
INTERGOVERNMENTAL COLLABORATION IN ULSTER COUNTY

Shared Municipal Services Feasibility Study for Ulster County
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IDENTIFYING OPPORTUNITIES FOR HIGHWAY SERVICE COOPERATION

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Also Reference Separate Reports :

- Summary Report
- Shared Municipal Services Study Report on Justice Courts
- Options for Shared Planning and Economic Development
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Identifying Opportunities for Highway Service Cooperation

Overview

This chapter of the report summarizes the investigation of opportunities for service sharing, service consolidation and cost saving for Ulster County highway services. An overview of highway services and capacity was conducted by analyzing existing data sources and through a series of interviews with each of the highway managers in participant communities. These interviews also provided the opportunity to collect additional documents from participant communities (Towns of Denning, Gardiner, Hardenburgh, Hurley, Marletown, Marlborough, New Paltz, Rosendale, Saugerties, Shawangunk, Ulster, Wawarsing, City of Kingston, and Ulster County.) The study was supplemented with interviews of a number of local officials in other New York State counties.

The initial sections of this chapter provide an overview of highway services and capacity for each of the following areas: infrastructure, finance, service delivery (broken into sections on winter and summer maintenance), human resources, and existing cooperation practices and opportunities. The overview of services and capacity is followed by a discussion of policy options and recommendations and a final section on targeted recommendations with implementation guidance.

Highway Services and Capacity in Ulster County

Infrastructure Summary

County road and highway infrastructure networks vary substantially across the state's counties. A number of factors influence the character of road infrastructure and the mix of public road service providers and their inter-relationships. Among the important factors are: population density, topography, and regional location (especially proximity to major urban centers). Counties also vary substantially in the mix of state, county, town, village and city road miles in the overall transportation network. One unique factor in Ulster is the role that New York City plays because of the water supply presence and the related road maintenance responsibilities that are involved.

Of upstate counties (outside New York City), Ulster ranks 15th in total population, 14th in total local mileage (county, city town and village owned miles), 15th in county owned road mileage. When we examine the relative mix of county owned mileage as a percent of total local mileage Ulster ranks in 35th place; only 22 percent of local road mileage is county owned. Appendix Table A1 provides a summary of state and local roads in the entire county.

Table 1 below provides a summary of road mileage for municipalities participating in the project study. Over ninety percent of the town road miles are paved in this group.

Table 1: Summary of Centerline Highway Mileage for Study Communities

Municipality	Centerline Road Mileage								
	Total Municipal	Paved	Unpaved	Seasonal	County	Total Local	State	Other	Total
Towns									
Denning	55.3	30.3	10.0	15.0	17.5	72.8	-	-	72.8
Gardiner	56.3	55.0	1.3	-	21.1	77.4	15.9	-	93.3
Hardenburgh	36.4	18.2	18.2		11.9	48.3	-	-	48.3
Hurley	52.3	50.3	2.0		22.2	74.5	9.7	7.1	91.3
Marbletown	85.1	82.1	3.0		27.9	113.0	10.0	1.3	124.3
Marlborough	58.7	58.7	-		17.3	76.0	7.1	-	83.1
New Paltz	58.6	58.6			20.6	79.2	10.1	7.5	96.8
Rosendale	35.4	35.4			20.5	55.9	9.7	5.6	71.2
Saugerties	118.0	110.9	6.5	0.6	34.0	152.0	25.2	9.1	186.3
Shawangunk	91.0	91.0			32.1	123.1	12.6	3.5	139.2
Ulster	69.7	69.6	0.1		23.4	93.1	24.7	9.4	127.2
Wawarsing	165.3	155.3	10.0		26.5	191.8	36.5	6.7	235.0
Total	882.1	815.4	51.1	15.6	275.0	1,157.1	161.5	50.2	1,368.8
Kingston-City	86.6	86.6	-	-	-	86.6	4.1	1.6	92.3
Countywide-Total	1528.3		-	-	424.8	1,953.1	283.2	76.4	2,313.0

Six percent of these miles are unpaved and two percent are seasonal roads. Twenty four percent of all road mileage of study municipalities is county owned, about the same proportion as for the county as a whole. About twelve percent of the road mileage is state owned. Over 70% of the local road mileage is town owned in all study towns, except Rosendale (63%). Conversely, county mileage is 30% or less of local road mileage in each of the study towns, except Rosendale.

Fiscal Summary

Own source revenue is used by localities for building and maintaining local roads. At the county and city levels this means primarily the property tax and the sales tax. Towns rely almost entirely on the property tax for own source revenue, as in Ulster County only 3% of the sales tax is shared with towns and villages. Ulster County holds 85.5 % of the sales tax revenues for county purposes. Of the remainder 11.5 percent is distributed to the City of Kingston. This practice by Ulster County is not unusual. The County ranks 21st among fifty seven upstate New York counties in the percent of sales taxes retained. Of the six counties bordering Ulster, three retain a full 100% (Delaware, Sullivan and Greene), Dutchess retains 84%, Orange retains 77% and Columbia retains 69%.

Table 2 below summarizes the relative property tax resources of municipalities in the project study. Taxable full value per mile of road provides one important measure of

local financial capacity to support highway services. Three communities with a significant portion of unpaved road mileage in the more rural portions of the county have full value taxable value below 10 million dollars per mile (Denning, Hardenburgh and Wawarsing). The Towns of Ulster and New Paltz have in excess of 20 million dollars of full taxable value per mile of road as does the City of Kingston. Ulster County has in excess of 50 million dollars of full taxable value per mile of county roads. On average county road mileage carries more traffic and costs more per mile of road to build and maintain.

Table 2: Taxable Full Value Per Mile and Total Population for Study Communities

Municipality	Total Taxable Full Value	Road Mileage	Total Taxable Full Value Per Mile of Road	Total Population (2000)
Denning	\$ 157,880,982	55.30	2,854,991	516
Gardiner	\$ 892,836,636	56.30	15,858,555	5,238
Hardenburgh	\$ 175,253,821	36.40	4,814,665	208
Hurley	\$ 958,005,526	52.30	18,317,505	6,564
Marbletown	\$ 1,017,597,597	85.10	11,957,669	5,854
Marlborough	\$ 1,003,858,043	58.70	17,101,500	8,263
New Paltz	\$ 1,288,002,176	58.60	21,979,559	12,830
Rosendale	\$ 575,746,006	35.40	16,264,011	6,352
Saugerties	\$ 2,107,545,125	118.00	17,860,552	19,868
Shawangunk	\$ 1,081,086,894	91.00	11,880,076	12,022
Ulster	\$ 1,478,779,963	69.70	21,216,355	12,544
Wawarsing	\$ 1,216,581,548	165.30	7,359,840	12,889
Kingston, City	\$ 1,950,536,571	86.6	22,523,517	23,456
Ulster County	\$ 21,484,261,701	426.0	50,432,539	177,749

Annual highway spending by municipalities may vary for a number of reasons. Municipalities embarking on a strenuous equipment replacement program or road capital improvement program can post higher or comparatively higher spending.

Conversely, municipalities which in previous years made significant investments in these areas can now display relatively lower annual highway expenditures.

Benchmarks for local highway spending per mile of road were estimated in the past by the Cornell Local Roads Program. These benchmarks have not been recalibrated in a number of years, particularly significant in light of recent increases in petroleum based materials and fuel costs. As a result, they do not provide a valuable basis for comparison in this study.

Comparing municipal costs for particular highway activities (e.g. snow removal, sign replacement, etc.) using local budget documents is frustrated by local practices in constructing local budget figures. For example, the use of a seasonal approach in allocating highway department payrolls undermines the use of budget figures to carefully estimate the cost of winter road maintenance or other highway functions and tasks carried out by highway departments across the year. The seasonal approach allocates a fixed number of payrolls to winter road maintenance in the budget process. Some departments have time sheets to allocate actual personnel time each day (as well as equipment and materials) to separate tasks, but these records are generally not summarized to provide a more accurate picture of activity costs or total project costs for major projects. We recommend (see recommendations) that municipalities in the county pursue a standardized approach to project and activity costing as a means of comparing costs and improving productivity.

Service Delivery Summary

Winter Maintenance

Highway managers in the study communities were asked to identify key service provision activities and policies. Table 3 includes a summary of winter maintenance service characteristics. While the total miles plowed by towns in the study vary, only Hardenburgh has a significant number of contracted miles plowed for Ulster County (9 miles of county highway). None of the study towns reported plowing road mileage under contract with the state. The county plows approximately 22 miles for the City of New York for routes around city water reservoirs.

Table 3: Service Characteristics for Winter Maintenance

	Denning	Gardiner	Hardenburgh	Hurley	Marbletown	Marlborough	New Paltz	Rosendale	Saugerties	Shawangunk	Ulster	Wawarsing	Ulster County
Plowing (miles)													
Town	40.3	56.3	36.4	50.3	85.1	58.7	58.6	35.4	117.4	91.0	69.7	165.3	
County			9.0										426.0
State													
Village													
Other													22.5
Total Mileage	40.3	56.3	45.4	50.3	85.1	58.7	58.6	35.4	117.4	91.0	69.7	165.3	448.5
% Town Mileage	100%	100%	80%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
# of Plow Routes	5	7	6	10	10	9	6	10	21	9	11	20	45
Ave. miles per route	8.1	8.0	7.6	5.0	8.5	6.9	9.8	3.5	5.6	10.1	6.3	8.3	9.5
Snow Hauling	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Road Mix #1													
Salt	9 yard	25%	25%	20%	25%	40%	20%	20%	14%	25%	20%	30%	25%
Sand	35 tons	75%	75%	80%	75%	60%	80%	80%		75%	80%	70%	75%
Other (Stone Dust)									86%				
Road Mix #2													
Salt		100%	17%			100%				100%	100%	100%	100%
Reason		Hamlet				Hamlet				Hamlet	runoff	Hamlet	Parking
Sand			83%										
Morning plow routes completed by (hour-a.m.)	6:00	5:00	7:30		6:30	6:30	7:00	6:30	6:30	5:30	5:30	6:30	6:30

The number of plow routes and the average miles per route varied across the study towns. In reviewing the variation in average miles per plow route, it is important to remember that the road networks vary significantly. For example, some towns have a higher portion of their network in hamlet and dense residential areas, requiring shorter routes that take longer to cover per mile. The average miles per route varied from a low of 3.5 to a high of 10.1. Ten departments noted that they do snow hauling on a fairly frequent basis during the winter. In most cases snow hauling is done to clear high traffic or downtown type areas in hamlets.

The typical de-icing mix used for winter maintenance is fairly consistent across the town and county highway departments in the study. All of the departments, excepting one, use a salt-sand mix. The salt percentage varies from 20 to 40 percent of the standard mix. Saugerties uses stone dust instead of sand in its standard mix. Seven departments have a second standard mix: for six of the departments it is one-hundred percent salt. In most cases this second mix is used in hamlet areas.

When a morning plowing is needed, departments vary significantly in the target time for clearing all major roads. It varies from 5:30 to 7:30 A.M. Several factors influence this target clearing time, including commuter needs and school bus route requirements.

Summer Maintenance

In addition to a number of routine maintenance activities, highway departments invest in major project work and paving activities during the spring, summer and early fall. Table 4 includes responses from study municipalities on summer maintenance practices and policies. The study towns and the county mow roadsides for the majority of their road mileage two or more times during the summer months. Several towns indicated that they mow their mileage three or four times per season.

Cleaning road side ditches for improved drainage is also a routine activity, but most departments are able to complete only a limited portion of their full mileage each year. Similarly, smaller roadside culverts are replaced on an as needed basis.

Some level of paving and road reconstruction is carried out by all departments participating in the study. Highway managers were asked to report on the number of miles of chip seal, micro-paving, and paving (asphalt) that was completed in 2009. In addition, the number of miles of road reconstructed during 2009 was also reported. The percent figures indicate the percentage of *paved* miles in the town road network that were addressed with the particular treatment (chip seal, paving, etc.).

A number of factors, including investments in paving and other road treatments in previous years, influence the need for current treatments. Given a number of assumptions, paving or treating totaling about ten percent of the road network is a useful target benchmark against which to compare. For example, the Town of Denning indicates that it paved about 7% and chip sealed about 3% for a total of 10% of the town paved road network in 2009. Depending on existing pavement condition across the network, this could be close to the volume of work needed to keep pace with annual investment needs. For Saugerties, the total across the road investment options is about 18% which shows a higher level of investment coverage.

All town managers indicated that they survey all their roads for needed repairs and maintenance each spring, but only three towns have a formal pavement management system to systematically rate and summarize the needs on each town road segment. Use and annual updating of Pavement Management Systems provide a more objective standard of overall pavement condition and can provide a performance measure of overall system deterioration or quality and the level of needed investment.

Table 4: Service Characteristics for Summer Maintenance

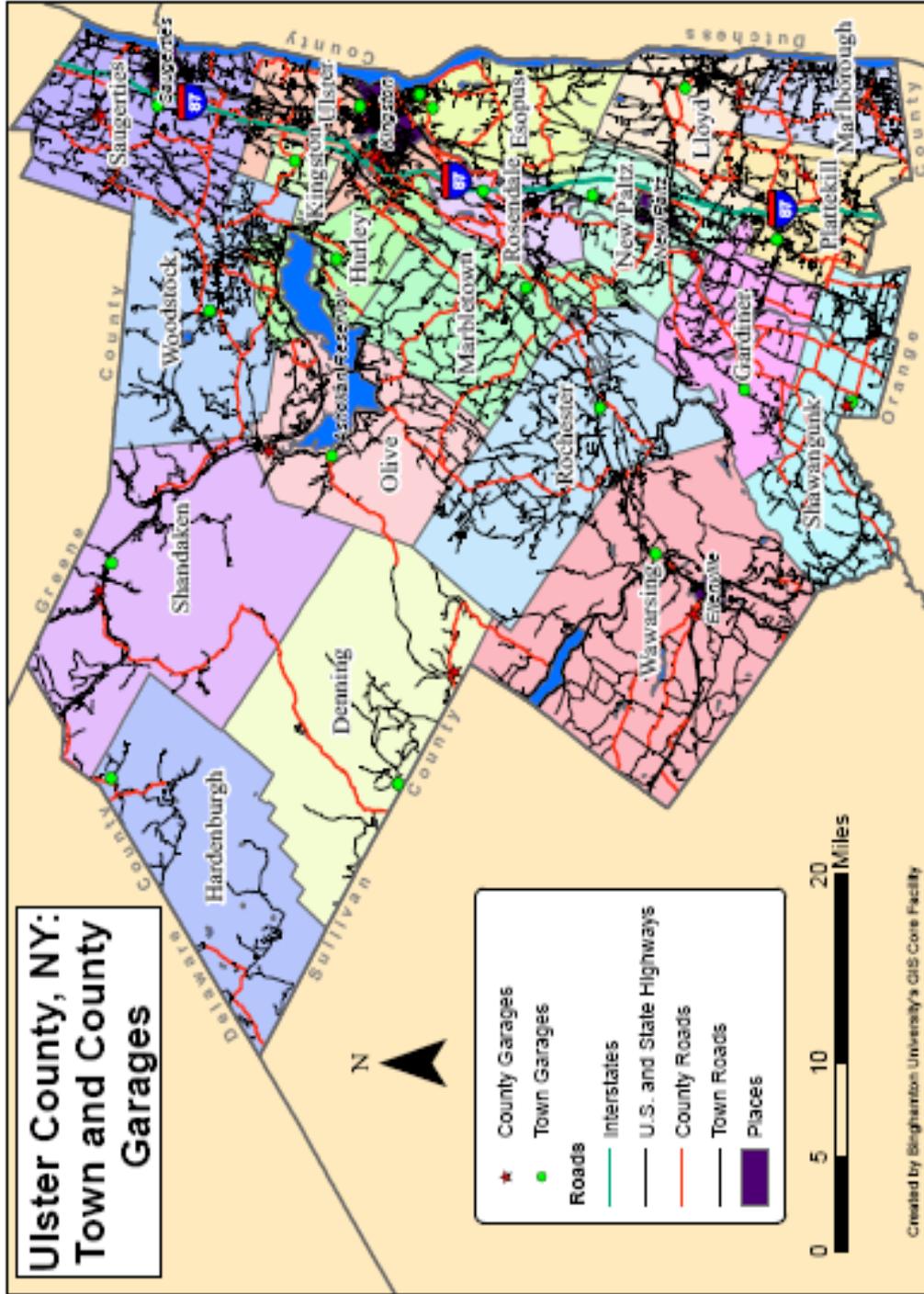
	Denning	Gardiner	Hardenburgh	Hurley	Marbletown	Marlborough	New Paltz	Rosendale	Saugerties	Shawangunk	Ulster	Wawarsing	Ulster County
Mowing (miles)													
Town or County	30.3	56.3	36.4	52.3	85.1	58.7	58.6	25.0	118.0	91.0	69.7	165.3	426.0
Other													22.5
Total	30.3	56.3	36.4	52.3	85.1	58.7	58.6	25	118.0	91.0	69.7	165.3	448.5
Ditch Cleaning (Miles)	25.0	10.0	6.5	34.0								10.0	
Culverts Fixed or Replaced	5.5		7.5	--	--			15.0	3.0		21.0	2.0	426.0
Chip Seal (miles)	1.0	6.5	4.0		2.0	3.0	2.0	2.5	9.0	3.2	0.0	9.0	24.0
% Mileage sealed	3%	12%	22%	0%	2%	5%	3%	7%	8%	3%	0%	6%	5%
Micropaving													4.5
% or total mileage													
Paving (miles)	2.0	2.0	2.0	1.5	2.0		2.0	2.5	10.0	3.0	3.0	9.0	25.0
% mileage paved	7%	4%	0%	3%	2%	0%	3%	7%	9%	3%	4%	6%	5%
Reconstruct /Rebuild							2.5		1.0		2.0		15
% mileage reconstruct / Rebuild							4%		1%		3%		3%
Traffic Control													
Signs Replaced & new	\$500	20	\$1,000		50	50	35		75	\$7,000		200	
Sign Inventory	Yes	Yes	No	Yes	No	No	Yes	No	No		No	No	Yes
Eq. Repair-inhouse	60%	90%	50%	90%	85%	90%	90%	90%	90%	90%	90%	90%	90%
Pavement Mgmt.		Yes	Yes		Yes	Yes	Yes		No	No	No		Yes

All towns reported significant investment in sign replacement required as a consequence of both normal wear and tear and vandalism. About one fourth of towns report having a formal sign inventory, with two having a computerized inventory.

All but two towns do most (90%) of their equipment and truck repair in house.

Highway Garage Facilities

Town road managers were asked a series of questions about garage, salt storage and fuel facilities in the project’s study communities. Map 1 shows the location of all town garage facilities and county highway facilities. With some exceptions, Map 1 mirrors the Ulster County Highway Department Map. In most cases, the major Town facilities for fueling, salt storage facilities and equipment storage (the town highway garage) are co-located at a single town site. Information about the age of the town garages, quality of the site location and the age of salt storage and fuel facilities is summarized in Table 5.



The age of the town facilities range from brand new (one of Hardenburgh's garages) to 79 years old. While a number of towns have had discussions about replacing their garage facilities there are no current plans for replacement. Only four of the study municipalities (Marbletown, Rosendale, Saugerties, and Wawarsing) indicated that there were significant problems with the site of the current garage facility. In each of these cases, the site was either becoming too cramped with no room for expansion (because of the physical size of the site or competing municipal uses) or a change of location to a less congested or less residential portion of the town road network was preferred. In some cases both of these factors were at play.

There have been some preliminary discussions about joint facilities between the towns of Marbletown and Rosendale. It has been suggested that such a joint facility might also help the county in better serving its road network, and therefore may be an interested partner as well.

**Table 5: Municipal Facilities
Garage, Salt Storage, and Fuel Storage**

	Denning	Gardiner	Hardenburgh	Hurley	Marbletown	Marlborough	New Paltz	Rosendale	Saugerties	Shawangunk	Ulster	Wawarsing
Facility Age, Replacement Plans										1.8		
2009												
Municipal Garage-Age	44	21	-	79	33	54	??	48	35	24	17	37
Plans for upgrade	No	No	No	No	No	No	No	Talk/No	No	No	No	No
Location on road network	Good	Good	Good	Good	Problems	Adequate	Good	Problems	Problems		Good	Problems
Need for Improvement	No	No	No	No	Yes	No	No	Yes	Yes			Yes
									New site needed			
Additional Buildings-Age	14		31		33		Yes	Yes		34		
Fuel Storage Facility-Age	5	15	7	11	9	14	14	12	11	16	17	12
Plans for upgrade	No	No	No	No	No	No	No	No	No	No	No	No
Timing												
Salt/Sand Storage												
Plans	11	14	8	10	8	14	40	No	12	4	17	9
Timing	No	No	Yes	No	No	No	Yes	Yes	No	No	No	No
			5 Years				2009-2010					

All of the study towns have gas and diesel fuel facilities and all are less than 20 years old. No highway superintendents indicated plans for investment in new fuel facilities. With the exception of the Towns of New Paltz and Rosendale all of the towns in the study have salt storage facilities that are less than 20 years old. New Paltz plans to replace its 40 year old facility during the 2009-10 period. While Rosendale is in the planning process, a projected date for constructing a salt storage facility has not been identified.

The county maintains eleven regional facilities or substations around the county. These are grouped under the leadership of their four countywide maintenance

regions. Generally, these facilities have equipment storage bays, salt/sand storage and six to eight assigned employees. Some facilities have a bay for equipment maintenance. A group of three mechanics serve these regional facilities and travel to them for work on vehicles.

As evident from Map 1, a number of the county's regional facilities pair very closely with either existing or needed town facilities. For example, the county's Shawangunk facility on Kings Lane lies on the same side road and only a short distance from the Town facility. In the rural town of Denning, the county's Sundown facility on Yagerville Road is in a key location from which the Town of Denning needs bays to deploy to serve one of its three sub-networks of mileage in the town road system.

Equipment Summary

A compilation of equipment lists for study towns has been assembled in a separate document.

Human Resource Summary

Highway department staff varies among towns participating in the study. As indicated, above, road maintenance responsibilities, the determinants of the need for staffing, vary significantly across the towns participating in the study based on geographic conditions (e.g. slope, drainage) total road mileage, paved road mileage, amount of residential streets and hamlet areas maintained, etc.

The number of highway staff and their compensation are summarized in Table 6. Across the twelve towns there are approximately 164 full time employees. Sixty-one percent of town highway employees are equipment operators (motor equipment and heavy equipment operators). About nineteen percent of town highway employees are supervisory (highway superintendents and their deputies, and various "foreman" and other supervisory titles). Of the remaining staff, about eight percent are laborers by title, six percent are mechanics (a larger percentage of manpower is utilized for this purpose either on a full or part time basis but carry other job titles), and about five percent of town highway staff are office administrative staff.

While not included in the table most town highway departments reported the use of part-time employees, primarily to supplement mowing and road flagman needs in the summer, and for additional winter plowing staff during peak winter demand.

Table 6: Highway Personnel

	Denning	Gardiner	Hardenburgh	Hurley	Marbletown	Marlborough	New Paltz	Rosendale	Saugerties	Shawangunk	Ulster	Wawarsing	Ulster County
Superintendent	\$36,500	\$45,000	\$30,125	\$43,500	\$42,611	\$57,096	\$49,994	\$45,980	\$52,258	\$48,645	\$49,998	\$45,320	\$39.90/hr
Elected or appointed	Elected	Elected	Elected	Elected	Elected	Elected	Elected	Elected	Elected	Elected	Elected	Elected	Appointed
Experience in Position (yrs)	6	8	4	2		12	8		9	8	2	2	1
Deputy Superintendent													Sect. Super.
Average Wage					\$19.58	\$21.01		\$18.66					\$25.16
Number (Full-time)					1	1		1					6
Highway Supt. Secretary													
Wage or Salary		\$11.92		\$11.60	\$23,168	\$22,840	\$14.95	\$12.51	\$17.71		\$19.12	\$33,660	
Number (full-time)		1		1	1	1	1	1	1		1	1	
Motor Equipment Operator													MEO
Average Wage	\$17.30		\$13.55			\$19.18	\$19.14	\$16.29	\$19.86		\$19.12	\$22.02	\$15.88
Number (full-time)	1		5			4	7	4	7		7	11	32
Heavy Equipment Operator													CEO
Average Wage	\$18.35	\$16.23		\$19.55	\$19.14	\$19.70		\$17.81	\$20.79	\$20.89	\$20.18	\$22.73	\$19.71
Number (full-time)	4	7		8	5	3		3	3	10	5	6	68
Supervisor/Foreman													
Average Wage	\$17.82	\$17.92		\$21.70	\$19.14	\$20.38	\$21.67		\$21.18	\$21.80	\$21.49	\$24.76	\$21.31
Number (full-time)	1	1		2	1	1	1		2	1	3	4	16
Mechanic**													
Average Wage						\$21.28		\$19.53	\$19.54		\$20.01	\$21.77	\$19.84
Number (full-time)						1		1	2		3	3	25
Laborer													
Average Wage								\$15.11	\$18.57		\$16.70		
Number (full-time)							3	2	7		1		
Total Full-time Employees	7	10	6	12	9	12	13	13	23	12	21	26	148
Miles of Road per full-time employee*	7.9	6.3	6.1	4.8	10.6	5.9	4.9	3.2	5.9	7.6	4.1	7.5	3.7

The inclusion of county highway staff in Table 6 required more extensive grouping of employees of diverse job titles to fit the table categories. As a result the county numbers are a rough representation of total employees and approximate functions and duties of the people in the county highway workforce.

There is some variation in the benefits provided to employees in the study towns. All towns provide some level of the following benefits: individual and family health insurance, personal leave, bereavement leave, vacation, and a set of standard holidays. Additionally, dental insurance is provided by some study towns.

Cooperation Summary

Informal Cooperation. County and town highway departments in the study cooperate extensively to informally share manpower, materials and equipment on a regular basis. Examples include sharing trucks with drivers for hauling materials in connection with summer paving activities, and sharing specialized equipment or highway staff with specialized skills, for particular tasks. Within sub-regions of the county, the regional county group or a town department often have a piece of specialty equipment that is shared with other nearby departments. This kind of regional sharing with nearby departments is valuable, minimizing the cost of transport and travel in intermunicipal sharing.

These local and routine sharing opportunities vary significantly in their extent and scope. At the most extensive level, because its staff and road mileage is limited, the Town of Kingston relies upon the Town of Ulster every year to take the lead role for most of the annual paving in Kingston with manpower and equipment assistance from the Town of Kingston's crew and trucks. In exchange the Town of Kingston provides manpower and trucks to help the Town of Ulster at other times during the summer construction season. At the other end of the spectrum, a number of towns reported the annual borrowing of a bucket truck for tree trimming or specialized equipment to clean catch basins. In the case of winter road maintenance, a number of towns (and the county) swap the plowing of small segments of their road network to enable both parties to avoid the extra cost of maintaining "expensive to reach" portions of road.

Most of these limited, frequent exchanges would be greatly hindered, often even avoided if a written agreement was required in each instance. As a result local town highway departments have developed "umbrella agreements" with nearby towns with which they often do routine sharing and exchange, including the county highway department. In some cases, Saugerties for example, these agreements are extended to municipalities outside the county. These agreements address liability, cost and responsibility issues. Concern was expressed by some interviewees about **the currency of these agreements and if they were still in force.**

These kinds of agreements are valuable and facilitate the continued use of routine sharing arrangements. In the future, a county effort to standardize and streamline a county agreement in which all participating towns could participate would be valuable to assure currency and continuity, and to ease the agreement process across departments. This practice has been developed to permit sharing among all departments in a county in a number of counties, including Erie and Allegany. Such a single agreement could be updated, if needed, and renewed every five or ten years by municipalities in the county. A model agreement is provided in the appendix.

Formal Agreements. There are a limited number of more formalized contractual sharing of services among highway departments in the study. In one example, the county contracts with the Town of Hardenburgh to provide winter maintenance on about nine miles of county road in the Town of Denning. In another, the Town of Lloyd and the Town of New Paltz jointly purchased and share the use of a Gradall

excavator that was obtained with the proceeds of a grant from the Department of State’s shared services program.

Highway managers were asked if there were any skills or equipment resources in their department that they believed could be valuable and utilized by other nearby departments. The list in Table 7 is a compilation of the responses of town and county managers.

Table 7: Resources that Could be Helpful to Others

County	Bridge Crew that both fabricates and installs, Guide rail crew, engineering group
Town of Gardiner	2 talented fabricators as well as masons and mechanics
Town of Marbletown	Paver operator, Gradall operator, mechanic- excellent fabricator.
Town of Marlborough	Drainage Crew
Town of New Paltz	Milling unit for the front of a skid steer
Town of Rosendale	Quality mechanic, in-house capability for making small road signs
Town of Saugerties	Welder Fabricator, excellent computer equipment and test equipment for engine repair, lowboy trailer
Town of Wawarsing	Paver, stump grinder, chipper

Opportunities for Cooperation. A number of town highway managers mentioned potential additional opportunities for cooperation. As noted in the facilities inventory, Rosendale does not have a storage facility for winter de-icing material. In looking for options to address this need, Marbletown and Rosendale have discussed the potential for a joint facility near the border of the two towns that would address Rosendale’s existing need and reduce deadheading costs for some Marbletown plow routes.

The Town of Denning’s road network is split into three sub-networks that are associated with the three valley areas in the town. The Town Highway facility is in the Hamlet of Denning, and Town highway trucks have to leave the county to access the other two major portions of their network in Frost Valley and Sundown. Ulster County owns a regional facility in Sundown. The town highway superintendent suggested that the town would benefit from some form of sharing arrangement with the county that would permit the town to deploy personnel and equipment from Sundown. This opportunity in Denning will be considered more fully in the Policy and Recommendations section of the report.

Factors in Cooperation. Trust and respect are very important factors in the willingness of highway managers to work cooperatively and share equipment. Many managers expressed hesitancy in jointly owning a piece of equipment because of the problems

involved in both scheduling and assigning the costs for repairs among joint owners. Problems in the “people” and “trust” sides of joint arrangements were the principal hindrance for many town managers.

All town highway managers identified a number of fellow town highway superintendents and county highway personnel that they viewed as helpful, and to whom they would turn for help when they ran into a difficult problem. The former Town of Marbletown Highway Superintendent and current Ulster County Highway Commissioner was mentioned numerous times as a trusted and valued advisor.

Some highway superintendents indicated that the county engineering staff could take on a larger role in providing help and technical assistance on town highway issues. The key in the county playing this larger role is assigning appropriate staff to the function, and maintaining continuity of those serving in this capacity.

Policy Options and Recommendations

Several approaches have been used to adjust the overall alignment of responsibilities among highway departments within counties. These approaches can be viewed as a potential means to reduce overall costs of road maintenance services in the county while improving quality or performance. A number of counties contract with one or more municipalities for a limited number of functions (e.g. winter road maintenance). Here we will look at several more comprehensive approaches.

The approaches outlined here are utilized in three different upstate counties: Monroe, Jefferson and Chemung. The approaches in Monroe and Jefferson have been fully implemented with decades of experience; Chemung is developmental, with the implementation approach being developed “as we speak.” Each of these approaches will be outlined briefly below followed by a comparative assessment for Ulster County purposes.

1. Monroe County: Contracting Out

Monroe County (2000 population of 735,380) has a land area of about 660 square miles and 665 centerline miles of county road. Total local road mileage in the county is about 2,965 with 2,300 owned by town, city (Rochester) and village governments. While Monroe County is a denser more urban environment, with about 50% more total local miles than Ulster, the percent of county miles in the local road network (22%) is roughly the same.

For at least 40 years, Monroe County has been engaged in some relatively unique practices of contracting out work on county roads to town highway departments. The county contracts out to towns all winter snow and ice control, major paving jobs, summer major maintenance and CHIPS (Consolidated Highway Improvement Program) work, and minor maintenance. To accomplish this the county enters into an overarching annual agreement with each town establishing the labor fringe and equipment rates that the town may charge the county for work completed under the agreement. For equipment, as a relatively neutral standard, state rates are used.

The county has three area managers responsible for all maintenance within their jurisdiction. These managers have a maintenance budget and make decisions about how to accomplish needed work. Depending on the task they have three general options: in-house production, contract with towns, or contract with the private sector.

County In-house Activities. The county does all highway striping for county, city (Rochester) and town roads for no charge. The county highway department also makes signs on request for the city, county, and towns for a fee. The county does not do sign installation for towns. The county also provides traffic engineering assistance/functions to the towns without a charge.

Winter Maintenance. The county contracts out all snow and ice control on county roads to town departments. Snow and ice control is reimbursed on a per mile “lump sum” basis. The county enters into a 10 year contract with towns with annual cost adjustments for labor, de-icing materials and equipment.

Routine Summer Maintenance. The annual contract calls for the towns to do all mowing, sweeping, dead animal pickup, and roadside pickup of trash. These tasks are reimbursed based on a standard formula per mile. For other summer “service request” work the county issues a work order to the town and compensates separately. The county’s three area managers each have a budget for maintenance within their area. The area manager assesses his needs and decides who might best do the project. He can ask the town to do the task through work order, accomplish it in-house or contract with a private vendor.

Other Summer Maintenance. Non-routine summer maintenance is reimbursed on a time and materials basis. Routine summer maintenance is reimbursed on a lump sum basis using a lineal foot or mileage based formula. The county contracts out much of its summer construction to towns on a time and materials basis. Rehabilitation work is contracted to towns. For work that appears to be beyond the capability of towns (inadequate equipment, skills or time) the county will contract with private vendors (e.g. milling and repaving). Any county project work to be completed in a particular town is offered to the town department on a right of first refusal basis. If the county believes that the capability in a particular town is thin, it will suggest a team relationship with another town to do the project. If this cannot be achieved the county will contract the project out to the private sector. About 50% of the town highway superintendents in the county are appointed.

Equipment Sharing. All the highway departments in the county have a mutual equipment lending agreement.

The county has roughly 11 highway maintenance employees in-house for county road purposes. These people are assigned to drainage projects, urban projects, an extensive hot patch program, truing/leveling work, etc.

Bridges: The county maintains most bridges over 20 feet on town roads (the towns have chosen to maintain some themselves). The county also provides technical assistance on bridge repair and construction.

2. Jefferson County: Decentralization of Service Delivery

Jefferson County (population 110,943) covers 1,300 square miles of territory and has 1215 centerline miles of local roads. About 539 (32%) are county roads with the remaining 1216 miles owned by towns, villages and the city of Watertown. The county maintains over 400 bridges.

In the early 1970s, Jefferson County began contracting with towns for road improvement projects on county roads. This practice has grown to the point where the county contracts portions of all major reconstruction and rehabilitation projects with town highway departments in the county. While the role varies, all of the 22 towns in the county participate in some form of agreement to help with county road projects.

Road improvement projects are only a part of this cooperative town-county relationship. The county Public Works Department contracts with town highway departments for all routine summer and winter maintenance on county roads. At this time about one third of the county highway budget is returned to towns through these contracts for road projects and for maintenance activities on county roads.

Reduction in County Forces. Contracting out a broad range of highway work has allowed the county to downsize their workforce and equipment inventory. Since this has been a gradual process there has not been an attempt to closely measure the impact of downsizing over time. Current and former county highway staff estimate that the highway workforce has been reduced by 20-30 positions since the early 1990s, and overtime costs reduced from \$90,000 to \$30,000 during the 1990s. These reductions were achieved through continued “tinkering” with service changes and adjusting contractual arrangements with the towns. The county workforce has remained stable at about 60 employees since the late 1990s. The 2010 budget calls for an additional reduction in force because of the economic downturn. The county highway department currently has 3 crews: one for summer maintenance, one for construction and one for bridge repair.

Construction Projects. The county highway department contracts out a large portion of its road construction projects and some of its bridge projects to town highway departments. The contractual relationship between the county and towns varies based on project needs and available town capacity and resources. Town involvement takes three basic forms:

- A. Predefined project work done by the Town on a unit cost basis, with *project supervision provided by the Town* under the oversight of the County Highway Department.
- B. Predefined project work to be completed by the Town on an hourly reimbursement basis at standard rates with *project supervision and oversight provided by the County Highway Department*
- C. As needed project work to be completed by the Town on an hourly reimbursement basis at standard rates.

These basic options provide flexibility to both the town and county in arriving at a level of project involvement by the town highway department that is acceptable to both. A key difference between “A.” and “B.” type agreements is “who” provides project

supervision. In “A.” type agreements it is the town; in “B.” type agreements it is the county. This flexibility allows for differences in the availability of town forces and equipment, and differences in the experience and skills of the town highway superintendent and other town personnel.

Road Maintenance. Jefferson County also contracts all basic winter and summer maintenance on county roads to towns. In general town highway departments do maintenance work on county road mileage within the town. This includes: snow plowing and ice control, roadside mowing, brush cutting, pothole patching, ditching, and paving. County department leadership believes that contracting most basic road services to the towns has real “deployment” advantages in conducting road maintenance. The proximity of town garages to county road mileage within the town provides much closer access and quicker response times than the deployment of county crews out of centralized facilities. It is assumed that this difference in getting manpower, equipment and materials to the job site results in significant savings. In addition, problems on county roadways within the towns are spotted earliest by town employees that travel the roads frequently. Town departments field most requests and complaints regarding county roads in their area.

County officials believe that the contracting arrangement has helped build better staffed, housed, and equipped town highway departments and, of course, increased the level of financial resources available to them. Some comparative work in the 1990s demonstrated that towns in Jefferson County had higher levels of resources per mile of road served in comparison to similar sized towns in nearby counties.

Single Contract. A single contract is signed with each of the county’s 22 towns covering relevant work in each of three areas: road and bridge maintenance, winter road maintenance (sanding, snow and ice removal), and construction and reconstruction of county roads and bridges.

Contract Cost Arrangements. The contract template used by the county clearly lays out cost reimbursement guidelines. These guidelines indicate clear rules for reimbursing for personnel and equipment used to do county work. Personnel costs are reimbursed at the actual hourly and fringe benefit rate for personnel working on county projects. Equipment rates are set at levels specified in the NYSDOT schedule, or at 90% of those levels. Materials costs are directly paid by the county. The cost arrangement specified is a direct fee for cost of service rate and does not contain any administrative or fixed overhead reimbursement charges for towns.

County staff believe the town-county relationship has been useful in promoting improved management and cost saving approaches among the towns. For example the contract template calls for the towns to, where possible, “minimize overtime pay by use of a shift work system” to achieve cost savings for snow and ice removal. The concept of increasing shift work during winter months to reduce overtime hours was already being practiced in some towns. By raising this issue through group contract discussions with the towns, board members from other towns were stimulated to look into this option. Shift work during the winter has the potential of reducing overtime costs in both town and county expenditures.

Maintenance District Concept. Five county highway maintenance districts were created in the late 1990s to regionally deploy county employees and equipment throughout the county. While many counties have satellite facilities located in different areas of the county, this change goes one step further. Each of the county's maintenance districts was co-located in town highway department facilities. The county negotiated shared facility space with town highway departments in exchange for sharing in facility operating costs (heat, utilities, etc.). County staff also believe that co-locating county and town highway personnel will increase joint and cooperative opportunities and training for town personnel leading to further cost savings. The regional maintenance district concept was abandoned after 2005. (finding out why...) New department leadership pulled the regional staffing back in house. A high level of maintenance and project contracting continues based on the model outlined above.

Contracting with the Private Sector. By actively working with the private sector county administrators remain in touch with private sector pricing and can use it as a benchmark in evaluating town contracts, performance and cost estimates.

Contracting and Administration. County staff believe that the practice of contracting out work to towns probably increases the need for some administrative tasks and therefore costs. It is reasonable to expect that it will take both more administrative work as well as a different mix of skills to run a county highway department with a strong focus on maintaining good cooperative relationships and evaluating contracting options. This kind of orientation requires skills in contract monitoring, negotiation, etc. It is thus not a surprise that Jefferson County's former deputy public works superintendent was not an engineer by training but has a background which includes a stint as Jefferson County Comptroller and time in private sector contract management.

Why Decentralize? The initiatives of the Jefferson County Highway Department are counter to the instincts of many regarding how to improve highway services. Many would argue that counties should take a more central role, particularly in highway construction project work. County highway administrators in Jefferson County believe that contracting out county highway work improves the overall maintenance system and helps the county effectively transmit technical expertise in design and road building to town highway personnel. County staff believe that town personnel are often more capable than they realize. By working directly with town employees, county technical expertise can be used to give "on the job" training and expand the kinds of work that town crews attempt and accomplish.

A critical factor is the perspective taken on the road network within a county. One county highway superintendent expressed the belief that county, town and village road mileage should be viewed as a total county road system, an interrelated road network (not in the sense that the county government controls the whole system). From this perspective, it is important for all highway departments in the county to work together as efficiently and effectively as possible to maintain that network. Secondly, Jefferson County is geographically very large with lots of roads, lots of bridges and some very remote areas. Recreation and tourism are important to the county's economy. Good roads that are maintained efficiently are important not only for local residents, but for getting people to and from recreational and tourist amenities. The whole county, town, village road network has to work well together for this to happen. An efficiently and well maintained

road and bridge network are an important pre-requisite for economic activity and improvement.

Chemung County: Highway Services Board

Chemung County, home to the City of Elmira, is situated in the central southern tier of New York's counties. Chemung County (population of 91,080) has 1,010 centerline miles of local roads with 244 (24%) of those miles county owned. The balance of 766 miles are owned and maintained by the county's cities, towns and villages. Chemung County covers 408 square miles of land area.

While most of the county's road mileage is paved, four rural towns have less than 25 percent of their local roads paved (Baldwin, Chemung, Erin, and Van Etten). The presence of a paved versus unpaved road surface is one of the factors that require different management practices that road managers have to balance in providing winter road maintenance.

While there are distinctions in the ownership of road mileage in the county, it is in fact an integrated road transportation system serving a variety of road users. The challenge is working with municipal officials that serve their municipal constituencies to assess options to improve efficiency in maintaining this network that cross "strictly municipal" responsibilities.

In the fall of 2006, the County Council of Governments' Shared Services Task Force -- with representatives from the county, town, city and village recommended the formation of a Municipal Highway Services Board to be composed of a representative from each willing municipality in the County. Staffing and governance were key aspects of the proposal. This board was intended to provide a mechanism for municipalities to explore and implement joint highway maintenance efforts. A Shared Services Public Works Coordinator would be hired by the board to coordinate with other public works and highway personnel in identifying and implementing shared highway service opportunities.

The staffing proposal for the Board provided a change in county administrative leadership in this area that is important in at least three respects. First, the county experienced two staff departures, one through retirement. The incumbents in these positions were perceived by some at the town level as a source of friction or difficulty with town highway personnel. Previous studies have shown that trust and willingness to work together is an important foundation for increased service sharing and consolidation. Progress in Chemung required that local governments address the legacy of distrust and unwillingness to work together that previously hindered cooperation. This was essential for positive, sustained change.

Second, as noted in Figure 1, the county reconfigured the two vacant highway leadership positions in important ways intended to encourage department leaders to look at highway services from an intergovernmental perspective. Jefferson and Monroe, as discussed above, appear to have administrative leadership with this perspective within more traditional job titles and authority structures. In Chemung's case, the county executive and legislature are demonstrating a willingness to take significant steps to create a

cooperative environment, provide a level playing field for their municipal partners, and rebuild needed trust.

Third, the proposed plan makes the towns, villages and city equal partners in the governance and planning of intermunicipal highway work. As Figure 1 (below) also summarizes, with the loss of the County Highway Commissioner and the County General Highway Foreman, the County Executive recommended a reconfiguration of these two positions. The funding from the former commissioner position was to be used to support a new position entitled: “Share Services Public Works Coordinator.” The coordinator is to be hired by and accountable to the new County Highway Services Board. The former General Highway Foreman position was proposed to be reconfigured as a County Highway Superintendent, to work directly with/report to the Shared Services Public Works Coordinator.

Figure 1: Previous and Proposed Staffing and Accountability Structure of Highway Leadership in Chemung County

Previous Accountability Structure	Proposed Accountability Structure
County Executive	County Highway Service Board
Commissioner of Public Works	Shared Services Public Works Coordinator
General Highway Foreman	County Highway Superintendent

Though the Coordinator would be a county employee, the county has been clear that it does not want its representative to chair the County Highway Services Board, further assuring a level playing field for participating municipalities. This board will select and set policy guidance for this new staff person.

The Chemung County Legislature passed a resolution in November of 2006 authorizing the formation the Municipal Highway Services Board. Seven municipalities, six towns and one village initially announced that they would participate. The five municipalities are the Towns of Big Flats, Catlin, Elmira, Horseheads, Southport, and Veteran and the Village of Horseheads. These municipalities represent an important portion of the county’s core municipalities.

The development of the role of the Shared Services Board, and the implementation of highway services change among Chemung County municipalities has been slow. The County and the City of Elmira are sharing a Director of Public Works as an interim appointment while a study is underway to examine a staffing structure and approach for the participating towns and villages. This effort builds on a number of administrative and service sharing arrangements between city and the county. A consultant project, funded by the NYS Department of State, is working to develop a more concrete plan for implementation of highway service sharing and the Highway Services Board.

Comparative Assessment and Recommendations

Ulster County's Highway and Bridges Division already has a regional approach for maintaining the county's road and bridge infrastructure for the driving public. While there is a substantial centralized operation in the Kingston facilities, the county maintains 11 regional facilities. Many of these regional facilities have personnel that report to and deploy from them in serving subareas of the county. The 11 facilities are grouped in four larger regional sections of the county under the leadership of section supervisors. This overall regional structure has merit in reducing the costs of deploying equipment and personnel from a single county facility in Kingston or somewhere more centrally located. The regional structure is valuable for a number of management purposes including, assessing and prioritizing needed highway and capital improvements. The regional structure also provides opportunities for closer communication and coordination with the other municipal highway departments in the county.

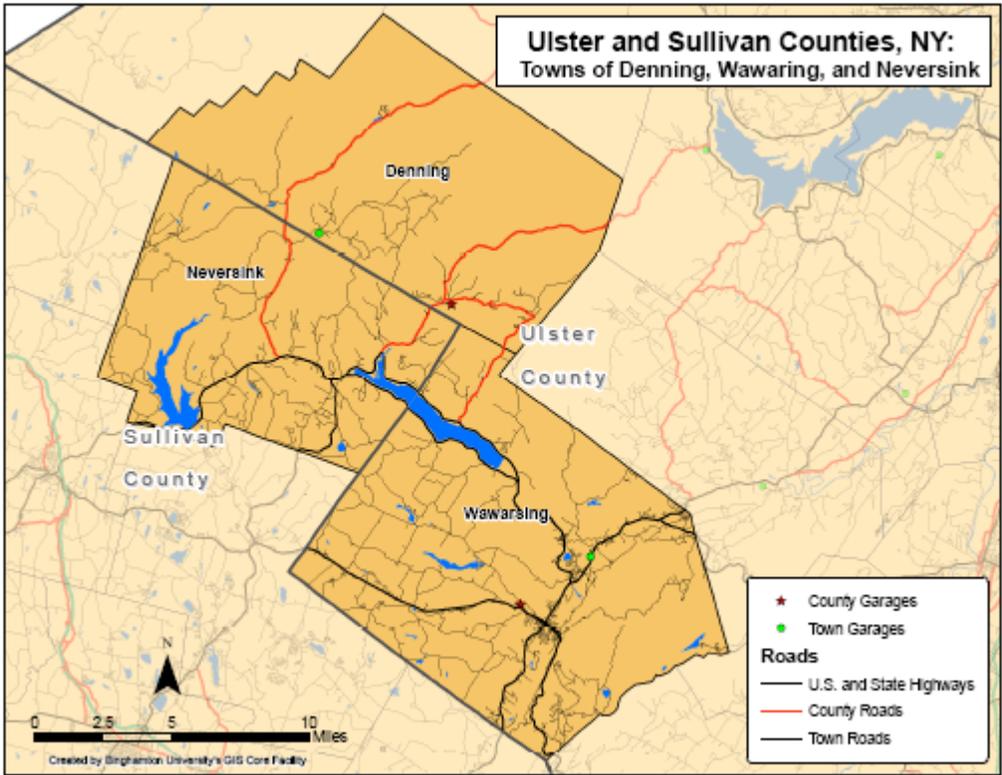
The question remains, are there valuable changes that could be made in the county's approach that would reduce costs and /or improve services for county residents? The approaches used in Monroe, Jefferson and Chemung Counties provide valuable guidance for evaluating opportunities for change in Ulster County. Six key areas are identified below, along with implementation points. The Town of Denning will be used as a case example where relevant.

1. **The Road Network in Ulster County is a Single Network.** For commuters, school children, local businesses, tourists and others --good roads that are maintained efficiently are important for direct daily needs. The whole county, town, village road network has to work well and in an integrated fashion to properly serve the community. Many if not most users don't know when they switch from county to town to state roads as they traverse the network. While the legal responsibilities and constraints of municipal road ownership have to be respected, it is in every Ulster County local government's interest to work to make the whole road network function effectively. County government is in the best position to foster this perspective and provide leadership to achieve this goal.

Winter Maintenance – A Single Set of Plow Routes. In the Town of Denning, as in most Towns, either state or county roads have to be traversed to reach town roads. It generally does not work in the converse because of the class and use of county roads. County roads generally serve as major traffic collectors or connectors of communities or key points. Town roads are typically at the most extreme points of the road network serving largely rural and residential uses. As consequence, town trucks regularly traverse county roads for both summer maintenance and winter snow plowing and the distribution of road de-icing materials.

Depending on a number of factors, we would expect, therefore, towns to be able to plow county roads on their way to plowing town mileage, but this would not lead to a simple reduction in the total number of county plow routes. A variety of adjustments would have to be made in reconfiguring town routes to accommodate county mileage. Important factors to be addressed are: total time and mileage per route, the need to (or avoid) reloading for de-icing materials and assuring priority roads are plowed first.

For example (See Map 2), the Town of Denning currently plows about 40 miles of town road with five plow routes for an average of about 8 miles per route. All trucks are deployed from the town's facility in the hamlet of Denning. Two of the three Denning road sub-networks require trucks to travel into Sullivan County to the south to reach roads in Frost Valley and in the Sundown hamlet area. The County has a facility in Sundown and about 17 miles of county road in the town. The county contracts with the Town of Hardenburgh to plow a portion of County Route 47 through Frost Valley. The county has two plow routes that deploy from the county's Sundown facility. One of the plow routes goes into the Town of Wawarsing and plows, in part, State Route 55A around the Rondout Reservoir under contract with the City of New York.



Map 2

As we have described above, in one of the lowest density towns in the county, with no state road mileage, there is a relatively complex set of relationships in considering an adjustment of plow routes

2. **Updating Regional Cooperation.** Given Ulster County's existing regional facilities and deployment of equipment and personnel, the value of a regional strategy that features more direct service cooperation and contracting with town highway departments should be examined.

Multi-Season Service Contracts may be Most Efficient. County to town contracting for winter maintenance should not be evaluated in isolation from other year round maintenance and construction activities. In both Jefferson County and Monroe County there are years of experience, in providing a full range of services in

the contractual arrangements with towns, including: all basic winter and summer maintenance on county roads in the town (snow plowing and ice control, roadside mowing, brush cutting, pothole patching, ditching, and paving) and, on a more selective basis summer road and bridge construction work. Towns may find it difficult to expand their workload through contracting for winter maintenance without a commensurate increase in summer work. The workload needs to be balanced as much as possible across seasons.

Examine the Potential for Eliminating the Overall Number of County Regional Facilities. In a number of cases, town and county facilities are closely located. The county and town may benefit by an effort to reduce the total number of facilities in use and co-locate regional operations with town facilities for mutual benefit and cost reduction. At one point in time, Jefferson County intentionally sought out arrangements to share town facilities, and agreed to cover some facility operating costs. This strategy reduced operating expenses for both highway departments, but the county has since pulled those regional forces back to the county's main facility. **At the current time, both Jefferson and Monroe Counties maintain no regional facilities or regionally deployed personnel or equipment.**

In the Town of Denning, for example, there is a need for two facilities because of the nature of the road network. The current town facility in the Town of Denning is viable with recent updates and is co-located with a county recycling facility. The town needs additional facility capacity in the hamlet of Sundown, particularly for winter operations. A town-county agreement could address that need and at the same time develop an agreement for the town to do summer and winter road maintenance on county roads in the Sundown area. This arrangement would benefit from the fact that town crews have to cover county roads in traveling to and from town road sites in the Sundown area in both summer and winter.

Flexibility for Differences in the Capabilities, Resources and Motivations of Town Highway Partners. The towns in Ulster County vary in their resources, availability (during a given construction season), and resident skills and abilities. A multi-role variable contractual approach, like that developed in Jefferson County and Monroe County, permits a flexible partnership which acknowledges these differences in capacity. This flexibility permits towns with varying capabilities, willingness and resources to participate in construction partnerships with the county. It also gives the county the ability to structure town responsibilities to ensure successful project work and to take advantage of exemplary town skills and resources where they exist.

The Town of Denning has a relatively new highway superintendent. In this case, both town and county may benefit from an arrangement that involves that town and its superintendent in a joint relationship with the county on summer road projects working with a more experienced county regional supervisor. The county currently only stations four county employees at the Sundown facility. A joint staffing arrangement could lead to a higher overall town-county crew size, but with a need for fewer county employees deployed at the Sundown facility.

Contractual Arrangements. It is important that new contractual arrangements adequately compensate towns for new work performed for the county. Compensation standards should be clear and fair. Jefferson County and Monroe County provide examples for consideration and discussion.

Balancing the Need for Stability with a Competitive Environment. Contracting in for services in the public sector can be risky. In many cases towns, particularly smaller ones, need additional equipment and personnel to take on contracted responsibilities. Multi-year contracts and phased withdrawal of contractual arrangements with the county may be needed to reduce the risk for town officials. The open contracting approach used by Monroe County with public and private vendors can help reduce costs and improve efficiency, but the risk for town contracting partners also has to be factored in to the arrangement.

3. **Improved Cost Accounting and Performance Information.** A revised regional approach can be an opportunity for improved performance information and improved cost accounting, as well as improved computer and highway technology. There is a general need for improved cost analysis record keeping practices and tools for use by highway departments. Contracting for services provides increased impetus for both sides of the contract to maintain better service cost and performance information.

The county, in general, has more detailed cost accounting for projects and functions. Increased county to town contracting could motivate better cost accounting practices in town highway departments. There are precedents. For example, town departments keep good project cost records for the New York State Emergency Management Office (SEMO) and the Federal Emergency Management Administration (FEMA) because they must for reimbursement.

In many cases there are already adequate record keeping practices in place (e.g. time cards, equipment use logs, etc.) but the information is not aggregated in a manner that is useful for local management and performance purposes. In other cases towns have used software to produce needed management information. For example, the Town of Hurley has an excellent micro computer system to produce this kind of management and reporting information. The town of Marlborough has used RSMS (a trademark used for Road Surface Management System), an inexpensive pavement management system, to help update information on road system condition in the town. RSMS can be used to provide an annual index of overall road condition. This can be used as an indicator of performance to compare with budgeted resources. Both of these are examples of local capability.

A renewed regional approach with new town-county contracting partnerships could help improve cost and performance information for towns as well as for county managers as both seek to in assess contract options and performance.

4. **Human Resource needs for an Updated Regional Approach.** Previous experience, including the county cases cited here, indicate that when a heightened level of contracting out for services requires a different complement of administrative and management skills. Enhanced county to town contracting for highway services will require increased administrative and financial management capacity. There will be an

increased need for skills in: contract development, contract monitoring, cost analysis, evaluation, and negotiation.

Building and maintaining trust between local governments is important and valuable. Previous studies have shown that an environment of trust and cooperation is a fundamental building block for new initiatives to further service cooperation and consolidation. Leaders and personnel that serve at the operating level between local governments can be invaluable in building or diminishing trust. Thus particular attention has to be paid to the reputation and skill of regional staff at the operating level working directly with town highway and elected officials.

5. **Mechanisms for Monitoring and Maintaining Agreements.** Even well structured agreements require fine tuning and adjustment over time. Agreements should include mechanisms (a process for mutual agreement on annual statements of planned work, regular meetings, etc.) for board members and/or operating personnel to communicate and accommodate needs for adjustment and change.
6. **Estimating the Potential for Cost Savings.** The experiences in Jefferson County and Monroe Counties provide benchmarks for the kind of cost savings that might be achieved by a revised regional approach, with increased contracting out to towns by Ulster County. The two counties, Jefferson and Monroe, that have pursued a broader contracting realignment with towns, have contracted out winter and summer maintenance tasks along with some portion of summer construction activities. Both of these counties maintain a substantial core of key functions and activities at the county level. In a revised regional approach, we would expect that Ulster County would maintain core functions in highway system management and the technical areas of engineering, bridge construction, equipment maintenance, etc.

While no two counties are the same, Ulster and Jefferson counties have some broad similarities in factors that are important for managing highway services (see Table 8, below). Both of these counties have relatively large land areas to cover with Jefferson ranking eleventh and Ulster thirteenth in size among New York's counties. Because of their size both counties have significant rural geographic areas with low population density and contrasting areas with more densely populated communities. Monroe County is more urbanized, with a geographic footprint that is a little more than half of Ulster County (in square miles) and a total population that is more than four times Ulster County's.

Table 8: Population, Highway, and Area Characteristics

	Jefferson County	Ulster County	Monroe County
1 Total Local Mileage	1,755	2,313	2,965
2 County Miles	539	425	665
3 County Miles as a % of Total Local	31%	22%	22%
4 Town, City Village Miles	1,216	1,528	2,300
5 2000 Population	111,780	177,750	735,380
6 County Land Area in Square Miles	1,272	1,127	659

We would expect that costs per mile in a more urban setting to be higher, on average, than in others. In general, we would expect that the higher the population and density, the higher the costs per mile for road maintenance. This density relationship is based on the needs of the road network in terms of traffic volumes, type and width of road, traffic control devices and other factors. Per capita costs to the public are not necessarily higher in more densely populated communities because of the higher population supporting road costs.

Table 9 below provides projections of personnel savings that *might* accrue from a revised regional approach in Ulster County. These projected savings are only meant to provide illustrative personnel cost comparisons with Jefferson and Monroe County - the best available case counties to use.

During the 1990s when Jefferson County initiated contracting out highway services to town departments, they were able to reduce staffing in the county highway department by about 25-33%. In Table 9, we assume the low end of the range (25%) in calculations. Monroe County first initiated this practice in the 1930s or 1940s. As a result there are no records of the staffing reductions that were accomplished at that time.

Table 9: Highway Personnel and Projected Savings Under Regionalization

		Jefferson County	Ulster County	Monroe County
1	Employees before contracting out	80	148	<i>unknown</i>
2	Employees after contracting out (2009)	60	111	70
3	Percent Change	25%	25%	----
4	Current County miles per employee	9.0	2.9	9.5
5	Ulster County miles per employee -after reduction in personnel to 111 (25%)		3.8	
Ulster Projected Personnel Cost Savings based on Jefferson County Experience				
6	25% Reduction in Personnel		37	
7	MEO (20) total per hour savings		\$ 318	
8	HMEO (17) total per hour savings		\$ 335	
9	Total Annual Salary Savings (no overtime)		\$ 1,357,554	
10	Fringes @ 41%		\$ 556,597	
11	Total Personnel Cost Savings		\$ 1,914,151	

Line 2, in Table 9 indicates that Ulster County staffing would drop from its 2009 level of 148 to 111; if we assume that a similar 25% reduction could be achieved through aggressive contracting out of highway service to town highway departments in Ulster County. Line 4 in the table indicates the current average number of miles of county highway maintained per county highway employee. Ulster currently maintains roughly one third the miles per employee that Jefferson and Monroe do. With a 25% reduction in force, Ulster County would increase to 3.8 miles per employee (line 5 in Table 9). For comparison sake, it would take a 65% reduction in staffing from 2009 levels to reach a level of approximately eight miles of road per county highway employee. As we have mentioned earlier, differences in the road network and infrastructure quality, bridge responsibilities, and other factors make a strict one to one comparison of counties difficult in terms of the actual management efficiency of the highway program.

It is difficult to estimate the precise personnel needs of the highway department with a revised contracting out approach. To develop an estimate of possible personnel cost savings a mix of Motor Equipment Operator -MEO (20) and Heavy Motor Equipment Operator HMEO (17) positions were used in calculating hourly savings (Table 9, lines 7-8). Average hourly figures for these job classifications were taken from Table 6. These figures provided a more conservative estimate of savings than using a broader mixture of personnel titles. The total annual savings from this 25% staffing reduction is listed on line 11 of Table 9. Using this approach county highway staffing costs could be reduced by about 1.9 million dollars.

These personnel costs however provide only a portion of the potential savings and do not account for the compensating increase in county costs for contracts with Towns for work on County highways. *To estimate the range of potential overall savings that might be achieved, the per mile annual highway costs for Ulster County were compared with those for Jefferson and Monroe Counties.* A three year average of total annual highway expenditures was computed using figures from the Office of the State Comptroller. These figures, in Table 10 below, exclude expenditures for work done under contract for the state or other municipalities.

**Table 10: Comparative County Highway Expenditures:
Three Year Average, 2005-07***

		Jefferson County	Ulster County	Monroe County
1	Average Annual Highway Expenditures 2005-07	\$12,108,030	\$16,797,240	\$ 24,770,895
2	Average Annual Cost Per Mile of County Road	\$ 22,456	\$ 39,542	\$ 37,244
3	Per mile Ulster comparative savings – Monroe Model		\$ 2,298	
4	Per mile Ulster comparative savings – Jefferson Model		\$ 17,086	
5	Total Ulster Miles Comparative Savings -Monroe		\$ 976,046	
6	Total Ulster Miles Comparative Savings- Jefferson		\$7,258,124	

* Source: Expenditure figures in this table taken from, Office of The New York State Comptroller : <http://www.osc.state.ny.us/localgov/datanstat/index.htm>

The calculations in Table 10 (line 3) indicate that Monroe County spent about \$2,300 less per year than Ulster County for the three-year average used. Jefferson County expended about \$17,000 less per mile of road than Ulster County. If the per mile difference between Monroe County and Ulster County is projected for all 425 county miles then the potential difference in spending or total cost savings would be nearly one million dollars (Table 10, line 5). The potential total cost difference is much higher when Jefferson County is used as the benchmark for total potential cost savings (Table 10, line 6). While, not definitive, these annual cost figures provide additional evidence that substantial savings maybe be achieved by a revised regional approach in Ulster County that contracts out the provision of highway services for county roads to towns. Table A2 in the appendix to this report, puts these figures in the context of comparative data for all New York State counties outside New York City.

Summary of Potential for Cost Savings: The comparative data reviewed here indicated that there is potential for reducing county highway personnel through a revised regional approach of contracting with towns for maintenance of county highways. The cost data for counties adopting similar approaches indicates that there may be significant costs savings on per mile and/or system basis in revising Ulster County’s management approach by increased contracting out to towns.

Targeted Recommendations and Implementation Guidance

1. *Development of a Single County-wide Umbrella Agreement for the Routine Sharing of Personnel, Equipment and Materials.* As noted earlier in the report county and town highway departments in the study cooperate extensively in providing highway services in Ulster County. Departments typically work together to informally share manpower, materials and equipment on a regular basis. This kind of regional sharing with close by departments is valuable, minimizing the cost of transport and travel in intermunicipal sharing. These local and routine sharing opportunities vary significantly in their extent and scope.

Most of the limited, frequent exchanges would be greatly hindered and often avoided if a written agreement was required in each instance. As a result local town highway departments have developed “umbrella agreements” with nearby towns that they often do routing sharing and exchange with and sometimes the county highway department. In some cases, Saugerties for example, these agreements are extended to municipalities outside the county. These agreements address liability, cost and responsibility issues. In some cases concern was expressed about the currency of these agreements and if they were still in force.

These kinds of agreements are valuable and facilitate the continued use of routine sharing arrangements. A county effort to standardize and streamline a countywide agreement that all participating towns and villages could participate in would be valuable for continuity and to ease the agreement process across departments. This practice has been developed to permit sharing among all departments in a county in a number of counties, including Erie and Allegany. A single agreement could be updated, if needed, and renewed on a multi-year basis by municipalities in the county. A copy of a countywide agreement is included in the appendix.

Implementation

- Examine several existing agreements already in use in the county and countywide agreements already developed. (Jefferson County has made this kind of agreement part of each their contracts with towns in the county for work on county roads).
 - Consult with county highway staff and the Ulster County Town Highway Superintendents Association regarding the positive qualities and problems with existing bi-lateral agreements.
 - Consult with town elected leaders and town highway managers about the desirability of a single county wide agreement among departments.
 - Work with interested parties to draft an agreement. All towns and municipalities do not have to participate for this to be a valuable initiative for the participants.
2. *Improve Project and Activity Costing Practices and Implement Pavement Management System.* We recommend that municipalities in the county pursue a standardized approach to project and activity costing as a means of comparing costs and improving productivity. This improvement in reporting costs will enhance the

ability of local highway managers and governing board members to better assess contracting and other options for changing the way highway services are provided. This would be a complementary practice or activity with an initiative by the county to contract out work on county highways to town governments.

Meshing of County and Local Practices. The county currently maintains data that can be used in a management framework for activity costing. Several towns also maintain information on resource use by activity and project. The Town of Hurley has a software system to maintain activity costs.

Pavement Management Systems. A range of paper and computerized approaches exist that help to manage and oversee the condition of a municipality's inventory of roads. These systems can be used to establish an overall condition index which is an average of the condition rating on each individual road in the municipality. The overall condition index can be used as a performance indicator to determine the effectiveness of maintenance and capital strategies and the adequacy of overall investment in the road network.

Pavement Management Systems call for developing an inventory with each segment in the municipality's road network, prioritizing each segment's importance (based on factors like traffic count, public safety, etc.) and regularly rating the condition of each distinct segment in the network. The priority rankings based on traffic, etc. can be combined with the condition to help determine appropriate treatments and strategies to use with each segment. The county annually uses an informal, non-computerized approach to consider the condition of road segments and to determine repair and construction strategies. This approach has been used to develop a multi-year capital plan for county highway network.

The town of Marlborough uses a relatively inexpensive piece of microcomputer software for this management purpose. The software, *RSMS* is distributed with an implementation approach and assistance by the Cornell Local Roads Program (<http://www.clrp.cornell.edu/RSMS/RSMS.htm>). A broader implementation among Ulster County local governments of either paper or computerized Pavement Management Systems would complement improved cost accounting systems, providing valuable performance information and a better structure for capital planning for major improvements.

Implementation guidance on this recommendation is included below, in recommendation 3.

3. *Revised Regional Approach: Contracting out Major Maintenance and Construction Responsibilities to Towns in Ulster County*

We recommend that Ulster County investigate the potential for contracting out select aspects of highway services to town highway departments. As outlined above, in the county-town road network most towns traverse county and state mileage to reach the town roads they maintain in both winter and summer. This aspect of the single road network in the county provides a real prospect that improved service delivery and reduced costs are available. The comparison of personnel and cost data with two

counties, Jefferson and Monroe, that have implemented a broad contracting out strategy to towns gives merit to a closer look at this option.

The integrated municipal road network in the county has to work well together for community and economic purposes and the county is best positioned to foster this perspective and take leadership for this important goal. Data collected and summarized in this report, points to a broad similarity in the maintenance practices, policies and personnel costs (compensation and benefits) of town and county highway departments in the county.

The following implementation guidance is based on the Comparative Assessment and Recommendations in the section, above.

Implementation

- **Multi-season service contracts.** Based on previous experience, contracting to towns should be based on multi-season agreements for both summer and winter maintenance, and where appropriate summer construction. These agreements should be flexible, differing based on both county needs in the area or region and the capacity and availability of town highway managers, their personnel and equipment.
- **Stability and Multi-year contracts.** As the attached Monroe County agreement demonstrates, providing a multi-year contract for towns, with adjustment for key cost components is critical. The multi-year arrangement provides the stability needed to make investments in equipment and personnel. For winter maintenance, the fixed cost per mile that is set at a level that helps towns “weather” fluctuations from light to heavy winters can be valuable in avoiding continued contract disagreements for both parties. The county needs budget stability, and the towns will need an approach that assures that they can adequately cover costs.
- **Cost Accounting, Performance Information and Pavement Management.** The Jefferson and Monroe models require cost accounting for maintenance tasks and construction activities. A fair approach that takes advantage of existing computer approaches to simplify reporting and paperwork should be developed. The county should develop an approach, both formal and informal, to monitor contract performance. The county may need to provide some assistance in terms of recommended forms, process and computer software to make this reporting relationship effective.

The implementation of a more formal, computerized pavement management system will assist the county in a variety of ways, including measuring the overall value of the contracting approach in maintaining and improving the quality of the road surface on county roads.

A clear compensation approach should be developed that is utilized as a basic framework, with adjustments where needed. Both Jefferson and Monroe have developed such approaches which can be drawn from in developing an approach that is adapted to Ulster County conditions.

- **A Mixed Management Approach.** In pursuing an increased level of contracting out to towns, a county staff team approach would be beneficial. Moving to an increased level of contracting out will require a different complement of administrative and management skills. There will be a need for skills in: contract development and management, contract monitoring, cost analysis, and negotiation. Drawing from skills in County Finance and other units will be valuable in helping to develop an overall approach. Skills in planning and evaluating needed personnel changes will also be needed.

In a number of ways, the new county Automatic Vehicle Locator -GPS system will be valuable in developing this new contracting out approach and in contract monitoring after agreements are in place. For example, this system will permit easy assessment of the timeliness of winter road clearing on both county and town roads for morning commuters and school buses. It can also play a critical role in helping to deploy and manage resources for winter storm management. This will provide another important use of the system in performance and evaluation, adding to the public safety and emergency management functions of the county AVL-GPS capacity.

- **Building and Maintaining Agreements.** A clear strategy for working out kinks in the new system will be required. Providing this kind of tool for adjusting and modifying the agreement and working relationship is especially important when a new model of action is being developed.
- **Getting Started.** Pilot agreements should be developed to initiate this approach. This will permit the county to develop: a general contractual framework, a contract monitoring and evaluation approach and identify cost savings. Working out a favorable relationship for increased contracting out with two or three towns will provide a better base to broaden the program in the county.

Pilot contracts with towns in separate county highway regions should be developed. This would provide contract and implementation experience in varied settings and more valuable insight for a broader implementation, should the pilots prove successful.

Appendices

Table A1: Ulster County Road Mileage by Municipality and Road Ownership Type

Municipality	Municipality owned Mileage	County owned Mileage	Total Local Mileage	NYS DOT owned Mileage	Other Owners	Total Mileage
Towns						
Denning	55.3	17.5	72.8		-	72.8
Esopus	60.3	19.8	80.1	18.0	1.4	99.5
Gardiner	56.3	21.1	77.4	15.9	-	93.3
Hardenburgh	36.4	11.9	48.3	-	-	48.3
Hurley	52.3	22.2	74.5	9.7	7.1	91.3
Kingston	9.5	4.8	14.3	1.8	0.9	17.0
Lloyd	65.4	14.6	80.0	17.1	2.6	99.7
Marbletown	85.1	27.9	113.0	10.0	1.3	124.3
Marlborough	58.7	17.3	76.0	7.1	-	83.1
New Paltz	58.6	20.6	79.2	10.1	7.5	96.8
Olive	68.1	21.3	89.4	7.5	11.4	108.3
Plattekill	49.7	24.5	74.2	12.8	6.1	93.1
Rochester	121.4	19.7	141.1	12.6	-	153.7
Rosendale	35.4	20.5	55.9	9.7	5.6	71.2
Saugerties	118.0	34.0	152.0	25.2	9.1	186.3
Shandaken	67.8	21.1	88.9	25.6	-	114.5
Shawangunk	91.0	32.1	123.1	12.6	3.5	139.2
Ulster	69.7	23.4	93.1	24.7	9.4	127.2
Wawarsing	165.3	26.5	191.8	36.5	6.7	235.0
Woodstock	77.8	23.7	101.5	13.7	0.2	115.4
Total Town	1,402.1	424.5	1,826.6	270.6	72.8	2,170.0
City of Kingston	86.6	-	86.6	4.1	1.6	92.3
Villages						
Ellenville	15.6	0.3	15.9	3.2	-	19.1
New Paltz	10.1	-	10.1	2.8	2.0	14.9
Saugerties	13.9	-	13.9	2.8	-	16.7
Total Village	39.6	0.3	39.9	8.8	2.0	50.7
Total County	1,528.3	424.8	1,953.1	283.5	76.4	2,313.0

**Table A2: New York State Counties' Three Year Average Costs Per Mile
and Per Mile Cost Ranking**

County Name	2000 Population	All Local Mileage in County	County Mileage	2005-07 Three Year Average Per Mile Costs	Cost Per Mile Rank	Total Population Rank
Westchester	923,470	2,765	158.0	\$ 302,623	1	4
Suffolk	1,419,420	6,444	419.2	\$ 89,570	2	1
Rockland	286,780	877	169.5	\$ 83,093	3	9
Orange	344,780	1,804	311.9	\$ 71,564	4	7
Albany	294,590	1,446	287.5	\$ 68,813	5	8
Delaware	48,040	1,610	261.1	\$ 67,184	6	48
Nassau	1,334,550	3,428	483.2	\$ 66,723	7	2
Putnam	95,750	589	117.3	\$ 62,153	8	25
Ontario	100,240	1,059	239.4	\$ 55,976	9	22
Schenectady	146,570	543	220.2	\$ 43,068	10	17
Ulster	177,750	1,528	424.8	\$ 39,542	11	15
Onondaga	458,360	1,849	793.0	\$ 39,140	12	6
Cortland	48,610	582	247.7	\$ 37,579	13	46
Monroe	735,380	2,300	665.1	\$ 37,244	14	5
Washington	61,060	1,069	285.9	\$ 37,062	15	38
Warren	63,300	776	246.8	\$ 36,911	16	35
Dutchess	280,180	1,648	393.2	\$ 36,131	17	10
Cattaraugus	83,980	1,373	405.1	\$ 34,776	18	28
Saratoga	200,620	1,539	360.7	\$ 32,204	19	13
Sullivan	73,960	1,461	386.6	\$ 31,573	20	31
Oneida	235,520	1,793	593.5	\$ 30,808	21	11
Greene	48,220	722	261.9	\$ 29,561	22	47
Tioga	51,790	824	142.2	\$ 29,317	23	42
Tompkins	96,510	772	303.7	\$ 29,113	24	24
Livingston	64,340	846	242.4	\$ 28,910	25	34
Chenango	52,430	1,176	308.5	\$ 28,266	26	41
Chemung	91,060	767	243.7	\$ 27,887	27	27
Wyoming	43,420	674	241.3	\$ 27,280	28	50
Clinton	79,900	900	360.3	\$ 26,434	29	30
Essex	38,860	671	357.3	\$ 26,431	30	51
Steuben	98,730	2,113	676.0	\$ 25,965	31	23
Hamilton	5,380	188	94.5	\$ 25,488	32	57
Schoharie	31,620	664	321.1	\$ 25,078	33	53
Erie	950,280	2,765	1,178.1	\$ 24,272	34	3
Oswego	122,390	1,159	501.7	\$ 24,163	35	19
Montgomery	49,720	425	393.8	\$ 23,507	36	45
Schuyler	19,240	489	121.4	\$ 23,429	37	56
St. Lawrence	111,960	2,038	575.5	\$ 22,917	38	20
Allegany	49,900	1,324	345.7	\$ 22,519	39	44
Chautauqua	139,830	1,531	551.8	\$ 22,503	40	18
Rensselaer	152,540	1,177	335.9	\$ 22,471	41	16
Jefferson	111,780	1,216	539.2	\$ 22,456	42	21
Madison	69,480	843	438.5	\$ 22,339	43	32
Fulton	55,070	567	144.0	\$ 21,561	44	40
Herkimer	64,440	687	578.8	\$ 20,803	45	33
Niagara	219,850	1,081	283.3	\$ 20,170	46	12
Wayne	93,780	979	405.9	\$ 20,009	47	26
Genesee	60,390	542	257.5	\$ 19,868	48	39
Lewis	26,980	925	249.1	\$ 19,419	49	54
Orleans	44,170	442	197.1	\$ 19,373	50	49
Yates	24,640	521	180.2	\$ 18,794	51	55
Columbia	63,090	976	266.5	\$ 16,734	52	36
Otsego	61,690	1,326	477.3	\$ 16,434	53	37
Seneca	33,340	411	157.3	\$ 16,416	54	52
Franklin	51,160	849	266.3	\$ 15,802	55	43
Cayuga	81,970	841	513.1	\$ 15,062	56	29
Broome	200,570	1,339	339.0	\$ 14,916	57	14

Sample County-Town Agreement Used in Monroe County

ALL SEASONS COUNTY/TOWN WORK AGREEMENT

THIS AGREEMENT, this _____ day of _____, 2006, by and between the COUNTY OF MONROE, a municipal corporation having its office and place of business in the County Office Building, 39 West Main Street, Rochester, New York 14614, hereinafter referred to as the "County", and the Town of _____-a municipal corporation within the County of Monroe, having its office and place of business at « _____ », « _____ », _____ » « _____ », hereinafter referred to as the "Town".

WITNESSETH:

WHEREAS, the County owns, operates, and maintains a highway system in the towns and villages of the County, and

WHEREAS, the County Superintendent of Highways has authorized this Intermunicipal Agreement under the provisions of Monroe County Code, Article C6-19(B)(7), and

WHEREAS, the Supervisor of the Town has authorized this Intermunicipal Agreement pursuant to the Town Board Resolution No. _____ of 2006, and

WHEREAS, the County Superintendent of Highways has general charge and supervision of the work of constructing, improving, repairing and maintaining all County roads, and

WHEREAS, the County funds may be expended for maintenance and repair of County roads, and

WHEREAS, the County desires to contract with the Town for planned county road and bridge work, including highway resurfacing and reconstruction, bridge rehabilitation and replacement, and other planned construction work to be paid on an hourly labor and cost of Equipment basis ("Planned Work"), and

WHEREAS, the County desires to contract with the Town for unplanned road repairs and service responses, and snow and ice build-up removal, to be paid on an hourly Labor and Equipment basis ("Unplanned Work"), and

WHEREAS, the parties shall refer to Planned Work and Unplanned Work collectively as "Hourly Work", and

WHEREAS, the County may contract with the Town for roadside mowing, dead animal pickup and right of way/roadside pickup, all of which shall be paid on a unit cost per the rates of Appendix "B" ("MAR Services"), and

WHEREAS, the parties shall refer to Hourly Work and MAR Services collectively as "County Work", and

WHEREAS, the Town represents that it has appropriate equipment, personnel, and support to perform County Work,

NOW THEREFORE, in consideration of the mutual covenants, agreements, and consideration hereinafter set forth, and pursuant to Sections 135,135-a and 142-d of the New York State Highway Law, the parties hereto mutually agree that the Town will perform County Work on County roads, and that the County will reimburse the Town in the manner described herein.

GENERAL CONDITIONS

1. The term of this Agreement shall be January 1, 2007 through December 31, 2007. However, the Agreement may be renewed upon the mutual written consent of the parties for additional one-year terms, for a maximum Agreement term of ten (10) years.
2. The Town hereby agrees to perform County Work on designated County roads according to the terms described herein, and according to project agreements and work orders to be executed between the parties for County Work.
3. The Town in which County work on designated County Roads is required shall have the first right to perform said County Work. In the event the Town is unable or unwilling to perform the necessary County Work the County shall have the right to subcontract with any other town or village it shall choose.
4. From time to time, the parties may use one another's equipment and machinery (hereafter "Equipment") for County Work. In exchange for payment according to the Current New York State Department of Transportation Equipment Rental Rate Schedule ("NYSDOT Schedule"), and subject to availability, the Town agrees to provide the County with Equipment listed on the latest Town Equipment inventory at any time and place within Monroe County, upon reasonable request of the County Superintendent of Highways, or designee. In the event that the Town should request and obtain County Equipment for County Work, the Town shall not be paid rental fees according to the NYSDOT Schedule for such borrowed Equipment. If the Town does not possess Equipment necessary to perform County Work, the Town or County may obtain Equipment from another town or village to complete County Work, and the County shall tender payment to the other town or village for the use of such Equipment.
5. The Town will maintain its Equipment in serviceable condition at its own expense during the term of this Agreement. The Town will furnish and pay for all supplies, including but not limited to petroleum products and tires necessary for the operation of the Equipment. The Town shall utilize the appropriate Equipment for all tasks required to perform the County Work. The County shall have no responsibility for the care, maintenance or repair of such Equipment.
6. The Town shall furnish qualified and licensed operators for such Equipment that require operators, and will provide additional labor as requested and as approved by the County. The operators and other labor shall be paid by the Town, which

shall also carry State required workers' compensation insurance for such personnel.

7. The Town shall furnish and make available for the performance of County Work: small tools, including picks, shovels, and other implements necessary for County Work. The use of small tools shall not be the subject of any additional charge to the County.
8. The Town shall mark all sites for County Work with the proper warning lights, barricades and signs in accordance with the most recent ADOPTED MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES BY NEW YORK STATE, or as required by the County Superintendent of Highways, or designee. No work shall commence until required traffic measures and controls are in place. Signs shall remain in place until directed to be removed by the County Superintendent of Highways or designee.
9. The Town shall equip all trucks, tractors and other vehicles working in or along the roads with hazard or warning signs and/or lights as required by law, and these lights must be used when vehicles are parked or standing, or moving at slow speed along the road.
10. The Town shall equip and require its employees working in or along the County right-of-way to wear long pants, shirts with sleeves, and personal safety protective gear, including but not limited to hard hats, reflective vests, and protective footwear which shall comply with ANSI standards.
11. The Town shall be fully responsible for compliance with all applicable safety rules, regulations, laws, statutes and ordinances which pertain to the performance of County Work, and shall indemnify the County pursuant to paragraph 36 for any failure to so comply.
12. If the Town has insufficient Town labor crews to perform Planned County Work, the Town may sub-contract Planned County Work to another town or village, (hereinafter referred to as "Sub",) in Monroe County to complete a portion of the Planned County Work. However, except as described in paragraph 21, the Town shall remain responsible to the County for the obligations delegated to the Sub under this Agreement.
13. If the parties cannot agree to the terms of a project agreement or work order, the County shall perform the work with County forces or contract with another town or village for such services.

HOURLY WORK

14. The County shall issue a Project Agreement or Work Order for all Hourly Work which shall be paid on an hourly basis (Labor and Equipment) according to rates described in Sections 4 and 23, and in Appendix "A". The Town shall not commence work until a project agreement or work order has been executed by the County and the Town Highway Superintendent or Commissioner of Public Works.

15. The County shall furnish the Town with a list of approved purchase orders in a timely fashion. The Town shall use these purchase orders when obtaining material for authorized Hourly Work. The County shall be responsible for payment to vendors only for authorized purchases by the Town. The County shall not reimburse the Town for unauthorized purchases. In the event material is removed from the Town inventory, the County shall pay the reasonable cost of such material. If the Town must purchase material for Hourly Work, the County shall reimburse the Town at a rate to be agreed upon by the parties.
16. Pursuant to Labor Law Section 220, the normal workday shall be eight (8) hours. In all cases in which the Town performs Hourly Work, the Town shall establish its own hours and procedures subject to the requirements of the New York Labor Law. Travel time up to a maximum of fifteen (15) minutes to and from the work site will be reimbursed by the County for work within the Town, and adjusted accordingly for work in other towns by actual measurement. Any additional travel time shall not be at the County's expense. Except as provided in Section 17, payment shall be made for actual hours worked per day, including authorized travel time. **PRIOR APPROVAL FROM THE COUNTY HIGHWAY MAINTENANCE MANAGER IS REQUIRED FOR AUTHORIZATION OF OVERTIME HOURS.** In cases in which the Town performs MAR Services, the Town shall establish its own hours consistent with the New York Labor Law.
17. In the event inclement weather disrupts the normal work operations for Hourly Work, the County shall reimburse the Town for labor at the rate of four (4) hours of pay for the first four (4) hours or less of actual work, unless other County Work can be found for Town forces to complete for the remainder of the four hour period. Equipment shall be reimbursed only for actual hours of operation.
18. The Town that executes the project agreement or work order (the "Lead Town"), hereinafter referred to as "Lead", shall collect, organize, code, and provide materials tickets to the County on at least a weekly basis for review and approval by the County Highway Superintendent or designee.
19. The Lead shall complete daily maintenance reports of all authorized projects in process and provide an original on at least a weekly basis to the County for review and approval by the County Highway Superintendent or designee. The daily maintenance reports must indicate daily labor, equipment/machinery, and materials costs, including unit costs, extensions and total costs, and totals costs to date.
20. The County Highway Superintendent or designee shall pick up the materials tickets and the original daily maintenance reports from the Lead on a weekly basis.
21. If the Lead has subcontracted Labor and Equipment to a Sub, the Lead shall include the Sub's daily maintenance reports in the Lead's submittal to the County in accordance with Sections 19 and 20 of this Agreement. If a Lead has subcontracted Labor and Equipment to a Sub, the Sub shall complete the daily maintenance reports and either deliver the original signed daily maintenance report or fax a copy of the report to the Lead for signature by the Lead's foreman.

22. The Lead and Subs are required to produce and submit to the County, a bill/invoice for reimbursement of their Labor and Equipment expenses. In no event shall the Lead be responsible for preparing and submitting a bill/invoice for the work of the Sub. The Sub shall submit its claims to the County in accordance with Section 34 of this Agreement.
23. The County shall reimburse the Lead for labor costs for authorized Hourly Work. Such labor costs shall include the hourly labor rate, increased by an additional amount for fringe rates ("Loaded Labor Rate"). (MAR Services shall be paid on a unit cost basis per the rates in Appendix "B" pursuant to Section 33.)
24. For each year of this Agreement, the County shall pay a fringe benefit rate for all full and part time Town employees working regular and overtime hours for Hourly Work according to the applicable section of Appendix A attached hereto. The Town shall submit fringe benefit information to the County on an annual basis.
25. On an annual basis, the County shall prepare a list of Town employees and submit the list to the Town for corrections. The Town shall review the list, add and delete employees, and update the labor rates. The County shall revise the employee roster and labor rates in accordance with the Town's corrections. The County shall apply a fringe rate to each employee's labor rate and calculate Loaded Labor Rates for each full time and part time employee, including regular and overtime rates. The County shall provide the Town with the updated Loaded Labor Rates.
26. The County shall update the Town labor rates throughout each year of the Agreement to record Town labor rate changes, such as merit increases and cost of living increases. The Town is required to notify the County of changes in the employee roster or labor rates as of the effective date of such roster or labor rate changes.
27. The County shall issue work orders for snow and ice build-up removal when conditions warrant such measures, and only in situations in which the removal was not the result of the Town's failure to properly perform the basic services required under the Agreement between the Town and the County for Snow Removal and Ice control Services dated October 12, 2002.
28. With respect to snow and ice removal, the Town shall push back and haul snow from County highway rights-of-way, remove ice build-ups from pavements, and open culvert crossings or drainage ways obstructed by ice build-ups as authorized by a written work order issued by the County.
29. From time to time, the County may request services of the Town for 'Unplanned Work' such as repair to County roads caused by storms, flooding, or other acts of God, customer services responses and other services requested by the County.
30. All 'Unplanned Work' shall require prior approval by the Monroe County Superintendent of Highways or designee. The County shall orally approve 'Unplanned Work', and shall confirm with a written work order which shall identify the location and scope of work to be performed and which shall be signed by the parties.

31. The Town shall provide daily Labor and Equipment costs of 'Unplanned Work' on the County Daily Maintenance Report form. These time records must include the work order number and the rates for Loaded Labor and Equipment currently in effect, and shall be reported by the Town to the County. The Town shall submit these forms to Monroe County Department of Transportation on a weekly basis.
32. 'Unplanned Work' shall be reimbursed based on actual costs of Town Labor and Equipment used to perform the Work. Payment for 'Unplanned Work' shall require a properly completed County claim voucher, a copy of the issued work order(s) and the daily time and cost records. The County shall reimburse the Town in accordance with the County's payment schedule (bi-weekly) during the term of the Agreement.

MAR SERVICES

33. Dead Animal Pickup shall be paid by the centerline mile according to the rate set forth in Appendix "B". Roadside pickup and roadside mowing shall be paid on a lump sum basis according to Appendix "B". Roadside mowing, roadside pickup and dead animal pickup shall be paid according to the terms of Project Agreements which must be approved and signed between the County and Town prior to the commencement of MAR Services during the term of this Agreement. Rates for roadside mowing, roadside pickup and dead animal pickup shall be negotiated by the parties for any renewal of this Agreement.

GENERAL TERMS

34. Except for MAR Services under paragraph 32, the County shall process Town claims for payment for work performed on a Labor and Equipment basis upon submission (to the Finance Division of the Department of Transportation) of a properly completed Monroe County claim voucher and a Town generated bill/invoice in a form acceptable to the County. The bill/invoice shall include project name and number and daily information regarding Labor and Equipment used.

The suggested format and required information included on the bill/invoice are as follows:

A columnar format with headings for employee number, name, date(s) worked, total hours worked, loaded labor rates, extensions. The Town should record the name and number of each employee working during the claim period, and record corresponding information for the dates and hours worked, total hours worked, loaded labor rates, extensions (total hours X loaded labor rates), and a grand total of the extensions. Overtime hours worked by an employee(s) should be recorded on a separate row with the actual hours worked and the loaded over time rate listed. The extensions should be totaled and recorded as Total Labor Costs at the bottom of the labor bill/invoice.

Town Equipment should also be in a columnar format with headings for Equipment number, date(s) used, total hours used, rental rates, and extensions. The Town should record the Equipment number used during the claim period, and record corresponding information for the dates and hours used, total hours used, rental rates for the piece of Equipment, extensions (total hours X rental rates), and a grand total of the extensions. The extensions should be totaled and recorded as Total Equipment Costs at the bottom of the Equipment bill/invoice. The County shall pay no overtime costs for Equipment.

35. In the event the Town receives through this Agreement, directly or indirectly, any funds of or from the United States Government, Town agrees to comply fully with the terms and requirements of Federal Single Audit Act [Title 31 United States Code, Chapter 75], as amended from time to time. The Town shall comply with all requirements stated in Federal Office of Management and Budget Circulars A-102, A-110 and A-133, and such other circulars, interpretations, opinions, rules or regulations that may be issued in connection with the Federal Single Audit Act.

If on a cumulative basis the Town expends Five Hundred Thousand and no/100 Dollars (\$500,000.00) or more in federal funds in any fiscal year, it shall cause to have a single audit conducted, the Data Collection Form (defined in Federal Office of Management and Budget Circular A-133) shall be submitted to the County; however, if there are findings or questioned costs related to the program that is federally funded by the County, the Town shall submit the complete reporting package (defined in Federal Office of Management and Budget Circular A-133) to the County.

If on a cumulative basis the Town expends less than Five Hundred Thousand and no/100 Dollars (\$500,000.00) in federal funds in any fiscal year, it shall retain all documents relating to the federal programs for three (3) years after the close of the Town's fiscal year in which any payment was received from such federal programs.

All required documents must be submitted within nine (9) months of the close of the Town's fiscal year end to:

Monroe County Internal Audit Unit
304 County Office Building
39 West Main Street
Rochester, New York 14614

Monroe County Department of Transportation
CityPlace, Suite 6100
50 West Main Street
Rochester, New York 14614

The Town shall, upon request of the County, provide the County such documentation, records, information and data and response to such inquiries as the County may deem necessary or appropriate and shall fully cooperate with internal and independent auditors designated by the County and permit such auditors to examine and copy all records, documents, reports and financial

statements that the County deems necessary to assure and monitor payments to the Town under this Agreement.

The County's right of inspection and audit pursuant to this Agreement shall survive the payment of monies due to Town and shall remain in full force and effect for a period of three (3) years after the close of the Town's fiscal year in which any funds or payment was received from the County under this Agreement.

36. The Town shall, at its own expense, indemnify and hold harmless the County, its officers, agents and employees from any and all fines, fees, penalties, attorney's fees, liabilities, judgments, costs, claims, causes of action, damages and expense arising out of the Town's negligence in performance of such work, labor or services by the Town, its agents, servants or employees under this Agreement, PROVIDING, however, that timely notice shall be given to the Town by the County of any claim, action or proceeding which may be filed or commenced against the County by reason of the performance of such work.

As a part of its obligation to indemnify and hold harmless the County, its officers, agents and employees, as set forth above, the Town agrees to obtain and maintain in full force and effect, for the term of this Agreement, insurance coverage as described below:

- A. Workers' Compensation Insurance: A policy covering the operations of the Town in accordance with the provisions of Chapter 41 of the Laws of 1914, as amended, known as the Workers' Compensation Law, covering all operations under the Agreement, whether performed by the Town or by its subcontractors. The Agreement shall be void and of no effect unless the Town making or executing same shall secure workers' compensation coverage for the benefits or, and keep insured during the life of said Agreement, such employees in compliance with the provisions of the Workers' Compensation Law. A certificate of insurance or other proof that workers' compensation coverage is in effect shall be provided before the start date of this Agreement.
- B. Liability And Property Damage Insurance:
1. Contractor's Liability Insurance issued to the Town and covering the liability for damages imposed by law upon the Town with respect to all work performed by the Town under this Agreement naming the County as additional insured and in the amount of \$2,000,000 for each occurrence is required. All of the following coverage shall be included:
 - Comprehensive Form
 - Premises Operations
 - Products Completed Operations
 - Contractual Insurance covering the Hold Harmless Provision
 - Broad Form Property Damage
 - Independent Contractors
 - Personal Injury

2. Owner's and Contractor's Protective Liability Insurance Policy issued to the Town and naming Monroe County as an additional insured and covering the liability for damages imposed by law upon the Town for the acts or neglect of each of the Town subcontractors with respect to all work performed by said subcontractors under the Agreement.
3. Unless otherwise specifically required by special specifications, each policy shall have limits of not less than the following:

BODILY INJURY LIABILITY Single Limit	PROPERTY DAMAGE Single Limit
\$2,000,000 each person \$2,000,000 each occurrence	\$2,000,000 each occurrence
OR COMBINED SINGLE LIMIT	
\$2,000,000	

4. The limits of liability set forth above shall be per occurrence. A claims made policy is not acceptable.

C. Motor Vehicle Insurance:

Motor Vehicle Insurance issued to the Town and covering public liability and property damage on the Town's vehicles in the amount of:

BODILY INJURY LIABILITY	PROPERTY DAMAGE
\$2,000,000 each person \$2,000,000 each occurrence	\$2,000,000 each occurrence
OR COMBINED SINGLE LIMIT	
\$2,000,000	

D. A currently and properly executed County-provided Certificate of Insurance, naming Monroe County as additional insured under the general liability policy covering all services to be provided by the Town pursuant to the Work Agreement, shall be submitted prior to issuance of payments, to the Office of the Monroe County Director of Transportation. This Certificate of Insurance shall be subject to the approval of the County Attorney.

All said insurance policies and certificates shall contain the following clause:

"In the event of any change or a cancellation of this policy, at least thirty (30) days notice thereof shall be given to the County Director of Transportation, at the Director's office."

E. In the event a Certificate of Insurance is not available, the County will accept a self-insurance document on appropriate letterhead containing the following language:

"This is to advise you that the Town of _____ is self-insured for worker's compensation, general liability and auto liability insurance and therefore cannot provide a certificate of insurance. If there is a change in the self-insured status of the Town of _____, the County of Monroe will be notified.

In any contract requiring indemnification of the County by the Town of _____, this letter is to represent that the Town of _____ will hold harmless and indemnify the County for losses sustained resulting from such contracts.

The Town of _____ will defend and indemnify the County for each such contract, for the period _____, 200____ through _____, 200____, through the Town of _____'s self-insurance reserve.

F. The initial term of this Agreement is one (1) year, January 1, 2007 through December 31, 2007. For every required insurance coverage that is for a period of time less than the full term, the Town shall provide proof of adequate insurance coverage at least forty-five (45) days before the expiration of the previous coverage.

37. The Town recognizes the continuing commitment on the part of the County to assist those receiving temporary assistance to become employed in jobs for which they are qualified, and the County's need to know when jobs become available in the community.

The Town agrees to notify the County when the Town has or is about to have a job opening within Monroe County. Such notice shall be given as soon as practicable after the Town has knowledge that a job opening will occur. The notice shall contain information that will facilitate the identification and referral of appropriate candidates in a form and as required by the Employment Coordinator. This would include at least a description of conditions for employment, including the job title and information concerning wages, hours per work week, location and qualifications (education and experience).

Notice shall be given in writing to:

Employment Coordinator
Monroe County Department of Social Services
111 Westfall Road
Rochester, New York 14620

Fax: (585) 753-6322
Telephone: (585) 753-6308

The Town recognizes that this is an opportunity to make a good faith effort to work with Monroe County for the benefit of the community. Nothing contained in this provision, however, shall be interpreted as an obligation on the part of the Town to employ any individual who may be referred by or through the above notice. Any decisions made by the Town to hire any individual referred by or through the County shall be voluntary and based solely upon the Town's job requirements and the individual's qualifications for the job, as determined by the Town.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written

Town of

By _____
Supervisor

COUNTY OF MONROE

By _____
TERRENCE J. RICE, P.E.
County Superintendent of Highways

State of New York)
County of Monroe) ss:

On the ____ day of _____, 2006, before me, the undersigned, a Notary Public in and for said State, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Notary Public

State of New York)
County of Monroe) ss:

On the ____ day of _____, 2006, before me, the undersigned, a Notary Public in and for said State, personally appeared TERRENCE J. RICE, P.E., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public

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