

May 10, 2002

The Honorable Bill Purcell, Mayor
Mr. John W. Lynch, Acting Director
Department of Public Works
Metropolitan Government of Nashville and
Davidson County
750 South 5th Street
Nashville, TN 37206

Report of Internal Audit Section

Dear Mayor Purcell and Mr. Lynch:

We have recently completed a performance audit of the Department of Public Works. According to the *Government Auditing Standards* issued by the Comptroller General of the United States, “a performance audit is an objective and systematic examination of evidence for the purpose of providing an independent assessment of the performance of a government organization, program, activity, or function in order to provide information to improve public accountability and facilitate decision making by parties with responsibility to oversee or initiate corrective action.” A performance audit is different than a financial statement audit, which is limited to auditing financial statements and controls, without reviewing operations and performance. In performing this audit, we retained Maximus to work under our direction. Their

final report dated May 10, 2002, *Performance Audit of Department of Public Works*, accompanies this letter and is hereby submitted to you.

May 10, 2002

Mayor Bill Purcell, John W. Lynch

Page 2

Public Works is responsible for constructing and maintaining streets, roads, sidewalks and other rights-of-way and infrastructure; managing and administering a wide range of capital projects and the traffic and parking operations; and managing the waste collection and recycling programs. The primary divisions of Public Work are Engineering, Streets and Roads, Traffic and Parking, Waste Management, and Staff Services, which is responsible for financial, human resources, and other administrative support to the department. Public Works has a total of 538 budgeted positions for fiscal year 2002. Budgeted operating revenue was \$8,318,000. Budgeted personnel expense was \$22,124,000, and other budgeted expenses total \$69,872,000. Additional background information is included in Chapter 1 of the Maximus report.

Objectives, Scope, and Methodology

The last Public Works audit was issued in 1997. Attachment D to the Maximus report presents the implementation status of each of the previous audit recommendations. Many of those recommendations had not been fully implemented and are incorporated into the recommendations made in this report, as applicable.

The scope of the work excluded most of the Waste Management division because that division's operations had been included in the recent Metro-wide waste management study, the recommendations from which were being implemented during this audit. The Waste Management division's chipper operation, which was not included in the larger waste management study, was included in the scope of this audit. The audit focused primarily on fiscal year 2001 and 2002 financial transactions, performance and cost. Certain analyses required the consideration of financial results, performance and operations outside of that time period.

The primary objectives of this performance audit were as follows:

- Review all major aspects of Public Works operations, including assessing the efficiency and effectiveness of operations and the effectiveness of systems and controls in place to manage and communicate the results of operations.
- Compare Metro's operations and key performance measures to industry best practices and to selected peers.

- Assess the overall management of the Public Works Department, including organizational structure, staffing patterns, cost control, customer service, and information technology.

May 10, 2002

Mayor Bill Purcell, John W. Lynch

Page 3

- Assess compliance with applicable laws, regulations and policies.
- Determine the implementation status of past audit recommendations.
- Develop findings and recommendations for any areas where performance could be improved.

The methodology employed throughout this audit was one of objectively reviewing various forms of documentation, including written policies and procedures, financial information and various other forms of data, reports and information maintained by Public Works and other Metro departments. Management, administrative and operational personnel, as well as personnel from other Metro departments and other stakeholders, were interviewed, and various aspects of Public Works operations were directly observed. Data obtained from the various sources were analyzed, and various aspects of performance, cost and practices were compared to those of industry norms and to best practices.

We performed the audit procedures in accordance with generally accepted government auditing standards.

Findings and Recommendations

The Maximus report addresses Public Works operations and the resulting findings and recommendations in detail. Following is an overview of some of the more significant findings and recommendations included in their report.

- There is a general absence of cost and performance data throughout the department, limiting management's ability to analyze the efficiency and effectiveness of operations.
- Contracts are not always administered and managed to ensure compliance with contract terms and other requirements and to ensure payments are made in accordance with contract terms. The absence of a contract management system also hinders the department's ability to report to and answer inquires from elected officials, citizens and others.

- There are not enough staff or other resources dedicated to traffic control and sign maintenance to perform routine, preventative maintenance. Both areas operate in a reactive mode, correcting signal failures as reported. This approach results in poor service to citizens and can increase the risk of traffic problems.

May 10, 2002

Mayor Bill Purcell, John W. Lynch

Page 4

- The department does not have enough engineers on staff to fulfill development review responsibilities. Additionally, the Engineering Division is not organized in the most effective manner and has not been assigned sufficient responsibility for paving to ensure the technical aspects of the paving program are adequately managed.
- Preventative maintenance of streets is done primarily with pavement overlay, which is a costly approach. Implementation of an alternative program could reduce annual street preventative maintenance costs by \$2 million.
- The department does not always base maintenance and repaving scheduling on the street pavement condition ratings. Using the street ratings, along with managing and scheduling the work based on several maintenance districts established by such factors as traffic patterns and natural boundaries, would be a more effective and efficient way to maintain streets and roads. Additionally, making Public Works responsible for repairing all utility road cuts, with the utility reimbursing Public Works for the related cost, would help ensure the quality and timeliness of those repairs.
- The department had not implemented procedures and systems necessary to track and collect fees for temporary street closure, which would generate an estimated \$100,000 in revenue annually.
- There is a general absence of long-range planning in the department, notably in strategic planning, information technology planning and facility needs planning.

Detailed explanations of the above findings and the related recommendations, as well as several other findings and recommendations, are included in the Maximus report. The fiscal impact of the findings and recommendations can be summarized as follows.

- An increase in the annual operating budget of \$1.5 million is recommended. Increased staffing and supplies to address the deficiencies in traffic control and sign maintenance and in the Engineering Division, discussed above, account for \$1.2 million of the increase. The remaining increase is related to recommendations for enhancement of administrative staff positions and to correct problems noted in financial management and other administrative areas. Once audit recommendations resulting in savings and increased revenue are fully implemented, which should be by the 2003-2004 fiscal year, the department would save an estimated \$2.7 million from its operating budget annually.

May 10, 2002

Mayor Bill Purcell, John W. Lynch

Page 5

- Capital expenditures of \$1,526,000 are recommended for cost accounting and work order management systems, for a contract management system, and for additional vehicles and other equipment needed to enhance traffic signal maintenance. Additionally, a \$200,000 automated parking ticket system is recommended, and \$150,000 is recommended to assist in planning efforts.

A summary of each recommendation and the related fiscal impact can be found in Chapter 6 of the Maximus report.

Management's response to the audit recommendations is attached to this report.

We greatly appreciate the cooperation and help provided by all Public Works staff.

This report is intended for the information of the management of the Metropolitan Government of Nashville and Davidson County. This restriction is not intended to limit the distribution of this report, which is a matter of public record.

Internal Audit Section

Kim McDoniel

Internal Audit Manager

Copy: Karl F. Dean, Director of Law
David L. Manning, Director of Finance
Eugene Nolan, Associate Director of Finance
Metropolitan Council Audit Committee
Richard V. Norment, Director of County Audit
KPMG, Independent Public Accountant