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July 19, 2013

Mr. Jeffrey Glatz, County Manager  
Members of the Legislature  
County of Niagara  
59 Park Avenue  
Lockport, NY 14094

Report Number: S9-13-2

Dear Mr. Glatz and Members of the Legislature:

A top priority of the Office of the State Comptroller is to help officials manage their resources efficiently and effectively and, by so doing, provide accountability for tax dollars spent to support operations. The Comptroller oversees the fiscal affairs of local governments statewide, as well as compliance with relevant statutes and observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations and governance. Audits also can identify strategies to reduce costs and to strengthen controls intended to safeguard assets.

In accordance with these goals, we conducted an audit of eight counties throughout New York State. The objective of our audit was to determine whether counties are properly maintaining their bridges to ensure the safety of those who travel on them. Included in this, we attempted to ascertain if counties have a plan in place to prioritize bridge maintenance and replacement needs. Additionally, we questioned whether the counties have consistently provided funding for maintenance and repairs of bridges and, if so, whether bridge ratings are improving. We included the County of Niagara (County) in this audit. Within the scope of this audit, we examined the County's policies and procedures and reviewed the maintenance and funding of bridge repairs, and the recent New York State Department of Transportation (NYSDOT) ratings of County-owned bridges for the period January 1, 2007, to December 31, 2011. We also reviewed financial data and inspections for the period January 1, 2002, to December 31, 2006, to gain additional understanding of the condition of the bridges.

This report of examination letter contains our findings and recommendations specific to the County of Niagara. We discussed the findings and recommendations with County officials and considered their comments, which appear in Appendix A, in preparing this report. County officials agreed with our findings and recommendations and indicated they planned to initiate corrective action. Appendix B includes our comments on issues raised in the County's response.

## **Summary of Findings**

We found that the County has a written plan for bridge maintenance and repairs. This plan addresses cyclical maintenance and it excludes bridges slated for major renovations or repairs from the cyclical maintenance. During the audit period, the County maintained relatively consistent bridge ratings, while their annual bridge expenditures varied greatly year to year, due in large part to changes in projects completed each year.

The County also received a relatively consistent number of flags from the NYSDOT, with an average of 13 flags per year over the years reviewed. We tested the flags issued during the last five years of our audit period to determine if the County complied with the NYSDOT's response and action requirements. Of the 65 flags issued, County officials could not produce response documentation for five flags. Therefore, we could not determine if the County had responded to these flags in a timely manner. For the remaining 60 flags for which the County provided documentation, the County responded in a timely manner to 58 flags and failed to respond in a timely manner to two flags.

## **Background and Methodology**

The County covers 522 square miles and has approximately 216,000 residents. The County's budgeted expenditures totaled \$335 million in 2012; major costs included economic assistance, general government support, and transportation. These costs were funded primarily by property taxes, departmental income, sales tax, and State and Federal aid.

The County is governed by a 15-member County Legislature (Legislature). The County Administrator is the chief executive officer and is responsible, along with other administrative staff, for the County's day-to-day management. The County Department of Public Works (DPW) is responsible for the maintenance and monitoring of approximately 88 County-owned bridges. The DPW includes a professional engineer who is directly involved with the oversight of bridges. The DPW's operating budget was \$24.3 million for the 2012 fiscal year.

The NYSDOT requires that all highway bridges be inspected at least every two years, with certain bridges inspected annually if determined to be deficient. The inspections are performed by the NYSDOT inspectors and include an assessment of a bridge's individual parts and an evaluation, resulting in an overall condition score for a bridge. The NYSDOT issues a numeric rating of 1 to 7, with the rating of 5 or greater considered "in good condition." A rating of less than 5 is considered "deficient" and indicates that corrective maintenance or rehabilitation be conducted to restore a bridge to a "non-deficient" condition. A rating of less than 5 does not necessarily mean that a bridge is unsafe, but highlights bridges that should be considered for further review and maintenance, repair, rehabilitation, or replacement. If a bridge is deemed unsafe, it must be closed to all traffic.

In addition to numeric ratings, the NYSDOT can issue one or more flags on a bridge, indicating a clear and present danger or a condition that would result in a clear and present danger prior to the next scheduled inspection. There are three levels of flags: safety, yellow, and red. A safety flag represents a danger to vehicles or pedestrians, but no threat to the structural integrity of the bridge. A yellow flag represents a potentially hazardous structural condition which, if left unattended, could become a clear and present danger before the next scheduled inspection. The

highest level of flag is red, indicating a failure or potential failure of a primary structural component of the bridge that is likely to occur before the next scheduled inspection. Additionally, the NYSDOT can issue a notice that prompt interim action is required for a red or safety flag indicating there is an extreme situation that requires a response within 24 hours. All of these flags require prompt acknowledgement<sup>1</sup> by the responsible government and prompt action, ranging from correcting the safety issue to closing the bridge. Certification by a State-certified professional engineer is required for any repairs made in response to both the yellow and red flags.

To complete our audit objective we conducted interviews with County officials and reviewed adopted policies and procedures. We also reviewed the most recent 10 years of bridge inspection reports and corresponding years' budgets and actual expenditures. We reviewed available documentation addressing responses to notification of flags on bridges for the most recent five years. We conducted our audit in accordance with generally accepted government auditing standards (GAGAS). More information on such standards and the methodology used in performing this audit is included in Appendix C of this report.

## **Audit Results**

Counties have a responsibility to taxpayers to ensure that public roadways, including bridges, are properly maintained and repaired. The failure to provide regular maintenance and needed repairs represents a hazard to the public and a potential liability to a County.

Due to the high costs of materials and limited financial flexibility, it is important that the County have a plan for both maintaining and repairing bridges. An established bridge maintenance and repair plan should include a mechanism for determining when and which bridges should be repaired and/or replaced. The County should ensure that the plan is sufficiently funded and feasible for the County to execute. Annual budgets for bridge repairs, replacement, and maintenance should be based on realistic expectations of expenditures. In addition, the DPW should ensure that it complies with the NYSDOT requirements for responding to flags.

We found that the County develops an annual action plan that outlines the regular maintenance and preventative/corrective repairs that will be performed and which bridges will be affected.

During our audit period, the annual expenditures remained relatively consistent, with any significant variations attributed to larger projects. During the same period, the County's average bridge ratings fluctuated slightly, averaging a non-deficient rating overall. Ratings ranged from less than 5 (considered deficient) to more than 5 (considered in good condition).

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<sup>1</sup> This acknowledgement is considered overdue if it has been longer than six weeks since notification was issued.

<b>Year</b>	<b>Bridge Expenditures<sup>a</sup></b>	<b>Average Bridge Rating (Scale: 1 to 7)<sup>b</sup></b>	<b>Number of Bridges Inspected</b>	<b>Number of Deficient Bridges<sup>c</sup></b>	<b>Bridge Deficiency Percentage<sup>d</sup></b>
2002	\$99,127	4.89	68	45	66%
2003	\$95,621	4.82	16	11	69%
2004	\$133,397	5.15	80	44	55%
2005	\$76,383	5.46	26	15	52%
2006	\$40,833	5.23	66	33	50%
2007	\$13,568	5.36	27	14	52%
2008	\$252,645	5.48	75	9	69%
2009	\$624,670	5.48	34	15	44%
2010	\$173,457	5.23	74	38	51%
2011	\$740,138	5.41	33	14	42%

a) The County is part of the Region 5 Transportation Improvement Program that receives Federal funding for all roadwork, a portion of which is sometimes allocated to bridges. Additionally, the County seeks funding from New York State which can be used for bridge repair and maintenance.

b) The average is based on the NYSDOT's computer-generated ratings for the bridges inspected during the year.

c) Number of inspected bridges each year that fell below a rating of 5

d) The number of deficient bridges during the year divided by the number of bridges inspected during the year.

Additionally, although we found the County tracks some maintenance and repair information by bridge, it does not monitor the history and cost of certain maintenance and repair efforts in its files. Lacking this information could make it more difficult to determine when it is more economical to replace rather than repair a bridge.

For the fiscal years 2002 through 2011, the County had an average of 13 flags (the number of deficient bridges varies based on the cyclical nature of bridge inspections). We examined all 65 flags issued during our scope period from 2007 to 2011 to review for timely responses and/or actions on behalf of the County. Of these flags, 10 (15 percent) were red, 22 (34 percent) were yellow, and 33 (51 percent) were safety. Six safety flags and five red flags were labeled as requiring prompt interim action. Of the 65 flags examined, we were unable to determine if the County responded timely to five due to lack of sufficient documentation, either in the form of NYSDOT letters, and/or responses from the County. For the remaining 60 flags, the County responded to 58 flags in a timely manner. Of the flags not responded to timely, one was a red flag that was responded to 48 days after received, six days later than the NYSDOT's six-week response requirement. The second flag responded to untimely was a safety flag requiring prompt interim action, and was responded to four days after being received, three days over the 24-hour response requirement.

The lack of records documenting the timeliness of the County's actions in response to NYSDOT flags and the failure to track bridge maintenance and repairs by bridge may increase the County's liability for any future vehicular damages since the County would have trouble demonstrating the adequacy of its repair actions.

## Recommendations

1. The DPW must ensure they are adhering to NYSDOT requirements for responding to flags received.
2. The DPW should track yearly maintenance and repair expenditures by bridge.

The Legislature has the responsibility to initiate corrective action. A written corrective action plan (CAP) that addresses the findings and recommendations in this report should be prepared and forwarded to our office within 90 days, pursuant to Section 35 of the General Municipal Law. For more information on preparing and filing your CAP, please refer to our brochure, *Responding to an OSC Audit Report*, which you received with the draft audit report. We encourage the Legislature to make this plan available for public review in the Clerk's office.

Sincerely,

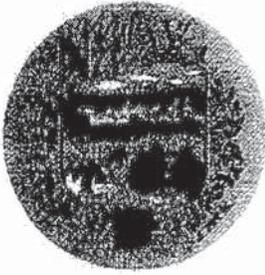
Andrew S. SanFilippo  
Executive Deputy Comptroller  
Office of State and Local Government  
Accountability

## **APPENDIX A**

### **RESPONSE FROM COUNTY OFFICIALS**

The County officials' response to this audit can be found on the following pages.

The County's response letter refers to attachments that support the response letter. Because the County's response letter provides sufficient detail from the attachments, we did not include the attachments in Appendix A.



County of Niagara  
 Department of Public Works  
 59 Park Avenue  
 Lockport, New York 14094

Kevin P. O'Brien, P.E.  
 Commissioner

(716) 439-7242  
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May 15, 2013

Ms. Ann Singer  
 Office of the State Comptroller  
 Binghamton Regional Office  
 State Office Building, Room 1702  
 44 Hawley Street  
 Binghamton, NY 13901-4417

Post-it® Fax Note	7671	Date	5/15/13	# of pages	8
To	Ann Singer	From	Mary Beraman		
Co./Dept.	NYS Comptroller	Co.	Niagara County		
Phone #		Phone #	716 439 7294		
Fax #	(716) 721 8313	Fax #	716 439 7245		

RE: Report Number 59-13-41  
 Niagara County Bridge Maintenance and Repair Audit Response

Dear Ms. Singer:

Niagara County has reviewed the subject draft report, and hereby provides the following written response:

1. The report states "we found the County does not track maintenance and repairs by bridge, which could make it more difficult to determine when it is more economical to replace rather than repair a bridge."

The County respectfully responds to this comment as follows:

First, the County of Niagara does in fact track significant maintenance activities, by bridge on an extensive spreadsheet, maintained by the County Engineer. Information on this spreadsheet includes:

See  
 Note 1  
 Page 10

- The year of the original construction date of the bridge
- The year of any major rehabilitation project
- The year of any bridge railing upgrade
- The year and nature of any miscellaneous corrective work
- The year of bridge bearing replacement or rehabilitation work
- The year of the most recent asphalt concrete wearing course installation
- The year of the most recent bridge painting
- The year of the most recent sealing of the concrete deck, concrete sub-structure and super-structure fascias
- The year of the most recent bridge bearing cleaning and lubrication

Second, the decision whether to replace or rehabilitate or repair a bridge is based on which elements of the bridge would seem to have a long useful life, and the functionality of those elements. If enough of the elements have both a long remaining useful life and satisfactory functionality, so that the remaining elements could all be replaced or repaired for less than half the cost of a replacement structure, then the bridge is a candidate for rehabilitation. If not, the bridge is a candidate for replacement.

In brief, the decision whether to replace, rehabilitate or repair a bridge, is not based on the value of the efforts made in the past on behalf of the bridge, but rather the cumulative value of the elements of the bridge that do not require repair or replacement.

2. The audit reports: "Of the 65 flags issued during the last five years of our audit period, County officials could not produce response documentation for 11 flags. Therefore, we could not determine if the County had responded to these flags timely. For the remaining 54 flags which the County provided documentation, the County responded timely to 52 flags and failed to respond timely to two other."

Of the 11 flags that the County could not produce copies of responses, the County was able to acquire copies for three of the flags from the NYSDOT Regional Office, copies attached. (Attachment A, B, C) Another flag was sent to both the County and the Town of Lockport. The Town responded to this flag. The County did not respond to this flag, as the flagged issue was neither a County nor bridge issue. We acknowledge that we could not provide documentation for the remaining seven flags.

See  
Note 2  
Page 10

In regards to the late responses, the first instance, the flag was dated October 11, 2007. On January 9, 2008, a letter was sent to NYSDOT to inform that the repair was complete and requested the removal of the structural flag. (Attachment D) In the second instance, the response was deemed 4 days late. On the NYSDOT inspection report for this bridge, it notes that verbal notification was given to the NYSDOT regional office on October 8, 2009 at 3:55 p.m. The County Public Works Department closes at 4:00 p.m. Notification was therefore received on Friday, October 9, 2009 and a response to NYSDOT was dated Monday, October 12, 2009, the next business day. (Attachment E)

See  
Note 3  
Page 10

See  
Note 4  
Page 10

It is of utmost importance to note that all bridge flags received by Niagara County were acted upon and corrected in a timely manner, without exception.

3. The report states: "The Department must ensure they are adhering to NYSDOT requirements for response to flags received."

The County of Niagara Public Works Administration agrees with this statement and changes will be addressed in our Corrective Action Plan.

Thank you for allowing the County of Niagara the opportunity to respond to the draft audit report as prepared by the New York State Office of the State Comptroller.

If you require any thing further, please do not hesitate to contact me.

Sincerely,

Kevin P. O'Brien, PE  
Commissioner

cc: J. Glatz, County Manager  
File

## **APPENDIX B**

### **OSC COMMENTS ON THE COUNTY'S RESPONSE**

#### Note 1

We have amended our report letter to show that the County tracks some information regarding maintenance and repair activity by bridge. However, the County does not track the cost of the maintenance and repairs, and some of its records only show the year of the last maintenance activity. While we have amended the report letter, this information differs from what County officials told us during the audit, which is that the costs for maintenance and minor repairs are not broken out by bridge, unless a major capital project is undertaken.

Maintaining histories of maintenance activities and their costs would highlight any potential trends of increasing maintenance needs. This information, which the County does not currently keep, would be useful to County officials as they consider maintenance versus replacement decisions.

#### Note 2

Although County officials did not provide us with documentation related to the NYSDOT flags during our fieldwork, they later obtained it from the NYSDOT. County officials should retain such documentation for their own files. Further, County officials failed to inform us during audit fieldwork, in subsequent phone conversations, or during an additional site visit, that the County did not own some of the bridges for which we requested information. It was not until we met with County officials to discuss the draft report that they provided us with this information. However, based on the additional information provided by County officials after fieldwork, OSC has amended its report.

#### Note 3

The County's response was outside the six-week NYSDOT-required response timeframe.

#### Note 4

Based on documentation provided by the County, the letter from NYSDOT regarding official notification of the flag was dated October 13, 2009, and the County did not acknowledge until November 16, 2009, which is outside the six-week NYSDOT-required response timeframe.

## **APPENDIX C**

### **AUDIT METHODOLOGY AND STANDARDS**

To complete our audit objective, we conducted interviews with County officials and reviewed adopted policies and procedures. We also reviewed the most recent 10 years of bridge inspection reports and corresponding years' budgets and actual expenditures. We reviewed and documented all 65 flags issued during our scope period from 2007 to 2011 to review for timely responses and/or actions on behalf of the County.

We conducted this performance audit in accordance with generally accepted government auditing standards (GAGAS). Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.