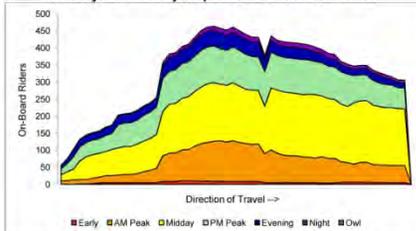
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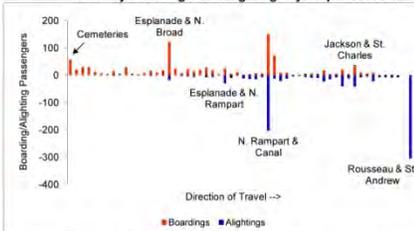
Line 91	Passenger Summary								Maximum On-Board Loading		
	Total				Productivity						
Weekday Line Profile	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location	Dir
<b>Total</b>	1921	1921	43.6				44.1	468		O. C. Haley & Euterpe &	O
<b>By Direction</b>											
Inbound	952	952	21.6				44.1	464		Esplanade & Tremé &	I
Outbound	969	969	22.0				44.0	468		O. C. Haley & Euterpe &	O
<b>By Segment</b>											
1 Cemeteries & 0 to Esplanade & N. Broad & 0	326	352	12.3				26.4				
2 Esplanade & N. Broad & 0 to Esplanade & N. Claiborne & 0	243	141	5.0				48.6				
3 Esplanade & N. Claiborne & 0 to N. Rampart & Canal & 0	351	421	6.0				58.5				
4 N. Rampart & Canal & 0 to O. C. Haley & M. L. King & 0	300	372	9.7				30.8				
5 O. C. Haley & M. L. King & 0 to Rousseau & St. Andrew & 0	701	635	12.0				58.4				
<b>By Time Period</b>											
AM	401	401	8.8				45.6		120	Esplanade & N. Rampart &	I
Midday	776	776	18.0				43.1		186	Poydras & Baronne &	I
PM	421	421	9.2				45.8		119	O. C. Haley & Euterpe &	O
Eve	240	240	4.5				52.9		77	Jackson & St. Charles &	O
Night	52	52	2.3				22.3		20	Rousseau & St. Andrew &	O
Owl	10	10	0.7				13.6		5	Esplanade & N. Broad &	O

Line 91	Operations Summary		
	Schedule		
Weekday Line Profile			
<b>Total</b>			
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 Cemeteries & 0 to Esplanade & N. Broad & 0	100.0%		
2 Esplanade & N. Broad & 0 to Esplanade & N. Claiborne & 0	100.0%		
3 Esplanade & N. Claiborne & 0 to N. Rampart & Canal & 0	100.0%		
4 N. Rampart & Canal & 0 to O. C. Haley & M. L. King & 0	100.0%		
5 O. C. Haley & M. L. King & 0 to Rousseau & St. Andrew & 0	100.0%		

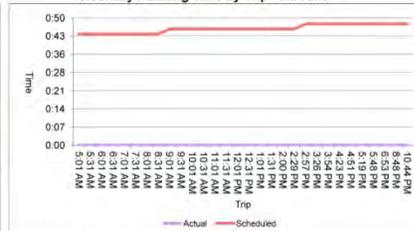
Weekday On-Board by Stop and Time Period - Inbound



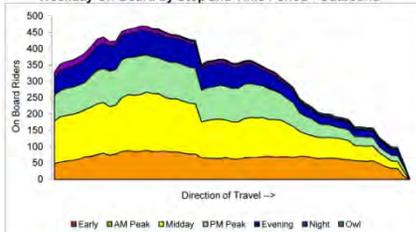
Weekday Boardings and Alightings by Stop - Inbound



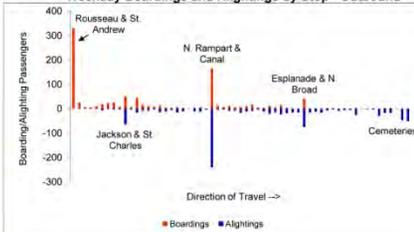
Weekday Running Time by Trip - Inbound



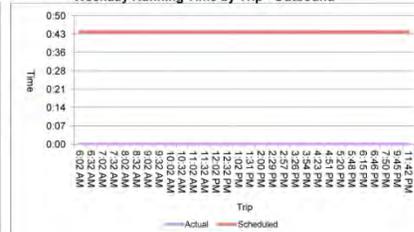
Weekday On-Board by Stop and Time Period - Outbound



Weekday Boardings and Alightings by Stop - Outbound



Weekday Running Time by Trip - Outbound



## Route 94 Broad

### Route Description

Route 94 Broad connects New Orleans East mostly via Chef Menteur Highway and Broad Street to the intersection of Broad and Washington. Service is seven days a week.

Based on 2010 annual data, weekday productivity on Route 94 is 32.2 boardings per hour. Saturday productivity is 30.7 boardings per hour and Sunday's is 21.6 boardings per hour.

### Route Characteristics

Based on September 2011 ridership counts, productivity is strong throughout the day. Evening ridership is about half that of its peak period equivalent (26 boardings per hour versus 50 per hour), and drops further to 15.5 boardings per hour during after 9 PM.

Considering that Route 94 does not access downtown New Orleans, ridership is excellent. The route segments between Read and Washington all carry more than 30 passengers per hour, with the segment between Saint Bernard and Canal generating 88 passengers per hour. Between Read and the route end, ridership drops significantly, with productivity averaging less than 12 passengers per hour. These eastern segments are over served and do not warrant this frequent service. A contributing factor to the low ridership is a mid-route loop that serves the NASA Michoud Assembly on outbound trips. This lengthens the route and forces out-of-direction trips.

Among all RTA bus routes, Route 94 generates more transfers than any other bus route, eclipsed by only the Canal Streetcar. These two routes alone generated 9,581 transfers for the system in September 2011, 6.3 percent of system wide transfers.

Other routes showing high transfer rates to/from Route 94 are Routes 39 Tulane, 55 Elysian Fields, and 62 Morrison. Route 94 has inconsistent, irregular headways throughout the day. Its frequency partially makes up for the irregular headways so transfers aren't as difficult.

On-time performance is poor due to early running, which is common on non-peak trips.

Route 94 has capacity issues, with 19 trips carrying maximum loads of 40 or greater passengers. Three morning peak trips have maximum loads of more than 60 passengers.

### Route Statistics

#### Riders

Avg. 2011 Ridership:	
Weekday	4,013
Saturday	2,389
Sunday	1,018
2010 Weekday Boardings / Hour	32.2

#### Service Frequency

Weekday Peaks	20-25 min
Weekday Base	20-24 min
Weekday Evening	20-30 min
Weekend Base	45 min

#### Service Span

Weekday	4:43A – 2:55A
Saturday	4:56A – 1:49A
Sunday	4:56A – 1:49A

#### On-Time Performance

On-Time:	57.0 %
Early:	26.7 %
Late:	16.3 %

### NORTA Line 94 Broad Inbound Boarding & Alighting Activity



Data Sources: U.S. Census Bureau, NORPC, ESRI



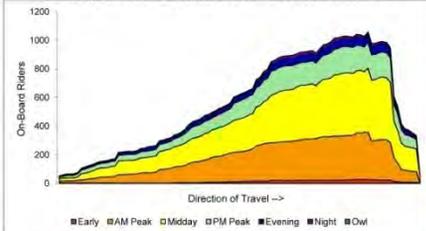
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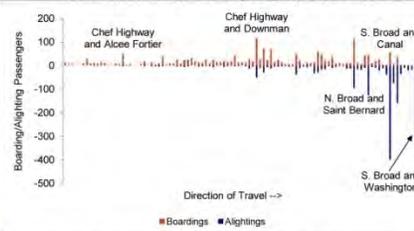
Line 94	Passenger Summary										
	Total					Productivity			Maximum On-Board Loading		
Weekday Line Profile	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location	Dir
<b>Total</b>	3842	3829		91.1			42.2	1,144		N. Broad and Esplanade &	O
<b>By Direction</b>											
Inbound	1809	1799		44.5			40.7	1,059		N. Broad and Columbus &	I
Outbound	2033	2030		46.6			43.6	1,144		N. Broad and Esplanade &	O
<b>By Segment</b>											
1 Michoud and Expedition & 0 to Chef Highway and Alcee Fortier & 0	160	173		13.7			11.7				
2 Chef Highway and Alcee Fortier & 0 to Chef Highway and Read & 0	203	251		19.3			10.5				
3 Chef Highway and Read & 0 to Chef Highway and Downman & 0	539	595		16.2			33.3				
4 Chef Highway and Downman & 0 to Chef Highway and Desire Drive & 0	179	164		5.1			35.4				
5 Chef Highway and Desire Drive & 0 to Gentilly and Elysian Fields Far & 0	566	527		11.6			48.8				
6 Gentilly and Elysian Fields Far & 0 to N. Broad and Saint Bernard & 0	414	422		9.4			43.8				
7 N. Broad and Saint Bernard & 0 to S. Broad and Canal & 0	1116	957		12.6			88.5				
8 S. Broad and Canal & 0 to S. Broad and Washington & 0	665	1030		10.7			62.0				
<b>By Time Period</b>											
AM	824	827		16.4			50.2	332		N. Broad and Columbus &	I
Midday	1584	1554		36.3			43.6	461		N. Broad and Esplanade &	O
PM	909	914		17.9			50.8	308		N. Broad and Bienville &	O
Eve	332	345		12.7			26.1	153		N. Broad and Esplanade &	O
Night	116	114		6.9			16.7	58		N. Broad and Esplanade &	O
Owl	3	3		0.8			3.7	2		Gentilly and Elysian Fields Far &	I

Line 94	Operations Summary Schedule		
	% On-Time	% Early	% Late
<b>Total</b>	57.0%	26.7%	16.3%
<b>By Direction</b>			
Inbound	61.4%	23.1%	15.5%
Outbound	52.6%	30.4%	17.0%
<b>By Segment</b>			
1 Michoud and Expedition & 0 to Chef Highway and Alcee Fortier & 0	60.0%	24.0%	16.0%
2 Chef Highway and Alcee Fortier & 0 to Chef Highway and Read & 0	50.5%	34.7%	14.9%
3 Chef Highway and Read & 0 to Chef Highway and Downman & 0	62.4%	19.8%	17.8%
4 Chef Highway and Downman & 0 to Chef Highway and Desire Drive & 0	53.5%	27.7%	18.8%
5 Chef Highway and Desire Drive & 0 to Gentilly and Elysian Fields Far & 0	55.4%	25.7%	18.8%
6 Gentilly and Elysian Fields Far & 0 to N. Broad and Saint Bernard & 0	53.5%	27.7%	18.8%
7 N. Broad and Saint Bernard & 0 to S. Broad and Canal & 0	58.4%	28.7%	14.9%
8 S. Broad and Canal & 0 to S. Broad and Washington & 0	54.7%	32.6%	12.6%

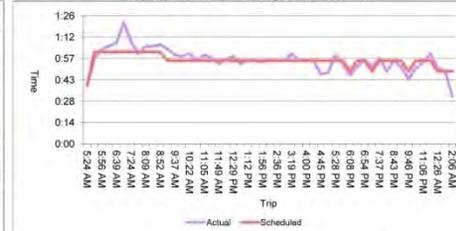
Weekday On-Board by Stop and Time Period - Inbound



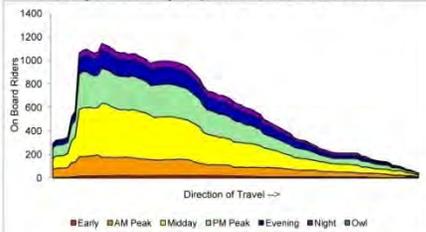
Weekday Boardings and Alightings by Stop - Inbound



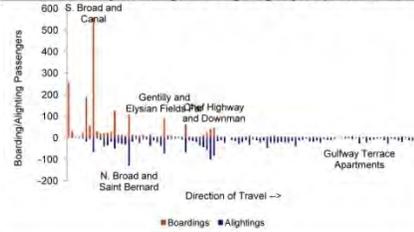
Weekday Running Time by Trip - Inbound



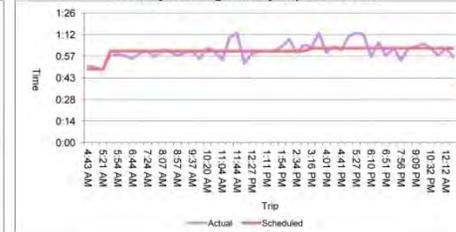
Weekday On-Board by Stop and Time Period - Outbound



Weekday Boardings and Alightings by Stop - Outbound



Weekday Running Time by Trip - Outbound



## Route 101 Algiers Loop

### Route Description

Route 101 Algiers Loop is one of the shorter routes in the RTA system, connecting the neighborhood of Algiers Point to downtown New Orleans via the Pontchartrain Expressway. Service is seven days a week.

Based on 2010 annual data, weekday productivity on Route 101 is 15.3 boardings per hour. Saturday productivity is 11.9 boardings per hour and Sunday's is 9.8 boardings per hour.

### Route Characteristics

Based on January 2011 ridership counts, productivity on route 101 is low, peaking in the AM peak at 19.3 boardings per hour. Ridership varies little after 9:00 AM, ranging between 11 and 14 boardings per hour depending on time of day.

Ridership productivity is better in Algiers than in downtown New Orleans. The Elk Place terminal is the highest ridership stop. Ridership is well distributed throughout the remainder of the route, save for portions of the Algiers Point loop on Opelousas and Patterson, many of whose stops served only one rider.

The heaviest transfer rates were to the Canal Streetcar and Route 39 Tulane, and to a lesser degree Route 88 St. Claude, indicating that many passengers who alight from Route 101 in downtown New Orleans transfer to other routes.

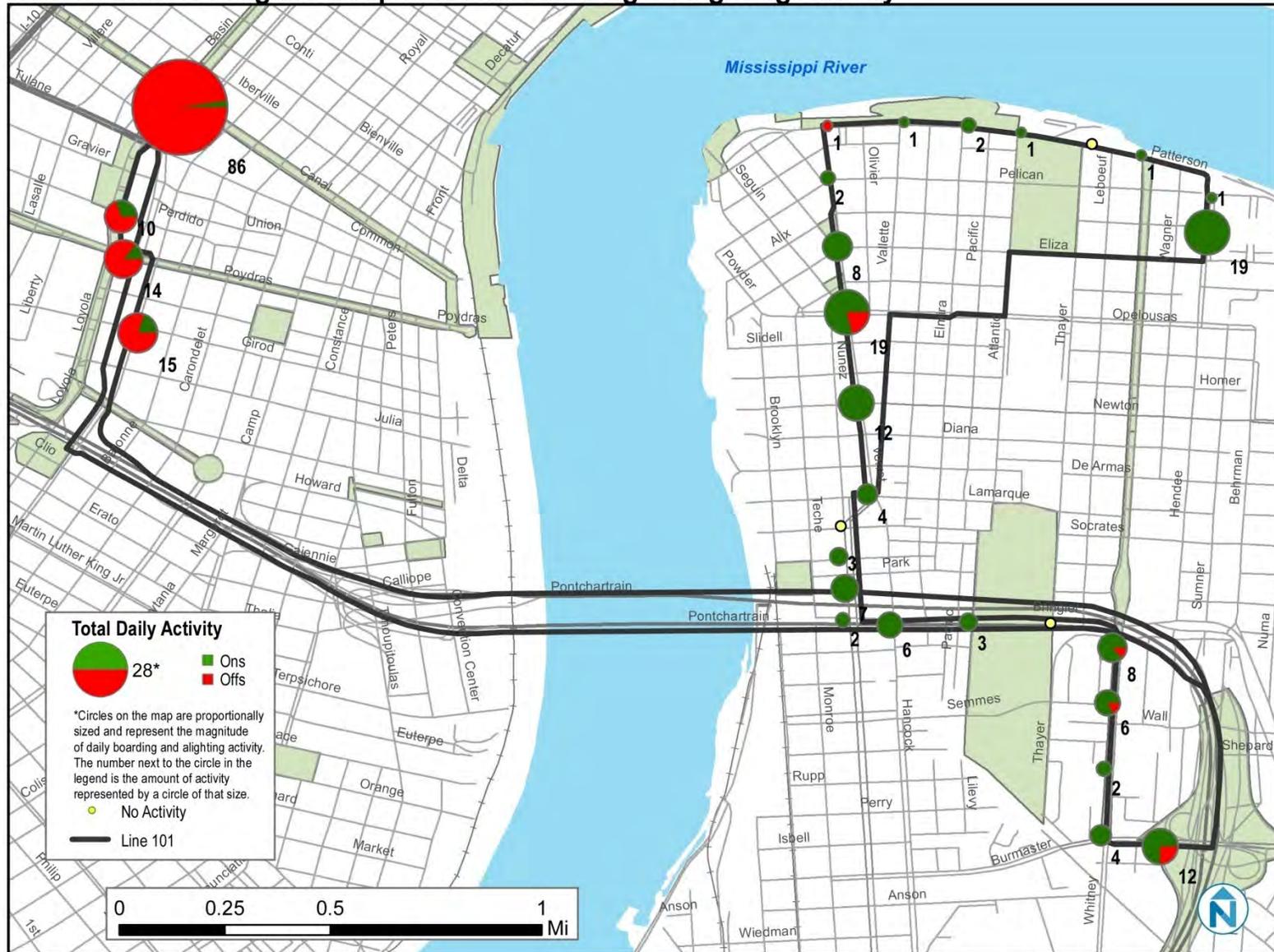
Route 101 duplicates small portions of Routes 102 and 114/115 between downtown New Orleans and to the western edge of the Crescent City Connection bridge and L.B. Landry/Mardi Gras with Route 102. In addition, the ferry between Canal and Algiers competes with Route 101 for riders.

Route 101 consistently runs at regular 60 minutes headways, nearly all day, simplifying transfers to other routes.

Route 101 has no capacity issues, as the largest load it ever carried during ridership counts was 16 passengers.

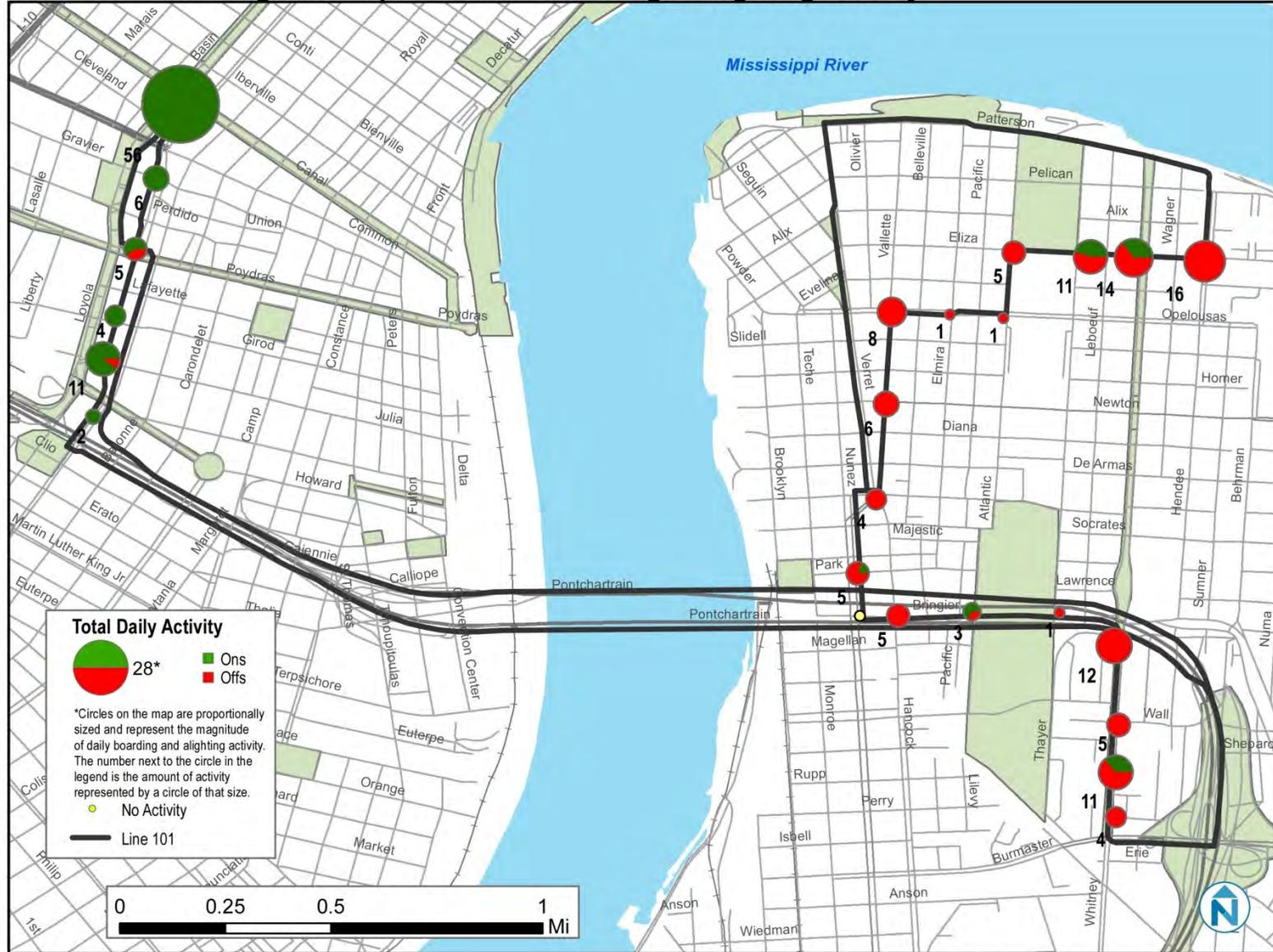
<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	441
Saturday	368
Sunday	241
2010 Weekday Boardings / Hour	15.3
<b>Service Frequency</b>	
Weekday Peaks	60 min
Weekday Base	60 min
Weekday Evening	60 min
Weekend Base	60 min
<b>Service Span</b>	
Weekday	5:02A – 10:17P
Saturday	5:02A – 10:17P
Sunday	5:02A – 10:17P

**NORTA Line 101 Algiers Loop Inbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

**NORTA Line 101 Algiers Loop Outbound Boarding & Alighting Activity**



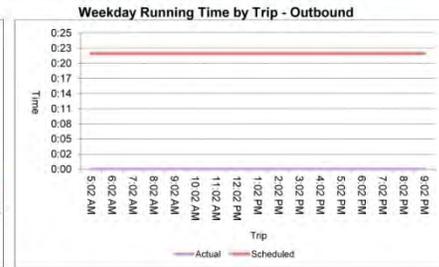
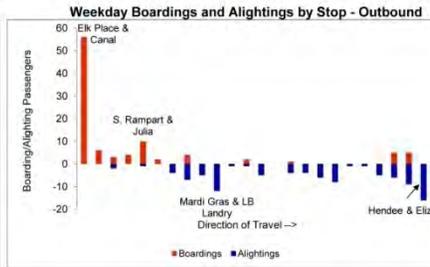
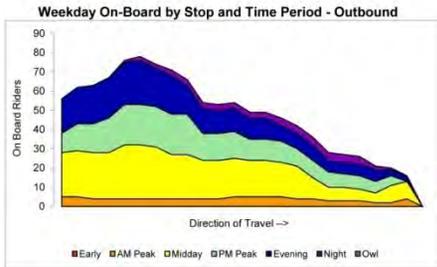
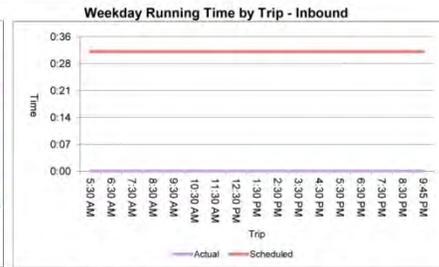
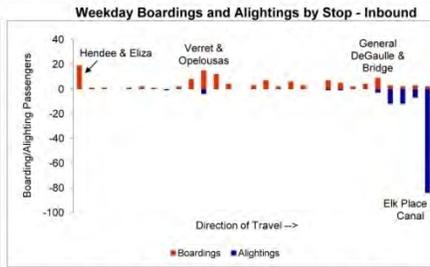
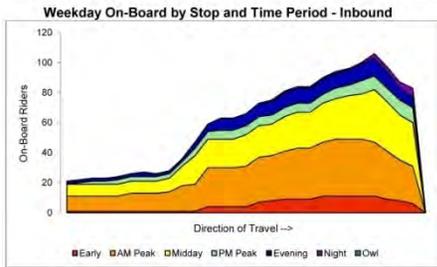
Data Sources: U.S. Census Bureau, NORPC, ESRI

# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

## Regional Planning Commission

Line 101	Passenger Summary										
	Total					Productivity			Maximum On-Board Loading		
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max. Total Passengers On Board	Location	Dir
<b>Weekday Line Profile</b>											
<b>Total</b>	222	223		14.4			15.4		106	General DeGaulle & Bridge &	I
<b>By Direction</b>											
Inbound	124	125		8.5			14.5		106	General DeGaulle & Bridge &	I
Outbound	98	98		5.9			16.7		78	S. Rampart & Howard &	O
<b>By Segment</b>											
1 Hendee & Eliza & 0 to Mardi Gras & LB Landry & 0	100	84		6.2			16.0				
2 Mardi Gras & LB Landry & 0 to Elk Place & Canal & 0	122	139		9.1			13.5				
3											
<b>By Time Period</b>											
AM	52	52		2.7			19.3		38	L.B. Landry & Semmes &	I
Middy	75	75		5.4			13.9		35	General DeGaulle & Bridge &	I
PM	37	37		2.7			13.7		21	S. Rampart & Julia &	O
Eve	35	36		2.7			13.0		23	S. Rampart & Howard &	O
Night	10	10		0.9			11.1		6	Loyola & Perdido &	I
Owl											O

Line 101	Operations Summary		
	Schedule		
<b>Weekday Line Profile</b>			
<b>Total</b>			
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 Hendee & Eliza & 0 to Mardi Gras & LB Landry & 0	100.0%		
2 Mardi Gras & LB Landry & 0 to Elk Place & Canal & 0	100.0%		
3			



## Route 102 General Meyer

### Route Description

Route 102 General Meyer connects Algiers with downtown New Orleans, via General Meyer Avenue and the Crescent City Connection. This route operates seven days a week.

Based on 2010 annual data, weekday productivity on Route 102 is 21.4 boardings per hour. Saturday productivity is 16.4 boardings per hour and Sunday's is 12.2 boardings per hour.

### Route Characteristics

Based on September 2011 ridership counts, productivity on Route 102 is oriented toward downtown New Orleans. During peak periods, ridership is approximately 43 boardings per hour, and drops to 30.5 midday and 27.9 per hour evenings. In addition, nearly three-quarters of ridership boards or alights in downtown, reinforcing this orientation.

Ridership is strong throughout the route, though it generally increases closer to downtown. Most of the busiest stops in Algiers are not on General Meyer, but rather on LB Landry between General DeGaulle and General Meyer, the section connecting General Meyer to the Crescent City Connection.

Route 102 duplicates Route 101 between LB Landry/Mardi Gras and Elk Place /Canal, and also within downtown New Orleans.

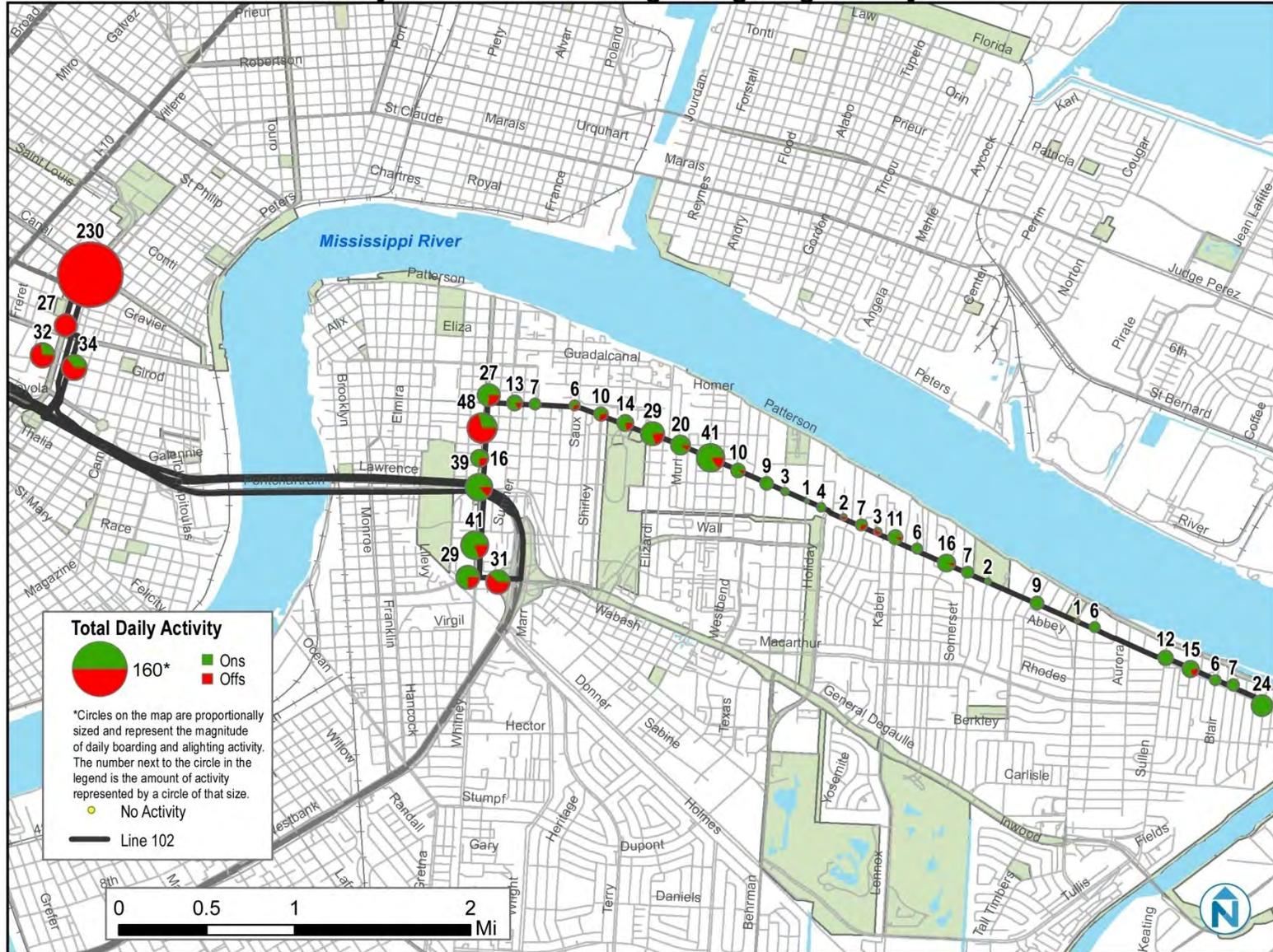
The heaviest transfer activity to and from Route 102 is to the Canal Streetcar and Route 39, and to a lesser degree the St. Charles Streetcar and Route 88, indicating the final destination for many Route 102 riders is not in downtown New Orleans.

On-time performance is fairly good, with nearly three quarters of trips arriving on time. Late trips are most common in the peak direction during peak periods, with early runs most common midday.

Capacity is an issue on Route 102, with a trip in each direction during the AM peak carrying a maximum load of 49 inbound and 53 outbound passengers, indicating the need for more service in each direction. Another inbound midday trip carried 48 passengers; the next highest load at any time of day in any direction is 30.

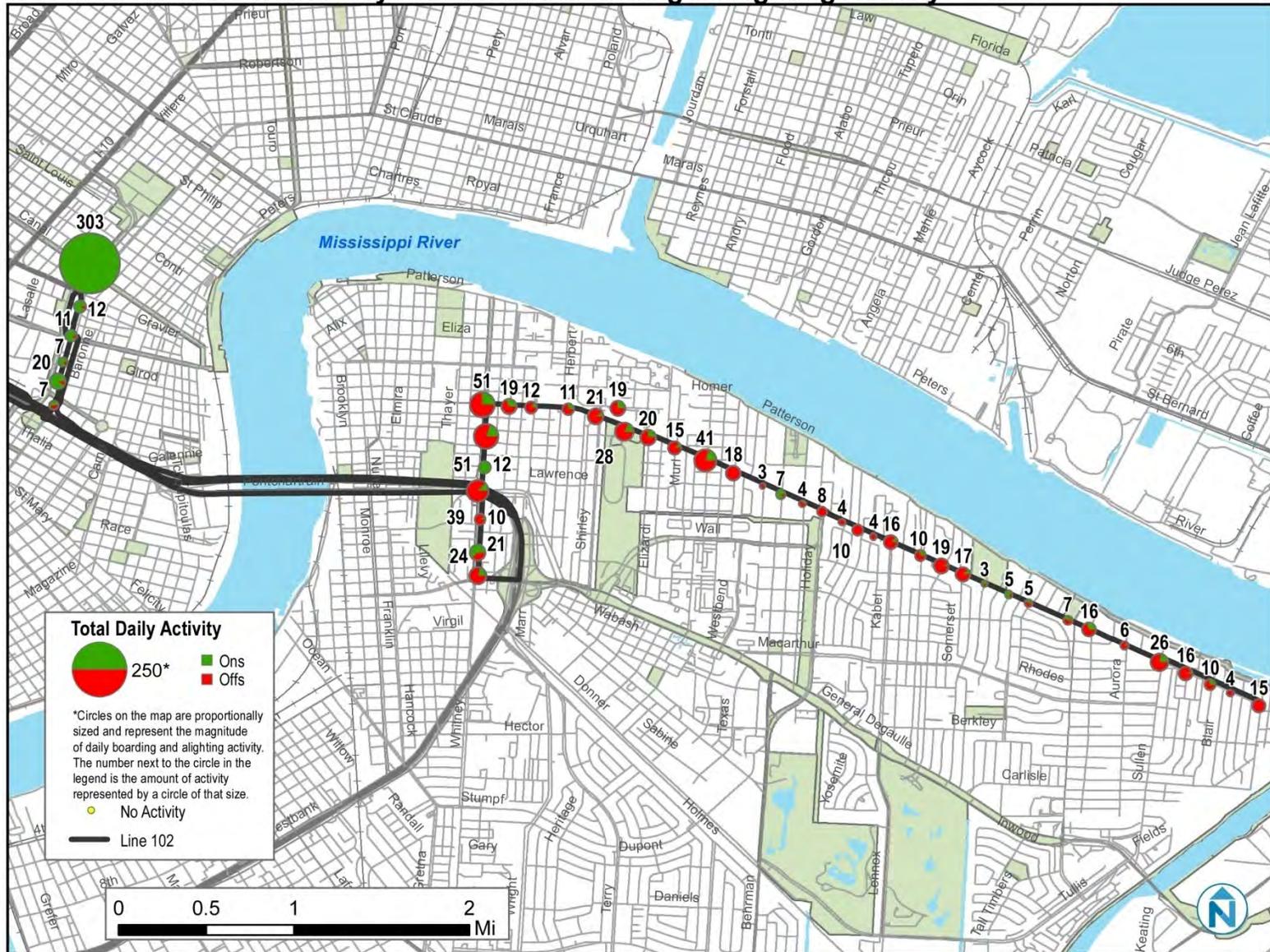
<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	906
Saturday	408
Sunday	188
2010 Weekday Boardings / Hour	21.4
 <b>Service Frequency</b>	
Weekday Peaks	30-36 min
Weekday Base	36 min
Weekday Evening	55-90 min
Weekend Base	72 min
 <b>Service Span</b>	
Weekday	5:20A – 9:59P
Saturday	5:56A – 9:59P
Sunday	5:56A – 9:59P
 <b>On-Time Performance</b>	
On-Time:	73.2 %
Early:	12.4 %
Late:	14.4 %

**NORTA Line 102 General Meyer Inbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

### NORTA Line 102 General Meyer Outbound Boarding & Alighting Activity



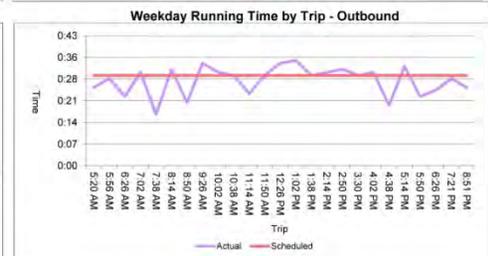
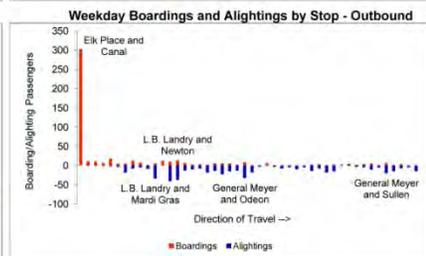
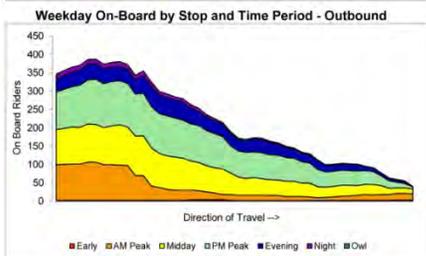
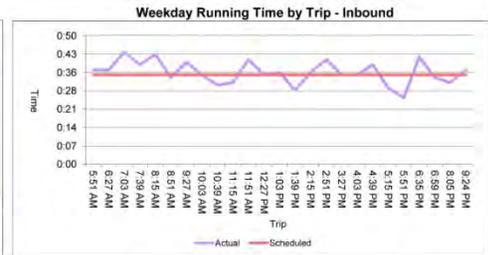
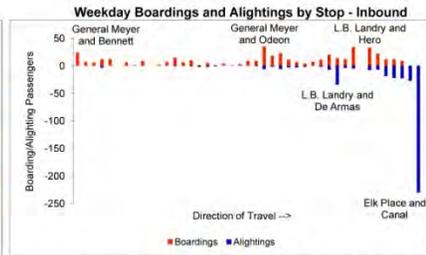
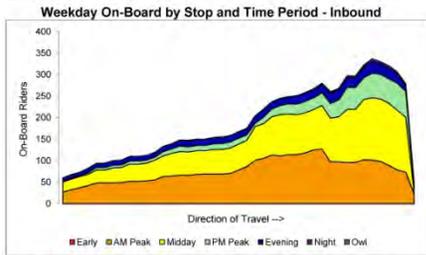
Data Sources: U.S. Census Bureau, NORPC, ESRI

# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

## Regional Planning Commission

Line 102	Passenger Summary										
	Total					Productivity			Maximum On-Board Loading		
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location	Dir
<b>Total</b>	932	922		26.6			35.1	387		S. Rampart and Howard &	O
<b>By Direction</b>											
Inbound	434	421		14.6			29.8	337		L.B. Landry and General DeGaulle &	I
Outbound	498	501		12.0			41.5	387		S. Rampart and Howard &	O
<b>By Segment</b>											
1 General Meyer and Bennett & 0 to General Meyer and Huntlee & 0	116	122		3.8			30.9				
2 General Meyer and Huntlee & 0 to General Meyer and Odeon & 0	84	113		3.3			25.2				
3 General Meyer and Odeon & 0 to L.B. Landry and Newton & 0	159	177		4.2			38.2				
4 L.B. Landry and Newton & 0 to Elk Place and Canal & 0	573	510		15.8			36.2				
<b>By Time Period</b>											
AM	245	243		5.4			45.2	127		L.B. Landry and Newton &	I
Midday	330	352		10.8			30.5	145		L.B. Landry and General DeGaulle &	I
PM	225	220		5.4			41.2	123		S. Rampart and Howard &	O
Even	107	107		3.8			27.9	54		L.B. Landry and De Armas &	O
Night	21	17		1.1			19.4	13		Elk Place and Canal &	O
Owl											O

Line 102	Operations Summary		
	Schedule		
	% On-Time	% Early	% Late
<b>Total</b>			
<b>By Direction</b>			
Inbound	79.2%	12.0%	8.8%
Outbound	67.2%	12.8%	20.0%
<b>By Segment</b>			
1 General Meyer and Bennett & 0 to General Meyer and Huntlee & 0	82.0%	6.0%	12.0%
2 General Meyer and Huntlee & 0 to General Meyer and Odeon & 0	78.0%	8.0%	14.0%
3 General Meyer and Odeon & 0 to L.B. Landry and Newton & 0	74.0%	14.0%	12.0%
4 L.B. Landry and Newton & 0 to Elk Place and Canal & 0	68.0%	20.0%	12.0%



## Route 108 Algiers Local

### Route Description

The only route serving Algiers that does not connect directly to downtown New Orleans, Route 108 Algiers Local, indirectly connects the Canal Street/Algiers ferry terminal to General Meyer/Bennett via the Wilty Terminal, General Meyer Avenue, and the Tall Timbers Shopping Center. No Sunday service is operated.

Based on 2010 annual data, weekday productivity on Route 108 is 15.3 boardings per hour. Saturday productivity is 10.3 boardings per hour.

### Route Characteristics

Based on ridership counts from January 2011, the most productive portions of Route 108 are located inbound from the Algiers campus of Delgado Community College, boarding in aggregate roughly 21.1 passengers per hour. Segments on General Meyer and Holliday, which run in largely residential areas, are extremely poor by comparison, boarding only 8 per hour. Outbound of Holliday, productivity improves to 12.8 per hour.

Productivity is largely uniform by time of day, despite the fact that Route 108 runs on the same headway all day. This indicates that its predominant usage is not for work or education trips.

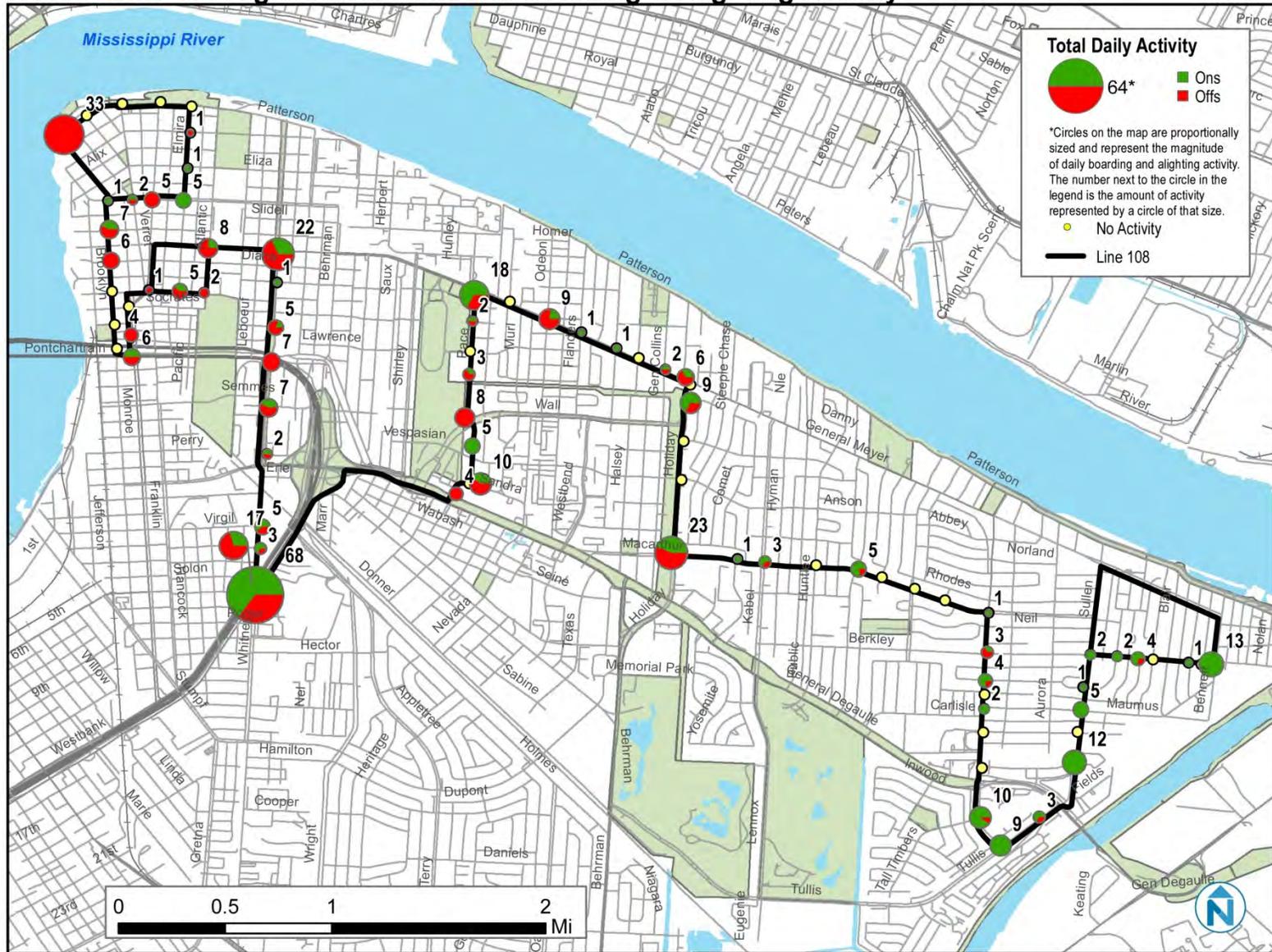
By far the busiest stop on this route is the Wilty Terminal, where it connects with three JeT routes. Nearly 40 percent of all Route 108 riders board or alight here, indicating high levels of transfer activity to JeT routes. Route 108 also has a high transfer rate to the 114/115 General De Gaulle.

Route 108 operates on regular, consistent 60-minute headways weekdays and 120-minute headways on Saturdays, simplifying schedule memorization and transfers to other routes.

Capacity is not an issue on Route 108, as the largest load it carried during ridership counts was 14 passengers.

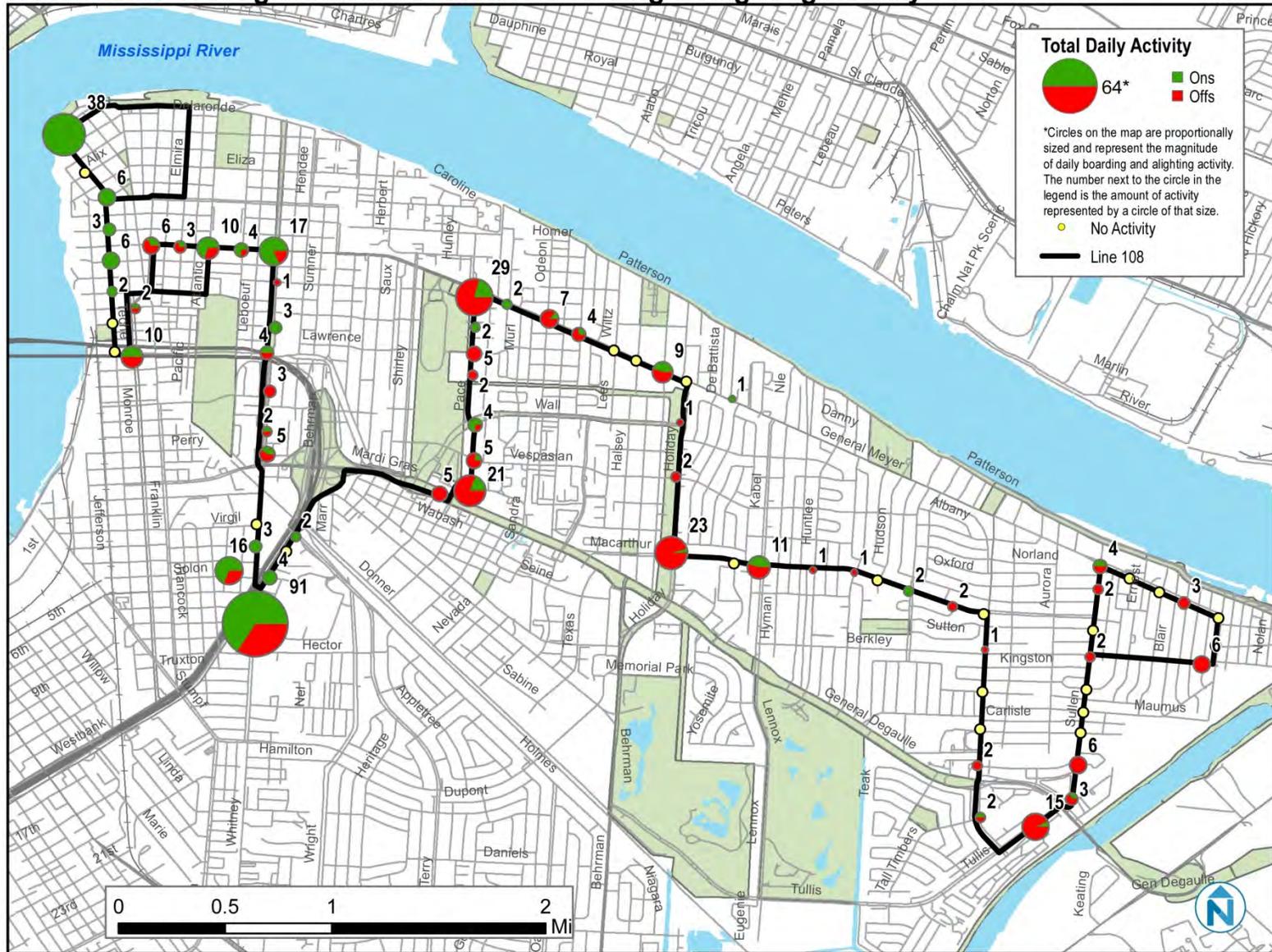
<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	583
Saturday	147
2010 Weekday Boardings / Hour	15.3
<b>Service Frequency</b>	
Weekday Peaks	60 min
Weekday Base	60 min
Weekday Evening	60 min
Saturday Base	120 min
<b>Service Span</b>	
Weekday	6:10A – 7:27P
Saturday	7:27A – 6:20P
Sunday	No Service

**NORTA Line 108 Algiers Local Inbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

**NORTA Line 108 Algiers Local Outbound Boarding & Alighting Activity**



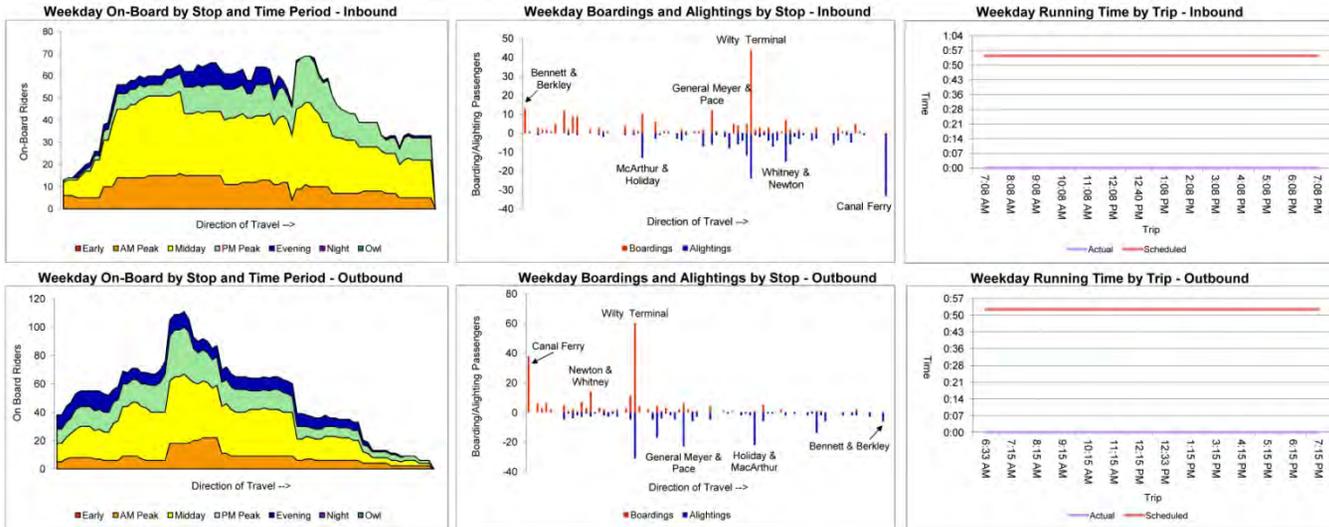
Data Sources: U.S. Census Bureau, NORPC, ESRI

## COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

### Regional Planning Commission

Line 108	Passenger Summary							Maximum On-Board Loading	
	Total			Productivity					
Weekday Line Profile	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board
<b>Total</b>	421	421	25.2				16.7	111	West Bank Expwy & Terry Parkwa
<b>By Direction</b>									Dir
Inbound	206	206	12.8				16.1	69	Whitney & Virgil &
Outbound	215	215	12.4				17.4	111	West Bank Expwy & Terry Parkwa
<b>By Segment</b>									
1 Bennett & Berkley & 0 to Tullis & Woodland & 0	46	40	3.0				15.2		
2 Tullis & Woodland & 0 to McArthur & Kabel & 0	36	18	2.8				12.9		
3 McArthur & Kabel & 0 to McArthur & Holiday & 0	4	23	0.9				4.3		
4 McArthur & Holiday & 0 to General Meyer & Odeon & 0	31	45	4.2				7.4		
5 General Meyer & Odeon & 0 to General Meyer & Pace & 0	10	30	0.9				10.7		
6 General Meyer & Pace & 0 to Wilty Terminal & 0	104	104	3.7				27.9		
7 Wilty Terminal & 0 to Nunez & Mardi Gras & 0	121	108	5.4				22.5		
8 Nunez & Mardi Gras & 0 to Canal Ferry & 0	69	53	4.2				16.4		
<b>By Time Period</b>									
AM	74	74	4.5				16.5	22	Wall & Pace &
Middy	204	204	11.7				17.4	49	West Bank Expwy & Terry Parkwa
PM	98	98	5.4				18.1	33	West Bank Expwy & Oakwood Ma
Eve	45	45	3.6				12.5	14	Nunez & Mardi Gras &
Night									
Owl									

Line 108	Operations Summary		
	Schedule		
Weekday Line Profile	% On-Time	% Early	% Late
<b>Total</b>	100.0%		
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 Bennett & Berkley & 0 to Tullis & Woodland & 0	100.0%		
2 Tullis & Woodland & 0 to McArthur & Kabel & 0	100.0%		
3 McArthur & Kabel & 0 to McArthur & Holiday & 0	100.0%		
4 McArthur & Holiday & 0 to General Meyer & Odeon & 0	100.0%		
5 General Meyer & Odeon & 0 to General Meyer & Pace & 0	100.0%		
6 General Meyer & Pace & 0 to Wilty Terminal & 0	100.0%		
7 Wilty Terminal & 0 to Nunez & Mardi Gras & 0	100.0%		
8 Nunez & Mardi Gras & 0 to Canal Ferry & 0	100.0%		



## Route 114/115 General DeGaulle

### Route Description

Route 114/115 General DeGaulle connects the intersection of Bennett/Berkley in Algiers with downtown New Orleans, via General DeGaulle and other streets in southern Algiers. Service is seven days a week.

Based on 2010 annual data, weekday productivity on Routes 114/115 is 27.7 boardings per hour. Saturday productivity is 19.4 boardings per hour and Sunday's is 14.6 boardings per hour.

### Route Characteristics

Based on January 2011 ridership counts, productivity on Route 114/115 is fairly consistent by both time of day and by route segment, with productivity slightly less on the Tullis/Woodland branch outbound, where it drops from about 32 to 25.5 boardings per hour.

By time of day, ridership productivity is highest during peak periods, and slightly less midday; it remains over 30 boardings per hour until 6 PM. After 6 PM, productivity drops to 23.5 per hour.

Ridership is heavily oriented towards downtown New Orleans, as 81 percent of ridership on this route boards or alights at this location. More specifically, 59 percent of route ridership alone utilizes the Elk Place/Canal terminal.

The branches on either side of Brechtel Park in southeastern Algiers show a major difference in ridership. 65 percent of branch ridership is on the 114 branch and 35 percent on the 115 branch. The Wal-Mart Supercenter on Behrman Highway in Route 115 is a very popular stop.

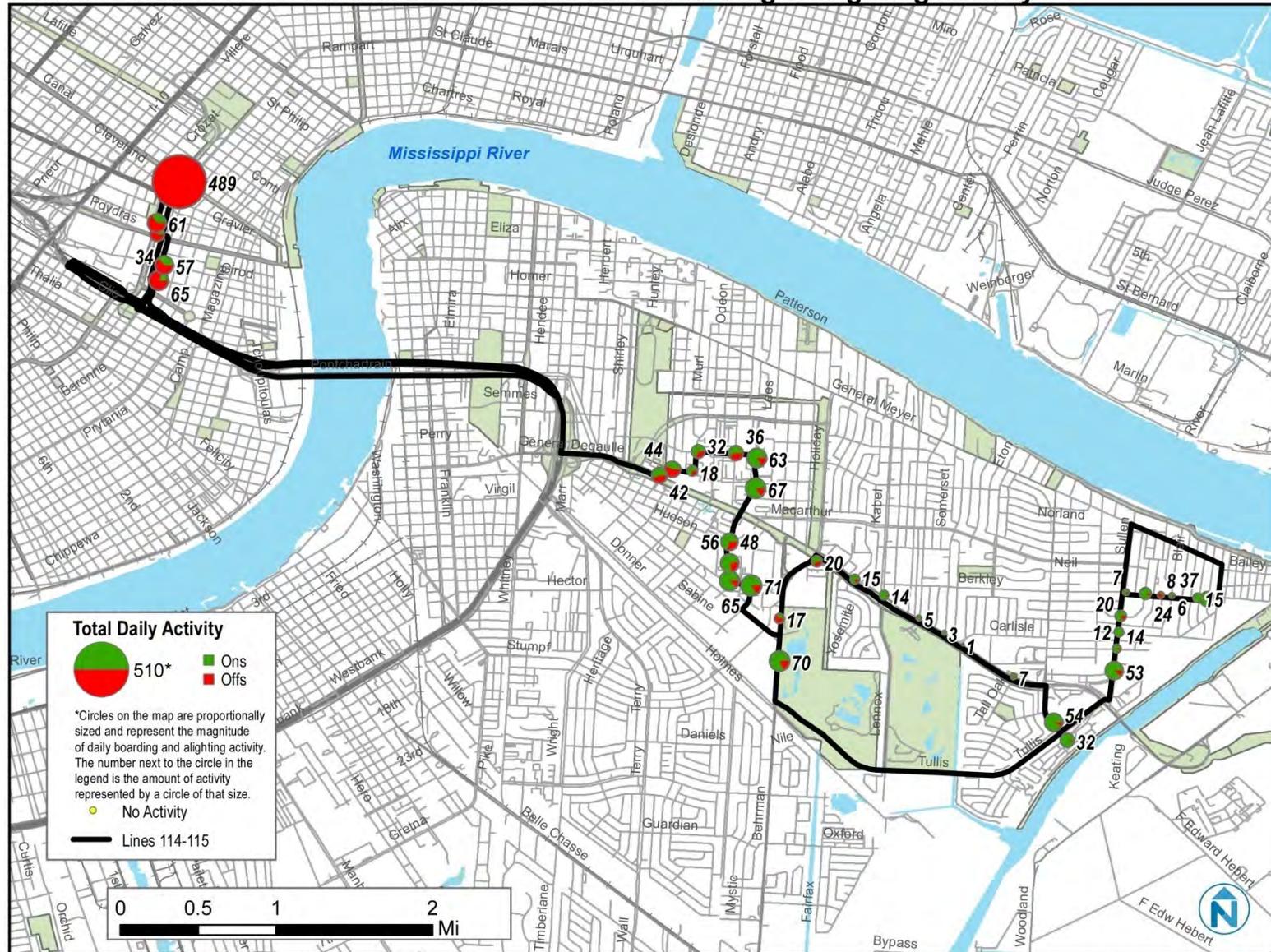
Transfers to and from the combined 114/115 route ranked 7th among RTA routes, and the highest of Algiers routes. High ridership routes serving downtown were common transfer pairs, specifically Canal and St. Charles Streetcar, and Routes 39 Tulane and 88 St. Claude.

With inconsistent, irregular headways, schedule memorization and timing transfers to other routes is very difficult.

Capacity is a major issue in the inbound AM, with the 7:58 & 8:59 trips carrying loads of 67 & 62 passengers, indicating a need for more AM service. No other trips carried a load of 40 or more.

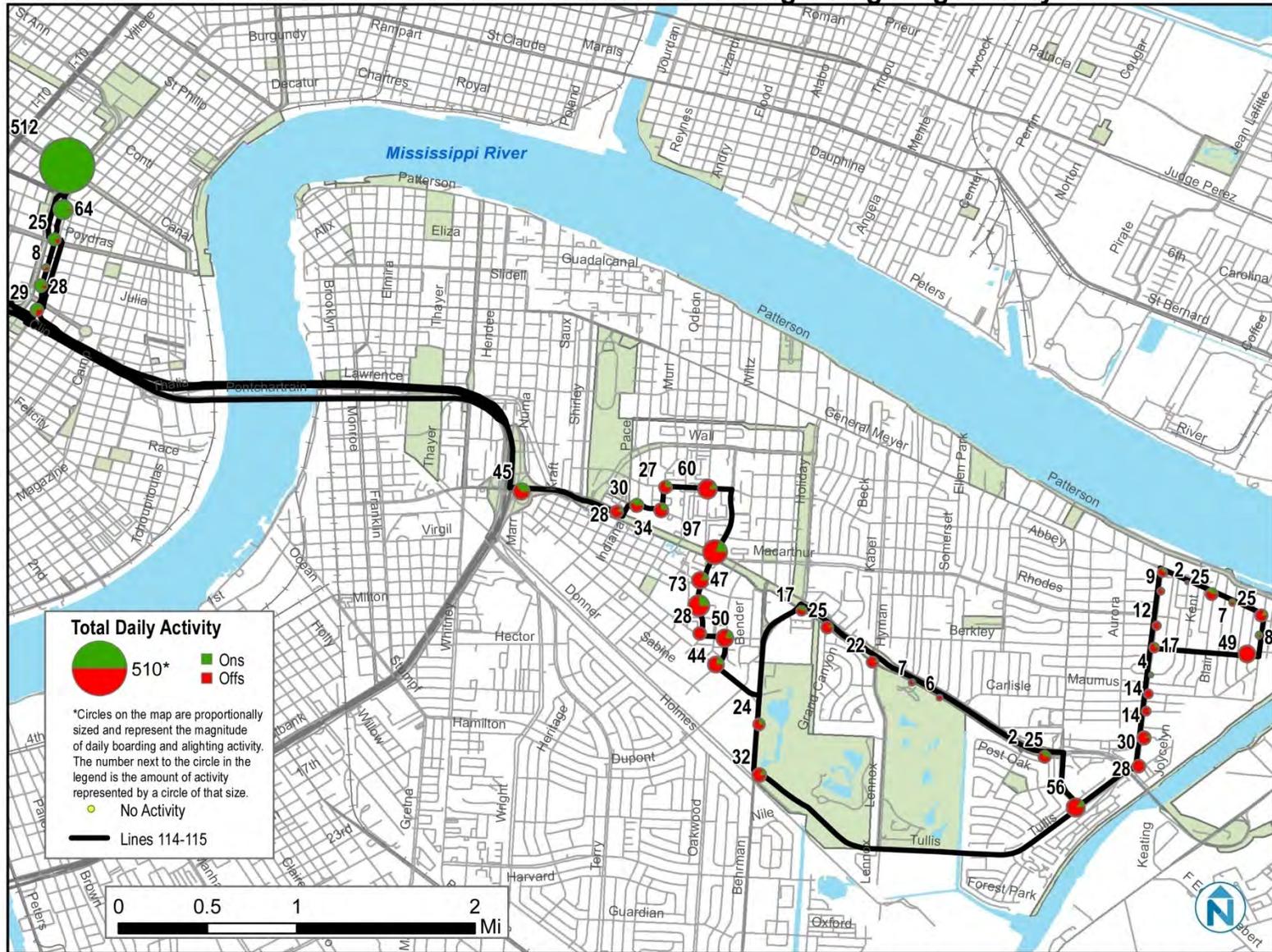
<b>Route Statistics</b>	
<b>Riders</b>	
Avg. 2011 Ridership:	
Weekday	2,050
Saturday	1,484
Sunday	781
2010 Weekday Boardings / Hour	27.7
<b>Service Frequency</b>	
AM Peak	19-25 min
PM Peak	10-25 min
Weekday Base	19-23 min
Weekday Evening	23-28 min
Weekend Base	19-23 min
<b>Service Span</b>	
Weekday	5:08A – 9:30P
Saturday	5:08A – 9:30P
Sunday	5:08A – 9:30P

**NORTA Lines 114-115 General De Gaulle Inbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

**NORTA Lines 114-115 General De Gaulle Outbound Boarding & Alighting Activity**



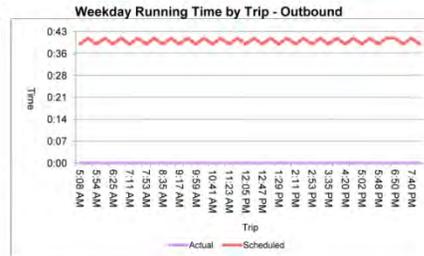
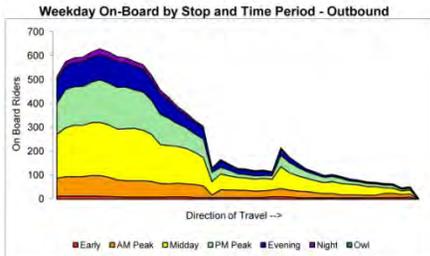
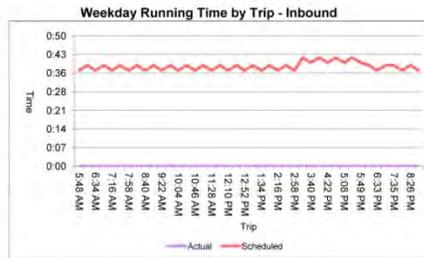
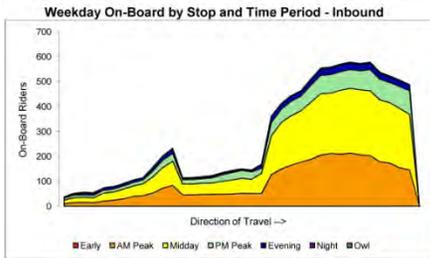
Data Sources: U.S. Census Bureau, NORPC, ESRI

# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

## Regional Planning Commission

Line 114-15	Passenger Summary										
	Total						Productivity			Maximum On-Board Loading	
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location	Dir
<b>Total</b>	1694	1692		53.3			31.8		628	S. Rampart & Howard &	O
<b>By Direction</b>											
Inbound	841	841		26.6			31.6		578	Sandra & Muri &	I
Outbound	853	851		26.7			32.0		628	S. Rampart & Howard &	O
<b>By Segment</b>											
1 Bennett & Berkley & 0 to Tullis & Woodland & 0	232	311		9.1			25.5				
2 Tullis & Woodland & 0 to Sandra & Pace & 0	688	624		21.7			31.7				
3 Sandra & Pace & 0 to Elk Place & Canal & 0	774	757		24.2			32.0				
4											
5											
<b>By Time Period</b>											
AM	425	425		11.7			36.4		213	Sandra & Muri &	I
Midday	679	679		22.1			30.7		261	Sandra & Pace &	I
PM	372	370		11.0			33.8		178	S. Rampart & Howard &	O
Eve	167	167		7.2			23.2		107	General DeGaulle & Marr &	O
Night	33	33		1.3			26.1		24	S. Rampart & Howard &	O
Owl											

Line 114-15	Operations Summary		
	Schedule		
	% On-Time	% Early	% Late
<b>Total</b>	100.0%		
<b>By Direction</b>			
Inbound	100.0%		
Outbound	100.0%		
<b>By Segment</b>			
1 Bennett & Berkley & 0 to Tullis & Woodland & 0	100.0%		
2 Tullis & Woodland & 0 to Sandra & Pace & 0	100.0%		
3 Sandra & Pace & 0 to Elk Place & Canal & 0	100.0%		
4			
5			



## Route 201 Kenner Loop

### Route Description

Route 201 Kenner Loop is the only RTA route which operates entirely outside New Orleans. Route 201 operates on Williams between the River and Lake Pontchartrain, and also serves a loop in northwest Kenner.

Based on 2010 annual data, weekday productivity on Route 201 is 17.4 boardings per hour. Saturday productivity is 11.7 boardings per hour and Sunday's is 11.9 boardings per hour.

### Route Characteristics

Based on January 2011 ridership counts, the portion of Route 201 that is the most productive is the direct service on Williams, between 25<sup>th</sup> Street and Minor / Third, at 42 boardings per hour.

Ridership on 31<sup>st</sup> Street is very poor due to its location in an isolated residential area, trapped between I-10 one block to the south and a canal one block to the north.

Productivity is at around 21 boardings per hour throughout the span of service, indicating a lack of commuter orientation. The heaviest ridership is concentrated at transfer points to JeT routes on Williams such as 3<sup>rd</sup> and Airline, as well as at regional destinations such as Esplanade Mall and Pontchartrain Center. Transfer activity is likely very high at the transfer points, as approximately half of passengers board or alight at Airline or 3<sup>rd</sup>.

Route 201 operates on a very circuitous loop north of 32<sup>nd</sup>/Williams, forcing many long, out-of-direction trips, particularly due to the deviations off the loop to Pontchartrain Center and Veterans Memorial Boulevard.

The only transfers available to Route 201 riders is to JeT routes, which forces patrons to double-pay, as fares are not integrated.

With, irregular headways operating all day, every day, schedule memorization and timing transfers to other routes is very difficult for both existing and potential riders.

Capacity is not an issue on Route 201, as the largest load it carried during ridership counts was 26 passengers.

### Route Statistics

#### Riders

Avg. 2011 Ridership:	
Weekday	592
Saturday	351
Sunday	119
2010 Weekday Boardings / Hour	17.4

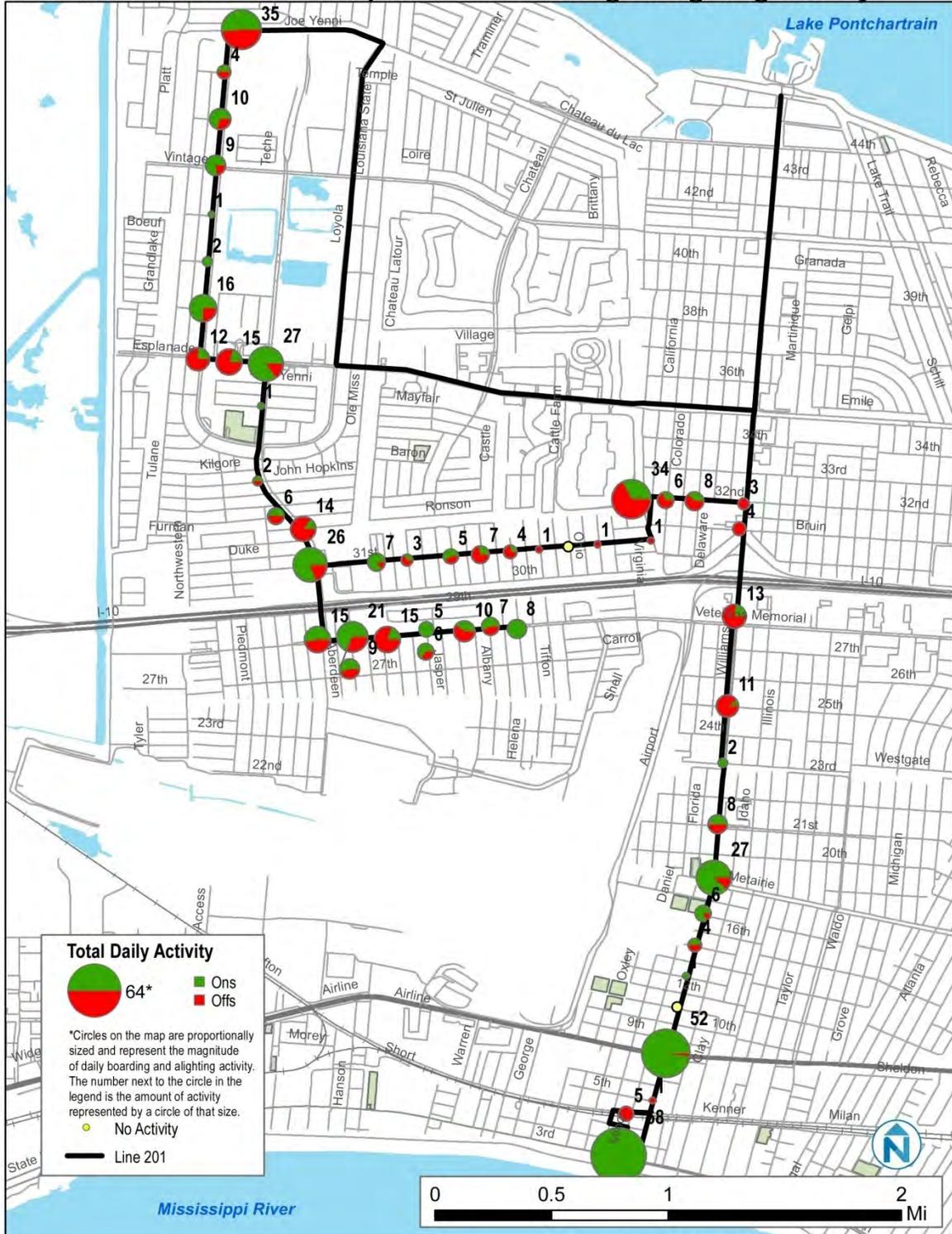
#### Service Frequency

Weekday Peak	46-49 min
Weekday Base	48 min
Weekday Evening	46-49 min
Saturday Base	~46 min
Sunday Base	81 min

#### Service Span

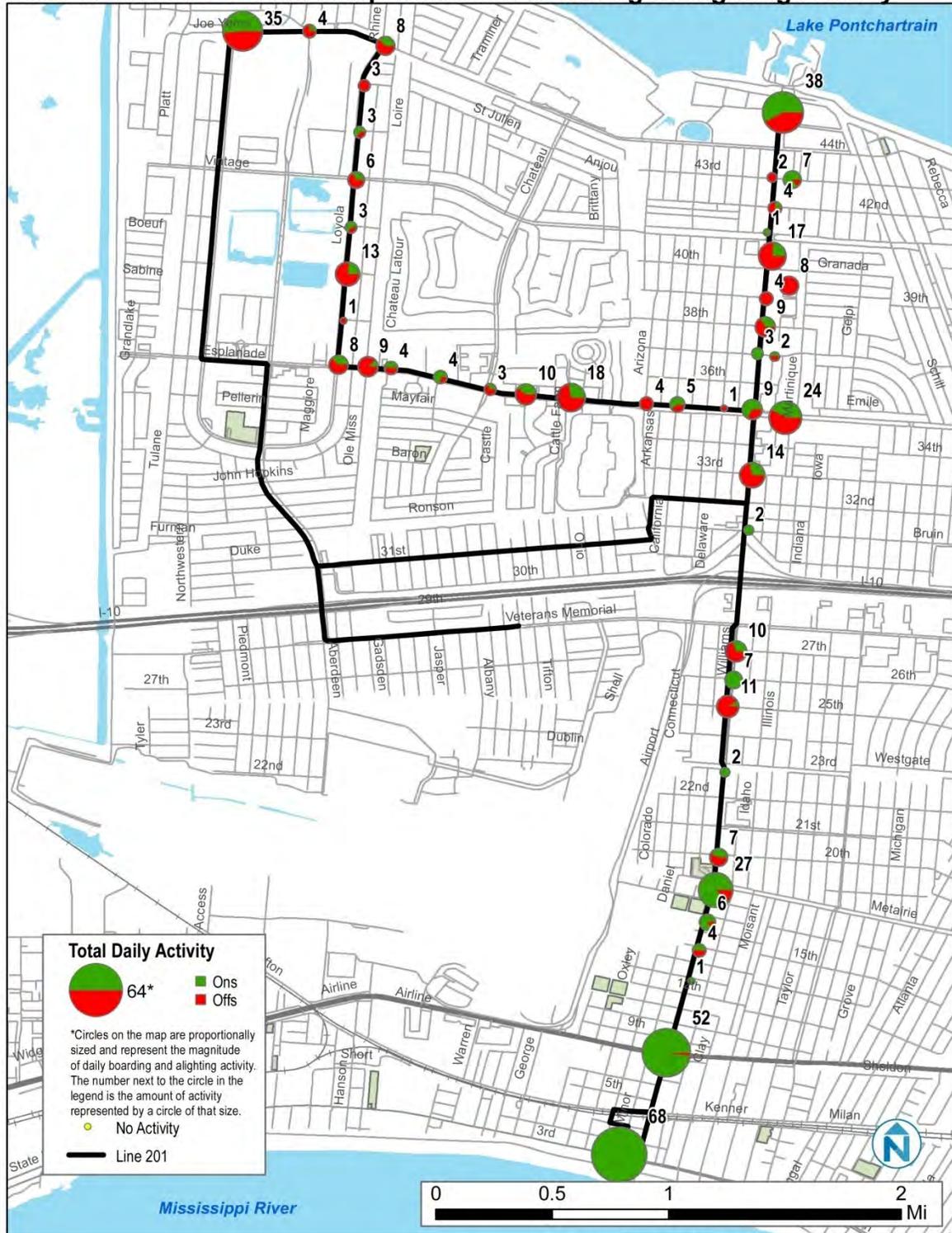
Weekday	5:35A – 8:04P
Saturday	5:55A – 8:04P
Sunday	6:52A – 7:53P

**NORTA Line 201 Kenner Loop Inbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

**NORTA Line 201 Kenner Loop Outbound Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

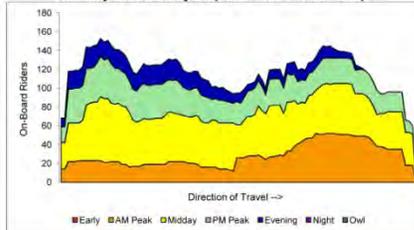
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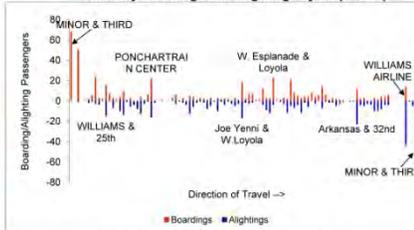
Line 201	Passenger Summary							Maximum On-Board Loading			
	Total							Productivity			
Weekday Line Profile	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max. Total Passengers On Board	Location	Dir
<b>Total</b>	502	502	23.7				21.2	153	Williams & 28th &	L	
<b>By Direction</b>											
Loop	502	502	23.7				21.2	153	Williams & 28th &	L	
<b>By Segment</b>											
1 MINOR & THIRD & 0 to WILLIAMS & 25th & 0	156	11	2.3				68.8				
2 WILLIAMS & 25th & 0 to PONCHARTRAIN CENTER & 0	57	82	3.8				14.9				
3 PONCHARTRAIN CENTER & 0 to ESPLANADE MALL & 0	35	28	1.8				19.4				
4 ESPLANADE MALL & 0 to Joe Yenni & W Loyola & 0	32	65	3.6				8.9				
5 Joe Yenni & W Loyola & 0 to KENNER REGIONAL HOSPITAL & 0	52	37	2.6				20.1				
6 KENNER REGIONAL HOSPITAL & 0 to 31st & LOYOLA & 0	33	32	1.4				24.1				
7 31st & LOYOLA & 0 to VETERANS & HELENA & 0	45	36	1.4				32.5				
8 VETERANS & HELENA & 0 to WILLIAMS & 25 th & 0	63	75	5.4				11.7				
9 WILLIAMS & 25 th & 0 to MINOR & THIRD & 0	29	136	2.1				13.9				
10											
<b>By Time Period</b>											
AM	100	100	5.0				20.0	52	Veterans & Jasper &	L	
Midday	227	227	10.8				21.1	68	Williams & 28th &	L	
PM	128	128	5.5				23.1	43	Williams & 28th &	L	
Even	47	47	2.4				19.4	23	Williams & W. Metairie &	L	
Night											
Owl											

Line 201	Operations Summary		
	Schedule		
Weekday Line Profile	% On-Time	% Early	% Late
<b>Total</b>	100.0%		
<b>By Direction</b>			
Loop	100.0%		
<b>By Segment</b>			
1 MINOR & THIRD & 0 to WILLIAMS & 25th & 0	100.0%		
2 WILLIAMS & 25th & 0 to PONCHARTRAIN CENTER & 0	100.0%		
3 PONCHARTRAIN CENTER & 0 to ESPLANADE MALL & 0	100.0%		
4 ESPLANADE MALL & 0 to Joe Yenni & W Loyola & 0	100.0%		
5 Joe Yenni & W Loyola & 0 to KENNER REGIONAL HOSPITAL & 0	100.0%		
6 KENNER REGIONAL HOSPITAL & 0 to 31st & LOYOLA & 0	100.0%		
7 31st & LOYOLA & 0 to VETERANS & HELENA & 0	100.0%		
8 VETERANS & HELENA & 0 to WILLIAMS & 25 th & 0	100.0%		
9 WILLIAMS & 25 th & 0 to MINOR & THIRD & 0	100.0%		
10			

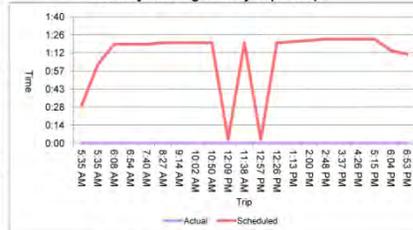
Weekday On-Board by Stop and Time Period - Loop



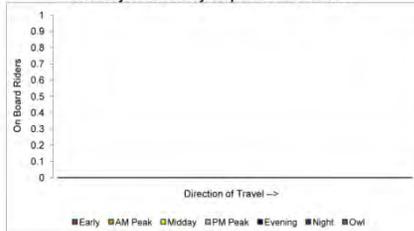
Weekday Boardings and Alightings by Stop - Loop



Weekday Running Time by Trip - Loop



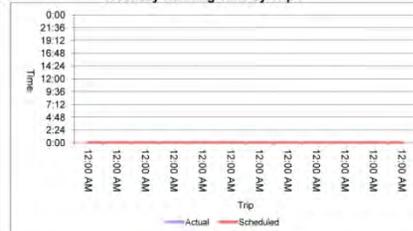
Weekday On-Board by Stop and Time Period -



Weekday Boardings and Alightings by Stop -



Weekday Running Time by Trip -



## Route E1 Veterans

### Route Description

Route E1 provides service seven days a week between the intersection of 25<sup>th</sup> and Williams in Kenner, and the Cemeteries Transit Center via Veterans Memorial Boulevard and Interstate 10.

Based on September 2011 ridership counts, weekday productivity on Route E1 is 43.9 boardings per hour. Saturday productivity is 44.3 boardings per hour and Sunday is 42.8 boardings per hour.

### Route Characteristics

Weekday productivity is consistent throughout the day, as is ridership. Saturday and Sunday productivity are approximately equal to weekday productivity. Given frequencies (44 minutes on Saturdays and 75 minutes on Sundays), this may be an indicator for latent demand for more service.

The segments between Cemeteries and Clearview are more than 70 percent more productive than the segment between Clearview and Williams. The largest passenger loads are found between Causeway and the Jefferson/Orleans Parish line. The highest ridership points are at Cemeteries, Veterans/Cleary, Veterans/Carrollton, 25<sup>th</sup>/Williams, and stops within the vicinity of Causeway/Lakeside Mall.

More than half the route ridership is oriented to Cemeteries, and likely transfer to a variety of RTA routes. RTA ridership numbers suggest the connection with the Canal Streetcar is the predominant movement.

Route E1 duplicates RTA Route 45 between Veterans / Carrollton and Cemeteries in one direction. Route E1 uses the freeway, whereas Route 45 uses local streets.

Weekday on-time performance had almost 70 percent of trips arriving on time, with early trips being more common than late trips. Saturday and Sunday late-running is much more common, possibly because the Saturday and Sunday trips are scheduled with less time to operate than the weekday trips.

Route E1 has capacity issues in the westbound direction. One eastbound trip had a load of 37 passengers. Three westbound trips had standees, with maximum loads of 57, 47, and 43 passengers.

### Route Statistics

#### Riders

Avg. 2011 Ridership through Sept:

Weekday	1,855
Saturday	1,102
Sunday	566

Sept. 2011 Ridership Counts Weekday Boardings / Hour

43.9

#### Service Frequency

AM Peak	22 min
PM Peak	25 min
Weekday Base	30 min
Weekday Evening	75-93 min
Saturday Base	44 min
Sunday Base	75 min

#### Service Span

Weekday	5:40A – 10:18P
Saturday	6:11A – 10:18P
Sunday	7:17A – 10:18P

#### On-Time Performance

##### Weekday

On-Time:	69.5 %
Early:	17.2 %
Late:	13.3 %

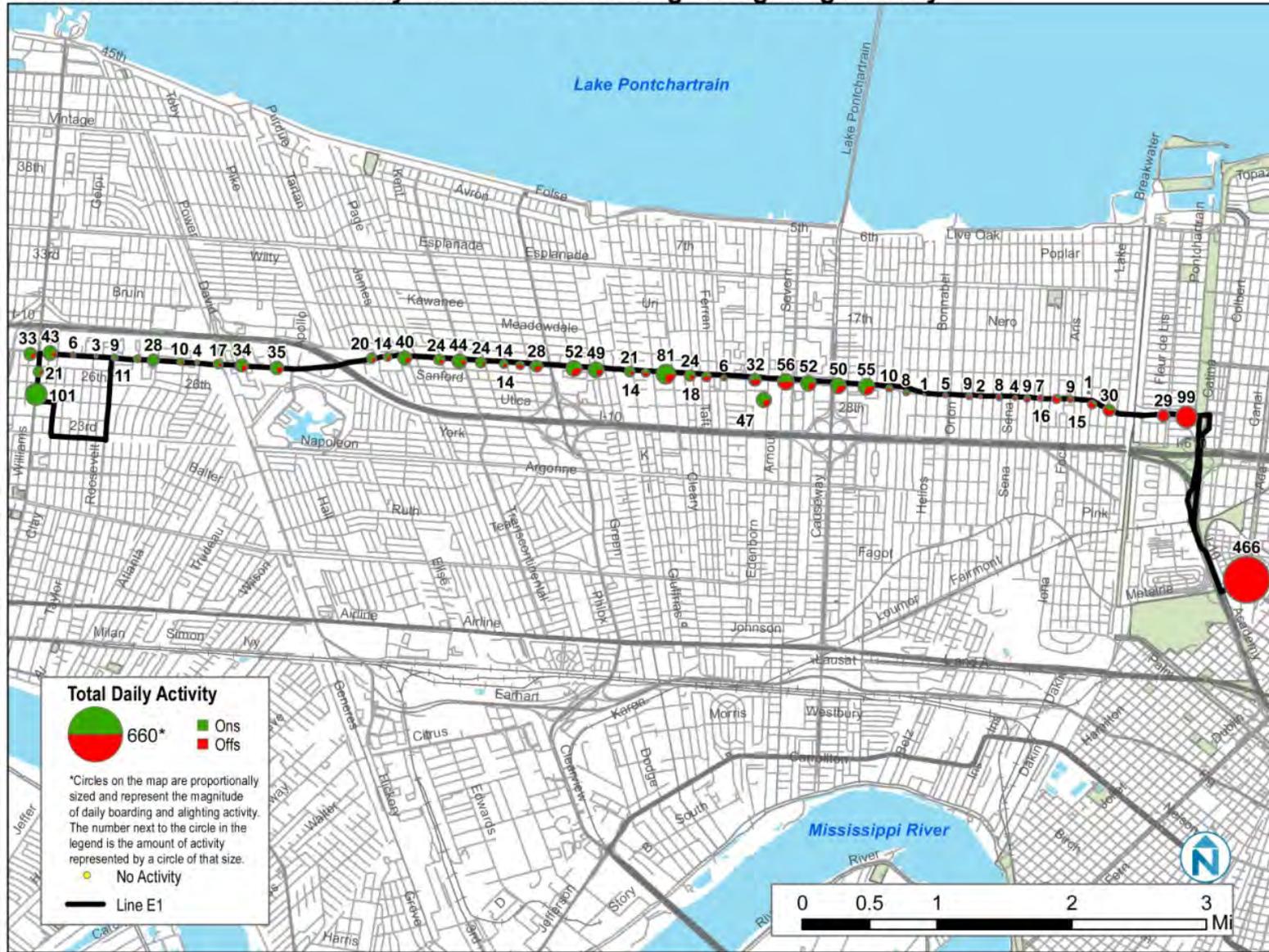
##### Saturday

On-Time:	55.1 %
Early:	12.2 %
Late:	32.8 %

##### Sunday

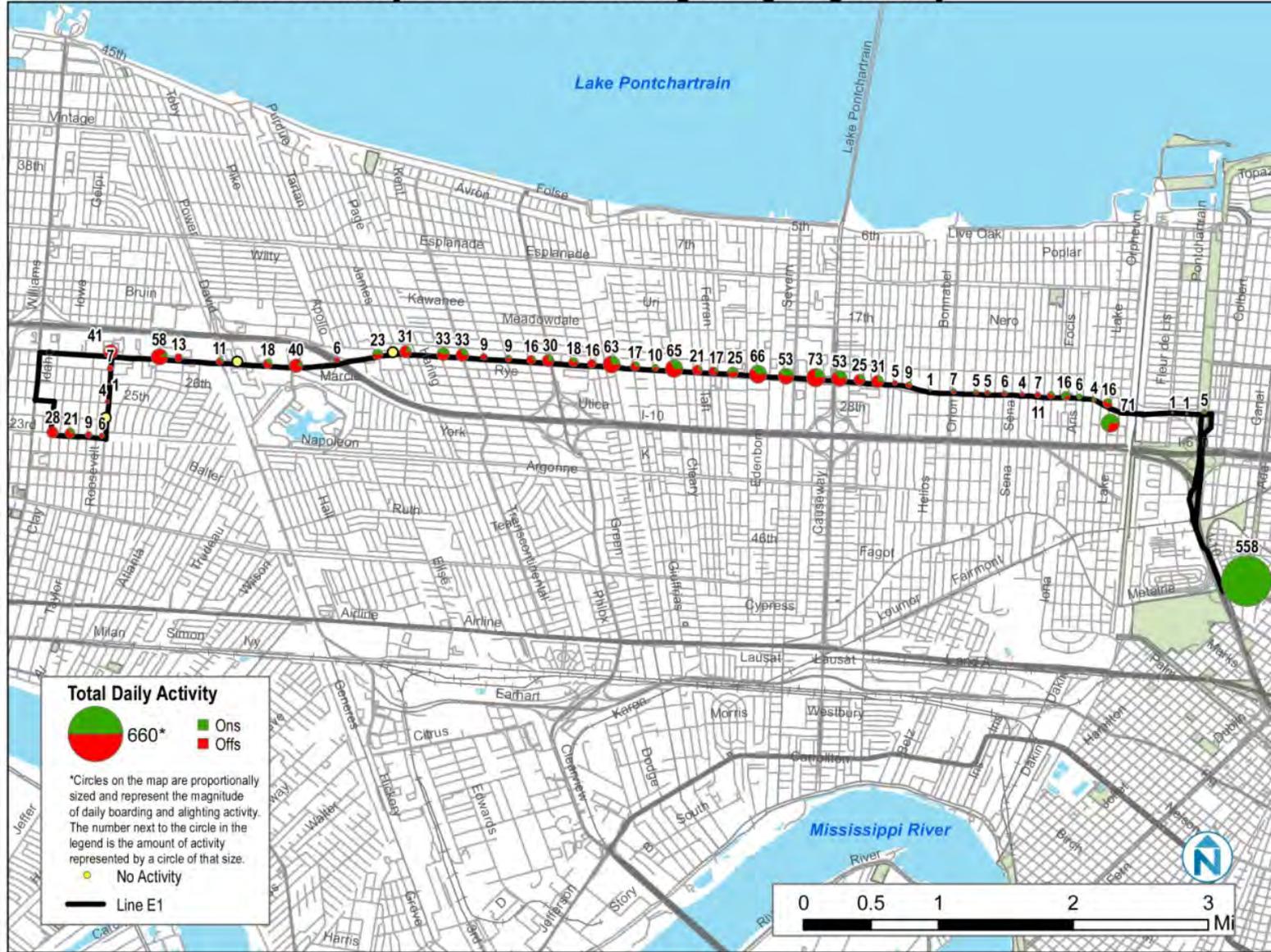
On-Time:	36.4 %
Early:	15.9 %
Late:	47.7 %

### JeT Line E1 Veterans Weekday Eastbound Boarding & Alighting Activity



Data Sources: U.S. Census Bureau, NORPC, ESRI

JeT Line E1 Veterans Weekday Westbound Boarding & Alighting Activity



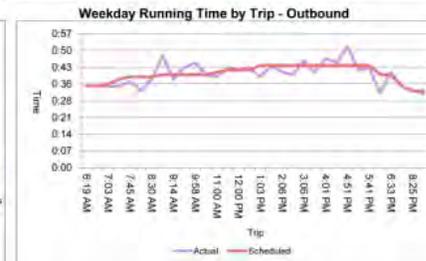
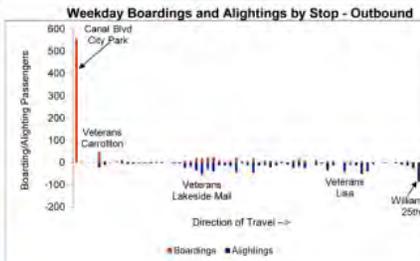
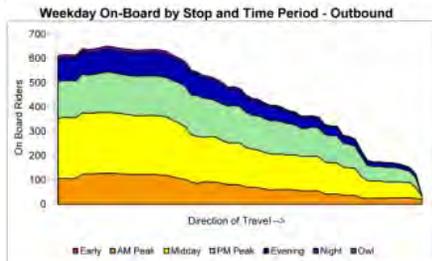
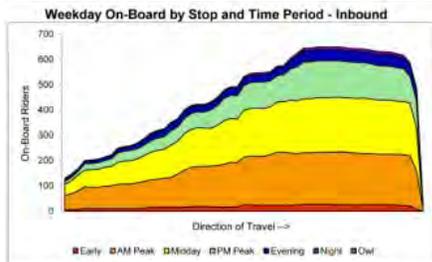
Data Sources: U.S. Census Bureau, NORPC, ESRI

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Line E1	Passenger Summary										
	Total				Productivity		Maximum On-Board Loading				
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max. Total Passengers On Board	Location	Dir
<b>Total</b>	1855	1876		42.3			43.9		551	Veterans & Martin Behrman	O
<b>By Direction</b>											
Inbound	928	934		20.7			44.8		649	Veterans & Hesper	I
Outbound	927	942		21.6			42.9		651	Veterans & Martin Behrman	O
<b>By Segment</b>											
1 Williams & 25th to Veterans & Clearview	563	564		18.6			30.4				
2 Veterans & Clearview to Veterans & Causeway	495	482		8.9			55.4				
3 Veterans & Causeway to City Park & Canal Blvd	797	830		15.3			52.0				
<b>By Time Period</b>											
AM	457	448		9.4			48.6		210	Veterans & Ederborn	I
Midday	716	742		17.3			41.3		253	Veterans & Carrollton	O
PM	434	437		9.3			46.7		169	Veterans & N Arnoult	O
Eve	181	179		5.2			34.9		96	Veterans & Bonabel	O
Night	32	35		1.1			29.1		12	Canal Blvd & City Park	O
Owl											

Line E1	Operations Summary Schedule		
	Weekday Line Profile		
	% On-Time	% Early	% Late
<b>Total</b>	69.5%	17.2%	13.3%
<b>By Direction</b>			
Inbound	73.4%	14.8%	11.7%
Outbound	65.6%	19.5%	14.8%
<b>By Segment</b>			
1 Williams & 25th to Veterans & Clearview	65.6%	21.9%	12.5%
2 Veterans & Clearview to Veterans & Causeway	71.9%	9.4%	18.8%
3 Veterans & Causeway to City Park & Canal Blvd	59.4%	29.7%	10.9%



## Route E2 Airport

### Route Description

Route E2 Airport provides service seven days a week between New Orleans International Airport in Kenner and the intersection of Tulane and Carrollton in New Orleans via Airline Drive. During weekday peak and midday periods, service extends into downtown New Orleans via Tulane Avenue to Loyola and Poydras.

Based on September 2011 ridership counts, weekday productivity on Route E2 is 28.2 boardings per hour. Saturday productivity is 23.3 boardings per hour and Sunday is 24.3 boardings per hour.

### Route Characteristics

Route E2's productivity is consistent throughout the day. Its productivity is consistent along the entire route as well, showing that it has strong route termini and ridership in between.

The highest ridership points are at Severn/Causeway, Williams, New Orleans Airport, Carrollton, and in downtown New Orleans.

Seventy-five percent of the total ridership on E2 has an origin or destination in New Orleans. The majority are transferring to or from other RTA routes. The late evening and weekend terminus at Carrollton depress ridership potential.

The route duplicates RTA Route 39 Tulane on weekday peak and midday trips. JeT passengers can board outbound and alight inbound between Carrollton and downtown New Orleans, effectively separating the Route 39 and E2 ridership markets.

Route E2's schedule is difficult to predict, due to the lack of a consistent headway during peak periods, which vary between 25 and 32 minutes. Midday headways of 36 minutes also make transfers difficult.

Route E2 has an on-time performance issue on weekdays. From 9:30 AM to 2:30 PM, outbound trips consistently needed five more minutes to stay on-time. Roadway congestion is a likely cause for the increased running time. Weekend on-time performance is much better, which may also be a result of the trips not going to downtown New Orleans.

There are no capacity issues on Route E2. The highest maximum load observed was 36 passengers.

### Route Statistics

#### Riders

Avg. 2011 Ridership through Sept:

Weekday	1,198
Saturday	567
Sunday	329

Sept. 2011 Ridership Counts Weekday Boardings / Hour	28.2
--	------

#### Service Frequency

AM Peak	24-31 min
PM Peak	25-32 min
Weekday Base	36 min
Weekday Evening	58-64 min
Saturday Base	32 min
Sunday Base	64 min

#### Service Span

Weekday	5:20A – 10:18P
Saturday	6:24A – 10:18P
Sunday	7:28A – 10:18P

#### On-Time Performance

##### Weekday

On-Time:	46.8 %
Early:	16.7 %
Late:	36.5 %

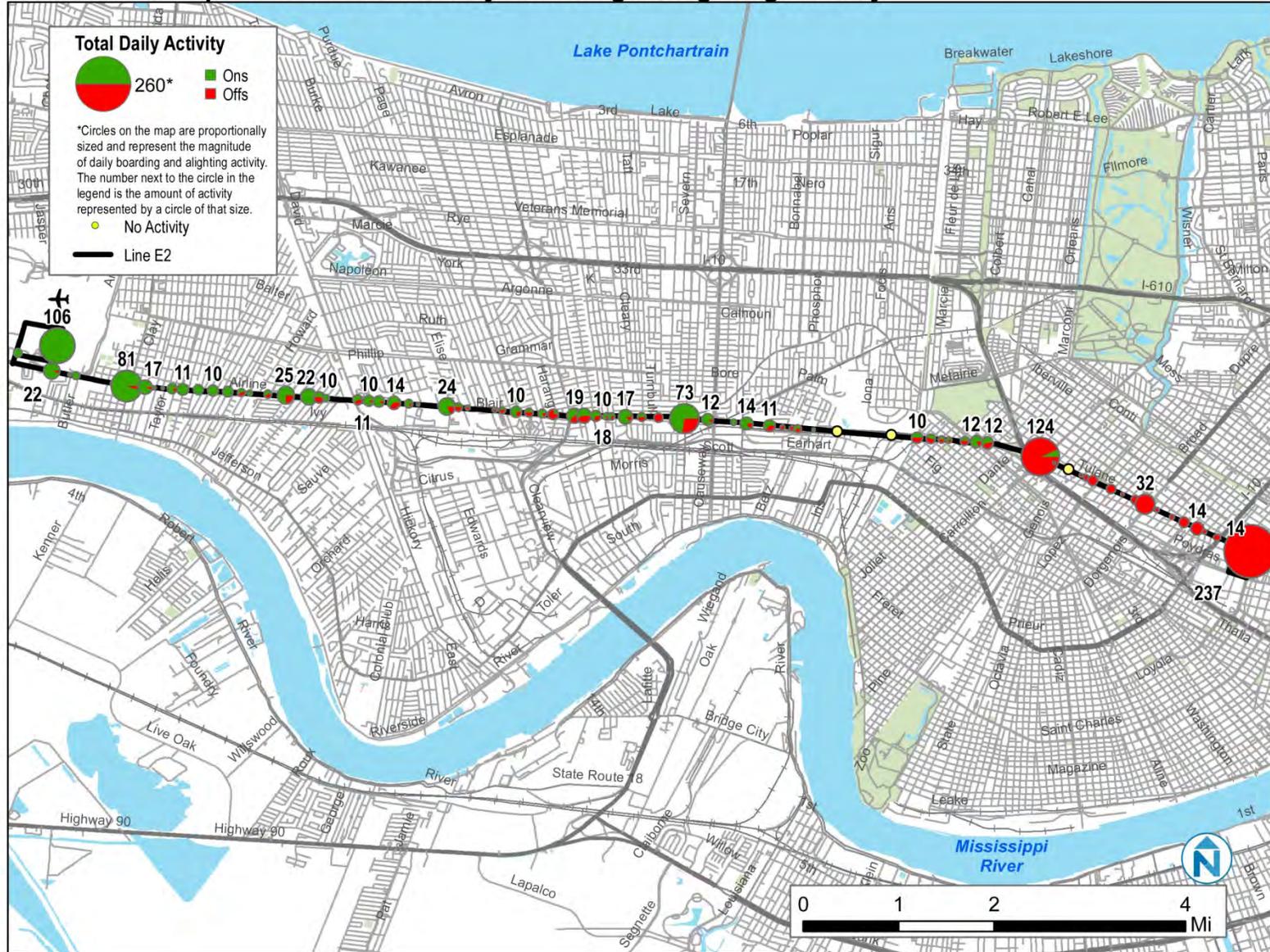
##### Saturday

On-Time:	71.7 %
Early:	12.2 %
Late:	16.1 %

##### Sunday

On-Time:	70.5 %
Early:	26.8 %
Late:	2.7 %

### JeT Line E2 Airport Inbound Weekday Boarding & Alighting Activity



Data Sources: U.S. Census Bureau, NORPC, ESRI



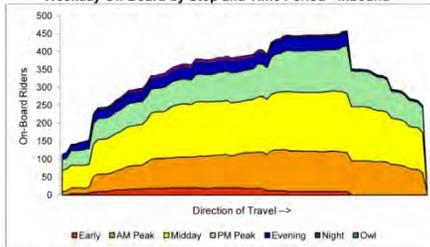
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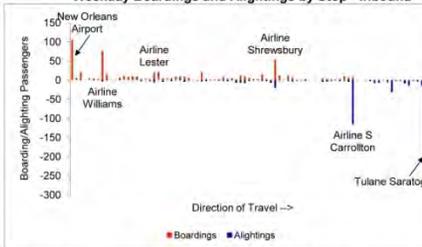
Line E2	Passenger Summary										
	Total			Productivity			Maximum On-Board Loading				
Weekday Line Profile	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location	Dir
<b>Total</b>	1198	1198		42.5			28.2	458		Airline & Monroe	I
<b>By Direction</b>											
Inbound	613	605		19.3			31.8	458		Airline & Monroe	I
Outbound	585	593		23.2			25.2	441		Tulane & S Carrollton	O
<b>By Segment</b>											
1 New Orleans Airport & to Airline & Lester	312	267		8.9			34.9				
2 Airline & Lester to Airline & Shrewsbury	273	300		12.4			22.0				
3 Airline & Shrewsbury to Airline & S Carrollton	284	160		10.6			26.9				
4 Airline & S Carrollton to Tulane & Saratoga	329	471		11.6			28.3				
<b>By Time Period</b>											
AM	308	308		10.1			30.4	142		Tulane & S Carrollton	O
Midday	431	431		15.7			27.5	158		Airline & Palm	I
PM	319	319		10.6			30.1	133		Airline & Monroe	I
Eve	97	97		5.1			19.1	40		Tulane & S Carrollton	O
Night	16	16		1.0			16.6	10		Airline & Eisenhower	I
Owl											O

Line E2	Operations Summary		
	Schedule		
Weekday Line Profile	% On-Time	% Early	% Late
<b>Total</b>	46.8%	16.7%	36.5%
<b>By Direction</b>			
Inbound	53.9%	12.1%	34.0%
Outbound	39.7%	21.3%	39.0%
<b>By Segment</b>			
1 New Orleans Airport & to Airline & Lester	44.8%	10.3%	44.8%
2 Airline & Lester to Airline & Shrewsbury	39.7%	12.1%	48.3%
3 Airline & Shrewsbury to Airline & S Carrollton	51.7%	22.4%	25.9%
4 Airline & S Carrollton to Tulane & Saratoga	46.3%	25.9%	27.8%

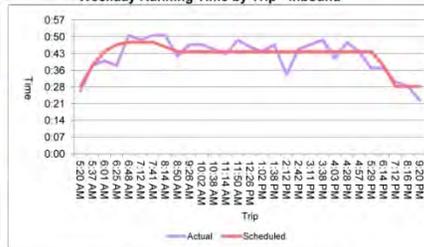
Weekday On-Board by Stop and Time Period - Inbound



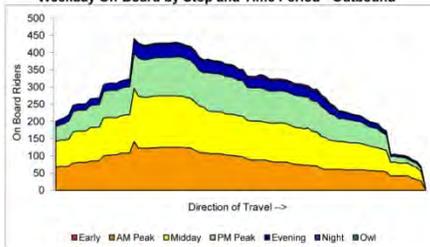
Weekday Boardings and Alightings by Stop - Inbound



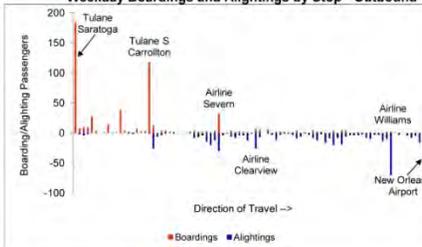
Weekday Running Time by Trip - Inbound



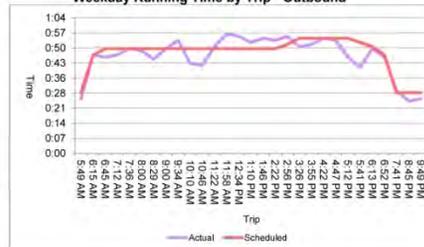
Weekday On-Board by Stop and Time Period - Outbound



Weekday Boardings and Alightings by Stop - Outbound



Weekday Running Time by Trip - Outbound



## Route E3 Kenner Local

### Route Description

Route E3 Kenner Local connects Kenner and the intersection of Claiborne / Carrollton in New Orleans via Jefferson Highway. Service is provided seven days a week.

Based on September 2011 ridership counts, weekday productivity on Route E3 is 27.4 boardings per hour. Saturday productivity is 27.0 boardings per hour and Sunday is 18.6 boardings per hour.

### Route Characteristics

Weekday productivity is consistent throughout the day. The western portion of the route is less productive than the eastern portion. In particular, the segment between the St. Charles Line and Coleman carries few riders.

The highest ridership points on the route are at Claiborne / Carrollton, Ochsner Medical Center, and at Causeway, Plantation, and Williams.

The route duplicates RTA Route 39 Tulane for approximately  $\frac{3}{4}$  of a mile on Claiborne within New Orleans.

More than half the ridership on E3 has an origin or destination within New Orleans. The RTA ridership numbers suggest transfers are common to all routes at Claiborne / Carrollton.

Weekday evening, Saturday, and Sunday service all operate on irregular headways, which make transferring to other routes more difficult.

Route E3 has problems staying on-time on weekdays. Individual trips had large swings in running time, with some trips on-time and others more than 16 minutes late. Route E3 does have several at-grade rail crossings, which may be responsible for the longer delays. On-time performance is better on weekends.

Route E3 does not have capacity issues. The data showed only one trip with standees and a 40 passenger maximum load.

### Route Statistics

#### Riders

Avg. 2011 Ridership through Sept:

Weekday	1,066
Saturday	610
Sunday	230

Sept. 2011 Ridership Counts Weekday Boardings / Hour	27.4
--	------

#### Service Frequency

AM Peak	20 min
PM Peak	25 min
Weekday Base	30 min
Weekday Evening	70 min
Saturday Base	32 min
Sunday Base	68-72 min

#### Service Span

Weekday	5:22A – 9:33P
Saturday	5:54A – 9:31P
Sunday	7:39A – 9:31P

#### On-Time Performance

##### Weekday

On-Time:	46.2 %
Early:	17.8 %
Late:	36.0 %

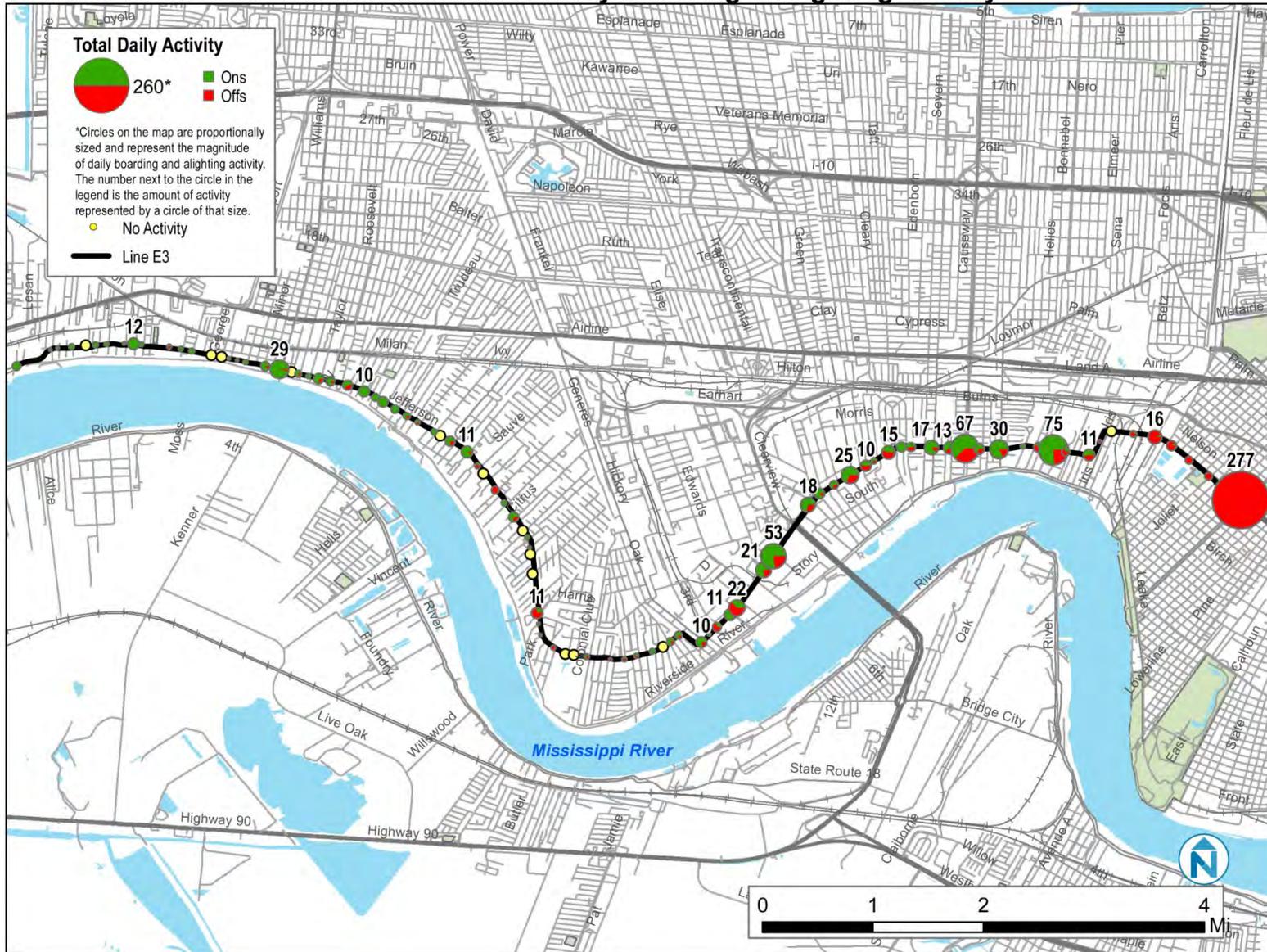
##### Saturday

On-Time:	73.0 %
Early:	8.5 %
Late:	18.5 %

##### Sunday

On-Time:	60.0 %
Early:	35.0 %
Late:	5.0 %

### JeT Line E3 Kenner Local Eastbound Weekday Boarding & Alighting Activity



Data Sources: U.S. Census Bureau, NORPC, ESRI



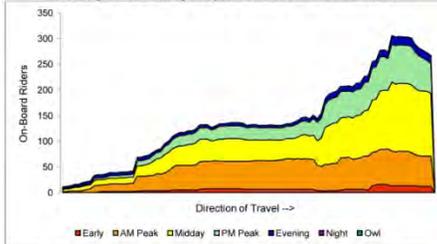
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Line E3	Passenger Summary						Maximum On-Board Loading		
	Total			Productivity			Location	Dir	
<b>Weekday Line Profile</b>	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board
<b>Total</b>	1066	1058		38.9			27.4	368	Jefferson & Brooklyn/Jules
<b>By Direction</b>									
Inbound	506	503		18.3			27.7	306	Jefferson & Ochsner
Outbound	560	555		20.6			27.2	368	Jefferson & Brooklyn/Jules
<b>By Segment</b>									
1 3rd St & St Charles Parish Line to Jefferson & Little Farms	147	160		5.9			25.1		
2 Jefferson & Little Farms to Jefferson & Hickory	72	92		8.9			8.1		
3 Jefferson & Hickory to Jefferson & Causeway	306	334		12.6			24.4		
4 Jefferson & Causeway to S Claiborne & Carrollton	541	472		12.9			41.9		
5									
<b>By Time Period</b>									
AM	279	278		9.4			29.6	116	Jefferson & Iris Ave
Midday	416	411		14.9			28.0	134	Jefferson & Ochsner
PM	245	243		9.7			25.3	75	Jefferson & Coolidge
Even	71	66		4.4			16.1	30	Jefferson & Hickory
Night	11	14		0.5			22.0	8	S Claiborne & Leonidas
Owl									

Line E3	Operations Summary		
	Schedule		
<b>Weekday Line Profile</b>	% On-Time	% Early	% Late
<b>Total</b>	46.2%	17.8%	36.0%
<b>By Direction</b>			
Inbound	51.8%	7.9%	40.2%
Outbound	40.6%	27.6%	31.8%
<b>By Segment</b>			
1 3rd St & St Charles Parish Line to Jefferson & Little Farms	51.5%	9.1%	39.4%
2 Jefferson & Little Farms to Jefferson & Hickory	48.5%	18.2%	33.3%
3 Jefferson & Hickory to Jefferson & Causeway	33.8%	25.0%	41.2%
4 Jefferson & Causeway to S Claiborne & Carrollton	39.7%	22.1%	38.2%
5			

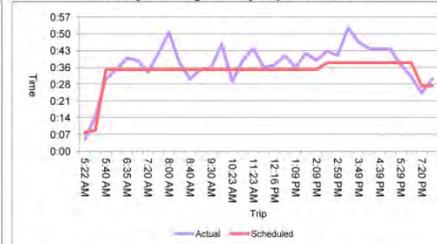
**Weekday On-Board by Stop and Time Period - Inbound**



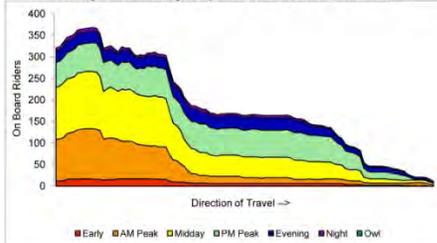
**Weekday Boardings and Alightings by Stop - Inbound**



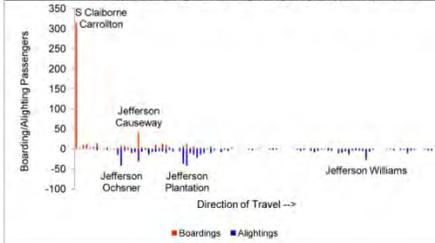
**Weekday Running Time by Trip - Inbound**



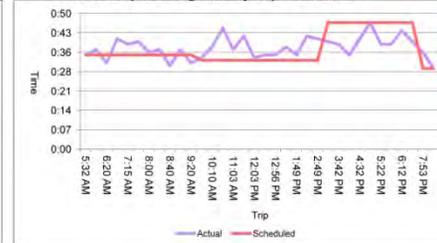
**Weekday On-Board by Stop and Time Period - Outbound**



**Weekday Boardings and Alightings by Stop - Outbound**



**Weekday Running Time by Trip - Outbound**



## Route E4 Metairie Road

### Route Description

Route E4 Metairie Road provides service weekdays between the Cemeteries Transit Center in New Orleans, and the intersection of Severn and Airline Drive in Metairie, near the Causeway/Airline interchange. No weekend service is provided.

Based on September 2011 ridership counts, weekday productivity on Route E4 is 10.8 boardings per hour. At 3.8 miles long, it is the shortest route in the JeT system.

### Route Characteristics

E4's productivity is the worst of the Eastbank routes that connect in New Orleans. The predominant ridership pattern is taking New Orleans residents to Metairie in the morning and back in the afternoon.

The productivity of the segment between Bonnabel and Cemeteries is twice as productive as the segment between Bonnabel and Severn.

The highest boarding/alighting activity locations are at the route termini, suggesting that transfers are common to other routes. The only other stop with more than 10 passengers in both directions is at Metairie and Focis, adjacent to the Old Metairie Village Shopping Center.

Route E4 operates on an irregular 40-minute headway, which makes transfers to other routes more difficult.

Route E4 operates on-time about 72 percent of the time. Early running is more common than late running. The outbound afternoon trips are most often late, primarily due to congestion.

The maximum load carried on Route E4 was 8 passengers, indicating that capacity is not an issue.

### Route Statistics

#### Riders

Avg. 2011 Ridership through Sept:

Weekday	120
---------	-----

Sept. 2011 Ridership Counts Weekday Boardings / Hour	10.8
--	------

#### Service Frequency

AM Peak	40 min
---------	--------

PM Peak	40 min
---------	--------

Weekday Base	40 min
--------------	--------

Weekday Evening	40 min
-----------------	--------

Saturday Base	No Service
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Sunday Base	No Service
-------------	------------

#### Service Span

Weekday	6:23A – 6:58P
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Saturday	No Service
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Sunday	No Service
--------	------------

#### On-Time Performance

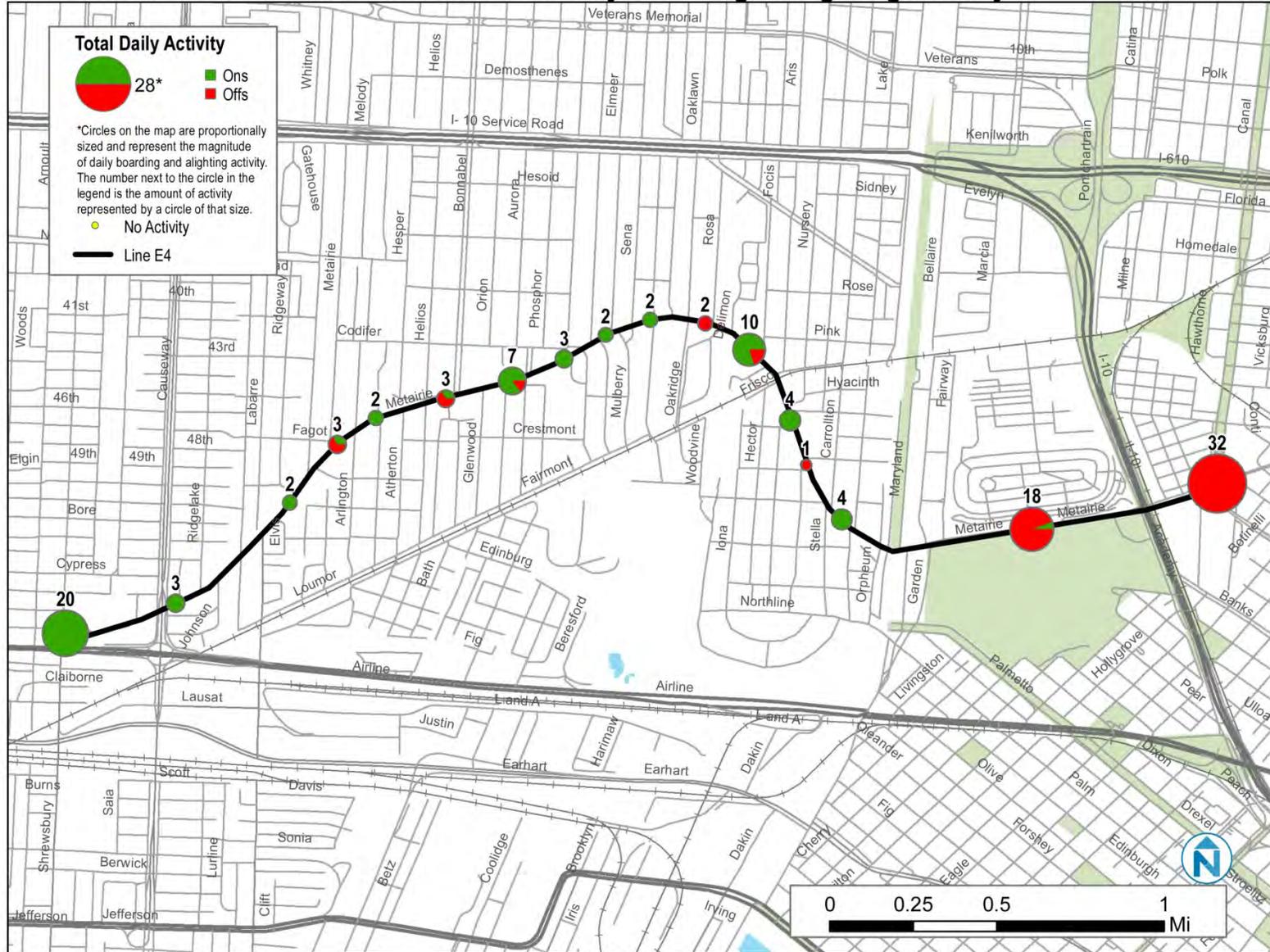
##### Weekday

On-Time:	71.9 %
----------	--------

Early:	16.7 %
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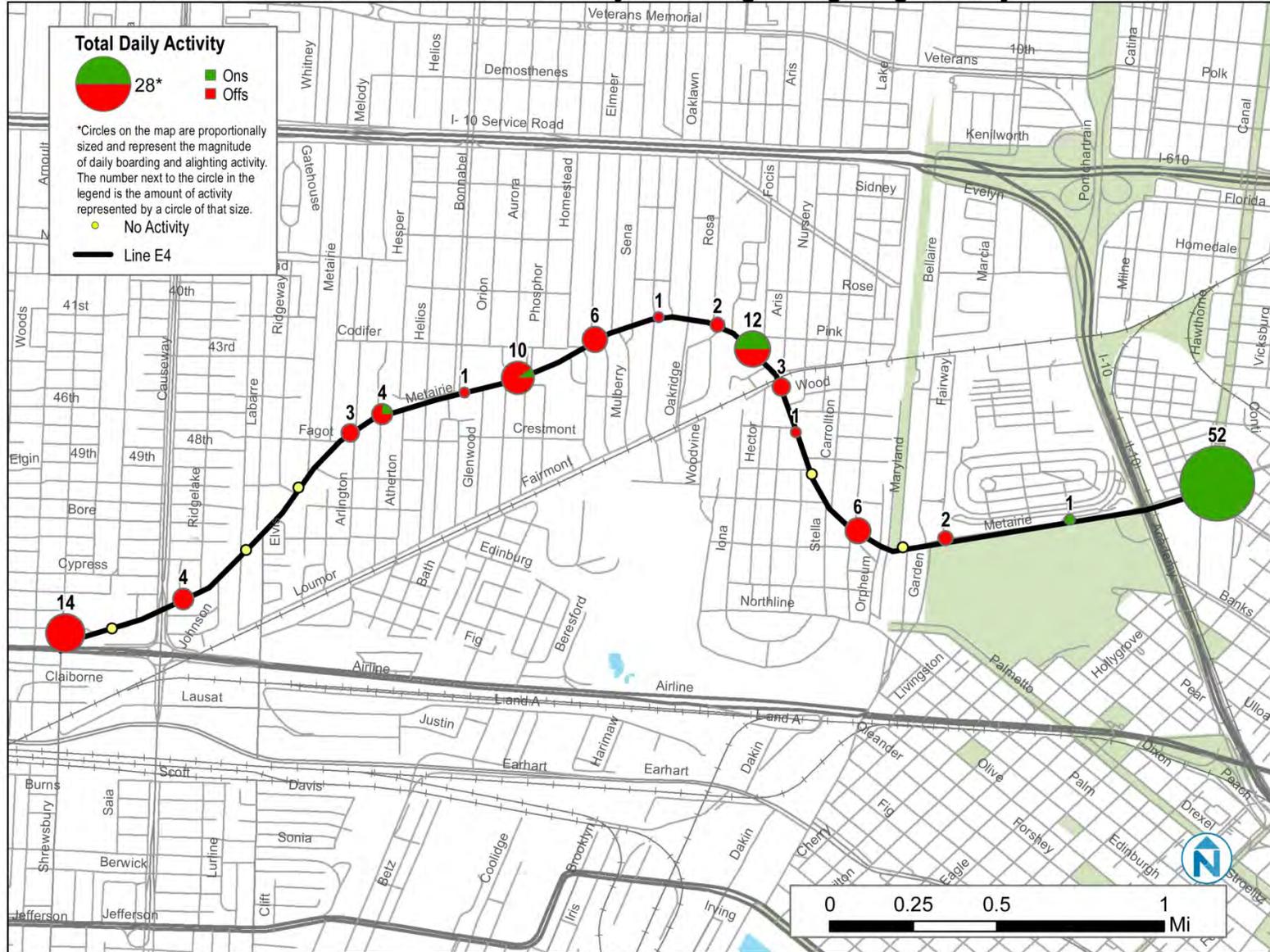
Late:	11.4 %
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### JeT Line E4 Metairie Road Eastbound Weekday Boarding & Alighting Activity



Data Sources: U.S. Census Bureau, NORPC, ESRI

### JeT Line E4 Metairie Road Westbound Weekday Boarding & Alighting Activity



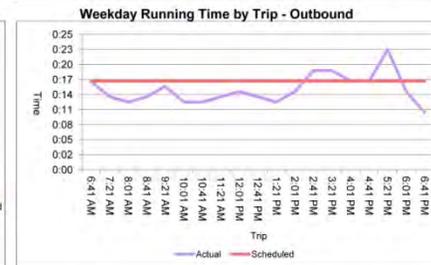
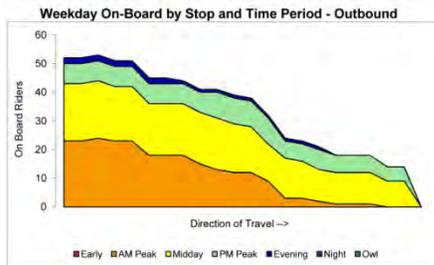
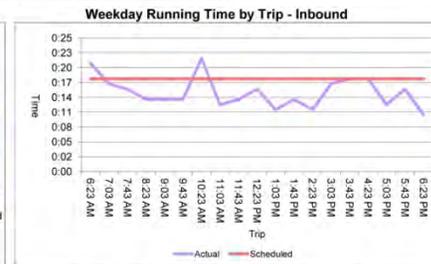
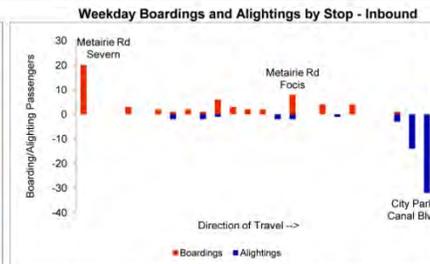
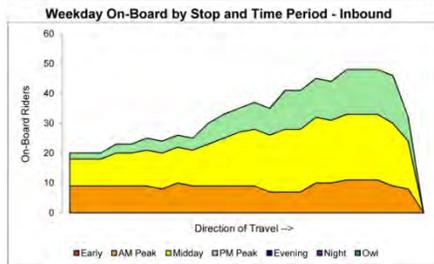
Data Sources: U.S. Census Bureau, NORPC, ESRI

## COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

### Regional Planning Commission

Line E4	Passenger Summary									
	Total			Productivity			Maximum On-Board Loading			
Weekday Line Profile	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location Dir
<b>Total</b>	120	120		11.1			10.8	53		Metairie Rd & Metairie Cemetery O
<b>By Direction</b>										
Inbound	59	59		5.7			10.4	48		Metairie Rd & Friedrichs I
Outbound	61	61		5.4			11.3	53		Metairie Rd & Metairie Cemetery O
<b>By Segment</b>										
1 Metairie Rd & Severn to Metairie Rd & Livingston	29	27		4.4			6.5			
2 Metairie Rd & Livingston to City Park & Canal Blvd	91	93		6.7			13.7			
<b>By Time Period</b>										
AM	40	40		2.3			17.1	24		Metairie Rd & Metairie Cemetery O
Midday	51	51		5.2			9.7	22		Metairie Rd & Avenue A I
PM	27	27		2.6			10.3	16		Metairie Rd & Metairie Cemetery I
Eve	2	2		0.9			2.3	2		City Park & Canal Blvd O
Night										O
Owl										O

Line E4	Operations Summary		
	Schedule		
Weekday Line Profile	% On-Time	% Early	% Late
<b>Total</b>	71.9%	16.7%	11.4%
<b>By Direction</b>			
Inbound	82.5%	14.0%	3.5%
Outbound	61.4%	19.3%	19.3%
<b>By Segment</b>			
1 Metairie Rd & Severn to Metairie Rd & Livingston	63.2%	28.9%	7.9%
2 Metairie Rd & Livingston to City Park & Canal Blvd	73.7%	15.8%	10.5%



## Route E5 Causeway

### Route Description

Route E5 Causeway provides service weekdays and Saturdays between Causeway Boulevard and Jefferson Highway and East Jefferson General Hospital.

Based on September 2011 ridership counts, weekday productivity on Route E5 is 20.0 boardings per hour and Saturday productivity is 11.3 boardings per hour.

### Route Characteristics

Route E4 does not show great ridership variation between segments when examining productivity. Productivity on Route E5 is consistent throughout the day. On Saturdays, though, ridership north of Lakeside Mall is very low.

The highest ridership stops are at Severn/Airline, Jefferson Highway, and Veterans. Ridership is also high at EJGH on weekdays but not Saturdays.

Route E5 features a mid-route loop in Metairie between Airline/Severn and West Napoleon/Causeway, with northbound buses operating via Causeway, and southbound via Severn, three blocks west of Causeway. The street grid does not always connect Severn and Causeway, resulting in riders making long, out-of-direction trips.

Route E5 operates easy-to-remember 30/60 minute headways on weekdays. The Saturday schedule is 50-minute headways, which makes transfers to other routes more difficult due to the irregular times.

During peak periods, on both weekdays and Saturdays, Route E5 has very good on-time performance. Nearly all trips running early or more than five minutes late operate midday.

Capacity issues do not exist on Route E5, as the largest load it carried during ridership counts was 17 passengers.

### Route Statistics

#### Riders

Avg. 2011 Ridership through Sept:

Weekday	330
Saturday	130

Sept. 2011 Ridership Counts Weekday Boardings / Hour	20.0
--	------

#### Service Frequency

AM Peak	30 min
PM Peak	30 min
Weekday Base	60 min
Weekday Evening	30 min
Saturday Base	50 min
Sunday Base	No Service

#### Service Span

Weekday	6:30A – 7:22P
Saturday	7:00A – 7:26P
Sunday	No Service

#### On-Time Performance

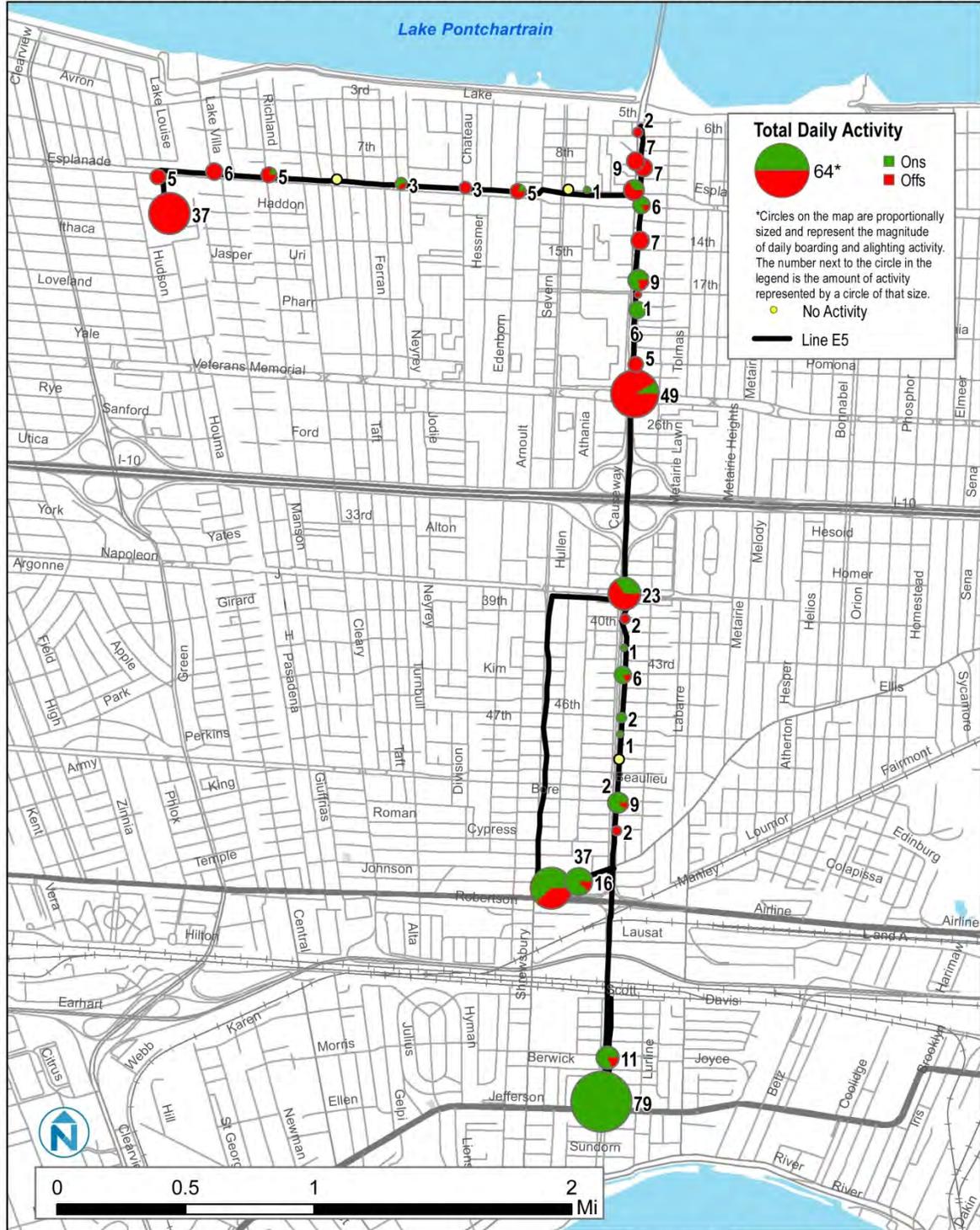
##### Weekday

On-Time:	69.3 %
Early:	18.4 %
Late:	12.3 %

##### Saturday

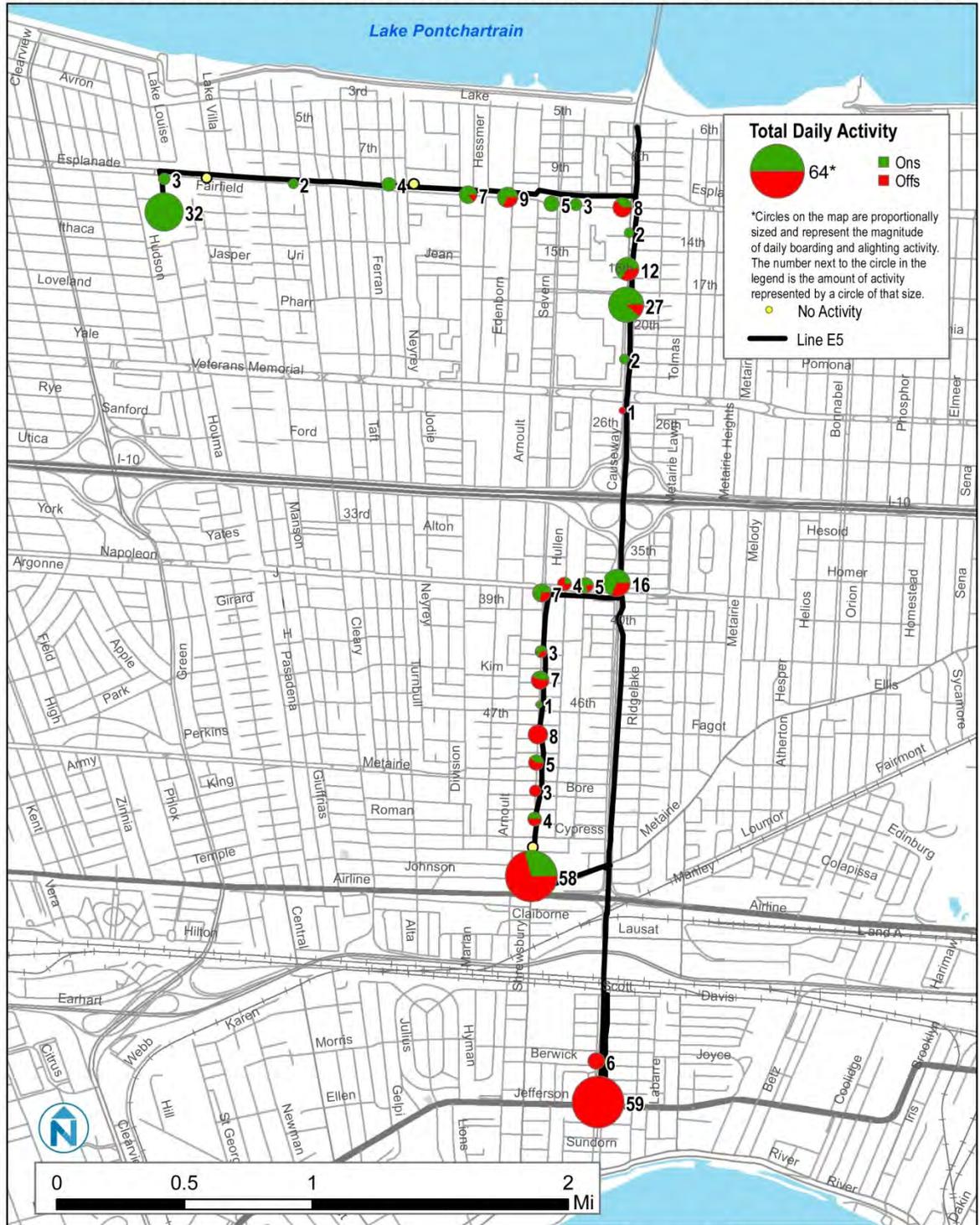
On-Time:	60.0 %
Early:	15.6 %
Late:	24.4 %

**JeT Line E5 Causeway Northbound Weekday Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

**JeT Line E5 Causeway Southbound Weekday Boarding & Alighting Activity**



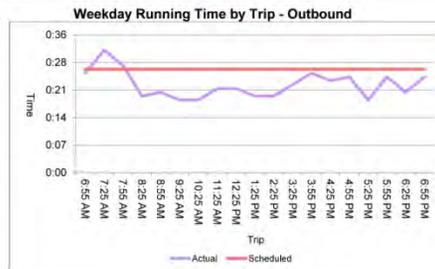
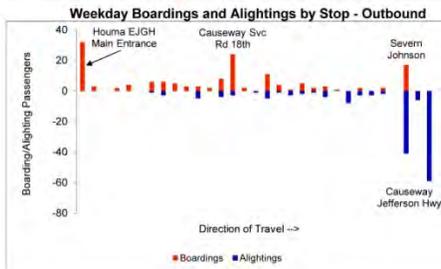
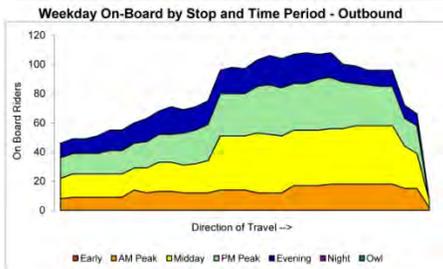
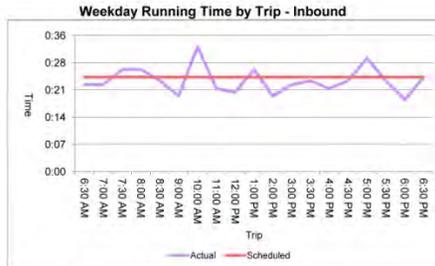
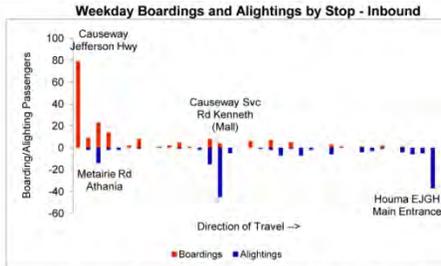
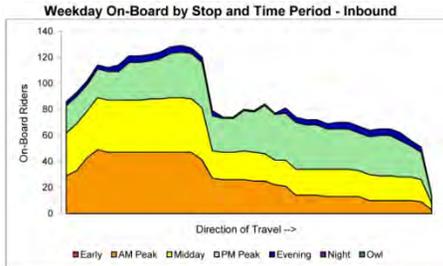
Data Sources: U.S. Census Bureau, NORPC, ESRI

## COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

### Regional Planning Commission

Line E5	Passenger Summary							Location	Dir
	Total				Productivity		Maximum On-Board Loading		
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour		
<b>Weekday Line Profile</b>									
<b>Total</b>	330	330	16.5				20.0	129	Causeway Svc Rd & 41st
<b>By Direction</b>									
Inbound	182	175	7.9				23.0	129	Causeway Svc Rd & 41st
Outbound	148	155	8.6				17.3	108	Severn & 42nd
<b>By Segment</b>									
1 Causeway & Jefferson Hwy to Causeway Svc Rd & Kenneth (Mall)	200	178	10.1				19.7		
2 Causeway Svc Rd & Kenneth (Mall) to Houma & EJGH Main Entrance	130	152	6.3				20.5		
3									
<b>By Time Period</b>									
AM	85	85	3.9				21.9	49	Metairie Rd & Gennaro
Midday	109	109	5.7				19.3	42	Causeway Svc Rd & 43th
PM	97	97	4.8				20.4	37	Causeway & 16th
Eve	39	39	2.2				17.9	21	Severn & 42nd
Night									O
Owl									O

Line E5	Operations Summary		
	Schedule		
<b>Weekday Line Profile</b>			
<b>Total</b>	69.3%	18.4%	12.3%
<b>By Direction</b>			
Inbound	73.7%	21.1%	5.3%
Outbound	64.9%	15.8%	19.3%
<b>By Segment</b>			
1 Causeway & Jefferson Hwy to Causeway Svc Rd & Kenneth (Mall)	57.9%	34.2%	7.9%
2 Causeway Svc Rd & Kenneth (Mall) to Houma & EJGH Main Entrance	63.2%	18.4%	18.4%
3			



## Route E8 Clearview

### Route Description

Route E8 Clearview is a crosstown route providing service on weekdays between Plantation Drive and Jefferson Highway, and East Jefferson General Hospital, via Clearview Parkway.

Based on September 2011 ridership counts, weekday productivity on Route E8 is 10.9 boardings per hour.

### Route Characteristics

Route E8 has low ridership and low productivity. North of Airline, boardings average 13.1 per hour, while south of Airline the boardings are only 60 percent of that.

Route E8 has its highest productivity during the AM peak, and its lowest during the PM peak.

The highest ridership stops were at Clearview / Airline and at East Jefferson General Hospital. No other stops had more than 15 passengers.

Route E8 features a mid-route loop in Metairie, in which northbound trips operate via W. Napoleon, Transcontinental Drive, and Veterans Memorial Blvd around the Clearview/I-10 interchange. Southbound trips operate directly via Clearview, a segment on which this route is contained almost entirely within the interchange, and thus virtually inaccessible to trip generators within the immediate vicinity, such as the Clearview Mall.

The south terminal loop primarily serves an industrial area, and ridership is correspondingly low throughout.

Route E8 operates on a schedule that is extremely difficult for passengers to memorize, utilizing inconsistent headways between trips that limit ease of customer use.

An unusual aspect of Route E8's on-time performance is late NB arrivals at the EJGH terminal, despite on-time arrivals at Clearview/Airline. This may indicate insufficient time built into the schedule to accommodate the Transcontinental Drive loop.

Route E8 does not have capacity issues, as the largest load it ever carried during ridership counts was 10 passengers.

### Route Statistics

#### Riders

Avg. 2011 Ridership through Sept:

Weekday	96
---------	----

Sept. 2011 Ridership Counts Weekday Boardings / Hour	10.9
--	------

#### Service Frequency

AM Peak	71-78 min
---------	-----------

PM Peak	71-78 min
---------	-----------

Weekday Base	71-83 min
--------------	-----------

Weekday Evening	No Service
-----------------	------------

Saturday Base	No Service
---------------	------------

Sunday Base	No Service
-------------	------------

#### Service Span

Weekday	6:05A – 5:51P
---------	---------------

Saturday	No Service
----------	------------

Sunday	No Service
--------	------------

#### On-Time Performance

##### Weekday

On-Time:	61.6 %
----------	--------

Early:	18.3 %
--------	--------

Late:	20.1 %
-------	--------



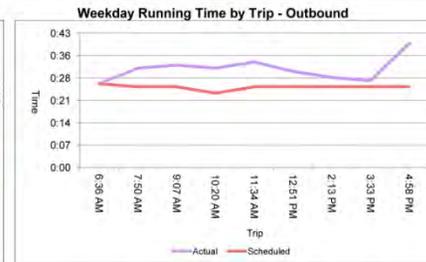
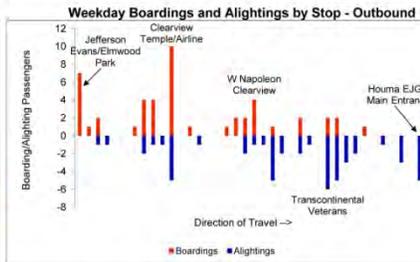
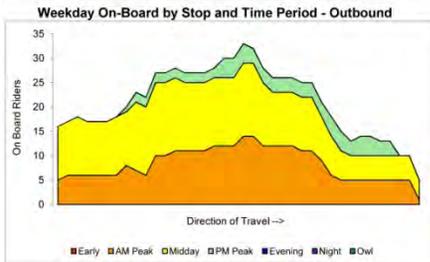
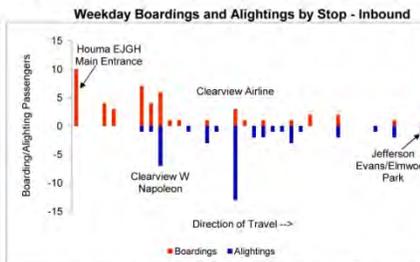
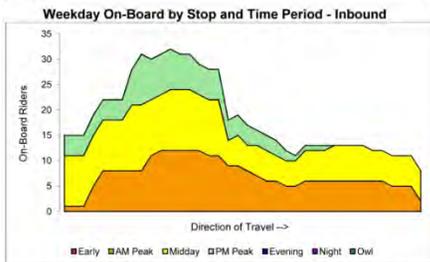


# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

## Regional Planning Commission

Line E8	Passenger Summary								
	Total					Productivity		Maximum On-Board Loading	
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max. Total Passengers On Board
<b>Total</b>	95	96		8.7			10.9	33	
<b>By Direction</b>									
Inbound	48	45		4.8			9.9	32	W Napoleon & Clearview
Outbound	47	51		3.9			12.1	33	W Napoleon & Clearview
<b>By Segment</b>									
1 Houma & EJGH Main Entrance to Clearview & Airline	65	59		5.0			13.1		
2 Clearview & Airline to Jefferson & Evans/Elmwood Park	30	37		3.8			8.0		
<b>By Time Period</b>									
AM	32	31		2.2			14.7	14	W Napoleon & Clearview
Midday	43	45		4.2			10.2	15	Clearview & Temple/Airline
PM	20	20		2.3			8.6	10	Clearview & Rye
Evening									
Night									
Owl									

Line E8	Operations Summary		
	Schedule		
	% On-Time	% Early	% Late
<b>Total</b>	61.6%	18.3%	20.1%
<b>By Direction</b>			
Inbound	71.4%	14.3%	14.3%
Outbound	51.9%	22.2%	25.9%
<b>By Segment</b>			
1 Houma & EJGH Main Entrance to Clearview & Airline	57.9%	5.3%	36.8%
2 Clearview & Airline to Jefferson & Evans/Elmwood Park	61.1%	27.8%	11.1%



## Route W1 Avondale

### Route Description

Route W1 Avondale provides service on weekdays between Waggaman and Avondale, and the Walkertown Terminal in Marrero, largely via U.S. Route 90 and the Westbank Expressway. No weekend service is provided.

Based on September 2011 ridership counts, productivity on W1 is 11.8 boardings per hour, one of the least productive West Bank routes operated by JeT.

### Route Characteristics

Route W1's ridership pattern appears to be commuter oriented, as peak ridership is approximately double that of midday and evening ridership. Approximately 83 percent of passengers have an origin or destination at the Walkertown Terminal, indicating transfer activity to other JeT routes.

Productivity between Walkertown Terminal and Drake Avenue is approximately 3 times higher than the rest of the route.

The highest ridership stop is at the Walkertown Terminal. Other stops with more than 15 passengers include U.S. 90/Jamie Blvd, and Westbank Expy/Beechgrove Blvd.

Route W1 inbound and outbound trips serve part of Westwego via a clockwise loop that carries few passengers. All but the portion on Louisiana is also served by Route W10.

The irregular 69-minute headway makes timing transfers to other routes difficult.

Over two-fifths of trips run early or more than five minutes late, with early trips concentrated westbound and late trips concentrated eastbound. Late trips are also common in the westbound peak, indicating insufficient time built into the schedule eastbound and in the westbound PM peak.

Route W1 does not have capacity issues, as the largest load it ever carried during ridership counts was 18 passengers.

### Route Statistics

#### Riders

Avg. 2011 Ridership through Sept:

Weekday	120
---------	-----

Sept. 2011 Ridership Counts Weekday Boardings / Hour	11.8
--	------

#### Service Frequency

AM Peak	69 min
---------	--------

PM Peak	69 min
---------	--------

Weekday Base	69 min
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Weekday Evening	No Service
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Saturday Base	No Service
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Sunday Base	No Service
-------------	------------

#### Service Span

Weekday	6:05A – 7:44P
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Saturday	No Service
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Sunday	No Service
--------	------------

#### On-Time Performance

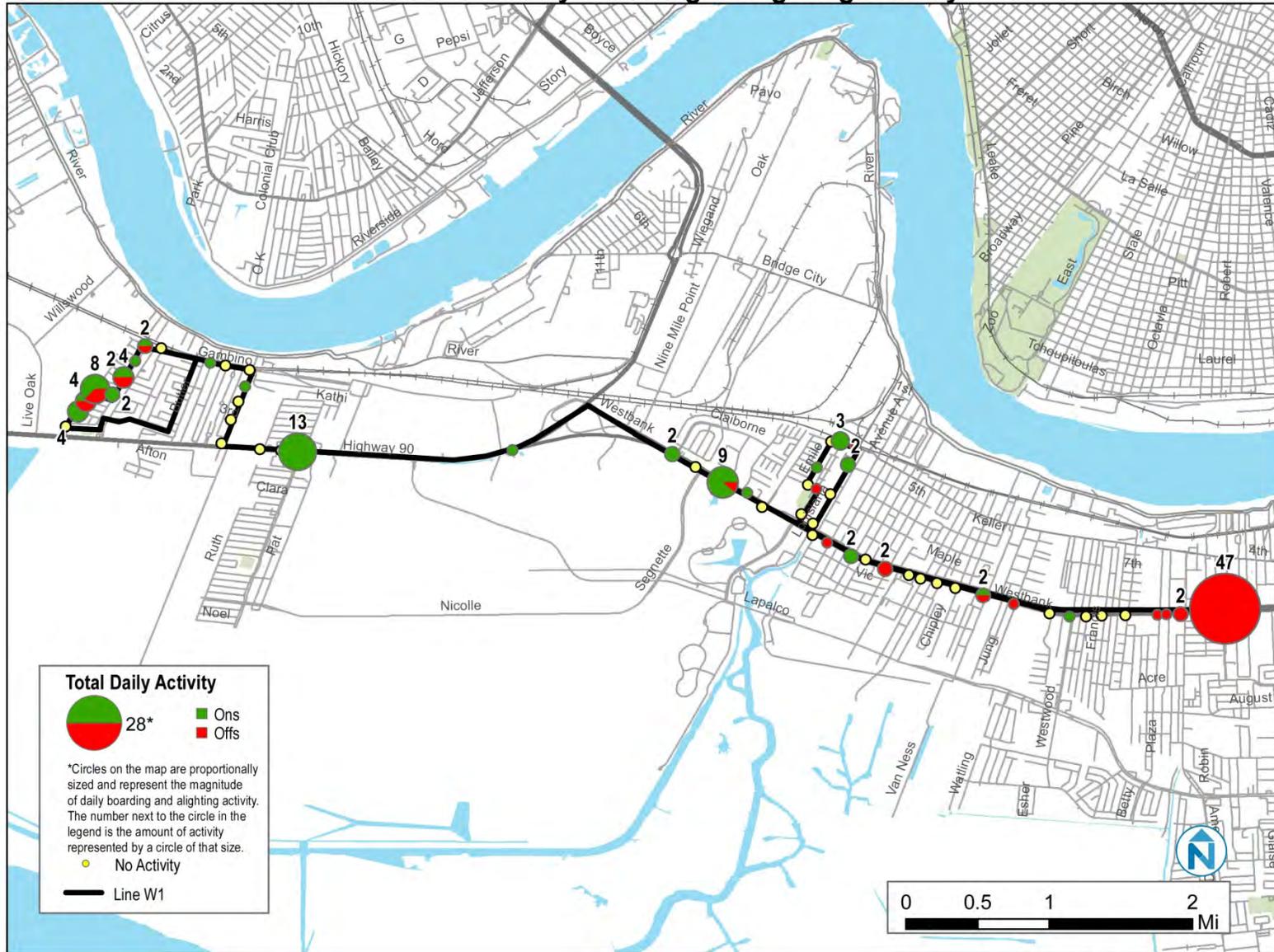
##### Weekday

On-Time:	58.3 %
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Early:	24.0 %
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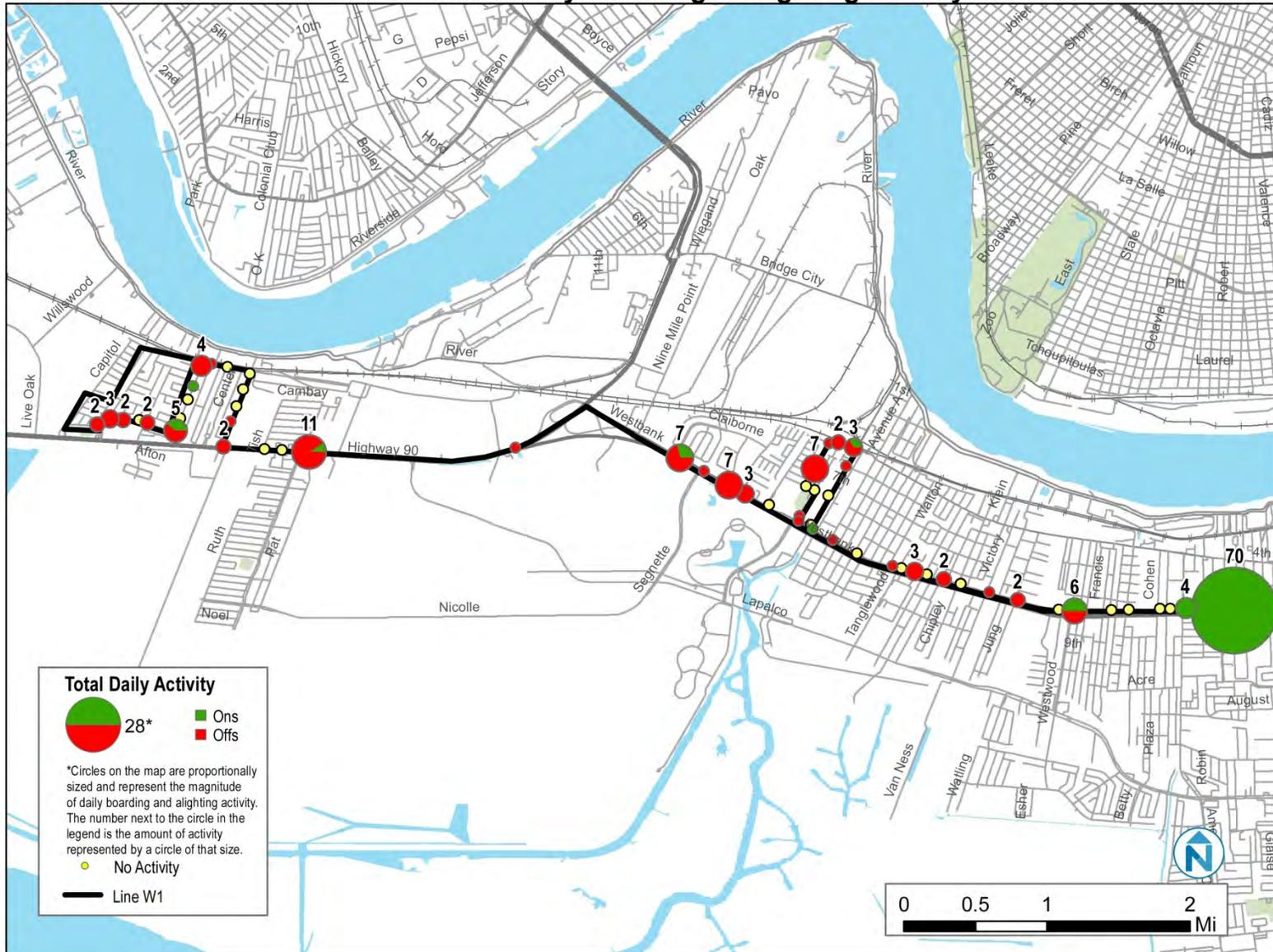
Late:	17.7 %
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**JeT Line W1 Avondale Eastbound Weekday Boarding & Alighting Activity**



Data Sources: U.S. Census Bureau, NORPC, ESRI

### JeT Line W1 Avondale Westbound Weekday Boarding & Alighting Activity



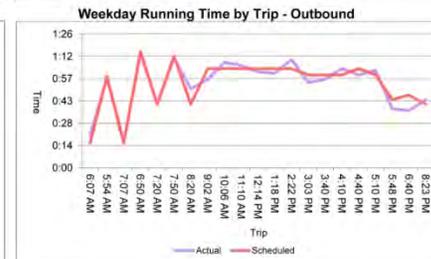
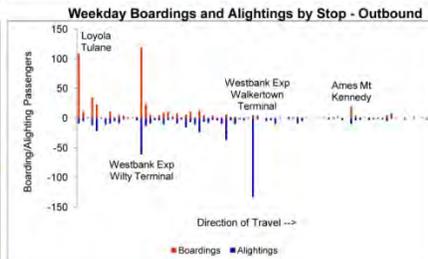
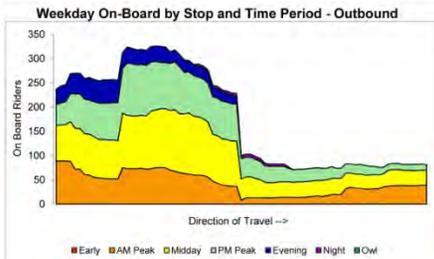
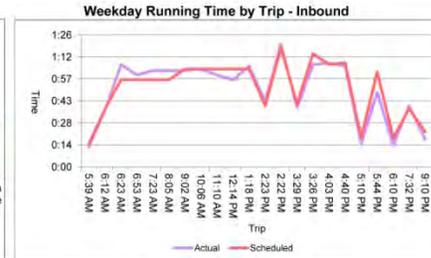
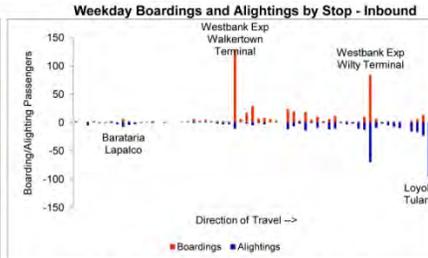
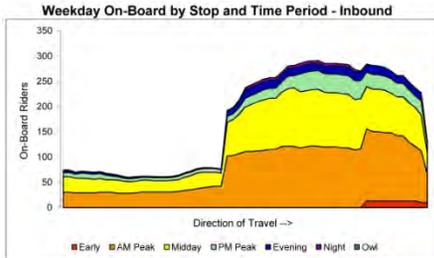
Data Sources: U.S. Census Bureau, NORPC, ESRI

# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

## Regional Planning Commission

Line W2	Passenger Summary							Maximum On-Board Loading			
	Total			Productivity			Maximum On-Board Loading				
Weekday Line Profile	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location	Dir
<b>Total</b>	986	982		39.1			25.2	326		Westbank Exp & Weyer	O
<b>By Direction</b>											
Inbound	474	414		18.8			25.3		291	Westbank Exp & Weyer	I
Outbound	512	568		20.4			25.2		326	Westbank Exp & Weyer	O
<b>By Segment</b>											
1 Lafitte-Larose & Barataria to Barataria & Lapalco	61	67		5.6			10.9				
2 Barataria & Lapalco to Westbank Exp & Walkertown Terminal	48	185		5.0			9.5				
3 Westbank Exp & Walkertown Terminal to Westbank Exp & Barataria	135	28		4.8			29.2				
4 Westbank Exp & Barataria to Westbank Exp & Manhattan	164	162		6.3			25.9				
5 Westbank Exp & Manhattan to Westbank Exp & Willy Terminal	253	195		5.1			49.9				
6 Westbank Exp & Willy Terminal to Loyola & Tulane	325	345		11.0			29.5				
<b>By Time Period</b>											
AM	329	330		9.8			33.7		142	Westbank Exp & Willy Terminal	I
Midday	339	342		15.5			21.9		127	Westbank Exp & Manhattan after	O
PM	217	205		9.3			23.5		108	Westbank Exp & Stumpf	O
Eve	75	89		3.8			19.6		48	Convention Center Blvd & St Jose	O
Night	12	12		0.8			15.7		6	Westbank Exp & Manhattan	I
Owl											O

Line W2	Operations Summary		
	Schedule		
Weekday Line Profile	% On-Time	% Early	% Late
<b>Total</b>			
<b>By Direction</b>			
Inbound	59.2%	15.4%	25.4%
Outbound	31.0%	6.2%	62.8%
<b>By Segment</b>			
1 Lafitte-Larose & Barataria to Barataria & Lapalco	50.0%	6.3%	43.8%
2 Barataria & Lapalco to Westbank Exp & Walkertown Terminal	64.8%	35.1%	35.1%
3 Westbank Exp & Walkertown Terminal to Westbank Exp & Barataria	50.0%	25.0%	25.0%
4 Westbank Exp & Barataria to Westbank Exp & Manhattan	39.5%	21.1%	39.5%
5 Westbank Exp & Manhattan to Westbank Exp & Willy Terminal	38.5%	12.8%	48.7%
6 Westbank Exp & Willy Terminal to Loyola & Tulane	39.5%	7.9%	52.6%



## Route W2 Westbank Expressway

### Route Description

Route W2 Westbank Expressway provides weekday and Saturday service between unincorporated Estelle, and downtown New Orleans, via the Westbank Expy as well as Ames/Barataria Boulevards. No Sunday service is provided.

Based on September 2011 ridership counts, weekday productivity on Route W2 is 25.2 boardings per hour, and 15.4 on Saturday.

### Route Characteristics

Productivity on W2 slowly decreases as the day goes on, peaking in the AM peak at 33.7 boardings/hour, decreasing to 23.5 in the PM, and 15.7 at night. Similar trends occur Saturdays, though AM productivity is slightly higher on Saturdays (34.3) than on weekdays.

The highest ridership segments on Route W2 are its segments along Westbank Expressway and in New Orleans. On weekdays, productivity is 49.9 boardings/hour between Manhattan and the Wilty Terminal compared to between 25 and 30 on the other segments.

Ridership between Walkertown and Estelle is poor, with productivity below 11 boardings/hour at all times. This segment features a mid-route loop, which depresses ridership potential as it can force long, out-of-direction trips.

The highest ridership locations are in downtown New Orleans, as well as at the Walkertown and Wilty terminals. It appears that transfer activity and park-and-ride utilization are two major ridership generators for Route W2.

Trips operate on regular 30-minute headways during weekday peak hours, but on irregular 64 minute headways at most other hours of operation, making transfers and bus arrivals at stops more difficult for passengers to predict.

Less than 50 percent of W2 trips operate on-time. Forty-four percent of weekday trips operate more than 5 minutes late.

Route W2 has capacity issues in the AM peak, with peak loads of 45 and 38 on two trips. Maximum loads outbound in both peak periods approach but do not exceed seating capacity.

### Route Statistics

#### Riders

Avg. 2011 Ridership through Sept:

Weekday	986
Saturday	364

Sept. 2011 Ridership Counts Weekday Boardings / Hour	25.2
--	------

#### Service Frequency

AM Peak	30 min
PM Peak	30 min
Weekday Base	64 min
Weekday Evening	61-98 min
Saturday Base	64 min
Sunday Base	No Service

#### Service Span

Weekday	5:39A – 9:33P
Saturday	7:20A – 9:33P
Sunday	No Service

#### On-Time Performance

##### Weekday

On-Time:	45.1 %
Early:	10.8 %
Late:	44.1 %

##### Saturday

On-Time:	49.9 %
Early:	38.0 %
Late:	12.1 %





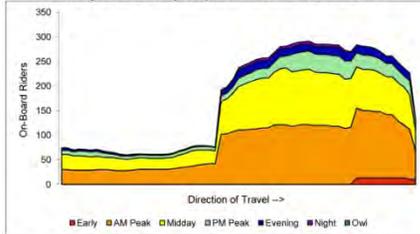
# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

## Regional Planning Commission

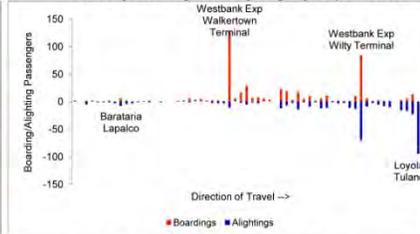
Line W2	Passenger Summary							Maximum On-Board Loading			
	Total			Productivity			Maximum On-Board Loading				
Weekday Line Profile	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location	Dir
<b>Total</b>	986	982	39.1				25.2		326	Westbank Exp & Weyer	O
<b>By Direction</b>											
Inbound	474	414	18.8				25.3		291	Westbank Exp & Weyer	I
Outbound	512	568	20.4				25.2		326	Westbank Exp & Weyer	O
<b>By Segment</b>											
1 Lafitte-Larose & Barataria to Barataria & Lapalco	61	67	5.6				10.9				
2 Barataria & Lapalco to Westbank Exp & Walkertown Terminal	48	185	5.0				9.5				
3 Westbank Exp & Walkertown Terminal to Westbank Exp & Barataria	135	28	4.8				28.2				
4 Westbank Exp & Barataria to Westbank Exp & Manhattan	164	162	6.3				25.9				
5 Westbank Exp & Manhattan to Westbank Exp & Willy Terminal	253	195	5.1				49.9				
6 Westbank Exp & Willy Terminal to Loyola & Tulane	325	345	11.0				29.5				
<b>By Time Period</b>											
AM	329	330					33.7		142	Westbank Exp & Willy Terminal	I
Midday	339	342					21.9		127	Westbank Exp & Manhattan after	O
PM	217	205					23.5		108	Westbank Exp & Stumpf	O
Eve	75	89					19.6		48	Convention Center Blvd & St Jose	O
Night	12	12					15.7		6	Westbank Exp & Manhattan	I
Owl											O

Line W2	Operations Summary		
	Schedule		
Weekday Line Profile	% On-Time	% Early	% Late
<b>Total</b>	45.1%	10.8%	44.1%
<b>By Direction</b>			
Inbound	59.2%	15.4%	25.4%
Outbound	31.0%	6.2%	62.8%
<b>By Segment</b>			
1 Lafitte-Larose & Barataria to Barataria & Lapalco	50.0%	6.3%	43.8%
2 Barataria & Lapalco to Westbank Exp & Walkertown Terminal	64.9%		35.1%
3 Westbank Exp & Walkertown Terminal to Westbank Exp & Barataria	50.0%	25.0%	25.0%
4 Westbank Exp & Barataria to Westbank Exp & Manhattan	39.5%	21.1%	39.5%
5 Westbank Exp & Manhattan to Westbank Exp & Willy Terminal	38.5%	12.8%	48.7%
6 Westbank Exp & Willy Terminal to Loyola & Tulane	39.5%	7.9%	52.6%

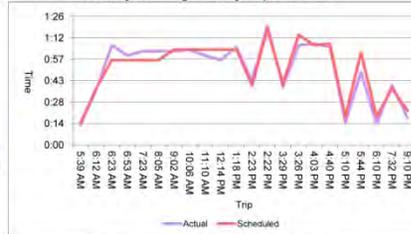
Weekday On-Board by Stop and Time Period - Inbound



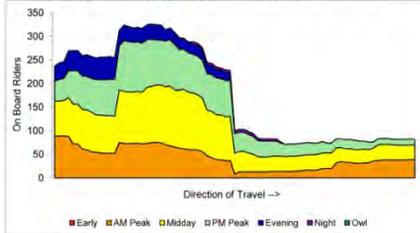
Weekday Boardings and Alightings by Stop - Inbound



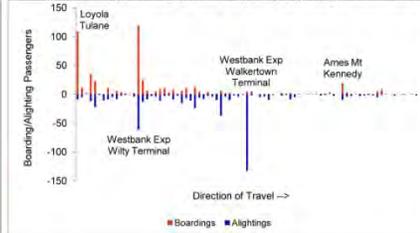
Weekday Running Time by Trip - Inbound



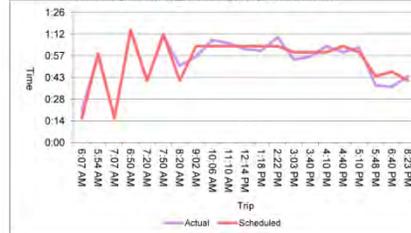
Weekday On-Board by Stop and Time Period - Outbound



Weekday Boardings and Alightings by Stop - Outbound



Weekday Running Time by Trip - Outbound



## Route W3 Lapalco

### Route Description

Route W3 Lapalco provides service weekdays and Saturdays between Westwego and downtown New Orleans. The route uses Lapalco Boulevard, Manhattan Boulevard, and the Westbank Expressway.

Based on September 2011 ridership counts, weekday productivity on Route W3 is 29.7 boardings per hour, and 25.8 on Saturday.

### Route Characteristics

Productivity on Route W3 varies significantly by time of day between weekdays and Saturdays. Weekday AM peak ridership reaches 38.8 boardings per revenue hour, with midday and PM peak periods having respective rates of approximately 27 and 34 boardings/hour.

On Saturdays, productivity ranges between only 20.4 and 25 boardings/hour from midday through late night. The AM peak on Saturdays, however, is unusually productive at 60.5 boardings per hour. The 7:36 AM inbound trip had a load of 62 persons, a clear indicator that additional service may be needed.

Productivity is strong throughout the route, particularly on the Westbank Expressway and in downtown New Orleans. No segment produces fewer than 17.2 boardings per hour on either weekdays or Saturdays.

The busiest ridership points are in downtown New Orleans and at Wilty Terminal, which suggests that transfers are prevalent at both locations.

Service operates on easy-to-remember 30 minute headways during peak periods, but at irregular frequencies at all other times. This makes transfers and times of arrival more difficult to predict in off-peak periods.

On-time performance is a major issue on Route W3, particularly on weekdays, during which more than half of trips are more than 5 minutes late. This is most prevalent during peak periods inbound, and at midday and in the PM peak outbound. Similar issues exist on Saturdays, but are less prevalent.

Capacity is an issue on route W3, particularly in the outbound PM peak on the 3:52 and 4:22 trips, which respectively feature maximum loads of 70 and 62 passengers. An inbound AM peak trip at 6:08 has a maximum load of 46 passengers. All of the heaviest loads were found within a few stops of the Wilty Terminal.

### Route Statistics

#### Riders

Avg. 2011 Ridership through Sept:

Weekday	1,171
Saturday	626

Sept. 2011 Ridership Counts Weekday Boardings / Hour	29.7
--	------

#### Service Frequency

AM Peak	30 min
PM Peak	30 min
Weekday Base	40 min
Weekday Evening	51-120 min
Saturday Base	64 min
Sunday Base	No Service

#### Service Span

Weekday	5:38A – 10:19P
Saturday	7:11A – 10:19P
Sunday	No Service

#### On-Time Performance

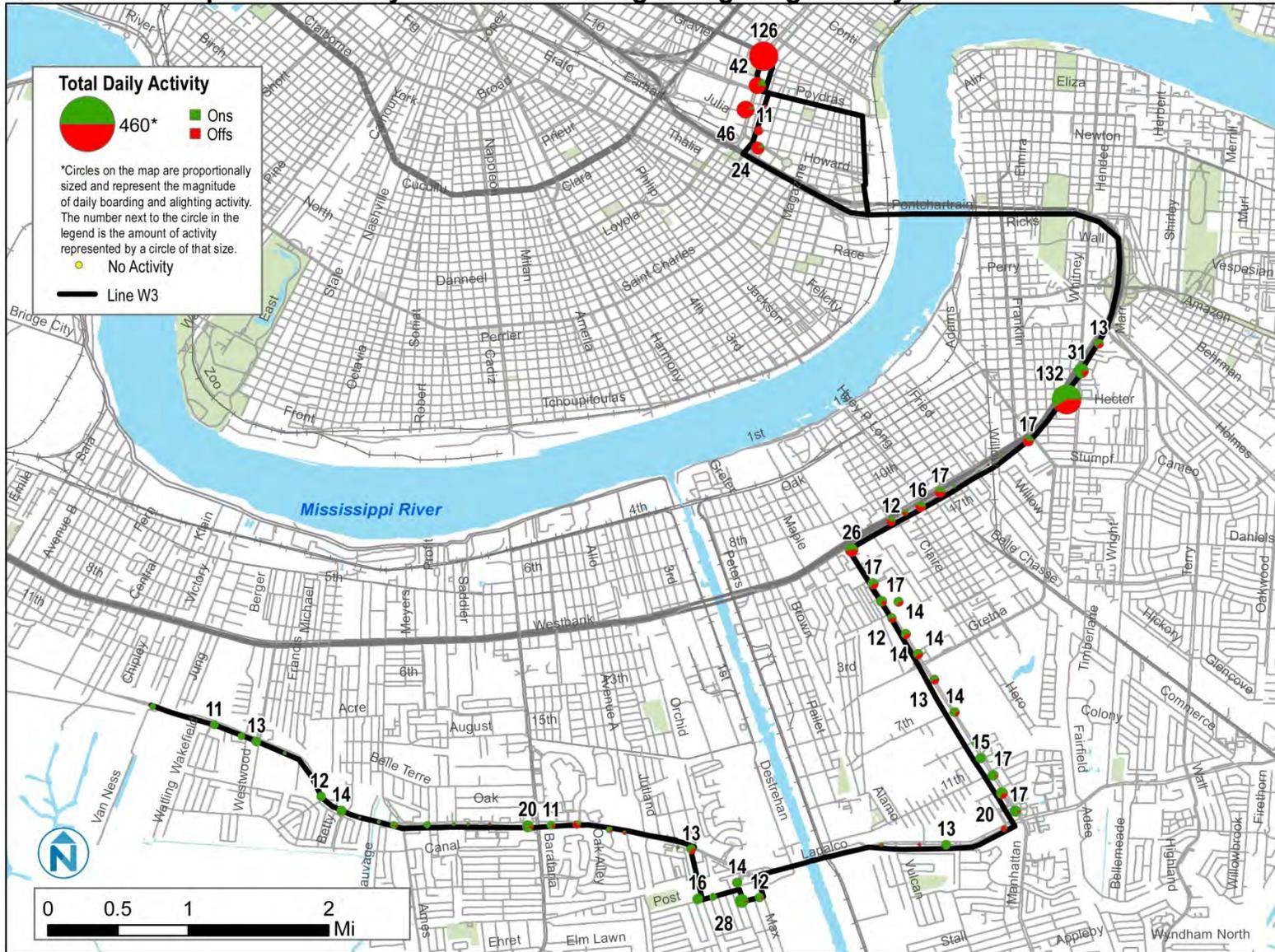
##### Weekday

On-Time:	36.7 %
Early:	6.5 %
Late:	56.8 %

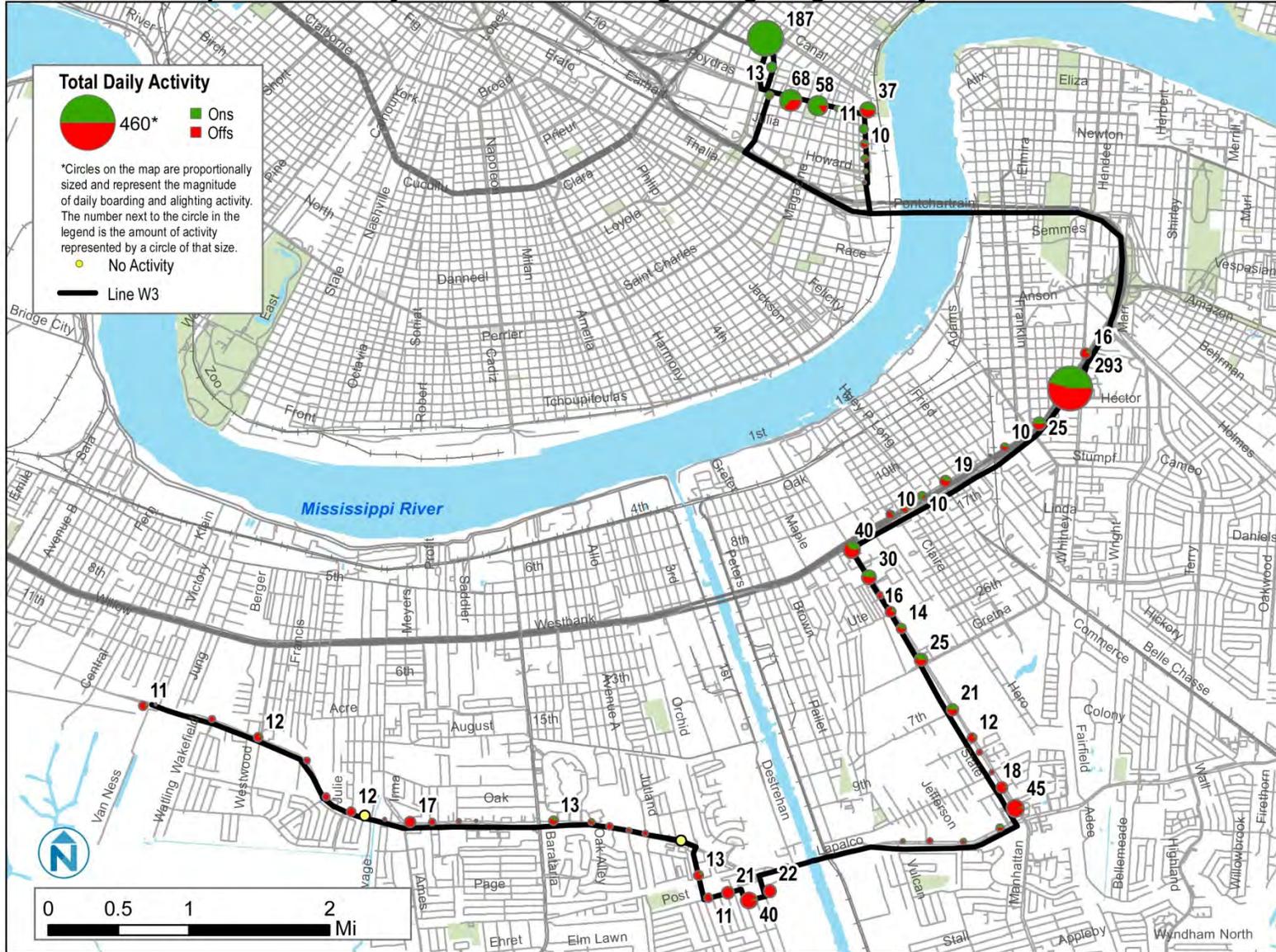
##### Saturday

On-Time:	49.8 %
Early:	22.6 %
Late:	27.6 %

### JeT Line W3 Lapalco Weekday Inbound Boarding & Alighting Activity



### JeT Line W3 Lapalco Weekday Outbound Boarding & Alighting Activity



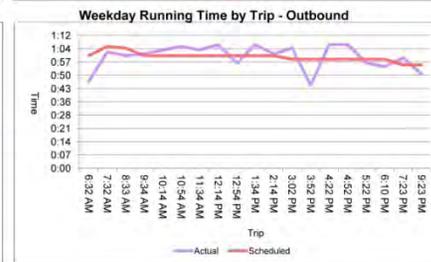
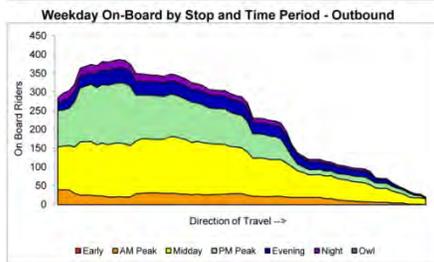
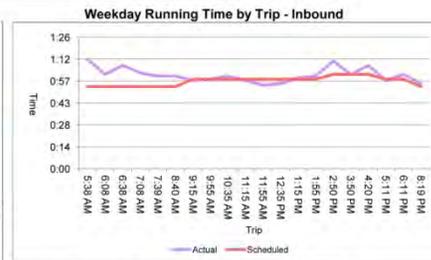
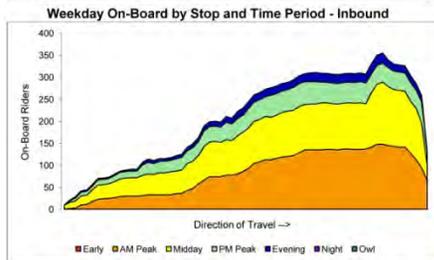
Data Sources: U.S. Census Bureau, NORPC, ESRI

# COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT

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Line W3	Passenger Summary										
	Total						Productivity		Maximum On-Board Loading		
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max Total Passengers On Board	Location	Dir
<b>Total</b>	1171	1121		39.4			29.7		386	Convention Center Blvd & Triangle	O
<b>By Direction</b>											
Inbound	553	425		19.3			28.6		355	Westbank Exp & 151	I
Outbound	618	696		20.1			30.7		386	Convention Center Blvd & Triangle	O
<b>By Segment</b>											
1 Lapalco & Victory to Lapalco & Barataria	98	96		4.6			21.5				
2 Lapalco & Barataria to Manhattan & Lapalco	160	211		6.8			23.4				
3 Manhattan & Lapalco to Manhattan & Westbank Exp	209	171		8.5			24.7				
4 Manhattan & Westbank Exp to Westbank Exp & Willy Terminal	223	264		5.2			42.9				
5 Westbank Exp & Willy Terminal to Loyola & Tulane	481	379		13.3			36.2				
<b>By Time Period</b>											
AM	257	216		6.6			38.8		148	Westbank Exp & Oakwood Mall	I
Midday	491	477		18.0			27.3		151	Westbank Exp & Weyer	O
PM	307	312		9.0			34.1		161	Convention Center Blvd & Triangle	O
Eve	88	84		3.9			22.7		39	Convention Center Blvd & Girod	O
Night	28	32		2.0			14.4		22	Poydras & Magazine	O
Owl											O

Line W3	Operations Summary		
	Schedule		
	% On-Time	% Early	% Late
<b>Total</b>	36.7%	6.5%	56.8%
<b>By Direction</b>			
Inbound	46.7%	5.0%	48.3%
Outbound	26.8%	8.0%	65.2%
<b>By Segment</b>			
1 Lapalco & Victory to Lapalco & Barataria	31.6%	5.3%	63.2%
2 Lapalco & Barataria to Manhattan & Lapalco	34.2%	2.6%	63.2%
3 Manhattan & Lapalco to Manhattan & Westbank Exp	41.0%	12.8%	46.2%
4 Manhattan & Westbank Exp to Westbank Exp & Willy Terminal	28.2%	7.7%	64.1%
5 Westbank Exp & Willy Terminal to Loyola & Tulane	35.9%	10.3%	53.8%



## Route W8 Terrytown

### Route Description

Route W8 Terrytown provides service on weekdays between the Oakdale Park and Ride and the Wilty Terminal in Gretna, largely via Terry Pkwy/Wall Blvd. Peak period service extends from Gretna to downtown New Orleans. There is no weekend service.

Based on September 2011 ridership counts, weekday productivity on Route W8 is 22.0 boardings per service hour.

### Route Characteristics

Productivity on Route W8 varies little during daytime hours of operation, ranging between 24 and 26 boardings per service hour during the peak and midday hours. Productivity falls significantly after 6 PM.

Between the Oakdale Park-and-Ride and Terry Pkwy and Carol Sue Pkwy, route productivity is less than half of that of the remaining route. This may be a result of having a large mid-route one-way loop. Route W8 serves the multi-family housing on Carrollwood only in one direction, forcing residents to make out-of-direction trips.

Almost half of all ridership on W8 has an origin or destination in downtown New Orleans. Only peak trips go do downtown New Orleans. This suggests that the true destination for the majority of Route W8 patrons is New Orleans and by terminating at Wilty Terminal and forcing transfers, JeT is depressing the ridership potential of Route W8.

The busiest stops are at the route termini at the Wilty Terminal and in downtown New Orleans.

Route W8 runs at regular 30/60 minute headways during peak/midday periods, but at irregular headways in evenings, making transfers to other routes difficult.

Route W8 is plagued by early running on off-peak trips, and late trips in the peak direction. Most trips do not vary significantly from the schedule, indicating a need for minimal adjustments to scheduled running time. At-grade railroad crossings at Belle Chasse Highway also contribute to W8's on-time difficulties.

Route W8 does not appear to have regular capacity issues. The largest load it carried during ridership counts was 36 passengers.

### Route Statistics

#### Riders

Avg. 2011 Ridership through Sept:

Weekday	490
---------	-----

Sept. 2011 Ridership Counts Weekday Boardings / Hour	22.0
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#### Service Frequency

AM Peak	30 min
---------	--------

PM Peak	30 min
---------	--------

Weekday Base	60 min
--------------	--------

Weekday Evening	86-109 min
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Saturday Base	No Service
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Sunday Base	No Service
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#### Service Span

Weekday	5:35A – 10:32P
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Saturday	No Service
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Sunday	No Service
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#### On-Time Performance

##### Weekday

On-Time:	56.6 %
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Early:	22.8 %
--------	--------

Late:	20.6 %
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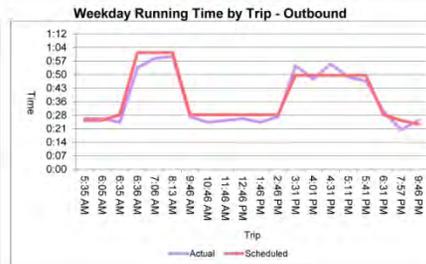
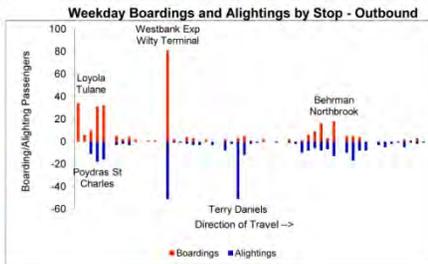
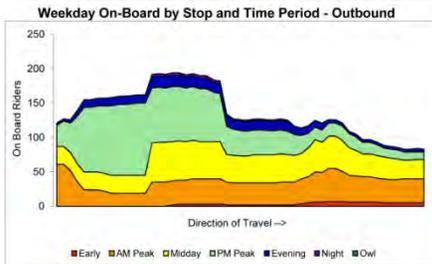
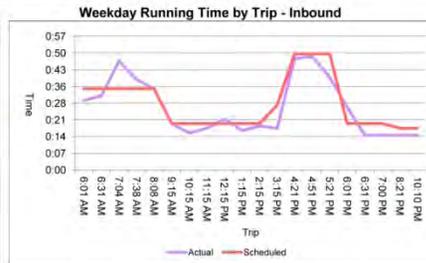
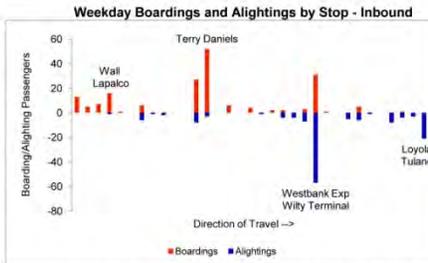
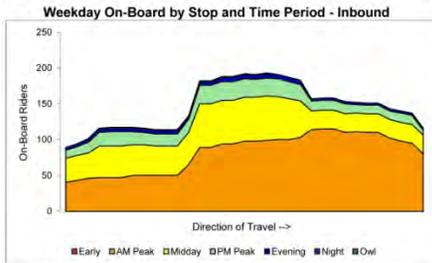


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Line W8	Passenger Summary									
	Total				Productivity		Maximum On-Board Loading			
Weekday Line Profile	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile	Max. Total Passengers On Board	
									Location	
									Dir	
<b>Total</b>	490	454		22.3			22.0	194	Terry & Holmes	O
<b>By Direction</b>										
Inbound	182	142		10.2			17.9	193	Terry & Arrow	I
Outbound	308	312		12.1			25.5	194	Terry & Holmes	O
<b>By Segment</b>										
1 Wall & Fairfield/Carlisle to Terry & Carol Sue	131	144		9.8			13.4			
2 Terry & Carol Sue to Westbank Exp & Willy Terminal	193	152		7.0			27.6			
3 Westbank Exp & Willy Terminal to Loyola & Tulane	166	158		5.6			29.9			
<b>By Time Period</b>										
AM	179	147		6.9			28.0	115	Westbank Exp & Oakwood Mall	I
Midday	109	112		4.6			23.7	62	Terry & Arrow	I
PM	159	159		6.7			23.9	105	Convention Center Blvd & Calloope	O
Even	31	29		3.3			9.3	17	Westbank Exp & Willy Terminal	O
Night										
Owl	4	4		0.8			5.2	3	Westbank Exp & Willy Terminal	O

Line W8	Operations Summary		
	Schedule		
Weekday Line Profile	% On-Time	% Early	% Late
<b>Total</b>	56.6%	22.8%	20.6%
<b>By Direction</b>			
Inbound	52.9%	27.9%	19.1%
Outbound	60.3%	17.6%	22.1%
<b>By Segment</b>			
1 Wall & Fairfield/Carlisle to Terry & Carol Sue	50.0%	32.5%	17.5%
2 Terry & Carol Sue to Westbank Exp & Willy Terminal	55.0%	25.0%	20.0%
3 Westbank Exp & Willy Terminal to Loyola & Tulane	57.1%	21.4%	21.4%



## Route W10 Huey P. Long

### Route Description

Route W10 provides weekday service between Yenni Building in Elmwood, and the Walkertown Terminal, via the Huey P. Long Bridge, Bridge City, and the Westbank Expressway. There is no weekend service on Route W10.

Based on September 2011 ridership counts, productivity on Route W10 is 11.8 boardings per hour, which is among the lowest productivity of West Bank routes. It is the only JeT route serving both East and West banks of Jefferson Parish.

### Route Characteristics

Route W10 has an unusual ridership pattern in that its most productive ridership is in the morning peak, and ridership levels drop off during the rest of the day.

Ridership along Route W10 is clustered with long stretches of no ridership activity. Approximately one-third of ridership has an origin or destination on the East Bank. The other high ridership stops are at Bridge City / Bolo and at the Walkertown Terminal.

Route W10 duplicates Route W1 on the Westbank Expressway. Both routes effectively split the ridership along this segment, providing feeder service to JeT Route W2, which serves New Orleans, at the Walkertown Terminal.

Route W10 has abysmal on-time performance, with only 16 percent of trips arriving at timepoints on time. Eighty-three percent of trips are late, which is very likely due to the construction on the Huey Long Bridge. During the data collection process, on two consecutive days, Route W10 was running so far behind schedule that a trip was skipped. This level of unreliability is a deterrent to attracting ridership, as evidenced by the existing low ridership. Likewise, the 70 minute headway makes transferring to other routes difficult. The combination of infrequency and unreliability depress ridership potential even more. One possible explanation for the higher AM Peak ridership is that the unreliability and resultant transfer wait times of Route W10 in the afternoon is such that potential patrons travel through downtown New Orleans instead of using W10.

Route W10 does not have capacity issues. The largest load it carried during ridership counts was 11 passengers.

### Route Statistics

#### Riders

Avg. 2011 Ridership through Sept:

Weekday 136

Sept. 2011 Ridership Counts Weekday Boardings / Hour 11.8

#### Service Frequency

AM Peak 74 min

PM Peak 77 min

Weekday Base 74 min

Weekday Evening No Service

Saturday Base No Service

Sunday Base No Service

#### Service Span

Weekday 5:31A – 7:02P

Saturday No Service

Sunday No Service

#### On-Time Performance

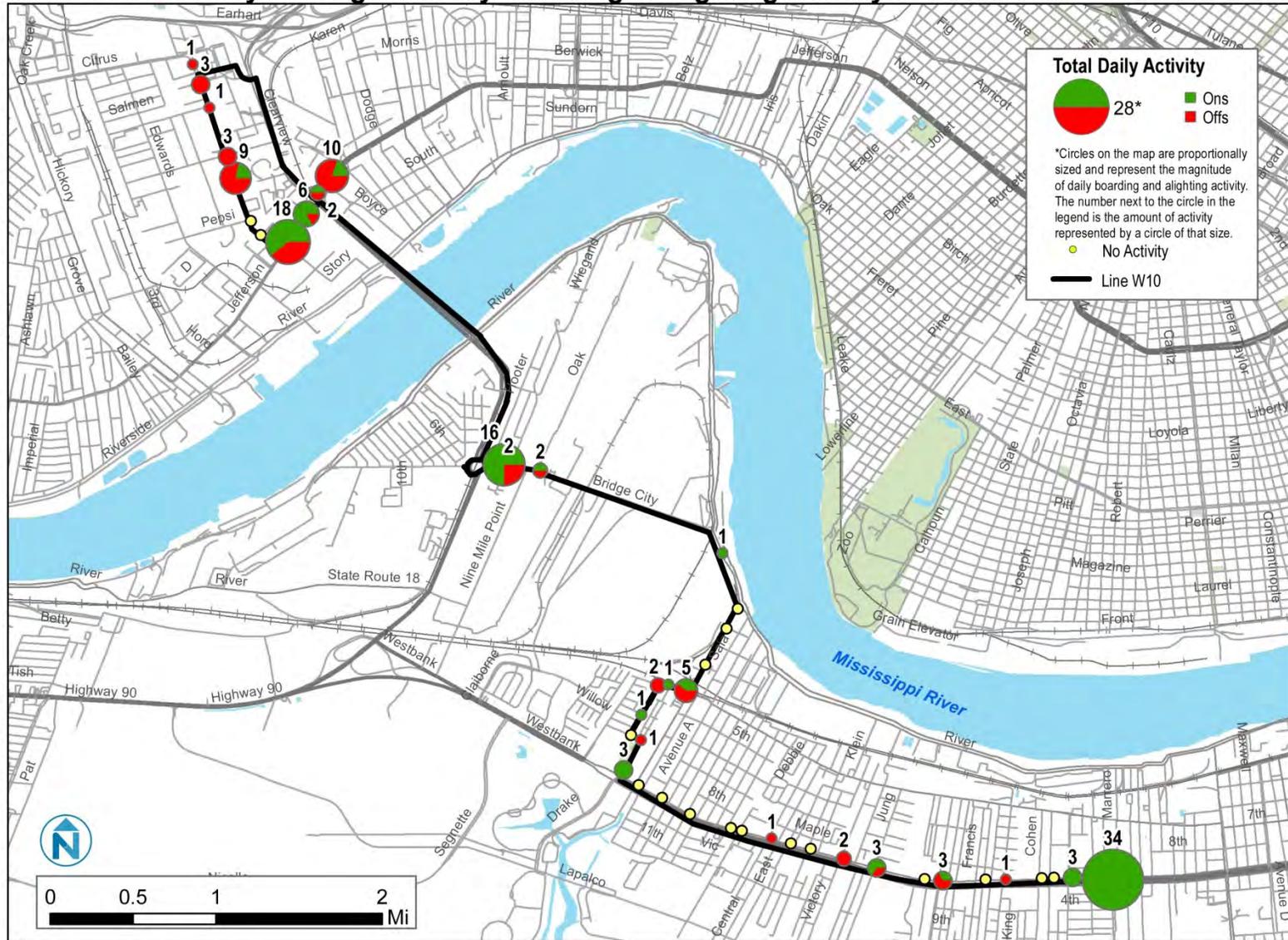
##### Weekday

On-Time: 15.9 %

Early: 1.1 %

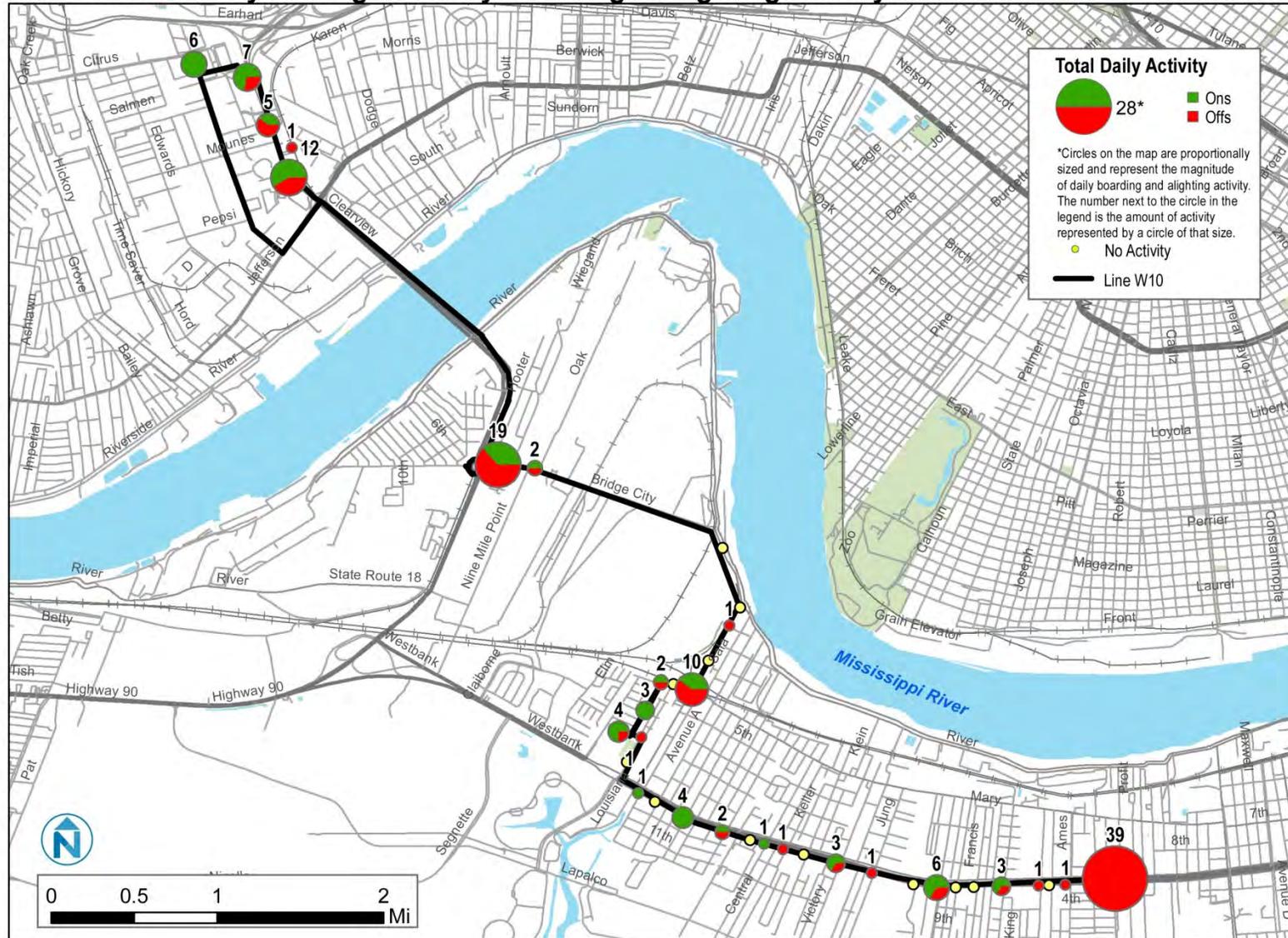
Late: 83.0 %

**JeT Line W10 Huey P. Long Weekday Boarding & Alighting Activity to East Bank**



Data Sources: U.S. Census Bureau, NORPC, ESRI

**JeT Line W10 Huey P. Long Weekday Boarding & Alighting Activity to West Bank**



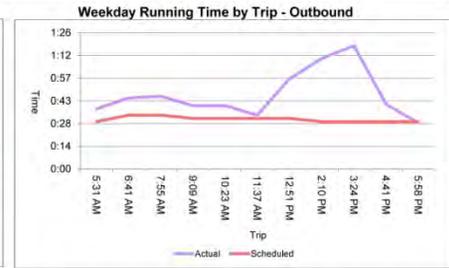
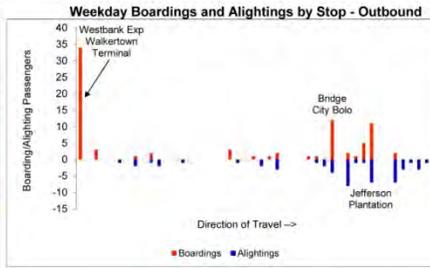
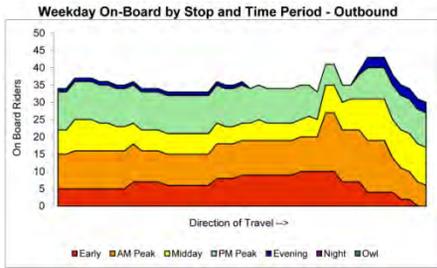
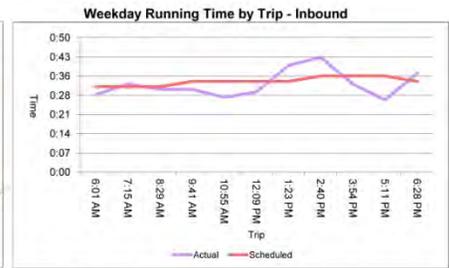
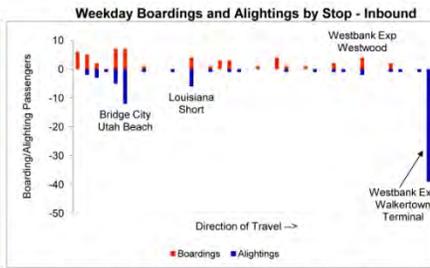
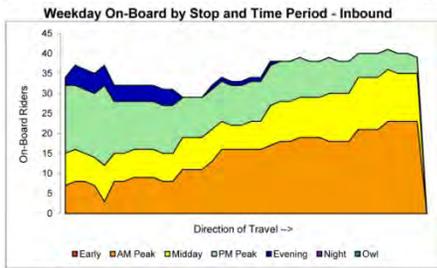
Data Sources: U.S. Census Bureau, NORPC, ESRI

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Line W10	Passenger Summary								Location	Dir	
	Total				Productivity		Maximum On-Board Loading				
	Boardings	Alightings	Passenger Miles	Service Hours	Revenue Miles	Avg. Trip Length	Boardings per Service Hour	Boardings per Revenue Mile			Max. Total Passengers On Board
<b>Total</b>	136	134		11.5			11.8		43	Jefferson & Plantation	O
<b>By Direction</b>											
Inbound	54	82		6.2			8.7		41	Westbank Exp & Garden	I
Outbound	82	52		5.3			15.6		43	Jefferson & Plantation	O
<b>By Segment</b>											
1 Elmwood Park Blvd & Yenni Building to Bridge City & Utah Beach	53	47		4.3			12.3				
2 Bridge City & Utah Beach to Drake & Westbank Expy	28	32		3.3			8.5				
3 Drake & Westbank Expy to Westbank Exp & Walkertown Terminal	55	55		4.4			12.5				
<b>By Time Period</b>											
AM	45	45		2.7			16.5		23	Westbank Exp & Garden	I
Midday	42	38		4.9			8.6		13	Westbank Exp & Westwood	I
PM	28	33		2.8			10.0		20	Clearview & E Corporate/Jefferson	I
Eve	10	7		1.1			9.4		5	Citrus & Clearview	I
Night											O
Owl											O

Line W10	Operations Summary		
	Schedule		
	% On-Time	% Early	% Late
<b>Total</b>	15.9%	1.1%	83.0%
<b>By Direction</b>			
Inbound	6.8%	0.0%	93.2%
Outbound	25.0%	2.3%	72.7%
<b>By Segment</b>			
1 Elmwood Park Blvd & Yenni Building to Bridge City & Utah Beach	4.5%		95.5%
2 Bridge City & Utah Beach to Drake & Westbank Expy	18.2%		81.8%
3 Drake & Westbank Expy to Westbank Exp & Walkertown Terminal	22.7%		77.3%



## 4 INTERCEPT SURVEY SUMMARY

This chapter summarizes the results of an on-board intercept survey for the RTA and JeT systems that took place over the course of two weeks in late September and early October 2011.

### METHODOLOGY

Nelson/Nygaard, in conjunction with Dikita Management Services, conducted an intercept survey to better understand region transit origin/destination patterns, trip purpose, demographics, access mode, and transfer patterns. One of RPC's goals was to use this data to update the travel demand model.

A sample survey was developed in coordination with RPC staff and the consultant responsible for the travel demand model. The survey was pretested in mid-September 2011. Several changes to the survey wording were made as a result of the pretest. In late September, the survey effort was initiated, and data collection lasted several weeks.

A sampling plan was followed that ensured that data on every route operated by RTA and JeT was collected. In addition, the sampling plan stratified respondents by route, direction, and time of day. Existing data from both RTA and JeT routes were the basis of the sampling plan.

Dikita Management Services oversaw the physical data collection process. Surveyors, staff who interviewed passengers, approached individuals on every route. The surveyor asked a series of questions and filled out all information provided by the passengers. The data were then coded into a Microsoft Excel database and converted into an SPSS database.

A total of 7,225 surveys were collected, the results of which are discussed below.

### TRIP CHARACTERISTICS

Surveys were conducted throughout the service span of both transit systems in order to collect a sample of all riders. Collection target percentages were set for each time period in order to ensure that the number of surveys used in the analysis reflect the varying ridership throughout the day. Figure 4-1 shows the target ratio of surveys collected by time period as well as the actual ratio of surveys collected. The percent of surveys collected in each time period was fairly close to the target. In the collected sample, AM peak and midday surveys are overrepresented while PM peak, evening, and late night surveys are underrepresented. Data from survey questions relating to trip purpose, number of buses or street cars used to complete a trip, and routes used to complete trip (Figures 4-3 through 4-9), were weighted according to the target ratio in order to avoid over or under representing activity at certain times of day. Other survey questions are not particularly sensitive to the time of day during which the trip was taking place, and were not weighted.

Surveyors recorded not only the RTA or JeT route on which the survey was completed, but also any other routes that the respondent had used or would use to complete his or her trip. Based on

this information it was determined that 87 percent of respondents used only RTA routes during their trip, 7 percent used only JeT routes, and 6 percent used both RTA and JeT Routes, shown in Figure 4-2. For the purpose of data analysis throughout this memo, respondents who reported using at least one JeT route were considered JeT riders.

Figure 4-1 Actual and Target Ratios of Surveys Collected by Time Period

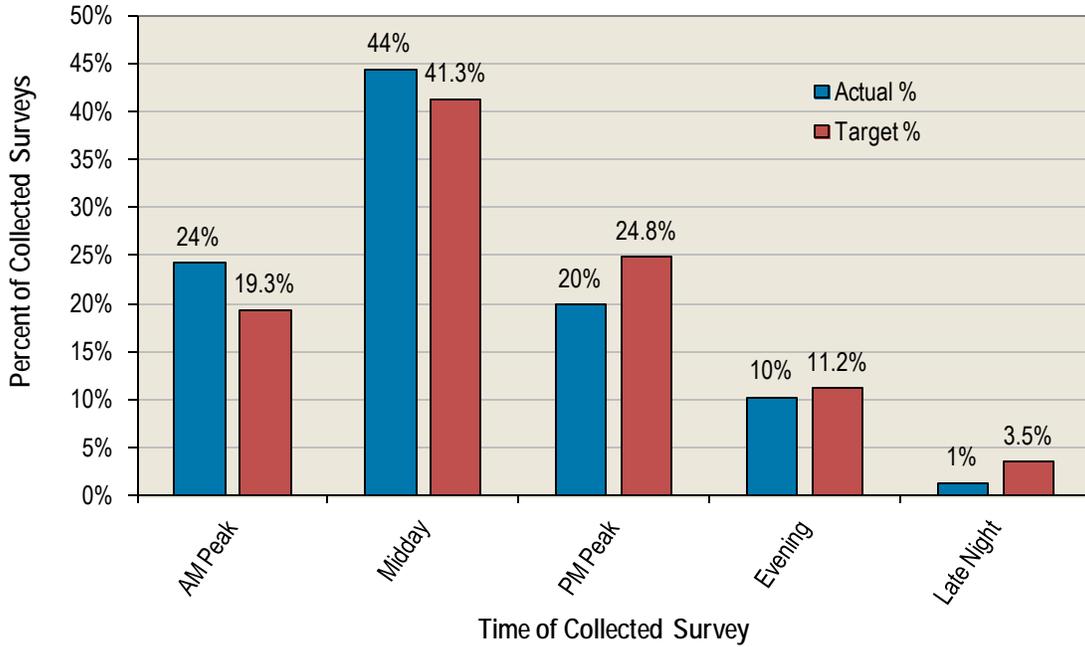
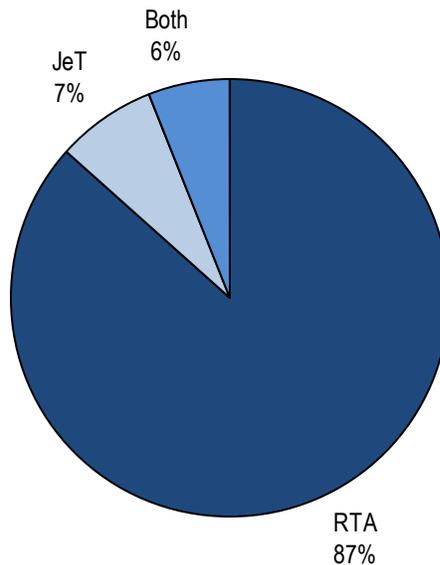


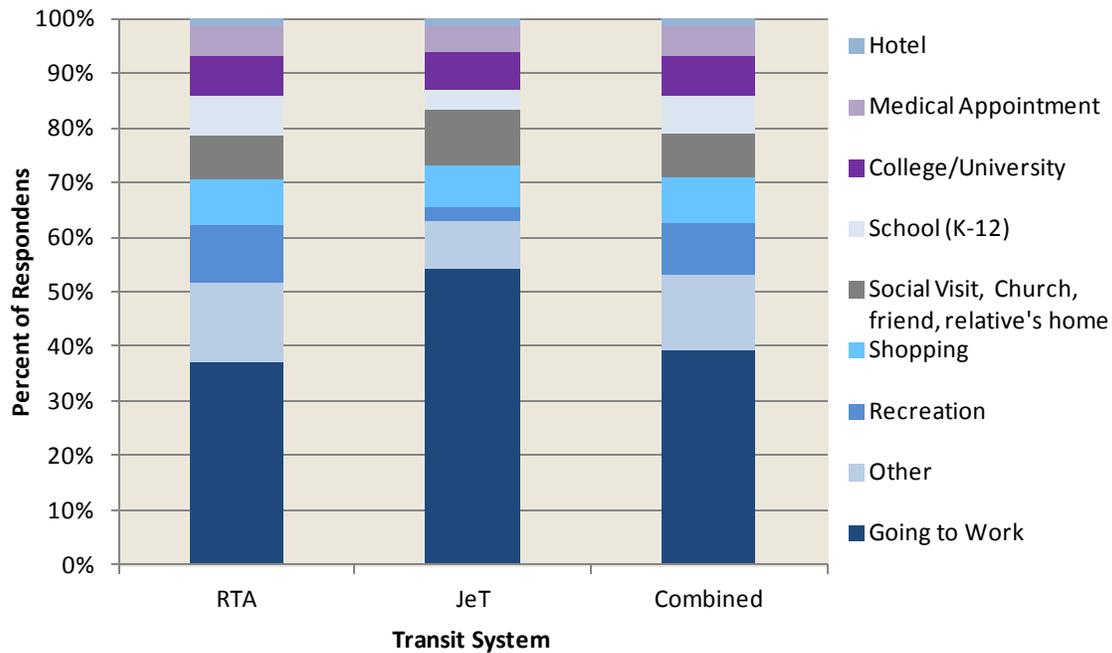
Figure 4-2 Survey Respondents by Transit System



Respondents were asked to state the purpose of their trip. After accounting for “home” trips, just under 40 percent of all respondents indicated that work trips were their trip purpose. JeT riders were much more likely to be using transit service for work purposes, with over 50 percent indicating a work trip.

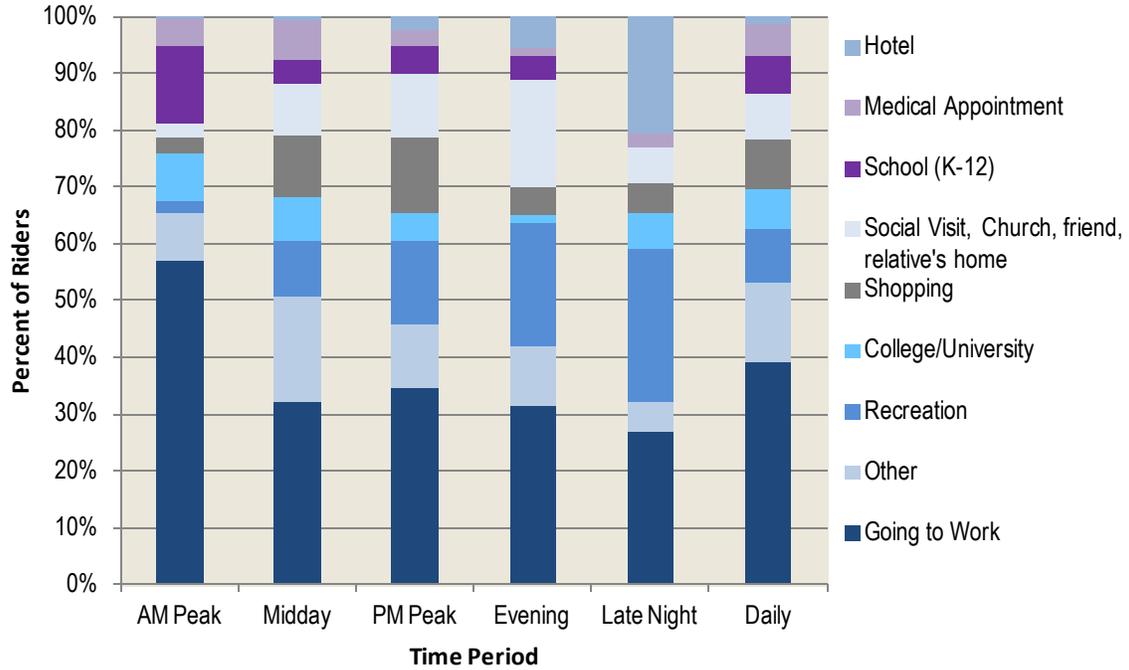
The ‘Other’ category consisted mainly of trips to pick up relatives or children, job hunting, running errands, or general business. Of those who stated which university they were traveling to, over half listed Delgado Community College, and 16 percent listed Southern University at New Orleans. Of the persons listing Delgado Community College as an origin or destination, approximately one quarter were JeT riders.

Figure 4-3 Trip Purpose: All Respondents



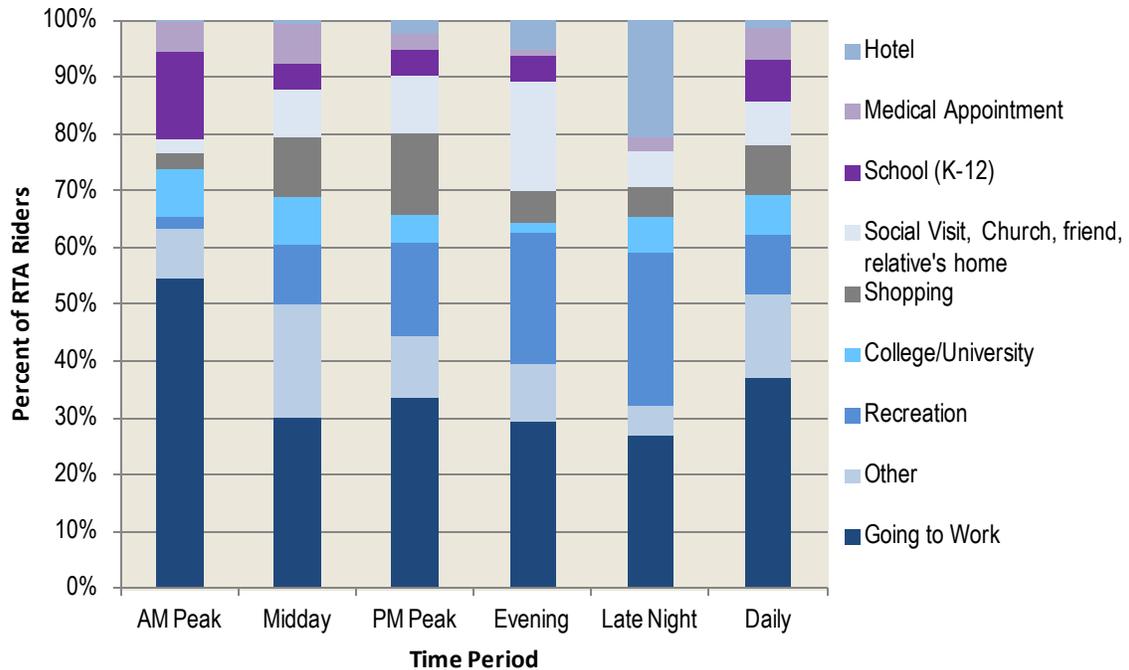
The data were also analyzed by time of day (Figure 4-4). The majority of trips in the AM peak are made by people going to work. Multiple uses, predominate during the rest of the day. Late night trips have a strong “hotel” trip purpose.

**Figure 4-4 Purpose of Trip by Time of Day: All Respondents**

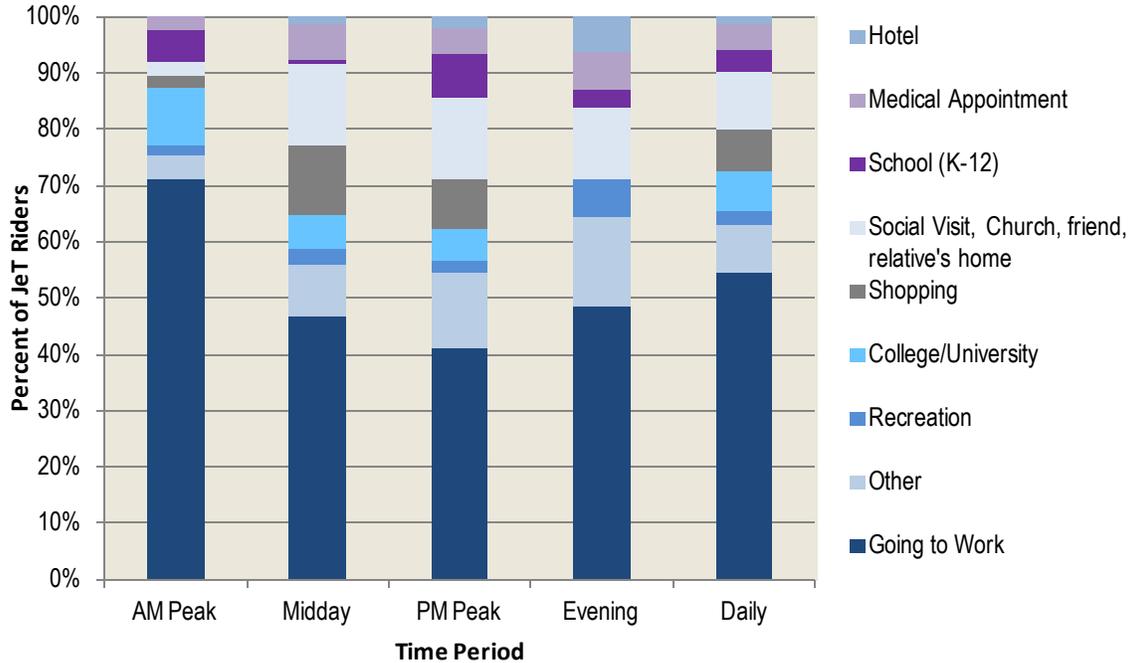


Trip purpose trends of RTA and JeT riders are similar, although for every time period, work trips are more common on JeT buses. RTA riders, shown in Figure 4-5, have a higher frequency of recreation related trips than JeT riders, which is reasonable considering the many attractions within the city of New Orleans.

**Figure 4-5 Purpose of Trip by Time of Day: RTA Riders**

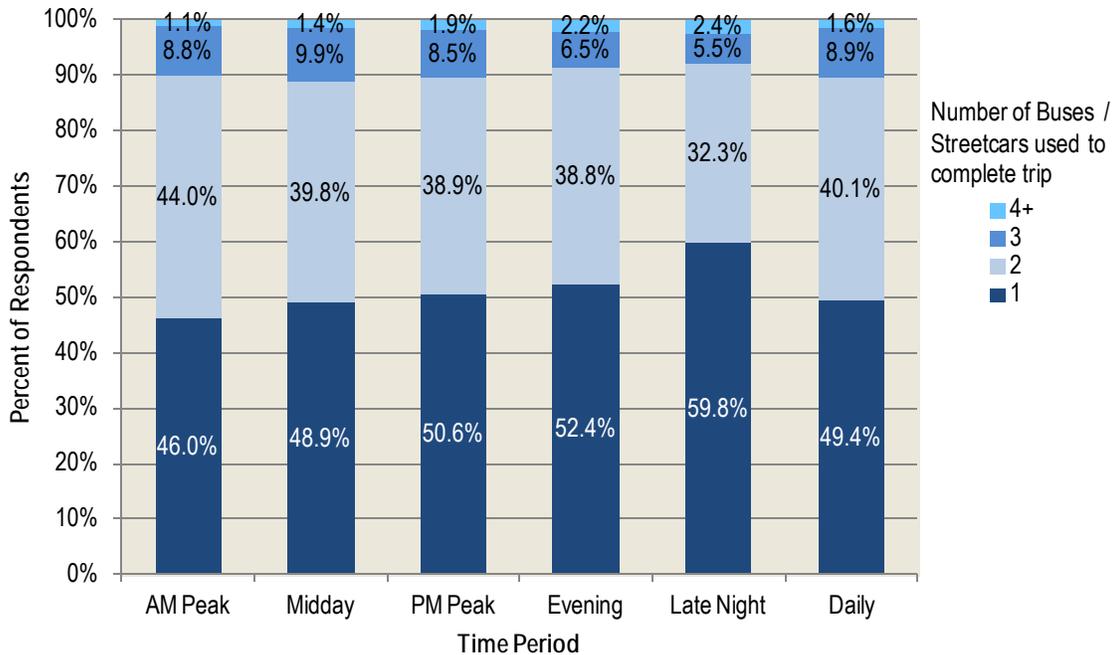


**Figure 4-6 Purpose of Trip by Time of Day: JeT Riders**



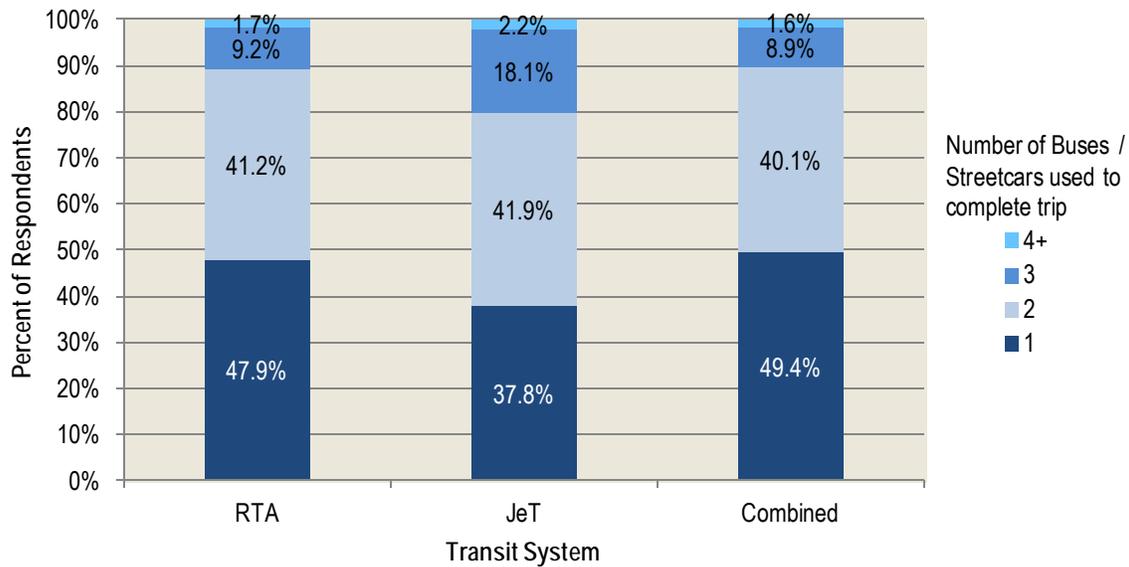
The number of trips requiring at least one transfer (those using 2 or more buses/streetcars) decreases throughout the day from 54 percent in the AM peak to 40 percent during late night, shown in Figure 4-7. During the highest ridership time period, midday, more than half of all trips required at least one transfer. Approximately 10 percent of riders require two or more transfers.

**Figure 4-7 Number of Buses / Streetcars Used by Time of Day**



JeT riders transfer more frequently than RTA riders. Over 20 percent of JeT riders transfer twice, compared to 11 percent for RTA service. Sixty-three percent of JeT riders transfer at least once, an extremely high transfer rate. By comparison, 52 percent of RTA riders transfer at least once (Figure 4-8). For the purpose of analyzing this data, riders who stated that they used both RTA and JeT (and automatically use at least 2 buses) were counted as both RTA and JeT riders in order to avoid inflating the number of transfers in the JeT sample. Of the 20 percent of JeT riders who stated that they use 3 or more buses (transfer more than once), 87.5 percent were riders who used both transit systems to complete their trip.

**Figure 4-8 Number of Buses / Street Cars Used by Transit System**



The following three figures show the number of transfers between pairs of JeT routes (Table 4-1), pairs of RTA routes (Table 4-2), and inter-system pairs (Table 4-3). Transfer pairs with reported frequencies of 10 or more and 50 or more, respectively are highlighted in yellow and red, respectively. The most common transfers between two JeT routes are from Route W1 to Route W2 and from Route W2 to Route W8. The most common transfers between two RTA routes are from the Canal Streetcar to the St. Charles Streetcar (and vice versa) and from the Canal Streetcar to Route 94 (and vice versa). Inter-system pairs were most common between the Canal Streetcar and E1, Routes 39 and E3, and Routes 201 and E1. The Canal Streetcar and Route 39 serve Canal Street and Tulane Avenue, both main corridors into downtown New Orleans, suggesting a common destination for Eastbank JeT riders. Route 201 serves Kenner, explaining the high frequency of transfers between Route 201 and Eastbank JeT routes.

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Table 4-1 Transfer Matrix: From JeT to JeT Routes

		To JeT Route											
From JeT Route		E1	E2	E3	E4	E5	E8	W1	W2	W3	W8	W10	Total
	E1	1	1	2	2	3	2	0	0	1	0	0	12
	E2	0	0	0	2	3	0	0	3	3	0	1	12
	E3	1	0	0	1	6	2	0	0	0	0	3	13
	E4	1	0	0	0	0	0	1	0	0	0	0	2
	E5	3	6	3	1	0	0	0	0	0	0	0	13
	E8	4	1	0	0	0	1	0	0	0	0	1	7
	W1	0	0	0	0	0	0	0	20	9	2	0	31
	W2	0	5	0	1	0	0	7	2	8	14	5	42
	W3	0	3	0	0	0	0	0	2	0	10	0	15
	W8	0	3	0	0	0	0	0	10	2	0	0	15
	W10	0	0	4	0	0	0	3	5	2	0	0	14
	Total	10	19	9	7	12	5	11	42	25	26	10	176

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Table 4-2 Transfer Matrix: From RTA to RTA Routes

		To RTA Route																																				
		2	5	10	11	12	15	16	24	27	28	32	39	45	47	48	51	52	55	57	60	62	63	64	80	84	88	91	94	100	101	102	108	114	115	201	Total	
From RTA Route	2	6	0	0	0	0	0	0	1	0	0	0	0	3	0	0	2	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	1	0	0	16	
	5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	0	0	1	0	6	
	10	0	0	0	1	0	0	0	4	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	2	4	0	0	0	0	0	0	0	0	0	14
	11	0	0	4	1	1	0	4	2	5	0	5	1	0	11	1	1	1	0	3	0	2	0	1	0	1	6	11	0	0	0	3	0	2	1	0	67	
	12	5	1	0	10	11	4	7	8	19	5	0	20	1	96	2	5	1	3	6	0	9	0	10	0	5	13	13	6	0	5	5	0	9	2	2	283	
	15	0	1	0	2	5	1	0	0	1	0	0	24	0	7	1	5	2	0	6	0	4	0	4	0	0	2	3	1	0	2	4	0	1	4	0	80	
	16	0	1	0	1	11	5	2	2	2	1	0	2	0	10	0	2	1	2	1	0	1	0	2	0	2	2	1	0	1	0	1	0	2	2	2	61	
	24	0	0	0	4	10	1	1	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	12	0	0	0	1	0	0	0	34	
	27	0	0	2	5	6	0	1	6	0	6	0	17	0	2	0	1	0	1	0	2	0	0	0	0	0	0	5	1	14	0	0	1	0	1	0	71	
	28	0	0	0	0	5	0	2	2	2	0	0	3	0	9	0	0	0	0	3	0	1	0	1	0	1	9	7	5	0	0	2	0	0	1	0	53	
	32	0	0	0	4	2	0	0	0	1	0	0	2	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	19
	39	0	0	0	1	15	10	7	0	20	2	3	12	0	18	0	16	1	1	10	0	12	0	5	2	6	28	8	40	0	0	7	0	7	1	7	239	
	45	0	0	0	0	0	0	0	0	1	0	0	0	0	3	1	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	8
	47	8	5	13	21	88	6	2	2	1	7	2	11	3	5	16	7	13	9	11	1	15	0	5	0	10	21	20	51	0	4	11	2	8	7	0	385	
	48	0	0	0	0	7	0	0	0	0	0	0	1	0	11	1	0	0	0	1	0	0	0	0	0	0	1	0	7	0	0	0	0	0	0	0	0	29
	51	0	0	0	4	7	7	4	0	0	0	0	14	0	19	0	0	2	0	3	6	2	0	2	0	4	13	10	11	0	1	0	0	4	3	0	116	
	52	0	0	2	0	3	2	1	0	0	0	0	4	0	10	0	0	0	1	0	0	2	0	0	0	0	1	1	7	0	0	6	0	1	1	0	42	
	55	2	0	3	5	10	2	2	3	1	4	0	1	0	10	0	4	1	1	2	0	0	0	1	0	1	9	1	19	0	3	1	0	2	0	0	88	
	57	0	0	0	2	12	3	0	0	0	5	0	11	0	19	2	1	2	1	1	2	1	0	1	2	3	11	13	18	0	2	5	0	7	0	0	124	
	60	0	0	0	0	0	1	0	0	3	0	0	1	0	2	0	4	1	1	1	0	1	0	1	0	0	1	5	1	0	0	0	0	0	0	0	0	23
	62	0	0	3	7	5	8	4	0	1	5	0	17	0	29	1	7	0	0	1	0	7	0	7	4	0	8	7	25	0	1	1	0	5	2	0	155	
	63	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	4	
	64	0	0	1	2	15	4	2	0	0	3	1	8	0	21	1	1	0	0	0	1	2	0	0	1	2	2	8	13	0	2	3	0	1	3	0	97	
	80	0	0	0	0	2	0	0	0	0	0	0	3	0	0	0	0	1	1	1	1	3	1	2	0	0	3	0	3	1	0	0	0	0	0	0	0	22
	84	0	0	0	0	15	1	1	4	1	3	0	9	0	7	2	4	2	3	0	0	3	0	4	2	0	2	12	6	0	1	3	0	1	1	0	87	
	88	1	1	0	1	26	8	1	0	4	9	0	31	1	27	2	9	0	15	10	0	11	0	4	8	2	7	36	1	0	2	4	0	8	4	0	233	
	91	0	0	5	11	14	20	1	0	4	0	2	11	1	24	0	7	1	2	17	1	7	0	5	0	2	30	9	19	1	6	5	1	5	4	1	216	
	94	0	1	3	0	12	7	1	22	19	5	0	33	0	74	16	27	6	22	24	0	20	1	10	4	0	1	26	6	0	3	1	0	1	0	0	345	
100	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	2	0	0	0	0	0	0	0	7		
101	0	0	0	0	1	2	4	1	0	0	0	5	0	4	0	1	3	0	1	0	1	0	0	0	1	3	3	2	0	0	1	2	1	0	0	36		
102	0	0	0	1	7	3	0	0	0	1	0	4	0	10	0	0	2	1	4	0	0	0	1	0	0	3	1	0	0	4	1	1	1	0	0	45		
108	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	6		
114	0	0	1	7	8	3	1	0	1	5	0	18	0	15	0	6	1	1	5	0	2	0	3	0	1	10	5	0	0	0	3	1	2	2	1	102		
115	0	0	1	0	2	1	2	0	0	1	0	9	0	6	0	3	0	0	3	0	3	0	3	0	2	0	3	0	0	0	0	1	1	0	0	41		
201	0	0	0	0	9	5	7	0	0	0	0	4	0	6	0	0	0	1	0	2	0	0	2	0	1	6	2	6	0	0	0	5	1	1	5	63		
Total	22	10	38	90	309	104	58	52	92	64	13	276	6	469	50	111	44	67	115	17	109	2	74	25	44	206	213	279	3	38	71	14	73	40	19	3217		

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Table 4-3 Transfer Matrix: From RTA to JeT Routes

		To JeT Route											
		E1	E2	E3	E4	E5	E8	W1	W2	W3	W8	W10	Total
From RTA Route	2	1	0	0	0	0	0	0	0	0	0	0	1
	5	0	1	0	0	0	0	0	0	0	0	0	1
	10	0	0	0	0	0	0	0	0	0	0	0	0
	11	0	1	0	0	0	0	0	1	1	3	0	6
	12	6	0	6	0	2	0	0	0	2	0	0	16
	15	0	0	0	0	0	0	0	1	3	0	0	4
	16	0	0	7	1	0	0	0	0	1	0	0	9
	24	0	0	0	0	0	0	0	0	0	0	0	0
	27	7	3	0	3	0	0	0	1	0	0	0	14
	28	0	0	0	0	0	0	0	0	0	0	0	0
	32	0	0	2	0	0	0	0	0	0	0	0	2
	39	0	5	23	1	0	0	0	1	5	1	0	36
	45	0	0	0	0	0	0	0	0	0	0	0	0
	47	32	1	0	1	0	0	0	2	2	1	0	39
	48	0	0	0	0	0	0	0	0	0	0	0	0
	51	0	0	0	0	0	0	0	0	3	0	0	3
	52	0	0	0	0	0	0	0	0	0	2	0	2
	55	0	0	0	0	0	0	0	0	0	0	0	0
	57	0	0	0	0	0	0	0	1	0	1	0	2
	60	4	0	0	0	0	0	0	0	0	0	0	4
	62	0	2	1	1	0	0	0	0	3	1	0	8
	63	0	0	0	0	0	0	0	0	0	0	0	0
	64	0	1	0	0	0	0	0	1	1	0	0	3
	80	0	0	0	0	0	0	0	0	0	0	0	0
	84	0	1	0	0	0	0	0	0	1	0	0	2
	88	0	5	0	0	0	0	0	0	0	1	0	6
	91	11	0	1	2	0	0	0	1	0	0	0	15
	94	2	5	0	1	0	0	0	0	0	0	0	8
	100	0	0	0	0	0	0	0	0	0	0	0	0
	101	0	0	0	0	0	0	0	0	1	0	0	1
102	0	1	0	0	0	0	0	0	0	0	0	1	
108	0	0	0	0	0	1	0	2	2	2	0	7	
114	0	0	0	0	0	0	0	0	4	0	0	4	
115	0	0	0	0	0	0	0	1	0	1	0	2	
201	14	19	6	0	0	2	0	1	0	0	0	42	
Total	77	45	46	10	2	3	0	13	29	13	0	238	

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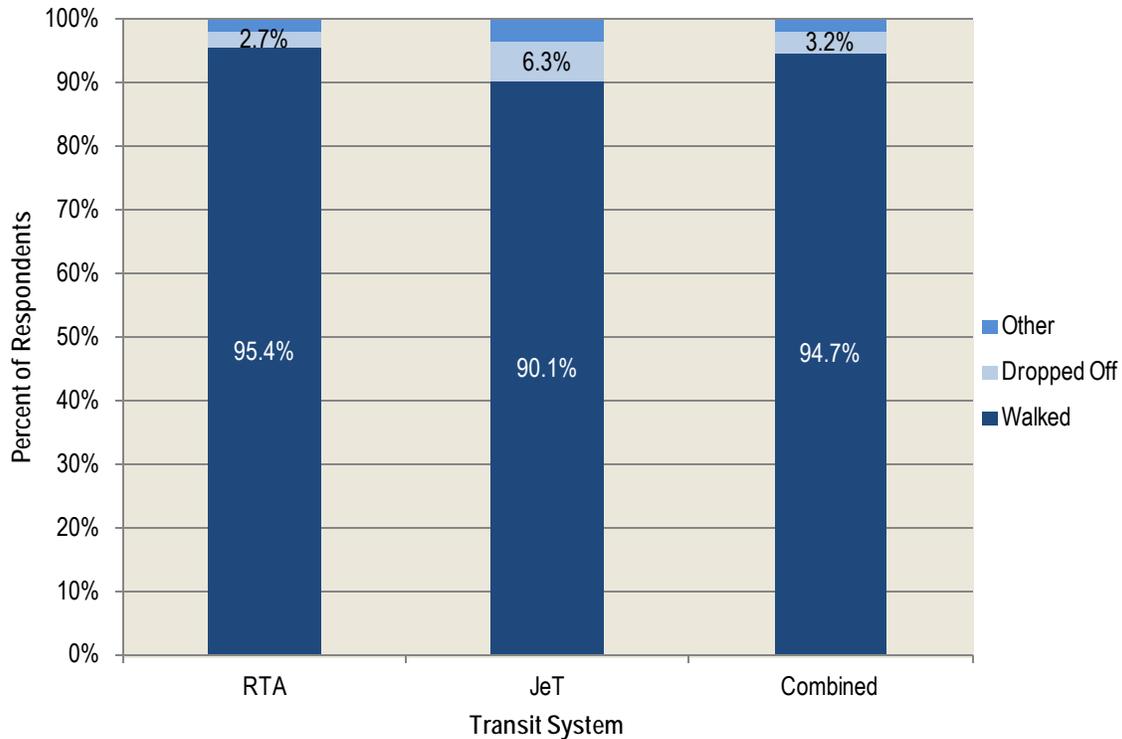
Table 4-4 Transfer Matrix: From JeT to RTA Routes

		To RTA Route																												
		10	11	12	15	16	27	28	32	39	47	48	51	52	55	57	60	62	64	84	88	91	94	100	101	102	114	201	Total	
From JeT Route	E1	0	0	6	1	0	4	0	0	1	20	3	0	0	0	0	2	0	0	0	0	14	3	0	0	0	0	0	17	71
	E2	0	0	1	0	1	2	0	0	2	0	0	1	1	0	0	0	3	2	1	3	0	5	0	0	1	1	10	34	
	E3	0	0	4	1	12	0	0	0	19	1	0	0	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	3	44
	E4	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	5
	E5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
	E8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	W1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	W2	2	0	2	2	1	0	1	0	2	2	0	0	0	0	0	0	2	1	0	2	1	1	0	0	0	2	0	21	
	W3	0	1	4	3	0	0	0	0	2	5	0	0	0	0	2	0	1	0	0	1	1	0	1	1	0	0	0	22	
	W8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	
	W10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	Total	2	1	17	8	14	6	1	1	26	31	3	1	1	2	2	3	6	4	1	6	19	9	1	1	1	3	35	205	

Note: RTA routes 2, 5, 24, 45, 63, 80, 108, and 115 had no transfers from JeT routes and are not displayed in this table.

Respondents were asked to state their method of travel from their origin to their bus or streetcar boarding stop. Over 95 percent of RTA riders stated that they walked. Ninety percent of JeT riders walked, shown in Figure 4-9. The second most common response was being dropped off by another driver. Responses in the 'other' category included driving, taking a taxi, biking, or using a mobility aid such as a wheelchair.

Figure 4-9 Travel Mode to Boarding Location



Respondents who stated that they walked to their bus or streetcar stop reported on average that they walked 2.9 blocks. JeT riders walked a slightly longer distance, 3.2 blocks, than RTA riders, who averaged 2.8 blocks. The distribution of distances that respondents reported walking is consistent between both transit systems, shown in Figures 4-10 through 4-12.

Figure 4-10 Number of Blocks Walked to Transit: RTA

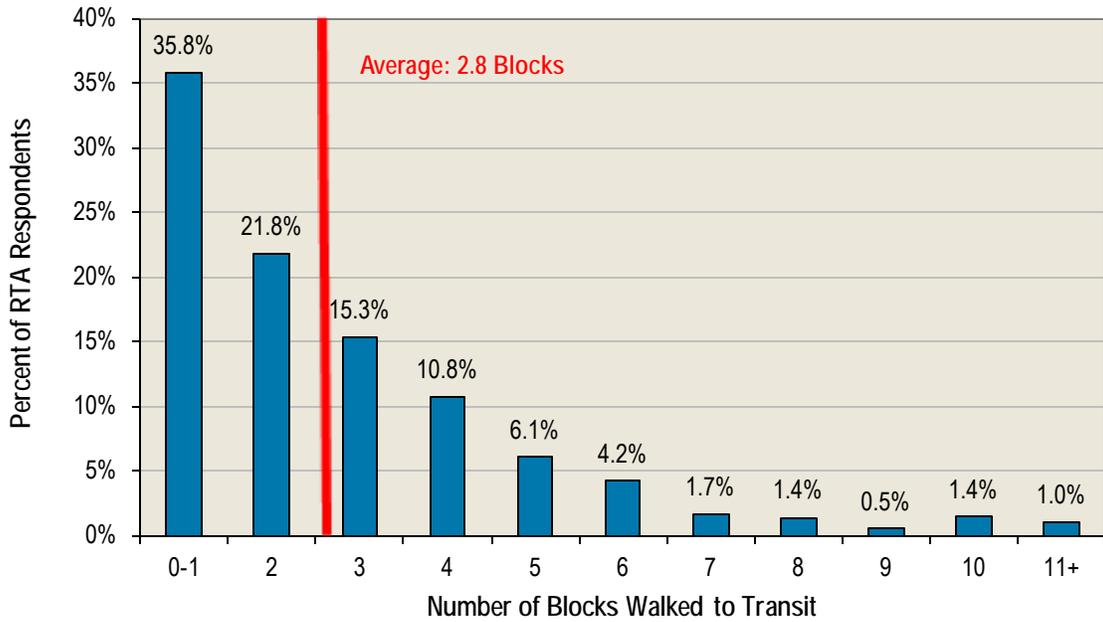


Figure 4-11 Number of Blocks Walked to Transit: JeT

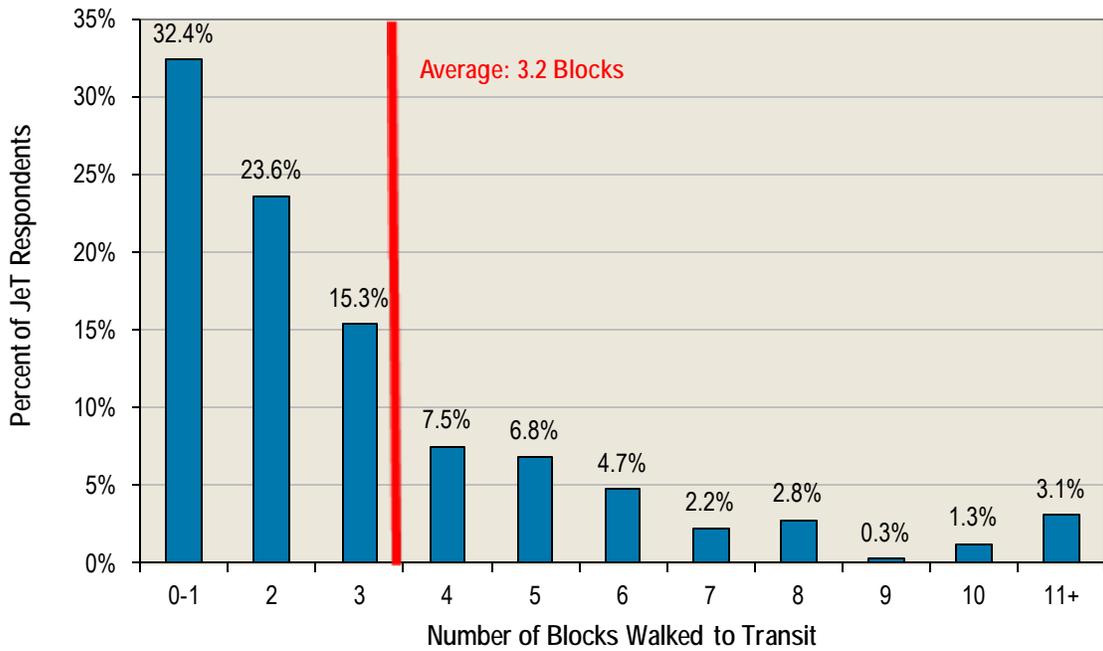
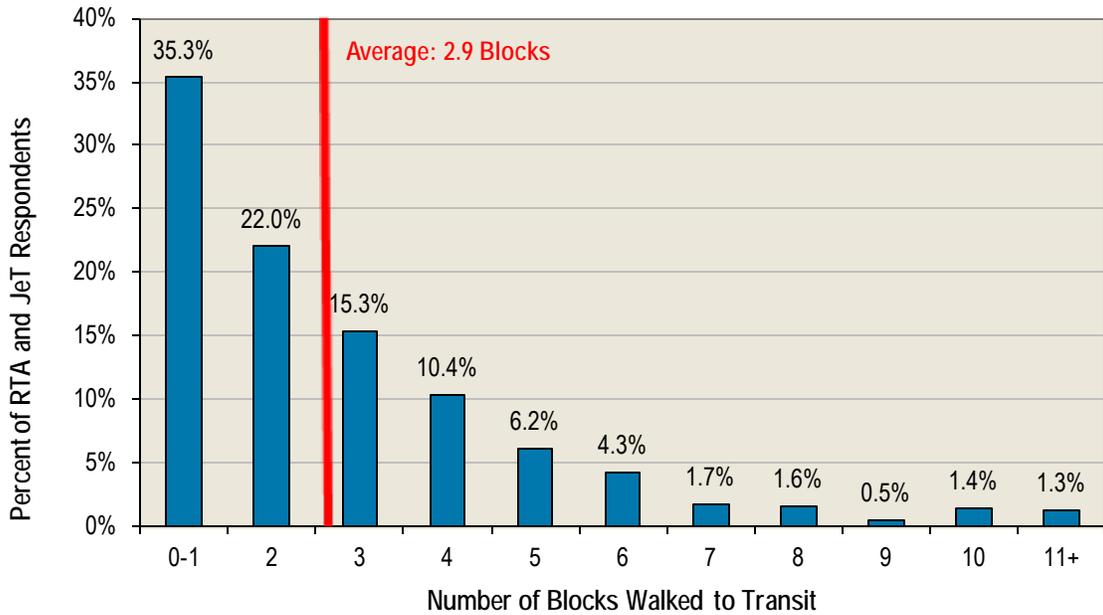
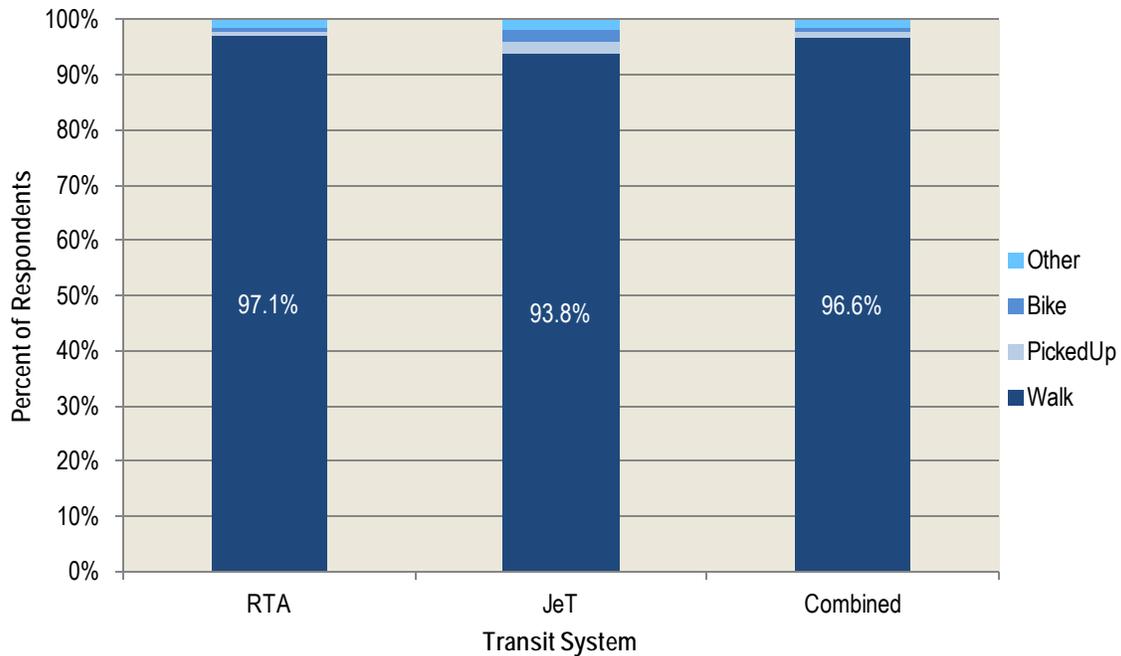


Figure 4-12 Number of Blocks Walked to Transit: RTA and JeT



When asked about mode of travel from alighting bus or streetcar stop to their destination, over 96 percent of all riders stated that they walk, though slightly more RTA riders walk than JeT riders, shown in Figure 4-13. The next two most frequent answers were being picked up or biking. Common answers in the 'other' category included taking a taxi or using a mobility aid such as a wheelchair.

Figure 4-13 Travel Mode from Alighting Location



Average walking distance to destination reported by riders were very similar to walking distances from origin to boarding destination, discussed above, and similar between both transit systems, although JeT riders on average walked slightly longer distances. The data show that JeT riders walk further to access transit.

Figure 4-14 Number of Blocks Walked from Transit: RTA

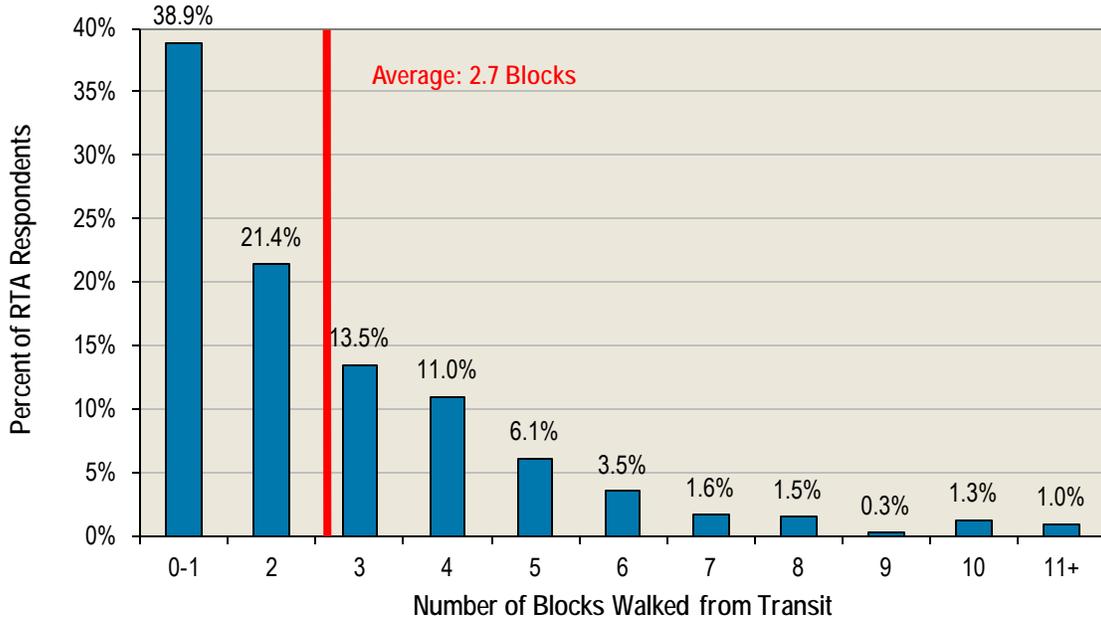


Figure 4-15 Number of Blocks Walked from Transit: JeT

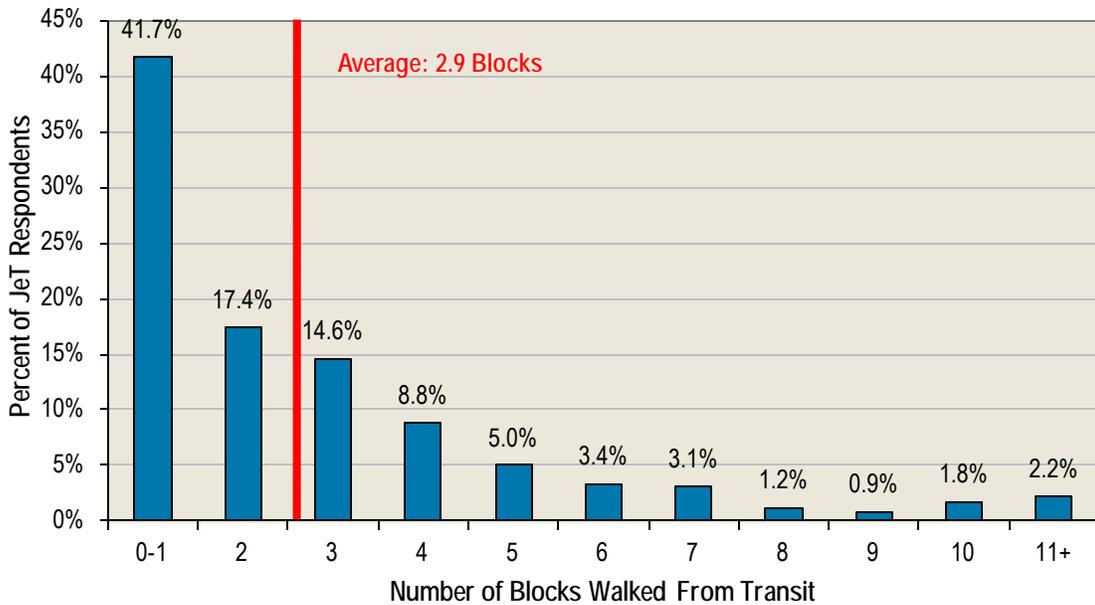
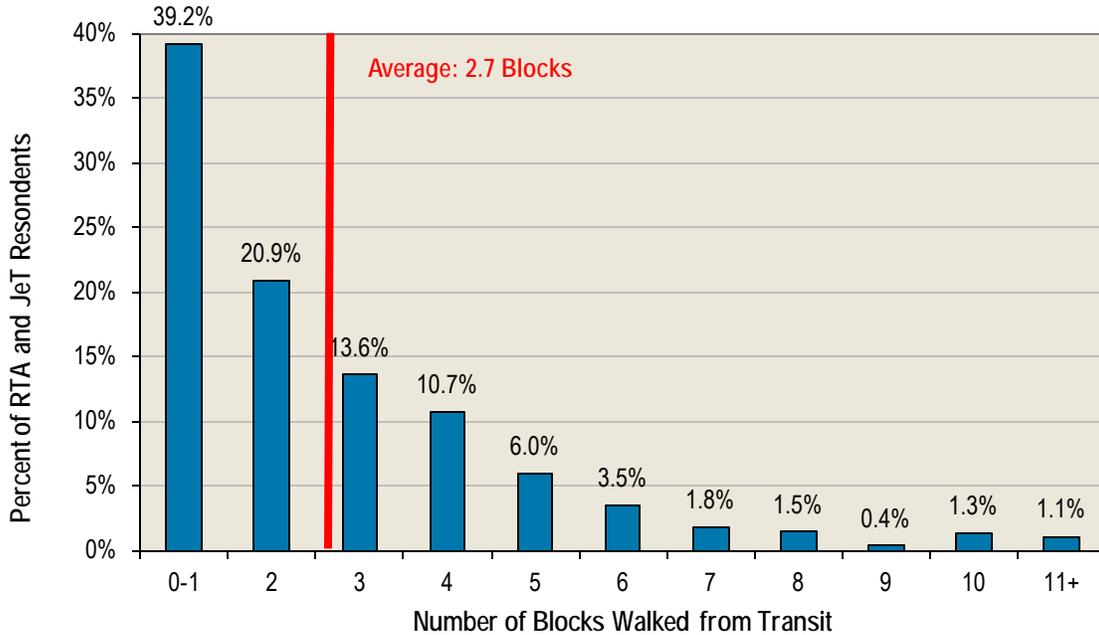


Figure 4-16 Number of Blocks Walked from Transit: RTA and JeT



## RIDER PROFILE

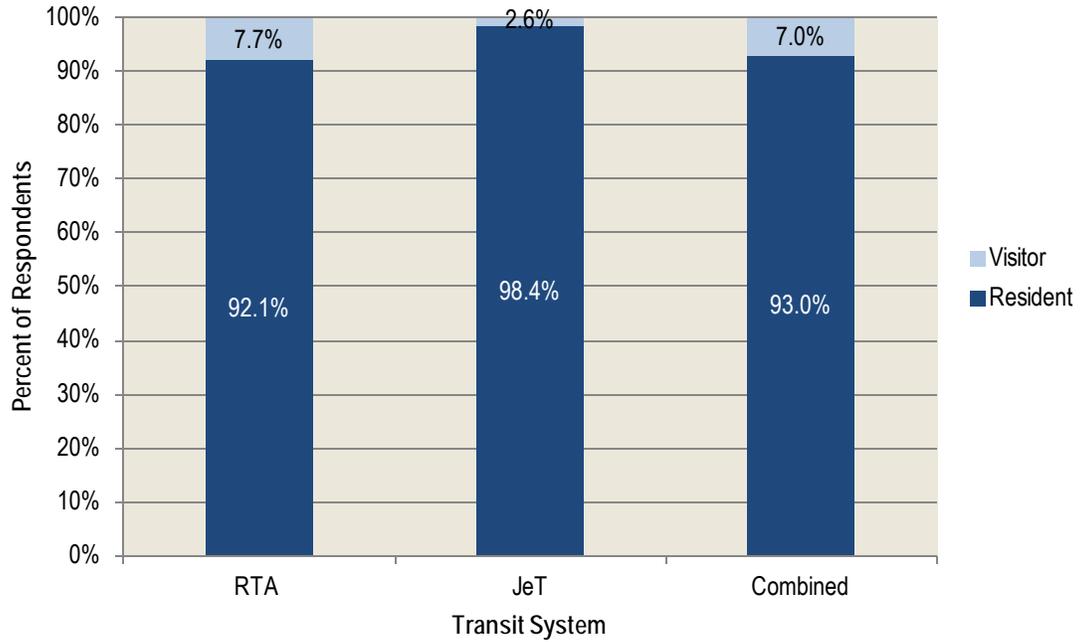
This section describes respondents' travel habits, transportation options, and experience with RTA and JeT. Throughout the survey collection period, some riders were surveyed more than once. Answers in this section were reported only from those surveys on which the respondent stated that they had not previously taken the survey in order to avoid double counting answers from the same person.

Over 90 percent of all survey respondents indicated that they are residents of the area, though there were more visitors using RTA than JeT, shown in Figure 4-17. Of RTA riders surveyed, 64 percent stated that they ride RTA 5 or more days a week, while 72 percent of JeT respondents ride 5 or more days a week. RTA has a larger proportion of tourists using its system than JeT does, but overall both systems have similar patterns, shown in Figure 4-18.

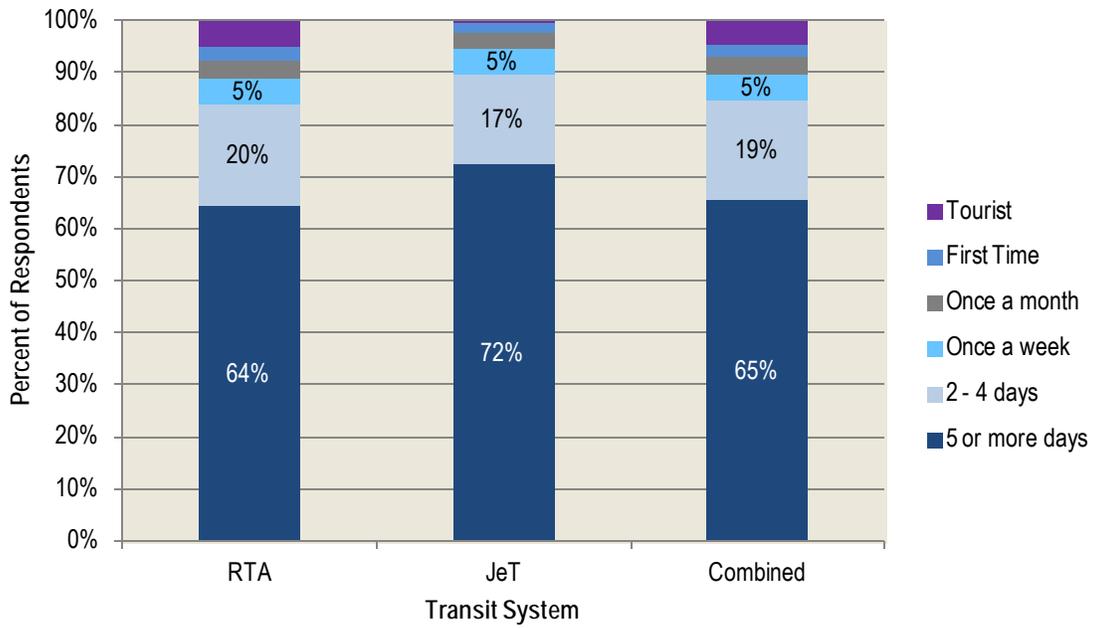
Less than half of both RTA and JeT riders have a valid driver's license (Figure 4-19) and the majority of riders on both systems have no regular access to a car, though more JeT riders than RTA riders indicated this (Figure 4-20). Both RTA and JeT ridership is strongly transit dependent.

When asked how they would make their trip if RTA or JeT were not available, riders from both systems responded similarly, displayed in Figure 4-21. The most frequent answer was that they would be driven by another person, followed by taking a taxi. Across both systems, about 9 percent of respondents said they would drive alone. More JeT riders than RTA riders stated that they would not take their trip at all, and more RTA riders than JeT riders stated that they would walk as an alternative. This may be related to the different land use patterns of Jefferson Parish and Orleans Parish, with Orleans Parish being denser and its streets better connected.

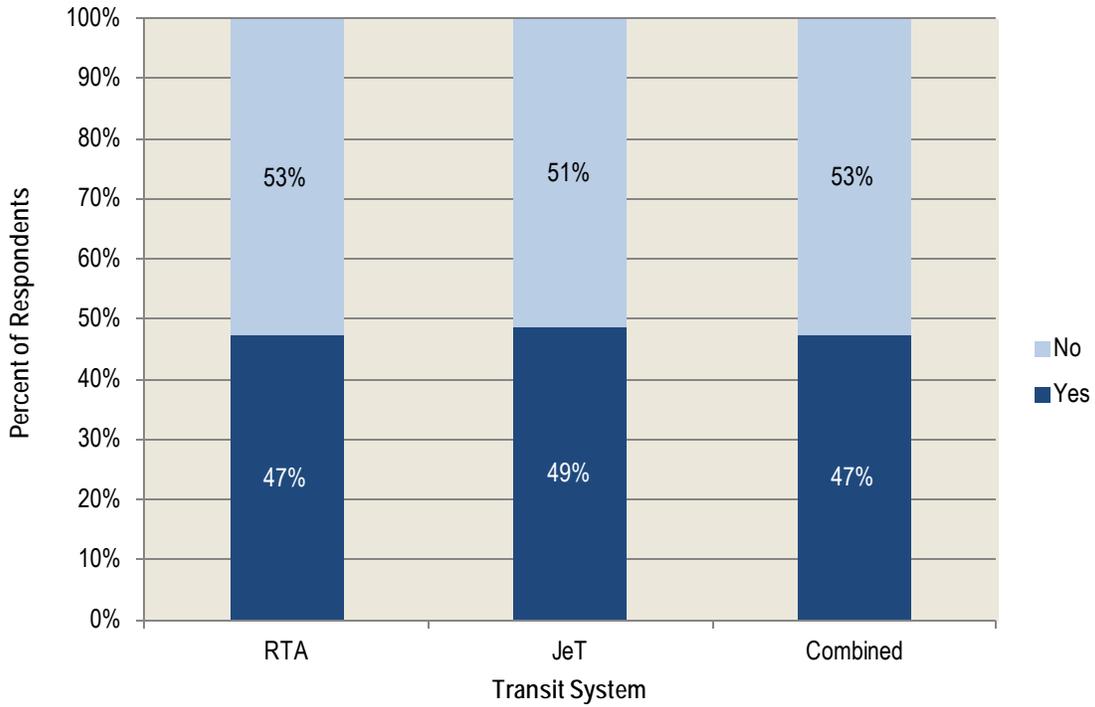
**Figure 4-17 Percentage of Residents and Visitors Surveyed**



**Figure 4-18 Weekly Frequency Using RTA and/or JeT**



**Figure 4-19 Percent of Respondents Possessing Valid Driver's License**



**Figure 4-20 Car Availability**

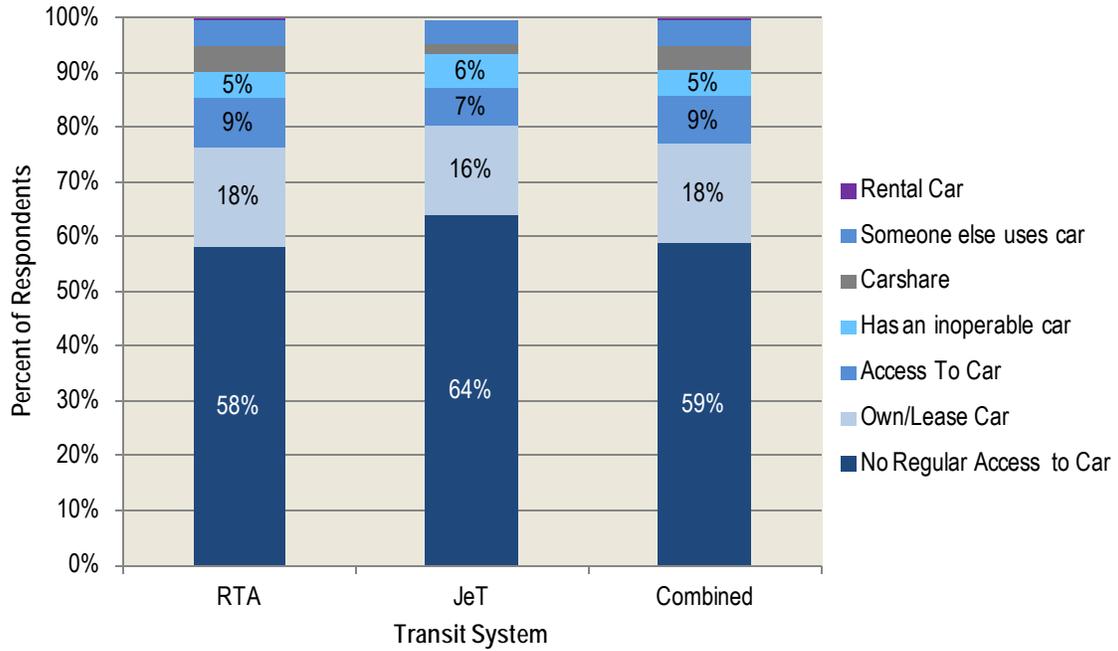
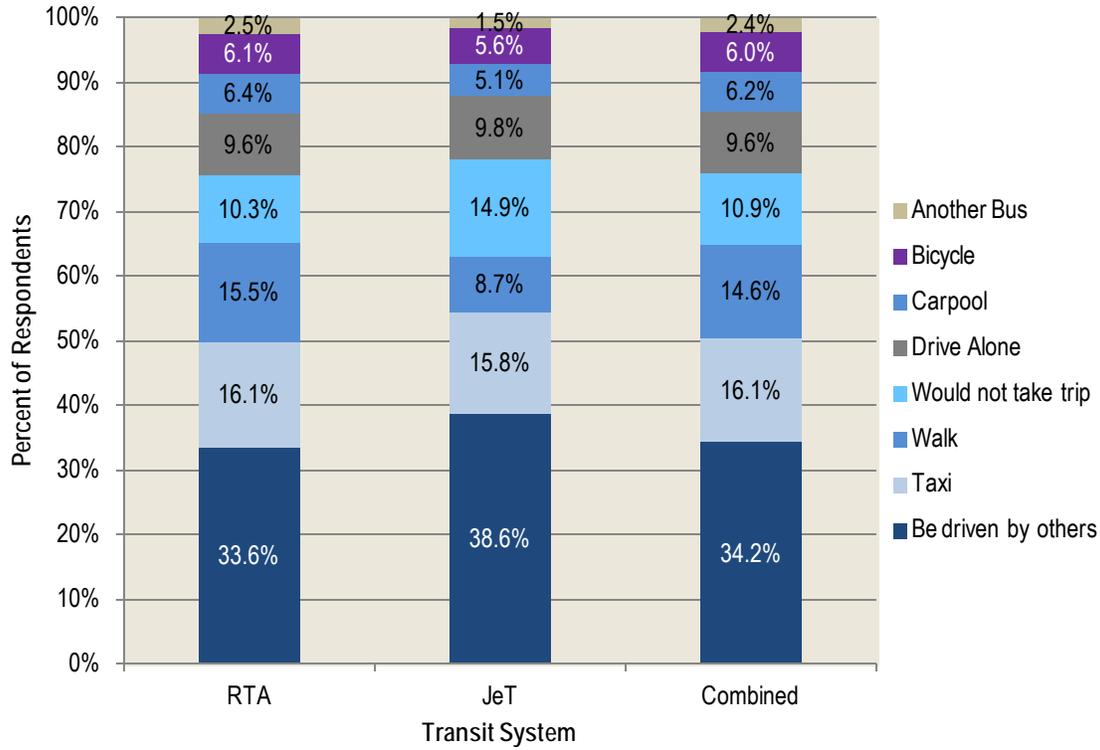


Figure 4-21 Alternatives to RTA and JeT if Transit Were Not Available



## DEMOGRAPHICS

The following questions focus on the demographic makeup of people who responded to the survey. In order to avoid skewing the results, survey responses from those who stated that they had already taken the survey were not counted.

The typical rider is female, representing 55 percent of riders, shown in Figure 4-22. The vast majority of survey respondents speak English, with Spanish speakers being the second largest group, shown in Figure 4-23. A slightly larger percentage of JeT riders were Spanish speakers (3.5 percent) than RTA riders (2 percent). Included in the ‘other’ category were many different languages: French, German, Japanese, Vietnamese, Arabic, Chinese, Creole, Portuguese, Russian, Turkish, Filipino (Tagalog), Hausa, Hebrew, Italian, Samoan, Serbian, Sign Language, Urdu, Romanian and Senoufo. Roughly three quarters of respondents on both RTA and JeT routes identified themselves as black or African American, with a slightly higher portion of RTA riders (76.2 percent) than JeT riders (74.8 percent). The next largest group was white or Caucasian respondents, making up 17.8 percent of RTA respondents and 17.9 percent of JeT respondents, shown in Figure 4-24. Other responses included Caribbean, Asian, Mexican, American Indian, and Pacific Islander. As shown in Figure 4-25, more JeT respondents identified as Hispanic than RTA respondents, with 4.2 percent and 3.5 percent reported, respectively.

The age distribution of JeT and RTA riders is similar, though there was a larger proportion of JeT respondents over the age of 24 than RTA respondents, shown in Figure 4-26. The income distribution of respondents is shown in Figure 4-27, which excludes respondents who refused to report their income and Table 4-5, which shows the income distribution, including the large number (over one third) of respondents who refused to disclose their income. Of those who

answered, the income distribution of both RTA and JeT riders decreases with rising income. RTA riders, on average, have lower incomes than JeT riders.

Figure 4-22 Proportion of Male and Female Survey Respondents

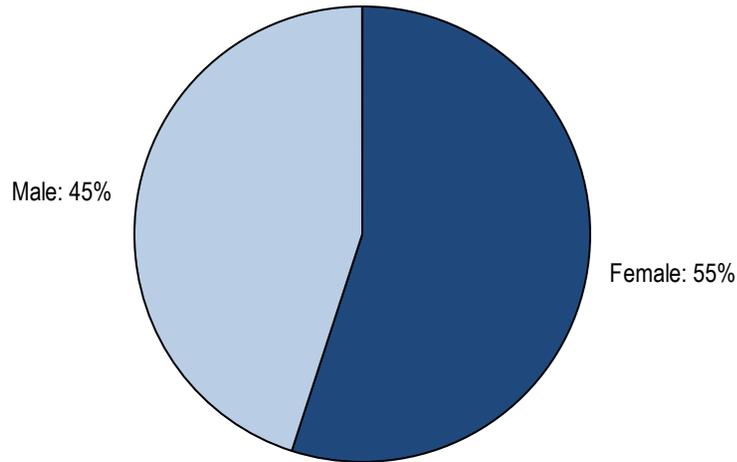
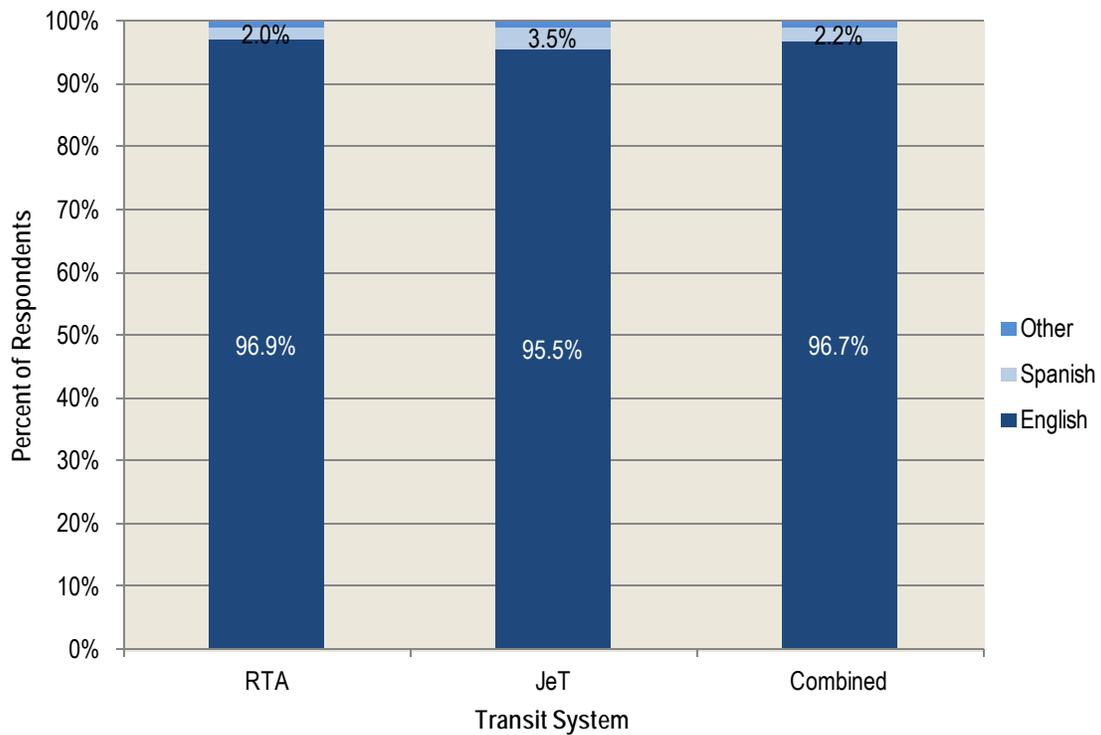
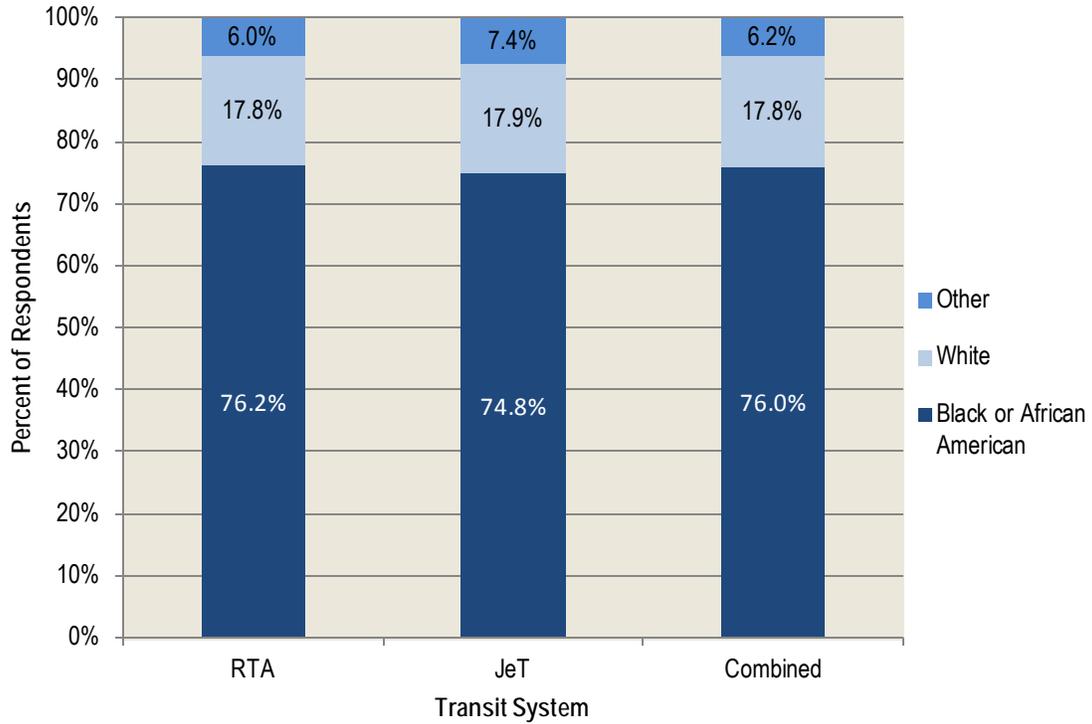


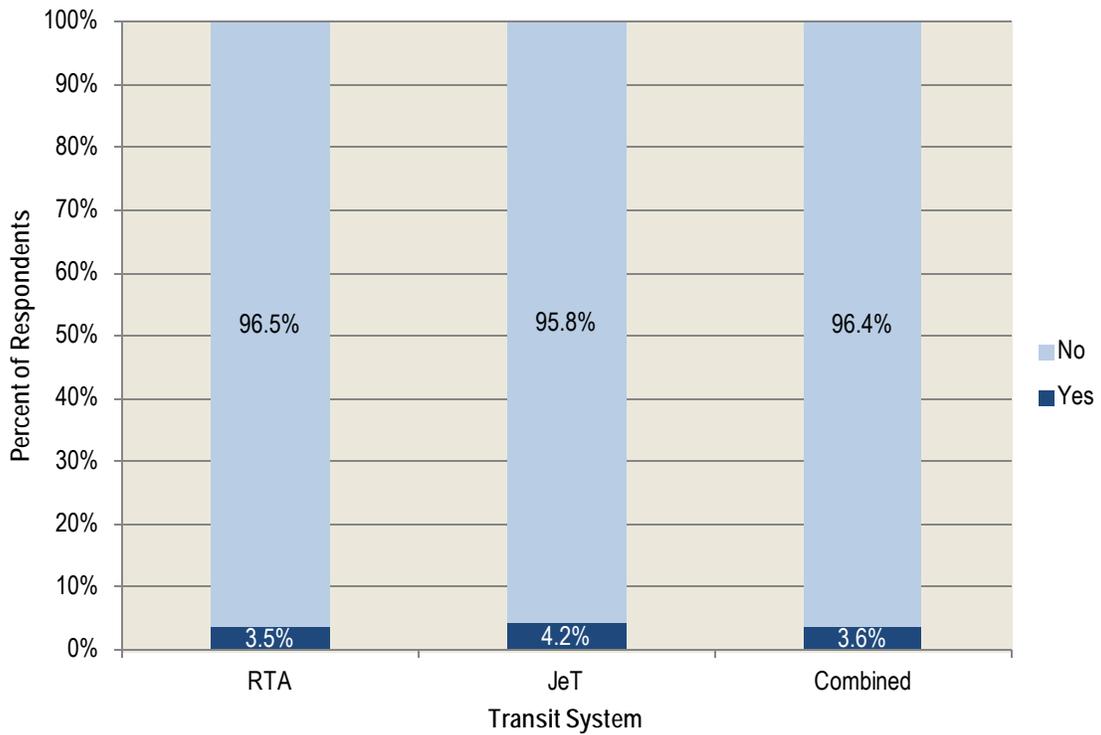
Figure 4-23 Primary Language Spoken by Respondents



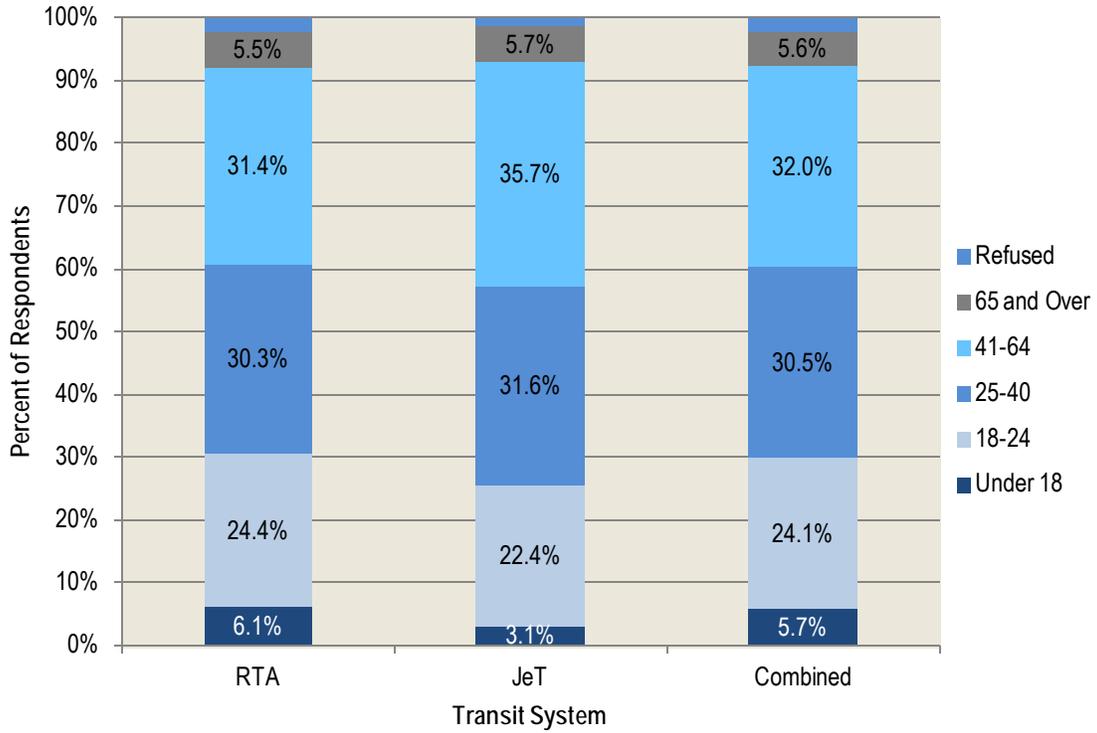
**Figure 4-24 Race/Ethnic Background of Respondents**



**Figure 4-25 Hispanic Respondents**



**Figure 4-26 Age Distribution of Respondents**



**Figure 4-27 Income Distribution of Respondents**

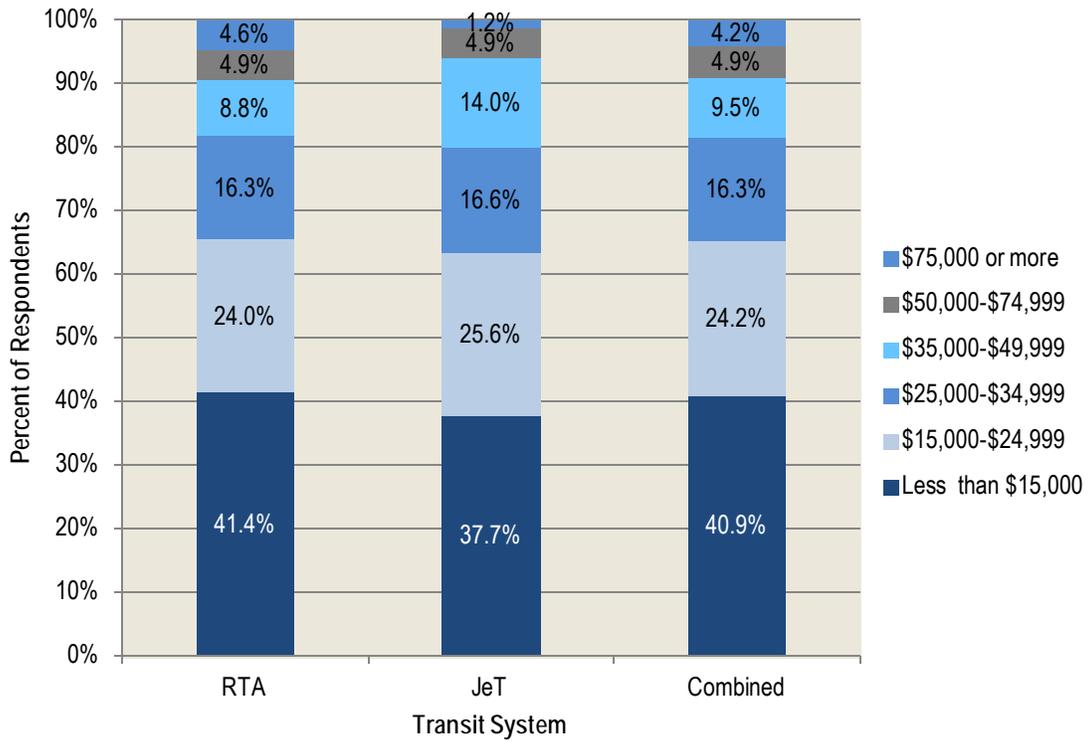


Table 4-5 Income Distribution of Respondents – Including Refused

Income	RTA	JeT	Combined
Less than \$15,000	27.0%	23.1%	26.5%
\$15,000 - \$24,999	15.6%	15.7%	15.6%
\$25,000 - \$34,999	10.6%	10.2%	10.6%
\$35,000 - \$49,999	5.7%	8.6%	6.1%
\$50,000 - \$74,999	3.2%	3.0%	3.2%
\$75,000 or more	3.0%	0.7%	2.7%
Refused	34.8%	38.7%	35.3%

## ORIGIN-DESTINATION MAPS

Using origin and destination data from the survey, a series of maps were created to show origins and destinations for transit trips traveling between selected areas of the city and the remainder of the region, as well as internal travel within each selected area. Maps were created for the following areas of the city:

- Central Business District
- Mid-City
- Tulane-Loyola
- Gentilly
- New Orleans East
- Algiers
- Jefferson Parish Westbank
- Jefferson Parish Eastbank

New Orleans CBD trips are shown in Figure 4-28. The highest amount of trips to the CBD are coming from the Mid-City, Tulane-Loyola, Garden District, and Algiers areas. This suggests that many riders are using NORTA today to make short trips between contiguous areas of the city, and that local routes are very important in capturing this demand.

Figure 4-29 shows trips in the Mid-City area. The majority of trips in the Mid-City are internal trips. Figure 4-30 shows trips to/from Tulane-Loyola. Most trips are internal, especially those trips between Cemeteries and Tulane University, although there is a significant number of trips being made on transit between this area, the CBD and the Garden District.

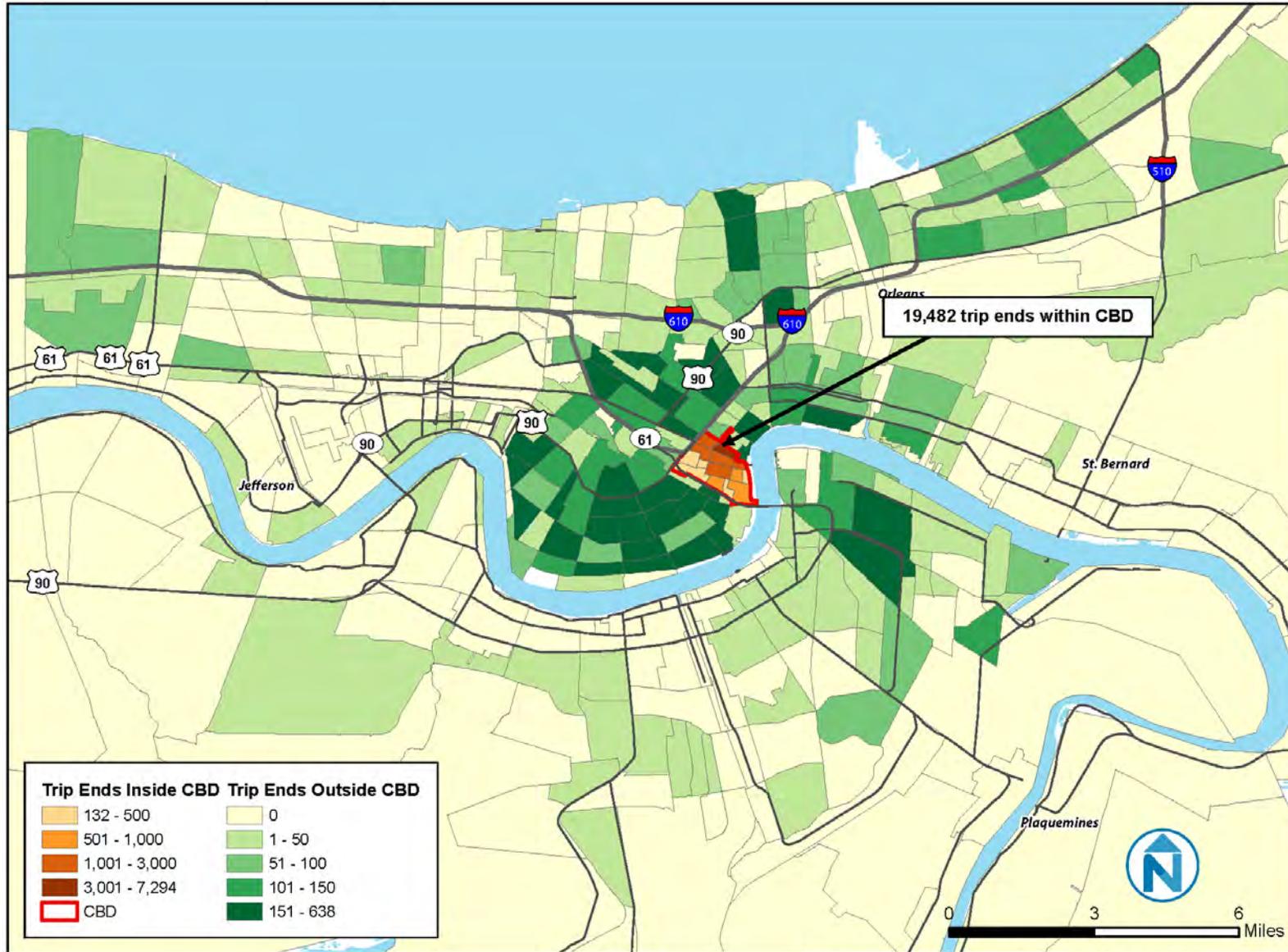
Figure 4-31 shows trips in Gentilly. The majority of trips are also internal trips between zones inside this part of the city. However, there is some interaction between Gentilly and the Mid-City, as well as with New Orleans East.

New Orleans East trips are shown in Figure 4-32. The highest amount of trip-ends outside New Orleans East are in the Mid-City area, the CBD, and the retail area along Chef Mentour Highway just west of the Industrial Canal. Figure 4-33 shows trips to or from Algiers. The most significant origins and destinations are the Mid-City area and the CBD. There is also a significant amount of trips between Algiers and adjacent zones in Jefferson Parish.

The results for Jefferson Parish Westbank are shown in Figure 4-34. The strongest patterns are to locations in Algiers, including the Federal City and Delgado Community College area, as well as the New Orleans CBD. Figure 4-35 shows results for Jefferson Parish Eastbank. The strongest travel patterns are to Mid-City, the CBD, and areas along the Tulane Avenue and Claiborne Avenue corridors.

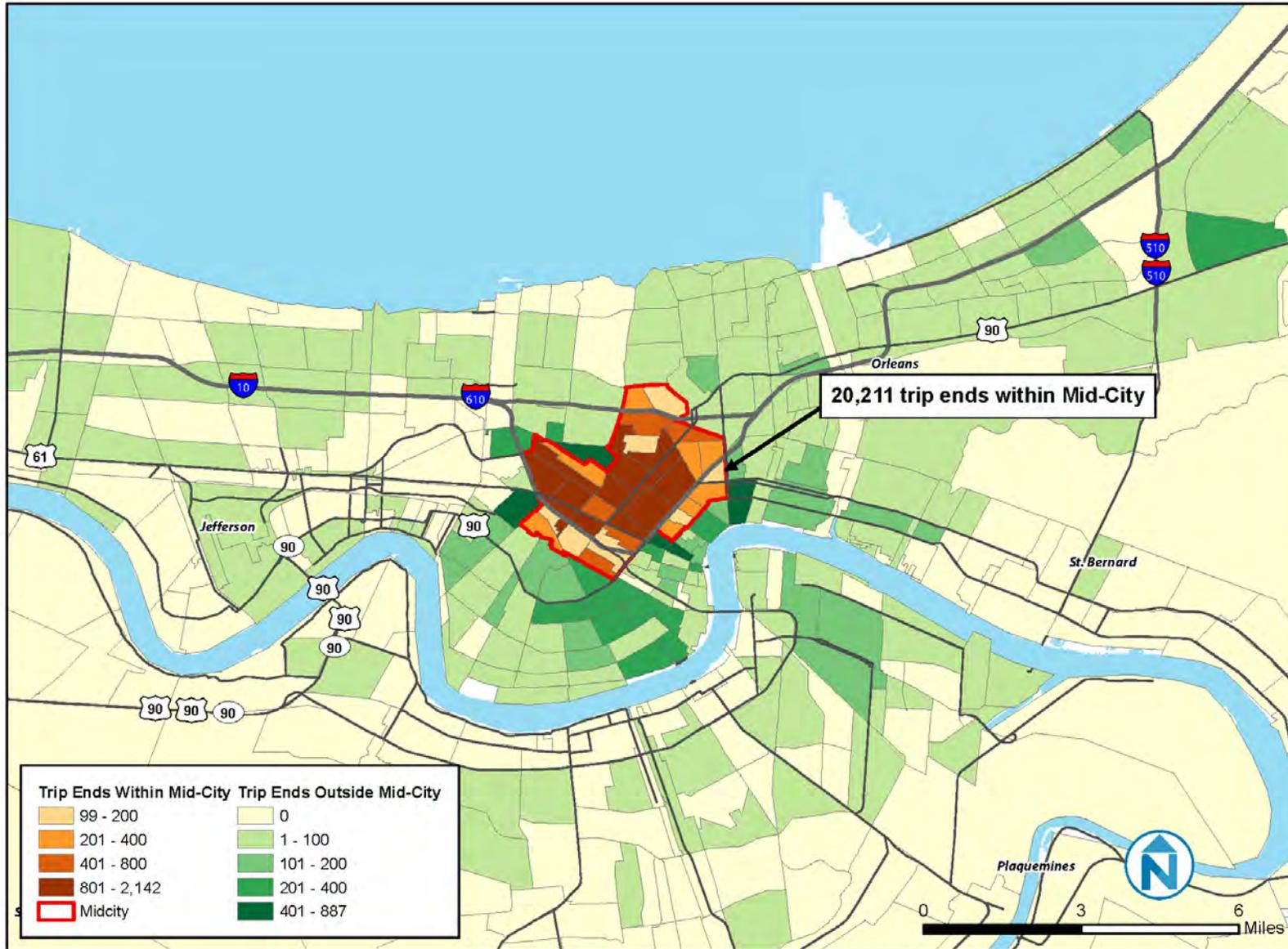
Both the westbank and eastbank maps show a significant amount of long-distance travel that crosses parish lines. It is particularly evident in the Eastbank map, which shows many trips traveling to Algiers and New Orleans East. This provides evidence to support the need for fare integration between JeT and RTA.

Figure 4-28 Origins and Destinations by TAZ for Trips to/from New Orleans CBD



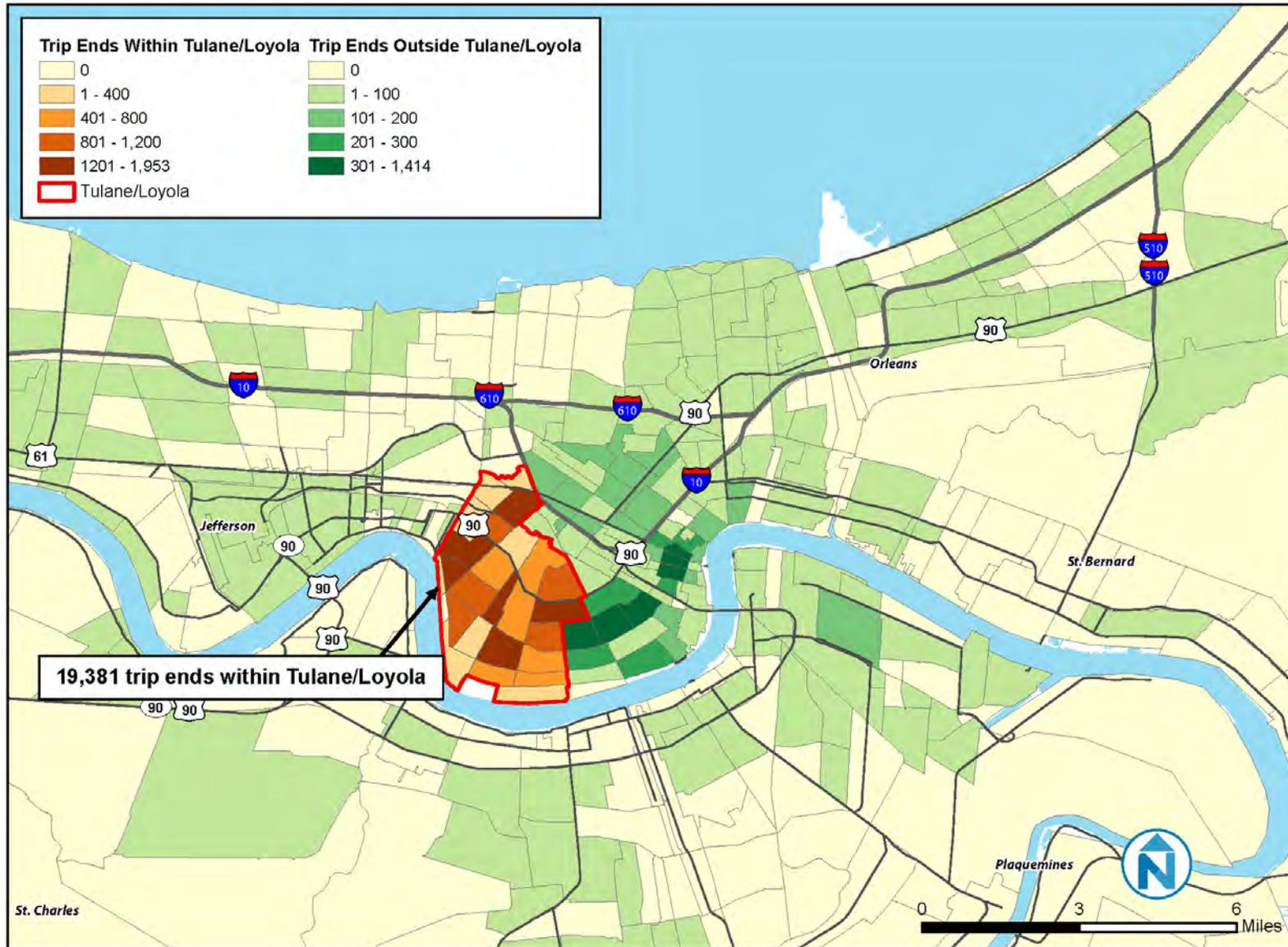
Data Sources: US Census Bureau, NORPC, 2011 NORTA/JeT Passenger Survey

Figure 4-29 Origins and Destinations by TAZ for Trips to/from New Orleans Mid-City



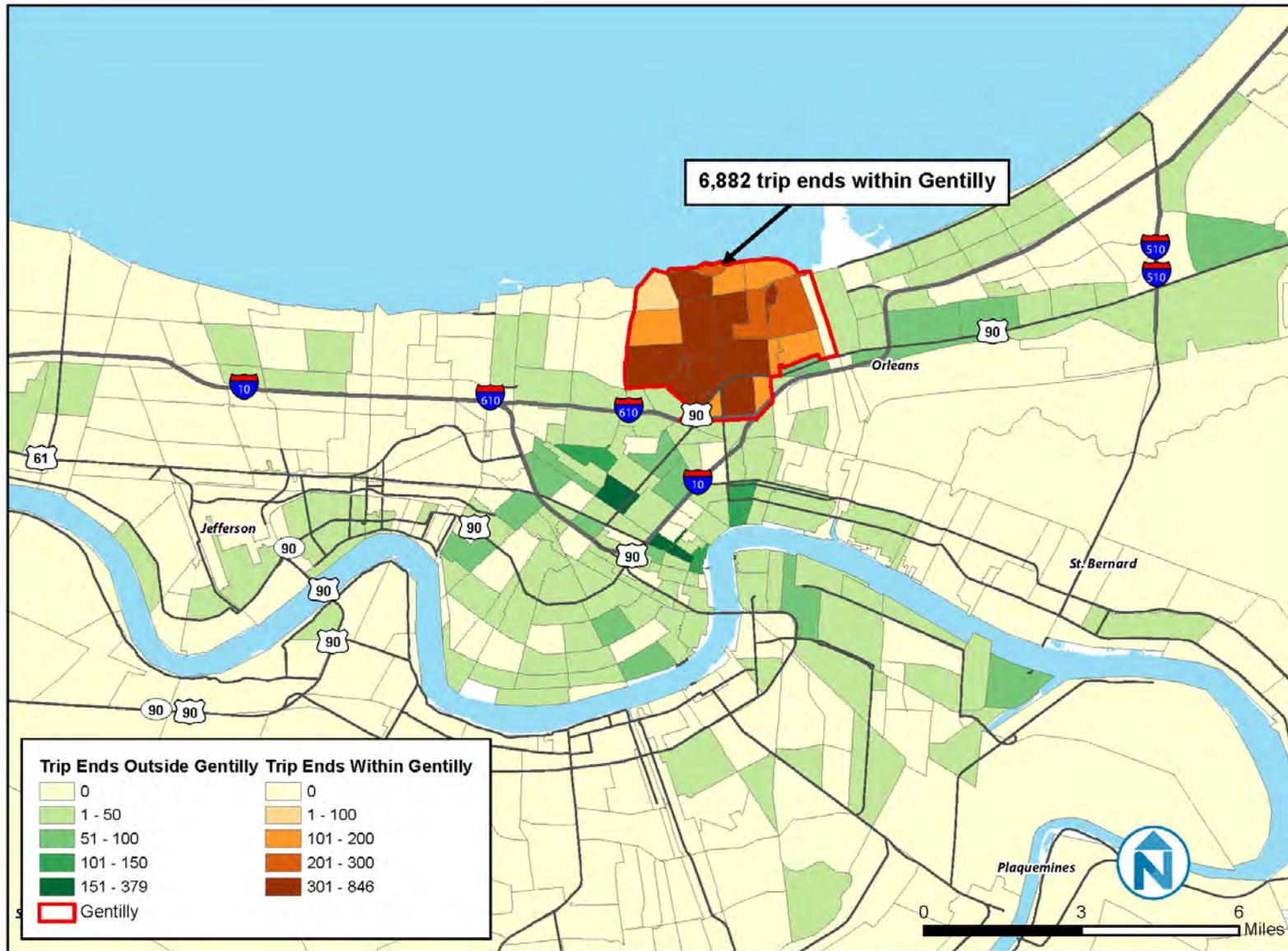
Data Sources: US Census Bureau, NORPC, 2011 NORTA/JeT Passenger Survey

Figure 4-30 Origins and Destinations by TAZ for Trips to/from Tulane-Loyola



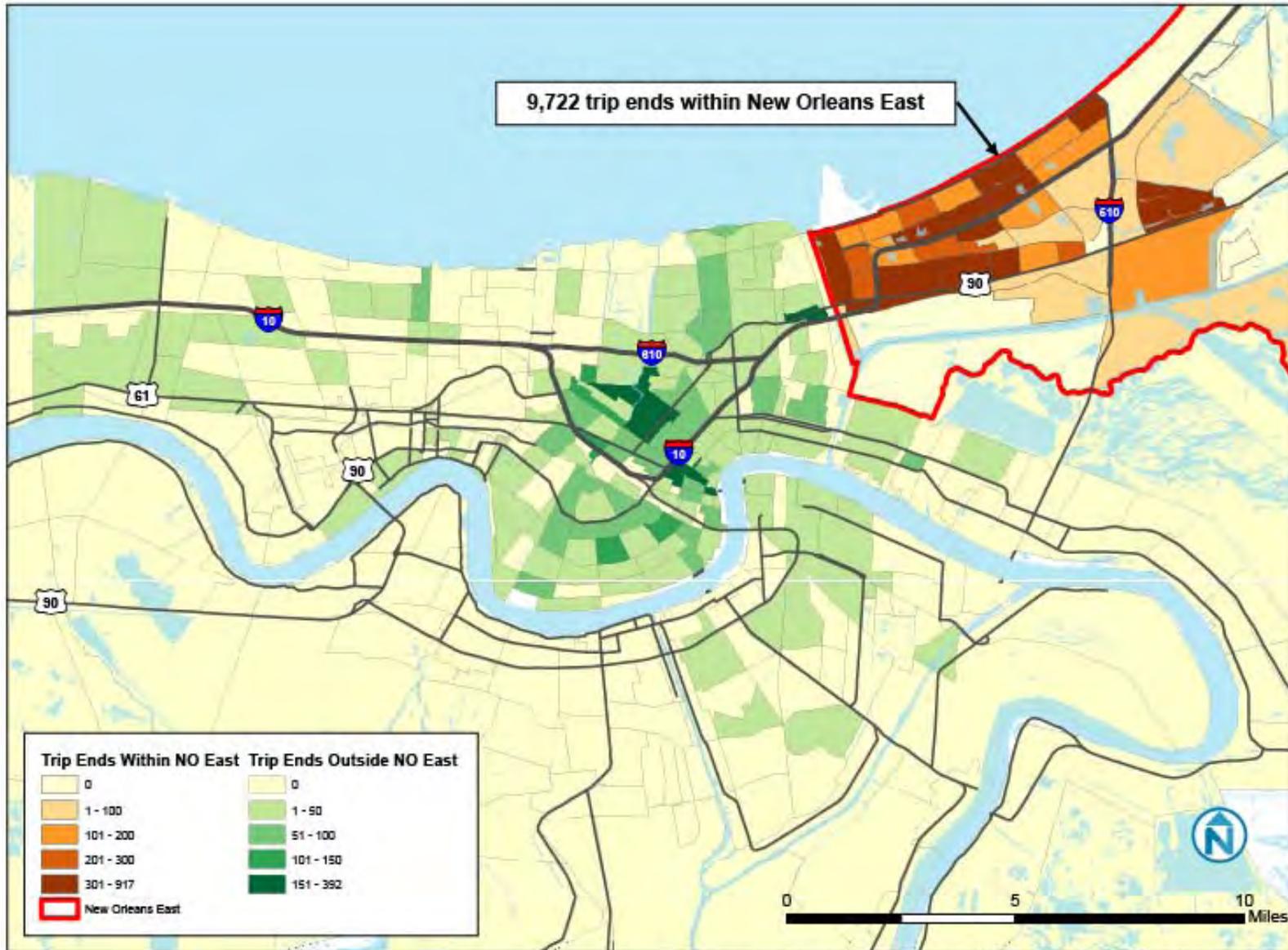
Data Sources: US Census Bureau, NORPC, 2011 NORTA/JeT Passenger Survey

Figure 4-31 Origins and Destinations by TAZ for Trips to/from Gentilly



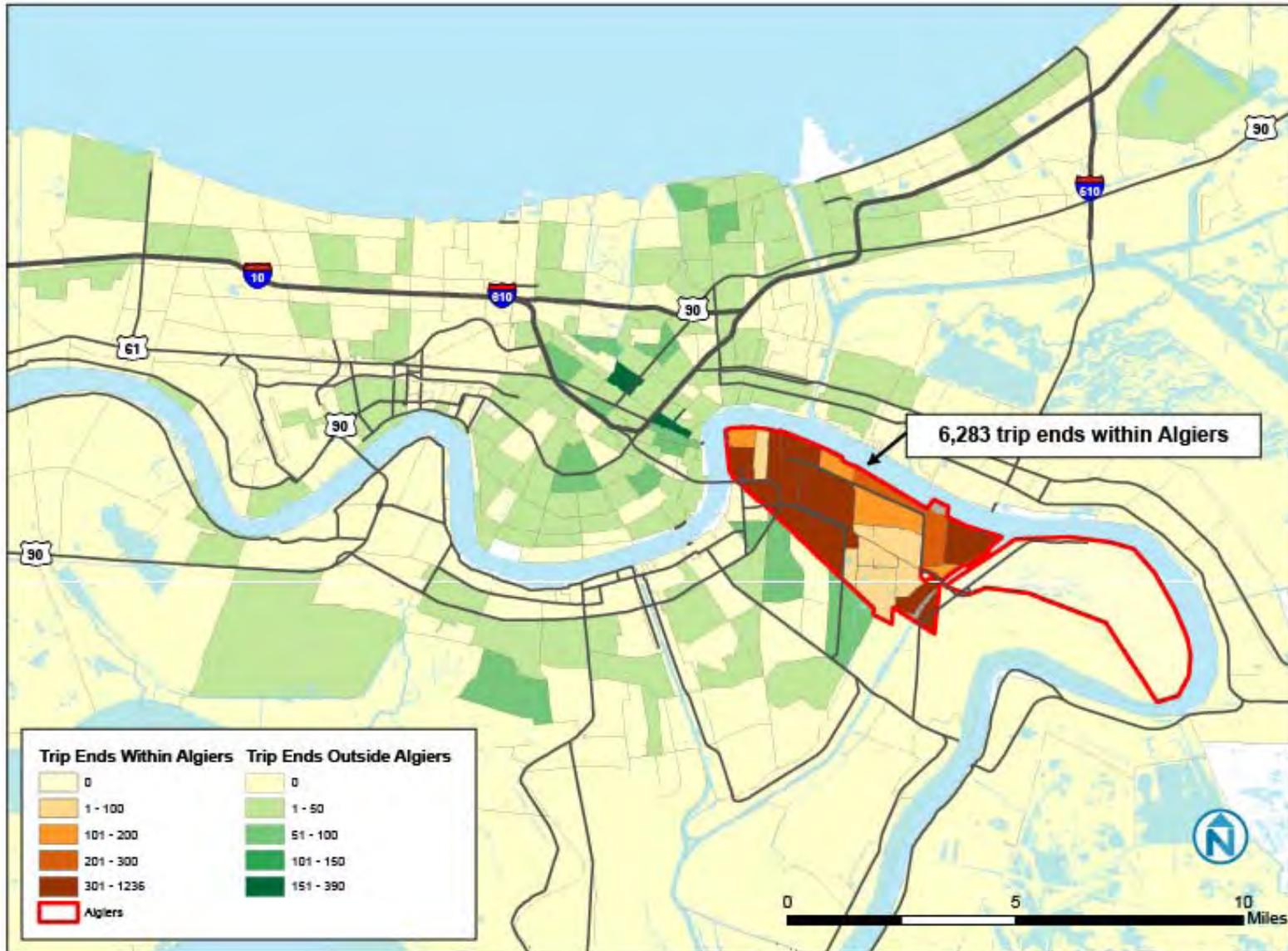
Data Sources: US Census Bureau, NORPC, 2011 NORTA/JeT Passenger Survey

Figure 4-32 Origins and Destinations by TAZ for Trips to/from New Orleans East



Data Sources: US Census Bureau, NORPC, 2011 NORTA/JeT Passenger Survey

Figure 4-33 Origins and Destinations by TAZ for Trips to/from Algiers



Data Sources: US Census Bureau, NORPC, 2011 NORTA/JeT Passenger Survey

Figure 4-34 Origins and Destinations by TAZ for Trips to/from Jefferson Parish Westbank

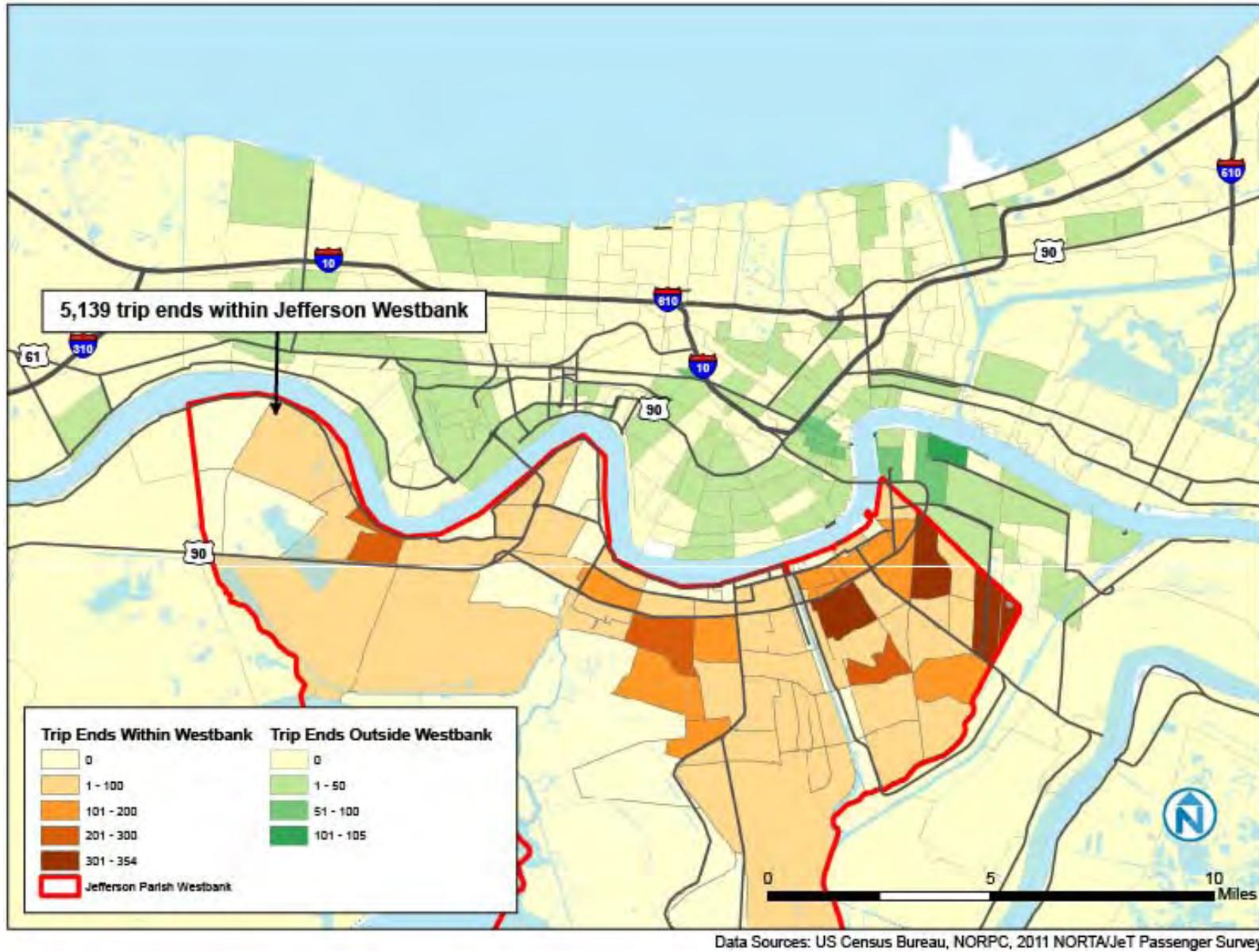
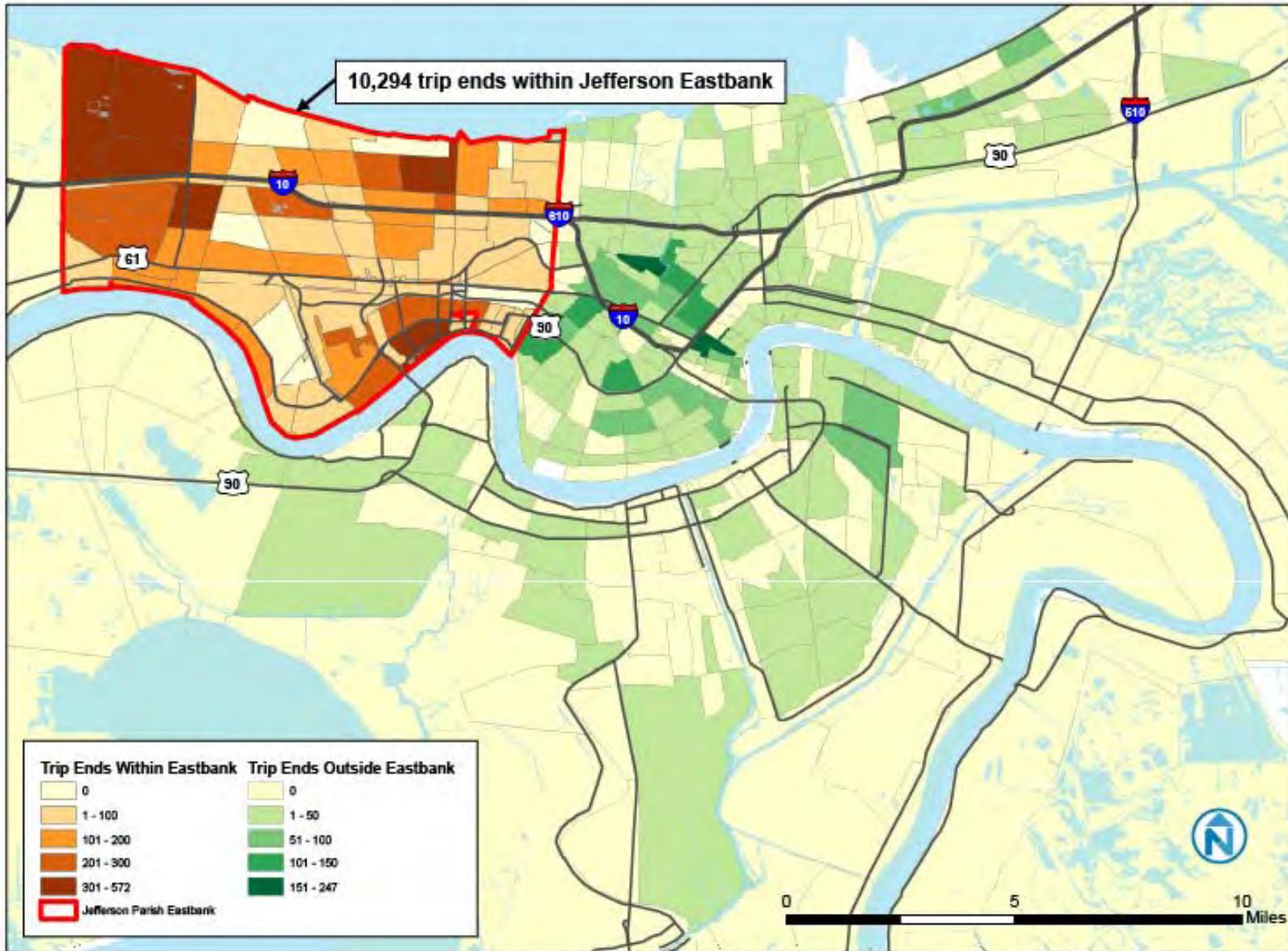


Figure 4-35 Origins and Destinations by TAZ for Trips to/from Jefferson Parish Eastbank



Data Sources: US Census Bureau, NORPC, 2011 NORTA/JeT Passenger Survey

## **INTERCEPT SURVEY CONCLUSIONS**

- Based on the survey data, the typical RTA and JeT customer is a transit dependent, low-income female.
- The average walk distance to access transit at both the origin and destination is about 2.7 blocks.
- The majority of existing transit patrons transfer at least once to reach their destination.
- JeT patrons are more dependent on transfers than RTA patrons.
- The data suggest that JeT is largely dependent on RTA for passengers, which is a key finding.
- Improving system connectivity between JeT and RTA would improve the majority of JeT riders' experiences.

# 5 SERVICE CHANGE RECOMMENDATIONS

## INTRODUCTION

Both service operators in Jefferson Parish and Orleans Parish, JeT and RTA, have had significant challenges over the past years as they have restored services. However, funding levels for operations are significantly less than what they were prior to Katrina, meaning that as population and employment levels continue to rise, the ability of either agency to respond to ridership growth has been hampered. In many areas, services are running at capacity. This Comprehensive Operational Analysis examines ways to enhance capacity within existing funding levels.

An examination of background data, including ridership levels and trends, on-time performance, transfer patterns, and overall travel patterns, revealed several structural service issues.

- **Regional Connectivity** – The intercept survey showed a strong regional market. It did not show an “RTA” market or “JeT” market, but rather the market is one and the same. JeT depends on RTA to deliver substantial numbers of passengers, and RTA routes connecting with JeT are heavily dependent on the JeT riders.
- **JeT and RTA Fare Integration** – Fares are different for JeT and RTA, which can be typical for neighboring agencies. There is no fare integration agreement between the two agencies, which forces passengers to pay two full fares when travelling between parishes. Moreover, the fare differences result in both JeT and RTA making routing decisions to protect “their” customers, which leads to inefficient route decisions and inadequately used capacity in certain corridors.
- **Transfer Challenges** - The intercept survey confirmed this and often showed a dependence on multiple transfers. Irregular schedule times and on-time performance challenges make transfers between routes difficult, whether transfers take place in the RTA or JeT systems, or between systems.
- **Capacity Issues** – The Canal and St. Charles Streetcars, nine RTA routes (including Routes 11, 16, 39, 62, 64, 88, 94, 102, and 114), and three JeT routes (including E1, W2, and W3) were regularly operating over capacity during select times of the day.

This section summarizes different alternatives for addressing regional connectivity and capacity in New Orleans and Jefferson Parish Eastbank and Westbank. The alternatives reduce the need for multiple transfers and enhance service frequency in at-capacity corridors. The alternatives presume closer cooperation between RTA and JeT services to maximize existing resource utilization and a reduction in duplication of services. In particular, it is assumed that a form of fare integration will be introduced to reduce transfer penalties.

## NEW ORLEANS EAST RECOMMENDATIONS

Four RTA routes provide service in New Orleans East, including:

- Route 60 – Hayne
  - Providing connections between: Delgado Community College, UNO / SUNO, Morrison Road, and Little Woods.
  - Service is operated weekdays only, every 60 minutes, and utilizing 2 vehicles.
- Route 62 – Morrison Express
  - Providing connections between: Canal Street in the CBD, Winn-Dixie on Desire Parkway, Morrison Road, and Little Woods.
  - Service is operated weekdays and weekend days, every 35 minutes, and utilizing 3 vehicles.
- Route 64 – Lake Forest Express
  - Providing connections between: Canal Street in the CBD, Winn-Dixie on Desire Parkway, Lake Forest Boulevard, and Lakeside Hospital.
  - Service is operated weekdays and weekend days, every 45 minutes, and utilizing 2 vehicles.
- Route 94 – Broad
  - Providing connections between: Broad Street, Winn-Dixie on Desire Parkway, Chef Menteur Highway, and Michoud Boulevard.
  - Service is operated weekdays and weekend days, every 20 minutes, and utilizing 6 vehicles.

### Service Design Issues / Themes for Service Restructuring

One service scenario is recommended for New Orleans East that responds to the need of balancing service levels with demand, providing greater service accessibility to redeveloped areas, regularizing headways, avoiding route duplications, and reducing one-way loop services. In particular, recommendations address the following issues:

- Irregular non-clockface headways, on Route 62 and Route 64, make access to transit difficult to most residents in New Orleans East.
- Circuitous and one-directional routings on Routes 60, 64, and 94 (at Michoud Boulevard) lengthen passenger trips and walking distances to access service; they also make service harder to understand and unattractive to most users.
- Duplication of service along Morrison Road and Little Woods (Routes 60 and 62) reduces system efficiency while not providing a distinctive market function for each route.
- Route 94 has high demand and overcrowding issues from Read Boulevard & Chef Menteur Highway to Washington Avenue & Broad Street.
- Routes 62 and 64 have high demand in the peak direction (AM inbound and PM outbound).
- Respond to changes in land use. A new Walmart at

#### Timing of Recommendations

The key for improving service in New Orleans East is the new Bullard Walmart, which will become the focal point of service.

Changes to New Orleans East routes should coincide with that opening, which is anticipated for Fall 2013.

I-10/Bullard Avenue is projected to open in the next year, which will be one of New Orleans East's first large shopping destinations since Katrina.

## **Service Recommendations**

Route-by-route service recommendations are described in the paragraphs below, summarized in Table 5-1 and illustrated in Figure 5-1.

### **Route 60 – Hayne**

#### **Performance Summary**

- One of the defining characteristics of Route 60 is a 13.8 mile long one-way terminal loop in New Orleans East. Hayne Boulevard between Downman and Paris is only served in the outbound direction due to the levee on the north side of the road. The inbound trip is along Morrison, which is 0.4 miles south of Hayne. Ridership patterns along the loop show that users are walking from Hayne to Morrison to ride inbound.
- Route 60 has low productivity and ridership. The route connects several small ridership activity areas with long stretches of minimal activity between them.
  - Delgado Community College, UNO, and SUNO are the biggest ridership generators west of the Industrial Canal.
  - In New Orleans East, ridership activity is greatest along Morrison Road.

#### **Service Changes**

- Eliminate Little Woods loop and operate via Read Boulevard ending at the new Bullard Avenue Walmart. Route 62 will continue to serve Little Woods.
  - This change would allow a direct connection between Bullard and Read commercial corridors with Hayne and UNO.
  - All New Orleans East routes would connect at the Bullard Avenue Walmart
- Maintain service levels at 60 minutes, weekdays only.

### **Route 62 – Morrison**

#### **Performance Summary**

- Route 62 connects New Orleans East with the CBD via I-10. Weekday productivity is high at 34.3 boardings per revenue hour (FY 2010), despite operating a long segment on the freeway as express service.
- Route 62 has a large terminal loop in Little Woods that largely duplicates Route 60, yet it carries more passengers in this area than Route 60 does.
- On Bundy Road, Route 62 makes a deviation to an apartment complex that is one-quarter mile away from Morrison Road. There are over 80 boardings and alightings at this stop throughout the day.
- Productivity is higher in the morning and midday than in the afternoon peak. The first six inbound trips are well used with loads of more than 36 passengers.

#### **Service Changes**

- Delete the Bundy Road deviation.

- It consumes time that can be spent on higher service frequency, and it creates an inconvenience, by lengthening the trip, to a much higher number of people travelling through the deviation (280 passengers daily).
- Deviate route to the new Bullard Avenue Walmart.
  - This would allow connecting with all other routes in New Orleans East, especially Route 94 Broad which will operate at greater frequency
  - Service to Little Woods will be provided via a deviation to Bullard Walmart allowing Little Woods to connect to Route 60 Hayne and Route 94 Broad.
- When more resources become available headways should be regularized to operate every 30 minutes all day, inserting trippers into the schedule, when necessary, to accommodate peak directional demand.

## **Route 64 – Lake Forest**

### **Performance Summary**

- Route 64 connects New Orleans East with the New Orleans CBD via I-10, largely serving New Orleans East neighborhoods south of I-10 on Dwyer and Lake Forest.
- Weekday productivity is good at 28.5 boardings per revenue hour (FY 2010), despite operating a long freeway segment to the CBD. Seventy percent of the ridership boards or alights in the CBD.
- Ridership is strong throughout the terminal loop, via Lake Forest, Read and the Lakeside Hospital, suggesting potential for better ridership if the alignment and service frequency can be streamlined.
- Route 64 runs at 45 or 90 minute frequencies, making schedule transfers to other routes difficult. Schedule gaps during the midday time period are common.
- Route 64 has poor on-time performance, with almost 25 percent of trips arriving late. Late trips are most common in the AM peak and midday periods.

### **Service Changes**

The Lake Forest corridor in New Orleans East is rebuilding, and additional service is necessary to support this redevelopment. Service levels on Route 64 should be increased.

- Eliminate route deviation to Read & Hayne, and operate route bi-directionally along Read, I-10 Service Road, and Bullard Avenue.
  - Read Boulevard and the segment of Lake Forest between Read and Bullard will be served by Route 60.
- Extend route to serve Michoud Boulevard (Village del'Est).
  - This would provide a direct connection between Michoud and Bullard Avenue (and the new Walmart), Lakeside Hospital and Read Boulevard, and reduce service frequency to better match demand levels in Village del'Est.
- These changes will allow for a consistent 60-minute service all-day, and will fill the midday service gaps.

## **Route 94 – Broad**

### **Performance Summary**

- Route 94 connects New Orleans East with Broad Street, to the intersection of Broad and Washington. Service is seven days a week.
- Weekday productivity is strong at 32.2 boardings per revenue hour (FY 2010). Productivity is strong throughout the day, and into the evening, dropping more significantly after 9:00 PM.
- Ridership is stronger along Broad Street between Washington and Saint Bernard, with over 70 passengers per revenue hour. Trips along this segment carry high loads with over 60 passengers on board, on average. The segment is underserved and warrants more service.
- Between Read and the route end in Village del'Est, ridership drops significantly, with productivity averaging less than 12 passengers per hour. This segment is over served and does not warrant 20-minute service all day.

### **Service Changes**

- Re-route to end at Bullard Avenue at the New Bullard Walmart .
  - This will allow the route to operate at a clean 120-minute cycle and regular 20-minute frequency throughout the day with the same vehicle resources.
  - It will also position the corridor for increases of service in the future to 15-minute service with 2 additional vehicles, or higher frequency with implementation of rapid service.
- Delete the segment of Route 94 between Bullard/Chef Menteur and Michoud/Expedition. An extension of Route 64 will cover the majority of this segment.
- The only areas that would be unserved would be the neighborhood around Michoud/Expedition (24 weekday riders) and on Old Gentilly Road (18 boardings).
  - The market along Old Gentilly Road is more suitable for vanpooling organized in partnership with employers in the area.
  - The market along Michoud & Expedition does not warrant extension of a long-haul route due to increases in costs and resources that make it very expensive and ineffective on a per boarding basis.
  - Michoud & Expedition can be served with a shorter community based route connecting with the new Bullard Walmart. However, no resources are available to fund this operation. This issue can be revisited if more resources are provided to operate higher frequencies on Route 62. In which case Little Woods can be separated from Route 62 and combined with Michoud & Expedition for a standalone feeder service.

## **Service Resources Impacts**

The New Orleans East alternative improves frequency on routes that are currently overloaded and reduce the need to operate as much service in lower ridership areas. In addition, the service improvements to Route 64 support further redevelopment efforts in New Orleans East. Lastly, this service design also allows better utilization of the high capacity articulated buses, as they can be assigned to routes that have steady high ridership and not be underutilized on low-ridership route ends.

The tables below summarize levels of service proposed compared to existing service, indicating peak vehicles required, number of one-way trips, and number of revenue hours provided.

Proportionally, service changes result in a slightly lower level of service hours for weekdays, and higher number of service hours for weekends. This is mostly due to the increase in one-way trips that result from more regular frequencies, even though peak vehicle requirements remain constant.

As indicated in Table 5-1, this alternative would result in 232 less service hours per year, for a -0.3 % reduction in service. Figures are for sketch level of scheduling and thus service changes are largely cost-neutral.

**COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT**  
Regional Planning Commission

Table 5-1 New Orleans East Service Changes

Weekday			Frequency				Proposed			Existing			Plat. Hours % Change
Route	Terminal 1	Terminal 2	Span	Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	Peak Vehicles	One Way Trips	Platform Hours	
60	Milneburg & Alumni (UNO)	Bullard & I-10 (Walmart)	6:00 - 20:00	60	60	60	1	28	3,683	1	24	3,228	14%
62	Elk Pl & Canal	Bullard & I-10 (Walmart)	5:30 - 24:00	16	45	60	6	60	13,335	6	60	13,335	0%
64	Elk Pl & Canal	Chef Menteur & Alcee Fortier	5:00 - 24:00	60	60	60	2	34	9,059	2	36	7,209	26%
94	Washington & Broad	Bullard & I-10 (Walmart)	5:00 - 3:00	20	20	40	6	105	27,432	6	103	30,988	-11%
Weekday Subtotals							15	227	53,509	15	223	54,760	-2.3%

Saturday			Frequency				Proposed			Existing			Plat. Hours % Change
Route	Terminal 1	Terminal 2	Span	Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	Peak Vehicles	One Way Trips	Platform Hours	
62	Elk Pl & Canal	Bullard & I-10 (Walmart)	6:00 - 24:00	--	45	45	2	41	1,664	2	41	1,664	0%
64	Elk Pl & Canal	Chef Menteur & Alcee Fortier	5:00 - 24:00	--	60	60	2	37	2,011	2	36	1,481	36%
94	Washington & Broad	Bullard & I-10 (Walmart)	5:00 - 2:00	--	30	60	3	59	3,146	3	52	3,198	-2%
Saturday Subtotals							7	137	6,821	7	129	6,343	7.5%

Sunday & Holiday			Frequency				Proposed			Existing			Plat. Hours % Change
Route	Terminal 1	Terminal 2	Span	Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	Peak Vehicles	One Way Trips	Platform Hours	
62	Elk Pl & Canal	Bullard & I-10 (Walmart)	6:00 - 24:00	--	45	45	2	41	1,888	2	41	1,888	0%
64	Elk Pl & Canal	Chef Menteur & Alcee Fortier	5:00 - 24:00	--	60	60	2	37	2,281	2	36	1,681	36%
94	Washington & Broad	Bullard & I-10 (Walmart)	5:00 - 2:00	--	30	60	3	59	3,570	3	52	3,629	-2%
Sunday Subtotals							7	137	7,739	7	129	7,197	7.5%

New Orleans East Scenario 1 Total									68,069			68,300	-0.3%
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Note: Route 60 proposed and existing numbers only account for segment between UNO and Little Woods.

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Figure 5-1 New Orleans East Service Changes



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## ALGIERS RECOMMENDATIONS

Five RTA routes provide service in Algiers and Algiers Point, including:

- Route 101 – Algiers Loop
  - Providing connections between Canal Street and Algiers Point.
  - Service is operated weekdays and weekend days, every 60 minutes, and utilizing 1 vehicle.
- Route 102 – General Meyer
  - Providing connections between: Canal Street, Landry High School, Naval Support Facility, Delgado Community College/Westbank, and Walker High School.
  - Service is operated weekdays and weekend days, every 36 minutes, and utilizing 2 vehicles.
- Route 108 – Algiers Local
  - Providing connections between: Algiers Ferry, Landry High School, Wilty Terminal, Walker High School, and Algiers Technology Academy.
  - Service is operated weekdays and Saturdays, every 60 minutes, and utilizing 2 vehicles.
- Route 114 – General de Gaulle/Sullen
  - Providing connections between: Canal Street, Vespasian Boulevard, Garden Oaks Drive, General de Gaulle Drive, and Sullen.
  - Service is operated weekdays and weekend days, every 42 minutes, and utilizing 2 vehicles.
- Route 115 – General de Gaulle/Tullis
  - Providing connections between: Canal Street, Vespasian Boulevard, Garden Oaks Drive, Behrman Highway Walmart, and Tullis Drive.
  - Service is operated weekdays and weekend days, every 42 minutes, and utilizing 2 vehicles.

### Service Design Issues / Themes for Service Restructuring

One service scenario is recommended for Algiers and Algiers Point that responds to the need for balancing service levels with demand, providing greater service accessibility and connections with Westbank and JeT services, regularizing headways, and avoiding route duplication.

- Connections to JeT are limited to Route 108. Ridership patterns and origin-destination survey results show latent demand for increased and improved connections between Algiers Point/Algiers and Gretna/Terry town in Jefferson Parish.
- Service is spread over many different corridors in Algiers Point, although walkability, street connectivity, and neighborhood accessibility conditions allow for consolidation into fewer corridors that maximize travel opportunities.
- Service is also spread over many corridors in Algiers (Routes 108, 114, and 115), which maximizes coverage but results in infrequent service on all corridors and lower ridership.
- Service is highly duplicated in the south end of Algiers (Bennett Loop).

#### Timing of Recommendations

Algiers recommendations require JeT and RTA coming to agreement on revenue sharing on regional service.

Working out the details for such an agreement can typically take a year.

Implementation is programmed for 2014.

## **Service Recommendations**

Route-by-route service recommendations are described in the paragraphs below, summarized in Table 5-2, and illustrated in Figures 5-2 through 5-4.

### **Route 101 – Algiers Loop**

#### **Performance Summary**

- Route 101 connects the neighborhood of Algiers Point to the New Orleans CBD via the Crescent City Connection. Service is provided seven days a week.
- Weekday productivity is low at 15.3 boardings per revenue hour (FY 2010). Ridership is higher in the peak periods and is mostly comprised of residents commuting to the CBD to transfer to other routes.
- Route 101 duplicates small portions of Routes 102 and 114/115 between the CBD and Landry. In addition, the ferry between Canal Street and Algiers Point competes with Route 101 for riders. It should be noted that the ferry is potentially losing its funding and ceasing operations.

#### **Service Change**

- No changes are proposed for Route 101. It provides a necessary and direct connection between Algiers Point and the CBD.

### **Route 102 – General Meyer**

#### **Performance Summary**

- Route 102 connects Algiers with the New Orleans CBD via General Meyer Avenue and the Crescent City Connection. This route operates seven days a week.
- Weekday productivity is average at 21.4 boardings per revenue hour (FY 2010). Productivity is higher in the peak periods at approximately 43 boardings per revenue hour. Nearly three-quarters of daily ridership boards or alights in the CBD.
- Boarding activity is consistent throughout the route, though it generally increases closer to Algiers Point. As with Route 101, most riders transfer in the CBD to reach other destinations.
- Route 102's frequency is irregular, with a 36 minute frequency on weekdays.
- Passenger loads going into the CBD are high in the peak period, with over 40 passengers on board. Additional service is warranted.

#### **Service Change**

- Add a vehicle and increase service to operate a regular 30-minute headway throughout the day, instead of the irregular 36-minute that is provided today.
  - This irregular frequency is hurting line ridership by forcing all users to plan their trips in advance. The 30-minute service will provide a clock-face headway that is easy to memorize and make service more usable and accessible, this will surely result in a ridership increase along General Meyer.
- Use the extra time to extend the route and connect with Willy Terminal to allow for better connections and increased travel opportunities between Algiers and Jefferson Parish Westbank communities (Gretna, Terrytown, and Harvey).

- This will also increase capacity for trips toward the CBD from Wilty Terminal and adjacent neighborhoods.
- A fare agreement between RTA and JeT will be necessary to allow for travel on Route 102 between the CBD and Wilty, as currently the RTA fare is lower than the JeT fare between these points.
- The extension to Wilty will add 5 minutes of travel time to Route 102 passengers going to the CBD.
  - We believe this to be a reasonable trade-off for more frequent all-day service on a regular headway.
  - Transfer connections will improve for all passengers to both Westbank and New Orleans bound destinations.
  - Any ridership setbacks will be largely offset by better connections to other routes at Wilty, more service trips per hour and a more dependable service overall.

## **Route 108 – Algiers Local**

### **Performance Summary**

- Route 108 is a local route serving Algiers and does not connect directly to the New Orleans CBD. Weekday productivity on Route 108 is 14.6 boardings per revenue hour (FY 2010).
- The most productive portions of Route 108 are in the segments between Algiers Point and Wilty Terminal and from Wilty to the Delgado Community College Westbank Campus. Segments on Holliday Drive and MacArthur Boulevard are poor in comparison, boarding only 8 passengers per hour.
- Productivity is largely uniform throughout the day. This indicates that its predominant usage is not for work trips.
- The busiest stop is at the Wilty Terminal, where it connects with JeT routes. Nearly 40 percent of all Route 108 riders board or alight here, indicating high levels of transfer activity.

### **Service Change**

Three different restructuring options for this route are presented. They all have equivalent running times and proposed annual service hours

#### Option A

- Make Wilty and Algiers Point service more direct by reducing circulation within Algiers Point.
  - Shorten loop in Algiers Point and use Vallette/Verret to go in and out of the neighborhood, and concentrate transit service opportunities into a single corridor (together with Route 101).
  - Route 108 would require 30-minutes for a round trip from Wilty to Algiers Point.
- Truncate route at Delgado Community College (see Figure 5-3).
  - This will reduce operating costs on Route 108 by 50 percent and maintain connections between Algiers Point, Wilty, and Delgado CC Westbank Campus, which keeps the most productive piece of the route.
  - Operate a one-way loop via General Meyer, Holiday, and General de Gaulle to turn around the bus.
  - Route 108 would require 30-minutes for a round trip from Wilty to Delgado.

- Reinvest resources on Route 114 for more frequent service and regular headways.
  - Route 108's segment between Delgado CC and Bennett loop is largely duplicative of Routes 102 and 114.
- Time Route 108 with JeT Route W3 service at Wilty to provide seamless transfers throughout the day.

**Option B**

- Provide a more direct connection between Algiers Point, Delgado Community College, and Walker High School (see Figure 5-3).
  - Shorten loop in Algiers Point and use Vallette/Verret to go in and out of the neighborhood, and concentrate transit service opportunities into a single corridor.
  - Realign route to connect Algiers Point with Landry High School, Delgado CC, and Walker High School, ending route at Wilty Terminal.
  - This allows operating service bi-directionally between Wilty and Delgado College, instead of via a one-way loop, while maintaining connections between Algiers Point and Wilty.
- Time route with JeT Route W3 service at Wilty to provide seamless transfers throughout the day.
- As with Scenario 1, reinvest saved resources in Route 114 for more frequent service and regular headways.

**Option C**

- Make Wilty and Algiers Point service more direct by reducing circulation within Algiers Point.
  - Shorten loop in Algiers Point and use Vallette/Verret to go in and out of the neighborhood, and concentrate transit service opportunities into a single corridor.
- Realign route to connect Wilty Terminal with General de Gaulle (see Figure 5-4).
  - The extension of Route 102 into Wilty Terminal would provide a direct connection between Delgado College/Walker High School and JeT services at Wilty.
  - Route 108 would connect Algiers Point with JeT at Wilty, and with employment and retail destinations along General de Gaulle, between the Westbank Expressway and the Winn-Dixie on Holiday Drive.
  - This would also provide neighborhoods along General de Gaulle with direct access to Wilty.
- Saved resources would be reinvested on Route 114 for more frequent service and regular headways.

**Route 114/115 – General de Gaulle**

**Performance Summary**

- Route 114 connects the Bennett loop in south Algiers with the New Orleans CBD, via General De Gaulle.
- Route 115 connects the Bennett loop in south Algiers with the New Orleans CBD, via Tullis Drive and Behrman Highway.
- Weekday productivity is about average with 27.7 boardings per revenue hour (FY 2010). Productivity is fairly consistent throughout the route and the day.

- Ridership is heavily oriented towards New Orleans, with 81 percent of trips having either a boarding or alighting in the CBD.
- Route 115 operates as a variant of Route 114 via Tullis south of Brechtel Park, and provides direct service to the Walmart Supercenter on Behrman Highway.
- Routes 114 and 115 both operate every 42 minutes for a combined headway of 21 minutes along the segments in which they run together (Bennett loop, Garden Oaks Drive and Vespasian Boulevard).
- Capacity is a major issue for both routes in the AM peak direction, toward the CBD, with trips carrying loads over 60 passengers, indicating a need for more AM service.

### **Service Change**

- Extend all Route 114 trips to serve the Walmart Supercenter on Behrman Highway.
  - This change would allow for eliminating the segment of Route 115 running between Walmart and the Bennett loop via Tullis, which has low productivity.
  - The extension would add about 3-4 minutes of running time in each direction to Route 114 (assuming the bus can be turned around at the Walmart parking lot), for a total cycle time of 90 minutes.
- Reduce Route 114 headways from 42 to 30 minutes on weekdays and weekends.
  - Reallocate the second vehicle that was running on Route 108 (between Delgado CC and south Algiers) to Route 114, to provide a consistent 30-minute frequency from south Algiers (Bennett loop) to the New Orleans CBD.
- End Route 115 at the Walmart Supercenter (see Figure 5-3 and Figure 5-4).
  - This would allow operating the route at consistent 60-minute headway throughout the day, maintain seat capacity in the heaviest segment of the Route 114/115 combo (Garden Oaks/Vespasian), and utilize minimal resources by saving one vehicle.
  - Redeploy the saved vehicle to Route 102 to improve service frequency (every 30 minutes) and connect the General Meyer corridor with Wilty Terminal.

### **Service Resources Impacts**

The recommended scenarios improve frequency on corridors that warrant more service. Each alternative also looks to improve connectivity with JeT's Westbank service, to give Algiers residents more access to employment and shopping destinations. The tables below summarize levels of service proposed for each scenario – as compared to existing service, indicating peak vehicles required, number of one-way trips, and number of revenue hours provided.

As indicated in Table 5-2, the Algiers recommendations would result in a 1.5% increase in service hours compared to today. Costing figures are sketch level only and account for vehicles operating complete roundtrips from beginning to end of service. Actual scheduling and blocking of vehicles may reduce service hours required by up to 10%, and thus the costing of both Scenario 1 and Scenario 2 can be considered cost-neutral.

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Table 5-2 Algiers Service Changes

Weekday			Frequency				Proposed			Existing			Plat. Hours % Change
Route	Terminal 1	Terminal 2	Span	Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	Peak Vehicles	One Way Trips	Platform Hours	
101	Elk Place & Canal	Hendee & Eliza	5:00 - 22:00	60	60	60	1	34	4,415	1	34	4,415	0%
102	Elk Place & Canal	General Meyer & Bennett	5:30 - 22:00	30	30	60	3	58	11,811	2	50	7,827	51%
108	Canal St. Ferry	Three Options	6:00 - 19:30	60	60	60	1	26	3,514	2	26	7,120	-51%
114	Elk Place & Canal	Bennett & Berkley	5:00 - 21:30	30	30	50	3	59	11,938	2	42	7,658	56%
115	Elk Place & Canal	Walmart	5:30 - 18:00	60	60	60	1	24	3,175	2	42	7,684	-59%
Weekday Subtotals							9	201	34,853	9	194	34,705	0.4%

Saturday			Frequency				Proposed			Existing			Plat. Hours % Change
Route	Terminal 1	Terminal 2	Span	Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	Peak Vehicles	One Way Trips	Platform Hours	
101	Elk Place & Canal	Hendee & Eliza	5:00 - 22:00	--	60	60	1	34	904	1	34	904	0%
102	Elk Place & Canal	General Meyer & Bennett	6:00 - 22:00	--	45	90	2	37	1,508	1	26	848	78%
108	Canal St. Ferry	Three Options	7:30 - 18:30	--	60	60	1	22	615	1	10	614	0%
114	Elk Place & Canal	Bennett & Berkley	5:00 - 21:30	--	30	50	3	59	2,444	2	42	1,558	57%
115	Elk Place & Canal	Walmart	N/A	--	0	0	0	0	0	2	42	1,565	-100%
Saturday Subtotals							7	152	5,471	7	154	5,490	-0.3%

Sunday & Holidays			Frequency				Proposed			Existing			Plat. Hours % Change
Route	Terminal 1	Terminal 2	Span	Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	Peak Vehicles	One Way Trips	Platform Hours	
101	Elk Place & Canal	Hendee & Eliza	5:00 - 22:00	--	60	60	1	34	1,026	1	34	1,026	0%
102	Elk Place & Canal	General Meyer & Bennett	6:00 - 22:00	--	45	90	2	37	1,711	1	26	963	78%
114	Elk Place & Canal	Bennett & Berkley	5:00 - 21:30	--	30	50	3	59	2,773	2	42	1,768	57%
115	Elk Place & Canal	Walmart	N/A	--	0	0	0	0	0	2	42	1,776	-100%
Sunday Subtotals							6	130	5,510	6	144	5,532	-0.4%

Algiers Scenario Total									45,834			45,727	0.2%
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Figure 5-2 Algiers Service Changes – With Route 108 Option A

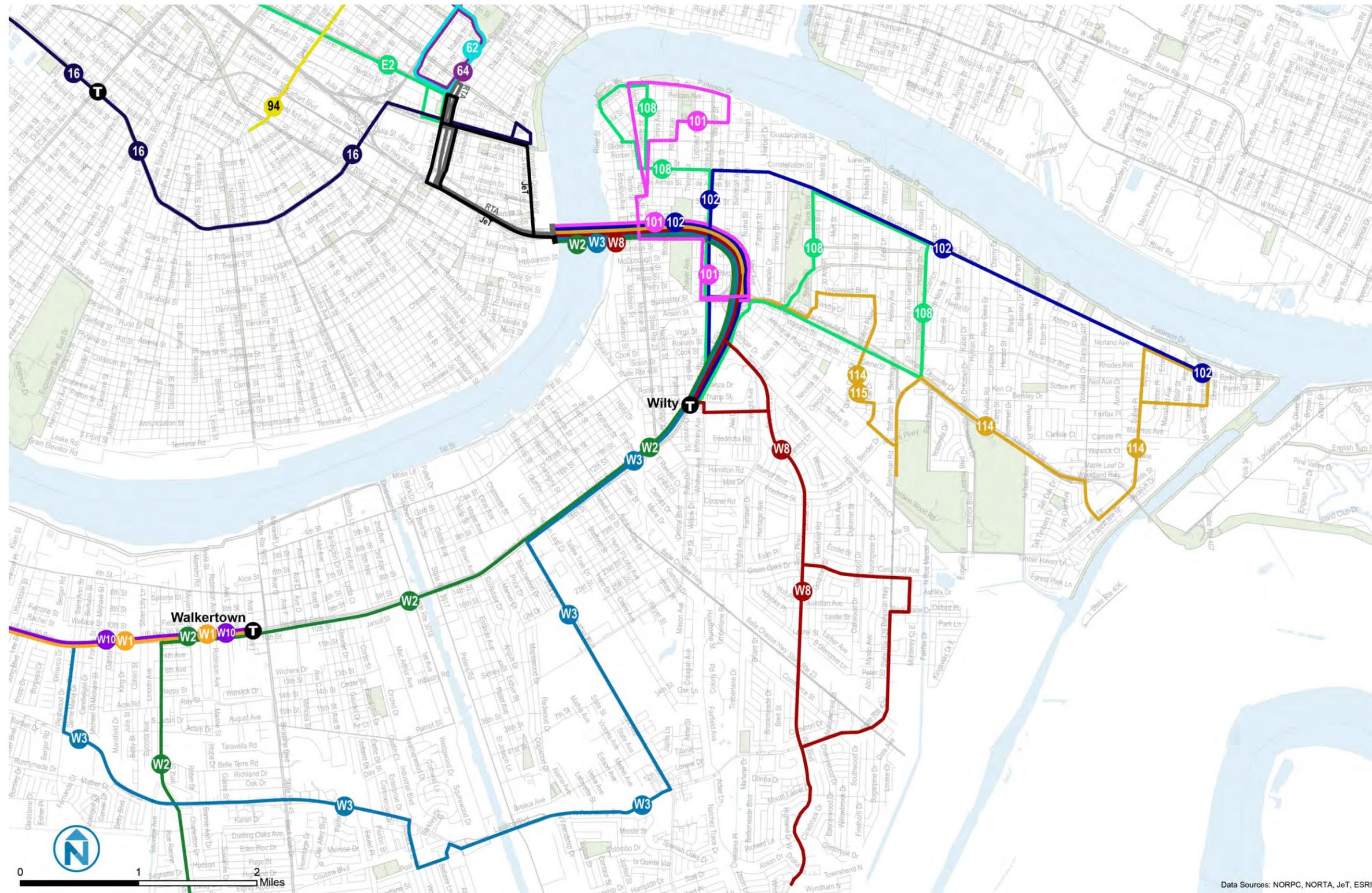


Figure 5-3 Algiers Service Changes – With Route 108 Option B

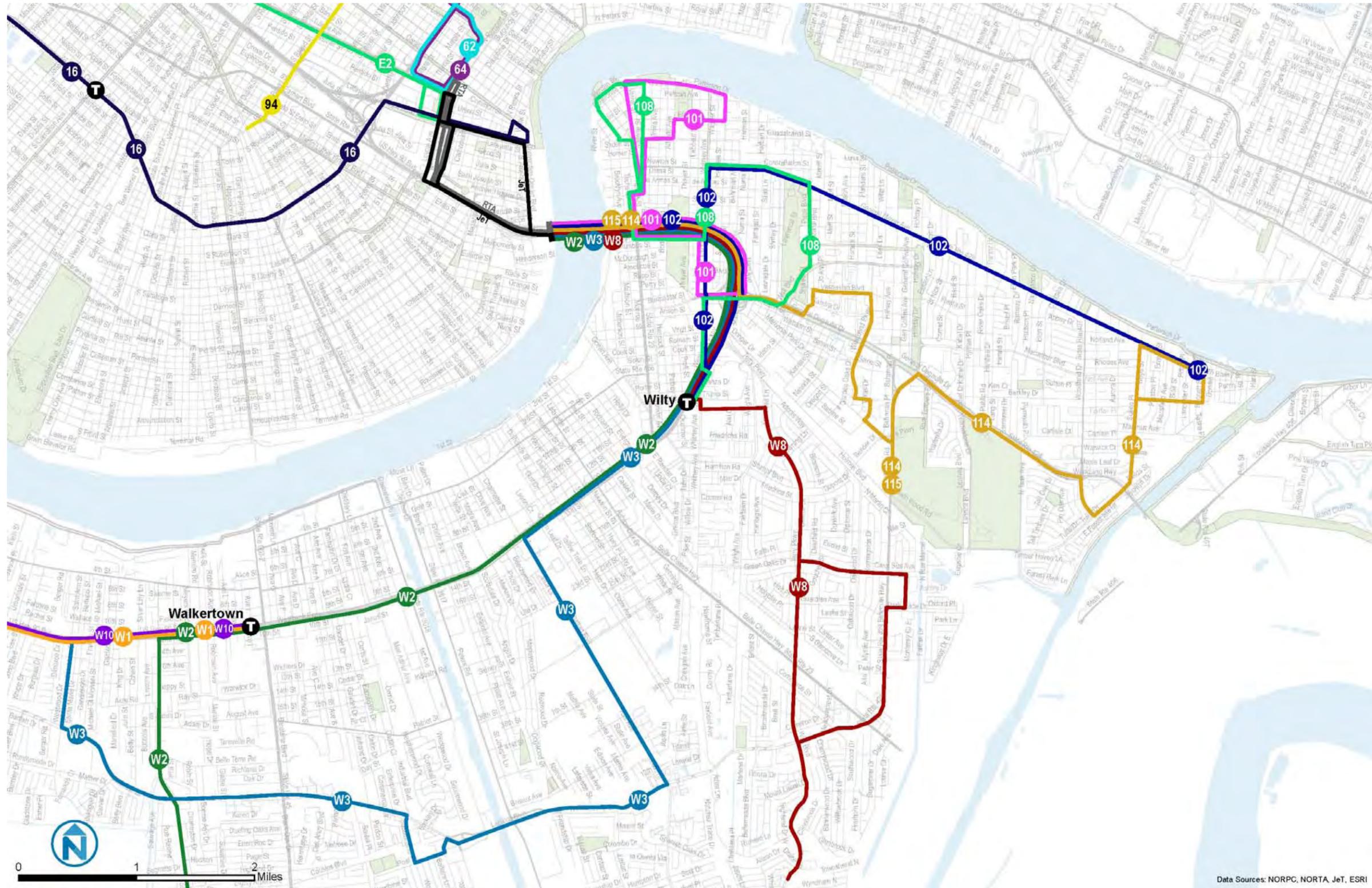
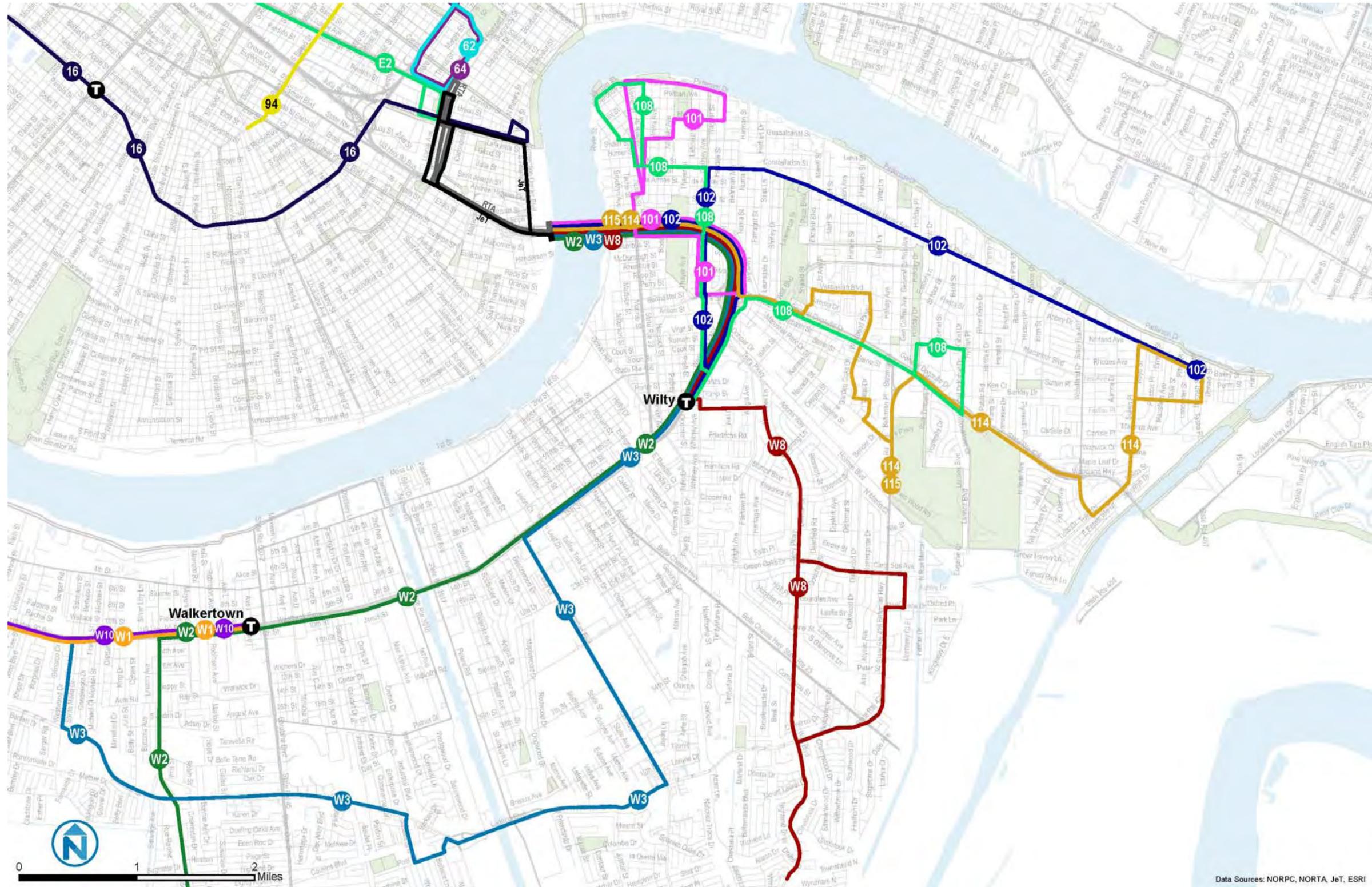


Figure 5-4 Algiers Service Changes – With Route 108 Option C



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## WESTBANK RECOMMENDATIONS

Five JeT routes provide service in the Westbank, including:

- **Route W1 – Avondale**
  - Providing connections between Avondale and Walkertown Terminal via Highway 90 and Westbank Expressway.
  - Service is operated weekdays only, every 69 minutes, and utilizing 1 vehicle.
- **Route W2 – Westbank Expressway**
  - Providing connections between Laffite-Larose Highway, the Westbank, and the New Orleans CBD, via the Westbank Expressway.
  - Service is operated weekdays and Saturdays, every 30 minutes in the peak on weekdays (utilizing 4 vehicles), and every 64 minutes off-peak and on Saturdays.
- **Route W3 – Lapalco**
  - Providing connections between Lapalco Boulevard, Manhattan Boulevard, Wilty Terminal and the New Orleans CBD.
  - Service is operated weekdays and Saturdays, every 30/40 minutes on weekdays (utilizing 4 vehicles), and every 64 minutes on Saturday.
- **Route W8 – Terrytown**
  - Providing connections between Oakdale Playground, Terrytown, and Wilty Terminal (throughout the day), and to the New Orleans CBD (during peak periods only).
  - Service is operated weekdays only, every 30 minutes in the peak (utilizing 3 vehicles), and every 60 minutes off-peak.
- **Route W10 – Huey P. Long**
  - Providing connections between Elmwood Park Boulevard in Eastbank with Westwego and the Walkertown Terminal via Huey P. Long Bridge.
  - Service is operated weekdays only, every 74 minutes, and utilizing 1 vehicle.

### Service Design Issues / Themes for Service Restructuring

One alternative service scenario is recommended for Westbank in coordination with recommendations in Algiers Point and Algiers. This scenario responds to a need for streamlining route alignments to reduce deviations, regularizing headways, and improving transfer connections at Walkertown and Wilty between JeT routes and between JeT and RTA. The recommendations also improve regional connectivity and travel opportunities for Westbank transit patrons.

- Most Westbank routes have irregular headways and low frequency service (less than hourly service), which create major inconveniences for riders using the service (they need to carry or memorize a schedule), but especially for making connections between routes.
- Transfers are extremely difficult during midday and Saturday, with routes operating at headways greater than 60 minutes.
  - In this environment, a missed connection means a long wait time for users and a great inconvenience.

- Origin-destination survey results show that many passengers have destinations outside of Westbank; thus, improving connectivity between routes and accessibility to the regional network are major design goals of service improvements.

## Service Recommendations

Route-by-route service recommendations are described in the paragraphs below, summarized in Table 5-3, and illustrated in Figure 5-5.

### W1 – Avondale

#### Performance Summary

- Route W1 productivity is low at 11.8 boardings per revenue hour (September 2011 ridecheck), and it is one of the least productive Westbank routes.
- Ridership patterns are commuter oriented with 83 percent of passengers transferring at the Walkertown Terminal, despite having a 69-minute headway that makes transfers to other routes difficult.
- Route W1 serves part of Westwego via the Louisiana loop that carries few passengers and is also served by Route W10.

#### Timing of Recommendations

Westbank recommendations should be timed to the opening of the Huey Long Bridge, so that all changes happen at the same time.

Implementation is programmed for mid-2013.

#### Service Change Recommendations

- Cut the Louisiana loop to reduce travel time and duplication with Route W10, and operate at a 60-minute frequency between Avondale and Walkertown Terminal.
  - This would facilitate creating timed connections with other services at Walkertown (Routes W10 and W2).
  - It would also reduce travel time from Waggaman/Avondale to Walkertown and maintain a trunk service on Westbank Expressway (west of Walkertown).

### W2 – Westbank Expressway

#### Performance Summary

- Weekday productivity averages 25.2 boardings per revenue hour (September 2011 ridecheck). Ridership patterns are commute oriented going to the New Orleans CBD.
- The highest ridership segments are along the Westbank Expressway and in New Orleans. The highest ridership stops are at Walkertown and Wilty, indicating transfer and park-and-ride activity.
- The route tail between Walkertown and Estelle (on Laffite-Larose Highway) has very low ridership and productivity. This segment also features a mid-route one-directional loop, which depresses ridership and consumes time.
- Over 40% of weekday trips operate more than 5 minutes late.

#### Service Change Recommendations

- Restructure low productivity service west of Walkertown to improve schedule cycle and transfer opportunities at Walkertown.

- Eliminate the one-way loop and provide bi-directional service on Ames Boulevard between Walkertown and Barataria. The route should continue bi-directional service to Laffite-Larose Highway to the existing turnaround there.
- This change will increase accessibility to residential neighborhoods around Ames Boulevard, and reduce running time sufficiently to operate a 60-minute frequency during the midday and on Saturday.
- A regular midday and Saturday frequency will facilitate transfers at Walkertown to Routes W1 and W10, while providing a regular headway along Westbank Expressway to the New Orleans CBD.

### **W3 – Lapalco**

#### **Performance Summary**

- Productivity is good throughout the route at close to 30 boardings per revenue hour. Ridership patterns are mostly commute oriented, although the midday period is relatively strong. Saturday productivity is also good with heavy loads in the morning trips to the CBD, indicating a need for more service.
- On-time performance is a major issue with more than 50% of trips more than 5 minutes late. This is most prevalent during peak periods inbound.
- Heavy loads in the PM peak, at Wilty going outbound, suggest the need for more service trips.

#### **Service Change Recommendations**

- Reroute west end of route to Westbank Expressway via Westwood Drive
  - This will reduce travel time and allow operating consistent headways in both the peak and off-peak periods.
  - Headways remain the same at 30 minutes during peak and at 40 minutes off-peak. However, ending at Westwood allows operating a regular 60-minute headway during evenings and on Saturday.
  - Connections to the Westbank Expressway will be enhanced by allowing riders to transfer to and from Routes W1 and W10.
  - Users on Victory Drive would still have service on Westbank Expressway to Walkertown Terminal or the Eastbank.
  - This recommendation assumes the bus can be turnaround on the Westbank Expressway at Jung Boulevard.

### **W8 – Terrytown**

#### **Performance Summary**

- Weekday productivity is average at 22.0 boardings per revenue hour (September 2011 ridecheck). Productivity varies little during daytime hours of operation, but falls significantly after 6:00 PM, showing a marked commute oriented pattern.
- Route W8 operates a large one-directional loop in Terrytown, forcing users to make long out-of-direction trips. Route productivity is low in the loop as a result.
- Almost half of all ridership has an origin or destination in the New Orleans CBD, although only peak trips go to the CBD. This suggests that by terminating at Wilty Terminal and forcing transfers in the midday, JeT is depressing the ridership potential of Route W8.

- Although Route W8 runs trips to the CBD every 30 minutes in the peak, the route cannot cycle these trips back into the schedule and maintain an even headway. During the midday and off-peak, trips are mostly early, while during the peak they are mostly late. At-grade railroad crossings at Belle Chasse Highway and Terry Parkway contribute to Route W8's on-time difficulties.

### **Service Change Recommendations**

#### Immediate Recommendations:

- No changes are recommended.
  - Route W8 has sufficient running time to operate bi-directionally via Wall Boulevard, Behrman Highway, Carol Sue Avenue, and Terry Parkway to the Wilty Terminal during the midday.
  - However, this alignment could not be operated during extended trips to the CBD in the peaks, because of insufficient running time.
  - Shortening the route in Terrytown or ending all trips at Wilty Terminal, however, does not seem to be a logical solution at this time, in the absence of an integrated fare structure between JeT and RTA, and given the strong commute patterns and passenger loads.
  - The best short term solution may be identifying a fix for late running problems in the New Orleans CBD, such as shortening the circulation loop or getting a transit priority treatment to avoid congestion and get back on the Crescent City Connection faster.
  - Until a solution can be identified, keep running Route W8 as is.

#### Future Considerations:

- Route W8 has potential for being extended to Manhattan Blvd via Harvey Blvd in the future, as it is mostly designed to serve a commuter market to downtown. However implementing this route extension would require additional resources (i.e., hours and vehicles) during peak periods to maintain 30-minute frequency service to and from the CBD. This change should be considered in the future, but there are other service investment priorities elsewhere in the JeT system that would provide higher ridership and revenue.

## **W10 – Huey P. Long**

### **Performance Summary**

- Route W10 productivity is low at 11.8 boardings per revenue hour (September 2011 ridecheck). Productivity is highest in the morning peak, indicating a strong commute pattern toward Walkertown (Route W2) and the Eastbank. Approximately one-third of ridership has an origin or destination on the Eastbank.
- On-time performance is very poor with 83% of trips late, mostly due to construction on the Huey P. Long Bridge.
- This level of unreliability is a deterrent to attracting ridership. The combination of unreliability and the 74-minute headway makes transferring to other routes difficult.

### **Service Change Recommendations**

- Combine Routes W10 and E8 into one route.

- Routes W10 and E8 run together in Elmwood, both wasting time on a one-way loop. Combining the two routes will reduce running time in Elmwood and allow interlining them to operate every 60 minutes.
- Combining the routes will enhance access to regional jobs by reducing the number of transfers between very infrequent routes, and will allow riders to reach a higher number of potential transit connections, from the East Jefferson Hospital on Esplanade Avenue to the Walkertown Terminal in the Westbank Expressway.
- This recommendation should only be implemented after the Huey P. Long bridge construction is completed so service can operate reliably.

## **Service Resources Impacts**

The table below summarizes proposed levels of service – as compared to existing service - indicating peak vehicles required, number of one-way trips, and number of revenue hours provided.

Proportionally, service changes result in 750 additional service hours per year. This is mostly due to the increase in one-way trips that result from more regular frequencies, even though peak vehicle requirements remain constant.

Costing figures are sketch level only and account for vehicles operating complete roundtrips from the beginning to the end of service. Actual scheduling and blocking of vehicles may reduce service hours required by up to 10%, and thus the costing can be considered cost-neutral.

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Table 5-3 Westbank Service Changes

Weekday			Frequency				Proposed			Existing			Plat. Hours % Change
			Route	Terminal 1	Terminal 2	Span	Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	
W1	Walkertown	Capitol & Cathedral	6:00 - 20:00	60	60	60	1	28	3,708	1	24	3,670	1%
W2	E Ames Blvd & Carrie Ln	Loyola & Tulane	6:00 - 21:30	30	60	90	4	40	10,795	4	38	10,414	4%
W3	Westwood & Westbank Expy	Loyola & Tulane	5:30 - 22:30	30	40	60	4	43	11,599	4	39	11,079	5%
W8	Wall & Harvey	Loyola & Tulane	5:30 - 22:30	33	60	90	3	40	6,731	3	40	6,731	0%
W10/E8	Walkertown	East Jefferson Hospital	5:30 - 19:00	60	60	60	2	25	6,570	2	22	6,761	-3%
Weekday Subtotals							14	176	39,404	14	163	38,655	1.9%

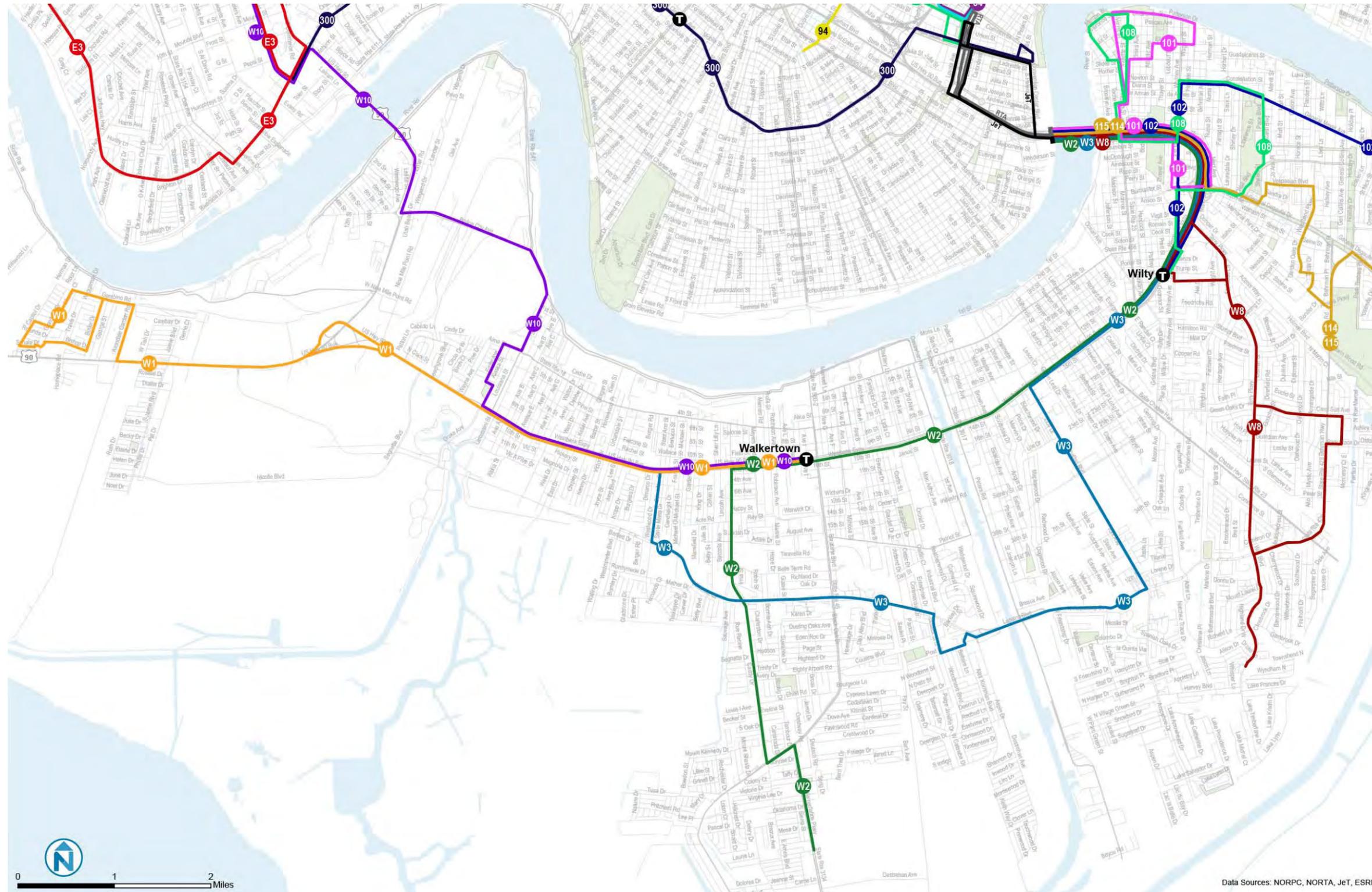
  

Saturday			Frequency				Proposed			Existing			Plat. Hours % Change
			Route	Terminal 1	Terminal 2	Span	Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	
W2	E Ames Blvd & Carrie Ln	Loyola & Tulane	7:00 - 21:30	--	60	90	2	25	1,300	2	25	1,295	0%
W3	Westwood & Westbank Expy	Loyola & Tulane	7:00 - 22:30	--	60	120	2	26	1,407	2	24	1,427	-1%
Saturday Subtotals							4	51	2,707	4	49	2,722	-0.5%

Westbank Scenario Total									42,111		41,377	1.8%
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Figure 5-5 Westbank Service Changes



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## EASTBANK & KENNER RECOMMENDATIONS

Six JeT routes and one RTA route provide service in Eastbank and Kenner, including:

- **Route 201 – Kenner Loop**
  - Providing connections between Williams Boulevard, Esplanade Mall, Walmart, and Pontchartrain Center.
  - Service is operated weekdays and weekend days, every 49 minutes, and utilizing 2 vehicles.
- **Route E1 – Veterans**
  - Providing connections along Veterans Memorial Boulevard between Kenner and Cemeteries/City Park in New Orleans.
  - Service is operated weekdays and Saturdays, every 24 minutes in the peak and 30 minutes off peak, and utilizing 4 vehicles.
- **Route E2 – Airport**
  - Providing connections between Louis Armstrong International Airport and the New Orleans CBD via Airline Drive. Service does not extend to the CBD on evenings and weekends, but terminates at Carrollton.
  - Service is operated weekdays and weekend days, every 25 minutes in the peak and every 36 minutes off peak, and utilizing 4 vehicles.
- **Route E3 – Kenner Local**
  - Providing connections along Jefferson Highway between Coleman Place, Kenner and Carrollton & Claiborne in New Orleans.
  - Service is operated weekdays and weekend days, every 20 minutes in the peak and every 30 minutes off peak, and utilizing 4 vehicles.
- **Route E4 – Metairie Road**
  - Providing connections along Metairie Road between Severn and Cemeteries/City Park in New Orleans.
  - Service is operated weekdays only, every 40 minutes, and utilizing 1 vehicle.
- **Route E5 – Causeway**
  - Providing connections between the East Jefferson Hospital on Esplanade Avenue and Jefferson Highway via Causeway and Severn.
  - Service is operated weekdays and Saturdays, every 30 minutes in the peak and every 60 minutes off peak, and utilizing 2 vehicles.
- **Route E8 – Clearview**
  - Providing connections between the East Jefferson Hospital, Clearview Mall, Jefferson Parish Library, and Elmwood via Clearview Parkway.
  - Service is operated weekdays only, every 66-70 minutes, and utilizing 1 vehicle.

### Service Design Issues / Themes for Service Restructuring

One service scenario is recommended for Eastbank and Kenner. Suggested service changes respond to a need for integrating Kenner service with the regional network, balancing service levels with demand, regularizing headways, avoiding route duplication, and facilitating transfers and connections.

- A large percentage of Eastbank riders are traveling to/from New Orleans, and thus rely on timely connections between JeT routes and on transfers with RTA service.
- Most Eastbank routes have irregular headways that are very inconvenient for riders, because they need to carry or memorize a schedule, but worse they make transfers difficult and time consuming.
- Several route segments (W3 and 201) have higher levels of service than ridership warrants. This creates inefficiency in the system.
- Service in Kenner (Route 201) is not well integrated into the regional network and travel market. Completing a trip outside Kenner requires a transfer between RTA and JeT, and paying two full fares because they have different fare structures.
- Also, there is route duplication between JeT and RTA along Claiborne. Most Route E3 riders going to New Orleans get off at Carrollton to transfer to either Route 16 – Claiborne or Route 39 – Tulane. Route E2 duplicates Route 39 between Carrollton and the New Orleans CBD.

## Service Recommendations

Route-by-route service recommendations are described in the paragraphs below, summarized in Table 5-5 and illustrated in Figure 5-7.

### Route 201 – Kenner Loop

#### Performance Summary

- Weekday productivity is generally low at 17.4 boardings per hour (FY 2010). The most productive segment is the direct service on Williams Boulevard that provides a direct connection to Routes E1, E2, and E3.
- Ridership on 31st Street is very poor due to its isolated location and the resultant one-way service that requires long, out-of-direction travel in at least one direction.
- Route 201 operates on a very circuitous loop north of 32<sup>nd</sup> Street & Williams Boulevard, forcing many long and out-of-direction trips.
- This, in addition to irregular headways and paying an entire fare to transfers to other routes, is a major barrier for both existing and potential riders.

#### Service Change Recommendations

- Eliminate Route 201. Integrate Route 201 with the JeT system to better serve regional trips to Metairie and New Orleans. Route 201's existing alignment will be covered by an extended Route E1 and an extended Route E3.
  - Extend Route E1 from its current terminus at Williams Boulevard to Loyola Drive, serve Ochsner Hospital in Kenner and the Walmart, and continue on W. Esplanade Avenue and north on Williams Boulevard to end at the Pontchartrain Center (see E1 changes below). Route E1 will provide more frequent service to the highest ridership points on Route 201 than currently exists.
  - Extend Route E3 north on Williams Boulevard, west on 32<sup>nd</sup> and 31<sup>st</sup> Streets, north on Loyola Drive (also serving the Walmart Supercenter) and north on W. Loyola to complete the current Joe Yenni Boulevard loop (see Route E3 changes below).

### Timing of Recommendations

Eastbank recommendations require JeT and RTA coming to an agreement on revenue sharing on regional services.

Working out the details for such an agreement can typically take a year.

Implementation is programmed for 2014.

- E1 and E3 will be improved by extending them into Kenner, because it will eliminate a major access-to-service barrier and reduce travel time and cost (i.e., reducing the need to transfer and pay two separate fares).
- The on-board passenger survey origin-destination analysis shows a high number of trips being made between Kenner and other Eastbank areas such as Metairie, despite the transfer and travel cost barriers imposed by RTA and JeT. Eliminating these barriers will most likely lead to a major boost in transit trips and ridership.

## **E1 – Veterans**

### **Performance Summary**

- Weekday productivity is high at 43.9 boardings per revenue hour (September 2011 ridecheck). Productivity is consistent throughout the day and sustained over the weekend, indicating a predominance of local and non-work oriented trips along the route, and presence of latent demand.
- The route is more productive in the segment between Cemeteries/City Park and Clearview Parkway. More than half of daily ridership is oriented to Cemeteries. RTA ridership numbers suggest the connection with the Canal Streetcar is the predominant movement.
- Weekday on-time performance is good with almost 70 percent of trips arriving on time, and with early trips being more common than late trips. Afternoon peak travel times on Veterans are longer than during other times due to traffic.

### **Service Change Recommendations**

- Extend route into Kenner to replace most of Route 201 service.
  - Continue Route E1 west along Veterans Memorial Boulevard, north on Loyola Drive (serving the Walmart Supercenter), east on W. Esplanade Avenue (serving the Esplanade Mall), and north on Williams Boulevard to end at the Pontchartrain Center.
  - This change will connect the biggest Kenner destinations with more frequent service to New Orleans. It will also reduce transfers and reduce the need to pay a double fare for residents of Kenner using Route 201 to access Route E1 for trips to Metairie.
- Route E1 service frequency and span of service will remain the same.
  - The portion of Route 201 absorbed by Route E1 will get an increase in service frequency from 48 minutes to 30 minutes. This increase is justified by ridership patterns in the north end of Williams Boulevard and by origin-destination survey results.
  - Weekend service frequency on Route E1 should remain at today's service levels.

## **E2 – Airport**

### **Performance Summary**

- Weekday productivity is good at 28.2 boardings per revenue hour (September 2011 ridecheck). Productivity is consistent throughout the day and along the entire route.
- Seventy-five percent of daily ridership has an origin or destination in New Orleans, transferring to or from other RTA routes. The late evening and weekend terminus at Carrollton & Tulane depress ridership potential, especially on weekends, forcing riders to pay a second fare to continue their trip.

- Route E2's schedule is inconsistent during peak periods, varying between 25 and 32 minutes. Midday headways of 36 minutes also make transfers difficult.
- Route E2 has an on-time performance issue on weekdays. Outbound trips in the AM period need five more minutes to stay on-time.

#### **Service Change Recommendations**

- No alignment or headway changes are recommended at this time.
- However, it is recommended to make service faster and express type along Tulane Avenue in New Orleans:
  - Operating a limited stop service in both directions along Tulane Avenue.
  - Establishing stops every 0.5 mile at Carrollton, Jefferson, Davis, Broad, Galvez, Claiborne, LaSalle, and Loyola.
  - Coordinating schedules with Route 39. This would provide higher frequency along the corridor.
  - Making these changes would allow Route 39 to cater to local trip needs while Route E2 provides limited-stop service designed to serve longer "regional" trips.
  - The changes would also speed up operation and reduce running time thus helping with on-time performance.
- When additional funds become available, improving service on Route E2 should be one of the top investment priorities in the system, as illustrated in the Latent Demand Analysis chapter at the end of this report. Potential enhancements could include improved frequencies and extending weekend and evening service to the CBD.
  - Extending evening trips to end in the New Orleans CBD would cost about \$150,000 annually.
  - Extending weekend trips to the CBD would cost about \$300,000 annually.

### **E3 – Kenner Local**

#### **Performance Summary**

- Weekday productivity is good at 27.4 boardings per revenue hour (September 2011 ridecheck). Productivity is consistent throughout the day.
- More than half of Route E3's ridership has an origin or destination within New Orleans. RTA ridership numbers suggest transfers are common to Route 16 – Claiborne and Route 39 – Tulane.
- The predominant movement on Route E3 is between RTA service and Elmwood. Productivity west of Elmwood is less than half of the remaining route.
- Some trips are experiencing delays and late running on weekdays, which can be attributed to several at-grade rail crossings.

#### **Service Change Recommendations**

- Restructure route to better match demand levels with service supply.
- Create a new Regional Route 300 that combines Route E3 service between New Orleans and Elmwood with Route 16 in New Orleans.

- This will provide a one-seat ride from the New Orleans CBD to the employment opportunities in Elmwood Park and to Ochsner Medical Center, and will eliminate a forced transfer between Route E3 and Route 16 at the highest load point in the corridor, Claiborne and Carrollton.
- Elmwood appears as a natural breakpoint along the corridor from a transit demand perspective, and is also the point at which a change in service frequency is needed to provide service most efficiently.
- The new Regional Route 300 would operate at the same frequencies as are currently operated on Route 16.
  - The route could be operated by either JeT or RTA, or both. The important element is that a funding and revenue sharing agreement be worked out that includes a transfer agreement to minimize the transfer penalty between the systems.
  - The route would also facilitate transfers for New Orleans residents to Routes E8, W10, and E5, by reducing the need for multiple transfers.
- Route E3 will operate west of Elmwood and into Kenner, replacing portions of Route 201.
  - The revised E3 route would go north on Williams Boulevard, west on 32<sup>nd</sup> and 31<sup>st</sup> Streets, north on Loyola Drive (serving the Walmart Supercenter) and north on W. Loyola to complete the current Joe Yenni Boulevard loop.
  - Service frequency would operate hourly on weekdays and weekends.
  - Kenner residents would now have a one-seat ride to employment opportunities in Elmwood Park. They would also have a one-transfer ride to the Westbank.
- Eliminate the segment of Route E3 running between Williams Boulevard and the St. Charles Parish border because of low ridership. Approximately 40 passengers would be negatively affected by this change.
- Saturday evening and Sunday service would operate every 120 minutes.

#### **E4 – Metairie**

##### **Performance Summary**

- Weekday productivity is low at 10.8 boardings per revenue hour (September 2011 ridership counts).
- The route is short and only 3.8 miles long, thus its predominant ridership pattern is taking New Orleans residents to Metairie in the morning and back in the afternoon.
- The highest boarding/alighting activity locations are at the route termini, suggesting that transfers are common to other routes.
- Route E4 operates on an irregular 40-minute headway, which makes transfers to other routes more difficult.

##### **Service Change Recommendations**

- No service changes are proposed to this route at this time.
- This scenario proposes that RTA operates Route E4 instead of JeT so that the hours, miles, and passenger numbers of RTA and JeT services are approximately equal as a result of the recommended service changes (i.e., changes to Route E3 and Route 16). More detail is provided in the Service Resource Impacts section below.

## **E5 – Causeway**

### **Performance Summary**

- Weekday productivity is relatively low at 20.0 boardings per revenue hour (September 2011 ridecheck).
- Productivity is consistent throughout the route and the day. The highest ridership stops are found at both ends – East Jefferson Hospital and Jefferson Highway, and at transfer points with Route E1 – Veterans.
- Route E5 features a mid-route couplet operation in Metairie between Airline/Severn and West Napoleon/Causeway, with northbound buses operating via Causeway, and southbound buses operating via Severn, three blocks west of Causeway (or 0.25 miles). This loop makes access difficult, if not impossible, for neighborhoods east of Causeway.
- Route E5 operates 50-minute headways on Saturdays, which makes transfers to other routes more difficult due to the irregular times.

### **Service Change Recommendations**

- No changes are proposed to this route at this time.

## **E8 – Clearview**

### **Performance Summary**

- Weekday productivity is low at 10.9 boardings per revenue hour (September 2011 ridecheck). Productivity is high during the AM peak and low during the PM peak.
- The highest ridership stops are at Clearview Parkway & Airline Drive (where it connects with E2) and at East Jefferson General Hospital, which suggests mostly midday activity along the route.
- The route features a mid-route deviation in Metairie, in which northbound trips operate via W. Napoleon. Southbound trips stay on Clearview Parkway, running over the interchange with I-10, and thus it is virtually inaccessible to adjacent trip generators such as the Clearview Mall.
- Route E8 operates an irregular 66-69 minute schedule that is extremely difficult for passengers to memorize, with varying headways between trips that limit ease of customer use.
- Northbound trips arriving to East Jefferson Hospital are generally late, despite on-time arrivals at Clearview & Airline. This indicates insufficient time built into the schedule to accommodate the W. Napoleon deviation.

### **Service Change Recommendations**

Combine Routes E8 and W10 into one route:

- Routes E8 and W10 both end in Elmwood and loop around the industrial area. They also run inconsistent schedules that are close to 60-minute headway.
- Combining the routes will reduce circulation and running time in Elmwood and allow operating as one single route every 60 minutes.
  - Currently, Route E8 takes 20-25 minutes from the East Jefferson Hospital to the Yenni Building, while Route W10 takes 30-35 minutes. The combined routes should be designed

- to consume 55 minutes of running time and 5 minutes of recovery time. This can be accomplished by reducing circulation through the Elmwood Park area.
- The estimated cycle time for the route will be 120 minutes. Two vehicles will provide 60 minute frequency, which is comparable to today’s service level. Current demand levels justify this modification and more efficient allocation of resources.
  - The saved time in the Elmwood area can be reallocated throughout the route, adding more time to the schedule and improving on-time performance.
  - This change will enhance access to regional jobs by reducing the number of transfers between very infrequent routes, and will allow riders to make a higher number of potential transit connections, from the East Jefferson Hospital in Esplanade Avenue to the Walkertown Terminal in the Westbank Expressway.
  - Implement after the Huey P. Long bridge construction is complete, so that service can be operated reliably.

## **Service Resources Impacts**

Table 5-4 below summarizes levels of service proposed for the recommended scenario – as compared to existing service, indicating peak vehicles required, number of one-way trips, and number of revenue hours provided.

Overall, service changes would result in a slightly lower number of service hours for weekdays (-1.2%), but a higher number of service hours for weekends (increases of 10.5 and 15.7 % respectively). Much of this is due to the increase in one-way trips that results from more regular frequencies, even though peak vehicle requirements remain constant. As indicated in Table 5-4, the service changes would result in 800 additional service hours per year, for RTA and JeT combined, for a 1.1% increase in service. Costing figures are sketch level only, and thus the costing of service recommendations can be considered cost-neutral on an overall basis.

However, the service changes would not be cost neutral on an individual system basis if JeT operated all proposed JeT routes (E1, E2, E3, E4, E5, E8) and RTA operated the new Regional Route 300, as JeT would have higher costs than today and RTA would have lower costs.

If RTA were the only agency to operate Regional Route 300, it is proposed that RTA take over the operation of Route E4 to equalize the costs. As shown in Tables 5-5, 5-6 and 5-7, this would result in JeT operating essentially the same number of hours as today, while RTA would have an increase of about 800 hours annually. This makes sense from a regional perspective, because Route E4 is closer to RTA’s service area and operating base than Route 201, and there are opportunities to interline it with another route at Cemeteries. RTA will also save on deadheading and supervisory costs by operating Route E4 instead of Route 201.

Today, Route 201 has about 500 weekday boardings, Route E4 has about 100 weekday boardings, and the segment of E3 that RTA would take over from JeT has about 800 weekday boardings. Thus, under this scenario, JeT would have a net loss of about 400 weekday riders. However, the improvements to service in Kenner will likely generate more riders and partially offset the potential ridership loss.

## Benefits of Restructuring Eastbank Service

### ***Regional Connectivity to Employment Areas***

These recommendations provide direct access to more jobs. New Orleans and Kenner residents can now access jobs in Elmwood with a one-seat ride. In addition, Kenner residents can more easily access employment areas on Veterans Boulevard.

### ***Less Transfers between Bus Routes***

Westbank residents can access Veterans Boulevard and East Jefferson General Hospital with a one-seat ride. Kenner residents can get to New Orleans without having to transfer. New Orleans residents can access Ochsner Medical Center on Jefferson Highway without having to transfer.

### ***Kenner Mobility Dramatically Improved***

- **Fares** – Currently, passengers traveling between Kenner and New Orleans could pay more than two fares. With Route E1 extended into Kenner, only one fare is required to make this trip.
- **Less Transfers** – Thirty-five percent of Route 201 riders transfer to JeT now. The need to transfer as often would be reduced, reducing travel times for passengers heading to or from Kenner.
- **Directness of Service** – Route 201, the Kenner Loop, is circuitous and forces riders to take long, out-of-direction trips. The revised service in Kenner would provide bi-directional, direct trips, also reducing travel times.
- **Regular Headways** – Most Kenner residents would have more frequent bus service than they have today.

### ***Ridership on both JeT and RTA will Increase***

Improving service directness and connections to where people want to go, reducing the need to transfer, and reducing in-vehicle travel time will all provide incentives for people to ride transit more often.

***Using the same resources as today, Eastbank services will carry more passengers.***

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Table 5-4 Eastbank Service Changes

Weekday			Frequency				Proposed			Existing			Plat. Hours % Change
Route	Terminal 1	Terminal 2	Span	Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	Peak Vehicles	One Way Trips	Platform Hours	
E1	Pontchartrain Center	City Park/Cemeteries	5:40 - 22:20	30	30	70	5	56	18,542	4	64	12,992	43%
E2	Louis Armstrong International	Tulane & Loyola	5:20 - 22:20	26	36	45	4	58	12,598	4	58	12,598	0%
E3	Joe Yenni & W Loyola	Clearview Pkwy/H. L. Bridge	5:20 - 20:30	60	60	60	2	31	8,297	4	66	12,865	-36%
16	Carrollton/S. Claiborne	Convention Center	5:45 - 22:40	0	0	0	0	0	0	2	48	6,350	100%
E4	Severn	City Park/Cemeteries	6:20 - 19:00	40	40	40	1	38	3,344	1	38	3,344	0%
E5	East Jefferson Hospital	Causeway & Jefferson Hwy	6:30 - 19:20	30	60	30	2	38	5,063	2	38	5,063	0%
300	Clearview Pkwy/H. L. Bridge	Convention Center	5:45 - 22:40	30	60	60	4	48	12,700	0	0	0	100%
201	Williams Blvd	Esplanade Mall	5:30 - 20:00	0	0	0	0	0	0	2	39	8,060	-100%
Weekday Subtotals							18	269	60,545	19	351	61,273	-1.2%

Saturday			Frequency				Proposed			Existing			Plat. Hours % Change
Route	Terminal 1	Terminal 2	Span	Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	Peak Vehicles	One Way Trips	Platform Hours	
E1	Pontchartrain Center	City Park/Cemeteries	6:10 - 22:20	--	36	70	4	45	2,912	2	40	1,514	92%
E2	Louis Armstrong International	Carrollton & Tulane	6:20 - 22:20	--	32	64	2	50	1,407	2	50	1,407	0%
E3	Joe Yenni & W Loyola	Clearview Pkwy/H. L. Bridge	6:00 - 20:30	--	60	120	2	28	1,543	2	40	1,443	7%
16	Carrollton/S. Claiborne	Convention Center	5:45 - 22:40	--	0	0	0	0	0	1	34	910	89%
E5	East Jefferson Hospital	Causeway & Jefferson Hwy	7:00 - 19:30	--	50	50	1	30	681	1	30	681	0%
300	Clearview Pkwy/H. L. Bridge	Convention Center	5:45 - 22:40	--	60	60	2	33	1,716	0	0	0	100%
201	Williams Blvd	Esplanade Mall	6:00 - 20:00	--	0	0	0	0	0	2	32	1,517	-100%
Saturday Subtotals							11	186	8,259	10	226	7,472	10.5%

Sunday & Holidays			Frequency				Proposed			Existing			Plat. Hours % Change
Route	Terminal 1	Terminal 2	Span	Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	Peak Vehicles	One Way Trips	Platform Hours	
E1	Pontchartrain Center	City Park/Cemeteries	7:20 - 22:20	--	70	70	2	24	1,770	1	24	914	94%
E2	Louis Armstrong International	Carrollton & Tulane	7:30 - 22:20	--	64	64	1	28	893	1	28	893	0%
E3	Joe Yenni & W Loyola	Clearview Pkwy/H. L. Bridge	7:40 - 20:30	--	120	120	1	13	816	1	24	865	-6%
16	Carrollton/S. Claiborne	Convention Center	5:45 - 22:40	--	0	0	0	0	0	1	34	1,033	77%
300	Clearview Pkwy/H. L. Bridge	Convention Center	5:45 - 22:40	--	60	60	2	33	1,829	0	0	0	100%
201	Williams Blvd	Esplanade Mall	7:00 - 20:00	--	0	0	0	0	0	1	20	883	-100%
Sunday Subtotals							6	98	5,308	5	130	4,587	15.7%

Eastbank Total									74,113	73,333		1.1%
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**Table 5-5 Eastbank Service Changes – RTA Hours**

Weekday			Existing	Proposed	
Route	Terminal 1	Terminal 2	Platform Hours	Platform Hours	Plat. Hours % Change
16	Carrollton/S. Claiborne	Convention Center	6,350	0	-100%
201	Williams Blvd	Esplanade Mall	8,060	0	-100%
Weekday Subtotals			14,410	0	-100%

Saturday			Existing	Proposed	
Route	Terminal 1	Terminal 2	Platform Hours	Platform Hours	Plat. Hours % Change
16	Carrollton/S. Claiborne	Convention Center	910	0	-100%
201	Williams Blvd	Esplanade Mall	1,517	0	-100%
Saturday Subtotals			2,427	0	-100%

Sunday & Holidays			Existing	Proposed	
Route	Terminal 1	Terminal 2	Platform Hours	Platform Hours	Plat. Hours % Change
16	Carrollton/S. Claiborne	Convention Center	1,033	0	-100%
201	Williams Blvd	Esplanade Mall	883	0	-100%
Sunday Subtotals			1,916	0	-100%

<b>RTA Total</b>			<b>18,752</b>	<b>0</b>	<b>-100%</b>
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**Table 5-6 Eastbank Service Changes – JeT Hours**

Weekday			Existing	Proposed	
Route	Terminal 1	Terminal 2	Platform Hours	Platform Hours	Plat. Hours % Change
E1	Pontchartrain Center	City Park/Cemeteries	12,992	18,542	43%
E2	Louis Armstrong International	Tulane & Loyola	12,598	12,598	0%
E3	Joe Yenni & W Loyola	Clearview Pkwy/H. L. Bridge	12,865	8,297	-36%
E4	Severn	City Park/Cemeteries	3,344	3,344	0%
E5	East Jefferson Hospital	Causeway & Jefferson Hwy	5,063	5,063	0%
Weekday Subtotals			46,863	47,845	2%

Saturday			Existing	Proposed	
Route	Terminal 1	Terminal 2	Platform Hours	Platform Hours	Plat. Hours % Change
E1	Pontchartrain Center	City Park/Cemeteries	1,514	2,912	92%
E2	Louis Armstrong International	Carrollton & Tulane	1,407	1,407	0%
E3	Joe Yenni & W Loyola	Clearview Pkwy/H. L. Bridge	1,443	1,543	7%
E5	East Jefferson Hospital	Causeway & Jefferson Hwy	681	681	0%
Saturday Subtotals			5,046	6,543	30%

Sunday & Holidays			Existing	Proposed	
Route	Terminal 1	Terminal 2	Platform Hours	Platform Hours	Plat. Hours % Change
E1	Pontchartrain Center	City Park/Cemeteries	914	1,770	70
E2	Louis Armstrong International	Carrollton & Tulane	893	893	64
E3	Joe Yenni & W Loyola	Clearview Pkwy/H. L. Bridge	865	816	120
Sunday Subtotals			2,672	3,479	30%

<b>JeT Total</b>			<b>54,580</b>	<b>57,868</b>	<b>6%</b>
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Table 5-7 Eastbank Service Changes – Regional Route and Total Eastbank Hours

<b>Weekday</b>			Existing	Proposed	
Route	Terminal 1	Terminal 2	Platform Hours	Platform Hours	Plat. Hours % Change
300	Clearview Pkwy/H. L. Bridge	Convention Center	0	12,700	100%

<b>Saturday</b>			Existing	Proposed	
Route	Terminal 1	Terminal 2	Platform Hours	Platform Hours	Plat. Hours % Change
300	Clearview Pkwy/H. L. Bridge	Convention Center	0	1,716	100%

<b>Sunday &amp; Holidays</b>			Existing	Proposed	
Route	Terminal 1	Terminal 2	Platform Hours	Platform Hours	Plat. Hours % Change
300	Clearview Pkwy/H. L. Bridge	Convention Center	0	1,829	100%

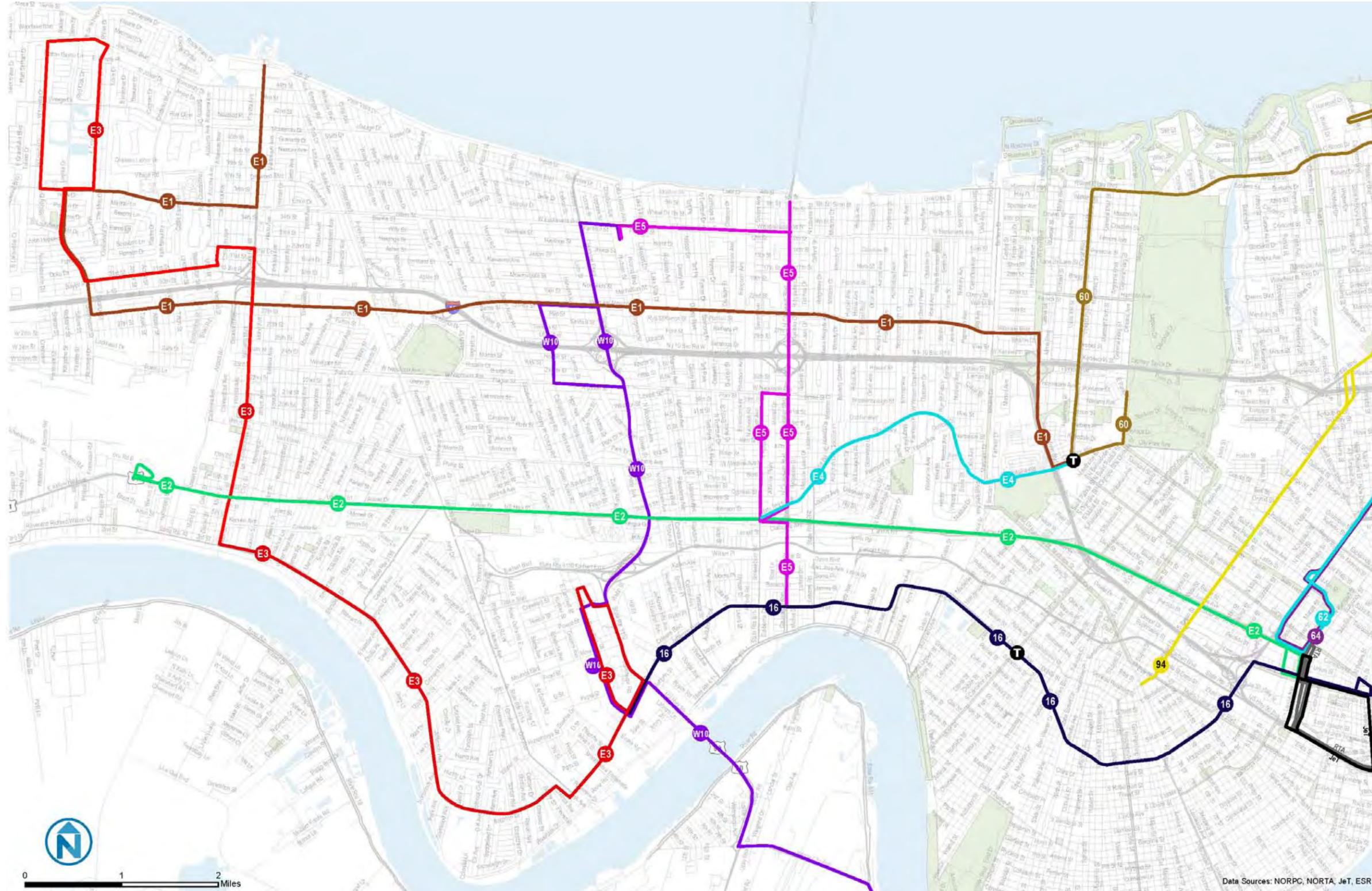
<b>Regional Route Total</b>			0	16,245	100%
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<b>Total Eastbank Recommendation Totals</b>			73,333	74,113	1%
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Figure 5-6 Eastbank/Kenner Service Changes



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## NEW ORLEANS: LAKEVIEW, CARROLLTON, TULANE, CBD RECOMMENDATIONS

### Lakeview

Two RTA routes provide service in Lakeview, including:

- Route 45 – Lakeview
  - Providing connections between Veterans Boulevard, Cemeteries and Lakeview.
  - Service is operated on weekdays and on weekend days, every 30 minutes, on a one-direction loop, and utilizing 1 vehicle.
- Route 60 – Hayne (West)
  - Throughout the service change recommendations analysis we are considering Route 60 as essentially two routes: Route 60 – Hayne (East) providing service between UNO and Little Woods in New Orleans East, and Route 60 – Hayne (West) providing service between University of New Orleans (UNO), Lakeview, Cemeteries, and Delgado College.
  - Route 60 service (West) is operated on weekdays only, every hour, and utilizing 1 vehicle.

### Service Design Issues / Themes for Service Restructuring

Major design issues in this part of the service area are low route productivity on both Route 45 and Route 60, at about 8-10 passengers per revenue hour each, a large one-directional loop operation on Route 45 that makes access to transit difficult and lengthens trips for everyone by riding around the loop to reach a destination, and duplication of service along Canal Boulevard and Delgado College. In addition, JeT Route E-2 duplicates Route 45 between Cemeteries and Veterans Boulevard.

### Service Recommendations

Route-by-route service recommendations are described in the paragraphs below, operating costs and vehicle requirements summarized in Table 5-8 and Table 5-9, and service changes illustrated in Figure 5-8 and Figure 5-9.

#### Route 45 – Lakeview

##### Performance Summary

- Weekday productivity is low at 10.4 boardings per revenue hour (FY 2010), which does not meet RTA's service standards for ridership productivity or subsidy per boarding. Productivity is twice as high during peak periods than midday.
- The segment between Veterans Boulevard and Cemeteries is the most productive. More than 50 percent of the transfer activity to Route 45 is from the Canal Streetcar at Cemeteries.

### Timing of Recommendations

Recommendations for Route 45 require JeT and RTA coming to agreement on revenue sharing on regional service, so that access to shopping from Cemeteries on one fare is maintained.

Working out the details for such an agreement can typically take a year.

Implementation is programmed for 2014.

- Route 60 Hayne duplicates Route 45 between Robert E. Lee and Cemeteries. While Route 60 does not operate as frequently, it does offer bi-directional service on Canal Boulevard in this segment.
- JeT Route E2 duplicates Route 45 between the Winn Dixie at Veterans and Carrollton and Cemeteries. Riders boarding at this stop can choose either line to reach Cemeteries. Transfers from JeT, however, do not work on RTA routes.

#### Service Changes

- Reduce duplication between Route 45 and Route 60 on Canal Boulevard.
  - Ridership on Canal Boulevard between Cemeteries and Robert E. Lee Boulevard is low and does not warrant more than hourly service.
- Restructure service to operate bi-directionally instead of a one-way loop.
  - Route 45 operates a one-way loop every 30 minutes that generates very little ridership.
  - The loop is simply too big and inconvenient, forcing a long out-of-direction trip for everyone, which discourages ridership.
  - The most productive segment of Route 45, which is between Veterans and Cemeteries, is duplicated by Route E-2.
- Combine Route 45 with Route 60 to provide coverage and bi-directional service between SUNO, UNO, Delgado College, and Cemeteries.
  - The connections between UNO, Lakeview, Delgado College and Cemeteries are maintained, and the connection to New Orleans East is maintained via Hayne and Read Boulevards..
  - Route E1 will provide the connection between Veterans Boulevard and Cemeteries. This presumes a fare or transfer agreement between JeT and RTA.
  - The tradeoff for people in Lakeview is less frequent service but direct connections, and therefore savings in travel time because they no longer need to go out of direction to reach a destination.

### **Route 60 – Hayne (West)**

#### Performance Summary

- Weekday productivity is very low at 8.1 boardings per revenue hour (FY 2010). Route 60 was extended in 2010 to operate between UNO and Delgado College via Cemeteries.
- Although the route connects major destinations generating some ridership (Delgado Community College and UNO), ridership in the segments between destinations is very low. Route productivity is marginally better in the peaks than in the midday.
- Route 60 (West) duplicates Route 45 between Cemeteries and Robert E Lee Boulevard, and this duplication contributes to lower ridership.

#### Service Changes

- Combine with Route 45. See service change recommendations for Route 45 above.

### **Carrollton Corridor**

There are three RTA bus routes and two streetcar lines providing service in and around the Carrollton Avenue Corridor, including:

- **Route 27 – Louisiana**
  - Providing connections between Delgado College, Cemeteries, Xavier University, Broad and Washington, and Tchoupitoulas Street.
  - Service is operated on weekdays and weekend days, every 40 minutes, and utilizing 2 vehicles.
- **Route 32 – Leonidas**
  - Providing connections between Audubon Park and Zoo, the Beauregard Circle at City Park/Museum, and Xavier University, via Carrollton Avenue and neighborhood streets (Leonidas and Monroe).
  - Service is operated on weekdays only, every 70 minutes and utilizing 1 vehicle.
- **Route 39 – Tulane**
  - Providing connections between Carrollton and Claiborne, Xavier University, and Tulane University Hospital in downtown.
  - Service is operated on weekdays and weekend days, every 20 minutes in the peak period, and every 30 minutes in the midday, utilizing three vehicles.
- **St. Charles Streetcar**
  - Providing connections between Carrollton and Claiborne, and Canal Street via the Garden District (St. Charles Avenue).
  - Service is operated daily (weekdays and weekend days), every 10 minutes during peak and midday periods, and every 20 minutes off-peak.
- **Canal Streetcar – City Park/Museum branch**
  - Providing connections between City Park/Museum, Carrollton and Canal, and Riverfront.
  - Service is operated daily (weekdays and weekend days). Service headways vary throughout the day from 30 to 45 to 75 minutes.

### **Service Design Issues / Themes for Service Restructuring**

Major design issues in the Carrollton Avenue corridor are the lack of a continuous bus route or street car line serving the corridor from end to end. All of Carrollton Avenue gets service, but this service is discontinuous and provided at varying service frequencies. In addition, there is considerable duplication between services, in particular between Route 32 operating a low 70-minute frequency and frequent services such as the St. Charles Streetcar operating every 10 minutes and Route 39 – Tulane operating every 20 minutes.

The major challenge for a continuous Carrollton Avenue service is the lack of major destinations that could anchor the service, given that the St. Charles Streetcar serves Riverbend in the southern end (Carrollton and St. Charles Circle) and that City Park/Museum is a convenient turnaround point only. Origin-destination survey results and US Census Bureau LEHD data show

### **Timing of Recommendations**

Creating a new route to connect two major transit hubs - Carrollton/S. Claiborne and Cemeteries – could happen within existing funding.

However, due to concerns of reducing service to the Leonidas area, additional resources are necessary to implement this service.

A 2015 implementation date is anticipated for the Carrollton and Tulane area recommendations.

travel demand potential for a connection between Mid-City and Tulane University, as well as a connection between Tulane University and Metairie.

## **Service Recommendations**

### **Route 27 – Louisiana**

#### Performance Summary

- Weekday productivity is below average at 26.8 boardings per revenue hour (FY 2010). Productivity is consistent throughout the day and the route, highlighting a strong midday, non-commute market and crosstown function.
- The largest passenger loads are in the middle of the route, between Tulane and St. Charles, showing a strong transfer activity with Route 39 at Carrollton and Tulane, Route 94, at Washington and Broad, and the St. Charles Streetcar.
- Operating every 40 minutes throughout the day, except for one hour in the morning peak, timely transfers to most routes are difficult (i.e. Route 94 – Broad and Route 28 – M. L. King).

#### Service Changes

- No service changes recommended.
  - We analyzed the possibility of extending the route in the southern end to connect with the Tchoupitoulas Walmart, and ending the route at Cemeteries in the northern end to maintain current cycle time and schedule.
  - Most boardings at Delgado College are traveling past Cemeteries and Carrollton Avenue towards Washington and Louisiana Avenues. Therefore, eliminating this last segment in the north end would have a significant impact on ridership in the mainline (100 daily passengers), which we estimate will be bigger than the potential ridership gains at Walmart.

### **Route 32 – Leonidas**

#### Performance Summary

- Weekday productivity is very low at 10.1 boardings per revenue hour and less than 200 passengers daily. Route 32 is a lifeline service, and operating every 70 minutes is generally inadequate to attract more ridership.
- In addition, the route duplicates high frequency routes such as the St. Charles Streetcar between Broadway and Willow, Route 39 – Tulane between Claiborne and Xavier University, and the Canal Streetcar – City Park/Museum branch between Canal and City Park.
- Ridership figures indicate that many passengers of these higher frequency routes are walking from the neighborhood rather than using Route 32.

#### Service Changes

- Restructure and rename as Route 34 – Carrollton to connect Cemeteries and Delgado College with Tulane University and Audubon Park and Zoo via Orleans, Carrollton Avenue and Broadway Street.
  - This change would provide service along most segments of Carrollton Avenue, avoid duplication with the St. Charles Streetcar, and would connect Tulane University with the regional transit system at Cemeteries.

- The connection between Audubon Park and Zoo with City Park will be maintained, albeit with a modified routing.
- This route could be operated hourly with 1 vehicle, and every 30 minutes with 2 vehicles. Suggested service frequency levels are 60-minutes in the cost neutral scenario and 30-minutes with the addition of another vehicle.
- Eliminate service on Leonidas and Monroe.
  - Route segments running on Leonidas and Monroe have very low ridership, have very infrequent service (every 70 minutes) and are duplicative of service along Route 39 – Tulane and St. Charles Streetcar.

### **New Route N1 – Earhart**

#### Service Recommendations

- If service coverage is to be maintained along Leonidas and Monroe, we suggest implementing a new route (N1) that provides connections to different destinations and transfer opportunities to reduce duplication of service along Carrollton Avenue.
  - Implement a New Route N1 – Earhart, connecting the neighborhood areas along Leonidas and Monroe with Broad and Washington via Earhart Boulevard.
  - This will allow for direct connections with Route 94 – Broad, Route 24 – Napoleon, and Route 28 – Martin Luther King, and new travel opportunities.
  - This service could be operated every 30 minutes with 1 vehicle. Route N1 could be interlined during weekdays with Route 24 – Napoleon to further expand the market opportunities for Leonidas neighborhood residents. On weekends, Route N1 could be interlined with Route N2 (discussed below) to provide hourly service on both routes with one vehicle.

### **Route 39 – Tulane**

#### Performance Summary

- Weekday productivity is very high at 55.7 boardings per revenue hour (FY 2010). Ridership is high throughout the day with over 70 passengers per revenue hour from 6:00 a.m. to 9:00 p.m.
- Most stops between Carrollton and downtown have high ridership. The highest ridership stops are at S. Claiborne, Tulane, Broad, and at Rampart in downtown.
- Ridership data suggest that the high ridership at Tulane and Carrollton is due to transfers to JeT Route E2. Likewise, a portion of the ridership at Claiborne and Carrollton is due to transfers with JeT Route E3.
- Loading analysis shows that there are several trips with standees throughout the day, in addition to many consecutive trip loads exceeding 30 passengers. This suggests the need for additional midday service on Route 39.
- Route 39 duplicates JeT Route E3 between Mistletoe and Carrollton.

#### Service Changes

- Route 39 should be truncated at Claiborne. An extended Route 16, which should replace Route E3, should serve the Carrollton to Mistletoe corridor instead. The extra time should be reinvested in better frequencies.

- RTA is improving service frequencies on Route 39 in 2012. Demand on the route warrants this change.
- On Tulane, no changes for Route 39 are recommended. JeT Route E2 should supplement Route 39 service on Tulane with limited-stop service.

## **Tulane University**

Only one RTA bus route (Route 15) provides service into Tulane University's main campus. This is complemented by the St Charles Streetcar line that provides access via St. Charles Avenue.

- Route 15 – Freret
  - Providing connections between Tulane University and Canal Street via Freret and La Salle.
  - Service is operated on weekdays and weekend days, every 34 minutes during peak periods and hourly during midday and off-peak, utilizing 2 peak vehicles.
- St. Charles Streetcar
  - Providing connections between Carrollton and Claiborne, and Canal Street via the Garden District (St. Charles Avenue).
  - Service is operated daily (weekdays and weekend days), every 10 minutes during peak and midday periods, and every 20 minutes off-peak.

### **Service Design Issues / Themes for Service Restructuring**

Tulane University is a major employment center in the City and the region; however it is only accessible from downtown New Orleans via Route 15 and the St. Charles Streetcar, and from the Carrollton and Claiborne transfer center (JeT Route E3 and Route 39 – Tulane) via the St. Charles Streetcar.

Route connections from other city areas, such as Mid-City, Elysian Fields, and Saint Claude are very limited, although on board surveys, transfer patterns and US Census Bureau LEHD data show the need for more direct connections from these locations.

### **Service Recommendations**

#### **Route 15 – Freret**

##### *Performance Summary*

- Weekday ridership is below average at about 27.0 passengers per revenue hour (2011 ridecheck data). Route productivity is consistent throughout the day, despite the change in headway from 34 minutes during peaks to 60 minutes during off-peak.
- Route 15 uses the Baronne/Carondelet couplet in the downtown area, which is only one block from the St. Charles Streetcar, running more frequent service. The deviation from La Salle to Baronne/Carondelet adds time and does not generate significant ridership.
- Most transfer activity occurs with Canal Streetcar and Routes 57 and 88 serving Rampart and St. Claude.
- Over 70 percent of trips are on time. Late running is concentrated in a few trips in the afternoon peak time.

### Service Changes

- Modify routing between Jackson and downtown to run on La Salle and Simon Bolivar to downtown.
  - This will provide better service to neighborhoods around M. L. King and Simon, which are about one half of a mile away from St. Charles Streetcar.
  - It will also reduce running and turning on smaller streets, thus speeding up operation and allowing the route to complete a cycle in 60 minutes during peak times.
- In the long-term, interline Route 15 with Route 57 – Franklin.
  - This will eliminate transfers and bus circulation at Canal Street and Loyola Avenue, and connect the Rampart – St. Claude corridor with Tulane University.
  - Route 57 provides service at similar levels of frequency than Route 15 and also with similar passenger loads when getting to and leaving from Canal Street.
  - Two issues need to be resolved before implementing this interline:
    - Route 15's midday frequency would need to be improved from 60 minute service to 30 minute service, which will require additional resources.
    - Route 57 should be adjusted to reduce running time from every 36 minutes to a regular 30-minute headway. This could be done through consolidation of stops and route modifications in the north end.

### **New Route 34 – Carrollton**

#### Service Recommendations

- Completely restructure and rename the current Route 32 – Leonidas to provide service between Cemeteries, Delgado Community College and Tulane University via Carrollton and Broadway Avenues. See detailed description in the Carrollton Avenue Section above.

### **New Route N2 – Broadway**

#### Service Recommendations

- Implement a new route connecting Broad and Washington (Route 94) with Tulane University via Fontainebleau Drive and Broadway Avenue. This recommendation would require additional resources.
  - This short route would be able to cycle in 30 minutes with one vehicle and provide convenient transfer connections for passengers traveling along the Broad corridor.
  - The south end of the route is proposed at Broadway and St. Charles to meet the streetcar line and serve Tulane's Broadway campus.
  - In the long term, Route N2 could be interlined with route N1 on weekends to provide hourly service on both routes with one vehicle.

### **Timing of Recommendations**

Interlining of routes should occur in phases. In 2013, the following routes can be interlined:

- Routes 28/84
- Routes 55/51/52
- Routes 5/80

The stop consolidation process on Route 55 is anticipated to take more time. In 2014, the following routes should be interlined:

- Routes 15/55

## **New Orleans CBD**

We examined interline options in the New Orleans CBD to reduce transfers and meet city-wide travel needs. The following routes were analyzed:

- **Route 5 – Marigny Bywater**
  - Providing connections between Convention Center, the French Quarter and Bywater via Dauphine and Royal.
  - Service is operated on weekdays and weekends every 45 minutes, utilizing 1 vehicle.
- **Route 15 – Freret**
  - Providing connections between Tulane University and Canal Street via Freret and La Salle.
  - Service is operated on weekdays and weekend days, every 34 minutes during peak periods and hourly during midday and off-peak, utilizing 2 peak vehicles.
- **Route 28 – Martin Luther King**
  - Short route providing connections between Broad and Washington, Amtrak Station, Superdome and Canal Street.
  - Service is operated on weekdays and on weekend days, every 45 minutes, utilizing 1 vehicle.
- **Route 51/52 St. Bernard Paris Avenue/St. Anthony**
  - Providing connections between the CBD and UNO via either the St. Bernard/Paris or Paris/Mirabeau/St. Anthony corridors.
  - Route 52 operates alternates frequency between 20 or 50 minutes on weekdays, and Route 51 operates every 80 minutes. Routes 51 and 52 require 3 buses.
- **Route 55 Elysian Fields**
  - Providing connections between the CBD and UNO via Decature and Elysian Fields.
  - Service is provided every 30-40 minutes on weekdays by two buses and hourly on weekends.
- **Route 57 – Franklin**
  - Providing connections between Southern University of New Orleans, Lakefront Arena, St. Claude/Rampart and Canal Street via Franklin Avenue.
  - Service is provided on weekdays and weekend days, every 36 minutes during peak and midday periods, utilizing 2 vehicles.
- **Route 80 – Louisa**
  - Providing connections between SUNO, Winn-Dixie at Desire and Chef Menteur highway and Louisa.
  - Service is provided daily every 70 minutes, utilizing 1 vehicle.
- **Route 84 – Galvez**
  - Providing connections between the Lower 9<sup>th</sup> Ward, Galvez and Miro Streets, and Tulane University Hospital.
  - Service is provided on weekdays and on weekend days, every 40 and 80 minutes respectively, utilizing 2 peak vehicles.

## **Service Design Issues / Themes for Service Restructuring**

Transit service in the New Orleans CBD is characterized by Canal Street and the streetcar operating as a major spine and dividing line for transit services. This is justified by the protection of the French Quarter from heavy vehicle traffic and as a pedestrian destination. Most transit services operate around the boundaries of the French Quarter with routes providing east-west service along Rampart and Decatur.

On the west side of Canal Street, in the CBD proper, transit operates on almost every street, connecting the Garden District with downtown through all major corridors, including Freret/La Salle, St. Charles, Magazine and Tchoupitoulas. Without exception, all routes end at Canal Street. Therefore, riders traveling to other parts of the city are forced to transfer in downtown.

From a network design perspective this is not a bad outcome per se, but it does create some problems for the system such as excessive bus circulation and layover needs in downtown that add to running time and cost, and it does create some inconveniences for riders making crosstown trips. Also, a number of bus routes have an end in and around the short block between Tulane and Canal, along Loyola and Elk, which functions as the biggest transit center in the system, although no passenger waiting facilities and infrastructure are provided.

With the advent of the Loyola/Rampart streetcar running through this short block and transit center, there is an opportunity for the system to review its design, transfer activity and bus operations around the intersection of Canal and Loyola.<sup>1</sup>

The service recommendations below are based on this premise and aim at:

- Reducing bus circulation and travel time in the CBD
- Reducing bus congestion and turning movements along Loyola, Elk and Rampart.
- Facilitating crosstown trips, and
- Balancing cycle times and headways on routes operating outside a regular headway

## **Service Recommendations**

### **Route 5 – Marigny Bywater**

#### Performance Summary

- Weekday productivity is very low at less than 10 boardings per revenue hour (FY 2010).
- Route 5's frequency is 45 minutes.

#### Service Changes

- Combine Route 5 with Route 80. This will create a one-seat ride between the Louisa corridor and Canal. It will also provide a one-seat ride between Marigny and the commercial areas along Chef Menteur.
- Service will be provided hourly.

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<sup>1</sup> For a longer discussion, analysis and potential redevelopment of this location see the New Orleans Mobility and Parking Study, Final Report. Prepared for the New Orleans Downtown Development District by Nelson\Nygaard Consulting Associates. In particular, the South Rampart Street Transit Mall, Proposed Option #2.

**Route 80 – Louisa**

Performance Summary

- Weekday productivity is very low at 12.0 boardings per revenue hour (FY 2010).
- Route 80's frequency is 70 minutes, which is bare lifeline service. Route 80 operates as a crosstown route that does not have well-defined destinations.

Service Changes

- Route 80 at St. Claude should be extended to Poland and combined with Route 5. This will create a one-seat ride between the Louisa corridor and Canal. It will also provide a one-seat ride between Marigny and the commercial areas along Chef Menteur.
- Frequencies on Route 80 would improve to every 60 minutes, an improvement over existing headways. Route 5's frequency would decrease from 45 minutes to 60 minutes.

**Route 28 – Martin Luther King**

Performance Summary

- Weekday productivity is above average at 36.2 boardings per revenue hour. Ridership activity is oriented mostly toward downtown, although boardings and transfer activity at Broad and Washington are high.
- Route productivity is highest during the midday, which suggests that work trips are not the predominant pattern of the route.
- The razing of the Calliope Projects has resulted in little ridership on Earhart between Broad and Galvez in either north or southbound direction. This deviation adds time to the route which operates every 45 minutes, inhibiting regular transfer patterns.

Service Changes

- Eliminate the one-way loop in the north end via Broad and Earhart.
  - Replace with a smaller loop around Dorgenois, Washington and Broad to reduce travel time and maintain bi-directional operation along Martin Luther King.
- Interline with Route 84 – Galvez to reduce bus circulation in downtown and create efficiencies.
  - Route 84 operates every 40 minutes between the Lower 9<sup>th</sup> Ward and downtown via Galvez and Miro.
  - The route has some extra time in the schedule which coupled with a streamlined Route 28 and shorter running time could increase service frequency along Route 28 to every 40 minutes.
  - This would create a 120-minute cycle route with 3 vehicles operating, which in the future can be increased to every 30 minutes with 1 additional vehicle, if warranted by ridership demand.

**Route 51/52 – St. Bernard – Paris Ave. & St. Bernard – St. Anthony**

Performance Summary

- Weekday productivity is slightly below average at 25.9 passengers per revenue hour. Productivity is peak oriented, indicating more of a commuter market. The productivity of segments south of Broad is more than twice as high than the segments north.

- Routes 51 and 52 operate an irregular 15-25 minute headways during peaks and every 30 minutes on the combined segments. Route 51 segments – where the branches do not operate concurrently – has an 80 minute frequency.

Service Changes

- Interline Route 55 with Routes 51 and 52 to standardize running times and reduce several routes duplicating circulation at UNO.
  - Routes 51 and 52 would each operate every 60 minutes and have combined 30-minute service between Broad and the CBD.
  - Peak directional trips to address school loads, as operated today, should continue.

**Route 55 – Elysian Fields**

Performance Summary

- Weekday productivity is good at about 34.5 passengers per revenue hour. Productivity is steady throughout the day. The least productive segment is in Gentilly just south of UNO.
- Between Canal and Elysian Fields, Route 55 duplicates Route 5 Marigny Bywater.
- Route 55's frequency is irregular – every 30 to 40 minutes, which may make transfers to other routes difficult.
- Route 55 is exposed to variable on-time performance on its alignment on the south edge of the French Quarter.

Service Changes

- Interline Route 55 with Routes 51 and 52 to standardize running times on Route 55 to every 30 minutes throughout the day. No routing changes are recommended.
- All routes together will utilize 5 vehicles, operating every 30 minutes on a 150-minute cycle.

**Route 57 – Franklin**

Performance Summary

- Weekday productivity is above average at about 34.0 passengers per revenue hour. Productivity is steady throughout the day. The least productive segment is north of Gentilly, serving the UNO Arena and the SUNO campus.
- Between downtown New Orleans and the intersection of St. Claude and Franklin, Route 57 duplicates Route 88 St. Claude. Route 88 is more frequent, and has correspondingly higher ridership in this segment.
- Route 57's frequency is irregular – every 36 minutes, and difficult to remember, making transfers to other routes difficult.
- On-time performance is very good, with only 3 percent of trips arriving late, and early arrivals mostly on the midday outbound trips. This suggests running times could be reduced in the midday toward a regular headway.

Service Changes

- Interline Route 57 with Route 15 – Freret.
  - Current travel patterns suggest that sufficient demand exists for crosstown travel between St. Claude and Franklin and the Freret corridor for riders wishing to access Tulane University and the Rampart corridor.

- The route alignment changes proposed for Route 15 would reduce running time that could be applied toward regularizing running times on Route 57 and creating a 120-minute cycle crosstown route.
- Improve running time along Route 57 by reducing stops along Rampart and operating as a limited-stop service with stops every 0.25 mile or farther apart.
  - Currently Route 57 is duplicating Route 88 along Rampart and getting little ridership. In the future it will be duplicating the Loyola streetcar.
  - Pulling out local stops along Rampart would speed up service, reduce travel time for riders in the Franklin corridor and help maintain a regular frequency and cycle.
- Improve running time along Franklin Avenue by consolidating stops and spacing them at every 0.20 miles.
  - Stop spacing in this segment is between 0.10 and 0.15 miles, which adds significant running time.
- Reduce deviation to the Lakeview Arena by completely eliminating it, operating it during rush hour only or reducing frequency (by operating it every other trip only.)
  - This will also reduce travel time and service hours spent in an area generating low ridership.
- The benefits of all these changes would be a regular 30-minute frequency operation and faster, more convenient service for everyone in the corridor.

### **Route 84 – Galvez**

#### Performance Summary

- Weekday productivity is close to average at about 30 boardings per revenue hour (September 2011 ridecheck).
- Ridership is consistent throughout peak and midday periods, carrying over 31 passengers per hour, with ridership patterns strongly oriented towards downtown New Orleans.
- Headways operate at 40 minutes, making transfers to hourly and half-hourly routes difficult. The heaviest transfer activity comes from Route 39 – Tulane and the Canal Streetcar.
- On-time performance is good with 79 percent of trips on time. Late running is relatively rare and most heavily concentrated during the inbound peak.

#### Service Changes

- Interline with Route 28 to create schedule efficiencies and reduce bus circulation in Loyola and Tulane.
  - The change will allow reducing headways on Route 28 to every 40 minutes, while matching routes with similar vehicle loads.
  - The combined route will operate a 120-minute cycle with 3 vehicles, which can then be easily upgraded to 30-minute operating with one additional vehicle.

## **Service Resources Impacts**

Service change recommendations proposed in the previous sections are quantified in the paragraphs below to estimate operating cost impacts, as well as vehicle requirements and level of service improvements. The analysis has been broken down into two different scenarios:

- **Scenario 1 – Cost Neutral Scenario:** utilizing approximately the same number of revenue hours and peak vehicles.
- **Scenario 2 – 3 Additional Vehicles:** utilizing 3 additional vehicles for a large increase in service hours (about a 25% increase).

### **Scenario 1 – Cost Neutral**

The following service changes are considered in the Cost Neutral Scenario:

- Combine Route 5 and Route 80 into one route (see Figure 5-8).
- Create a new Route 34 Cemeteries – Delgado - Carrollton – Tulane – Zoo service that replaces the existing Route 32. People living in the Leonidas neighborhood would need to walk to Carrollton.
- Interline Routes 28 and 84.
- Adjust Route 15's alignment to improve directness of service and improve frequencies to every 30 minutes during the peak.
- Adjust Route 57's alignment and stop spacing to improve route speed to reduce the frequency to every 30 minutes (see Figure 5-8).
- Proportionally, service changes result in the same number of service hours for weekdays, and a slight increase in hours for weekends.
- Table 5-8 below summarizes the levels of service proposed for each route as compared to existing service, indicating peak vehicles required, number of one-way trips, and number of revenue hours provided. As indicated in Table 5-8, changes would result in an overall increase of 600 hours annually, with all of the increase coming from more weekend service.

### **Scenario 2 – Service Expansion**

There are more needs than can be accommodated with existing funding levels, particularly in the Tulane area. This scenario shows options on how to address travel demands and to effectively link one of the major regional employers more effectively into the local transit network. Service changes considered under this scenario include all service changes proposed under Scenario 1 and selected service improvements, including:

- Operate Route 15 at 30 minute service and interline the route with Route 57 to provide a single-transfer trip to Tulane for most of the RTA service area.
- The new Route 34 Carrollton, which connects the Zoo with Tulane, Carrollton, Delgado, and Cemeteries, should operate every 30 minutes instead of hourly. This will improve access for Tulane's workforce residing in both Jefferson and Orleans Parishes. This recommendation will require an additional bus to operate.
- Implement a new Route N1 that connects the Leonidas neighborhood and Monroe with the regional route network at Broadway / Washington. Route N1 would operate every 30 minutes and could be interlined with Route 24 on weekdays.
  - This recommendation will require an additional bus to operate.
  - On weekends, Route N1 would be interlined with Route N2 and served with a single vehicle, allowing for hourly service on both routes.
- Implement a new Route N2 that connects the Tulane and the Broadway corridor with the regional route network at Broadway / Washington. Route N2 would operate every 30 minutes on weekdays. This recommendation will require an additional bus to operate.

- Table 5-9 below summarizes the levels of service proposed for each route as compared to existing service, indicating peak vehicles required, number of one-way trips, and number of revenue hours provided.
- Three additional vehicles are required to provide this service.
- As indicated in Table 5-9, changes would result in an overall increase of 14,000 hours annually.

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**Table 5-8 New Orleans Service Changes – Scenario 1 (Cost Neutral)**

Weekday			Frequency				Proposed			Existing			Plat. Hours % Change
Route	Terminal 1	Terminal 2	Span	Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	Peak Vehicles	One Way Trips	Platform Hours	
15	Freret & Broadway	CBD	6:00 - 23:00	30	60	60	2	48	6,477	2	52	6,337	2%
57	SUNO	CBD	5:30 - 24:00	30	30	60	2	60	8,128	2	49	8,187	-1%
28	Broad & Washington	Tupelo & Claiborne	6:00 - 21:00	40	40	60	3	42	11,049	1	40	3,675	201%
84								42		2	37	7,430	-100%
45	Cemeteries	Chef Menteur & Desire	6:00 - 21:00	60	60	60	2	30	7,874	1	30	3,937	100%
60								30		1	31	4,191	-100%
80	Canal	Chef Menteur & Desire	6:30 - 20:30	45	45	90	2	33	6,731	1	23	3,789	78%
5								33		1	32	3,090	-100%
34 (32)	Walnut & Magazine	CityPark & Canal	6:30 - 20:30	60	60	60	1	28	3,683	1	22	3,357	10%
Weekday Subtotals							12	346	43,942	12	316	43,993	-0.1%

Saturday			Frequency				Proposed			Existing			Plat. Hours % Change
Route	Terminal 1	Terminal 2	Span	Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	Peak Vehicles	One Way Trips	Platform Hours	
15	Freret & Broadway	SUNO Park Campus	6:00 - 22:00	--	60	60	1	32	858	1	32	853	1%
57	SUNO	CBD	6:00 - 23:00	--	60	60	1	34	910	1	28	907	0%
28	Broad & Washington	Tupelo & Claiborne	7:00 - 21:00	--	40	60	3	40	2,158	1	40	683	216%
84								40		2	37	1,279	-100%
45	Cemeteries	Chef Menteur & Desire	6:00 - 21:00	--	60	60	2	30	1,612	1	30	806	100%
60								30		0	0	0	--
80	Canal	Chef Menteur & Desire	6:30 - 20:30	--	90	90	1	18	754	1	23	776	-3%
5								18		1	32	633	-100%
Weekday Subtotals							8	242	6,292	8	222	5,936	6.0%

Sunday			Frequency				Proposed			Existing			Plat. Hours % Change
Route	Terminal 1	Terminal 2	Span	Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	Peak Vehicles	One Way Trips	Platform Hours	
15	Freret & Broadway	SUNO Park Campus	6:00 - 22:00	--	60	60	1	32	974	1	32	968	1%
57	SUNO	CBD	6:00 - 23:00	--	60	60	1	34	1,033	1	28	1,029	0%
28	Broad & Washington	Tupelo & Claiborne	7:00 - 21:00	--	40	60	3	40	2,449	1	40	775	216%
84								40		2	37	1,451	-100%
45	Cemeteries	Chef Menteur & Desire	7:30 - 19:30	--	60	60	2	24	1,475	1	24	738	100%
60								24		0	0	0	--
80	Canal	Chef Menteur & Desire	6:30 - 20:30	--	90	90	1	18	856	1	23	880	-3%
5								18		1	28	615	-100%
Weekday Subtotals							8	230	6,785	8	212	6,455	5.1%

New Orleans Scenario 1 Total									57,019	56,383		1.1%
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**Table 5-9 New Orleans Service Changes – Scenario 2 (Additional Vehicles)**

Weekday			Frequency				Proposed			Existing			Plat. Hours % Change
Route	Terminal 1	Terminal 2	Span	Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	Peak Vehicles	One Way Trips	Platform Hours	
15	Freret & Broadway	SUNO Park Campus	6:00 - 23:00	30	30	60	4	56	14,732	2	44	6,337	132%
57								56		2	55	8,187	-100%
28	Broad & Washington	Tupelo & Claiborne	6:00 - 21:00	40	40	60	3	42	11,049	1	40	3,675	201%
84								42		2	37	7,430	-100%
45	Cemeteries	Chef Menteur & Desire	6:00 - 21:00	60	60	60	2	30	7,874	1	30	3,937	100%
60								30		1	31	4,191	-100%
80	Canal	Chef Menteur & Desire	6:30 - 20:30	45	45	90	2	33	6,731	1	23	3,789	78%
5								33		1	32	3,090	-100%
34 (32)	Walnut & Magazine	City Park & Canal	6:30 - 20:30	30	30	30	2	56	7,366	1	22	3,357	119%
N1	Washington & Broad	Carrollton & Willow	6:30 - 19:00	30	30	30	1	50	3,302	0	0	0	--
N2	Washington & Broad	Broadway & St. Charles	6:00 - 20:00	30	30	30	1	56	3,683	0	0	0	--
Weekday Subtotals							15	484	54,737	12	314	43,993	24.4%

Saturday			Frequency				Proposed			Existing			Plat. Hours % Change
Route	Terminal 1	Terminal 2	Span	Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	Peak Vehicles	One Way Trips	Platform Hours	
15	Freret & Broadway	SUNO Park Campus	6:00 - 22:00	--	60	60	2	32	1,716	1	32	853	101%
57								32		1	31	907	-100%
28	Broad & Washington	Tupelo & Claiborne	7:00 - 21:00	--	40	60	3	40	2,158	1	40	683	216%
84								40		2	37	1,279	-100%
45	Cemeteries	Chef Menteur & Desire	6:00 - 21:00	--	60	60	2	30	1,612	1	30	806	100%
60								30		0	0	0	--
80	Canal	Chef Menteur & Desire	6:30 - 20:30	--	90	90	1	18	754	1	23	776	-3%
5								18		1	32	633	-100%
34 (32)	Walnut & Magazine	City Park & Canal	6:30 - 20:30	--	60	60	1	28	754	0	0	0	--
N1	Carrollton & Willow	Broadway & St. Charles	6:30 - 19:00	--	60	60	1	25	676	0	0	0	--
N2								25		0	0	0	--
Weekday Subtotals							10	318	7,670	8	225	5,936	29.2%

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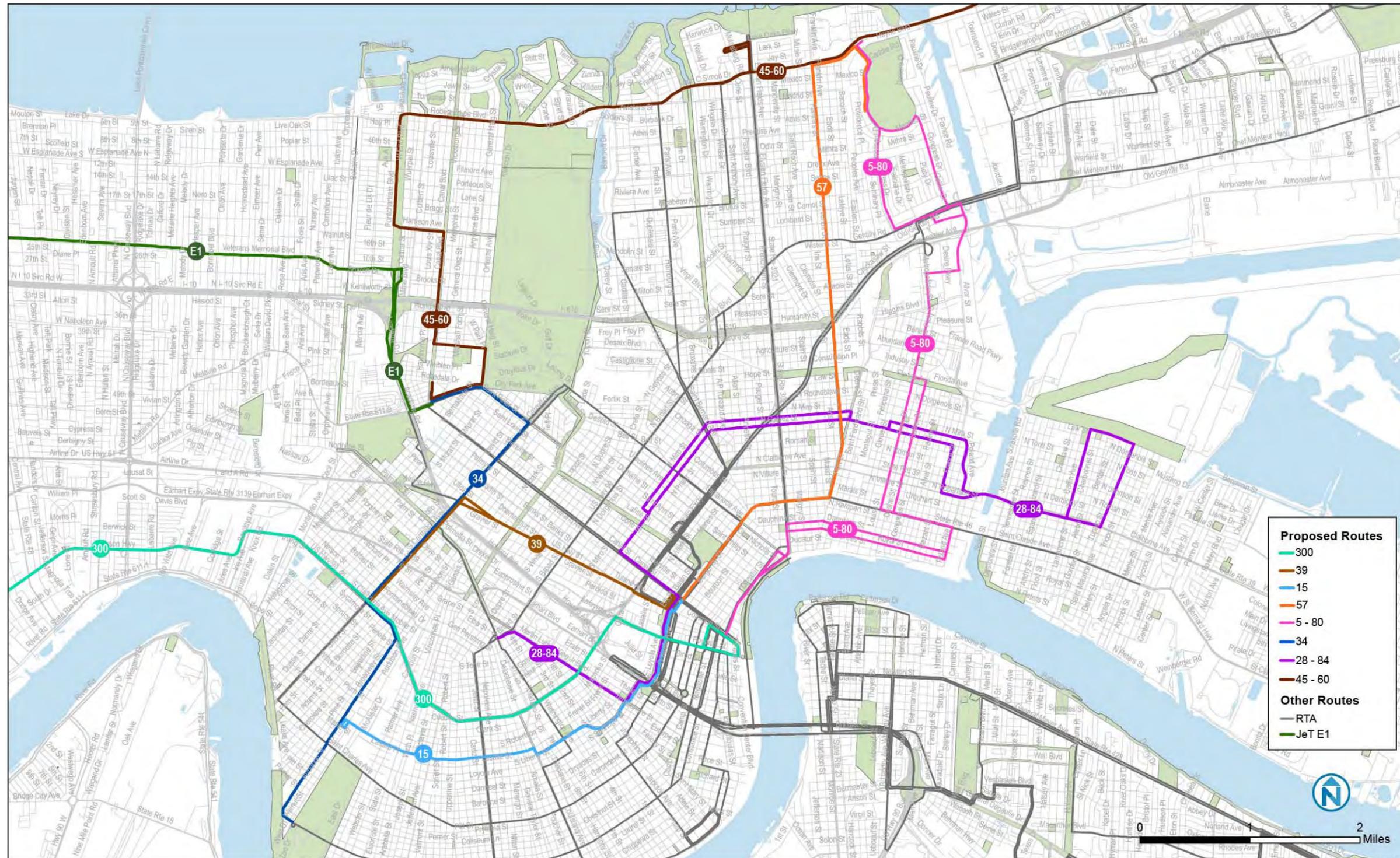
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**Sunday**

Route	Terminal 1	Terminal 2	Span	Frequency			Proposed			Existing			Plat. Hours % Change
				Peak	Base	Evening	Peak Vehicles	One Way Trips	Platform Hours	Peak Vehicles	One Way Trips	Platform Hours	
15	Freret & Broadway	SUNO Park Campus	6:00 - 22:00	--	60	60	2	32	1,947	1	32	968	101%
57								32		1	31	1,029	-100%
28	Broad & Washington	Tupelo & Claiborne	7:00 - 21:00	--	40	60	3	40	2,449	1	40	775	216%
84								40		2	37	1,451	-100%
45	Cemeteries	Chef Menteur & Desire	7:30 - 19:30	--	60	60	2	24	1,475	1	24	738	100%
60								24		0	0	0	--
80	Canal	Chef Menteur & Desire	6:30 - 20:30	--	90	90	1	18	856	1	23	880	-3%
5								18		1	28	615	-100%
34 (32)	Walnut & Magazine	City Park & Canal	6:30 - 20:30	--	60	60	1	28	856	0	0	0	--
N1	Carrollton & Willow	Broadway & St. Charles	6:30 - 19:00	--	60	60	1	25	767	0	0	0	--
N2				--				25		0	0	0	--
Weekday Subtotals							10	306	8,349	8	215	6,455	29.3%
New Orleans Scenario 2 Total									70,756		56,383	25.5%	

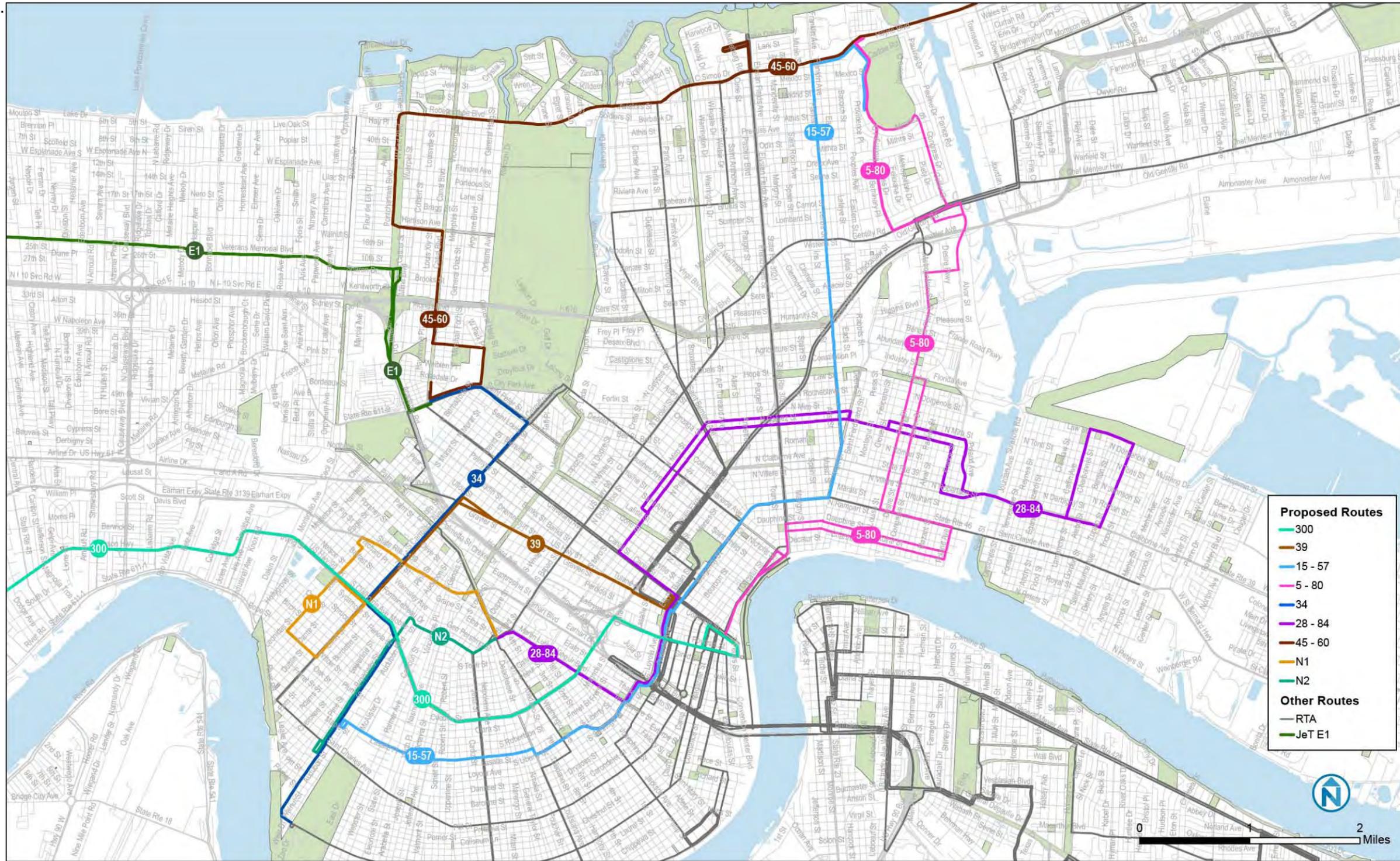
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Figure 5-7 New Orleans CBD and Mid City – Cost Neutral Scenario



Data Sources: NORPC, ESRI, US Census TIGER/Line

Figure 5-8 New Orleans CBD and Mid City – Additional Vehicles Scenario



Data Sources: NORPC, ESRI, US Census TIGER/Line

## CAPITAL IMPROVEMENTS

The service recommendations for both Algiers and New Orleans East depend to some extent on new capital facilities. Well designed route termini will have a safe place for buses to turn around, lay over, and facilitate transfers. New transit facilities are recommended at the Behrman Walmart and at the proposed Bullard Walmart.

The Behrman Walmart is a destination for residents of Algiers. Currently, buses serving the Walmart must use an alignment including Baldwin Wood Road, which has long stretches of no development. A turnaround for buses at the Behrman Walmart would reduce the need to serve this area. The easiest solution for accommodating this movement is to turn around in Walmarts lot, as is done in stores throughout the country. However, if Walmart is not willing to have buses on their property, another option must be explored.

A conceptual design for the turnaround was created that did not require travel on Walmart's property, and instead used the full width of Behrman to help turn around. Full assumptions and a conceptual layout are shown in Appendix B. Planning level costs are approximately \$134,000.

The Bullard Walmart is the centerpiece of the New Orleans East restructure. Several routes will be terminating at that location, which will create the need for layover space. This could be accommodated by created pullouts on the west side of Bullard in front of the Walmart store. A total of 4 bays are assumed. A conceptual layout is shown in Appendix B. Planning level costs for this facility are approximately \$275,000.



## 6 LATENT DEMAND ANALYSIS

### OVERVIEW

This section describes the results and methodology utilized to determine latent demand for additional service in both the RTA and JeT systems. The purpose of the analysis was to assess general demand in the regional transit network and the level of service needed to meet that demand. Service need and latent demand are quantified, at a planning level, to determine operating cost impacts and return on investment (i.e. ridership gains and marginal cost per boarding). The analysis was conducted on a route-by-route and time of day basis through a series of four steps:

1. Analyze performance
2. Propose service improvements
3. Assess the cost-efficiency of improvements
4. Ranking and prioritization

Service improvements are quantified for their operating cost impacts (i.e. additional service hours and vehicles) as well as for their ridership gain potential (i.e. latent demand) through an analysis of service elasticity factors affecting demand.

Routes are ranked based on the likelihood of generating estimated demand levels, through an evaluation of market conditions around each route – represented by population and employment density levels, and on cost-efficiency and return on investment, through the quantification of marginal costs per boarding. Then routes are prioritized for implementation based on their level of significance in the network, in three tiers: regional connectivity, crosstown, and local circulation.

All analysis steps are described in more detail in the paragraphs below.

### **Step 1: Identify Routes with Latent Demand for More Service**

The first step of the analysis was to develop a summary of service levels and service performance for each RTA and JeT route, on a time-of-day basis, and analyze service performance to establish a latent demand threshold. This summary was produced for weekday, Saturday and Sunday; however, only weekdays were used for the latent demand analysis (see Table 6-1).

The latent demand threshold was defined as the level at which demand is at least 25 percent over the system's average performance, where adding more service would not only attract more riders, but also ensure that revenues would offset additional costs, and maintain the route operating at current or higher farebox recovery ratios.

In other words, the latent demand threshold is defined at a level in which additional cost and demand would be cost-efficient and sustainable for the route's operation. Latent demand thresholds were defined for RTA and JeT as follows:

- RTA = 40 passengers per service hour
  - This level would ensure a farebox recovery ratio of at least 19.3%, which is 27 % higher than the current 15.2% ratio for the RTA system.
- JeT = 25 passengers per service hour
  - This level would ensure a farebox recovery ratio of at least 33.6%, which is 26% higher than the current 26.6% ratio for the JeT system.
  - The reason for a lower passenger per service hour threshold in JeT is explained by JeT fares, which are substantially higher than RTA's, and therefore it gets a higher farebox recovery ratio.

Table 6-1 shows routes and time periods where existing latent demand for additional service could be added with either no significant impact to cost-efficiency or a cost efficiency improvement.

The system as a whole is currently carrying 53,000 passengers on average, every weekday. The system is operating about 1,320 service hours (no layover/recovery time and deadhead time included) for an average service productivity of 40.2 passengers per service hour. Service is provided with 90 and 74 vehicles during peak and off-peak, respectively.

## **Step 2: Identify Service Improvements and Cost Impacts**

The second step in the analysis was to determine the service changes needed on a route-by-route level to address ridership potential and need. Each route in the system was analyzed for their ridership, productivity and cost-efficiency to determine appropriate strategies for improving performance and increasing levels of service. At least three general strategies were proposed.

### **1. Regularize Headways**

- The first approach was to regularize headways through service design changes such as adjustments to route alignment, to reduce or extend running time and operate a regular headway (e.g. every 15, 20, 30, 40, 45 or 60 minutes), and if possible operate a clock-face headway (e.g. 15, 20, 30, or 60 minutes).
- Many routes in the system are operating today at irregular headways (e.g. Routes 5, 11, 15, 55, 57, 102, etc.) that make remembering timetables very difficult if not impossible, and transfers to other routes a real challenge by not matching a regular 30 or 60 minute interval.
- In most cases regularization of headways can be achieved through service design adjustments that would utilize the same number of vehicles and thus be cost-neutral, while providing significant benefits to riders in terms of ease of use, convenience and dependability.

### **2. Increase Midday Service**

- The second approach is to increase midday service to match peak service levels. Some routes are operating at higher frequency during AM and PM peak periods but getting higher productivity during the midday (i.e. Route 16, 62, and 64). This is typically an indication of a strong midday market and latent demand for more service.

- This approach will result in additional vehicles operating and thus additional service hours, and so it incurs in operating cost increases. However, if implemented in routes where ridership demand levels warrant it (above the latent demand threshold), additional operating costs will be largely offset by increases in revenue.

### **3. Wholesale Increase in Service Frequency**

- Similarly, routes with service productivity indicators well above the latent demand thresholds throughout the day (peak and midday periods in particular) warrant wholesale increases in service frequency. These improvements will result in additional vehicles and costs, but also in additional revenue.
- Routes falling under this service improvement category include: 16, 39, 55, 57, 88, 94, E1, E2, E3, and W3.

Table 6-1 describes the service improvement strategies utilized on a route-by-route basis, and whether improvements result in additional service trips (i.e. cost neutral improvement from operating routes more efficiently), or additional service hours and vehicles (i.e. operating cost increases from increasing levels of service and vehicles).

## **Step 3: Estimate Ridership, Productivity and Cost-Efficiency**

The third step in the analysis was to estimate ridership gains from improvements in service to accommodate latent demand, and what impact ridership gains would have on service productivity and cost-efficiency, specifically farebox recovery ratio and marginal cost per boarding.

### **Estimate Ridership**

Ridership gains or losses were estimated through the calculation of service elasticity factors that account for all service improvement aspects, as indicated below:

- **Regular headways (+0.3):** accounting for service convenience and ease of use.
- **Higher frequency (+0.3):** accounting for reduced wait time at bus stops.
- **Lower frequency (-0.3):** accounting for increased wait time at bus stops.
- **Reduced transfers (+0.3):** accounting for reduced wait time and overall trip convenience.
- **Route Extensions (+0.1):** accounting for extended reach of transit, and access to more destinations and connections.

Service elasticity factors were established based on industry standards and research, which in general report a 0.3 – 0.5 ridership elasticity factor for every additional hour of service. Ridership elasticity varies depending on specific local conditions (such as availability of alternative options, accessibility of service, income, etc.), and so it is difficult to apply directly from one place to the other without conducting an extensive test based on empirical data.

Given that this exercise is a planning level “back of the envelope” estimate, we have established a methodology in which all service elasticity factors could add up to a 100% change in ridership. However, not all service elasticity factors apply to all routes and thus changes in ridership typically vary from 30 to 60 percent, which is within the service frequency elasticity range that is often reported in academic research and used as industry standard. In addition, reductions in service frequency resulting from proposed service improvements are also accounted for through a 30% discounting factor. Results of this analysis are shown in Table 6-4.

### **Cost-Efficiency and Productivity Impacts**

Table 6-4 also shows the results of the analysis in the form of ridership gains/(losses), level of service increase (number of one-way trips), and operating cost impacts (from additional vehicle service hours). Addressing latent demand, as proposed by this analysis and service improvement strategies in Step 2, shows that on average the system could gain 11,100 daily passengers, a 20 percent increase in ridership, while only adding 13 percent in operating costs (about \$28,000 daily). This results in an overall increase in service productivity of 3.4 passengers per service hour, and an increase of 1.6 percent in the farebox recovery ratio, for a system average of 25 percent. In other words, if RTA and JeT had the resources, these would be very cost-effective and cost-efficient service additions. Every new passenger would be costing the system \$2.51, well below the system average of \$4.15 per passenger.

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Table 6-1 Identify Routes with Latent Demand for More Service (Step 1)

Route Number	System Name	Route Description	Weekday Service Levels							Service Performance - 2011 Ridecheck							Service Efficiency				
			Service Frequency				Vehicle Requirements			Weekday Boardings	Service Hours	Boardings per Service Hour				Operating Cost	Cost per Boarding	Fare Revenue	Farebox Ratio		
			AM Peak	Base	PM Peak	Evening	AM Peak	Base	PM Peak			Evening	AM Peak	Base	PM Peak					Evening	Weekday
2	RTA	Riverfront Streetcar	37	20	37	37	--	--	--	--	1,849	15.8	20.8	131.2	131.4	120.0	117.0	\$ 2,862	\$ 1.55	\$ 1,620	57%
5	RTA	Marigny/Bywater	53	53	53		1	1	1	1	131	10.5	12.4	13.1	9.9	20.9	12.5	\$ 1,902	\$ 14.52	\$ 115	6%
10	RTA	Tchoupitoulas	30	60	30	60	2	1	2	1	450	15	39.4	29.2	40.7	17.4	30.0	\$ 2,718	\$ 6.04	\$ 394	15%
11	RTA	Magazine	16	21	16	60	4	3	4	1	1,654	44.9	37.7	41.6	35.3	26.4	36.8	\$ 8,135	\$ 4.92	\$ 1,449	18%
12	RTA	St. Charles Streetcar	10	8	8	12	--	--	--	--	9,257	164.5	33.5	60.4	75.2	49.1	56.3	\$ 29,802	\$ 3.22	\$ 8,109	27%
15	RTA	Freret	35	60	35	60	2	1	2	1	614	20.5	36.7	33.7	32.4	17.9	30.0	\$ 3,714	\$ 6.05	\$ 538	14%
16	RTA	Claiborne	30	60	30	60	2	1	2	1	949	19.9	48.5	48.4	64.3	23.5	47.7	\$ 3,605	\$ 3.80	\$ 831	23%
24	RTA	Napoleon	30	30	30	30	1	1	1	1	379	15.6	34.6	27.1	31.9	15.8	24.3	\$ 2,826	\$ 7.46	\$ 332	12%
27	RTA	Louisiana	20	40	40	80	2	2	2	1	1,032	26.4	48.1	40.2	58.9	26.4	39.1	\$ 4,783	\$ 4.63	\$ 904	19%
28	RTA	M.L. King	45	45	45	45	1	1	1	1	496	11.7	34.4	49.6	41.3	21.4	42.4	\$ 2,120	\$ 4.27	\$ 434	20%
32	RTA	Leonidas	70	70	70		1	1	1		186	11.7	13.6	16.7	20.3	4.7	15.9	\$ 2,120	\$ 11.40	\$ 163	8%
39	RTA	Tulane	20	30	20	60	3	2	3	1	2,451	36.3	72.7	74.2	70.7	70.0	67.5	\$ 6,576	\$ 2.68	\$ 2,147	33%
45	RTA	Lakeview	30	30	30	30	1	1	1	1	153	10.4	18.8	10.2	21.2	4.8	14.7	\$ 1,884	\$ 12.31	\$ 134	7%
47-48	RTA	Canal Streetcar	12	10	10	20	--	--	--	--	6,846	85.6	68.6	79.3	101.7	76.1	80.0	\$ 15,508	\$ 2.27	\$ 5,997	39%
51-52	RTA	St-Bernard - Paris Ave. & St. Bernard - St. Anthony	40	40	40	40	3	3	3	3	1,140	48.2	30.2	22.4	28.6	11.7	23.7	\$ 8,732	\$ 7.66	\$ 999	11%
55	RTA	Elysian Fields	35	35	35	35	2	2	2	2	1,168	28.9	43.8	43.7	45.9	32.9	40.4	\$ 5,236	\$ 4.48	\$ 1,023	20%
57	RTA	Franklin	36	36	36	68	2	2	2	2	1,169	27.3	50.3	44.6	50.4	31.9	42.8	\$ 4,946	\$ 4.23	\$ 1,024	21%
60	RTA	Hayne	60	60	60	60	2	2	2	2	268	21.1	15.5	11.5	14.8	6.4	12.7	\$ 3,823	\$ 14.26	\$ 235	6%
62	RTA	Morrison Express	30	45	30	90	3	2	3	1	1,441	36.8	43.9	42.2	34.3	30.8	39.2	\$ 6,667	\$ 4.63	\$ 1,262	19%
63	RTA	New Orleans East Owl				1 trip				1	29	1.4					20.7	\$ 254	\$ 8.75	\$ 25	10%
64	RTA	Lake Forest Express	45	90	45	90	2	1	2	1	851	24.6	34.3	36.9	33.9	28.5	34.6	\$ 4,457	\$ 5.24	\$ 745	17%
80	RTA	Louisa	70	70	70	70	1	1	1	1	266	14.1	26.0	11.6	32.3	15.4	18.9	\$ 2,554	\$ 9.60	\$ 233	9%
84	RTA	Galvez	40	40	40	80	2	2	2	1	768	25.4	34.8	31.4	31.7	20.0	30.2	\$ 4,602	\$ 5.99	\$ 673	15%
88	RTA	St. Claude - Jackson Barracks	20	20	20	30	3	3	3	2	2,307	37.2	65.6	56.7	72.9	53.0	62.0	\$ 6,740	\$ 2.92	\$ 2,021	30%
91	RTA	Jackson - Esplanade	30	30	30	60	4	4	4	2	1,921	43.6	45.6	43.1	45.8	52.9	44.1	\$ 7,899	\$ 4.11	\$ 1,683	21%
94	RTA	Broad	22	22	22	43	6	6	6	3	3,842	91.1	50.2	43.6	50.8	26.1	42.2	\$ 16,505	\$ 4.30	\$ 3,366	20%
100	RTA	Algiers Loop Owl				2 trips				1	40	3					13.3	\$ 544	\$ 13.59	\$ 35	6%
101	RTA	Algiers Loop	60	60	60	60	1	1	1	1	222	14.4	19.3	13.9	13.7	13.0	15.4	\$ 2,609	\$ 11.75	\$ 194	7%
102	RTA	General Meyer	36	36	36	90	2	2	2	1	932	26.6	45.2	30.5	41.2	27.9	35.0	\$ 4,819	\$ 5.17	\$ 816	17%
108	RTA	Algiers Local	60	60	60		2	2	2		421	25.2	16.5	17.4	18.1	12.5	16.7	\$ 4,565	\$ 10.84	\$ 369	8%
114-115	RTA	General DeGaulle - Tullis & General DeGaulle - Sullen	23	21	23	45	4	4	4	2	1,694	53.3	36.4	30.7	33.8	23.2	31.8	\$ 9,656	\$ 5.70	\$ 1,484	15%
201	RTA	Kenner Loop	48	48	48	48	2	2	2	2	502	23.7	20.0	21.1	23.1	19.4	21.2	\$ 4,294	\$ 8.55	\$ 440	10%
E1	JeT	Veterans	22	30	25	75	4	3	4	1	1,855	42.3	48.6	41.3	46.7	34.9	43.9	\$ 4,829	\$ 2.60	\$ 2,849	59%
E2	JeT	Airport	25	36	30	60	4	3	4	2	1,198	42.5	30.4	27.5	30.1	19.1	28.2	\$ 4,851	\$ 4.05	\$ 1,840	38%
E3	JeT	Kenner Local	20	30	25	70	4	3	4	1	1,066	38.9	29.6	28.0	25.3	16.1	27.4	\$ 4,440	\$ 4.17	\$ 1,637	37%
E4	JeT	Metairie Road	40	40	40	40	1	1	1	1	120	11.1	17.1	9.7	10.3	2.3	10.8	\$ 1,267	\$ 10.56	\$ 184	15%
E5	JeT	Causeway	30	60	30	30	2	1	2	2	330	16.5	21.9	19.3	20.4	17.9	20.0	\$ 1,883	\$ 5.71	\$ 507	27%
E8	JeT	Clearview	75	75	75		1	1	1		95	8.7	14.7	10.2	8.6		10.9	\$ 993	\$ 10.45	\$ 146	15%
W1	JeT	Avondale	69	69	69		1	1	1		141	12	14.8	8.2	18.8	8.0	11.8	\$ 1,370	\$ 9.71	\$ 217	16%
W2	JeT	Westbank Expressway	30	64	30	60	4	2	4	1	986	39.1	33.7	21.9	23.5	19.6	25.2	\$ 4,463	\$ 4.53	\$ 1,514	34%
W3	JeT	Lapalco	30	40	30	60	4	3	4	1	1,171	39.4	38.8	27.3	34.1	22.7	29.7	\$ 4,498	\$ 3.84	\$ 1,799	40%
W8	JeT	Terrytown	30	60	30	60	3	1	3	1	490	22.3	26.0	23.7	23.9	9.3	22.0	\$ 2,546	\$ 5.19	\$ 753	30%
W10	JeT	Huey P. Long	74	74	77		1	1	1		136	11.5	16.5	8.6	10.0	9.4	11.8	\$ 1,313	\$ 9.65	\$ 209	16%
							90	74	90	48	53,016	1,319					40.2	\$ 219,909	\$ 4.15	\$ 51,450	23%

Above Latent Demand Threshold

**Table 6-2 Identify Service Improvements and Cost Impacts (Step 2)**

Route Number	System Name	Route Description	Service Recommendations	
			Short Term	Long Term
2	RTA	Riverfront Streetcar	No change	
5	RTA	Marigny/Bywater	Combine with Route 80 to connect Louisa with downtown on a one-seat ride	
10	RTA	Tchoupitoulas	No change	
11	RTA	Magazine	Reduce stops, add TP measures to cycle in 60 minutes; operate at 15 all day, additional vehicle in midday	Extend to Tulane University via Broadway; 75 minute cycle with transit signal priority improvements
12	RTA	St. Charles Streetcar	No change	
15	RTA	Freret	Re-align to run on La Salle & S. Bolivar to reduce time and cycle in 30/60; same vehicles.	
16	RTA	Claiborne	Increase service frequency midday to 30 minutes; 1 additional midday vehicle	
24	RTA	Napoleon	No change	
27	RTA	Louisiana	No change	Increase service in the peak to 20 minutes; 2 additional peak vehicles
28	RTA	M.L. King	Fix loop in north end and reduce cycle to 40 minutes all day; same vehicles	
32	RTA	Leonidas	Replace with new Cemeteries - Carrollton- Tulane route; 60 minutes; 1 vehicle	
39	RTA	Tulane	Increase service to 15 min all day and 30 min evening; 4 and 2 vehicles	
45	RTA	Lakeview	Change in routing; 60 min frequency, but in both directions, same vehicle.	
47-48	RTA	Canal Streetcar	No change	
51-52	RTA	St-Bernard - Paris Ave. & St. Bernard - St. Anthony	Duplicates Route 55 on St. Anthony and at UNO; interline with Route 55 and operate every 30 min via Paris	
55	RTA	Elysian Fields	Interline with Route 51-52 for 30 min operation throughout with 5 vehicles; save 5 min in north loop and 150 minute cycle time.	
57	RTA	Franklin	Reduce loop in north end (duplication with Route 80) and clean stops to improve run time	Interline with Route 15 for 30 min all day, once Route 15 is improved to 15 minutes
60	RTA	Hayne	Route realignment in New Orleans East; no change in hours or vehicles	
62	RTA	Morrison Express	No change	Increase frequency in the midday to 30 minutes; 1 additional vehicle
63	RTA	New Orleans East Owl	No change	
64	RTA	Lake Forest Express	Extend to Michoud and operate every 60 on a 120 cycle; 1 additional vehicle in the midday	Operate every 30 in the peaks; 2 additional vehicles
80	RTA	Louisa	Interline with Route 5 to run a clean 60-minute headway on both routes with 2 vehicles	
84	RTA	Galvez	Interline with Route 28 for a consistent 40 minute service	
88	RTA	St. Claude - Jackson Barracks	Extend service to St. Bernard Walmart; 1 additional vehicle; 75 minute cycle	Increase service to every 15 min all day; 1 additional vehicle
91	RTA	Jackson - Esplanade	No change	
94	RTA	Broad	Re-route to end at Bullard Walmart and connect with 60, 62 and 64; same vehicles but regular frequency	Increase service to 15 minutes; 2 additional vehicles
100	RTA	Algiers Loop Owl	No change	
101	RTA	Algiers Loop	No change	
102	RTA	General Meyer	Extend route to serve Willy Terminal; operate every 30 minutes all day; 1 additional vehicle from Route 108	
108	RTA	Algiers Local	Shorten route at Delgado College/Pace Blvd; operate same frequency, save 1 vehicle that goes to Route 102	
114-115	RTA	General DeGaulle - Tullis & General DeGaulle - Sullen	Shorten Route 115 at Walmart using 1 vehicle every 60 min; increase frequency on Route 114 to every 30 all day with remaining vehicles.	
201	RTA	Kenner Loop	Eliminate route and use vehicles to operate extension of Route 16 to Elmwood; every 30 min all day	
E1	JeT	Veterans	Extend on Veterans Memorial into Kenner loop and Ponchartrain Center; 150 cycle, operate every 25/30 with 6 and 5 vehicles	
E2	JeT	Airport	Operate as limited stop overlay along Tulane; reduce run time to 120 cycle time; operate every 30 all day; 1 additional midday vehicle	
E3	JeT	Kenner Local	Shorten route at Elmwood and combine with portion of Route 201 on Williams Blvd; 120-min cycle, 60 minute all day and 2 vehicles; saved vehicles go to E1	
E4	JeT	Metairie Road	No change	
E5	JeT	Causeway	No change	
E8	JeT	Clearview	No change	Combine with W10 once Huey Long Bridge opens; 120-cycle, every 60 minutes; 2 vehicles
W1	JeT	Avondale	Remove Louisiana deviation; operate every 60 min all day, same vehicle	
W2	JeT	Westbank Expressway	Reduce loop going into Estelle; 120 min cycle, operate every 30/60, peak/off peak; same vehicles	
W3	JeT	Lapalco	Shorten route at Westwood to end at Westbank Expwy; 120 cycle; operate every 30 all day; 1 additional midday vehicle	
W8	JeT	Terrytown	No change	
W10	JeT	Huey P. Long	No change	Combine with E8 once Huey Long Bridge opens; 120-cycle, every 60 minutes; 2 vehicles

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Table 6-3 Identify Service Improvements and Cost Impacts (Step 2) Cont.

Route Number	System Name	Route Description	Proposed Service Frequencies				Proposed Vehicle Requirements				Proposed One-Way Trips					Existing One-Way Trips						
			AM Peak	Base	PM Peak	Evening	AM Peak	Base	PM Peak	Evening	AM Peak	Base	PM Peak	Evening	Subtotal	AM Peak	Base	PM Peak	Evening	Subtotal		
2	RTA	Riverfront Streetcar	37	20	37	37	--	--	--	--	9.7	36.0	9.7	19.5	74.9	9.7	36.0	9.7	19.5	74.9		
5	RTA	Marigny/Bywater	60	60	60		1	1	1	1	6.0	12.0	6.0		24.0	6.8	13.6	6.8		27.2		
10	RTA	Tchoupitoulas	30	60	30	60	2	1	2	1	12.0	12.0	12.0	12.0	48.0	12.0	12.0	12.0	12.0	48.0		
11	RTA	Magazine	15	15	15	60	4	4	4	1	24.0	48.0	24.0	12.0	108.0	22.5	34.3	22.5	12.0	91.3		
12	RTA	St. Charles Streetcar	10	8	8	12	--	--	--	--	36.0	90.0	45.0	60.0	231.0	36.0	90.0	45.0	60.0	231.0		
15	RTA	Freret	30	60	30	60	2	1	2	1	12.0	12.0	12.0	12.0	48.0	10.3	12.0	10.3	12.0	44.6		
16	RTA	Claiborne	30	30	30	60	2	2	2	2	12.0	24.0	12.0	12.0	60.0	12.0	12.0	12.0	12.0	48.0		
24	RTA	Napoleon	30	30	30	30	1	1	1	1	12.0	24.0	12.0	24.0	72.0	12.0	24.0	12.0	24.0	72.0		
27	RTA	Louisiana	20	40	20	80	4	2	4	1	18.0	18.0	18.0	9.0	63.0	18.0	18.0	9.0	9.0	54.0		
28	RTA	M.L. King	40	40	40	40	1	1	1	1	9.0	18.0	9.0	18.0	54.0	8.0	16.0	8.0	16.0	48.0		
32	RTA	Leonidas	60	60	60		1	1	1	1	6.0	12.0	6.0		24.0	5.1	10.3	5.1		20.6		
39	RTA	Tulane	15	15	15	30	4	4	4	2	24.0	48.0	24.0	24.0	120.0	18.0	24.0	18.0	12.0	72.0		
45	RTA	Lakeview	60	60	60	60	1	1	1	1	6.0	12.0	6.0	12.0	36.0	12.0	24.0	12.0	24.0	72.0		
47-48	RTA	Canal Streetcar	12	10	10	20	--	--	--	--	30.0	72.0	36.0	36.0	174.0	30.0	72.0	36.0	36.0	174.0		
51-52	RTA	St-Bernard - Paris Ave. & St. Bernard - St. Anthony	30	30	30	30	3	3	3	3	12.0	24.0	12.0	24.0	72.0	9.0	18.0	9.0	18.0	54.0		
55	RTA	Elysian Fields	30	30	30	30	2	2	2	2	12.0	24.0	12.0	24.0	72.0	10.3	20.6	10.3	20.6	61.7		
57	RTA	Franklin	30	30	30	60	2	2	2	2	12.0	24.0	12.0	12.0	60.0	10.0	20.0	10.0	10.6	50.6		
60	RTA	Hayne	60	60	60	60	2	2	2	2	6.0	12.0	6.0	12.0	36.0	6.0	12.0	6.0	12.0	36.0		
62	RTA	Morrison Express	30	30	30	60	3	3	3	1	12.0	24.0	12.0	12.0	60.0	12.0	16.0	12.0	8.0	48.0		
63	RTA	New Orleans East Owl				1 trip							1.0	1.0					1.0	1.0		
64	RTA	Lake Forest Express	30	60	30	60	4	2	4	2	12.0	12.0	12.0	12.0	48.0	8.0	8.0	8.0	8.0	32.0		
80	RTA	Louisa	60	60	60	60	1	1	1	1	6.0	12.0	6.0	12.0	36.0	5.1	10.3	5.1	10.3	30.9		
84	RTA	Galvez	40	40	40	80	2	2	2	1	9.0	18.0	9.0	9.0	45.0	9.0	18.0	9.0	9.0	45.0		
88	RTA	St. Claude - Jackson Barracks	15	15	15	30	5	5	5	3	24.0	48.0	24.0	24.0	120.0	18.0	36.0	18.0	24.0	96.0		
91	RTA	Jackson - Esplanade	30	30	30	60	4	4	4	2	12.0	24.0	12.0	12.0	60.0	12.0	24.0	12.0	12.0	60.0		
94	RTA	Broad	15	15	15	30	8	8	8	4	24.0	48.0	24.0	24.0	120.0	16.4	32.7	16.4	16.7	82.2		
100	RTA	Algiers Loop Owl				2 trips							2.0	2.0					2.0	2.0		
101	RTA	Algiers Loop	60	60	60	60	1	1	1	1	6.0	12.0	6.0	12.0	36.0	6.0	12.0	6.0	12.0	36.0		
102	RTA	General Meyer	30	30	30	45	3	3	3	2	12.0	24.0	12.0	16.0	64.0	10.0	20.0	10.0	8.0	48.0		
108	RTA	Algiers Local	120	120	120		1	1	1		3.0	6.0	3.0		12.0	6.0	12.0	6.0		24.0		
114-115	RTA	General DeGaulle - Tullis & General DeGaulle - Sullen	20	20	20	45	4	4	4	2	18.0	36.0	18.0	16.0	88.0	15.7	34.3	15.7	16.0	81.6		
201	RTA	Kenner Loop	30	30	30	30	2	2	2	2	12.0	24.0	12.0	24.0	72.0	7.5	15.0	7.5	15.0	45.0		
E1	JeT	Veterans	25	30	25	50	6	5	6	3	14.4	24.0	14.4	14.4	67.2	16.4	24.0	14.4	9.6	64.4		
E2	JeT	Airport	30	30	30	60	4	3	4	2	12.0	24.0	12.0	12.0	60.0	14.4	20.0	12.0	12.0	58.4		
E3	JeT	Kenner Local	60	60	60	60	2	2	2	2	6.0	12.0	6.0	12.0	36.0	18.0	24.0	14.4	10.3	66.7		
E4	JeT	Metairie Road	40	40	40	40	1	1	1	1	9.0	18.0	9.0	18.0	54.0	9.0	18.0	9.0	18.0	54.0		
E5	JeT	Causeway	30	60	30	30	2	1	2	2	12.0	12.0	12.0	24.0	60.0	12.0	12.0	12.0	24.0	60.0		
E8	JeT	Clearview	60	60	60		1	1	1	1	6.0	12.0	6.0		24.0	4.8	9.6	4.8		19.2		
W1	JeT	Avondale	60	60	60		1	1	1		6.0	12.0	6.0		24.0	5.2	10.4	5.2		20.9		
W2	JeT	Westbank Expressway	30	60	30	60	4	2	4	2	12.0	12.0	12.0	12.0	48.0	12.0	11.3	12.0	12.0	47.3		
W3	JeT	Lapalco	30	30	30	60	4	4	4	2	12.0	24.0	12.0	12.0	60.0	12.0	18.0	12.0	12.0	54.0		
W8	JeT	Terrytown	30	60	30	60	3	1	3	1	12.0	12.0	12.0	12.0	48.0	12.0	12.0	12.0	12.0	48.0		
W10	JeT	Huey P. Long	60	60	60		1	1	1	1	6.0	12.0	6.0		24.0	4.9	9.7	4.7		19.3		
							99	86	99	62	516	984	531	615	2,646	494	876	492	562	2,424		
			Hours per Time Period				Service Vehicles Increase															
			3	6	3	6	Service Vehicles Reduction															

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Table 6-4 Estimate Ridership, Productivity and Cost-Efficiency Impacts (Step 3)

Route Number	System Name	Route Description	Additional Service			Elasticity Factors						Estimated Productivity			Difference Ridership	Estimated Cost-Efficiency			Indicators								
			One-Way Trips	Service Hours	Operating Cost Diff	Regular Headways	Higher Frequency	Lower Frequency	Reduced Transfers	Route Extention	Elasticity Factor	Estimated Ridership	Total Serv. Hours	Boardings per Hour		Farebox Revenue	Operating Cost	Farebox Recovery	Recovery Change	Cost per Boarding							
2	RTA	Riverfront Streetcar	0%	0.0	\$ -						1.00	1,849	15.8	117.0	-	\$ 1,620	\$ 2,862	57%	0.0%	\$0.00							
5	RTA	MarignyBywater	-12%	-1.2	\$ (222)					0.10	1.10	144	9.3	15.5	13	\$ 126	\$ 1,680	8%	1.5%	-\$2.86							
10	RTA	Tchoupitoulas	0%	0.0	\$ -						1.00	450	15.0	30.0	-	\$ 394	\$ 2,718	15%	0.0%	\$0.00							
11	RTA	Magazine	18%	8.2	\$ 1,489	0.30	0.30			0.10	1.70	2,812	53.1	52.9	1,158	\$ 2,463	\$ 9,624	26%	7.8%	-\$1.50							
12	RTA	St. Charles Streetcar	0%	0.0	\$ -						1.00	9,257	164.5	56.3	-	\$ 8,109	\$ 29,802	27%	0.0%	\$0.00							
15	RTA	Freret	8%	1.6	\$ 286	0.30				0.10	1.40	860	22.1	38.9	246	\$ 753	\$ 4,000	19%	4.3%	-\$1.40							
16	RTA	Claiborne	25%	5.0	\$ 901		0.30			0.10	1.70	1,613	24.9	64.9	664	\$ 1,413	\$ 4,507	31%	8.3%	-\$1.01							
24	RTA	Napoleon	0%	0.0	\$ -						1.00	379	15.6	24.3	-	\$ 332	\$ 2,826	12%	0.0%	\$0.00							
27	RTA	Louisiana	17%	4.4	\$ 797		0.30				1.30	1,342	30.8	43.6	310	\$ 1,175	\$ 5,580	21%	2.2%	-\$0.48							
28	RTA	M.L. King	13%	1.5	\$ 265	0.30					1.30	645	13.2	49.0	149	\$ 565	\$ 2,385	24%	3.2%	-\$0.58							
32	RTA	Leonidas	17%	2.0	\$ 353	0.30				0.10	1.70	316	13.7	23.2	130	\$ 277	\$ 2,473	11%	3.5%	-\$3.58							
39	RTA	Tulane	67%	24.2	\$ 4,384		0.30			0.30	1.60	3,922	60.5	64.8	1,471	\$ 3,435	\$ 10,961	31%	-1.3%	\$0.11							
45	RTA	Lakeview	-50%	-5.2	\$ (942)	0.30		-0.30		0.10	1.10	168	5.2	32.4	15	\$ 147	\$ 942	16%	8.5%	-\$6.72							
47-48	RTA	Canal Streetcar	0%	0.0	\$ -						1.00	6,846	85.6	80.0	-	\$ 5,997	\$ 15,508	39%	0.0%	\$0.00							
51-52	RTA	St-Bernard - Paris Ave. & St. Bernard - St. Anthony	33%	16.1	\$ 2,911	0.30	0.30				1.60	1,824	64.3	28.4	684	\$ 1,598	\$ 11,643	14%	2.3%	-\$1.28							
55	RTA	Elysian Fields	17%	4.8	\$ 873	0.30					1.30	1,518	33.7	45.0	350	\$ 1,330	\$ 6,108	22%	2.2%	-\$0.46							
57	RTA	Franklin	19%	5.1	\$ 920	0.30					1.30	1,520	32.4	46.9	351	\$ 1,331	\$ 5,866	23%	2.0%	-\$0.37							
60	RTA	Hayne	0%	0.0	\$ -					0.10	1.10	295	21.1	14.0	27	\$ 258	\$ 3,823	7%	0.6%	-\$1.30							
62	RTA	Morrison Express	25%	9.2	\$ 1,667		0.30				1.30	1,873	46.0	40.7	432	\$ 1,641	\$ 8,334	20%	0.8%	-\$0.18							
63	RTA	New Orleans East Owl	0%	0.0	\$ -						1.00	29	1.4	20.7	-	\$ 25	\$ 254	10%	0.0%	\$0.00							
64	RTA	Lake Forest Express	50%	12.3	\$ 2,228	0.30				0.10	1.40	1,191	36.9	32.3	340	\$ 1,044	\$ 6,685	16%	-1.1%	\$0.37							
80	RTA	Louisa	17%	2.4	\$ 426	0.30				0.30	1.60	426	16.5	25.9	160	\$ 373	\$ 2,980	13%	3.4%	-\$2.60							
84	RTA	Galvez	0%	0.0	\$ -					0.10	1.10	845	25.4	33.3	77	\$ 740	\$ 4,602	16%	1.5%	-\$0.54							
88	RTA	St. Claude - Jackson Barracks	25%	9.3	\$ 1,685		0.30			0.10	1.40	3,230	46.5	69.5	923	\$ 2,829	\$ 8,424	34%	3.6%	-\$0.31							
91	RTA	Jackson - Esplanade	0%	0.0	\$ -						1.00	1,921	43.6	44.1	-	\$ 1,683	\$ 7,899	21%	0.0%	\$0.00							
94	RTA	Broad	46%	41.9	\$ 7,590	0.30					1.30	4,995	133.0	37.6	1,153	\$ 4,375	\$ 24,095	18%	-2.2%	\$0.53							
100	RTA	Algiers Loop Owl	0%	0.0	\$ -						1.00	40	3.0	13.3	-	\$ 35	\$ 544	6%	0.0%	\$0.00							
101	RTA	Algiers Loop	0%	0.0	\$ -						1.00	222	14.4	15.4	-	\$ 194	\$ 2,609	7%	0.0%	\$0.00							
102	RTA	General Meyer	33%	8.9	\$ 1,606	0.30				0.10	1.40	1,305	35.5	36.8	373	\$ 1,143	\$ 6,425	18%	0.8%	-\$0.25							
108	RTA	Algiers Local	-50%	-12.6	\$ (2,283)			-0.30			0.70	295	12.6	23.4	(126)	\$ 258	\$ 2,283	11%	3.2%	-\$3.10							
114-115	RTA	General DeGaulle - Tullis & General DeGaulle - Sullen	8%	4.2	\$ 759	0.30				0.10	1.40	2,372	57.5	41.3	678	\$ 2,078	\$ 10,415	20%	4.6%	-\$1.31							
201	RTA	Kenner Loop	60%	14.2	\$ 2,576	0.30	0.30			0.30	1.90	954	37.9	25.2	452	\$ 836	\$ 6,870	12%	1.9%	-\$1.35							
E1	JeT	Veterans	4%	1.9	\$ 213					0.10	1.10	2,041	44.2	46.2	186	\$ 3,134	\$ 5,041	62%	3.2%	-\$0.13							
E2	JeT	Airport	3%	1.2	\$ 133	0.30					1.30	1,557	43.7	35.7	359	\$ 2,392	\$ 4,984	48%	10.1%	-\$0.85							
E3	JeT	Kenner Local	-46%	-17.9	\$ (2,043)			-0.30			0.70	746	21.0	35.5	(320)	\$ 1,146	\$ 2,397	48%	10.9%	-\$0.95							
E4	JeT	Metairie Road	0%	0.0	\$ -						1.00	120	11.1	10.8	-	\$ 184	\$ 1,267	15%	0.0%	\$0.00							
E5	JeT	Causeway	0%	0.0	\$ -						1.00	330	16.5	20.0	-	\$ 507	\$ 1,883	27%	0.0%	\$0.00							
E8	JeT	Clearview	25%	2.2	\$ 248	0.30				0.30	1.70	162	10.9	14.9	67	\$ 248	\$ 1,241	20%	5.3%	-\$2.77							
W1	JeT	Avondale	15%	1.8	\$ 205	0.30					1.30	183	13.8	13.3	42	\$ 282	\$ 1,575	18%	2.1%	-\$1.12							
W2	JeT	Westbank Expressway	2%	0.6	\$ 71	0.30					1.30	1,282	39.7	32.3	296	\$ 1,969	\$ 4,534	43%	9.5%	-\$0.99							
W3	JeT	Lapalco	11%	4.4	\$ 500		0.30				1.30	1,522	43.8	34.8	351	\$ 2,338	\$ 4,997	47%	6.8%	-\$0.56							
W8	JeT	Terrytown	0%	0.0	\$ -						1.00	490	22.3	22.0	-	\$ 753	\$ 2,546	30%	0.0%	\$0.00							
W10	JeT	Huey P. Long	25%	2.8	\$ 322	0.30				0.30	1.70	231	14.3	16.1	95	\$ 355	\$ 1,635	22%	5.8%	-\$2.58							
			9%	121.2	\$ 13,830							64,120	1,472	43.6		\$ 61,887	\$ 247,828	25%	1.6%								
																Elasticity Factors		Ridership Increase		Low Threshold							
																0.30	0.30	-0.30	0.30	0.10	Operating Cost Increase		20.3%	12.7%	High Threshold	2.0%	5.0%

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Table 6-5 Implementation Priority (Step 4)

Route Number	System Name	Route Description	Estimated Productivity			Difference			Estimated Cost-Efficiency			Indicators		Demand & Efficiency Scoring			Impl. Priority	
			Estimated Ridership	Total Serv. Hours	Boardings per Hour	New Ridership	Additional Revenue	Additional Cost	Farebox Revenue	Operating Cost	Farebox Recovery	Recovery Change	Cost per Boarding	Population Density	Employment Density	Cost Efficiency	Priority Index	Connectivity Tier
16	RTA	Claiborne	1,613	24.9	64.9	664	\$582	\$901	\$ 1,413	\$ 4,507	31%	8.3%	-\$1.01	3	4	4	11	1
88	RTA	St. Claude - Jackson Barracks	3,230	46.5	69.5	923	\$808	\$1,685	\$ 2,829	\$ 8,424	34%	3.6%	-\$0.31	4	2	2	8	1
E1	JeT	Veterans	2,041	44.2	46.2	186	\$285	\$213	\$ 3,134	\$ 5,041	62%	3.2%	-\$0.13	3	3	2	8	1
E2	JeT	Airport	1,557	43.7	35.7	359	\$552	\$133	\$ 2,392	\$ 4,984	48%	10.1%	-\$0.85	2	3	3	8	1
E3	JeT	Kenner Local	746	21.0	35.5	(320)	(\$491)	(\$2,043)	\$ 1,146	\$ 2,397	48%	10.9%	-\$0.95	3	2	3	8	1
W2	JeT	Westbank Expressway	1,282	39.7	32.3	296	\$454	\$71	\$ 1,969	\$ 4,534	43%	9.5%	-\$0.99	2	2	4	8	1
114-115	RTA	General DeGaulle - Tullis & General DeGaulle - Sullen	2,372	57.5	41.3	678	\$594	\$759	\$ 2,078	\$ 10,415	20%	4.6%	-\$1.31	2	1	4	7	1
60	RTA	Hayne	295	21.1	14.0	27	\$23	\$0	\$ 258	\$ 3,823	7%	0.6%	-\$1.30	1	1	4	6	1
94	RTA	Broad	4,995	133.0	37.6	1,153	\$1,010	\$7,590	\$ 4,375	\$ 24,095	18%	-2.2%	\$0.53	3	2	1	6	1
W3	JeT	Lapalco	1,522	43.8	34.8	351	\$540	\$500	\$ 2,338	\$ 4,997	47%	6.8%	-\$0.56	2	1	3	6	1
62	RTA	Morrison Express	1,873	46.0	40.7	432	\$379	\$1,667	\$ 1,641	\$ 8,334	20%	0.8%	-\$0.18	2	1	2	5	1
102	RTA	General Meyer	1,305	35.5	36.8	373	\$327	\$1,606	\$ 1,143	\$ 6,425	18%	0.8%	-\$0.25	2	1	2	5	1
64	RTA	Lake Forest Express	1,191	36.9	32.3	340	\$298	\$2,228	\$ 1,044	\$ 6,685	16%	-1.1%	\$0.37	1	1	1	3	1
11	RTA	Magazine	2,812	53.1	52.9	1,158	\$1,014	\$1,489	\$ 2,463	\$ 9,624	26%	7.8%	-\$1.50	5	3	4	12	2
15	RTA	Freret	860	22.1	38.9	246	\$215	\$286	\$ 753	\$ 4,000	19%	4.3%	-\$1.40	3	3	4	10	2
32	RTA	Leonidas	316	13.7	23.2	130	\$114	\$353	\$ 277	\$ 2,473	11%	3.5%	-\$3.58	3	1	5	9	2
39	RTA	Tulane	3,922	60.5	64.8	1,471	\$1,288	\$4,384	\$ 3,435	\$ 10,961	31%	-1.3%	\$0.11	4	4	1	9	2
55	RTA	Elysian Fields	1,518	33.7	45.0	350	\$307	\$873	\$ 1,330	\$ 6,108	22%	2.2%	-\$0.46	3	3	3	9	2
E8	JeT	Clearview	162	10.9	14.9	67	\$102	\$248	\$ 248	\$ 1,241	20%	5.3%	-\$2.77	2	2	5	9	2
84	RTA	Galvez	845	25.4	33.3	77	\$67	\$0	\$ 740	\$ 4,602	16%	1.5%	-\$0.54	3	2	3	8	2
27	RTA	Louisiana	1,342	30.8	43.6	310	\$271	\$797	\$ 1,175	\$ 5,580	21%	2.2%	-\$0.48	3	1	3	7	2
51-52	RTA	St-Bernard - Paris Ave. & St. Bernard - St. Anthony	1,824	64.3	28.4	684	\$599	\$2,911	\$ 1,598	\$ 11,643	14%	2.3%	-\$1.28	2	1	4	7	2
201	RTA	Kenner Loop	954	37.9	25.2	452	\$396	\$2,576	\$ 836	\$ 6,870	12%	1.9%	-\$1.35	2	1	4	7	2
W10	JeT	Huey P. Long	231	14.3	16.1	95	\$146	\$322	\$ 355	\$ 1,635	22%	5.8%	-\$2.58	1	1	5	7	2
57	RTA	Franklin	1,520	32.4	46.9	351	\$307	\$920	\$ 1,331	\$ 5,866	23%	2.0%	-\$0.37	2	2	2	6	2
W1	JeT	Avondale	183	13.8	13.3	42	\$65	\$205	\$ 282	\$ 1,575	18%	2.1%	-\$1.12	1	1	4	6	2
5	RTA	Marigny/Bywater	144	9.3	15.5	13	\$11	(\$222)	\$ 126	\$ 1,680	8%	1.5%	-\$2.86	4	3	5	12	3
28	RTA	M.L. King	645	13.2	49.0	149	\$130	\$265	\$ 565	\$ 2,385	24%	3.2%	-\$0.58	2	3	3	8	3
108	RTA	Algiers Local	295	12.6	23.4	(126)	(\$111)	(\$2,283)	\$ 258	\$ 2,283	11%	3.2%	-\$3.10	2	1	5	8	3
45	RTA	Lakeview	168	5.2	32.4	15	\$13	(\$942)	\$ 147	\$ 942	16%	8.5%	-\$6.72	1	1	5	7	3
80	RTA	Louisa	426	16.5	25.9	160	\$140	\$426	\$ 373	\$ 2,980	13%	3.4%	-\$2.60	1	1	5	7	3
91	RTA	Jackson - Esplanade	1,921	43.6	44.1	-	\$0	\$0	\$ 1,683	\$ 7,899	21%	0.0%	\$0.00	5	3	0	8	
2	RTA	Riverfront Streetcar	1,849	15.8	117.0	-	\$0	\$0	\$ 1,620	\$ 2,862	57%	0.0%	\$0.00	2	5	0	7	
12	RTA	St. Charles Streetcar	9,257	164.5	56.3	-	\$0	\$0	\$ 8,109	\$ 29,802	27%	0.0%	\$0.00	4	3	0	7	
10	RTA	Tchoupitoulas	450	15.0	30.0	-	\$0	\$0	\$ 394	\$ 2,718	15%	0.0%	\$0.00	3	3	0	6	
47-48	RTA	Canal Streetcar	6,846	85.6	80.0	-	\$0	\$0	\$ 5,997	\$ 15,508	39%	0.0%	\$0.00	2	4	0	6	
E5	JeT	Causeway	330	16.5	20.0	-	\$0	\$0	\$ 507	\$ 1,883	27%	0.0%	\$0.00	3	3	0	6	
24	RTA	Napoleon	379	15.6	24.3	-	\$0	\$0	\$ 332	\$ 2,826	12%	0.0%	\$0.00	4	1	0	5	
101	RTA	Algiers Loop	222	14.4	15.4	-	\$0	\$0	\$ 194	\$ 2,609	7%	0.0%	\$0.00	3	1	0	4	
W8	JeT	Terrytown	490	22.3	22.0	-	\$0	\$0	\$ 753	\$ 2,546	30%	0.0%	\$0.00	3	1	0	4	
100	RTA	Algiers Loop Owl	40	3.0	13.3	-	\$0	\$0	\$ 35	\$ 544	6%	0.0%	\$0.00	2	1	0	3	
E4	JeT	Metairie Road	120	11.1	10.8	-	\$0	\$0	\$ 184	\$ 1,267	15%	0.0%	\$0.00	2	1	0	3	
63	RTA	New Orleans East Owl	29	1.4	20.7	-	\$0	\$0	\$ 25	\$ 254	10%	0.0%	\$0.00	1	1	0	2	

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## Step 4: Ranking and Prioritization

The final step in the analysis was to create a prioritized list of proposed service changes. To this end, we conducted a general evaluation of market accessibility, represented by the level of population and employment density that can potentially feed each route. The level of population and employment density is not only a measure of the size of the market but also a measure of likelihood for latent demand ridership to materialize, if levels of service are improved through route design efficiencies or additional vehicle service hours.

In addition to latent demand, we also measured the cost-effectiveness of service changes, represented by the marginal cost per boarding, which is in essence an indicator of return on investment by comparing ridership gains versus the costs of additional service to generate said ridership.

Table 6-5 shows the evaluation of these three indicators. The scoring criteria utilized were based on a five-level breakdown of the range of values for each measure, as follows:

### Population Density

- Very high = 5 20-30 persons per acre
- High = 4 15-20 persons per acre
- Average = 3 10-15 persons per acre
- Low = 2 5-10 persons per acre
- Very low = 1 0-5 persons per acre

### Employment Density

- Very high = 5 40 or more jobs per acre
- High = 4 30-40 jobs per acre
- Average = 3 20-30 jobs per acre
- Low = 2 10-20 jobs per acre
- Very low = 1 0-10 jobs per acre

### Marginal Cost per Boarding

- Very high = 5 -\$1.50 or less
- High = 4 -\$1.00 to -\$1.50
- Average = 3 -\$0.40 to -\$1.00
- Low = 2 \$0.00 to -\$0.40
- Very low = 1 more than \$0.00

### Priority Tiers

Routes were then ranked according to the average score of latent demand and cost-efficiency measures, and organized in three discrete tiers of significance for the regional network, which are defined as follows:

- Tier 1 = Regional connection route

- Tier 2 = Crosstown route
- Tier 3 = Neighborhood connection route

## LIST OF PROPOSED SERVICE CHANGES AND PRIORITY TIERS

The result of the analysis described above is a final list of proposed service changes ranked according to their investment priority. Proposed improvements that were included in the cost-neutral service change recommendations described in Chapter 5 were excluded from the list. As these are assumed to be a no-cost improvement and thus become the highest priority by default.

Table 6-6 below summarizes the route service change recommendations that require additional investment. Routes with the highest need and potential return on investments are at top; routes with the lowest need and potential return for investment are at bottom. The table includes an estimate of the additional annual platform hours (weekdays, Saturdays, and Sundays) required to implement the service changes when compared to existing service.

These estimates have been refined from those produced by step 3 above. Route recommendations are in addition to the cost-neutral service recommendations, and the additional hours account for the difference in service compared to those recommendations.

In general, service additions are for one or two extra vehicles operating for the entire day and so they are significant improvements in service frequency for each route. These are recommended based on latent demand for service which will provide a high return on investment to the service additions and improve route and system cost-efficiency.

Table 6-6 Proposed Service Changes and Priority Tiers

Route Number	System Name	Route Description	Service Recommendations	Connectivity Tier	Additional Platform Hours *
16	RTA	Claiborne	<b>Short Term:</b> Increase service frequency midday to 30 minutes; 1 additional midday vehicle  <b>Long Term:</b> No change	1	2,286
E1	JeT	Veterans	<b>Short Term:</b> Extend on Veterans Memorial into Kenner loop and Ponchartrain Center; 150 cycle, operate every 25/30 with 6 and 5 vehicles  <b>Long Term:</b> No change	1	1,905

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Route Number	System Name	Route Description	Service Recommendations	Connectivity Tier	Additional Platform Hours *
88	RTA	St. Claude - Jackson Barracks	<b>Short Term:</b> Extend service to St. Bernard Walmart; 1 additional vehicle; 75 minute cycle <b>Long Term:</b> Increase service to every 15 min all day; 1 additional vehicle	1	4,572
E2	JeT	Airport	<b>Short Term:</b> Operate as limited stop overlay along Tulane; reduce run time to 120 cycle time; operate every 30 all day; 1 additional midday vehicle <b>Long Term:</b> No change	1	4,200
11	RTA	Magazine	<b>Short Term:</b> Reduce stops, add TP measures to cycle in 60 minutes; operate at 15 all day; additional vehicle in midday <b>Long Term:</b> Extend to Tulane University via Broadway; 75 minute cycle with transit signal priority improvements	2	1,397
39	RTA	Tulane	<b>Short Term:</b> Increase service to 15 min all day and 30 min evening; 4 and 2 vehicles <b>Long Term:</b> No change	2	3,556
27	RTA	Louisiana	<b>Short Term:</b> No change <b>Long Term:</b> Increase service in the peak to 20 minutes; 2 additional peak vehicles	2	3,556

\*Additional annual platform hours needed to implement changes when compared to cost-neutral service recommendations described earlier in this report.



# 7 ENVIRONMENTAL JUSTICE ANALYSIS

## INTRODUCTION

Changing the transit service routes across an entire system can prove impactful to the communities and residents that regularly demand access to dependable transit service. Therefore, it is necessary to accurately analyze how proposed route changes will affect communities currently being served by transit. This chapter discusses the comparative analysis of the proposed bus route changes to reveal the changes in racial and income attributes of the population served.

## METHODOLOGY

Utilizing Geographic Information Systems (GIS), comparative analyses were completed of communities served by transit routes both currently and after proposed changes take effect. Specifically, racial and income attributes at the Census Tract level were aggregated on a route-by-route basis to compare the impacts of proposed changes on these two important community aspects. Based upon the previously completed Intercept Survey (see Chapter 4), current ridership travels 3 blocks or .2 miles on average to access a transit stop. Therefore Census Tracts within .2 miles of transit routes were assumed to be representative of the community served by each transit route. While Census Block Groups and Blocks represent smaller geographic areas, Census Tracts are the smallest geographic units for which the necessary income and race data are available.

In order to complete this environmental justice analysis, a series of methodological assumptions were made. These assumptions relate to the nature of transit ridership and the process of reviewing and selecting proposed routes. These assumptions include:

- *Route destinations impact riders as much as availability.* Route or schedule changes to one route cannot necessarily be covered by another route. If a proposed route travels within .2 miles of a resident, but has a totally different destination, the proposed route does not replace the previous service. Environmental Justice (EJ) analysis should be completed on a route-by-route basis.
- *Route-by-route EJ analysis can be aggregated in a meaningful way to reflect a package of route improvements.* When aggregating changes in the community served by a route, it is beneficial to analyze on a route-by-route basis in order to capture changes accurately. Additionally, the route-by-route analysis allows for a system-wide aggregation of changes. One can select one scenario for each route in a system, and then aggregate all these changes together to produce a system-wide net impact. In this way, projects that do not meet approval through the review process can be easily removed in order to provide an aggregate EJ analysis across the regional transit systems.

- The basis of analysis for the region-wide EJ analysis will be the system as it exists currently. A route-by-route demographic and income analysis of the system as it exists today will be required to provide the baseline for comparison for the proposed route and schedule changes identified in Chapter 5.

2010 Census data, as well as data from New Orleans Regional Transit Authority (NORTA), Jefferson Parish Transit (JeT), and the New Orleans Regional Planning Commission (NORPC) formed the basis of this analysis. Appendix C provides detailed descriptions of demographic and income changes to each route in Jefferson and Orleans Parishes.

## SYSTEM-WIDE SUMMARY

While analysis of the different sub-regions remains valuable, analysis of proposed changes at the system-wide scale is important to gauge the environmental justice impact with respect to transit within Greater New Orleans. Assuming the entire proposed package of changes within a scenario will be implemented, one is able to aggregate groups of entire scenarios together to produce a system-wide perspective of both existing conditions and population served with proposed changes.

Selecting the scenario options which propose the least amount of changes, one finds that racial and income attributes of population served are minimally affected by the proposed changes (Table 7-1). The total population served increases slightly, but this growth is not shared equally across the parishes. White population will receive more service, while black populations will receive slightly smaller levels of service. However, below poverty populations will experience an increase in service provided.

Table 7-1 Fewest Changes: NO East 1, NO/CBD Cost Neutral, Eastbank, Westbank, and Algiers A Scenarios

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	776,798	42.4%	797,938	43.0%	21,140	0.6%
Black	893,820	48.8%	892,990	48.1%	(830)	-0.7%
Other	142,429	7.8%	147,951	8.0%	5,522	0.2%
Total	1,831,962		1,856,729		24,767	1.4%
Income <sup>2</sup>	#	%	#	%	#	%
Below Poverty	357,749	22.4%	363,546	22.5%	5,797	0.1%
Above Poverty	1,238,620	77.6%	1,248,846	77.5%	10,226	-0.1%

Notes.

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide).

2. Based on US Census ACS 2010 5-year Tract SF1 level data with .2 mile buffer.

3. As many of the transit routes within the study area operate closely near other routes and frequently serve the same Census Tract, aggregate analysis of net changes scenario-wide or system-wide produces overlapping counts of demographic characteristics. For this reason, detailed investigation on a route-by-route basis is also provided. Appendix C provides detailed descriptions of demographic and income changes to each route in Jefferson and Orleans Parishes.

4. Proportional change on all tables reflects the difference between “%” of any race or income attribute in the “Population Served Currently” and “Population Served with Changes” columns.

Table 7-2 selects the scenario options which propose the most significant changes. Under these scenarios, the aggregate impact of route changes to racial and income attributes of the population served are more substantial. The total population served increases notably, but again this is not shared equally among racial populations. The white populations experience an increase in service, while black populations also experience an increase, but not to the same degree as white populations. However, below poverty populations will again experience increases in service under these routing conditions.

**Table 7-2 Significant Changes: NO East, NO/CBD Additional Vehicles, Eastbank, Westbank, and Algiers B Scenarios**

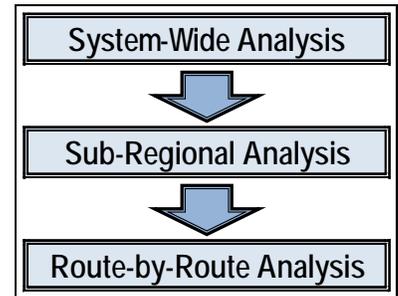
Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	776,798	42.4%	542,162	45.4%	65,364	3.0%
Black	893,820	48.8%	908,717	48.9%	14,897	0.2%
Other	142,429	7.8%	152,813	8.2%	10,384	0.5%
Total	1,831,962		1,935,953		103,991	5.7%
Income <sup>2</sup>	#	%	#	%	#	%
Below Poverty	357,749	22.4%	381,392	22.7%	23,643	0.3%
Above Poverty	1,238,620	77.6%	1,297,623	77.3%	59,003	-0.3%

Notes.

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide).
2. Based on US Census ACS 2010 5-year Tract SF1 level data with .2 mile buffer.
3. As many of the transit routes within the study area operate closely near other routes and frequently serve the same Census Tract, aggregate analysis of net changes scenario-wide or system-wide produces overlapping counts of demographic characteristics. For this reason, detailed investigation on a route-by-route basis is also provided. Appendix C provides detailed descriptions of demographic and income changes to each route in Jefferson and Orleans Parishes.
4. Proportional change" on all tables reflects the difference between "%" of any race or income attribute in the "Population Served Currently" and "Population Served with Changes" columns.

## SUB-REGIONAL ANALYSIS SUMMARY

To understand the composition of the system-wide analysis, an investigation of the sub-regions is required. As identified previously in this document, the sub-regions (New Orleans East, New Orleans CBD/Mid City, Algiers, the Westbank of Jefferson Parish and the Eastbank of Jefferson Parish) comprise the region's transit service. The following sub-regional analysis together with the route-by-route analysis found in Appendix C represent smaller scale perspectives of the Environmental Justice impact of proposed route changes.



## New Orleans East

Transit service currently provided to this geographic area includes four bus lines serving a low density suburban population. On weekdays, one fixed route bus has a frequency of less than or equal to 30 minutes, while two have frequencies between 30 and 60 minutes. Route 60 has a lifeline service with 70 minute headway. According to performance standards set by RTA, Rte 60 has a boarding per revenue hour rate that is just above failing (12.2) and a \$10.15 subsidy per boarding.

### New Orleans East Scenario

- Route changes include: 1) Rte 60 and 62- eliminating the Little Woods loop and extending service to new Bullard Walmart; 2) Rte 64- eliminating route spurs and extending service to Michoud Blvd and the Village de l'Est; 3) Rte 94- removing service to Michoud Blvd and the Village de l'Est and extending service to the Little Woods loop.
- As route service removed on some routes (Rtes 60, 62 and 94) will largely be added to other routes (Rtes 64 and 94), the net changes to population served under this scenario are minor. Under proposed changes, the only areas with service removed include underperforming spurs with low population and ridership along with small segments located along Rtes 60 and 94. Under proposed changes, a slightly more impoverished population is served, but that population contains fewer black residents, and more residents of white and other races.

Table 7-3 NO East Scenario

Population Attributes	Net Changes
<b>Race</b>	
White	0.9%
Black	-1.3%
Other	0.7%
Total	-4.8%
<b>Income</b>	
Below Poverty	0.4%
Above Poverty	-0.4%

## Algiers

Transit service currently provided to this geographic area includes five bus routes serving a variety of areas from the urban Algiers Point to the low density suburban Aurora populations. Only one bus provides circulation internal to Algiers, while another four provide connections to the Eastbank and downtown New Orleans. On weekdays, one bus route has a frequency of less than or equal to 30 minutes, while the remaining have frequencies between 30 and 60 minutes. The portion of Route 108 which extends east of Holiday Drive at MacArthur Blvd has low ridership demand based on surveys and data collection. Route 108 routing changes both in Algiers Point and East of Holiday Drive are the difference between the three different scenarios that follow.

### Algiers Scenario A

- Route changes include 1) Rte 102: extended to connect with JeT’s Wilty Terminal underneath the Westbank Expressway; 2) Rte 108: rerouted through Algiers Point, with service to a portion of Algiers east of Holiday Dr removed; 3) Rte 115: terminating route at the Behrman Highway Walmart.
- Areas east of Holiday Drive have maintained service with Routes 101 Owl, 102 and 114; however, Routes 108 and 115 no longer serve these areas under all scenarios. Under Scenario A, Rte 108 service is streamlined in the less impoverished Algiers Point neighborhood, while a loop along Gen Meyer Ave, Holiday Dr, and Gen DeGaulle Dr is created, servicing areas of moderate poverty. The Fischer Project neighborhood, along with the Census Tracts to the east (the most impoverished areas of Algiers) maintain existing service. While a smaller total population is served, the changes in racial and income attributes of the population served are minimal.

Table 7-4 Algiers Scenario A

Population Attributes	Net Changes
<b>Race</b>	
White	0.8%
Black	-1.5%
Other	-0.6%
Total	-18.8%
<b>Income</b>	
Below Poverty	1.2%
Above Poverty	-1.2%

### Algiers Scenario B

- Route changes include 1) Rte 102: extended to connect with JeT’s Wilty Terminal underneath the Westbank Expressway; 2) Rte 108: rerouted through Algiers Point with service to a portion of Algiers east of Pace Blvd removed; 3) Rte 115: terminating route at the Behrman Hwy Walmart.
- Areas east of Holiday Drive have maintained service with Routes 101 Owl, 102 and 114; however, Routes 108 and 115 no longer serve these areas under all scenarios. Under Scenario B, Rte 108 service is streamlined in the less impoverished Algiers Point neighborhood, while a more compact loop along Gen Meyer Ave, Pace Blvd, and Gen DeGaulle Dr is created, servicing areas of moderate poverty. The Fischer Project neighborhood, along with the Census Tracts to the east (the most impoverished areas of Algiers) maintain existing service. The more compact loop featured in Scenario B means an even smaller total population is served; additionally, it reduces the black population served by over 9%. Changes in income attributes of the population served are minimal.

Table 7-5 Algiers Scenario B

Population Attributes	Net Changes
<b>Race</b>	
White	0.7%
Black	-9.4%
Other	-0.6%
Total	-22.5%
<b>Income</b>	
Below Poverty	1.8%
Above Poverty	-1.8%

### Algiers Scenario C

- Route changes include 1) Rte 102: extended to connect with JeT's Wilty Terminal underneath the Westbank Expressway; 2) Rte 108: rerouted through Old Algiers and along Gen. DeGaulle with service removed to a portion of Algiers east of Kabel Dr; 3) Rte 115: terminating route at the Behrman Hwy Walmart.
- Areas east of Holiday Drive have maintained service with Routes 101 Owl, 102 and 114; however, Routes 108 and 115 no longer serve these areas under all scenarios. Under Scenario C, Rte 108 service is streamlined in the less impoverished Algiers Point neighborhood portion, while an extended compact loop along Gen Meyer Ave, Pace Blvd, and Gen DeGaulle Dr is created, servicing areas of moderate poverty. The Fischer Project neighborhood, along with the Census Tracts to the east (the most impoverished areas of Algiers) maintain existing service. The more extended loop featured in Scenario C means a similar total population is served compared to Scenario A; while the changes in racial and income attributes of the population served overall are minimal.

Table 7-6 Algiers Scenario C

Population Attributes	Net Changes
<b>Race</b>	
White	2.3%
Black	0.9%
Other	-0.3%
Total	-18.9%
<b>Income</b>	
Below Poverty	0.7%
Above Poverty	-0.7%

### New Orleans Mid-City/ CBD

Transit service currently provided to this geographic area includes 18 bus and three streetcar routes serving much of the Orleans Parish population. On weekdays, nine fixed route buses have a frequency of less than or equal to 30 minutes, while seven have frequencies between 30 and 60 minutes. Two routes (Rte 32 and 80) have lifeline service with 70 minute headway. Rte 32, with ten boardings per revenue hour stands as one of the lowest performing routes in the system, meanwhile the St Charles Streetcar and Rte 39 both provide service along the Rte 32 service area. Rte 5, with a 60 minute headway and 11 boardings per revenue hour, also has weak performance. Under both scenarios, Rte 5 and Rte 80 would be joined to create a cross town route. Lastly, Rte 45, with a 30 minute headway and 12.2 boardings per revenue hour, has one of the shortest headways and weak performance.

#### Cost Neutral Scenario

- Route changes include 1) Rte 5: joining with Rte 80, providing cross town (CBD to Gentilly Woods) service and removing a transfer; 2) Rte 15: rerouting down Simon Bolivar and Loyola; 3) Rte 16: extending service down US 90 to Clearview Pkwy in Metairie and removing a transfer; 4) Rte 28: joining with Rte 84, providing cross town (Lower Ninth Ward to Broadmoor) service and removing a transfer; 5) Rte 32: removing service through Hollygrove and Dixon, shifting to Carrollton Ave and setting an outbound destination to Canal St/ City Park Ave; 6) Rte 45: joining with Rte 60, providing Lakefront (Lakeview to Gentilly) service and removing a transfer; and 7) Rtes 39 and 57: minor extensions and spur removals.

- The extension of Rte 16 into Jefferson Parish, while removing a transfer, adds significant population served to this scenario (Table 7-7). This extension, recommended under the Eastbank Scenario, replaces an existing segment of JeT's E3 route and adds a number of white and less impoverished residents to the Rte 16 service area, while maintaining service to the population within Orleans Parish. Routing changes to the underperforming lifeline service of Rte 32 (now Rte 34) away from Hollygrove and Dixon neighborhoods under the Cost Neutral scenario remove service to black, impoverished neighborhoods and do not directly replace it within the neighborhoods. Meanwhile, the newly joined routes 5-80, 45-60, and 28-84 add benefit to consumers by reducing transfers, while still serving existing populations. Overall under the Cost Neutral Scenario, a slightly less impoverished population is served, containing slightly more black residents and somewhat fewer white residents.

Table 7-7 NO CBD/ Mid City Cost Neutral Scenario

Population Attributes	Net Changes
<b>Race</b>	
White	-0.4%
Black	0.4%
Other	0.0%
Total	12.6%
<b>Income</b>	
Below Poverty	-0.2%
Above Poverty	0.2%

**Additional Vehicles Scenario**

- Route changes include 1) Rte 5: joining with Rte 80, providing cross town (CBD to Gentilly Woods) service; 2) Rte 15: joining with Rte 57, providing cross town (Tulane to Gentilly/UNO); 3) Rte 16: extending service down US 90 to Clearview Pkwy in Metairie; 4) Rte 28: joining with Rte 84, providing cross town (Lower Ninth Ward to Broadmoor) service; 5) Rte 32: removing service through Hollygrove and Dixon, shifting to Carrollton Ave and setting an outbound destination to Canal St/ City Park Ave; 6) Rte 45: joining with Rte 60, providing Lakefront (Lakeview to Gentilly) service; 7) Rtes 39: minor extensions; and 8) N1 and N2: additional service to Gert Town, Broadmoor, and Carrollton/Tulane neighborhoods.
- Major demographic impacts to the population served within this scenario are reflective of two additional routes being added. Routes N1 and N2 are short routes providing connections between job centers and regional transfer points. Additionally, Rte N1 would replace service to the Hollygrove neighborhood which was removed by the re-routing of Rte 32. The extension of Rte 16 into Jefferson Parish, while removing a transfer, adds 20,000 potential riders to this scenario as reflected in Table 7-8. This extension, recommended under the Eastbank Scenario, replaces an existing segment of JeT's E3 route and adds a number of white and less impoverished residents to the Rte 16 service area. Overall under the Additional Vehicles Scenario, a slightly less impoverished

Table 7-8 NO CBD/ Mid City Additional Vehicles Scenario

Population Attributes	Net Changes
<b>Race</b>	
White	6.1%
Black	8.2%
Other	0.9%
Total	29.9%
<b>Income</b>	
Below Poverty	-0.2%
Above Poverty	0.2%

population is served, containing a significantly higher portion of black and white residents.

## Westbank Scenario

Transit service currently provided to this geographic area includes five bus routes serving the suburban Westbank portion of the Jefferson Parish population. On weekdays, three fixed route buses have a frequency at less than or equal to 30 minutes, while no routes have frequencies between 30 and 60 minutes. Two routes (W1 and W10) have lifeline service with 69 and 74 minute headways respectively. Under the proposed changes, W10 and E8 would be joined to create a single Jefferson Parish route which crosses the Mississippi River via the US 90 Huey P Long Bridge, thus removing a transfer and connecting remote residents to the large Elmwood commercial area. Otherwise route changes have been limited to removal of spurs and loop deviations.

Table 7-9 Westbank Scenario

Population Attributes	Net Changes
<b>Race</b>	
White	2.6%
Black	-3.2%
Other	0.4%
Total	14.8%
<b>Income</b>	
Below Poverty	-1.1%
Above Poverty	1.1%

- Route changes include 1) W10: joining with E8; 2) W2: removing loop down Baratavia Blvd and a slight extension down Ames Blvd; and 3) W1 and W3: minor streamlining route alterations.
- Westbank scenario changes are greatly impacted by Route W10 joining with Route E8. It should be noted that no one along either Route W10 or E8 will lose coverage as a part of this change. The additional population served (more than 30,000) was not equally distributed among black, white and other races. The new service area for E8-W10 includes more white residents than black and more residents above poverty than below. However, proposed Rte E8-W10 is being analyzed as a Westbank Scenario route even though it services Eastbank as well. Therefore, the increase in population served under Westbank Scenario analysis is correspondingly identified under Eastbank Scenario analysis as a decrease in population served.

## Eastbank Scenario

Transit service currently provided to this geographic area includes seven bus routes serving the suburban populations of Jefferson Parish, including the unincorporated Metairie, and the cities of Harahan and Kenner. On weekdays, three fixed route buses have a frequency of less than or equal to 30 minutes, while three have frequencies between 30 and 60 minutes. Only one route (Rte E8) has lifeline service with a 74 minute headway. Under the proposed changes, the RTA operated Route 201 would be removed and the service replaced with extended JeT Routes E1 and E3. Ridership surveys identified movements between the northern and southern portions of Kenner as demanded. Extending these routes and removing transfers improves ridership experience for those desiring to make this movement. Additionally, a portion of Rte E3 service area east of Clearview Pkwy will be removed and covered by the extended service of RTA Rte 16.

- Route changes include 1) E8: joining with W10; 2) E1: extending farther West on Veterans Blvd and North into Kenner to cover portions of RTA Rte 201; 3) E3: extending farther North connecting
- Kenner to Elmwood (covering portions of RTA Rte 201) and removing service East of Clearview and West of Williams; 4) RTA Rte 201: Removed and serviced by other routes.
- Population currently served is more than two thirds white and 87 % of the population is above poverty. Under the Eastbank Scenario, changes include the removal of RTA Rte 201 and JeT Rte E8 (as it is being joined with W10). These changes, reflected in Table 7-10, are not representative of true changes to population served as the service areas of these two routes are no longer the same.

**Table 7-10 Eastbank Scenario**

Population Attributes	Net Changes
<b>Race</b>	
White	0.1%
Black	-0.7%
Other	0.6%
Total	-10.3%
<b>Income</b>	
Below Poverty	-0.2%
Above Poverty	0.2%



## **APPENDIX A**

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### Sample Intercept Survey



## APPENDIX A: SAMPLE INTERCEPT SURVEY

		<b>REGIONAL TRANSIT AUTHORITY</b> <b>2011 TRANSIT SURVEY</b>				Fill in the bubble for each answer			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Correct	Wrong	Wrong							
					___/___/11						
Surveyor	Assignment	Route # or Name	Vehicle	Date	Trip ID	Time					
1. Have you been interviewed by another surveyor?		<input type="radio"/> No	<input type="radio"/> Today	<input type="radio"/> Yesterday	<input type="radio"/> In the past Two Days	<input type="radio"/> This Week	<input type="radio"/> In the past Two Weeks	Male: <input type="radio"/> Female: <input type="radio"/>			
2. At what time did you get on THIS BUS or STREETCAR?		___:___	AM PM	3. Are you an area resident or a visitor to the area?		<input type="radio"/> Resident	<input type="radio"/> Visitor	4. What is your home ZIP Code?			
5. What is the purpose of the trip you are making right now?											
<input type="radio"/> Going Home		<input type="radio"/> Medical Appointment or Doctor's visit		<input type="radio"/> Social Visit, Church, personal visit, friend or relative's home		<input type="radio"/> School (K-12) (student only) Name of Inst _____		<input type="radio"/> College/University (student only) Name of Inst _____		<input type="radio"/> Airport (as a passenger or to greet a passenger)	
<input type="radio"/> Going to your workplace		<input type="radio"/> Shopping		<input type="radio"/> Hotel		<input type="radio"/> Recreation or sightseeing		<input type="radio"/> Convention Center		<input type="radio"/> Other _____	
6. How many different buses or street cars will you or did you use to complete your trip today?		7. Which bus routes, streetcar lines, or ferry routes did you, or will you, use to complete your current trip? (MARK CURRENT ROUTE)									
<input type="radio"/>		<input type="radio"/>		<input type="radio"/>		<input type="radio"/>		<input type="radio"/>		<input type="radio"/>	
1st Route # or Name		2nd Route # or Name		3rd Route # or Name		4th Route # or Name		5th Route # or Name			
<b>ORIGIN</b>						<b>ALIGHTING</b>					
8. At what PLACE did you BEGIN your very first trip today? (The name of the place at the beginning of the trip, such as your home, work, or other place you visited, not the bus stop.)  (For example: French Market, home, City Hall, etc.)						11. At which BUS STOP (or transit center/streetcar stop) will you get OFF the bus/streetcar you are riding now?  (For example: Canal and Basin St or Carrollton Transit Center)					
Do you know the exact address of this place?						12. How will you get from your last bus/streetcar stop to your final destination? (e.g. home or work) (choose only one)					
Do you know the city and ZIP code of this place?						<input type="radio"/> Walk Number of blocks _____ <input type="radio"/> Bike Miles _____ <input type="radio"/> Drive alone, then park <input type="radio"/> I will get picked up <input type="radio"/> Use mobility aid / wheelchair <input type="radio"/> Other _____					
OR the nearest intersection to this place? (requires # streets) @ (For example: Canal St @ Basin St)						<b>DESTINATION</b>					
OR the nearest landmark?  (For example: Cemeteries, Tulane University, Superdome)						13. What place is the FINAL DESTINATION of your trip? (End of trip, such as your home, work, or the place you are going to, not the bus stop.)  (For example: French Market, home, City Hall, etc.)					
<b>BOARDING</b>						Do you know the exact address of this place?					
9. How did you get from the beginning of your trip (e.g. home or work) to the first bus/streetcar used for this trip? (choose only one)						Do you know the city and ZIP code of this place?					
<input type="radio"/> Walked Number of blocks _____ <input type="radio"/> Biked Miles _____ <input type="radio"/> Drove alone, then parked <input type="radio"/> I was dropped off / Carpooled <input type="radio"/> Used mobility aid / wheelchair <input type="radio"/> Other _____						OR the nearest intersection to this place? (requires 2 streets) @ (For example: Canal St @ Basin St)					
10. At which bus stop (or transit center/streetcar stop) did you get on the bus/streetcar you are riding now?  (For example: Canal and Basin St or Carrollton Transit Center)						OR the nearest landmark?  (For example: Cemeteries, Tulane University, Superdome)					

**COMPREHENSIVE OPERATIONAL ANALYSIS | FINAL REPORT**  
Regional Planning Commission



**REGIONAL TRANSIT AUTHORITY**  
**2011 TRANSIT SURVEY**

Fill in the bubble for each answer



**DEMOGRAPHICS**

14. How often do you ride RTA and/or JeT?

5 or more days a week

2 to 4 days a week

About once a week

About once a month

First time

I'm a tourist. I ride when I'm in town.

18. What is your primary language or what language do you speak at home?

19. Do you consider yourself to be of Hispanic, Latino or Spanish origin?

Yes

No

15. If RTA/JeT were not available, how would you make this trip?

Use another agency's bus

Drive alone

Carpool / Vanpool

Taxi

Driven by someone else

Bicycle

Walk

Would not make trip

20. What is your race/ethnic background?  
(Mark all that apply. multiple answers are valid.)

Black or African American

Asian

White / Caucasian

Caribbean, Central, or South American

Mexican

American Indian or Alaska Native

Native Hawaiian or other Pacific Islander

Other \_\_\_\_\_

16. Do you have a valid driver's license?

Yes

No

21. What is your age?

Under 18

18 - 24

25 - 40

41 - 64

65 and Over

Refused or did not provide a response

17. Do you typically have a car available for your use?

Yes, I own / lease a car

Yes, I have access to someone else's car

Yes, I have a rental car

Yes, I use carshare

No, I do not have regular access to a car

No, my household has a car but someone else uses it

No, I have access to a car, but it is not operable right now

22. What was the total family income last year (before taxes) of all persons in your household?

Less than \$15,000

\$15,000 to \$24,999

\$25,000 to \$34,999

\$35,000 to \$49,999

\$50,000 to \$74,999

\$75,000 or more

Refused or did not provide a response

Comments:

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: AM  
PM  
Ending Time

## **APPENDIX B**

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### Capital Element Assumptions and Drawings



# BURK-KLEINPETER, INC.

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## TECHNICAL MEMORANDUM

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**Job No.:** No.11.029

**Date:** June 22, 2012

**Job Title:** RPC-RTA Comprehensive Operational Analysis

**To:** Thomas Wittmann, Nelson/Nygaard Consulting Associates

**From:** Carl Seifert, Burk-Kleinpeter, Inc.

**Subject:** Transit Stop Capital Improvements

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The following memo responds to the requests detailed to Burk-Kleinpeter, Inc. planning staff by Nelson/Nygaard related to the Comprehensive Operational Analysis (COA). BKI has produced conceptual site plans and construction cost ranges for the improvements at two bus stop locations as part of a series of route change recommendations within the COA Final Report. Specifically, BKI was requested to create 1) planning level cost estimates and design concepts for a Bullard Ave transit facility, located at the future site of Walmart just south of I-10, featuring 4 bus storage bays and capital improvements required for a RTA bus turn-around movement; and 2) planning level cost estimates and design concepts for the capital improvements required for a RTA bus turn-around movement on Behrman Rd near the site of the existing Algiers Walmart.

### **Bullard Ave Transit Facility and Bus Turn-around**

#### **Existing conditions**

Bullard Ave between I-10 and Lake Forest Blvd is moderate density suburban area serviced mainly by auto-oriented traffic. Within one-quarter mile, land uses consist of fast food restaurants, gas stations, strip retail/commercial and a vacant large-lot grocery retailer. Also within one-quarter mile is a 4 to 5 house per acre subdivision only accessible via Lake Forest Blvd. There are two signalized intersections: 1) the I-10 service road and Bullard Ave; and 2) Lake Forest Blvd and Bullard Ave. The existing site on which Walmart will develop their standard wholesale store formerly contained a regional hospital. The site is currently equipped with street and road access to service hospital traffic. There are two bus stops located along Bullard Ave in front of the former hospital site. Both of these stop locations are signified by a pole and no seating; however, along the length of the site there is a shoulder which appears consistent with dimensions of a standard parking lane. Lastly, the large previously vacant parcel to the southeast of the Walmart development is currently under construction. As the nature of this development is unknown, its development could impact these conceptual construction cost ranges.

Walmart preliminary site plans were obtained from the New Orleans City Planning Commission. According to these plans, the Walmart development will utilize the existing divided driveway on Bullard Ave which allows left turns into the development. Utilizing these site plans, bus storage bays were placed along Walmart side of Bullard Ave. As identified in Fig 1, two bus bays will be immediately in front of the Walmart parking lot, while an additional two will be placed in front of the undeveloped portion of the Walmart property. The continued use of entrance driveway encouraged the separate placement of these two bus storage bays. Additionally, Walmart site plans show a primary pedestrian sidewalk connecting street pedestrians to the Walmart parking area and

store. Bus bay site design provides access to this pedestrian infrastructure via additional sidewalks. Additionally, a pedestrian crossing with curb-cuts of the median are incorporated into the design.

**Assumptions**

In creating these conceptual costs and design elements, certain assumptions were made.

- It is assumed no major drainage structures were affected or will be affected by the capital improvements suggested.
- Additionally, based on apparent right-of-way observed on aerial photography, it is assumed that no right of way takings will be required to implement the capital improvements suggested.
- Next, there will not be a signalized intersection on Bullard entrance to the Walmart development as is stated in their traffic proposal submitted to LA DOTD and consequently the pedestrian crosswalk must be signed, not signalized.
- Lastly, the standard AASHTO 40 foot bus (Bus-40) was used as the design vehicle.

**Design**

[See Figure 1. Bullard Ave Transit Improvements]

**Conceptual Construction Cost Range**

<b>Table 1. Bullard Bus Turn-Around Site Improvements (2012)</b>				
<i>Cost Item</i>	<i>Conceptual Construction Cost Range</i>			
Traffic Control/Site Prep	\$	11,500	to	\$ 14,000
Bus Lane Pullout	\$	58,000	to	\$ 71,000
Sidewalk/Loading Pad	\$	17,500	to	\$ 21,000
Shelter	\$	8,500	to	\$ 10,000
Median/Crosswalk	\$	14,000	to	\$ 17,000
Lighting	\$	20,500	to	\$ 22,500
Drainage	\$	29,500	to	\$ 36,000
Mobilization	\$	12,000	to	\$ 14,500
Construction Layout	\$	4,500	to	\$ 5,500
<b>Total Construction Cost</b>	<b>\$</b>	<b>176,000</b>	<b>to</b>	<b>\$ 211,500</b>
Contingency (30%)	\$	52,800	to	\$ 63,450
<b>Total</b>	<b>\$</b>	<b>228,800</b>	<b>to</b>	<b>\$ 274,950</b>

**Notes:**

1. Compiled by Burk-Kleinpeter, Inc. 2012
2. Utilized Autoturn Version 7 for design.
3. Does not include engineering design, construction administration, inspection, or testing.

## Behrman Rd Bus Turn-around

### Existing conditions

Behrman Rd between Behrman Hwy and the Orleans-Jefferson Parish line is a low density suburban area serviced largely by auto-oriented traffic. Within one-quarter mile, land uses consist of a large public golf course, an outpatient medical facility, strip retail/commercial, and a standard sized Walmart set back from the street with parking in front. There are two signalized intersections: 1) on the southern edge of the Walmart property servicing traffic entering/exiting the parking lot; and 2) near the Parish line servicing Baldwin Wood Rd traffic connecting to Behrman Rd. There are two existing bus stop concrete pads complete with shelters in the immediate area: 1) adjacent to the road along the northern part of the Walmart property; and 2) adjacent to the road in front of the retail establishments near Baldwin Wood Rd signalized intersection.

### Assumptions

In creating these conceptual costs and design elements, certain assumptions were made.

- It is assumed no major drainage structures were affected or will be affected by the capital improvements suggested.
- Additionally, based on apparent right-of-way observed on aerial photography, it is assumed that no right of way takings will be required to implement the capital improvements suggested.
- Lastly, the standard AASHTO 40 foot bus (Bus-40) was used as the design vehicle.

### Design

[See Fig. 2 Behrman Rd Transit Improvements]

### Conceptual Construction Cost Range

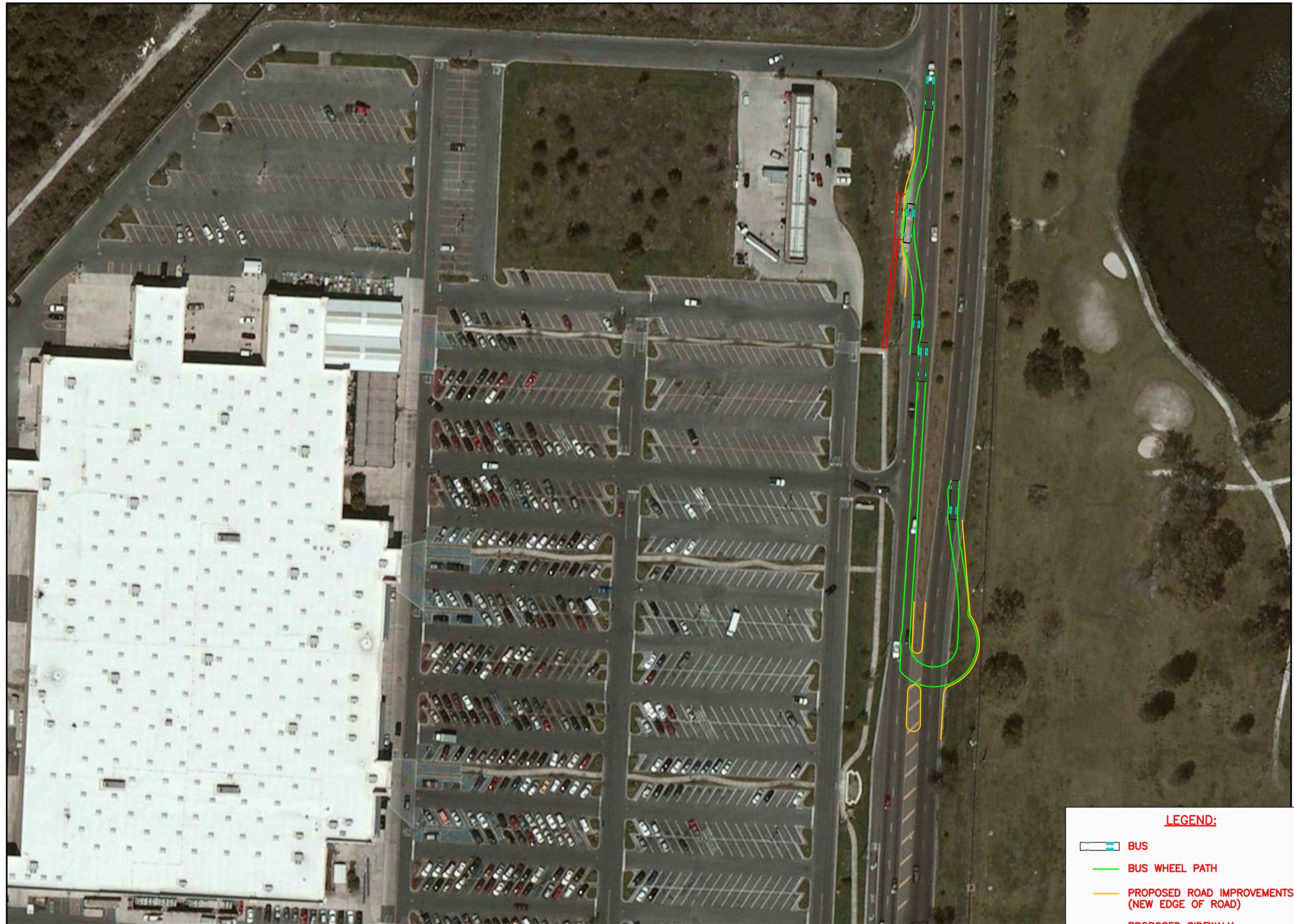
<b>Table 2. Behrman Transit Facility Site Improvements (2012)</b>				
<i>Cost Item</i>	<i>Conceptual Construction Cost Range</i>			
Traffic Control/Site Prep	\$	6,000	to	\$ 7,000
Bus Lane Pullout	\$	10,000	to	\$ 12,000
Sidewalk/Loading Pad	\$	4,500	to	\$ 5,500
Shelter	\$	8,500	to	\$ 10,000
Median/U-Turn Turnout	\$	22,500	to	\$ 27,500
Lighting	\$	5,000	to	\$ 6,000
Drainage	\$	21,000	to	\$ 25,500
Mobilization	\$	5,500	to	\$ 6,500
Construction Layout	\$	2,000	to	\$ 2,500
<b>Total Construction Cost</b>	<b>\$</b>	<b>85,000</b>	<b>to</b>	<b>\$ 102,500</b>
Contingency (30%)	\$	25,500	to	\$ 30,750
<b>Total</b>	<b>\$</b>	<b>110,500</b>	<b>to</b>	<b>\$ 133,250</b>

#### Notes:

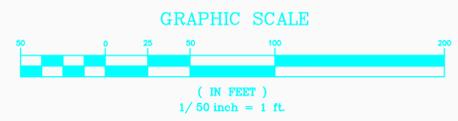
1. Compiled by Burk-Kleinpeter, Inc. 2012
2. Utilized Autoturn Version 7 for design.
3. Does not include engineering design, construction administration, inspection, or testing.

## **Summary**

This analysis will comprise a part of the larger COA final report which details a program of route and schedule changes for both the Jefferson Parish Transit (JeT) and Regional Transit Authority (RTA) systems. In particular, the capital improvements to Behrman Dr enable a turn-around movement for Rte 114, which will utilize this turn-around infrastructure many times daily. Meanwhile, the bus storage bays and shelters which comprise the capital improvements along Bullard Ave will service 3 RTA Routes (Rte 60, 62, and 94) and hundreds of people daily.



**FIG. 2. BEHRMAN RD TRANSIT IMPROVEMENTS**



**LEGEND:**

-  BUS
-  BUS WHEEL PATH
-  PROPOSED ROAD IMPROVEMENTS (NEW EDGE OF ROAD)
-  PROPOSED SIDEWALK



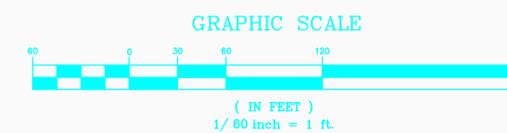


PROPOSED WALMART  
DEVELOPMENT

**LEGEND:**

-  BUS
-  BUS WHEEL PATH
-  PROPOSED ROAD IMPROVEMENTS  
(NEW EDGE OF ROAD)
-  PROPOSED SIDEWALK
-  PROPOSED CROSSWALK
-  PROPOSED WALMART  
FOOTPRINT

**FIG. 1. BULLARD AVE HIGHWAY TRANSIT IMPROVEMENTS**



## **APPENDIX C**

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### Environmental Justice Analysis Data



## EJ Analysis Summary

### Minimal Changes Scenarios Combined

*Conservative Scenarios included:* Eastbank Scenario  
Westbank Scenario  
NO East 1 Scenario  
NO/CBD Cost Neutral, and  
Algiers A Scenario

	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
<b>Race<sup>1</sup></b>						
White	776,798	42.4%	794,664	42.9%	17,866	0.5%
Black	893,820	48.8%	891,960	48.2%	(1,860)	-0.6%
Other	142,429	7.8%	147,491	8.0%	5,062	0.2%
Total	1,831,962		1,851,965		20,003	1.1%
<b>Income<sup>2</sup></b>						
Below Poverty	357,749	22.4%	350,183	22.7%	(7,566)	0.3%
Above Poverty	1,238,620	77.6%	1,194,250	77.3%	(44,370)	-0.3%

#### Notes.

- Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide).
- Based on US Census ACS 2010 5-year Tract SF1 level data with .2 mile buffer.

### Agressive Changes Scenarios Combined

*Conservative Scenarios included:* Eastbank Scenario  
Westbank Scenario  
NO East 2 Scenario  
NO/CBD Additional Vehicles, and  
Algiers B Scenario

	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
<b>Race<sup>1</sup></b>						
White	776,798	42.4%	838,888	45.3%	62,090	2.9%
Black	893,820	48.8%	907,687	49.0%	13,867	0.2%
Other	142,429	7.8%	152,353	8.2%	9,924	0.5%
Total	1,831,962		1,931,189		99,227	5.4%
<b>Income<sup>2</sup></b>						
Below Poverty	357,749	22.4%	368,029	22.8%	10,280	0.4%
Above Poverty	1,238,620	77.6%	1,243,027	77.2%	4,407	-0.4%

#### Notes.

- Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide).
- Based on US Census ACS 2010 5-year Tract SF1 level data with .2 mile buffer.

## EJ Analysis Summary- NO East Scenarios

### Route Change Description:

1) Balance service levels with demand; 2) Reduce route duplication; 3) Reducing one-way loops; 4) Increase accessibility to redeveloping and recovering areas.

### Scenario 1

	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
<i>Race<sup>1</sup></i>						
White	48,546	16.0%	48,792	16.9%	246	0.9%
Black	234,741	77.4%	219,736	76.1%	(15,005)	-1.3%
Other	19,025	6.3%	20,140	7.0%	1,115	0.7%
Total	303,377		288,668		(14,709)	-4.8%
<i>Income<sup>2</sup></i>		%		%	#	%
Below Poverty	62,215	27.0%	59,375	27.4%	(2,840)	0.4%
Above Poverty	167,990	73.0%	157,099	72.6%	(10,891)	-0.4%

### Routes Selected

60\_Mod,  
62\_Mod,  
64\_Mod,  
94\_Mod.

### Scenario 2

	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
<i>Race<sup>1</sup></i>						
White	48,546	16.0%	48,505	18.3%	(41)	2.3%
Black	234,741	77.4%	197,410	74.5%	(37,331)	-2.8%
Other	19,025	6.3%	18,913	7.1%	(112)	0.9%
Total	303,377		264,828		(38,549)	-12.7%
<i>Income<sup>2</sup></i>		%		%	#	%
Below Poverty	62,215	27.0%	54,410	27.3%	(7,805)	0.3%
Above Poverty	167,990	73.0%	144,705	72.7%	(23,285)	-0.3%

### Routes Selected

60\_Removal,  
62\_Mod,  
64\_Mod,  
94\_Mod

### Notes.

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide).
2. Based on US Census ACS 2010 5-year Tract SF1 level data with .2 mile buffer.
3. Routes 64, 62 and 94 serve a similar inbound destination (Mid City), but their service area encompasses the entire Eastern part of New Orleans.
4. This population service area, New Orleans East, is largely homogenous in racial and poverty levels.
5. Proposed Rte 94 changes in both Scenarios remove coverage to areas east of I-510, while extending coverage to areas East of Bullard and North of I-10. Meanwhile, proposed Rte 62 removes coverage from areas East of Bullard and north of I-10 and adds service to the new proposed WalMart on Bullard Ave.
6. Proposed changes to Rte 64 extends coverage to areas East of I-510 and removes extraneous spurs.
7. Unlike many NO East routes, Rte 60's path remains along the lakefront and its inbound destination is in Lakeview. Therefore it should be noted that proposed route coverage by Rtes 94 and 62 is not equal to current coverage. That being said, current Rte 60 is an underperforming route when utilizing metrics set up by NORTA, which include boardings and alightings and other standard operational measures.

## EJ Analysis Summary- New Orleans CBD/Mid-City Scenarios

### Route Change Description:

1) Reduce one-directional and low-performing route segments; 2) Reducing bus congestion and turning movements along Loyola, Elk and Rampart; 3) Facilitate cross-town trips; 4) Increase service to under-served areas.

### Cost Neutral Scenario

	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
<b>Race<sup>1</sup></b>						
White	268,269	41.5%	299,481	41.2%	31,212	-0.4%
Black	335,324	51.9%	380,659	52.3%	45,335	0.4%
Other	39,510	6.1%	44,441	6.1%	4,931	0.0%
Total	646,133		727,611		81,478	12.6%
<b>Income<sup>2</sup></b>						
Below Poverty	139,830	26.2%	157,186	26.0%	17,356	-0.2%
Above Poverty	393,738	73.8%	446,554	74.0%	52,816	0.2%

### Routes Selected

5\_Mod, 10, 11, 15\_Mod\_CN, 16\_Mod, 24, 27, 28\_Mod, 32\_Mod, 39\_Mod, 45\_Mod, 51, 52, 55, \_Mod, 57\_Mod\_CN, 80\_Mod, 84\_Mod, 88, and 91.

### Additional Vehicles Scenario

	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
<b>Race<sup>1</sup></b>						
White	268,269	41.5%	346,675	47.6%	78,406	6.1%
Black	335,324	51.9%	437,230	60.1%	101,906	8.2%
Other	39,510	6.1%	51,100	7.0%	11,590	0.9%
Total	646,133		839,035		192,902	29.9%
<b>Income<sup>2</sup></b>						
Below Poverty	139,830	26.2%	181,026	26.0%	41,196	-0.2%
Above Poverty	393,738	73.8%	514,915	74.0%	121,177	0.2%

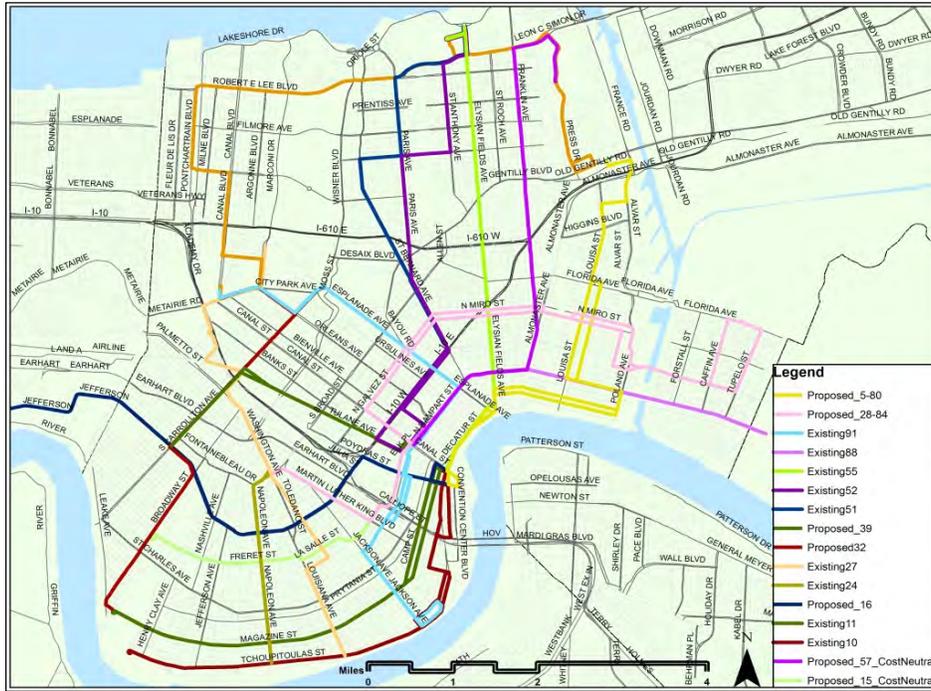
### Routes Selected

5\_Mod, 10, 11, 15\_Mod, 16\_Mod, 24, 27, 28\_Mod, 32\_Mod, 39\_Mod, 45\_Mod, 51, 52, 55, 57\_Mod, 80\_Mod, 84\_Mod, 88, 91, N1, and N2.

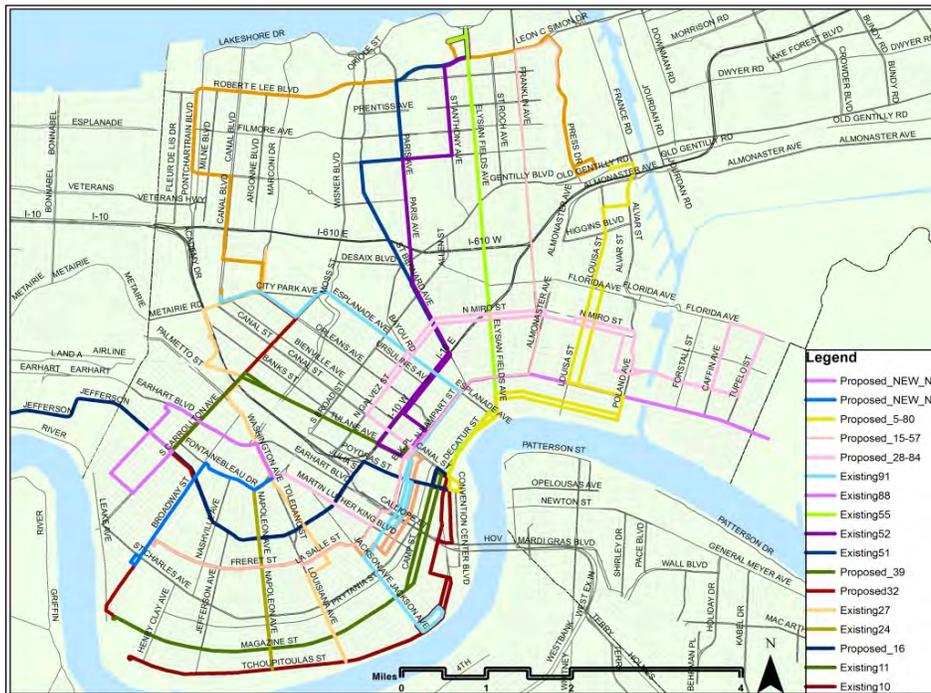
### Notes.

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide).
2. Based on US Census ACS 2010 5-year Tract SF1 level data with .2 mile buffer.
3. This population service area, New Orleans without Algiers and the East, is markedly diverse on racial and poverty levels. Additionally, it should be noted that due to close proximity of many routes and the large size of Census Tracts, there is an undetermined amount of double counting in this aggregate/summary table. However, the proportional change column still provides a strong indicator for change for the given variables.
4. Proposed changes to Route 16 are included in this analysis, which extends significantly into Jefferson Parish and out of this particular service area.

## Cost Neutral Scenario



## Additional Vehicles Scenario



## EJ Analysis Summary- Algiers Scenarios

### Route Change Description:

1) Balance service levels with demand; 2) Reduce route duplication; 3) Increase accessibility and connections with Westbank and JeT services

### Scenario A

	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
<i>Race</i> <sup>1</sup>						
White	66,695	29.4%	55,677	30.2%	(11,018)	0.8%
Black	130,815	57.6%	103,389	56.1%	(27,426)	-1.5%
Other	16,440	7.2%	12,189	6.6%	(4,251)	-0.6%
Total	226,934		184,239		(42,695)	-18.8%
<i>Income</i> <sup>2</sup>		%	#	%	#	%
Below Poverty	53,740	25.0%	45,565	26.1%	(8,175)	1.2%
Above Poverty	161,457	75.0%	128,845	73.9%	(32,612)	-1.2%

### Routes Selected

101, 102\_Mod,  
108\_ModA, 114,  
115.

### Scenario B

	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
<i>Race</i> <sup>1</sup>						
White	66,695	29.4%	52,994	30.1%	(13,701)	0.7%
Black	130,815	57.6%	84,871	48.3%	(45,944)	-9.4%
Other	16,440	7.2%	11,619	6.6%	(4,821)	-0.6%
Total	226,934		175,879		(51,055)	-22.5%
<i>Income</i> <sup>2</sup>		%	#	%	#	%
Below Poverty	53,740	25.0%	44,536	26.8%	(9,204)	1.8%
Above Poverty	161,457	75.0%	121,655	73.2%	(39,802)	-1.8%

### Routes Selected

101, 102\_Mod,  
108\_ModB, 114,  
115.

### Scenario C

	Population Served		Population Served		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
<i>Race</i> <sup>1</sup>						
White	66,695	29.4%	55,787	31.7%	(10,908)	2.3%
Black	130,815	57.6%	102,998	58.6%	(27,817)	0.9%
Other	16,440	7.2%	12,297	7.0%	(4,143)	-0.3%
Total	226,934		184,066		(42,868)	-18.9%
<i>Income</i> <sup>2</sup>		%	#	%	#	%
Below Poverty	53,740	25.0%	44,693	25.7%	(9,047)	0.7%
Above Poverty	161,457	75.0%	129,282	74.3%	(32,175)	-0.7%

### Routes Selected

101, 102\_Mod,  
108\_ModC, 114,  
115.

### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide).
2. Based on US Census ACS 2010 5-year Tract SF1 level data with .2 mile buffer.
3. Routes 101, 114, and 115 have no recommended service route changes.
4. Proposed Rte 108 has three different route change options for proposed changes. As depicted on 108A, 108B, and 108C analysis pages, the route maintains a circulator path around the Westbank portion of Orleans Parish, but each route option winds through the neighborhoods of Algiers differently. All maintain service to the Wilty Terminal and the same route pattern East of Holiday Dr.
5. Proposed Rte 102 remains very similar to the existing route, but deviates south to serve the Wilty terminal. It maintains the same service across the Mississippi River and into the New Orleans CBD.

# EJ Analysis Summary- Westbank Scenario

## Route Change Description:

1) Streamline route alignments to reduce deviations; 2) Improve transfer connections to existing terminals; 3) Improve regional connectivity

## Westbank Scenario

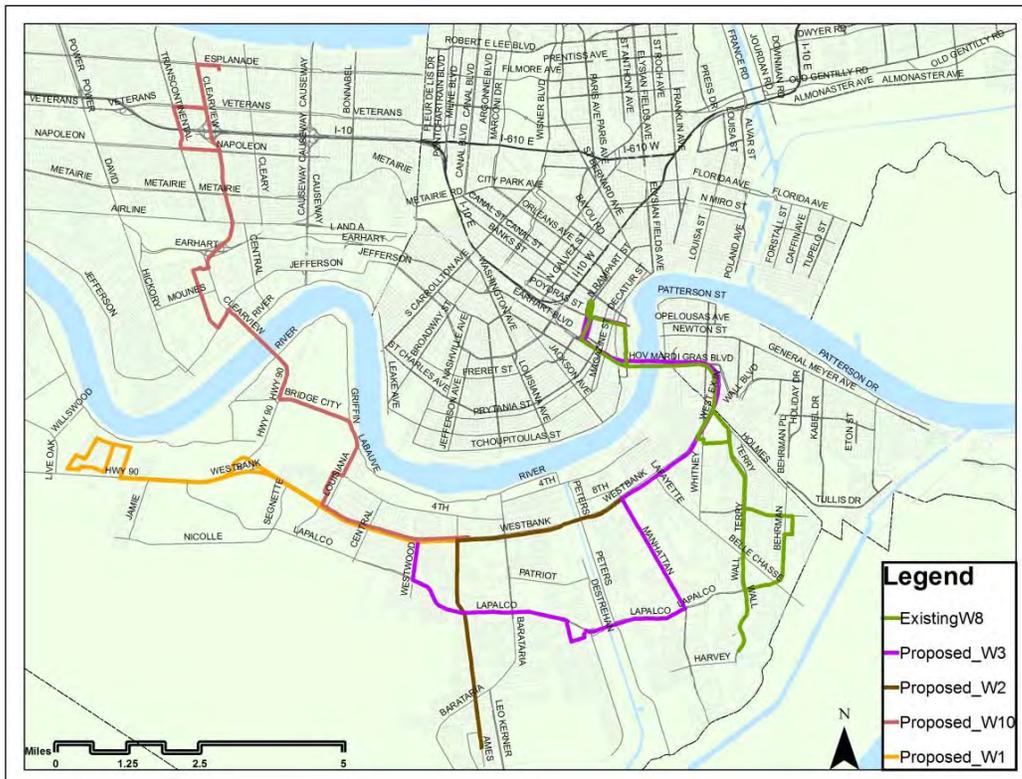
Routes Selected

W1\_Mod,  
W2\_Mod,  
W3\_Mod, W8,  
W10\_Mod

	Population Served Currently:		Population Served with Changes:		Net Changes	
<i>Race</i> <sup>1</sup>	#	%	#	%	<i>Absolute Change</i>	<i>Proportional Change</i>
White	126,617	46.7%	151,049	49.3%	24,432	2.6%
Black	114,135	42.1%	119,984	39.1%	5,849	-2.9%
Other	28,624	10.6%	33,696	11.0%	5,072	0.4%
Total	271,212		306,565		35,353	13.0%
<i>Income</i> <sup>2</sup>	#	%	#	%	#	%
Below Poverty	53,693	21.3%	45,199	20.4%	(8,494)	-0.9%
Above Poverty	197,815	78.7%	175,927	79.6%	(21,888)	0.9%

### Notes.

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide).
2. Based on US Census ACS 2010 5-year Tract SF1 level data with .2 mile buffer.
3. The population service area, Jefferson Parish Westbank and portions of the Eastbank, contains large census tracts with a diverse range of demographic and income attributes throughout.
4. Proposed Rte W10 interlining with E8 adds significant coverage to areas Eastbank populations along Causway Blvd, while limiting some service in the Elmwood area.
5. Proposed Rtes W1 and W2 involve changes, but no racial or income related changes are reflected as changes are minor and occur within Census Tracts.



# EJ Analysis Summary- Eastbank Scenario

## Route Change Description:

1) Integrate Kenner service with the regional network; 2) Facilitate transfers and connections; 3) Avoid route duplication; and 4) Balance service levels with demand.

## Eastbank Scenario

Routes Selected

E1-Mod, E2, E3\_Mod, E4, E5, E8\_Removal, 201\_Removal

	Population Served Currently:		Population Served with Changes:		Net Changes	
<i>Race</i> <sup>1</sup>	#	%	#	%	<i>Absolute Change</i>	<i>Proportional Change</i>
White	266,671	69.4%	239,665	69.5%	(27,006)	0.1%
Black	78,805	20.5%	68,192	19.8%	(10,613)	-0.7%
Other	38,830	10.1%	37,025	10.7%	(1,805)	0.6%
Total	384,306		344,882		(39,424)	-10.3%
<i>Income</i> <sup>2</sup>	#	%	#	%	#	%
Below Poverty	48,271	13.2%	42,858	13.0%	(5,413)	-0.2%
Above Poverty	317,620	86.8%	285,825	87.0%	(31,795)	0.2%

### Notes.

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide).
2. Based on US Census ACS 2010 5-year Tract SF1 level data with .2 mile buffer.
3. Routes 101, 114, and 115 have no recommended service route changes. Proposed Rte W10 joins the former Rte E8 and extends to the Westbank.
4. Proposed extension of Rte 16 not included in analysis, but is included in the map below for reference.



# RTA Route 5

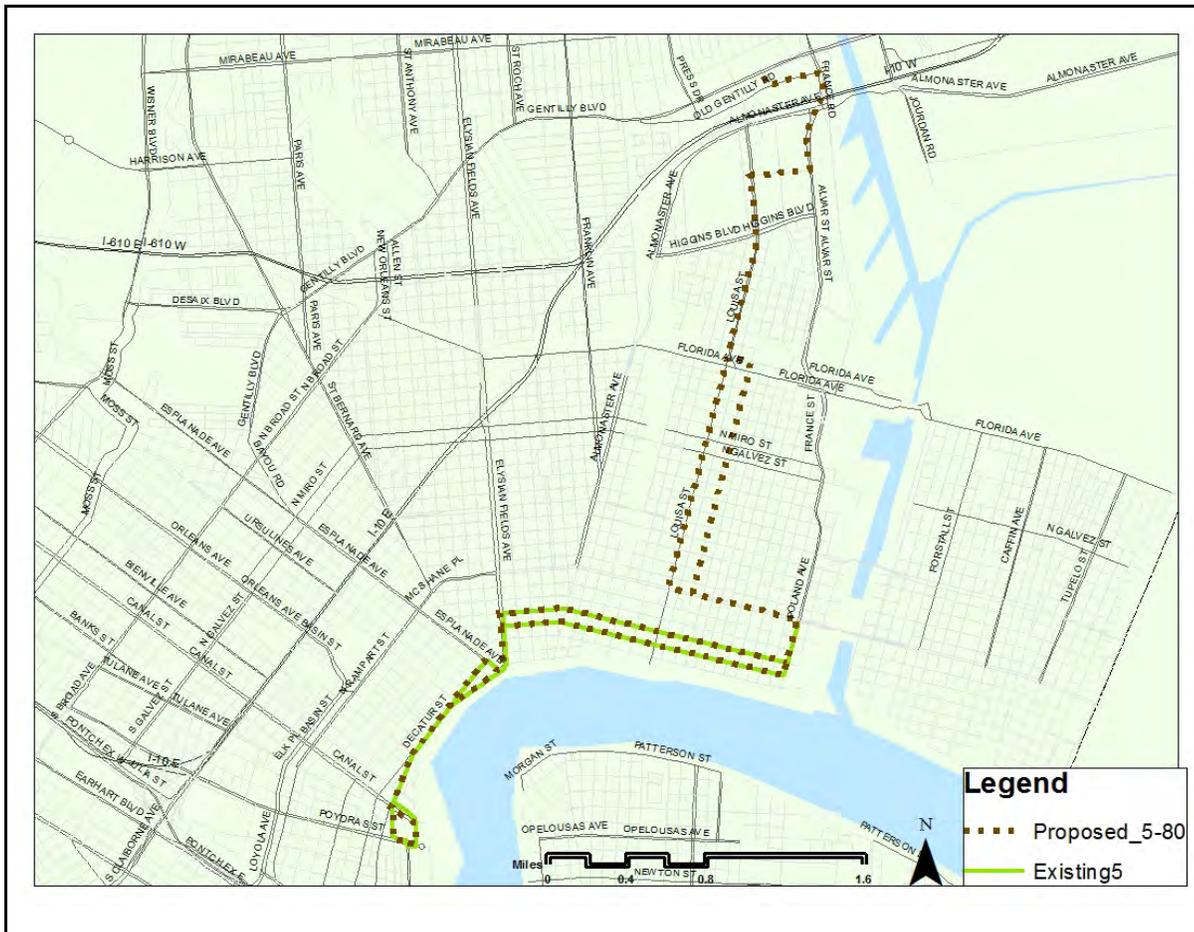
## Description:

Route modification. No detours from current Rte 5, but service extended into St. Claude and North on Louisa St into Gently as Rte 5 joins with Rte 80.<sup>3</sup>

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	10,141	61.1%	10,263	47.5%	122	-13.6%
Black	5,396	32.5%	10,189	47.2%	4,793	14.6%
Other	1,049	6.3%	1,151	5.3%	102	-1.0%
Total	16,586		21,603		5,017	30.2%

Income <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	3,328	23.2%	4,735	27.1%	1,407	3.9%
Above Poverty	11,026	76.8%	12,767	72.9%	1,741	-3.9%



## Notes:

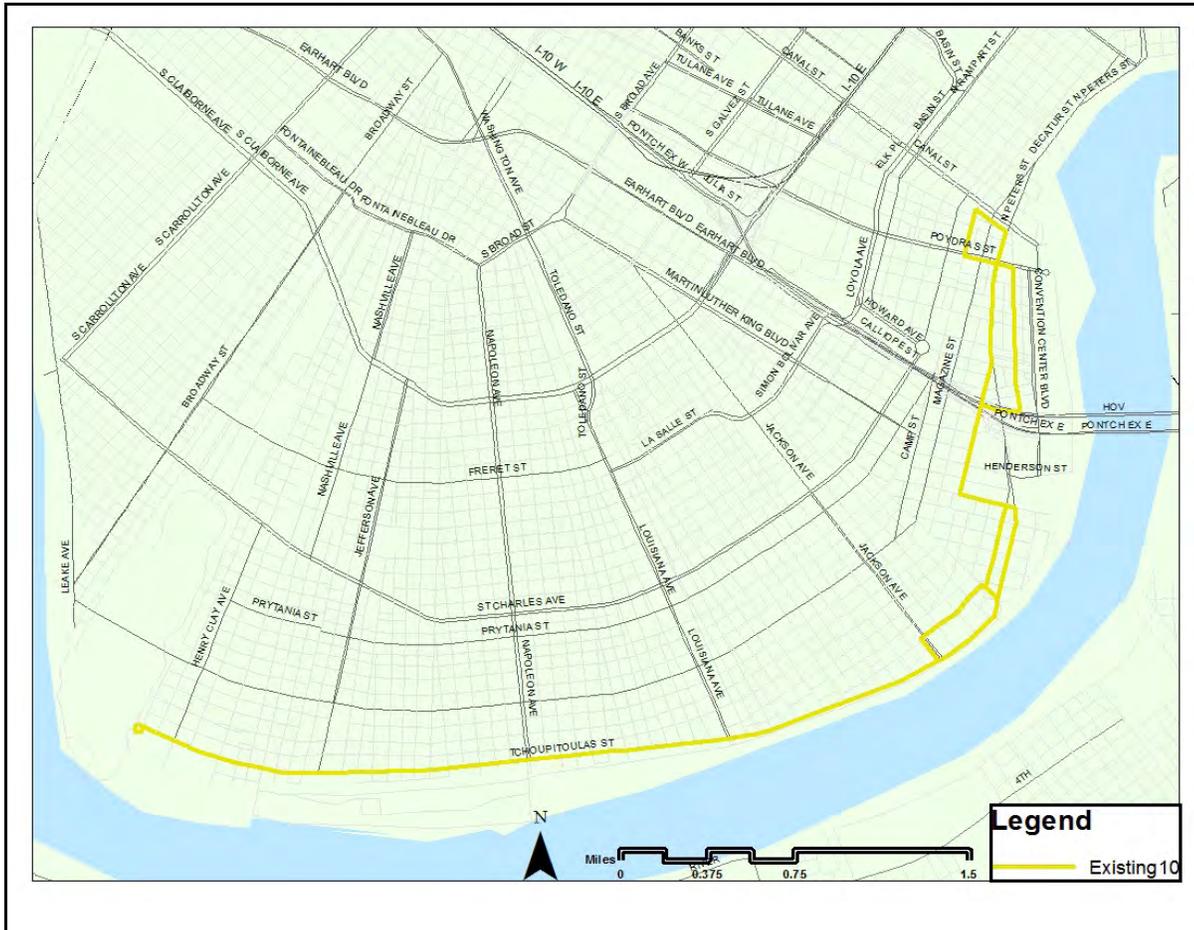
1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
3. Under both CBD/Mid-City Scenarios, RTA Rte 5 will be joined with Rte 80, extending service to the St. Claude, Florida, Desire, and Gently Woods neighborhoods, ending at the planned redevelopment of Gently Woods Shopping Center on Chef Mentheur Blvd.

# RTA Route 10

## Description:

No changes.

<i>Race</i> <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes		
	#	%	#	%	Absolute Change	Proportional Change	
White	17,618	65.4%	17,618	65.4%	-	-	
Black	7,556	28.0%	7,556	28.0%	-	-	
Other	1,766	6.6%	1,766	6.6%	-	-	
Total	26,940		26,940		-	-	
<i>Income</i> <sup>2</sup>	#	%	#	%	#	%	
	Below Poverty	4,261	18.2%	4,261	18.2%	-	-
	Above Poverty	19,135	81.8%	19,135	81.8%	-	-



## Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.



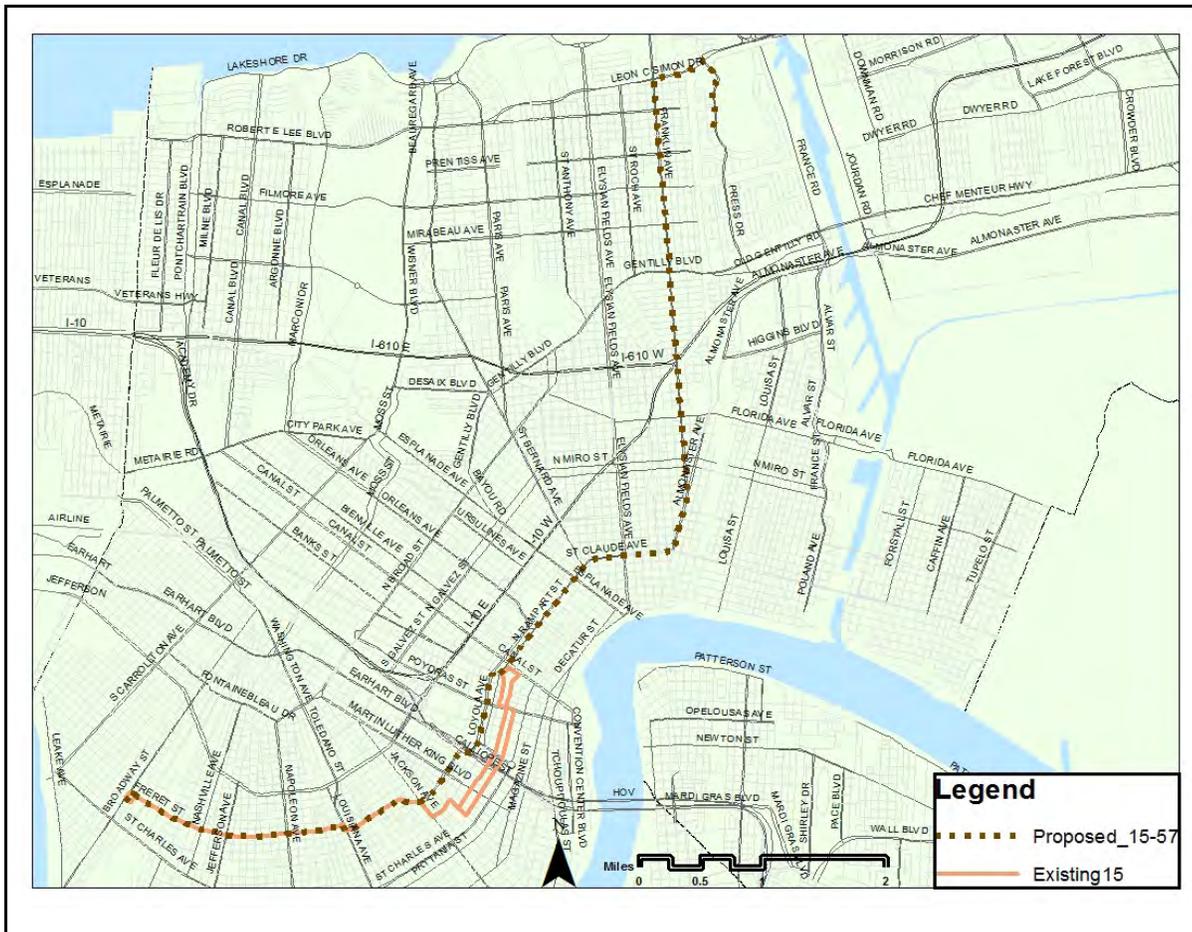
# RTA Route 15

## New Orleans CBD/Mid-City Additional Vehicles Scenarios

### Description:

Route modification. Rte 15 will be joined with Rte 57 to extend coverage.<sup>3</sup>

	Population Served Currently:		Population Served with Changes:		Net Changes	
<i>Race</i> <sup>1</sup>	#	%	#	%	<i>Absolute Change</i>	<i>Proportional Change</i>
White	20,268	54.5%	26,390	41.1%	6,122	-13.4%
Black	14,434	38.8%	34,081	53.1%	19,647	14.2%
Other	2,473	6.7%	3,772	5.9%	1,299	-0.8%
Total	37,175		64,243		27,068	72.8%
<i>Income</i> <sup>2</sup>	#	%	#	%	#	%
Below Poverty	8,165	27.3%	13,881	26.2%	5,716	-1.0%
Above Poverty	21,787	72.7%	39,008	73.8%	17,221	1.0%



### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
3. Under both the NO CBD/Mid-City Additional Vehicles and Cost Neutral Scenarios, RTA Rte 15 will be modified. Under the Additional Vehicles Scenario Rtes 15 and 57 will be interlined. In this scenario Rte 15 would be re-routed down Loyola Ave and Simon Bolivar. This extended route would service cross-town trips and increase frequency.

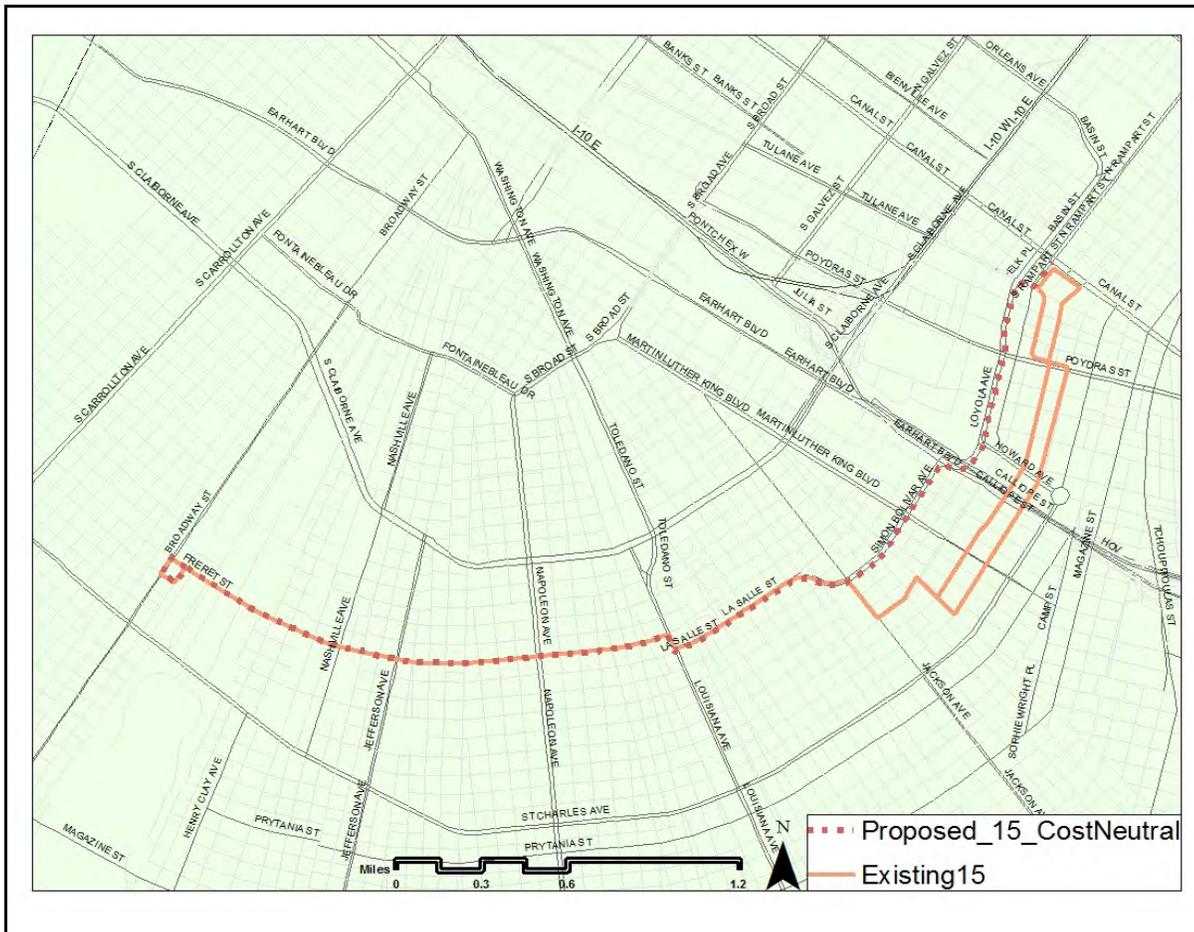
# RTA Route 15

New Orleans CBD/Mid-City Cost-Neutral Scenario

## Description:

Route modification. Under the Cost-Neutral scenario, Rte 15 routing is shifted several streets towards the Lake.<sup>3</sup>

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	20,268	54.5%	18,202	52.9%	(2,066)	-1.6%
Black	14,434	38.8%	14,004	40.7%	(430)	1.9%
Other	2,473	6.7%	2,221	6.5%	(252)	-0.2%
Total	37,175		34,427		(2,748)	-7.4%
Income <sup>2</sup>	#	%	#	%	#	%
Below Poverty	8,165	27.3%	7,440	27.4%	(725)	0.2%
Above Poverty	21,787	72.7%	19,670	72.6%	(2,117)	-0.2%



## Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
3. Under both the NO CBD/Mid-City Additional Vehicles and Cost Neutral Scenarios, RTA Rte 15 will be modified. Under the Cost Neutral Scenario this modification will simply involve rerouting down Simon Bolivar and Loyola. See alternate Rte 15 analysis for detailed information about proposed Rte 15-57.

# RTA Route 16

Eastbank Scenario

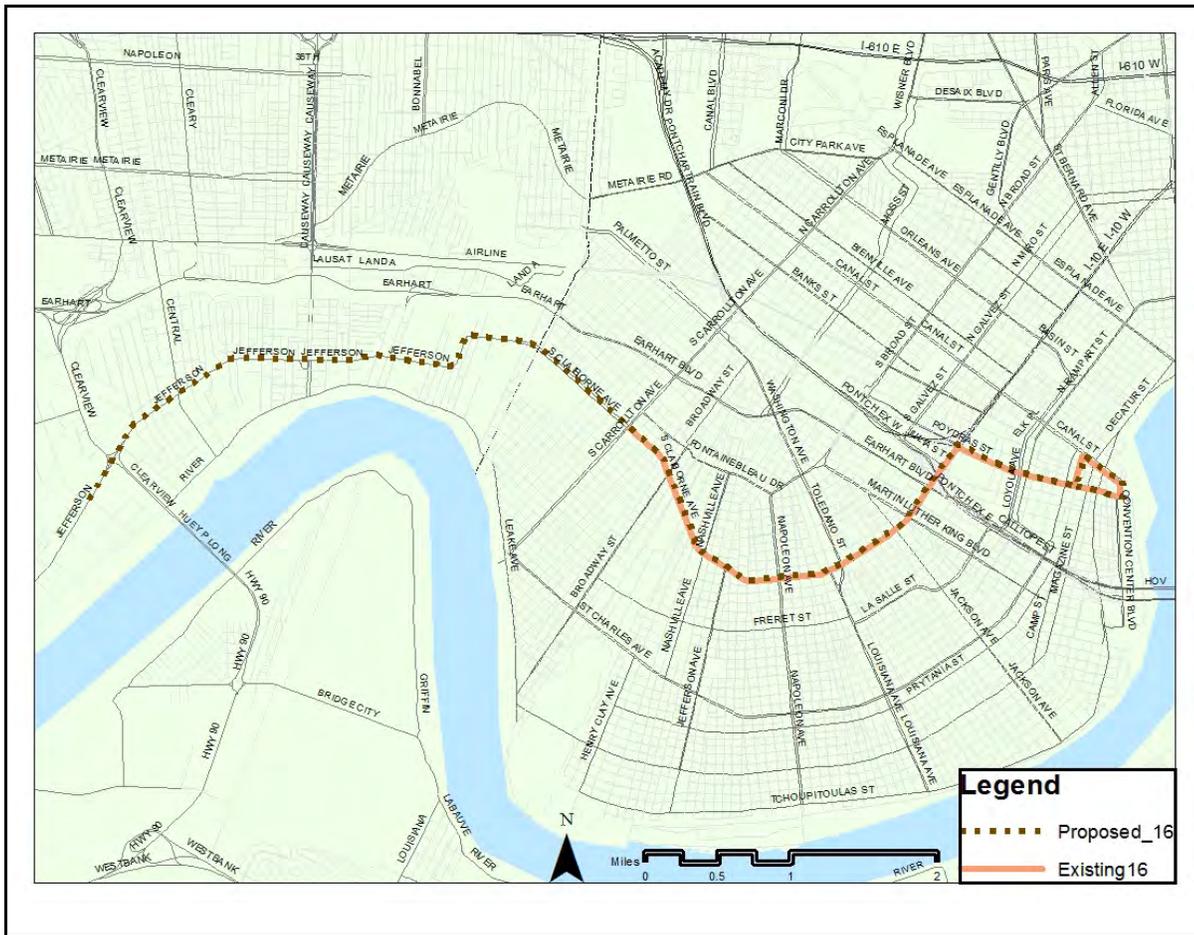
## Description:

Route modification. Currently terminating at Carrollton/Claiborne, proposed changes would extend Rte 16 into Jefferson Parish, terminating in the major commercial center of

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	14,274	45.4%	24,681	48.3%	10,407	2.9%
Black	14,985	47.7%	22,831	44.7%	7,846	-3.0%
Other	2,155	6.9%	3,561	7.0%	1,406	0.1%
Total	31,414		51,073		19,659	62.6%

Income <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	5,807	23.5%	8,855	19.9%	3,048	-3.6%
Above Poverty	18,903	76.5%	35,687	80.1%	16,784	3.6%



## Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
3. Under Eastbank Scenario, RTA Rte 16 will have a greatly extended service area into Jefferson Parish. This extension would operate along a portion of the current route for JeT's E3 along Jefferson Hwy. See JeT Rte E3 for additional analysis and other proposed route changes.

# RTA Route 24

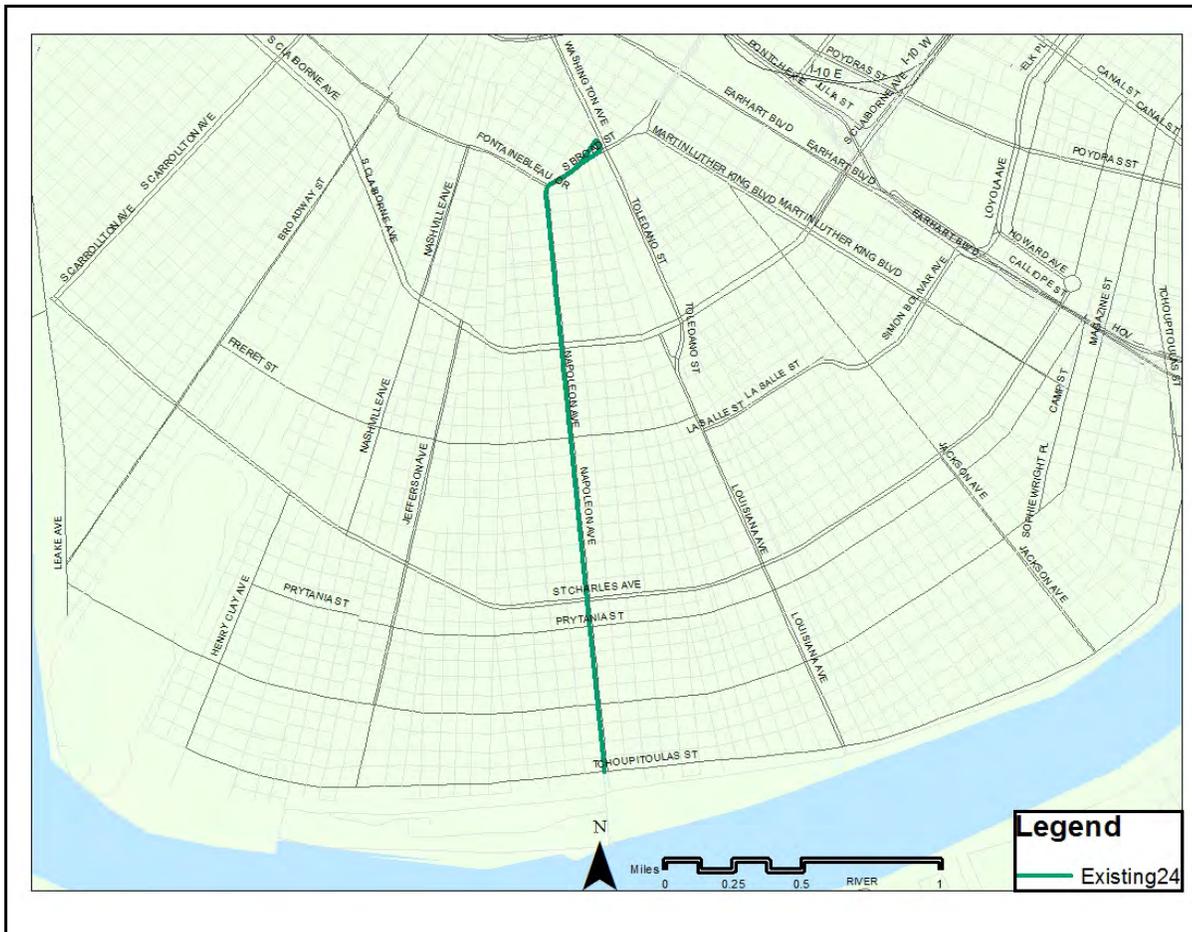
## Description:

No changes.

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	11,783	41.5%	11,783	41.5%	-	-
Black	15,132	53.2%	15,132	53.2%	-	-
Other	1,504	5.3%	1,504	5.3%	-	-
Total	28,419		28,419		-	-

Income <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	5,105	20.3%	5,105	20.3%	-	-
Above Poverty	20,048	79.7%	20,048	79.7%	-	-



## Notes:

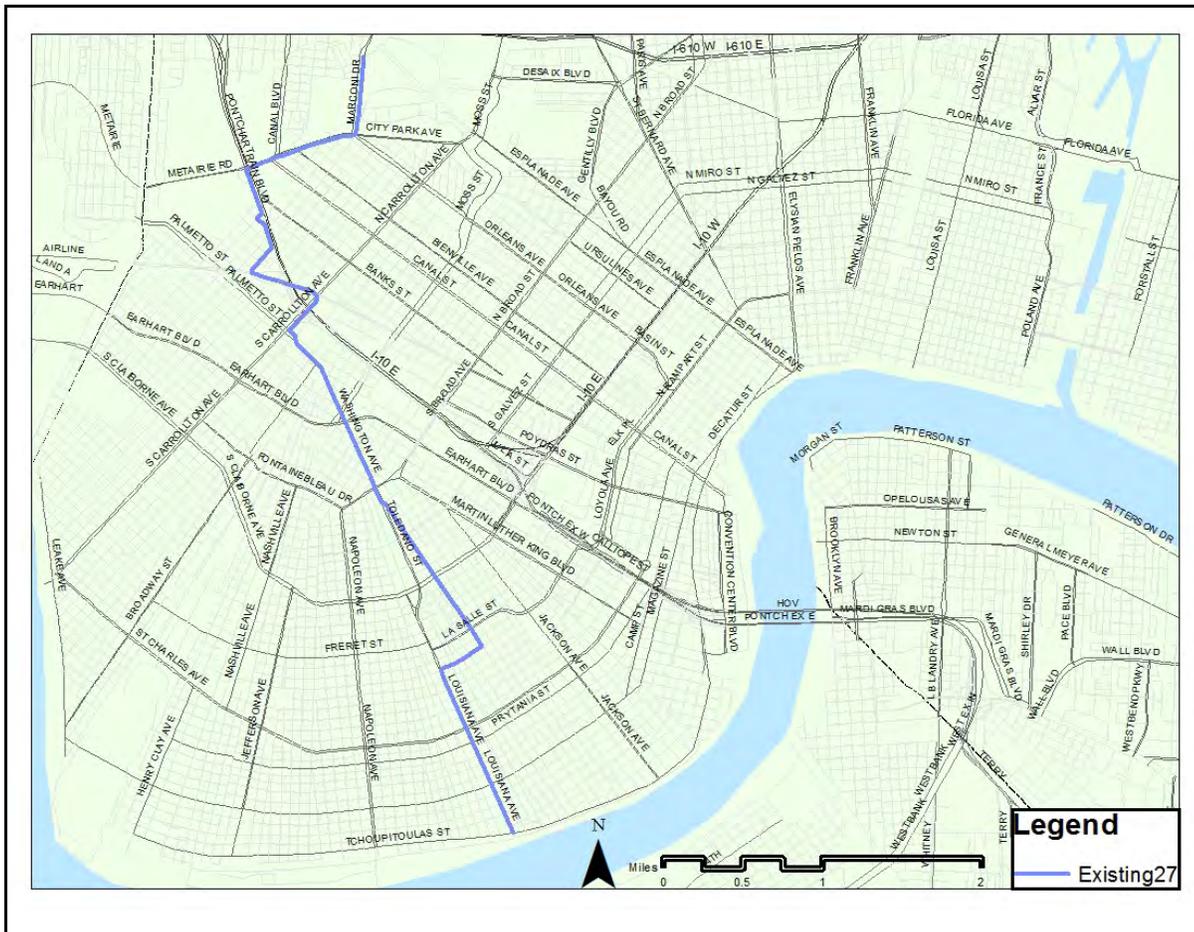
1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.

# RTA Route 27

## Description:

No changes.

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	21,254	43.7%	21,254	43.7%	-	-
Black	24,512	50.4%	24,512	50.4%	-	-
Other	2,826	5.8%	2,826	5.8%	-	-
Total	48,592		48,592		-	-
Income <sup>2</sup>	#	%	#	%	#	%
Below Poverty	10,642	25.0%	10,642	25.0%	-	-
Above Poverty	31,895	75.0%	31,895	75.0%	-	-



### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.

# RTA Route 28

## New Orleans CBD/Mid-City Cost Neutral Scenario & Additional Vehicles Scenarios

### Description:

Route modification. Service removal from BW Cooper Public Housing and conjoined routing with Rte 84, extending service through the Treme and Upper/Lower Ninth Ward.<sup>3</sup>

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	6,199	27.7%	8,682	17.9%	2,483	-9.8%
Black	14,702	65.7%	37,421	77.2%	22,719	11.5%
Other	1,476	6.6%	2,371	4.9%	895	-1.7%
Total	22,377		48,474		26,097	116.6%

Income <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	5,786	33.2%	14,833	35.1%	9,047	1.9%
Above Poverty	11,638	66.8%	27,395	64.9%	15,757	-1.9%



### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
3. Underboth CBD/Mid-City Scenarios, RTA Rte 28 will be slightly modified and joined with Rte 84. This previously short route, connecting Washington and Broad transfer point to the Elk Place/Canal St transfer point, now will extend through Mid-City, the Treme and Upper/Lower Ninth Wards. These modifications retain Central City service, but a great deal of additional service elsewhere.

# RTA Route 32

## New Orleans CBD/Mid-City Cost Neutral Scenario & Additional Vehicles Scenarios

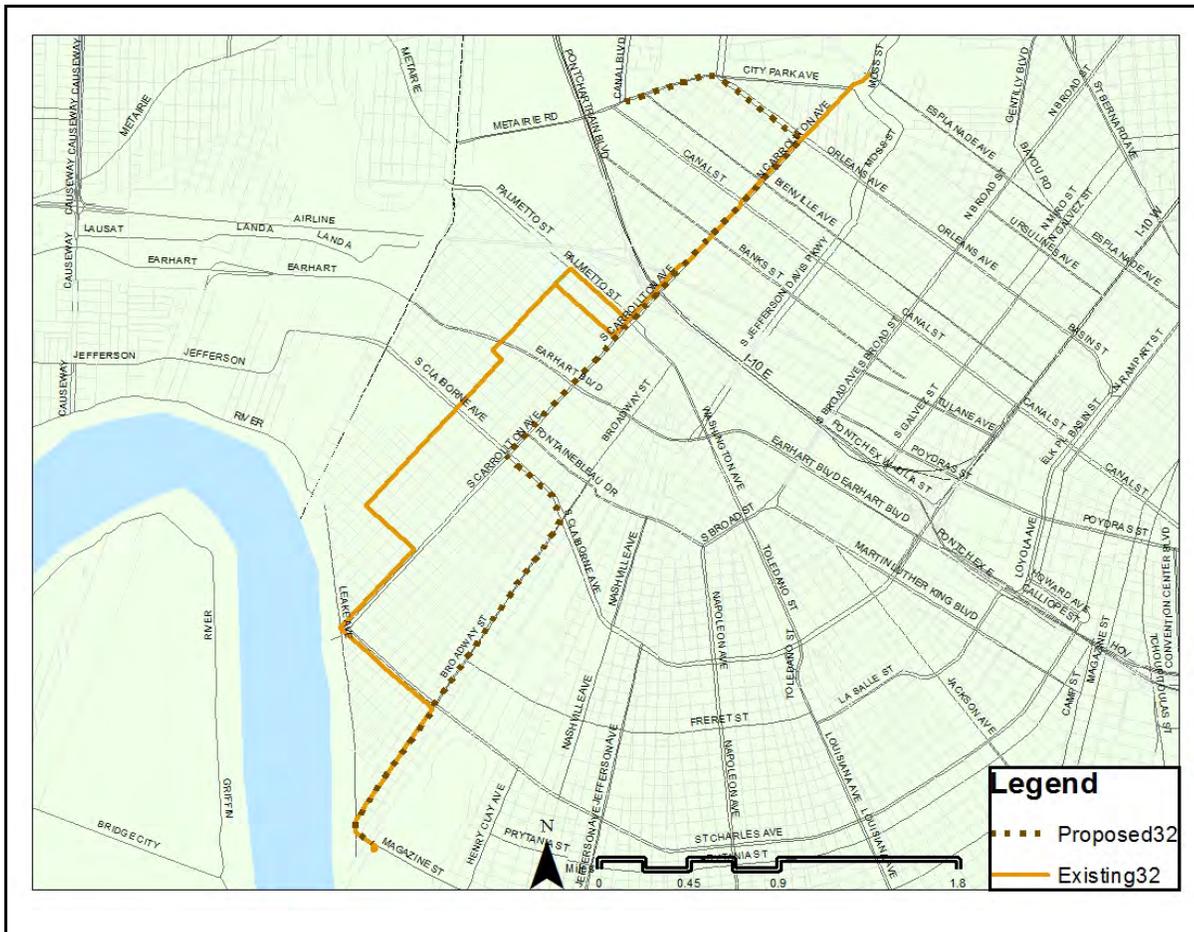
### Description:

Significant route modifications. Proposed changes remove service through the Hollgrove and Dixon neighborhoods with a final destination at the Canal St/City Park Ave transfer

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	19,649	45.6%	24,794	58.8%	5,145	13.2%
Black	20,596	47.8%	14,132	33.5%	(6,464)	-14.3%
Other	2,828	6.6%	3,213	7.6%	385	1.1%
Total	43,073		42,139		(934)	-2.2%

Income <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	10,195	27.9%	8,783	25.8%	(1,412)	-2.1%
Above Poverty	26,336	72.1%	25,206	74.2%	(1,130)	2.1%



### Notes:

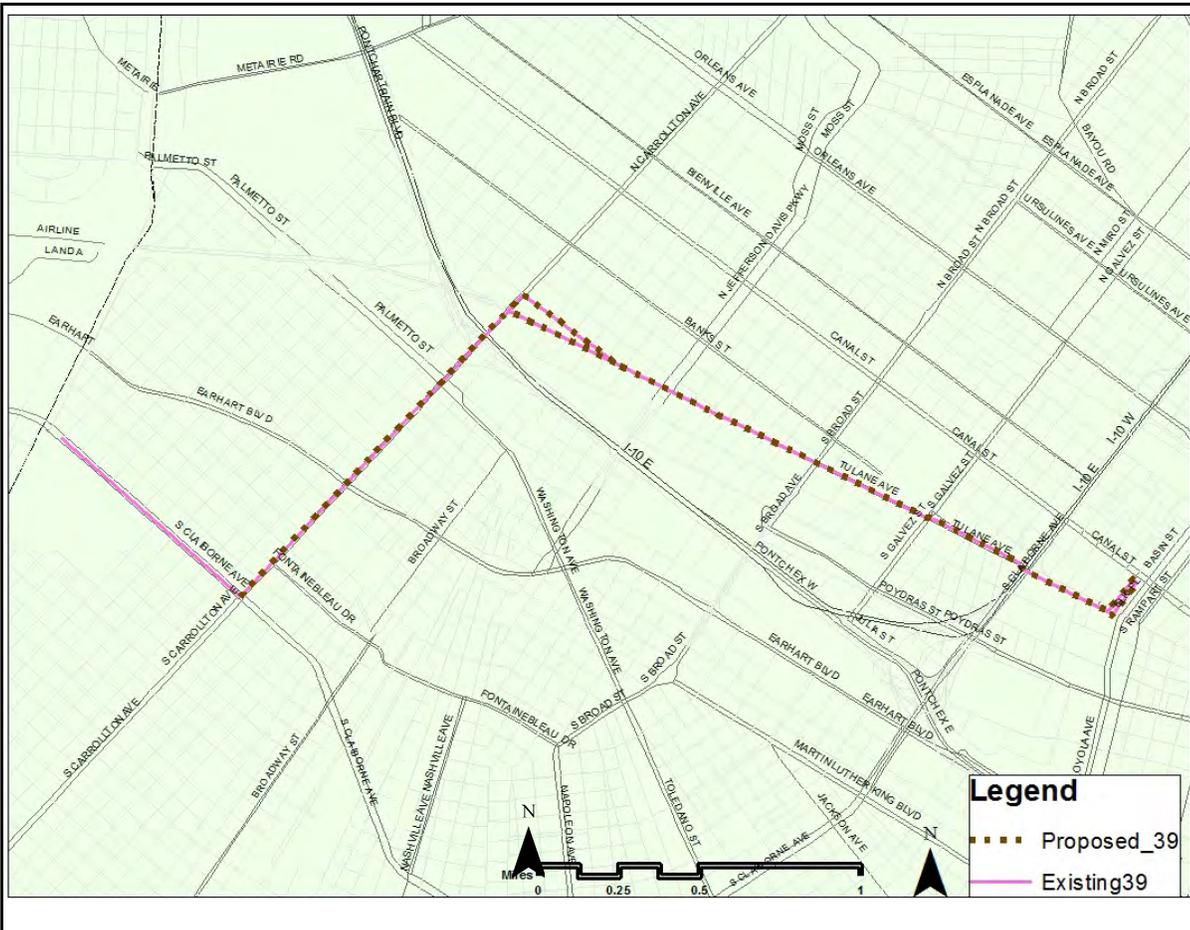
1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
3. Underboth CBD/Mid-City Scenarios, RTA Rte 32 will be modified to such an extent that it will become Rte 34. The outbound destination will be the Canal/City Park Ave transfer point instead of Carrollton/Esplanade Ave intersection. Meanwhile, the proposed route will remove service through the Hollygrove and Dixon neighborhoods and add service down Broadway through the University and Carrollton neighborhoods. Currently Rte32 provides 70 min. lifeline service, while under both scenarios the proposed new route N1 would provide service to the Hollygrove and Dixon neighborhoods.

# RTA Route 39

## Description:

Route modification. For both scenarios, the western terminus of Rte 39 has been shifted from the Parish line to S. Carrollton Ave and S. Claiborne Ave.

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	11,250	30.7%	10,022	32.9%	(1,228)	2.2%
Black	22,701	62.0%	18,108	59.4%	(4,593)	-2.6%
Other	2,659	7.3%	2,350	7.7%	(309)	0.4%
Total	36,610		30,480		(6,130)	-16.7%
Income <sup>2</sup>	#	%	#	%	#	%
Below Poverty	7,521	29.3%	6,314	31.1%	(1,207)	1.9%
Above Poverty	18,180	70.7%	13,959	68.9%	(4,221)	-1.9%



## Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.

# RTA Route 45

## New Orleans CBD/Mid-City Cost Neutral Scenario & Additional Vehicles Scenarios

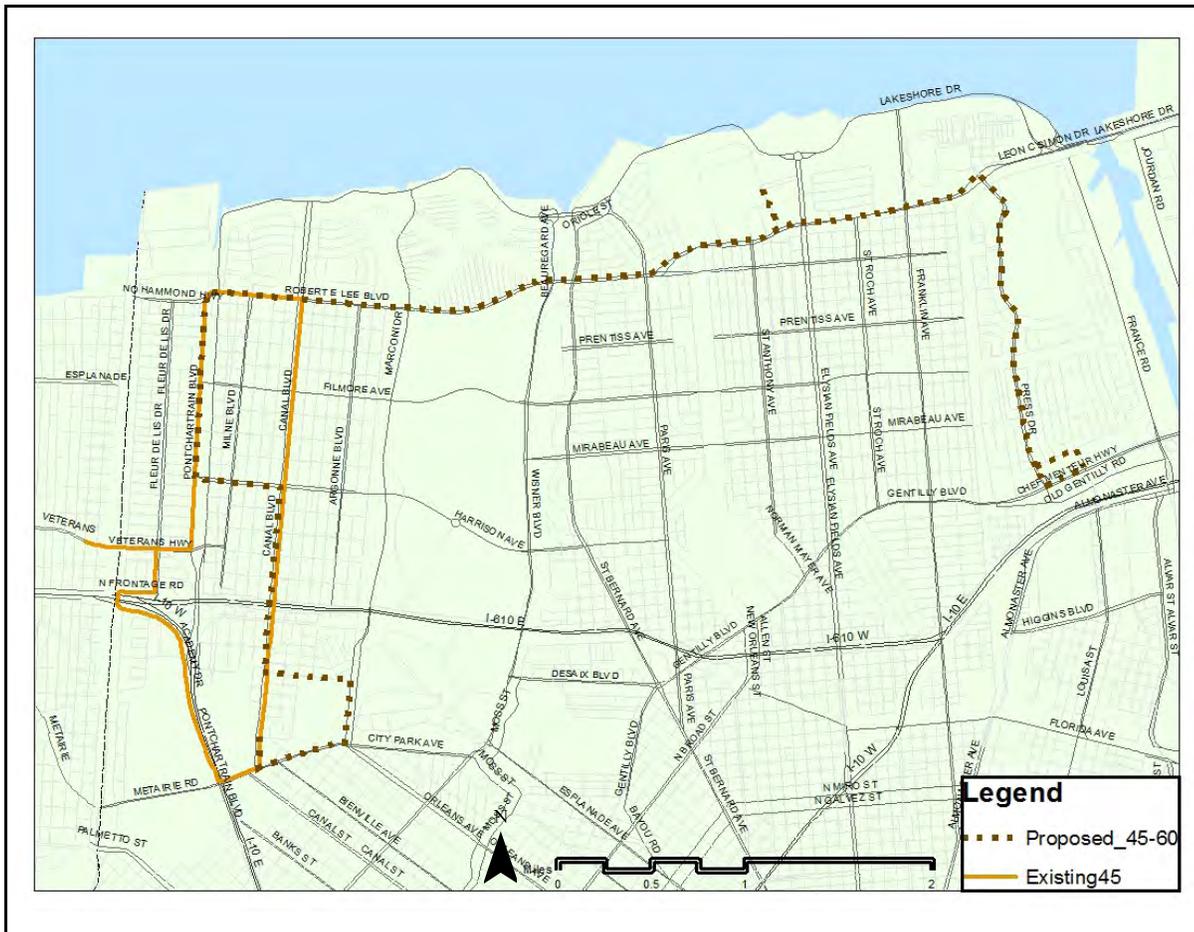
### Description:

Route modification. Removal of service along Veterans, an I-10 segment and the northern end of Canal St. Instead conjoined routing with the new path of Rte 60.<sup>3</sup>

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	17,744	83.6%	22,180	58.7%	4,436	-24.9%
Black	2,219	10.5%	13,170	34.8%	10,951	24.4%
Other	1,261	5.9%	2,458	6.5%	1,197	0.6%
Total	21,224		37,808		16,584	78.1%

Income <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	2,256	13.4%	4,294	15.4%	2,038	2.0%
Above Poverty	14,590	86.6%	23,672	84.6%	9,082	-2.0%



### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
3. Under both CBD/Mid-City Scenarios, RTA Rte 45 will be joined with Rte 60. The inbound route destination remains at the Canal St/City Park Ave transfer point, however the loop movement traversing Veterans Hwy and I-10 are removed and replaced with service along Canal, Harrison and Pontchartrain Blvd. Additionally, with the co-lining with the modified Rte 60 will bring Gentilly, UNO and Lakefront areas are included into the extended service area.

# RTA Route 51

## Description:

No changes.

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	10,610	25.3%	10,610	25.3%	-	-
Black	28,612	68.2%	28,612	68.2%	-	-
Other	2,722	6.5%	2,722	6.5%	-	-
Total	41,944		41,944		-	-
Income <sup>2</sup>	#	%	#	%	#	%
Below Poverty	10,132	29.9%	10,132	29.9%	-	-
Above Poverty	23,710	70.1%	23,710	70.1%	-	-



### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.

# RTA Route 52

## Description:

No changes.

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes		
	#	%	#	%	Absolute Change	Proportional Change	
White	10,214	22.6%	10,214	22.6%	-	-	
Black	32,309	71.3%	32,309	71.3%	-	-	
Other	2,768	6.1%	2,768	6.1%	-	-	
Total	45,291		45,291		-	-	
Income <sup>2</sup>	#	%	#	%	#	%	
	Below Poverty	10,984	30.3%	10,984	30.3%	-	-
	Above Poverty	25,254	69.7%	25,254	69.7%	-	-



## Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.

# RTA Route 55

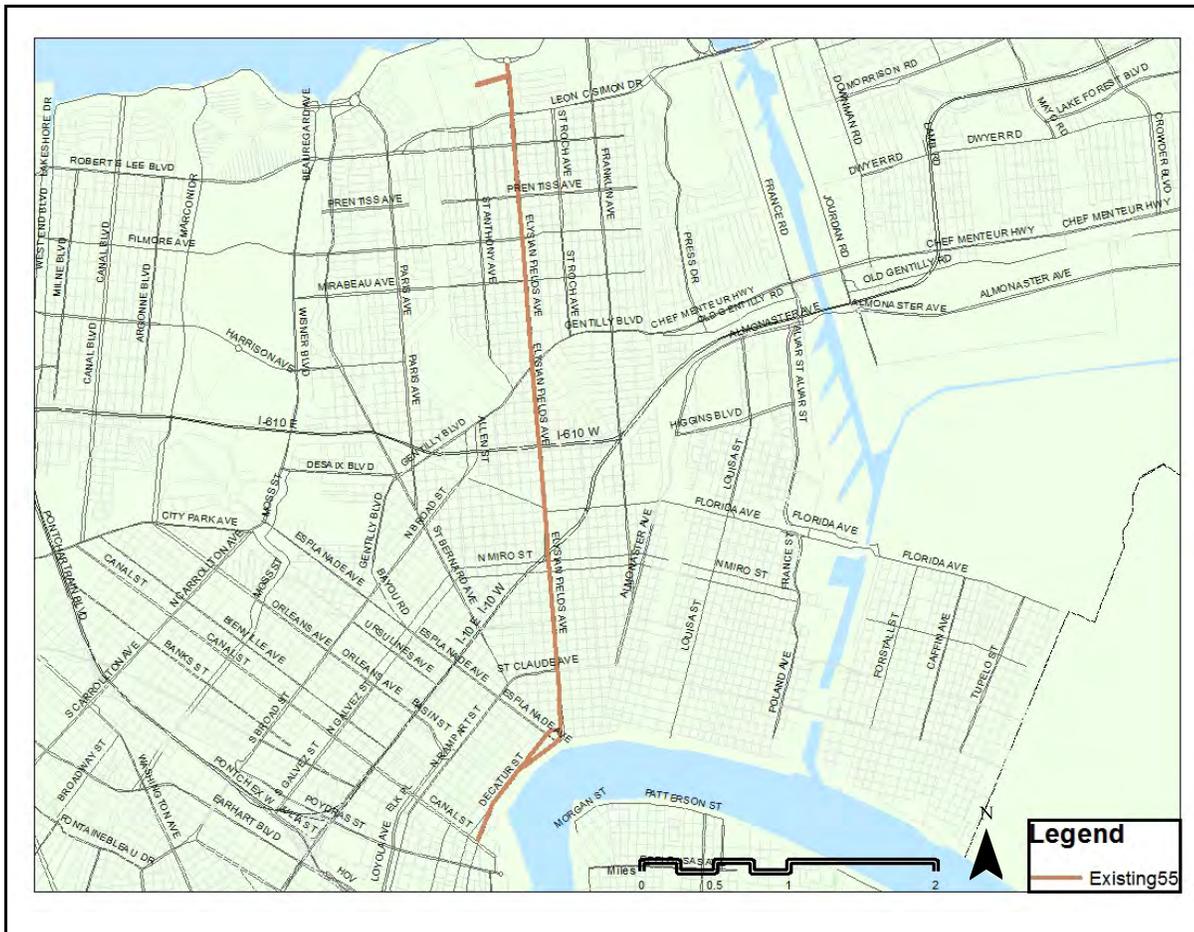
## Description:

No changes.

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	11,325	28.8%	11,325	28.8%	-	-
Black	22,658	57.7%	22,658	57.7%	-	-
Other	2,249	5.7%	2,249	5.7%	-	-
Total	39,262		39,262		-	-

Income <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	6,908	23.6%	6,908	23.6%	-	-
Above Poverty	22,411	76.4%	22,411	76.4%	-	-



### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.

# RTA Route 57

## New Orleans CBD/Mid-City Additional Vehicles Scenario

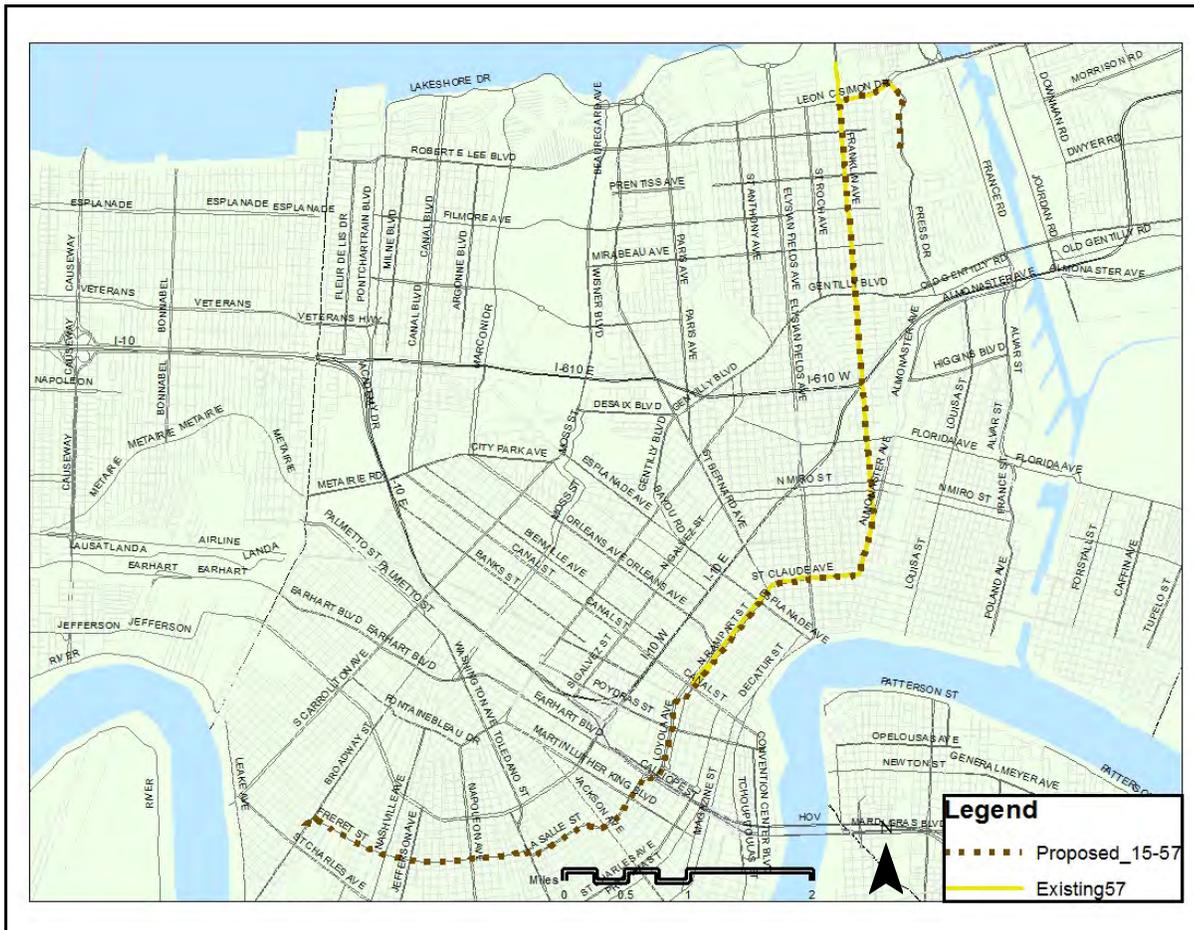
### Description:

Route modification. Minor route changes on the outbound end of the route in Gentilly and a proposed joining with Rte 15, which extends service through several Uptown neighborhoods.<sup>3</sup>

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	11,772	33.0%	26,390	41.1%	14,618	8.1%
Black	21,925	61.5%	34,081	53.1%	12,156	-8.4%
Other	1,971	5.5%	3,772	5.9%	1,801	0.3%
Total	35,668		64,243		28,575	80.1%

Income <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	7,642	25.4%	13,881	26.2%	6,239	0.8%
Above Poverty	22,448	74.6%	39,008	73.8%	16,560	-0.8%



### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
3. Under NO CBD/Mid-City Additional Vehicles Scenario, the outbound end of Rte 15-57 route will be rerouted down Leon C Simon and Press Dr, instead of the current spur going to the front door of the New Orleans Lakefront Arena. Additionally, the newly conjoined Rte 15-57 will serve Central City, Broadmoor and the University area, ending at Broadway near Tulane.

# RTA Route 57

## New Orleans CBD/Mid-City Cost Neutral Scenario

### Description:

Route modification. Minor route changes on the outbound end of the route in Gentilly and a proposed joining with Rte 15, which extends service through several Uptown neighborhoods.<sup>3</sup>

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	11,772	33.0%	11,772	33.0%	-	0.0%
Black	21,925	61.5%	21,925	61.5%	-	0.0%
Other	1,971	5.5%	1,971	5.5%	-	0.0%
Total	35,668		35,668		-	0.0%
Income <sup>2</sup>	#	%	#	%	#	%
Below Poverty	7,642	25.4%	7,642	25.4%	-	0.0%
Above Poverty	22,448	74.6%	22,448	74.6%	-	0.0%



### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
3. Under NO CBD/Mid-City Additional Vehicles Scenario, the outbound end of Rte 15-57 route will be rerouted down Leon C Simon and Press Dr, instead of the current spur going to the front door of the New Orleans Lakefront Arena. Additionally, the newly conjoined Rte 15-57 will serve Central City, Broadmoor and the University area, ending at Broadway near Tulane.

# RTA Route 60

## New Orleans East Scenario 1

### Description:

Route modifications East of Read Blvd in NO East and in Lakeview.<sup>3</sup>

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	21,720	30.6%	22,467	36.4%	747	5.8%
Black	45,226	63.8%	35,496	57.6%	(9,730)	-6.2%
Other	3,985	5.6%	3,685	6.0%	(300)	0.4%
Total	70,931		61,648		(9,283)	-13.1%

Income <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	10,026	19.1%	9,259	20.4%	(767)	1.3%
Above Poverty	42,335	80.9%	36,066	79.6%	(6,269)	-1.3%



### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide).
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
3. Under NO East Scenario 1, Rte 60 service area East of Bullard Ave will be covered by Rtes 94 and 62. However, unlike many NO East routes, Rte 60's path remains along the lakefront and its inbound destination is in Lakeview. Therefore it should be noted that proposed route coverage by Rtes 94 and 62 is not equal to current coverage. That being said, current Rte 60 is an underperforming route when utilizing metrics set up by NORTA, which include boardings and alightings and other standard operational measures.

# RTA Route 60

1) New Orleans CBD/Mid-City Cost Neutral Scenario, 2) Additional Vehicles Scenario, & 3) NO East Scenario 2

## Description:

Route Removal through NO East and joining Route 45 in Lakeview/Gentilly.<sup>3</sup>

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	21,720	30.6%	22,180	58.7%	460	28.0%
Black	45,226	63.8%	13,170	34.8%	(32,056)	-28.9%
Other	3,985	5.6%	2,458	6.5%	(1,527)	0.9%
Total	70,931		37,808		(33,123)	-46.7%
Income <sup>2</sup>	#	%	#	%	#	%
Below Poverty	10,026	19.1%	4,294	0.0%	(5,732)	-19.1%
Above Poverty	42,335	80.9%	23,672	0.0%	(18,663)	-80.9%



## Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
3. Under NO East Scenario 2, the new Rte 45-60 will replace Rte 60 in Lakeview and Gentilly.

# RTA Route 62

## New Orleans East Scenarios 1 and 2

### Description:

Route modifications. Instead of the suburban area bounded by Bullard, Hayne, and Paris, service will be extended South on Bullard past I-10.<sup>3</sup>

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	8,548	11.1%	8,405	11.7%	(143)	0.6%
Black	64,421	83.7%	59,623	83.0%	(4,798)	-0.7%
Other	2,934	3.8%	3,812	5.3%	878	1.5%
Total	76,968		71,840		(5,128)	-6.7%

Income <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	16,870	29.5%	16,317	30.5%	(553)	1.0%
Above Poverty	40,255	70.5%	37,123	69.5%	(3,132)	-1.0%



### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
3. Under both New Orleans East Scenarios, RTA Rte 62's current route service area East of Bullard Ave and North of I-10 will be covered by proposed Rte 94.
4. Proposed Rte 62 will have a similar destination as current Rte 94.

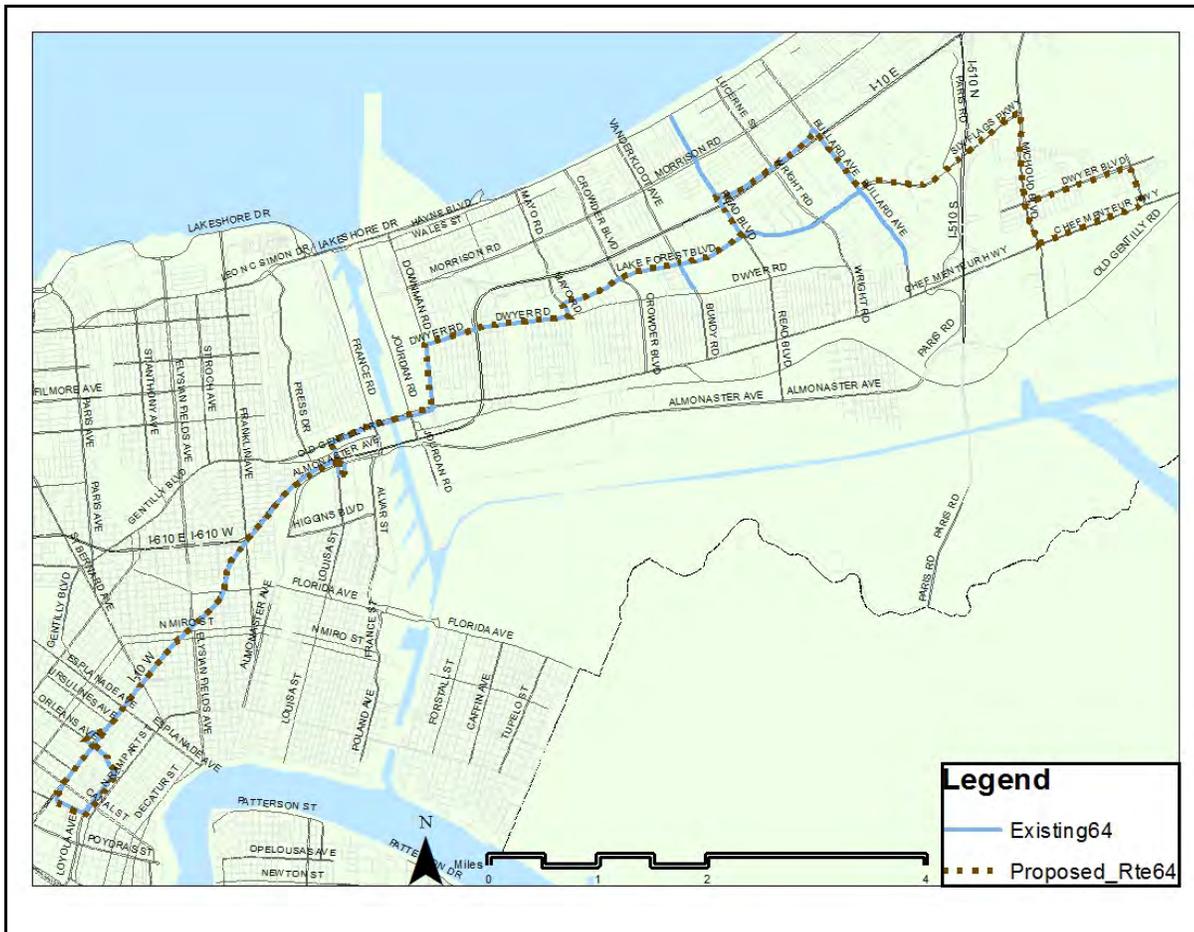
# RTA Route 64

## New Orleans East Scenarios 1 and 2

### Description:

Route modifications. Proposed changes to Rte 64 include removal of three route spurs down Read, Bundy and Bullard, along with additional service area coverage East of I-510. <sup>3</sup>

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	8,287	10.8%	7,857	11.4%	(430)	0.7%
Black	64,637	83.9%	53,295	77.6%	(11,342)	-6.3%
Other	4,134	5.4%	7,564	11.0%	3,430	5.6%
Total	77,058		68,716		(8,342)	-10.8%
Income <sup>2</sup>	#	%	#	%	#	%
Below Poverty	17,740	30.0%	16,914	32.4%	(826)	2.4%
Above Poverty	41,396	70.0%	35,312	67.6%	(6,084)	-2.4%



### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
3. Under New Orleans East Scenario, RTA Rte 64 will extend service to cover areas East of I-510 previously covered by Rte 94.

# RTA Route 80

## New Orleans CBD/Mid-City Cost Neutral Scenario & Additional Vehicles Scenarios

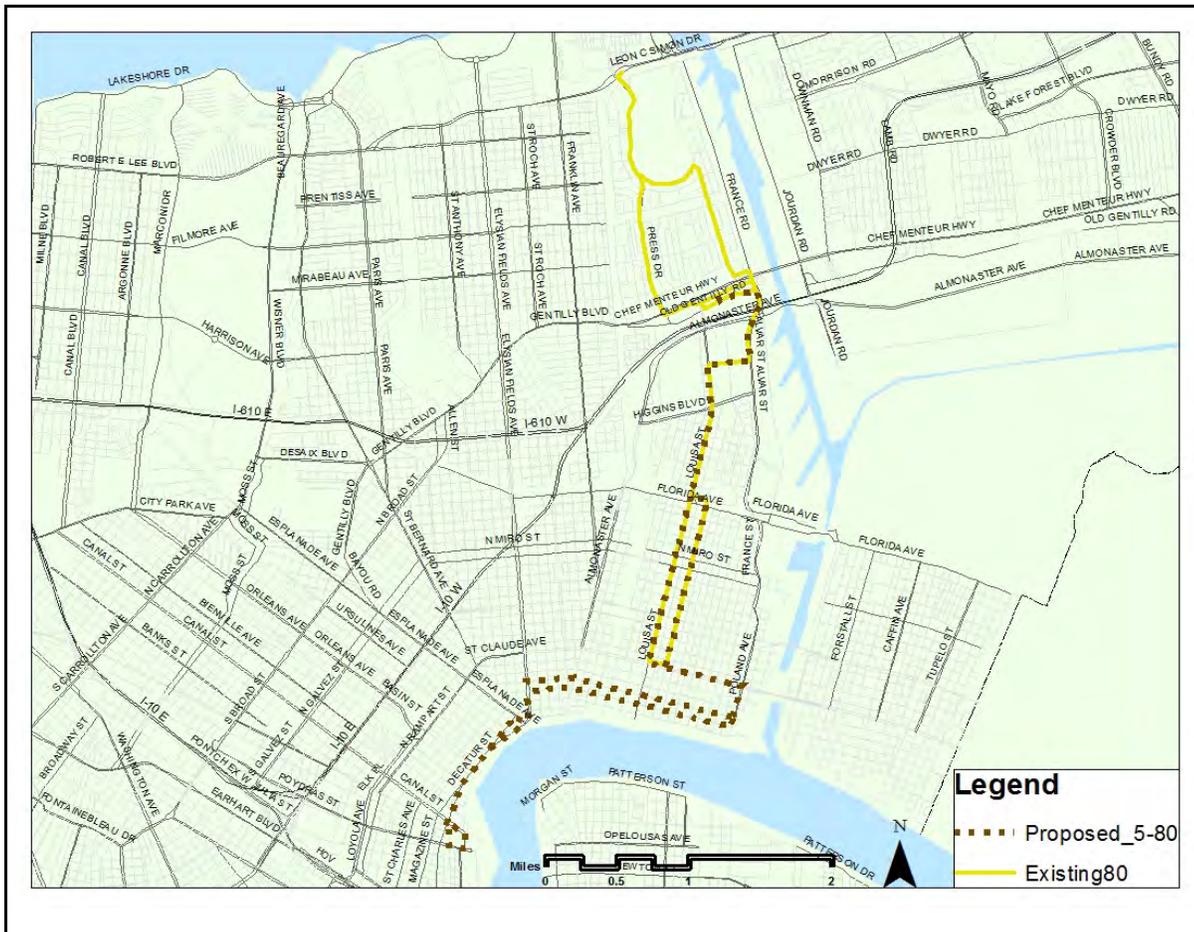
### Description:

Route modifications. Service in Gentilly will be removed, meanwhile Rte 80 will be joined with Rte 5, which will extend coverage along the River to Canal St.<sup>3</sup>

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	3,032	18.8%	10,943	44.8%	7,911	26.0%
Black	12,450	77.3%	12,155	49.8%	(295)	-27.5%
Other	624	3.9%	1,322	5.4%	698	1.5%
Total	16,106		24,420		8,314	51.6%

Income <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	4,576	39.6%	5,118	26.8%	542	-12.7%
Above Poverty	6,992	60.4%	13,950	73.2%	6,958	12.7%



### Notes:

- Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
- Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
- Under both NO CBD/Mid-City Scenarios, RTA Rte 80 will be joined with Rte 5. Some of the Gentilly service area will lose service along Congress Dr, while another co-lined route (45-60) will provide service to the Press Dr portion of the current Rte 80. It should be noted that Rte 45-60 will have a distinctly different destination and service corridor in comparison to the current Rte 80 and consequently should not be considered a replacement. In addition, Rte 5 travels through the French Quarter, CBD and Warehouse District, which contain disparately different racial and wealth demographics as compared to the existing service area.

# RTA Route 84

## New Orleans CBD/Mid-City Cost Neutral Scenario & Additional Vehicles Scenarios

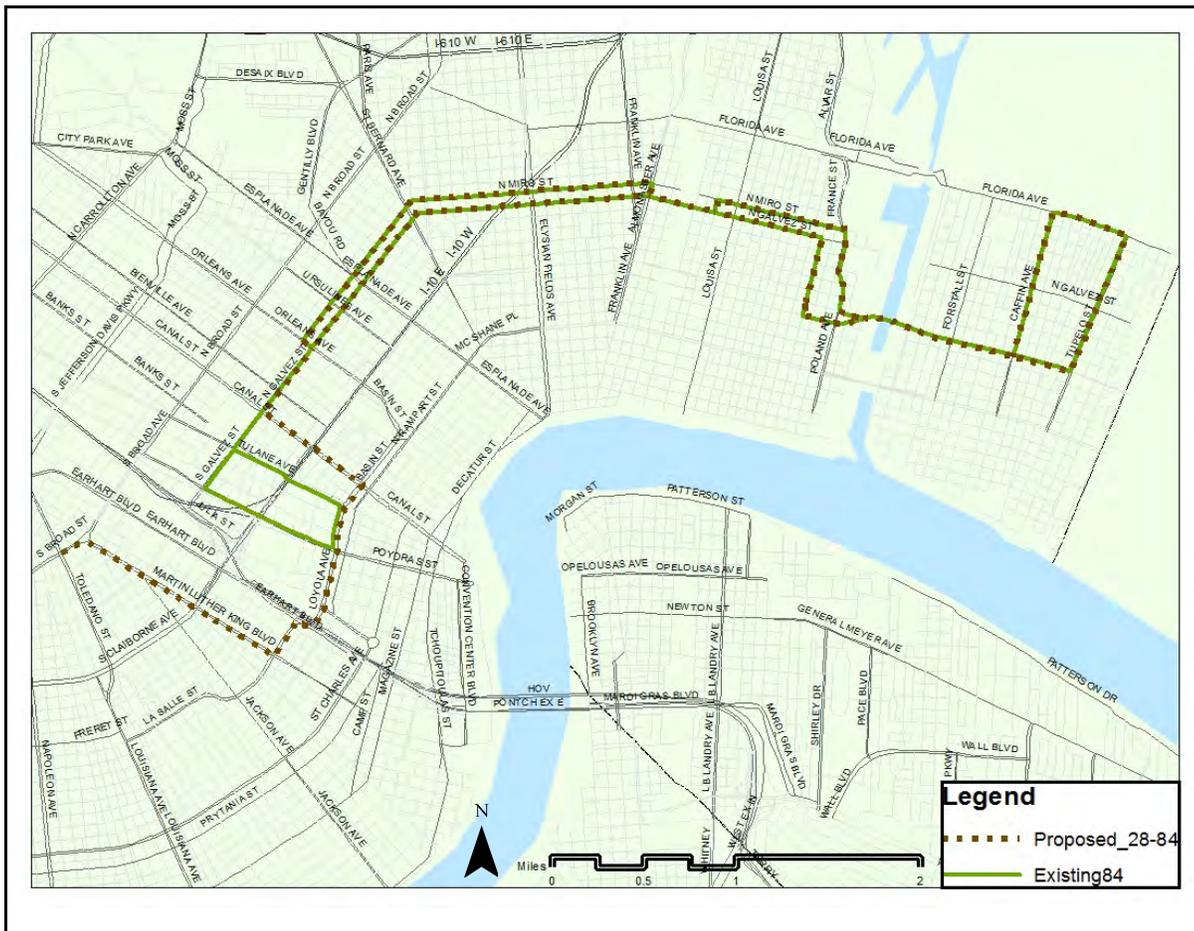
### Description:

Route modification. Service removal will occur between Tulane and Poydras in Mid-City/CBD. However, joining Rte 84 with Rte 28 also extends service area coverage into Central City and Broadmoor.<sup>3</sup>

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	4,680	14.2%	8,682	17.9%	4,002	3.7%
Black	26,613	81.0%	37,421	77.2%	10,808	-3.8%
Other	1,562	4.8%	2,371	4.9%	809	0.1%
Total	32,855		48,474		15,619	47.5%

Income <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	10,215	36.9%	14,833	35.1%	4,618	-1.8%
Above Poverty	17,433	63.1%	27,395	64.9%	9,962	1.8%



### Notes:

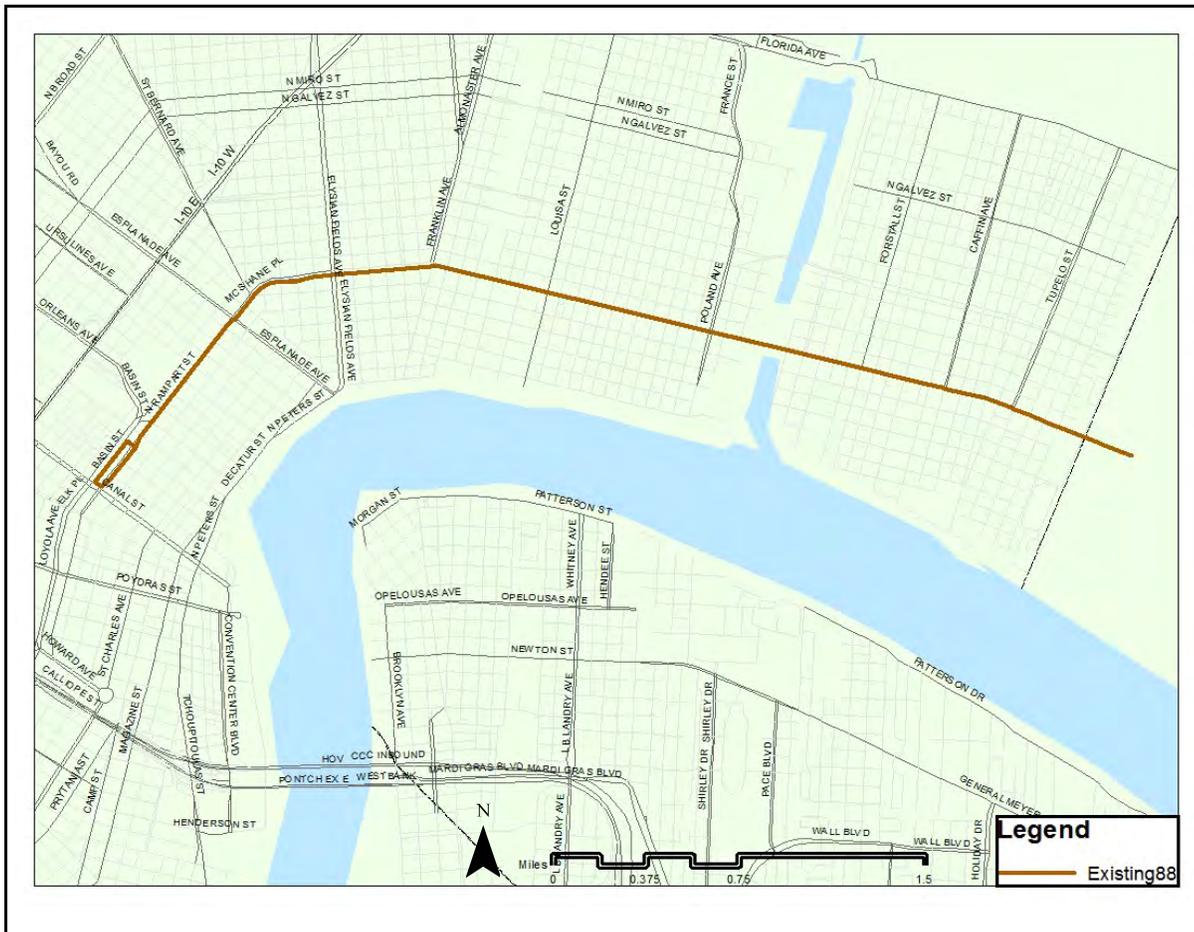
1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
3. Under both NO CBD/Mid-City Scenarios, RTA Rte 84 will be joined with Rte 28. While service will be lost in the LSU/VA and Superdome area, service will be gained in Central City and Broadmoor as the line is extended along Martin Luther King and up to a key transfer point at the intersection of Broad and Washington.

# RTA Route 88

## Description:

No change.

<i>Race</i> <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	11,771	40.6%	11,771	40.6%	-	-
Black	15,607	53.9%	15,607	53.9%	-	-
Other	1,581	5.5%	1,581	5.5%	-	-
Total	28,959		28,959		-	-
<i>Income</i> <sup>2</sup>	#	%	#	%	#	%
Below Poverty	7,570	30.7%	7,570	30.7%	-	-
Above Poverty	17,125	69.3%	17,125	69.3%	-	-



## Notes:

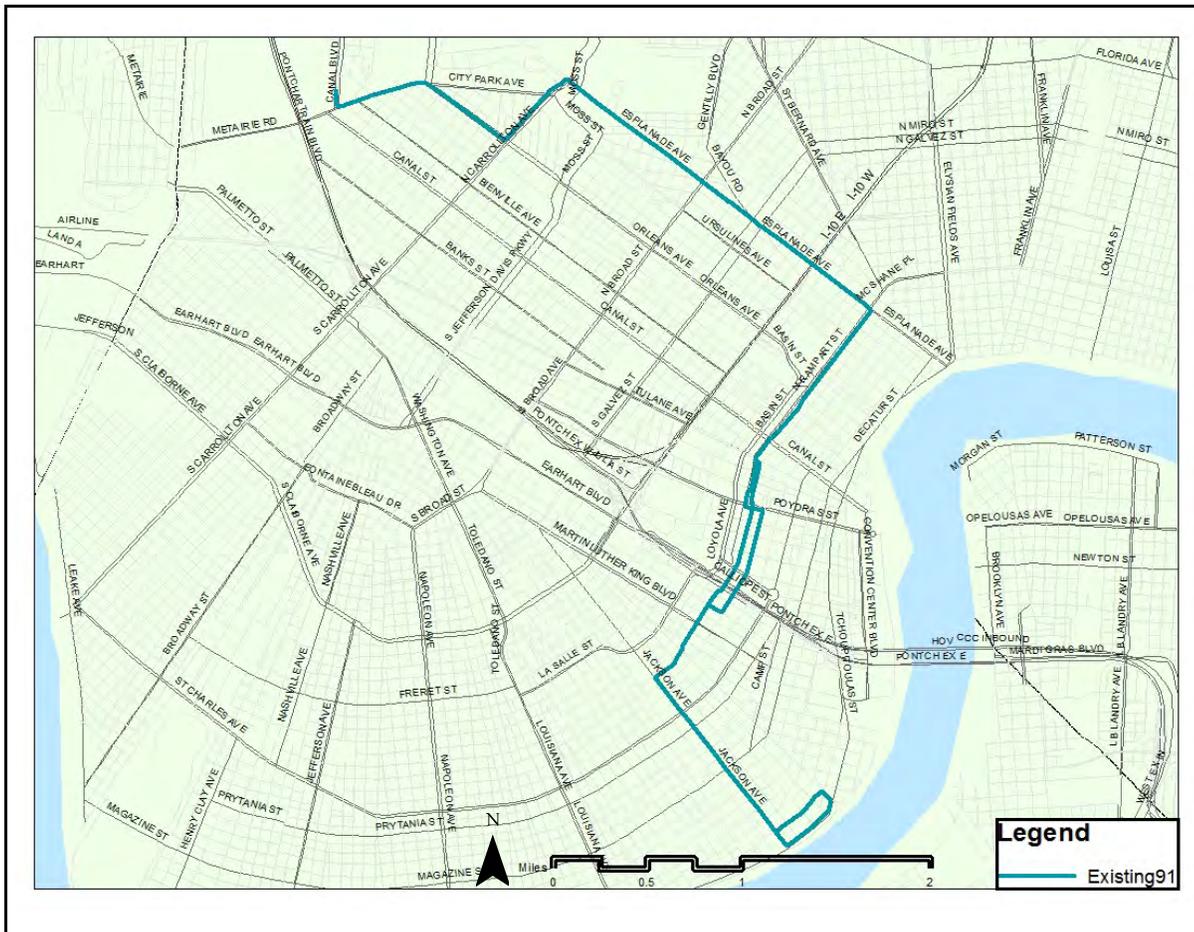
1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.

# RTA Route 91

## Description:

No change.

<i>Race</i> <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	26,559	49.3%	26,559	49.3%	-	-
Black	23,725	44.0%	23,725	44.0%	-	-
Other	3,586	6.7%	3,586	6.7%	-	-
Total	53,870		53,870		-	-
<i>Income</i> <sup>2</sup>	#	%	#	%	#	%
Below Poverty	13,120	26.8%	13,120	26.8%	-	-
Above Poverty	35,768	73.2%	35,768	73.2%	-	-



## Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.

# RTA Route 94

## New Orleans East Scenarios 1 and 2

### Description:

Route Modification. Remove coverage east of I-510 and add coverage East of Bullard Ave and North of I-10.<sup>3</sup>

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	9,991	12.7%	10,063	11.6%	72	-1.1%
Black	60,457	77.1%	71,322	82.5%	10,865	5.4%
Other	7,972	10.2%	5,079	5.9%	(2,893)	-4.3%
Total	78,420		86,464		8,044	10.3%
Income <sup>2</sup>	#	%	#	%	#	%
Below Poverty	17,579	28.5%	16,885	25.8%	(694)	-2.8%
Above Poverty	44,004	71.5%	48,598	74.2%	4,594	2.8%



### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide).
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
3. Under both New Orleans East Scenarios, RTA Rte 94's current route service area East of I-510 will be covered by proposed Rte 64. Proposed Rte 64 will have a similar destination as current Rte 94. Additionally, Rte 94's extension North of I-10 and East of Bullard is covering a service area abandoned by proposed Rte 62.

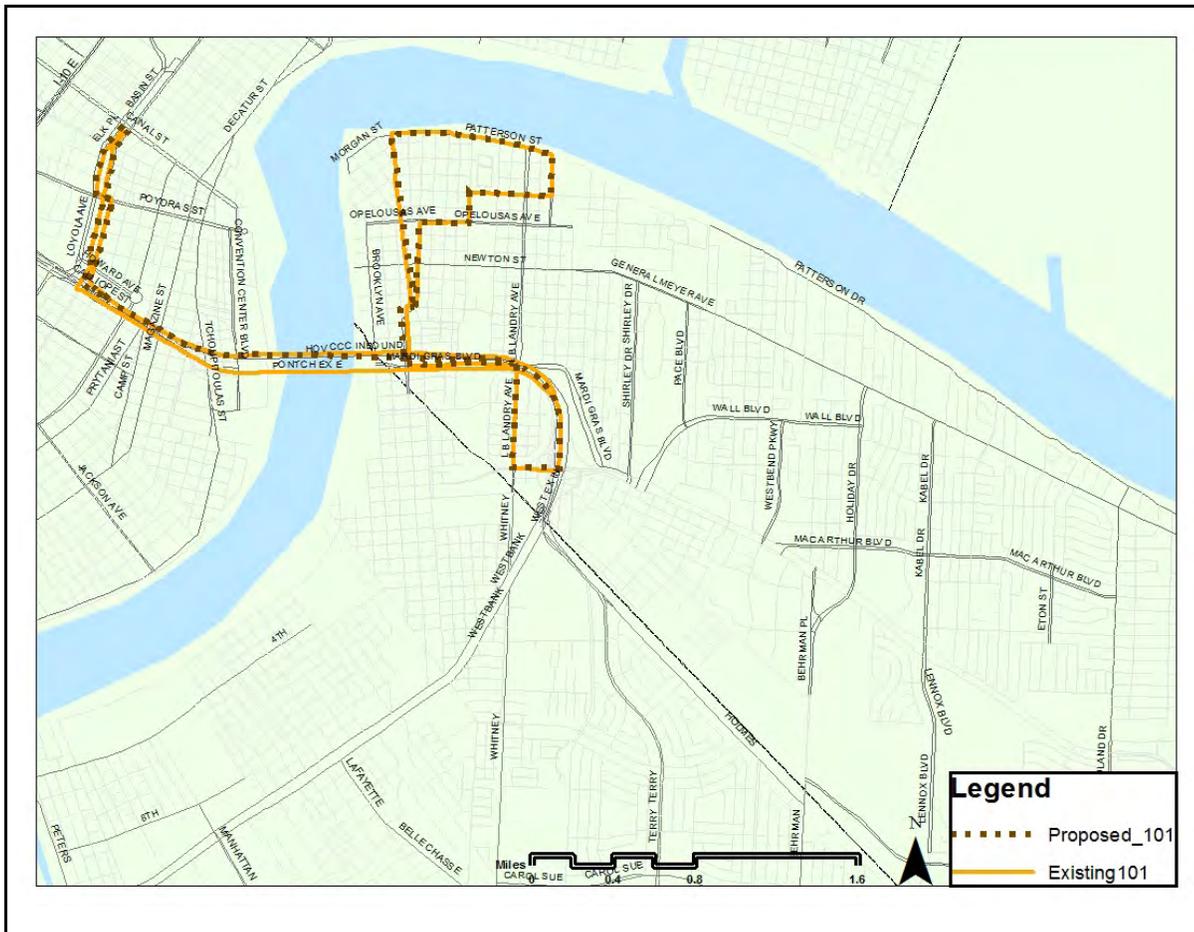
# RTA Route 101

Algiers Options A, B, and C

## Description:

No changes.

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	10,379	33.2%	10,379	33.2%	-	-
Black	6,103	19.5%	6,103	19.5%	-	-
Other	1,808	5.8%	1,808	5.8%	-	-
Total	31,274		31,274		-	-
Income <sup>2</sup>	#	%	#	%	#	%
Below Poverty	8,824	31.1%	8,824	31.1%	-	-
Above Poverty	19,560	68.9%	19,560	68.9%	-	-



## Notes:

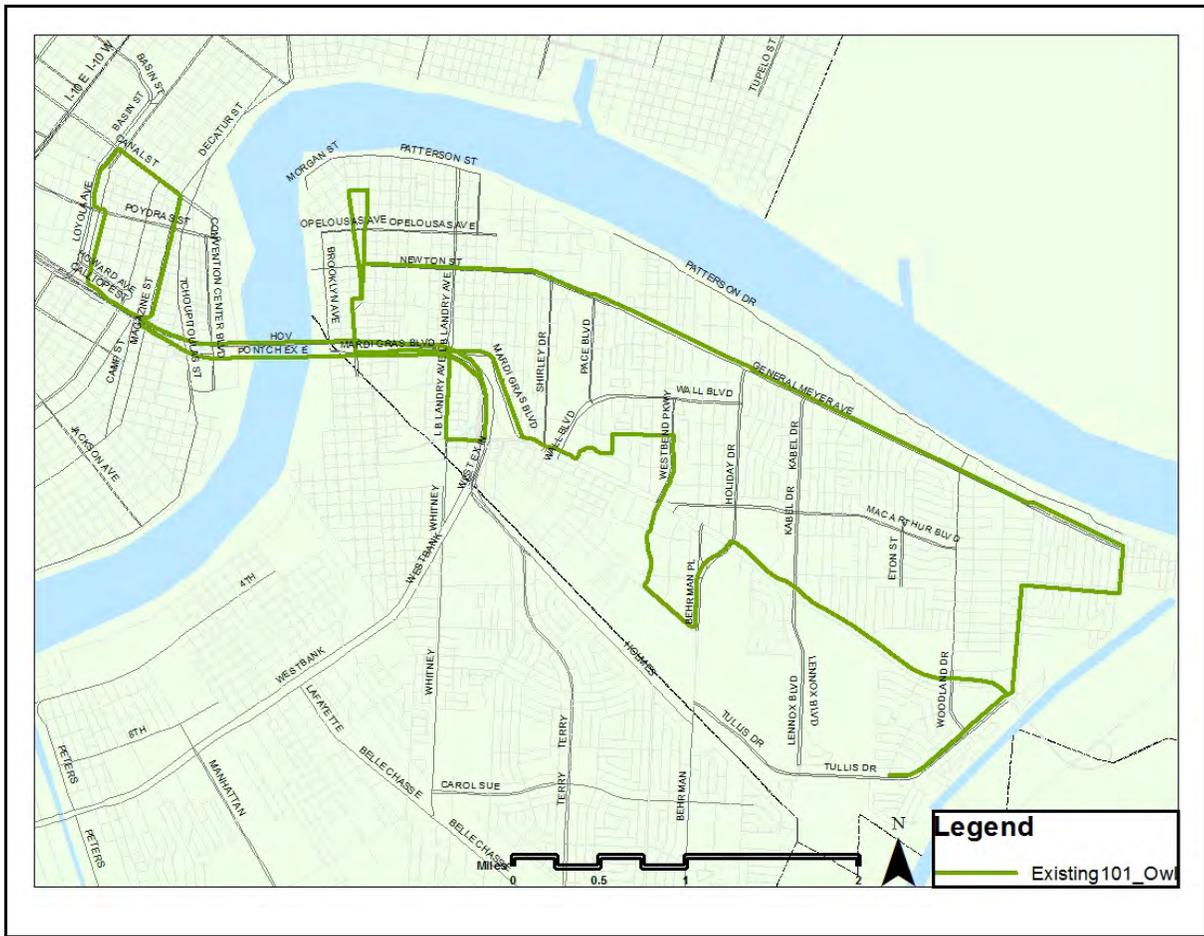
1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.

# RTA Route 101-Owl Algiers Scenarios A, B, and C

## Description:

No changes.

<i>Race</i> <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes		
	#	%	#	%	Absolute Change	Proportional Change	
White	21,550	31.6%	21,550	31.6%	-	-	
Black	41,975	61.5%	41,975	61.5%	-	-	
Other	4,708	6.9%	4,708	6.9%	-	-	
Total	68,233		68,233		-	-	
<i>Income</i> <sup>2</sup>	#	%	#	%	#	%	
	Below Poverty	15,221	23.7%	15,221	23.7%	-	-
	Above Poverty	48,952	76.3%	48,952	76.3%	-	-



### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.

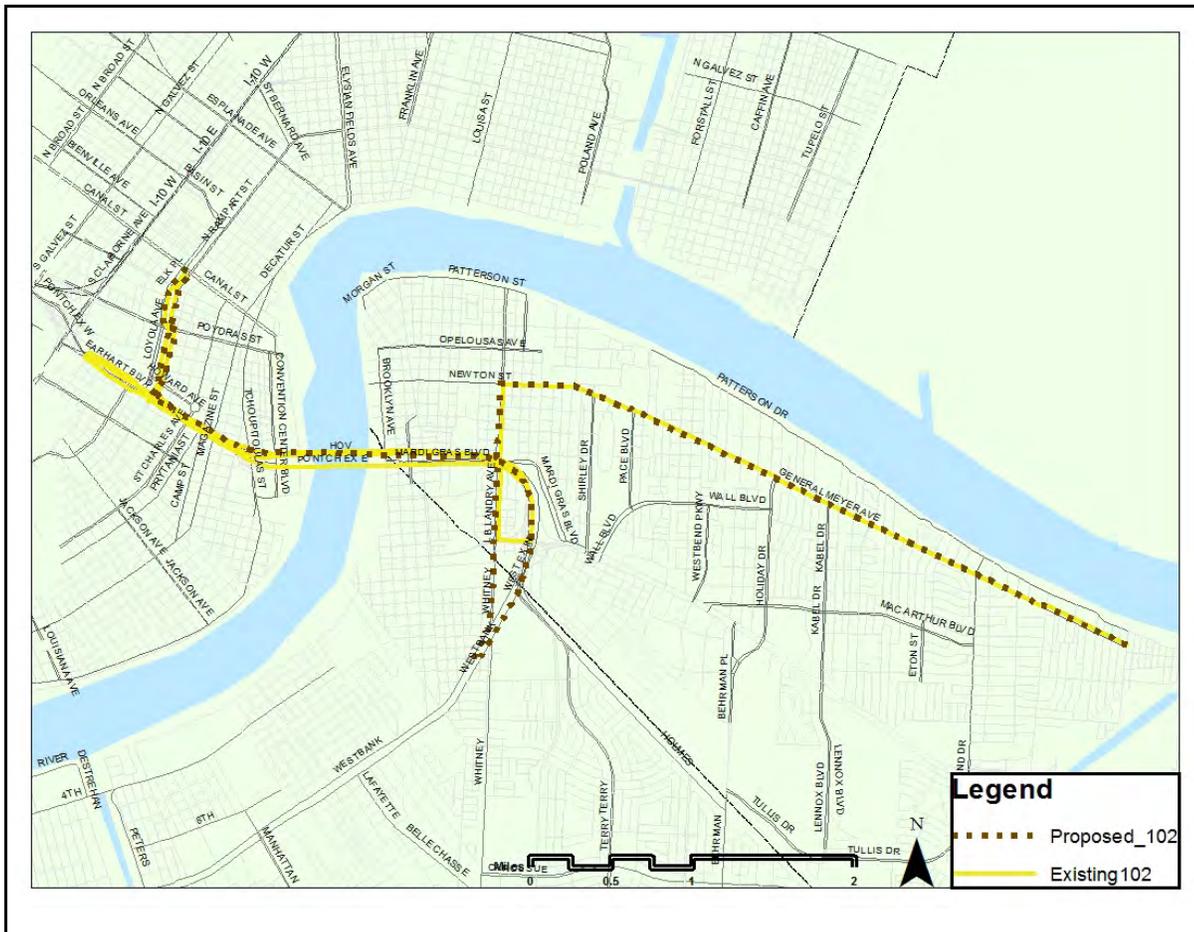
# RTA Route 102

Algiers Scenarios A, B, and C

## Description:

Route modification. On the Eastbank, there are no changes, while on the Westbank, Rte 102 has been modified slightly to connect to the Willy Terminal underneath the CCC at

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	11,989	29.5%	13,691	32.0%	1,702	2.4%
Black	25,807	63.6%	26,131	61.0%	324	-2.6%
Other	2,801	6.9%	3,015	7.0%	214	0.1%
Total	40,597		42,837		2,240	5.5%
Income <sup>2</sup>	#	%	#	%	#	%
Below Poverty	10,419	27.3%	10,758	26.6%	339	-0.7%
Above Poverty	27,719	72.7%	29,666	73.4%	1,947	0.7%



## Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.



# RTA Route 108

Algiers Scenario B

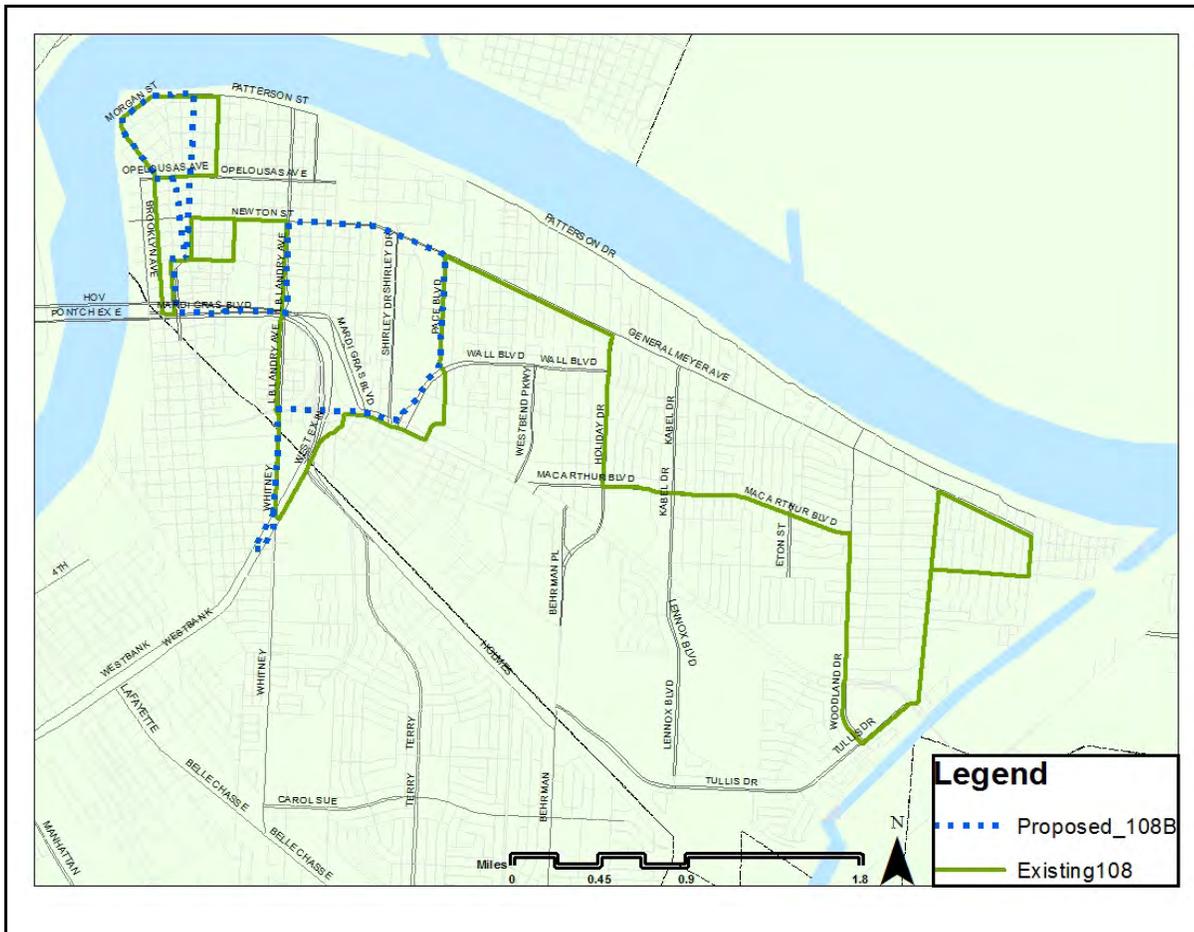
## Description:

Route modification. Removes service to areas East of Holiday Dr and limits coverage to Algiers Point. Maintains connection to Wilty Terminal.

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	16,967	28.8%	8,234	27.4%	(8,733)	-1.4%
Black	37,981	64.4%	6,582	21.9%	(31,399)	-42.5%
Other	4,062	6.9%	1,842	6.1%	(2,220)	-0.8%
Total	59,010		30,069		(28,941)	-49.0%

Income <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	13,152	22.9%	8,122	27.2%	(5,030)	4.3%
Above Poverty	44,251	77.1%	21,727	72.8%	(22,524)	-4.3%



## Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.

# RTA Route 108

Algiers Scenario C

## Description:

Route modification. Removes service to areas East of Holiday Dr and North of MacArthur and General DeGaulle, while limiting coverage to Algiers Point.

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	16,967	28.8%	11,027	28.8%	(5,940)	0.1%
Black	37,981	64.4%	24,709	64.6%	(13,272)	0.2%
Other	4,062	6.9%	2,520	6.6%	(1,542)	-0.3%
Total	59,010		38,256		(20,754)	-35.2%

Income <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	13,152	22.9%	8,279	22.0%	(4,873)	-0.9%
Above Poverty	44,251	77.1%	29,354	78.0%	(14,897)	0.9%



## Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.

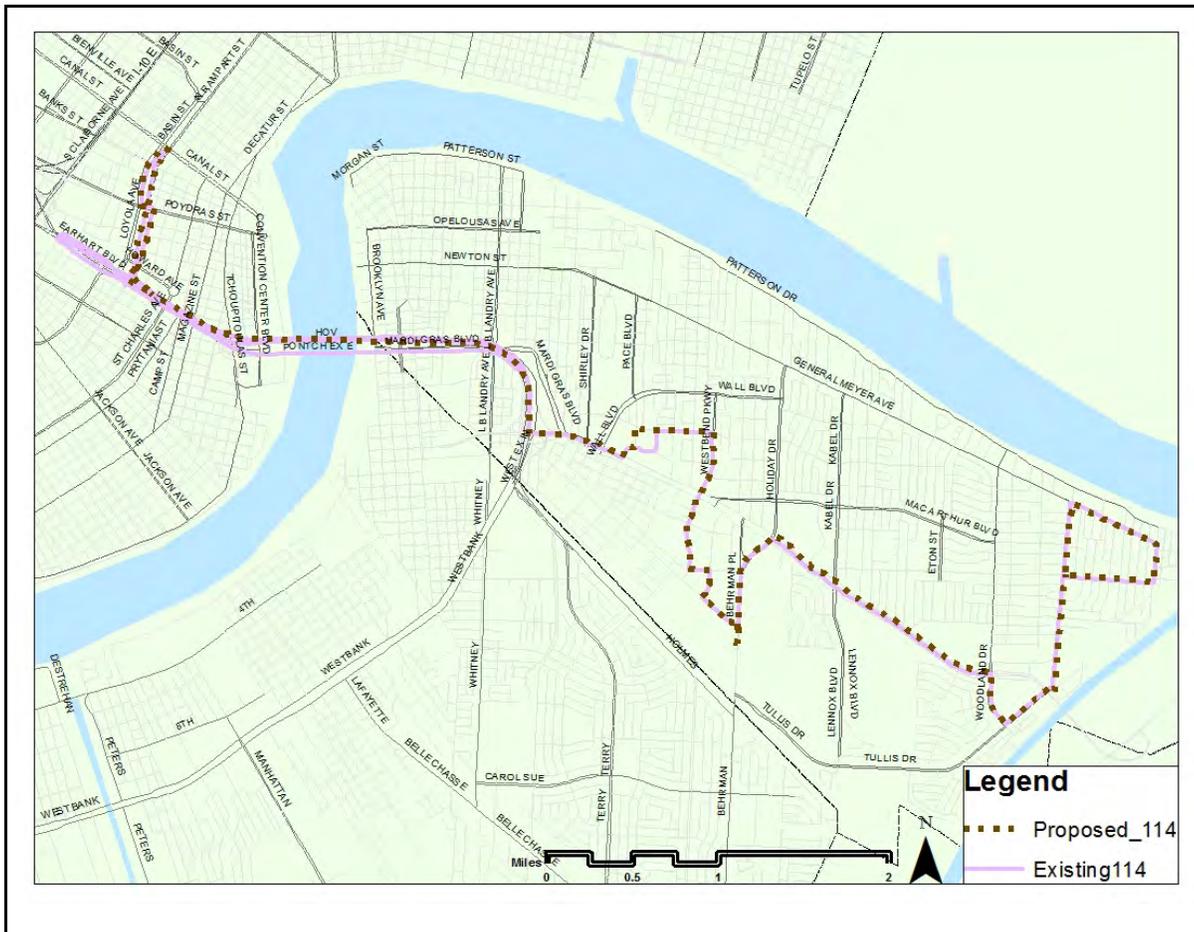
# RTA Route 114

Algiers Scenarios A, B, and C

## Description:

No demographic changes. Small route diversion (.1 miles) down to the WalMart on Behrman Hwy.

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	13,078	28.3%	13,078	28.3%	-	-
Black	29,880	64.6%	29,880	64.6%	-	-
Other	3,281	7.1%	3,281	7.1%	-	-
Total	46,239		46,239		-	-
Income <sup>2</sup>	#	%	#	%	#	%
Below Poverty	10,520	24.1%	10,520	24.1%	-	-
Above Poverty	33,215	75.9%	33,215	75.9%	-	-



## Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.

# RTA Route 114

Algiers Scenarios A, B, and C

## Description:

Route modification. Under all Algiers options, Rte 115 will end at the WalMart on Behrman Hwy, removing the Bennett loop via Tullis Ave.<sup>3</sup>

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	14,282	28.7%	7,612	15.3%	(6,670)	-13.4%
Black	31,044	62.3%	16,175	32.5%	(14,869)	-29.8%
Other	4,488	9.0%	1,673	3.4%	(2,815)	-5.7%
Total	49,814		25,460		(24,354)	-48.9%
Income <sup>2</sup>	#	%	#	%	#	%
Below Poverty	10,825	22.8%	6,312	26.5%	(4,513)	3.8%
Above Poverty	36,712	77.2%	17,487	73.5%	(19,225)	-3.8%



## Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.
3. Additionally, minor route changes are involved with entrances and exits onto the Crescent City Connection. Rte 115 will utilize HOV lanes where available. The neighborhoods served by Rte 115 remain serviced by Rte 114 except for the Tullis Dr portion, however this portion currently has no bus stops and low productivity.

## RTA Route 201

### Description:

Route removal. Under Eastbank Scenario, RTA Rte 201 will be removed and most of the service area will be replaced by extended routes for JeT E1 and E3.<sup>3</sup>

<i>Race</i> <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	<i>Absolute Change</i>	<i>Proportional Change</i>
White	37,637	59.8%	-	-	(37,637)	-59.8%
Black	15,967	25.4%	-	-	(15,967)	-25.4%
Other	9,322	14.8%	-	-	(9,322)	-14.8%
Total	62,926		-	-	(62,926)	-100.0%

<i>Income</i> <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	9,199	14.8%	-	-	(9,199)	-14.8%
Above Poverty	52,803	85.2%	-	-	(52,803)	-85.2%



### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide).
2. Based on US Census ACS 2010 5-year Tract SF1 level data with .2 mile buffer.
3. See JeT Routes E1 and E3 for analysis regarding these route extensions.

# RTA Route N1

## New Orleans CBD/Mid-City Additional Vehicles Scenario

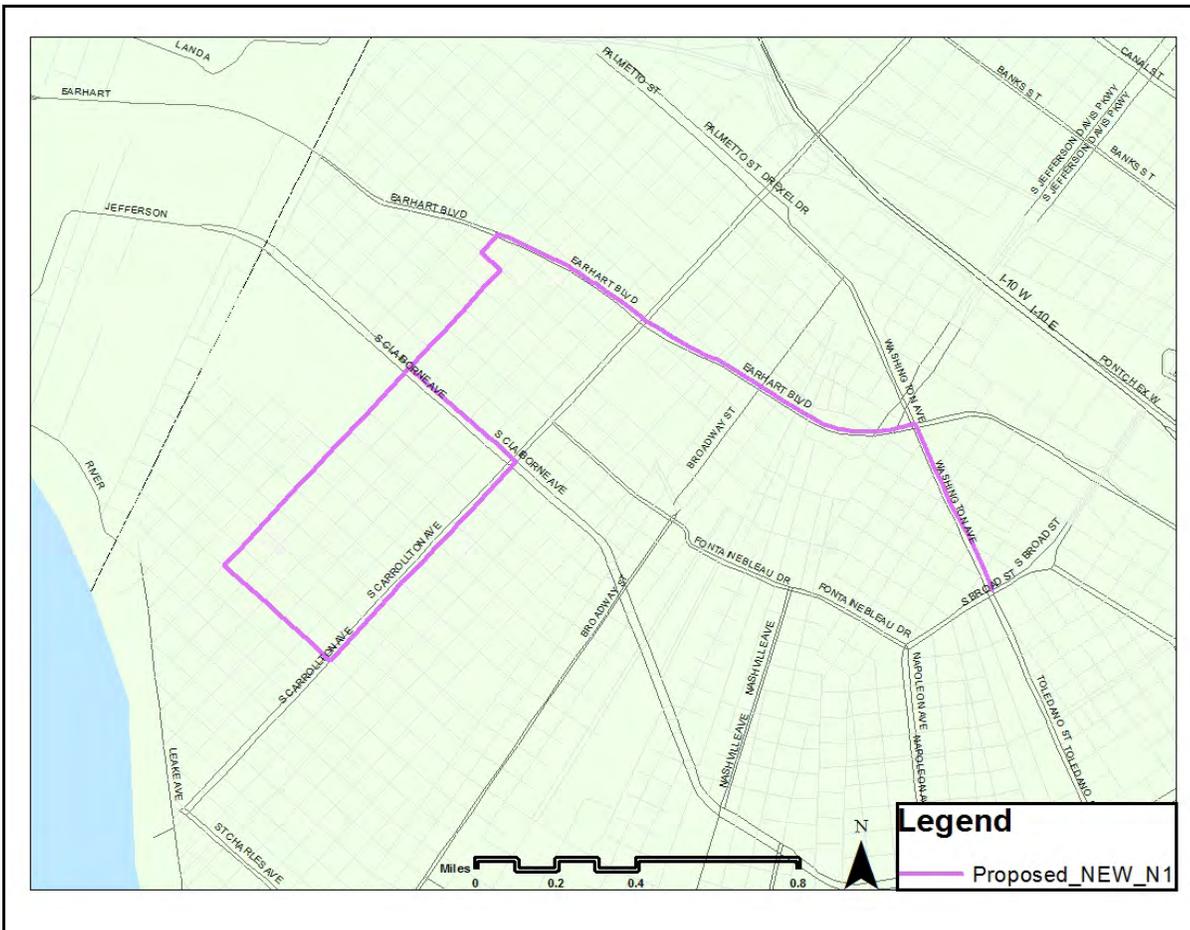
### Description:

Route creation. Rte N1 would connect the transfer point at Carrollton/Claiborne with the transfer point at Washington/Broad, while serving the Hollygrove and Leonidas neighborhoods.

<i>Race</i> <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	-	-	7,301	30.4%	7,301	30.4%
Black	-	-	15,379	64.1%	15,379	64.1%
Other	-	-	1,315	5.5%	1,315	5.5%
Total	-	-	23,995		23,995	100%

<i>Income</i> <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	-	-	6,076	27.5%	6,076	27.5%
Above Poverty	-	-	16,011	72.5%	16,011	72.5%



### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.

# RTA Route N2

## New Orleans CBD/Mid-City Additional Vehicles Scenario

### Description:

Route creation. Rte N2 would connect the neighborhoods of Univ.-Audubon, Black Pearl, East Carrollton, Marlyville/Fountainebleau, and Broadmoor to the Washington/Broad transfer point.

Race <sup>1</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	Absolute Change	Proportional Change
White	-	-	17,087	58.8%	17,087	58.8%
Black	-	-	8,959	30.9%	8,959	30.9%
Other	-	-	1,992	6.9%	1,992	6.9%
Total	-	-	29,038		29,038	100%
Income <sup>2</sup>	Population Served Currently:		Population Served with Changes:		Net Changes	
	#	%	#	%	#	%
Below Poverty	-	-	5,084	23.6%	5,084	23.6%
Above Poverty	-	-	16,452	76.4%	16,452	76.4%



### Notes:

1. Based on 2010 US Census SF1 Tract level data with .2 mile buffer (identified in intercept survey as most common distance traveled to transit stop region wide)
2. Based on US Census ACS 2010 5-year Tract level data with .2 mile buffer.