

Internal Audit Report

**OFFICE OF TRANSPORTATION
MAINTENANCE AUDIT
AUGUST 2019**

Office of the County Auditor





OFFICE OF THE COUNTY AUDITOR

Craig Glendenning, CPA
County Auditor

August 2019

The Honorable Members of the County Council
The Honorable Calvin Ball, County Executive

Pursuant to Section 212 of the Howard County Charter and Council Resolution 22-1985, we have conducted a vehicle maintenance audit of the Office of Transportation. This report contains recommendations we believe will improve accountability and compliance with applicable policies.

This report has been reviewed with the Chief Administrative Officer and we have included the Administration's response. We wish to express our gratitude to the Office of Transportation for the cooperation and assistance extended to us during the course of this engagement.

A handwritten signature in blue ink, appearing to read "CG", with a long, sweeping underline.

Craig Glendenning, CPA
County Auditor

EXECUTIVE SUMMARY

We conducted a performance audit of vehicle maintenance for transit vehicles operated by the Regional Transportation Agency (RTA). Services for RTA are managed by First Transit, Inc., under a contract with the Office of Transportation (Office). The objectives of our audit were to:

1. Ensure that RTA established a comprehensive fleet maintenance program.
2. Determine if RTA performed preventive maintenance and adequately documented such maintenance.
3. Ensure that the Office took action to identify and replace transit vehicles that exceeded specified life cycle measurements.

Conclusions

For the audit objectives, we concluded:

1. The RTA had developed a comprehensive maintenance plan, including preventive maintenance requirements based on class of vehicle. We did find that the draft plan, issued in April 2016, had never been approved or periodically reviewed and updated as required.
2. Our review and testing of preventive maintenance found that RTA standards met criteria established by the State of Maryland. Our testing also disclosed that RTA performed preventive maintenance in accordance with required mileage intervals.
3. The audit found that the RTA fleet included a number of vehicles with mileage that exceeded lifecycle requirements set by the State. The County Council adopted a Transit Development Plan (TDP) that included recommendations to replace aging vehicles. The audit also disclosed that the Office should work with RTA to develop accurate data for missed trips (routes or parts of routes missed due to vehicle or driver unavailability issues).

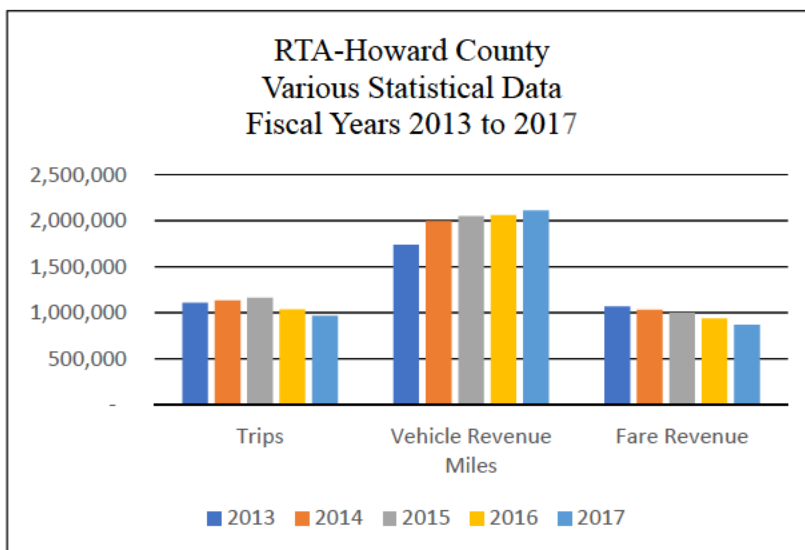
BACKGROUND

In May 2014, the County entered into a contract with First Transit, Inc., to manage transit operations for Howard County. The contract was amended in July 2014 to include transit services in Anne Arundel and Prince George’s County and the City of Laurel. The County entered into Memoranda of Understanding (MOU) with Anne Arundel County, Prince George’s County, and the City of Laurel. The MOUs establish the services, oversight and funding responsibilities of the parties.

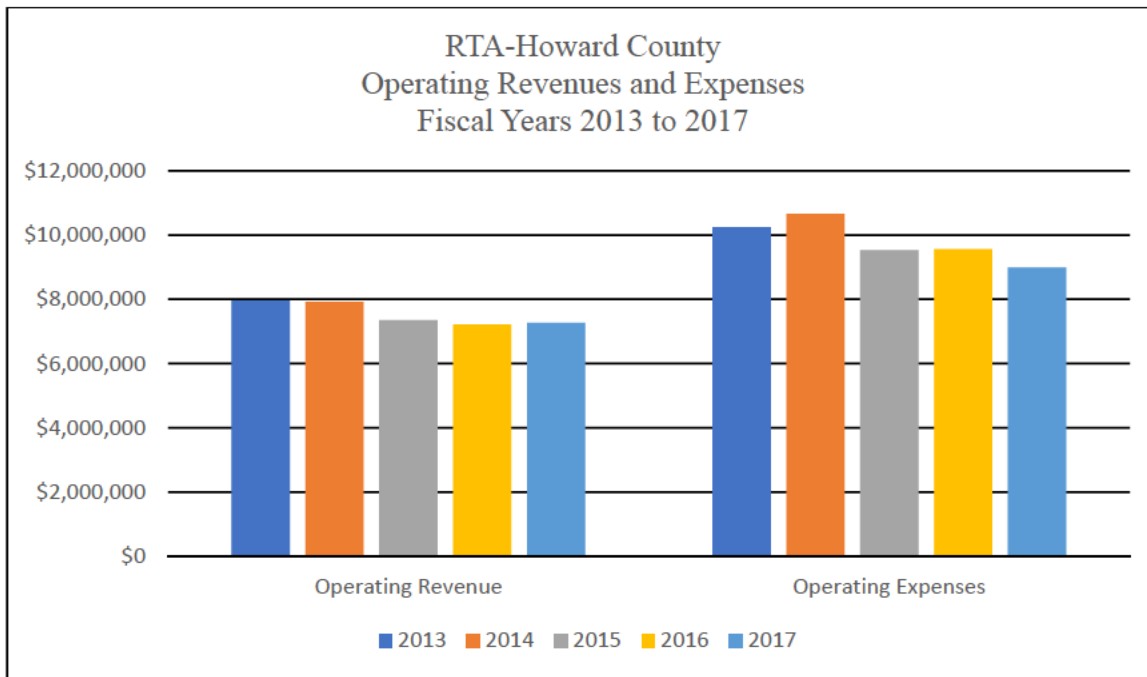
The contract may be unilaterally renewed by the County for nine years in one-year increments. The contract and related amendments specify the annual amount of the management fee. The contract requires that, in part:

- First Transit, Inc., create a wholly owned subsidiary corporation responsible for managing, administrating, and operating the fixed-route and paratransit services.
- The employees of the Corporation are not County employees.
- Policy and oversight is the responsibility of the Central Maryland Transportation and Mobility Commission.
- The contract administrator is the County’s Office of Transportation.
- The County shall reimburse the Corporation for expenses actually incurred including services provided on behalf of the other jurisdictions. These payments for services are contingent on a written amendment to provide such services and receipt of sufficient funds from the jurisdictions to pay for the services.

First Transit, Inc., incorporated the entity under the name Transit Management of Central Maryland, better known as the Regional Transportation Agency of Central Maryland (RTA). See the charts below for various statistical and financial data applicable to RTA operations in Howard County for Fiscal Years 2013 to 2017.



Source: National Transit Database, Service Performance Summary
Vehicle Revenue Miles – Total miles traveled while in revenue producing service.



Source: Form 2a-Service Performance Summary

Operating Revenue includes farebox receipts, advertising revenue, and payments from other jurisdictions.

In November 2017, the jurisdictions issued a draft Transit Development Plan (TDP). The TDP serves as a guide for implementing service and/or organizational changes, improvements, and/or potential expansion over a five-year period. The TDP process included a review of previous studies and data, demographic and land use analysis, public and stakeholder outreach, assessment of existing services, development of service alternatives, and recommendations. The recommendations include bus route reconfiguration and service expansion and anticipate the continued purchasing of new buses.

FINDINGS AND RECOMMENDATIONS

Finding 1

Much of the County owned transit vehicle fleet is eligible for retirement and often unavailable.

The RTA fleet is unreliable due to its use of buses eligible for retirement based on age or mileage, according to a consultant hired by the Office to develop the Transit Development Plan (TDP). According to RTA records, of the 59 fleet vehicles owned by the County as of January 31, 2018, the mileage for 21 exceeded the standard lifetime mileage specified by Maryland Transit Authority (MTA). We were advised that 4 of these 21 were subsequently removed from active service. See Exhibit A for fleet mileage for all County owned transit vehicles.

Users and other stakeholders have voiced concerns over system reliability as the main factor in dissatisfaction with the RTA. Further, the consultant noted that on-time performance is poor due to several factors including reduced fleet availability. Our analysis of RTA documents confirmed significant issues with bus availability. For Fiscal Year 2018, 10 out of the 59 active Howard County owned transit vehicles were unavailable at least 26 percent of the days tested for the year. See Exhibit B for fleet availability statistics for Fiscal Year 2018 for all County owned transit vehicles.

Older vehicles tended to have higher per mile maintenance costs. Our analysis of cost per mile for Fiscal Years 2015 to 2018 disclosed that older vehicles had higher per mile maintenance costs for the period. This is to be expected due to higher mileage and wear and tear. See Exhibit C for maintenance costs per mile for all County owned transit vehicles for the fiscal years noted.

The County Council approved the TDP in April 2018. The TDP, in addition to recommending service improvements and enhancements, spelled out a timetable for the replacement of the County's aging fleet. Specifically, the TDP recommends the purchase of an additional 32 transit vehicles from Fiscal Years 2020 to 2023 at a cost of \$5.1 million.

We recommend that the Office work with other County Departments to identify and provide resources to comply with the recommendations contained in the TDP regarding the replacement of fleet vehicles currently providing services. We also recommend that the Office develop replacement schedules for the future needs of the transit system to ensure that resources can be identified as needed.

Administration's Response:

Of the 21 vehicles that have exceeded MTA's life miles guidelines in Exhibit A, 15 of the vehicles are on the fixed-routes service and 6 are on the paratransit service. The Office of Transportation (Office) and RTA have replaced 6 fixed-route vehicles in the Fall of 2018; ordered 2 fixed-route vehicles with State and local funding- with a scheduled delivery for

October 2019; and secured funding for 3 replacement vehicles to be ordered this Summer, with a planned delivery in the Summer of 2020. The Office and the Office of Community Sustainability recently submitted a grant application to replace 3 fixed-route vehicles that have exceeded their life miles as part of the statewide Volkswagen settlement. In addition, the Office also recently submitted a No or Low Emissions Grant (NoLo) application to replace 2 older vehicles that have exceeded its life miles. Since 2017, a total of 16 fixed-route vehicles have been received, ordered, or identified in a request for grant funding to the MTA.

For the 6 paratransit vehicles identified in the maintenance audit as exceeding MTA's life miles guidelines, the Office purchased 5 paratransit vehicles that were delivered in August 2019 to replace the aging vehicles.

Since the replacement of some of the aging vehicles, the number of missed trips has dropped 55% from 2,400 trips FY2017 to 1,065 trips in FY2019. This represent 0.70% of our total trips. The Office has been working with RTA to update the vehicle replacement plan outlined in the TDP to identify future vehicle needs. This vehicle replacement plan will be reviewed each year as part of the Annual Transportation Plan (ATP) that is submitted to MTA.

Finding 2

The RTA did not collect and report data on missed trips.

Based on the available data, the RTA missed over 2,400 trips in Fiscal Year 2017, which was the only full year data was collected. Missed trips represent the number of bus routes not run due to the lack of an operational bus. The RTA discontinued reporting missed trip data to the Office in August 2017. Although the resulting information can be critical in managing operations, we were advised that RTA found the source data for missed trips to be unreliable along with the results.

We recommend that the Office and RTA work together to develop a method to capture and calculate missed trip data. To the extent possible, we recommend that the process be automated to reduce the chances for inaccurate data.

Administration's Response:

The RTA has worked to find an automated process to capture and calculate missed trip data by utilizing our RouteMatch system. Software and hardware were acquired and installed in the summer of 2017 as a platform to track vehicles, serve real-time rider data such as arrival predictions, and run playback of vehicles. Additionally, the software provides reports on ridership, fare data, miles traveled, and hours traveled, including trips scheduled for a day, but not performed. Unfortunately, due to persistent errors within the system and its many components, as well as relatively cumbersome processes necessary by dispatch and operations staff to validate and correct missing data, the RouteMatch system has not proven to be a reliable

data source to date. RTA continues to work on internal processes as well as working with RouteMatch to address system issues.

The RTA currently collects missed trip data through a manual process. Dispatchers log all irregular events during fixed-route operations in a spreadsheet dubbed "Daily Route Issues." The Daily Route Issues log includes information such as, but not limited to, transmission and engine lights becoming illuminated on vehicles, abnormal sounds or smells coming from vehicles, detours, severe weather, severe delays, or anything else that a fixed-route dispatcher would have a reasonable expectation of reporting and keeping record of. Routes out of service for any duration of time due to vehicle availability issues and/or operator availability issues are reported on this log.

As of July 1, 2018, RTA began reporting the number of missed trips as part of the monthly ridership, miles, and hours report. The Office will be monitoring the RTA data reports and will consider switching to a new automated system in 2020 when it comes time to renew the license with RouteMatch and if errors within the system continues to persist.

Finding 3
The RTA's Maintenance Plan was outdated and did not reflect current practices. It had not been approved, reviewed, or updated since it was drafted in April 2016.

The RTA Maintenance Plan did not reflect current practices. The Plan, issued in draft in April 2016, has never been approved or updated. We noted in our test of preventive maintenance (PM) that the Plan called for PM intervals of 5,000/25,000/50,000 miles for its three levels of PM services on light/medium class buses. However, we found that the RTA performs these services at 5,000/20,000/40,000-mile intervals.

In addition, the RTA does not periodically review its Maintenance Plan. The Plan includes a requirement that it shall be reviewed regularly for effectiveness and updated at least annually - however, this was not done.

We recommend that the Office and RTA officially approve the Maintenance Plan. We also recommend that Office ensure that the Plan reflect current practices and be reviewed periodically and updated as required.

Administration's Response:

RTA's Maintenance Plan was approved by the Howard County Office of Transportation on March 20, 2019. The approved plan outlines the following PM intervals:

PM Intervals by Vehicle Classification in Plan

Classification	PM Interval
Light Duty	5,000/25,000
Medium Duty	5,000/25,000/50,000
Heavy Duty	6,000/24,000/48,000
Heavy Duty- Electric	6,000/18,000/36,000
Light Duty Support	7,500/30,000/60,000

However, upon reviewing the approved Maintenance Plan and RTA's Ron Turley Maintenance Program (which reflects the current practice), the PM intervals outlined in the plan for light duty and medium duty vehicles will be updated to the following:

PM Intervals by Vehicle Classification to be Updated in Plan

Classification	Updated PM Interval
Light Duty - Ford Fusion	5,000/20,000/40,000
Light Duty- Chevy Malibu	5,000/25,000/50,000
Medium Duty	5,000/20,000/40,000

Once the PM intervals are updated in the Plan, RTA will submit the Plan to the County for approval.

AUDIT SCOPE, OBJECTIVES AND METHODOLOGY

We conducted a performance audit of vehicle maintenance for transit vehicles operated by the Regional Transportation Agency (RTA). Services for RTA are managed by First Transit, Inc., under a contract with the Office of Transportation (Office).

We conducted our audit in accordance with generally accepted government auditing standards prescribed by the Comptroller General of the United States, except for the requirement to obtain an external peer review at least once every three years. We have not contracted for a peer review due to our recent conversion to the use of government auditing standards. We believe that not complying with this requirement had no impact on the audit or the findings contained in this report.

Government auditing standards require us to 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 we obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The objectives of our audit were to:

1. Ensure that RTA established a comprehensive fleet maintenance program.
2. Determine if RTA performed preventive maintenance and adequately documented such maintenance.
3. Ensure that the Office took action to identify and replace transit vehicles that exceeded specified life cycle measurements.

To accomplish our objectives, we met with Office, First Transit, Inc., and RTA staff responsible for operation and oversight of the transit system. We reviewed contract documents and amendments along with First Transit, Inc., and RTA policies. We reviewed applicable Federal and State regulations. We performed tests designed to determine adherence with established maintenance standards and requirements. Our audit did not include RTA operated vehicles owned by other jurisdictions.

Management is responsible for establishing and maintaining effective internal control. Because of inherent limitations in internal control, errors or fraud may nevertheless occur and not be detected. Also, projections of any evaluation of internal control to future periods are subject to the risk that conditions may change or compliance with policies and procedures may deteriorate.

We conducted our field work from June 2018 to August 2018. The Office's responses to our findings and recommendations are included in this report.

Exhibit A
RTA Fleet Mileage for County Owned Vehicles
As of December 31, 2017

Fleet Number	Model Year	Vehicle Make	Life Age FTA/MTA	Life Miles FTA/MTA	Miles as of 12/31/17	Mileage Exceeds MTA Life
Fixed Route Vehicles						
9520	2008	Gillig Hybrid	12/12	500,000/500,000	534,558	Yes
9521	2008	Gillig Hybrid	12/12	500,000/500,000	417,245	No
9525	2009	Gillig Hybrid	12/12	500,000/500,000	416,490	No
9534	2011	Gillig Hybrid	12/12	500,000/500,000	440,116	No
9535	2011	Gillig Hybrid	12/12	500,000/500,000	422,601	No
9536	2011	Gillig Hybrid	12/12	500,000/500,000	324,154	No
9530 X	2010	International/ Eldorado	7/8	200,000/250,000	439,986	Yes
9531	2010	International/ Eldorado	7/8	200,000/250,000	377,049	Yes
9533 X	2010	International/ Eldorado	7/8	200,000/250,000	375,889	Yes
9538	2013	International/Eldorado	7/8	200,000/250,000	278,824	Yes
9539	2013	International/Eldorado	7/8	200,000/250,000	279,270	Yes
9540	2013	International/Eldorado	7/8	200,000/250,000	192,528	No
9541	2013	International/Eldorado	7/8	200,000/250,000	211,443	No
9542	2013	International/Eldorado	7/8	200,000/250,000	206,056	No
8903 X	1999	NABI	12/12	500,000/500,000	424,486	No
9550	2002	Gillig	12/12	500,000/500,000	552,098	Yes
9551 X	2002	Gillig	12/12	500,000/500,000	670,711	Yes
9552	2002	Gillig	12/12	500,000/500,000	579,896	Yes
9553 X	2002	Gillig	12/12	500,000/500,000	611,210	Yes
9554 X	2002	Gillig	12/12	500,000/500,000	554,233	Yes
1701	2016	BYD	12/12	500,000/500,000	10,859	No
1702	2016	BYD	12/12	500,000/500,000	13,670	No
1703	2016	BYD	12/12	500,000/500,000	15,938	No
1704	2017	ENC (El Dorado)	12/12	500,000/500,000	2,500	No
1705	2017	ENC (El Dorado)	12/12	500,000/500,000	2,500	No
1706	2017	ENC (El Dorado)	12/12	500,000/500,000	2,500	No
1707	2017	ENC (El Dorado)	12/12	500,000/500,000	2,500	No
1708	2017	ENC (El Dorado)	12/12	500,000/500,000	2,500	No
1709	2017	ENC (El Dorado)	12/12	500,000/500,000	2,500	No
1710	2017	ENC (El Dorado)	12/12	500,000/500,000	2,500	No

Exhibit A
 RTA Fleet Mileage for County Owned Vehicles
 As of December 31, 2017

Fleet Number	Model Year	Vehicle Make	Life Age FTA/MTA	Life Miles FTA/MTA	Miles as of 12/31/17	Mileage Exceeds MTA Life
Paratransit Vehicles						
8	2014	Ford Fusion Hybrid	4/5	100,000/100,000	156,946	Yes
9	2014	Ford Fusion Hybrid	4/5	100,000/100,000	170,968	Yes
10	2014	Ford Fusion Hybrid	4/5	100,000/100,000	147,997	Yes
11	2014	Ford Fusion Hybrid	4/5	100,000/100,000	162,462	Yes
12	2015	Ford Fusion Hybrid	4/5	100,000/100,000	112,709	Yes
13	2015	Ford Fusion Hybrid	4/5	100,000/100,000	100,296	Yes
14	2015	Ford Fusion Hybrid	4/5	100,000/100,000	97,588	No
9543	2014	International/Eldorado	7/8	200,000/250,000	201,030	No
200 F	2014	Ford Phoenix	5/6	150,000/200,000	196,376	No
201 F	2014	Ford Phoenix	5/6	150,000/200,000	227,192	Yes
202 F	2014	Ford Phoenix	5/6	150,000/200,000	208,514	Yes
203 F	2014	Ford Phoenix	5/6	150,000/200,000	204,402	Yes
204 F	2014	Ford Phoenix	5/6	150,000/200,000	224,844	Yes
205	2015	Ford Phoenix	5/6	150,000/200,000	124,259	No
206	2015	Ford Phoenix	5/6	150,000/200,000	113,934	No
207	2015	Ford Phoenix	5/6	150,000/200,000	119,181	No
208	2015	Ford Phoenix	5/6	150,000/200,000	110,087	No
209	2015	Ford Phoenix	5/6	150,000/200,000	122,442	No
210	2015	Ford Phoenix	5/6	150,000/200,000	104,734	No
211	2015	Ford Phoenix	5/6	150,000/200,000	111,082	No
212	2015	Ford Phoenix	5/6	150,000/200,000	110,472	No
213	2017	Ford Phoenix	5/6	150,000/200,000	11,692	No
214	2017	Ford Phoenix	5/6	150,000/200,000	17,051	No
215	2017	Ford Phoenix	5/6	150,000/200,000	10,793	No
216	2017	Ford Phoenix	5/6	150,000/200,000	14,722	No
217	2017	Ford Phoenix	5/6	150,000/200,000	15,641	No
218	2017	Ford Phoenix	5/6	150,000/200,000	10,281	No
219	2017	Ford Phoenix	5/6	150,000/200,000	18,883	No
220	2017	Ford Phoenix	5/6	150,000/200,000	15,890	No

Source: RTA Fleet Inventory Records

X – Active vehicle removed from service in Fiscal Year 2018

F – Vehicle used for Fixed Route services due to lack of available buses

Exhibit B
Fleet Availability
Fiscal Year 2018

Fleet Number	Model Year	Vehicle Make	Days Tested	Total Days Down	% Days Down	
9550	2002	GILLIG	284	174	61.3%	
9536	2011	Gillig Hybrid	284	148	52.1%	
9552	2002	GILLIG	284	119	41.9%	
9535	2011	Gillig Hybrid	284	107	37.7%	
9540	2013	International/Eldorado	284	89	31.3%	
9525	2009	Gillig Hybrid	284	81	28.5%	
9541	2013	International/Eldorado	284	81	28.5%	
9539	2013	International/Eldorado	284	75	26.4%	
1701	2016	BYD	262	69	26.3%	N
1703	2016	BYD	262	68	26.0%	N
9520	2008	Gillig Hybrid	284	59	20.8%	
9543	2014	International/Eldorado	284	59	20.8%	
8903	1999	NABI	234	43	18.4%	R
9534	2011	Gillig Hybrid	45	8	17.8%	
9538	2013	International/Eldorado	284	50	17.6%	
1702	2016	BYD	262	44	16.8%	N
1706	2017	ENC (El Dorado)	149	25	16.8%	N
9551	2002	Gillig	183	30	16.4%	R
9553	2002	Gillig	135	22	16.3%	R
1708	2017	ENC (El Dorado)	149	23	15.4%	N
9542	2013	International/Eldorado	284	42	14.8%	
204	2014	Ford Phoenix	284	42	14.8%	
9530	2010	International/ Eldorado	183	22	12.0%	R
218	2017	Ford Phoenix	217	26	12.0%	N
9521	2008	Gillig Hybrid	284	34	12.0%	
9531	2010	International/ Eldorado	284	30	10.6%	
1709	2017	ENC (El Dorado)	149	15	10.1%	N
9533	2010	International/ Eldorado	110	10	9.1%	R
1705	2017	ENC (El Dorado)	149	13	8.7%	N
209	2015	Ford Phoenix	284	21	7.4%	
1704	2017	ENC (El Dorado)	149	10	6.7%	N
200	2014	Ford Phoenix	284	16	5.6%	

Exhibit B
Fleet Availability
Fiscal Year 2018

Fleet Number	Model Year	Vehicle Make	Days Tested	Total Days Down	% Days Down	
201	2014	Ford Phoenix	284	15	5.3%	
203	2014	Ford Phoenix	284	15	5.3%	
208	2015	Ford Phoenix	284	15	5.3%	
202	2014	Ford Phoenix	284	11	3.9%	
205	2015	Ford Phoenix	284	10	3.5%	
211	2015	Ford Phoenix	284	10	3.5%	
212	2015	Ford Phoenix	284	10	3.5%	N
12	2015	Ford Fusion Hybrid	284	9	3.2%	
11	2014	Ford Fusion Hybrid	284	8	2.8%	
206	2015	Ford Phoenix	284	8	2.8%	
207	2015	Ford Phoenix	284	8	2.8%	
1707	2017	ENC (El Dorado)	149	4	2.7%	N
215	2017	Ford Phoenix	195	4	2.1%	N
210	2015	Ford Phoenix	284	5	1.8%	
216	2017	Ford Phoenix	195	3	1.5%	N
10	2014	Ford Fusion Hybrid	284	4	1.4%	
8	2014	Ford Fusion Hybrid	284	3	1.1%	
9	2014	Ford Fusion Hybrid	284	3	1.1%	
219	2017	Ford Phoenix	217	2	0.9%	N
220	2017	Ford Phoenix	217	2	0.9%	N
1710	2017	ENC (El Dorado)	149	1	0.7%	
213	2017	Ford Phoenix	195	1	0.5%	N
214	2017	Ford Phoenix	217	1	0.5%	N
217	2017	Ford Phoenix	217	1	0.5%	N
13	2015	Ford Fusion Hybrid	284	1	0.4%	
9554	2002	Gillig	45	0	0.0%	R
14	2015	Ford Fusion Hybrid	284	0	0.0%	

Source: RTA Daily Down Report

N - Bus added to fleet service in Fiscal Year 2018 per RTA inventory records.

R - Bus removed from service during Fiscal Year 2018 per RTA.

Exhibit C
Maintenance Costs Per Mile
Fiscal Years 2015 to 2018

Fleet Number	Year	Model	Cost Per Mile FY 15 to 18	Significant Repairs	Total Mileage as of 12/31/17	
9536	2011	Gillig Hybrid	\$1.3017	Body Work, Engine, Transmission	324,154	
9550	2002	Gillig	1.1898	Frame, Engine	552,098	
9554	2002	Gillig	1.1174	Engine, Frame Work	554,233	R
9552	2002	Gillig	1.0580	Transmission, Engine	579,896	
9553	2002	Gillig	0.9316	Engine, Wheel Chair, Body	611,210	R
9534	2011	Gillig Hybrid	0.8007	Engine, A/C	440,116	
9535	2011	Gillig Hybrid	0.7278	Engine, Exhaust	422,601	
9540	2013	International/Eldorado	0.7239	Engine, Battery	192,528	
9533	2010	International/ Eldorado	0.6802	Engine, Cooling System	375,889	R
9520	2008	Gillig Hybrid	0.6586	Battery	534,558	
9521	2008	Gillig Hybrid	0.6546		417,245	
9551	2002	Gillig	0.6544		670,711	R
9530	2010	International/ Eldorado	0.6063		439,986	R
9539	2013	International/Eldorado	0.5333		279,270	
9538	2013	International/Eldorado	0.5196		278,824	
1701	2016	BYD	0.5167		10,859	
8903	1999	NABI	0.4935		424,486	R
9525	2009	Gillig Hybrid	0.4765		416,490	
9531	2010	International/ Eldorado	0.4436		377,049	
9541	2013	International/Eldorado	0.4405		211,443	
9543	2014	International/Eldorado	0.3528		201,030	
9542	2013	International/Eldorado	0.3380		206,056	
1702	2016	BYD	0.2351		13,670	
1705	2017	ENC (El Dorado)	0.2345		2,500	
210	2015	Ford Phoenix	0.2115		104,734	
203	2014	Ford Phoenix	0.1949		204,402	
208	2015	Ford Phoenix	0.1935		110,087	
209	2015	Ford Phoenix	0.1647		122,442	
204	2014	Ford Phoenix	0.1633		224,844	
200	2014	Ford Phoenix	0.1462		196,376	
211	2015	Ford Phoenix	0.1304		111,082	
1703	2016	BYD	0.1249		15,938	
205	2015	Ford Phoenix	0.1238		124,259	

Exhibit C
Maintenance Costs Per Mile
Fiscal Years 2015 to 2018

Fleet Number	Year	Model	Cost Per Mile FY 15 to 18	Significant Repairs	Total Mileage as of 12/31/17
202	2014	Ford Phoenix	0.1228		208,514
212	2015	Ford Phoenix	0.1196		110,472
206	2015	Ford Phoenix	0.1084		113,934
201	2014	Ford Phoenix	0.1079		227,192
207	2015	Ford Phoenix	0.1053		119,181
1708	2017	ENC (El Dorado)	0.0912		2,500
11	2014	Ford Fusion Hybrid	0.0724		162,462
8	2014	Ford Fusion Hybrid	0.0617		156,946
1707	2017	ENC (El Dorado)	0.0610		2,500
1704	2017	ENC (El Dorado)	0.0606		2,500
1706	2017	ENC (El Dorado)	0.0544		2,500
10	2014	Ford Fusion Hybrid	0.0511		147,997
9	2014	Ford Fusion Hybrid	0.0501		170,968
219	2017	Ford Phoenix	0.0472		18,883
13	2015	Ford Fusion Hybrid	0.0453		100,296
1709	2017	ENC (El Dorado)	0.0418		2,500
1710	2017	ENC (El Dorado)	0.0417		2,500
217	2017	Ford Phoenix	0.0374		15,641
12	2015	Ford Fusion Hybrid	0.0352		112,709
216	2017	Ford Phoenix	0.0347		14,722
215	2017	Ford Phoenix	0.0315		10,793
218	2017	Ford Phoenix	0.0295		10,281
14	2015	Ford Fusion Hybrid	0.0271		97,588
220	2017	Ford Phoenix	0.0238		15,890
213	2017	Ford Phoenix	0.0223		11,692
214	2017	Ford Phoenix	0.0223		17,051

Source: RTA Automated Maintenance Records
R - Bus removed from service in Fiscal Year 2018 per RTA

AUDIT TEAM

Edward L. Shulder, CPA
Deputy County Auditor

Rebecca L. Gold
Administrative Assistant