

Sponsored by the Pennsylvania Department of Environmental Protection through the Pennsylvania State Association of Township Supervisors

FINAL REPORT

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RECYCLING TECHNICAL ASSISTANCE PROJECT #581 CAMBRIA COUNTY

RECYCLING SYSTEM ROUTING

1. STATEMENT OF THE PROBLEM

The Cambria County Solid Waste Authority (Authority) operates a drop-off system for the collection of recyclables. Historically the system utilized the Haul-All technology for containers and collection vehicles. The Authority operates 19 recycling drop-off sites located throughout the County. A total of 140 recycling containers collect plastic bottles and jugs, aluminum and steel cans, newspaper, magazines, corrugated cardboard, and office paper. The Authority is in the process of transitioning from the aged Haul-All collection system to a new commercial front-load collection system. The new collection system will offer greater collection efficiency and cost savings. New collection trucks have 40 cubic yard capacity bodies with compaction capability while the old trucks had 35 cubic yard capacity bodies with no compaction. For some recyclable material streams, the new collection trucks will be able to collect 4 to 5 times more material by weight per route prior to off-load than the old trucks. In addition, the capacity of the new collection containers will be 8 cubic yards while the old collection containers were 5 and 6 cubic yard containers. As a result of the increased collection capacity, the Authority will be able to increase recycling capacity and down-size its daily operational fleet and routes to two trucks with one route each per day as opposed to the old system which required 3 or 4 trucks and routes per day.

2. SUMMARY OF WORK COMPLETED

Given that recyclable materials will be collected source-separated and the new trucks and containers will have a much greater collection capacity than the old system, the Authority wished to determine the most efficient collection routes for the new collection system. This analysis identifies changes to collection routes to optimize the efficiency of the drop-off collection system.

The Authority provided MSW Consultants with electronic files that included the names, addresses and number of Haul-All containers at each of the County's drop-off recycling sites. Table 2-1 illustrates the names and addresses of those sites and also the number of containers currently located at each site.

Table 2-1 Authority Drop-Off Recycling Sites and Number of Containers Currently on Site

Drop-off Site Name	Drop-off Site Address	осс	Plastic	ONP	Bimetal	OMG	Office Paper
Adams	125 Mary Drive						
	Sidman, PA 15955	1	1	1	1	1	
Barnesboro	7 Cottonwood Street						
	Northern Cambria, PA 15714	1	2	1	1	1	

Drop-off Site Name	Drop-off Site Address	осс	Plastic	ONP	Bimetal	ОМС	Office Paper
Cambria County Prison	425 Manor Drive Ebensburg, PA 15931				1		
Conemaugh Township	142 Janie Street Johnstown, PA 15902	1	2	1	1	1	
Cresson	7551 Admiral Peary Highway Cresson, PA 16630	1	3	1	1	1	
Croyle Township	1654 Railroad Street Summerhill, PA 15958	1	2	1	1	1	
D Street	9 D Street Johnstown, PA 15906	1	2	1	1	1	
Davidson Chevy	3885 Admiral Peary Highway Ebensburg, PA 15931	1					
E Conemaugh Borough	Railroad Street East Conemaugh, PA 15909	1	2	1	1	1	
Eburg DEP	286 Industrial Park Road Ebensburg, PA 15931	1	1	0.5	0.5	0.5	1
Eburg Manor Dr.	Manor Drive Ebensburg, PA	1	2	1	1	1	
Geistown	631 Lamberd Avenue Johstown, PA 15904	3	4	2	1	1	
Hastings	246 Coleman Street Hastings, PA 16646	1	2	1	1	1	
Jackson Township	513 Pike Road Johnstown, PA 15909	1	3	1	1	1	
Lilly Borough	Cleveland Street Lilly, PA 15938	1	2	1	1	1	
Loretto	Joseph Street/Manor Drive/Alley Street Loretto, PA 15940	3	3	1	1	1	2
Patton	800 4 th Avenue Patton, PA 16668	1	3	1	1	1	
Portage Borough	712 Mountain Avenue Portage, PA 15946	1	3	1	1	1	
Roxbury	114 Derby Street Johnstown, PA 15905	1	3	2	1	1	
Spangler	2423 Betts Avenue Northern Cambria, PA 15714	1	2	1	1	1	
SWA HQ	507 Manor Drive Ebensburg, PA 15931	1					
UPJ Main	Highfield Drive Johnstown, PA 15904		3	1	1	1	1
UPJ Main and SU	Highfield Drive Johnstown, PA 15904	5					



The Authority also provided a daily schedule of collections and the average fullness of the containers for each of those collections. That data was recorded in a database table for further analysis. The average weekly generation of each commodity is shown in Appendix F. Each commodity was analyzed separately because the Pro Disposal MRF cannot process comingled materials.

MSW used the Microsoft Streets & Trips 2013 software program to identify drop-off sites and create travel-efficient routes between sites and recycling facilities, incorporating the Authority's purchase of new equipment to be used in a front-load style collection system into its rerouting and analysis. New equipment purchases are shown in Table 2-2.

New Equipment typeNumberCapacityFront load collection trucks240 cubic yard (13 Ton net weight)Front-load containers1528 cubic yard

Table 2-2 New Equipment Inventory

3. POSSIBLE SOLUTIONS

3.1 SINGLE STREAM COLLECTION

The Authority has contracted with Pro Disposal to process all the recyclable commodities generated from the drop-off recycling program. The Pro Disposal facility, however, cannot currently process single stream recyclables. Therefore the single-stream scenario that MSW intended to analyze was not practical at the time of this project. If the facility installs single stream processing equipment in the future, this analysis should be performed.

3.2 SOURCE-SEPARATED COLLECTION

The scenario analyzed includes collection of source-separated recyclables from each of the drop-off sites. The new collection system will require 143 total containers which will leave 9 spare containers for program expansion. Appendix F, Exhibit 2 provides a table for easy implementation of the recommendation, and Table 3-1 illustrates the number of containers required by site for this type of collection system.

Table 3-1 Authority Drop-off Recycling Site Container Dumps Recommendation

Site Name	осс	Plastic	ONP	Bimetal	OMG	Office Paper	Total
Adams	3	1	1	1	1	0	7
Barnesboro	2	2	1	1	1	0	7
Cambria County Prison	0	0	0	1	0	0	1
Conemaugh Township	2	1	1	1	1	0	6
Cresson	2	2	2	1	1	0	8



Site Name	осс	Plastic	ONP	Bimetal	OMG	Office Paper	Total
Croyle Township	2	2	1	1	1	0	7
D Street	2	2	2	1	1	0	8
Davidson Chevy	1	0	0	0	0	0	1
East Conemaugh Borough	2	1	1	1	1	0	6
Eburg DEP	2	1	2	1	1	1	8
Eburg Manor Dr.	2	2	2	1	1	0	8
Geistown	4	2	4	1	1	0	12
Hastings	1	1	1	1	1	0	5
Jackson Township	2	2	2	1	1	0	8
Lilly Borough	1	1	1	1	1	0	5
Loretto	2	1	1	1	1	1	7
Patton	2	2	1	1	1	0	7
Portage Borough	2	2	1	1	1	0	7
Roxbury	2	2	4	1	1	0	10
Spangler	1	2	1	1	1	0	6
SWA HQ	1	0	0	0	0	1	2
UPJ Main	0	1	1	1	1	1	5
UPJ Main & Union	2	0	0	0	0	0	2
Total Containers	40	30	30	20	19	4	143

4. RECOMMENDATION

The ultimate goal of this project was to try to collect on a single day each generated recyclable commodity at each site where that commodity is collected so that one of the new trucks may be used as a route truck, and the second new truck may be used as a spare. This change will significantly reduce collection operating costs by eliminating one full time driver's wages and one vehicle's operational cost.

Currently, the calculated optimal drive time to travel between all sites is 3.5 hours, based on the Microsoft route. However, this time does not include container service time. Also many of the commodities require as many as four trips to the MRF during the day. This extra time pushes the current total daily time over the Authority's basic 7 hour workday.

To increase route efficiency, MSW created the most efficient travel path between drop-off sites, with collection container recommendations in Table 3-1 integrated, and ended each route at the MRF. Second, MSW calculated the volume and weight of recyclables based on projections provided by the Authority. Those estimates are shown in Appendix F, Exhibit 1. Based on the number of required trips to the MRF, routes were revised to create the optimal travel path. The software calculated the mileage and travel time for the projected route. The information was fed into a spreadsheet that added 5 minutes for each container dumped and 30 minutes for each trip to the MRF to dump the load. The total route hours are shown in Table 4-1.



Table 4-1 Recommended Daily Collection Routes

	Truck a	#1	Truck #2		
Day	Materials	Rt. Hours	Materials	Rt. Hours	
Monday	OCC Rt.#1	6.60			
Tuesday	Plastic Rt.# 1	6.15	ONP	7.67	
Wednesday	OMG (EOW)	6.75			
	Bimetal (EOW)	6.77			
Thursday	OCC Rt.#2	9.02	Office Paper	2.07	
Friday	Plastic Rt.# 2	7.05			

MSW recommends the implementation of newly developed routes provided in the Appendices A through D of this report. Each of the Appendices includes an Exhibit showing the sequence of stops for each material commodity as well as route maps and turn-by-turn directions.

The Monday OCC collection route is too long to be collected in one day by a single truck. Therefore, the most efficient manner to collect that commodity is to collect the material over a two-day period on Monday and Thursday.

The Tuesday HDPE/PET Plastic route is too long to be collected in one day by a single truck. Therefore the most efficient manner to collect that commodity is to collect the material over a two-day period on Tuesday and Friday. A second Tuesday route will collect ONP.

The Wednesday routes for OMG and Bimetal cans can be collected every other week (EOW) because the generation is low, and the container size is large enough to accommodate that schedule. This will save the Authority time and money.

A second Thursday route will collect Office Paper, however, there are only a few drop-off sites with Office Paper collection. Because that route will be extremely short, the truck can transfer over and assist with the OCC collection to complete the day.



APPENDIX A

MONDAY ROUTE: OCC

Exhibit 1: OCC Collection Sequence Route 1Exhibit 2: OCC Route 1 Map & Directions



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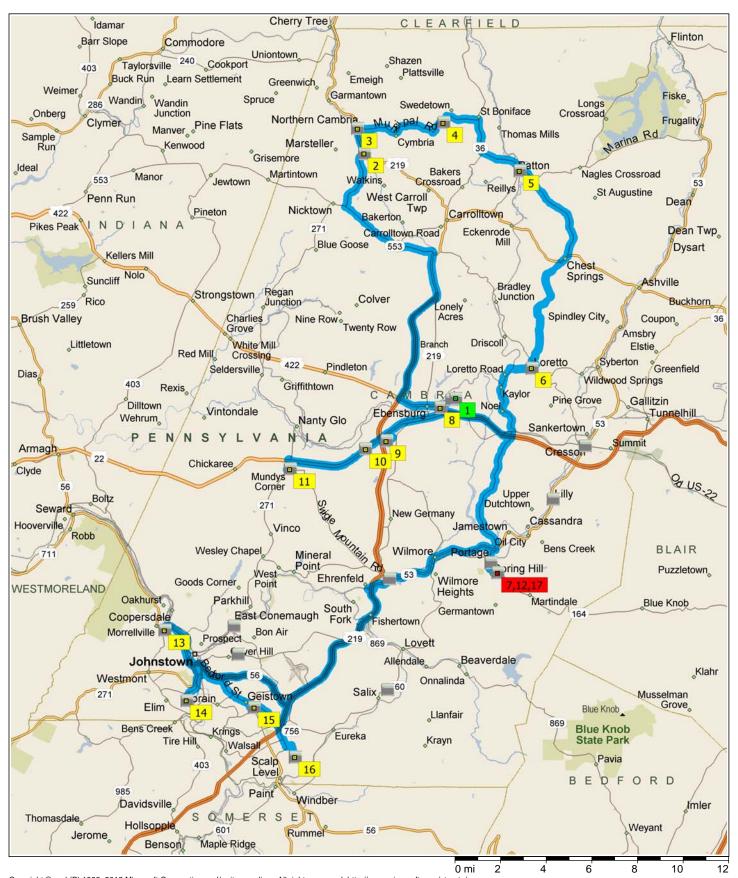
Exhibit 1: OCC Collection

Route 1

EXIIIDIC 1. OCC	CONCCUON		Noute 1						
		Current Cont	Est Yds		# of	# of New	Minutes to		
	Collection	Yds/Wk	Generated	# of New FL	Collections	Yards of	Service		
Site Name	Order	Capacity	per Week	Containers	per Week	Capacity	Container		
SWA HQ	1	8	1	1	1	8	5		
Spangler	2	20	5	1	1	8	5		
Barnesboro	3	8	10	2	1	16	10		
Hastings	4	8	5	1	1	8	5		
Patton	5	8	12	2	1	16	10		
Loretto	6	24	13	2	1	16	10		
Pro MRF	7								
Eburg Manor Dr.	8	20	27	2	2	32	10		
D Street	13	20	29	2	2	32	10		
Roxbury	14	0	31	2	2	32	10		
Geistown	15	60	50	4	2	64	20		
UPJ Main and SU	16	4	32	2	2	32	10		
Pro MRF	17								
Total		288	330	21		264	105		
	I	_oads	2.75			2.2			
Minutes of Drive Time 2:									
Service Time									
Dump Time 6									
Total Minutes to Service	otal Minutes to Service All Sites 396								
Total Hours							6.6		

OCC Rt 1

144.7 miles; 3 hours, 51 minutes



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9:00 AM	0.0 mi	1 Depart SWA HQ [507 Manor Dr, Ebensburg, PA 15931] on Manor Dr (West) for 0.9 mi
9:01 AM	0.9 mi	Turn RIGHT (West) onto Rowena Dr for 0.3 mi
9:02 AM	1.1 mi	Keep STRAIGHT onto E High St [Rowena Dr] for 0.3 mi
9:03 AM	1.5 mi	Keep STRAIGHT onto US-219 Branch [W High St] for 0.3 mi
9:04 AM	1.8 mi	Bear RIGHT (West) onto Benjamin Franklin Hwy [Ben Franklin Hwy] for 0.9 mi
9:05 AM	2.7 mi	Bear RIGHT (North) onto US-422 [Benjamin Franklin Hwy] for 21 yds
9:05 AM	2.7 mi	Take Ramp onto US-219 for 5.1 mi towards US-219 N
9:10 AM	7.8 mi	Keep LEFT onto Local road(s) for 120 yds towards US-219 N / Carolltown
9:10 AM	7.8 mi	Turn LEFT (North) onto US-219 [US-219 Branch] for 2.0 mi
9:12 AM	9.8 mi	Turn LEFT (North) onto PA-553 [Ridge Rd] for 4.6 mi
9:18 AM	14.5 mi	Turn RIGHT (North) onto PA-271 [Nicktown Hill Rd] for 2.5 mi
9:22 AM	17.0 mi	Keep STRAIGHT onto PA-271 [24th St] for 0.2 mi
9:22 AM	17.2 mi	2 At Spangler [2423 Betts Ave, Northern Cambria, PA 15714], stay on PA-271 [24th St] (North-East) for 120 yds
9:22 AM	17.2 mi	Turn LEFT (North-West) onto US-219 [Bigler Ave] for 1.3 mi
9:25 AM	18.6 mi	Turn LEFT (North-West) onto US-219 [Philadelphia Ave], then immediately turn LEFT (South-West) onto Cottonwood St for 0.3 mi
9:26 AM	18.8 mi	3 At Barnesboro [7 Cottonwood St, Northern Cambria, PA 15714], return North on Cottonwood St for 0.2 mi
9:27 AM	19.0 mi	Turn RIGHT (South-East) onto US-219 [Philadelphia Ave] for 131 yds
9:28 AM	19.1 mi	Keep STRAIGHT onto Philadelphia Ave for 0.7 mi
9:30 AM	19.8 mi	Road name changes to Municipal Rd for 2.9 mi
9:34 AM	22.7 mi	Turn LEFT (East) onto Spangler St for 0.6 mi
9:36 AM	23.3 mi	Turn RIGHT (East) onto 4th Ave for 0.1 mi
9:37 AM	23.4 mi	4 At Hastings [246 Coleman St, Hastings, PA 16646], return West on 4th Ave for 131 yds
9:37 AM	23.5 mi	Turn RIGHT (North) onto Beaver St for 0.4 mi
9:39 AM	23.8 mi	Turn RIGHT (East) onto Bridge St for 1.5 mi
9:42 AM	25.3 mi	Turn RIGHT (South) onto PA-36 [Main St] for 2.9 mi
9:46 AM	28.2 mi	Keep STRAIGHT onto PA-36 [RAILROAD Ave] for 0.4 mi
9:47 AM	28.6 mi	Turn RIGHT (South) onto PA-36 [4th Ave] for 0.2 mi
9:47 AM	28.8 mi	5 At Patton [800 4th Ave, Patton, PA 16668], turn LEFT to stay on PA-36 [Magee Ave] for 0.4 mi
9:48 AM	29.2 mi	Keep STRAIGHT onto PA-36 [Colonel Drake Hwy] for 4.5 mi
9:53 AM	33.7 mi	Bear RIGHT (South) onto Columbia St for 5.6 mi
10:03 AM	39.3 mi	Turn LEFT (South-East) onto Brick Rd for 0.4 mi
10:05 AM	39.7 mi	Road name changes to Manor Dr for 120 yds
10:05 AM	39.8 mi	6 At Loretto [Manor Dr, Loretto, PA 15940], stay on Manor Dr (West) for 0.9 mi
10:07 AM	40.7 mi	Turn LEFT (South) onto Munster Rd for 3.2 mi
10:13 AM	44.0 mi	Road name changes to PA-164 [Munster Rd] for 6.0 mi
10:22 AM	49.9 mi	Turn RIGHT (West) onto PA-164 [PA-53] for 0.2 mi
10:22 AM	50.1 mi	Turn LEFT (South) onto PA-164 [Main St] for 0.9 mi
10:24 AM	51.0 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi

10:25 AM	51.4 mi	7 At Pro MRF [1938 Puritan Rd, Portage, PA 15946], return West on PA-164 [Puritan Rd] for 0.4 mi
10:26 AM	51.8 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
10:28 AM	52.7 mi	Turn RIGHT (East) onto PA-164 [PA-53] for 0.2 mi
10:28 AM	52.9 mi	Turn LEFT (North) onto PA-164 [Munster Rd] for 5.8 mi
10:36 AM	58.7 mi	Take Ramp (LEFT) onto US-22 [William Penn Hwy] for 2.8 mi towards US-22 W / Ebensburg
10:39 AM	61.5 mi	Keep RIGHT onto Ramp for 0.3 mi towards Ebensburg / Loretto
10:39 AM	61.8 mi	Keep RIGHT to stay on Ramp for 174 yds
10:39 AM	61.9 mi	Bear RIGHT (West) onto Admiral Peary Hwy for 131 yds
10:39 AM	62.0 mi	Road name changes to Rowena Dr for 0.2 mi
10:40 AM	62.2 mi	Turn RIGHT (North-East) onto Manor Dr for 98 yds
10:40 AM	62.3 mi	8 At Eburg Manor [Manor Dr, Ebensburg, PA 15931], return West on Manor Dr for 98 yds
10:40 AM	62.3 mi	Turn LEFT (East) onto Rowena Dr for 0.2 mi
10:41 AM	62.5 mi	Take Ramp (RIGHT) onto US-22 [Admiral Peary Hwy] for 2.8 mi towards US-22 W / Blairsville
10:45 AM	65.3 mi	Turn LEFT (South-East) onto Local road(s) for 10 yds
10:45 AM	65.3 mi	Road name changes to Mini Mall Rd for 0.3 mi
10:46 AM	65.6 mi	Turn RIGHT (South) onto Industrial Park Rd for 0.5 mi
10:48 AM	66.1 mi	9 At Eburg DEP [286 Industrial Park Rd, Ebensburg, PA 15931], return North-West on Industrial Park Rd for 0.5 mi
10:50 AM	66.5 mi	Turn LEFT (West) onto Mini Mall Rd for 0.3 mi
10:51 AM	66.8 mi	Road name changes to Local road(s) for 10 yds
10:51 AM	66.8 mi	Turn LEFT (South-West) onto US-22 [Admiral Peary Hwy] for 1.8 mi
10:54 AM	68.6 mi	Turn LEFT (South) onto Camp Ground Rd, then immediately turn LEFT (North-East) onto US-22 [William Penn Hwy] for 0.6 mi
10:55 AM	69.2 mi	10 At Davidson Chevy [3885 Admiral Peary Hwy, Ebensburg, PA 15931], stay on US-22 [William Penn Hwy] (East) for 0.1 mi
10:55 AM	69.4 mi	Turn LEFT (North-West) onto Local road(s) for 10 yds
10:56 AM	69.4 mi	Turn LEFT (South-West) onto US-22 [William Penn Hwy] for 3.7 mi
11:00 AM	73.1 mi	Keep RIGHT onto Ramp for 0.1 mi towards PA-271 / Nanty Glo / Mundys Corner
11:01 AM	73.2 mi	Turn RIGHT (South) onto PA-271 [William Penn Ave] for 0.5 mi
11:02 AM	73.7 mi	Turn LEFT (East) onto Pike Rd for 0.1 mi
11:02 AM	73.8 mi	11 At Jackson Twn [513 Pike Rd, Johnstown, PA 15909], return West on Pike Rd for 174 yds
11:03 AM	73.9 mi	Turn RIGHT (North) onto PA-271 [William Penn Ave] for 0.3 mi
11:04 AM	74.2 mi	Take Ramp (RIGHT) onto US-22 [William Penn Hwy] for 10.3 mi towards US-22 E
11:14 AM	84.5 mi	Keep RIGHT onto Ramp for 0.4 mi towards PA-164 / Portage / Munster
11:15 AM	84.9 mi	Turn RIGHT (South) onto PA-164 [Munster Rd] for 5.7 mi
11:22 AM	90.6 mi	Turn RIGHT (West) onto PA-164 [PA-53] for 0.2 mi
11:23 AM	90.8 mi	Turn LEFT (South) onto PA-164 [Main St] for 0.9 mi
11:25 AM	91.7 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
11:26 AM	92.1 mi	12 At Pro MRF, return West on PA-164 [Puritan Rd] for 0.4 mi
11:26 AM	92.5 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
11:29 AM	93.4 mi	Turn LEFT (West) onto PA-53 [Portage St] for 6.3 mi

11:38 AM	99.7 mi	Take Ramp (LEFT) onto US-219 for 7.2 mi towards US-219 S / Johnstown
11:44 AM	106.9 mi	Take Ramp (RIGHT) onto PA-56 [Johnstown Expy] for 5.5 mi towards PA-56 W / Johnstown
		Expressway
11:50 AM	112.4 mi	Keep STRAIGHT onto PA-403 [PA-56] for 1.9 mi
11:53 AM	114.2 mi	Turn LEFT (West) onto PA-56 [Fairfield Ave] for 0.3 mi
11:54 AM	114.5 mi	Turn LEFT (South) onto D St for 0.2 mi
11:55 AM	114.7 mi	13 At D Street [9 D St, Johnstown, PA 15906], return North on D St for 0.2 mi
11:55 AM	114.9 mi	Turn RIGHT (East) onto PA-56 [Fairfield Ave] for 0.3 mi
11:56 AM	115.1 mi	Turn RIGHT (South-East) onto PA-403 [PA-56] for 1.9 mi
11:59 AM	117.0 mi	Turn LEFT (East) onto PA-403 [Napoleon St] for 0.8 mi
12:01 PM	117.8 mi	Bear RIGHT (South) onto PA-403 [Franklin St] for 0.5 mi
12:02 PM	118.3 mi	Keep STRAIGHT onto Franklin St for 0.9 mi
12:05 PM	119.2 mi	Turn RIGHT (West) onto Derby St for 65 yds
12:06 PM	119.2 mi	14 At Roxbury, return East on Derby St for 65 yds
12:06 PM	119.2 mi	Turn LEFT (North) onto Franklin St for 0.9 mi
12:09 PM	120.1 mi	Keep STRAIGHT onto PA-403 [Franklin St] for 0.5 mi
12:10 PM	120.6 mi	Turn RIGHT (East) onto Hickory St for 0.4 mi
12:11 PM	121.0 mi	Turn RIGHT (South) onto Bedford St for 2.3 mi
12:16 PM	123.3 mi	Bear RIGHT (South-East) onto Bedford St [Scalp Ave] for 0.1 mi
12:16 PM	123.5 mi	Keep RIGHT onto Ramp for 164 yds towards PA-756 E
12:16 PM	123.6 mi	Bear RIGHT (North) onto PA-756 [Bedford St] for 0.1 mi
12:16 PM	123.7 mi	Turn RIGHT to stay on PA-756 [Bedford St] for 109 yds
12:16 PM	123.8 mi	Turn RIGHT (South) onto Lamberd Ave for 0.1 mi
12:17 PM	123.9 mi	15 At Geistown [631 Lamberd Ave, Johnstown, PA 15904], return North on Lamberd Ave for 0.1 mi
12:18 PM	124.0 mi	Turn RIGHT (East) onto PA-756 [Bedford St] for 1.4 mi
12:21 PM	125.4 mi	Keep STRAIGHT onto PA-756 [Elton Rd] for 0.3 mi
12:21 PM	125.7 mi	Turn RIGHT (South) onto Theatre Dr for 0.8 mi
12:23 PM	126.5 mi	Turn LEFT (East) onto Schoolhouse Rd for 0.2 mi
12:24 PM	126.7 mi	Turn RIGHT (South) onto Highfield Ave [Highfield St] for 0.6 mi
12:26 PM	127.3 mi	16 At UPJ Union [Highfield Ave, Johnstown, PA 15904], return North on Highfield Ave [Highfield St] for 0.6 mi
12:28 PM	127.8 mi	Turn LEFT (West) onto Schoolhouse Rd for 0.2 mi
12:29 PM	128.1 mi	Turn RIGHT (North) onto Theatre Dr for 0.8 mi
12:31 PM	128.9 mi	Turn LEFT (North-West) onto PA-756 [Elton Rd], then immediately turn RIGHT (North) onto Ramp for 0.2 mi
12:32 PM	129.1 mi	Merge onto US-219 [PA-56] for 7.9 mi
12:38 PM	137.0 mi	Keep RIGHT onto Ramp for 0.3 mi towards PA-53 N / Portage / South Fork
12:39 PM	137.3 mi	Turn RIGHT (East) onto PA-53 [RAILROAD St] for 6.1 mi
12:47 PM	143.4 mi	Turn RIGHT (South) onto PA-164 [Main St] for 0.9 mi
12:50 PM	144.3 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
12:51 PM	144.7 mi	17 Arrive Pro MRF

Route summary

Total journey cost	\$16.08
Driving distance	144.7 miles
Trip duration	3 hours, 51 minutes
Driving time	3 hours, 51 minutes
Crow's flight distance between all stops	99.1 miles

Route segment details

From	To	rom To Method Distance Driving time									
SWA HQ	Spangler	Quickest	17.2 miles	22 minutes							
Spangler	Barnesboro	Quickest	1.7 miles	4 minutes							
Barnesboro	Hastings	Quickest	4.6 miles	10 minutes							
Hastings	Patton	Quickest	5.4 miles	10 minutes							
Patton	Loretto	Quickest	11.0 miles	18 minutes							
Loretto	Pro MRF	Quickest	11.6 miles	19 minutes							
Pro MRF	Eburg Manor	Quickest	10.8 miles	15 minutes							
Eburg Manor	Eburg DEP	Quickest	3.8 miles	7 minutes							
Eburg DEP	Davidson Chevy	Quickest	3.1 miles	7 minutes							
Davidson Chevy	Jackson Twn	Quickest	4.6 miles	7 minutes							
Jackson Twn	Pro MRF	Quickest	18.3 miles	23 minutes							
Pro MRF	D Street	Quickest	22.6 miles	29 minutes							
D Street	Roxbury	Quickest	4.5 miles	10 minutes							
Roxbury	Geistown	Quickest	4.7 miles	11 minutes							
Geistown	UPJ Union	Quickest	3.4 miles	8 minutes							
UPJ Union	Pro MRF	Quickest	17.4 miles	24 minutes							

Distance by state/province

State/Province	Distance	Driving time
Pennsylvania	144.7 miles	3 hours, 51 minutes

APPENDIX B

TUESDAY ROUTES: PLASTIC & ONP

Exhibit 1: Plastic Collection Sequence Route 1
Exhibit 2: Plastic Route 1 Map & Directions
Exhibit 3: ONP Collection Sequence Route 1
Exhibit 4: ONP Route 1 Map & Directions



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Exhibit 1: Plastic Collection

Route 1

	Collection	Current Cont Yds/Wk	Est Yds Generated	# of New FL		# of New Yards of	Minutes to Service
Site Name	Order	Capacity	per Week	Containers	per Week	Capacity	Container
SWA HQ	1		_	_	_		
Spangler	2	16	9		1	16	10
Barnesboro	3	16	14.5	2	1	16	10
Hastings	4	8	7	1	1	8	5
Patton	5	24	14	2	1	16	10
Pro MRF	6						
Lilly Borough	7	8	4	1	1	8	5
Cresson	8	24	16.5	2	2	32	10
Eburg Manor Dr.	9	16	19.5	2	2	32	10
Pro MRF	10						
Roxbury	11	24	17	2	2	32	10
Geistown	12	32	26	2	2	32	10
Pro MRF	13						
SWA HQ	14						
Total		308	223	16		192	80
		Loads	2.79			2.40	
Travel Minutes of Drive Time							199
Service Time							80
Dump Time							90
Total Minutes to Service All Sites	5						369
Total Hours to Service All Sites	_	_	_	_	_	_	6.15

Plastic Rt_1 Directions

137.6 miles; 3 hours, 19 minutes



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9:00 AM	0.0 mi	1 Depart SWA HQ on Manor Dr (West) for 0.9 mi
9:01 AM	0.9 mi	Turn RIGHT (West) onto Rowena Dr for 0.3 mi
9:02 AM	1.1 mi	Keep STRAIGHT onto E High St [Rowena Dr] for 0.3 mi
9:03 AM	1.5 mi	Keep STRAIGHT onto US-219 Branch [W High St] for 0.3 mi
9:04 AM	1.8 mi	Bear RIGHT (West) onto Benjamin Franklin Hwy [Ben Franklin Hwy] for 0.9 mi
9:05 AM	2.7 mi	Bear RIGHT (North) onto US-422 [Benjamin Franklin Hwy] for 21 yds
9:05 AM	2.7 mi	Take Ramp onto US-219 for 5.1 mi towards US-219 N
9:10 AM	7.8 mi	Keep LEFT onto Local road(s) for 120 yds towards US-219 N / Carolltown
9:10 AM	7.8 mi	Turn LEFT (North) onto US-219 [US-219 Branch] for 2.0 mi
9:12 AM	9.8 mi	Turn LEFT (North) onto PA-553 [Ridge Rd] for 4.6 mi
9:18 AM	14.5 mi	Turn RIGHT (North) onto PA-271 [Nicktown Hill Rd] for 2.5 mi
9:22 AM	17.0 mi	Keep STRAIGHT onto PA-271 [24th St] for 0.2 mi
9:22 AM	17.2 mi	2 At Spangler [2423 Betts Ave, Northern Cambria, PA 15714], stay on PA-271 [24th St] (North-East) for 120 yds
9:22 AM	17.2 mi	Turn LEFT (North-West) onto US-219 [Bigler Ave] for 1.3 mi
9:25 AM	18.6 mi	Turn LEFT (North-West) onto US-219 [Philadelphia Ave], then immediately turn LEFT (South-West) onto Cottonwood St for 0.3 mi
9:26 AM	18.8 mi	3 At Barnesboro [7 Cottonwood St, Northern Cambria, PA 15714], return North on Cottonwood St for 0.2 mi
9:27 AM	19.0 mi	Turn RIGHT (South-East) onto US-219 [Philadelphia Ave] for 131 yds
9:28 AM	19.1 mi	Keep STRAIGHT onto Philadelphia Ave for 0.7 mi
9:30 AM	19.8 mi	Road name changes to Municipal Rd for 2.9 mi
9:34 AM	22.7 mi	Turn LEFT (East) onto Spangler St for 0.6 mi
9:36 AM	23.3 mi	Turn RIGHT (East) onto 4th Ave for 0.1 mi
9:37 AM	23.4 mi	4 At Hastings [246 Coleman St, Hastings, PA 16646], return West on 4th Ave for 131 yds
9:37 AM	23.5 mi	Turn RIGHT (North) onto Beaver St for 0.4 mi
9:39 AM	23.8 mi	Turn RIGHT (East) onto Bridge St for 1.5 mi
9:42 AM	25.3 mi	Turn RIGHT (South) onto PA-36 [Main St] for 2.9 mi
9:46 AM	28.2 mi	Keep STRAIGHT onto PA-36 [RAILROAD Ave] for 0.4 mi
9:47 AM	28.6 mi	Turn RIGHT (South) onto PA-36 [4th Ave] for 0.2 mi
9:47 AM	28.8 mi	5 At Patton [800 4th Ave, Patton, PA 16668], turn LEFT to stay on PA-36 [Magee Ave] for 0.4 mi
9:48 AM	29.2 mi	Keep STRAIGHT onto PA-36 [Colonel Drake Hwy] for 8.0 mi
9:57 AM	37.2 mi	Turn RIGHT (South) onto PA-53 [W Main St] for 11.6 mi
10:11 AM	48.9 mi	Turn LEFT (East) onto PA-53 [Cleveland St] for 0.1 mi
10:11 AM	49.0 mi	Turn RIGHT (South) onto PA-53 [Portage St] for 4.2 mi
10:16 AM	53.2 mi	Keep STRAIGHT onto PA-164 [PA-53] for 0.2 mi
10:17 AM	53.4 mi	Turn LEFT (South) onto PA-164 [Main St] for 0.9 mi
10:19 AM	54.3 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
10:20 AM	54.7 mi	6 At PRO MRF [1938 Puritan Rd, Portage, PA 15946], return West on PA-164 [Puritan Rd] for 0.4 mi
10:20 AM	55.1 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
10:23 AM	56.0 mi	Turn RIGHT (East) onto PA-164 [PA-53] for 0.2 mi

10:23 AM	56.2 mi	Keep STRAIGHT onto PA-53 [Portage St] for 4.2 mi
10:28 AM	60.4 mi	Turn LEFT (West) onto PA-53 [Cleveland St] for 0.1 mi
10:28 AM	60.5 mi	7 At Lilly Boro [Cleveland St, Lilly, PA 15938], stay on PA-53 [Main St] (North) for 2.9 mi
10:32 AM	63.5 mi	Turn LEFT (West) onto Admiral Peary Hwy for 109 yds
10:33 AM	63.5 mi	8 At Cresson [7551 Admiral Peary Hwy, Cresson, PA 16630], return East on Admiral Peary Hwy for 109 yds
10:33 AM	63.6 mi	Turn RIGHT (South) onto PA-53 [W 2nd St] for 0.6 mi
10:34 AM	64.2 mi	Take Ramp (RIGHT) onto US-22 [William Penn Hwy] for 6.1 mi towards US-22 W / Ebensburg
10:40 AM	70.3 mi	Keep RIGHT onto Ramp for 0.3 mi towards Ebensburg / Loretto
10:40 AM	70.6 mi	Keep RIGHT to stay on Ramp for 174 yds
10:40 AM	70.7 mi	Bear RIGHT (West) onto Admiral Peary Hwy for 131 yds
10:40 AM	70.8 mi	Road name changes to Rowena Dr for 0.2 mi
10:41 AM	71.0 mi	Turn RIGHT (North-East) onto Manor Dr for 98 yds
10:41 AM	71.0 mi	9 At Eburg Manor Dr [Manor Dr, Ebensburg, PA 15931], return West on Manor Dr for 98 yds
10:41 AM	71.1 mi	Turn LEFT (East) onto Rowena Dr for 0.2 mi
10:42 AM	71.3 mi	Road name changes to Admiral Peary Hwy for 0.3 mi
10:43 AM	71.6 mi	Take Ramp (LEFT) onto US-22 [Admiral Peary Hwy] for 2.6 mi towards US-22 E / Hollidaysburg
10:45 AM	74.2 mi	Keep RIGHT onto Ramp for 0.4 mi towards PA-164 / Portage / Munster
10:46 AM	74.6 mi	Turn RIGHT (South) onto PA-164 [Munster Rd] for 5.7 mi
10:53 AM	80.3 mi	Turn RIGHT (West) onto PA-164 [PA-53] for 0.2 mi
10:54 AM	80.5 mi	Turn LEFT (South) onto PA-164 [Main St] for 0.9 mi
10:56 AM	81.4 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
10:57 AM	81.8 mi	10 At PRO MRF, return West on PA-164 [Puritan Rd] for 0.4 mi
10:57 AM	82.2 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
11:00 AM	83.1 mi	Turn LEFT (West) onto PA-53 [Portage St] for 6.3 mi
11:09 AM	89.5 mi	Take Ramp (LEFT) onto US-219 for 7.2 mi towards US-219 S / Johnstown
11:15 AM	96.6 mi	Take Ramp (RIGHT) onto PA-56 [Johnstown Expy] for 4.5 mi towards PA-56 W / Johnstown Expressway
11:20 AM	101.2 mi	Keep RIGHT onto Ramp for 0.3 mi towards Bedford St / PA-271 / PA-403
11:21 AM	101.5 mi	Bear RIGHT (North-West) onto Bedford St, then immediately turn LEFT (South-West) onto PA-271 [Haynes St] for 0.3 mi
11:21 AM	101.8 mi	Turn LEFT (South) onto PA-403 [Napoleon St] for 0.5 mi
11:23 AM	102.3 mi	Bear RIGHT (South) onto PA-403 [Franklin St] for 0.5 mi
11:24 AM	102.8 mi	Keep STRAIGHT onto Franklin St for 0.9 mi
11:27 AM	103.7 mi	Turn RIGHT (West) onto Derby St for 65 yds
11:27 AM	103.7 mi	11 At Roxbury, return East on Derby St for 65 yds
11:28 AM	103.7 mi	Turn LEFT (North) onto Franklin St for 0.9 mi
11:30 AM	104.6 mi	Keep STRAIGHT onto PA-403 [Franklin St] for 0.5 mi
11:32 AM	105.1 mi	Turn RIGHT (East) onto Hickory St for 0.4 mi
11:33 AM	105.5 mi	Turn RIGHT (South) onto Bedford St for 2.3 mi
11:38 AM	107.8 mi	Bear RIGHT (South-East) onto Bedford St [Scalp Ave] for 0.1 mi
11:38 AM	108.0 mi	Keep RIGHT onto Ramp for 164 yds towards PA-756 E

11:38 AM	108.1 mi	Bear RIGHT (North) onto PA-756 [Bedford St] for 0.1 mi
11:38 AM	108.2 mi	Turn RIGHT to stay on PA-756 [Bedford St] for 109 yds
11:38 AM	108.3 mi	Turn RIGHT (South) onto Lamberd Ave for 0.1 mi
11:39 AM	108.4 mi	12 At Geistown [631 Lamberd Ave, Johnstown, PA 15904], return North on Lamberd Ave for 0.1 mi
11:40 AM	108.5 mi	Turn RIGHT (East) onto PA-756 [Bedford St] for 1.4 mi
11:42 AM	109.9 mi	Keep STRAIGHT onto PA-756 [Elton Rd] for 0.2 mi
11:43 AM	110.1 mi	Take Ramp (LEFT) onto US-219 [PA-56] for 8.1 mi towards US-219 N / PA-56 W / Ebensburg / Johnstown
11:50 AM	118.2 mi	Keep RIGHT onto Ramp for 0.3 mi towards PA-53 N / Portage / South Fork
11:51 AM	118.5 mi	Turn RIGHT (East) onto PA-53 [RAILROAD St] for 6.1 mi
11:59 AM	124.6 mi	Turn RIGHT (South) onto PA-164 [Main St] for 0.9 mi
12:02 PM	125.5 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
12:02 PM	125.9 mi	13 At Pro MRF, return West on PA-164 [Puritan Rd] for 0.4 mi
12:03 PM	126.3 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
12:05 PM	127.2 mi	Turn RIGHT (East) onto PA-164 [PA-53] for 0.2 mi
12:06 PM	127.4 mi	Turn LEFT (North) onto PA-164 [Munster Rd] for 5.8 mi
12:14 PM	133.2 mi	Take Ramp (LEFT) onto US-22 [William Penn Hwy] for 2.8 mi towards US-22 W / Ebensburg
12:16 PM	136.0 mi	Keep RIGHT onto Ramp for 0.3 mi towards Ebensburg / Loretto
12:17 PM	136.3 mi	Keep RIGHT to stay on Ramp for 174 yds
12:17 PM	136.4 mi	Bear RIGHT (West) onto Admiral Peary Hwy for 131 yds
12:17 PM	136.5 mi	Road name changes to Rowena Dr for 0.2 mi
12:17 PM	136.7 mi	Turn RIGHT (North-East) onto Manor Dr for 0.9 mi
12:19 PM	137.6 mi	Arrive SWA HQ [507 Manor Dr, Ebensburg, PA 15931]

Route summary

Total journey cost	\$15.29
Driving distance	137.6 miles
Trip duration	3 hours, 19 minutes
Driving time	3 hours, 19 minutes
Crow's flight distance between all stops	96.9 miles

Route segment details

From	То	Method	Distance	Driving time
SWA HQ	Spangler	Quickest	17.2 miles	22 minutes
Spangler	Barnesboro	Quickest	1.7 miles	4 minutes
Barnesboro	Hastings	Quickest	4.6 miles	10 minutes
Hastings	Patton	Quickest	5.4 miles	10 minutes
Patton	PRO MRF	Quickest	25.9 miles	32 minutes
PRO MRF	Lilly Boro	Quickest	5.8 miles	8 minutes
Lilly Boro	Cresson	Quickest	3.0 miles	4 minutes
Cresson	Eburg Manor Dr	Quickest	7.5 miles	8 minutes
Eburg Manor Dr	PRO MRF	Quickest	10.8 miles	15 minutes
PRO MRF	Roxbury	Quickest	21.9 miles	30 minutes
Roxbury	Geistown	Quickest	4.7 miles	11 minutes
Geistown	Pro MRF	Quickest	17.5 miles	23 minutes
Pro MRF	SWA HQ	Quickest	11.7 miles	16 minutes

Distance by state/province

State/Province	Distance	Driving time
Pennsylvania	137.6 miles	3 hours, 19 minutes

Exhibit 3: ONP (Old Newspaper) Collection

		Current					
		Cont	Est Yds	" (A) FI	# of	# of New	Minutes to
Cita Nama	Collection Order	Yds/Wk	Generated	# of New FL			Service Container
SWA HQ	Order 1	Capacity 4	per Week	Containers 0	per Week	Capacity 0	Container
Loretto	2		6	1		8	5
Patton	3	4	6	1		8	5
Hastings	4	4	6	1		8	5
Barnesboro	5	4	6	1		8	5
Spangler	6	24	6	1		8	5
Eburg DEP	7		3	1		8	5
Jackson Township	8	12	12	2		16	10
Eburg Manor Dr.	9	0	10.5	2		16	10
Cresson	10	8	8.5	2		16	10
Lilly Borough	11	4	1	1		8	5
Pro MRF	12						
Croyle Townshiop	13	8	6	1	1	8	5
Adams	14	4	6	1	1	8	5
UPJ Main	15	0	6	1	1	8	5
Geistown	16	24	24	4	1	32	20
Roxbury	17	0	30	4	1	32	20
D Street	18	12	13.5	2	1	16	10
East Conemaugh Borough	19	12	10	2	1	16	10
Conemaugh Township	20	8	6	1	1	8	5
Portage Borough	21	8	7	1	1	8	5
Pro MRF	22						
Cambria County Prison		0	0	0	0	0	0
Davidson Chevy		0	0	0	0	0	0
UPJ Main and SU		20	0	0	0	0	0
Total		166	173.5	30	19	240	150
		Loads	2.17				-
Minutes of Drive Time							250
Service Time							150
Dump Time							60
Total Minutes to Service All Sites							460
Total Hours							7.67

Exhibit 4: ONP Route Map & Directions

ONP Rt Directions

146.0 miles; 4 hours, 10 minutes



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9:00 AM	0.0 mi	1 Depart SWA HQ [507 Manor Dr, Ebensburg, PA 15931] on Manor Dr (East) for 4.5 mi
9:08 AM	4.5 mi	2 At Loretto [Manor Dr, Loretto, PA 15940], stay on Manor Dr (East) for 109 yds
9:08 AM	4.6 mi	Road name changes to Brick Rd for 0.4 mi
9:09 AM	5.0 mi	Turn RIGHT (North-East) onto Columbia St for 4.3 mi
9:17 AM	9.3 mi	Turn RIGHT to stay on Columbia St for 1.3 mi
9:19 AM	10.6 mi	Bear LEFT (North) onto PA-36 [Colonel Drake Hwy] for 4.5 mi
9:25 AM	15.1 mi	Keep STRAIGHT onto PA-36 [Magee Ave] for 0.4 mi
9:26 AM	15.5 mi	3 At Patton [800 4th Ave, Patton, PA 16668], stay on PA-36 [4th Ave] (North) for 0.2 mi
9:26 AM	15.7 mi	Turn LEFT (West) onto PA-36 [RAILROAD Ave] for 0.6 mi
9:27 AM	16.3 mi	Bear LEFT (West) onto PA-36 [Main St] for 2.7 mi
9:31 AM	19.0 mi	Turn LEFT (West) onto Bridge St for 1.5 mi
9:34 AM	20.5 mi	Turn LEFT (South-West) onto Beaver St for 0.4 mi
9:35 AM	20.8 mi	Turn LEFT (East) onto 4th Ave for 131 yds
9:36 AM	20.9 mi	4 At Hastings [246 Coleman St, Hastings, PA 16646], return West on 4th Ave for 0.1 mi
9:36 AM	21.1 mi	Turn LEFT (South) onto Spangler St for 0.6 mi
9:38 AM	21.7 mi	Turn RIGHT (North) onto Municipal Rd for 2.9 mi
9:42 AM	24.5 mi	Road name changes to Philadelphia Ave for 0.7 mi
9:45 AM	25.2 mi	Keep STRAIGHT onto US-219 [Philadelphia Ave] for 131 yds
9:45 AM	25.3 mi	Turn LEFT (South-West) onto Cottonwood St for 0.2 mi
9:46 AM	25.5 mi	5 At Barnesboro [7 Cottonwood St, Northern Cambria, PA 15714], return North on Cottonwood St for 0.2 mi
9:47 AM	25.7 mi	Turn RIGHT (South-East) onto US-219 [Philadelphia Ave] for 131 yds
9:48 AM	25.8 mi	Turn RIGHT (South-West) onto US-219 [Crawford Ave] for 1.3 mi
9:50 AM	27.1 mi	Turn RIGHT (South-West) onto PA-271 [24th St] for 120 yds
9:51 AM	27.1 mi	6 At Spangler [2423 Betts Ave, Northern Cambria, PA 15714], stay on PA-271 [24th St] (South-West) for 0.8 mi
9:52 AM	28.0 mi	Keep STRAIGHT onto PA-271 [Nicktown Hill Rd] for 1.9 mi
9:54 AM	29.9 mi	Turn LEFT (South-East) onto PA-553 [Ridge Rd] for 4.6 mi
10:01 AM	34.5 mi	Turn RIGHT (South-West) onto US-219 [Plank Rd] for 1.8 mi
10:03 AM	36.3 mi	Keep RIGHT onto Local road(s) for 0.1 mi towards US-219 S
10:03 AM	36.4 mi	Road name changes to US-219 for 7.3 mi
10:09 AM	43.7 mi	Take Ramp (RIGHT) onto US-22 [William Penn Hwy] for 0.8 mi towards US-22 E / Hollidaysburg
10:11 AM	44.4 mi	Turn RIGHT (South-East) onto Mini Mall Rd for 0.3 mi
10:12 AM	44.7 mi	Turn RIGHT (South) onto Industrial Park Rd for 0.5 mi
10:14 AM	45.2 mi	7 At Eburg DEP [286 Industrial Park Rd, Ebensburg, PA 15931], return North-West on Industrial Park Rd for 0.5 mi
10:15 AM	45.6 mi	Turn LEFT (West) onto Mini Mall Rd for 0.3 mi
10:16 AM	45.9 mi	Road name changes to Local road(s) for 10 yds
10:17 AM	45.9 mi	Turn LEFT (South-West) onto US-22 [Admiral Peary Hwy] for 4.8 mi
10:22 AM	50.7 mi	Keep RIGHT onto Ramp for 0.1 mi towards PA-271 / Nanty Glo / Mundys Corner
10:23 AM	50.8 mi	Turn RIGHT (South) onto PA-271 [William Penn Ave] for 0.5 mi
10:24 AM	51.3 mi	Turn LEFT (East) onto Pike Rd for 0.1 mi

10:25 AM	51.4 mi	8 At Jackson Twn [513 Pike Rd, Johnstown, PA 15909], return West on Pike Rd for 174 yds
10:25 AM	51.5 mi	Turn RIGHT (North) onto PA-271 [William Penn Ave] for 0.3 mi
10:26 AM	51.8 mi	Take Ramp (RIGHT) onto US-22 [William Penn Hwy] for 7.6 mi towards US-22 E
10:34 AM	59.4 mi	Keep RIGHT onto Ramp for 0.1 mi towards Ebensburg / Loretto
10:34 AM	59.5 mi	Keep RIGHT to stay on Ramp for 109 yds towards Ebensburg
10:34 AM	59.6 mi	Bear RIGHT (North-West) onto Admiral Peary Hwy for 0.3 mi
10:35 AM	59.8 mi	Road name changes to Rowena Dr for 0.2 mi
10:35 AM	60.0 mi	Turn RIGHT (North-East) onto Manor Dr for 98 yds
10:36 AM	60.1 mi	9 At Eburg Manor [Manor Dr, Ebensburg, PA 15931], return West on Manor Dr for 98 yds
10:36 AM	60.1 mi	Turn LEFT (East) onto Rowena Dr for 0.2 mi
10:36 AM	60.3 mi	Road name changes to Admiral Peary Hwy for 0.3 mi
10:37 AM	60.6 mi	Take Ramp (LEFT) onto US-22 [Admiral Peary Hwy] for 6.1 mi towards US-22 E / Hollidaysburg
10:42 AM	66.8 mi	Keep RIGHT onto Ramp for 0.3 mi towards PA-53 / Lilly / Cresson
10:43 AM	67.1 mi	Keep RIGHT to stay on Ramp for 54 yds towards PA-53 N / Cresson
10:43 AM	67.1 mi	Bear RIGHT (North) onto PA-53 [W 2nd St] for 1.0 mi
10:45 AM	68.1 mi	Turn LEFT (West) onto Admiral Peary Hwy for 109 yds
10:45 AM	68.2 mi	10 At Cresson [7551 Admiral Peary Hwy, Cresson, PA 16630], return East on Admiral Peary Hwy for 109 yds
10:45 AM	68.2 mi	Turn RIGHT (South) onto PA-53 [W 2nd St] for 2.9 mi
10:50 AM	71.2 mi	11 At Lilly [Cleveland St, Lilly, PA 15938], stay on PA-53 [Cleveland St] (East) for 0.1 mi
10:50 AM	71.3 mi	Turn RIGHT (South) onto PA-53 [Portage St] for 4.2 mi
10:55 AM	75.5 mi	Keep STRAIGHT onto PA-164 [PA-53] for 0.2 mi
10:55 AM	75.7 mi	Turn LEFT (South) onto PA-164 [Main St] for 0.9 mi
10:58 AM	76.6 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
10:58 AM	77.0 mi	12 At Pro MRF [1938 Puritan Rd, Portage, PA 15946], return West on PA-164 [Puritan Rd] for 0.4 mi
10:59 AM	77.4 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
11:01 AM	78.3 mi	Turn LEFT (West) onto PA-53 [Portage St] for 5.2 mi
11:09 AM	83.5 mi	13 At Croyle Twn [1654 RAILROAD St, Summerhill, PA 15958], stay on PA-53 [RAILROAD St] (West) for 1.1 mi
11:10 AM	84.6 mi	Take Ramp (LEFT) onto US-219 for 1.9 mi towards US-219 S / Johnstown
11:12 AM	86.6 mi	Keep RIGHT onto Ramp for 0.2 mi towards PA-869 E / Sidman / St Michael
11:13 AM	86.8 mi	Turn LEFT (South) onto PA-869 for 0.2 mi
11:13 AM	87.0 mi	Keep STRAIGHT onto PA-869 [Locust St] for 2.1 mi
11:16 AM	89.1 mi	Turn RIGHT (South) onto PA-160 [Forest Hills Dr] for 2.2 mi
11:20 AM	91.3 mi	Turn RIGHT (North) onto Maxine Dr, then immediately turn RIGHT (East) onto Mary Dr for 0.1 mi
11:21 AM	91.4 mi	14 At Adams [125 Mary Dr, Sidman, PA 15955], return West on Mary Dr for 43 yds
11:21 AM	91.4 mi	Turn LEFT (South) onto Maxine Dr, then immediately turn RIGHT (West) onto PA-160 [Forest Hills Dr] for 3.2 mi
11:28 AM	94.7 mi	Turn RIGHT (West) onto PA-756 [Elton Rd] for 0.9 mi
11:30 AM	95.6 mi	Turn LEFT (South) onto Schoolhouse Rd for 1.3 mi
11:34 AM	96.9 mi	Turn LEFT (South) onto Highfield Ave [Highfield St] for 0.6 mi

11:36 AM	97.4 mi	15 At UPJ Main [Highfield Ave, Johnstown, PA 15904], return North on Highfield Ave [Highfield St] for 0.6 mi
11:37 AM	98.0 mi	Turn LEFT (West) onto Schoolhouse Rd for 0.2 mi
11:39 AM	98.2 mi	Turn RIGHT (North) onto Theatre Dr for 0.8 mi
11:40 AM	99.0 mi	Turn LEFT (North-West) onto PA-756 [Elton Rd] for 0.3 mi
11:41 AM	99.3 mi	Keep STRAIGHT onto PA-756 [Bedford St] for 1.4 mi
11:44 AM	100.7 mi	Turn LEFT (South) onto Lamberd Ave for 0.1 mi
11:45 AM	100.8 mi	16 At Geistown [631 Lamberd Ave, Johnstown, PA 15904], return North on Lamberd Ave for 0.1 mi
11:45 AM	100.9 mi	Turn LEFT (West) onto PA-756 [Bedford St] for 109 yds
11:45 AM	101.0 mi	Keep STRAIGHT onto Bedford St for 2.5 mi
11:50 AM	103.5 mi	Turn LEFT (West) onto Hickory St for 0.4 mi
11:52 AM	103.9 mi	Turn LEFT (South) onto PA-403 [Franklin St] for 0.5 mi
11:53 AM	104.3 mi	Keep STRAIGHT onto Franklin St for 0.9 mi
11:56 AM	105.2 mi	Turn RIGHT (West) onto Derby St for 65 yds
11:56 AM	105.3 mi	17 At Roxbury, return East on Derby St for 65 yds
11:56 AM	105.3 mi	Turn LEFT (North) onto Franklin St for 0.9 mi
11:59 AM	106.2 mi	Keep STRAIGHT onto PA-403 [Franklin St] for 0.5 mi
12:01 PM	106.7 mi	Bear LEFT (North) onto PA-403 [Napoleon St] for 2.7 mi
12:06 PM	109.3 mi	Turn LEFT (West) onto PA-56 [Fairfield Ave] for 0.3 mi
12:06 PM	109.6 mi	Turn LEFT (South) onto D St for 0.2 mi
12:07 PM	109.8 mi	18 At D Street [9 D St, Johnstown, PA 15906], return North on D St for 0.2 mi
12:08 PM	110.0 mi	Turn RIGHT (East) onto PA-56 [Fairfield Ave] for 0.3 mi
12:09 PM	110.2 mi	Turn RIGHT (South-East) onto PA-403 [PA-56] for 1.3 mi
12:11 PM	111.6 mi	Turn LEFT (South-East) onto Washington St for 0.7 mi
12:13 PM	112.2 mi	Turn LEFT (East) onto PA-271 [Clinton St] for 0.3 mi
12:14 PM	112.6 mi	Keep STRAIGHT onto PA-271 for 0.4 mi
12:15 PM	113.0 mi	Keep STRAIGHT onto PA-271 [Maple Ave] for 1.4 mi
12:17 PM	114.3 mi	Turn LEFT (North-East) onto PA-271 [Main St] for 142 yds
12:17 PM	114.4 mi	Turn LEFT (North-West) onto PA-271 [Franklin St] for 0.2 mi
12:18 PM	114.6 mi	19 At E Conemaugh Boro [E RAILROAD St, Johnstown, PA 15909], return South-East on PA-271 [Main St] for 0.2 mi
12:18 PM	114.8 mi	Keep STRAIGHT onto Main St for 131 yds
12:19 PM	114.9 mi	Road name changes to Bridge St for 0.4 mi
12:21 PM	115.3 mi	Road name changes to Truman Blvd for 1.4 mi
12:24 PM	116.7 mi	Turn RIGHT (West) onto Frankstown Rd for 1.0 mi
12:26 PM	117.6 mi	Turn RIGHT (North) onto Janie St for 142 yds
12:26 PM	117.7 mi	20 At Conemaugh Twn [142 Janie St, Johnstown, PA 15902], return South on Janie St for 142 yds
12:27 PM	117.8 mi	Turn LEFT (East) onto Frankstown Rd for 4.1 mi
12:33 PM	121.9 mi	Road name changes to Ragers Hill Rd for 2.1 mi
12:37 PM	124.0 mi	Turn RIGHT (East) onto PA-869 for 0.3 mi

12:38 PM	124.3 mi	Take Ramp (RIGHT) onto US-219 for 2.2 mi towards US-219 N / Ebensburgs
12:40 PM	126.4 mi	Keep RIGHT onto Ramp for 0.3 mi towards PA-53 N / Portage / South Fork
12:40 PM	126.7 mi	Turn RIGHT (East) onto PA-53 [RAILROAD St] for 6.1 mi
12:49 PM	132.8 mi	Turn RIGHT (South) onto PA-164 [Main St] for 0.6 mi
12:51 PM	133.5 mi	Turn LEFT (East) onto Mountain Ave for 142 yds
12:52 PM	133.6 mi	21 At Portage [712 Mountain Ave, Portage, PA 15946], return West on Mountain Ave for 142 yds
12:52 PM	133.6 mi	Turn LEFT (South) onto PA-164 [Main St] for 0.3 mi
12:53 PM	133.9 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
12:54 PM	134.3 mi	22 At 1938 Puritan Rd, Portage, PA 15946, return West on PA-164 [Puritan Rd] for 0.4 mi
12:54 PM	134.7 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
12:57 PM	135.6 mi	Turn RIGHT (East) onto PA-164 [PA-53] for 0.2 mi
12:57 PM	135.8 mi	Turn LEFT (North) onto PA-164 [Munster Rd] for 5.8 mi
1:05 PM	141.6 mi	Take Ramp (LEFT) onto US-22 [William Penn Hwy] for 2.8 mi towards US-22 W / Ebensburg
1:07 PM	144.4 mi	Keep RIGHT onto Ramp for 0.3 mi towards Ebensburg / Loretto
1:08 PM	144.7 mi	Keep RIGHT to stay on Ramp for 174 yds
1:08 PM	144.8 mi	Bear RIGHT (West) onto Admiral Peary Hwy for 131 yds
1:08 PM	144.9 mi	Road name changes to Rowena Dr for 0.2 mi
1:08 PM	145.1 mi	Turn RIGHT (North-East) onto Manor Dr for 0.9 mi
1:10 PM	146.0 mi	Arrive 507 Manor Dr, Ebensburg, PA 15931

Route summary

Total journey cost	\$16.22
Driving distance	146.0 miles
Trip duration	4 hours, 10 minutes
Driving time	4 hours, 10 minutes
Crow's flight distance between all stops	106.9 miles

Route segment details

From	То	Method	Distance	Driving time
SWA HQ	Loretto	Quickest	4.5 miles	8 minutes
Loretto	Patton	Quickest	11.0 miles	18 minutes
Patton	Hastings	Quickest	5.4 miles	10 minutes
Hastings	Barnesboro	Quickest	4.6 miles	10 minutes
Barnesboro	Spangler	Quickest	1.7 miles	4 minutes
Spangler	Eburg DEP	Quickest	18.0 miles	23 minutes
Eburg DEP	Jackson Twn	Quickest	6.2 miles	10 minutes
Jackson Twn	Eburg Manor	Quickest	8.7 miles	11 minutes
Eburg Manor	Cresson	Quickest	8.1 miles	9 minutes
Cresson	Lilly	Quickest	3.0 miles	4 minutes
Lilly	Pro MRF	Quickest	5.8 miles	8 minutes
Pro MRF	Croyle Twn	Quickest	6.5 miles	10 minutes
Croyle Twn	Adams	Quickest	7.9 miles	12 minutes
Adams	UPJ Main	Quickest	6.0 miles	14 minutes
UPJ Main	Geistown	Quickest	3.4 miles	8 minutes
Geistown	Roxbury	Quickest	4.4 miles	11 minutes
Roxbury	D Street	Quickest	4.5 miles	10 minutes
D Street	E Conemaugh Boro	Quickest	4.8 miles	10 minutes
E Conemaugh Boro	Conemaugh Twn	Quickest	3.2 miles	8 minutes
Conemaugh Twn	Portage	Quickest	15.8 miles	25 minutes
Portage	1938 Puritan Rd, Por	Quickest	0.7 miles	2 minutes
1938 Puritan Rd, Por	507 Manor Dr, Ebens	Quickest	11.7 miles	16 minutes

Distance by state/province

State/Province	Distance	Driving time
Pennsylvania	146.0 miles	4 hours, 10 minutes

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APPENDIX C

WEDNESDAY ROUTES: OMG & BIMETAL CANS

Exhibit 1: OMG Collection Sequence

Exhibit 2: OMG Route Map & Directions

Exhibit 3: Bimetal Cans Collection Sequence

Exhibit 4: Bimetal Cans Route Map & Directions

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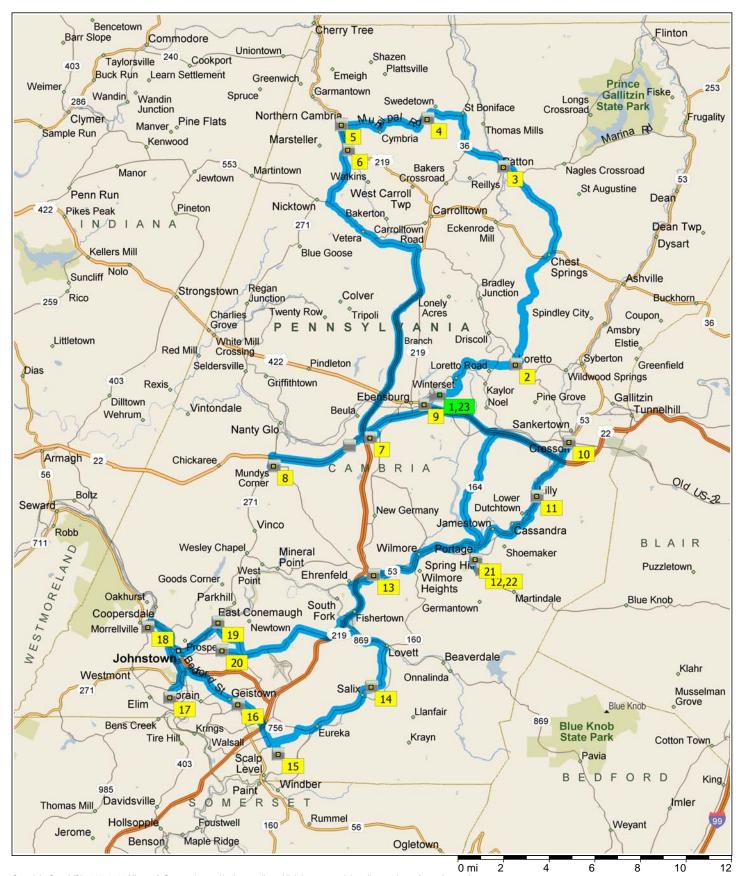


Exhibit 1: OMG (Old Magazine) Collection

		Current	F-4 V-l-		н - £	# -£ 81	D. G. Landson de Lands
	Callastian	Cont	Est Yds Generated per	# of Now FI	# of Collections	# of New Yards of	Minutes to
Site Name	Collection Order	Capacity	Week	# Of New FL	per Week	Capacity	Service Container
		Capacity	week	Containers	per week	Сараси	Container
SWA HQ	1	4	2	4	0.5	4	-
Loretto	2	4		1	0.5 0.5	4	5 5
Patton	3 4	4		1	0.5	4	5
Hastings Barnesboro	5	4		1	0.5	4	5
Spangler	6	4		1	0.5	4	5
Eburg DEP	7	2		1	0.5	4	5
Jackson Township	8	4		1	0.5	4	5
Eburg Manor Dr.	9	0	_	1	0.5	4	5
Cresson	10	4	_	1	0.5	4	5
Lilly Borough	10	4		1	0.5	4	5
Pro MRF	12	-4	1.5	1	0.5	4	3
Croyle Townshiop	13	4	2	1	0.5	4	5
Adams	14	4		1	0.5	4	5
UPJ Main	15	12		1	0.5	4	5
Geistown	16	4		1	0.5	4	5
Roxbury	17	4	·	1	0.5	4	5
D Street	18	4		1	0.5	4	5
East Conemaugh Borough		4		1	0.5	4	5
Conemaugh Township	20	4		1	0.5	4	5
Portage Borough	21	4	2	1	0.5	4	5
Pro MRF	22						
Cambria County Prison							
Davidson Chevy							
UPJ Main and SU							
Total		78	50.5	19	9.5	76	95
		Loads	1.26				
Minutes of Drive Time							250
Service Time						95	
Dump Time					60		
						405	
Total Hours to Service All Sites 6.75							

OMG Rt Directions

146.0 miles; 4 hours, 10 minutes



9:00 AM	0.0 mi	1 Depart SWA HQ [507 Manor Dr, Ebensburg, PA 15931] on Manor Dr (East) for 4.5 mi
9:08 AM	4.5 mi	2 At Loretto [Manor Dr, Loretto, PA 15940], stay on Manor Dr (East) for 109 yds
9:08 AM	4.6 mi	Road name changes to Brick Rd for 0.4 mi
9:09 AM	5.0 mi	Turn RIGHT (North-East) onto Columbia St for 4.3 mi
9:17 AM	9.3 mi	Turn RIGHT to stay on Columbia St for 1.3 mi
9:19 AM	10.6 mi	Bear LEFT (North) onto PA-36 [Colonel Drake Hwy] for 4.5 mi
9:25 AM	15.1 mi	Keep STRAIGHT onto PA-36 [Magee Ave] for 0.4 mi
9:26 AM	15.5 mi	3 At Patton [800 4th Ave, Patton, PA 16668], stay on PA-36 [4th Ave] (North) for 0.2 mi
9:26 AM	15.7 mi	Turn LEFT (West) onto PA-36 [RAILROAD Ave] for 0.6 mi
9:27 AM	16.3 mi	Bear LEFT (West) onto PA-36 [Main St] for 2.7 mi
9:31 AM	19.0 mi	Turn LEFT (West) onto Bridge St for 1.5 mi
9:34 AM	20.5 mi	Turn LEFT (South-West) onto Beaver St for 0.4 mi
9:35 AM	20.8 mi	Turn LEFT (East) onto 4th Ave for 131 yds
9:36 AM	20.9 mi	4 At Hastings [246 Coleman St, Hastings, PA 16646], return West on 4th Ave for 0.1 mi
9:36 AM	21.1 mi	Turn LEFT (South) onto Spangler St for 0.6 mi
9:38 AM	21.7 mi	Turn RIGHT (North) onto Municipal Rd for 2.9 mi
9:42 AM	24.5 mi	Road name changes to Philadelphia Ave for 0.7 mi
9:45 AM	25.2 mi	Keep STRAIGHT onto US-219 [Philadelphia Ave] for 131 yds
9:45 AM	25.3 mi	Turn LEFT (South-West) onto Cottonwood St for 0.2 mi
9:46 AM	25.5 mi	5 At Barnesboro [7 Cottonwood St, Northern Cambria, PA 15714], return North on Cottonwood St for 0.2 mi
9:47 AM	25.7 mi	Turn RIGHT (South-East) onto US-219 [Philadelphia Ave] for 131 yds
9:48 AM	25.8 mi	Turn RIGHT (South-West) onto US-219 [Crawford Ave] for 1.3 mi
9:50 AM	27.1 mi	Turn RIGHT (South-West) onto PA-271 [24th St] for 120 yds
9:51 AM	27.1 mi	6 At Spangler [2423 Betts Ave, Northern Cambria, PA 15714], stay on PA-271 [24th St] (South-West) for 0.8 mi
9:52 AM	28.0 mi	Keep STRAIGHT onto PA-271 [Nicktown Hill Rd] for 1.9 mi
9:54 AM	29.9 mi	Turn LEFT (South-East) onto PA-553 [Ridge Rd] for 4.6 mi
10:01 AM	34.5 mi	Turn RIGHT (South-West) onto US-219 [Plank Rd] for 1.8 mi
10:03 AM	36.3 mi	Keep RIGHT onto Local road(s) for 0.1 mi towards US-219 S
10:03 AM	36.4 mi	Road name changes to US-219 for 7.3 mi
10:09 AM	43.7 mi	Take Ramp (RIGHT) onto US-22 [William Penn Hwy] for 0.8 mi towards US-22 E / Hollidaysburg
10:11 AM	44.4 mi	Turn RIGHT (South-East) onto Mini Mall Rd for 0.3 mi
10:12 AM	44.7 mi	Turn RIGHT (South) onto Industrial Park Rd for 0.5 mi
10:14 AM	45.2 mi	7 At Eburg DEP [286 Industrial Park Rd, Ebensburg, PA 15931], return North-West on Industrial Park Rd for 0.5 mi
10:15 AM	45.6 mi	Turn LEFT (West) onto Mini Mall Rd for 0.3 mi
10:16 AM	45.9 mi	Road name changes to Local road(s) for 10 yds
10:17 AM	45.9 mi	Turn LEFT (South-West) onto US-22 [Admiral Peary Hwy] for 4.8 mi
10:22 AM	50.7 mi	Keep RIGHT onto Ramp for 0.1 mi towards PA-271 / Nanty Glo / Mundys Corner
10:23 AM	50.8 mi	Turn RIGHT (South) onto PA-271 [William Penn Ave] for 0.5 mi
10:24 AM	51.3 mi	Turn LEFT (East) onto Pike Rd for 0.1 mi

10:25 AM	51.4 mi	8 At Jackson Twn [513 Pike Rd, Johnstown, PA 15909], return West on Pike Rd for 174 yds
10:25 AM	51.5 mi	Turn RIGHT (North) onto PA-271 [William Penn Ave] for 0.3 mi
10:26 AM	51.8 mi	Take Ramp (RIGHT) onto US-22 [William Penn Hwy] for 7.6 mi towards US-22 E
10:34 AM	59.4 mi	Keep RIGHT onto Ramp for 0.1 mi towards Ebensburg / Loretto
10:34 AM	59.5 mi	Keep RIGHT to stay on Ramp for 109 yds towards Ebensburg
10:34 AM	59.6 mi	Bear RIGHT (North-West) onto Admiral Peary Hwy for 0.3 mi
10:35 AM	59.8 mi	Road name changes to Rowena Dr for 0.2 mi
10:35 AM	60.0 mi	Turn RIGHT (North-East) onto Manor Dr for 98 yds
10:36 AM	60.1 mi	9 At Eburg Manor [Manor Dr, Ebensburg, PA 15931], return West on Manor Dr for 98 yds
10:36 AM	60.1 mi	Turn LEFT (East) onto Rowena Dr for 0.2 mi
10:36 AM	60.3 mi	Road name changes to Admiral Peary Hwy for 0.3 mi
10:37 AM	60.6 mi	Take Ramp (LEFT) onto US-22 [Admiral Peary Hwy] for 6.1 mi towards US-22 E / Hollidaysburg
10:42 AM	66.8 mi	Keep RIGHT onto Ramp for 0.3 mi towards PA-53 / Lilly / Cresson
10:43 AM	67.1 mi	Keep RIGHT to stay on Ramp for 54 yds towards PA-53 N / Cresson
10:43 AM	67.1 mi	Bear RIGHT (North) onto PA-53 [W 2nd St] for 1.0 mi
10:45 AM	68.1 mi	Turn LEFT (West) onto Admiral Peary Hwy for 109 yds
10:45 AM	68.2 mi	10 At Cresson [7551 Admiral Peary Hwy, Cresson, PA 16630], return East on Admiral Peary Hwy for 109 yds
10:45 AM	68.2 mi	Turn RIGHT (South) onto PA-53 [W 2nd St] for 2.9 mi
10:50 AM	71.2 mi	11 At Lilly [Cleveland St, Lilly, PA 15938], stay on PA-53 [Cleveland St] (East) for 0.1 mi
10:50 AM	71.3 mi	Turn RIGHT (South) onto PA-53 [Portage St] for 4.2 mi
10:55 AM	75.5 mi	Keep STRAIGHT onto PA-164 [PA-53] for 0.2 mi
10:55 AM	75.7 mi	Turn LEFT (South) onto PA-164 [Main St] for 0.9 mi
10:58 AM	76.6 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
10:58 AM	77.0 mi	12 At Pro MRF [1938 Puritan Rd, Portage, PA 15946], return West on PA-164 [Puritan Rd] for 0.4 mi
10:59 AM	77.4 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
11:01 AM	78.3 mi	Turn LEFT (West) onto PA-53 [Portage St] for 5.2 mi
11:09 AM	83.5 mi	13 At Croyle Twn [1654 RAILROAD St, Summerhill, PA 15958], stay on PA-53 [RAILROAD St] (West) for 1.1 mi
11:10 AM	84.6 mi	Take Ramp (LEFT) onto US-219 for 1.9 mi towards US-219 S / Johnstown
11:12 AM	86.6 mi	Keep RIGHT onto Ramp for 0.2 mi towards PA-869 E / Sidman / St Michael
11:13 AM	86.8 mi	Turn LEFT (South) onto PA-869 for 0.2 mi
11:13 AM	87.0 mi	Keep STRAIGHT onto PA-869 [Locust St] for 2.1 mi
11:16 AM	89.1 mi	Turn RIGHT (South) onto PA-160 [Forest Hills Dr] for 2.2 mi
11:20 AM	91.3 mi	Turn RIGHT (North) onto Maxine Dr, then immediately turn RIGHT (East) onto Mary Dr for 0.1 mi
11:21 AM	91.4 mi	14 At Adams [125 Mary Dr, Sidman, PA 15955], return West on Mary Dr for 43 yds
11:21 AM	91.4 mi	Turn LEFT (South) onto Maxine Dr, then immediately turn RIGHT (West) onto PA-160 [Forest Hills Dr] for 3.2 mi
11:28 AM	94.7 mi	Turn RIGHT (West) onto PA-756 [Elton Rd] for 0.9 mi
11:30 AM	95.6 mi	Turn LEFT (South) onto Schoolhouse Rd for 1.3 mi
11:34 AM	96.9 mi	Turn LEFT (South) onto Highfield Ave [Highfield St] for 0.6 mi

11:36 AM	97.4 mi	15 At UPJ Main [Highfield Ave, Johnstown, PA 15904], return North on Highfield Ave [Highfield St] for 0.6 mi
11:37 AM	98.0 mi	Turn LEFT (West) onto Schoolhouse Rd for 0.2 mi
11:39 AM	98.2 mi	Turn RIGHT (North) onto Theatre Dr for 0.8 mi
11:40 AM	99.0 mi	Turn LEFT (North-West) onto PA-756 [Elton Rd] for 0.3 mi
11:41 AM	99.3 mi	Keep STRAIGHT onto PA-756 [Bedford St] for 1.4 mi
11:44 AM	100.7 mi	Turn LEFT (South) onto Lamberd Ave for 0.1 mi
11:45 AM	100.8 mi	16 At Geistown [631 Lamberd Ave, Johnstown, PA 15904], return North on Lamberd Ave for 0.1 mi
11:45 AM	100.9 mi	Turn LEFT (West) onto PA-756 [Bedford St] for 109 yds
11:45 AM	101.0 mi	Keep STRAIGHT onto Bedford St for 2.5 mi
11:50 AM	103.5 mi	Turn LEFT (West) onto Hickory St for 0.4 mi
11:52 AM	103.9 mi	Turn LEFT (South) onto PA-403 [Franklin St] for 0.5 mi
11:53 AM	104.3 mi	Keep STRAIGHT onto Franklin St for 0.9 mi
11:56 AM	105.2 mi	Turn RIGHT (West) onto Derby St for 65 yds
11:56 AM	105.3 mi	17 At Roxbury, return East on Derby St for 65 yds
11:56 AM	105.3 mi	Turn LEFT (North) onto Franklin St for 0.9 mi
11:59 AM	106.2 mi	Keep STRAIGHT onto PA-403 [Franklin St] for 0.5 mi
12:01 PM	106.7 mi	Bear LEFT (North) onto PA-403 [Napoleon St] for 2.7 mi
12:06 PM	109.3 mi	Turn LEFT (West) onto PA-56 [Fairfield Ave] for 0.3 mi
12:06 PM	109.6 mi	Turn LEFT (South) onto D St for 0.2 mi
12:07 PM	109.8 mi	18 At D Street [9 D St, Johnstown, PA 15906], return North on D St for 0.2 mi
12:08 PM	110.0 mi	Turn RIGHT (East) onto PA-56 [Fairfield Ave] for 0.3 mi
12:09 PM	110.2 mi	Turn RIGHT (South-East) onto PA-403 [PA-56] for 1.3 mi
12:11 PM	111.6 mi	Turn LEFT (South-East) onto Washington St for 0.7 mi
12:13 PM	112.2 mi	Turn LEFT (East) onto PA-271 [Clinton St] for 0.3 mi
12:14 PM	112.6 mi	Keep STRAIGHT onto PA-271 for 0.4 mi
12:15 PM	113.0 mi	Keep STRAIGHT onto PA-271 [Maple Ave] for 1.4 mi
12:17 PM	114.3 mi	Turn LEFT (North-East) onto PA-271 [Main St] for 142 yds
12:17 PM	114.4 mi	Turn LEFT (North-West) onto PA-271 [Franklin St] for 0.2 mi
12:18 PM	114.6 mi	19 At E Conemaugh Boro [E RAILROAD St, Johnstown, PA 15909], return South-East on PA-271 [Main St] for 0.2 mi
12:18 PM	114.8 mi	Keep STRAIGHT onto Main St for 131 yds
12:19 PM	114.9 mi	Road name changes to Bridge St for 0.4 mi
12:21 PM	115.3 mi	Road name changes to Truman Blvd for 1.4 mi
12:24 PM	116.7 mi	Turn RIGHT (West) onto Frankstown Rd for 1.0 mi
12:26 PM	117.6 mi	Turn RIGHT (North) onto Janie St for 142 yds
12:26 PM	117.7 mi	20 At Conemaugh Twn [142 Janie St, Johnstown, PA 15902], return South on Janie St for 142 yds
12:27 PM	117.8 mi	Turn LEFT (East) onto Frankstown Rd for 4.1 mi
12:33 PM	121.9 mi	Road name changes to Ragers Hill Rd for 2.1 mi
12:37 PM	124.0 mi	Turn RIGHT (East) onto PA-869 for 0.3 mi

12:38 PM	124.3 mi	Take Ramp (RIGHT) onto US-219 for 2.2 mi towards US-219 N / Ebensburgs
12:40 PM	126.4 mi	Keep RIGHT onto Ramp for 0.3 mi towards PA-53 N / Portage / South Fork
12:40 PM	126.7 mi	Turn RIGHT (East) onto PA-53 [RAILROAD St] for 6.1 mi
12:49 PM	132.8 mi	Turn RIGHT (South) onto PA-164 [Main St] for 0.6 mi
12:51 PM	133.5 mi	Turn LEFT (East) onto Mountain Ave for 142 yds
12:52 PM	133.6 mi	21 At Portage [712 Mountain Ave, Portage, PA 15946], return West on Mountain Ave for 142 yds
12:52 PM	133.6 mi	Turn LEFT (South) onto PA-164 [Main St] for 0.3 mi
12:53 PM	133.9 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
12:54 PM	134.3 mi	22 At 1938 Puritan Rd, Portage, PA 15946, return West on PA-164 [Puritan Rd] for 0.4 mi
12:54 PM	134.7 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
12:57 PM	135.6 mi	Turn RIGHT (East) onto PA-164 [PA-53] for 0.2 mi
12:57 PM	135.8 mi	Turn LEFT (North) onto PA-164 [Munster Rd] for 5.8 mi
1:05 PM	141.6 mi	Take Ramp (LEFT) onto US-22 [William Penn Hwy] for 2.8 mi towards US-22 W / Ebensburg
1:07 PM	144.4 mi	Keep RIGHT onto Ramp for 0.3 mi towards Ebensburg / Loretto
1:08 PM	144.7 mi	Keep RIGHT to stay on Ramp for 174 yds
1:08 PM	144.8 mi	Bear RIGHT (West) onto Admiral Peary Hwy for 131 yds
1:08 PM	144.9 mi	Road name changes to Rowena Dr for 0.2 mi
1:08 PM	145.1 mi	Turn RIGHT (North-East) onto Manor Dr for 0.9 mi
1:10 PM	146.0 mi	Arrive 507 Manor Dr, Ebensburg, PA 15931

Total journey cost	\$16.22
Driving distance	146.0 miles
Trip duration	4 hours, 10 minutes
Driving time	4 hours, 10 minutes
Crow's flight distance between all stops	106.9 miles

Route segment details

From	То	Method	Distance	Driving time
SWA HQ	Loretto	Quickest	4.5 miles	8 minutes
Loretto	Patton	Quickest	11.0 miles	18 minutes
Patton	Hastings	Quickest	5.4 miles	10 minutes
Hastings	Barnesboro	Quickest	4.6 miles	10 minutes
Barnesboro	Spangler	Quickest	1.7 miles	4 minutes
Spangler	Eburg DEP	Quickest	18.0 miles	23 minutes
Eburg DEP	Jackson Twn	Quickest	6.2 miles	10 minutes
Jackson Twn	Eburg Manor	Quickest	8.7 miles	11 minutes
Eburg Manor	Cresson	Quickest	8.1 miles	9 minutes
Cresson	Lilly	Quickest	3.0 miles	4 minutes
Lilly	Pro MRF	Quickest	5.8 miles	8 minutes
Pro MRF	Croyle Twn	Quickest	6.5 miles	10 minutes
Croyle Twn	Adams	Quickest	7.9 miles	12 minutes
Adams	UPJ Main	Quickest	6.0 miles	14 minutes
UPJ Main	Geistown	Quickest	3.4 miles	8 minutes
Geistown	Roxbury	Quickest	4.4 miles	11 minutes
Roxbury	D Street	Quickest	4.5 miles	10 minutes
D Street	E Conemaugh Boro	Quickest	4.8 miles	10 minutes
E Conemaugh Boro	Conemaugh Twn	Quickest	3.2 miles	8 minutes
Conemaugh Twn	Portage	Quickest	15.8 miles	25 minutes
Portage	1938 Puritan Rd, Por	Quickest	0.7 miles	2 minutes
1938 Puritan Rd, Por	507 Manor Dr, Ebens	Quickest	11.7 miles	16 minutes

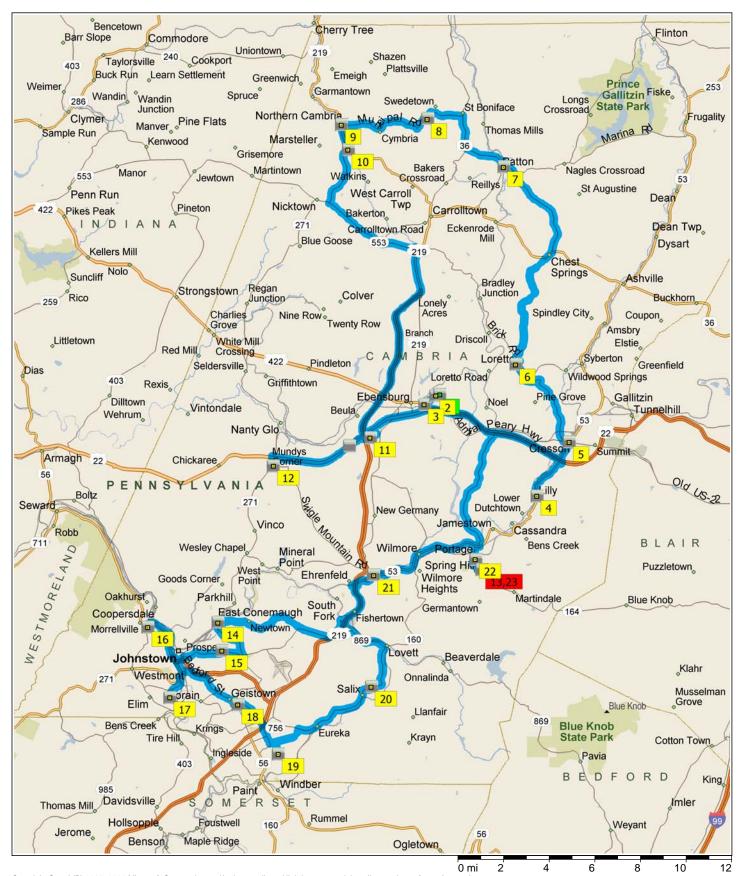
State/Province	Distance	Driving time
Pennsylvania	146.0 miles	4 hours, 10 minutes

Exhibit 3: Bimetal Can Collections

		Current Cont	Est Yds		# of	# of New	Minutes to
	Collection	Yds/Wk	Generated	# of New FL	Collections	Yards of	Service
Site Name	Order	Capacity	per Week	Containers	per Week	Capacity	Container
SWA HQ	1	4	0	0	0.5	0	0
Cambria County Prison	2	4	2.5	1	0.5	4	5
Eburg Manor Dr.	3	4	3	1	0.5	4	5
Lilly Borough	4	4	1.5	1	0.5	4	5
Cresson	5	4	3	1	0.5	4	5
Loretto	6	4	3.5	1	0.5	4	5
Patton	7	4	3	1	0.5	4	5
Hastings	8	4	3	1	0.5	4	5
Barnesboro	9	4	2.5	1	0.5	4	5
Spangler	10	4	2.5	1	0.5	4	5
Eburg DEP	11	2	5	1	0.5	4	5
Jackson Township	12	4	3	1	0.5	4	5
Pro MRF	13						
East Conemaugh Borough	14	4	2	1	0.5	4	5
Conemaugh Township	15	4	2	1	0.5	4	5
D Street	16	4	2	1	0.5	4	5
Roxbury	17	0	3	1	0.5	4	5
Geistown	18	4	3	1	0.5	4	5
UPJ Main	19	0	2	1	0.5	4	5
Adams	20	4	2	1	0.5	4	5
Croyle Township	21	4	2	1	0.5	4	5
Portage Borough	22	4	2	1	0.5	4	5
Pro MRF	23						
Davidson Chevy							
UPJ Main & Union							
Total		74	52.5	20	10.5	80	100
			Loads	0.5			
Minutes of Drive Time							246
Service Time							100
Dump Time							60
Total Minutes to Service All Sites	5						406
Total Hours to Service All Sites				6.77			

BiMetal Rt Directions

140.4 miles; 4 hours, 6 minutes



9:00 AM	0.0 mi	1 Depart SWA HQ [507 Manor Dr, Ebensburg, PA 15931] on Manor Dr (West) for 0.2 mi
9:00 AM	0.2 mi	2 At Prison [425 Manor Dr, Ebensburg, PA 15931], stay on Manor Dr (West) for 0.6 mi
9:01 AM	0.8 mi	3 At Eburg Manor [Manor Dr, Ebensburg, PA 15931], stay on Manor Dr (West) for 98 yds
9:01 AM	0.9 mi	Turn LEFT (East) onto Rowena Dr for 0.2 mi
9:02 AM	1.1 mi	Road name changes to Admiral Peary Hwy for 0.3 mi
9:02 AM	1.4 mi	Take Ramp (LEFT) onto US-22 [Admiral Peary Hwy] for 6.1 mi towards US-22 E / Hollidaysburg
9:08 AM	7.5 mi	Keep RIGHT onto Ramp for 0.3 mi towards PA-53 / Lilly / Cresson
9:08 AM	7.8 mi	Keep LEFT to stay on Ramp for 43 yds towards PA-53 S / Portage / Lilly
9:08 AM	7.8 mi	Turn LEFT (South) onto PA-53 [W 2nd St] for 1.9 mi
9:10 AM	9.7 mi	4 At Lilly [Cleveland St, Lilly, PA 15938], return North on PA-53 [Main St] for 2.9 mi
9:14 AM	12.7 mi	Turn LEFT (West) onto Admiral Peary Hwy for 109 yds
9:15 AM	12.8 mi	5 At Cresson [7551 Admiral Peary Hwy, Cresson, PA 16630], stay on Admiral Peary Hwy (West) for 0.2 mi
9:15 AM	13.0 mi	Bear RIGHT (North-West) onto St Joseph St for 65 yds
9:16 AM	13.0 mi	Bear RIGHT (North) onto St Joseph St [Saint Joseph St] for 0.4 mi
9:17 AM	13.4 mi	Keep STRAIGHT onto St Joseph St for 0.1 mi
9:17 AM	13.5 mi	Keep STRAIGHT onto St Joseph St [Saint Joseph St] for 0.5 mi
9:18 AM	14.1 mi	Keep STRAIGHT onto St Joseph St for 0.6 mi
9:19 AM	14.7 mi	Keep STRAIGHT onto St Joseph St [Saint Joseph St] for 1.4 mi
9:21 AM	16.1 mi	Road name changes to Seymour Rd [St Joseph St] for 0.6 mi
9:23 AM	16.7 mi	Road name changes to St Joseph St for 109 yds
9:23 AM	16.8 mi	Road name changes to St Mary St [Saint Mary St] for 0.9 mi
9:26 AM	17.6 mi	Turn LEFT (West) onto Manor Dr for 120 yds
9:27 AM	17.7 mi	6 At Loretto [Manor Dr, Loretto, PA 15940], stay on Manor Dr (East) for 109 yds
9:27 AM	17.8 mi	Road name changes to Brick Rd for 0.4 mi
9:28 AM	18.2 mi	Turn RIGHT (North-East) onto Columbia St for 4.3 mi
9:36 AM	22.5 mi	Turn RIGHT to stay on Columbia St for 1.3 mi
9:38 AM	23.8 mi	Bear LEFT (North) onto PA-36 [Colonel Drake Hwy] for 4.5 mi
9:44 AM	28.2 mi	Keep STRAIGHT onto PA-36 [Magee Ave] for 0.4 mi
9:45 AM	28.7 mi	7 At Patton [800 4th Ave, Patton, PA 16668], stay on PA-36 [4th Ave] (North) for 0.2 mi
9:45 AM	28.9 mi	Turn LEFT (West) onto PA-36 [RAILROAD Ave] for 0.6 mi
9:46 AM	29.5 mi	Bear LEFT (West) onto PA-36 [Main St] for 2.7 mi
9:50 AM	32.2 mi	Turn LEFT (West) onto Bridge St for 1.5 mi
9:53 AM	33.6 mi	Turn LEFT (South-West) onto Beaver St for 0.4 mi
9:54 AM	34.0 mi	Turn LEFT (East) onto 4th Ave for 131 yds
9:55 AM	34.1 mi	8 At Hastings [246 Coleman St, Hastings, PA 16646], return West on 4th Ave for 0.1 mi
9:55 AM	34.2 mi	Turn LEFT (South) onto Spangler St for 0.6 mi
9:57 AM	34.8 mi	Turn RIGHT (North) onto Municipal Rd for 2.9 mi
10:02 AM	37.7 mi	Road name changes to Philadelphia Ave for 0.7 mi
10:04 AM	38.4 mi	Keep STRAIGHT onto US-219 [Philadelphia Ave] for 131 yds
10:05 AM	38.4 mi	Turn LEFT (South-West) onto Cottonwood St for 0.2 mi

10:06 AM	38.6 mi	9 At Barnesboro [7 Cottonwood St, Northern Cambria, PA 15714], return North on Cottonwood St for 0.2 mi
10:06 AM	38.8 mi	Turn RIGHT (South-East) onto US-219 [Philadelphia Ave] for 131 yds
10:07 AM	38.9 mi	Turn RIGHT (South-West) onto US-219 [Crawford Ave] for 1.3 mi
10:09 AM	40.2 mi	Turn RIGHT (South-West) onto PA-271 [24th St] for 120 yds
10:10 AM	40.3 mi	10 At Spangler [2423 Betts Ave, Northern Cambria, PA 15714], stay on PA-271 [24th St] (South-West) for 0.8 mi
10:11 AM	41.1 mi	Keep STRAIGHT onto PA-271 [Nicktown Hill Rd] for 1.9 mi
10:13 AM	43.0 mi	Turn LEFT (South-East) onto PA-553 [Ridge Rd] for 4.6 mi
10:20 AM	47.7 mi	Turn RIGHT (South-West) onto US-219 [Plank Rd] for 1.8 mi
10:22 AM	49.4 mi	Keep RIGHT onto Local road(s) for 0.1 mi towards US-219 S
10:22 AM	49.6 mi	Road name changes to US-219 for 7.3 mi
10:28 AM	56.8 mi	Take Ramp (RIGHT) onto US-22 [William Penn Hwy] for 0.8 mi towards US-22 E / Hollidaysburg
10:30 AM	57.6 mi	Turn RIGHT (South-East) onto Mini Mall Rd for 0.3 mi
10:31 AM	57.9 mi	Turn RIGHT (South) onto Industrial Park Rd for 0.5 mi
10:33 AM	58.3 mi	11 At Eburg DEP [286 Industrial Park Rd, Ebensburg, PA 15931], return North-West on Industrial Park Rd for 0.5 mi
10:34 AM	58.8 mi	Turn LEFT (West) onto Mini Mall Rd for 0.3 mi
10:36 AM	59.0 mi	Road name changes to Local road(s) for 10 yds
10:36 AM	59.0 mi	Turn LEFT (South-West) onto US-22 [Admiral Peary Hwy] for 4.8 mi
10:41 AM	63.8 mi	Keep RIGHT onto Ramp for 0.1 mi towards PA-271 / Nanty Glo / Mundys Corner
10:42 AM	64.0 mi	Turn RIGHT (South) onto PA-271 [William Penn Ave] for 0.5 mi
10:43 AM	64.4 mi	Turn LEFT (East) onto Pike Rd for 0.1 mi
10:44 AM	64.5 mi	12 At Jackson Twn [513 Pike Rd, Johnstown, PA 15909], return West on Pike Rd for 174 yds
10:44 AM	64.6 mi	Turn RIGHT (North) onto PA-271 [William Penn Ave] for 0.3 mi
10:45 AM	64.9 mi	Take Ramp (RIGHT) onto US-22 [William Penn Hwy] for 10.3 mi towards US-22 E
10:55 AM	75.3 mi	Keep RIGHT onto Ramp for 0.4 mi towards PA-164 / Portage / Munster
10:56 AM	75.6 mi	Turn RIGHT (South) onto PA-164 [Munster Rd] for 5.7 mi
11:04 AM	81.4 mi	Turn RIGHT (West) onto PA-164 [PA-53] for 0.2 mi
11:04 AM	81.5 mi	Turn LEFT (South) onto PA-164 [Main St] for 0.9 mi
11:06 AM	82.4 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
11:07 AM	82.9 mi	13 At Pro MRF, return West on PA-164 [Puritan Rd] for 0.4 mi
11:08 AM	83.3 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
11:10 AM	84.2 mi	Turn LEFT (West) onto PA-53 [Portage St] for 6.3 mi
11:19 AM	90.5 mi	Take Ramp (LEFT) onto US-219 for 1.9 mi towards US-219 S / Johnstown
11:21 AM	92.4 mi	Keep RIGHT onto Ramp for 0.2 mi towards PA-869 E / Sidman / St Michael
11:21 AM	92.6 mi	Keep RIGHT to stay on Ramp for 65 yds towards South Fork / Airport
11:21 AM	92.7 mi	Bear RIGHT (North-West) onto PA-869 for 0.2 mi
11:22 AM	92.8 mi	Turn LEFT (South) onto Ragers Hill Rd for 2.1 mi
11:26 AM	94.9 mi	Road name changes to Frankstown Rd for 43 yds
11:26 AM	95.0 mi	Turn RIGHT (North) onto Clapboard Run Rd for 3.8 mi
11:34 AM	98.8 mi	Road name changes to Main St for 0.5 mi

11:35 AM	99.2 mi	Turn RIGHT (North-West) onto PA-271 [Franklin St] for 0.2 mi
11:36 AM	99.4 mi	14 At E Conemaugh Boro [E RAILROAD St, Johnstown, PA 15909], return South-East on PA-271 [Main St] for 0.2 mi
11:37 AM	99.7 mi	Keep STRAIGHT onto Main St for 131 yds
11:37 AM	99.7 mi	Road name changes to Bridge St for 0.4 mi
11:39 AM	100.1 mi	Road name changes to Truman Blvd for 1.4 mi
11:42 AM	101.5 mi	Turn RIGHT (West) onto Frankstown Rd for 1.0 mi
11:44 AM	102.5 mi	Turn RIGHT (North) onto Janie St for 142 yds
11:44 AM	102.6 mi	15 At Conemaugh Twn [142 Janie St, Johnstown, PA 15902], return South on Janie St for 142 yds
11:45 AM	102.6 mi	Turn RIGHT (West) onto Frankstown Rd for 1.6 mi
11:49 AM	104.2 mi	Keep STRAIGHT onto Frankstown Rd [Main St] for 0.1 mi
11:49 AM	104.4 mi	Turn LEFT (South) onto Adams St for 0.1 mi
11:50 AM	104.5 mi	Turn RIGHT (North-West) onto Bedford St, then immediately turn LEFT (South-West) onto PA-271 [Haynes St] for 0.3 mi
11:51 AM	104.8 mi	Turn RIGHT (North) onto PA-403 [Napoleon St] for 2.2 mi
11:55 AM	107.0 mi	Turn LEFT (West) onto PA-56 [Fairfield Ave] for 0.3 mi
11:55 AM	107.2 mi	Turn LEFT (South) onto D St for 0.2 mi
11:56 AM	107.4 mi	16 At D Street [9 D St, Johnstown, PA 15906], return North on D St for 0.2 mi
11:57 AM	107.6 mi	Turn RIGHT (East) onto PA-56 [Fairfield Ave] for 0.3 mi
11:58 AM	107.9 mi	Turn RIGHT (South-East) onto PA-403 [PA-56] for 1.9 mi
12:01 PM	109.7 mi	Turn LEFT (East) onto PA-403 [Napoleon St] for 0.8 mi
12:03 PM	110.5 mi	Bear RIGHT (South) onto PA-403 [Franklin St] for 0.5 mi
12:04 PM	111.0 mi	Keep STRAIGHT onto Franklin St for 0.9 mi
12:06 PM	111.9 mi	Turn RIGHT (West) onto Derby St for 65 yds
12:07 PM	111.9 mi	17 At Roxbury, return East on Derby St for 65 yds
12:07 PM	112.0 mi	Turn LEFT (North) onto Franklin St for 0.9 mi
12:10 PM	112.9 mi	Keep STRAIGHT onto PA-403 [Franklin St] for 0.5 mi
12:11 PM	113.4 mi	Turn RIGHT (East) onto Hickory St for 0.4 mi
12:13 PM	113.7 mi	Turn RIGHT (South) onto Bedford St for 2.3 mi
12:17 PM	116.1 mi	Bear RIGHT (South-East) onto Bedford St [Scalp Ave] for 0.1 mi
12:17 PM	116.2 mi	Keep RIGHT onto Ramp for 164 yds towards PA-756 E
12:18 PM	116.3 mi	Bear RIGHT (North) onto PA-756 [Bedford St] for 0.1 mi
12:18 PM	116.4 mi	Turn RIGHT to stay on PA-756 [Bedford St] for 109 yds
12:18 PM	116.5 mi	Turn RIGHT (South) onto Lamberd Ave for 0.1 mi
12:19 PM	116.6 mi	18 At Geistown [631 Lamberd Ave, Johnstown, PA 15904], return North on Lamberd Ave for 0.1 mi
12:19 PM	116.7 mi	Turn RIGHT (East) onto PA-756 [Bedford St] for 1.4 mi
12:22 PM	118.1 mi	Keep STRAIGHT onto PA-756 [Elton Rd] for 0.3 mi
12:22 PM	118.4 mi	Turn RIGHT (South) onto Theatre Dr for 0.8 mi
12:24 PM	119.2 mi	Turn LEFT (East) onto Schoolhouse Rd for 0.2 mi
12:25 PM	119.5 mi	Turn RIGHT (South) onto Highfield Ave [Highfield St] for 0.6 mi

12:28 PM	120.0 mi	19 At UPJ Main [Highfield Ave, Johnstown, PA 15904], return North on Highfield Ave [Highfield St] for 0.6 mi
12:29 PM	120.6 mi	Turn RIGHT (East) onto Schoolhouse Rd for 1.3 mi
12:33 PM	121.8 mi	Turn RIGHT (East) onto PA-756 [Elton Rd] for 0.9 mi
12:35 PM	122.7 mi	Turn LEFT (North) onto PA-160 [Forest Hills Dr] for 3.2 mi
12:41 PM	125.9 mi	Turn LEFT (North) onto Maxine Dr, then immediately turn RIGHT (East) onto Mary Dr for 0.1 mi
12:42 PM	126.0 mi	20 At Adams [125 Mary Dr, Sidman, PA 15955], return West on Mary Dr for 43 yds
12:42 PM	126.1 mi	Turn LEFT (South) onto Maxine Dr, then immediately turn LEFT (East) onto PA-160 [Forest Hills Dr] for 2.3 mi
12:47 PM	128.4 mi	Turn LEFT (West) onto PA-869 [Locust St] for 2.1 mi
12:50 PM	130.4 mi	Keep STRAIGHT onto PA-869 for 10 yds
12:50 PM	130.4 mi	Take Ramp (LEFT) onto US-219 for 2.2 mi towards US-219 N / Ebensburg
12:52 PM	132.6 mi	Keep RIGHT onto Ramp for 0.3 mi towards PA-53 N / Portage / South Fork
12:53 PM	132.9 mi	Turn RIGHT (East) onto PA-53 [RAILROAD St] for 0.9 mi
12:54 PM	133.7 mi	21 At Croyle Twn [1654 RAILROAD St, Summerhill, PA 15958], stay on PA-53 [RAILROAD St] (East) for 5.2 mi
1:01 PM	139.0 mi	Turn RIGHT (South) onto PA-164 [Main St] for 0.6 mi
1:04 PM	139.6 mi	Turn LEFT (East) onto Mountain Ave for 142 yds
1:04 PM	139.7 mi	22 At Portage [712 Mountain Ave, Portage, PA 15946], return West on Mountain Ave for 142 yds
1:04 PM	139.8 mi	Turn LEFT (South) onto PA-164 [Main St] for 0.3 mi
1:06 PM	140.0 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
1:06 PM	140.4 mi	23 Arrive Pro MRF [1938 Puritan Rd, Portage, PA 15946]

Total journey cost	\$15.60
Driving distance	140.4 miles
Trip duration	4 hours, 6 minutes
Driving time	4 hours, 6 minutes
Crow's flight distance between all stops	99.3 miles

Route segment details

	Notic Segment details					
From	То	Method	Distance	Driving time		
SWA HQ	Prison	Quickest	317 yards	Less than 1 minute		
Prison	Eburg Manor	Quickest	0.6 miles	1 minute		
Eburg Manor	Lilly	Quickest	8.9 miles	9 minutes		
Lilly	Cresson	Quickest	3.0 miles	4 minutes		
Cresson	Loretto	Quickest	5.0 miles	11 minutes		
Loretto	Patton	Quickest	11.0 miles	18 minutes		
Patton	Hastings	Quickest	5.4 miles	10 minutes		
Hastings	Barnesboro	Quickest	4.6 miles	10 minutes		
Barnesboro	Spangler	Quickest	1.7 miles	4 minutes		
Spangler	Eburg DEP	Quickest	18.0 miles	23 minutes		
Eburg DEP	Jackson Twn	Quickest	6.2 miles	10 minutes		
Jackson Twn	Pro MRF	Quickest	18.3 miles	23 minutes		
Pro MRF	E Conemaugh Boro	Quickest	16.6 miles	28 minutes		
E Conemaugh Boro	Conemaugh Twn	Quickest	3.2 miles	8 minutes		
Conemaugh Twn	D Street	Quickest	4.9 miles	11 minutes		
D Street	Roxbury	Quickest	4.5 miles	10 minutes		
Roxbury	Geistown	Quickest	4.7 miles	11 minutes		
Geistown	UPJ Main	Quickest	3.4 miles	8 minutes		
UPJ Main	Adams	Quickest	6.0 miles	14 minutes		
Adams	Croyle Twn	Quickest	7.7 miles	12 minutes		
Croyle Twn	Portage	Quickest	5.9 miles	9 minutes		
Portage	Pro MRF	Quickest	0.7 miles	2 minutes		

State/Province	Distance	Driving time
Pennsylvania	140.4 miles	4 hours, 6 minutes

APPENDIX D

THURSDAY ROUTES: OCC & OFFICE PAPER

Exhibit 1: OCC Collection Sequence Route 2Exhibit 2: OCC Route 2 Map & Directions

Exhibit 3: Office Paper Collection Sequence

Exhibit 4: Office Paper Route Map & Directions



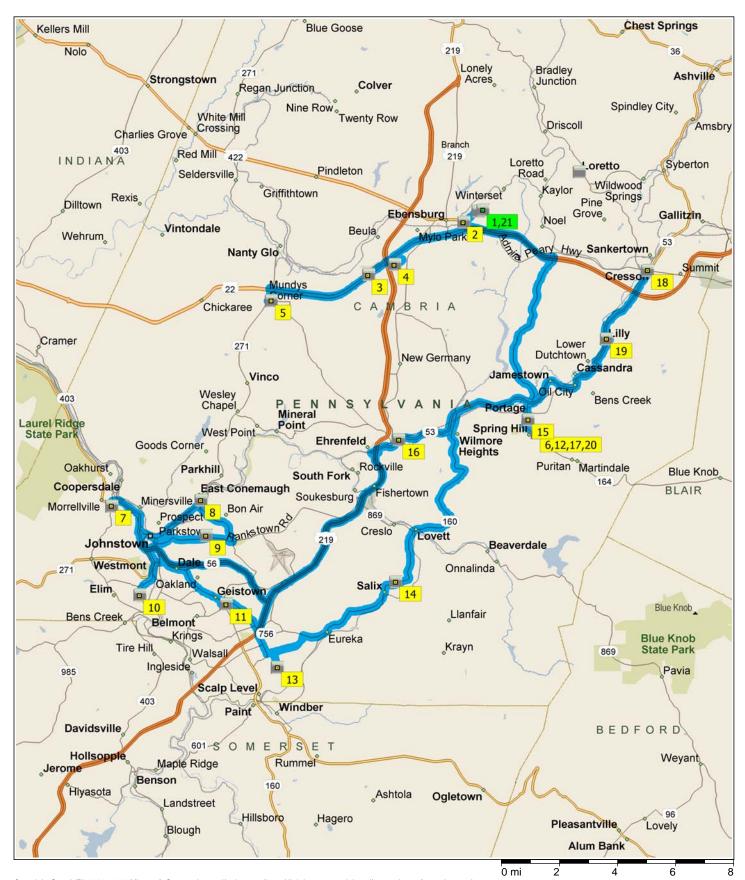


Exhibit 1:	OCC Collection	Route 2
		Cumant

LAMBIT 1. OCC CONCCU	Collection	Current Cont Yds/Wk	Est Yds Generated	# of New FL	# of Collections	# of New Yards of	Minutes to Service
Site Name	Order	Capacity	per Week	Containers	per Week	Capacity	Container
SWA HQ	1	4	1		por moon		
Eburg Manor Dr.	2	20	27	2	2	32	10
Davidson Chevy	3	8	7	1	1		5
Eburg DEP	4	20	15	2	1	16	10
Jackson Township	5	12	14	2	1	16	10
Pro MRF	6						
D Street	7	20	29	2	2	32	10
East Conemaugh Borough	8	12	11	2	1	16	10
Conemaugh Township	9	12	13	2	1	16	10
Roxbury	10	20	31	2	2	32	10
Geistown	11	60	50	4	2	64	20
Pro MRF	12						
UPJ Main and SU	13	100	32	2	2	32	10
Adams	14	12	16	3	1	24	15
Portage Borough	15	8	11	2	1	16	10
Croyle Townshiop	16	8	10	2	1	16	10
Pro MRF	17						
Lilly Borough	18	8	5	1	1	8	5
Cresson	19	8	13	2	1	16	10
Pro MRF	20						
Barnesboro		8	10				
Cambria County Prison		0	0				
Hastings		8	5				
Loretto		24	13				
Patton		8	12				
Spangler		8	5				
UPJ Main		0	0				
		388	330	31		344	155
[a		Loads	2.75			2.87	1
Minutes of Drive Time							266
Service Time							155
Dump Time							120
Total Minutes to Service All Sites	5						541
Total Hours							9.02

Exhibit 2: OCC Route 2 Map & Directions OCC Rt 2 Directions

166.9 miles; 4 hours, 26 minutes



9:00 AM	0.0 mi	1 Depart SWA HQ [507 Manor Dr, Ebensburg, PA 15931] on Manor Dr (West) for 0.8 mi
9:01 AM	0.8 mi	2 At Eburg Manor [Manor Dr, Ebensburg, PA 15931], stay on Manor Dr (West) for 98 yds
9:01 AM	0.9 mi	Turn LEFT (East) onto Rowena Dr for 0.2 mi
9:02 AM	1.1 mi	Take Ramp (RIGHT) onto US-22 [Admiral Peary Hwy] for 4.6 mi towards US-22 W / Blairsville
9:07 AM	5.7 mi	Turn LEFT (South) onto Camp Ground Rd, then immediately turn LEFT (North-East) onto US-22 [William Penn Hwy] for 0.6 mi
9:09 AM	6.3 mi	3 At Divison Chevy [3885 Admiral Peary Hwy, Ebensburg, PA 15931], stay on US-22 [William Penn Hwy] (East) for 1.2 mi
9:10 AM	7.5 mi	Turn RIGHT (South-East) onto Mini Mall Rd for 0.3 mi
9:11 AM	7.8 mi	Turn RIGHT (South) onto Industrial Park Rd for 0.5 mi
9:13 AM	8.2 mi	4 At Eburg DEP [286 Industrial Park Rd, Ebensburg, PA 15931], return North-West on Industrial Park Rd for 0.5 mi
9:14 AM	8.7 mi	Turn LEFT (West) onto Mini Mall Rd for 0.3 mi
9:16 AM	9.0 mi	Road name changes to Local road(s) for 10 yds
9:16 AM	9.0 mi	Turn LEFT (South-West) onto US-22 [Admiral Peary Hwy] for 4.8 mi
9:22 AM	13.7 mi	Keep RIGHT onto Ramp for 0.1 mi towards PA-271 / Nanty Glo / Mundys Corner
9:22 AM	13.9 mi	Turn RIGHT (South) onto PA-271 [William Penn Ave] for 0.5 mi
9:23 AM	14.3 mi	Turn LEFT (East) onto Pike Rd for 0.1 mi
9:24 AM	14.4 mi	5 At Jackson [513 Pike Rd, Johnstown, PA 15909], return West on Pike Rd for 174 yds
9:24 AM	14.5 mi	Turn RIGHT (North) onto PA-271 [William Penn Ave] for 0.3 mi
9:25 AM	14.9 mi	Take Ramp (RIGHT) onto US-22 [William Penn Hwy] for 10.3 mi towards US-22 E
9:35 AM	25.2 mi	Keep RIGHT onto Ramp for 0.4 mi towards PA-164 / Portage / Munster
9:36 AM	25.6 mi	Turn RIGHT (South) onto PA-164 [Munster Rd] for 5.7 mi
9:44 AM	31.3 mi	Turn RIGHT (West) onto PA-164 [PA-53] for 0.2 mi
9:44 AM	31.5 mi	Turn LEFT (South) onto PA-164 [Main St] for 0.9 mi
9:47 AM	32.4 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
9:47 AM	32.8 mi	6 At Pro MRF, return West on PA-164 [Puritan Rd] for 0.4 mi
9:48 AM	33.2 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
9:50 AM	34.1 mi	Turn LEFT (West) onto PA-53 [Portage St] for 6.3 mi
9:59 AM	40.4 mi	Take Ramp (LEFT) onto US-219 for 7.2 mi towards US-219 S / Johnstown
10:06 AM	47.6 mi	Take Ramp (RIGHT) onto PA-56 [Johnstown Expy] for 5.5 mi towards PA-56 W / Johnstown Expressway
10:12 AM	53.1 mi	Keep STRAIGHT onto PA-403 [PA-56] for 1.9 mi
10:15 AM	54.9 mi	Turn LEFT (West) onto PA-56 [Fairfield Ave] for 0.3 mi
10:15 AM	55.2 mi	Turn LEFT (South) onto D St for 0.2 mi
10:16 AM	55.3 mi	7 At D Street [9 D St, Johnstown, PA 15906], return North on D St for 0.2 mi
10:17 AM	55.5 mi	Turn RIGHT (East) onto PA-56 [Fairfield Ave] for 0.3 mi
10:18 AM	55.8 mi	Turn RIGHT (South-East) onto PA-403 [PA-56] for 1.3 mi
10:20 AM	57.1 mi	Turn LEFT (South-East) onto Washington St for 0.7 mi
10:22 AM	57.8 mi	Turn LEFT (East) onto PA-271 [Clinton St] for 0.3 mi
10:23 AM	58.2 mi	Keep STRAIGHT onto PA-271 for 0.4 mi
10:24 AM	58.5 mi	Keep STRAIGHT onto PA-271 [Maple Ave] for 1.4 mi

10:26 AM	59.9 mi	Turn LEFT (North-East) onto PA-271 [Main St] for 142 yds
10:26 AM	60.0 mi	Turn LEFT (North-West) onto PA-271 [Franklin St] for 0.2 mi
10:27 AM	60.1 mi	8 At East Conemaugh Boro [E RAILROAD St, Johnstown, PA 15909], return South-East on PA-271 [Main St] for 0.2 mi
10:28 AM	60.4 mi	Keep STRAIGHT onto Main St for 131 yds
10:28 AM	60.5 mi	Road name changes to Bridge St for 0.4 mi
10:30 AM	60.9 mi	Road name changes to Truman Blvd for 1.4 mi
10:33 AM	62.2 mi	Turn RIGHT (West) onto Frankstown Rd for 1.0 mi
10:35 AM	63.2 mi	Turn RIGHT (North) onto Janie St for 142 yds
10:35 AM	63.3 mi	9 At Conemaugh Twn [142 Janie St, Johnstown, PA 15902], return South on Janie St for 142 yds
10:36 AM	63.4 mi	Turn RIGHT (West) onto Frankstown Rd for 1.6 mi
10:40 AM	65.0 mi	Keep STRAIGHT onto Frankstown Rd [Main St] for 0.1 mi
10:40 AM	65.1 mi	Turn LEFT (South) onto Adams St for 0.1 mi
10:41 AM	65.2 mi	Turn RIGHT (North-West) onto Bedford St, then immediately turn LEFT (South-West) onto PA-271 [Haynes St] for 0.3 mi
10:42 AM	65.5 mi	Turn LEFT (South) onto PA-403 [Napoleon St] for 0.5 mi
10:44 AM	66.0 mi	Bear RIGHT (South) onto PA-403 [Franklin St] for 0.5 mi
10:45 AM	66.5 mi	Keep STRAIGHT onto Franklin St for 0.9 mi
10:48 AM	67.4 mi	Turn RIGHT (West) onto Derby St for 65 yds
10:48 AM	67.4 mi	10 At Roxbury, return East on Derby St for 65 yds
10:48 AM	67.5 mi	Turn LEFT (North) onto Franklin St for 0.9 mi
10:51 AM	68.4 mi	Keep STRAIGHT onto PA-403 [Franklin St] for 0.5 mi
10:52 AM	68.8 mi	Turn RIGHT (East) onto Hickory St for 0.4 mi
10:54 AM	69.2 mi	Turn RIGHT (South) onto Bedford St for 2.3 mi
10:58 AM	71.6 mi	Bear RIGHT (South-East) onto Bedford St [Scalp Ave] for 0.1 mi
10:59 AM	71.7 mi	Keep RIGHT onto Ramp for 164 yds towards PA-756 E
10:59 AM	71.8 mi	Bear RIGHT (North) onto PA-756 [Bedford St] for 0.1 mi
10:59 AM	71.9 mi	Turn RIGHT to stay on PA-756 [Bedford St] for 109 yds
10:59 AM	72.0 mi	Turn RIGHT (South) onto Lamberd Ave for 0.1 mi
11:00 AM	72.1 mi	11 At Geistown [631 Lamberd Ave, Johnstown, PA 15904], return North on Lamberd Ave for 0.1 mi
11:00 AM	72.2 mi	Turn RIGHT (East) onto PA-756 [Bedford St] for 1.4 mi
11:03 AM	73.6 mi	Keep STRAIGHT onto PA-756 [Elton Rd] for 0.2 mi
11:03 AM	73.9 mi	Take Ramp (LEFT) onto US-219 [PA-56] for 8.1 mi towards US-219 N / PA-56 W / Ebensburg / Johnstown
11:11 AM	81.9 mi	Keep RIGHT onto Ramp for 0.3 mi towards PA-53 N / Portage / South Fork
11:11 AM	82.2 mi	Turn RIGHT (East) onto PA-53 [RAILROAD St] for 6.1 mi
11:20 AM	88.3 mi	Turn RIGHT (South) onto PA-164 [Main St] for 0.9 mi
11:22 AM	89.2 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
11:23 AM	89.6 mi	12 At Pro MRF, return West on PA-164 [Puritan Rd] for 0.4 mi
11:24 AM	90.0 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
11:26 AM	90.9 mi	Turn LEFT (West) onto PA-53 [Portage St] for 6.3 mi

11:35 AM	97.3 mi	Take Ramp (LEFT) onto US-219 for 8.1 mi towards US-219 S / Johnstown
11:43 AM	105.3 mi	Keep RIGHT onto Ramp for 0.2 mi towards PA-756 / Elton / Geistown
11:43 AM	105.6 mi	Turn LEFT (South-East) onto PA-756 [Elton Rd] for 0.1 mi
11:43 AM	105.7 mi	Turn RIGHT (South) onto Theatre Dr for 0.8 mi
11:45 AM	106.5 mi	Turn LEFT (East) onto Schoolhouse Rd for 0.2 mi
11:46 AM	106.7 mi	Turn RIGHT (South) onto Highfield Ave [Highfield St] for 0.6 mi
11:48 AM	107.3 mi	13 At UPJ Main [Highfield Ave, Johnstown, PA 15904], return North on Highfield Ave [Highfield St] for 0.6 mi
11:50 AM	107.8 mi	Turn RIGHT (East) onto Schoolhouse Rd for 1.3 mi
11:54 AM	109.1 mi	Turn RIGHT (East) onto PA-756 [Elton Rd] for 0.9 mi
11:56 AM	110.0 mi	Turn LEFT (North) onto PA-160 [Forest Hills Dr] for 3.2 mi
12:02 PM	113.2 mi	Turn LEFT (North) onto Maxine Dr, then immediately turn RIGHT (East) onto Mary Dr for 0.1 mi
12:03 PM	113.3 mi	14 At Adams [125 Mary Dr, Sidman, PA 15955], return West on Mary Dr for 43 yds
12:03 PM	113.3 mi	Turn LEFT (South) onto Maxine Dr, then immediately turn LEFT (East) onto PA-160 [Forest Hills Dr] for 2.3 mi
12:07 PM	115.6 mi	Turn RIGHT (East) onto PA-160 [PA-869] for 0.2 mi
12:08 PM	115.8 mi	Keep STRAIGHT onto PA-160 [Mill Rd] for 1.2 mi
12:09 PM	117.1 mi	Keep STRAIGHT onto PA-160 [Fairview Ave] for 2.2 mi
12:12 PM	119.3 mi	Turn LEFT (West) onto PA-160 [Fieldstone Ave] for 0.3 mi
12:13 PM	119.6 mi	Turn RIGHT (North) onto PA-160 [Springside Ave] for 1.9 mi
12:16 PM	121.6 mi	Bear LEFT (North) onto PA-160 [Main St] for 0.1 mi
12:16 PM	121.7 mi	Turn RIGHT (East) onto PA-53 [Portage St] for 2.7 mi
12:20 PM	124.4 mi	Turn RIGHT (South) onto PA-164 [Main St] for 0.6 mi
12:22 PM	125.0 mi	Turn LEFT (East) onto Mountain Ave for 142 yds
12:23 PM	125.1 mi	15 At Portage Boro [712 Mountain Ave, Portage, PA 15946], return West on Mountain Ave for 142 yds
12:23 PM	125.2 mi	Turn RIGHT (North) onto PA-164 [Main St] for 0.6 mi
12:25 PM	125.8 mi	Turn LEFT (West) onto PA-53 [Portage St] for 5.2 mi
12:33 PM	131.0 mi	16 At Croyle Twn [1654 RAILROAD St, Summerhill, PA 15958], return East on PA-53 [RAILROAD St] for 5.2 mi
12:40 PM	136.3 mi	Turn RIGHT (South) onto PA-164 [Main St] for 0.9 mi
12:43 PM	137.2 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
12:43 PM	137.6 mi	17 At Pro MRF, return West on PA-164 [Puritan Rd] for 0.4 mi
12:44 PM	138.0 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
12:46 PM	138.9 mi	Turn RIGHT (East) onto PA-164 [PA-53] for 0.2 mi
12:47 PM	139.0 mi	Keep STRAIGHT onto PA-53 [Portage St] for 4.2 mi
12:52 PM	143.3 mi	Turn LEFT (West) onto PA-53 [Cleveland St] for 0.1 mi
12:52 PM	143.4 mi	Turn RIGHT (North) onto PA-53 [Main St] for 2.9 mi
12:56 PM	146.3 mi	Turn LEFT (West) onto Admiral Peary Hwy for 109 yds
12:56 PM	146.4 mi	18 At Cresson [7551 Admiral Peary Hwy, Cresson, PA 16630], return East on Admiral Peary Hwy for 109 yds
12:57 PM	146.5 mi	Turn RIGHT (South) onto PA-53 [W 2nd St] for 2.9 mi

149.4 mi	19 At Lilly [Cleveland St, Lilly, PA 15938], stay on PA-53 [Cleveland St] (East) for 0.1 mi
149.5 mi	Turn RIGHT (South) onto PA-53 [Portage St] for 4.2 mi
153.8 mi	Keep STRAIGHT onto PA-164 [PA-53] for 0.2 mi
153.9 mi	Turn LEFT (South) onto PA-164 [Main St] for 0.9 mi
154.8 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
155.2 mi	20 At Pro MRF, return West on PA-164 [Puritan Rd] for 0.4 mi
155.6 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
156.5 mi	Turn RIGHT (East) onto PA-164 [PA-53] for 0.2 mi
156.7 mi	Turn LEFT (North) onto PA-164 [Munster Rd] for 5.8 mi
162.5 mi	Take Ramp (LEFT) onto US-22 [William Penn Hwy] for 2.8 mi towards US-22 W / Ebensburg
165.3 mi	Keep RIGHT onto Ramp for 0.3 mi towards Ebensburg / Loretto
165.7 mi	Keep RIGHT to stay on Ramp for 174 yds
165.8 mi	Bear RIGHT (West) onto Admiral Peary Hwy for 131 yds
165.8 mi	Road name changes to Rowena Dr for 0.2 mi
166.0 mi	Turn RIGHT (North-East) onto Manor Dr for 0.9 mi
166.9 mi	21 Arrive SWA HQ [507 Manor Dr, Ebensburg, PA 15931]
	149.5 mi 153.8 mi 153.9 mi 154.8 mi 155.2 mi 155.6 mi 156.5 mi 156.7 mi 165.3 mi 165.8 mi 165.8 mi 165.8 mi

Total journey cost	\$18.55
Driving distance	166.9 miles
Trip duration	4 hours, 26 minutes
Driving time	4 hours, 26 minutes
Crow's flight distance between all stops	112.5 miles

Route segment details

From	То	Method	Distance	Driving time
SWA HQ	Eburg Manor	Quickest	0.8 miles	1 minute
Eburg Manor	Divison Chevy	Quickest	5.5 miles	7 minutes
Divison Chevy	Eburg DEP	Quickest	1.9 miles	4 minutes
Eburg DEP	Jackson	Quickest	6.2 miles	10 minutes
Jackson	Pro MRF	Quickest	18.3 miles	23 minutes
Pro MRF	D Street	Quickest	22.6 miles	29 minutes
D Street	East Conemaugh Boro	Quickest	4.8 miles	10 minutes
East Conemaugh Boro	Conemaugh Twn	Quickest	3.2 miles	8 minutes
Conemaugh Twn	Roxbury	Quickest	4.2 miles	12 minutes
Roxbury	Geistown	Quickest	4.7 miles	11 minutes
Geistown	Pro MRF	Quickest	17.5 miles	23 minutes
Pro MRF	UPJ Main	Quickest	17.7 miles	25 minutes
UPJ Main	Adams	Quickest	6.0 miles	14 minutes
Adams	Portage Boro	Quickest	11.8 miles	19 minutes
Portage Boro	Croyle Twn	Quickest	5.9 miles	9 minutes
Croyle Twn	Pro MRF	Quickest	6.5 miles	10 minutes
Pro MRF	Cresson	Quickest	8.8 miles	13 minutes
Cresson	Lilly	Quickest	3.0 miles	4 minutes
Lilly	Pro MRF	Quickest	5.8 miles	8 minutes
Pro MRF	SWA HQ	Quickest	11.7 miles	16 minutes

State/Province	Distance	Driving time
Pennsylvania	166.9 miles	4 hours, 26 minutes

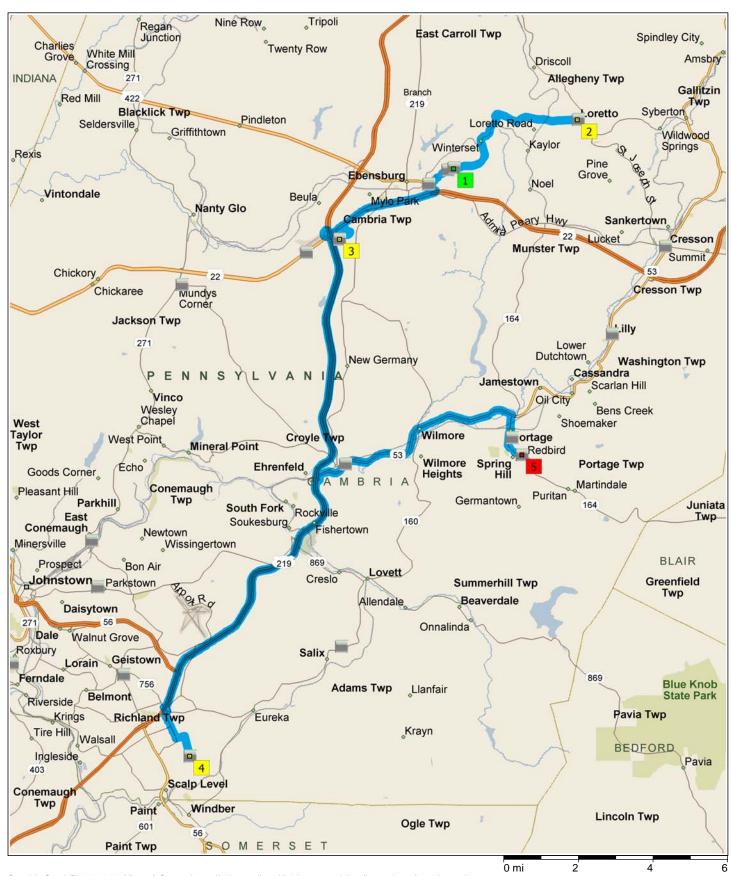
Exhibit 3: Office Paper Collection

		Current	Est Yds		# of		
		Cont	Generate	# of New	Collection	# of New	Minutes
	Collection	Yds/Wk	d per	FL	s per	Yards of	to Service
Site Name	Order	Capacity	Week	Containers	Week	Capacity	Container
SWA HQ	1	0	1.5	1	1	8	5
Loretto	2	8	5	1	1	8	5
Eburg DEP	3	4	3	1	1	8	5
UPJ Main	4	0	4.5	1	1	8	5
Pro MRF	5						
Total		12	14	4	4	32	20
		Loads	0.35				
Minutes of Drive Time							74
Service Time							20
Dump Time							30
Total Minutes to Service All Sites							124
Total Hours to Service All Sites							2.07

Exhibit 4: Office Paper Route Map & Directions

Office Paper Rt Direcctions

49.6 miles; 1 hour, 14 minutes



9:00 AM	0.0 mi	1 Depart SWA HQ [507 Manor Dr, Ebensburg, PA 15931] on Manor Dr (East) for 4.5 mi
9:08 AM	4.5 mi	2 At Loretto [Manor Dr, Loretto, PA 15940], return West on Manor Dr for 5.4 mi
9:17 AM	10.0 mi	Turn LEFT (East) onto Rowena Dr for 0.2 mi
9:18 AM	10.2 mi	Take Ramp (RIGHT) onto US-22 [Admiral Peary Hwy] for 2.8 mi towards US-22 W / Blairsville
9:22 AM	13.0 mi	Turn LEFT (South-East) onto Local road(s) for 10 yds
9:22 AM	13.0 mi	Road name changes to Mini Mall Rd for 0.3 mi
9:23 AM	13.2 mi	Turn RIGHT (South) onto Industrial Park Rd for 0.5 mi
9:25 AM	13.7 mi	3 At Eburg DEP [286 Industrial Park Rd, Ebensburg, PA 15931], return North-West on Industrial Park Rd for 0.5 mi
9:26 AM	14.2 mi	Turn LEFT (West) onto Mini Mall Rd for 0.3 mi
9:28 AM	14.4 mi	Road name changes to Local road(s) for 10 yds
9:28 AM	14.4 mi	Turn LEFT (South-West) onto US-22 [Admiral Peary Hwy] for 0.4 mi
9:29 AM	14.9 mi	Take Ramp (RIGHT) onto US-219 for 15.4 mi towards US-219 S / Johnstown
9:43 AM	30.3 mi	Keep RIGHT onto Ramp for 0.2 mi towards PA-756 / Elton / Geistown
9:43 AM	30.5 mi	Turn LEFT (South-East) onto PA-756 [Elton Rd] for 0.1 mi
9:44 AM	30.6 mi	Turn RIGHT (South) onto Theatre Dr for 0.8 mi
9:46 AM	31.4 mi	Turn LEFT (East) onto Schoolhouse Rd for 0.2 mi
9:47 AM	31.7 mi	Turn RIGHT (South) onto Highfield Ave [Highfield St] for 0.6 mi
9:49 AM	32.2 mi	4 At UPJ Main [Highfield Ave, Johnstown, PA 15904], return North on Highfield Ave [Highfield St] for 0.6 mi
9:50 AM	32.8 mi	Turn LEFT (West) onto Schoolhouse Rd for 0.2 mi
9:52 AM	33.0 mi	Turn RIGHT (North) onto Theatre Dr for 0.8 mi
9:53 AM	33.8 mi	Turn LEFT (North-West) onto PA-756 [Elton Rd], then immediately turn RIGHT (North) onto Ramp for 0.2 mi
9:54 AM	34.0 mi	Merge onto US-219 [PA-56] for 7.9 mi
10:01 AM	41.9 mi	Keep RIGHT onto Ramp for 0.3 mi towards PA-53 N / Portage / South Fork
10:02 AM	42.2 mi	Turn RIGHT (East) onto PA-53 [RAILROAD St] for 6.1 mi
10:10 AM	48.3 mi	Turn RIGHT (South) onto PA-164 [Main St] for 0.9 mi
10:13 AM	49.2 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
10:14 AM	49.6 mi	Arrive Pro MRF [1938 Puritan Rd, Portage, PA 15946]

Total journey cost	\$5.51
Driving distance	49.6 miles
Trip duration	1 hour, 14 minutes
Driving time	1 hour, 14 minutes
Crow's flight distance between all stops	37.2 miles

Route segment details

From	То	Method	Distance	Driving time
SWA HQ	Loretto	Quickest	4.5 miles	8 minutes
Loretto	Eburg DEP	Quickest	9.2 miles	17 minutes
Eburg DEP	UPJ Main	Quickest	18.5 miles	23 minutes
UPJ Main	Pro MRF	Quickest	17.4 miles	24 minutes

State/Province	Distance	Driving time
Pennsylvania	49.6 miles	1 hour, 14 minutes

APPENDIX E

FRIDAY ROUTE: PLASTIC

Exhibit 1: Plastic Collection Sequence Route 2Exhibit 2: Plastic Route 2 Map & Directions



Exhibit 1: Plastic Collection

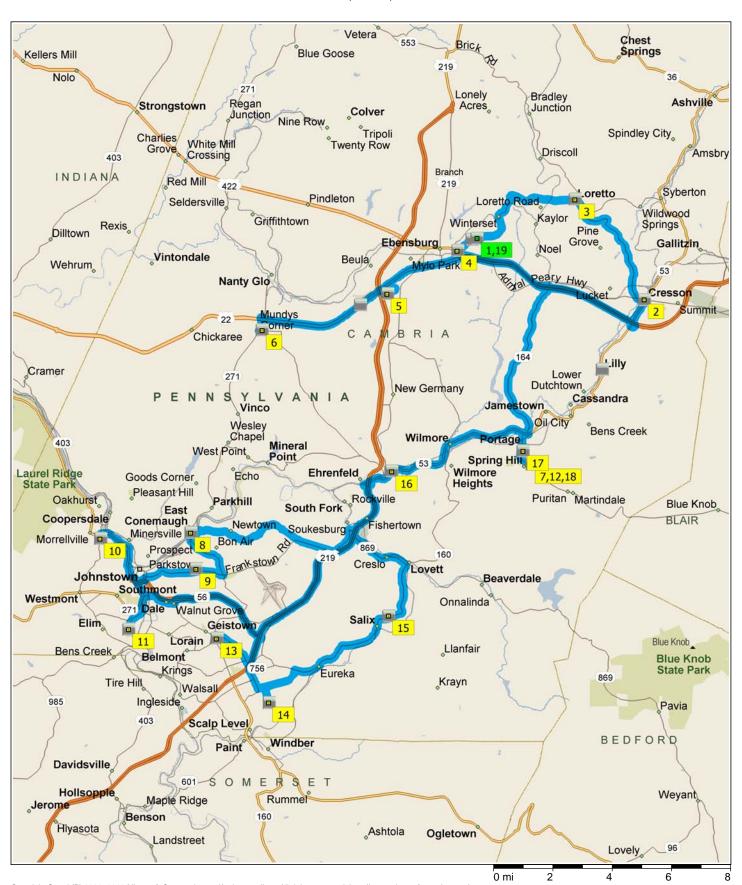
Route 2

		Current Cont	Est Yds		# of	# of New	Minutes to
	Collection	Yds/Wk	Generated	# of New FL		Yards of	Service
Site Name	Order	Capacity	per Week	Containers	per Week	Capacity	Container
SWA HQ	1						
Cresson	2	24	16.5	2	2	32	10
Loretto	3	12	8	1	1	8	5
Eburg Manor Dr.	4	16	19.5	2	2	32	10
Eburg DEP	5	8	7.5	1	1	8	5
Jackson Township	6	24	14	2	1	16	10
Pro MRF	7						
East Conemaugh Borough	8	16	8	1	1	8	5
Conemaugh Township	9	8	5	1	1	8	5
D Street	10	16	12	2	1	16	10
Roxbury	11	24	17	2	2	32	10
Pro MRF	12						
Geistown	13	32	26	2	2	32	10
UPJ Main	14	12	8	1	1	8	5
Adams	15	4	8	1	1	8	5
Croyle Townshiop	16	16	10	2	1	16	10
Portage Borough	17	24	15	2	1	16	10
Pro MRF	18						
SWA HQ	19						
Total		308	223	19		200	110
		Loads	2.79			2.50	
Minutes of Drive Time							253
Service Time							110
Dump Time							60
Total Minutes to Service All Sites							423
Total Hours to Service All Sites							7.05



Exhibit 2: Plastic Route 2 Map & Directions
Plastic Rt 2 Directions

150.9 miles; 4 hours, 13 minutes



9:00 AM	0.0 mi	1 Depart SWA HQ on Manor Dr (West) for 0.9 mi
9:01 AM	0.9 mi	Turn LEFT (East) onto Rowena Dr for 0.2 mi
9:02 AM	1.1 mi	Road name changes to Admiral Peary Hwy for 0.3 mi
9:02 AM	1.4 mi	Take Ramp (LEFT) onto US-22 [Admiral Peary Hwy] for 6.1 mi towards US-22 E / Hollidaysburg
9:08 AM	7.5 mi	Keep RIGHT onto Ramp for 0.3 mi towards PA-53 / Lilly / Cresson
9:08 AM	7.8 mi	Keep RIGHT to stay on Ramp for 54 yds towards PA-53 N / Cresson
9:08 AM	7.8 mi	Bear RIGHT (North) onto PA-53 [W 2nd St] for 1.0 mi
9:10 AM	8.9 mi	Turn LEFT (West) onto Admiral Peary Hwy for 109 yds
9:11 AM	8.9 mi	2 At Cresson [7551 Admiral Peary Hwy, Cresson, PA 16630], stay on Admiral Peary Hwy (West) for 0.2 mi
9:11 AM	9.1 mi	Bear RIGHT (North-West) onto St Joseph St for 65 yds
9:12 AM	9.2 mi	Bear RIGHT (North) onto St Joseph St [Saint Joseph St] for 0.4 mi
9:12 AM	9.6 mi	Keep STRAIGHT onto St Joseph St for 0.1 mi
9:13 AM	9.7 mi	Keep STRAIGHT onto St Joseph St [Saint Joseph St] for 0.5 mi
9:14 AM	10.2 mi	Keep STRAIGHT onto St Joseph St for 0.6 mi
9:15 AM	10.9 mi	Keep STRAIGHT onto St Joseph St [Saint Joseph St] for 1.4 mi
9:17 AM	12.3 mi	Road name changes to Seymour Rd [St Joseph St] for 0.6 mi
9:18 AM	12.9 mi	Road name changes to St Joseph St for 109 yds
9:19 AM	12.9 mi	Road name changes to St Mary St [Saint Mary St] for 0.9 mi
9:22 AM	13.8 mi	Turn LEFT (West) onto Manor Dr for 120 yds
9:22 AM	13.9 mi	3 At Loretto [Manor Dr, Loretto, PA 15940], stay on Manor Dr (West) for 5.4 mi
9:32 AM	19.2 mi	4 At Eburg Manor [Manor Dr, Ebensburg, PA 15931], stay on Manor Dr (West) for 98 yds
9:32 AM	19.3 mi	Turn LEFT (East) onto Rowena Dr for 0.2 mi
9:33 AM	19.5 mi	Take Ramp (RIGHT) onto US-22 [Admiral Peary Hwy] for 2.8 mi towards US-22 W / Blairsville
9:36 AM	22.3 mi	Turn LEFT (South-East) onto Local road(s) for 10 yds
9:37 AM	22.3 mi	Road name changes to Mini Mall Rd for 0.3 mi
9:38 AM	22.6 mi	Turn RIGHT (South) onto Industrial Park Rd for 0.5 mi
9:40 AM	23.0 mi	5 At Eburg DEP [286 Industrial Park Rd, Ebensburg, PA 15931], return North-West on Industrial Park Rd for 0.5 mi
9:41 AM	23.5 mi	Turn LEFT (West) onto Mini Mall Rd for 0.3 mi
9:43 AM	23.8 mi	Road name changes to Local road(s) for 10 yds
9:43 AM	23.8 mi	Turn LEFT (South-West) onto US-22 [Admiral Peary Hwy] for 4.8 mi
9:48 AM	28.5 mi	Keep RIGHT onto Ramp for 0.1 mi towards PA-271 / Nanty Glo / Mundys Corner
9:49 AM	28.7 mi	Turn RIGHT (South) onto PA-271 [William Penn Ave] for 0.5 mi
9:50 AM	29.1 mi	Turn LEFT (East) onto Pike Rd for 0.1 mi
9:51 AM	29.2 mi	6 At Jackson Twn [513 Pike Rd, Johnstown, PA 15909], return West on Pike Rd for 174 yds
9:51 AM	29.3 mi	Turn RIGHT (North) onto PA-271 [William Penn Ave] for 0.3 mi
9:52 AM	29.7 mi	Take Ramp (RIGHT) onto US-22 [William Penn Hwy] for 10.3 mi towards US-22 E
10:02 AM	40.0 mi	Keep RIGHT onto Ramp for 0.4 mi towards PA-164 / Portage / Munster
10:03 AM	40.4 mi	Turn RIGHT (South) onto PA-164 [Munster Rd] for 5.7 mi
10:11 AM	46.1 mi	Turn RIGHT (West) onto PA-164 [PA-53] for 0.2 mi

10:11 AM	46.3 mi	Turn LEFT (South) onto PA-164 [Main St] for 0.9 mi
10:13 AM	47.2 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
10:14 AM	47.6 mi	7 At Pro MRF, return West on PA-164 [Puritan Rd] for 0.4 mi
10:15 AM	48.0 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
10:17 AM	48.9 mi	Turn LEFT (West) onto PA-53 [Portage St] for 6.3 mi
10:26 AM	55.2 mi	Take Ramp (LEFT) onto US-219 for 1.9 mi towards US-219 S / Johnstown
10:28 AM	57.2 mi	Keep RIGHT onto Ramp for 0.2 mi towards PA-869 E / Sidman / St Michael
10:28 AM	57.4 mi	Keep RIGHT to stay on Ramp for 65 yds towards South Fork / Airport
10:28 AM	57.4 mi	Bear RIGHT (North-West) onto PA-869 for 0.2 mi
10:29 AM	57.6 mi	Turn LEFT (South) onto Ragers Hill Rd for 2.1 mi
10:33 AM	59.7 mi	Road name changes to Frankstown Rd for 43 yds
10:33 AM	59.7 mi	Turn RIGHT (North) onto Clapboard Run Rd for 3.8 mi
10:41 AM	63.5 mi	Road name changes to Main St for 0.5 mi
10:42 AM	64.0 mi	Turn RIGHT (North-West) onto PA-271 [Franklin St] for 0.2 mi
10:43 AM	64.1 mi	8 At East Conemaugh Boro [E RAILROAD St, Johnstown, PA 15909], return South-East on PA-271 [Main St] for 0.2 mi
10:44 AM	64.4 mi	Keep STRAIGHT onto Main St for 131 yds
10:44 AM	64.4 mi	Road name changes to Bridge St for 0.4 mi
10:46 AM	64.9 mi	Road name changes to Truman Blvd for 1.4 mi
10:49 AM	66.2 mi	Turn RIGHT (West) onto Frankstown Rd for 1.0 mi
10:51 AM	67.2 mi	Turn RIGHT (North) onto Janie St for 142 yds
10:51 AM	67.3 mi	9 At Conemaugh Twn [142 Janie St, Johnstown, PA 15902], return South on Janie St for 142 yds
10:52 AM	67.4 mi	Turn RIGHT (West) onto Frankstown Rd for 1.6 mi
10:56 AM	69.0 mi	Keep STRAIGHT onto Frankstown Rd [Main St] for 0.1 mi
10:56 AM	69.1 mi	Turn LEFT (South) onto Adams St for 0.1 mi
10:57 AM	69.2 mi	Turn RIGHT (North-West) onto Bedford St, then immediately turn LEFT (South-West) onto PA-271 [Haynes St] for 0.3 mi
10:58 AM	69.5 mi	Turn RIGHT (North) onto PA-403 [Napoleon St] for 2.2 mi
11:02 AM	71.7 mi	Turn LEFT (West) onto PA-56 [Fairfield Ave] for 0.3 mi
11:02 AM	72.0 mi	Turn LEFT (South) onto D St for 0.2 mi
11:03 AM	72.1 mi	10 At D Street [9 D St, Johnstown, PA 15906], return North on D St for 0.2 mi
11:04 AM	72.3 mi	Turn RIGHT (East) onto PA-56 [Fairfield Ave] for 0.3 mi
11:05 AM	72.6 mi	Turn RIGHT (South-East) onto PA-403 [PA-56] for 1.9 mi
11:08 AM	74.4 mi	Turn LEFT (East) onto PA-403 [Napoleon St] for 0.8 mi
11:10 AM	75.3 mi	Bear RIGHT (South) onto PA-403 [Franklin St] for 0.5 mi
11:11 AM	75.7 mi	Keep STRAIGHT onto Franklin St for 0.9 mi
11:13 AM	76.6 mi	Turn RIGHT (West) onto Derby St for 65 yds
11:14 AM	76.7 mi	11 At Roxbury, return East on Derby St for 65 yds
11:14 AM	76.7 mi	Turn LEFT (North) onto Franklin St for 0.9 mi
11:17 AM	77.6 mi	Keep STRAIGHT onto PA-403 [Franklin St] for 0.5 mi
11:18 AM	78.1 mi	Turn RIGHT (East) onto Hickory St for 0.4 mi

11:20 AM	78.5 mi	Turn RIGHT (South) onto Bedford St for 0.7 mi
11:21 AM	79.2 mi	Take Ramp (LEFT) onto PA-56 [Johnstown Expy] for 3.5 mi towards PA-56 E
11:25 AM	82.7 mi	Take Ramp (LEFT) onto US-219 for 7.4 mi towards US-219 N / Ebensburg
11:33 AM	90.1 mi	Keep RIGHT onto Ramp for 0.3 mi towards PA-53 N / Portage / South Fork
11:33 AM	90.4 mi	Turn RIGHT (East) onto PA-53 [RAILROAD St] for 6.1 mi
11:42 AM	96.5 mi	Turn RIGHT (South) onto PA-164 [Main St] for 0.9 mi
11:45 AM	97.4 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
11:45 AM	97.8 mi	12 At Pro MRf, return West on PA-164 [Puritan Rd] for 0.4 mi
11:46 AM	98.2 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
11:48 AM	99.1 mi	Turn LEFT (West) onto PA-53 [Portage St] for 6.3 mi
11:58 AM	105.4 mi	Take Ramp (LEFT) onto US-219 for 8.1 mi towards US-219 S / Johnstown
12:05 PM	113.5 mi	Keep RIGHT onto Ramp for 0.2 mi towards PA-756 / Elton / Geistown
12:05 PM	113.7 mi	Turn RIGHT (North-West) onto PA-756 [Elton Rd] for 0.2 mi
12:06 PM	113.9 mi	Keep STRAIGHT onto PA-756 [Bedford St] for 1.4 mi
12:08 PM	115.3 mi	Turn LEFT (South) onto Lamberd Ave for 0.1 mi
12:09 PM	115.4 mi	13 At Geistown [631 Lamberd Ave, Johnstown, PA 15904], return North on Lamberd Ave for 0.1 mi
12:09 PM	115.5 mi	Turn RIGHT (East) onto PA-756 [Bedford St] for 1.4 mi
12:12 PM	116.9 mi	Keep STRAIGHT onto PA-756 [Elton Rd] for 0.3 mi
12:12 PM	117.2 mi	Turn RIGHT (South) onto Theatre Dr for 0.8 mi
12:14 PM	118.0 mi	Turn LEFT (East) onto Schoolhouse Rd for 0.2 mi
12:15 PM	118.2 mi	Turn RIGHT (South) onto Highfield Ave [Highfield St] for 0.6 mi
12:17 PM	118.8 mi	14 At UPJ Main [Highfield Ave, Johnstown, PA 15904], return North on Highfield Ave [Highfield St] for 0.6 mi
12:19 PM	119.3 mi	Turn RIGHT (East) onto Schoolhouse Rd for 1.3 mi
12:23 PM	120.6 mi	Turn RIGHT (East) onto PA-756 [Elton Rd] for 0.9 mi
12:25 PM	121.5 mi	Turn LEFT (North) onto PA-160 [Forest Hills Dr] for 3.2 mi
12:31 PM	124.7 mi	Turn LEFT (North) onto Maxine Dr, then immediately turn RIGHT (East) onto Mary Dr for 0.1 mi
12:32 PM	124.8 mi	15 At Adams [125 Mary Dr, Sidman, PA 15955], return West on Mary Dr for 43 yds
12:32 PM	124.8 mi	Turn LEFT (South) onto Maxine Dr, then immediately turn LEFT (East) onto PA-160 [Forest Hills Dr] for 2.3 mi
12:37 PM	127.1 mi	Turn LEFT (West) onto PA-869 [Locust St] for 2.1 mi
12:40 PM	129.2 mi	Keep STRAIGHT onto PA-869 for 10 yds
12:40 PM	129.2 mi	Take Ramp (LEFT) onto US-219 for 2.2 mi towards US-219 N / Ebensburg
12:42 PM	131.3 mi	Keep RIGHT onto Ramp for 0.3 mi towards PA-53 N / Portage / South Fork
12:43 PM	131.6 mi	Turn RIGHT (East) onto PA-53 [RAILROAD St] for 0.9 mi
12:44 PM	132.5 mi	16 At Croyle Twn [1654 RAILROAD St, Summerhill, PA 15958], stay on PA-53 [RAILROAD St] (East) for 5.2 mi
12:51 PM	137.7 mi	Turn RIGHT (South) onto PA-164 [Main St] for 0.6 mi
12:53 PM	138.4 mi	Turn LEFT (East) onto Mountain Ave for 142 yds
12:54 PM	138.4 mi	17 At Portage [712 Mountain Ave, Portage, PA 15946], return West on Mountain Ave for 142 yds
12:54 PM	138.5 mi	Turn LEFT (South) onto PA-164 [Main St] for 0.3 mi

12:56 PM	138.8 mi	Keep STRAIGHT onto PA-164 [Puritan Rd] for 0.4 mi
12:56 PM	139.2 mi	18 At Pro MRF [1938 Puritan Rd, Portage, PA 15946], return West on PA-164 [Puritan Rd] for 0.4 mi
12:57 PM	139.6 mi	Keep STRAIGHT onto PA-164 [Main St] for 0.9 mi
12:59 PM	140.5 mi	Turn RIGHT (East) onto PA-164 [PA-53] for 0.2 mi
1:00 PM	140.7 mi	Turn LEFT (North) onto PA-164 [Munster Rd] for 5.8 mi
1:07 PM	146.5 mi	Take Ramp (LEFT) onto US-22 [William Penn Hwy] for 2.8 mi towards US-22 W / Ebensburg
1:10 PM	149.3 mi	Keep RIGHT onto Ramp for 0.3 mi towards Ebensburg / Loretto
1:10 PM	149.6 mi	Keep RIGHT to stay on Ramp for 174 yds
1:10 PM	149.7 mi	Bear RIGHT (West) onto Admiral Peary Hwy for 131 yds
1:11 PM	149.8 mi	Road name changes to Rowena Dr for 0.2 mi
1:11 PM	150.0 mi	Turn RIGHT (North-East) onto Manor Dr for 0.9 mi
1:13 PM	150.9 mi	19 Arrive SWA HQ [507 Manor Dr, Ebensburg, PA 15931]

Total journey cost	\$16.76
Driving distance	150.9 miles
Trip duration	4 hours, 13 minutes
Driving time	4 hours, 13 minutes
Crow's flight distance between all stops	104.2 miles

Route segment details

From	То	Method	Distance	Driving time
SWA HQ	Cresson	Quickest	8.9 miles	11 minutes
Cresson	Loretto	Quickest	5.0 miles	11 minutes
Loretto	Eburg Manor	Quickest	5.4 miles	9 minutes
Eburg Manor	Eburg DEP	Quickest	3.8 miles	7 minutes
Eburg DEP	Jackson Twn	Quickest	6.2 miles	10 minutes
Jackson Twn	Pro MRF	Quickest	18.3 miles	23 minutes
Pro MRF	East Conemaugh Boro	Quickest	16.6 miles	28 minutes
East Conemaugh Boro	Conemaugh Twn	Quickest	3.2 miles	8 minutes
Conemaugh Twn	D Street	Quickest	4.9 miles	11 minutes
D Street	Roxbury	Quickest	4.5 miles	10 minutes
Roxbury	Pro MRf	Quickest	21.1 miles	31 minutes
Pro MRf	Geistown	Quickest	17.6 miles	23 minutes
Geistown	UPJ Main	Quickest	3.4 miles	8 minutes
UPJ Main	Adams	Quickest	6.0 miles	14 minutes
Adams	Croyle Twn	Quickest	7.7 miles	12 minutes
Croyle Twn	Portage	Quickest	5.9 miles	9 minutes
Portage	Pro MRF	Quickest	0.7 miles	2 minutes
Pro MRF	SWA HQ	Quickest	11.7 miles	16 minutes

State/Province	Distance	Driving time
Pennsylvania	150.9 miles	4 hours, 13 minutes

APPENDIX F

MATERIAL GENERATION & CONTAINER QUANTITY

Exhibit 1: Weekly Generation by Site

Exhibit 2: Recommended Collection Containers by Site





Exhibit 1: Weekly Generation by Site

	Bimetal						
	Cans	OCC	Office Paper	ce Paper OMG		PET/HDPE	
Site	(yd³)	(yd³)	(yd³)	(yd³)	(yd³)	(yd³)	Grand Total
Adams	2	16		3.5	6	8	35.5
Barnesboro	2.5	10		3	6	14.5	36
Cambria Prison	2.5						2.5
Conemaugh	2	13		1	6	5	27
Cresson	3	13		1.5	8.5	16.5	42.5
Croyle Twp	2	10		2	6	10	30
D. Street	2	29		3	13.5	12	59.5
Davidson Chev.		7					7
E. Conemaugh	2	11		3	10	8	34
Ebensburg/DEP	5	15	3	3	3	7.5	36.5
Ebensburg/Manor Dr	3	27		3	10.5	19.5	63
Geistown	3	50		4	24	26	107
Hastings	3	5		3	6	7	24
Jackson Twp	3	14		1	12	14	44
Lilly	1.5	5		1.5	1	4	13
Loretto	3.5	13	5	2	6	8	37.5
Patton	3	12		6	6	14	41
Portage	2	11		2	7	15	37
Roxbury	3	31		4	30	17	85
Spangler	2.5	5		3	6	9	25.5
SWA HQ		1	1.5				2.5
UPJ	2		4.5	1	6	8	21.5
UPJ & Student Union		32					32
Total	52.5	330	14	50.5	173.5	223	843.5



Exhibit 2: Recommended Collection Containers by Site

Key: C Currently on site

R Recommended on site

	OC	С	Plas	tic	ON	Р	Bime	etal	ON	IG	Office I	Paper	Add/
Site	С	R	С	R	С	R	С	R	С	R	С	R	Remove (-) from Site
Adams	1	3	1	1	1	1	1	1	1	1	0	0	2
Barnesboro	1	2	2	2	1	1	1	1	1	1	0	0	1
Cambria Prison	0	0	0	0	0	0	1	1	0	0	0	0	0
Conemaugh TWP	1	2	2	1	1	1	1	1	1	1	0	0	0
Cresson	1	2	3	2	1	2	1	1	1	1	0	0	1
Croyle Twp	1	2	2	2	1	1	1	1	1	1	0	0	1
D. Street	1	2	2	2	1	2	1	1	1	1	0	0	2
Davidson Chev.	1	1	0	0	0	0	0	0	0	0	0	0	0
E. Conemaugh	1	2	2	1	1	1	1	1	1	1	0	0	0
Ebensburg/DEP	1	2	1	1	0.5	2	0.5	1	0.5	1	1	1	3.5
Ebensburg/Manor Dr	1	2	2	2	1	2	1	1	1	1	0	0	2
Geistown	3	4	4	2	2	4	1	1	1	1	0	0	1
Hastings	1	1	2	1	1	1	1	1	1	1	0	0	-1
Jackson Twp	1	2	3	2	1	2	1	1	1	1	0	0	1
Lilly	1	1	2	1	1	1	1	1	1	1	0	0	-1
Loretto	3	2	3	1	1	1	1	1	1	1	1	1	-3
Patton	1	2	3	2	1	1	1	1	1	1	0	0	0
Portage	1	2	3	2	1	1	1	1	1	1	0	0	0
Roxbury	1	2	3	2	2	4	1	1	1	1	0	0	2
Spangler	1	1	2	2	1	1	1	1	1	1	0	0	0
SWA HQ	1	1	0	0	0	0	0	0	0	0	1	1	0
UPJ Main	0	0	3	1	1	1	1	1	1	1	1	1	-2
UPJ & Student Union	5	2	0	0	0	0	0	0	0	0	0	0	-3
Total	29	40	45	30	20.5	30	19.5	20	18.5	19	4	4	6.5

