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July 19, 2013

Ms. Kathleen M. Jimino, County Executive  
Members of the Legislature  
County of Rensselaer  
1600 7<sup>th</sup> Avenue  
Troy, New York 12180

Report Number: S9-13-6

Dear Ms. Jimino 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 Rensselaer (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 recommendation specific to the County of Rensselaer. We discussed the findings and recommendation with County officials and considered their comments, which appear in Appendix A, in preparing this report. County officials agreed with our findings and recommendation and indicated they planned to initiate corrective action.

## **Summary of Findings**

We found that the County has developed a written plan for bridge maintenance but it has not been formally adopted by the County Legislature. The County has implemented a ten-year strategic highway improvement plan to extend the non-deficient service life of County bridges through cost-effective cyclical maintenance activities. The County maintained average bridge ratings and a consistent level of funding for bridge maintenance, repairs, and replacements during the audit period.

The County also received a relatively consistent number of flags from the NYSDOT, with an average of 16 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 79 flags reviewed, County officials responded in a timely manner to all flags.

## **Background and Methodology**

The County covers 652 square miles and has approximately 159,000 residents. The County's budgeted expenditures totaled \$312 million in 2012; major costs included economic assistance, special items (primarily distribution of sales tax), education, public safety, health, and economic assistance. These costs were funded primarily by property taxes, sales tax, and State and Federal aid.

The County is governed by a 19-member County Legislature (Legislature). The County Executive is the chief executive officer and is responsible, along with other administrative staff, for the County's day-to-day management. The Department of Engineering and Highways (Department) is responsible for the maintenance and monitoring of bridges. The Department includes a County Engineer and a professional engineer who are directly involved with the oversight of bridges. The Department's operating budget was \$9.9 million for the 2012 fiscal year. The Department is responsible for the maintenance and repairs of approximately 60 County-owned bridges. It is not fiscally responsible for other bridges in the County.

The NYSDOT requires that all highway bridges be inspected at least every two years, with certain bridges being 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 ratings of 5 or greater considered "in good condition." A rating of less than 5 is considered "deficient" and indicates that corrective maintenance or rehabilitation must be conducted to restore the bridge to a "non-deficient" condition. A rating of less than 5 does not necessarily mean 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 after the issuance of 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. A State certified professional engineer is required to certify 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 B 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 the 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 Department should ensure that it complies with the NYSDOT requirements for responding to flags.

We found that the County does have a written plan for bridge maintenance; however, it has not been formally approved by the Legislature. This plan includes cyclical maintenance and corrective action programs.

During our audit period, the annual bridge expenditures remained relatively consistent, with any significant variations attributed to 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.

**Table 1: Rensselaer County - Bridge Expenditures, Ratings, and Deficiency History**

| Year | Bridge Expenditures | Average Bridge Rating (Scale: 1 to 7) <sup>a</sup> | Number of Bridges Inspected | Number of Deficient Bridges <sup>b</sup> | Bridge Deficiency Percentage <sup>c</sup> |
|------|---------------------|----------------------------------------------------|-----------------------------|------------------------------------------|-------------------------------------------|
| 2002 | \$ 14,071           | 5.19                                               | 46                          | 21                                       | 46%                                       |
| 2003 | \$ 38,947           | 5.04                                               | 18                          | 12                                       | 67%                                       |
| 2004 | \$ 134,586          | 5.26                                               | 47                          | 20                                       | 43%                                       |
| 2005 | \$ 207,251          | 5.14                                               | 19                          | 11                                       | 58%                                       |
| 2006 | \$ 135,637          | 5.19                                               | 49                          | 23                                       | 47%                                       |
| 2007 | \$ 196,881          | 5.08                                               | 18                          | 11                                       | 61%                                       |
| 2008 | \$ 105,562          | N/A <sup>d</sup>                                   | N/A <sup>d</sup>            | N/A <sup>d</sup>                         | N/A <sup>d</sup>                          |
| 2009 | \$ 64,908           | 5.03                                               | 21                          | 13                                       | 62%                                       |
| 2010 | \$ 95,159           | 5.05                                               | 49                          | 27                                       | 55%                                       |
| 2011 | \$ 24,322           | 4.87                                               | 19                          | 12                                       | 63%                                       |

- a) The average is based on the NYSDOT computer-generated ratings for the bridges inspected during the year.  
b) Number of inspected bridges each year that fell below a rating of 5.  
c) The number of deficient bridges during the year divided by the number of bridges inspected during the year.  
d) All inspection reports provided by the County in 2008 were for bridges not maintained by the County and therefore were eliminated from the analysis.

Additionally, 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.

Further, for the 10 available and completed fiscal years from 2002 through 2011, the County had an average of 16 flags (the number of deficient bridges varies based on the cyclical nature of bridge inspections). We examined all 79 flags issued during the period 2007 to 2011 to review for timely responses and/or actions on behalf of the County. Of these flags, 13 (16 percent) were red, 46 (58 percent) were yellow, and 20 (25 percent) were safety. Three red flags and one safety flag were labeled as requiring prompt, interim action. The County responded in a timely manner to all 79 flags issued.

### Recommendation

1. The Department should record and monitor repairs and maintenance 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.

Our office is available to assist you upon request. If you have any further questions, please contact Ann Singer, Chief of Statewide Projects, at (607) 721-8306

Sincerely,

Andrew A. 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 page.

**Kathleen M. Jimino**  
County Executive



Ned Pattison Government Center  
1600 Seventh Avenue  
Troy, New York 12180  
Phone: (518) 270-2900  
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**COUNTY OF RENSSELAER**

April 16, 2013

Ms. Ann Singer, Chief Examiner  
Office of the State Comptroller  
Division of Local Government and School Accountability  
State Office Building, Room 1702  
44 Hawley Street  
Binghamton, New York 13901-8313

Dear Ms. Singer:

Rensselaer County has reviewed and acknowledges the recommendations put forth by the Office of the State Comptroller (OSC) in its draft report of examination letter (Report Number S9-13-45). In accordance with your requirements, the County is developing a written Corrective Action Plan (CAP) encompassing the OSC recommendations. The CAP will be forwarded to your office pursuant to Section 35 of the General Municipal Law.

Sincerely,

Kathleen M. Jimino  
Rensselaer County Executive

## **APPENDIX B**

### **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 the corresponding years' budgets and actual expenditures. We reviewed and documented all 79 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.

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.