Delaware River and Bay Authority



2022 Capital Improvement Program and Five Year (2022-2026) Strategic Plan

December 2021

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Introduction

The DRBA has an extensive network of structures and facilities designed to provide the public with safe and efficient means of transportation as well as providing economic development and opportunities in the region. This transportation network includes the Delaware Memorial Bridge (DMB), the Cape May-Lewes Ferry (CMLF), and the Forts Ferry (FF). The Authority also operates and maintains through the auspices of long-term leases with a municipality, county or the state, five (5) Airport facilities in Delaware and New Jersey. These facilities include New Castle Airport, Delaware Airpark and Civil Air Terminal in Delaware and Millville and Cape May Airports in New Jersey.

The DRBA has developed five goals in support of its mission against which Capital projects are evaluated. These goals include:

- <u>Asset Preservation</u> The responsible stewardship of critical regional infrastructure through the preservation of the asset. Preservation of the asset is necessary to retain its existing value and maximize its useful life.
- <u>Efficiency and Sustainability</u> Increase operating efficiencies through the construction of sustainable infrastructure utilizing best available technologies and management practices.
- Safety Maintain or enhance safe and reliable infrastructure for our customers.
- Security Enhance the security of critical regional infrastructure in coordination with regional security agencies.
- <u>Economic Development</u> Support revenue producing growth through controlled investment in economic development opportunities.

Capital improvement projects generally occur in phases over multiple years. This Strategic Plan serves as a planning tool for directing resources to address the goals over the next five years to consistently maintain and enhance the Authority's facilities and address the increasing demands associated with an aging infrastructure. Implementation of this Strategic Plan will assure the public continues to enjoy quality transportation services in a safe and efficient manner as well as intelligently maintain and enhance facilities as necessary.

Included in the following pages are the identified multi-year capital improvement projects organized by asset class (DMB, CMLF, FF and each of the five Airports). Within each asset class, individual projects are further organized into the following classifications:

- <u>Continuing Projects</u> Projects which were previously authorized in the Capital Improvement Program, which are scheduled to continue in 2021.
- Annual Projects which require yearly authorization to continue.
- New Projects Projects which have not been authorized in a prior Capital Improvement Program and are seeking authorization in 2021.
- Out Year Projects Projects which will be seeking authorization in a future Capital Improvement program.

Airport projects which are contributed to by the Federal Aviation Administration are subject to grant approval and funding allocation.

This information, provided in tabular format, identifies the financial resources for each project. Descriptions for each project follow the tables and are keyed to the table by the project's rank number (projects are ranked in order of priority by the Authority, with a total of 102 projects). The Capital Improvement Program budget for 2022 is shown as the highlighted column within the table.

2022 Capital Improvement Program - \$151,158,000 Authority and External Funds

Capital Asset			2022		
CONTINUING PROJECTS	<u>DRBA</u>		<u>External</u>		<u>Total</u>
Delaware Memorial Bridge	\$ 56,379,000	\$	8,857,000	\$	65,236,000
Cape May-Lewes Ferry	\$ 13,852,000	\$	2,425,000	\$	16,277,000
Forts Ferry	-		-		-
New Castle Airport	\$ 1,297,000	\$	3,088,000	\$	4,385,000
Millville Airport	\$ 700,000	\$	295,000	\$	995,000
Cape May Airport	\$ 7,761,000	\$	3,780,000	\$	11,541,000
Delaware Air Park	\$ 47,000	\$	2,330,000	\$	2,377,000
Civil Air Terminal	-		-		-
Subtotal	\$ 80,036,000	\$	20,775,000	\$	100,811,000
ANNUAL PROJECTS					
Delaware Memorial Bridge	\$ 20,896,000		-	\$	20,896,000
Cape May-Lewes Ferry	\$ 10,779,000		-	\$	10,779,000
Forts Ferry	\$ 30,000		-	\$	30,000
New Castle Airport	\$ 2,606,000		-	\$	2,606,000
Millville Airport	\$ 2,473,000	\$	12,000	\$	2,485,000
Cape May Airport	\$ 525,000		-	\$ \$	525,000
Delaware Air Park	\$ 475,000		-		475,000
Civil Air Terminal	\$ 185,000		-	\$	185,000
Subtotal	\$ 37,969,000	\$	12,000	\$	37,981,000
NEW PROJECTS					
Delaware Memorial Bridge	\$ 555,000		-	\$	555,000
Cape May-Lewes Ferry	\$ 3,011,000	\$	3,520,000	\$	6,531,000
Forts Ferry	-	\$	-	\$	-
New Castle Airport	\$ 2,190,000		-	\$	2,190,000
Millville Airport	\$ 850,000	\$	-	\$	850,000
Cape May Airport	\$ 1,740,000		-	\$	1,740,000
Delaware Air Park	\$ 500,000	\$	-	\$	500,000
Civil Air Terminal	-		=	\$	-
Subtotal	\$ 8,846,000	\$	3,520,000	\$	12,366,000
Grand Total All Projects	\$ 126,851,000	\$	24,307,000	\$	151,158,000

Authority-Wide Five Year (2022-2026) Strategic CIP Summary Authority Funds Only

Capital Asset		2022		2023		2024		2025		2026
CONTINUING PROJECTS										
Delaware Memorial Bridge	\$	56,379,000	\$	74,302,000	\$	32,252,000	\$	17,746,000	\$	1,750,000
Cape May-Lewes Ferry	\$	13,852,000	\$	11,085,000	\$	12,400,000	\$	44,500,000	\$	1,500,000
Forts Ferry	\$	-	\$	-	\$	-	\$	-	\$	-
New Castle Airport	\$	1,297,000	\$	963,000	\$	25,000	\$	-	\$	-
Millville Airport	\$	700,000	\$	515,000	\$	473,000	\$	514,000	\$	29,000
Cape May Airport	\$	7,761,000	\$	2,075,000	\$	300,000	\$	-	\$	-
Delaware Air Park	\$	47,000	\$	25,000	\$	33,000	\$	26,000	\$	-
Civil Air Terminal	\$	-	\$	-	\$	-	\$	-	\$	-
Subto	otal \$	80,036,000	\$	88,965,000	\$	45,483,000	\$	62,786,000	\$	3,279,000
ANNUAL PROJECTS										
Delaware Memorial Bridge	\$	20,896,000	\$	18,556,000	\$	20,515,000	\$	21,433,000	\$	19,466,000
Cape May-Lewes Ferry	\$	10,779,000	\$	13,055,000	\$	6,776,000	\$	11,100,000	\$	13,985,000
Forts Ferry	\$	30,000	\$	20,000	ب \$	20,000	ب \$	20,000	۶ \$	20,000
New Castle Airport	\$	2,606,000	\$	1,218,000	\$	1,370,000	\$	2,230,000	\$	4,480,000
Millville Airport	\$	2,473,000	\$	825,000	\$	825,000	\$	840,000	\$	875,000
Cape May Airport	\$	525,000	\$	555,000	ب \$	625,000	ب \$	620,000	\$	500,000
Delaware Air Park	\$	475,000	\$	405,000	\$	400,000	ب \$	420,000	\$	400,000
Civil Air Terminal	\$		\$		\$	400,000	\$	=	\$	400,000
	otal \$	185,000 37,969,000	\$	5,000 34,639,000	\$	30,531,000	\$	20,000 36,683,000	\$	39,726,000
NEW PROJECTS										
Delaware Memorial Bridge	\$	555,000	\$	425,000	\$	-	\$	-	\$	-
Cape May-Lewes Ferry	\$	3,011,000	\$	2,060,000	\$	5,000,000	\$	-	\$	-
Forts Ferry	\$	-	\$	-	\$	-	\$	-	\$	-
New Castle Airport	\$	2,190,000	\$	6,415,000	\$	-	\$	175,000	\$	-
Millville Airport	\$	850,000	\$	1,800,000	\$	1,500,000	\$	-	\$	-
Cape May Airport	\$	1,740,000	\$	2,035,000	\$	1,500,000	\$	340,000	\$	340,000
Delaware Air Park	\$	500,000	\$	-	\$	-	\$	530,000	\$	75,000
Civil Air Terminal	\$	-	\$	-	\$	-	\$	-	\$	-
Subto	otal \$	8,846,000	\$	12,735,000	\$	8,000,000	\$	1,045,000	\$	415,000
OUT-YEAR PROJECTS										
Delaware Memorial Bridge	\$	-	\$	2,650,000	\$	6,350,000	\$	4,000,000	\$	-
Cape May-Lewes Ferry	\$	_	\$	_,,	\$	5,700,000	\$	2,500,000	\$	_
Forts Ferry	\$	_	\$	_	\$	-	\$	-	\$	_
New Castle Airport	\$	_	\$	502,000	\$	53,000	\$	21,000	\$	12,000
Millville Airport	\$		\$	125,000	\$	1,550,000	\$	-	\$	21,000
Cape May Airport	\$	_	\$	331,000	\$	31,000	\$	100,000	\$	71,000
Delaware Air Park	\$		\$	-	\$	800,000	\$	-	Ś	
Civil Air Terminal	\$	- -	\$	_	\$	-	ب \$	_	\$	_
Subto			\$	3,608,000	\$	14,484,000	\$	6,621,000	\$	104,000
Grand Total All Proje		126,851,000	\$	139,947,000	\$	98,498,000	\$	107,135,000	\$	43,524,000
Granu rotal All Proje	cus >	120,031,000	ڔ	133,347,000	ڔ	20,420,000	ڔ	107,133,000	ڔ	43,324,000

Delaware Memorial Bridge - Continuing Projects

Crossings Strategic Capital Improvement Plan

					Exte	rnal Funding	<u>-</u>		·	·	Exte	rnal Funding	<u>-</u>	Exteri	nal Funding	_		E	xternal
Ranking	Project	202	1 \$ Spent (EST.)	2022		2022	2023	Exte	rnal Funding 2023	2024		2024	2025		2025		2026	Fun	ding 2026
	Continuing Projects																		
3	Cable Preservation System Retainage	\$	-	\$ 1,000,000	\$	-	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
12	Toll Booth HVAC Replacement	\$	75,000	\$ 350,000	\$	-	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
15	Replace Chillers in Administration Building Phase 2	\$	170,000	\$ 100,000	\$	-	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
16	Roadway LED Lighting Upgrades	\$	500,000	\$ 50,000	\$	-	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
18	Facility Utility Survey (DMB)	\$	290,000	\$ 50,000	\$	-	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
21	Deck UHPC Overlay	\$	2,000,000	\$ 18,800,000	\$	-	\$ 50,500,000	\$	-	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
22	Deck Repairs	\$	1,155,000	\$ 650,000	\$	-	\$ 650,000	\$	-	\$ 750,000	\$	-	\$ 750,000	\$	-	\$	750,000	\$	-
28	Ship Collision Protection	\$	280,000	\$ 29,650,000	\$	8,857,000	\$ 18,907,000	\$	5,647,000	\$ 18,907,000	\$ 5	5,647,000	\$ 4,726,000	\$1,	,412,000	\$	-	\$	-
30A	Roof and Building Envelope Rehabilitation (DMB)	\$	160,000	\$ 1,149,000	\$	-	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
34	Bridge Worker Fall Protection	\$	100,000	\$ 1,730,000	\$	-	\$ 1,270,000	\$	-	\$ 1,270,000	\$	-	\$ 1,270,000	\$	-	\$	-	\$	-
35	Miscellaneous Roadway Improvements	\$	4,355,000	\$ 1,000,000	\$	-	\$ 1,000,000	\$	-	\$ 1,000,000	\$	-	\$ 1,000,000	\$	-	\$	1,000,000	\$	-
44	Fall Prevention Fencing	\$	-	\$ 1,000,000	\$	-	\$ 1,000,000	\$	-	\$ 10,000,000	\$	-	\$ 10,000,000	\$	-	\$	-	\$	-
45	Gantry Lane Markers	\$	60,000	\$ 300,000	\$	-	\$ 300,000	\$	-	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
59	Julia Building Cooling Tower Replacement	\$	40,000	\$ 400,000	\$	-	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
71	Emergency Lighting for the Anchorages-Towers	\$	-	\$ 50,000	\$	-	\$ 325,000	\$	-	\$ 325,000	\$	-	\$ -	\$	-	\$	-	\$	-
77	Fitness Center Renovations (DMB)	\$	-	\$ 100,000	\$	-	\$ 350,000	\$	-	\$ -	\$	-	\$ -	\$	-	\$	-	\$	-
	Grand Total	\$	9,185,000	\$ 56,379,000	\$	8,857,000	\$ 74,302,000	\$	5,647,000	\$ 32,252,000	\$!	5,647,000	\$ 17,746,000	\$ 1,	,412,000	\$	1,750,000	\$	-

3 Cable Preservation System Retainage - Asset Preservation

As a result of the cable investigation effort it was determined that preventive measures are necessary to maintain the service life and capacity of the Delaware Memorial Bridge structures. The project installed a dehumidification system to preserve the main suspension cables in 2018 and maintains an active maintenance and monitoring program as part of the contract. This project has an estimated DRBA cost of \$1,000,000 in 2022. This effort has an anticipated annual maintenance and monitoring cost of \$130,000.

12 Toll Booth HVAC Replacement - Asset Preservation

The HVAC units for the Tolls building are at the end of their service life and operate on obsolete R-22 refrigerant, which is being phased out by the EPA. The project will begin the process of replacement with high efficiency units that operate on modern, environmentally-friendly refrigerant. This project has an estimated DRBA cost of \$350,000 in 2022. This effort has no anticipated annual operating cost impact.

15 Replace Chillers in Administration Building Phase 2 - Efficiency and Sustainability

Several existing HVAC chiller units are at the end of their service life and operate on obsolete R-22 refrigerant, which is being phased out by the EPA. The project will begin the process of replacement with high efficiency units that operate on modern, environmentally-friendly refrigerant. This project has an estimated DRBA cost of \$100,000 in 2022. This effort has no anticipated annual operating cost impact.

16 Roadway LED Lighting Upgrades - Efficiency and Sustainability

This is a continuation of an existing program to replace all existing high pressure sodium roadway lights with new, modern, longer lasting, and more efficient LED fixtures. The effort will continue for two more years to complete the Delaware approach roads. This project has an estimated DRBA cost of \$50,000 in 2022. This effort has no anticipated annual operating cost impact.

Delaware Memorial Bridge - Continuing Projects

18 Facility Utility Survey (DMB) - Efficiency and Sustainability

Utility records and location services are not provided by the local utility companies for the majority of the Authority's properties and historical records are difficult to track without a common GIS platform. The project programs a field utility survey to include preliminary development of a GIS platform to record this data and track future changes. This project has an estimated DRBA cost of \$50,000 in 2022. This effort has no anticipated annual operating cost impact.

21 Deck UHPC Overlay - Asset Preservation

The deck of the 1st Structure, I-295N, has reached the end of its serviceable life. As a result of extensive evaluation a deck repair project has been recommended. The project includes removal of the top 2" of the existing deck slabs and replacement with an Ultra High Performance Concrete (UHPC) overlay. This project has an estimated DRBA cost of \$18,800,000 in 2022 and \$50,500,000 in the out years. This effort has no anticipated annual operating cost impact.

22 <u>Deck Repairs - Safety</u>

Both structures exhibit annual deck cracking and delamination as well as potholes due to age and heavy truck volumes. The project includes large lane-width concrete repairs to the bridge deck to maintain an appropriate level of service. This project has an estimated DRBA cost of \$650,000 in 2022 and \$2,900,000 in the out years. This effort has no anticipated annual operating cost impact.

28 **Ship Collision Protection - Safety**

The existing tower fender system on the twin spans provides insufficient protection for current vessel traffic. This project provides a protection system meeting current standards and consists of eight 80 foot diameter dolphin structures, two at the approach of each tower pier. This project has an estimated DRBA cost of \$29,650,000 in 2022 and \$42,540,000 in the out years. The project is partially funded in the amount of approximately \$21,563,000 by the US Department of Transportation. This effort has no anticipated annual operating cost impact.

30A Roof and Building Envelope Rehabilitation (DMB) - Asset Preservation

The Authority is still in the early stages of a healthy roof management program having over 150 roof systems throughout its facilities. Each year, annual inspections and capital investments are strategically placed to provide a 30-year solution to establish a consistent and manageable replacement plan in the future. This project has an estimated DRBA cost of \$1,149,000 in 2022. This effort has no anticipated annual operating cost impact.

34 Bridge Worker Fall Protection - Safety

The catwalks under the bridges are original to the Delaware Memorial Bridges and are not up to current safety standards. The project programs the installation of lifelines throughout the catwalk system for proper fall protection. This project has an estimated DRBA cost of \$1,730,000 in 2022 and \$3,810,000 in the out years. This effort has no anticipated annual operating cost impact.

35 Miscellaneous Roadway Improvements - Asset Preservation

Portions of the hot mix pavement in the northbound direction are 12 or more years old, certain drainage structures are failing, and much of the highway screen fencing is showing signs of distress. The project will address these miscellaneous infrastructure needs over a three-year period. This project has an estimated DRBA cost of \$1,000,000 in 2022 and \$4,000,000 in the out years. This effort has no anticipated annual operating cost impact.

44 Fall Prevention Fencing - Safety

The project aims to install anti-climb mesh fencing along both spans of the Delaware Memorial Bridges. This project has an estimated DRBA cost of \$1,000,000 in 2022 and \$21,000,000 in the out years. This effort has no anticipated annual operating cost impact.

Delaware Memorial Bridge - Continuing Projects

45 Gantry Lane Markers - Efficiency and Sustainability

The existing gantry mounted lane status signals on each span are comprised of a series of LED lights. These lights are nearing the end of their anticipated life cycle (10 years). Each lane signal consists of 50 individual LED lights. The project programs the replacement of the 4,000 LED lights over a three year period. This project has an estimated DRBA cost of \$300,000 in 2022 and \$300,000 in the out years. This effort has no anticipated annual operating cost impact.

59 <u>Julia Building Cooling Tower Replacement - Efficiency and Sustainability</u>

Several existing HVAC chiller units are at the end of their service life and operate on obsolete R-22 refrigerant, which is being phased out by the EPA. The project will begin the process of replacement with high efficiency units that operate on modern, environmentally-friendly refrigerant. This project has an estimated DRBA cost of \$400,000 in 2022. This effort has no anticipated annual operating cost impact.

71 Emergency Lighting for the Anchorages-Towers - Safety

There is a need for emergency pathway lighting in the towers and anchorages of the Delaware Memorial Bridge. The project programs the assessment, design, and installation of emergency lighting systems for these areas. This project has an estimated DRBA cost of \$50,000 in 2022 and \$650,000 in the out years. This effort has no anticipated annual operating cost impact.

77 Fitness Center Renovations (DMB) - Efficiency and Sustainability

The fitness center holds obsolete equipment and unused space. The purpose of this project is to renovate the area to effectively use the room and upgrade the equipment. This project has an estimated DRBA cost of \$100,000 in 2022 and \$350,000 in the out years. This effort has no anticipated annual operating cost impact.

Delaware Memorial Bridge - Annual Projects

Crossings Strategic Capital Improvement Plan

Ranking	Project	2022	External Funding 202	22	2023	external		2024	cternal ding 2024	2025	External Funding 20		2026	ernal ing 2026
	Annual Projects													
1	Annual Bridge Steelwork Repairs	\$ 7,100,000	\$	-	\$ 7,000,000	\$ -	Ş	12,000,000	\$ -	\$ 12,000,000	\$	-	\$ 11,000,000	\$ -
8	Annual Maintenance Bridge Span Painting	\$ 8,738,000	\$	-	\$ 8,514,000	\$ -	,	6,068,000	\$ -	\$ 6,068,000	\$	-	\$ 6,366,000	\$ -
29A	Annual Minor Capital Maintenance (DMB)	\$ 1,189,000	\$	-	\$ 1,200,000	\$ -	,	1,200,000	\$ -	\$ 1,200,000	\$	-	\$ 1,200,000	\$ -
31A	Annual Minor Capital Equipment (DMB)	\$ 729,000	\$	-	\$ 938,000	\$ -	Ş	827,000	\$ -	\$ 700,000	\$	-	\$ 900,000	\$ -
32A	Annual Automation/Telecom Upgrades (DMB)	\$ 3,140,000	\$	-	\$ 904,000	\$ -	Ş	420,000	\$ -	\$ 1,465,000	\$	-	\$ -	\$ -
	Grand Total	\$ 20,896,000	\$	-	\$ 18,556,000	\$ -	Ş	20,515,000	\$ -	\$ 21,433,000	\$	-	\$ 19,466,000	\$ -

1 Annual Bridge Steelwork Repairs - Asset Preservation

This project programs miscellaneous steelwork repairs found to be necessary as a result of comprehensive annual inspections. These repairs are necessary to preserve the bridge's steelwork while maintaining safety and operational service levels. Work typically includes replacement of worn bearing assemblies, access platforms, maintenance of steel connections, installing new safety features, and other items. This project has an estimated DRBA cost of \$7,100,000 in 2022 and \$42,000,000 in the out years.

8 Annual Maintenance Bridge Span Painting - Asset Preservation

The annual bridge inspection report recommends repairs to the coating system of the Delaware Memorial Bridge to protect the structural steel on specific spans. The project programs funds to have deficient areas cleaned to bare metal and recoat with a 3- layer protective overcoat system. This project has an estimated DRBA cost of \$8,738,000 in 2022 and \$27,016,000 in the out years.

29A Annual Minor Capital Maintenance (DMB) - Asset Preservation

This project programs annual work activities necessary to accommodate changing regulations and to preserve existing infrastructure. Minor capital maintenance may include, but not be limited to: interior renovations, building upgrades, electrical/lighting improvements, installation of oil/water separators, fencing, guiderail replacement, signage replacement, HVAC upgrades, chiller upgrades, emergency generator improvements, miscellaneous office space improvements, miscellaneous toll booth improvements, as well as utility and general infrastructure improvements. This project has an estimated DRBA cost of \$1,189,000 in 2022 and \$4,800,000 in the out years.

31A Annual Minor Capital Equipment (DMB) - Efficiency and Sustainability

This project programs annual capital equipment purchases which may include but are not limited to: vehicles, trucks, specialty equipment, emergency generators, trailers, and other equipment that are utilized to preserve existing infrastructure assets. Purchases are based on established replacement guidelines considering useful life and condition. This project has an estimated DRBA cost of \$729,000 in 2022 and \$3,365,000 in the out years.

32A Annual Automation/Telecom Upgrades (DMB) - Efficiency and Sustainability

Automation upgrades and equipment enhancements are needed to maintain sustainable and efficient facilities. This yearly project includes but is not limited to: automation master planning, computer hardware replacement purchases, local and wide area network upgrades, software and hardware upgrades, file back-up system maintenance and upgrades, video teleconference system upgrades, document management storage systems, server replacements, business continuity hardware/software, network replacement/upgrades, storage area network upgrades, and various hardware/software installations or upgrades as necessary. This project has an estimated DRBA cost of \$3,140,000 in 2022 and \$2,789,000 in the out years.

<u>Delaware Memorial Bridge - New Projects</u>

Crossings Strategic Capital Improvement Plan

			Exte	ernal Funding		Ext	ernal Fundir	ng	Ext	ternal Funding		ternal Funding			ernal
Ranking	Project	2022		2022	2023		2023		2024	2024	2025	2025	2026	Fundir	ng 2026
	New Projects														
41	Replace Fuel Dispensers	\$ 240,000	\$	-	\$ -	\$		- \$	- \$	- \$	- \$	- \$,	- \$	-
43	Paint Shop - Replace Booth	\$ 265,000	\$	-	\$ -	\$		- \$	- \$	- \$	- \$	- \$,	- \$	-
72	DMB Tower Elevator Communications and Controls	\$ 50,000	\$	-	\$ 425,000	\$		- \$	425,000 \$	- \$	- \$	- \$	1	- \$	-
	Grand Total	\$ 555,000	\$	-	\$ 425,000	\$		- \$	425,000 \$	- \$	- \$	- \$		- \$	-

41 Replace Fuel Dispensers - Efficiency and Sustainability

The existing fueling system has reached the end of its service life. This project includes replacing the existing fuel tank and dispensers and upgrading the system with new electronic controls and monitoring equipment. This project has an estimated DRBA cost of \$240,000 in 2022. This effort has no anticipated annual operating cost impact.

43 Paint Shop - Replace Booth - Safety

The existing paint shop booth has reached the end of its service life. This project includes upgrading the paint booth to meet air quality management regulations as well as improve safety conditions for employees. This project has an estimated DRBA cost of \$265,000 in 2022. This effort has no anticipated annual operating cost impact.

72 DMB Tower Elevator Communications and Controls - Efficiency and Sustainability

There is a desire to monitor access and ensure proper usage of the recently rehabilitated Tower Elevators. The project programs the design and installation of communications to the towers and installation of card readers for the Tower Elevators. This project has an estimated DRBA cost of \$50,000 in 2022 and \$850,000 in the out years. This effort has no anticipated annual operating cost impact.

Delaware Memorial Bridge - Out Year Projects

Crossings Strategic Capital Improvement Plan

Ranking	Project	2022		External Funding 2022	2023	xternal ding 2023	2024	External unding 2024	2025	External nding 2025	2026		External Funding 20	
	Out Year Projects													
84	Route 9 Bridge Repairs	\$	- 5	\$ - :	\$ 150,000	\$ -	\$ 3,200,000	\$ -	\$ -	\$ - \$		-	\$	-
86	1st Structure Safety Walk & Curb Drainage Retrofit	\$	- 5	\$ - :	\$ 150,000	\$ -	\$ 2,000,000	\$ -	\$ -	\$ - \$		-	\$	-
88	War Memorial Refurbishment	\$	- 5	\$ - 9	\$ 1,850,000	\$ -	\$ -	\$ -	\$ -	\$ - \$		-	\$	-
89	Bridge Management and Monitoring System	\$	- 5	\$ - :	\$ 500,000	\$ -	\$ 1,000,000	\$ -	\$ 2,000,000	\$ - \$		-	\$	-
91	Norfolk RR Backwall Replacement	\$	- 5	\$ - 5	\$ -	\$ -	\$ 150,000	\$ -	\$ 2,000,000	\$ - \$		-	\$	-
	Grand Total	\$	- \$	\$ - :	\$ 2,650,000	\$ -	\$ 6,350,000	\$ -	\$ 4,000,000	\$ - \$		-	\$	-

84 Route 9 Bridge Repairs - Asset Preservation

The Route 9 bridge deck is showing signs of deterioration near the joints. The project programs the removal and replacement of existing bridge joints along with the repair of the associated portions of the bridge deck. This project has an estimated DRBA cost of \$3,350,000 in the out years. This effort has no anticipated annual operating cost impact.

86 <u>1st Structure Safety Walk & Curb Drainage Retrofit - Safety</u>

The 1st structure currently has an open grate safety walk which allows water, road salts, and sand to corrode the structural steel beneath the road level. The project programs the replacement of the open grate safety walk with a solid surface reducing water intrusion. This project has an estimated DRBA cost of \$2,150,000 in the out years. This effort has no anticipated annual operating cost impact.

88 War Memorial Refurbishment - Asset Preservation

The War Memorial is aging and showing signs of deterioration. The project programs the design and restoration of the existing War Memorial. This project has an estimated DRBA cost of \$1,850,000 in the out years. This effort has no anticipated annual operating cost impact.

89 <u>Bridge Management and Monitoring System - Asset Preservation</u>

The 1st and 2nd Structures are aging and require significant monitoring and maintenance to ensure they continue to serve as an essential asset to the traveling public. The implementation of a bridge monitoring system is recommended to track the condition of critical structural elements and facilitate prioritization and documentation of corrective measures. This project has an estimated DRBA cost of \$3,500,000 in the out years. This effort has an anticipated annual operating cost of \$50,000.

91 Norfolk RR Backwall Replacement - Asset Preservation

The backwall of west abutment of the bridge over the Norfolk Southern Railroad has developed a large longitudinal crack that extends through the length of the backwall. The project aims to replace this backwall and the expansion joint above with a jointless backwall that will be designed to perform better and eliminate leakages from the joint. This project has an estimated DRBA cost of \$2,150,000 in the out years. This effort has no anticipated annual operating cost impact.

Cape May Lewes Ferry - Continuing Projects

Crossings Strategic Capital Improvement Plan

Ranking	Project		1 \$ Spent (EST.)	2022	External unding 2022	2023	External nding 2023		2024	F	External unding 2024		2025		External Funding 2025	2026		External Funding 20	
· ·	Continuing Projects		•		-														_
4	Main Engine Repower and Dry Docking	\$!	5,032,000	TBD	\$ -	TBD	\$ -	\$	-	\$	- 5	\$	-	,	-	\$ -	Ş	;	-
9	Cape May Approach Roads Rehabilitation	\$	-	\$ 3,267,000	\$ 1,675,000	\$ 1,485,000	\$ 761,000	\$		\$	- \$	\$	-	,	-	\$ -	Ş	;	-
10	Replace Chiller and Cooling Tower (LW)	\$	150,000	\$ 1,200,000	\$ -	\$ -	\$ -	\$	-	\$	- \$	\$	-	Ş	-	\$ -	Ş	;	-
11	Freeman Highway Repaving	\$	50,000	\$ 1,300,000	\$ -	\$ -	\$ -	\$	-	\$	- 5	\$	-	Ş	-	\$ -	Ş	;	-
13	Production Kitchen	\$	725,000	\$ 25,000	\$ -	\$ -	\$ -	\$	-	\$	- 5	\$	-	Ş	-	\$ -	Ş	;	-
14	Outdoor Paint Booth (CM)	\$	60,000	\$ 260,000	\$ -	\$ -	\$ -	\$	-	\$	- \$	\$	-	ç	-	\$ -	Ş	;	-
25	Fender Replacements	\$	836,000	\$ 850,000	\$ -	\$ 850,000	\$ -	\$	500,000	\$	- 5	\$	-	Ş	-	\$ -	Ş	;	-
30	Roof and Building Envelope Rehabilitation (CMLF)	\$	-	\$ 100,000	\$ -	\$ -	\$ -	\$	400,000	\$	- 5	\$	-	Ş	-	\$ -	Ş	;	-
33	Motor Vessel Replacement Program	\$	-	\$ 1,500,000	\$ -	\$ 1,500,000	\$ -	\$ 1	11,500,000	\$	- \$	\$ 4	14,500,000	ç	-	\$ 1,500,000	Ş	;	-
37	Cape May Master Plan Phase 1: Utility Corridor	\$	500,000	\$ 2,250,000	\$ 750,000	\$ 3,750,000	\$ 750,000	\$	-	\$	- 5	\$	-	Ş	-	\$ -	Ş	;	-
52	Police Dispatch Center Upgrades	\$	25,000	\$ 800,000	\$ -	\$ -	\$ -	\$	-	\$	- 5	\$	-	Ş	-	\$ -	Ş	;	-
55	Lewes Terminal Master Plan Phase 1: Utility Corridor	\$	200,000	\$ 1,500,000	\$ -	\$ 3,500,000	\$ -	\$	-	\$	- \$	\$	-	Ş	-	\$ -	Ş	;	-
67	Electrical Signage - Cape May and Lewes	\$	70,000	\$ 800,000	\$ -	\$ -	\$ -	\$	-	\$	- \$	\$	-	Ş	-	\$ -	Ş	;	-
	Grand Total	\$ 7	7,648,000	\$ 13,852,000	\$ 2,425,000	\$ 11,085,000	\$ 1,511,000	\$ 1	12,400,000	\$	- \$	\$ 4	4,500,000	,	-	\$ 1,500,000	Ş	;	-

4 Main Engine Repower and Dry Docking - Asset Preservation

One of the ferry vessels has older engines which are not efficient and difficult to maintain. The project provides for the replacement of the engines, reduction gears, and other associated parts for one vessel, which will be installed in 2022-2023. This project's costs are yet to be determined. This effort has no anticipated annual operating cost impact.

9 Cape May Approach Roads Rehabilitation - Asset Preservation

Pavements at the toll approach are deteriorating and improvements are necessary to maintain expected levels of service at the Cape May Terminal. The project proposes the design and construction for roadway reconfigurations at the terminal entrance, improvements to the approach roads, and the replacement of Cape May highway signage. This project has an estimated DRBA cost of \$3,267,000 in 2022 and \$1,485,000 in the out years. The project is partially funded in the amount of approximately \$2,436,000 by the New Jersey Department of Transportation. This effort has no anticipated annual operating cost impact.

10 Replace Chiller and Cooling Tower (LW) - Asset Preservation

Several existing HVAC chiller units are at the end of their service life and operate on obsolete R-22 refrigerant which is being phased out by the EPA. The project will begin the process of replacement with high efficiency units that operate on modern, environmentally-friendly refrigerant. This project has an estimated DRBA cost of \$1,200,000 in 2022. This effort has no anticipated annual operating cost impact.

11 Freeman Highway Repaying - Asset Preservation

Roadway improvements are necessary to maintain expected levels of service on Freeman Highway in Lewes. The project includes the repaving, joint repairs, and restriping of the existing roadway. This project has an estimated DRBA cost of \$1,300,000 in 2022. This effort has no anticipated annual operating cost impact.

13 Production Kitchen - Efficiency and Sustainability

Due to outsourcing of the Lewes Kitchen, internal food service preparation for the ferry vessels is now limited to the Cape May site. The project programs the construction of a new modular kitchen in Cape May to accommodate vessel food service operations. This project has an estimated DRBA cost of \$25,000 in 2022. This effort has an anticipated annual operating cost impact of \$15,000.

Cape May Lewes Ferry - Continuing Projects

14 Outdoor Paint Booth (CM) - Efficiency and Sustainability

The existing outdoor paint shop booth has reached the end of its service life. This project includes replacing the current paint shop to meet air quality management regulations as well as improve safety conditions for employees. This project has an estimated DRBA cost of \$260,000 in 2022. This effort has no anticipated annual operating cost impact.

25 Fender Replacements - Asset Preservation

High strength fiberglass fender panels were installed during the late 1990s at both terminals to resist vessel impact along the bulkhead. These panels have reached the end of their service life and are being replaced with steel panels similar in shape and size. This project has an estimated DRBA cost of \$850,000 in 2022 and \$1,350,000 in the out years. This effort has no anticipated annual operating cost impact.

30 Roof and Building Envelope Rehabilitation (CMLF) - Asset Preservation

The Authority is still in the early stages of a healthy roof management program having over 150 roof systems throughout its facilities. Each year, annual inspections and capital investments are strategically placed to provide a 30-year solution to establish a consistent and manageable replacement plan in the future. This project has an estimated DRBA cost of \$100,000 in 2022 and \$400,000 in the out years. This effort has no anticipated annual operating cost impact.

33 Motor Vessel Replacement Program - Efficiency and Sustainability

A marine master plan was completed in 2008 which recommended construction of new vessels primarily due to the age of the existing fleet. A new vessel is estimated to cost in the \$40 million range. The plan supports an update of the old master plan, and then the design and replacement of the first of the three (3) existing vessels. Federal funding is anticipated for this project, but not committed at this time. This project has an estimated DRBA cost of \$1,500,000 in 2022 and \$59,000,000 in the out years. This effort has no anticipated annual operating cost impact.

37 Cape May Master Plan Phase 1: Utility Corridor - Efficiency and Sustainability

This is the first phase of implementing the Cape May Master Plan and it addresses the aging utility infrastructure. The project proposes the design and installation of a new centralized utility corridor which will allow for easier access and maintenance. This project has an estimated DRBA cost of \$2,250,000 in 2022 and \$3,750,000 in the out years. The project is partially funded in the amount of approximately \$1,500,000 by the New Jersey Department of Transportation. This effort has no anticipated annual operating cost impact.

52 Police Dispatch Center Upgrades - Efficiency and Sustainability

The existing monitoring equipment and console are obsolete. The purpose of the upgrade is to replace the outdated console and legacy systems to improve functionality, ergonomics, and monitoring capabilities. This project has an estimated DRBA cost of \$800,000 in 2022. This effort has an anticipated annual operating cost impact of \$10,000.

55 <u>Lewes Terminal Master Plan Phase 1: Utility Corridor - Efficiency and Sustainability</u>

This is the first phase of implementing the Lewes Master Plan and it addresses the aging utility infrastructure. The project proposes the design and installation of a new centralized utility corridor which will allow for easier access and maintenance. This project has an estimated DRBA cost of \$1,500,000 in 2022 and \$3,500,000 in the out years. This effort has no anticipated annual operating cost impact.

67 Electrical Signage - Cape May and Lewes - Efficiency and Sustainability

The current ferry facilities do not have modern indicators for toll lane status or advertisement boards. The project involves the supply and installation of both toll lane indicators and variable message signs for advertisement of terminal facilities. This project has an estimated DRBA cost of \$800,000 in 2022. This effort has an anticipated annual operating cost impact of \$5,000.

Cape May - Lewes Ferry - Annual Projects

Crossings Strategic Capital Improvement Plan

Ranking	Project	2022	External Funding 202	2	2023	xternal iding 2023		2024	F	External unding 2024	2025	Exter Funding		2026	ternal ling 2026
	Annual Projects														
23	Annual Vessel Maintenance & Dry Docking	\$ 5,675,000	\$	- :	\$ 11,360,000	\$ -	Ş	4,050,000	\$	- \$	9,000,000	\$	-	\$ 11,885,000	\$ -
24	Maintenance Dredging (CM)	\$ 596,000	\$	- !	-	\$ -	\$	550,000	\$	- \$	-	\$	-	\$ -	\$ -
29B	Annual Minor Capital Maintenance (CMLF)	\$ 2,088,000	\$	- !	855,000	\$ -	Ş	1,200,000	\$	- \$	1,200,000	\$	-	\$ 1,200,000	\$ -
31B	Annual Minor Capital Equipment (CMLF)	\$ 615,000	\$	- !	340,000	\$ -	\$	476,000	\$	- \$	400,000	\$	-	\$ 400,000	\$ -
32B	Annual Automation/Telecom Upgrades (CMLF)	\$ 1,805,000	\$	- !	500,000	\$ -	\$	500,000	\$	- \$	500,000	\$	-	\$ 500,000	\$ _
	Grand Total	\$ 10,779,000	\$	- :	\$ 13,055,000	\$ -	Ş	6,776,000	\$	- \$	11,100,000	\$	-	\$ 13,985,000	\$ -

23 Annual Vessel Maintenance & Dry Docking - Efficiency and Sustainability

The project programs annual capital expenditures for the three (3) vessels, particularly in areas that preserve these assets and improve passenger safety and operational reliability. Planned projects include but are not limited to: vessel shipyard dry-dockings, purchase of life saving equipment, seating replacements, systems efficiency upgrades, generator overhauls, and miscellaneous improvements. This project has an estimated DRBA cost of \$5,675,000 in 2022 and \$36,295,000 in the out years. This effort has no anticipated annual operating cost impact.

24 Maintenance Dredging (CM) - Safety

Cape May requires annual dredging as areas are prone to siltation. The project programs hydrographic surveys for planning and scheduling of annual maintenance dredging at the ferry terminals. This project has an estimated DRBA cost of \$596,000 in 2022 and \$550,000 in the out years. This effort has no anticipated annual operating cost impact.

29B Annual Minor Capital Maintenance (CMLF) - Asset Preservation

This project programs annual land-side activities necessary to accommodate changing regulations and to preserve existing infrastructure. Minor capital maintenance may include, but not be limited to: HVAC improvements, roofing, terminal improvements, electrical improvements, security enhancements, building and workshop improvements, fencing and signage improvements, and carpet replacement. This project has an estimated DRBA cost of \$2,088,000 in 2022 and \$4,455,000 in the out years.

31B Annual Minor Capital Equipment (CMLF) - Efficiency and Sustainability

The project programs annual capital equipment purchases which may include but are not limited to: vehicles, trucks, specialty equipment, emergency generators, trailers, and other equipment that are utilized to preserve existing infrastructure assets. Purchases are based on established replacement guidelines considering useful life and condition. This project has an estimated DRBA cost of \$615,000 in 2022 and \$1,616,000 in the out years.

32B Annual Automation/Telecom Upgrades (CMLF) - Efficiency and Sustainability

Automation upgrades with equipment enhancements are required for maintaining sustainable and efficient facilities. The project includes but is not limited to: automation master planning, computer hardware replacement purchases, network upgrades, software and hardware upgrades, uninterruptible power supply improvements, camera installations, fire detection systems upgrades, and other miscellaneous upgrades or installations. This project has an estimated DRBA cost of \$1,805,000 in 2022 and \$2,000,000 in the out years.

Cape May - Lewes Ferry - New Projects

Crossings Strategic Capital Improvement Plan

				External			External			External			External				-	xternal
Ranking	Project	2022	Fu	unding 2022	2023	Fu	unding 2023	2024	F	unding 2024	2025		Funding 20)25	2026		Fui	nding 2026
	New Projects																	
26	Monopile Replacement	\$ 789,000	\$	-	\$ -	\$	-	\$ -	\$	- \$		-	\$	-	\$	-	\$	-
27	Foot Passenger Ramp Control Upgrades (CM/LW)	\$ 250,000	\$	-	\$ -	\$	-	\$ -	\$	- \$		-	\$	-	\$	-	\$	-
48	Bulkhead Evaluation and Repair	\$ 150,000	\$	-	\$ -	\$	-	\$ 5,000,000	\$	- \$		-	\$	-	\$	-	\$	-
61	Renewable Energy Master Plan	\$ 150,000	\$	-	\$ -	\$	-	\$ -	\$	- \$		-	\$	-	\$	-	\$	-
64	Pedestrian Walkway Fascia Replacement (CM)	\$ 100,000	\$	-	\$ 800,000	\$	-	\$ -	\$	- \$		-	\$	-	\$	-	\$	-
65	Freeman Pedestrian Bridge	\$ 70,000	\$	630,000	\$ 700,000	\$	6,300,000	\$ -	\$	- \$		-	\$	-	\$	-	\$	-
70	Office Upgrades	\$ 400,000	\$	-	\$ -	\$	-	\$ -	\$	- \$		-	\$	-	\$	-	\$	-
73	Fencing	\$ 250,000	\$	-	\$ -	\$	-	\$ -	\$	- \$		-	\$	-	\$	-	\$	-
75	Wind Turbine Installation	\$ 30,000	\$	-	\$ 200,000	\$	-	\$ -	\$	- \$		-	\$	-	\$	-	\$	-
76	Maintenance Dredging (LW)	\$ 722,000	\$	2,890,000	\$ -	\$	-	\$ -	\$	- \$		-	\$	-	\$	-	\$	-
78	Fitness Center Renovations (CM)	\$ 100,000	\$	-	\$ 360,000	\$	-	\$ -	\$	- \$		-	\$	-	\$	-	\$	-
	Grand Total	\$ 3,011,000	\$	3,520,000	\$ 2,060,000	\$	6,300,000	\$ 5,000,000	\$	- \$		-	\$	-	\$	-	\$	-

26 Monopile Replacement - Safety

A monopile used to prevent errant vessels from causing damage to our bulkhead in Cape May has reached the end of its service life and needs replacement. The effort includes the design and installation of a replacement piling system. This project has an estimated DRBA cost of \$789,000 in 2022. This effort has no anticipated annual operating cost impact.

27 Foot Passenger Ramp Control Upgrades (CM/LW) - Efficiency and Sustainability

The PLC for the foot passenger ramps needs to upgraded. This project includes upgrades to the leveling system for the main gantry as well as multiple software, mechanical, and electrical upgrades throughout the system. The upgrades will allow for the manufacture of the equipment to remotely access the system to help with future repairs as well as software updates and modifications as needed. This project has an estimated DRBA cost of \$250,000 in 2022. This effort has an anticipated annual operating cost impact of \$45,000.

48 Bulkhead Evaluation and Repair - Efficiency and Sustainability

The fascia bulkhead on the pier continues to show signs of corrosion and coatings will not be sufficient to address the issue. This project programs the evaluation of the bulkhead system and investigation of a non-corrosive surface mounted system for future implementation. This project has an estimated DRBA cost of \$150,000 in 2022 and \$5,000,000 in the out years. This effort has no anticipated annual operating cost impact.

61 Renewable Energy Master Plan - Efficiency and Sustainability

There is a need to identify and analyze all applicable renewable energy resources that may be utilized at the Cape May Ferry Terminal. This project includes studying and planning for alternative energy sources including: wind, solar, and hydroelectric. This project has an estimated DRBA cost of \$150,000 in 2022. This effort has no anticipated annual operating cost impact.

64 Pedestrian Walkway Fascia Replacement (CM) - Asset Preservation

Fascia material which protects the supporting structural steel columns and walkway is showing signs of failure. A repair solution will be developed and implemented to protect the structure from the elements found in this marine environment. This project has an estimated DRBA cost of \$100,000 in 2022 and \$800,000 in the out years. This effort has no anticipated annual operating cost impact.

Cape May - Lewes Ferry - New Projects

65 Freeman Pedestrian Bridge - Safety

Pedestrians crossing the Freeman Highway Bridge currently ride on an 8' shoulder with no protection from adjacent vehicular traffic. This project includes the design and construction of a separate pedestrian bridge to be constructed adjacent to the existing vehicular bridge. Grant funding is being sought to support this project. This project has an estimated DRBA cost of \$70,000 in 2022 and \$700,000 in the out years. External funding in the amount of \$6,930,000 is anticipated for this project, but is not yet committed. This effort has no anticipated annual operating cost impact.

70 Office Upgrades - Efficiency and Sustainability

The offices in the Food and Retail space in the Cape May administration building are outdated with various unused spaces due to the layout. The project includes upgrades to make a more inviting environment and efficient work space. This project has an estimated DRBA cost of \$400,000 in 2022. This effort has no anticipated annual operating cost impact.

73 **Fencing - Safety**

The existing wooden and screened fencing surrounding the Cape May terminal requires replacement. This project programs replacement with split railed fence and add metal louvered fencing in various areas of the terminal for improved security. This project has an estimated DRBA cost of \$250,000 in 2022. This effort has no anticipated annual operating cost impact.

75 <u>Wind Turbine Installation - Efficiency and Sustainability</u>

There is a desire to implement alternative energy sources at the Ferry Terminals. This project is a first step into renewable energy at Cape May Terminal with the installation of multiple small (30 ft) turbines that will generate power for the parking lot lighting. This project has an estimated DRBA cost of \$30,000 in 2022 and \$200,000 in the out years. This effort has no anticipated annual operating cost impact.

76 Maintenance Dredging (LW) - Safety

The Lewes basin has not been dredged in over 10 years. Hydrographic surveys indicate the Lewes basin requires dredging in select areas due to siltation. Grant funding is being sought to support this project. This project has an estimated DRBA cost of \$722,000 in 2022. External funding in the amount of \$2,890,000 is anticipated for this project, but is not yet committed. This effort has no anticipated annual operating cost impact.

78 Fitness Center Renovations (CM) - Efficiency and Sustainability

The fitness center holds obsolete equipment and unused space. The purpose of this project is to renovate the area to effectively use the room and upgrade the equipment. This project has an estimated DRBA cost of \$100,000 in 2022 and \$360,000 in the out years. This effort has no anticipated annual operating cost impact.

Cape May - Lewes Ferry - Out Year Projects

Crossings Strategic Capital Improvement Plan

				External				External		Exter	nal			External		1	External
Ranking	Project	2	2022	Funding 2022		2023		Funding 2023	2024	Funding	g 2024	2025		Funding 2025	2026	Fu	nding 2026
	Out Year Projects																
92	Motor Vessel Electrification Infrastructure	\$	-	\$ -	- \$		- !	\$ -	\$ -	\$ 10,0	00,000 \$		-	\$ 10,000,000	5	- \$	-
96	Public/Private Shipyard Partnership	\$	-	\$ -	- \$		- !	\$ -	\$ 3,200,000	\$	- \$		-	\$ - 5	\$	- \$	-
97	Large Wind Turbine	\$	-	\$ -	- \$		- !	\$ -	\$ 2,500,000	\$	- \$	2,500,00	00	\$ - 5	\$	- \$	-
105	Cape May Master Plan Phases: 2 through 6	\$	-	\$ -	- \$		- !	\$ -	\$ -	\$	- \$		-	\$ - 5	\$	- \$	-
106	Lewes Master Plan Phases 4 through 6	\$	-	\$ -	- \$		- !	\$ -	\$ -	\$	- \$		-	\$ - 5	\$	- \$	-
	Grand Total	\$	-	\$ -	- \$		- :	\$ -	\$ 5,700,000	\$ 10,0	00,000 \$	2,500,00	00	\$ 10,000,000	;	- \$	-

92 Motor Vessel Electrification Infrastructure - Efficiency and Sustainability

There is a need to upgrade electrical distribution systems coming to the Terminal Site to provide sufficient power for future ferry vessel electrification. This project programs the design and improvement of the electrical infrastructure needed to meet the future demand. External funding in the amount of \$20,000,000 is anticipated for this project, but is not yet committed. This effort has no anticipated annual operating cost impact.

96 Public/Private Shipyard Partnership - Efficiency and Sustainability

This effort provides funding for the Authority to partner with a local shipyard in the implementation of a floating dry-dock sufficient to service the Ferry vessels. The project also provides for ongoing dry-dock and repair services within the home state, saving time and money, and also providing local employment. Grant funding is being sought to support this project. This project has an estimated DRBA cost of \$3,200,000 in the out years. This effort has no anticipated annual operating cost impact.

97 Large Wind Turbine - Efficiency and Sustainability

There is a desire to implement alternative energy sources at the Ferry Terminals. This project programs for the design and installation of large wind turbines on the Cape May property, which will be used to power the site facilities. This project has an estimated DRBA cost of \$5,000,000 in the out years. This effort has no anticipated annual operating cost impact.

105 Cape May Master Plan Phases: 2 through 6 - Efficiency and Sustainability

This line budgets funding for the remaining phases of the Cape May Master Plan. This includes multiple projects to address the site's aging infrastructure and aims to optimize the facility's operations. Costs for the construction of these phases of the Master Plan fall outside of the five year strategic plan. This effort has no anticipated annual operating cost impact.

106 Lewes Master Plan Phases 4 through 6 - Efficiency and Sustainability

This line budgets for the remaining phases of the Lewes Master Plan. This includes multiple projects to address the site's aging infrastructure and aims to optimize the facility's operations. Costs for the construction of these phases of the Master Plan fall outside of the five year strategic plan. This effort has no anticipated annual operating cost impact.

Forts Ferry - Annual Projects

Crossings Strategic Capital Improvement Plan

Ranking	Project	2	022	External Funding 202	22	2023	xternal ding 2023	2024	ernal ng 2024	2025	xternal ding 2025	2026	ernal ng 2026
	Annual Projects												
24H	Annual Minor Capital Maintenance (FF)	\$	30,000	\$	- \$	20,000	\$ -	\$ 20,000	\$ - \$	20,000	\$ -	\$ 20,000	\$ -
	Grand Total	\$	30,000	\$	- \$	20,000	\$ -	\$ 20,000	\$ - \$	20,000	\$ -	\$ 20,000	\$ -

24H Annual Minor Capital Maintenance (FF) - Asset Preservation

This project programs annual work activities necessary to accommodate changing regulations and to preserve existing infrastructure. These projects include, but are not be limited to: docking improvements, electrical improvements, security enhancements, building and workshop improvements, signage improvements, and minor ship repairs. This project has an estimated DRBA cost of \$30,000 in 2021 and \$80,000 in the out years.

New Castle Airport - Continuing Projects

Airports Strategic Capital Improvement Plan

		202	1 \$ Spent			External		Ext	ernal Funding		Exte	rnal Funding		Exter	nal Funding		Exte	ernal
Ranking	Project		(EST.)	2022	Fu	unding 2022	2023		2023	2024		2024	2025		2025	2026	Fundir	ng 2026
	Continuing Projects																	
2	Rehabilitate 1-19	\$	200,000	\$ 163,000	\$	3,088,000	\$ 263,000	\$	4,988,000	\$ -	\$	-	\$ -	\$	- \$		- \$	-
30C	Roof and Building Envelope Rehabilitation (ILG)	\$	60,000	\$ 475,000	\$	-	\$ 700,000	\$	-	\$ 25,000	\$	-	\$ 350,000	\$	- \$		- \$	-
53	Perimeter Road Rehabilitation	\$	394,000	\$ 659,000	\$	-	\$ -	\$	-	\$ -	\$	-	\$ -	\$	- \$		- \$	-
	Grand Total	\$	654,000	\$ 1,297,000	\$	3,088,000	\$ 963,000	\$	4,988,000	\$ 25,000	\$	-	\$ 350,000	\$	- \$		- \$	-

2 Rehabilitate 1-19 - Efficiency and Sustainability

The approach end of runway 14-32 currently encroaches on the runway safety area for Runway 1-19. The project programs the design and construction of modifications to the pavement and associated lighting systems to address this condition. This project has an estimated DRBA cost of \$163,000 in 2021 and \$263,000 in the out years. The project is partially funded in the amount of approximately \$8,076,000 by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

30C Roof and Building Envelope Rehabilitation (ILG) - Asset Preservation

The Authority is still in the early stages of a healthy roof management program having over 150 roof systems throughout its facilities. Each year, annual inspections and capital investments are strategically placed to provide a 30-year solution to establish a consistent and manageable replacement plan in the future. This project has an estimated DRBA cost of \$475,000 in 2021 and \$1,075,000 in the out years. This effort has no anticipated annual operating cost impact.

53 Perimeter Road Rehabilitation - Efficiency and Sustainability

The perimeter roads are exhibiting signs of damage from heavy vehicle loading. The project programs the design and construction of this rehabilitation, to include demolition and reconstruction of existing asphalt pavement. This project has an estimated DRBA cost of \$659,000 in 2021. This effort has no anticipated annual operating cost impact.

New Castle Airport - Annual Projects

Airports Strategic Capital Improvement Plan

Ranking	Project		2022	xternal iding 2022	2023	xternal ding 2023	2024	External nding 2024		2025	ternal ding 2025	2026	ternal ling 2026
	Annual Projects												
29C	Annual Minor Capital Maintenance (ILG)	\$	1,326,000	\$ -	\$ 605,000	\$ -	\$ 1,000,000	\$	-	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -
31C	Annual Minor Capital Equipment (ILG)	\$	405,000	\$ -	\$ 485,000	\$ -	\$ 180,000	\$	-	\$ 300,000	\$ -	\$ 300,000	\$ -
32C	Annual Automation/Telecom Upgrades (ILG)	\$	350,000	\$ -	\$ -	\$ -	\$ 10,000	\$	-	\$ 30,000	\$ -	\$ -	\$ -
56	Reserve for Economic Development/Tenant Improvements (IL	. \$	525,000	\$ -	\$ 128,000	\$ -	\$ 180,000	\$	-	\$ 900,000	\$ -	\$ 3,180,000	\$ -
	Grand Total	\$	2,606,000	\$ -	\$ 1,218,000	\$ -	\$ 1,370,000	\$		\$ 2,230,000	\$ -	\$ 4,480,000	\$ -

29C Annual Minor Capital Maintenance (ILG) - Asset Preservation

This project programs annual work activities necessary to accommodate changing regulations and to preserve existing infrastructure. Minor capital maintenance may include, but not be limited to: site grading, lighting, signage, utility upgrades, storm water, fire suppression, pavement, airfield security/safety, planning, permitting, and record document updates. This project has an estimated DRBA cost of \$1,326,000 in 2021 and \$3,605,000 in the out years.

31C Annual Minor Capital Equipment (ILG) - Efficiency and Sustainability

The project programs annual capital equipment purchases which may include but are not limited to: vehicles, trucks, specialty equipment, emergency generators, trailers, and other equipment that are utilized to preserve existing infrastructure assets. Purchases are based on established replacement guidelines considering useful life and condition. This project has an estimated DRBA cost of \$405,000 in 2021 and \$1,265,000 in the out years.

32C Annual Automation/Telecom Upgrades (ILG) - Efficiency and Sustainability

Automation upgrades with equipment enhancements are required for maintaining sustainable and efficient facilities. The project includes but is not limited to: automation master planning, computer hardware replacement purchases, network upgrades, software and hardware upgrades, uninterruptible power supply improvements, camera installations, fire detection systems upgrades, and other miscellaneous upgrades or installations. This project has an estimated DRBA cost of \$350,000 in 2021 and \$40,000 in the out years.

56 Reserve for Economic Development/Tenant Improvements (ILG) - Economic Development

The Authority needs to program substantial capital infrastructure improvements to meet external needs. The project programs building repairs and site improvements for the airport tenants as needed per lease agreements with the Authority, as well as programming for proposed economical development efforts. This project has an estimated DRBA cost of \$525,000 in 2021 and \$4,388,000 in the out years.

New Castle Airport - New Projects

Airports Strategic Capital Improvement Plan

			Ex	xternal				External			External			External			Exter	rnal
Ranking	Project	2022	Fund	ding 2022		2023	Fu	nding 2023	2024		Funding 2024	2025	F	unding 2025	2026		Funding	g 2026
	New Projects																	
46	Terminal Improvements	\$ 1,130,000	\$		- \$	6,400,000		TBD	\$ -	- 5	-	\$ -	\$	-	\$	-	\$	-
49	Wetland Area Improvements - Runway 14 Approach	\$ 350,000	\$		- \$	-	\$	-	\$	- 5	-	\$ -	\$	-	\$	-	\$	-
50	Terminal Apron Covered Walkway	\$ 700,000	\$		- \$	-	\$	-	\$ -	- 5	-	\$ -	\$	-	\$	-	\$	-
62	Construct Run-up Pad	\$ 10,000	\$		- \$	15,000	\$	285,000	\$	- 5	-	\$ 175,000	\$	3,325,000	\$	-	\$	-
	Grand Total	\$ 2,190,000	\$		- \$	6,415,000	\$	285,000	\$. ;	-	\$ 175,000	\$	3,325,000	\$	-	\$	-

46 Terminal Improvements - Asset Preservation

The current terminal has a dated exterior, limited interior capacity, and a number of opportunities for improved customer service. This project programs the cost to finalize design of the improvements as needed to expand and modify the terminal, including hold room capacity, and frontage improvements. This project has an estimated DRBA cost of \$1,130,000 in 2021 and \$6,400,000 in the out years. External funding is anticipated for this project, but is not yet committed. This effort has no anticipated annual operating cost impact.

49 <u>Wetland Area Improvements - Runway 14 Approach - Safety</u>

The recently cleared wooded area at the runway 14 approach is currently inaccessible by conventional mowing equipment. The project programs the initial clearing of critical obstacles and the design of long term softening of steep slopes. This project has an estimated DRBA cost of \$350,000 in 2021. This effort has no anticipated annual operating cost impact.

50 <u>Terminal Apron Covered Walkway - Efficiency and Sustainability</u>

The current terminal setup for commercial service requires passengers to walk across the apron to reach the aircraft for a flight. This project programs the design and installation of a permanent covered exterior walkway for inclement weather conditions. This project has an estimated DRBA cost of \$700,000 in 2021. This effort has no anticipated annual operating cost impact.

62 Construct Run-up Pad - Efficiency and Sustainability

The construction of the Taxiway B and E project eliminated the run-up pad for the airport. The project programs the design and construction of a new run-up pad in a more suitable location for the airport. This project has an estimated DRBA cost of \$10,000 in 2021 and \$190,000 in the out years. The project is partially funded in the amount of approximately \$3,610,000 by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

New Castle Airport - Out Year Projects

Airports Strategic Capital Improvement Plan

			External		External		External		External		Ex	cternal
Ranking	Project	2022	Funding 2022	2023	Funding 2023	2024	Funding 2024	2025	Funding 2025	2026	Func	ding 2026
	Out Year Projects											
79	Runway 1 EMAS Retrofit	\$ -	\$ -	500,000	\$ - \$	-	\$ - \$	-	\$ - \$		- \$	-
81	Obstruction Removal	\$ -	\$ -	\$ 2,000	\$ 26,000 \$	-	\$ - \$	-	\$ - \$		- \$	-
93	Improve RSA Runway 1-19	\$ -	\$ -	-	\$ - \$	3,000	\$ 47,000 \$	14,000	\$ 269,000 \$		- \$	-
98	Acquire Land for Runway 1 RPZ	\$ -	\$ -	-	\$ - \$	50,000	\$ 950,000 \$	-	\$ - \$		- \$	-
100	Reconstruct Taxiway K	\$ -	\$ -	-	\$ - \$	-	\$ - \$	7,000	\$ 308,000 \$		- \$	-
103	Update Master Plan	\$ -	\$ -	-	\$ - \$	-	\$ - \$	-	\$ - \$	12,00	0 \$	252,000
	Grand Total	\$ -	\$ -	\$ 502,000	\$ 26,000 \$	53,000	\$ 997,000 \$	21,000	\$ 577,000 \$	12,00	0 \$	252,000

79 Runway 1 EMAS Retrofit - Safety

The runway 1 Engineered Material Arresting System is beyond the tenth year of it's 20 year service life and is being inspected and tested for strength. This project programs funds to perform the manufacturer's recommended replacements as well as any additional modifications found in the inspection and testing. This project has an estimated DRBA cost of \$500,000 in the out years. This effort has no anticipated annual operating cost impact.

81 Obstruction Removal - Safety

The project programs the removal of obstructions on airport property and on properties within the airport's immediate surroundings. The effort includes easement acquisition over the affected off-airport properties and brings the airport into compliance with federal airspace safety standards. This project has an estimated DRBA cost of \$2,000 in the out years. The project is partially funded in the amount of approximately \$26,000 by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

93 Improve RSA Runway 1-19 - Safety

The Runway 1-19 pavement area is in need of rehabilitation in accordance with the FAA pavement life cycle and the pavement management study. The project programs for rehabilitation of the runway pavement, and any modifications to signage, markings, lighting or infrastructure which may be necessary. This project has an estimated DRBA cost of \$17,000 in the out years. The project is partially funded in the amount of approximately \$316,000 by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

98 Acquire Land for Runway 1 RPZ - Efficiency and Sustainability

The FAA strongly encourages airport sponsors to control all properties falling within the Runway Protections Zones at each runway end. The project programs the investigation and purchase of land adjacent to the Runway 1 approach. This project has an estimated DRBA cost of \$50,000 in the out years. The project is partially funded in the amount of approximately \$950,000 by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

100 Reconstruct Taxiway K - Asset Preservation

Taxiway K at the Runway 9 approach is not currently aligned with the rest of Taxiway K and there are runway safety issues with pavements in the vicinity. The project programs the relocation of Taxiway K to align it with the rest of the parallel Taxiway K and eliminate the runway safety issues. This project has an estimated DRBA cost of \$7,000 in the out years. The project is partially funded in the amount of approximately \$308,000 by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

New Castle Airport - Out Year Projects

103 Update Master Plan - Efficiency and Sustainability

The current master plan will be outdated and eligible for update in accordance with the federal Airport Improvement Program at the time of funding. The authority intends to develop a dynamic master plan to set goals and plan the future development of the airport to reflect current industry trends and incorporate feedback from all stakeholders. This project has an estimated DRBA cost of \$12,000 in the out years. The project is partially funded in the amount of approximately \$252,000 by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

Millville Airport - Continuing Projects

Airports Strategic Capital Improvement Plan

Ranking	Project	1 \$ Spent (EST.)	2022	Ext	ternal Funding 2022	2023	External unding 2023	2024	External nding 2024	2025	External nding 2025	2026	cternal ding 2026
	Continuing Projects												
7	South Apron Expansion	\$ -	\$ -	\$	70,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30D	Roof and Building Envelope Rehabilitation (MIV)	\$ 20,000	\$ 375,000	\$	-	\$ 300,000	\$ -	\$ 250,000	\$ -	\$ 250,000	\$ -	\$ -	\$ -
36	Rehabilitate Taxiways "A", "C", and "G"	\$ 41,000	\$ 25,000	\$	225,000	\$ 215,000	\$ 1,935,000	\$ 223,000	\$ 2,007,000	\$ 264,000	\$ 2,115,000	\$ 29,000	\$ 261,000
66	Roadway Improvements	\$ 300,000	\$ 300,000	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Grand Total	\$ 361,000	\$ 700,000	\$	295,000	\$ 515,000	\$ 1,935,000	\$ 473,000	\$ 2,007,000	\$ 514,000	\$ 2,115,000	\$ 29,000	\$ 261,000

7 South Apron Expansion - Economic Development

The project programs the design and construction of a new cargo apron in the vicinity of the intersection of Taxiways "B" and "E". The project will expand the apron pavement to provide for more diverse aircraft operations. The project is funded in the amount of approximately \$70,000 by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

30D Roof and Building Envelope Rehabilitation (MIV) - Asset Preservation

The Authority is still in the early stages of a healthy roof management program having over 150 roof systems throughout its facilities. Each year, annual inspections and capital investments are strategically placed to provide a 30-year solution to establish a consistent and manageable replacement plan in the future. This project has an estimated DRBA cost of \$375,000 in 2022 and \$800,000 in the out years. This effort has no anticipated annual operating cost impact.

36 Rehabilitate Taxiways "A", "C", and "G" - Asset Preservation

In accordance with the findings of the latest Pavement Management Study taxiways A, C, and G are in need of repair. The project programs the design and construction costs for these repairs to include pavement resurfacing, lighting, signage, and associated drainage improvements. This project has an estimated DRBA cost of \$25,000 in 2022 and \$731,000 in the out years. The project is partially funded in the amount of approximately \$6,543,000 by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

66 Roadway Improvements - Efficiency and Sustainability

The access roads for the airport are exhibiting signs of deterioration. The project programs the design and construction of this rehabilitation effort, to include demolition and reconstruction of existing asphalt pavement. This project has an estimated DRBA cost of \$300,000 in 2022. This effort has no anticipated annual operating cost impact.

Millville Airport - Annual Projects

Airports Strategic Capital Improvement Plan

Ranking	Project	2022	ternal ling 2022	2023	external ending 2023	2024	ernal ng 2024	2025	ernal ng 2025	2026	Exter Funding	
	Annual Projects											
29D	Annual Minor Capital Maintenance (MIV)	\$ 493,000	\$ 12,000	\$ 200,000	\$ - \$	600,000	\$ - \$	600,000	\$ - \$	600,000	\$	-
31D	Annual Minor Capital Equipment (MIV)	\$ 280,000	\$ -	\$ 265,000	\$ - \$	120,000	\$ - \$	125,000	\$ - \$	175,000	\$	-
32D	Annual Automation/Telecom Upgrades (MIV)	\$ 50,000	\$ -	\$ 10,000	\$ - \$	5,000	\$ - \$	15,000	\$ - \$	-	\$	-
57D	Reserve for Economic Development/Tenant Improvements (MIV)	\$ 1,650,000	\$ -	\$ 350,000	\$ - \$	100,000	\$ - \$	100,000	\$ - \$	100,000	\$	-
	Grand Total	\$ 2,473,000	\$ 12,000	\$ 825,000	\$ - \$	825,000	\$ - \$	840,000	\$ - \$	875,000	\$	-

29D Annual Minor Capital Maintenance (MIV) - Asset Preservation

This project programs annual work activities necessary to accommodate changing regulations and to preserve existing infrastructure. Minor capital maintenance may include, but not be limited to: site grading, lighting, signage, utility upgrades, storm water, fire suppression, pavement, airfield security/safety, planning, permitting and record document updates. The project is necessary to protect the facilities, maintain good repair, and provide for public safety. This project has an estimated DRBA cost of \$493,000 in 2022 and \$2,000,000 in the out years. The project is partially funded in the amount of approximately \$12,000 by the Federal Aviation Administration.

31D Annual Minor Capital Equipment (MIV) - Efficiency and Sustainability

The project programs annual capital equipment purchases which may include but are not limited to: vehicles, trucks, specialty equipment, emergency generators, trailers, and other equipment that are utilized to preserve existing infrastructure assets. Purchases are based on established replacement guidelines considering useful life and condition. This project has an estimated DRBA cost of \$280,000 in 2022 and \$685,000 in the out years.

32D Annual Automation/Telecom Upgrades (MIV) - Asset Preservation

Automation upgrades with equipment enhancements are required for maintaining sustainable and efficient facilities. The project includes but is not limited to: automation master planning, computer hardware replacement purchases, network upgrades, software and hardware upgrades, uninterruptible power supply improvements, camera installations, fire detection systems upgrades, and other miscellaneous upgrades or installations. This project has an estimated DRBA cost of \$50,000 in 2022 and \$30,000 in the out years.

57D Reserve for Economic Development/Tenant Improvements (MIV) - Economic Development

The Authority needs to program substantial capital infrastructure improvements to meet external needs. The project programs building repairs and site improvements for the airport tenants as needed per lease agreements with the Authority, as well as programming for proposed economical development efforts. This project has an estimated DRBA cost of \$1,650,000 in 2022 and \$650,000 in the out years.

Millville Airport - New Projects

Airports Strategic Capital Improvement Plan

			Externa	al			External			External			E	cternal			Externa	1
Ranking	Project	2022	Funding 2	022	2023	Fu	nding 2023	2024	Fu	unding 2024	202	5	Fun	ding 2025	2026		Funding 20	J26
	New Projects																	
39	M305 Rooftop HVAC Unit Replacement	\$ 300,000	\$	-	\$ -	\$	- 5	\$ -	\$	-	\$	-	\$	-	\$	- \$		-
42	Airfield Markings (MIV)	\$ 300,000	\$	-	\$ -	\$	- 5	\$ -	\$	-	\$	-	\$	-	\$	- \$		-
74	Multi-Tenant Building	\$ 250,000	\$	-	\$ 1,800,000	\$	- \$	\$ 1,500,000	\$	-	\$	-	\$	-	\$	- \$		-
	Grand Total	\$ 850,000	\$	-	\$ 1,800,000	\$	- \$	\$ 1,500,000	\$	-	\$	-	\$	-	\$	- \$		-

39 M305 Rooftop HVAC Unit Replacement - Efficiency and Sustainability

The HVAC unit on Building M305 at the Millville Airport is at the end of their service life and operates on obsolete R-22 refrigerant, which is being phased out by the EPA. The project will begin the process of replacement with a new high efficiency unit that operates on modern, environmentally friendly refrigerant. This project has an estimated DRBA cost of \$300,000 in 2022. This effort has no anticipated annual operating cost impact.

42 Airfield Markings (MIV) - Safety

The pavement markings at the airport facilities have degraded over time or require updates to meet changing FAA marking requirements. The project programs the evaluation, design, and construction of markings at the airport facilities as needed. This project has an estimated DRBA cost of \$300,000 in 2022. This effort has no anticipated annual operating cost impact.

74 <u>Multi-Tenant Building - Economic Development</u>

Millville Airport has experienced increased development and business interest and there is little available space to accommodate demand. The project provides for the construction of a multi-tenant light industrial building to accommodate new tenancy requests. This project has an estimated DRBA cost of \$250,000 in 2022 and \$3,300,000 in the out years. This effort has no anticipated annual operating cost impact.

Millville Airport - Out Year Projects

Airports Strategic Capital Improvement Plan

				External			External			External			1	External		External	
Ranking	Project	2022	Fu	unding 2022	2023	Fu	ınding 2023	2024	F	unding 2024	20	025	Fu	nding 2025	2026 Fu	ınding 2020	.6
	Out Year Projects																
87	T-Hangar Replacements	\$ -	\$	- \$	125,000	\$	- \$	1,250,000	\$	-	\$	-	\$	-	\$ - \$		-
94	Facility Utility Survey (MIV)	\$ -	\$	- \$	-	\$	- \$	300,000	\$	-	\$	-	\$	-	\$ - \$		-
104	Master Plan (MIV)	\$ -	\$	- \$	-	\$	- \$	-	\$	-	\$	-	\$	-	\$ 21,000 \$	188,00	00
	Grand Total	\$ -	\$	- \$	125,000	\$	- \$	1,550,000	\$	-	\$	-	\$	-	\$ 21,000 \$	188,00	00

87 <u>T-Hangar Replacements - Economic Development</u>

The existing portable T-Hangars at the airport have reached the end of their serviceable life and can no longer be economically maintained. The project programs the design and construction costs for a new ten bay T-hangar building to be constructed at the T-hangar site which was recently constructed with the benefit federal airport improvement program funds. This project has an estimated DRBA cost of \$1,375,000 in the out years. This effort has no anticipated annual operating cost impact.

94 Facility Utility Survey (MIV) - Asset Preservation

Utility records and location services are not provided by the local utility companies for the majority of the Authority's properties and historical records are difficult to track without a common GIS platform. The project programs a field utility survey to include preliminary development of a GIS platform to record this data and track future changes. This project has an estimated DRBA cost of \$300,000 in the out years. This effort has no anticipated annual operating cost impact.

104 Master Plan (MIV) - Asset Preservation

The current master plan is outdated and is eligible for update in accordance with the federal Airport Improvement Program. The Authority intends to develop a dynamic master plan to set goals and plan the future development of the airport. The plan will reflect current industry trends and incorporate feedback from all stakeholders. This project has an estimated DRBA cost of \$21,000 in the out years. The project is partially funded in the amount of approximately \$188,000 by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

Cape May Airport - Continuing Projects

Airports Strategic Capital Improvement Plan

		2021 \$ Spent		External		External		External		External		External
Ranking	Project	(EST.)	2022	Funding 2022	2023	Funding 2023	2024	Funding 2024	2025	Funding 2025	2026	Funding 2026
	Continuing Projects											
5	Rehabilitate 10-28 & Remove Taxiway E	\$ 481,000	\$ -	\$ 2,620,000	\$ 350,000	\$ 3,150,000	\$ -	\$ - \$	-	\$ - \$		- \$ -
17	Way Finding	\$ 280,000	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ - \$	-	\$ - \$		- \$ -
20	Facility Utility Survey (WWD)	\$ 70,000	\$ -	\$ 210,000	\$ -	\$ -	\$ -	\$ - \$	-	\$ - \$		- \$ -
30E	Roof and Building Envelope Rehabilitation (WWD)	\$ -	\$ 50,000	\$ -	\$ 1,725,000	\$ -	\$ 300,000	\$ - \$	-	\$ - \$		- \$ -
47	Multi-Purpose Building (Hornet Road)	\$ 140,000	\$ 7,691,000	\$ 250,000	\$ -	\$ -	\$ -	\$ - \$	-	\$ - \$		- \$ -
54	Terminal Parking Lot Pavement Improvements	\$ 100,000	\$ -	\$ 700,000	\$ -	\$ -	\$ -	\$ - \$	-	\$ - \$		- \$ -
	Grand Total	\$ 1,071,000	\$ 7,761,000	\$ 3,780,000	\$ 2,075,000	\$ 3,150,000	\$ 300,000	\$ - \$	-	\$ - \$		- \$ -

5 Rehabilitate 10-28 & Remove Taxiway E - Asset Preservation

Results from the most recent pavement management study indicate the pavement on Runway 10-28 is deteriorating and is in need of rehabilitation. Work will include pavement resurfacing, lighting, signage, and associated drainage improvements as well as the removal of an unnecessary connector taxiway. This project has an estimated DRBA cost of \$350,000 in the out years. The project is funded in the amount of approximately \$5,770,000 by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

17 Way Finding - Safety

The airport attracts visitors from the outside public due to the multiple businesses and museums. The project aims to help visitors navigate their way through the site with ample signage and pedestrian maps. This project has an estimated DRBA cost of \$20,000 in 2022. This effort has no anticipated annual operating cost impact.

20 Facility Utility Survey (WWD) - Efficiency and Sustainability

Utility records and location services are not provided by the local utility companies for the majority of the Authority's properties and historical records are difficult to track without a common GIS platform. This project programs a field utility survey to include preliminary development of a GIS platform to record this data and track future changes. The project is funded in the amount of approximately \$210,000 by external funds. This effort has no anticipated annual operating cost impact.

30E Roof and Building Envelope Rehabilitation (WWD) - Asset Preservation

The Authority is still in the early stages of a healthy roof management program having over 150 roof systems throughout its facilities. Each year, annual inspections and capital investments are strategically placed to provide a 30-year solution to establish a consistent and manageable replacement plan in the future. This project has an estimated DRBA cost of \$50,000 in 2022 and \$2,025,000 in the out years. This effort has no anticipated annual operating cost impact.

47 Multi-Purpose Building (Hornet Road) - Efficiency and Sustainability

The existing terminal building's layout and condition are not conducive to future terminal functions and the facility is poorly located. Cape May County is investing significant funds in the development of a new airport entrance at Hornet Road and this project provides for the planning, design, and construction of a new terminal facility at the end of Hornet Road immediately adjacent to the airport's FBO and fueling facilities. This project has an estimated DRBA cost of \$7,691,000 in 2022. The project is cost shared in the amount of approximately \$250,000 by the Cape May County. This effort has no anticipated annual operating cost impact.

54 <u>Terminal Parking Lot Pavement Improvements - Efficiency and Sustainability</u>

The terminal parking lot pavement is in poor condition and is in need of rehabilitation. Work will include pavement resurfacing and associated drainage improvements. The project is funded in the amount of approximately \$700,000 by external funds. This effort has no anticipated annual operating cost impact.

Cape May Airport - Annual Projects

Airports Strategic Capital Improvement Plan

Ranking	Project	2022	Externa Funding 2		2023	Exte Fundir	ernal ng 2023	2024	External Funding 20		2025	Exteri Funding		2026	Exte Fundin	ernal ng 2026
	Annual Projects															
29E	Annual Minor Capital Maintenance (WWD)	\$ 225,000	\$	-	\$ 250,000	\$	-	\$ 400,000	\$	-	\$ 400,000	\$	-	\$ 400,000	\$	-
31E	Annual Minor Capital Equipment (WWD)	\$ 30,000	\$	-	\$ 200,000	\$	-	\$ 125,000	\$	-	\$ 100,000	\$	-	\$ 100,000	\$	-
32E	Annual Automation/Telecom Upgrades (WWD)	\$ 20,000	\$	-	\$ 5,000	\$	-	\$ -	\$	-	\$ 20,000	\$	-	\$ -	\$	-
58	Reserve for Economic Development/Tenant Improvements (WWD)	\$ 250,000	\$	-	\$ 100,000	\$	-	\$ 100,000	\$	-	\$ 100,000	\$	-	\$ -	\$	-
	Grand Total	\$ 525,000	\$	-	\$ 555,000	\$	-	\$ 625,000	\$	-	\$ 620,000	\$	-	\$ 500,000	\$	-

29E Annual Minor Capital Maintenance (WWD) - Asset Preservation

This project programs annual work activities necessary to accommodate changing regulations and to preserve existing infrastructure. Minor capital maintenance may include, but not be limited to: site grading, lighting, signage, utility upgrades, storm water, fire suppression, pavement, airfield security/safety, planning, permitting and record document updates. This project has an estimated DRBA cost of \$225,000 in 2022 and \$1,450,000 in the out years.

31E Annual Minor Capital Equipment (WWD) - Efficiency and Sustainability

The project programs annual capital equipment purchases which may include but are not limited to: vehicles, trucks, specialty equipment, emergency generators, trailers, and other equipment that are utilized to preserve existing infrastructure assets. Purchases are based on established replacement guidelines considering useful life and condition. This project has an estimated DRBA cost of \$30,000 in 2022 and \$525,000 in the out years.

32E Annual Automation/Telecom Upgrades (WWD) - Efficiency and Sustainability

Automation upgrades with equipment enhancements are required for maintaining sustainable and efficient facilities. The project includes but is not limited to: automation master planning, computer hardware replacement purchases, network upgrades, software and hardware upgrades, uninterruptible power supply improvements, camera installations, fire detection systems upgrades, and other miscellaneous upgrades or installations. This project has an estimated DRBA cost of \$20,000 in 2022 and \$25,000 in the out years.

58 Reserve for Economic Development/Tenant Improvements (WWD) - Efficiency and Sustainability

The Authority needs to program substantial capital infrastructure improvements to meet external needs. The project programs building repairs and site improvements for the airport tenants as needed per lease agreements with the Authority, as well as programming for proposed economical development efforts. This project has an estimated DRBA cost of \$250,000 in 2022 and \$300,000 in the out years.

Cape May Airport - New Projects

Airports Strategic Capital Improvement Plan

			Е	xternal			xternal			External			External		ſ	External
Ranking	Project	2022	Fun	nding 2022	2023	Fur	nding 2023	2024	Fι	unding 2024	2025		Funding 2025	2026	Fu	nding 2026
	New Projects															
51	Drainage Ditch Repair and Repaving	\$ 75,000	\$	-	\$ 1,000,000	\$	-	\$ -	\$	- \$. \$	-	\$ -	\$	-
60	Rehabilitate Taxiway "A"	\$ 15,000	\$	-	\$ 35,000	\$	300,000	\$ -	\$	- \$	340,000	\$	3,060,000	\$ 340,000	\$	3,060,000
63	Third Multi-Tenant Building	\$ 1,050,000	\$	-	\$ 1,000,000	\$	-	\$ 1,500,000	\$	- \$. \$	-	\$ -	\$	-
69	Apron B Expansion	\$ 600,000	\$	-	\$ -	\$	-	\$ -	\$	- \$. \$	-	\$ -	\$	-
	Grand Total	\$ 1,740,000	\$		\$ 2,035,000	\$	300,000	\$ 1,500,000	\$	- \$	340,000	, \$	3,060,000	\$ 340,000	\$	3,060,000

51 Drainage Ditch Repair and Repaving - Efficiency and Sustainability

Drainage swale near Essex Road is need of slope stabilization and regrading to prevent wash outs. This project includes ditch regrading and repaving of the adjacent driveway to stabilize the area. This project has an estimated DRBA cost of \$75,000 in 2022 and \$1,000,000 in the out years. This effort has no anticipated annual operating cost impact.

60 Rehabilitate Taxiway "A" - Asset Preservation

In accordance with the findings of the latest Pavement Management Study taxiway A is in need of repair. The project programs the design and construction costs for these repairs to include pavement resurfacing, lighting, signage, and associated drainage improvements. This project has an estimated DRBA cost of \$15,000 in 2022 and \$715,000 in the out years. The project is partially funded in the amount of approximately \$6,420,000 by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

63 Third Multi-Tenant Building - Economic Development

Cape May Airport has experienced increased development and business interest. The Authority has constructed and leased two multi-tenant buildings, and there is demand for a third. The project provides for the construction of an additional multi-tenant light industrial building to accommodate new tenancy requests. This project has an estimated DRBA cost of \$1,050,000 in 2022 and \$2,500,000 in the out years. This effort has no anticipated annual operating cost impact.

69 Apron B Expansion - Economic Development

Cape May has experienced increased development and business interest for hangars and there is little available space to accommodate the demand. This project provides funding for design and construction of a phased apron expansion to accommodate current and future demand. This project has an estimated DRBA cost of \$600,000 in 2022. This effort has no anticipated annual operating cost impact.

Cape May Airport - Out Year Projects

Airports Strategic Capital Improvement Plan

				Exter	nal		Е	xternal		Е	xternal		1	External			External
Ranking	Project	20)22	Funding	2022	2023	Fur	nding 2023	2024	Fun	nding 2024	2025	Fui	nding 2025	2026	Fu	unding 2026
	Out Year Projects																
80	Remove Obstructions (WWD)	\$	-	\$	- \$	31,000	\$	279,000 \$	31,000	\$	279,000 \$	50,000	\$	450,000 \$	50	,000 \$	450,000
85	Airfield Markings (WWD)	\$	-	\$	- \$	300,000	\$	- \$	-	\$	- \$	-	\$	- \$		- \$	-
101	New Hangars	\$	-	\$	- \$	-	\$	- \$	-	\$	- \$	50,000	\$	- \$		- \$	-
102	Master Plan (WWD)	\$	-	\$	- \$	-	\$	- \$	-	\$	- \$	-	\$	- \$	21	,000 \$	188,000
	Grand Total	\$	-	\$	- \$	331,000	\$	279,000 \$	31,000	\$	279,000 \$	100,000	\$	450,000 \$	71	,000 \$	638,000

80 Remove Obstructions (WWD) - Economic Development

The project programs the removal of obstructions on airport property and on properties within the airport's immediate surroundings. The effort includes easement acquisition over the affected off-airport properties and brings the airport into compliance with federal airspace safety standards. This project has an estimated DRBA cost of \$162,000 in the out years. The project is partially funded in the amount of approximately \$1.5 million by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

85 Airfield Markings (WWD) - Efficiency and Sustainability

he pavement markings at the airport facilities have degraded over time or require updates to meet changing FAA marking requirements. The project programs the evaluation, design, and construction of markings at the airport facilities as needed. This project has an estimated DRBA cost of \$300,000 in the out years. This effort has no anticipated annual operating cost impact.

101 New Hangars - Economic Development

There is a need for additional hangars at the Cape May Airport. The project programs the construction of additional hangars to address this demand. This project has an estimated DRBA cost of \$50,000 in the out years. This effort has no anticipated annual operating cost impact.

102 Master Plan (WWD) - Efficiency and Sustainability

The current master plan is outdated and is eligible for update in accordance with the federal Airport Improvement Program. The Authority intends to develop a dynamic master plan to set goals and plan the future development of the airport. The plan will reflect current industry trends and incorporate feedback from all stakeholders. This project has an estimated DRBA cost of \$21,000 in the out years. The project is partially funded in the amount of approximately \$188,000 by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

Delaware Airpark - Continuing Projects

Airports Strategic Capital Improvement Plan

		202	21 \$ Spent			External				External		External				External				rnal			
Ranking	Project		(EST.)		2022		Funding 2022		2023	Funding 202			2024	Funding 2024			2025	Funding 2025		2026		Fundin	g 2026
	Continuing Projects																						
6	Expand Apron	\$	260,000	\$	-	\$	1,897,000	\$	-	\$	-	\$	-	\$	-	\$	-	\$	- \$		-	\$	-
19	Master Plan (33N)	\$	4,000	\$	-	\$	5,000	\$	-	\$	-	\$	-	\$	-	\$	-	\$	- \$		-	\$	-
38	Remove Obstructions (33N)	\$	700,000	\$	25,000	\$	-	\$	25,000	\$	475,000	\$	33,000	\$	637,000	\$	26,000	\$	480,000 \$		-	\$	-
40	Acquire Land For Airfield Protection	\$	5,000	\$	22,000	\$	428,000	\$	-	\$	-	\$	-	\$	-	\$	-	\$	- \$		-	\$	-
	Grand Total	\$	969,000	\$	47,000	\$	2,330,000	\$	25,000	\$	475,000	\$	33,000	\$	637,000	\$	26,000	\$	480,000 \$		-	\$	-

6 Expand Apron - Economic Development

The existing apron space is predicted to become more heavily utilized as a result of the runway relocation and facility expansion. The project programs the design and construction of additional apron space, placed appropriately to serve the increased demand. The project is funded in the amount of approximately \$1,897,000 by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

19 Master Plan (33N) - Efficiency and Sustainability

The current master plan was outdated and was eligible for update in accordance with the federal Airport Improvement Program. The Authority intends to complete a dynamic master plan to set goals and plan the future development of the airport. The plan will reflect current industry trends and incorporate feedback from all stakeholders. The project is partially funded in the amount of approximately \$5,000 by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

38 Remove Obstructions (33N) - Safety

The project programs the removal of obstructions on airport property and on properties within the airport's immediate surroundings. The effort includes easement acquisition over the affected off-airport properties and brings the airport into compliance with federal airspace safety standards. This project has an estimated DRBA cost of \$25,000 in 2022 and \$84,000 in the out years. The project is partially funded in the amount of approximately \$1,592,000 by the Federal Aviation Administration. There is anticipated annual operating cost impact of \$7,000 for this project.

40 Acquire Land For Airfield Protection - Safety

The airport has recently expanded as have the safety areas surrounding the airport. The project programs the investigation and purchase of land adjacent to the airport to protect these new areas. This project has an estimated DRBA cost of \$22,000 in 2022. The project is partially funded in the amount of approximately \$428,000 by the Federal Aviation Administration. This effort has no anticipated annual operating cost impact.

Delaware Airpark - Annual Projects

Airports Strategic Capital Improvement Plan

			External				External		E	external			External		Exte	rnal
Ranking	Project	2022	Funding 20	22	2023	Fu	ınding 2023	2024	Fun	nding 2024	2025	Fu	nding 2025	 2026	Fundir	g 2026
	Annual Projects															
29F	Annual Minor Capital Maintenance (33N)	\$ 475,000	\$	-	\$ 400,000	\$	-	\$ 400,000	\$	- \$	400,000	\$	-	\$ 400,000	\$	-
82	Annual Automation/Telecom Upgrades (33N)	\$ -	\$	-	\$ 5,000	\$	-	\$ -	\$	- \$	20,000	\$	-	\$ -	\$	-
	Grand Total	\$ 475,000	\$	-	\$ 405,000	\$	-	\$ 400,000	\$	- \$	420,000	\$	-	\$ 400,000	\$	-

29F Annual Minor Capital Maintenance (33N) - Asset Preservation

This project programs annual work activities necessary to accommodate changing regulations and to preserve existing infrastructure. Minor capital maintenance may include, but not be limited to: site grading, lighting, signage, utility upgrades, storm water, fire suppression, pavement, airfield security/safety, planning, permitting, and record document updates. This project has an estimated DRBA cost of \$475,000 in 2022 and \$1,600,000 in the out years.

82 Annual Automation/Telecom Upgrades (33N) - Efficiency and Sustainability

Automation upgrades with equipment enhancements are required for maintaining sustainable and efficient facilities. The project includes but is not limited to: automation master planning, computer hardware replacement purchases, network upgrades, software and hardware upgrades, uninterruptible power supply improvements, camera installations, fire detection systems upgrades, and other miscellaneous upgrades or installations. This project has an estimated DRBA cost of \$25,000 in the out years.

Delaware Airpark- New Projects

Airports Strategic Capital Improvement Plan

			Exter	nal Funding		ernal Funding			Exte	rnal Fundii	g				Externa	al Funding		
Ranking	Project	2022		2022	2023		2023		2024		2024		2025	2025	202	.6	2	2026
	New Projects																	
68	Property Acquisition	\$ 500,000	\$	-	\$	- \$		- \$		- \$		- \$	500,000	\$ - \$		-	\$	-
99	Annual Minor Capital Equipment (33N)	\$ -	\$	-	\$	- \$		- \$		- \$		- \$	30,000	\$ - \$	7	75,000	\$	-
	Grand Total	\$ 500,000	\$	-	\$	- \$		- \$		- \$		- \$	530,000	\$ - \$	7	75,000	\$	-

68 **Property Acquisition - Economic Development**

The Delaware Airpark is constrained for development on the land side of the property facing route 42. This project programs funds to take advantage of opportunities for land purchases that connect the airport to route 42 and expand development opportunities. This project has an estimated DRBA cost of \$500,000 in 2022 and \$500,000 in the out years. This effort has no anticipated annual operating cost impact.

99 Annual Minor Capital Equipment (33N) - Efficiency and Sustainability

The project programs annual capital equipment purchases which may include but are not limited to: vehicles, trucks, specialty equipment, emergency generators, trailers, and other equipment that are utilized to preserve existing infrastructure assets. Purchases are based on established replacement guidelines considering useful life and condition. This project has an estimated DRBA cost of \$105,000 in the out years.

Delaware Airpark Airport - Out Year Projects

Airports Strategic Capital Improvement Plan

				External		External			External		Exte	ernal		Extern	nal
Ranking	Project	2022	Fo	unding 2022	2023	Funding 2023		2024	Funding 2024	2025	Funding 2025		2026	Funding	2026
	Out Year Projects														
95	New Box Hangars	\$	- \$	- \$		- \$	- \$	800,000	\$ - \$		- \$	- \$		- \$	-
	Grand Total	\$	- \$	- \$		- \$	- \$	800,000	\$ - \$		- \$	- \$		- \$	-

95 New Box Hangars - Economic Development

There is a need for additional hangers at the Delaware Air Park. The project programs the construction of additional box hangers to address this demand. This project has an estimated DRBA cost of \$800,000 in the out years. This effort has no anticipated annual operating cost impact.

Civil Air Terminal - Annual Projects

Airports Strategic Capital Improvement Plan

			Externa	ernal			External					External		Ext	ternal			Extern	al
Ranking	Project	2022	Funding 20	022	202	23	Fun	ding 2023		2024		Funding 2024	2025	Fund	ing 2025	2026		Funding	2026
	Annual Projects																		
24G	Annual Minor Capital Maintenance (CAT)	\$ 185,000	\$	- \$		-	\$	-	\$		-	\$ -	\$ -	\$	- \$		-	\$	-
83	Annual Automation/Telecom Upgrades (CAT)	\$ -	\$	- \$;	5,000	\$	-	\$		-	\$ -	\$ 20,000	\$	- \$		-	\$	-
	Grand Total	\$ 185,000	\$	- \$;	5,000	\$	-	\$		-	\$ -	\$ 20,000	\$	- \$		-	\$	-

24G <u>Annual Minor Capital Maintenance (CAT) - Asset Preservation</u>

This project programs annual work activities necessary to accommodate changing regulations and to preserve existing infrastructure. Minor capital maintenance may include, but not be limited to: site grading, lighting, signage, utility upgrades, storm water, fire suppression, pavement, airfield security/safety, planning, permitting, and record document updates. This project has an estimated DRBA cost of \$185,000 in 2021.

83 Annual Automation/Telecom Upgrades (CAT) - Efficiency and Sustainability

Automation upgrades with equipment enhancements are required for maintaining sustainable and efficient facilities. The project includes but is not limited to: automation master planning, computer hardware replacement purchases, network upgrades, software and hardware upgrades, uninterruptible power supply improvements, camera installations, fire detection systems upgrades, and other miscellaneous upgrades or installations. This project has an estimated DRBA cost of \$25,000 in the out years.