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STATE OF NEW YORK
OFFICE OF THE STATE COMPTROLLER

March 17, 1999

Mr. Joseph H. Boardman
Commissioner
Department of Transportation
State Office Building Campus - Building #5
Albany, NY 12232

Re: Report 99-Y-5

Dear Mr. Boardman:

To assist in your oversight of the Department of Transportation's (Department) Year 2000 compliance progress, we reviewed selected steps taken by the Department, as of February 8, 1999, to make the Bridge Monitoring System (BMS) and the Contract Management System (CMS) Year 2000 compliant. The BMS has been designated a "mission critical" system and the CMS a "high priority" system by New York State's Office for Technology (OFT), which is responsible for overseeing the State's Year 2000 readiness. The BMS contains an inventory of all bridges in the State along with 500 to 600 pieces of information for each bridge. Additionally, BMS tracks approximately 10,000 bridge inspections performed annually. The CMS is an automated system that tracks and manages payments made on more than 400 construction projects. The steps we selected for review pertained to Year 2000 project planning and management, Year 2000 system testing, identification and correction of system data exchanges, and the establishment of contingency plans for continuing important business and service functions in the event of a Year 2000-related failure.

The objective of our review was to assess whether the Department appears to be taking the necessary steps to address Year 2000 problems related to the BMS and CMS. To complete our review we interviewed Department personnel and we reviewed Department documents. In addition, we obtained and analyzed Department responses to a Year 2000 assessment questionnaire that we designed (see the attached Tables). Unlike an audit, a review does not include testing or verification of information and records provided by the Department and does not include a review of internal controls. Therefore, we cannot conclude whether the BMS and CMS will be Year 2000 compliant in a timely manner.

The results of our review show that the Department is taking many of the steps necessary to address Year 2000 problems related to the BMS and CMS. For example:

- Efforts to correct BMS and CMS are covered by a written Year 2000 schedule, and Department management monitors the schedule.
- There was a plan for testing the BMS and CMS and a testing strategy was developed. Users were involved in testing the two systems and they signed off upon the completion of testing.
- Department officials indicated that they had identified all data exchanges with the BMS and CMS and that appropriate corrections of data exchanges have been made.

However, the Department has not yet taken substantial steps to prepare contingency plans to ensure the continuance of business and service functions, which are dependent on the BMS and CMS. Therefore, should either system experience a Year 2000-related failure, the Department may not be prepared to provide for such functions. We encourage the Department to expedite its contingency planning process.

Major contributors to this review were Brian Reilly, Jim Brunt, Jerry Steigman, and Jorge Vázquez.

Your comments to this review are welcomed. We wish to express our appreciation to the management and staff of the Department of Transportation for the courtesies and cooperation extended to our auditors during this review, and hope that it is helpful to your Year 2000 monitoring and oversight responsibilities.

Very truly yours,

Frank J. Houston
Audit Director

cc: John Samaniuk
Gary Davis

TABLE I

**DEPARTMENT OF TRANSPORTATION
YEAR 2000 ASSESSMENT QUESTIONNAIRE
BRIDGE MONITORING SYSTEM**

A colored "traffic light" legend is included in the table below to assist management in focusing an appropriate level of attention on the issues identified in the Status and the Comments sections of the Review Findings.

Legend:

	Status/Comments contain matters which may be of immediate concern to management.		Status/Comments contain matters which management may wish to consider.		Status/Comments do not contain issues which require immediate management consideration.
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Review Findings:

	YEAR 2000 STEPS	STATUS	COMMENTS
	A. PROJECT PLANNING & MANAGEMENT		
	A1. Is there a written Year 2000 Project Plan and does it include/identify steps needed to correct the System in question?	Yes	A Year 2000 Management Plan was developed in early 1997 and presented to and approved by executive management. Executive staff are briefed during weekly meetings with the Year 2000 project director.
	A2. Does the Plan (or any other available record) define what is meant by "compliance" when describing systems at the agency which are Year 2000 ready?	Yes	A detailed definition of compliance is included in the Department's Year 2000 conversion plan dated May 1997. Compliance is defined as: "when the system executes correctly (error free) in processing dates which span the twentieth and twenty-first centuries. This includes reading and writing of files containing dates from or to external systems or business entities where the date is presented either in a 1) century and year format or 2) in a year only format with an agreed-upon windowing procedure."
	A3. Is there a written schedule covering the time frame for achieving compliance for the System in question?	Yes	A detailed schedule for remediation of the System is in place. The System was remediated and returned to production.

TABLE I (Cont'd)

	YEAR 2000 STEPS	STATUS	COMMENTS
	A4. Is progress toward completion of the schedule for the System in question being monitored?	Yes	All mission-critical applications were monitored daily in terms of progress toward completion. Progress was noted at the weekly Year 2000 team meetings. Progress was reported quarterly to OFT.
	A5. Is the System in question meeting the schedule (no significant slippage being reported)?	Yes	Officials stated that some slippage occurred and it was reported in the weekly status report. However, the project was still completed several months ahead of schedule.
	B. TEST PLANS		
	B1. Is there a documented test plan and does it include/identify steps needed to ensure that the System in question will process as expected after it has been corrected to comply with Year 2000?	Yes	A comprehensive test plan and methodology was included in the Year 2000 project plan.
	C. DATA EXCHANGES		
	C1. Have all data exchange partners/interfaces for the System in question been identified and included on a written inventory record?	Yes	The Department determined that there are a minimal number of data exchanges. Those few exchanges have all been examined, documented, and remediated.
	C2. Have data exchange interfaces been considered in the overall Year 2000 Project Plan and the test plan covering the System in question?	Yes	A detailed project schedule was established which addressed data exchanges.
	D. CONTINGENCY PLANS		
	D1. Is there a written business contingency plan in place for the System in question and does the plan specify steps for completing vital business functions if the System in question is noncompliant or inoperable for Year 2000 purposes?	No	Year 2000 project staff have met with executive management and discussed contingencies from three perspectives/levels: agency level; system level; and emergency level. However, they have not yet formalized or documented a contingency plan. Department officials stated that they will be using OFT guidance provided on February 3, 1999 to complete their contingency plan.

TABLE II

**DEPARTMENT OF TRANSPORTATION
YEAR 2000 ASSESSMENT QUESTIONNAIRE
CONTRACT MONITORING SYSTEM**

A colored "traffic light" legend is included in the table below to assist management in focusing an appropriate level of attention on the issues identified in the Status and the Comments sections of the Review Findings.

Legend:

	Status/Comments contain matters which may be of immediate concern to management.		Status/Comments contain matters which management may wish to consider.		Status/Comments do not contain issues which require immediate management consideration.
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Review Findings:

	YEAR 2000 STEPS	STATUS	COMMENTS
	A. PROJECT PLANNING & MANAGEMENT		
	A1. Is there a written Year 2000 Project Plan and does it include/identify steps needed to correct the System in question?	Yes	A Year 2000 Management Plan was developed in early 1997 and presented to and approved by executive management. Executive staff are briefed during weekly meetings with the Year 2000 project director.
	A2. Does the Plan (or any other available record) define what is meant by "compliance" when describing systems at the agency which are Year 2000 ready?	Yes	A detailed definition of compliance is included in the Department's Year 2000 conversion plan dated May 1997. Compliance is defined as: "when the system executes correctly (error free) in processing dates which span the twentieth and twenty-first centuries. This includes reading and writing of files containing dates from or to external systems or business entities where the date is presented either in a 1) century and year format or 2) in a year only format with an agreed-upon windowing procedure."
	A3. Is there a written schedule covering the time frame for achieving compliance for the System in question?	Yes	A detailed schedule for remediation of the System is in place. The System was remediated and returned to production.

TABLE II (Cont'd)

	YEAR 2000 STEPS	STATUS	COMMENTS
	A4. Is progress toward completion of the schedule for the System in question being monitored?	Yes	All mission-critical applications were monitored daily in terms of progress toward completion. Progress was noted at the weekly Year 2000 team meetings. Progress is reported quarterly to OFT.
	A5. Is the System in question meeting the schedule (no significant slippage being reported)?	Yes	Officials stated that some slippage occurred and it was reported in the weekly status report. However, the project was still completed 4-5 months ahead of schedule.
	B. TEST PLANS		
	B1. Is there a documented test plan and does it include/identify steps needed to ensure that the System in question will process as expected after it has been corrected to comply with Year 2000?	Yes	A comprehensive test plan and methodology was included in the Year 2000 project plan.
	C. DATA EXCHANGES		
	C1. Have all data exchange partners/interfaces for the System in question been identified and included on a written inventory record?	Yes	The Department determined that there are a minimal number of data exchanges. Those few exchanges have all been examined, documented, and remediated.
	C2. Have data exchange interfaces been considered in the overall Year 2000 Project Plan and the test plan covering the System in question?	Yes	A detailed project schedule was established which addressed data exchanges.
	D. CONTINGENCY PLANS		
	D1. Is there a written business contingency plan in place for the System in question and does the plan specify steps for completing vital business functions if the System in question is noncompliant or inoperable for Year 2000 purposes?	No	Year 2000 project staff have met with executive management and discussed contingencies from three perspectives/levels: agency level; system level; and emergency level. However, they have not yet formalized or documented a contingency plan. Department officials stated that they will be using OFT guidance provided on February 3, 1999 to complete their contingency plan.