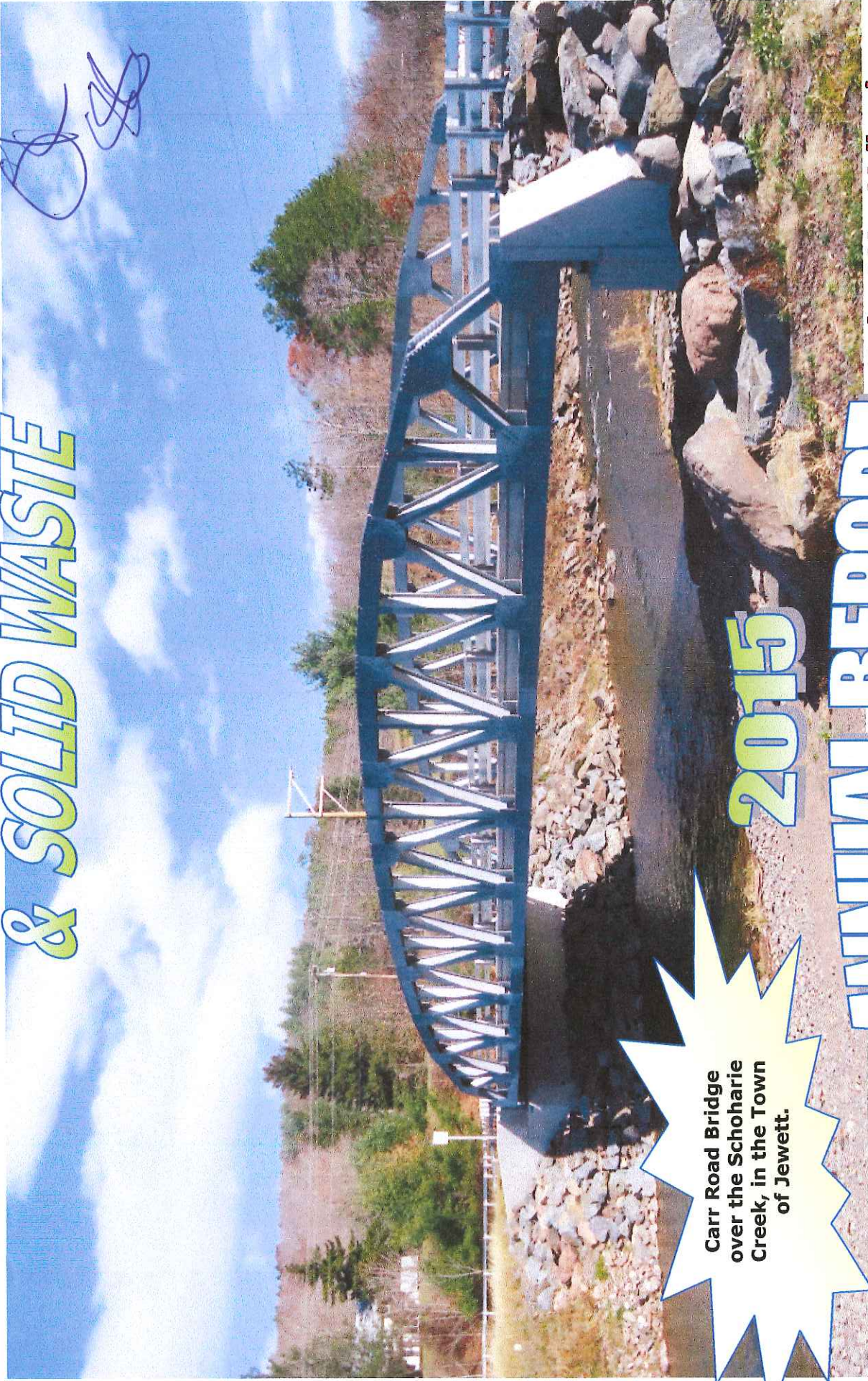


# GREENE COUNTY HIGHWAY DEPARTMENT & SOLID WASTE

*[Handwritten signature]*



Carr Road Bridge  
over the Schoharie  
Creek, in the Town  
of Jewett.

2015

# ANNUAL REPORT

**Gary R. Harvey L.S.**  
Superintendent

**Robert Van Valkenburg**  
Deputy Superintendent

APR 05 2016  
Greene Co. Legislature



# TABLE OF CONTENTS

SUMMARY SUBMITTAL LETTER.....	GARY R. HARVEY L.S ~ SUPERINTENDENT.
SOLID WASTE SUMMARY SUBMITTAL LETTER.....	ROBERT VAN VALKENBURG ~ DEPUTY SUPERINTENDENT
MISSION STATEMENTS.....	GARY R. HARVEY L.S. AND ROBERT VAN VALKENBURG
ORGANIZATIONAL FLOW CHART	
CLASSIFICATION OF HIGHWAYS	
HIGHWAYS IN GREENE COUNTY	
PAVEMENT CONDITION SUMMARY GRAPH	
PAVEMENT TREATMENT SUMMARY AND BAR GRAPH	
2015 ASPHALT PAVING LIST	
2015 CHIP SEAL PAVING LIST	
2015 FEDERAL & STATE AID PROJECT SUMMARY	
2015 LOCAL FUNDED PROJECT SUMMARY	
2015 GREENE COUNTY SIGN PROGRAM	
GREENE COUNTY IN-HOUSE PROJECTS	
BRIDGE LENGTH INVENTORY CHART	
DEFICIENT BRIDGE STATUS HISTORY	
BRIDGE STRUCTURAL FLAGS	
2015 FUND ALLOCATION CHART	
2015 VEHICLE LIST	
2015 EQUIPMENT LIST	
2015 VEHICLE AGE CHART	
SOLID WASTE VOLUME SUMMARY	
2015 SOLID WASTE VEHICLE & EQUIPMENT LIST	
MUNICIPAL SOLID WASTE CHART	
2015 SNOW / ICE REMOVAL CHART	
2015 TRAINING AND SEMINARS	
HURRICANE IRENE ANTICIPATED PAYMENTS	



**Greene County  
Highway Department**

240 West Main Street  
Post Office Box 485  
Catskill, New York 12414

**Gary R. Harvey, L.S.**  
Superintendent

**Robert J. Van Valkenburg**  
Deputy Superintendent

Greene County Legislature  
411 Main Street  
Catskill, NY 12414

Dear Legislators:

I am pleased to present the Greene County Highway Department Annual Report for the year of 2015.

Once again, the entire Highway Department, including highway crews, mechanics, supervisors, administrative staff and the engineering division have done an excellent job of handling our departmental responsibilities, large and small.

The Highway Department is responsible for 262.5 centerline miles of roadway and 135 bridges. During 2015 we were able to address the needs of 18 miles of roadway with asphalt paving, motor paving, and chip sealing. We were also able to rehabilitate two bridges, using our Miscellaneous Bridge Program. Details of these, and other projects are included in the report.

Currently, just under 15% of our bridges are considered “deficient”, which is well below the NY state average of 34% . The term “deficient” does not mean the bridge is unsafe, rather that the bridge is not functioning as it was originally designed. Some of these bridges are old and outdated. They were not built to handle today’s traffic and loads. Regarding pavement condition, currently 35% (92 miles) of roadway is now rated fair or worse, with distress frequent or severe. This is below the state average of 48% for local roads. But given the current cost of road maintenance, and our limited funding, we continue to lose ground with our Pavement Maintenance Program.

During 2015 we were also working five (5) federal and state funded (HBP) capital projects, with two (2) in the construction phase and the others in the design phase. The total current cost of these projects is approximately \$4.8 million, of which, 80% is reimbursed by the federal government, and 15% by the State of New York, with the local share being 5%.

Once again, we were able to take full advantage of the CHIPS (Consolidated Highway Improvement Program) Program by utilizing the maximum funds allocated for Greene County. This included an additional Extreme Winter Recovery Appropriation of \$188,912 this year, for a total of \$1,889,912.

Regarding snow and ice control, which is an important and large part of our responsibilities as a department, 2015 proved to be interesting, with a harsh January and February and a mild November and December. Our workforce responded well working long hours under the worst of conditions, in order to

meet the expectation of safe driving conditions for emergency responders, and the traveling public.

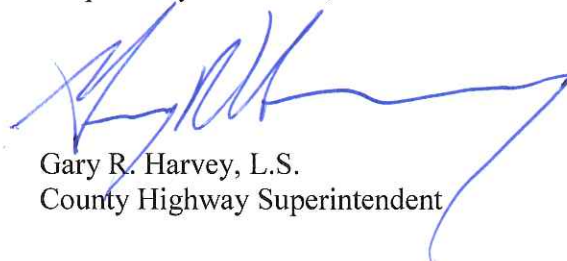
During 2015, we also worked continuously with FEMA and State Office of Emergency Management, to close out the remaining projects from the devastating effects of Hurricane Irene. An itemized breakdown of the total projects cost, with the reimbursements to date, and the anticipated balance, is included in the report.

We are responsible for over 15,000 road signs throughout the county. As a result of the Federal Highway Administration's current traffic sign retro-reflectivity requirements, we have replaced the traffic signs on approximately 33% of our county roads.

After labor, our machinery is the most important and costly component in accomplishing our work. As we discussed at length in our presentation to the legislature last August, the increasing age of our fleet is a continuing concern. Much of the time we operate in difficult conditions, and in very demanding and often emergency applications. The majority of the Highway Department's fleet was purchased either prior to or through the equipment bond that was issued in 2000. Equipment purchases have been significantly limited since that time. Consequently, 16 years later, many pieces are at best becoming less dependable and at worst requiring major repairs or reaching the end of their useful lives. In recent years, the Garage Manager and our mechanics have focused on repairs and overhauls that would reasonably and cost effectively extend the service life of our existing units, particularly heavy trucks and dedicated snow plows. In many cases we have reached a point where certain pieces should be replaced because of their role in our operations, age and condition. In 2015 we purchased a tractor and boom flail, a used bucket truck and two used pickups, and ordered two pickups and two crew cab pickups on state contract, all to replace existing units that were beyond reasonable repair. These purchases have helped with our most pressing and immediate needs. However, given the size of our fleet and the significant cost of replacement for larger and more specialized equipment, we have been working with the County Administrator on a plan to address our significant, longer term capital needs. This includes the proposed purchase of several larger pieces that will be discussed with the legislature in 2016.

2015 was another busy and productive year for the Greene County Highway Department. These are challenging times, with the increased demands for service, escalating costs of doing our work, and limited resources. Our mission, to efficiently maintain our roads and bridges for the efficient and safe use of the traveling public, is becoming increasingly difficult to carry out. We look forward to working with you to fulfill our commitment of providing a reliable, safe, and well maintained transportation system. Once again, I would like to thank the Highway Committee, chaired in 2015 by Jim Hitchcock, and you the Legislature, for your continued support, without it, our accomplishments would not be possible.

Respectfully Submitted,



Gary R. Harvey, L.S.  
County Highway Superintendent



**Greene County  
Solid Waste**

240 West Main Street  
PO Box 485  
Catskill, New York 12414

**Robert J. VanValkenburg**  
Superintendent

Greene County Legislature  
411 Main Street  
Catskill, NY 12414

Dear Legislators:

In 2015, Greene County's Solid Waste Management Program ran smoothly and again disposed of a record volume of waste. County Waste, a division of Waste Connections and the largest private hauler operating in the county continued to utilize our system for disposal of a significant volume of waste in the second year of a three year contract. Several other haulers continued to utilize Catskill Transfer for disposal of Municipal Solid Waste (MSW) at our High Volume rate and we again saw an increase in the volume of waste accepted at the regular tipping fee. We held our ninth annual Household Hazardous Waste Collection in June, and operated under the second year of a three year contract for transportation and disposal with New England Waste Services.

Overall, the total tonnage of MSW and Construction and Demolition Debris (C&D) processed through the transfer station system increased approximately 7.6% to 54,822.37 tons. This compares with volume of 51,407 tons in 2014, 50,122 tons in 2013, 50,014 tons in 2012 and 38,579 tons in 2011. Approximately 73.6% of the total volume or 40,348 tons of waste was accepted at the high volume tipping fee, compared with 38,610 in 2014, 38,212 tons in 2013 and 39,076 tons in 2012.

Prior to 2012, C&D was processed separately and shipped it to a different landfill at a lower disposal cost. however, since 2012, with a decreased differential in disposal costs, limited space on the tipping floor and the significant increase in volume processed through Catskill Transfer this no longer made sense operationally or economically and the two waste streams were combined for handling and disposal. In an interesting trend that may be a sign of continuing economic improvement, MSW and C&D accepted for disposal at the regular tipping fee increased approximately 13% to 14,474 tons as compared to 12,797 tons in 2014, 11,910 tons in 2013 and 10,938 tons in 2012.

After completing the lengthy Request for Proposal (RFP) process under NY General Municipal Law 120-W in late 2013 we reached agreement with New England Waste Services, on a three year contract for transportation to and disposal services at the Ontario County Landfill, commencing January 1, 2014. As compared to the previous contract, this agreement considerably reduced our transportation and disposal costs. Again this year, due to the decrease in fuel prices and the terms we negotiated we have seen significant cost savings, benefitting the county and allowing us to continue to draw additional High Volume waste in to our system along with the resulting revenues. At the end of the term in December 2016 we have the option to either extend the current contract for up to three (3) additional one (1) year terms at specified pricing or to issue a new RFP and seek a new agreement,

whichever option is determined to be in the county's best interest. That decision will be required in the second quarter of 2016. 2015 was the second year of a three year disposal agreement with County Waste which assured a consistent flow of waste into our system, helping to stabilize our volume and increase our annual revenues over the period. Several other haulers also continue to deliver a significant volume of waste to Catskill Transfer under the High Volume program

In the spring we performed a significant upgrade on the scale at Catskill, which has seen heavy truck traffic and recently had been subject to frequent failures incurring considerable repair costs. The work included removal and painting of the weigh bridge, construction of new concrete piers and ramps to increase the height and clearance under the scale to eliminate recurrent problems with ice buildup. Additionally, all of the electronic components, load cells and wiring were replaced. This upgrade was completed at approximately one quarter of the cost of a full replacement and the scale has been operating virtually trouble free since the work was complete. Highway personnel completed rehabilitation work at the Windham Transfer Station, constructing a new concrete retaining wall and other site improvements.

The regular tipping fee for scaled waste at our transfer stations remained at \$105.00 per ton and the minimum scale charge at \$15.00. Fees for bagged waste and other items were also unchanged. Collection of receivables continued to require substantial attention due to general economic conditions. We continued assistance to the Towns of Greenville and Halcott, allowing acceptance of bagged waste at both of the town's recycling sites. We continued to provide recycling services at the Town of Cairo and partial service at the Town of New Baltimore. We provide services for cleanup days in cooperation with most of the county's towns and villages, trash disposal services for the County Youth Fair and continued to provide the field operations for the Public Health Department's Needle Smart initiative. In 2015 we collected 1,611 pounds of used sharps from seven kiosks and transported them to local nursing homes for proper disposal, removing them from the regular waste stream. This was an 8.6% increase over last year.

In 2015 we processed and recycled a total of 1,574 tons of 11 different types of material. Recycling markets and prices can be volatile and fluctuate with the demand for each commodity. We continued to seek the best price, or in some cases the lowest cost available for acceptance of each material, both through efforts of staff and use of a recyclables broker. We lost our market for paper this year when Green Fiber unexpectedly decided to move out of the area, eliminating the major local market for paper. They had supplied containers and picked up the paper paying a small revenue per ton. Ultimately County waste agreed to accept and recycle our paper at no cost but we were required to transport it and the revenue was eliminated. Electronics recycling has continued to become increasingly difficult as markets struggled to absorb the large volume of glass from Cathode Ray Tubes (CRT's) found in older TVs and computer monitors being recycled in accordance with the NYS Electronic Equipment Recycling and Reuse Law. We continued to accept electronics for recycling at no cost to residents, however the overwhelming amount of material being recycled, over 92 tons in 2015, required a significant amount of labor to transport, package and load the material. Rather than the

vendor picking up the material at each site as in the past, we are now required to transport the electronics accepted at each of the transfer stations to Catskill, sort them into five categories then package and load them into a trailer provided by the market. The material is accepted at no charge under our current contract provided we meet multiple parameters.

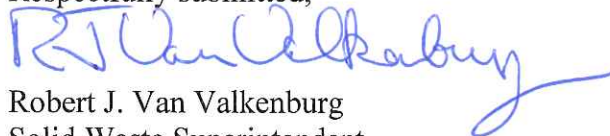
Our workforce was increased by one person to a total of seventeen in 2015, helping to reduce required overtime. Our employees continued to do an outstanding job of handling the increased workload throughout the year. Many worked well beyond expectations to get the work done keeping pace with the increased tonnage. While the age of our vehicle, equipment and container fleet remains a concern, no vehicles or equipment were replaced this year due to overall financial concerns. This difficulty has been partially offset by several major repairs and overhauls completed in house by our Heavy Equipment Repairman, who will be retiring in 2016. We continued to utilize a significant number of Community Service workers provided by Social Services and the Probation Department at each transfer station. An agreement was reached in May for a new Collective Bargaining Agreement with the Teamsters covering the period of January 1, 2013 through December 31, 2016.

In June, we held our ninth annual Household Hazardous Waste Collection at the Highway Department facility in Athens. Public participation in this program remained strong. In excess of two tractor-trailer loads of various types of household hazardous waste were collected and properly recycled or disposed of by the contractor, MXI Environmental. Solid Waste, Highway, and Sheriff's Departments each provided personnel and equipment for the event. The cost for the event was within budget at \$26,463.88 and is eligible for a 50% reimbursement under the NYS Household Hazardous Waste Assistance Program.

In 2015, our department again faced considerable challenges in our efforts to provide a full service solid waste management program. In addition to the proper disposal of all the MSW and C&D accepted at our transfer stations we provided management of other difficult wastes and recycling of a range of materials, some of which had little or even a negative market value. Each of our employees has willingly done whatever was required to efficiently complete the work and provide the services our county residents have come to expect. We recognize and are grateful for their hard work. We also acknowledge and appreciate the continuing support of the Public Works Committee chaired in 2015 by Legislator Jim Hitchcock, the full Legislature, County Administrator, and other County Departments, in our efforts to continue to provide for the efficient and environmentally sound management of solid waste in Greene County.

As always, please feel free to contact me with any questions.

Respectfully submitted,



Robert J. Van Valkenburg  
Solid Waste Superintendent



## *Mission Statement*

**THE GREENE COUNTY HIGHWAY DEPARTMENT EXISTS TO EFFECTIVELY MAINTAIN AND IMPROVE THE HIGHWAY AND BRIDGE INFRASTRUCTURE OF GREENE COUNTY, FOR THE EFFICIENT AND SAFE USE OF THE TRAVELING PUBLIC.**



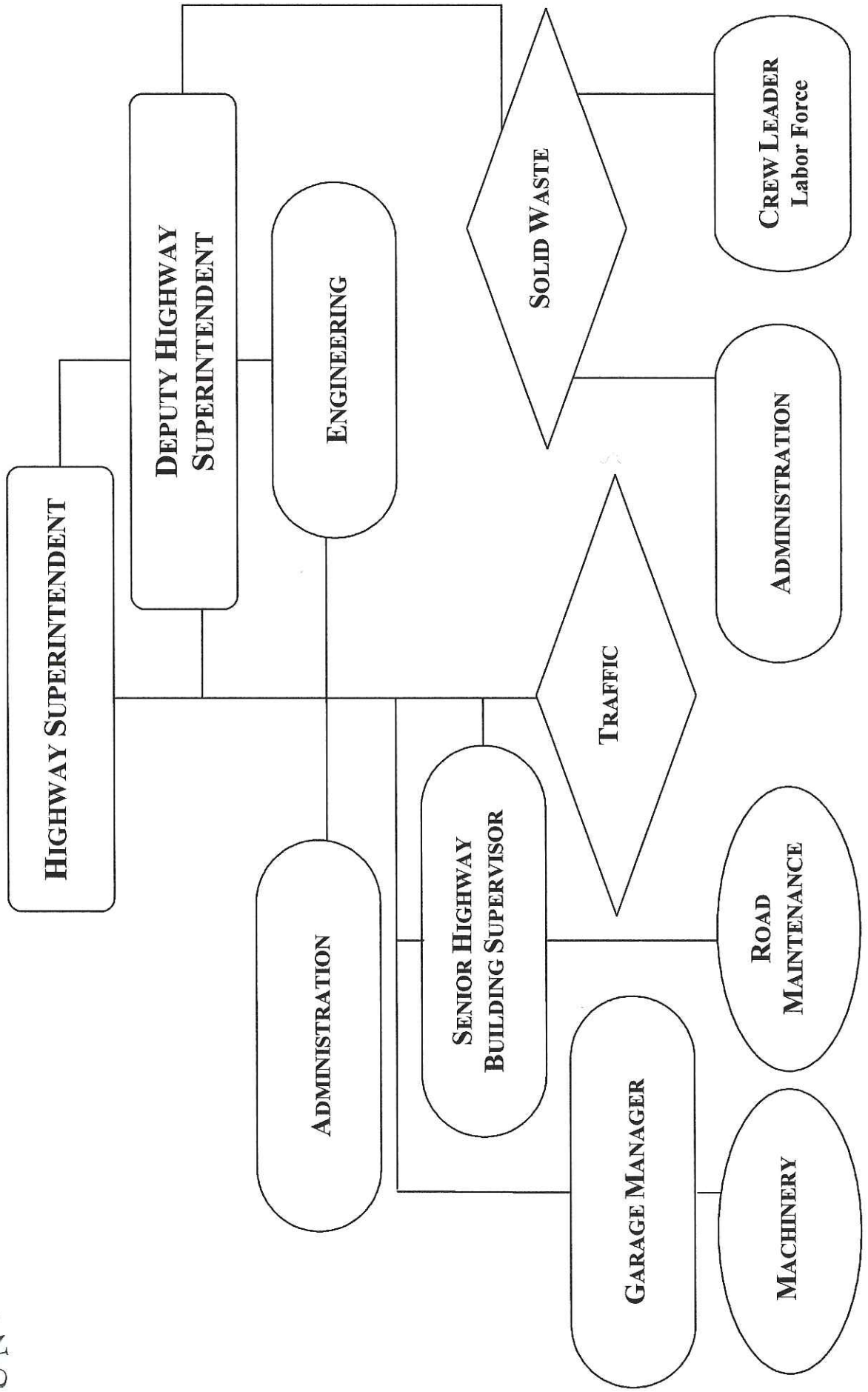


## *Mission Statement*

**THE MISSION OF THE GREENE COUNTY SOLID WASTE DEPARTMENT IS TO ACCEPT AND EFFICIENTLY DISPOSE OF THE MUNICIPAL SOLID WASTE STREAM, INCLUDING CONSTRUCTION AND DEMOLITION DEBRIS, AND TO PROCESS AND MARKET THE SOURCE SEPARATED RECYCLABLES GENERATED BY THE COUNTY'S RESIDENTS AND BUSINESSES.**



# Organizational chart





# Classification of Highways

Highways in New York State are divided in five classes under Chapter 25 of the Consolidated Laws.

1. **State Highways** are those constructed or improved under this Chapter at the sole expense of the State, including the highways specified and described in Sections 340 and 341 of this Chapter and acts amendatory thereof, including the highway heretofore classified or referred to as County Highways in this Chapter and heretofore constructed or improved at the joint expense of State, County and Town or State and County as heretofore provided by Law.
2. **Controlled Access Highways** are those State highways which are entirely or partly constructed, reconstructed or improved at a location where no public highway therefore existed and to and from which the owners or occupants of abutting property as pedestrians, as operators of vehicles or in any other capacity, excepting as such access may be reserved pursuant to the description and map of the property which has been or which thereafter shall be acquired in accordance with this Chapter for the purpose of such controlled access highways.
3. **State Thruways** are those highways specified and described in Section 349 of this Chapter, constructed, improved or reconstructed as provided in such section.
4. **County Roads** are those roads constructed, improved, maintained and repaired under Article 6 of this Chapter and roads constructed or improved under general or specific law, which are maintained by the County.
5. **Town Roads** are those constructed, improved, or maintained by the Town with the aid of the State or County, under the provisions of this Chapter, including all highways in Towns, outside of incorporate villages constituting separate road districts which do not belong to either of the two preceding classes.



# Highways in Greene County

Mileage of each class of highway in Greene County is as follows:

Class 1 – State Highways.....	220.88 miles
Class 2 – Controlled Access Highways .....	9.77 miles
Class 3 – State Thruways .....	23.83 miles
Class 4 – County Roads.....	262.52 miles
County Roads within Villages.....	3.70 miles
Class 5- Town Roads.....	663.61 miles

	County Roads in Towns	County Roads in Villages	County Roads	Town Highway Total
Ashland	16.59	--	16.59	17.99
Athens	11.97	2.75	14.72	31.67
Cairo	30.21	--	30.09	91.34
Catskill	18.68	--	18.56	83.39
Coxsackie	17.73	0.56	18.29	49.42
Durham	22.67	--	22.67	80.02
Greenville	23.59	--	23.59	62.51
Halcott	7.16	--	7.16	16.34
Hunter	14.01	0.39	14.40	38.97
Jewett	23.88	--	23.88	39.07
Lexington	16.79	--	16.79	34.97
New Baltimore	23.83	--	23.83	63.18
Prattsville	12.62	--	12.62	18.91
Windham	19.07	--	19.07	35.83
	258.82	3.70	262.52	663.61

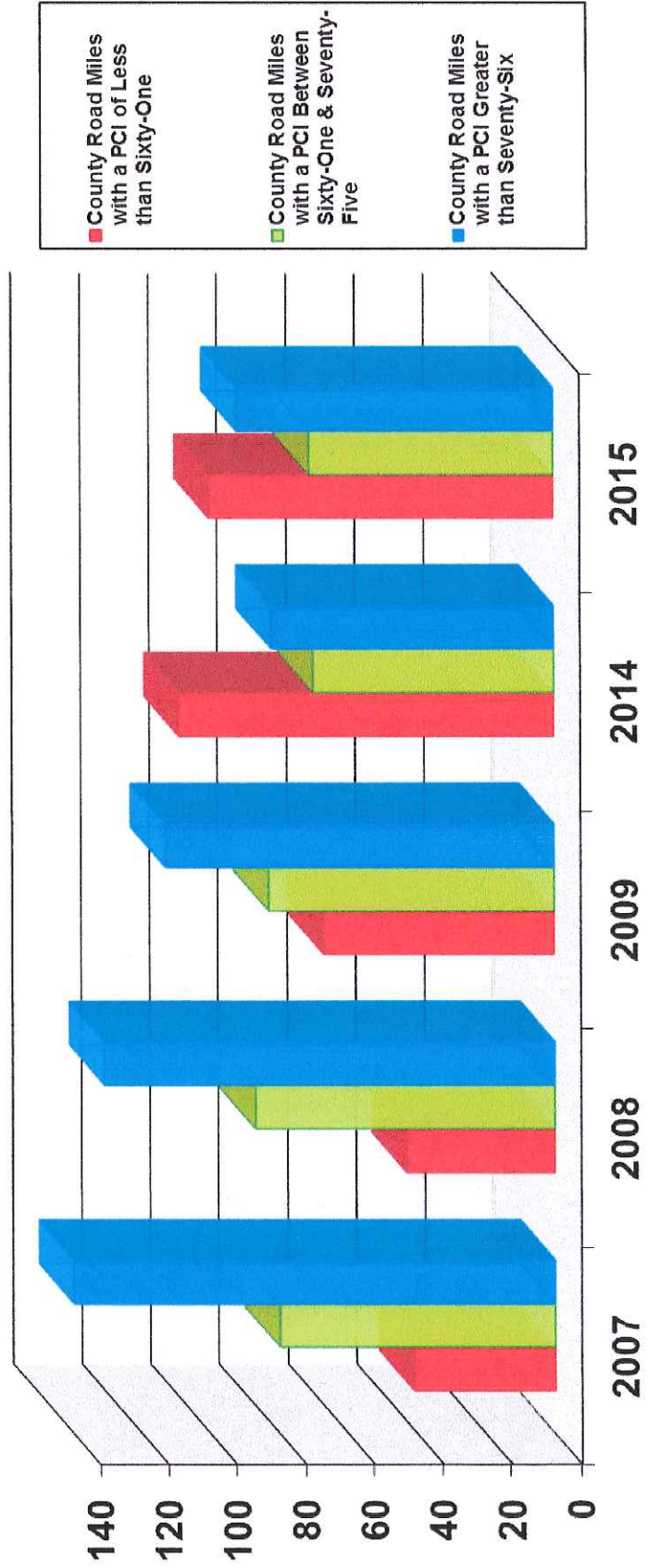


# Pavement Condition Summary

**Pavement Condition Index**, or also known as **PCI**, is the Value assigned to each road Section that indicates the road severity based on a 0 to 94 value system. Zero being the worst and 94 being the Best.

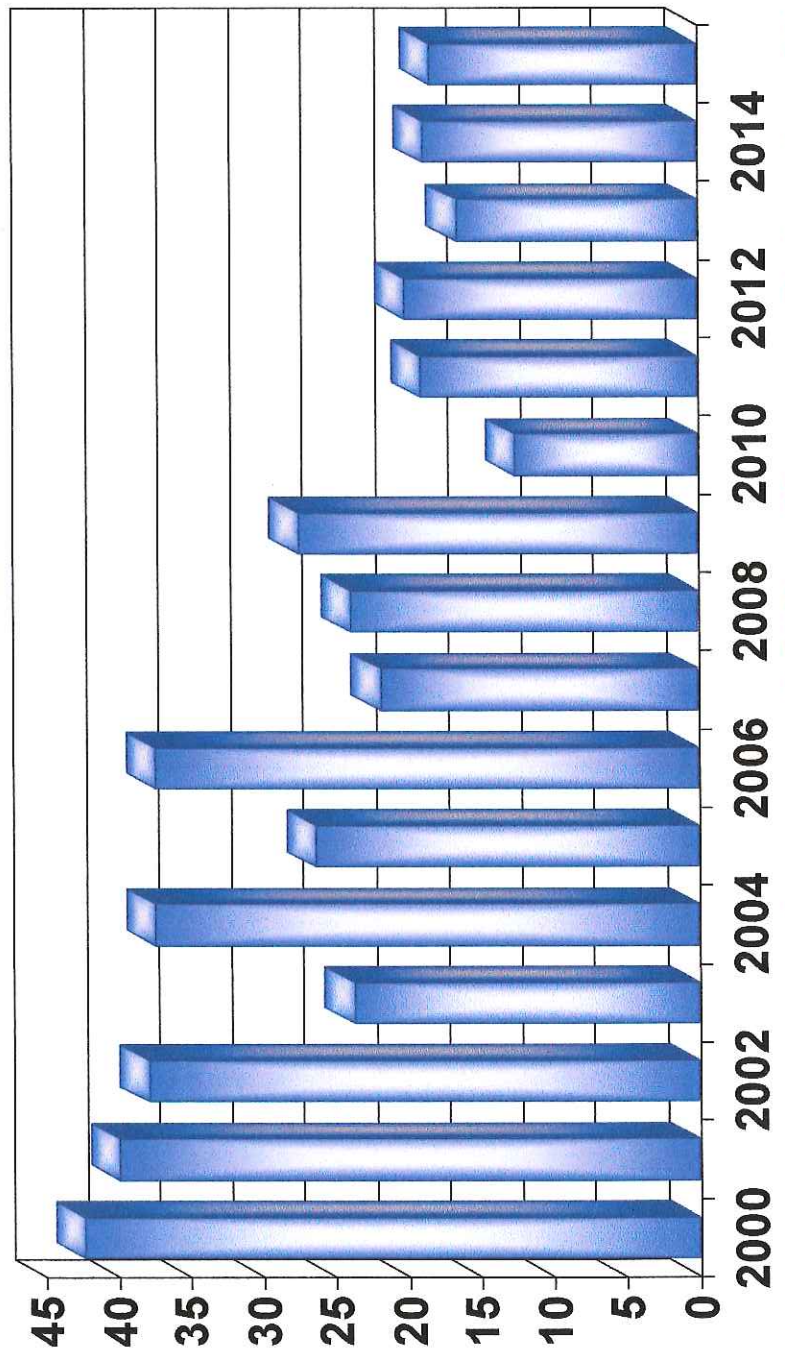
Total County Road Miles = 262.52 Miles  
 Total Number of Pavement Management Sections = 306 Sections  
 Average Length of each Section = 0.89 Miles

## THE NUMBER OF COUNTY ROAD MILES VERSES CALENDAR YEAR



# Pavement Treatment Summary

Treatment	2010	2011	2012	2013	2014	2015
Asphalt Paving	11.22 mi.	10.77 mi.	11.60 mi.	12.58 mi.	11.14 mi.	13.19 mi.
Motor Paving	0.00 mi.	0.00 mi.	0.00 mi.	0.00 mi.	0.00 mi.	1.10 mi.
Chip Seal	1.31 mi.	8.18 mi.	8.52 mi.	3.93 mi.	7.62 mi.	5.11 mi.
Nova Chipping	0.00 mi.	0.00 mi.	0.00 mi.	0.00 mi.	0.00 mi.	0.00 mi.
Hot-In-Place Rec.	2.89 mi.	0.00 mi.	2.58 mi.	2.10 mi.	0.00 mi.	0.00 mi.
<b>Total Miles</b>	<b>12.53 mi.</b>	<b>18.97 mi.</b>	<b>20.12 mi.</b>	<b>16.51 mi.</b>	<b>18.76 mi.</b>	<b>18.3 mi.</b>



Total Number of Treated Miles Verses Calendar Year



# GREENE COUNTY HIGHWAY DEPARTMENT

## 2015 Quick Quote: Paving Contract

### Roads & Their Sections

Road Name	Town	From	To	Road Width (feet)	Length (miles)	US Tons
<b>CR. 20</b>	Durham	County Road 20B	Hervey Street	20.0	1.31	1,921.33
<b>CR. 23C</b>	Jewett	County Road 17	Park Road	20.0	2.01	3,124.88
<b>CR. 23C</b>	Lexington	Park Road	1,000-ft West of Cr. 52	20.0	1.20	1,971.20
<b>CR. 35</b>	Greenville	State Route 32	County Road 41	20.0	1.65	2,420.00
<b>CR. 40</b>	Jewett	County Road 56	County Road 23C	20.0	1.97	3,062.69
<b>CR. 49</b>	Athens	Valley Road	County Road 49A	20.0	1.01	1,481.33
<b>CR. 49</b>	Athens	Valley Road	End of Fill Section	22.0	0.16	340.74
<b>CR. 51</b>	New Baltimore	US 9W	Roberts Hill Rd.	20.0	1.31	1,921.33
<b>CR. 57</b>	Coxsackie	Flint Mine Road	Coxsackie Village Line	20.0	0.75	1,100.00
<b>CR. 61</b>	Coxsackie	Coxsackie Village / Coxsackie Town Line	Coxsackie / New Baltimore Town Line	20.0	1.01	1,481.33
<b>CR. 61</b>	New Baltimore	Coxsackie / New Balti- more Town Line	Bridge	20.0	0.16	248.75
<b>CR. 61</b>	New Baltimore	Old Cr 61	Kings Road	20.0	0.81	1,188.00
<b>Grand Total</b>					<b>13.35</b>	<b>20,261.59</b>



# GREENE COUNTY HIGHWAY DEPARTMENT



## 2015 Chip Seal Contract Roads & Their Sections

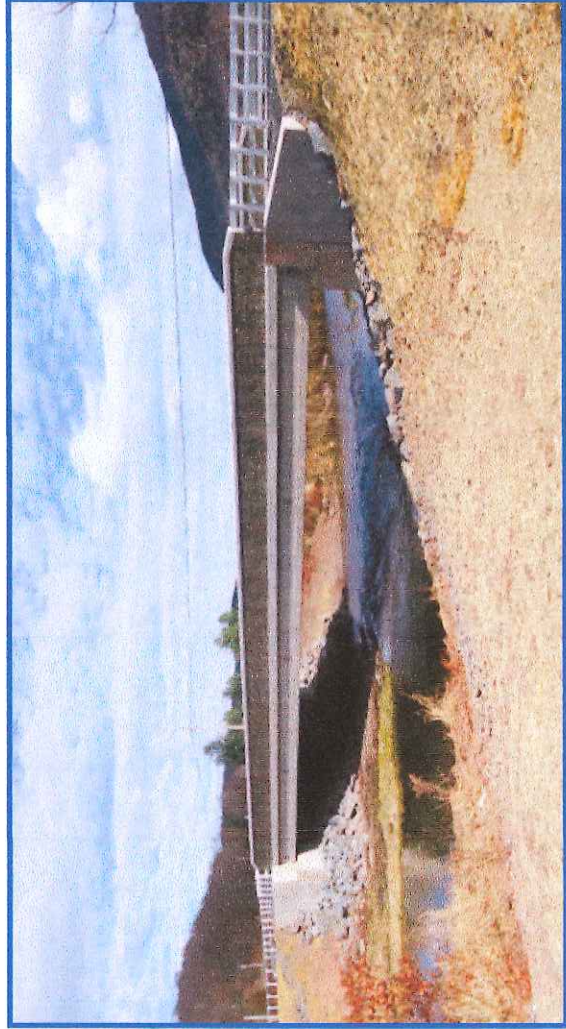
Road Name	Town	From	To	Road Width (Feet)	Length (miles)	Tons of 1A Stone	Gallons of Emulsion
CR. 13	Lexington	State Route 23A	County Road 52	20.0	1.01	148.13	5,925.33
CR. 57	Athens	County Road 28 (Schoharie Turnpike)	Hamilton / Murders Kill Road	20.0	2.51	368.13	14,725.33
CR. 75	Greenville	State Route 81	Albany / Greene County Line	20.0	1.59	233.20	9,328.00

<b>Totals</b>	<b>5.11</b>	<b>749.47</b>	<b>29,978.67</b>
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# 2015 FEDERAL & STATE AID PROJECT SUMMARY

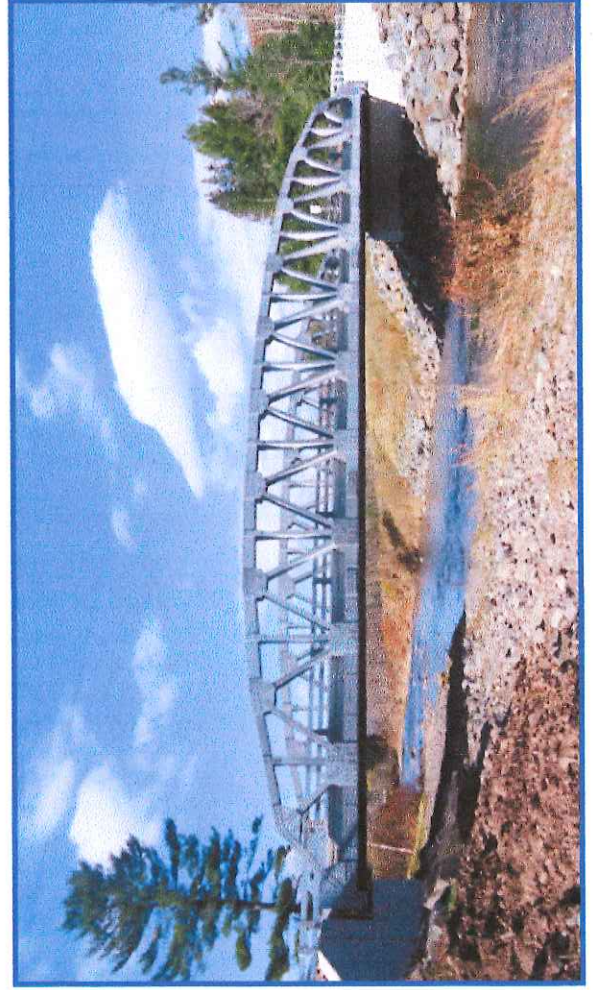
<u>BIN / PIN</u>	<u>PROJECT DESCRIPTION</u>	<u>FUND APPROPRIATION</u>	<u>CONTRACT COST</u>
3-30321-0 PIN 1759.24 (Federal Aid)	<b>Jewett Heights Road (Cr. 17) / Batavia Kill</b> Engineering Design & Construction Inspection Services - Clark Patterson Lee Design Professionals ROW Incidentals - Clark Patterson Lee Design Professionals ROW Acquisitions - (2014) Construction - Bette & Cring Construction Group Construction Support / Inspection - CDM Smith	Project 76	\$282,030.93 \$40,229.53 \$1,150.00 \$1,050,641.39 (Final Cost) \$221,428.00 (Contract Cost)
3-20068-0 PIN 1757.13 (Federal Aid)	<b>Cauterskill Road / Kaaterskill Creek</b> Engineering - Barton & Loguidice, P.C. ROW Incidentals - Barton & Loguidice, P.C.	Project 86 (2014 & On Going)	\$236,377.00 \$16,004.00
PIN 1759.71 (Federal Aid)	<b>Black Bridge / Catskill Creek</b> Engineering - Creighton Manning Eng. LLP	Project 85 (2014 & On Going)	\$337,000.00



**County Road 17 Bridge  
(Jewett Heights Road)  
over the Batavia Kill, in  
the Town of Ashland.**

# 2015 FEDERAL & STATE AID PROJECT SUMMARY

<u>BIN / PIN</u>	<u>PROJECT DESCRIPTION</u>	<u>FUND APPROPRIATION</u>	<u>CONTRACT COST</u>
	<b><u>BRIDGE PRESERVATION PROJECT BUNDLED</u></b>		
	<b>Brooksburch Road (CR 65) Over the Batavia Kill</b>	Project 78 (2013 & On Going)	
3-30288-0	Deans Mill Road Bridge (CR 27) Over the Catskill Creek		
3-30310-0	Old State Route 23 (CR23B) Over the Catskill Creek		
3-30356-0	Engineering - CDM Smith		\$348,914.00
PIN 1756.47	ROW Incidentals - CDM Smith		\$33,518.63
(Federal Aid)	ROW Acquisitions - (2015)		\$2,250.00
<b>3-20117-0</b>	<b>Carr Road / Schoharie Creek</b>		
PIN 1759.23	Engineering - Barton & Loguidice, P.C.	Project 75	\$272,491.00
(Federal Aid)	ROW Incidentals - Barton & Loguidice, P.C.		\$28,084.00
(2012 & On Going)	ROW Acquisitions - (2014)		\$950.00
	Construction Inspection - Creighton Manning Eng. LLP		\$251,000.00
	Construction - Tioga Construction Company, Inc.		\$1,709,803.24 (Final Cost)



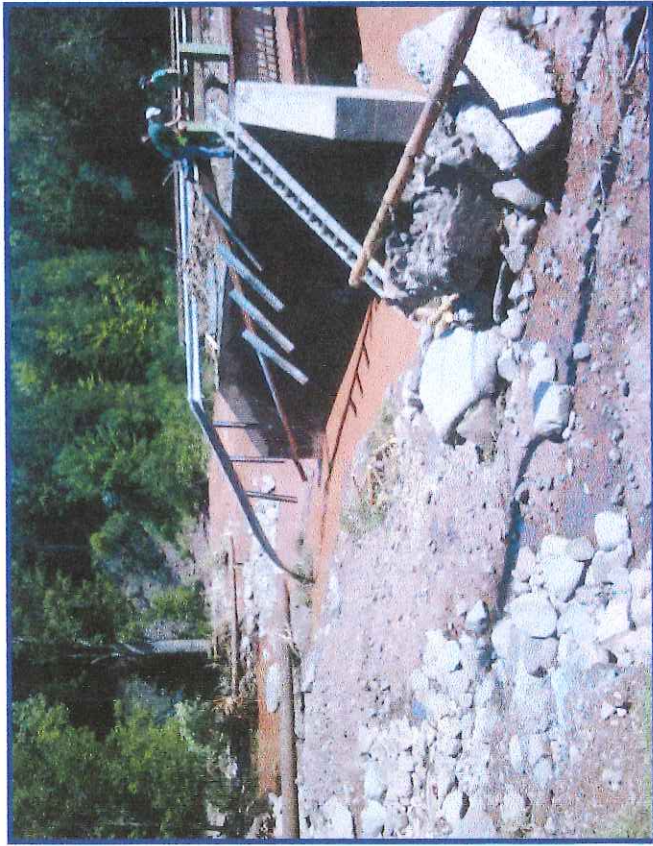
***Carr Road Bridge over the Schoharie Creek, in the Town of Jewett.***

# 2015 LOCAL FUNDED PROJECT SUMMARY

<u>BIN / CIN</u>	<u>PROJECT DESCRIPTION</u>	<u>FUND APPROPRIATION</u>	<u>CONTRACT COST</u>
	Mitigation on Embankment Slope Failures [Cr. 02, Cr. 06 Cr. 20, Cr. 30 & (2) Cr. 61] Towns of Prattsville, Lexington, Durham, Catskill, & New Baltimore Engineering Design & Construction Inspection Services - Creighton Manning Engineering, LLP	D5112.2140 ROAD CONSTRUCTION (2010 and On Going)	\$110,900.00
3-20055-0	Steinmetz Road Bridge / Batavia Kill Engineering Design & Construction Inspection Services – Barton & Loguidice, P.C.	D5112.2160 MISCELLANEOUS BRIDGES	\$21,220.00
CIN 24-00.773-CAR	County Road 24 Culvert / Shingle Kill Engineering Design & Construction Inspection Services – Creighton Manning Engineering, LLP (Engineering Cost is Bundled with CR 24 Culvert Replacement Project) Culvert	D5112.2160 MISCELLANEOUS BRIDGES	\$32,060.54 \$57,310.16
CIN 06-04.799-LEX	County Road 06 Culvert / Tributary to West Kill Construction - Hudson Valley Bridge Culvert	D5112.2160 MISCELLANEOUS BRIDGES	\$7,900.00 \$7,716.80

# 2015 LOCAL FUNDED PROJECT SUMMARY

<u>BIN / CIN</u>	<u>PROJECT DESCRIPTION</u>	<u>FUND APPROPRIATION</u>	<u>CONTRACT COST</u>
3-30325-0	Hearts Content Road Bridge (CR 31) / Kiskatom Brook Engineering Design & Construction Inspection Services – Creighton Manning Engineering, LLP ( <i>Engineering Cost is Bundled with CR 24 Culvert Replacement Project</i> ) Construction - Advanced Enterprise Concrete & Excavation, Inc.	D5112.2160  MISCELLANEOUS BRIDGES	\$32,060.54 \$87,644.00
3-30299-0	CR 78 / East Kill (Colgate) BRIDGE REHABILITATION Engineering Design & Construction Inspection Services – Clark Patterson Lee Design Professionals Construction - Wm. J Keller & Sons Construction Corp.	D5112.2160  MISCELLANEOUS BRIDGES	\$21,650.00 \$97,770.00



**Before and After - Colgate Road Bridge (Cr. 78) over the East Kill.**

# Greene County Sign Program

## NEW SIGN RETRO-REFLECTIVE REQUIREMENTS.

One of the Federal Highway Administration's (FHWA's) primary concerns is to improve safety on the nation's roadways. Approximately 42,000 people have been killed on American roads during each of the past eight years. While only one-quarter of all travel occurs at night, about half of the traffic fatalities occur during the nighttime hours. To address this disparity, the FHWA has adopted new traffic sign Retro-Reflectivity requirements.

Adequately maintained Retro-Reflective signs improve highway safety and prevent roadway departure crashes by bouncing light from the vehicle headlights back toward the vehicle and the drivers eyes, making the signs appear brighter and easier to see and read. Because the Retro-Reflective properties of traffic control devices deteriorate over time, highway agencies need to actively manage the maintenance of signs in order to ensure that they are clearly visible at night. Under a federal rule that went into effect on January 2008, agencies had until January 2012 to establish and implement a sign assessment or management method that will maintain minimum levels of sign Retro-Reflectivity.

The *Manual on Uniform Traffic Control Devices* (MUTCD) is the national standard for all traffic control devices on any street or highway open to public travel. The MUTCD now requires that agencies maintain traffic signs to a set of minimum levels that must be maintained for traffic signs. The compliance date for meeting the minimum Retro-Reflectivity requirements on regulatory, warning, and ground-mounted guide signs is January 2015. For overhead guide signs and street name signs, the compliance date is January 2018.



*Retro-Reflective sheeting degrades over time. Daytime visual inspections cannot be used to assess reflectivity.*

# 2015 Sign Program

Pursuant to MUTCD requirements for management, the sign department utilizes the "Blanket Method Management System" where all signs are replaced along the entire county road. In 2015 five more county roads have had all new signs installed; for a total of 24 county roads that have had complete restoration with New High Intensity Prismatic Material, (HIPM) in an effort to conform with the national standard for control devices. This year, 285 new HIPM signs were either installed or replaced due damage or because of Non-Reflectiveness. The Sign Department recycles all old signs that are taken down for Non-Reflectivity then reapplying new Prismatic Sheeting Material faces. This is a cost effective way to meet the new standards.

The Greene County Sign Department is responsible for over 15,000 road signs. These signs include Pedestrian Crossings, Hidden Driveways, School Bus Ahead, Signal Arrows and Chevrons. The Sign Department is also often called upon to design and implement complete highway closure detours for construction projects. These closures include bridges, paving, culvert replacements and a road stabilization projects. The Sign Department is also responsible for 223.83 miles of centerline striping, and 422.06 miles of edge line striping. With budgetary constraints, 207.87 miles of centerline and 188.74 miles of edge line was striped.



**Purple Heart County Sign located in the Town of Hunter.**



# Greene County In-House

## REPAIR PROJECTS

### **Town & County Bridge and Rail**

County Road 20 Culvert Rail- Shotcrete Repairs  
County Road 21 Bridge - Shotcrete Repairs  
County Road 45 Bridge Rail- Shotcrete Repairs  
County Road 57 Culvert - Shotcrete Repairs

D5112.2160 (misc. bridges)  
\$27,435.00  
\$8,775.00  
\$21,450.00  
\$29,250.00

## APPLICATION OF SILANE PENETRATING SEALER (DECK SEALING)

### **Town & County Bridge and Rail**

New Baltimore Road Bridge over the Hannacrois Creek - New Baltimore  
County Road 79 Bridge over the Batavia Kill - Windham  
High Falls Road Ext. Bridge over the Kaaterskill Creek - Catskill **(Total Cost for Five Bridge decks)**  
County Road 18 Bridge over the Spruce Creek - Hunter  
Slater Road Bridge over the Batavia Kill - Windham

D5112.2160 (misc. bridges)  
**\$19,453.30**

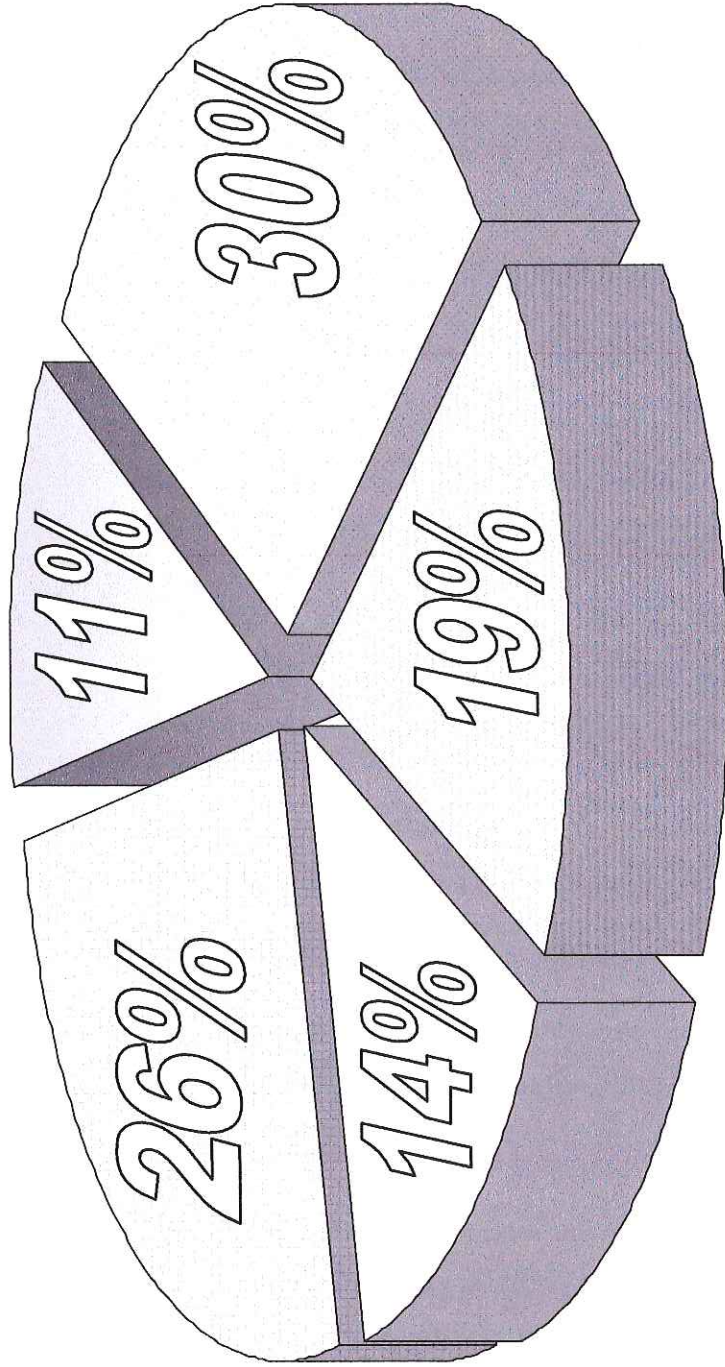
262.52 Miles of Roadway Maintained.

General Maintenance Including: Culvert Replacement, Ditching, Tree removal & Trimming, Mowing, Removal of Debris.  
Maintained 135 Bridges within the NYS Computer Regulated "FLAG" System  
Administered the "Petro-Vend" Automated Fueling Management System.



# GREENE COUNTY

## 135 BRIDGES



- Between 20 & 30 ft. = 11%
- Between 31 & 45 ft. = 30%
- Between 46 & 60 ft. = 19%
- Between 61 & 75 ft. = 14%
- Greater Than 75 ft. = 26%

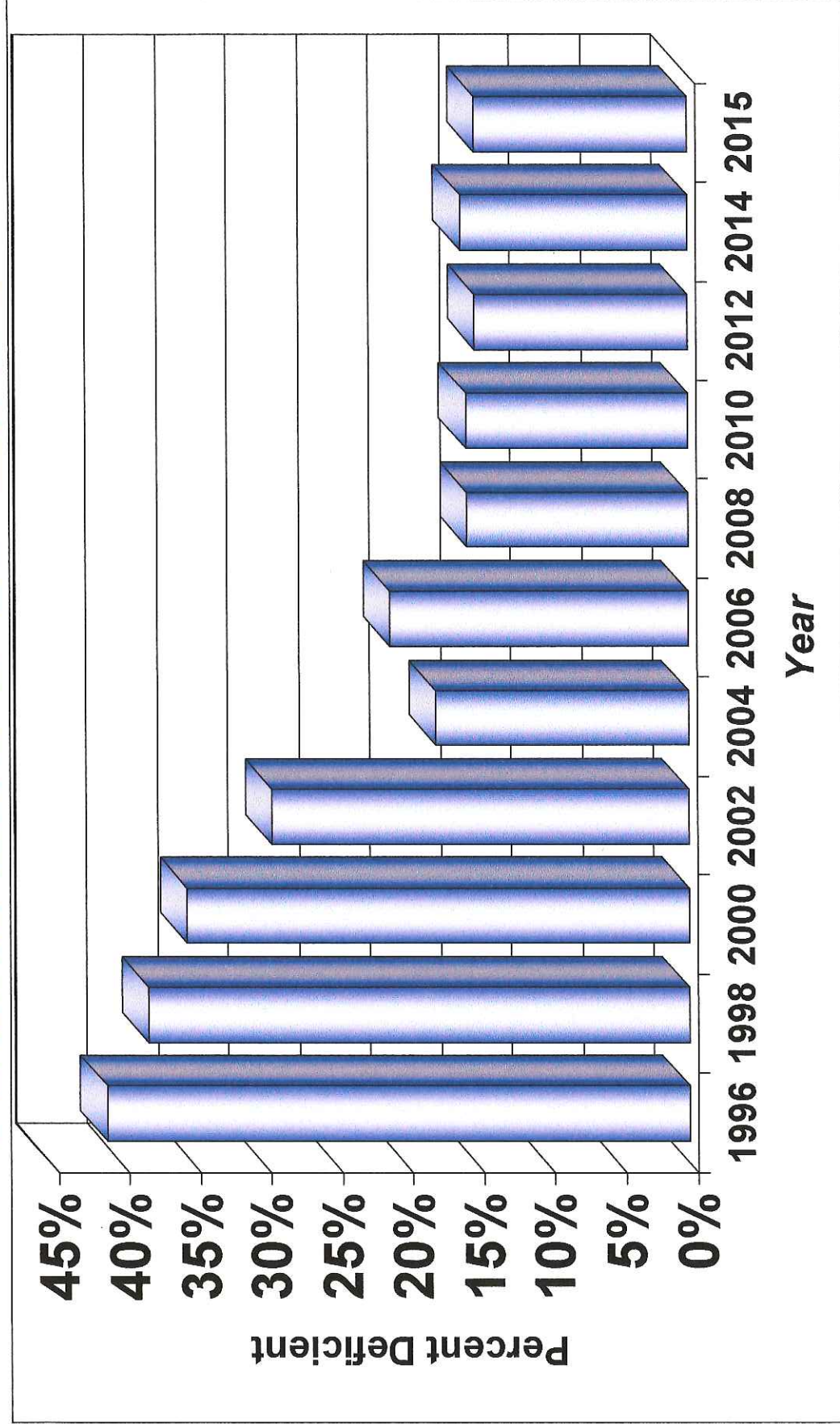
2015 Bridge Length Inventory





# Deficient Bridge Status History

## From 1996 to 2015



A Bridge with an Overall General Recommendation of less than 5.0 is considered NOT to be performing as it was designed and is, therefore, considered "DEFICIENT". The term "DEFICIENT" does NOT mean, however that a Bridge is Unsafe. Currently there are 21 County owned bridges that are rated less than 5.0



# Bridge Structural Flags

New York State Department of Transportation administers an annual or bi-annual inspection of all publicly owned bridges located in Greene County. The Engineering Division receives from New York State Department of Transportation the inspection reports and any "Flag" information resulting from those bridge inspections. Red Structural Flags require immediate response in the form of a site inspection, by the County's General Consultant Engineer, and subsequent repair plan formulated and submitted to New York State Department of Transportation within 24 hours or 6 weeks from the initial notification, depending on the designated urgency of the flagged condition.

Yellow Structural Flags are reviewed and a proposed plan to effect repairs is formulated before the flagged condition worsens, resulting in a red flag.

Safety Flags are coordinated and supervised in-house between the Engineering Division, the Senior Highway Building Foreman and the General Foremen, with repairs being completed by the Greene County Bridge Maintenance Crew.

The Engineering Division monitors all structural and safety flags received from New York State Department of Transportation and then updates the files in our Bridge Management database. In 2015, there were a total of 23 Structural Flags, 18 Yellow, and 3 Red.

There were 2 Safety Flags issued in 2015. The table below indicates the number of Red and Yellow Flags received over the past twelve years:

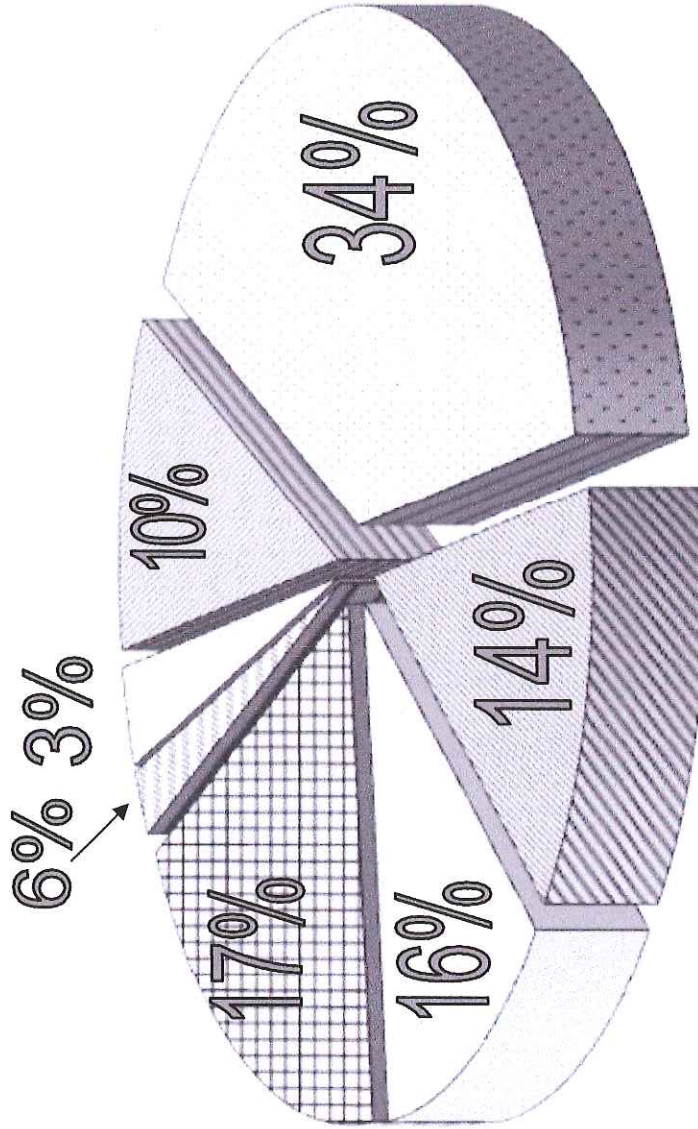
<u>YEAR</u>	<u>RED</u>	<u>YELLOW</u>
2015	3	18
2014	6	14
2013	10	19
2012	12	11
2011	5	23
2010	1	21
2009	10	23
2008	4	10
2007	2	8
2006	1	6
2005	4	9
2004	0	14



# 2015 Fund Allocation

Maintenance \* Construction \* Snow Removal \* Machinery  
 Employee Benefits \* Serial Bonds

Engineering, Traffic Control & Admin.	10%
Road / Bridge Maintenance	34%
Road / Bridge Construction	14%
Snow / Ice Removal	16%
Machinery	17%
Employee Benefits & Services	6%
Serial Bonds	3%



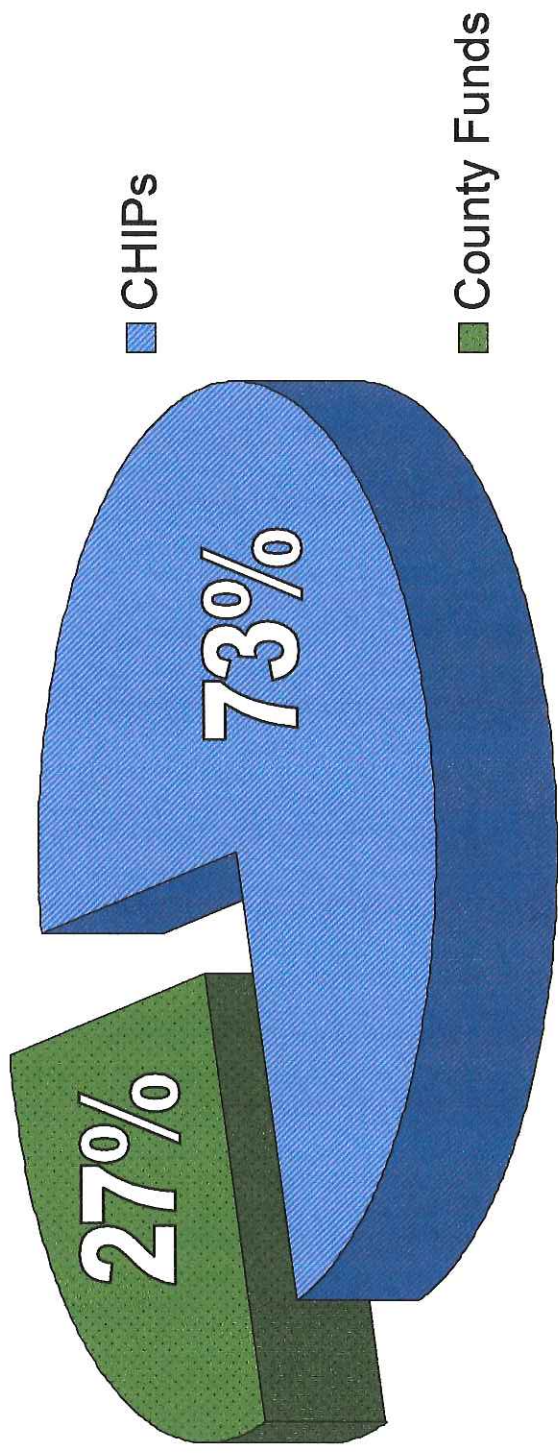
**Total Allocation: \$ 10,325,869.54**

# Where the Money Comes From

**Greene County Funds**

**VS**

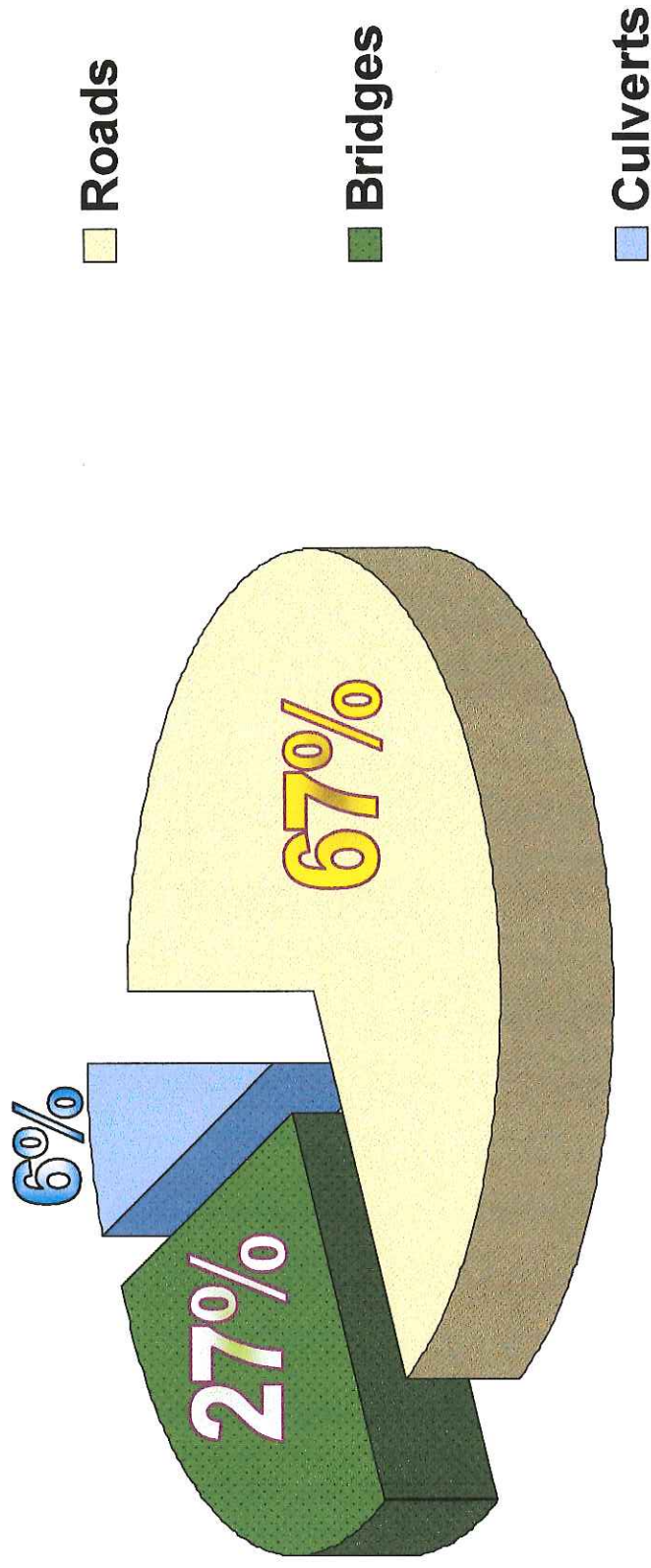
**Consolidated Local Street and Highway Improvement Program - "CHIPS"**



**2015 Annual Total: \$2,345,000.00**

# Where the Money Goes

**Roads (262.5 Miles) \* Bridges (135) \* Culverts (150)**

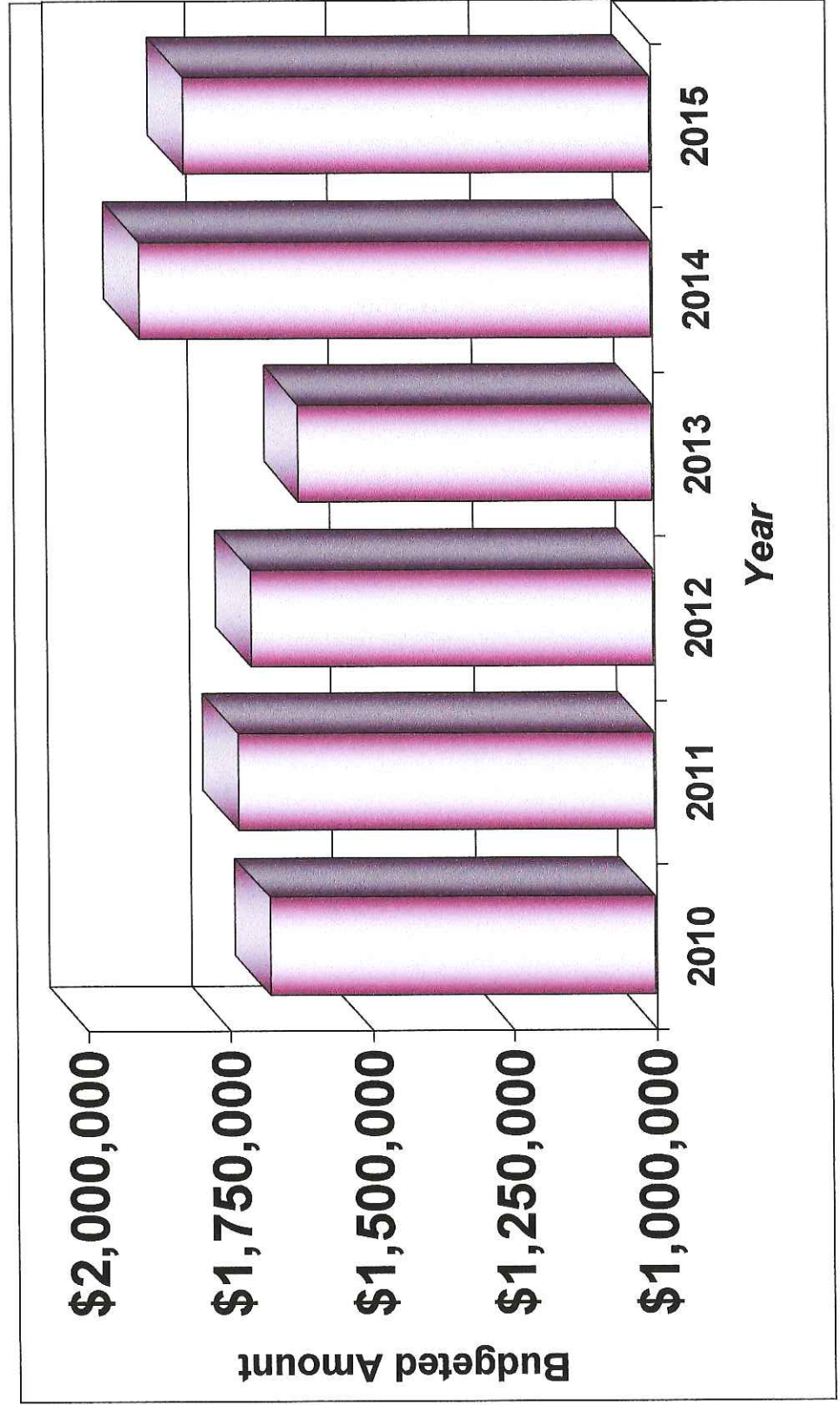


**2015 Annual Budget: \$2,345,000.00**



# Annual Road Maintenance Money

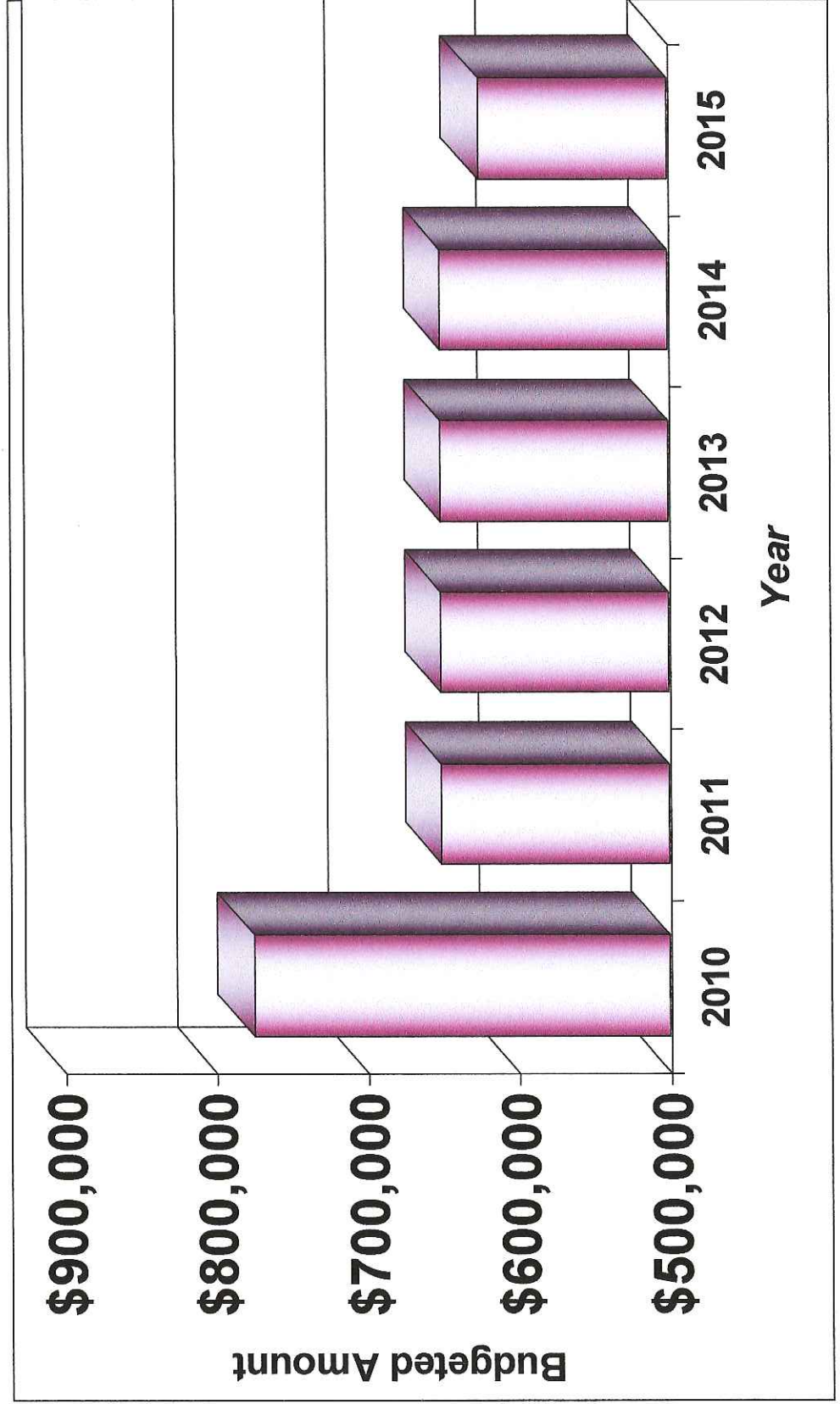
## From 2010 to 2015





# Annual Bridge Maintenance Money

## From 2010 to 2015



# County Vehicle List

ID. Num.	VEHICLE DESCRIPTION	ID. Num.	VEHICLE DESCRIPTION	ID. Num.	VEHICLE DESCRIPTION
06-01	06 Jeep Liberty	01-35	01 Ford F 450 XL Utility 1 Ton Truck	02-69	02 Ford F450 1 Ton w/Stake Body
14-02	14 Dodge Durango	00-36	00 GMC Sierra 1 Ton Utility Truck	06-70	06 Int'l Dump
13-03	13 Ford F250 3/4 Ton 4x4 Pickup	89-37	89 Oshkosh Dump Truck	98-71	98 Chevrolet 2500 Crew Cab 3/4 pickup
15-04	15 Ford F250 3/4 Ton 4x4 Pickup	38		72	
15-05	15 Ford F250 3/4 Ton 4x4 Pickup	39		10-73	10 Int'l Tandem Snow Plow / Dump
01-06	01 Dodge Durango Sport	88-40	88 Int'l Cab Chassis Stake Body Flat Bed	01-74	01 Chevrolet S-10 Pickup
09-07	09 Ford F250 3/4 Ton 4x4 Pickup	08-41	08 Int'l Tandem Dump Truck w/plow	75	
13-08	13 Ford F250 3/4 Ton 4x4 Pickup	00-42	00 Volvo Dump Truck	06-76	06 Ford Taurus
09		02-43	02 Int'l 4700 w/16' Flat Bed Rack Truck	77	
02-10	02 Chevrolet 1/2 Ton Pickup	83-44	83 Oshkosh Snow Plow	78	
11		07-45	07 Int'l 7500 Dump Truck	05-79	05 Johnson Sweeper – Freightliner
14-12	14 Dodge Durango	87-46	87 Int'l Dump Truck	07-80	07 Freightliner 55-ft. Bucket Truck
04-13	04 Dodge 2500 3/4 ton 4x4 Pickup	03-47	02 Int'l Dump Truck	01-81	01 Int'l Altec + F11 65-ft. Bucket Truck
06-14	06 Ford F250 3/4 Ton 4x4 Pickup	48		01-82	01 Sterling Elgin Eagle Pavement Sweeper
01-15	01 Ford F550 Dump	49		83	
14-16	14 Dodge Durango	86-50	86 Int'l Tractor	88-84	88 Oshkosh Tandem Dump
08-17	08 Ford F250 3/4 Ton 4x4 Pickup	92-51	92 Ford Dump Truck	00-85	00 Int'l Eagle Paystar Tri-Axle Dump Truck
04-18	04 Dodge 2500 3/4 ton 4x4 Pickup	95-52	95 Oshkosh Snow Plow	01-86	01 Int'l Eagle Paystar Tri-Axle Dump Truck
04-19	04 Ford 550 Dump Truck	53		00-87	00 Int'l Tractor
86-20	86 Oshkosh Snow Plow	54		88	
95-21	95 Chevrolet Suburban Tahoe	91-55	91 Ford Utility Truck	00-89	00 Oshkosh Snow Plow w/spreader
92-22	92 International Dump Truck	91-56	91 Int'l Dump	88-90	88 Oshkosh Snow Plow w/spreader
01-23	01 Int'l 4700 Crew Cab Dump Truck	98-57	98 Int'l Dump	91	
01-24	01 Int'l 4700 Crew Cab Dump Truck	58		92	
01-25	01 Int'l 4700 Crew Cab Dump Truck	58-59	58 Oshkosh Snow Blower	91-93	91 Int'l Dump Crew Cab (Water Truck)
01-26	01 Int'l 4700 Crew Cab Dump Truck	01-60	01 Int'l Dump	05-94	05 Int'l Paystar Dump Truck w/plow
91-27	91 Int'l 4600 Crew Cab Dump Truck	01-61	01 Int'l Dump	95	
00-28	00 Ford Suburban Expedition	01-62	01 Int'l Dump	96	
92-29	92 Int'l Dump Truck	01-63	01 Int'l Dump	97	
03-30	03 Ford F350 4x4 Utility Service Truck	64		98	
87-31	87 Oshkosh Snow Plow	96-65	96 Int'l Dump Truck	99	
07-32	07 Int'l 7500 Dump Truck	01-66	01 Int'l Paystar Plow	100	
15-33	15 Ford F350 Crew Cab 1 Ton Pickup	02-67	02 Int'l Dump Truck		
13-34	13 Ford F350 Pickup	02-68	02 Int'l Dump Tandem Truck		



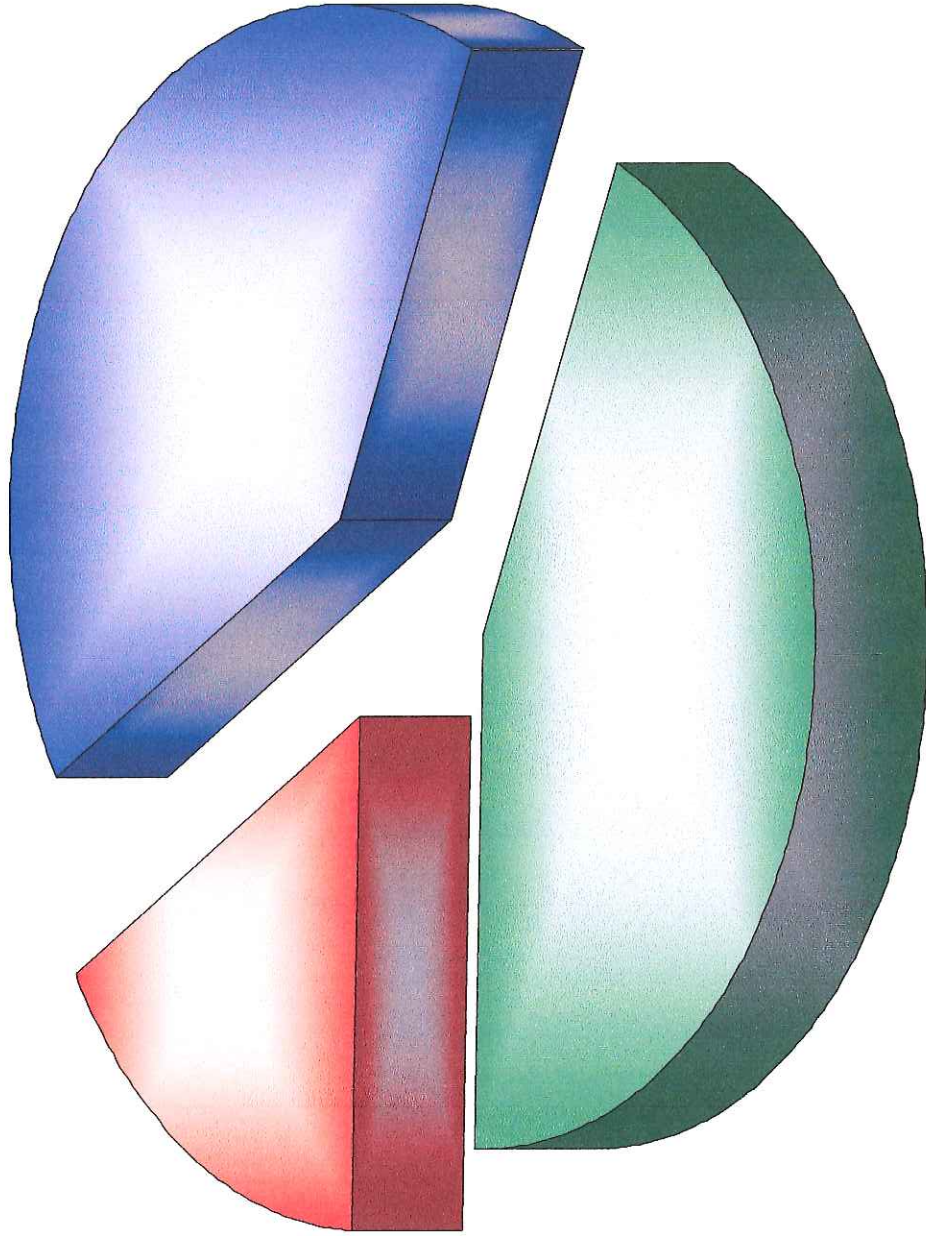
# County Equipment List

ID. Num.	DESCRIPTION	ID. Num.	DESCRIPTION
81-E02	81 Power Pack 605 Road Widener 3 cy. / 18 hp.	97-E54	97 Gradall Excavator
99-E06	99 Case 650G Dozer, 80 hp. 2.2cy.	95-E55	95 Gradall Excavator
99-E07	20 Ton Tagalong Trail King Trailer	00-E56	00 Big Tex 6 Ton Trailer
97-E09	97 Ford 555 Backhoe / Loader 1cy. / 65 hp.	00-E57	00 Big Tex 6 Ton Trailer
99-E12	99 Caterpillar 938G Loader 3 cu. yd. / 145 hp.	89-E68	89 John Deere 544E Loader 2.25 cy. / 115 hp.
63-E15	63 Lincoln Welder	01-E70	01 Ingersoll-Rand 873 Bobcat 73 hp.
88-E16	88 Mastercraft Forklift	94-E74	94 Gradall XL-4100 8 cy. / 145 hp.
00-E17	00 Caterpillar 938G Loader 145 hp.	81-E79	81 Bomag 755 Drum Roller (walk behind)
81-E22	81 Champion 715 Grader 150 hp.	93-E81	93 Morbark 290 Eagle Chipper
00-E23	00 Ingersoll-Rand DD12 1/2 ton Roller / 16.5 hp.	00-E85	00 Case 590 Super L Backhoe
00-E24	00 Ingersoll-Rand DD12 1/2 ton Roller / 16.5 hp.	01-E86	01 John Deere 4x4 624 Loader / 2.5 cy.
00-E25	00 Big Tex 5 Ton Trailer	01-E87	01 Ingersoll-Rand Roller DD110 / 120 hp.
01-E26	01 Stone Wolfpac 2500 Vibratory Roller / 18 hp.	00-E87T	00 Talbert 35 Ton Trailer
04-E27	04 Stone Wolfpac 3100 Vibratory Roller / 18 hp.	98-E88	98 Miller Welder
94-E28	94 John Deere 624 Loader 3.25 cy. 145 hp.	98-E90	98 Vermeer 1230A Chipper 4 cy. / 86 hp.
05-E29	05 Brim Trailer	98-E91	98 Vermeer 1230A Chipper 4 cy. / 86 hp.
03-E35	03 Broce Broom RJ350 Street Sweeper 80 hp.	00-E92	00 Salsco Chipper / 4.21 cy. Diesel
05-E39	John Deere Tractor / Boom Flail Mower	00-E93	00 Salsco Chipper / 4.21 cy. Diesel
15-E40	15 John Deere 5085M Tractor / Flail Mower	02-E96	02 Case 590 Backhoe 4cyl. / 99 hp.
02-E44	02 John Deere 5320 Diesel Tractor Mower 4 cy.	80-E108	80 Hauck Steam Culvert Thawer
91-E45	91 Rexworks SP-910B Roller 87 hp.	83-E111	83 Sullair Air Comp. 68 hp., 185 cfm.
00-E46	00 John Deere 5310 Tractor Mower 55 hp.	88-E112	88 Sullair Air Comp. 78 hp., 185 cfm.
91-E47	91 Massy Ferguson Diesel Tractor w/Side Mower	07-E115	07 Caterpillar 314C Excavator Track
02-E48	02 John Deere 5320 Diesel Tractor Mower	89-E120	89 Caterpillar Grader 120 hp.
99-E53	99 Gradall G3WD / 8cy. / 190 hp.	85-E200	85 Leeboy Asphalt Maintainer 65 hp.



# Greene County Highway Department

## 2015 Vehicle Age - Summary



▣ Vehicles that are LESS than 7 Years Old = 10

▣ Vehicle that are Between 8 and 15 Years Old = 11

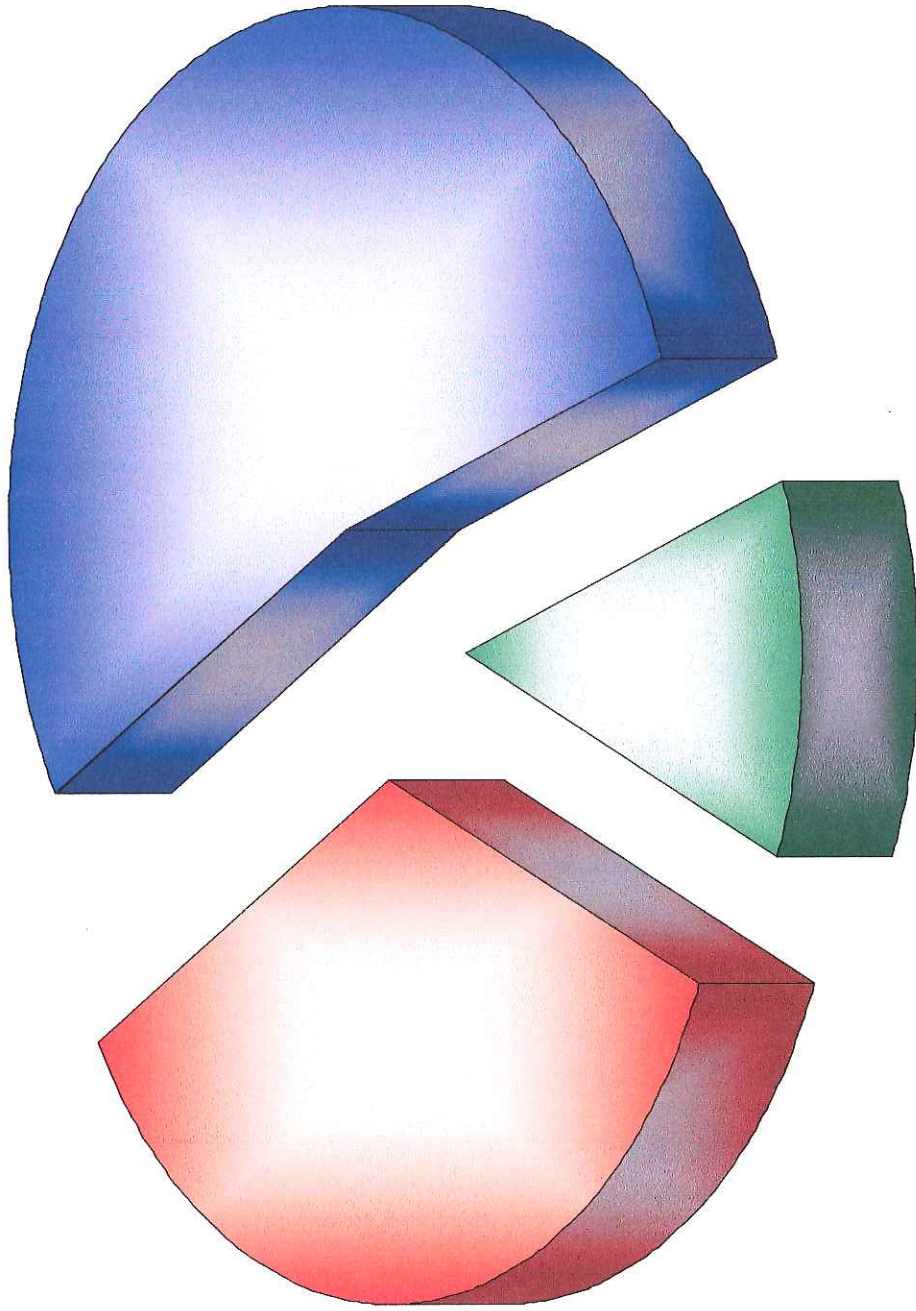
▣ Vehicles that are Greater than 15 Years Old = 4

Pickup Trucks \* Service Trucks \* SUV's



# Greene County Highway Department

## 2015 Dump Truck Age - Summary



- Trucks that are Less than 15 Years Old = 27
- Trucks that are Between 15 and 20 Years Old = 6
- Trucks that are Greater than 20 Years Old = 18

*Dump Trucks \* Snow Plow Trucks \* Rack Trucks \* Bucket Trucks*



# SOLID WASTE MANAGEMENT

## Municipal Solid Waste and Construction & Demolition

**2014**

**2015**

Year End	MSW and C&D	Year to Date	MSW and C&D
January	3,868.35	January	3,513.72
February	3,037.27	February	3,158.57
March	3,609.72	March	3,839.27
April	4,454.20	April	4,741.80
May	4,831.16	May	4,736.75
June	4,298.27	June	5,041.77
July	5,137.48	July	5,260.99
August	4,721.65	August	4,978.95
September	4,571.07	September	5,063.37
October	4,830.25	October	5,171.14
November	3,989.17	November	4,468.22
December	4,058.63	December	4,847.82
<b>Total</b>	<b>51,407.22</b>	<b>Total</b>	<b>54,822.37</b>
		<b>Percentage of 2014 Total</b>	<b>106.64%</b>



# SOLID WASTE MANAGEMENT

## HIGH VOLUME TONS

2015

December  
YTD

PREVIOUS	MSW	C&D	TOTAL	YTD TOTAL
38,609.78	3,608.32	58.80	3,667.12	40,347.88

## APPROXIMATE CUSTOMER COUNT

	WINDHAM	HUNTER	BOOTH	SCALE	COXSACKIE	Monthly Total
2015						
January	2,324	2,163	1,630	1,036	2,888	10,041
February	1,656	1,671	1,189	908	2,351	7,775
March	1,983	2,165	1,982	1,251	2,903	10,284
April	1,742	2,553	2,057	1,723	4,146	12,221
May	1,765	2,889	1,894	1,939	3,825	12,312
June	1,769	2,662	1,665	1,354	3,183	10,633
July	2,201	3,115	1,881	1,746	3,805	12,748
August	2,488	3,357	1,845	1,733	4,024	13,487
September	2,041	2,436	1,746	1,763	3,549	11,535
October	2,228	2,254	1,749	1,783	3,688	11,702
November	2,148	2,267	1,374	1,522	3,247	10,552
December	2,251	2,332	1,535	1,387	3,193	10,698
<b>Year to Date</b>	<b>24,596</b>	<b>29,858</b>	<b>20,547</b>	<b>18,185</b>	<b>40,802</b>	<b>133,988</b>





# 2015 Solid Waste VEHICLES & EQUIPMENT LIST

ID. Num.	Description
SW-2	2003 FORD
SW-5	1991 INTERNATIONAL
SW-9	1996 MACK
SW-10	1996 MACK
SW-12	2004 INTERNATIONAL
SW-13	2004 INTERNATIONAL
SW-16	2007 INTERNATIONAL
SW-17	1979 OTTAWA
SW-18	1986 OTTAWA
SW-20	2008 CHEVROLET
SW-49	1992 INTERNATIONAL
SWT-9	2003 GALBREATH
SWT-10	2003 GALBREATH
SWT-21	2004 SPEC TEC
SWT-22	2004 SPEC TEC
SW130G	2013 JOHN DEERE
SW-310G	2006 JOHN DEERE
SW-863	2003 BOB CAT
SW-510B	1984 JOHN DEERE
SW-416E	2007 CATERPILLAR
SW-416E1	2008 CATERPILLAR
SW-92	2000 YALE
SWT-15	1980 STECO
SWT-16	1980 STECO
SWT-18	1980 STECO
SWT-20	1974 FRUEHAUF
No #	1968 FRUEHAUF
No #	1970 FRUEHAUF

VEHICLES

TRAILERS

EQUIPMENT

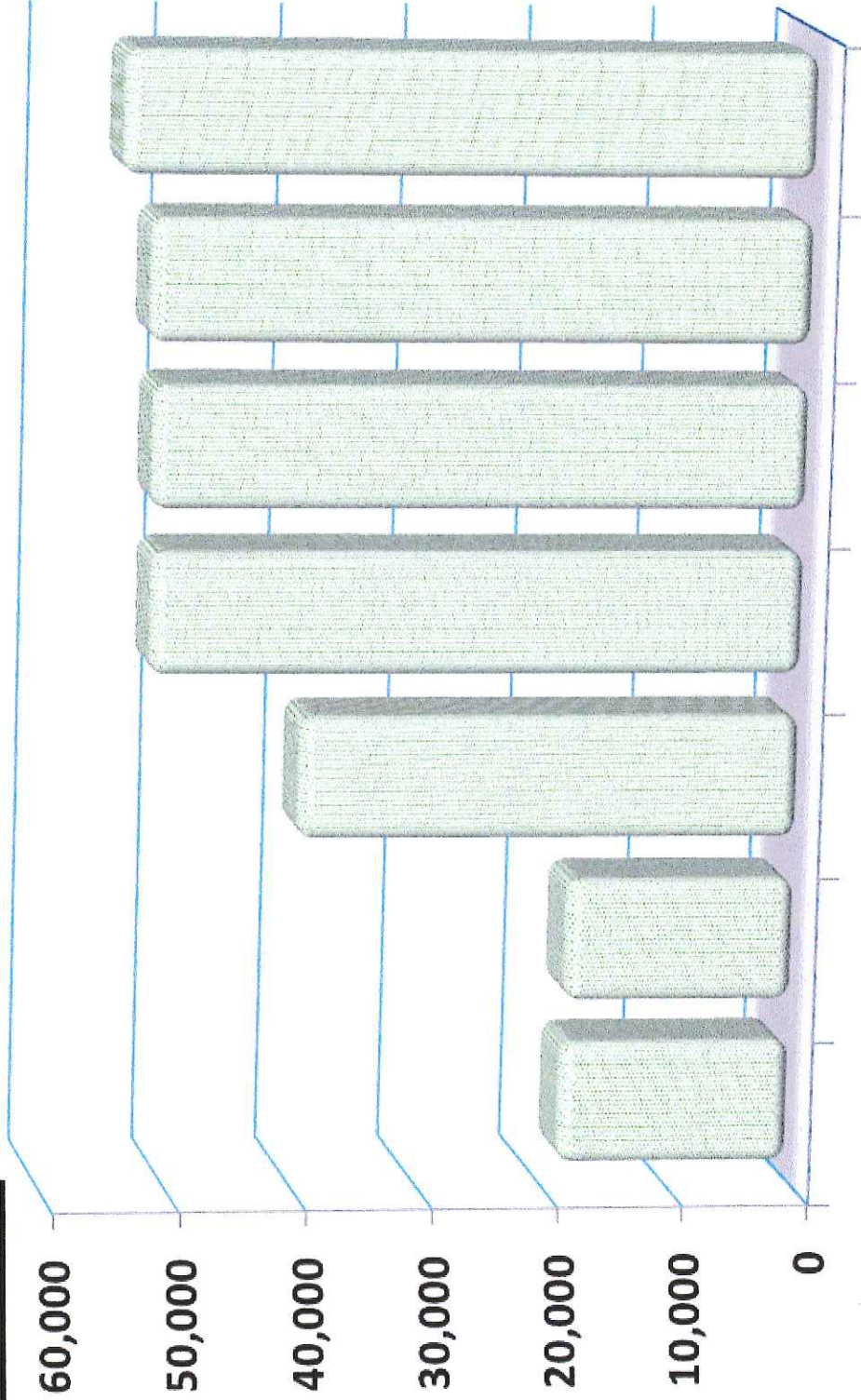
STORAGE CONTAINERS

F350 MECHANICS TRUCK  
 BOX TRUCK  
 TRACTOR  
 TRACTOR  
 BOX TRUCK  
 ROLL OFF TRUCK  
 TRACTOR  
 YARD TRACTOR  
 YARD TRACTOR  
 IMPALA LS SEDAN  
 TRACTOR  
 TRIAXLE TILT TRAILER  
 TRIAXLE TILT TRAILER  
 COMPACTOR TRAILER  
 COMPACTOR TRAILER  
 EXCAVATOR  
 BACKHOE  
 SKID STEER LOADER  
 BACKHOE  
 BACKHOE  
 BACKHOE  
 FORK TRUCK  
 COMPACTOR TRAILER  
 COMPACTOR TRAILER  
 COMPACTOR TRAILER  
 BOX TRAILER  
 BOX TRAILER  
 BOX TRAILER



# SOLID WASTE MANAGEMENT

**US Tons**



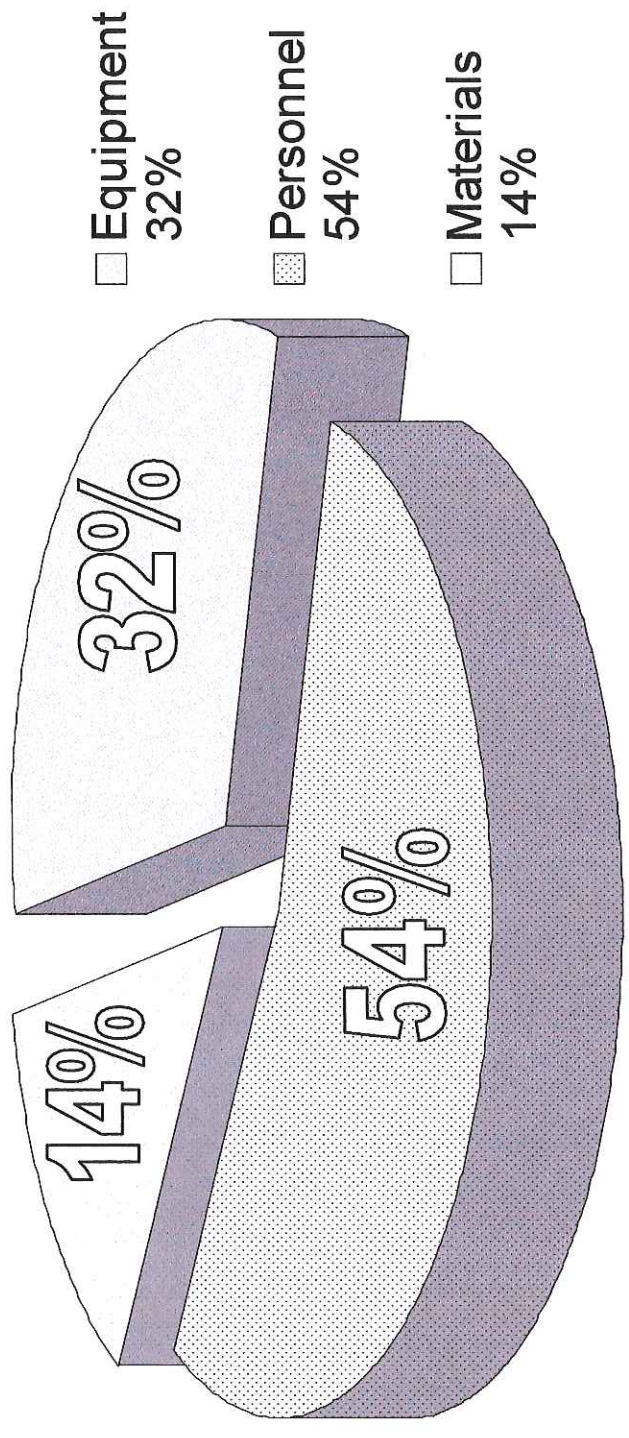
**2009 2010 2011 2012 2013 2014 2015**

**Tons of Municipal Solid Waste and Construction & Demolition Debris Per Year.**



# 2015 - Snow / Ice Removal

*\* Equipment \* Personnel \* Materials \**



**2015 Annual Total: \$1,699,075.44**

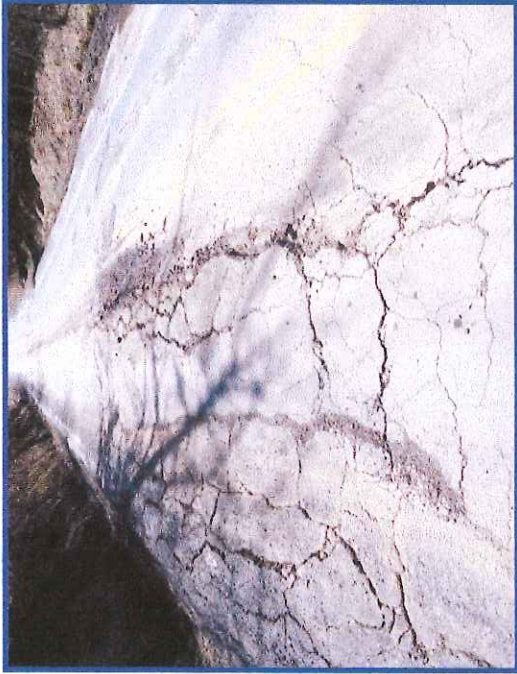


# 2015 TRAINING and SEMINARS

DATE	EVENT	LOCATION	ATTENDEES	DEPARTMENT
January 20 - 22	NYSCHSA (Winter Conference)	Albany	Superintendent, Deputy Superintendent	Administration
February 6, 12 & 19	Discrimination and Harassment Prevention Training	Cairo	All Staff	All Departments
March 4	Advocacy Day - Re: CHIPS, Funding for roads & bridges	Albany	Superintendent Deputy Superintendent	Administration
June 24	State Emergency Management Office Training	Cairo	Superintendent, Deputy Superintendent	Administration
October 20-22	20 <sup>th</sup> Statewide Conference on Local Bridges	Syracuse	Superintendent, Sr. Engineering Tech.	Administration Engineering Division
November 9	Workplace Violence Prevention Training	Cairo	All Staff	All Departments
November 19	First Aid / CPR Training	Cairo	Superintendent, & Volunteers	Road
December 22	Safety Meeting	Catskill	All Staff	Road / Machinery

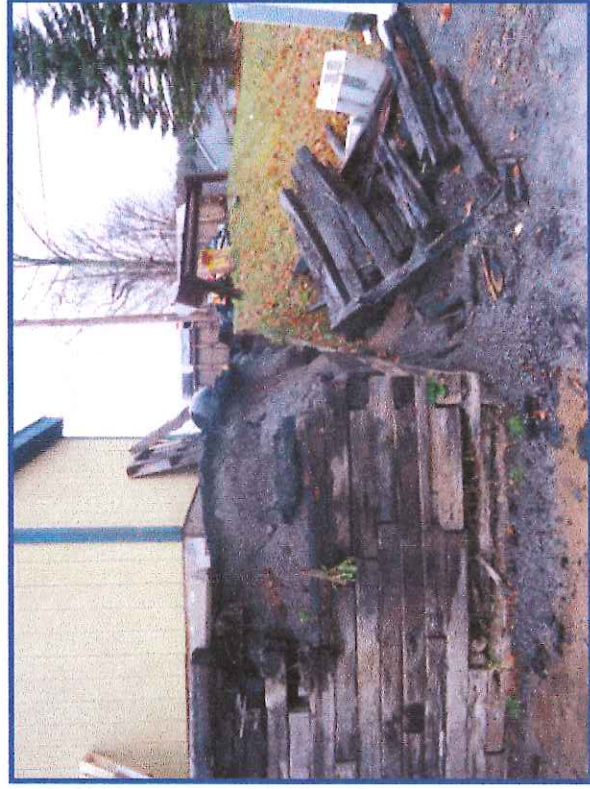
## ***GREENE COUNTY ROAD 13 - TOWN OF LEXINGTON***

Roads are most vulnerable during the early spring months when frost depth combined with saturated soils can prove to be most problematic, requiring design and construction alternatives to achieve an adequate foundation on which to build the pavement structure.



***Photographs taken During the  
Re-Construction and Paving  
Portion of Project***

***Retaining Wall Failure Located at the Windham Transfer Station.***



***County Forces Installing a V-Lock Designed Block***



***Utilizing inexpensive, locally purchased, V-Lock Concrete Retaining Wall Blocks, the County Forces recreated the Retaining Wall, located at the Windham Transfer Station.***



# HURRICANE IRENE PROJECT SUMMARY

## Anticipated Payment Pending FEMA Audit \*

### Large Projects

### *Actual Amounts*

**Total (Federal & State) \$17,541,538.95**

**Total (2015 - Federal) \$1,265,097.71**

**Total (2015 - State) \$421,699.24**

**Total 2015 Reimbursements \$1,686,796.95**

**Total All Categories: \$17,583,173.45 \$17,541,538.95 \$61,602.86**  
(Approved PW Amount) (Shares Received) (Balance Anticipated)

\* As of March 10, 2016