EXECUTIVE SUMMARY

In recent years, the rapid escalation of costs for recycling and refuse collection disposal has acted as a catalyst for changes in solid waste management in Abington Township. We began looking into the feasibility of revamping our current trash and recycling programs with the long range goal of stabilizing the ever increasing costs of trash disposal and providing a more fair and equitable system of collection while building a sustainable recycling program.

We have put together a hybrid variable rate automated collection program wherein the residence pays for the size of their refuse container and also receives automated carts for paper and commingle recyclables.

The new hybrid system rewards the residents for their waste reduction by reducing their refuse collection fee. This new system has enabled Abington Township to achieve a 57% waste diversion rate along with a 32% cost reduction for collection.

The Automated Variable Rate Collection Program coupled with our hedged recycling market paybacks has ensured that our recycling program will remain fully sustainable well into the future.
The Program developed by Abington Township is a Variable Rate Automated Collection System and is a hybrid of successful Pay as You Throw Programs up and running throughout the United States. With the Variable Rate Program trash and recyclables are picked up using automated trucks equipped with robotic arms to collect residential trash and recyclables placed curbside in carts.

Each residence chooses a trash cart (35 gallon), (65 gallon) or (95 gallon) size which was best suited for their needs. The residence have the same size choices for their paper recycle cart and their commingle recycle cart. The residence pays only for the size trash cart they use (the larger the can, the higher the cost). There is no charge for either of the recycling containers.

No changes were made to the already existing programs:

- Bagged leaves/yard waste weekly curbside March through January collection.
- (3) Curbside vacuum loose leaf collections (October through December).
- Large Item Pick up collection and metal collection.

We have also implemented as part of the system and at no additional cost to the residence a twice yearly township wide clean out week wherein each residence can clean up the inside and outside of their home, separate all recyclables and then put out as much normal household trash as they want (no large items, E-Waste, Hazardous waste or construction material is accepted). An additional paper pick up between Christmas and New Year’s has also been added along with a Hazardous Waste Collection. An E-cycle Collection is done through local businesses.

The program also has the versatility of offering various size additional trash carts to those household’s that generate in excess of the 95 gallon cart. The residence pays a fee for an additional trash cart. The residence that has excess trash may purchase Township sold blue bags for a small fee. To date the requests for blue bags and extra cans have been minimal.

The merits of the system include the obvious benefits of equity, economic incentive to reduce costs, reduced solid waste tonnage, recycling increases, extended landfill capacity and conservation of natural resources.

Abington Township had and continues to maintain a lucrative paper recycling program. All paper collected in Abington Township is processed through Newman Paper Company. The present contract between Abington Township and Newman Paper Company continues to provide the township with a profitable income for each ton of paper processed at the plant and with the new program there was no need to go to single stream collection and lose the revenue for our paper recycling.
The new system has enhanced residents’ convenience, provided the residents with a financial incentive to maximize waste diversion, minimized the number of solid waste trucks required to provide solid waste collection and recycling services, and utilizes state-of-the-art equipment to reduce worker injuries, maximize productivity, and minimize greenhouse gas and particulate emissions.

The appearance of our neighborhood is much improved with the new program.

The most innovative and unique aspect of the system is that Abington Township made the Refuse Department budget into an enterprise fund wherein all revenue and costs come from one budget and in which all profits are carried from year to year. The money that is saved is returned to the residents in lower refuse fees each year.

There has been no downside to our enterprise fund. It leaves plenty of room to fund all of our recycling programs. Good planning and forward-thinking analysis has helped us identify and avoid any potential conflicts.

Future economics include:

1. Equitable system of trash disposal.
2. Ability to hedge increasing costs for trash disposal while simultaneously reducing the homeowners’ cost for trash disposal.
3. Resident now has the ability to control what they pay.
4. The pricing structure is also very flexible and can easily be adjusted to meet future social, economic and environmental goals.
5. The increase in recycling and the decline in trash tonnages have cut our costs dramatically.
6. The program has provided a more equitable system and has allowed us to stabilize our costs long term.
7. There is improved workers’ safety hence a reduction in injuries.
The Variable Rate Automated Collection Program has also provided us with many other options to further refine our collection, i.e. single stream pickup, dual stream pickup in the same container and bi-weekly collection. The manner in which we do the collection will be determined by the recycling market and demand.

In January 2008 the automated phase of the program was fully implemented. These results alone make Abington’s system so much different from the rest in that they far exceed all expectations for recycling volume increases as well as decreases in trash tonnages. Prior to implementing the program our diversion rate was 42%. As of January 2008 we are at a 57% diversion rate. By the end of 2009 we expect to be at a 60% diversion rate.

We trust Abington Township now has a fully automated variable rate trash and recycling program which demonstrates that sustainability in recycling programs can become a reality for all communities!
ENVIRONMENTAL CONTROLS & REGULATORY COMPLIANCE

A major objective of Abington Township’s Variable Rate Collection Program is to encourage an awareness of developing sustainable waste disposal and recycling technology.

The Variable Rate Automated Collection is a state of the art program which is aiding us in managing our environmental and health safety matters and has brought us into close compliance with Act 101. The new program has resulted in both business and environmental benefits, including:

- Improved environmental performance;
- Enhanced compliance with regulations;
- Pollution prevention and conservation of resources;
- Reduced / mitigated risks;
- Correction of conditions that hinder sustainable environments;
- Increased operating efficiency / reduced costs;
- Improved employee awareness of environmental issues and responsibilities;
- Better communication within the organization and with the public.

The overall impact of the program on human health, environmental quality and resource conservation are as follows:

Human Health – with the automated system workers no longer have to lift and throw tons of trash into a trash truck. There is less risk for needle or stick cuts, bruises and back sprains. The workers no longer are forced to slog through the rain and cold. Manual collection was a rough and dirty job and often led to injuries from lifting heavy loads along with many vehicle-related accidents.

The automated collection program has reduced the number of accidents, lowering workers’ injuries and workers’ compensation claims, and has decreased insurance costs.

Environment:

- There is less trash going to landfills therefore less possibility of contaminants in the waste stream.
- Containers with attached lids have kept trash and litter from escaping into streets and storm drains and prevented vermin from scavenging.
- Increased recycling has reduced the use of virgin materials thus impacting our entire environment.
Natural Resources:

The Automated Variable Rate Collection Program now has widespread acceptance and we are finding that even though the residents are recycling more, the carts themselves are larger and an increasing number of residents are waiting until their carts are full before placing them curbside for collection. This has led to a conservation of natural resources as there is less starting and stopping of the truck therefore less power usage.

The decline in trash tonnages and increase in recycling tonnages conserve natural resources such as timber, water and minerals.

We are also finding that our dedicated trash crews spend less time collecting and therefore spend more of their time in other areas such as improving trash collection in public areas.

Abington Township has been at the forefront of recycling since the early 70’s. The Township’s grassroots efforts are designed to benefit everyone. Abington Township was the first community in Pennsylvania to offer curbside recycling of junk mail and magazines. The diversion of these heavy materials from costly disposal in landfills saved the Township valuable tax dollars.

The volume of waste does not go unnoticed by our environmentally responsible township residents. They have come to expect an efficient recycling and solid waste collection process. For them, less is more. Less trash and disposables means green benefits for residents.

The new program has encouraged our residents to find other ways of disposing of materials they no longer use. Many of the unwanted items are donated to charity or have even been showing up on Craig’s List and E-Bay.

The Township’s Refuse & Recycling initiative will benefit Abington Township by saving many tax dollars, dramatically increasing residential recycling and reducing Abington Township’s carbon footprint by hundreds of tons each year.

The Variable Rate Automated Collection in Abington Township is helping the world shift from consumption to sustainability.

All of Abington Township’s sites are in environmental compliance with the Department of Environmental Protection guidelines. All of our facilities are fully permitted by appropriate governmental authorities.
Abington Township facilities have received numerous awards including:

Pennsylvania Department of Environmental Protection Specialist, Mary Alice Reese has inspected our facilities numerous times and during all of these inspections found that Abington’s facilities were operating in compliance with all of the Department’s Guidelines.

Yet another award was bestowed on Abington Township by “Money Magazine” when it announced this month that Abington is among the 100 Best Places to Live in America. This extensive study by “Money” is based on such things as safety, air quality, educational facilities, taxes, housing, jobs, arts and leisure activities, and medical care. Abington is the only community in Pennsylvania to receive this honor.

This is not the type of recognition that must be applied for. “Money” found Abington on its own. You may recall that Abington was also recognized in another study as one of the 100 Best Communities for Young People. Awards like these benefit all Abington residents by attracting new residents, boosting real estate values and providing incentives for us all to do our part in keeping a great community great.

It is Abington Township’s Policy to conduct all business activities in a manner that protects the natural environment and the health and safety of our residents.

Our commitment to environmental compliance is at the core of everything we do. We take our responsibilities to you, our people, and the environment very seriously. That’s why we have our own Environmental Committee to ensure that our operations surpass all federal, state, and local rules and regulations.

Abington Township has established a system of performance measures to demonstrate achievement of environmental, health and safety objectives. We review results on an annual basis, and identify opportunities to improve environmental performance and to further reduce health and safety risks. Implementation of this policy is a primary responsibility of all employees.

The Variable Rate Collection Program integrates very well and is very complimentary to other local solid waste management systems.
PROGRAM PLANNING

Seven years ago we began looking into a diversified refuse and recycling program that would offer stable revenue to cover the cost of trash and recycling services, while at the same time provide environmental sustainability by effectively promoting waste reduction and be economically fair to all residents.

At the onset Abington Township had a flat rate fee for refuse collection. If a household put out one bag of trash each week for pick up, that household was charged $269 per year. By the same token were a neighboring household to put out 9 or 10 bags of trash each week for pick up, that household was charged the same fee per year for refuse collection.

As you can see with a flat rate fee there is no incentive to reduce waste or recycle. A residence that recycles paid the same amount for trash removal as a residence that did not.

The time had come to question if it is really fair that those residents who recycle and prevent waste to continue to subsidize their neighbors' wastefulness.

Three years ago a new hybrid Variable Rate Automated Collection Program was presented to the Abington Township Board of Commissioners and residents.

Based on extensive research as preparation is paramount, Abington Township developed a pilot program that fit into the existing infrastructure of Abington Township’s collection system. We evaluated a variety of PAYT program approaches in an attempt to find one that would best meet the objectives of the township. We incorporated other collection program changes into the pilot plan for comparison such as automated collection of recyclables in carts and alternating the collection frequency.

To make costs more equitable for its residents’ Abington Township decided to try out a variable rate collection system. A variable rate collection enables residents to reduce their disposal costs by providing an incentive to reduce waste and recycle as much as possible. The program would reward a residence who diligently recycled everything they could thereby reducing their trash volumes.

With a variable rate collection, the household pays for the size of the trash container that they choose to put out each week for collection i.e. a larger size container of trash would cost more then a medium or smaller size container. In conjunction with that proposal, we simultaneously converted to automated trucks for collection of trash and recyclables.
Pilot Program

Outreach and education prior to the pilot program was essential. We began by sending out an invitation to each residence in the pilot program asking them to attend a meeting and view a presentation on what to expect with the new program.

What we did in the pilot program was to do a full variable rate trash collection analysis using four pilot areas to do it in. We compared fully automated trash and recycling collection to traditional methods. The areas were chosen because they represented a true cross section of the entire township. Each pilot area was unique thus enabling us to assess several collection scenarios and compare each to determine the key evaluating points of waste reduction, manpower reduction and increased recycling.

We have 18,300 households in Abington Township and in our pilot program we used four areas of an approximate average of 500 residences in each.

In Area #1 we gave each residence a variable size container for trash and (2) two 35 gallon containers for recyclables (one for paper and one for commingle materials). All cans were collected in an automated manner.

Area #2 received the same trash containers as Area #1 but had (1) one 64 gallon container which in the beginning of the pilot program was for paper only and later used as a single stream container.

Area #3 received the variable size trash containers using automated trucks and the recycling method was standard collection method with no automated trucks involved.

Area #4 was the last area where we collected trash and recyclable with no automated trucks, no changes at all.

We had been monitoring our trash and recycling collections for the past several years and had set up a program for tonnage comparisons as the pilot program progressed. We compared each program to monitor how the trash generated decreased and subsequently increased the recyclables. We did a cost analysis in each area to determine the increased revenue from trash diversion and the sale of the extra recycled materials. We also tracked our manpower and vehicle costs to determine which method of collection was the most efficient and cost effective.

As the program moved forward we did variations of the programs, for example, one week paper would be collected and the following week the commingled recyclables would be collected. This helped us determine how alternating week collection affects the programs cost savings and revenue generated. We also conducted a residential survey to evaluate customer response to the various pilot program scenarios. You will see in the following charts, that the pilot projects were quite successful.
First Quarter Trash Ton Comparison
Pilot Area

2004 - 2005 - 2006
January thru April
Trash Comparison

2006
310 Tons

2005
402.5 Tons

2004
473 Tons

Average Precipitation
2006 - 2.6”  2005 - 3.6”  2004 - .9”

First Quarter Commingle Ton Comparison
Pilot Area

2004 - 2005 - 2006
January thru April
Commingle Ton Comparison

2006
73.44 Tons

2005
56.5 Tons

2004
57.5 Tons

Average Precipitation
2006 - 2.6”  2005 - 3.6”  2004 - .9”

During the same period the amount of commingle recycling taken out of waste stream and put into recycle collection increased by 29%.
First Quarter Paper Ton Comparison
Pilot Area

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2005</th>
<th>2004</th>
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<tbody>
<tr>
<td></td>
<td>122.1 Tons</td>
<td>99.3 Tons</td>
<td>114.5 Tons</td>
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Average Precipitation 2006 - 2.6"  2005 - 3.6"  2004 - .9"

During the same time period the amount of paper taken out of waste stream and put into recycle collection increased by 28%.

Thus the decision to move forward was made and we embarked on an education blitz throughout the township to inform the residents of the benefits of the proposed hybrid automated variable rate / pay as you throw program.

We decided to progress with the program in phases so that we would be able to individually educate the residents, do can exchanges so that each resident had the proper size containers and solve any logistic problems that were encountered.

We held 24 town meetings throughout our wards, as well as many talks at libraries, luncheons, group meetings, etc. We had several direct mailings as well as four newsletters a year. We also advertised the new program on our website, public access channel as well as in the newspapers.

In January 2007, the new automated system of refuse and recycling collection was begun. This system is one of the most advanced systems in use today. Over a period of several months, each home received a 95-gallon green wheeled cart that would be used in place of current garbage cans. Cart colors were designed and then the carts were assigned to an address by a serial number that was hot stamped on the cart. Collection in the wheeled carts began on the residence first regular garbage collection day the week following delivery of cans. Residents were given instructions on how and where to place the carts.
Residents rolled the cart to the curb on their garbage collection days and placed it in the correct position for the automated collection vehicle. The automated collection vehicle features advanced technology. The robotic arm picks up the cart and empties the contents into the compaction compartment. The arm then sets the cart back in its original spot, ready for the resident to roll it back in.

Transition from the current method of collection to the automated system continued throughout the year. There was no interruption of service during this transition.

Again during 2007 over a period of several months, each home received a blue 35-gallon wheeled cart that would be used in place of their current commingle recycling can. This can was used for the residents #1 and #2 plastic, glass, aluminum and tin cans.

Shortly thereafter residents received a 65 gallon gray paper/junk mail recycling cart. In this cart residents were instructed to place newspaper/inserts, books, hardback with covers, and soft back, magazines, catalogs, phone books, office paper, brown paper bags, junk mail, advertisements, paperboard, cereal, shoe boxes, etc. corrugated cardboard, six or twelve pack soda carton carriers, gift wrap, manila file folders, paper plates, paper towels, and all other paper products.

As was done with the trash carts, the residents were instructed to roll the cart to the curb on the designated collection days and place it in the correct position for pick up by the automated truck.

Residents were requested to use the size carts they received for a short period and in the event they found that the size did not work for them, they were instructed to call us and the township exchanged the cart for an appropriately sized collection cart for their household.

In January of 2008 the automated phase of the program was fully implemented. The results far exceeded our expectations. The recycling volumes increased and there was a huge decline in our trash tonnage.

Prior to our implementing the program our diversion rate was 42%. Our preliminary tonnages for the year to date project that by the end of 2009 we will be at a diversion rate of 60%.

We have implemented the variable rate part of the program in 2009 and found that we were able to reduce the cost to the residents based upon the size of the recepticle that they are using for trash. The reduction for a resident using a 35 gallon recepticle for trash is $69 less than the $269 they paid in 2008, the 65 gallon container $41 less and the 95 gallon container $14 less that the 2008 assessment.
We have implemented as part of the program two yearly township wide cleanups where the residents can clean up the inside and outside of their homes, separate all recyclables and place everything with the exception of large items curbside for pick up at no additional cost to them. E-Waste materials and hazardous waste will not be accepted. We also are working with many private and non-profit groups to clean up other facilities, ie parks, wooded areas and the like.

We have also implemented the blue bag program for any excess trash that is generated above the size container that the resident has opted for use at their home. If a resident feels they need an additional refuse can, there is also a charge for that.

There is very little downtime associated with the program as several of our older trucks were converted to semi-automated trucks in the event there was a problem with any of the fully automated trucks.
PERFORMANCE, ECONOMICS AND COST EFFECTIVENESS

Abington Township’s Variable Rate Automated Collection system requires fewer trucks and employees to accomplish more work.

Old Collection System:

Weekly Refuse Collection
- (4) day week (Tuesday to Friday) (3) men on each truck
- (8) trucks per day – (24) employees used

Weekly Recycling Collection
- (4) day week (Tuesday to Friday)
- (2) Men on each recycling truck
- (4) to (5) trucks per day (8) to (10) employees used
- (2) yard waste trucks
- (33) to (36) employees used for paper collection (Monday)

Variable Rate Automated Collection System:

Weekly Refuse Collection
- (4) day week (Tuesday to Friday)
- (8) Automated trucks – (9) total employees used

Weekly Recycling Collection
- (4) day week (Tuesday to Friday)
- (4) Automated recycling trucks – (1) man on each truck
- (2) Yard waste recycling trucks
- (22) to (24) employees used for paper collection (Monday)

Abington Township has successfully reduced surplus collection personnel through attrition and transfers to other township departments.

Abington Township provides a comprehensive collection, disposal and recycling service to the residents of Abington Township at the most inexpensive cost possible. Our employees supply a dependable, expedient and courteous collection of trash and recyclables to over 18,000 residences on a weekly basis. We also collect trash and recyclables at more than 150 commercial customers per week.

The automated collection has increased the ratio of homes served per worker hour by up to three times when compared to that of manual collection. That translates into fewer workers needed to provide service for the same number of households. There is also the time saved as the packer design continuously sweeps the hopper, eliminating the need to stop and pack the load.
The following collections take place in the township each week:

- Paper collection includes newspapers, phone books, junk mail, hardcover books, paper, flattened cardboard, magazines, paper plates and towels, all paper products.
- Commingle collection which consists of clear and colored glass, #1 and #2 plastic, aluminum and metal cans.
- A separate truck collects bagged leaves March through January. We also collect brush and tree limbs.
- Each residence receives a vacuum leaf collection three times a year.
- Support neighborhood events and cleanup programs.

**Residential Service:**

- Resident service is uppermost on our list.
- We have only experienced employees who possess significant waste management and recycling education.
- The majority of our employees are certified by the Professional Recyclers of Pennsylvania.
- Each telephone inquiry or concern is answered or dealt with immediately.
- Our telephones are manned by human beings from 7:00 AM Monday mornings through 4:30 PM Friday afternoon.
- All of our employees work at making each of our programs the best that it can be.
- Abington Township is aware that different residents have different needs therefore we are very flexible when various situations arise.
- Abington Township employees are very aware that a good relationship is essential and continue to foster such relationships with all residents as well as other departments within the township.
- The Department is continually responding to requests for additional and change to the size of the carts and providing options to meet the needs of all residents in the Township. This includes the senior citizen, the handicapped or anyone else with a special need.
- Each resident is now part of the ownership through the development of our enterprise fund. The more they recycle and reduce their trash volumes the less they pay as all savings are kept in the fund and cannot be used for anything else.

Abington Township operates well within its budget. Every year a comparative analysis of the local municipalities for pricing is performed. This analysis shows that Abington Township is the only entity collecting trash and recycling “In House” that charges residents 100% of total expenditures including all peripheral costs to the refuse and complementary recycling programs.
A nearby township which is approximately Abington’s size with a comparable population and which charges a variable rate similar to ours, refuse and recycling fees ranges from $200 to $330 per year and that figure represents only 65% of the total outlay of the program. The community to which I make reference has now embarked on a program which will closely emulate our variable rate automated collection.

A much smaller community in close proximity to Abington has a fee of $300. Other neighboring communities that have private haulers charges range between $340 and $470 per year for refuse and recycling collection.

The economics of our refuse and recycling collection system far exceed those found in the industry. This new technology had drastically reduced all of our costs. There are also considerable economic benefits achieved because there has been a marked reduction in on-the-job injuries among our employees.

This diversified program provides stable revenue to cover the cost of trash and recycling services, while at the same time providing environmental sustainability by effectively promoting waste reduction and being economically fair to all residents.

The Variable Rate Automated Collection has provided incentives for increased recycling and cost savings through a rise in the diversion rate to the trash to steam plant. There has been an increase in the amount of revenue received from the sale of the recyclables as well as through the cost savings from the manpower reduction.

The system is providing a direct economic payback to residents. Residents are more aware of what they can do and Abington Township has given them control over what they pay as a refuse fee by making the Refuse Department an enterprise fund. The new system has created a financial incentive for residents to maximize their participation, not only in recycling but also in other waste reduction activities such as source reduction, reuse, recycling and composting.

1. The Program has provided a more equitable system and has allowed us to stabilize our costs long term.
2. Improved workers’ safety.
3. Reduced injuries.
4. Opened up opportunities for further refinement of the program.
5. Improved neighborhood aesthetics.

By the end of 2009 we anticipate being at a diversion rate of 60%. We believe Abington Township now has a fully automated variable rate trash and recycling program which will demonstrate that sustainability in recycling programs can become a reality for all communities.

As you can see in the below graph what makes this system **different from the rest** is that by creating this hybrid variable rate automated collection system, along with the various unique aspects of the program, Abington Township has been able to drastically decrease the cost of the residents’ refuse fee.
Had Abington Township not implemented the hybrid variable rate automated collection program, the cost to the residents for refuse fee pick up in 2009 would have escalated to **$297 per household** as opposed to the fee of $252 (95 gallon size) cart, $235 (65 gallon size) cart and $200 (35 gallon size) cart. It is anticipated that the fees will remain the same in 2010 as opposed to the $309 calculated fee had the program not been implemented.

**Comparison of Refuse Fee**  
Cost to Abington Residents’ in 2009 and 2010 had the Township not switched to the Variable Rate Automated Collection.

With today’s economy this program has become a powerful incentive to all of Abington Township’s residents in particular the senior citizen and those on a fixed income.

The system was designed and is operated to generate revenues which far exceed all expectations.

All costs associated with the program come from the enterprise fund and no money comes from property revenue. Because of the new program we now have lower insurance costs, reduced overtime expense and less fuel consumed in comparison to the manual collection. The result of the variable automated collection has been the establishment of waste reduction programs that define excellence by providing innovative, cost-effective and efficient solutions to waste management challenges.
The type of equipment being utilized is:

Automated Collection Vehicles

The refuse truck is equipped with a lifting mechanism which will lift, empty and return the cart to the same location. The operator never has to leave the cab. He is able to control the entire operation from his/her seat. The entire process takes about 10 seconds to complete. After collection, the resident rolls the durable, weather resistant container back to its storage place.

Fully automated collection equipment offers many benefits, including:

- Labor demands being significantly reduced – fully automated vehicles are operated by one person crews;
- Operators fatigue is minimized;
- Greater diversity is possible in hiring drivers (physical lifting capability is not a requirement);
- Worker comfort is increased – drivers rarely need to leave the cab, which reduces exposure to the weather and strain associated with entering and exiting the cab;
- Worker safety is enhanced:
- Manual lifting is eliminated;
- Worker’s Compensation claims decrease.
Detail efficiency and effectiveness of equipment

- Abington Township provides the carts at no cost to residents; no more trash cans to buy.
- The carts are maneuverable and easy to roll. Carts feature large wheels and do not need to be picked up and carried.
- When putting out their trash, residents only have to wheel out a single trash container each week.
- Snug fitting lids are attached to the cart so they won’t blow off or get lost.
- Litter, odors, animal and fly problems are greatly reduced.
- Carts are stable and will withstand winds of 35 mph.
- Carts have a smooth interior for ease of cleaning.
- Carts are uniform, attractive and contribute to a tidy neighborhood appearance on collection day.
- Carts provide greater flexibility to our residents.
- Residents may select the size of trash and recycling containers that best fit their trash and recycling needs, whether 35 gallon, 65 gallon or 95 gallon.
- The automated containers are more durable, and reduce the likelihood of tipping or spilling.
- Because they are uniform in appearance, they also help neighborhoods look neater and cleaner.
WORKER HEALTH AND SAFETY

All of our mechanics receive intensive training on the mechanical mechanisms of the automated trucks and how to service them. Our vehicle maintenance people are highly skilled technicians using state-of-the-art diagnostic equipment to trouble-shoot electronic and computer system problems.

Not only our mechanics but also all operators of the automated trucks are trained on how to operate the truck. Our operators are familiarized with all features available on the truck. They have gained knowledge of all pre-trip procedures, productivity tips, payload optimization and important safety awareness.

All of our operators go through an extensive training program which included practical, hands-on experience. The training curriculums were tailored to Abington Township’s specific needs. The men have a refresher course every 6 months.

Safety:
- All employees must wear safety equipment at all times. This includes highly visible colored clothing, slip-resistant footwear and protective eyewear such as goggles and sturdy working gloves.
- All Abington Township drivers and collectors receive safety and defensive driving training.
- All of our workers are kept be up to date on their tetanus shots (one every 10 years); they also are asked to consider a Hepatitis B vaccine on the advice of their physician.
- Our vehicles are also equipped with sensor technology which triggers an alarm if a person or object is in the path of a backing vehicle.
- They are taught to protect their back and muscles at work. Lift with their legs and not their back. Maintain neutral postures by keeping their back straight, their head forward, and their arms and legs close to their body. They are taught to avoid awkward postures and know their lifting limits.
- Employees are instructed to use extreme caution when backing up and always keep workers on foot in line of vision. If visual contact is lost, drivers must stop the vehicle immediately. Backing up a vehicle is to be done only as a last recourse and with the help of another employee or supervisor. Those helping are taught to always be where the driver can see and hear him.

With the Automated Variable Rate Collection Program operators no longer lift material to load into trucks and they make fewer trips in and out of their vehicles. Automated collection has significantly reduced on the job injuries and associated workers’ compensation costs. Abington Township has seen decreases in injuries and workers’ compensation from (33) injuries in 2006, (22) injuries in 2007 to just (8) injuries in 2008. It has also seen a tremendous decrease in its lost time claims.

Keep in mind that in addition to the direct medical costs of worker’s compensation, prior to the implementation of the automated collection injuries deprived the Refuse Division of workers due to the time lost recovering from injuries.
PUBLIC ACCEPTANCE, APPEARANCE AND AESTHETICS

Appearance of the carts:

The carts are durable and efficient. They are available in 35, 65 and 95 gallon sizes, for our curbside trash and recycling program. The special weather-resistant carts roll easily even with heavy loads. The continuous one-piece handle provides a strong gripping area and the wide wheelbase makes maneuvering easy.

The carts are flexible, yet hold their shape. A reinforced top lip adds strength and rigidity as does the double drag rail and reinforced bottom. The specially designed wide ground-hugging base helps keep these carts upright and stable so that there are fewer cans in the street on excessively windy days.

The cart has been stamped with a serial number for identification purposes and is assigned to a single household address. The cart has “Property of Abington Township” embedded on the lid and is maintained by the township. If a cart is damaged through no fault of the homeowner the township replaces the cart. The carts have a ten year warranty.

The carts can be periodically washed out with regular soap and water to reduce odors. Sprinkling ammonia into the can will also reduce odors and pests.

Residents report the carts reduce litter and improve the appearance of their neighborhoods.

Appearance of the Vehicles:

Automated Vehicles - the mechanical arm is connected to the side of the truck and collects specially designed carts at the curb. This truck requires only one person to operate as the driver controls everything from the cab of the truck. The driver directs the mechanical arm to reach out to grasp and lift the cart. He retracts and dumps the carts contents into the hopper, and then returns the cart to its original location.

The automated truck has a refined appearance and a fully sealed truck body. The sealed door of the truck body is able to prevent any sewage from leaking during transporting so that secondary pollution is avoided. The imported hydraulic units are of the best quality with relationship to convenience and reliability.
Maintained for Cleanliness:
Abington’s Vehicle Maintenance Department provides maintenance to the township vehicles in an efficient and timely manner. They are responsible for the scheduling and performance of routine maintenance and major and minor repairs to the automated trucks. The vehicles are washed and the interiors cleaned on a daily or weekly schedule depending on their use. All equipment is replaced or refurbished as necessary.

Public relations measures and public education information:
Our residents are very well educated. We use the community newsletter to inform them of all that is happening. We frequently give presentations to the schools and various community groups. We have tours and open houses at all of our facilities.

Abington’s representatives are frequently guest speakers at public meeting to discuss the entire variable rate automated collection program. The boy and girl scouts as well as the school children frequently tour all of our facilities.

The yearly calendar includes educational material on the leaf and yard waste collection as well as an additional calendar page with information concerning the hybrid variable rate automated collection program. Each monthly page in the calendar shows what materials are collected and additional information concerning many of our other programs. A brochure is available at all of the township facilities.

Good neighbor:

Our driveway and roads provide safe and efficient truck access and movement. The yard where the trucks are kept is enclosed with fencing and gates which restrict unauthorized entry. The site is surrounded by trees concealing any unappealing equipment to anyone outside the facility enclosure. These trees give the impression of a private park. We have signage at the entrance and exit of the site which lists the contact names and emergency telephone numbers.