



CAPE COD REGIONAL TRANSIT AUTHORITY

Cape Cod Regional Transit Authority

Ten Year Strategic Plan & Supporting Five Year Capital Plan

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Cape Cod Regional Transit Authority

Executive Summary

Over the years, the Cape Cod Regional Transit Authority has led the way in providing safe, reliable, and low-cost transportation services to the residents and visitors to Cape Cod. During that time, we have coordinated our services with the fifteen Cape Cod Towns, our intermodal transportation partners, colleges, hospitals, social service providers, and others to help provide customers end-to-end transportation service to their destinations on the Cape and Islands. Our close working relationship with the Federal Transit Administration, Massachusetts Department of Transportation and the Cape Cod Commission has provided guidance and assistance and will continue to play a significant role in the future plans.

The CCRTA is the recognized leader in the nation in efforts to leverage additional federal revenues through the strategic partnerships forged with our intermodal partners. Over the next ten years, the CCRTA will continue these partnerships and expand our efforts with other intermodal partners to further enhance the transportation options for our customers and access to expanded federal funding.

During Goal-Setting exercises for our Ten-Year Strategic Plan in the Fall of 2021 and Spring of 2022, the CCRTA identified the following five areas of focus:

1. Increase ridership through funding outlays designed to improve the customers' transportation experience and restore the public's confidence that it is safe to travel on public transportation.
2. Bolster critically needed transit assistance supporting the diverse needs of our customers, contribute to the improvement of our local economy, and assist local businesses through the provision of a broader umbrella of transit services.
3. Improve the efficiency and cost-effective delivery of transit services through technology enhancements that employ a data driven decision approach to the implementation of transit improvements.
4. Achieve a Zero Carbon Footprint Goal by 2030 through targeted capital investments in EV charging station infrastructure, incremental conversion from fossil fuel vehicles to electric, and further investments in "green building" and solar technology.
5. Reduce future budgetary costs and increase revenues through selective investments in operating and capital budget initiatives.

With respect to Goal #4, the global turmoil of early 2022 has led to dramatically increased fuel prices and a corresponding backlog on the availability of electric vehicles as demand has soared. Further, battery technology needed to support large buses is presently insufficient to provide the needed range on CCRTA runs. We will continue to monitor advancements in technology and EV availability as we push to "all-electric", but we fully recognize that our "Zero Carbon Footprint Goal by 2030" will be a monumental challenge to achieve. Regardless, we will continue to aggressively promote this compliance goal through a strategy that first achieves 100% compliance on all vehicles under twenty passengers (135 vehicles of our 178 or 75.8% of our fleet), and the remaining larger buses, as quickly

as EV battery technology advances to a state that supports the CCRTA's larger bus runs. Additionally, we expect to investigate hybrid technology and temporary bus leasing options (as opposed to purchasing) in the event that it proves a responsible interim step.

In order to advance our goals, the CCRTA developed the following Five-Year Capital Spending Plan which involved a rigorous process for the short and long-range identification and prioritization of capital projects in support of the Authority's mission to provide excellent customer service through safe, reliable, efficient, affordable, and environment sustainable transit options to all of our customers and communities. Coupled with the 10-Year Strategic Plan, the 5-Year Capital Spending plan provides a Cape-wide vision for managing and augmenting transit infrastructure and operations to continually enhance the customers' travel experience. The Capital Plan is intended to be a flexible document in that availability of funding in any year is not assured, but is meant to recognize the many projects, large and small, that will help us achieve our goals. With that said, it is important to note that due to the efforts of the CCRTA and its transportation partners, the CCRTA has received significant funding over three rounds of Federal COVID Relief funds that enable us to advance capital projects in an accelerated fashion that work toward our Strategic Plan. We believe that much of this can be accomplished in a five-year window and while ambitious, it is achievable with the assistance of our partners.

Accomplishing these goals will require investment across all segments of our business model. For the purpose of this plan, those investments have been aligned into three categories:

- Infrastructure Improvements
- Updating of Rolling Stock
- Cape-wide initiatives

Each of these areas will be expanded upon below.

General Approach and Considerations

The CCRTA has always approached capital spending in a conservative fashion which has protected our investments without taking unnecessary risks on unproven technologies and upgrades that do not have a clear return on investment. The need for this conservative approach to capital spending is particularly heightened in a quickly evolving technological environment where major advances in electric vehicle (EV) and EV infrastructure occur in real-time. Additionally, future investments in parts, equipment, information technology services, and maintenance facility upgrades need to be contemplated in lockstep with this quickly changing transit industry environment. With this in mind, the traditional capital budget funding and investment processes, such as function-specific budgets, long-term funding cycles, and traditional procurement and vendor management practices, can at times clash with the concepts of the CCRTA's need to nimbly adjust to fast paced changing conditions. This will require an adjusted approach that involves responsive value-based/cost benefit analysis and dynamic funding models to shift capital resources to properly respond to this rapidly changing transit environment.

Over the next five years, the CCRTA's Capital Spending Plan places great emphasis on a regional approach working with our multimodal partners to promote and advance "economy of scale"

collaborative investments for the transition to electric vehicles and supporting infrastructure. As part of this capital investment process, the CCRTA plans to selectively procure the services of consulting resources to further this effort. This will include the direct participation of our multimodal partners that will allow them to take part in this important initiative and add to its success. With the above in mind, the CCRTA's 5-Year Capital Plan includes a wide-range of potential investments in electric vehicles and supporting infrastructure as well as significant upgrades or replacement of our existing facilities. However, on a go-forward basis, it will be critically important to evaluate each capital project in the context of a cost/benefit analysis and how it supports the 10-Year Strategic Plan's articulated goals. As a result, the following list of capital projects identified in the 5-Year Capital Spending Plan should be viewed as a menu of possible capital spending options, each requiring further review before approval to move forward.

Infrastructure Improvements

Ordinarily, one would not expect to start a strategic plan with a discussion on infrastructure, but decisions made on this aspect of our vision, drive much of what will follow. Significant investment needs to be made to the Dennis Operations facility to support the primary goal of the CCRTA's migration to an all-electric fleet of buses. The current Dennis, MA facility location needs significant investment in electric infrastructure, solar capacity to generate electricity, storage capacity to better manage off-peak pricing of electric needs, waste water recycling capacity to stay within what the Commonwealth considers a "small contributor" of hazardous waste, and more. As we started to develop pricing to support these requirements, it became obvious that we should consider an option of building a new facility elsewhere that has been designed with this in mind from the beginning and see if we could make it competitive enough to warrant the expense. The next paragraphs will document some of the items that have been discussed and present a case for each of the two options so a decision on future direction can be made.

Current Condition – Dennis Operations

The current facility is fully functional and has operated since 2006 without significant investment in the facility since then. There are space considerations that have plagued us for several years. Parking for revenue vehicles, non-revenue vehicles and employee vehicles is extremely tight. The overall layout is not optimum due to the lack of space. The footprint of the building and parcel is proving problematic to support the more than one hundred forty vehicles the CCRTA operates and/or supports, fuels, washes and vaults. There are two abutting properties that have been for sale for some time and this would make it possible to solve some of the shortcomings of the facility within the expanded footprint.

We currently maintain seventy DART and SmartDART buses, thirty-eight large Gillig buses, nineteen COA vehicles, twenty-two cutaway buses, eight administrative vehicles and five trolleys in Dennis. The four service bays are insufficient now for this effort, but when electric vehicles are added in a phased rollout, we will need to support the old and the new and this is expected to last eight to ten years. Adding service bays is an option but it will further exacerbate the space issues as this will eliminate more parking. It is possible, but it has complications.

Currently, there is no electric infrastructure to support an electric fleet in place. This will require significant investment to provide both generating and storage capacity. A solar canopy has been considered and approved in past years but not yet constructed. This will cover the buses and provide a portion of our electric needs.

We have needed to cover the fueling area with some protection from the elements and a canopy over the bus area does nothing to address this. A reconfiguration of the parking might be able to relocate the buses sufficiently closer to the fueling area that the canopy could be extended to satisfactorily address both issues at once but this is unsure at this time and being looked into.

Finally, a capital investment to improve security access to the Operations facility is recommended. The automated sliding gates for entrance to the facility are opened and closed all day to allow buses and employee vehicles to enter and exit. Presently, the entrance to the facility does not have a structure to station an employee at the gate entrance, which provides an opportunity for unauthorized vehicles to access the facility without permission. Although no security issues of note have arisen in the past, this recommended capital investment addresses the present security risk at the Operations facility. The structure will have dual “check-in” windows on either side to allow for security checks and efficient arrivals of entering vehicles, as well as the efficient distribution of keys, documents, and check-outs of drivers beginning their shifts or exiting for the day. All keys and driver support material inventories could be easily distributed and streamline the process of on-time gate departures. Visual security on anyone entering the facilities would be performed.

Facility Options

The first option explores the pros and cons of upgrading the current Dennis facility. The second option explores the possibility of constructing a new facility in the Town of Barnstable area.

Option 1 – Upgrade the Dennis Facility Only

This option would purchase the available land, some 1.06 acres, abutting the current footprint on the northwest corner. It is presently unclear the availability, cost, and development control limitations associated with this parcel. This land would be used for parking of buses, employee parking and a redesign of the bus flow to take better advantage of lanes approaching the fueling station. A solar canopy would be installed that would provide a portion of our electric needs. The parking area “may” be redesigned to allow the canopy to be extended to cover the fueling area. A security building would be added near the main gate. The service bays would be expanded by adding two additional bays which would result in four additional work stations (two per bay) to accommodate electric buses and diesel buses in the future. Installation of a gantry crane to manage batteries for electric vehicles would be required. (Gillig buses have roof mounted batteries). The existing wash bay would be upgraded to include waste water recycling. Finally, the electric infrastructure to support the vehicles would be retrofitted to the site including generating via the solar canopy, storage as available and back-up generating capacity to maintain the fleet in power outages. Cost estimates for this option are included below.

Option 1 – Pros and Cons

The pros include:

- The obvious advantage to this plan is cost. It will be the lesser expensive option.
- The procurement of property would necessitate only the purchase of property already for sale and currently available.
- Operations staff have agreed that the required upgrades can be accomplished in this footprint and will support the current needs of the Operations Division of the CCRTA.

The cons include:

- We cannot dispatch to areas in Bourne and parts of Falmouth with the current electric vehicle mileage constraints from a distance as far as Dennis without some interim stop. This will require additional vehicles and possibly drivers.
- While not a large fiscal issue, it is, nevertheless, a significant challenge to upgrade the facility while remaining operational in the process. Even with phased-in oversight of the project, significant consideration needs to be given to daily bus operations impacted by the proposed construction of the expanded facility and bus canopies. The smaller narrow footprint of the current site would require us to move equipment and employee parking down to the training oval which would then be unavailable for at least a year.
- If future plans somewhere down the road require additional expansion, there is no room available. This is a “one and done” option.
- The topography of the site leaves many broken up segments that are awkward and not efficient. The developed properties that surround the site make this something we cannot change. (See site map below and additional description under CC-021, Page 26)



Option 1 – Estimated Expense

1. Land Purchase appx. \$700,000 per parcel	\$1,400,000.
2. Facility Redesign for buses and other vehicles	\$775,000
3. Solar Canopy	900,000.
4. Security Building	50,000.
5. Service Bay Expansion	1,250,000.
6. Waste Water Recycling Upgrade	675,000.
7. Electric Infrastructure	1,000,000.
ESTIMATED COST	\$6,050,000.

Option 2 – Build an Operations Facility in Barnstable Area

An analysis of the DART/SmartDART rides provided by CCRTA has been performed to assess the proper location of a future Operations Center if a decision was made to relocate. For CY2021, CCRTA provided 73,812 rides originating from Barnstable or 48.5% of all DART/SmartDART rides. Of those rides, 48,660 rides originated and terminated in Barnstable or 32% of all DART/SmartDART rides. Considering the CCRTA goals of moving to an all-electric fleet over the next decade, it was the consensus of the committee that any new Operations facility should be constructed in the Town of Barnstable area. This does not eliminate the need for additional depot charging capacity in the Falmouth and Provincetown areas in the future, but allows us to start immediately on the EV transition to smaller vehicles as we build out the needed infrastructure to satisfy the larger capacity buses that have a much shorter range with current technologies.

A new facility would be built on property in the Town of Barnstable area that would be designed from the beginning to meet the needs of the CCRTA into the future. All existing deficiencies in the Dennis facility would be addressed at this location during construction. This is admittedly an aggressive option, but it has opportunities and efficiencies which we believe should be considered. Cost estimates for this option are included below.

Several properties have been identified that meet basic criteria each of which has challenges to overcome. All three are in the vicinity of Cape Cod Community College.

Option 2 – Pros and Cons

The pros include:

- This option solves all the issues with the current facility.
 - There would be no disruption to the Dennis, MA facility operations while the new maintenance facility is being constructed on a separate site.
 - If a cooperative collaboration with CCCC is started along with an electric vehicle training program, having both facilities in close proximity would be a strong plus.
 - If the CCRTA wants to take the lead Cape-wide in promoting electric vehicle infrastructure, a new facility could help support our partners beyond those which we currently support, i.e. Cape Towns and other inter/intramodal partners etc. A state of the art facility would be a showcase for those efforts.
 - This option offers room for expansion to accommodate future operational needs as yet unseen.
- The cons include:
- This is the more expensive option.

Possible Site Locations



This property makes up part of the CCCC carve out. The overall property size of that parcel is 44 acres and dividing out approximately twenty acres would provide sufficient space. The location shares easy access to existing electric infrastructure, efficient access and egress and quick access to a major highway.



On the southeast side of the Exit 66 interchange, this property is two parcels. The smaller is 4.2 acres and belongs to Mass DPW. The larger adjacent parcel is 18 acres and belongs to the Town of Barnstable. Consideration of a land swap with the Town of Barnstable would be challenging but worth considering.

Electric vehicles are seen as an improvement by our riders. In addition to the environmental advantages, electric buses are cleaner and quieter and riders take notice of both. For drivers, electric buses accelerate faster and can merge into traffic easier which is particularly useful on Cape roads in the summer season.

Prior to specifics on the rolling stock recommendations, a brief description of current thinking is required. The CCRTA operates routes that vary in length from fifty-one miles one-way to as short as twelve miles one-way. Large battery electric buses (thirty-five foot), have a relatively short run distance between charging and are currently impractical for wide spread use by the CCRTA. Tremendous progress has been made in just the past five years towards extending this run-distance as battery capacity has improved and this bears watching. However, over the short-run this is not a proposed capital investment recommendation. On the other hand, small cutaway buses used for most DART service and the SmartDART service have relatively short runs in most cases and could be integrated into the CCRTA fleet immediately. The SmartDART vehicles, in particular, have the advantage of being dispatched from the Hyannis Transportation Center where the electrical charging infrastructure is already in place. With this combination of factors considered, it makes perfect sense to start a controlled migration to electric vehicles in a responsible way for the DART/SmartDART transit service.

There are several concerns that have been considered with this recommendation including:

1. The MassDOT Mobility Assistance Program (MAP) does not currently provide for electric vehicles, which would require CCRTA to purchase vehicles outright with 100% federal stimulus funds unless approval is granted to use a portion of the RTA Capital funds as a 20% match.
2. Electric vehicle charging infrastructure is not standardized.
3. There is a lack of infrastructure in general Cape-wide to support further expansion of this effort.
4. There is a lack of “off-peak” pricing by current electrical providers on the Cape needed for economical pricing for a large increase in consumption by CCRTA and other partners.
5. Large vehicle battery electric buses (BEB) are not viable under current technologies for the long distance routes operated by the CCRTA.

This migration will require advancement on several fronts simultaneously to be successful, but there are opportunities for quick targeted advancement and those should be embraced as soon as reasonably possible.

Rolling Stock Overview

Dart/SmartDART

FY23 will start the migration of the DART/SmartDART fleet to EVs. The recent addition of ten dual charging stations at the HTC will support an immediate deployment of the five buses currently dedicated to SmartDART in Hyannis and Yarmouth. The recommended vehicle for this purchase is vans which will accommodate the SmartDART passengers and have sufficient range to run a day in service for that purpose. Limited availability of this type of EV model due to manufacturers’ supply chain issues and greater consumer demand will likely impact the CCRTA’s ability to quickly procure

EVs in support of this objective. However, once the EVs are procured, this will be accompanied by a significant press statement and graphics on the vehicles calling immediate attention to the “zero-emission vehicle” now being used exclusively in the SmartDART program. We have been informed that MassDOT is planning on an electric vehicle option in the FY24 MAP vehicle program, which means FY23 will be the last in a series of non-electric bus procurements that the CCRTA makes through MAP.

Rather than relying solely on the age/mileage on a vehicle to schedule replacement, CCRTA will move the smaller vehicles up for early replacement and schedule larger cutaways more heavily in later years. The constant improvements in battery life and extended range should allow for larger vehicles to improve in range and better suit our needs and the longer runs that these vehicles service. It is our belief that this will allow us to move ahead aggressively with our electrification immediately and allow more time for improvements in the industry that will better leverage our investment in these vehicles.

It is worth noting that several discussions have taken place regarding the “right sizing” of the fleet with the move to electric buses. We currently operate seventy-eight “cutaway” vehicles which range in seating from eight to eighteen passenger. The Demand Response group at Operations has evaluated the ridership based on pre-Covid ridership and determined that we could downsize the fleet by ten vehicles if we find that the electric vehicles offer a “one for one” replacement in performance and longevity. We recommend keeping the present number of operational vehicles until at least year four of this migration to properly assess the impact of the new vehicles in our environment. At the same time, an evaluation of passenger rides is driving the recommendations to move to smaller DART vehicles on a portion of our fleet as we proceed. For instance, we will replace our seventeen passenger vehicles with fourteen passenger vehicles when the replacement cycle calls for them. These same discussions have been held regarding the larger Gillig buses but there is not sufficient information available now to make an informed decision.

In our next round of purchases in FY2023, we hope to be procuring a share of ADA and non-ADA vehicles to supplement the SmartDART fleet. Passengers must use our app to book trips and a checkbox for those requiring an ADA capable vehicle has been added so that the proper vehicle is dispatched. This is currently part of both Uber and Lyft’s booking process. The advantage of the non-ADA vehicle is the significant reduction in price and increased passenger capacity. In 2022, the price difference is approximately five thousand dollars less and will accommodate an increased shared ride passenger capacity from six to twelve.

MassDOT has been working with a consultant to move forward on an electric vehicle study and CCRTA added its voice to the urgency of moving this process along. The cycle for statewide MAP procurements is going to begin shortly for the FY23 purchases, and recently MassDOT informed agencies that some limited EV options will be available for FY24. If these options are suitable for our needs, we will gladly embrace them. The alternative recommendation is the measured addition of SmartDART EVs through a CCRTA initiated procurement process using a combination of federal stimulus funds and State RTA Capital funds.

Vehicles purchased with State or Federal funds that have reached the end of their useful life must document a sufficient number of miles and/or years of service prior to retirement. These numbers vary by vehicle. The vehicle replacement sheets included in Appendix D list the various years/miles for retirement for each vehicle type. As vehicles become eligible for retirement, we will be replacing them with electric vehicles to the greatest extent possible. CCRTA is a high mileage agency so we usually exceed the mileage limits long before we reach the age requirements. This will assist us in pushing an accelerated schedule for replacement. The following provides a narrative description by fiscal year of planned vehicle replacements.

For FY22, we received replacement vehicles that had been ordered in advance over one year ago and are gasoline vehicles. They consist of 5 four passenger mini-vans; 7 twelve-passenger cutaways; and 3 fourteen-passenger cutaways. This illustrates our move forward to smaller vehicles to promote future battery purchases. It was necessary to move other vehicles originally scheduled for FY2022 into the FY2023 procurement schedule as circumstances delayed our initial proposal. Also ordered two fiscal years earlier and received in FY2022 were 6-Gillig replacement buses for vehicles that exceeded useful life standards for both miles and age.

For FY23, we put grants in place with expiring 5339 funds to replace five to seven vans with electric equivalents to replace the SmartDART buses. These will be secured outside the MAP replacement process. Additionally, we plan on replacing 8 three-passenger mini-vans, 14 eight-passenger small cutaways, 7 ten-passenger cutaways and 2 administrative vehicles. All replacement vehicles from this point forward are electric.

For FY24, we plan on replacing 3 eight-passenger cutaways; 9 twelve-passenger cutaways; 8 fourteen-passenger cutaway; and one administrative vehicle. All replacement vehicles are replacing a bus or vehicle that was one size larger previously.

For FY25, we plan on replacing 16 fourteen-passenger cutaways, 8 twelve-passenger cutaways, and 5 eight-passenger cutaways.

For FY26, we plan on replacing 3 six-passenger vans, 1 three-passenger caravans, 3 ten-passenger cutaways and 9 fourteen-passenger cutaways.

For FY27, we plan on replacing a large portion of the Council on Aging fleet. This will be driven by conditions at the time of replacement as many of these vehicles have lower mileage that is challenging to get approved. Our plan calls for 5 three-passenger vans, 15 eight-passenger mini-buses and 1 twelve-passenger cutaway. Additionally, beginning in FY27, CCRTA will begin purchasing "spare" vehicles that will meet our FTA requirements for spares and provide extra capacity for electric vehicles not capable of meeting all of our daily mileage requirements. This will consist of 3 three-passenger Caravans and 3 eight-passenger cutaways. Finally, we expect to purchase the first five Gillig Buses in FY27 if the technology supports our needs.

Gillig (Large Bus)

Migration of the larger buses to EVs is somewhat more complicated as the current technology does not support the longer mileage that CCRTA operates on many of its fixed routes. The technology is improving rapidly and this will need to be reassessed every year, but moving to zero-emission buses under the current technology limitations does not present a fiscally responsible option. The buses sell for twice the price as a diesel-powered vehicle and we would need to double the number of buses in the fleet to provide coverage. It is likely that the eventual move to electric buses will necessitate additional vehicles as transit authorities nationally who have committed to BEB's have growth of approximately twenty-five percent to accommodate charging schedules. Given that reality, CCRTA will follow an interim plan and assess annually to know when we see a responsible opportunity to start the migration.

This will require managing the existing Gillig fleet to stretch its longevity and make the necessary repairs to maintain a proper level of service without the purchase of new equipment wherever possible. A new Gillig bus is expected to last at least twelve years and it is our desire that we will have moved to electric before that time. This in no way should slow the buildout of electric infrastructure to support the eventual migration as a wise investment will avoid sunk costs that we have to abandon in the future.

Future decisions regarding large bus deployment will need to consider range, turn-around charging time, hot and cold weather accessories and the stop and go nature of Cape Cod driving. This assessment should take place annually and as other transit agencies adopt these buses, we should evaluate their experiences and push forward as quickly as the technology allows.

While not directly related to the electrification of the fleet, CCRTA will work closely with the Cape Cod Commission and MassDOT to be included in planning for all road improvements where our buses currently operate fixed route service to take advantage of possible scenarios that might include bus pull-outs to alleviate traffic backups but also provide the potential of adding electric infrastructure to support vehicle charging.

Hybrid Technologies

While the technology to support electric vehicles exists in a supportable fashion for smaller vehicles, the technology for large buses is not there yet. CCRTA will evaluate the state of technology annually, but if the advances in battery technology do not appear to support a move to electric buses (large) prior to 2027, the CCRTA will look to bridge the years by considering hybrid large buses. This is not a permanent solution but it does move us closer to our ultimate goal. A consideration to purchase any large bus is a commitment to a twelve year investment so this needs to be weighed carefully before committing, but nevertheless, we will consider it.

Training

While not directly a rolling stock expense, the training of mechanical personnel to manage the maintenance of this new fleet is very important. The shop at CCRTA is responsible for the maintenance of over one hundred sixty vehicles and as new electric technologies achieves greater

adoption, we must be ready to support those vehicles. Our mechanics are not prepared to keep the fleet operational as they are trained in fossil fuel engines and equipment. Part of our proposal for the rollout of electric vehicle technology includes training for our mechanics. This should begin in the current fiscal year and be a required feature for at least the next three years.

Cape-Wide Initiative

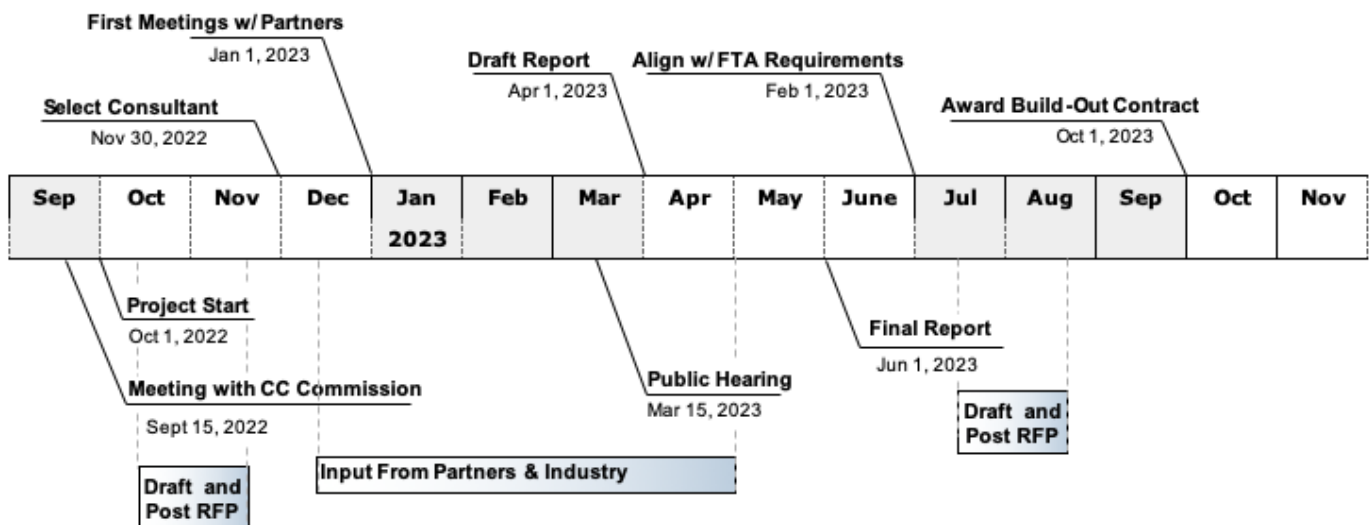
Develop and Build-Out Cape-wide Electric Vehicle Infrastructure

In order to more rapidly advance the CCRTA’s Electrical Vehicle (EV) and EV Infrastructure planning, the CCRTA will collaborate with the Cape Cod Commission to hire a consulting firm specializing in this highly technical and fast evolving industry. The Cape Cod Commission’s multifaceted approach in this area has produced a deep level of research data that will help guide and significantly benefit the work of the consulting firm in this effort. The scope of the project will include an important collaboration with our multimodal partners (e.g. SSA, Hy-Line, Intercity bus carriers, etc.), towns, 5-C’s, hospitals, colleges, shopping centers and other select private entities and will integrate results from the MassDOT BEB study. The conclusions and recommendations derived from the consulting firm’s EV and EV infrastructure review will become a critical component of updates to the CCRTA’s 10-Year Strategic Plan and 5-Year Capital Spending Plan. Under this proposal, the CCRTA takes a major leadership role in a critically important Cape-Wide/Regional “Climate Change” EV and EV Infrastructure initiative. To be clear, it is the intent of the CCRTA to implement the final result of the Cape-wide plan and we are prepared to commit funds for this purpose in participating Towns as Federal funding constraints allow.

Cape-Wide Infrastructure Design Timeline

Infrastructure Design Timeline (External Portion)

Project Schedule



Goals (Action Items)

In order to accomplish the initiatives above, CCRTA will continue to implement the five strategic goals set by the agency and follow the steps outlined for each below.

Goal #1: Increased ridership through funding outlays designed to improve the customers' transportation experience and restore the publics' confidence that it is safe to travel on public transportation.

- Expand the CCRTA Public Awareness campaign
- Improve the customer experience with improved facilities
- Improve the technologies currently employed to provide information in a more timely fashion
- Invest in training for staff to promote safe environments on transportation vehicles
- Upgrade technology to provide customer-facing IT infrastructure that create improved overall customer experience and provide real-time route information
- Add new bus shelters where appropriate
- Selective implementation of fixed route free fares, with an initial focus on the disabled and ADA populations

Discussion:

Over the past five years, the CCRTA has:

- Redesigned the outside areas of the HTC to accommodate more than twice as many buses
- Provided car rental options
- Added electric charging stations for electric vehicles
- Doubled the parking capacity
- Provided better wheel chair access to all visitors
- Provided space for new bus companies to provide additional routes and schedules

Over the next five years we will:

- Repair and upgrade the existing facility at the HTC to protect the investment for the future and provide a better customer experience at the HTC
- Improve the website and social media offerings to provide better, more timely information, and better payment options
- Selectively offer additional "Free Fare" days to further promote what has been a successful campaign in the past

Goal #2: Bolster critically needed transit assistance supporting the diverse needs of our customers, contribute to the improvement of our local economy and assist local businesses through the provision of a broader umbrella of transit services.

Action Items:

- Continue to negotiate possible financial involvement in the Bourne Rail Trail connection to Falmouth Shining Sea Bike Path and further extension to other parts of the Cape
- Selective expansion of fixed route headways; starting and ending hours of operation; and Sunday service
- Promote other transportation options (pedestrian, cycling, ferries, rail, etc.)

- Expanded MBTA rail service from Middleboro to Buzzards Bay
- Redesign Transportation Avenue for better access/egress for transit operations
- Provide low cost, on-demand bus service from point-to-point in select areas of Cape Cod (SmartDART)
- Provide coordination and funding to develop plans with non-governmental entities to support their efforts to use of zero-emission vehicles
- Support Cape Cod businesses and the economy through the expansion of essential transportation services for seasonal workers including J1s, H2Bs

Discussion:

Over the past five years, the CCRTA has:

- Added routes to better support the downtown areas in several towns on the Cape
- Been a major contributor in discussions and plans to bring commuter rail to the Cape Cod Buzzards Bay area to provide easier access to metropolitan areas of the State
- Redesigned the outside areas of the HTC to accommodate more than twice as many buses

Over the next five years we will:

- Expand the SmartDART transportation service Cape-wide
- Expand fixed route and paratransit services in the Town of Falmouth
- Expand essential transportation services for seasonal workers to address worker shortages in the Cape's service industry

Goal #3: Improve the efficiency and cost-effective delivery of transit services through technology enhancements that employ a data driven decision approach to the implementation of transit improvements.

Action Items:

- Analyze and modify our routes using AI generated data to better manage peak-hour periods of ridership
- Provide better information displays at bus stops across the Cape
- Expansion of SmartDART technology to the regular DART vehicles and scheduling system

Discussion:

Over the past five years, the CCRTA has:

- Run a pilot program to provide on-demand point-to-point service around Hyannis and Yarmouth (SmartDART)

Over the next five years we will:

- Expand selectively fixed route headways, starting and ending hours of operation and Sunday service
- Expand the SmartDART program to the rest of the Cape

Goal #4: Achieve a Zero Carbon Footprint Goal by 2030 through targeted capital investments in EV charging station infrastructure, incremental conversion from fossil fuel vehicles to electric, and further investments in “green building” and solar technology.

Action Items:

- Accelerate a phased implementation of electric vehicles to promote zero-emissions options whenever we offer transit options
- Provide coordination developing plans with all Cape towns for increased use of zero-emission vehicles
- Provide funding to provide electric vehicles with the required infrastructure throughout the Cape for both public and private entities where it benefits the public
- Reduce waste water produced by bus washing
- Install large solar canopies at CCRTA’s Operations Center that provide shelter for the fleet with electrical storage that supports the charging infrastructure for electric buses

Discussion:

Over the past five years, the CCRTA has:

- Installed a solar canopy that provides for 90 plus percent of the electrical requirements of HTC
- Installed roof-top solar panels at the Operations building in Dennis, MA that provides 90 plus percent of the electrical requirements
- Down-sized buses when appropriate to reduce the exhaust emissions on routes and trips
- Purchased zero-emission administrative vehicles for use by staff at HTC

Over the next five years we will:

- Convert the majority of our rolling stock to zero-emission vehicles (see separate bus plan)
- Build out infrastructure by working with our intermodal partners to support electric vehicles Cape-wide

Goal #5: Reduce future budgetary costs and increase revenues through selective investments in operating and capital budget initiatives.

Action Items:

- Provide training to educate existing mechanical staff in electric bus technologies
- Upgrade existing software systems to better control inventory, vehicle records and promote shop efficiencies
- Upgrade office equipment to better support staff and expand service
- Make a decision on whether to construct a new Operations facility or upgrade the existing facility in Dennis. With that decision made, build out the electric infrastructure, the wash facilities, the shop infrastructure and grounds to support the mission.

Discussion:

Over the past five years, the CCRTA has:

- Undertaken a major revenue enhancement effort through expanded reporting of ridership data by the Steamship Authority, Peter Pan Bus Lines, Hyline Cruises and other private

transportation providers to the Federal Transit Administration's National Transit Database that significantly increased federal funding apportionments to the Barnstable Urbanized Area

- Installed solar panels on canopies at the HTC and rooftop at the Dennis Operation building that significantly reduces electrical costs

Over the next five years we will:

- Convert a significant amount of our non-fixed route transportation services to EV operations and downsize the vehicles to be more efficient for the demand
- Streamline the accounting system and corresponding drawdown of federal and state funding which will support the continued reduction of Revenue Anticipation Notes borrowings
- Add at least one additional intercity bus carrier to NTD reporting to generate additional revenue to drive the projects
- Take advantage of intermodal partners who contribute NTD data qualifying for "State of Good Repair" funding which increases Federal funding by 50%. This is expected to add an additional \$1.5 to \$2M annually beginning in FY23

Five Year Capital Plan FY2023 – FY2027

Goal #1: Increase ridership through funding outlays designed to improve the customers' transportation experience and restore the public's confidence that it is safe to travel on public transportation.

CC-001 – Customer Related Lobby Renovation and Redesign

This project will address shortcomings in the ticketing area that customers find confusing as well as redesigning office space to better represent all of our intermodal partners that use the space. Further, we will address cosmetic deficiencies and rehabilitate HTC to extend its overall service life. Enhanced information area, electronic signage and communications will be incorporated, providing customers with better route and station information. This project is expected to seek funds in FY2023.

Contingencies/Dependencies: Movement on this project must consider future negotiations with Plymouth & Brockton Bus Lines who leases a major space of the lobby. Their lease runs out in 2023 and it is likely some changes will be made. There are no dependencies.

CC-002 – Elevator Refurbishment

The elevator at HTC is original to the building and has become increasingly problematic requiring outside maintenance at least monthly now. Federal requirements around ADA require us to report all incidents where the elevator is out of service as this restricts access to the second-floor administrative offices for disabled individuals. We do have policies in place to address these times, but they reflect poorly on the CCRTA when the number of incidents get too high. Several options are under consideration at this time from replacing the electrical components of the lift and control panel (electrical issues have been the largest contributors to down time) to an overhaul of the mechanical lift components. The servicing company is putting together several proposals with pricing for our consideration.

Contingencies/Dependencies: There are no contingencies. The eventual direction is dependent on the recommendation of the manufacturer and the amount of down-time it will take to execute those options.

CC-003 – Reserve Fund for Building Emergencies

As the Hyannis Transportation Center and Dennis Operations Center buildings age, we find ourselves, even with proactive planning, dealing with issues from time to time that require immediate attention. Examples include the recent hot water heater replacement at HTC, the water leak at the Dennis Operation Center, issues with the entry doors, window damage from weather, etc. This request establishes a reserve fund for the purpose of addressing these issues when they arise unexpectedly. One example of an emergency future need includes a mini-split air conditioner that serves the two IT server rooms to ensure temperature is maintained at the proper level to avoid equipment failure.

Contingencies/Dependencies: All expenditures in this line item are contingent on prior approval of the Administrator before proceeding. There are no dependencies.

CC-004 – HTC Roof Replacement

The roof at the Transportation Center has been patched three times in the past five years and continues to have occasional leaks that arise, mostly due to heavy wind and torrential rain/snow events. This is a major investment to replace the rotted wood in the roof (mostly trim pieces) as well as the roof material itself with a more permanent material that should stand up better to the damage from severe weather events. With this in mind, the current plan is to replace the asphalt roof with a metal roof with a fifty year guarantee and to replace the trim with PVC trim pieces which will match the investment made five years ago for the rest of the building. The attic storage area contains the air conditioning evaporator unit and this was recently inspected to ensure that no major components were needed prior to replacing the roof. In the event that major repairs are needed to these evaporator units, a metal roof can be removed for repairs and then reused. It is a good investment for this application.

Contingencies/Dependencies: There are no contingencies or dependencies for this project, other than the optimal time to replace the roof would be before or after the summer and/or summer shoulder season.

CC-005 – Irrigation System Overhaul

The irrigation system at HTC needs a full overhaul. The redesign of the parking and the bus bays has left some zones uncovered but more visible. The removal of the storage building for the MassDOT access road project has done the same. These funds will extend the coverage to the areas mostly by the East entrance so they will be automatically watered rather than staff doing this manually during the summer.

Contingencies/Dependencies: There are no contingencies or dependencies for this project.

CC-006 – Catch Basin Cleaning

The catch basins become clogged from rain water runoff as well as from sand that is carried into them after the winter snow remediation. This is a standard maintenance item that is required every two to three years. We will discuss with the vendor at the time of cleaning about the periodicity for future cleanings and may adjust the timeframe for future cleaning. There are over twenty catch basins on the Hyannis Transportation Center property.

Contingencies/Dependencies: There are no contingencies or dependencies for this project.

CC-007 – Office Equipment Upgrades

The first-floor conference room tables are in rather poor condition. Two of them are missing wheels and a third has a chipped surface that makes it hard to write on. This is a relatively small expense and would involve no downtime to the availability of the facility.

Contingencies/Dependencies: There are no contingencies or dependencies for this project.

CC-008 – Electronic "Smart" board - conference room

The first-floor conference room projection screen would be replaced with a Smart Board Interactive Display (or as an alternative, more modern projection equipment). These are meant to be connected directly to the conference room computer but can be connected to a separate computer when a visiting speaker brings his/her own equipment. This can be used as a "dumb" projector screen when the installed projector is used but essentially replaces it. Markers can be used on it for interactive presentations and it comes with built in speakers so the output sound of the computer is fed directly to the device. It is compatible with both Macintosh and Windows computers. This device was previously approved in FY2021 but was not acted on.

Contingencies/Dependencies: There are no contingencies or dependencies for this project.

CC-009 – Upgrade of Parking and Traffic Signage

Several signs and markings need to be upgraded as experience has shown us the areas that have been troubling to users of the redesigned Transportation Center. Most of these areas are around the bus parking areas but new parking signs are also required in the lots.

Contingencies/Dependencies: There are no contingencies or dependencies for this project.

CC-010 – Sealcoat West Parking Lot

The asphalt in the west parking lot is cracking and precipitation that leaks through the cracks accelerates the failure of the surface. It has not been resealed since it was new and this will help to extend the life of the asphalt and protect it from the freeze/thaw cycle that advances the cracks.

Contingencies/Dependencies: This project is contingent on future decisions regarding a possible dispatch building at HTC and/or forward movement on the Transit Oriented Design housing project located in the same area over the next five years. Construction vehicles in that area would likely destroy the asphalt regardless of efforts to protect it so spending this money prior to undertaking either of those projects would not be a good investment. Decision to proceed will be approved by the Administrator. There are no dependencies.

CC-011 – HVAC: Replace Outdoor Condensing/Chiller Units

The cooling system has evaporator components in the attic as well as condensing components in the back yard between the HTC building and the rail platform. The outdoor components are twenty years old and in need of replacement. Condensers rely on aluminum fins to dissipate heat and these are crumbling from oxidation and exposure to the salt air prevalent here. Further, the motors that circulate coolant and operate fans are in need of replacement. These funds seek the complete replacement of the unit to a redesigned condenser that will better stand up to the elements than was available twenty years ago. This unit comes with a ten-year guarantee.

Contingencies/Dependencies: There are no contingencies for this project. The project is dependent on the time of year as undertaking this in the summer is more expensive and likely to cause issues for staff continuing to work in the building. The manufacturer has indicated a desire to perform this project in the April to May time frame and failing that, September to October. This project will leave the CCRTA without air conditioning for approximately five days.

CC-012 – Bus Shelter(s)

These funds would be used to replace two more of the old wooden bus shelters which have deteriorated to the point that they cannot be easily or economically repaired. The out years will continue to replace one per year going forward until such time as all have been replaced.

Contingencies/Dependencies: These replacements will continue in the future as older wooden structures fail, but Towns have expressed an interest in maintaining the “village nature” of existing wooden structures versus the modern look of the current design. A decision will need to be made in the future on how to proceed when a Town insists on the old design. These were very expensive originally and they are significantly more today. The funding requested in this line is based entirely on replacements using the modern style glass shelters.

Goal #2: Bolster critically needed transit assistance supporting the diverse needs of our customers, contribute to the improvement of our local economy, and assist local businesses through the provision of a broader umbrella of transit services.

CC-013 – Bourne Rail Trail – Expedited Development

The Cape Cod Regional Transit Authority has received tentative approval from the Federal Transit Administration and MassDOT to provide up to \$20M of our Federal Funds to jump start the construction linking the Shining Sea Bike Path to the Cape Cod Canal Bike Path, known as the Bourne Rail Trail bikeway extension. The Bourne Rail Trail would complete an uninterrupted bike path from Falmouth to Provincetown, a goal which many previous working groups in each Town have enthusiastically supported. Providing a contiguous bike path to a larger portion of the Cape will have significant economic benefit through increased transit access to village centers throughout the Cape for bike commuters, tourists and residents in one of the most beautiful areas of Massachusetts. Negotiations between the interested parties for the current railbed are not currently concluded so progress on this effort has stalled. When these discussions are concluded, CCRTA will evaluate the results and make a recommendation for the future but for now, this item is on hold.

Contingencies/Dependencies: Agreement by all stakeholders to move forward on a “Rail to Trail” as opposed to a “Rail with Trail” construction project is the most significant contingency.

CC-014 – Cape-wide Electric Infrastructure Coordination Effort

In order to more rapidly advance the CCRTA’s Electrical Vehicle (EV) and EV Infrastructure planning, this proposal recommends working with the Cape Cod Commission to hire a

consulting firm specializing in this highly technical and fast evolving industry. CCRTA does not have the staffing resources or technical capability to undertake the complex processes involved with a comprehensive evaluation and assessment of future planning for EV and EV Infrastructure. On the other hand, the Cape Cod Commission's multifaceted approach in this area has produced a deep level of research data that would help guide and significantly benefit the work of a consulting firm in this effort. These funds would be used to hire a consultant to work with the CCRTA, Towns and major strategic partners likely to be high users of electric vehicles in the future to plan infrastructure throughout the Cape to support CCRTA efforts as well as our partners. Further, an estimated amount of funding (on a per vehicle basis) has been included in each year to support the vehicles purchased that year. The spending may not follow the timeline in this document but the consultant will better advise us of that.

Contingencies/Dependencies: These considerations are addressed in a separate section of this document.

CC-015 – Transportation Avenue Redesign at HTC (Engineering Design Completed)
Currently on Hold

Goal #3: Improve the efficiency and cost-effective delivery of transit services through technology enhancements that employ a data driven decision approach to the implementation of transit improvements.

CC-016 – Purchase and deploy ten (10) Customer Information Displays at Bus Stops
These will replace the old-style information displays that were quite problematic. These are sturdier displays which we expect to provide better longevity and resistance to vandalism. Further, they are significantly less money than the older style displays and easier to replace.

Contingencies/Dependencies: There are no contingencies for this project. The project is dependent on the purchase of servers in project CC-039 to provide the data that is to be presented on the displays.

CC-017 – Build Tablet Interface between Trapeze and SmartDART
This will allow us to further incorporate the SmartDART and DART service so we can utilize slack time that may exist in the DART schedule to provide SmartDART trips. It is important to have the universe of trips available to know if there are any under-utilized resources. Currently the SmartDART and DART systems are separate in the Trapeze system and we have no ability to compare the two in real time.

Contingencies/Dependencies: The project is dependent on the purchase of servers in project CC-039 to deploy the tablets.

CC-018 – Create AI Driven Dashboard for Ridership Analysis on all routes

This will provide an easy to use visualization tool for trends in ridership and usage patterns. This new dashboard will use artificial intelligence powered tools to forecast future demands and detect anomalies in CCRTA's device reporting. Further this tool will assist in planning activities moving forward identifying high usage ridership stops along with the effectiveness of the current route patterns.

Contingencies/Dependencies: The project is dependent on the purchase of servers in project CC-039 to store the data.

CC-019 – Design and Replace Fare Collection System Software

The current hardware/software solution purchased by the CCRTA over ten years ago has become prohibitively expensive to maintain and license. The hardware does not operate well when cash is wet and this is a common state when so many of our bus runs are to area beaches. Further, the bills are jamming too often which takes a bus out of revenue service until repaired. These funds will be used to design a new system which will provide the necessary reporting and reconciliation, provide the ridership data needed for the required Federal and State reporting and replace the hardware fareboxes with simple closed lockboxes without moving parts.

Contingencies/Dependencies: The project is dependent on the purchase of servers in project CC-039.

Goal #4: Achieve a Zero Carbon Footprint Goal by 2030 through targeted capital investments in EV charging station infrastructure, incremental conversion from fossil fuel vehicles to electric, and further investments in “green building” and solar technology.

CC-020 – Electrification Effort Cape-Wide

This is a place-holder currently as this will be determined by the efforts of the project undertaken by project CC-014 above.

Contingencies/Dependencies: These considerations are addressed in a separate section of this document.

CC-021 – Additional land - Operations Expansion

Properties under consideration are 1.06 acres (on the right below) and abuts the current property near the current wind generator and .92 acres (to the left) adjacent to the current training oval. The first has an assessed value of \$330,000 as of 2020 and the owner is asking \$700,000. The second is assessed at \$340,000 and the asking price is similar. These are the last available properties that are contiguous to the CCRTA property at the Operations Center. There are several options available for use of these properties including bus/employee parking, Covered Bus Storage, Bus Fueling System, New Bus Wash System, etc.



Contingencies/Dependencies: In the event that a decision is made to build a new facility elsewhere, this purchase is not needed.

CC-022 – Protected Fuel Area

Currently the fuel station is exposed to the weather so on days of inclement weather, mechanics and fueling staff are exposed to the elements for several hours fueling buses. This is performed daily so the number of days in any year where this occurs is significant. The canopy would provide some level of protection from the weather and would make it easier to keep fueling staff employed. As it currently stands, this is not a desirable job and we have a high turnover rate.

Contingencies/Dependencies: This project is contingent on a decision on the bus canopy and a possible redesign of the parking and traffic flow at the Operations Center. It may be possible to extend a canopy for the bus parking over the fueling area with a redesign of the facility traffic flow.

CC-023 – Construct New Operations Center located in the Hyannis area

This is currently a placeholder until a decision is made on the renovation/replacement of the Dennis facility.

Contingencies/Dependencies: These considerations are addressed in a separate section of this document.

CC-024 – Bus Waste Water Washing Reclaim

Currently, CCRTA processes waste water from bus washing operations which cleans the water to gray water standards, but we are required to have the resulting by-product removed as a hazardous waste. We are currently at the upper-level of what the State of Massachusetts considers a “small” waste water contributor. If we exceed that amount by much more, we will

be exposed to a much higher level of scrutiny as well as expense for removal. The requested system will process our current output and feed it back into the washing system for reuse instead of disposal. This will not eliminate the need to dispose of waste water, but it will cut down significantly the amount we produce.

Contingencies/Dependencies: This project is contingent on any consideration of building a new facility elsewhere on the property at Operations. If that is not being considered, this project may proceed. A new facility will have the recycling built in when constructed so need not be done. There are no dependencies.

CC-025 Rolling Stock - 2022 Bus – Replacement

For FY22, we are replacing 5 four passenger mini-vans; 7 twelve-passenger cutaways; and 3 fourteen-passenger cutaways under the MAP program. These are gasoline powered vehicles purchased in early 2021. Additionally, six Gillig bus replacements, ordered in 2019 and 2020 were delivered and will provide us with new equipment to keep an aging Gillig fleet operational that is not ready for electrification.

The CCRTA will purchase five to seven electric vehicles in FY2023 with 100% CCRTA funds to convert the existing SmartDART system to an all-electric footprint. These vehicles will be a combination of ADA and Non-ADA vehicle types which can be purchased for far less money and will support the non-ADA trips the CCRTA currently provides (97% or 3,768 annually). The SmartDART application will now require a selection by perspective riders to identify a need for an ADA ride which will continue to be dispatched from Dennis on an ADA equipped bus. This decision, in addition to price, will also allow a faster rollout as these vehicles are available more readily while ADA equipped vehicles have a backlog of almost nine months to manufacture.

Existing SmartDART vehicles have low mileage so these will be rolled back into the fleet until they have the necessary miles and/or age to allow replacement under MassDOT rules. We may consider advancing some of the COA replacements with these vehicles as well as they suit the needs of the COA's in most instances perfectly.

CC-026 Rolling Stock - 2023 Bus – Replacement

The requested replacement schedule appears in Appendix D.

CC-027 Rolling Stock - 2024 Bus – Expansion

The requested replacement schedule appears in Appendix D.

CC-028 Rolling Stock - 2025 Bus – Replacement

The requested replacement schedule appears in Appendix D.

CC-029 Rolling Stock - 2026 Bus - Expansion

The requested replacement schedule appears in Appendix D.

CC-030 Rolling Stock - 2026 Bus - Expansion

The requested replacement schedule appears in Appendix D.

CC-030 – Operations Staff Vehicle (1)

CCRTA will replace two of the existing staff vehicles with an EV vehicle with AWD/4WD capabilities. This new vehicle will go to the Administrator, at his option, whose vehicle will replace an existing SUV with over 130,000 miles on it used by supervisors in summer operations in Provincetown. In subsequent years, the remaining administrative vehicles will be replaced and all will be electric.

Contingencies/Dependencies: There are no contingencies or dependencies on this project.

Goal #5: Reduce future budgetary costs and increase revenues through selective investments in operating and capital budget initiatives.

CC-031 – Stand-by Generator

There is a small generator currently in the Operations center which is considered an emergency standby generator. In the event of a power failure, power is restored to the heating system, lights and wall outlets in the office section of the building and outdoor lights. There is limited power in the shop, but it does not include air conditioning systems. This request will increase the capacity of the standby generator system to include the rest of the building and support systems.

Contingencies/Dependencies: This project should address the current electrical needs of the building. Any future consideration of supplying the backup electrical needs of an electric fleet will be considered along with that infrastructure when designed.

CC-032 – Wash Bay Maintenance

For obvious reasons, humidity is a constant issue in a wash bay so normal maintenance must be performed to water heaters, rusting wash components and the facility in general where paint is peeling. A complete paint job of the wash bay was done in FY17. After project completion, it was recommended that this work should be performed by the in-house utility crew in the off-season and on a predetermined schedule every 2 to 3 years.

Contingencies/Dependencies: This project is contingent on any consideration of building a new facility elsewhere or on the property at Operations. If that is not being considered, this project may proceed.

CC-033 – Storm Drain Cleaning

In much the same way as the Hyannis Transportation Center, during normal operations and increasingly in the winter, sand on the roads and parking lots at Operations washes into the storm drains which eventually clogs them to the point that they do not drain properly. This cleaning has not been done in several years now and we are starting to see backups on heavy

days of precipitation. In the future this should be scheduled for maintenance at least every other year.

Contingencies/Dependencies: There are no contingencies or dependencies on this project.

CC-034 – Utility Tractor w/ attachments

CCRTA is seeking to acquire one large utility tractor with mowing, snow plow, blower, brush and towing capabilities along with a matching utility dump trailer for hauling materials (mostly sand). The existing tractor is seventeen years old and was purchased for \$19,685.

Contingencies/Dependencies: There are no contingencies or dependencies on this project.

CC-035 – Compact Loader

This piece of equipment currently serves many purposes at Operations. It is used for snow removal, sand removal, debris removal after a storm, any excavation that is needed around the shop, and it is an all-purpose piece of equipment. This vehicle has a useful life of twenty years and while its cost is an investment, over its life span, it is a good one.

Currently we have three snow-plow trucks for snow removal operations one of which is scheduled for replacement next year. The purchase of this vehicle will allow us to save the \$50,000 cost of that truck as it will no longer be needed. In that event, it is our intent to repurpose the vehicle as an additional mobile-service flatbed.

Contingencies/Dependencies: There are no contingencies or dependencies on this project.

CC-036 – Electric Utility Carts (2)

The two electric utility carts owned by CCRTA are both at or approaching ten years old and are in poor condition. These are used as parts carts to move heavy parts from outside storage (items such as tires and rims stored in the outside shed behind the GM office) to the shop for installation. At the end of day, these carts are used to ferry the fareboxes collected from the buses back to the counting room for processing. When outside maintenance on a vehicle is called for, mechanics load their tools on a utility cart and drive out to the bus with all of their needed tools. These carts are used to run staff and guests out to the training/testing oval or anywhere else in the yard. They are used often and replacements are needed.

Contingencies/Dependencies: There are no contingencies or dependencies on this project.

CC-037 – Live Video Surveillance Upgrade

CCRTA has ordered all buses for the past twelve years with SEON camera systems and in most cases, we add additional cameras before the buses are deployed. Currently, at the end of day, a bus comes into the yard and the video from the cameras is uploaded to our servers for archive purposes and stored. This takes time every evening to do, but it is the only option available to us and having the cameras has been essential in many situations over the years. The Live Video upgrade will use the existing wireless modems installed in the buses to wirelessly stream the

video when called upon to the office where it can be reviewed in real-time. This might be critical in the right situation and for that reason alone, it is worth doing but it is hoped that we can start the delivery of the video that occurs in the yard every night when the bus comes out of service at the end of the day so much of the video is uploaded prior to the bus arriving in the yard. There may be some issues around privacy that we will want to consider, but all buses currently have signs about the camera surveillance on them so it is assumed those can be managed. Finally, the recent addition of upgraded wireless equipment on the buses to accommodate the recently installed fare-box software will provide most of what is required for this upgrade. This cost number is expected to come down before we finalize.

Contingencies/Dependencies: There are no contingencies or dependencies on this project.

CC-038 – Replace IT Backup Equipment at HTC and Operations

This will replace the backup servers that make our nightly backups with greater capacity. These were replaced six years ago and at that time we doubled capacity and it is needed again. As systems evolve and our desire for data-driven decision making increases, the amount of data that we now store is growing and this is likely to continue. The original request was for a system that doubled our capacity again, but conversations with the consultant who is building some of our future systems indicates we may need to triple our capacity. A final decision will be made shortly. In the meantime, an effort to purge data older than seven years of age will extend the life of the existing equipment for a few months.

Contingencies/Dependencies: The only contingency is the size of the backups and thusly the final cost to upgrade. There are no dependencies on this project.

CC-039 – Replace two (2) Hyper V Servers

The servers requested here will consolidate the equipment used at Operations for the replacement of Trapeze, the integration of the SmartDART system and the DART system described elsewhere in this document and the new scheduling software. This will replace one existing server that is eight years old.

CC-040 – Upgrade Radio Infrastructure

The existing radio system experiences regional lapses of radio communications necessary for safe operations. Code Reds and emergency communications still require an occasional phone call from an operator as the radio is unavailable. The radio system purchased five years ago has improved the situation but problem areas persist. Our vendor, working with Operations personnel, has attempted software and hardware upgrades to address the problems and these have proven ineffective. When our last purchase of a system was made, a decision was made to adopt the system that the County Civil Defense command was using as they recommended it highly. They, too, are investigating the replacement of their system having experienced the same issues we are seeing.

Contingencies/Dependencies: There are no direct contingencies on this project however, we will continue to monitor efforts on the County level as interoperability between our systems and the County is desirable in emergency situations.

CC-041a – Office Copier

Replaces the main office copier at Operations which is six years old and has over 375,000 copies run through it.

CC-041b - Desktop Computers

This will replace eighteen of the desktop computers at Ops. The plan is to replace all of our computers every six years. Eighteen in year one, eighteen in year two and thirteen in year three. Remember that our Trapeze deployment requires two computers on each desk at dispatch to access the two individual systems for DART and Fixed Route.

Contingencies/Dependencies: The scaled-down use or replacement of the Trapeze system in the future is under discussion and may impact the need for two computers on each desk. The replacement plan needs to consider this possibility before proceeding further in year two of this procurement.

CC-041c - Desk Chairs

Twenty existing desk chairs will need to be replaced to accommodate more ergonomic seating for employees who spend their entire day seated. Ten seats will replace the conference room seating which is original to the building and in a bad state of repair.

CC-041d - Computer Monitors

See project CC-040b.

CC-041e - Training Room Display/Smartboard

Larger SmartBoard screens will be used in the training room to facilitate the vast amount of large class didactic trainings that occur in the room. Monthly safety meetings and COA/vendor trainings will also make good use of the SmartBoard. All training materials are now digital and no longer optimized for projection screen training.

CC-041f - Tables (8) Training Room

The eight training room tables currently used in the training room are original equipment to the building and are in poor condition. Several have broken wheels and are held up by bricks or blocks. These new tables will fold down and can be wheeled away to make better available space for “hands-on” training sessions such as CPR training.

CC-041g - Laptop Computer Training Room

All training material is now digital and therefore mobile when required. This laptop will replace the existing laptop in the training room as well as be available for mobile presentations at COA's and other outside vendors. The existing laptop is seven years old.

CC-041h - Laptop Computers

These laptops are new purchases and are intended for deployment to the General Manager, Asst. General Manager and Call Center Manager. When the COVID pandemic forced staff to operate remotely, staff used their own personal computers as there was no other option. This poses potential issues with public records and should not be allowed. This purchase recognizes a reality of 2022 and is one we should make.

CC-042 - Elevated Work Platform

This device, similar to a “scissor lift” is used when working on the upper sides or roof of the buses. Currently, shop staff work off a ladder which provides no “fall protection” and is questionably stable when working. The work platform has accommodations for workers in a protected surround with bench area to allow you to bring up trays of tools. HTC is looking for a similar unit but storage of this equipment is an issue. Careful consideration of the proper unit will be important to consider for the needs of both locations and the possible transportation between locations as needed.

Contingencies/Dependencies: There are no contingencies or dependencies on this project.

CC-043 - Bus Lift Overhauls

We own four Mohawk Hydraulic Lifts capable of lifting a bus. These are used at least in pairs and on occasion all four. These are hydraulically operated and are more than ten years old. We are starting to see issues with the one of the lifts losing pressure which will soon make some of it unusable. As all are the same age, we recommend that two be overhauled this spring and the remaining two next year to balance out the expenditure.

Contingencies/Dependencies: There are no contingencies or dependencies on this project. These are portable devices and would move with the facility.

CC-044 - Bus/Inventory System Software

Currently the shop uses a system from EasyBus which is over fifteen years old and will not run on current operating systems. A newer version of the software was tried last year but the manufacturer pulled the system after spending three months trying to get it to work with us. It has no scanning capabilities and as we are recommending the installation of a barcode system for all inventory and parts assignment, the system needs to be replaced. This replacement is expected to take two to three months for data conversion, installation and training but it is a high priority. There are several options for this software and we have recommendations to investigate from Merrimack Valley RTA and from GATRA before making a decision. The dollar amount specified in the attached spreadsheet is a best guess and will need to be adjusted when a choice is made.

Contingencies/Dependencies: There are no contingencies or dependencies on this project.

CC-045 - Bar Code Scanning System

The barcode scan system will allow the scanning in and out of parts. It is designed so the designated person who is retrieving parts can simply scan the barcode, enter the mechanic ID and the bus number, and the part will be removed from inventory. The vehicle service record will be updated and parts that have minimum quantities set will be scheduled for reorder. This is also a high priority and should be ordered at the same time as the replacement software above so the manufacturer will be responsible for the integration of both systems at the same time.

Contingencies/Dependencies: There are no contingencies or dependencies on this project.

CC-046 - Equipment Manufacturer Training Funds

CCRTA's Class A Technicians are our highest rated technicians for our most technical skills in repair. Training involves out of state travel and is expensive, but this is an investment in our staff. This becomes more urgent in the future as we make the move to electric buses. None of our mechanics work on electric buses, and we will need those skills in the future. Our choices are to invest in training our existing mechanics for what we will need in the future or hiring a new staff when the time comes.

CC-047 - Front Gate-Security Building

The building will have dual "check-in" windows on either side to allow for security checks and efficient arrivals of entering vehicles, as well as the efficient distribution of keys, documents, and "check-outs" of drivers beginning their shifts or exiting for the day. All keys and driver support material inventories could be easily distributed and streamline the process of on-time gate departures. Visual security on anyone entering the facilities would be performed.

Appendix A – Five Year Funding Sources and Uses Summary

Budget Overview

The Cape Cod Regional Transit Authority's Budget for Fiscal Year 2023 totals \$17.02 million and is structurally balanced, with federal, state, local, and other revenue sources fully supporting the corresponding operating expenses. The FY23 budget compared to the FY22 \$23.49 million budget represents a reduction of \$6.47 million, which is solely attributed to the transfer of the Human Service Transportation (HST) Brokerage program to the Greater Attleboro Taunton Regional Transit Authority (GATRA), effective with the passage of the State's Fiscal Year 2022 Budget. The elimination of the CCRTA's HST Brokerage program required the reallocation of "fixed cost" transit services previously assigned to the HST program based on hours of services provided. As a result, projections reflected in the FY23 budget presentation are comprised of both year-over-year cost increases and reallocated HST transit service expenses.

The CCRTA is on a solid financial footing in Fiscal Year 2023 and beyond, with revenue and expense projections based on the most up-to-date and sound fiscal and ridership information available, with recognition that our transit operations must be continually monitored so that we can properly adjust our transportation services and budget projections as trends emerge. As part of that important review, the CCRTA has developed a Sources and Uses spreadsheet covering a five-year period from fiscal year 2023 through fiscal year 2027, which demonstrates a balanced budget for all fiscal years and provides for sufficient funding resources beyond Fiscal Year 2027 for the planned procurement of large (Gillig) EV buses.

Federal Stimulus Funding:

The Cape Cod Regional Transit Authority (CCRTA) is the Federal Transit Administration's (FTA) designated recipient for the Cape area region Urbanized Area (UZA), which includes additionally authorized funding under the federal stimulus funding provided through the Congress passed CARES Act, CRRSAA and ARPA stimulus relief bills. The federal stimulus funding provides tremendous funding flexibility that allows for all operating and most capital expenses incurred on or after January 20, 2020 to be categorically eligible under the same guidelines as the FTA section 5307 program, with no corresponding cost match or time limit for spending for CARES Act and CRRSAA funding and a requirement under ARPA to obligate funds by September 30, 2024 and disburse funds by September 30, 2029. The combined federal stimulus funding sources provide an essential funding lifeline to mitigate fare collection revenue reductions and cost increases related to the pandemic, as well as supporting CCRTA's essential fleet and infrastructure capital needs as the migration from fossil fuel vehicle to electric vehicles (EVs) and supporting EV infrastructure takes place.

Controls & Policies - CARES Act:

The CCRTA has a long and established set of internal controls and policies in place to ensure complete compliance with Federal Transit Administration (FTA) regulations and guidance for all federal grant programs. With few exceptions, the federal stimulus eligible FTA spending criteria falls under the Section 5307 federal grant program and follows the CCRTA's existing controls and policies that are in place, so there was minimal additional effort required to ensure compliance. In addition, the CCRTA replicated information provided in the FTA webinars to

create a “Federal Stimulus – FTA Guidance” binder, accompanied by additional CCRTA spending criteria directions. This binder is used as a resource by CCRTA accounting staff as well as the accounting firm that assists the CCRTA with month-end closing transactions and audited financials. As a result of the internal controls and policies in place, the CCRTA has properly assessed and addressed all FTA guidance involved with carrying out the grant requirements under all federal stimulus funding programs, including on-going and post audit monitoring. The quality and effectiveness of the CCRTA's financial controls were affirmed in a recently completed FTA audit of \$16.2 million in federal stimulus funding drawdowns and supporting documentation, which concluded there were “no findings” or suggestions for procedure improvements.

Risk Factors:

The CCRTA has prepared extensively for the proper execution of federal stimulus funding, with significant emphasis placed on continued compliance with FTA federal stimulus guidance and 5307 program regulations. Since the last fiscal year update, the additional funding provided through the CRRSAA and ARPA stimulus bills (in addition to the previous CARES Act funding) will enable the CCRTA to maintain a solid fiscal standing over the next several fiscal years, with sufficient funding to support operating and capital needs.

Driver/Maintenance Worker Shortage Challenges: The CCRTA’s increase in the provision of transit services during the Cape’s summer and shoulder months’ season has always presented its own set of unique challenges in maintaining an adequate workforce in key transit operation positions, which the CCRTA has successfully managed. As is the case with all transit agencies, the onset of the COVID-19 pandemic has further exacerbated workforce shortages, particularly in the field of experienced or “trainable” bus drivers. In order to address these challenges, the CCRTA, in close collaboration with its Operator, has undertaken a number of initiatives over the years that have resulted in effective and measurable outcomes. Strategies included enhanced marketing efforts; no cost bus driver training programs with pay; selective pay adjustments and overtime pay; and other incentives, all financially covered by federal stimulus funding. Most recently, the CCRTA launched a digital marketing campaign with overall goals to spread awareness of our services, grow fixed route ridership and bolster our driver recruitment efforts. A prominent component of this effort focused on driver recruitment that targeted the population demographic that would be most likely interested in driving a bus for the CCRTA. As part of this digital effort, all of the many generous benefits of working as a bus driver for the CCRTA’s Operator is consistently shared with this targeted group. As a result of the CCRTA’s comprehensive efforts in this area, a sufficient bus driver workforce has been maintained throughout the pandemic, while fully maintaining bus operations with no reductions in transit services.

Basic Assumptions (Funding & Expenses):

- State Contract Assistance (SCA) - For the purposes of future SCA projections, the CCRTA is using the base funding level contained in the FY2023 budget at \$5,098,729, with 2 1/2% increases in FY24 through FY27.
- Local Assessments - For the purposes of future Local Assessment projections, the CCRTA is assuming that yearly fiscal year increases will continue at 2 1/2%.

- State Capital Funding (RTACap & 5339 for bus procurement) - For the purposes of future RTACap projections, the CCRTA will use the FY2023 budget amount of \$581,526 and restore the FY2024 through FY2027 amount to the FY2022 funding level of \$1,589,702. Final approval of the FY2023 through FY2027 TIP amendments may necessitate funding increases for these projections.
- Federal Funding - In addition to the standard and federal stimulus funding carryover balances from FY22 to FY23, the CCRTA is basing its standard 5307 & 5339 federal apportionment funding projections on guidance provided by FTA, which allows for the option of using pre-pandemic ridership data reported to NTD to determine FFY23 funding apportionments. The CCRTA is projecting a 2 1/2% increase in 5307 funding for FY2024 through 2027 and a base funding level of \$650,000 for this same period for 5339 funding. Funding projections are based on the fact that the CCRTA maintained most transit service levels; miles traveled, and hours of operation, which are the major contributors to the formula used by FTA to determine the federal apportionment funding levels. New to FFY 23 and beyond is added 5337 funding for "State of Good Repair" (SGR), which results from the seventh year of Steamship Authority reporting to NTD. Additionally, the CCRTA continues working with private transportation providers to submit their ridership data to the FTA's National Transit Database, which will increase CCRTA's future FTA funding. See Comment section for details.
- Miscellaneous Revenue - For the purposes of future Miscellaneous Revenue projections, the CCRTA is projecting a 3.3% increase in FY2023 and 2% increases each year for FY2024 through FY2027. See Comment section for details.
- Expenses - Each expense line item for the various items includes a full description of the assumptions used to determine the projected expense. See Comment section for details.

Mitigation Efforts:

The CCRTA has had a longstanding proactive approach to evaluating ridership trends and the impact on operations long before the onset of the pandemic. In December of 2017, the CCRTA issued a "deep-dive" analysis on its ridership trends in comparison to the National Transit Database (NTD) October 2017 report, which nationally reflected "motorbus decreases of 8.41% over the past five years" (i.e. 2012 – 2016) and has continued to evaluate this information in its current fiscal year operations. While NTD reported national trends for motorbus and demand response declined over this five-year period, the CCRTA achieved an average ridership growth of over 6% for this same period of time. This ridership increase was mostly accomplished through superior customer service, ongoing marketing of CCRTA transportation services, the addition of two fixed routes and increased usage of its demand response services. However, in FY2017, the CCRTA detected through its ongoing monitoring that its fixed route service was beginning to experience some small declines in its ridership, which continued into FY18. At that time, the CCRTA recognized that in addition to the standard options employed by the CCRTA to improve ridership, a more strategic approach was needed in order to reverse the ridership trend decreases. With that in mind, the CCRTA undertook a major effort to review every facet of its transportation system to identify and implement fiscally responsible and transportation effective solutions that would achieve the goal of increasing ridership. Additionally supporting that effort, the CCRTA issued a comprehensive report on Strategies to Increase Ridership in

March of 2019. Using this report as a forward-thinking foundation, the CCRTA continually looks at where riders are critically dependent on the service, and which routes should be preserved, expanded, or altered in order to provide the most cost effective and appropriate level of transit service and has implemented specific service level changes over the years to accomplish that goal. Most recently, the CCRTA posted and hired for the position of Director of Research and Reporting, which is a senior level position reporting directly to the Administrator. This position is responsible for further advancing the CCRTA's "data-driven" analytical capacity through direct research, data analysis, project tracking and the related use of information technology systems in support of these functions.

Summary:

The 5-year "Sources and Uses" document contained in Appendix A demonstrates that the CCRTA remains on a solid fiscal standing over the next 5-fiscal years. While the COVID-19 pandemic has created formidable operational and fiscal challenges, the additional federal funding provided through the three federal stimulus bills is paramount to the CCRTA's long-term fiscal stability. Additionally, the Federal Infrastructure Stimulus Bill will provide access to significant new capital funding resources, which will further fortify the CCRTA's fiscal stability and provide the opportunity for a more aggressive migration from fossil fueled vehicles to electric vehicles. The CCRTA will continue to closely monitor and manage its fiscal resources in combination with the overall management of its transit operations to ensure continuity of services and the ongoing fiscal stability of the CCRTA.

Source and Uses

APPENDIX A
Cape Cod Regional Transit Authority
5-Year Sources and Uses (Operating & Capital)
FY2023 through FY2027

Last Updated: 9/14/22

Description		Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025	Fiscal Year 2026	Fiscal Year 2027
Federal Funding Apportionments Beginning Balance - FY23						
CARES Act (Obligated)		\$3,852,447				
CARES Act (Unobligated)		\$0				
CRRSAA (Obligated)		\$12,140,491				
CRRSAA (Unobligated)		\$4,622,522				
ARPA (Obligated)		\$0				
ARPA (Unobligated)		\$96,788,817				
Standard 5307 - Obligated		\$738,006				
Standard 5307 - Unobligated		\$37,094,875				
Standard 5339 - Obligated		\$424,277				
Standard 5339 - Unobligated		\$1,962,053				
Federal Infrastructure Stimulus Funding		\$0	\$0	\$0	\$0	\$0
FTA Federal Funding Apportionments Beginning Balance FY23		\$157,623,488	\$137,747,847	\$100,019,370	\$91,807,050	\$88,705,146
Standard & Stimulus Funding Due or Held in Reserve						
GATRA Fund Split - Outstanding	5307/5339	\$0	\$0	\$0	\$0	\$0
Total Stimulus Funds Due or Held in Reserve		\$0	\$0	\$0	\$0	\$0
Federal Fiscal Year FTA Apportionments - FFY23:						
Standard FTA 5307 Funding (Estimated)	5307	\$15,648,323	\$16,039,531	\$16,440,519	\$16,851,532	\$17,272,821
Standard FTA 5339 Funding (Estimated)	5339	\$650,000	\$650,000	\$650,000	\$650,000	\$650,000
State of Good Repair (SGR) - SSA NTD Reporting	5337	\$1,125,950	\$1,154,099	\$1,182,951	\$1,212,525	\$1,242,838
Total Federal Fiscal Year FTA Apportionments - FFY23:		\$17,424,273	\$17,843,630	\$18,273,471	\$18,714,057	\$19,165,659
GATRA Fund Split	5307 & 5339	\$1,284,776	\$1,316,895	\$1,349,818	\$1,383,563	\$1,418,152
Total Estimated Federal Fiscal Year Apportionments - FFY23		\$16,139,497	\$16,526,734	\$16,923,653	\$17,330,494	\$17,747,506
Total Adjusted Balance of FTA Federal Apportionment Funding		\$173,762,985	\$154,274,581	\$116,943,023	\$109,137,544	\$106,452,653
Other Revenues (non-HST):						
State Contract Assistance		\$4,936,234	\$5,059,640	\$5,186,131	\$5,315,784	\$5,448,679
Local Assessments		\$2,103,727	\$2,156,320	\$2,210,228	\$2,265,484	\$2,322,121
Fares		\$898,362	\$988,198	\$1,087,018	\$1,195,720	\$1,315,292
MassDOT RTACap		\$581,526	\$1,589,702	\$1,589,702	\$1,589,702	\$1,589,702
MassDOT Section 5339 Statewide Allocation Program		\$0	\$0	\$0	\$0	\$0
MAP Funding (Federal 5310 from MassDOT)		\$1,000,000	\$1,020,000	\$1,040,400	\$1,061,208	\$1,082,432
Misc. Revenue		\$361,335	\$368,562	\$375,933	\$383,452	\$391,121
NTD Reporting - Ferry & Intercity Bus - NEW/ADDITIONAL		\$0	\$0	\$0	\$0	\$0
Total Other (Non-Federal) Revenues		\$9,881,184	\$11,182,422	\$11,489,412	\$11,811,349	\$12,149,346
Total Adjusted Balance of All Revenue Sources		\$183,644,169	\$165,457,003	\$128,432,435	\$120,948,893	\$118,601,999

Comments
CARES Act: Total Stimulus apportionment funding: \$31,933,539
CRRSAA: Total Stimulus apportionment funding: \$27,173,809
ARPA: Total Stimulus apportionment funding: \$97,285,670
Substantial funding increases possible, but no dollars carried at this point
FFY23 Based on FFY22 Funding; 2 1/2% increases starting with FFY24 Fund moves each year usually between \$625,000 and \$675,000
FFY23 Based on FFY22 Funding @ 50%; 2 1/2% increases starting with FFY24
FFY23 Based on FFY22 Funding; 2 1/2% increases starting with FFY24
FFY23 subject to increased funding levels; assumes 2 1/2% increases starting in FY2024 Assumes continued 2 1/2% increases each year Assumes 10% Fare increases beginning with FY24 FY23 based on actual RTACap contract funding; FY24 - FY27 level funded at FY22 funding amounts At this point, CCRTA is assuming no additional funding under this line item Assumes 2% misc. revenue increases beginning with FY24 Assumes 2% misc. revenue increases beginning with FY24 No additional revenue projected at this point related to new NTD reporting

CCRTA Base Budget Expenses (non-HST)						
Operating		\$17,015,722	\$17,611,272	\$18,227,667	\$18,865,635	\$19,525,932
Capital - Infrastructure (including EV infrastructure)		\$1,707,000	\$29,916,300	\$1,014,500	\$941,000	\$555,500
Capital - Rolling Stock (including EVs)		\$3,110,000	\$7,440,000	\$6,975,000	\$3,425,000	\$7,496,000
Capital - Equipment		\$140,000	\$70,000	\$87,500		\$94,200
Capital - Technology		\$348,700	\$140,800	\$28,580	\$31,250	
Capital - Cape-Wide Initiatives		\$1,250,000	TBD	TBD	TBD	TBD
Capital - Other		\$28,000	\$28,000	\$14,000		
Capital - SSA		\$22,251,900	\$7,435,136	\$7,505,860	\$5,180,360	\$5,196,079
Capital - Extraordinary 1-Time Infrastructure		\$0	\$0	\$0	\$0	\$0
Capital - State Section 5339 MassDOT Covered Cost		\$0	\$0	\$0	\$0	\$0
Private Transportation Providers - NTD reporting		\$0	\$0	\$0	\$1,027,042	\$1,050,927
Eliminate Revenue Anticipation Note Borrowings			\$2,150,000	\$2,125,000	\$2,125,000	\$0
Eliminate OPEB Liability		\$0	\$600,000	\$600,000	\$600,000	\$0
COA Incentive Funding		\$45,000	\$46,125	\$47,278	\$48,460	\$49,672
Total Operating and Capital Expenses		\$45,896,322	\$65,437,633	\$36,625,385	\$32,243,747	\$33,968,310

Assumes 3.5% increases each FY beginning with FY2024
Projected CCRTA Capital Spending from 10-Year Strategic Plan & 5-Year Capital Spending Plan
Projected CCRTA Capital Spending from 10-Year Strategic Plan & 5-Year Capital Spending Plan
Projected CCRTA Capital Spending from 10-Year Strategic Plan & 5-Year Capital Spending Plan
Projected CCRTA Capital Spending from 10-Year Strategic Plan & 5-Year Capital Spending Plan
Projected CCRTA Capital Spending from 10-Year Strategic Plan & 5-Year Capital Spending Plan
Projected CCRTA Capital Spending from 10-Year Strategic Plan & 5-Year Capital Spending Plan
SSA Preventive Maintenance/Capital Cost Reimbursement for Expenses Paid (not includg. SSA Match)
At this point, CCRTA is assuming no additional expenses under this line item
At this point, CCRTA is assuming no additional expenses under this line item
Pass through to Private Transportation Providers (using non-federal revenues) for NTD reporting
Assistance Funding
Eliminate OPEB Liability over 3-year period using State Contract Assistance Funding
Assumes 2 1/2% increases each year starting with FY2024

Ending Fund Balance - Exclusive of Risk Factors		\$137,747,847	\$100,019,370	\$91,807,050	\$88,705,146	\$84,633,689
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Risk Factors						
SSA Nantucket Run - Non-Commuter Determination		\$0	\$1,638,820	\$1,679,791	\$1,721,785	\$1,764,830
State of Good Repair (SGR) - SSA NTD Reporting	5337	\$1,125,950	\$1,154,099	\$1,182,951	\$1,212,525	\$1,242,838
Total Risk Factors - Reduced Revenues		\$1,125,950	\$2,792,919	\$2,862,742	\$2,934,310	\$3,007,668

Represents reduced FTA/NTD revenues if SSA Nantucket run is determined non-commuter service
starting with FFY24

Ending Fund Balance - Including Risk Factors		\$136,621,897	\$97,226,451	\$88,944,308	\$85,770,836	\$81,626,021 *
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*** PLEASE NOTE: The above plan shows the first five years of expenses associated with the CCRTA's Ten Year Strategic/Capital Plan. This replaces all of the smaller buses in the fleet with electric equivalents. The replacement of 44 large buses is expected to cost \$66M and takes place in years 2028 - 2032. The large balance of funds reflected in 2027 will be expended in the year's following to purchase these larger buses and the supporting electric infrastructure.**

Appendix B – Five Year Capital Budget

Cape Cod Regional Transit Authority Capital Plan FY2023 - FY2027

Option 1	Option 2	Project Code	Capital Description	Total Estimated Funding	FY2023	2023 TIP Line	FY2024	2024 TIP Line	FY2025	2025 TIP Line	FY2026	FY2026 TIP Line	FY2027	FY2027 TIP Line
				\$ 65,201,330	\$ 6,583,700		\$ 37,595,100		\$ 8,119,580		\$ 4,397,250		\$ 8,505,700	
1. Increased ridership through funding outlays designed to improve the customers' transportation experience and restore the publics' confidence that it is safe to travel on public transportation.														
√	√	CC-001	Lobby Renovation and Reconfiguration	\$ 1,184,000	\$ 146,000	3	\$ 700,000	1	\$ 100,000	5	\$ 238,000	5		
√	√	CC-002	Elevator Refurbishment - cost estimate to be determined	\$ 80,000	\$ -	3	\$ 80,000	1						
√	√	CC-003	Reserve Fund for unforeseen building emergencies	\$ 44,000	\$ 10,000		\$ 11,000		\$ 11,000		\$ 12,000			
√	√	CC-004	HTC Roof Replacement (TBD), along with replacing any existing rotten wood with non-wood product	\$ 550,000	\$ 200,000	3	\$ 350,000	1						
√	√	CC-005	HTC irrigation system overhaul and upgrades	\$ 7,800	\$ 5,000	3	\$ 2,800	1						
√	√	CC-006	HTC: Catch basin cleaning	\$ 31,500	\$ 9,000	3	\$ 10,500	1			\$ 12,000	5		
√	√	CC-007	Office Equipment Upgrades	\$ 30,760	\$ 1,900	1			\$ 15,900	10	\$ 12,960	9		
√	√	CC-008	Electronic "Smart" board - conference room	\$ 10,000	\$ 10,000	1								
√	√	CC-009	Updated review of all traffic and parking signage and upgrade or add new signage as needed, including final direction from intercity bus carriers	\$ 5,000	\$ 5,000	3								
√	√	CC-010	Sealcoat - West Parking Lot	\$ 15,000	\$ 15,000	3								
√	√	CC-011	HVAC: replace outdoor HVAC condensing/chiller units	\$ 120,000	\$ 120,000	3								
√	√	CC-012	Bus Shelter	\$ 165,000	\$ 38,000	21	\$ 12,000	12	\$ 15,000	6	\$ 100,000	10		
2. Bolster critically needed transit assistance supporting the diverse needs of our customers, contribute to the improvement of our local economy, and assist local businesses through the provision of a broader umbrella of transit services.														
√	√	CC-013	Bourne Rail Trail - expedited development	--	HOLD		\$ -		\$ -		\$ -		\$ -	
√	√	CC-014	Capwide Electric Infrastructure Coordination Effort	\$ 1,250,000	\$ 1,250,000	11								
√		CC-015	Transportation Avenue Redesign at HTC (Engineering Design Completed)	\$ 100,000	\$ 100,000	2								
3. Improve the efficiency and cost-effective delivery of transit services through technology enhancements that employ a data driven decision approach to the implementation of transit improvements.														
√	√	CC-016	Purchase and deploy Customer Information Displays at Select Bus Stops	\$ 80,000	\$ 80,000	18								
√	√	CC-017	Build Tablet Interface between Trapeze and SmartDart	\$ 45,000	\$ 30,000	20	\$ 15,000	18						
√	√	CC-018	Create AI driven dashboard for ridership analysis/information for all routes	\$ 35,000	\$ 35,000	20								
√	√	CC-019	Design and Replace Fare Collection System Software	\$ 50,000	\$ 50,000	23								

4. Achieve a Zero Carbon Footprint Goal by 2030 through targeted capital investments in EV charging station infrastructure, incremental conversion from fossil fuel vehicles to electric, and further investments in "green building" and solar technology.														
√	√	CC-020	Electrification Efforts as determined	\$ 3,562,500	\$ 800,000	13	\$ 750,000	8	\$ 878,000	9	\$ 579,000	8	\$ 555,500	10
√		CC-021	Additional land - Operations	\$ 3,000,000			\$ 3,000,000	13						
√		CC-022	Protected Fuel Area	--	HOLD									
	√	CC-023	Construct New Operations Center located in the Hyannis area	\$ 25,000,000			\$ 25,000,000	11						
√		CC-024	Bus Waste Water Washing Reclaim	--	HOLD									
√	√	CC-025	Rolling Stock - 2023 Bus - Replacement	\$ 3,110,000	\$ 3,110,000	5,6,12,17,22								
√	√	CC-026	Rolling Stock - 2024 Bus - Replacement	\$ 7,440,000			\$ 7,440,000	7,21						
√	√	CC-027	Rolling Stock - 2025 Bus - Replacement	\$ 6,975,000					\$ 6,975,000	8,14				
√	√	CC-028	Rolling Stock - 2026 Bus - Replacement	\$ 3,425,000							\$ 3,425,000	6,7,13		
√	√	CC-029	Rolling Stock - 2027 Bus - Replacement	\$ 7,856,000									\$ 7,856,000	5,7,12,13
√	√	CC-030	Operations Staff Vehicle(s)	\$ 391,700	\$ 140,000	16	\$ 70,000	6	\$ 87,500	7			\$ 94,200	14

5. Reduce future budgetary costs and increase revenues through selective investments in operating and capital budget initiatives.														
√		CC-031	Stand-by Generator	--	HOLD									
√		CC-032	Wash Bay Maintenance	--	HOLD									
√	√	CC-033	Storm Drain Cleaning	\$ 19,500	\$ 9,000	15			\$ 10,500	12				
√		CC-034	Utility Tractor w/ attachments	\$ 40,000	\$ 40,000	15								
√		CC-035	Compact Loader	\$ 120,000	\$ 120,000	16								
√	√	CC-036	Electric Utility Carts (2)	\$ 20,000	\$ 20,000	15								
√	√	CC-037	Live Video Surveillance Upgrade	--	HOLD									
√	√	CC-038	Replace Backup Equipment at HTC and Operations	\$ 20,000	\$ 20,000	1								
√	√	CC-039	Replace Hyper V Servers (2)	\$ 40,000	\$ 40,000	1								
√	√	CC-040	Upgrade radio infrastructure to eliminate poor reception in certain areas of the Cape	\$ 100,000			\$ 100,000	10						
√	√	CC-041	Office Equipment Operations	\$ 82,570	\$ 25,800	1	\$ 25,800	9	\$ 12,680	10	\$ 18,290	9		
√		CC-042	Elevated Work Platform	--	HOLD									
√	√	CC-043	Bus Lift Overhauls	\$ 70,000	\$ 70,000	15								
√	√	CC-044	Bus/Inventory System Software	\$ 26,000	\$ 26,000	20								
√	√	CC-045	Bar Code Scanning System	\$ 30,000	\$ 30,000	20								
√	√	CC-046	Equipment Manufacturer Training Funds	\$ 70,000	\$ 28,000	19	\$ 28,000	14	\$ 14,000	11				
√		CC-047	Security Building	--	HOLD									

Appendix C – 2023 – 2027 Transportation Improvement Program

Project List (APL)

Project List (FY2023)

FTA Program		Transit Agency	FTA Activity Line Item	Project Number	Project Description	Carryover (unobligated)	Federal Funds	RTACAP	MAP	ICB	SCA	VW Settlement Funds	TDC	Local Funds	Total Cost
5307															
1	5307	Cape Cod Regional Transit Authority	114207	RTD0010594	Cape Cod Regional Transit Authority/Hyannis and South Dennis/CCRTA ACQUIRE - ADP HARDWARE	2022 - \$78,160	\$78,160	\$19,540	\$0	\$0	\$0	\$0	\$0	\$0	\$97,700
2	5307	Cape Cod Regional Transit Authority	442400	RTD0010595	Cape Cod Regional Transit Authority/Hyannis Transportation Center Campus/SHORT RANGE TRANSIT PLANNING	2019-004 Carryover 5307	\$80,000	\$20,000	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000
3	5307	Cape Cod Regional Transit Authority	114401	RTD0010596	Cape Cod Regional Transit Authority/Hyannis Transportation Center/REHAB/RENOVATE - ADMINISTRATIVE FACILITY	2020-002 Carryover 5307	\$400,000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$500,000
4	5307	Cape Cod Regional Transit Authority	114220	RTD0010597	Cape Cod Regional Transit Authority/South Dennis Bus Operations Center/ACQUIRE - MISC SUPPORT EQUIPMENT	5307 - ARPA Funds	\$200,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$250,000
5	5308	Cape Cod Regional Transit Authority	111204	RTD0010598	Cape Cod Regional Transit Authority/BUY REPLACEMENT <30-FT BUS (Low Floor Cutaways)(part Statewide 5339 funds)	5307 - ARPA Funds	\$464,300	\$116,075	\$0	\$0	\$0	\$0	\$0	\$0	\$580,375
6	5307	Cape Cod Regional Transit Authority	111204	RTD0010599	Cape Cod Regional Transit Authority/BUY REPLACEMENT <30 FT BUS (Low Floor Cutaways)	5307 - ARPA Funds	\$196,692	\$49,173	\$0	\$0	\$0	\$0	\$0	\$0	\$245,865
7	5307	Cape Cod Regional Transit Authority	117L00	RTD0010600	Cape Cod Regional Transit Authority/MOBILITY MANAGEMENT	5307 - ARPA Funds	\$1,300,000	\$0	\$0	\$0	\$325,000	\$0	\$0	\$0	\$1,625,000
8	5307	Cape Cod Regional Transit Authority	117C00	RTD0010601	Cape Cod Regional Transit Authority/NON FIXED ROUTE ADA PARA SERV	5307 - ARPA Funds	\$900,000	\$0	\$0	\$0	\$225,000	\$0	\$0	\$0	\$1,125,000
9	5307	Cape Cod Regional Transit Authority	300901	RTD0010602	Cape Cod Regional Transit Authority/OPERATING ASSISTANCE-Fixed Route/Demand Response	5307 - ARPA Funds	\$980,000	\$0	\$0	\$0	\$980,000	\$0	\$0	\$0	\$1,960,000
10	5307	Cape Cod Regional Transit Authority	117A00	RTD0010603	Cape Cod Regional Transit Authority/PREVENTIVE MAINTENANCE	5307 - ARPA Funds	\$7,530,000	\$0	\$0	\$0	\$1,882,500	\$0	\$0	\$0	\$9,412,500
11	5307	Cape Cod Regional Transit Authority	442615		Cape Cod Regional Transit Authority/Support Transit Capital Investment Decisions through Effective Systems Planning	5307 - ARPA Funds	\$1,250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,250,000
12	5307	Cape Cod Regional Transit Authority	111204		Cape Cod Regional Transit Authority/BUY REPLACEMENT <30-FT BUS (Low Floor Cutaways)	5307 - ARPA Funds *	\$238,072	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$238,072
13	5307	Cape Cod Regional Transit Authority	115303		Cape Cod Regional Transit Authority/Construction/Power Distribution Substation	5307 - ARPA Funds	\$800,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$800,000
14	5307	Cape Cod Regional Transit Authority	117A00		Cape Cod Regional Transit Authority/PREVENTIVE MAINTENANCE/Steamship Authority	Carryover 5307 Funds (2019, 2020, 2021)	\$22,251,900							\$5,562,975	\$27,814,875
15	5307	Cape Cod Regional Transit Authority	114220		Cape Cod Regional Transit Authority/Bus Support Equip./Facilities/Miscellaneous Equipment	5307 - ARPA Funds	\$139,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$139,000
16	5307	Cape Cod Regional Transit Authority	114211		Cape Cod Regional Transit Authority/Acquisition Support Vehicles	5307 - ARPA Funds	\$260,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$260,000
17	5307	Cape Cod Regional Transit Authority	111215		Cape Cod Regional Transit Authority/Replacement Vehicles/Vans	5307 - ARPA Funds	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$200,000
18	5307	Cape Cod Regional Transit Authority	113220		Cape Cod Regional Transit Authority/Acquisition Misc. Bus Shelter Equipment	5307 - ARPA Funds	\$80,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$80,000
19	5307	Cape Cod Regional Transit Authority	117D02		Cape Cod Regional Transit Authority/Training Electric Bus	5307 - ARPA Funds	\$28,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,000
20	5307	Cape Cod Regional Transit Authority	114208		Cape Cod Regional Transit Authority/Acquisition ADP Software	5307 - ARPA Funds	\$121,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$121,000
Subtotal							\$37,497,124	\$354,788	\$0	\$0	\$3,412,500	\$0	\$0	\$5,562,975	\$46,827,387

Approved Project List (APL)

Project List (FY2023)

5339															
21	5339	Cape Cod Regional Transit Authority	119302	RTD0009523	Cape Cod Regional Transit Authority/Falmouth and Barnstable Rte 28/CONSTRUCTION - BUS SHELTERS	5307 - ARPA Funds	\$30,400	\$7,600	\$0	\$0	\$0	\$0	\$0	\$0	\$38,000
22	5339	Cape Cod Regional Transit Authority	111204		Cape Cod Regional Transit Authority/BUY REPLACEMENT <30 FT BUS (Low Floor Cutaways)	2020 5339 Funds 2020 - \$676,550	\$676,550	\$169,138	\$0	\$0	\$0	\$0	\$0	\$0	\$845,688
Subtotal							\$706,950	\$176,738	\$0	\$0	\$0	\$0	\$0	\$0	\$883,688
5320															
Subtotal							\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Federal															
Subtotal							\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Non-Federal															
23	Other Non-Federal	Cape Cod Regional Transit Authority	114110	RTD0010213	Cape Cod Regional Transit Authority/AUTOMATIC FARE COLLECTION (AFC) 2.0LL EQUIP		\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$50,000
Subtotal							\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$50,000
Total							\$38,204,074	\$581,526	\$0	\$0	\$3,412,500	\$0	\$0	\$5,562,975	\$47,761,075

* PLEASE NOTE: The amount for buses is \$1M below purchases authorized for this year as \$1M in buses is expected from MAP purchases and delivered to CCRTA by MassDOT.

**Project List (APL)
Project List (FY2024)**

FTA Program		Transit Agency	FTA Activity Line Item	Project Number	Project Description	Carryover (unobligated)	Federal Funds	RTACAP	MAP	ICB	SCA	VW Settlement Funds	TDC	Local Funds	Total Cost
5307															
1	5307	Cape Cod Regional Transit Authority	117A00	RTD0009534	Cape Cod Regional Transit Authority/Hyannis Transportation Center/REHAB/RENOVATE BUS STATIONS	5307 - ARPA Funds	\$914,640	\$0	\$0	\$0	\$228,660	\$0	\$0	\$0	\$1,143,300
2	5307	Cape Cod Regional Transit Authority	117A00	RTD0009535	Cape Cod Regional Transit Authority/PREVENTIVE MAINTENANCE	5307 - ARPA Funds	\$7,530,000	\$0	\$0	\$0	\$1,882,500	\$0	\$0	\$0	\$9,412,500
3	5307	Cape Cod Regional Transit Authority	300901	RTD0009536	Cape Cod Regional Transit Authority/OPERATING ASSISTANCE-Fixed Route/Demand Response	5307 - ARPA Funds	\$980,000	\$0	\$0	\$0	\$980,000	\$0	\$0	\$0	\$1,960,000
4	5307	Cape Cod Regional Transit Authority	117L00	RTD0009537	Cape Cod Regional Transit Authority/MOBILITY MANAGEMENT	5307 - ARPA Funds	\$1,300,000	\$0	\$0	\$0	\$325,000	\$0	\$0	\$0	\$1,625,000
5	5307	Cape Cod Regional Transit Authority	117C00	RTD0009538	Cape Cod Regional Transit Authority/NON FIXED ROUTE ADA PARA SERV	5307 - ARPA Funds	\$900,000	\$0	\$0	\$0	\$225,000	\$0	\$0	\$0	\$1,125,000
6	5307	Cape Cod Regional Transit Authority	114211		Cape Cod Regional Transit Authority/Acquisition Support Vehicles	5307 - ARPA Funds	\$70,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$70,000
7	5307	Cape Cod Regional Transit Authority	442400		Cape Cod Regional Transit Authority/BUY REPLACEMENT <30-FT BUS (Low Floor Cutaways)	5307 - ARPA Funds*	\$5,461,984	\$157,108	\$0	\$0	\$0	\$0	\$0	\$0	\$5,619,092
8	5307	Cape Cod Regional Transit Authority	115303		Cape Cod Regional Transit Authority/Construction/Power Distribution Substation	5307 - ARPA Funds	\$750,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$750,000
9	5307	Cape Cod Regional Transit Authority	114207		Cape Cod Regional Transit Authority/Hyannis and South Dennis/CCRTA ACQUIRE - ADP HARDWARE	5307 - ARPA Funds	\$25,800	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,800
10	5307	Cape Cod Regional Transit Authority	114220		Cape Cod Regional Transit Authority/Bus Support Equip /Facilities/Miscellaneous Equipment	5307 - ARPA Funds	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000
11	5307	Cape Cod Regional Transit Authority	114202		Cape Cod Regional Transit Authority/Construction/Operations_Maintenance Facility	5307 - ARPA Funds	\$25,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$25,000,000
12	5307	Cape Cod Regional Transit Authority	119302		Cape Cod Regional Transit Authority/Falmouth and Barnstable Rte 28/CONSTRUCTION - BUS SHELTERS	5307 - ARPA Funds	\$12,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,000
13	5307	Cape Cod Regional Transit Authority	117691		Cape Cod Regional Transit Authority/Real Estate Acquisition/Operations Facility	5307 - ARPA Funds	\$3,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,000,000
14	5307	Cape Cod Regional Transit Authority	117D02		Cape Cod Regional Transit Authority/Training Electric Bus	5307 - ARPA Funds	\$28,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,000
15	5307	Cape Cod Regional Transit Authority	442400		Cape Cod Regional Transit Authority/BUY REPLACEMENT <30-FT BUS (Low Floor Cutaways)	Balance of ARPA Funds **		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16	5307	Cape Cod Regional Transit Authority	111203		Cape Cod Regional Transit Authority/BUY REPLACEMENT 30-FT BUS	Balance of ARPA Funds **		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
17	5307	Cape Cod Regional Transit Authority	117A00		Cape Cod Regional Transit Authority/PREVENTIVE MAINTENANCE/Steamship Authority	2022 - 5307 Funds	\$7,435,136	\$0	\$0	\$0	\$0	\$0	\$0	\$1,858,784	\$9,293,920
18	5307	Cape Cod Regional Transit Authority	114208		Cape Cod Regional Transit Authority/Acquisition ADP Software	5307 - ARPA Funds	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,000
Subtotal							\$53,522,560	\$157,108	\$0	\$0	\$3,641,160	\$0	\$0	\$1,858,784	\$59,179,612

Approved Project List (APL)

Project List (FY2024)

5339															
19	5339	Cape Cod Regional Transit Authority	442400		Cape Cod Regional Transit Authority/BUY REPLACEMENT <30-FT BUS (Low Floor Cutaways)	2021 5339 2021 \$656,726	\$656,726	\$164,182	\$0	\$0	\$0	\$0	\$0	\$0	\$820,908
Subtotal							\$656,726	\$164,182	\$0	\$0	\$0	\$0	\$0	\$0	\$820,908
5320															
Subtotal							\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Federal															
20	Other Federal	Cape Cod Regional Transit Authority	111202	RTD0009553	Cape Cod Regional Transit Authority/BUY REPLACEMENT <30-FT BUS (part Statewide 5339)		\$750,000	\$0	\$0	\$0	\$0	\$0	\$300,000	\$0	\$750,000
Subtotal							\$750,000	\$0	\$0	\$0	\$0	\$0	\$300,000	\$0	\$750,000
Other Non-Federal															
Subtotal							\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total							\$54,929,286	\$321,290	\$0	\$0	\$3,641,160	\$0	\$300,000	\$1,858,784	\$60,750,520

* PLEASE NOTE: The amount for buses is \$1M below purchases authorized for this year as \$1M in buses is expected from MAP purchases and delivered to CCRTA by MassDOT.

** ARPA requires all funds to be encumbered by September 2024 and expended by 2029. All Balances will be obligated to meet those requirements.

**Project List (APL)
Project List (FY2025)**

FTA Program		Transit Agency	FTA Activity Line Item	Project Number	Project Description	Carryover (unobligated)	Federal Funds	RTACAP	MAP	ICB	SCA	VW Settlement Funds	TDC	Local Funds	Total Cost
5307															
1	5307	Cape Cod Regional Transit Authority	300901	RTD0009542	Cape Cod Regional Transit Authority/OPERATING ASSISTANCE-Fixed Route/Demand Response	2022 - \$980,000 (5307 Funds)	\$980,000	\$0	\$0	\$0	\$980,000	\$0	\$0	\$0	\$1,960,000
2	5307	Cape Cod Regional Transit Authority	117L00	RTD0009543	Cape Cod Regional Transit Authority/MOBILITY MANAGEMENT	2022 - \$1,300,000 (5307 Funds)	\$1,300,000	\$0	\$0	\$0	\$325,000	\$0	\$0	\$0	\$1,625,000
3	5307	Cape Cod Regional Transit Authority	117C00	RTD0009544	Cape Cod Regional Transit Authority/NON FIXED ROUTE ADA PARA SERV	2022 - \$900,000 (5307 Funds)	\$900,000	\$0	\$0	\$0	\$225,000	\$0	\$0	\$0	\$1,125,000
4	5307	Cape Cod Regional Transit Authority	117A00	RTD0009545	Cape Cod Regional Transit Authority/PREVENTIVE MAINTENANCE	2022 - \$7,530,000 (5307 Funds)	\$7,530,000	\$0	\$0	\$0	\$1,882,500	\$0	\$0	\$0	\$9,412,500
5	5307	Cape Cod Regional Transit Authority	113401		Cape Cod Regional Transit Authority/Hyannis Transportation Center/REHAB/RENOVATE - BUS TERMINAL	2022 - \$80,000 (5307 Funds)	\$80,000	\$20,000	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000
6	5307	Cape Cod Regional Transit Authority	119302	RTD0009550	Cape Cod Regional Transit Authority/Yarmouth and Chatham/CONSTRUCTION - BUS SHELTERS	2022 - \$60,800 (5307 Funds)	\$12,000	\$3,000	\$0	\$0	\$0	\$0	\$0	\$0	\$15,000
7	5307	Cape Cod Regional Transit Authority	114211		Cape Cod Regional Transit Authority/Acquisition Support Vehicles	2022 - \$70,000 (5307 Funds)	\$70,000	\$17,500	\$0	\$0	\$0	\$0	\$0	\$0	\$87,500
8	5307	Cape Cod Regional Transit Authority	442400		Cape Cod Regional Transit Authority/BUY REPLACEMENT <30-FT BUS (Low Floor Cutaways)	5307 - ARPA Funds*	\$4,597,123	\$591,906	\$0	\$0	\$0	\$0	\$0	\$0	\$5,189,029
9	5307	Cape Cod Regional Transit Authority	115303		Cape Cod Regional Transit Authority/Construction/Power Distribution Substation	5307 - ARPA Funds	\$702,400	\$175,600	\$0	\$0	\$0	\$0	\$0	\$0	\$878,000
10	5307	Cape Cod Regional Transit Authority	114207		Cape Cod Regional Transit Authority/Hyannis and South Dennis/CCRTA ACQUIRE - ADP HARDWARE	2022 - \$28,580 (5307 Funds)	\$28,580	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,580
11	5307	Cape Cod Regional Transit Authority	117D02		Cape Cod Regional Transit Authority/Training Electric Bus	2022 - \$14,000 (5307 Funds)	\$14,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$14,000
12	5307	Cape Cod Regional Transit Authority	114220		Cape Cod Regional Transit Authority/Bus Support Equip /Facilities/Miscellaneous Equipment	5307 - ARPA Funds	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$200,000
13	5307	Cape Cod Regional Transit Authority	117A00		Cape Cod Regional Transit Authority/PREVENTIVE MAINTENANCE/Steamship Authority	2022 - \$6,005,860, 2023 - \$1,500,000 (5307 Funds)	\$7,505,860	\$0	\$0	\$0	\$0	\$0	\$0	\$1,876,465	\$9,382,325
Subtotal							\$23,919,963	\$808,006	\$0	\$0	\$3,412,500	\$0	\$0	\$1,876,465	\$30,016,934

**Approved Project List (APL)
Project List (FY2025)**

5339															
14	5339	Cape Cod Regional Transit Authority	111204	RTD0009551	Cape Cod Regional Transit Authority/BUY REPLACEMENT <30 FT BUS	2022 5339 2022 \$628,777	\$628,777	\$157,194	\$0	\$0	\$0	\$0	\$0	\$0	\$785,971
Subtotal							\$628,777	\$157,194	\$0	\$0	\$0	\$0	\$0	\$0	\$785,971
5320															
Other Federal							\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal							\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Non-Federal															
Subtotal							\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total							\$24,548,740	\$965,200	\$0	\$0	\$3,412,500	\$0	\$0	\$1,876,465	\$30,802,905

* PLEASE NOTE: The amount for buses is \$1M below purchases authorized for this year as \$1M in buses is expected from MAP purchases and delivered to CCRTA by MassDOT.

**Project List (APL)
Project List (FY2026)**

FTA Program	Transit Agency	FTA Activity Line Item	Project Number	Project Description	Carryover (unobligated)	Federal Funds	RTACAP	MAP	ICB	SCA	VW Settlement Funds	TDC	Local Funds	Total Cost
5307														
1	5307	Cape Cod Regional Transit Authority	117L00	RTD0010200	Cape Cod Regional Transit Authority/MOBILITY MANAGEMENT	2023 - \$1,300,000 (5307 Funds)	\$1,300,000	\$0	\$0	\$0	\$325,000	\$0	\$0	\$1,625,000
2	5307	Cape Cod Regional Transit Authority	117C00	RTD0010206	Cape Cod Regional Transit Authority/NON FIXED ROUTE ADA PARA SERV	2023 - \$900,000 (5307 Funds)	\$900,000	\$0	\$0	\$0	\$225,000	\$0	\$0	\$1,125,000
3	5307	Cape Cod Regional Transit Authority	117A00	RTD0010207	Cape Cod Regional Transit Authority/PREVENTIVE MAINTENANCE	2023 - \$7,530,000 (5307 Funds)	\$7,530,000	\$0	\$0	\$0	\$1,882,500	\$0	\$0	\$9,412,500
4	5307	Cape Cod Regional Transit Authority	300900	RTD0010208	Cape Cod Regional Transit Authority/OPERATING ASSISTANCE-Fixed Route/Demand Response	2023 - \$980,000 (5307 Funds)	\$980,000	\$0	\$0	\$0	\$980,000	\$0	\$0	\$1,960,000
5	5307	Cape Cod Regional Transit Authority	113401	RTD0010217	Cape Cod Regional Transit Authority/Hyannis Transportation Center/REHAB/RENOVATE - BUS TERMINAL	2023 - \$200,000 (5307 Funds)	\$200,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$250,000
6	5307	Cape Cod Regional Transit Authority	111215		Cape Cod Regional Transit Authority/Replacement Vehicles/Vans	5307 - ARPA Funds	\$208,000	\$52,000	\$0	\$0	\$0	\$0	\$0	\$260,000
7	5307	Cape Cod Regional Transit Authority	111204		Cape Cod Regional Transit Authority/BUY REPLACEMENT <30 FT BUS (Low Floor Cutaways)	5307 - ARPA Funds*	\$907,000	\$476,750	\$0	\$0	\$0	\$0	\$0	\$1,383,750
8	5307	Cape Cod Regional Transit Authority	115303		Cape Cod Regional Transit Authority/Construction/Power Distribution Substation	5307 - ARPA Funds	\$463,200	\$115,800	\$0	\$0	\$0	\$0	\$0	\$579,000
9	5307	Cape Cod Regional Transit Authority	114207		Cape Cod Regional Transit Authority/Hyannis and South Dennis/CCRTA ACQUIRE - ADP HARDWARE	2023 - \$25,000 (5307 Funds)	\$25,000	\$6,250	\$0	\$0	\$0	\$0	\$0	\$31,250
10	5307	Cape Cod Regional Transit Authority	119302		Cape Cod Regional Transit Authority/Mashpee and Dennis/CONSTRUCTION - BUS SHELTERS	2023 - \$80,000 (5307 Funds)	\$80,000	\$20,000	\$0	\$0	\$0	\$0	\$0	\$100,000
11	5307	Cape Cod Regional Transit Authority	114220		Cape Cod Regional Transit Authority/South Dennis Bus Operations Center/ACQUIRE - MISC SUPPORT EQUIPMENT	2023 - \$529,800 (5307 Funds)	\$529,800	\$122,950	\$0	\$0	\$0	\$0	\$0	\$652,750
12	5307	Cape Cod Regional Transit Authority	117A00		Cape Cod Regional Transit Authority/PREVENTIVE MAINTENANCE/Steamship Authority	2023 - \$5,180,360 (5307 Funds)	\$5,180,360	\$0	\$0	\$0	\$0	\$0	\$1,295,090	\$6,475,450
Subtotal						\$18,303,360	\$843,750	\$0	\$0	\$3,412,500	\$0	\$0	\$1,295,090	\$23,854,700

Approved Project List (APL)

Project List (FY2026)

5339														
13	5339	Cape Cod Regional Transit Authority	111204	RTD0010215	Cape Cod Regional Transit Authority/BUY REPLACEMENT <30 FT BATTERY ELECTRIC BUS	2023 5339 2023 \$625,000	\$625,000	\$156,250	\$0	\$0	\$0	\$0	\$0	\$781,250
Subtotal						\$625,000	\$156,250	\$0	\$0	\$0	\$0	\$0	\$0	\$781,250
5320														
Subtotal						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Federal														
Subtotal						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Non-Federal														
Subtotal						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total						\$18,928,360	\$1,000,000	\$0	\$0	\$3,412,500	\$0	\$0	\$1,295,090	\$24,635,950

* PLEASE NOTE: The amount for buses is \$1M below purchases authorized for this year as \$1M in buses is expected from MAP purchases and delivered to CCRTA by MassDOT.

Project List (APL)
Project List (FY2027)

FTA Program	Transit Agency	FTA Activity Line Item	Project Number	Project Description	Carryover (unobligated)	Federal Funds	RTACAP	MAP	ICB	SCA	VW Settlement Funds	TDC	Local Funds	Total Cost
5307														
1	5307	Cape Cod Regional Transit Authority	117L00	Cape Cod Regional Transit Authority/MOBILITY MANAGEMENT	2024 - \$1,300,000 (5307 Funds)	\$1,300,000	\$0	\$0	\$0	\$325,000	\$0	\$0	\$0	\$1,625,000
2	5307	Cape Cod Regional Transit Authority	117C00	Cape Cod Regional Transit Authority/NON FIXED ROUTE ADA PARA SERV	2024 - \$900,000 (5307 Funds)	\$900,000	\$0	\$0	\$0	\$225,000	\$0	\$0	\$0	\$1,125,000
3	5307	Cape Cod Regional Transit Authority	117A00	Cape Cod Regional Transit Authority/PREVENTIVE MAINTENANCE	2024 - \$7,530,000 (5307 Funds)	\$7,530,000	\$0	\$0	\$0	\$1,882,500	\$0	\$0	\$0	\$9,412,500
4	5307	Cape Cod Regional Transit Authority	300900	Cape Cod Regional Transit Authority/OPERATING ASSISTANCE-Fixed Route/Demand Response	2024 - \$980,000 (5307 Funds)	\$980,000	\$0	\$0	\$0	\$980,000	\$0	\$0	\$0	\$1,960,000
5	5307	Cape Cod Regional Transit Authority	111204	Cape Cod Regional Transit Authority/BUY REPLACEMENT <30 FT BATTERY ELECTRIC BUS	5307 - ARPA Funds*	\$419,000	\$279,750	\$0	\$0	\$0	\$0	\$0	\$0	\$698,750
6	5307	Cape Cod Regional Transit Authority	115303	Cape Cod Regional Transit Authority/Construction/Power Distribution Substation	5307 - ARPA Funds	\$444,400	\$111,100	\$0	\$0	\$0	\$0	\$0	\$0	\$555,500
7	5307	Cape Cod Regional Transit Authority	111215	Cape Cod Regional Transit Authority/Replacement Vehicles/Vans	5307 - ARPA Funds	\$460,800	\$115,200	\$0	\$0	\$0	\$0	\$0	\$0	\$576,000
8	5307	Cape Cod Regional Transit Authority	113400	Cape Cod Regional Transit Authority/Hyannis Transportation Center/REHAB/RENOVATE BUS STATIONS	2024 - \$300,000 (5307 Funds)	\$240,000	\$60,000	\$0	\$0	\$0	\$0	\$0	\$0	\$300,000
9	5307	Cape Cod Regional Transit Authority	114220	Cape Cod Regional Transit Authority/Bus Support Equip /Facilities/Miscellaneous Equipment	2024 - \$200,000 (5307 Funds)	\$200,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$250,000
10	5307	Cape Cod Regional Transit Authority	114211	Cape Cod Regional Transit Authority/Acquisition Support Vehicles	2024 - \$78,500 (5307 Funds)	\$78,500	\$15,700	\$0	\$0	\$0	\$0	\$0	\$0	\$94,200
11	5307	Cape Cod Regional Transit Authority	117A00	Cape Cod Regional Transit Authority/PREVENTIVE MAINTENANCE/Steamship Authority	2024 - \$5,196,079 (5307 Funds)	\$5,196,079	\$0	\$0	\$0	\$0	\$0	\$0	\$1,039,216	\$6,235,295
12	5307	Cape Cod Regional Transit Authority	111203	Cape Cod Regional Transit Authority/BUY REPLACEMENT 30-FT BUS - Gillig Replacement	5307 - ARPA Funds	\$4,000,000	\$800,000	\$0	\$0	\$0	\$0	\$0	\$0	\$4,800,000
Subtotal						\$21,748,779	\$1,431,750	\$0	\$0	\$3,412,500	\$0	\$0	\$1,039,216	\$27,632,245
Proposed Project List														
Project List (FY2027)														
5339														
13	5339	Cape Cod Regional Transit Authority	111204	Cape Cod Regional Transit Authority/BUY REPLACEMENT <30 FT BATTERY ELECTRIC BUS	2024 5339 2024 \$625,000	\$625,000	\$156,250	\$0	\$0	\$0	\$0	\$0	\$0	\$781,250
Subtotal						\$625,000	\$156,250	\$0	\$0	\$0	\$0	\$0	\$0	\$781,250
Other Non-Federal														
Subtotal						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total						\$22,373,779	\$1,588,000	\$0	\$0	\$3,412,500	\$0	\$0	\$1,039,216	\$28,413,495

* PLEASE NOTE: The amount for buses is \$1M below purchases authorized for this year as \$1M in buses is expected from MAP purchases and delivered to CCRTA by MassDOT.

Appendix D - Rolling Stock Plan

Replacement Schedule - Cutaways

The following schedule is our planned replacement plan over the next five years. The attached spreadsheet reflects the actual miles on the vehicles as of January 1, 2022 and the "Mileage on Replacement" column reflects an extrapolation of what the mileage will be in the year it is replaced if it continues to accrue mileage at the same rate as it has to date. There is a lack of mileage information for the Council on Aging vehicles so the replacement of those vehicles is based more on the age of the vehicle. Those vehicles will require evaluation annually to determine which ones should be replaced. MassDOT has been reluctant to replace them in the past when their actual mileage is below 70,000 miles so this will need to be considered.

This first schedule does not include the large Gillig buses. The Gillig buses are addressed in a separate section at the end of this section.

An important note for most all replacements on this sheet. In all cases except the CDL Cutaway buses (large capacity), replacement vehicles will be one size smaller to better stretch the range of electric vehicles. It will be necessary to maintain ten percent of our CDL Cutaways for runs that we currently do that require capacity and range that exceeds the currently available vehicles in those sizes. As the technology improves and those vehicles age, they will be replaced with electric vehicles as well.

The MAP vehicles purchased in FY2022 were gasoline powered vehicles. These fifteen vehicles were purchased in 2020 and delivery is just being made now. We have no ability to change that order.

2022

Veh Yr	Make	Model	Equip Type	Description of vehicle	Maint Class	Max Amb. Seating	License Plate Number	EOM Mileage	Original Retirement Year	Retirement Years / Miles	Mileage on replacement	Annual Miles
2017	DODGE	CARAVAN	Mini Van	Van 16.9 Ft	Para transit	3	CCR252	74,317	2023	6yrs / 100k mi	83,607	18,579
2017	DODGE	CARAVAN	Mini Van	Van 16.9 Ft	Para transit	3	CCR254	67,220	2023	6yrs / 100k mi	75,623	16,805
2018	DODGE	CARAVAN	Mini Van	Van 16.9 Ft	Para transit	3	CCR260	67,445	2024	6yrs / 100k mi	78,686	22,482
2018	DODGE	CARAVAN	Mini Van	Van 16.9 Ft	Para transit	3	CCR258	65,657	2024	6yrs / 100k mi	76,600	21,886
2018	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	8	CCR185	58,910	2024	6yrs / 100k mi	58,910	19,637
2018	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	8	CCR257	57,105	2024	6yrs / 100k mi	57,105	19,035
2018	Ford E-350	Phoenix	Mini Bus	Cutaway Van White 21	Para transit	8	CCR256	52,569	2024	6yrs / 100k mi	52,569	17,523
2019	Ford E-350	E3FX	Mini Bus	Cutaway Van White 21	Para transit	8	CCR498	41,370	2025	6yrs / 100k mi	54,837	20,685

Replacement Vehicles FY22

Qty	Vehicle	Original Passenger Count	New Passenger Count	Unit Vehicle Cost	Vehicle Cost	Unit Infrastructure - Accessories and/or Charging Station	Accessory Cost	Total Expected Cost
3	35' Gillig			\$527,555	\$1,582,665	\$10,000	\$30,000	\$1,612,665
3	30' Gillig			\$491,079	\$1,473,237	\$10,000	\$30,000	\$1,503,237
3	Caravan	3	6	\$65,000	\$195,000	\$3,250	\$9,750	\$204,750
4	Caravan	8	6	\$65,000	\$260,000	\$3,250	\$13,000	\$273,000
4	Caravan (MAP)	4	4	\$50,000	\$200,000	\$1,500	\$6,000	\$206,000
7	Small Cutaway (MAP)	12	12	\$80,000	\$560,000	\$3,000	\$21,000	\$581,000
3	Midsize Cutaway (MAP)	14	14	\$150,000	\$450,000	\$3,800	\$11,400	\$461,400
					\$4,720,902		\$121,150	\$4,842,052

The above chart is for the replacement of existing vehicles only. In addition, in FY2022, CCRTA will purchase eight (8) electric caravans to immediately move the SmartDART program to all-electric vehicles with the exception of ADA rides which will continue to be delivered with fossil fuel alternatives until the following fiscal year. This is due to the availability of electric vehicles outfitted for ADA purposes. The best conditioned vehicles of the replacement vehicles will be retained for backup.

2023

Veh Yr	Make	Model	Equip Type	Description of vehicle	Maint Class	Max Amb. Seating	License Plate Number	EOM Mileage	Original Retirement Year	Retirement Years / Miles	Mileage on replacement	Annual Miles
2014	Ford E-450	Starcraft	Shuttle	Cutaway White Van	Para transit	14	CCR202	172,132	2021	7yrs / 150k mi	184,427	24,590
2014	Ford E-450	Starcraft	Shuttle	Cutaway White Van	Para transit	14	CCR204	170,300	2021	7yrs / 150k mi	182,464	24,329
2014	Ford E-450	Starcraft	Shuttle	Cutaway White Van	Para transit	14	CCR205	167,460	2021	7yrs / 150k mi	179,421	23,923
2014	Ford E-450	Starcraft	Shuttle	Cutaway White Van	Para transit	14	CCR187	150,623	2021	7yrs / 150k mi	161,382	21,518
2014	Ford E-450	Starcraft	Shuttle	Cutaway White Van	Para transit	14	CCR196	137,066	2021	7yrs / 150k mi	146,856	19,581
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR271	117,712	2023	6yrs / 100k mi	147,140	29,428
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR263	108,315	2023	6yrs / 100k mi	135,394	27,079
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR153	107,104	2023	6yrs / 100k mi	133,880	26,776
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR261	104,988	2023	6yrs / 100k mi	131,235	26,247
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR268	103,129	2023	6yrs / 100k mi	128,911	25,782
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR152	102,434	2023	6yrs / 100k mi	128,043	25,609
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR269	98,351	2023	6yrs / 100k mi	122,939	24,588
2014	Ford E-450	Starcraft	Shuttle	Cutaway White Van	Para transit	14	CCR203	161,029	2021	7yrs / 150k mi	172,531	23,004
2014	Ford E-450	Starcraft	Shuttle	Cutaway White Van	Para transit	14	CCR197	153,589	2021	7yrs / 150k mi	164,560	21,941
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR272	93,844	2023	6yrs / 100k mi	140,766	23,461
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR262	93,515	2023	6yrs / 100k mi	140,273	23,379
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR275	93,036	2023	6yrs / 100k mi	139,554	23,259
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR266	92,234	2023	6yrs / 100k mi	138,351	23,059
2011	Ford E-350	Phoenix	Mini Bus	Cutaway Van White 21.5 Ft	COA	12	M88184	95,183	2017	6yrs / 100k mi	114,220	9,518
2011	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	COA	12	M88186		2017	6yrs / 100k mi		
2019	DODGE	CARAVAN	Van	Van 16.9 Ft	Taxi	3	LV99893		2025	6yrs / 100k mi		

2023 (cont.)

Veh Yr	Make	Model	Equip Type	Description of vehicle	Maint Class	Max Amb. Seating	License Plate Number	EOM Mileage	Original Retirement Year	Retirement Years / Miles	Mileage on replacement	Annual Miles
2019	DODGE	CARAVAN	Van	Van 16.9 Ft	Taxi	3	LV99883		2025	6yrs / 100k mi		
2019	Ford E-350	E3FX	Mini Bus	Cutaway Van White 21	Para transit	8	CCR497	27,075	2025	6yrs / 100k mi		
2019	DODGE	CARAVAN	Van	Van 16.9 Ft	Taxi	3	LV99949		2025	6yrs / 100k mi		
2019	DODGE	CARAVAN	Van	Van 16.9 Ft	Taxi	3	LV99863		2025	6yrs / 100k mi		
2019	DODGE	CARAVAN	Van	Van 16.9 Ft	Taxi	3	LV99873		2025	6yrs / 100k mi		
2019	DODGE	CARAVAN	Mini Van	Van 16.9 Ft	Para transit	3	CCR424	12,675	2025	6yrs / 100k mi		
2019	DODGE	CARAVAN	Mini Van	Van 16.9 Ft	Para transit	3	CCR421	15,647	2025	6yrs / 100k mi		

Replacement Vehicles FY23

Qty	Vehicle	Original Passenger Count	New Passenger Count	Unit Vehicle Cost	Vehicle Cost	Unit Infrastructure - Accessories and/or Charging Station	Accessory Cost	Total Expected Cost
8	Caravan	3	3	\$65,000	\$520,000	\$13,000	\$104,000	\$624,000
1	Small Cutaway	8	8	\$100,000	\$100,000	\$15,000	\$15,000	\$115,000
13	Small Cutaway	12	8	\$100,000	\$1,300,000	\$15,000	\$195,000	\$1,495,000
7	Midsize Cutaway	14	10	\$170,000	\$1,190,000	\$18,000	\$126,000	\$1,316,000
2	Administrative SUV	4	4	\$70,000	\$140,000	\$5,000	\$10,000	\$150,000
					\$3,250,000		\$450,000	\$3,700,000

2024

Veh Yr	Make	Model	Equip Type	Description of vehicle	Maint Class	Max Amb. Seating	License Plate Number	EOM Mileage	Original Retirement Year	Retirement Years / Miles	Mileage on replacement	Annual Miles
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR219	192,960	2023	7yrs / 150k mi	212,256	38,592
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR217	188,840	2023	7yrs / 150k mi	207,724	37,768
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR160	186,658	2023	7yrs / 150k mi	205,324	37,332
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR218	177,255	2023	7yrs / 150k mi	194,981	35,451
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR214	172,139	2023	7yrs / 150k mi	189,353	34,428
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR225	170,349	2023	7yrs / 150k mi	187,384	34,070
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR213	167,096	2023	7yrs / 150k mi	183,806	33,419
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR222	166,245	2023	7yrs / 150k mi	182,870	33,249
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR165	161,612	2023	7yrs / 150k mi	193,934	32,322
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR221	160,935	2023	7yrs / 150k mi	193,122	32,187
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR212	160,824	2023	7yrs / 150k mi	192,989	32,165
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR220	158,857	2023	7yrs / 150k mi	190,628	31,771
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR168	157,943	2023	7yrs / 150k mi	189,532	31,589
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR215	154,807	2023	7yrs / 150k mi	185,768	30,961
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR224	151,313	2023	7yrs / 150k mi	181,576	30,263
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR162	148,493	2023	7yrs / 150k mi	178,192	29,699
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR174	146,063	2023	7yrs / 150k mi	175,276	29,213
2016	Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR173	145,229	2023	7yrs / 150k mi	174,275	29,046
2017	Ford E-450	Phoenix	Mini Bus	Cutaway White Van	Para transit	15	CCR164	93,876	2024	7yrs / 150k mi	140,814	23,469
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR154	92,139	2023	6yrs / 100k mi	184,278	23,035
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR265	89,029	2023	6yrs / 100k mi	178,058	22,257
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR270	88,654	2023	6yrs / 100k mi	177,308	22,164

2024 (cont.) –

Replacement Vehicles FY24

Qty	Vehicle	Original Passenger Count	New Passenger Count	Unit Vehicle Cost	Vehicle Cost	Unit Infrastructure - Accessories and/or Charging Station	Accessory Cost	Total Expected Cost
3	Small Cutaway	12	8	\$110,000	\$330,000	\$16,000	\$48,000	\$378,000
9	Midsized Cutaway	15	12	\$210,000	\$1,890,000	\$22,000	\$198,000	\$2,088,000
18	Large Cutaway	17	14	\$290,000	\$5,220,000	\$28,000	\$504,000	\$5,724,000
1	Administrative SUV	4	4	\$65,000	\$65,000			\$65,000
					\$7,505,000		\$750,000	\$8,255,000

2025

Make	Model	Equip Type	Description of vehicle	Maint Class	Max Amb. Seating	License Plate Number	EOM Mileage	Original Retirement Year	Retirement Years / Miles	Mileage on replacement	Annual Miles
Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR172	141,901	2023	7yrs / 150k mi	198,661	28,380
Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR161	140,344	2023	7yrs / 150k mi	196,482	28,069
Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR167	139,634	2023	7yrs / 150k mi	195,488	27,927
Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR170	135,426	2023	7yrs / 150k mi	189,596	27,085
Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR158	135,206	2023	7yrs / 150k mi	189,288	27,041
Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR163	134,920	2023	7yrs / 150k mi	188,888	26,984
Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR159	134,651	2023	7yrs / 150k mi	188,511	26,930
Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR200	134,213	2023	7yrs / 150k mi	187,898	26,843
Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR166	133,132	2023	7yrs / 150k mi	186,385	26,626
Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR155	130,023	2023	7yrs / 150k mi	182,032	26,005
Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR259	129,767	2023	7yrs / 150k mi	181,674	25,953
Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR157	125,285	2023	7yrs / 150k mi	175,399	25,057
Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR156	123,318	2023	7yrs / 150k mi	172,645	24,664
Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR171	117,564	2023	7yrs / 150k mi	164,590	23,513
Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR175	117,520	2023	7yrs / 150k mi	188,032	23,504
Ford E-450	Elkhart Coach	Mini Bus	Cutaway White Van 26 Ft	Para transit	17	CCR169	113,624	2023	7yrs / 150k mi	181,798	22,725
Ford E-450	E4FF	Mini Bus	Cutaway White Van 26 Ft	Fixed	15	CCR491	79,497	2026	7yrs / 150k mi	238,491	39,749
Ford E-450	E4FF	Mini Bus	Cutaway White Van 26 Ft	Fixed	15	CCR490	85,100	2026	7yrs / 150k mi	255,300	42,550
Ford E-450	E4FF	Mini Bus	Cutaway White Van 26 Ft	Fixed	15	CCR489	82,501	2026	7yrs / 150k mi	247,503	41,251

2025 (cont.).

Veh Yr	Make	Model	Equip Type	Description of vehicle	Maint Class	Max Amb. Seating	License Plate Number	EOM Mileage	Original Retirement Year	Retirement Years / Miles	Mileage on replacement	Annual Miles
2019	Ford E-450	E4FF	Mini Bus	Cutaway White Van 26 Ft	Fixed	15	CCR488	78,797	2026	7yrs / 150k mi	236,391	39,399
2019	Ford E-450	E4FF	Mini Bus	Cutaway White Van 26 Ft	Fixed	15	CCR487	84,246	2026	7yrs / 150k mi	252,738	42,123
2019	Ford E-450	E4FF	Mini Bus	Cutaway White Van 26 Ft	Fixed	15	CCR482	75,710	2026	7yrs / 150k mi	227,130	37,855
2019	Ford E-450	E4FF	Mini Bus	Cutaway White Van 26 Ft	Fixed	15	CCR483	78,074	2026	7yrs / 150k mi	234,222	39,037
2019	Ford E-450	E4FF	Mini Bus	Cutaway White Van 26 Ft	Fixed	15	CCR484	75,504	2026	7yrs / 150k mi	226,512	37,752
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR267	87,132	2023	6yrs / 100k mi	196,047	21,783
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR274	86,631	2023	6yrs / 100k mi	194,920	21,658
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR151	82,158	2023	6yrs / 100k mi	184,856	20,540
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR273	81,508	2023	6yrs / 100k mi	183,393	20,377
2017	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	Para transit	12	CCR264	74,318	2023	6yrs / 100k mi	167,216	18,580

Replacement Vehicles FY25

Qty	Vehicle	Original Passenger Count	New Passenger Count	Unit Vehicle Cost	Vehicle Cost	Unit Infrastructure - Accessories and/or Charging Station	Accessory Cost	Total Expected Cost
16	Large Cutaway	17	14	\$290,000	\$4,640,000	\$28,000	\$448,000	\$5,088,000
8	Large Cutaway	15	12	\$220,000	\$1,760,000	\$23,000	\$184,000	\$1,944,000
5	Small Cutaway	12	8	\$115,000	\$575,000	\$17,000	\$85,000	\$660,000
					\$6,975,000		\$717,000	\$7,692,000

2026

Veh Yr	Make	Model	Equip Type	Description of vehicle	Maint Class	Max Amb. Seating	License Plate Number	EOM Mileage	Original Retirement Year	Retirement Years / Miles	Mileage on replacement	Annual Miles
2017	DODGE	GRACAR	SUV	Van	COA	3	M2743A		2023	6yrs / 100k mi		
2019	DODGE	CARAVAN	Mini Van	Van 16.9 Ft	Para transit	5	CCR486	29,321	2025	6yrs / 100k mi	102,624	14,661
2019	DODGE	CARAVAN	Mini Van	Van 16.9 Ft	Para transit	5	CCR485	28,970	2025	6yrs / 100k mi	101,395	14,485
2019	DODGE	CARAVAN	Mini Van	Van 16.9 Ft	Para transit	5	CCR425	28,033	2025	6yrs / 100k mi	98,116	14,017
2020	Ram 3500	Promaster	Mini Bus	Cutaway White Van 23 Ft	Para transit	14	CCR568	231	2027	7yrs / 150k mi		
2020	Ram 3500	Promaster	Mini Bus	Cutaway White Van 23 Ft	Para transit	14	CCR567	230	2027	7yrs / 150k mi		
2020	Ram 3500	Promaster	Mini Bus	Cutaway White Van 23 Ft	Para transit	14	CCR563	20	2027	7yrs / 150k mi		
2019	Ford E-450	Econoline / E4FF	Mini Bus	Cutaway White Van 26 Ft	Para transit	16	CCR492	69,347	2026	7yrs / 150k mi	242,715	34,674
2020	CHEVROLET	EXPRESS G4500	Mini Bus	Arboc White Van 28 Ft	Fixed	17	CCR570	34,753	2027	7yrs / 150k mi	208,518	34,753
2020	CHEVROLET	EXPRESS G4500	Mini Bus	Arboc White Van 28 Ft	Fixed	17	CCR572	33,994	2027	7yrs / 150k mi	203,964	33,994
2020	CHEVROLET	EXPRESS G4500	Mini Bus	Arboc White Van 28 Ft	Fixed	17	CCR571	30,074	2027	7yrs / 150k mi	180,444	30,074
2020	CHEVROLET	EXPRESS G4500	Mini Bus	Arboc White Van 28 Ft	Fixed	17	CCR417	30,767	2027	7yrs / 150k mi	184,602	30,767
2020	CHEVROLET	EXPRESS G4500	Mini Bus	Arboc White Van 28 Ft	Fixed	17	CCR418	31,723	2027	7yrs / 150k mi	190,338	31,723
2020	CHEVROLET	EXPRESS G4500	Mini Bus	Arboc White Van 28 Ft	Fixed	17	CCR419	31,538	2027	7yrs / 150k mi	189,228	31,538
2021	Ford E-350	E3FX	Mini Bus	Cutaway Van White 21	Para transit	8	CCR574	4,975	2026	6yrs / 100k mi		
2021	Ford E-450	Econoline / E4FF	Mini Bus	Cutaway White Van 26 Ft	Para transit	16	CCR573	12,299	2028	7yrs / 150k mi		
2021	Ford E-450	Econoline / E4FF	Mini Bus	Cutaway White Van 26 Ft	Para transit	16	CCR575	22,311	2028	7yrs / 150k mi		

2026 (cont.)

Replacement Vehicles FY26

Qty	Vehicle	Original Passenger Count	New Passenger Count	Unit Vehicle Cost	Vehicle Cost	Unit Infrastructure - Accessories and/or Charging Station	Accessory Cost	Total Expected Cost
3	Caravan	5	6	\$65,000	\$195,000	\$3,250	\$9,750	\$204,750
1	Caravan	3	3	\$65,000	\$65,000	\$3,250	\$3,250	\$68,250
3	Midsize Cutaway	14	10	\$170,000	\$510,000	\$18,000	\$54,000	\$564,000
3	Large Cutaway	16	14	\$295,000	\$885,000	\$28,000	\$84,000	\$969,000
6	Large Cutaway	17	14	\$295,000	\$1,770,000	\$28,000	\$168,000	\$1,938,000
					\$3,425,000		\$319,000	\$3,744,000

2027

Veh Yr	Make	Model	Equip Type	Description of vehicle	Maint Class	Max Amb. Seating	License Plate Number	EOM Mileage	Original Retirement Year	Retirement Years / Miles	Mileage on replacement	Annual Miles
2019	DODGE	CARAVAN	Mini Van	Van 16.9 Ft	COA	3	M4239A		2025	6yrs / 100k mi		
2019	DODGE	CARAVAN	Mini Van	Van 16.9 Ft	COA	3	M4236A		2025	6yrs / 100k mi		
2019	DODGE	CARAVAN	Mini Van	Van 16.9 Ft	COA	3	M4070A		2025	6yrs / 100k mi		
2019	DODGE	CARAVAN	Mini Van	Van 16.9 Ft	COA	3	M4237A		2025	6yrs / 100k mi		
2019	DODGE	CARAVAN	Van	Van 16.9 Ft	COA	3	M8523A		2025	6yrs / 100k mi		
2018	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	COA	8	M2735A		2024	6yrs / 100k mi		
2018	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	COA	13	M2744A		2024	6yrs / 100k mi		
2018	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	COA	13	M1737A		2024	6yrs / 100k mi		
2018	Ford E-350	Phoenix	Mini Bus	Cutaway Van White 21.5 Ft	COA	13	M2737A		2024	6yrs / 100k mi		
2018	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	COA	13	M2738A		2024	6yrs / 100k mi		
2019	Ford E-350	E3FC	Mini Bus	Cutaway Van White	COA	13	M4229A		2025	6yrs / 100k mi		
2019	Ford E-350	E3FC	Mini Bus	Cutaway Van White	COA	13	M4233A		2025	6yrs / 100k mi		
2018	Ford E-450	Phoenix	Mini Bus	Cutaway White Van 26 Ft	COA	15	M2750A		2024	7yrs / 150k mi		
2018	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	COA	8	M2736A		2024	6yrs / 100k mi		
2018	Ford E-350	Phoenix	Mini Bus	Cutaway Van White	COA	8	M2727A		2024	6yrs / 100k mi		
2019	Ford E-350	E3FX	Mini Bus	Cutaway Van White	COA	8	M83204		2025	6yrs / 100k mi		
2019	Ford E-350	E3FX	Mini Bus	Cutaway Van White	COA	8	M6922A		2025	6yrs / 100k mi		
2019	Ford E-350	E3FC	Mini Bus	Cutaway Van White	COA	13	M3805A		2025	6yrs / 100k mi		
2019	Ford E-350	E3FC	Mini Bus	Cutaway Van White	COA	13	M4248A		2025	6yrs / 100k mi		
2019	Ford E-350	E3FC	Mini Bus	Cutaway Van White	COA	13	M4007A		2025	6yrs / 100k mi		
2019	Ford E-350	E3FC	Mini Bus	Cutaway Van White	COA	13	M4235A		2025	6yrs / 100k mi		

2027 (cont.)

Replacement Vehicles FY27

Qty	Vehicle	Original Passenger Count	New Passenger Count	Unit Vehicle Cost	Vehicle Cost	Unit Infrastructure - Accessories and/or Charging Station	Accessory Cost	Total Expected Cost
5	Caravan	3	3	\$72,000	\$360,000	\$2,500	\$12,500	\$372,500
5	Small Cutaway	8	8	\$125,000	\$625,000	\$19,000	\$95,000	\$720,000
10	Small Cutaway	13	8	\$125,000	\$1,250,000	\$19,000	\$190,000	\$1,440,000
1	Large Cutaway	15	12	\$230,000	\$230,000	\$26,000	\$26,000	\$256,000
3	Caravan (Spares)	3	3	\$72,000	\$216,000	\$15,000	\$45,000	\$261,000
3	Small Cutaway (Spares)	12	8	\$125,000	\$375,000	\$19,000	\$57,000	\$432,000
5	Gillig Electric	33	28	\$960,000	\$4,800,000	\$26,000	\$130,000	\$4,930,000
					\$7,856,000		\$555,500	\$8,411,500

This will complete the purchase of all non-Gillig transit vehicles operated by the CCRTA to an electric equivalent. In addition, this will start the process of retiring “non-electric” spare vehicles and replacing our spare vehicles with electric as well.

The first five Gillig Electric buses are included in FY27 to start the migration of the larger buses. It is important to reiterate the point made throughout this document; if the technology does not support the mileage needed for the routes on Cape Cod, alternatives will be considered as an interim step.

This plan does not make any recommendations for the replacement of trolleys. These vehicles are too new to have an accurate estimate of when they will require replacement and the seasonal nature of their use makes it unlikely that they will ever be replaced because of high mileage.

Further this plan only shows those vehicles being replaced. There will be retirement of five taxis from the fleet immediately as these were exclusively used for the transportation of HST clients. Also, we expect a reduction in our cutaway fleet of an additional five vehicles or more as we right size to reflect the realities of the decrease in HST transportation.

Gillig Schedule

The following report is attached for informational purposes only. At this time, we intend to begin to replace our Gillig buses with the first five replacements in 2027. This will be evaluated in the years prior to that to see if this is realistic. There are four Gillig buses (the 2010 buses at the top of the list) that would have been scheduled for a mid-life overhaul immediately, but our disappointment in the quality of previous overhauls has led us to propose that these vehicles only be repaired as necessary and that work be largely done in house. Major component replacement such as engines, transmissions, and differentials may require the assistance of outside vendors but this will be assessed and acted on when needed.

You will notice that twelve vehicles purchased in 2006 have mileage in excess of 700,000. These vehicles previously received mid-life overhauls in the 550,000 mile range and are good for up to 1,000,000 miles. At that time they would have received new engines and transmissions and are currently in overall “very good” condition.

Although not specific to the existing Gillig fleet, future large bus purchases from whomever the electric bus vendor is chosen to be will reflect a smaller size if available. This is driven by ridership but also from road capacity on some of our routes. Battery buses weigh significantly more than our existing fleet buses due to the battery capacity and weight limits on at least one of our bridges (Mashpee) would exceed capacity. All of these considerations will have to be taken in when choosing the next bus vendor and the replacement options.

Gillig Fleet

Veh Yr	Make	Model	Equip Type	Description of vehicle	Maint Class	Max Amb. Seating	EOM Mileage	Original Retirement Year	Retirement Years / Miles
2010	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	30	530,289	2022	12yrs / 500k mi
2010	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	30	547,646	2022	12yrs / 500k mi
2010	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	30	527,899	2022	12yrs / 500k mi
2010	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	30	527,914	2022	12yrs / 500k mi
2006	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	25	720,509	2024	18yrs / 800k mi
2006	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	25	740,752	2024	18yrs / 800k mi
2006	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	25	747,383	2024	18yrs / 800k mi
2006	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	25	730,850	2024	18yrs / 800k mi
2006	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	25	739,630	2024	18yrs / 800k mi
2006	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	25	705,668	2024	18yrs / 800k mi
2006	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	25	738,021	2024	18yrs / 800k mi
2006	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	25	715,422	2024	18yrs / 800k mi
2006	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	25	728,273	2024	18yrs / 800k mi
2006	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	25	759,223	2024	18yrs / 800k mi
2006	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	25	770,548	2024	18yrs / 800k mi
2006	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	25	757,622	2024	18yrs / 800k mi
2013	Gillig	Low Floor	Bus	Rear Engine 29 Ft	Fixed	30	357,099	2025	12yrs / 500k mi
2013	Gillig	Low Floor	Bus	Rear Engine 29 Ft..	Fixed	30	338,152	2025	12yrs / 500k mi
2013	Gillig	Low Floor	Bus	Rear Engine 29 Ft..	Fixed	30	362,152	2025	12yrs / 500k mi
2008	Gillig	Low Floor	Bus	Rear Engine Flat Front White 35 Ft	Fixed	35	548,705	2026	18yrs / 800k mi

Veh Yr	Make	Model	Equip Type	Description of vehicle	Maint Class	Max Amb. Seating	EOM Mileage	Original Retirement Year	Retirement Years / Miles
2008	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	30	591,700	2026	18yrs / 800k mi
2008	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	30	603,228	2026	18yrs / 800k mi
2008	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	30	650,347	2026	18yrs / 800k mi
2008	Gillig	Low Floor	Bus	Rear Engine Flat Front White 29 Ft	Fixed	30	635,883	2026	18yrs / 800k mi
2008	Gillig	Low Floor	Bus	Rear Engine Flat Front White 35 Ft	Fixed	35	516,063	2026	18yrs / 800k mi
2008	Gillig	Low Floor	Bus	Rear Engine Flat Front White 35 Ft	Fixed	35	527,040	2026	18yrs / 800k mi
2018	Gillig	Low Floor	Bus	Rear Engine 29 Ft	Fixed	28	153,022	2030	12yrs / 500k mi
2018	Gillig	Low Floor	Bus	Rear Engine 29 Ft	Fixed	28	147,683	2030	12yrs / 500k mi
2018	Gillig	Low Floor	Bus	Rear Engine 29 Ft..	Fixed	28	160,847	2030	12yrs / 500k mi
2019	Gillig	G27E Low Floor	Bus	Rear Engine 29 Ft	Fixed	28	127,538	2031	12yrs / 500k mi
2019	Gillig	G27E Low Floor	Bus	Rear Engine 29 Ft	Fixed	28	133,385	2031	12yrs / 500k mi
2019	Gillig	G27E Low Floor	Bus	Rear Engine 29 Ft	Fixed	28	127,213	2031	12yrs / 500k mi
2019	Gillig	G27B Low Floor	Bus	Rear Engine 35 Ft	Fixed	33	69,723	2031	12yrs / 500k mi
2019	Gillig	G27B Low Floor	Bus	Rear Engine 35 Ft	Fixed	33	53,272	2031	12yrs / 500k mi
2019	Gillig	G27B Low Floor	Bus	Rear Engine 35 Ft	Fixed	33	64,232	2031	12yrs / 500k mi
2021	Gillig	Low Floor	Bus	Rear Engine 35 Ft	Fixed	33	41,264	2033	12yrs / 500k mi
2021	Gillig	Low Floor	Bus	Rear Engine 35 Ft	Fixed	33	40,855	2033	12yrs / 500k mi
2021	Gillig	Low Floor	Bus	Rear Engine 35 Ft	Fixed	33	40,325	2033	12yrs / 500k mi