

MAYOR KEISHA LANCE BOTTOMS | WILLIAM M. JOHNSON, COMMISSIONER

Rubicon Partnership: Enriching Leaders via Technology

Route Optimization

Street by Street Directions - Detail

Solution Name: <active scenario> Solution Label: Disclaimer: The directions provided below are computer-generated and may n required to obey all traffic rules and regulations at all times. Such traffic rules computer-generated directions. Route 5101 Directions Address

Start route Maddox Park Left out of facility NORTH AVE NW Turn right onto (0.2 miles) MARIETTA BI VD NW Straight onto (3.4 miles) MARIETTA BLVD NW Turn right onto LIBERTY PKWY NW Turn left onto LIBERTY PKWY NW Stay to the right on (0.5 miles) LIBERTY PKWY NW Keep left on Keep right on LIBERTY PKWY NW

Route Optimization

Keep right on Keep left on LIBERTY PKWY NW

- Optimizes collection routes, distributing a more balanced workload amongst internal crews and reducing average distance traveled per route by nearly 20%.
- Allows new routes to be sequenced any time new stops are added.

Data Pod Integration

FridayRouteMSW 30466 has been stationary for

FridayRouteMSW 30466 has been stationary for

FridayRouteSSR Phone Battery is Below 10 %

Data Pod Integration

- Installed on each truck to monitor vehicle maintenance and route activity, in addition to collecting detailed information on recycle participation.
- Examples include: oil light is on, headlight is out,, # of stops serviced, streets missed, vehicle has been stationary for extended period of time etc.
- The Pod is plugged directly into the waste collection vehicle's dashboard and requires no interaction from drivers.

Vehicle Tracking



Vehicle Tracking

- Supervisors can now view live maps of all vehicles and their locations.
- Provide supervisors insights into driver productivity and route completion percentages.

Educate Residents



Resident Education

- When a location is not serviced, drivers are prompted to flag the reason (e.g. 'Bin Not Out,' 'Contaminated,' 'Blocked,') and take a photo of the issue.
- Once a photo of the issue is captured it is flagged to a specific location.
- Solid Waste Services has the ability to e-mail the image directly to the resident with tips on how to fix the issue for future pick-ups.

Disposal Reporting



Disposal Reporting

- Application logs daily records of the total waste and recycling tonnage collected throughout the City.
- Once a driver is at a disposal site, the app prompts driver to enter ticket and weight numbers, creating a digital disposal record, reducing incidents of unaccounted tonnage + equipping leaders with productivity insights.

Rubicon Partnership: Service Area + Route Optimization

Facing resource challenges in the existing Solid Waste operating model, our team engaged Rubicon Global to optimize service areas (zones) and daily collection routes. Rubicon and Solid Waste team combined technical + operational expertise to deliver an execution plan for a more efficient collection operating model.

Servicing ~97,000 Households		Current (4 Day Service)	Future (5 Day Service)	Key Benefits		
Ф	Total Service Areas	4 Service Areas	5 Service Areas	 Optimizing collection service areas lessen the variance in route times and evenly 		
Service Areas	Total Garbage Routes	97 1 Routes	100 Routes	distributes work load across Solid Waste Crews.		
65	Garbage Routes Per Service Area	24 Routes	20 Routes 👃	Optimizing the routes will reduce the		
	Routes Per Day (All Streams)	58 Routes	50 Routes	average distance traveled per route by ~20%, minimizing fuel and overtime cost.		
Routes	Avg Garbage Route Distance	85 Miles	65 Miles	 Current (4-Day) - 58 Routes per day 24 Garbage Routes 		
	Hours Per Day (Route Times)	6-12 Hours	8 Hours	17 Recycling Routes17 Yard Waste Routes		
	Hours/Week Per Employee	Up to 48 Hours (8 hours overtime per week)	40 Hours	Future (5-Day) - 50 Routes per day — 20 Garbage Routes		
HR & Fleet Impact	Daily Truck Requirement	74 Trucks	65 Trucks	15 Recycling Routes15 Yard Waste Routes		
	SWS Collection Active Employee Total	184 Employees	160 Employees (Reduction through natural attrition)	 HR & Fleet Impact: Reducing the routes per day scales down the daily personnel and truck requirement, saving \$1MM+ annually 		

Equipment Replacement Program: Aging Garbage Truck Fleet

The Goal of the equipment replacement program is to operate a fleet of vehicles entirely within the vehicle's 8-year life cycle.

Solid Waste Fleet		Current	Future (Year 1)	Future (Year 2)	Future (Year 3)	Comments
al et	1Total Trucks	87 Trucks	84 Trucks	79 Trucks	73 Trucks	• Currently the SWS average vehicle age is 7 years
Total Fleet	Scheduled Out of Life Cycle	27 Trucks	27 Trucks	38 Trucks	63 Trucks	Without purchasing new trucks, 63 of 87 trucks will be beyond their life cycle in year 3
am	Purchase	0 Trucks	+9 Trucks	+20 Trucks (25% Fully Automated)	+20 Trucks (50% Fully Automated)	• Full equipment program cost
§ Equipment Replacement Program	Sell	0 Trucks	-12 Trucks	-25 Trucks	-26 Trucks	Goal of equipment replacement program is for all trucks to operate within the 8-year life cycle
Equipment cement Pro	⁴ Planned Vehicles Out of Life Cycle	27 Trucks	15 Trucks	1 Trucks	0 Trucks	6 1/3 of the rear loader fleet is out of service daily
s Eq	Daily Average Inoperable	26 Trucks	24 Trucks	18 Trucks	10 Trucks	Reducing the routes per day reduces the daily
Rep	Daily Average Availability	61 Trucks	60 Trucks	61 Trucks	63 Trucks	truck requirement
Ţ.	⁶ Daily Collection Routes	58 Routes	50 Routes	50 Routes	50 Routes	Daily Shortage directly impacts the department's ability to carry out its critical functions, such as the collection of residential
ly emen	Daily Vehicle Breakdown	6 Trucks	5 Trucks	4 Trucks	3 Trucks	yard trimmings
Daily Requirement	Spare Requirement	10 Spares	10 Spares	10 Spares	10 Spares	Older trucks are consistently in and out of service. Replacing older trucks with new ones will decrease the daily average number of trucks
	Total Daily Requirement	74 Trucks	65 Trucks	64 Trucks	63 Trucks	that are inoperable. Trucks past life cycle average cost of \$55K per year in maintenance
	Daily Shortage	-13 Trucks	-5 Trucks	-3 Trucks	0 Trucks	while those within life cycle average \$35K per year. Full execution of replacement plan can
Potential Maintenance Cost Savings		\$ -	\$240K	\$760K	\$1.2MM	save up to \$1.2MM on maintenance and \$500K from operating fully automated vehicles



Summary: Status of Resident Interactions

<u>lcon</u>	Resident Interaction Point	<u>Status</u>	Communication Vehicle
	Handheld Device		ReCollect App, Social Media
	Computer/Website		ReCollect Web Portal
	Group Forum (Community Event)		NPU Meetings, Feet On The Street Campaign
	Radio		Radio Advertisement
	Television		Channel 26
	Phone Call		Robo Calls
	News Paper		Sunday Paper Ads
	Residential Property		Direct Mailers
	Training/In Person Communication	1	Internal Training on ReCollect & Rubicon
2	Customer Service via Call		Prepare 311 Reps for Route Change Implementation



ReCollect Website & App



Objective: Allows residents to easily lookup SWS collection days and how to properly dispose of items.

Key Calendar Dates: Address information uploaded into ReCollect June 11th (complete testing phase); June 20th Go Live

ReCollect's Platform service includes the following:

Collection Calendar

- Schedule look-up tool
- Reminders and print calendars
- Report a Problem
- Admin Dashboard

Waste Wizard

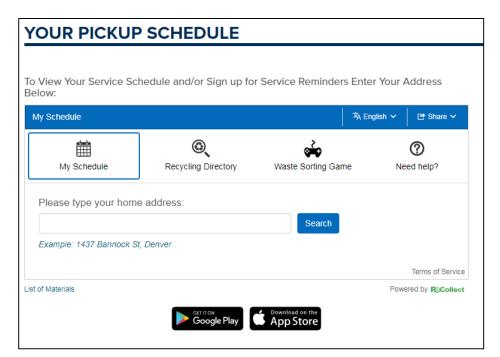
 Enable residents to easily search for how to dispose of hundreds of different materials

Special Collections

- Enable residents to schedule bulk waste pickup
 Embeddable Widget
- Embed the calendaring, waste wizard, special collection and report-a-problem tools on multiple web pages

Mobile App

- Free Mobile App (iTunes App Store and Android Play Store)
- White-Labeled: Custom branding on mobile app for personalized branding



Example: Denver Colorado ReCollect Site



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Calendar + Timeline (June)

June 2018								
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
3	4 NPU Meetings start Water Bill Insert DWM Social Media Blitz	5 9am Weekly Meeting 2pm Rubicon Meeting	6	7 10:30am Weekly Meeting	8 1 st view of Recycle and Yard Waste Routes	9		
10	11 SWS Fee Council Workshop	9am Weekly Meeting 2pm Rubicon Meeting Finalize Recycle and Yard Waste Routes	13	14 10:30am Weekly Meeting	15 Social Media Blitz	16		
17	18 Send Direct Mailer to Residents ReCollect & Rubicon Training for 311	19 9am Weekly Meeting 2pm Rubicon Meeting	20 ReCollect Go Live	21 10:30am Weekly Meeting	22 Social Media Blitz	23		
24 Digital Ad for local news site Feet on the street (week)	25 ReCollect & Rubicon Training for COA Employees	2.6 9am Weekly Meeting 2pm Rubicon Meeting	Radio advertisement	28 10:30am Weekly Meeting	29 ReCollect & Rubicon Training for COA Employees Social Media Blitz	30		





Calendar + Timeline (July)

July 2018								
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
Ad in Sunday Paper Digital Ad for local news site Feet on the street (week)	Full Council vote on SWS Fees	3	4	5 10:30am Weekly Meeting 2pm All Hands Meeting Water Bill Insert DWM	6 Social Media Blitz	7		
Ad in Sunday Paper Digital Ad for local news site Feet on the street (week)	9 1st Day of New Routes Social Media Blitz	10 9am Weekly Meeting 5pm All Hands Meeting	11	12 10:30am Weekly Meeting 5pm All Hands Meeting	13 Social Media Blitz	14		
Feet on the street (week) Ad in Sunday Paper Digital Ad for local news site	16 Radio advertisement	17 9am Weekly Meeting	18 Radio advertisement	19 10:30am Weekly Meeting	20 Social Media Blitz	21		
22 Digital Ad for local news site	23 Radio advertisement	24 9am Weekly Meeting	25	26 10:30am Weekly Meeting	27 Social Media Blitz	28		
29	30	31	Legend ReCollect Website Direct to Residential Address Media Customer Service Training			ity Engagement		



Communication Plan Appendix



JUNE

MONDAY

FIRST DAY OF WEEK

CALENDAR YEAR

CALENDAR MONTH

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
28	29	30	31	01	02	03	
04	05	06	07	Color Key and	Legend	10	
NPU P - Ben Hill Christian Church (4099 Sunset Drive) @ 7:00 PM (Kanika Greenlee)	NPU A - Atlanta Speech School (3:160 Northside Pkwy.) @ 7:00 PM (Gayla Dodson)	NPU R - Mt. Carmel Baptist Church (2755 Campbellton Rd @ 7:00 PM (Sherra Durham)	NPU H - CT Martin Center (3201 ML King Drive) @ 7:00 PM (Rita Braswell)	Commissioner William Johnson			
	NPU B - Cathedral of St. Phillip (2477 Peachtree Road) @ 7:00 PM (Comm. William Johnson)				ty Commissioner . Dodson	James Jackson	
	NPU C - Trinity Presbyterian (3003 Howell Mill Road) @ 7:00 PM (Pierre Johnson)				a Durham		
	NPU D- Agape Community Center (2353 Bolton Road) @ 7:30 PM (Marcus Gore)			Kanik	a Greenlee		
	NPU E - Peachtree Christian Center (1580 Peachtree St. NE) @ 6:30 PM (DC James Jackson)				us Gore Braswell		
NPU V - Pittman Park Recreation Center (950 Garibaldi Street SW) (DC James Jackson)	NPU L - On The Rise Financial Center (8:10 Joseph E Boone Blvd) @ 7:00 PM (P.Johnson)	13 NPU T - Kipp Strive Academy (1444 Lucille Avenue) € 7:00 PM (M. Gore)	14		e Johnson		
NPU X - Metropolitan Library (1332 Metropolitan Avenue) @ 7:00 PM (G. Dodson)							
18	19	20	21	22	23	24	
NPU F - Hillside Facility (1301 Monroe Dr.) @ 7:00 PM (S. Durham)	NPU K - CA Scott Recreation Center (1565 ML King Drive) @ 6:30 PM (K. Greenlee)	NPU I - CT Martin Recreation Center (3201 ML King Jr. Drive) @ 7:00 PM (R. Braswell)	NPU Q Quality Living Center (4001 Danforth Road) @ 7:00 PM (P. Johnson)			- 0	
NPU Y - Birdine Neighborhood Center (215 Lakewood Way SW) @ 7:00 PM			NPU S - The Vicars (838 Cascade Rd) @ 7:00 PM (M. Gore)		OAFT	307	
			NPU G - Fire Station #28 (1925 Hollywood Rd.) @ 7:00 PM (K. Greenlee)	D	RAET 30	1	
25	26	27	28	-62	30	01	
NPU M - Loudermilk Conference Center (40 Courtland St.) @ 6:15 PM (G. Dodson)	NPU J - Douglass High School (225 HE Holmes Dri. NW) @ 7:00 PM (M. Gore)	NPU W - Village Church East Atlanta (1231 Glenwood Ave. SE) @ 7:30 PM (Comm. W. Johnson)	NPU N - Little 5 Points Center (1083 Austin Avenue) @ 7:00 PM (R. Braswell)	Mrc			
NPU Z - Rosel Fann Recreation Center (365 Cleveland Ave.) @ 7:00 PM (S. Durham)	NPU O - Bessie Branham (2051 Delano Drive) @ 6:30 PM (DC J.Jackson)						

NPU Talking Points

<u>Proposed Solid Waste Rate Fee Adjustment:</u> We propose removing the front footage fee for residences, recycling to remain constant and increasing residential fees by \$9 on average per resident. In addition, we are proposing a commercial and vacant residential lot fee. Benefits of the adjustments include:

Bring the current dependency on the City's General Fund to a state of parity

Upgrade an aging Garbage Truck Fleet

Account for the minimum wage increase

Account for an increase in disposal fees

Fund additional CHaRM Drop Off Centers (4) - Center for Hard to Recycle Materials. The current location is at 1110 Hill Street, SE

Increase SWEET Officers - Solid Waste Education and Enforcement Team

Atlanta Public Schools (APS) Partnerships

An upgraded Solid Waste Website

Once Proposed Solid Waste Rate Fee Adjustment Passes Council Vote

The rate will be effective July 1, 2018

The upcoming Solid Waste Bill (which comes out in August/September) will reflecting billing from July 1- Dec 31. Approximately \$4.50 for average resident

Full rate increase (\$9 for average resident) will be on the bill received in 2019

Key dates for City Council vote on SWS fee adjustments are:

June 11th - City Council Work Session (SWS fee adjustment)

9am - 12pm | Atlanta City Hall | 2nd Floor | Committee Room 1

June 26th - City Utilities Committee Vote (scheduled)

9:30 AM | Atlanta City Hall | 2nd Floor| Committee Room 1

July 2nd - Full City Council Vote (scheduled)

1 PM | Atlanta City Hall | 2nd Floor | Council Chambers

<u>Solid Waste Route Optimization:</u> We worked with an Atlanta based technology company to implement **optimized collection routes**, distributing a **more balanced workload amongst internal crews** and **reducing average distance traveled per route by nearly 20%**. How does that affect you as a resident?

Current 4-day Service will change to 5-day service (M-F)

We will begin communicating new collection service days to all residents by June 30th via direct mail, in addition to emails, phone calls, social media and newspaper ads, and 311

Scheduled Bulk Pickup

Effective July 2018

Please follow us on social media or visit our website for more information

Twitter & Instagram: AtlPublicWorks Facebook: AtlantaPublicWorks Online: AtlantaGA.GOV/SolidWaste

Web portal: will have Collection Calendar & Reminders/Waste Wizard (item belongs in trash/recycling/drop-off)

Handouts:

Handout #1: Solid Waste Rates White Paper

Handout #2: Appendix

Handout #3: DPW Comment Cards

Questions: 404-330-6236 or dpwcommunications@atlantaga.gov

