



**MASSACHUSETTS BAY TRANSPORTATION AUTHORITY**  
(A Component Unit of the Massachusetts Department of Transportation)

Independent Auditors' Reports as Required by Title 2 U.S. Code of  
Federal Regulations Part 200, *Uniform Administrative Requirements, Cost  
Principles, and Audit Requirements for Federal Awards*  
(Uniform Guidance) and *Government Auditing Standards*  
and Related Information

Year ended June 30, 2016

**MASSACHUSETTS BAY TRANSPORTATION AUTHORITY**  
(A Component Unit of the Massachusetts Department of Transportation)  
Year ended June 30, 2016

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KPMG LLP  
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**Exhibit I**

**Independent Auditors' Report on Compliance for Each Major Federal Program; Report on Internal Control over Compliance; and Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance**

Fiscal and Management Control Board  
Massachusetts Bay Transportation Authority:

**Report on Compliance for Each Major Federal Program**

We have audited the Massachusetts Bay Transportation Authority's (the Authority or MBTA), a component unit of the Massachusetts Department of Transportation, compliance with the types of compliance requirements described in the U.S. Office of Management and Budget (OMB) *Compliance Supplement* that could have a direct and material effect on each of the Authority's major federal programs for the year ended June 30, 2016. The Authority's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of current year findings and questioned costs (Exhibit IV).

*Management's Responsibility*

Management is responsible for compliance with the federal statutes, regulations, and terms and conditions of its federal awards applicable to its federal programs.

*Auditors' Responsibility*

Our responsibility is to express an opinion on compliance for each of the Authority's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the Authority's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of the Authority's compliance.

*Opinion on Each Major Federal Program*

In our opinion, the Authority complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2016.



*Other Matters*

The results of our auditing procedures disclosed instances of noncompliance, which are required to be reported in accordance with the Uniform Guidance and which are described in the accompanying schedule of findings and questioned costs as items 2016-005 and 2016-006. Our opinion on each major federal program is not modified with respect to these matters.

The Authority's responses to the noncompliance findings identified in our audit is described in the accompanying schedule of findings and questioned costs. The Authority's responses were not subjected to the auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the responses.

**Report on Internal Control over Compliance**

Management of the Authority is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the Authority's internal control over compliance with the types of compliance requirements that could have a direct and material effect on a major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A material weakness in internal control over compliance is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A significant deficiency in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, we identified certain deficiencies in internal control over compliance, as described in the accompanying schedule of findings and questioned costs as items 2016-005 and 2016-006 that we consider to be significant deficiencies.

The Authority's responses to the internal control over compliance findings identified in our audit is described in the accompanying schedule of findings and questioned costs. The Authority's responses were not subjected to the auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the responses.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.



**Report on Schedule of Expenditures of Federal Awards Required by Uniform Guidance**

We have audited the financial statements of the Authority as of and for the year ended June 30, 2016, and have issued our report thereon dated December 15, 2016, which contained an unmodified opinion on those financial statements. Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated in all material respects in relation to the financial statements as a whole.

*KPMG LLP*

Boston, Massachusetts  
March 29, 2017

**MASSACHUSETTS BAY TRANSPORTATION AUTHORITY**  
 (A Component Unit of the Massachusetts Department of Transportation)  
 Schedule of Expenditures of Federal Awards  
 Year ended June 30, 2016

Grant number	Federal catalog number	Program description	Expenditures, net of transfers July 1, 2015 – June 30, 2016
U.S. Department of Justice:			
Federal Equitable Sharing Program:			
MA-03-2500	16.922	Federal Equity Sharing Program	\$ 30,798
<b>Total U.S. Dept. of Justice</b>			<b>30,798</b>
U.S. Department of Transportation:			
Passed through the MassDOT:			
Federal Highway Administration			
FHWA – Section 130:			
S14001	20.205	Knowledge Corridor-Grade Crossings	218,549
<b>Total Highway Planning and Construction Cluster</b>			<b>218,549</b>
Federal Transit – Capital Investment Grants Program:			
MA-03-0281	20.500	Auburdale Access Improvements	173,684
MA-03-0292	20.500	Fitchburg CR Improvements	7,820,027
MA-04-0019	20.500	Hingham Intermodal & Harbor Park	1,168,256
MA-04-0025	20.500	Quincy High Speed Catamaran	1,329,814
MA-04-0048	20.500	Hingham Intermodal Center	1,130,847
MA-04-0052	20.500	Hingham Ferry Dock	48,485
MA-04-0053	20.500	Auburdale Station Design	174,966
MA-04-0054	20.500	Rockport Comm. Rail Station	57,767
MA-04-0064	20.500	Auburdale Fiber Optic Cable Installation	27,206
MA-04-0077	20.500	FY 13 Bus Procurement	215,872
MA-05-0103	20.500	FY07 Station Management Proj.	2,517,247
MA-05-0105	20.500	FY07 Comm. Rail Vehicle Service	32,082,676
MA-05-0109	20.500	Green Line #7 Car	15,029,820
MA-05-0111	20.500	Columbia Junction	113
MA-05-0115	20.500	FY 10 Red Line # 2 Car Overhaul	781,208
MA-05-0120	20.500	Coach Reliability & Safety Prog.	836,399
MA-05-0121	20.500	MBTA Power Program	2,900,859
MA-05-0128	20.500	FY 2013 Infrastructure Impvs.	668,076
MA-05-0129	20.500	Positive Train Control Ph. 1	494,496
MA-55-0004	20.500	Assembly Square Project	(5,090)
MA-55-0005	20.500	Worcester-Boston Rail Corridor Improvement	2,776,787
Subtotal #20.500 Direct Program			<u>70,229,515</u>
Passed through the Rhode Island Department of Transportation:			
Federal Transit – Capital Investment Grants Program:			
RI-X12-X001 (90R112)	20.500	Pawtucket Inspection Pit	349,282
Subtotal #20.500 Pass-through			<u>349,282</u>
<b>Total #20.500</b>			<b>70,578,797</b>
Federal Transit – State of Good Repair Grants Program:			
MA-54-0001	20.525	Green Line No. 8 Car Enhancements	1,338,542
MA-54-0002	20.525	FY 14 Bridge Program	1,017,410
MA-54-0003	20.525	FY 13 AFC IT Upgrades	823,107
MA-54-0005	20.525	MBTA Winter Resiliency Program	30,400,231
MA-54-0006	20.525	MBTA Bridge and Tunnel Program	28,970,750
<b>Total # 20.525</b>			<b>62,550,040</b>
Federal Transit Formula Grants Program:			
MA-90-0331	20.507	FY99 Sec 5307 Infrastructure	173,887
MA-90-0515	20.507	New Blue Line Cars	1,255,163
MA-90-0516	20.507	Public Address/Electronic Sign	40,751
MA-90-0552	20.507	Orange Line Upgrades	160,793
MA-90-0576	20.507	Orange Line Journal Bearing Replacement	1,595
MA-90-0577	20.507	175 Buses/Fairmount Line (GANS)	266,831
MA-90-0589	20.507	Everett Shop Equipment	948,454
MA-90-0590	20.507	IT System/NR Vehicle GL PTC	1,307,827
MA-90-0591	20.507	FY 2010 Loco & Coach Procurement	30,197,933
MA-90-0600	20.507	MBTA Power Program	6,283,469
MA-90-0609	20.507	FY 2012 Bridge Program	3,815,308
MA-90-0617	20.507	Science Park Station Project	237,402
MA-90-0618	20.507	Haverhill Line Double Track	1,591,800
MA-90-0621	20.507	Red & Orange Line Vehicle Prev. Maint.	5,399,158
MA-90-0622	20.507	Orient Heights Station	68,398
MA-90-0631	20.507	Orient Heights Station	899,135
MA-90-0641	20.507	192 ECD Bus Midlife Overhaul	3,287,154
MA-90-0644	20.507	FY 2013 Infr Improvements B	5,377,933
MA-90-0649	20.507	Government Center Reconstruction	37,107,337
MA-90-0711	20.507	Red Line Signals Upgrade	5,265,080
MA-90-0712	20.507	FY 2015 Preventive Maintenance	4,000,000
MA-90-0713	20.507	FY 2015 Bridge Program	9,769,641
MA-90-0735	20.507	Green Line Signal Replacement	485,330

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Year ended June 30, 2016

Grant number	Federal catalog number	Program description	Expenditures, net of transfers July 1, 2015 – June 30, 2016
MA-90-0739	20.507	MBTA 2016 Bus Procurement	\$ 3,199,798
MA-95-0012	20.507	Assembly Square Project	222
MA-95-0014	20.507	Locomotive Procurement CMAQ Flex	1,470,162
MA-95-0022	20.507	Wachusett Extension Project	156,078
MA-96-0001	20.507	Back Bay Vent/RIDE Vans (ARRA)	363,085
	<i>Total # 20.507</i>		<u>123,129,724</u>
	<b>Total Federal Transit Cluster</b>		<u>256,258,561</u>
Federal Transit – Public Transportation Research: MA-26-0063	20.514	Fairmount/Indigo Line TSCP Program	20,683
	<i>Total # 20.514</i>		<u>20,683</u>
Passed through the MassDOT: MA-57-0023	20.521	Paratransit Taxi Subsidy	26,962
	<b>Total Transit Services Program Cluster</b>		<u>26,962</u>
Public Transportation Emergency Relief Program: MA-44-3002	20.527	MBTA Resiliency Project	1,162,502
	<i>Total # 20.527</i>		<u>1,162,502</u>
Federal Transit – Transportation Investment Generating Economic Recovery Program: MA-78-0002	20.932	Fitchburg Wachusett Ext. Tiger (ARRA)	21,750,369
	<i>Total #20.932</i>		<u>21,750,369</u>
Federal Railroad Administration: Passed through the Comm. Of Massachusetts: S10007	20.319	Knowledge Corridor – HSIPR-(ARRA)	10,736,908
Passed through the NNEPRA: 90-FRA1	20.319	Downeaster MBTA Track Improvement Project	78,764
	<i>Total #20.319</i>		<u>10,815,672</u>
National Infrastructure Investments: MA-79-0001	20.933	Merrimack River Bridge – TIGER (ARRA)	749,573
MA-79-0002	20.933	Ruggles Station Improvements – TIGER	10,195,973
	<i>Total # 20.933</i>		<u>10,945,546</u>
	<b>Total U. S. Dept. of Transportation</b>		<u>301,198,844</u>
U.S. Department of Homeland Security: Urban Areas Security Initiatives: HSTS02-06-H-MLS110 (J10002) HSTS02-10-H-CAN632 (J11002)	97.072 97.072	TSA Natl. Explosives Canine Prog. TSA Natl. Explosives Canine Prog.	3,360 68,100
	<i>Total #97.072</i>		<u>71,460</u>
Direct Award: EMW2011RA00035	97.075	FY 2011 Transit Security (J11001)	2,109,130
EMW2012RAK00015	97.075	FY 2012 Transit Security (J12001)	1,235,596
EMW2013RA00054	97.075	FY 2013 Transit Security (J13001)	1,063,369
EMW2014R00055	97.075	FY 2014 Transit Security (J14001)	1,009,203
	<i>Total #97.075</i>		<u>5,417,298</u>
	<b>Total of U. S. Dept. of Homeland Security</b>		<u>5,488,758</u>
		Grand total	<u>\$ 306,718,400</u>

\* A subrecipient payment made from this grant equaled \$20,631

See accompanying notes to schedule of expenditures of federal awards.

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Notes to Schedule of Expenditures of Federal Awards

June 30, 2016

**(1) Definition of the Reporting Entity**

The Massachusetts Bay Transportation Authority (the Authority) is a component unit of the Massachusetts Department of Transportation and political subdivision of the Commonwealth of Massachusetts (the Commonwealth) formed pursuant to Commonwealth law to, among other things, hold and manage mass transportation facilities and equipment, and to enter into agreements for its operation, construction and use.

The U.S. Department of Transportation (DOT) has been designated as the Authority's cognizant Federal agency for the Single Audit.

**(2) Summary of Significant Accounting Policies**

**(a) Basis of Presentation**

The accompanying schedule of expenditures of federal awards has been prepared on the cash basis of accounting and includes federal expenditures.

**(3) Approved Federal Grant Programs**

The Authority's Federal Transit – Capital Investment Grants and Formula Grants Programs, Public Transportation Emergency Relief Program, and the Transportation Investment Generating Economic Recovery Program (TIGER) for the year ended June 30, 2016 consisted primarily of capital grants under contracts with the Federal Transit Administration (FTA). These grants provide for the acquisition of land and equipment, the construction of service extensions, stations, and maintenance facilities, and the improvement of facilities and equipment.

The Authority also received major program funding passed through the Commonwealth of Massachusetts from the Federal Railroad Administration (FRA), for the High-Speed Rail Corridors and Intercity passenger Rail Service (HSIPR). This program will provide approximately \$72.8 million in federal funding for the reconstruction of the historic "Knowledge Corridor" rail line between Springfield, Massachusetts and East Brookfield, Massachusetts. Through MassDOT, the Authority also received \$10.9 million of Federal Highway Administration (FHWA) Section 130 funding, also passed through the Commonwealth of Massachusetts, to rehabilitate 19 grade crossings along the Knowledge Corridor project. This project will allow restoration of Amtrak's "Vermont" intercity passenger rail service to a former, more direct route, and improve access to densely populated areas along the Connecticut River. Recognizing that the Knowledge Corridor project is outside of the Authority service area, a memorandum of agreement was executed with MassDOT, to provide for the Authority's Design and Construction Department's oversight of this reconstruction effort.

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Notes to Schedule of Expenditures of Federal Awards

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According to the terms of the FTA contracts, the Authority will be reimbursed from 75% to 100% of the allowable project costs as defined in the grant agreement. The terms of those federal grant contracts require the Authority to, in part, utilize the equipment and facilities for the purpose specified in the grant agreement, maintain these items in operation for a specified time period, which normally approximates the useful life of the equipment, and comply with the Equal Opportunity and Affirmative Action programs as required by the *Moving Ahead for Progress in the 21<sup>st</sup> Century Act* (MAP-21).

The Authority also received program funding from the U.S. Department of Homeland Security Office for the Department of Homeland Security's Rail and Transit Security Grant Program.

According to the terms of the Rail and Transit Security grants, the Authority will be reimbursed for 100% of the allowable project costs as defined in the grant agreements. These grants provide for the acquisition of equipment and other enhancements to the transit system's security.

Failure to comply with these terms may jeopardize future funding and require the Authority to refund a portion of these grants to their funding agencies. In management's opinion, no events have occurred which would result in the termination of these grants or which would require the refund of a significant amount of funds received under these grants.

**(4) Subrecipient**

For the year ended June 30, 2016 the Authority provided \$20,631 in federal awards to one subrecipient – the Dorchester Bay EDC – which constituted 100% of all funds provided by the Authority to subrecipients.

The subrecipient payments are included in the expenditures for the Federal Transit – Public Transportation Research, Technical Assistance and Training Program, CFDA #20.514.

**(5) Indirect Costs**

For the year ended June 30, 2016, the Authority did not elect to use the 10% de minimis indirect cost rate.



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**Exhibit III**

**Independent Auditors' Report on Internal Control over Financial Reporting and on  
Compliance and Other Matters Based on an Audit of Financial Statements  
Performed in Accordance with *Government Auditing Standards***

Fiscal and Management Control Board  
Massachusetts Bay Transportation Authority:

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of the Massachusetts Bay Transportation Authority (the Authority or MBTA), which comprise the statement of net position as of June 30, 2016, and the related statement of revenues, expenses and changes in net position and cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated December 15, 2016.

*Internal Control over Financial Reporting*

In planning and performing our audit of the financial statements, we considered the Authority's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control.

Our consideration of internal control was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. However, as described in the accompanying schedule of findings and questioned costs, we identified certain deficiencies in internal control, that we consider to be material weaknesses. A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. We consider the deficiencies described in the accompanying schedule of findings and questioned costs as Findings 2016-001 and 2016-004 to be material weaknesses.

*Compliance and Other Matters*

As part of obtaining reasonable assurance about whether the Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.



## Exhibit III

### *The Authority's Response to the Findings*

The Authority's responses to the findings identified in our audit are described in the accompanying schedule of findings and questioned costs. The Authority's responses were not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on the responses.

### *Purpose of this Report*

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

KPMG LLP

Boston, Massachusetts  
December 15, 2016

**MASSACHUSETTS BAY TRANSPORTATION AUTHORITY**  
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Schedule of Findings and Questioned Costs

June 30, 2016

**(1) Summary of Auditors' Results**

- (a) Type of report issued on whether the financial statements were prepared in accordance with generally accepted accounting principles: **Unmodified**
- (b) Internal control deficiencies over financial reporting disclosed by the audit of the financial statements:
  - Material weakness(es): **Yes**
  - Significant deficiency(ies): **None reported**
- (c) Noncompliance material to the financial statements: **No**
- (d) Internal control deficiencies over major programs disclosed by the audit:
  - Material weakness(es): **No**
  - Significant deficiency(ies): **Yes**
- (e) Type of report issued on compliance for major programs: **Unmodified**
- (f) Audit findings that are required to be reported in accordance with 2 CFR 200.516(a): **Yes**
- (g) Major programs:

<u>Federal program or cluster</u>	<u>CFDA number</u>
Federal Transit Cluster:	
Federal Transit – State of Good Repair Grants Program	20.525
Federal Transit – Capital Investment Grants Program	20.500
Federal Transit – Formula Grants Program	20.507
Public Transportation Emergency Relief Program	20.527

- (h) Dollar threshold used to distinguish between Type A and Type B programs: **\$3,000,000**
- (i) Auditee qualified as a low-risk auditee: **No**

**(2) Findings Related to the Financial Statements Reported in Accordance with Government Auditing Standards**

**Finding 2016-001 – Succession Planning**

*Finding*

The MBTA like many other government entities is facing the need to do appropriate succession planning for key individuals throughout the organization. The over reliance on certain employees, unexpected employee absence or turnover and the ongoing retirement of the baby boomer generation contributes to the need to properly prepare and plan for transition.

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During the current year audit, the absence of a key employee greatly impacted the Authority's internal and external financial reporting process and identified the need to ensure that a sufficient number of skilled resources following well documented processes are in place to mitigate the impact of relying too heavily on a single employee. Additionally, it is unclear how the impending retirement of key employees in the payroll and employee benefits area is being addressed to ensure that these important activities continue unhindered.

Over the next decade, as more MBTA employees reach retirement age, the Authority will be faced with a tremendous loss of institutional knowledge and possibly significant deficiencies in highly specialized areas and functions. As such, management needs to consider the need implement an appropriate personnel succession plan throughout the Authority.

We reported no similar finding in the prior year and no statistically valid sampling was used.

*Recommendation*

We recommend that the Authority consider adopting a formal succession plan. Such a plan, at a minimum, should include identifying key personnel, retirement timeline and potential replacements.

*Views of Responsible Officials*

In fiscal year 2017 the Authority will address a formalized succession planning analysis and begin to work towards implementation of a comprehensive succession plan. This plan will reach across all entity related disciplines, such as transit operations, financial and administrative departments and have the full support of the Financial and Management Control Board. The plan will address the succession planning exposure and steps needed on an annual basis to remediate each individual opportunity with documented baseline for each case. This implementation process will lend itself to a living document which will meet the changing needs of the Authority.

**Finding 2016-002 – Process Documentation**

*Finding*

During the current year audit, the unexpected absence of an individual key to the Authority's external financial process exposed a material control weakness in the business processes around the compilation of the Authority's external GAAP financial report. Documentation of key business processes is important to ensure that performance is consistent especially when temporary or permanent personnel changes occur.

Additionally, with the recently implemented GASB statements (especially the pension standards) and the upcoming implementation of the OPEB standards, the complexity of the Authority's financial accounting and reporting responsibilities will continue to increase significantly. Management needs to ensure that the process documentation is prepared in conjunction with the implementation of any new standards to help ensure the standards are applied consistently each year after implementation.

We recommend that the Authority add resources in the financial accounting and reporting areas who possess the critical skills needed to ensure that the process is documented, managed and executed effectively and efficiently. Evaluating the current processes and personnel and supplementing the

**MASSACHUSETTS BAY TRANSPORTATION AUTHORITY**  
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Schedule of Findings and Questioned Costs

June 30, 2016

resources in these areas is critical to ensure that all internal and external accounting and reporting duties are performed properly.

A material weakness was noted in the prior year audit in the retirement plan administration area. Due in part to the timing of the 2015 audit, this deficiency continued to exist throughout 2016. We have been told that the individual most fluent in the retirement plan administration area may be retiring. This situation will leave the Authority with a significant hole in an extremely complex area.

We reported no similar finding in the prior year and no statistically valid sampling was used.

*Recommendation*

We recommend that, to the extent possible, the business processes be documented immediately to leverage the extensive knowledge of the individually currently working in this area. Should the knowledge not be transferred and a personnel change occur, the Authority will face a significant risk of errors occurring and not be detected in a timely fashion.

*Views of Responsible Officials*

The Authority will develop written business process documents for each functional area to address this issue. A summary of individual processes will be developed in a clear concise narrative which will allow another staff member to effectively complete the necessary work should cases of extended or short term absences or retirement occur. This business process documentation will also be utilized as a training device in with a new employee as they join the Authority.

**Finding 2016-003 – Retirement Plans**

*Finding*

The MBTA sponsors several retirement plans for its employees including six defined benefit plans and one defined contribution plan.

During fiscal 2015, as a result of a new pronouncement from the Governmental Accounting Standards Board (GASB), the Authority was required to record the unfunded plan liability on its balance sheet rather than presenting it in the notes to the financial statements.

As a result of this new standard, a material weakness in internal control was identified and reported as part of the June 30, 2015 audit. While management has begun the process of addressing certain portions of the control weaknesses, the material weakness in this area continued throughout fiscal 2016.

Given the lack of process documentation and the potential turnover in the personnel in the employee benefits plan area, it is even more important the Authority management develop and implement a solution to the issues identified in the June 30, 2015 audit.

No statistically valid sampling was used.

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## Schedule of Findings and Questioned Costs

June 30, 2016

*Recommendation*

Management continues to implement initiatives around the Authority to improve operations. However, the risks associated with control deficiencies in the benefits administration area continue to be high and we recommend that correcting these deficiencies quickly be considered a high priority for management and the Board.

*Views of Responsible Officials*

The Authority continues to address this issue. An independent contractor has been retained to provide a framework and cost estimates for a comprehensive review of the plans that compares administrators in the marketplace. The final report will provide a comparison of recordkeeping service platforms, compliance, enrollment processing, website, employee education, plan capabilities and sponsorship, as well as cost.

**Finding 2016-004 – Forward Contracts***Finding*

During the 2016 audit, we noted that, in previous years, the MBTA had entered into numerous forward delivery agreements (FDA) with several counterparties. These FDAs related to debt service and debt service reserve funds that the MBTA was required to maintain as part of its bond indenture.

Until 2016, these FDAs had not been identified by management as derivatives under GASB Statement No. 53 that are required to be recorded at fair value on the MBTA's balance sheet. Due to the current interest rate environment, the FDAs all had a positive fair value and the MBTA had no exposure on these agreements as of June 30, 2016. Rather the MBTA should have recorded an asset of approximately \$100 million for these FDAs at June 30, 2016.

Because the MBTA intends to hold these FDAs to maturity, management determined that the recognition of the asset was misleading as their value fluctuates with the rise and fall of interest rates and redemption of these contracts was unlikely.

We reported no similar finding in the prior year and no statistically valid sampling was used.

*Recommendation*

We recommend that management continue to value these contracts at least annually to assess whether the decision to not recognize them in the balance sheet is still appropriate. As interest rates rise, it is possible that these agreements will have a negative fair value which would result in a liability having to be recorded.

*Views of Responsible Officials*

The Authority will prepare valuations of all the forward delivery agreements with the assistance of a third party at each fiscal year end for assessment of their value, risk and impact on the financial statements. The evaluation will facilitate the preparation and fair presentation of the statements in accordance with generally accepted accounting principles within a well maintained internal control environment for preparation of statements free of material misstatement.

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**(3) Findings and Questioned Costs Relating to Federal Awards**

**Reference Number: 2016-005: Payroll Charges**

**Federal Program:** Federal Transit Cluster CFDA# 20.500, 20.507, 20.525 and 20.526

**Federal Agency:** U.S. Department of Transportation

**Federal Award Number and Year:** Various

**Pass-through Entity:** None

**Statistically Valid Sample:** The sample was not intended to be, and was not, a statistically valid sample.

**Repeat Finding:** The finding is a repeat finding of 2015-001

**Criteria**

Per 200 CFR 200.303, non-Federal entities receiving Federal awards must establish and maintain effective internal controls over Federal awards that provides reasonable assurance that they are managing Federal awards in compliance with Federal statutes, regulations and the provisions of contracts or grant agreements that could have a material effect on each of its Federal programs. One of the many Authority responsibilities includes establishing a system of internal controls in determining activities that are allowed or un-allowed.

**Condition**

The Authority uses the PeopleSoft Human Capital Management (HCMS) application in conjunction with the Time Keeping System (TKS) to support payroll operations. Both applications are supported by MBTA's ITD group located at 10 Park Plaza in Boston, MA and hosted in a secured data center.

We conducted a review of general IT controls (GITCs) relative to the HCMS and TKS applications. Our testing identified several control-level deficiencies which are described below:

**(a) PeopleSoft HCMS & TKS Change Management Segregation of Duties**

**Control Activity**

The ability to perform changes to PeopleSoft HCMS and Time Keeping System in production is restricted to authorized IT administration personnel who do not have development responsibilities.

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**Observation**

*PeopleSoft HCMS*

We noted six of the ten accounts with the ability to migrate changes to production were deemed inappropriate.

- Four accounts belonged to developers who have the ability to migrate their own changes to production. This is a segregation of duties (SOD) issue.
- One account belonged to a Finance System Administrator, whose level of access to HCMS is not commensurate with his/her job responsibilities.
- One account was a shared service account utilized for batch job changes. While not an exception in itself, developers know the password to the account and potentially could use the account to migrate changes into production.

*Time Keeping System (TKS)*

Two of the three accounts with administrative access/change migration access to TKS belonged to developers who have the ability to migrate changes to production. This is a segregation of duties issue.

*PeopleSoft HCMS & Time Keeping System (TKS)*

While we noted MBTA ITD has a small support organization and limited resources, no compensating controls could be identified that would have mitigated the risk that developers could potentially migrate changes to production that were not authorized, tested, or approved by the relevant business/process owners.

Additionally, we noted there was an overlap in privileged access capability between those users who could develop/migrate changes and those having application administrative responsibilities.

**(b) PeopleSoft HCMS & TKS Change Approval**

**Control Activity**

Changes to the PeopleSoft HCMS and Time Keeping System application, database and infrastructure are tested and approved prior to migration to production.

**Observation**

*PeopleSoft HCMS & Time Keeping System (TKS)*

KPMG inspected a sample of 1 application change (TKS) during the audit period and determined that the user who had developed the change had also migrated it into production. Additionally, it was noted that the change ticket was dated October 2015 while the change reflected a February 2016 change date.

Furthermore, it was also determined that neither the legacy TKS or the PeopleSoft HCM applications have the ability to provide a complete and accurate population of changes made.

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**(c) PeopleSoft HCMS & TKS Application Layer Administrative Access**

**Control Activity**

Administrative access to the PeopleSoft HCMS and Time Keeping System applications, including the ability to add/remove/modify user accounts and privileges, is restricted to system administrators based on their job responsibilities.

**Observation**

*PeopleSoft HCMS*

Seven of the fifteen accounts with administrator access were deemed inappropriate.

- Four accounts belonged to developers. This is a segregation of duties issue.
- One account belonged to a Finance System Administrator, whose level of access to HCMS is not commensurate with his/her job responsibilities.
- One account was a shared service account utilized for batch job changes. While not an exception in itself, the password to the account is known to the developers.
- The user/owner of one account could not be identified.

*Time Keeping System (TKS)*

Two of the three users identified as having administrator access also have the ability to develop and migrate application code into production.

**(d) TKS Database Layer Administrative Access**

**Control Activity**

Administrative access to the Time Keeping System database, including the ability to add/remove/modify user accounts and privileges, is restricted to database and system administrators based on their job responsibilities.

**Observation**

*Time Keeping System (TKS)*

Two of the five users identified as having administrative access to the TKS database (DataCom) also have the ability to develop and migrate code to production. This is a segregation of duties issue.

**(e) TKS Server Layer Administrative Access**

**Control Activity**

Administrative/Privileged access to servers hosting Time Keeping System, including the ability to add/remove/modify user accounts and privileges, is restricted to system administrators based on their job responsibilities.

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**Observation**

*Time Keeping System (TKS)*

Two of the three accounts with administrative access/change migration access to TKS belong to developers who have the ability to migrate their own changes to production. This is a segregation of duties issue.

**(f) PeopleSoft HCMS TKS and Active Directory (Network) User Access Review**

**Control Activity**

Management reviews PeopleSoft HCMS, TKS and Network users and user access rights on a periodic basis to determine that only authorized users have access and that access is commensurate with employee job responsibilities. Timely follow-up is performed for identified deviations.

**Observation**

*PeopleSoft HCMS*

KPMG inquired of management and noted that they have a user access review in place; however, the review is not performed at the appropriate level of precision. The reviewer only verifies that accounts belong to active employees. The reviewer does not perform a review of the underlying HCMS access rights for each ID

*Time Keeping System (TKS)*

Management does not review TKS users and user access rights on a periodic basis.

*Active Directory (Network)*

Management does not review Active Directory users and user access rights on a periodic basis.

**(g) PeopleSoft HCMS & TKS Password Configuration**

**Control Activity**

Password parameters for the PeopleSoft HCMS and Time Keeping System applications, databases, and servers are configured in compliance with the FMC password policy.

**Observation**

*PeopleSoft HCMS Oracle Database*

KPMG determined that the password parameters for the PeopleSoft HCMS Database do not comply with password policy.

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**Cause**

The limited size of the IT groups and ITD's overall burden of support makes service delivery a higher priority than governance.

**Effect**

The lack of controls has the potential for a significant impact on the administration of Federal funds as payroll changes to individual programs and grants is critical to properly supporting allowable grant expenditures.

Unauthorized and inappropriate changes or access to key financial systems such as HCMS and TKS may lead to unauthorized or inaccurate processing, and the misuse or misappropriation of assets.

Further user access review is a key control over existing employee access to ensure that users only retain access that is appropriate.

**Questioned Costs**

None

**Recommendations**

We recommend that MBTA ITD management:

- review staffing at ITD and takes steps to introduce an appropriate staffing model that better supports segregation of duties
- acquire and introduce a software solution that manages and logs the migration of all software changes to production thereby providing a complete, unambiguous and unmodifiable log of all changes that can be reviewed for appropriateness by management
- MBTA business supervisors utilize reports provided by ITD to conduct periodic reviews of user access rights for each ID to the PeopleSoft HCMS and TKS applications and the network.
- Following each review, MBTA business supervisors notify ITD to make any necessary changes to employee access or access rights.
- Ensure that the password configuration for all accounts comply with MBTAs password policy.

**Views of Responsible Officials**

*PeopleSoft HCMS*

- All HCMS PeopleSoft production access has been removed for developers and deleted for Finance System Administrators. All two tier access will be removed from developers in production.
- One developer will have the ability to migrate into the production environment in both PS HCMS and TKS.

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- A new process has been developed. A Helpdesk ticket will be created by developer. The system administrator will then migrate on a specific day agreed upon by both IT and Business Owner.

*Time Keeping System (TKS)*

Two individuals share the entire TKS environment, from support, development, and migration. Simply stated, because of lack of personnel/resources to divide these functions into a more standardized protocol. One individual is also involved with SYSTEMS PROGRAMMING, in concert with On-line Consulting, our current systems support group, in getting new systems related software installed and tested.

As a compensating level of protocol segregation, if one individual needs programs migrated, the other individual will migrate them, and if one makes changes, the other individual will migrate them to PRODUCTION. Since we can't have a "single point of failure", both individuals need to have ADMIN access.

Any changes coming from the USER community are recorded into SERVICE NOW as an INCIDENT. Any change that comes in as an enhancement or request for change, is recorded as a TASK Order. These assigned numbers are entered into each program module as such, with a brief description of the change, and who did the change. The change(s) are tagged with initials followed by MMDD, month and day of the change.

Effective June 1st, IT will be utilizing a new Charge Management System/Process, which will allow better tracking, reporting of all changes made to these systems.

*Change Approval*

Many times tickets (or Incidents) are created in one time frame, but the actual change does not go into PRODUCTION until a later date, as KPMG points out. This is a result of long test periods, and/or, level of difficulty of the change.

TKS has many limitations due to shelf life and the change control method is limited and difficult to maintain. It is strictly a manual 'logging' method, and as noted, may not reflect accurate time/date stamps.

Only recently, have we agreed to use one another to migrate TKS changes to PRODUCTION. The June 1st Change control process (SERVICE NOW) will help this process be better represented.

*PeopleSoft HCMS & TKS Password Configuration*

Management believes it has remediated this control deficiency to help ensure that the PeopleSoft HCMS Oracle Database password parameters comply with MBTA's password policy.

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**Reference Number:** 2016-006 – Capital Asset Inventory

**Federal Programs:** Federal Transit Cluster CFDA# 20.500, 20.507, 20.525 and 20.526

**Federal Agency:** U.S. Department of Transportation

**Federal Award Year:** Various

**Pass-through Entity:** None

**Statistically Valid Sample:** The sample was not intended to be, and was not, a statistically valid sample.

**Repeat Finding:** No.

**Criteria**

*Equipment Management*

FTA Circular C 5010.1D, Chapter IV, 3.k. (4) requires that a physical inventory of equipment must be taken and results reconciled with equipment records at least once every two years. Any differences must be investigated to determine the cause of the difference.

**Condition**

The Authority has established and implemented an equipment inventory policy. The policy requires that Capital Accounting conducts an equipment inventory at each Authority location every two years, with the assistance of departmental designees.

During our equipment testwork, we noted that the required biennial equipment inventory for the period of January 1, 2015 through December 31, 2016 was not completed. The latest complete equipment inventory was performed for the period of January 1, 2013 through December 31, 2014.

**Cause and Possible Asserted Effect**

The Authority's policies and procedures to perform a biennial equipment inventory is not designed or implemented to ensure that the inventory is completed every two years.

**Questioned Costs**

None

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**Recommendations**

We recommend management strengthen the equipment inventory procedures to help ensure that the equipment inventory is completed every two years.

**Views of Responsible Officials:**

The Authority will conduct a complete equipment inventory by December 31, 2017 and fully document all results. All records will be updated to reflect any adjustments as a result of the process. Additionally, the policies and procedures will updated to ensure the completion of the process being completed biennially.