

Amendment 1 to Council Resolution No. 48-2018

BY: Chairperson at the request  
of the County Executive

Legislative Day No. 5  
Date: 5/7/18

Amendment No. 1

*(This amendment adds 3 heavy duty busses in 2022 and makes the following changes accordingly:*

- 1. On page 6-128, adds a row to Table 6-10 to include 3 heavy duty busses in 2022;*
- 2. On page 6-136, changes the amount of vehicle capital for all planned expansions to account for the additional busses; and*
- 3. On page 6-138, in Table 6-15, adds reference to the additional busses and amends certain totals accordingly.)*

In the Central Maryland Transit Development Plan, attached to the Resolution as filed:

1. On page 6-128, in Table 6-10, after the row that begins “2022” add a row as follows and as shown in the attached revised page 6-128, as attached to this Amendment

“2022 TBD 35 Heavy Duty 3 3”.

2. On page 6-136, in the last paragraph that begins “For Howard County”, in the last sentence, strike “\$7,448,083” and substitute “\$8,819,606”; and

3. As shown in the attached revised page 6-138, on page 6-138, in table 6-15, in column titled “2022”, under the subheading “With Expansions”:

a. In the row titled “Heavy Duty”, under the subcolumn titled “Number” insert “3” and in the subcolumn titled “Total”, strike “\$0” and substitute “\$1,371,523”;

b. In the row titled “Total with Expansions”, in the subcolumn titled “Total”, strike “2,063,409” and substitute “3,434,932”; and

c. In the column titled “Total for Years 2018-2023”, in the row titled “Total with Expansions”, strike “\$17,672,683” and substitute “\$19,044,206”.

ADOPTED

5/7/18

FAILED

SIGNATURE

Jessica Feldman

**Table 6-10: Recommended Vehicle Replacement/Expansion Plan for Howard County Fleet-Phase 1, Phase 2, and Expansion**

Fixed-Route Active Fleet (Howard County Owned)										
Model Year	OEM	Length	Type	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
1999	NABI	40	Heavy Duty	2	0	0	0	0	0	0
2002	Gillig	40	Heavy Duty	5	0	0	0	0	0	0
2004	Chevy C5500/Eldorado	30	Medium Duty	1	0	0	0	0	0	0
2006	Thomas	30	Heavy Duty	5	0	0	0	0	0	0
2008	Gillig	35	Heavy Duty	2	2	2	1	0	0	0
2009	Gillig	35	Heavy Duty	1	1	1	1	0	0	0
2010	International/Eldorado	30	Medium Duty	8	8	8	0	0	0	0
2011	Gillig	40	Heavy Duty	3	3	3	3	3	3	3
2013	International/Eldorado	30	Medium Duty	5	5	5	5	5	0	0
2017	BYD	40	Heavy Duty-E	3	3	3	3	3	3	3
2018	TBD	30	Heavy Duty		7	7	7	7	7	7
2019	TBD	35	Heavy Duty			6	6	6	6	6
2020	TBD	30	Medium Duty				9	9	9	9
2021	TBD	35	Heavy Duty					8	8	8
2022	TBD	30	Medium Duty						5	5
2022	TBD	35	Heavy Duty						3	3
2023	TBD	40	Heavy Duty	0						7
<b>Total</b>				<b>35</b>	<b>29</b>	<b>35</b>	<b>35</b>	<b>41</b>	<b>44</b>	<b>51</b>
Peak Vehicle Requirement (1)				23	23	28	28	32	34	39
Spare Ratio				34.29%	20.69%	20.00%	20.00%	21.95%	22.73%	23.53%
Number Eligible for Retirement				21	8	8	1	5	0	3
Percentage Eligible for Retirement				60%	28%	23%	3%	12%	0%	6%

(1) FY 2018 is base existing service level, FY 2019 is Phase 1, 2020-2022 ramp up to full Phase 2, and FY 2023 is four expansion routes.



Table 6-15: Summary of Fleet Plans - Howard County and Anne Arundel County

County	Base Unit Cost	2018			2019			2020			2021			2022			2023			Total for Years 2018-2023
		Number	Price	Total	Number	Price	Total	Number	Price	Total	Number	Price	Total	Number	Price	Total	Number	Price	Total	
<b>Howard County</b>																				
<b>Base Replacement</b>																				
Heavy Duty	\$375,764	7	\$390,795	\$2,735,562	6	\$406,426	\$2,438,558		\$422,683	\$0	\$439,591	\$0	3	\$457,174	\$1,371,523		\$475,461	\$0		
Medium Duty	\$218,972		\$227,731	\$0		\$236,840	\$0	5	\$246,314	\$1,231,569		\$256,166	\$0	3	\$266,413	\$799,239	1	\$277,069	\$277,069	
Cutaway + Farebox	\$75,139		\$78,145	\$0		\$81,270	\$0		\$84,521	\$0	5	\$87,902	\$439,510	8	\$91,418	\$731,345		\$95,075	\$0	
Cutaway	\$60,139		\$62,545	\$0		\$65,046	\$0		\$67,648	\$0		\$70,354	\$0		\$73,168	\$0		\$76,095	\$0	
Sedan	\$25,000		\$26,000	\$0		\$27,040	\$0	4	\$28,122	\$112,486	3	\$29,246	\$87,739		\$30,416	\$0		\$31,633	\$0	
<b>Total Base Replacement</b>				<b>\$2,735,562</b>			<b>\$2,438,558</b>			<b>\$1,344,055</b>			<b>\$527,249</b>		<b>\$2,902,107</b>			<b>\$277,069</b>	<b>\$10,224,600</b>	
<b>With Expansions</b>																				
Heavy Duty	\$375,764	7	\$390,795	\$2,735,562	6	\$406,426	\$2,438,558		\$422,683	\$0	8	\$439,591	\$3,516,726	3	\$457,174	\$0	7	\$475,461	\$3,328,229	
Medium Duty	\$218,972		\$227,731	\$0		\$236,840	\$0	9	\$246,314	\$2,216,823		\$256,166	\$0	5	\$266,413	\$1,332,065	1	\$277,069	\$277,069	
Cutaway + Farebox	\$75,139		\$78,145	\$0		\$81,270	\$0		\$84,521	\$0	5	\$87,902	\$439,510	8	\$91,418	\$731,345		\$95,075	\$0	
Cutaway	\$60,139		\$62,545	\$0		\$65,046	\$0		\$67,648	\$0		\$70,354	\$0		\$73,168	\$0	6	\$76,095	\$456,570	
Sedan	\$25,000		\$26,000	\$0		\$27,040	\$0	4	\$28,122	\$112,486	3	\$29,246	\$87,739		\$30,416	\$0		\$31,633	\$0	
<b>Total with Expansions</b>				<b>\$2,735,562</b>			<b>\$2,438,558</b>			<b>\$2,329,310</b>			<b>\$4,043,975</b>			<b>\$2,063,409</b>		<b>\$4,061,869</b>	<b>\$17,672,683</b>	
																			<b>\$19,044,206</b>	

County	Base Unit Cost	2018			2019			2020			2021			2022			2023			Total for Years 2018-2023
		Number	Price	Total	Number	Price	Total	Number	Price	Total	Number	Price	Total	Number	Price	Total	Number	Price	Total	
<b>Anne Arundel County</b>																				
<b>Base Replacement</b>																				
Heavy Duty	\$375,764		\$390,795	\$0	3	\$406,426	\$1,219,279		\$422,683	\$0		\$439,591	\$0		\$457,174	\$0		\$475,461	\$0	
Medium Duty	\$218,972	4	\$227,731	\$910,924		\$236,840	\$0		\$246,314	\$0		\$256,166	\$0		\$266,413	\$0		\$277,069	\$0	
Cutaway + Farebox	\$75,139		\$78,145	\$0		\$81,270	\$0		\$84,521	\$0		\$87,902	\$0		\$91,418	\$0		\$95,075	\$0	
Cutaway	\$60,139		\$62,545	\$0		\$65,046	\$0		\$67,648	\$0		\$70,354	\$0		\$73,168	\$0		\$76,095	\$0	
Sedan	\$25,000		\$26,000	\$0		\$27,040	\$0		\$28,122	\$0		\$29,246	\$0		\$30,416	\$0		\$31,633	\$0	
<b>Total Base Replacement</b>				<b>\$910,924</b>			<b>\$1,219,279</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>	
<b>With Expansions</b>																				
Heavy Duty	\$375,764		\$390,795	\$0	8	\$406,426	\$3,251,411		\$422,683	\$0	3	\$439,591	\$1,318,772		\$457,174	\$0	4	\$475,461	\$1,901,845	
Medium Duty	\$218,972	4	\$227,731	\$910,924		\$236,840	\$0		\$246,314	\$0		\$256,166	\$0	3	\$266,413	\$799,239		\$277,069	\$0	
Cutaway + Farebox	\$75,139		\$78,145	\$0		\$81,270	\$0	10	\$84,521	\$845,212	3	\$87,902	\$263,706		\$91,418	\$0	2	\$95,075	\$190,150	
Cutaway	\$60,139		\$62,545	\$0		\$65,046	\$0		\$67,648	\$0	2	\$70,354	\$140,708	2	\$73,168	\$146,337		\$76,095	\$0	
Sedan	\$25,000		\$26,000	\$0		\$27,040	\$0		\$28,122	\$0		\$29,246	\$0		\$30,416	\$0		\$31,633	\$0	
<b>Total with Expansions</b>				<b>\$910,924</b>			<b>\$3,251,411</b>			<b>\$845,212</b>			<b>\$1,723,186</b>			<b>\$945,575</b>			<b>\$2,091,995</b>	
																			<b>\$9,768,303</b>	

Amendment 2 to Council Resolution No. 48-2018

**BY: Chairperson at the request  
of the County Executive and  
cosponsored by Jennifer Terrasa**

**Legislative Day No. 5  
Date: May 7, 2018**

Amendment No. 2

*(This amendment adds a section to the Plan that addresses Bus Stops and Accessibility.)*

- 1 In the Central Maryland Transit Development Plan, attached to the Resolution as filed, after page
- 2 6-140, insert pages 6-141, 6-142 and 6-143 as attached to this Amendment.

**ADOPTED** 5/7/18  
**FAILED** \_\_\_\_\_  
**SIGNATURE** Jessica Feldman



## Bus Stops and Accessibility

Bus stops are an essential part of the transit infrastructure. This plan calls for improvements in bus stops across the region as an additional investment priority over the next five years. A critical element in the success of transit in the region is the bus stop, which is the location where the customer first encounters the transit network. However, the concern is not just the stop itself, but the need to provide for a safe, accessible pathway to reach the stop. Recent research has documented that stop improvements including sidewalks, ADA improvements, shelters, seating and signage increases fixed-route ridership from the area served by the stop and reduces the demand for paratransit services. A recently completed study in Utah found that improved bus stops saw ridership increases that were higher than increases in control group stops, while also experiencing ADA paratransit demand increases that were lower than at control group stop areas<sup>1</sup>. Improved stops make the existence of the transit system more visible and increase the likelihood that more trips will be made on the fixed-route system.

With limited public resources, one of the major challenges in implementing a bus stop improvement program is deciding what and where to focus those limited resources. Therefore, being able to leverage existing data sources to prioritize bus stop locations where safety and accessibility improvements will have the greatest impacts is important. Transit systems vary in the factors used in prioritizing bus stop placement and improvements, but in general the following factors (however measured) are used:

- **Safety:** Stop location is a key factor, whether it is located at the near side (of the intersection), far side, or mid-block; its proximity to safe pedestrian crossings, visibility to motorists (whether located in a blind spot, due to a curve, rise, or obscured by a structure or landscaping); and design aspects such as presence of a curb, the amount of setback, lighting, etc. are all safety factors to be considered both in prioritization and in the design of each bus stop. Accident and enforcement statistics should also be used to identify and prioritize changes to improve safety.
- **Usage:** stops with higher usage would likely have higher priority, after safety factors have been addressed.
- **Transfer points:** locations used by more than one route or carrier are likely to need a larger stop with amenities such as benches and shelters because of the likelihood of passengers with longer wait times between buses.
- **Key public facilities or population concentrations:** stops with a higher level of amenities and accessibility would be a priority at public facilities such as schools, senior centers, libraries, public buildings, colleges, hospitals or medical facilities. Some systems also prioritize stops at large apartment or higher-density residential developments, senior residential communities, or mobile home parks.

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<sup>1</sup> Ja Young Kim, Keith Bartholomew, and Reid Ewing, Impacts of Bus Stop Improvements, University of Utah, Department of City and Metropolitan Planning, for the Utah Department of Transportation, Research Division, Report UT-18.04, March 2018.

- Americans with Disability Act design requirements: Bus stop locations must have adequate sidewalk connections and roadway crossing amenities, such as marked crosswalks, median islands, curb ramps, and/or pedestrian signals. The design of the bus stop itself needs to meet requirements calling for an unobstructed concrete landing pad that is 5 feet wide (parallel to the roadway) by 8 feet deep (perpendicular to the roadway), connected to sidewalks and streets by an accessible path, with the slope of the pad parallel to the roadway the same as the roadway, and a cross-slope not exceeding 1:50 (2%)<sup>2</sup>. A related consideration is that the location of bus stops (whether relocation of an existing stop or placement of new stops) should be cognizant of the impact on the ADA complementary paratransit eligibility area, which is the area 0.75 miles mile on either side of a fixed-route. Moving a stop may inadvertently cut off ADA eligibility from persons who are currently ADA certified, or from a key destination such as a clinic or elderly housing facility.

Other factors to be considered in prioritizing bus stop placement and improvement investments include public input, user characteristics (for example benches where the riding population is more likely to be elderly). Many transit systems with ongoing bus stop improvement programs develop these factors into a score and categorize stops based on the scoring system.

## Howard County

There are approximately 490 RTA bus stops in Howard County of which approximately 50 have shelters. Many of the bus stops were installed twenty plus years ago and are simply “poles in the ground”. Many lack basic amenities such as a concrete pad where passengers can stand, a bench, trash can, or adequate lighting. Many are not connected to the sidewalk network, and even some that are connected are not fully accessible to persons with disabilities.

The Howard County Office of Transportation is responsible for bus stops. The Office maintains a GIS database and inventory of bus stop locations and the amenities at each.

Improvements to bus stops in Howard County are made under capital projects; for the past several years Howard County has had two capital projects (Co286 and Co332). Since 2011 the County has improved approximately 140 stops, an average of approximately 18 per year. Progress slowed in FY 2016 and FY 2017 due to the change of a construction and installation contract but has picked up under a new contract and the County is on track to complete approximately 80 improvement projects in FY 2018.

Some bus stop projects can be complex and need time to resolve, such as if they need sidewalk extensions where right of way needs to be acquired or where a road crossing is unsafe. This can occur where a good bus stop can be provided on one side of a road near a

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<sup>2</sup> Full guidance on the ADA requirements can be found in Accessibility Guidelines for Buildings and Facilities by the U.S. Architectural and Transportation Barriers Compliance Board (Access Board).



destination, such as a library or community center, but there is no safe access to the destination from a bus stop on the other side of the road.

Bus stops and changes to bus routes need to be coordinated with bicycle and pedestrian access. BikeHoward, the County's bicycle master plan (2016), makes recommendations for integrating bicycling with transit services (see page 46, for example). All RTA buses have bicycle racks facilitating mode transfer from bicycles to buses.

WalkHoward is Howard County's Pedestrian Master Plan (draft 2017). As part of the WalkHoward update, County staff assessed 494 bus stops and access to them via sidewalks and roadway crossings. The highest needs at bus stops were for landing pads (78 percent) and for pedestrian lighting (51 percent). Other often-recommended improvements were for a new bus stop sign (33 percent), a map and schedule (27 percent), and a curb ramp to the stop (22 percent). Bus stop needs are factored into WalkHoward's 44 recommended priority improvement projects (the WalkHoward Plan uses the term "structured projects"). For example, the structured project scoring system incorporated bus stops that were missing landing pads.

As part of TDP implementation, improvements to bus stops need to continue and be accelerated where possible. Funding for bus stop capital projects needs to be maintained. In FY 2018 and FY 2019, spending is anticipated to be between \$400,000 and \$500,000 per year. The Office of Transportation should continue to use the recommendations from BikeHoward and WalkHoward, in addition to the criteria above, to inform the prioritization process for bus stop improvements. Implementation of the TDP routes reconfiguration is an opportunity to review bus stop locations, potentially relocating some to better, safer locations. Other opportunities for bus stop improvements occur when capital and private development projects, particularly new construction projects, affect roads and rights-of-way. The County should continue its efforts to leverage these opportunities to improve bus stops. This TDP recommends the County develop a Bus Stop Plan to bring together in one place coordinated recommendations from this TDP, WalkHoward, and BikeHoward.

**Table 6-9: Recommended Vehicle Replacement Plan for the Howard County Fleet- Existing Service**  
*(continued)*

Paratransit										
Model Year	OEM	Length	Type	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
2014	Ford Fusion	16	Sedan	4	4	4	0	0	0	0
2014	International	32	Medium Duty	1	1	1	1	1	1	0
2014	Ford Phoenix	26	Cutaway	5	5	5	5	0	0	0
2015	Ford Fusion	16	Sedan	3	3	3	3	0	0	0
2015	Ford Phoenix	26	Cutaway	8	8	8	8	8	0	0
2016										
2017	Ford Phoenix	26	Cutaway	8	8	8	8	8	8	8
2018										
2019										
2020	TBD	16	Sedan				4	4	4	4
2021	TBD	16	Sedan					3	3	3
2021	TBD	26	Cutaway					5	5	5
2022	TBD	26	Cutaway						8	8
2023	TBD	32	Medium Duty							1
<b>Total</b>				<b>29</b>	<b>29</b>	<b>29</b>	<b>29</b>	<b>29</b>	<b>29</b>	<b>29</b>
Peak Vehicle Requirement-Base				24	24	24	24	24	24	24
Spare Ratio				17.24%	17.24%	17.24%	17.24%	17.24%	17.24%	17.24%
Number Eligible for Retirement				0	0	4	8	8	1	8
Percentage Eligible for Retirement				0.00%	0.00%	13.79%	27.59%	27.59%	3.45%	27.59%

Vehicles in shaded areas are eligible for replacement.  
 Blank cells mean no vehicles need to be purchased in that year.  
 UNK: Unknown

Table 6-10 presents a fleet plan that encompasses the proposed expansions, beginning with Phase 1 in FY 2019, incremental additions to support Phase 2 (or for the expansion routes) between FY 2019 and FY 2022, with full implementation of Phase 2 in FY 2022, and then implementation of the expansion routes in FY 2023. The expansion routes could be implemented in the interim period, with Phase 2 at the end, but the end of period fleet size would be the same.



**Table 6-10: Recommended Vehicle Replacement/Expansion Plan for Howard County Fleet-Phase 1, Phase 2, and Expansion**

Fixed-Route Active Fleet (Howard County Owned)										
Model Year	OEM	Length	Type	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
1999	NABI	40	Heavy Duty	2	0	0	0	0	0	0
2002	Gillig	40	Heavy Duty	5	0	0	0	0	0	0
2004	Chevy C5500/Eldorado	30	Medium Duty	1	0	0	0	0	0	0
2006	Thomas	30	Heavy Duty	5	0	0	0	0	0	0
2008	Gillig	35	Heavy Duty	2	2	2	1	0	0	0
2009	Gillig	35	Heavy Duty	1	1	1	1	0	0	0
2010	International/Eldorado	30	Medium Duty	8	8	8	0	0	0	0
2011	Gillig	40	Heavy Duty	3	3	3	3	3	3	3
2013	International/Eldorado	30	Medium Duty	5	5	5	5	5	0	0
2017	BYD	40	Heavy Duty-E	3	3	3	3	3	3	3
2018	TBD	30	Heavy Duty		7	7	7	7	7	7
2019	TBD	35	Heavy Duty			6	6	6	6	6
2020	TBD	30	Medium Duty				9	9	9	9
2021	TBD	35	Heavy Duty					8	8	8
2022	TBD	30	Medium Duty						5	5
2023	TBD	40	Heavy Duty	0						7
<b>Total</b>				<b>35</b>	<b>29</b>	<b>35</b>	<b>35</b>	<b>41</b>	<b>41</b>	<b>48</b>
Peak Vehicle Requirement (1)				23	23	28	28	32	34	39
Spare Ratio				34.29%	20.69%	20.00%	20.00%	21.95%	17.07%	18.75%
Number Eligible for Retirement				21	8	8	1	5	0	3
Percentage Eligible for Retirement				60%	28%	23%	3%	12%	0%	6%

(1) FY 2018 is base existing service level, FY 2019 is Phase 1, 2020-2022 ramp up to full Phase 2, and FY 2023 is four expansion routes.

Table 6-13: Recommended Vehicle Replacement/Expansion Plan for Prince George's County-Fixed Route Fleet-Base Service Plus Phased Expansions (continued)

Fixed-Route										
Model Year	OEM	Length	Type	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
2006	Thomas	30	Heavy Duty	5	5	0	0	0	0	0
2017	TBD									
2018	TBD									
2019	TBD	30	Heavy Duty			6	6	6	6	6
2020	TBD	30	Heavy Duty				2	2	2	2
2021	TBD									
2022	TBD									
2023	TBD									
<b>Total</b>				<b>5</b>	<b>5</b>	<b>6</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>
Peak Vehicle Requirement-Base plus phased Expansion				5	5	5	6	7	7	7
Spare Ratio				0.00%	0.00%	16.67%	25.00%	12.50%	12.50%	12.50%
Number Eligible for Retirement				5	5	0	0	0	0	0
Percentage Eligible for Retirement				100%	100%	0%	0%	0%	0%	0%

Vehicles in shaded areas are eligible for replacement.  
 Blank cells mean no vehicles need to be purchased in that year.  
 UNK: Unknown



## Estimated Costs

Vehicle costs used in projecting fleet costs were taken from the MTA grant application for medium-duty and cutaway buses, from the Howard County heavy-duty bus procurement, and an estimate of \$25,000 was used for sedans. The estimated costs used in the tables are based on:

- Heavy Duty Bus: \$360,764 + Genfare Farebox \$15,000 = \$375,764
- Medium Duty Bus: \$218,972 including \$15,000 Genfare Farebox
- Cutaway: \$83,363 + Genfare Farebox \$15,000 in vehicles used in fixed-route or Call N Ride service = \$98,363
- Sedan: \$25,000

These prices were inflated by 4% per year over the planning period to allow for cost increases. The bus prices are based on vehicles using current standard diesel technology, as alternative fuel vehicles are currently significantly more expensive and potentially have maintenance and reliability issues. The current demonstration project involving electric buses will provide an experience base at the RTA for such vehicles, and it is possible that in the later years of the plan alternative fuel vehicles will become cost competitive (both capital and operating). However, at this point in time there is a need to use the available capital to procure as many new vehicles as possible.

It should be noted that all future bus procurements have the cost of electronic registering fareboxes included. A separate line item will have to be developed for adding fareboxes to existing vehicles that have several years of use in them, and for cutaways used in fixed-route or Call N Ride service.

Table 6-15 presents the estimated costs for each jurisdiction for both the replacement-only scenario and the full service expansion scenario. It is quite likely that the expansion path for services in each jurisdiction will vary from that put forward in this table, and that this plan implementation might well stretch out over more years—but the tables do answer the question—What would it take to fix the fleet and implement all these changes over the five-year TDP period?

For Howard County, the estimated cost of vehicle capital to bring the fleet into a state of good repair for the existing service would require an additional \$5,050,480 over and above the amount funded in FY 2017 and 2018 (deliveries in FY 2018 and 2019) for 13 heavy-duty buses. The estimated \$5.1 million amount would be spread over four years. Vehicle capital for all the planned expansions would add \$7,448,083 over and above the replacement of the existing fleet (including the 13 buses already funded).

For Anne Arundel, most of the cost is related to the expansion of service. Fleet replacement for the existing vehicles would require \$1,218,279 (over and above the funds for the four FY 2018 medium-duty buses), while expansion vehicle costs for the entire plan would require an additional \$9,509,633 over the period FY 2019-2023.

Prince George's County's replacement of the in the RTA fleet that it owns would require \$2,438,558, and expansion as outlined in the plan would add \$845,367 in capital to operate the expanded routes.



Table 6-15: Summary of Fleet Plans - Howard County and Anne Arundel County

County	Base Unit Cost	2018			2019			2020			2021			2022			2023			Total for Years 2018-2023
		Number	Price	Total	Number	Price	Total	Number	Price	Total	Number	Price	Total	Number	Price	Total	Number	Price	Total	
<b>Howard County</b>																				
<b>Base Replacement</b>																				
Heavy Duty	\$375,764	7	\$390,795	\$2,735,562	6	\$406,426	\$2,438,558		\$422,683	\$0	\$439,591	\$0	3	\$457,174	\$1,371,523		\$475,461	\$0		
Medium Duty	\$218,972		\$227,731	\$0		\$236,840	\$0	5	\$246,314	\$1,231,569	\$256,166	\$0	3	\$266,413	\$799,239	1	\$277,069	\$277,069		
Cutaway + Farebox	\$75,139		\$78,145	\$0		\$81,270	\$0		\$84,521	\$0	\$87,902	\$439,510	8	\$91,418	\$731,345		\$95,075	\$0		
Cutaway	\$60,139		\$62,545	\$0		\$65,046	\$0		\$67,648	\$0	\$70,354	\$0		\$73,168	\$0		\$76,095	\$0		
Sedan	\$25,000		\$26,000	\$0		\$27,040	\$0	4	\$28,122	\$112,486	\$29,246	\$87,739	3	\$30,416	\$0		\$31,633	\$0		
<b>Total Base Replacement</b>				<b>\$2,735,562</b>			<b>\$2,438,558</b>			<b>\$1,344,055</b>		<b>\$527,249</b>			<b>\$2,902,107</b>			<b>\$277,069</b>	<b>\$10,224,600</b>	
<b>With Expansions</b>																				
Heavy Duty	\$375,764	7	\$390,795	\$2,735,562	6	\$406,426	\$2,438,558		\$422,683	\$0	8	\$439,591	\$3,516,726		\$457,174	\$0	7	\$475,461	\$3,328,229	
Medium Duty	\$218,972		\$227,731	\$0		\$236,840	\$0	9	\$246,314	\$2,216,823	\$256,166	\$0	5	\$266,413	\$1,332,065	1	\$277,069	\$277,069		
Cutaway + Farebox	\$75,139		\$78,145	\$0		\$81,270	\$0		\$84,521	\$0	\$87,902	\$439,510	8	\$91,418	\$731,345		\$95,075	\$0		
Cutaway	\$60,139		\$62,545	\$0		\$65,046	\$0		\$67,648	\$0	\$70,354	\$0		\$73,168	\$0	6	\$76,095	\$456,570		
Sedan	\$25,000		\$26,000	\$0		\$27,040	\$0	4	\$28,122	\$112,486	\$29,246	\$87,739	3	\$30,416	\$0		\$31,633	\$0		
<b>Total with Expansions</b>				<b>\$2,735,562</b>			<b>\$2,438,558</b>			<b>\$2,329,310</b>		<b>\$4,043,975</b>			<b>\$2,063,409</b>			<b>\$4,061,869</b>	<b>\$17,672,683</b>	

County	Base Unit Cost	2018			2019			2020			2021			2022			2023			Total for Years 2018-2023
		Number	Price	Total	Number	Price	Total	Number	Price	Total	Number	Price	Total	Number	Price	Total	Number	Price	Total	
<b>Anne Arundel County</b>																				
<b>Base Replacement</b>																				
Heavy Duty	\$375,764		\$390,795	\$0	3	\$406,426	\$1,219,279		\$422,683	\$0	\$439,591	\$0		\$457,174	\$0		\$475,461	\$0		
Medium Duty	\$218,972	4	\$227,731	\$910,924		\$236,840	\$0		\$246,314	\$0	\$256,166	\$0		\$266,413	\$0		\$277,069	\$0		
Cutaway + Farebox	\$75,139		\$78,145	\$0		\$81,270	\$0		\$84,521	\$0	\$87,902	\$0		\$91,418	\$0		\$95,075	\$0		
Cutaway	\$60,139		\$62,545	\$0		\$65,046	\$0		\$67,648	\$0	\$70,354	\$0		\$73,168	\$0		\$76,095	\$0		
Sedan	\$25,000		\$26,000	\$0		\$27,040	\$0		\$28,122	\$0	\$29,246	\$0		\$30,416	\$0		\$31,633	\$0		
<b>Total Base Replacement</b>				<b>\$910,924</b>			<b>\$1,219,279</b>			<b>\$0</b>		<b>\$0</b>			<b>\$0</b>			<b>\$0</b>	<b>\$2,130,203</b>	
<b>With Expansions</b>																				
Heavy Duty	\$375,764		\$390,795	\$0	8	\$406,426	\$3,251,411		\$422,683	\$0	3	\$439,591	\$1,318,772		\$457,174	\$0	4	\$475,461	\$1,901,845	
Medium Duty	\$218,972	4	\$227,731	\$910,924		\$236,840	\$0		\$246,314	\$0		\$256,166	\$0	3	\$266,413	\$799,239		\$277,069	\$0	
Cutaway + Farebox	\$75,139		\$78,145	\$0		\$81,270	\$0	10	\$84,521	\$845,212	3	\$87,902	\$263,706		\$91,418	\$0	2	\$95,075	\$190,150	
Cutaway	\$60,139		\$62,545	\$0		\$65,046	\$0		\$67,648	\$0	2	\$70,354	\$140,708		\$73,168	\$146,337		\$76,095	\$0	
Sedan	\$25,000		\$26,000	\$0		\$27,040	\$0		\$28,122	\$0		\$29,246	\$0		\$30,416	\$0		\$31,633	\$0	
<b>Total with Expansions</b>				<b>\$910,924</b>			<b>\$3,251,411</b>			<b>\$845,212</b>		<b>\$1,723,186</b>			<b>\$945,575</b>			<b>\$2,091,995</b>	<b>\$9,768,303</b>	