FY 2021 CAPITAL BUDGET AND FY 2021 – FY 2025 CAPITAL IMPROVEMENTS PLAN



TOWN OF BARNSTABLE





The Government Finance Officers Association of the United States and Canada (GFOA) has presented a Distinguished Budget Award to the Town of Barnstable for the fiscal year beginning July 1, 2019. The award is the highest form of recognition in governmental budgeting. In order to receive this award, a government unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan, and as a communications device. This is the **nineteenth consecutive year** that the Town of Barnstable has been presented with this prestigious award.

The criterion on which the award for fiscal year 2020 was based will be used as a guide in preparing the budget for fiscal year 2021. Therefore, it is my belief that the Capital and Operating budgets presented for fiscal year 2021 conform to program requirements, and I will submit them to GFOA to determine their eligibility for another award. My Staff, Mark Milne, Finance Director, and Nathan Empey, Finance/Budget Analyst, are to be congratulated for their parts in this and the previous awards.

Mark S. Ells Town Manager

ELECTED OFFICIALS

BARNSTABLE TOWN COUNCIL

Paul Hebert, Council President , Precinct 3 Jessica Rapp Grassetti, Council Vice President, Precinct 7 Gordon Starr, Precinct 1 Eric R. Steinhilber, Precinct 2 Britt Beedenbender, Precinct 4 David W. Bogan, Precinct 5 Paul C. Neary, Precinct 6 Debra S. Dagwan, Precinct 8 Tracy Shaughnessy, Precinct 9 Mathew P. Levesque, Precinct 10 Kristine Clark, Precinct 11 Paula K. Schnepp, Precinct 12 Jennifer L. Cullum, Precinct 13

BARNSTABLE SCHOOL COMMITTEE

Mike Judge, Chair Kathy Bent, Vice Chair Barbara Dunn Stephanie Ellis Joe Nystrom

TOWN CLERK

Ann M. Quirk, CMC

TOWN ADMINISTRATION

Mark S. Ells	Town Manager
Andrew M. Clyburn	Assistant Town Manager
Katie Servis	Barnstable Municipal Airport Manager
Cynthia A. Lovell	Town Council Administrator
Matthew Sonnabend	Chief of Police
Elizabeth Jenkins	Director of Planning & Development
Vacant	Director of Community Services
Derek Lawson	Interim Director of Marine & Environmental Affairs
Daniel W. Santos, P.E.	Director of Public Works
Richard V. Scali	Director of Licensing
Brian Florence	Director of Inspectional Services/Building Commissioner

SCHOOL ADMINISTRATION

Meg Mayo-Brown	Superintendent of Schools
Kristen Harmon	Assistant Superintendent of Schools

OTHER TOWN OFFICIALS

Karen Nober, Esq.	Town Attorney
Mark A. Milne, C.P.A	Director of Finance
Debra Watson	Treasurer/Collector
Edward O'Neil, MAA	Director of Assessing
William E. Cole	Director of Human Resources
Daniel J. Wood	Director of Information Technology
Greg Quilty	Director of Veterans Services

AIRPORT COMMISSION

John T. Griffin, Jr., Chairman Elizabeth Young, Vice Chairman Norman Weill, Clerk Wendy Bierwirth, Commissioner Zachary Lesinski, Commissioner Bradley Baily, Commissioner

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Front Cover Photo: Barnstable High School – Field Improvement Project – Phase I Back Cover Photo: Open Budget Website

Editors: Mark Milne, Director of Finance Nathan Empey, Finance/Budget Analyst

PART I – CAPITAL IMPROVEMENTS PLAN SUBMISSIONS

Cost and Fiscal Year Summary

The capital projects identified by departments in this year's capital improvement plan process represent a total of \$59 million of requests for FY 2021, and a combined total of \$387 million over a five-year period. Of the \$387 million, \$112 million represents Enterprise Funds, \$170 million are General Fund requests and \$105 million are Sewer Construction and Private Way Maintenance and Improvement Fund requests.

	Enterprise Funds	General Fund	Sewer Construction and Private Way Improvement Fund	Total
FY 2021	\$ 19,687,480	\$ 33,379,912	\$ 6,028,800	\$ 59,096,192
FY 2022	17,795,834	40,482,287	12,850,000	71,128,121
FY 2023	52,593,000	42,938,096	32,550,000	128,081,096
FY 2024	14,450,000	42,063,709	16,600,000	73,113,709
FY 2025	7,660,000	11,192,048	36,950,000	55,802,048
Totals	\$ 112,186,314	\$ 170,056,052	\$ 104,978,800	\$ 387,221,166

Enterprise Funds and Sewer projects are distributed by fund as follows:

Fund	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Totals
Airport	\$ 6,700,000	\$ 9,455,000	\$ 14,055,000	\$ 5,700,000	\$ 4,500,000	\$ 40,410,000
Marina	-	300,000	5,388,000	-	-	5,688,000
Sandy Neck	200,000	800,000	-	2,650,000	-	3,650,000
НҮСС	1,036,480	365 <i>,</i> 834	-	-	-	1,402,314
Golf	502,000	-	-	-	-	502,000
Water Pollution	9,140,000	2,625,000	1,650,000	1,550,000	1,610,000	16,575,000
Water Supply	2,009,000	4,250,000	31,250,000	4,250,000	1,250,000	43,009,000
Solid Waste	100,000	-	250,000	300,000	300,000	950,000
Totals	\$ 19,687,480	\$ 17,795,834	\$ 52,593,000	\$ 14,450,000	\$ 7,660,000	\$ 112,186,314

General Fund projects are distributed as follows:

FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Totals
\$ 1,237,115	\$ 1,359,719	\$ 1,108,533	-	-	\$ 3,705,367
342,000	-	-	-	-	342,000
3,300,000	3,447,032	10,948,000	4,018,000	1,353,000	23,066,032
1,969,682	8,792,615	13,252,529	7,622,404	1,367,974	33,005,204
20,442,115	17,282,921	14,779,034	27,723,305	5,671,074	85,898,449
6,089,000	9,600,000	2,850,000	2,700,000	2,800,000	24,039,000
\$ 33,379,912	\$ 40,482,287	\$ 42,938,096	\$ 42,063,709	\$ 11,192,048	\$ 170,056,052
	\$ 1,237,115 342,000 3,300,000 1,969,682 20,442,115 6,089,000	\$ 1,237,115 \$ 1,359,719 342,000 - 3,300,000 3,447,032 1,969,682 8,792,615 20,442,115 17,282,921 6,089,000 9,600,000	\$ 1,237,115\$ 1,359,719\$ 1,108,533342,0003,300,0003,447,03210,948,0001,969,6828,792,61513,252,52920,442,11517,282,92114,779,0346,089,0009,600,0002,850,000	\$ 1,237,115\$ 1,359,719\$ 1,108,533342,0003,300,0003,447,03210,948,0001,969,6828,792,61513,252,52920,442,11517,282,92114,779,03427,723,3059,600,0002,850,0002,700,000	\$ 1,237,115\$ 1,359,719\$ 1,108,533342,0003,300,0003,447,03210,948,0004,018,0001,353,0001,969,6828,792,61513,252,5297,622,4041,367,97420,442,11517,282,92114,779,03427,723,3055,671,0746,089,0009,600,0002,850,0002,700,0002,800,000

2021 CIP - Capital Improvements Plan Submissions

Detailed Project Listing

The description and justification for each project listed on the following tables are included in Part V and Part IV of this document. Part V contains projects recommended for funding in the FY 2021 program while Part IV includes those projects that will be addressed in subsequent years.

Project Submissions for Enterprise Funds

LISTING	NG OF CAPITAL IMPROVEMENT PROJECTS: ENTERPRISE FUNDS			FIVE YEAR COSTS					
DEPT	PRIORITY	PROJECT TITLE	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	TOTALS	
BMA	1	Design & Construct Tree Clearing Phase I	300,000	-	-	-	-	300,000	
BMA	2	Upgrade Airport Security Cameras	200,000	-	-	-	-	200,000	
BMA	3	Reporting, Testing, Mitigation, and Monitoring (PFOS Soils)	250,000	100,000	100,000	-	-	450,000	
BMA	4	Extend Mary Dunn Way, including drainage repairs and utilities (Phase II)	3,400,000	-	-	-	-	3,400,000	
BMA	5	Environmental Review for Airport Master Plan Projects	1,150,000	-	-	-	-	1,150,000	
BMA	6	Design and Construct New T-Hangar/FBO Offices	700,000	-	-	-	-	700,000	
BMA	7	Design and Construct New Airport Owned Avgas Fuel Tank/Self-Service Tank	700,000	-	-	-	-	700,000	
BMA	8	Replace Runway 24 Engineer Material Arresting System (EMAS)	-	7,000,000	-	-	-	7,000,000	
BMA	9	Environmental Permitting Phase II for Airport Master Plan Update Projects	-	225,000	-	-	-	225,000	
BMA	10	Replace Aircraft Rescue and Fire Fighting (ARFF) Equipment	-	975,000	-	-	-	975,000	
BMA	11	Easements for Future Construction/Runway 15 Tree Clearing Phase II	-	600,000	-	-	-	600,000	
BMA	12	Replace Snow Removal Equipment (SRE) (Chevy 2500HD)	-	55,000	-	-	-	55,000	
BMA	13	Replace SRE Equipment (ASV Skid Steer Plow)	-	100,000	-	-	-	100,000	
BMA	14	Terminal Upgrades - Baggage Belt Extension	-	400,000	-	-	-	400,000	
BMA	15	Reconstruct RWY 6-24 (Approx. 4,700ft x 150ft.)	-	-	13,045,000	-	-	13,045,000	
BMA	16	Runway 15-33 - Apply P-608 Surface Treatment and Repaint	-	-	475,000	-	-	475,000	
BMA	17	Snow Removal Equipment (SRE) (Chevy 2500HD – Heavy Duty Vehicle with Plow)	-	-	55,000	-	-	55,000	
BMA	18	Design and Replace Mo-Gas and Diesel Fuel Con-Vault, Gas Boy & Alarm	-	-	300,000	-	-	300,000	
BMA	19	Replace Snow Removal Equipment (SRE) (Ford F350 – Heavy Duty Vehicle)	-	-	80,000	-	-	80,000	
BMA	20	Design, Realign and Reconstruct a Portion of Taxiway Delta and Taxiway Echo	-	-	-	4,500,000	-	4,500,000	
BMA	21	Demolish Circa 1957 T-Hangar and Replace with New Hangar	-	-	-	900,000	-	900,000	
BMA	22	Replace Snow Removal Equipment (SRE) (Heavy Duty Carrier Vehicle)	-	-	-	300,000	-	300,000	
BMA	23	Design, Realign and Reconstruct a Portion of Taxiway Bravo	-	-	-	-	4,500,000	4,500,000	
		TOTAL AIRPORT	\$ 6,700,000	\$ 9,455,000	\$ 14,055,000	\$ 5,700,000	\$ 4,500,000	\$ 40,410,000	
MAR	1	Bismore Park Bulkhead Improvements	-	300,000	5,388,000	-	-	5,688,000	
		TOTAL MARINE & ENVIRONMENTAL AFFAIRS MARINAS	\$ -	\$ 300,000	\$ 5,388,000	\$-	\$-	\$ 5,688,000	
SDY	1	Sandy Neck ORV Trail and Gatehouse Relocation Construction	-	800,000	-	-	-	800,000	
SDY	2	Sandy Neck Parking Lot Relocation	200,000	-	-	2,650,000	-	2,850,000	
		TOTAL MARINE & ENVIRONMENTAL AFFAIRS SANDY NECK	\$ 200.000	\$ 800.000	Ś.	\$ 2,650,000	\$.	\$ 3,650,000	

2021 CIP - Capital Improvements Plan Submissions

Project Submissions for the Enterprise Funds – Continued

STING C	of Capit	TAL IMPROVEMENT PROJECTS: ENTERPRISE FUNDS	FIVE YEAR COSTS					PROJEC
EPT P	RIORITY	PROJECT TITLE	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	TOTALS
YCC	1	Hyannis Youth & Community Center Storage Building	280,480	-	-	-	-	280,4
YCC	2	Hyannis Youth and Community Center Facility Improvements	756,000	365,834	-	-	-	1,121,
		TOTAL COMMUNITY SERVICES HYCC	\$ 1,036,480	\$ 365,834	\$-	\$-	\$-	\$ 1,402,
OLF	1	Golf Course Turf Maintenance Equipment Replacement	502,000	-	-	-	-	502,
		TOTAL COMMUNITY SERVICES GOLF	\$ 502,000	\$-	\$-	\$-	\$-	\$ 502,
						1		
VPC	1	Solids Handling Upgrades Construction	8,000,000	-	-	-	-	8,000
VPC	2	Pump Station Rehabilitation	1,000,000	2,000,000	500,000	500,000	1,200,000	5,200
/PC	3	HVAC Improvements	85,000	-	-	-	-	85
VPC	4	Replacement of Truck 258 with a new ¾ ton pickup truck	55,000	-	-	-	-	55
VPC	5	WPCF Facility Study (DEP Required)	-	150,000	-	-	-	150
VPC	6	Sewer System Rehabilitation Program	-	400,000	250,000	250,000	250,000	1,150
VPC	7	Replacement of Crane Truck 247	-	75,000	-	-	-	75
VPC	8	Vacuum Truck Replacement	-	-	600,000	-	-	600
VPC	9	Headworks Evaluation and Preliminary Design	-	-	250,000	-	-	250
VPC	10	Effluent Sand Bed Valve Rehabilitation	-	-	50,000	250,000	-	300
VPC	11	Main Switchboard (MSB) Generator Design and Construction	-	-	-	550,000	-	550
VPC	12	91 South Street Pump Station Demolition	-	-	-	-	160,000	160
		TOTAL PUBLIC WORKS WATER POLLUTION CONTROL	\$ 9,140,000	\$ 2,625,000	\$ 1,650,000	\$ 1,550,000	- 160,000 000 \$ 1,610,000	\$ 16,575
ws	1	Pipe Replacement and Upgrade Program	750,000	1,050,000	1,050,000	1,050,000	1,050,000	4,950
ws	2	Wells, Pump Stations, Treatment Plant Repair & Upgrade Program	150,000	200,000	200,000	200,000	200,000	950
NS	3	Airport & Mary Dunn Wells, Treatment, Pilot Study & Conceptual Layout.	300,000	-	8,000,000	-	-	8,300
WS	4	Wells, Treatment, Pilot Study & Conceptual Layout.	350,000		14,000,000	-	-	14,350
WS	5	Maher Filtration Plant, Solar Panels, Design & Construction	459,000	-	-	-	-	459
ws	6	New Well Exploration Program	-	3,000,000	8,000,000	3,000,000	-	14,000
		TOTAL PUBLIC WORKS WATER SUPPLY	\$ 2,009,000		\$ 31,250,000	\$ 4,250,000	\$ 1,250,000	\$ 43,009
sw	1	Weigh Scale Replacement	100.000		_	-	-	100
sw	2	Roll Off Truck Replacement	100,000		250,000	-	-	250
SW SW	3	Municipal Packer Replacement			-	300,000		300
SW	4	Rubber Tire Loader Replacement					- 300,000	300
	4	TOTAL PUBLIC WORKS SOLID WASTE	\$ 100.000	\$	\$ 250.000	Ś 300.000	\$ 300,000	\$ 950
			, 100 ,000			, 300,0 00	<u>- 300,000</u>	Ş 930
		TOTAL ENTERPRISE FUNDS PROJECT COSTS	\$19,687,480		\$ 52,593,000			\$112,186

LISTING	OF CAPIT	AL IMPROVEMENT PROJECTS: SEWER CONSTRUCTION AND PRIVATE WAY IMP. FUND			IVE YEAR COSTS	3		PROJECT
DEPT	PRIORITY	PROJECT TITLE	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	TOTALS
CWM	1	Effluent Disposal Alternatives	1,000,000	-	TBD	-	-	1,000,000
CWM	2	Aeration System and Denitrification Technology Evaluation	200,000	-	5,000,000	-	-	5,200,000
CWM	3	Route 28 Centerville Sewer Expansion Project Design and Permitting	1,300,000	-	-	14,000,000	-	15,300,000
CWM	4	Old Yarmouth Road Sewer Expansion	600,000	-	6,000,000	-	-	6,600,000
CWM	5	Route 28 Marstons Mills Sewer Expansion Project	1,800,000	-	-	-	-	1,800,000
CWM	6	Private Road Repair – Old Mill Road, School Street and Asa Meigs Road	1,128,800	-	-	-	-	1,128,800
CWM	7	Route 28 East Sewer Expansion	-	12,000,000	-	-	-	12,000,000
CWM	8	Marstons Mills River Treatment System	-	TBD	TBD	TBD	TBD	-
CWM	9	Long Beach Sewer Expansion	-	300,000	750,000	-	7,500,000	8,550,000
CWM	10	Great Marsh Road Sewer Expansion	-	550,000	-	1,250,000	-	1,800,000
CWM	11	Phinney's Lane Sewer Expansion	-	-	20,000,000	-	-	20,000,000
CWM	12	Huckins Neck Sewer Expansion	-	-	300,000	750,000	-	1,050,000
CWM	13	Old Craigville Road Sewer Expansion	-	-	500,000	-	1,000,000	1,500,000
CWM	14	Shootflying Hill Road Sewer Expansion	-	-	-	600,000	-	600,000
CWM	15	Osterville Woods Sewer Expansion	-	-	-	-	450,000	450,000
CWM	16	Long Pond Area Sewer Expansion	-	-	-		28,000,000	28,000,000
		SEWER CONSTRUCTION AND PRIVATE WAY MAINTENANCE AND IMPROVEMENT FUND	\$ 6,028,800	\$12,850,000	\$ 32,550,000	\$16,600,000	\$36,950,000	\$104,978,800

Project Submissions for the Sewer Construction And Private Way Maintenance and Improvement Fund

Project Submissions for the General Fund

	LISTING OF CAPITAL IMPROVEMENT PROJECTS: GENERAL FUND			FIVE YEAR COSTS				
DEPT PR	RIORITY	PROJECT TITLE	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	TOTALS
BPD	1	Police Radio Improvements	121,115	-	-	-	-	121,115
BPD	2	Storage Appliance	125,000	-	-	-	-	125,000
BPD	3	Barnstable Police Department Improvements	991,000	1,359,719	1,108,533	-	-	3,459,252
•		TOTAL POLICE DEPARTMENT	\$ 1,237,115	\$ 1,359,719	\$ 1,108,533	\$-	\$-	\$ 3,705,367

ADM	1	Unified Communications – VOIP (Voice over Internet Protocol)	342,000	-	-	-	-	-	342,000
		TOTAL ADMINISTRATION DEPARTMENT	\$ 342,000	\$ -	\$-	-	\$ -	\$ -	\$ 342,000

Project Submissions for the General Fund – Continued

	OF CAPIT	AL IMPROVEMENT PROJECTS: GENERAL FUND		F	IVE YEAR COSTS			PROJECT
DEPT	PRIORITY	PROJECT TITLE	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	TOTALS
MEA	1	Channel Dredging Program	2,055,000	2,880,000	2,948,000	2,768,000	1,353,000	12,004,00
MEA	2	Patrol Vessel Replacement	300,000	-	-	-	-	300,00
MEA	3	Blish Point Construction for Long-Term Solution	300,000	-	2,000,000	-	-	2,300,00
MEA	4	Marine & Environmental Affair Interior Project Phase III	120,000	250,032	-	-	-	370,03
MEA	5	Evaluation of Little River Fish Passage Restoration	75,000	TBD	-	TBD	-	75,00
MEA	6	Mill Pond & Long Pond Fish Ways –Construction	-	-	950,000	-	-	950,00
MEA	7	Hyannis Breakwater Evaluation & Preliminary Design	-	167,000	TBD	TBD	-	167,00
MEA	8	Scudder's Lane Boat Ramp Design & Construction	-	150,000	-	650,000	-	800,00
MEA	9	West Bay Breakwaters – Design and Construction	450,000	-	4,900,000	-	-	5,350,00
MEA	10	Bay Shore Road Boat Ramp-Design and Construction	-	-	150,000	600,000	-	750,00
MEA	11	Cotuit Town Dock Extension	-	TBD	-	-	-	-
MEA	12	Bridge Street Pier	-	-	TBD	-	-	-
		TOTAL MARINE & ENVIRONMENTAL AFFAIRS DEPARTMENT	\$ 3,300,000	\$ 3,447,032	\$ 10,948,000	\$ 4,018,000	\$ 1,353,000	\$ 23,066,03
CSD	1	Town Recreation Field Improvements Project – Bay Lane Ballfields	154,307	127,500	-	-	-	281,8
CSD	2	Beach Parking Lot Rehabilitation - Keyes Memorial Beach	150,000	-	-	-	-	150,0
CSD	3	Centerville Recreation Interior Improvements	292,432	150,000	75,000	-	-	517,4
CSD	4	Salt Water Beach House Improvements	144,783	1,176,354	1,387,107	4,296,700	1,367,974	8,372,9
CSD	5	Adult Community Center Master Plan Development	110,000	TBD	-	-	-	110,0
CSD	6	Centerville Recreation Building Site Design & Construction	188,160	1,034,880	-	-	-	1,223,0
CSD	7	Hamblin Pond Bathhouse and Site Improvements	300,000	1,630,000	-	-	-	1,930,0
CSD	8	Hathaway's Pond Bathhouse and Site Improvements	450,000	2,555,000	-	-	-	3,005,0
CSD	9	Beach Parking Lot Rehabilitation - Craigville Beach	180,000	-	-	-	-	180,0
CSD	10	Osterville Recreation Building Design & Construction	-	-	9,969,062	-	-	9,969,0
CSD	11	Kennedy Memorial Renovation Construction	-	1,878,881	-	-	-	1,878,8
CSD	12	Veterans Park Improvements	-	-	334,360	3,325,704	-	3,660,0
CSD	13	Joshua's Pond Handicap Accessibility and Beach Improvements	-	240,000	1,487,000	-	-	1,727,0
		TOTAL COMMUNITY SERVICES DEPARTMENT	\$ 1,969,682	\$ 8,792,615	\$ 13,252,529	\$ 7,622,404	\$ 1,367,974	\$ 33,005,2
DPW	1	Public Roads Maintenance Program	3,550,000	3,650,000	3,750,000	3,850,000	3,950,000	18,750,0
DPW	2	School Administration Building Mechanical Cooling Upgrades	1,215,551	838,643	-	-	-	2,054,1
DPW	3	DPW Offices Phase III Construction	2,537,043	-	-	-	-	2,537,0
DPW	4	Town Hall Mechanical Improvements	5,637,790	-	-	-	-	5,637,7
DPW	5	Town Hall Security Implementation	337,460	TBD	-	-	-	337,4
DPW	6	Marstons Mills School Demolition	995,096	-	-	-	-	995,0
DPW	7	Salt Shed Repairs	345,000	-	-	-	-	345,0
DPW	8	Kalmus Beach Parking Lot Entrance Design & Construction	50,000	350,000	-	-	-	400,0
OPW	9	200 Main Street Mansard Roof Replacement	374,000	-	-	-	-	374,0
DPW	10	Hyannis Main Street West End Rotary Study Design and Construction	250,000	_	2,500,000		_	2,750,0

2021 CIP - Capital Improvements Plan Submissions

Project Submissions for the General Fund – Continued

LISTING	OF CAPIT	AL IMPROVEMENT PROJECTS: GENERAL FUND		F	IVE YEAR COSTS			PROJECT
DEPT	PRIORITY	PROJECT TITLE	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	TOTALS
DPW	11	Snows Creek Culvert	75,000	-	1,400,000	-	-	1,475,000
DPW	12	Oyster Harbors Bridge Study	200,000	-	-	-	TBD	200,000
DPW	13	Old Town Hall - JFK Museum Improvements	249,415	1,382,978	-	-	-	1,632,393
DPW	14	Culvert Improvements	450,000	-	-	-	-	450,000
DPW	15	Emergency Generator Implementation Plan	615,000	299,594	896,782	384,906	-	2,196,282
DPW	16	Mosswood Cemetery Building Improvements	64,288	252,824	-	-	-	317,112
DPW	17	Parking Lots Maintenance	500,000	500,000	500,000	500,000	500,000	2,500,000
DPW	18	Cape Cod Airfield Hangar Repair	332,362	-	-	-	-	332,362
DPW	19	Cape Cod Rail Trail Extension	275,000	750,000	500,000	500,000	500,000	2,525,000
DPW	20	Zion Union Heritage Museum Improvements	457,390	-	-	-	-	457,390
DPW	21	Sidewalks on Ocean Street from Snows Creek to Gosnold Street	40,000	242,000	-	-	-	282,000
DPW	22	U.S. Custom House Interior Work	-	393,178	-	-	-	393,178
DPW	23	Sidewalk Installation: East Bay Road	100,000	-	610,000	-	-	710,000
DPW	24	Guyer Barn FY21 Facility Management Plan Implementation	140,978	-	-	-	-	140,978
DPW	25	50 Pearl Street FY21 Facility Management Plan Implementation	204,447	104,227	-	-	-	308,674
DPW	26	46 Pearl Street FY21 Facility Management Plan Implementation	175,271	64,543	-	-	-	239,814
DPW	27	Cotuit Memorial Park Restoration	187,797	194,676	-	-	-	382,473
DPW	28	Burgess Barn Interior	-	56,020	342,342	-	-	398,362
DPW	29	West Barnstable Railroad Depot Restoration	118,227	372,002	-	-	-	490,229
DPW	30	Stormwater Improvements at Impaired Ponds	300,000	300,000	300,000	300,000	300,000	1,500,000
DPW	31	Sidewalks on Ocean Street from Gosnold Street to Kalmus Beach	665,000	-	-	-	-	665,000
DPW	32	Town Hall Complex Improvements - Parking Lot	-	130,000	850,000	-	-	980,000
DPW	33	Armory Building Improvements	-	1,835,000	-	2,925,000	-	4,760,000
DPW	34	Sidewalks on Pitchers Way (Bearse's Way to Route 28) Design & Construction	-	650,000	-	-	-	650,000
DPW	35	Sidewalk Installation: Bumps River Rd Centerville, Main St Cotuit, South St Hyannis	-	825,000	-	-	-	825,000
DPW	36	Highway Truck Storage Facilities Design & Construction	-	756,190	-	5,142,060	-	5,898,250
DPW	37	DPW Salt Storage Facility Design & Construction	-	-	2,000,000	-	-	2,000,000
DPW	38	South Street Improvements Design and Construction	-	400,000	-	6,700,000	-	7,100,000
DPW	39	Barnstable Road Reconstruction Design and Construction	-	400,000	-	6,700,000	-	7,100,000
DPW	40	Commerce Road Culvert Construction	-	1,750,000	-	-	-	1,750,000
DPW	41	Signalized Intersection at Osterville West Barnstable Road and Race Lane	-	85,000	450,000	-	-	535,000
DPW	42	Old Jail Repairs	-	-	-	320,316	-	320,316
DPW	43	U.S. Custom House Site Improvements	-	62,306	297,983	-	-	360,289
DPW	44	Sidewalk Overlay and Guardrail	-	363,740	381,927	401,023	421,074	1,567,764
DPW	45	DPW 382 Falmouth Rd Facility Parking Lot Repairs	-	275,000	-	-	-	275,000
		TOTAL PUBLIC WORKS DEPARTMENT	\$20,442,115	\$17,282,921	\$ 14,779,034	\$27,723,3 <u>05</u>	\$ 5,671,074	\$ 85,898,449

Project Submissions for the General Fund – Continued

ISTING	G OF CAPIT	AL IMPROVEMENT PROJECTS: GENERAL FUND		F	IVE YEAR COSTS			PROJECT
DEPT	PRIORITY	PROJECT TITLE	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	TOTALS
SCH	1	Barnstable High School Sports Fields Upgrades, Phases 2 and 3.	3,039,000	2,950,000	-	-	-	5,989,00
SCH	2	District Wide Communication, Video Security and Entry Improvements	500,000	-	-	-	-	500,00
SCH	3	Barnstable High School (BHS) Synthetic Turf Replacement & Track Repair	1,200,000	-	-	-	-	1,200,00
SCH	4	Barnstable United Elementary Chiller Replacement	400,000	-	-	-	-	400,00
SCH	5	Barnstable High School Gym & Field House Improvements	250,000	250,000	250,000	-	-	750,00
SCH	6	Barnstable School Facilities Roof Top Unit Ventilator Replacement	-	3,500,000	2,000,000	2,000,000	2,000,000	9,500,00
SCH	7	Campus Wide Mechanical Upgrades (Burners, Boilers, HVAC & Pump Systems)	250,000	250,000	250,000	250,000	250,000	1,250,00
SCH	8	Barnstable High School Positive Attendance System	250,000	-	-	-	-	250,00
SCH	9	Flooring Replacement and Upgrades	100,000	100,000	100,000	100,000	100,000	500,00
SCH	10	Hyannis West Interior/Exterior Door Replacement	-	100,000	-	-	-	100,00
SCH	11	Barnstable School Facilities Emergency Generators	-	400,000	-	-	-	400,00
SCH	12	Barnstable Public Schools Campus Wide Paving	-	250,000	250,000	250,000	250,000	1,000,00
SCH	13	Electric Utility Transformer Upgrade	-	300,000	-	-	-	300,00
SCH	14	Barnstable High School Culinary Arts Kitchen	-	500,000	-	-	-	500,00
SCH	15	Barnstable United Courtyard Improvements	100,000	-	-	-	-	100,00
SCH	16	Centerville School Window Replacement	-	1,000,000	-	-	-	1,000,00
SCH	17	Network Server Upgrades	-	-	-	100,000	100,000	200,00
SCH	18	Wireless Access Upgrades	-	-	-	-	100,000	100,00
		TOTAL SCHOOL DEPARTMENT	\$ 6,089,000	\$ 9,600,000	\$ 2,850,000	\$ 2,700,000	\$ 2,800,000	\$ 24,039,00

TOTAL GENERAL FUND PROJECT COSTS

\$33,379,912 \$40,482,287 \$ 42,938,096 \$42,063,709 \$11,192,048 \$170,056,052

TOTAL CAPITAL IMPROVEMENTS PROGRAM PROJECT COSTS

\$59,096,192 \$71,128,121 \$128,081,096 \$73,113,709 \$55,802,048 \$387,221,166

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PART II – CAPITAL SUBMISSION REVIEW PROCESS

Town Administration has implemented a review process for capital submissions requesting General Fund financing that scores projects twice and then averages the rank from each process to determine an overall ranking. This twostep process requires a taskforce made up of senior level managers across all departments. The senior level managers are responsible for reviewing and scoring the capital submissions based on two different sets of criteria, which is conducted in both a collaborative as well as individual manner. This does not determine which projects will receive funding in the immediate fiscal year, but is used as an objective measurement to assess a project's priority against all other submissions. Enterprise Funds as well as the Sewer Construction and Private Way Improvement Fund submissions are not included in this process as they have their own funding source.

Round 1 Evaluation Criteria

The first round of scoring allowed department managers to present their top priority capital submissions in a workshop format with the taskforce team. Presentations focused mainly on projects for which funding was being requested in FY 2021. Enterprise Fund projects were excluded from this workshop unless they were requesting General Fund financing. This process provided taskforce members the opportunity to ask questions relative to each project presented to gain a more thorough understanding of the need and scope of the project. After the presentations, each taskforce member voted anonymously as to which category of priority the project placed based on the set of criteria listed below. From this, the average score for each project was calculated with projects ranked from the highest to lowest score. A total of 52 projects out of 98 General Fund submissions were reviewed. Two Enterprise Fund projects were included in the presentations, as it required non-enterprise funds to finance a portion of the costs.

Priority I: Imperative (Must-Do) (4 points) – Projects that cannot reasonably be postponed in order to avoid harmful or otherwise undesirable consequences.

- A. Corrects a condition dangerous to public health or safety
- B. Satisfies a legal, regulatory or statutory obligation or requirement
- C. Alleviates an emergency service disruption or deficiency
- D. Prevents irreparable damage to a valuable public facility

Priority II: Essential (Should-Do) (3 points) – Projects that address clearly demonstrated needs or objectives.

- A. Rehabilitates or replaces an obsolete public facility or attachment thereto
- B. Stimulates economic growth and private capital investment
- C. Reduces future operating and maintenance costs
- D. Leverages available state or federal funding

Priority III: Important (Could-Do) (2 points) – Projects that benefit the community but may be delayed without detrimental effects to basic services.

- A. Provides a new or expanded level of service
- B. Promotes intergovernmental cooperation
- C. Reduces energy consumption
- D. Enhances educational, cultural or natural resources

Priority IV: Desirable (Nice-To-Do) (1 point) – Desirable projects that are not included within a two-year program because of funding limitations.

Round 2 Evaluation Criteria

In the second round of scoring, taskforce members evaluate all project submissions against a set of ten evaluation criteria including; **Public Health and Safety, Education, Economic Development, Infrastructure and Protection of Assets, Environmental and Natural Resources, Quality of Life, Financing, Operating Budget Impact, Planning and Relationships to Existing Plans, and Usage and Service Demand**. A total of 92 General Fund projects were submitted and 52 projects were reviewed in the first round. The same 52 projects were scored in the second round by each taskforce member using these criteria. The scores from the taskforce members are then averaged and project submissions are ranked from highest to lowest score.

CRITERIA AND STRATEGIC PLAN AREA	HIGHEST IMPACT (Score of 4)	MEDIUM IMPACT (Score of 3)	LOW IMPACT (Score of 2)	NO IMPACT OR NOT APPLICABLE (Score of 0)
PUBLIC HEALTH AND SAFETY degree to which project meets public health and safety needs/issues.	 Project is necessary to <u>alleviate a</u> <u>significant, existing, documented</u> health or safety hazard. This could include: Proposed project meets the minimum requirements/mandates of a local, state or federal law pertaining to health and safety of the community. Project directly pertains to the delivery of public safety through police protection. Project required to achieve adopted LOS for health or safety standards 	 Project is necessary to prevent the onset of a likely health and safety hazard or alleviate an existing, minor hazard. If problem does not currently exist, failure to act would result in hazard being present within one-two years. May include: Enhancement of current health and safety programs or projects; Related to, but not exclusive impact on traffic control on town's public ways; Addresses local, state or federal laws pertaining to health and safety, but goes beyond minimum requirements to additional enhancements. 	Project is needed to <u>maintain</u> <u>the current level</u> of health and safety services provided to residents. Failure to complete project may result in appearance of hazard within 2- 5 years. May include: • Repair or regular maintenance of facilities in order to maintain a healthy and/or safe condition. • Maintains existing traffic LOS and/or prevents formation of a safety problem.	Project <u>does not</u> <u>relate to, nor have</u> <u>any impact on</u> public health and safety issues within the town.
EDUCATION applicability of project to educational priorities of the town.	Project is intended <u>directly</u> for the purpose of educating the town's children and is <u>essential</u> in order to meet state and local educational standards. This includes repair/maintenance of, as well as new buildings and structures used for classrooms, school-sponsored recreational activities, administrative support to schools, and other related projects	Project will be used <u>primarily</u> for education of the town's children, but may include other ancillary uses. Project is important, but not required in meeting minimum educational standards.	Project will be used <u>minimally</u> for direct education of the town's children. Primary use of the project will be other than education purposes. This project is not required toward meeting any educational standards, but may enhance existing programs/facilities.	Project is <u>not</u> <u>intended</u> to be used for educational purposes.

CRITERIA AND STRATEGIC PLAN AREA	HIGHEST IMPACT (Score of 4)	MEDIUM IMPACT (Score of 3)	LOW IMPACT (Score of 2)	NO IMPACT OR NOT APPLICABLE (Score of 0)
ECONOMIC DEVELOPMENT degree to which project meets economic development objectives of Town Council and other town plans.	Project would have <u>significant</u> <u>impact</u> on the ability to retain and expand business within the town. May include: • Significant impact on increasing year-round job opportunities, particularly high-paying jobs; • Strong contribution to retaining existing and attracting new businesses to the town; • Significant private contributions to project's future development; • Substantially increases attraction for additional tourists to the town.	 Project would make a major contribution to the Town's ability to retain and expand business. May include: Create expanded job opportunities, year-round and seasonal; Measurable retention of existing business and/or possible attraction of new business to the town. May involve private contributions to the project directly or indirectly; Increases attraction of additional tourists to the town. 	 Project would have <u>some</u> <u>contribution</u> to the Town's ability to retain and expand businesses. May include: Minimal impact on expanded job opportunities, or preventing loss of jobs; Some potential for attraction of new business to town. Little to no private contributions to the project directly or indirectly; May have some slight impact on attracting additional tourists to town. 	Project <u>does not</u> <u>have any impact</u> on the Town's ability to retain and expand businesses, create jobs, tourism or the tax base.
INFRASTRUCTURE AND PROTECTION OF CAPITAL ASSETS degree to which project maintains and protects existing capital assets of the town.	 Project is critical to save structural integrity of existing asset or repair significant structural deterioration. Failure to act would result in complete loss of the asset or would require significantly more funds if repairs are delayed. Project would meet the needs of the community for a minimum of 20 years. 	 Project is necessary to repair or replace assets before a partial loss of structural integrity causes the need for significant repairs. Project would last a minimum of 10 years. Project would meet the needs of the community for a minimum of 10 years. 	 Project will improve appearance, public accessibility and/or deter future maintenance of this type for a minimum of 5 years. Project would meet the needs of the community for a minimum of 5 years. 	Project does not improve or protect existing capital assets.
ENVIRONMENT AND NATURAL RESOURCES degree to which project conserves and protects natural and historical resources of the town.	 Project is critical to preservation of a well-documented natural or historic town resource. Other applicable criteria may include: Failure to approve project would result in damage or deterioration of key natural resource/environment in the near future. If not approved, project would have long-lasting negative impacts on the town's water supply or coastal resources. Failure to approve project would result in a loss of critical resources Project significantly impacts an ACEC, WP or GP designated area. Project is critical to protect / stabilize a town-owned significant historic resource; 	 Project will have substantial impacts on the ability to preserve or maintain a key natural or historic resource for the town. Other applicable criteria may include: Project may repair natural ecological deterioration and may result in improved access by residents to enjoy resource. Maintains or improves the ecology of freshwater ponds, wetlands, or natural habitats. Project impacts GP designated district or other significant areas of concern. Project will improve / restore a historic resource as a physical record. 	Project will improve, but is not necessary for the maintenance of a key natural or historic resource for the town. Other applicable criteria may include: • May improve access by the public to enjoy the resource. • May add and/or expand the greenbelt system within the Town; or otherwise expand the amount of natural habitat. • Project is necessary to conserve / retain existing historic materials and/or features.	Project does not relate to or have any impact on preservation or maintenance of natural or historic resources.

CRITERIA AND STRATEGIC PLAN AREA	HIGHEST IMPACT (Score of 4)	MEDIUM IMPACT (Score of 3)	LOW IMPACT (Score of 2)	NO IMPACT OR NOT APPLICABLE (Score of 0)
QUALITY OF LIFE degree to which project addresses town-wide quality of life for its residents.	 Project is critical to the continuation or needed expansion of an existing cultural and/or human service. Project is required to respond to a documented health, cultural and/or human service need. Project significantly expands the quality of life for the residents of the town. 	 Project maintains or enhances the ability to deliver cultural and/or human services. Project enhances the existing quality of life within the town. 	 Project supports the delivery of cultural an/or human services. Project supports the existing quality of life within the town. 	 Project is not related to the delivery of cultural and/or human services. Project does not impact the quality of life within the town.
FINANCING availability of non- general fund financing overall financial feasibility.	 Project has a highly positive fiscal impact due to the following: Implementing project would result in significant increased revenues to the town or significantly expands the non-residential tax base; Non-general fund revenues sufficient to support 75-100% of project expense; and have been identified and applied for. 	 Project has a generally positive fiscal impact due to the following: Project would result some increased revenue to the town or increases the non-residential tax base somewhat; Non-general fund revenues sufficient to support 25-74% of project expense have been identified. 	 Project has a neutral to slightly positive fiscal impact due to the following: Additional revenues would not offset additional costs. Project supported by 1-25% of non-general fund revenues. 	 Project has a negative fiscal impact due to the following: None of the cost of the project will be funded by non-general funds. Project would not bring in additional revenues.
OPERATING BUDGET IMPACT degree to which project is required to reduce or eliminate short- term operating costs; and its impact on future operating budget.	 Project has a highly positive impact on the operating budget due to: Implementing project would substantially decrease current operating fund expenditures due to current excessive maintenance, patching, etc. costing more than 50% of the cost of the project, prorated over 3 years; 100% of future operating costs can be absorbed within existing budgets once project is completed. Not doing project would result in significant increased operating costs to the town in the near future (i.e. major repair versus complete replacement). 	 Project has a generally positive impact on the operating budget due to: Implementing project may moderately decrease current operating fund expenditures due to on-going repairs, maintenance, etc. costing between 25-50% of cost of the project prorated over 3 years; Project would result in minimal increase in future operating costs for the benefits gained; Not doing project would result in a noticeable, but not significant increase in expenditure of operating funds to repair or make asset usable in the short term. 	 Project has a neutral to slightly positive impact on the operating budget due to: Implementing project may decrease or have a neutral effect on current operating fund expenditures due to ongoing repair, maintenance, etc. costing up to 25% of the cost of the project prorated over 3 years; Project would increase future operating costs with only minimal benefits received; Not doing project would result in the need for minimal additional operating funds for repair / maintenance of current assets. 	Projects has a negative impact on the operating budget due to: • Significant increase in current operating fund expenditures required maintaining, repairing, or otherwise operating project. • Project requires significant increase in future operating fund expenditures without documented benefits

CRITERIA AND STRATEGIC PLAN AREA	HIGHEST IMPACT (Score of 4)	MEDIUM IMPACT (Score of 3)	LOW IMPACT (Score of 2)	NO IMPACT OR NOT APPLICABLE (Score of 0)
PLANNING AND RELATIONSHIP TO EXISTING PLANS how the project addresses implementation of previously developed plans of the town to protect and enhance human and physical assets.	Project is specifically included in a plan adopted by a State, Regional or Local Legislative body, such as: • Specifically listed in the annual Town Council Strategic Plan. • Included within the prior 5 year Capital Improvement Program • Listed as a priority in the 5 Year Capital Improvements Plan of the LCP (once adopted). • Project included in a State Bond Bill • Project is specifically listed in a plan adopted by the Town Council.	 Project is part of an Executive Order or Plan of Action adopted by the School Board and/or the Town Manager, such as: Project generally supports the policies and/or resolves adopted by the Town Council Project is included in the current year Transportation Improvement Program (TIP). Project specifically included in a plan adopted by the School Board and/or the Town Manager 	 Project is included as part of a Town Departmental Work Plan, or part of a functional service delivery system such as. Project supports the Departmental Mission and prioritizes needed action Project needed to accomplish a major service effort Project supports a plan adopted by the School Board and/or the Town Manager 	Project is not related to the plans, policies or resolves adopted by the Town Council or other agencies of the town.
USAGE AND SERVICE DEMAND degree to which project is used by population and manner in which it is used.	 Project will be in continuous usage or will be used year round. Project will serve 50 to 100% of the population of the town. Project serves three or more functions and/or needs of the town. 	 Project will be used the majority of the year. Project will serve 25 to 75% of the population of the town or is designed for a village or other sub-area of the town. Project serves at least two functions and/or needs of the town. 	 Project will be used seasonally. Project will serve less than 25%, but more than 5% of the population of the town or is designed for a limited service area. Project serves a single service and/or need of the town. 	 Project will be only intermittently used. Project will provide limited services to a very limited service area.

The scores from the first and second round evaluations were used to rank the projects by priority using the average ranking from each method. Many of the highest-ranking projects are recommended for funding in FY 2021. Some of the higher scoring projects that did not receive any funding in FY 2021 may be a result of the project not being ready for the construction phase, the cost or approach requires further evaluation, funding is not available or the department submitted the project with a request for funding in a subsequent year. The rankings are illustrated on the following page. The projects highlighted are all included in the FY 2021 proposed program.

Project Ranking Results

FY 2021	L TASK FOI	RCE PROJECT SCORES	PRIORITY	PRIORITY	DIFFERENCE						
DEPT	DEPT		BY AVG.	BY AVG.	IN	ROUND 1	ROUND 2	AVERAGE	ROUND 1	ROUND 2	AVERAGE
NAME	PRIORITY	PROJECT TITLE	SCORE	RANK	PRIORITY	SCORE	SCORE	SCORE	RANK	RANK	RANK
BPD	1	Police Radio Improvements	3	1	-2	4.00	21.42	12.71	1	3	2.00
MEA	1	Channel Dredging Program	2	2	0	3.50	23.92	13.71	5	2	3.50
DPW	1	Public Roads Maintenance Program	1	3	2	3.42	24.25	13.83	8	1	4.50
DPW	9	Salt Shed Repairs	8	4	-4	3.67	19.08	11.38	3	13	7.75
DPW	33	Stormwater Improvements at Impaired Ponds	4	5	1	3.25	21.33	12.29	15	4	9.25
MEA	3	Blish Point Construction for Long-Term Solution	5	6	1	3.25	20.83	12.04	15	5	9.75
нусс	2	Hyannis Youth and Community Center Facility Improvements	7	7	0	3.25	19.58	11.42	15	7	10.75
BPD	2	Storage Appliance	9	7	-2	3.83	18.67	11.25	2	20	10.75
BPD	3	Barnstable Police Department Improvements	10	9	-1	3.33	19.08	11.21	11	13	11.50
ІТ	2	Aerial Flyover & Mapping Update	11	9	-2	3.42	18.92	11.17	8	15	11.50
DPW	7	Town Hall Security Implementation	12	11	-1	3.50	18.67	11.08	5	20	12.25
DPW	14	Oyster Harbors Bridge Study	6	12	6	3.00	20.42	11.71	21	6	13.50
MEA	2	Patrol Vessel Replacement	13	12	-1	3.50	18.58	11.04	5	22	13.50
DPW	5	Town Hall Mechanical Improvements	14	14	0	3.25	18.75	11.00	15	17	15.50
SCH	1	Barnstable High School Sports Fields Upgrades, Phases 2 and 3.	15	15	0	2.83	19.08	10.96	25	13	18.50
DPW	16	Culvert Improvements	16	16	0	3.17	18.67	10.92	18	20	18.75
DPW	12	Hyannis Main Street West End Rotary Study Design and Construction	17	17	0	2.50	19.17	10.83	30	10	19.75
SCH	4	Barnstable United Elementary Chiller Replacement	19	17	-2	3.25	18.33	10.79	15	25	19.75
CSD	8	Hathaway's Pond Bathhouse and Site Improvements	17	19	2	2.42	19.25	10.83	32	9	20.25
Т	3	Unified Communications – VOIP (Voice over Internet Protocol)	22	20	-2	3.33	18.00	10.67	11	31	20.50
SCH	7	Campus Wide Mechanical Upgrades (Burners, Boilers, HVAC & Pump Systems)	20	21	1	2.42	19.08	10.75	32	13	22.00
CSD	9	Beach Parking Lot Rehabilitation - Craigville Beach	20	22	2	2.17	19.33	10.75	40	8	23.75
DPW	17	Emergency Generator Implementation Plan	37	23	-14	3.42	16.42	9.92	8	40	24.00
DPW	4	DPW Offices Phase III Construction	24	24	0	3.00	18.08	10.54	21	28	24.50
SCH	3	Barnstable High School (BHS) Synthetic Turf Replacement & Track Repair	23	25	2	2.92	18.17	10.54	23	27	24.75
SCH	2	District Wide Communication, Video Security and Entry Improvements	29	26	-3	3.25	17.50	10.38	15	36	25.25
CSD	1	Town Recreation Field Improvements Project – Bay Lane Ballfields	24	27	3	2.33	18.75	10.54	35	17	25.50
CSD	2	Beach Parking Lot Rehabilitation - Keyes Memorial Beach	26	27	1	2.83	18.17	10.50	25	27	25.50
DPW	2	School Administration Building Mechanical Cooling Upgrades	28	29	1	3.00	17.83	10.42	21	35	27.75
CSD	4	Salt Water Beach House Improvements	27	30	3	2.17	18.67	10.42	40	20	29.50

The project ranking results (continued)

1 2021	L TASK FOR	RCE PROJECT SCORES	PRIORITY	PRIORITY	DIFFERENCE						
DEPT	DEPT		BY AVG.	BY AVG.	IN	ROUND 1	ROUND 2	AVERAGE	ROUND 1	ROUND 2	AVERAG
NAME	PRIORITY	PROJECT TITLE	SCORE	RANK	PRIORITY	SCORE	SCORE	SCORE	RANK	RANK	RANK
DPW	13	Snows Creek Culvert	31	31	0	2.50	18.00	10.25	30	31	30.00
CSD	6	Centerville Recreation Building Site Design & Construction	29	32	3	2.25	18.50	10.38	37	24	30.25
CSD	3	Centerville Recreation Interior Improvements	31	32	1	2.58	17.92	10.25	28	33	30.25
DPW	8	Marstons Mills School Demolition	41	34	-7	3.08	15.75	9.42	19	45	31.75
MEA	8	West Bay Breakwaters – Design and Construction	34	35	1	2.33	18.00	10.17	35	31	32.50
MEA	4	Marine & Environmental Affair Interior Project Phase III	38	35	-3	2.67	16.50	9.58	26	39	32.50
CSD	7	Hamblin Pond Bathhouse and Site Improvements	31	37	6	2.00	18.50	10.25	44	24	33.50
CSD	5	Adult Community Center Master Plan Development	35	38	3	2.33	17.83	10.08	35	35	34.50
DPW	11	200 Main Street Mansard Roof Replacement	42	39	-3	2.58	15.75	9.17	28	45	36.00
SCH	5	Barnstable High School Gym & Field House Improvements	36	40	4	1.92	18.00	9.96	46	31	38.25
DPW	15	Old Town Hall - JFK Museum Improvements	39	40	1	2.17	16.92	9.54	40	37	38.25
DPW	24	Sidewalks on Ocean Street from Snows Creek to Gosnold Street	43	42	-1	2.33	15.75	9.04	35	45	39.50
SCH	9	Flooring Replacement and Upgrades	40	43	3	2.08	16.83	9.46	42	38	40.00
DPW	23	Zion Union Heritage Museum Improvements	43	44	1	2.17	15.92	9.04	40	41	40.25
DPW	28	50 Pearl Street FY21 Facility Management Plan Implementation	45	45	0	1.83	15.83	8.83	49	42	45.25
нүсс	1	Hyannis Youth & Community Center Storage Building	47	45	-2	2.00	15.33	8.67	44	47	45.25
DPW	29	46 Pearl Street FY21 Facility Management Plan Implementation	46	47	1	1.83	15.75	8.79	49	45	46.50
DPW	27	Guyer Barn FY21 Facility Management Plan Implementation	48	48	0	1.92	15.25	8.58	46	48	47.00
DPW	10	Kalmus Beach Parking Lot Entrance Design & Construction	49	49	0	1.92	14.50	8.21	46	49	47.50
DPW	30	Cotuit Memorial Park Restoration	51	50	-1	1.75	12.17	6.96	51	51	50.75
SCH	15	Barnstable United Courtyard Improvements	50	51	1	1.58	14.33	7.96	52	50	51.00
SCH	8	Barnstable High School Positive Attendance System	52	52	0	1.75	10.75	6.25	51	52	51.25

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2021 CIP- Capital Submission Review Process

PART III – STATUS OF EXISTING CAPITAL APPROPRIATIONS

Balances in Completed Projects Used to Fund the FY 2021 Capital Program

Part of the annual Capital Improvements Program development process is to review the status of all previously approved projects. If a project has been completed and funds remain in the appropriation, the remaining funds will be used as a funding source for the current year's capital program. A total of \$878,185 has been identified in prior appropriations and will be applied as follows:

	Available	
Original Appropriation Order	Amount	Project Allocation
2013-106 Design BIS Façade	\$150	2020-082 BHS Sports Fields Upgrades
2015-116 BIS Façade Improvements	\$7,726	2020-082 BHS Sports Fields Upgrades
2016-081 BCIS Façade & Roof Improvements	\$8,240	2020-082 BHS Sports Fields Upgrades
2016-082 Light Poles & Rest Rooms	\$849	2020-082 BHS Sports Fields Upgrades
2017-062 BPS Unit Ventilator Upgrades	\$3,541	2020-082 BHS Sports Fields Upgrades
2017-063 BHS 21 st Century Learning Center	\$18,710	2020-082 BHS Sports Fields Upgrades
2017-067 BHS Stadium Bleachers	\$723	2020-082 BHS Sports Fields Upgrades
2017-068 BHS Cafeteria Store Front	\$17,110	2020-082 BHS Sports Fields Upgrades
2018-106 BCIS Handicap Access	\$1,905	2020-082 BHS Sports Fields Upgrades
2018-066 BHS & BIS Roof Top Ventilators	\$1,073	2020-082 BHS Sports Fields Upgrades
2019-058 HY West Truss Replacement	\$203,511	2020-082 BHS Sports Fields Upgrades
2017-088 Dispatch Center Renovations	\$12,561	2020-100 Police Radio Equipment
2016-111 Blish Point Dredging	\$530,000	2020-107 Channel Dredging Program
2017-070 Town Hall & SAB Masonry Sealer	\$30,000	2020-110 Keyes Beach Parking Lot
2018-031 3 Bay Town Pier Evaluation	\$30,000	2020-110 Keyes Beach Parking Lot
2014-109 Mill Pond and Long Pond	\$8,389	2020-112 Snows Creek Culvert
2016-078 Dog Park Hathaway	\$3,697	2020-112 Snows Creek Culvert
Total	\$878,185	

The list on the following pages comprise the active capital projects. Some of these projects are near completion and some have yet to be implemented.

Review of Active Prior Year Capital Appropriations (Balances as of 2/5/2020)

General Fund Active Prior Year Capital Appropriations

COUNCIL								
ORDER	FY CIP	PROJECT #	PROJECT TITLE	APPROPRIATION	EXPENDED	ENCUMBERED	BALANCE	APPROPRIATION STATUS
2010-111	FY11	10111	FY11 WEST BAY BRIDGE REP	650,000	492,810	114,460	42,730	Expires when encumbrance is paid or liquidated
2010-113	FY11	10113	FY11 COMPREHENSIVE WASTE	600,000	511,153	70,691	18,155	Expires when encumbrance is paid or liquidated
2012-097	FY13	2097M	FY13 BUMPS RIVER BRIDGE	29,000	17,037	11,963	-	Expires when encumbrance is paid or liquidated
2013-114	FY14	13114	FY14 WATER QUALITY EVALU	300,000	183,560	116,440	-	Expires when encumbrance is paid or liquidated
2013-116	FY14	3116C	FY14 TOWN HALL INTERIOR	150,000	137,853	2,780	9,367	Expires when encumbrance is paid or liquidated
2014-102	FY15	14102	FY15 POLICE FACILITY IMP	288,000	286,890	996	114	Expires when encumbrance is paid or liquidated
2014-108	FY15	14108	FY15 MARSTONS MILLS FISH	793,500	68,635	27,659	697,206	Expires when encumbrance is paid or liquidated
2014-109	FY15	14109	FY15 MILL POND & LONG PO	42,000	33,611	-	8,389	Balance used for FY 2021 capital program
2014-111	FY15	14111	FY15 VETERANS' PARK PLAN	50,000	33,036	7,300	9,664	Expires when encumbrance is paid or liquidated
2014-116	FY15	14116	FY15 COMPREHENSIVE DREDG	350,310	256,300	94,010	-	Expires when encumbrance is paid or liquidated
2014-118	FY15	14118	FY15 CENTERVILLE RECREAT	185,000	57,119	8,021	119,860	Expires when encumbrance is paid or liquidated
2014-119	FY15	14119	FY15 TOWN FACILITIES SEC	100,000	58,150	1,377	40,473	Expires when encumbrance is paid or liquidated
2015-096	FY16	15096	FY16 PUBLIC ROAD MAINTEN	3,250,000	3,213,841	36,159	0	Expires when encumbrance is paid or liquidated
2015-100	FY16	15100	FY16 POLICE FACILITY IMP	355,000	333,828	5,288	15,884	Expires when encumbrance is paid or liquidated
2015-101	FY16	15101	FY16 TOWN HALL IMPROVEME	939,000	91,637	3,750	843,613	Expires when encumbrance is paid or liquidated
2015-103	FY16	15103	FY16 JFK MEMORIAL RESTOR	87,000	36,422	48,900	1,678	Expires when encumbrance is paid or liquidated
2015-114	FY16	15114	FY16 DEMO PORTABLS @ MM	50,000	15,782	-	34,218	Any remaining balance will close June 30, 2020
2015-116	FY16	15116	BIS FAÇADE & ROOF IMPROVEMENTS	3,353,000	3,345,273	-	7,727	Balance used for FY 2021 capital program
2016-026	FY17	16026	FY16 SHOOTING RNG MONITO	35,000	33,654	1,346	-	Expires when encumbrance is paid or liquidated
2016-078	FY17	16078	FY16/17 DOG PARK-HATHAW	279,850	276,153	-	3,697	Balance used for FY 2021 capital program
2016-081	FY17	16081	FACADE & ROOF IMPROVMNTS	2,507,811	2,499,571	-	8,240	Balance used for FY 2021 capital program
2016-082	FY17	16082	LT POLE REPLMT/REST RM F	475,000	474,151	-	849	Balance used for FY 2021 capital program
2016-102	FY17	16102	FY17 PUBLIC ROAD MAINT P	3,250,000	3,234,318	7,841	7,841	Expires when encumbrance is paid or liquidated
2016-103	FY17	16103	FY17 SIDEWALK/GUARDRAIL	730,000	727,025	2,975	-	Expires when encumbrance is paid or liquidated
2016-104	FY17	16104	FY17 MS4 STORM MGMT PLAN	87,500	56,721	30,779	-	Expires when encumbrance is paid or liquidated
2016-111	FY17	16111	FY17 BLISH POINT DREDGIN	1,079,788	452,756	96,474	530,558	Balance used for FY 2021 capital program
2016-112	FY17	16112	FY17 OSTERVILLE BAY ELM	900,444	628,437	886	271,122	Expires when encumbrance is paid or liquidated
2016-113	FY17	16113	FY17 LOMBARD FIELD IMPRO	1,754,499	1,737,670	2,371	14,458	Expires when encumbrance is paid or liquidated
2017-062	FY18	17062	BPS UNIT VENTILATOR UPGR	250,000	246,459	-	3,541	Balance used for FY 2021 capital program
2017-063	FY18	17063	BHS 21ST CENTURY LEARNIN	3,500,363	3,481,653	-	18,710	Balance used for FY 2021 capital program
2017-066	FY18	17066	BPS ASBESTOS ABATEMENT	300,000	63,163	64,945	171,892	Expires when encumbrance is paid or liquidated
2017-067	FY18	17067	BHS STADIUM BLEACHERS	1,055,000	1,054,277	-	723	Balance used for FY 2021 capital program
2017-068	FY18	17068	BHS CAF STOREFRONT/BWB R	425,000	407,890		17,110	Balance used for FY 2021 capital program

2021 CIP - Status of Existing Capital Appropriations

General Fund Active Prior Year Capital Appropriations – Continued

COUNCIL								
ORDER	FY CIP	PROJECT #	PROJECT TITLE	APPROPRIATION	EXPENDED	ENCUMBERED	BALANCE	APPROPRIATION STATUS
2017-069	FY18	17069	TOWN HALL RESTROOM RENOV	560,000	49,546	29,454	481,000	Expires when encumbrance is paid or liquidated
2017-070	FY18	17070	TOWNHALL & SAB MASONRY S	116,000	71,438	13,297	31,265	\$30,000 used for FY 2021 capital program
2017-071	FY18	17071	FY18 PUBLIC ROADS IMPROV	3,250,000	3,248,855	521	624	Expires when encumbrance is paid or liquidated
2017-072	FY18	17072	JFK MUSEUM PLAZA REPLACE	235,000	130,466	89,505	15,029	Expires when encumbrance is paid or liquidated
2017-073	FY18	17073	FY18 SIDEWALK/GUARDRAIL	314,000	312,355	1,645	0	Expires when encumbrance is paid or liquidated
2017-074	FY18	17074	SHOOTING RANGE ASSESSMEN	350,000	21,550	13,496	314,954	Expires when encumbrance is paid or liquidated
2017-086	FY18	17086	OSTERVILLE REC BLDG DESI	675,000	238,584	4,925	431,491	Expires when encumbrance is paid or liquidated
2017-087	FY18	17087	SENIOR CTR STANDBY GENER	209,000	159,957	19,776	29,267	Expires when encumbrance is paid or liquidated
2017-088	FY18	17088	DISPATCH CTR RENOVATIONS	158,000	145,439	-	12,561	Balance used for FY 2021 capital program
2017-089	FY18	17089	FY18 HYDRILLA CONTROL	82,000	78,457	-	3,543	Any remaining balance will close June 30, 2020
2017-095	FY18	17095	TYLER CONTENT MGR SOFTWA	105,000	63,688	41,312	-	Expires when encumbrance is paid or liquidated
2018-031	FY18	18031	THREE BAY TOWN PIER EVAL	30,000	-	-	30,000	Balance used for FY 2021 capital program
2018-055	FY18	18055	MILL POND DREDGING	250,000	84,448	27,797	137,755	Expires when encumbrance is paid or liquidated
2018-063	FY19	18063	ARMORY BLDG EVAL/DESIGN	200,175	75,943	110,244	13,988	Expires June 30, 2021
2018-064	FY19	18064	BHS SPORTS FIELD UPGRADE	5,700,000	5,028,380	668,950	2,671	Expires June 30, 2021
2018-065	FY19	18065	BPS DISTRICT COMM, VIDEO	250,000	242,254	6,671	1,075	Expires June 30, 2021
2018-066	FY19	18066	BHS/BIS UNIT VENTILATOR	100,000	98,927	-	1,073	Balance used for FY 2021 capital program
2018-067	FY19	18067	BPS ELEM UNIT VENTILATOR	250,000	151,310	98,690	-	Expires June 30, 2021
2018-068	FY19	18068	WEST VILLAGES ELEM-GENER	100,000	7,296	67,734	24,970	Expires June 30, 2021
2018-075	FY19	18075	CRAIGVILLE BATHHOUSE IMP	315,116	75,246	-	239,870	Expires June 30, 2021
2018-076	FY19	18076	SENIOR CTR RENOVATIONS	727,247	178,997	4,350	543,900	Expires June 30, 2021
2018-077	FY19	18077	HYCC ROOF REPLACEMENT	195,668	17,648	23,875	154,145	Expires June 30, 2021
2018-089	FY19	18089	FY19 PUBLIC ROADS IMPROV	3,412,500	3,305,474	104,310	2,716	Expires June 30, 2021
2018-090	FY19	18090	DESIGN PHASE III DPW OFF	103,500	12,000	-	91,500	Expires June 30, 2021
2018-092	FY19	18092	SAB MACHANICAL UPGRADES	285,000	74,586	158,200	52,214	Expires June 30, 2021
2018-093	FY19	18093	BUMPS RIVER BRIDGE REPAI	100,000	887	61,178	37,935	Expires June 30, 2021
2018-094	FY19	18094	DEMO PORTABLES AT MM ELE	253,740	27,190	960	225,590	Expires June 30, 2021
2018-095	FY19	18095	OCEAN ST SIDEWALK DESIGN	45,000	1,272	-	43,729	Expires June 30, 2021
2018-096	FY19	18096	ARMORY BLDG-HAZMAT REMOV	667,000	153,281	114,131	399,589	Expires June 30, 2021
2018-106	FY19	18106	HANDICAP ACCESS-BCHMCPS	110,000	108,095	-	1,905	Balance used for FY 2021 capital program
2019-017	FY19	19017	HYANNIS WEST-EMERGENCY R	300,000	280,992	-	19,008	Expires June 30, 2021
2019-046	FY19	19046	BLISH POINT-STORM DAMAGE	120,000	101,500	-	18,500	Expires June 30, 2021
2019-058	FY19	19058	HYANNIS WEST ROOF TRUSS	850,000	646,489	-	203,511	Balance used for FY 2021 capital program
2019-093	FY20	19093	PHASE 2 FIELD IMPROVEMEN	250,000	12,305	2,000	235,695	Expires June 30, 2022
2019-094	FY20	19094	BPS DISTRICT COMM, VIDEO	500,000	438,146	25,649	36,205	Expires June 30, 2022

2021 CIP - Status of Existing Capital Appropriations

General Fund Active Prior Year Capital Appropriations – Continued

COUNCIL								
ORDER	FY CIP	PROJECT #	PROJECT TITLE	APPROPRIATION	EXPENDED	ENCUMBERED	BALANCE	APPROPRIATION STATUS
2019-096	FY20	19096	BPS MECHANICAL UPGRADES	250,000	15,873	27,950	206,177	Expires June 30, 2022
2019-097	FY20	19097	BHS ENVIRONMENTAL LAB	1,222,700	114,340	1,104,630	3,730	Expires June 30, 2022
2019-098	FY20	19098	BHS/BIS ROOF TOP VENTILA	1,500,000	58,937	57,274	1,383,789	Expires June 30, 2022
2019-099	FY20	19099	CENTERVILLE ELEM UNIT VE	500,000	(1,282)	20,215	481,067	Expires June 30, 2022
2019-100	FY20	19100	SCHOOL FACILITIES ASSMT	150,000	_	-	150,000	Expires June 30, 2022
2019-101	FY20	19101	HYANNIS WEST ROOF REPLAC	450,000	_	-	450,000	Expires June 30, 2022
2019-102	FY20	19102	CENTERVILLE ROOF REPLACE	250,000	_	-	250,000	Expires June 30, 2022
2019-113	FY20	19113	AERIAL FLYOVER & MAPPING	100,000	-	-	100,000	Expires June 30, 2022
2019-114	FY20	19114	AERIAL FLYOVER OF WATERW	50,000	-	-	50,000	Expires June 30, 2022
2019-115	FY20	19115	HYCC ROOF/HVAC/SECURITY	679,000	10,000	-	669,000	Expires June 30, 2022
2019-116	FY20	19116	CRAIGVILLE BATH HOUSE/PR	415,000	_	-	415,000	Expires June 30, 2022
2019-117	FY20	19117	MARSTONS MILLS TENNIS CO	620,000	41,755	-	578,245	Expires June 30, 2022
2019-119	FY20	19119	CHANNEL DREDGING	1,730,000	449,086	515,854	765,060	Expires June 30, 2022
2019-121	FY20	19121	FY20 PUBLIC ROADS PROGRA	3,450,000	697,564	883,340	1,869,096	Expires June 30, 2022
2019-122	FY20	19122	FY20 PUBLIC BRIDGE IMPRO	500,000	2,673	-	497,327	Expires June 30, 2022
2019-123	FY20	19123	BEARSES WAY BIKE PATH DE	125,000	-	-	125,000	Expires June 30, 2022
2019-124	FY20	19124	BUMPS RIVER BRIDGE REPAI	900,000	-	-	900,000	Expires June 30, 2022
2019-125	FY20	19125	FY20 SIDEWALK/GUARDRAIL	314,000	19,761	150,774	143,465	Expires June 30, 2022
2019-126	FY20	19126	MAIN ST HY TREE LIGHTING	114,000	6,000	-	108,000	Expires June 30, 2022
2019-127	FY20	19127	STORM SEWER MS4 PROGRAM	150,000	-	74,589	75,411	Expires June 30, 2022
2019-128	FY20	19128	CROSSWALK IMPROVMT	300,000	3,380	-	296,620	Expires June 30, 2022
2019-129	FY20	19129	TOWN HALL SECURITY IMPRO	480,000	-	-	480,000	Expires June 30, 2022
2019-146	FY20	19146	OSTERVILLE FIELD CONST	797,000	28,834	2,935	765,230	Expires June 30, 2022
2019-147	FY20	19147	COMMERCE RD IMPROV DESIG	300,000	21,030	40,470	238,500	Expires June 30, 2022
2019-148	FY20	19148	SCHOOL ADMIN BLDG IMPROV	996,000	33,472	-	962,528	Expires June 30, 2022
2019-149	FY20	19149	NEW MUNICIPAL PIER DESIG	125,000	-	-	125,000	Expires June 30, 2022
2019-150	FY20	19150	COTUIT TOWN DOCK	75,000	-	-	75,000	Expires June 30, 2022
2020-002	FY20	20002	CONSTRUCTION OF ROADWAY	275,000	-	-	275,000	Expires June 30, 2022
2020-015	FY20	20015	PAINE BLACK HOUSE RESTOR	242,822	-	-	242,822	Expires June 30, 2022
2020-018	FY20	20018	REAL ESTATE REVALUATION	330,400	47,135	283,265	-	Expires June 30, 2022
			TOTAL GENERAL FUND PROJECTS	66,761,933	41,738,389	5,607,377	19,416,167	

Airport Enterprise Fund Active Prior Year Capital Appropriations

COUNCIL								
ORDER	FY CIP	PROJECT #	PROJECT TITLE	APPROPRIATION	EXPENDED	ENCUMBERED	BALANCE	APPROPRIATION STATUS
2011-079	FY12	11079	GROUNDWATER BIOREMEDIATI	207,000	175,409	31,571	20	Expires when encumbrance is paid or liquidated
2012-094	FY13	12094	TERMINAL ENHANCEMENTS 20	200,000	77,528	41,925	80,547	Expires when encumbrance is paid or liquidated
2013-098	FY14	13098	TERMINAL & AARF IMPVMTS	200,000	96,061	1,840	102,099	Expires when encumbrance is paid or liquidated
2014-086	FY15	14086	RECONSTRUCT RUNWAY 6-24	400,000	84,337	315,663	-	Expires when encumbrance is paid or liquidated
2014-087	FY15	14087	PLACE EAST RAMP T-HANGAR	100,000	-	-	100,000	Any remaining balance will close June 30, 2020
2014-090	FY15	14090	TERMINAL & BLDG IMPROVEM	200,000	8,830	-	191,170	Any remaining balance will close June 30, 2020
2017-091	FY18	17091	FAA AIRPORT LAYOUT/MASTE	700,000	275,195	424,805	-	Expires when encumbrance is paid or liquidated
2017-093	FY18	17093	CLEAR VEGETATION/OBSTRUC	300,000	-	-	300,000	Expires June 30, 2020
2017-094	FY18	17094	RUNWAY/TAXIWAY MARKING P	75,000	19,913	-	55,087	Expires June 30, 2020
2018-069	FY19	18069	AIRPORT LAYOUT & MASTER	300,000	-	300,000	-	Expires when encumbrance is paid or liquidated
2018-104	FY19	18104	HANGER II/VARIOUS PROJ	549,900	522,265	-	27,635	Expires June 30, 2021
2019-103	FY20	19103	AIRCRAFT RESCUE & FIREFI	220,000	-	-	220,000	Expires June 30, 2022
2019-104	FY20	19104	FIRE FIGHTING BLDG ROOF	490,000	-	119,155	370,845	Expires June 30, 2022
2019-105	FY20	19105	SNOW REMOVAL-KODIAK	800,000	-	-	800,000	Expires June 30, 2022
2019-106	FY20	19106	SNOW REMOVAL-PLOW SANDER	230,000	-	-	230,000	Expires June 30, 2022
2019-109	FY20	19109	ACCESS RD EAST SIDE IMPR	1,000,000	-	-	1,000,000	Expires June 30, 2022
2019-110	FY20	19110	PFOS MITIGATION	250,000	-	-	250,000	Expires June 30, 2022
2019-111	FY20	19111	MOWING EQUIPMENT	165,000	-	-	165,000	Expires June 30, 2022
2019-112	FY20	19112	HANGER IMPROVEMENTS	100,000	-	-	100,000	Expires June 30, 2022
2019-153	FY20	19153	RATE STUDY/EQUIPMENT	200,000	147,287	-	52,713	Expires June 30, 2022
2020-053	FY20	20053	PFAS EVALUATIONS	100,000	39,259	60,741	-	Expires June 30, 2022
			AIRPORT CAPITAL FUND	6,786,900	1,446,084	1,295,701	4,045,115	

Golf Enterprise Fund Active Prior Year Capital Appropriations

COUNCIL								
ORDER	FY CIP	PROJECT #	PROJECT TITLE	APPROPRIATION	EXPENDED	ENCUMBERED	BALANCE	APPROPRIATION STATUS
2018-072	FY19	18072	HY GOLF MAINTENANCE BLDG	58,511	10,628	1,427	46,456	Expires June 30, 2021
2019-118	FY20	19118	HY GOLF CART PATH IMPROV	446,000	-	-	446,000	Expires June 30, 2022
			GOLF CAPITAL FUND	504,511	10,628	1,427	492,456	

Solid Waste Enterprise Fund Active Prior Year Capital Appropriations

COUNCIL								
ORDER	FY CIP	PROJECT #	PROJECT TITLE	APPROPRIATION	EXPENDED	ENCUMBERED	BALANCE	APPROPRIATION STATUS
2019-139	FY20	19139	UPRADE 5 COMPACTOR UNITS	80,000	-	-	80,000	Expires June 30, 2022
2019-141	FY20	19141	ROLL OFF TRAILER REPLACE	80,000	79,487	-	513	Expires June 30, 2022
2019-141	FY20	1914A	ALL TERRAIN/KUBOTA REPLA	80,000	65,319	-	14,681	Expires June 30, 2022
			SOLID WASTE CAPITAL FUND	240,000	144,806	-	95,194	

Water Pollution Control Enterprise Fund Active Prior Year Capital Appropriations

COUNCIL								
ORDER	FY CIP	PROJECT #	PROJECT TITLE	APPROPRIATION	EXPENDED	ENCUMBERED	BALANCE	APPROPRIATION STATUS
2013-093	FY14	13093	HYDRAULIC LOAD TESTING A	50,000	17,621	14,379	18,000	Expires when encumbrance is paid or liquidated
2014-076	FY15	14076	SEPTAGE BLDG EVALUATION-	450,000	116,072	330,680	3,248	Expires when encumbrance is paid or liquidated
2015-089	FY16	15089	RELINE SEWERS/LATERALS -	84,500	62,427	20,524	1,549	Expires when encumbrance is paid or liquidated
2015-090	FY16	15090	EVALUATE-SEWER COLLECTIO	200,000	153,956	6,124	39,920	Expires when encumbrance is paid or liquidated
2016-097	FY17	16097	CLARIFIERS REHAB	1,289,505	1,209,100	49,043	31,362	Expires when encumbrance is paid or liquidated
2016-098	FY17	16098	BACKUP GENERATOR REPLMT	904,000	601,196	3,395	299,409	Expires when encumbrance is paid or liquidated
2017-075	FY18	17075	WPC PUMP STATION EVALUAT	200,000	190,088	2,912	7,000	Expires June 30, 2020
2017-077	FY18	17077	WPC COMPUTERIZED SIMULAT	55,000	19,091	30,835	5,073	Expires June 30, 2020
2017-078	FY18	17078	DESIGN SEWER UPGRADES BA	72,000	10,826	60,974	200	Expires June 30, 2020
2018-078	FY19	18078	EFFLUENT DISPOSAL CAPACI	195,000	114,375	5,680	74,945	Expires June 30, 2021
2018-079	FY19	18079	EFFLUENT DISCHARGE LOCAT	150,000	-	-	150,000	Expires June 30, 2021
2019-130	FY20	19130	EFFLUENT FLOW METER EVAL	600,000	9,114	32,086	558,800	Expires June 30, 2022
2019-131	FY20	19131	SEWER SYSTEM EVAL SURVEY	380,000	78,698	271,802	29,500	Expires June 30, 2022
2019-132	FY20	19132	RENDEVOUS LANE PUMP STAT	1,160,000	82,430	139,320	938,250	Expires June 30, 2022
2019-133	FY20	19133	BEARSE'S WAY VACUUM SEWE	1,125,000	-	-	1,125,000	Expires June 30, 2022
2019-134	FY20	19134	SOUTH ST SEWER REHAB	4,019,000	-	-	4,019,000	Expires June 30, 2022
			WPC CAPITAL FUND	10,934,005	2,664,993	967,754	7,301,258	

Sandy Neck Enterprise Fund Active Prior Year Capital Appropriations

COUNCIL								
ORDER	FY CIP	PROJECT #	PROJECT TITLE	APPROPRIATION	EXPENDED	ENCUMBERED	BALANCE	APPROPRIATION STATUS
2019-120	FY20	19120	GATEHOUSE & TRAIL IMPROV	60,000	-	-	60,000	Expires June 30, 2022
			SANDY NECK CAPITAL FUND	60,000	-	-	60,000	

Water Supply Enterprise Fund Active Prior Year Capital Appropriations

COUNCIL								
ORDER	FY CIP	PROJECT #	PROJECT TITLE	APPROPRIATION	EXPENDED	ENCUMBERED	BALANCE	APPROPRIATION STATUS
2013-087	FY14	13087	WELL EXPLORATION PROGRAM	489,500	147,518	341,982	-	Expires when encumbrance is paid or liquidated
2014-073	FY15	14073	NEW WELL EXPLORATION 201	583,000	236,030	346,970	-	Expires when encumbrance is paid or liquidated
2017-080	FY18	17080	WELL REACTIVATION PROJEC	295,000	147,401	-	147,599	Expires June 30, 2020
2017-081	FY18	17081	FY18 PIPE REPLACEMENT	500,000	490,785	620	8,595	Expires June 30, 2020
2017-082	FY18	17082	FY18 PUMP STATION UPGRAD	200,000	160,355	9,784	29,861	Expires June 30, 2020
2017-099	FY18	17099	MAHER CARBON TREATMENT S	10,925,000	4,546,764	6,171,688	206,548	Expires June 30, 2020
2018-081	FY19	18081	FY19 PIPE REPLACEMENT	1,050,000	919,525	29,980	100,495	Expires June 30, 2021
2018-082	FY19	18082	FY19 PUMP STATION UPGRAD	200,000	151,954	9,360	38,686	Expires June 30, 2021
2018-083	FY19	18083	NEW WELL EXPLORATION	555,000	7,522	30,133	517,345	Expires June 30, 2021
2018-084	FY19	18084	PERM INTERCONNECT W COMM	165,000	5,961	2,191	156,848	Expires June 30, 2021
2019-059	FY20	19059	MARY DUNN WELL #4 REACTI	571,000	-	215,780	355,220	Expires June 30, 2022
2019-069	FY20	19069	ROADWAY DESIGN/UTILITY W	100,000	18,250	-	81,750	Expires June 30, 2022
2019-135	FY20	19135	FY20 PIPE REPLACEMENT UP	1,050,000	334,355	256,640	459,006	Expires June 30, 2022
2019-136	FY20	19136	FY20 PUMP STATION UPGRAD	200,000	5,471	-	194,529	Expires June 30, 2022
2019-137	FY20	19137	VALVE MAINT TRAILER SYST	75,000	-	-	75,000	Expires June 30, 2022
2019-138	FY20	19138	WELLS TREATMENT OPTIONS	220,000	30,403	59,728	129,869	Expires June 30, 2022
2019-212	FY20	19212	PHINNEY'S LANE WATER INF	1,000,000	-	-	1,000,000	Expires June 30, 2022
2019-215	FY20	19215	INTERIM ACTIVATED CARBON	3,000,000	69,538	2,482,116	448,346	Expires June 30, 2022
			WATER CAPITAL FUND	21,178,500	7,271,833	9,956,971	3,949,696	

Marina Enterprise Fund Active Prior Year Capital Appropriations

COUNCIL								
ORDER	FY CIP	PROJECT #	PROJECT TITLE	APPROPRIATION	EXPENDED	ENCUMBERED	BALANCE	APPROPRIATION STATUS
2015-109	FY16	15109	RECONSTRUCT PRINCE COVE	570,000	546,879	4,026	19,095	Expires when encumbrance is paid or liquidated
2015-110	FY16	15110	HYANNIS HARBOR BULKHEAD-	158,000	73,654	37,565	46,781	Expires when encumbrance is paid or liquidated
2016-109	FY17	16109	GATEWAY MARINA DREDGING	500,000	444,000	-	56,000	Balance will be used for next capital project.
			MARINA CAPITAL FUND	1,228,000	1,064,533	41,591	121,876	

2021 CIP - Status of Existing Capital Appropriations

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2021 CIP - Status of Existing Capital Appropriations

PART IV – FIVE YEAR FUNDING PLAN

A total of 159 projects amounting to \$387 million were submitted for requests over the next 5 years. This includes General Fund, Sewer Construction and Private Way Improvement Fund, and all Enterprise Funds. The town has several funding sources to finance its capital program; the Capital Trust Fund, which is used to finance General Fund capital, General Fund surplus, each individual Enterprise Fund and the Sewer Construction and Private Way Improvement Fund.

The Capital Trust Fund is a mechanism that allows the town to accumulate funds from various sources to finance its General Fund supported capital program. These resources include property taxes, fees, rental income, revenue from renewable energy projects, investment income, free cash reserves, and excess overlay reserves. A transfer is made annually from the General Fund with a projected transfer for FY 2021 of \$11.7 million. This transfer will be part of the annual operating budget and includes an estimated \$1 million from the town's excess overlay reserve.

A newer funding tool in the form of the Sewer Construction and Private Way Maintenance and Improvement Fund was created. The state legislature approved a home rule petition that allows the town to credit 100% of the local meals tax and 1/3 of the local room's tax to this fund. The town may appropriate monies in the fund for planning, designing and construction of sewers and other means of comprehensive wastewater management and maintenance and improvement of private ways.

More recently, the Town Council approved the creation of a Stabilization Fund for the comprehensive management of water and wastewater and 100% of the local taxes generated from short-term rentals is credited to this fund. FY 2020 is the first year of this new revenue source.

Most of the Enterprise Fund's capital improvements are financed by the respective enterprise fund operation through a combination of user fees and grant funding. The town also seeks out grant funding for the Enterprise Fund and General Fund capital programs.

The schedules on the following pages illustrate what a 5 year Capital Improvements Plan might look like. Many of the projects that went through the evaluation process in the development of this year's Capital Improvements Plan can be funded over the next 5 years. The projects listed under FY 2021 are recommended for funding in this year's plan while the outer years of 2022 to 2025 are shown for illustrative purposes. It is anticipated that many of these projects will come forward for funding in the respective year shown, however, some may be bumped due to shifting priorities, anticipated grant funding materializing and several other assumptions holding true. The projects in the outer years will be subjected once again to the evaluation process they went through this year.

Over the next 5 years, the Town can anticipate funding \$297 million in capital projects. Enterprise Funds total \$112 million, the Sewer Construction and Private Way Maintenance and Improvement Fund totals \$105 million, and the General Fund totals \$80 million. This includes 121 projects; 51 for the Enterprise funds, 15 for the Comprehensive Water Management, and 55 General Fund.

Detailed Project Listing

Five Year Capital Improvements Plan for Enterprise Funds

LISTING	OF CAPIT	AL IMPROVEMENT PROJECTS: ENTERPRISE FUNDS		F	IVE YEAR COST	S		PROJECT
DEPT	PRIORITY	PROJECT TITLE	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	TOTALS
BMA	1	Design & Construct Tree Clearing Phase I	300,000	-	-	-	-	300,000
BMA	2	Upgrade Airport Security Cameras	200,000	-	-	-	-	200,000
BMA	3	Reporting, Testing, Mitigation, and Monitoring (PFOS Soils)	250,000	100,000	100,000	-	-	450,000
BMA	4	Extend Mary Dunn Way, including drainage repairs and utilities (Phase II)	3,400,000	-	-	-	-	3,400,000
BMA	5	Environmental Review for Airport Master Plan Projects	1,150,000	-	-	-	-	1,150,000
BMA	6	Design and Construct New T-Hangar/FBO Offices	700,000	-	-	-	-	700,000
BMA	7	Design and Construct New Airport Owned Avgas Fuel Tank/Self-Service Tank	700,000	-	-	-	-	700,000
BMA	8	Replace Runway 24 Engineer Material Arresting System (EMAS)	-	7,000,000	-	-	-	7,000,000
BMA	9	Environmental Permitting Phase II for Airport Master Plan Update Projects	-	225,000	-	-	-	225,000
BMA	10	Replace Aircraft Rescue and Fire Fighting (ARFF) Equipment	-	975,000	-	-	-	975,000
BMA	11	Easements for Future Construction/Runway 15 Tree Clearing Phase II	-	600,000	-	-	-	600,000
BMA	12	Replace Snow Removal Equipment (SRE) (Chevy 2500HD)	-	55,000	-	-	-	55,000
BMA	13	Replace SRE Equipment (ASV Skid Steer Plow)	-	100,000	-	-	-	100,000
BMA	14	Terminal Upgrades - Baggage Belt Extension	-	400,000	-	-	-	400,000
BMA	15	Reconstruct RWY 6-24 (Approx. 4,700ft x 150ft.)	-	-	13,045,000	-	-	13,045,000
BMA	16	Runway 15-33 - Apply P-608 Surface Treatment and Repaint	-	-	475,000	-	-	475,000
BMA	17	Snow Removal Equipment (SRE) (Chevy 2500HD – Heavy Duty Vehicle with Plow)	-	-	55,000	-	-	55,000
BMA	18	Design and Replace Mo-Gas and Diesel Fuel Con-Vault, Gas Boy & Alarm	-	-	300,000	-	-	300,000
BMA	19	Replace Snow Removal Equipment (SRE) (Ford F350 – Heavy Duty Vehicle)	-	-	80,000	-	-	80,000
BMA	20	Design, Realign and Reconstruct a Portion of Taxiway Delta and Taxiway Echo	-	-	-	4,500,000	-	4,500,000
BMA	21	Demolish Circa 1957 T-Hangar and Replace with New Hangar	-	-	-	900,000	-	900,000
BMA	22	Replace Snow Removal Equipment (SRE) (Heavy Duty Carrier Vehicle)	-	-	-	300,000	-	300,000
BMA	23	Design, Realign and Reconstruct a Portion of Taxiway Bravo	-	-	-	-	4,500,000	4,500,000
		TOTAL AIRPORT	\$ 6,700,000	\$ 9,455,000	\$14,055,000	\$ 5,700,000	\$ 4,500,000	\$ 40,410,000
MAR	1	Bismore Park Bulkhead Improvements	-	300,000	5,388,000	-	-	5,688,000
		TOTAL MARINE & ENVIRONMENTAL AFFAIRS MARINAS	\$ -	\$ 300,000	\$ 5,388,000	\$-	\$ -	\$ 5,688,000
SDY	1	Sandy Neck ORV Trail and Gatehouse Relocation Construction	-	800,000	_	-		800,000
SDY	2	Sandy Neck Parking Lot Relocation	200,000	-	-	2,650,000	-	2,850,000
501	2	TOTAL MARINE & ENVIRONMENTAL AFFAIRS SANDY NECK	\$ 200,000	\$ 800.000	Ś.	\$ 2.650,000	Ś.	\$ 3.650.000
		TOTAL MARINE & ENVIRONMENTAL ALL'AND JAND LINECK	÷ 200,000			, 2,030,0 00	•	3,050,00

STING	OF CAPI	TAL IMPROVEMENT PROJECTS: ENTERPRISE FUNDS			IVE YEAR COSTS			PROJECT
DEPT	PRIORITY	/ PROJECT TITLE	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	TOTALS
нүсс	1	Hyannis Youth & Community Center Storage Building	-	280,480	-	-	-	280,4
НҮСС	2	Hyannis Youth and Community Center Facility Improvements	756,000	-	-	365,834	-	1,121,8
		TOTAL COMMUNITY SERVICES HYCC	\$ 756,000	\$ 280,480	\$-	\$ 365,834	\$ -	\$ 1,402,3
OLF	1	Golf Course Turf Maintenance Equipment Replacement	502,000	-	-	-	-	502,0
•		TOTAL COMMUNITY SERVICES GOLF	\$ 502,000	\$-	\$-	\$-	\$-	\$ 502,0
NPC	1	Solids Handling Upgrades Construction	8,000,000	-	-	-	-	8,000,0
NPC	2	Pump Station Rehabilitation	1,000,000	2,000,000	500,000	500,000	1,200,000	5,200,0
NPC	3	HVAC Improvements	85,000	-	-	-	-	85,0
WPC	4	Replacement of Truck 258 with a new ¾ ton pickup truck	55,000	-	-	-	-	55,0
NPC	5	WPCF Facility Study (DEP Required)	-	150,000	-	-	-	150,0
NPC	6	Sewer System Rehabilitation Program	-	400,000	250,000	250,000	250,000	1,150,0
NPC	7	Replacement of Crane Truck 247	-	75,000	-	-	-	75,0
VPC	8	Vacuum Truck Replacement	-	-	600,000	-	-	600,
VPC	9	Headworks Evaluation and Preliminary Design	-	-	250,000	-	-	250,
VPC	10	Effluent Sand Bed Valve Rehabilitation	-	-	50,000	250,000	-	300,
VPC	11	Main Switchboard (MSB) Generator Design and Construction	-	-	-	550,000	-	550,
VPC	12	91 South Street Pump Station Demolition	-	-	-	-	160,000	160,
		TOTAL PUBLIC WORKS WATER POLLUTION CONTROL	\$ 9,140,000	\$ 2,625,000	\$ 1,650,000	\$ 1,550,000	\$ 1,610,000	\$ 16,575,
NS	1	Pipe Replacement and Upgrade Program	750,000	1,050,000	1,050,000	1,050,000	1,050,000	4,950,0
ws	2	Wells, Pump Stations, Treatment Plant Repair & Upgrade Program	150,000	200,000	200,000	200,000	200,000	950,
ws	3	Airport & Mary Dunn Wells, Treatment, Pilot Study & Conceptual Layout.	300,000	-	8,000,000	-	-	8,300,
WS	4	Wells, Treatment, Pilot Study & Conceptual Layout.	350,000	-	14,000,000	-	-	14,350,
ws	5	Maher Filtration Plant, Solar Panels, Design & Construction	459,000	-	-	-	-	459,
WS	6	New Well Exploration Program	-	3,000,000	8,000,000	3,000,000	-	14,000,
		TOTAL PUBLIC WORKS WATER SUPPLY	\$ 2,009,000	\$ 4,250,000	\$ 31,250,000	\$ 4,250,000	\$ 1,250,000	\$ 43,009,
SW	1	Weigh Scale Replacement	100,000	-	-	-	-	100,
w	2	Roll Off Truck Replacement	-	-	250,000	-	-	250,
SW	3	Municipal Packer Replacement	-	-	-	300,000	-	300,
w	4	Rubber Tire Loader Replacement	-	-	-	-	300,000	300,
		TOTAL PUBLIC WORKS SOLID WASTE	\$ 100,000	\$ -	\$ 250,000	\$ 300,000	\$ 300,000	\$ 950,0

Five Year Capital Improvements Plan for Enterprise Funds - Continued

ISTING	OF CAPITA	AL IMPROVEMENT PROJECTS: SEWER CONSTRUCTION AND PRIVATE WAY IMP. FUND			IVE YEAR COST	8		PROJECT
DEPT	PRIORITY	PROJECT TITLE	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	TOTALS
CWM	1	Effluent Disposal Alternatives	1,000,000	-	TBD	-	-	1,000,00
CWM	2	Aeration System and Denitrification Technology Evaluation	200,000	-	5,000,000	-	-	5,200,00
CWM	3	Route 28 Centerville Sewer Expansion Project Design and Permitting	1,300,000	-	-	14,000,000	-	15,300,00
CWM	4	Old Yarmouth Road Sewer Expansion	600,000	-	6,000,000	-	-	6,600,00
CWM	5	Route 28 Marstons Mills Sewer Expansion Project	1,800,000	-	-	-	-	1,800,00
CWM	6	Private Road Repair – Old Mill Road, School Street and Asa Meigs Road	-	1,128,800	-	-	-	1,128,80
CWM	7	Route 28 East Sewer Expansion	-	12,000,000	-	-	-	12,000,00
CWM	8	Marstons Mills River Treatment System	-	TBD	TBD	TBD	TBD	-
CWM	9	Long Beach Sewer Expansion	-	300,000	750,000	-	7,500,000	8,550,00
CWM	10	Great Marsh Road Sewer Expansion	-	550,000	-	1,250,000	-	1,800,00
CWM	11	Phinney's Lane Sewer Expansion	-	-	20,000,000	-	-	20,000,00
CWM	12	Huckins Neck Sewer Expansion	-	-	300,000	750,000	-	1,050,00
CWM	13	Old Craigville Road Sewer Expansion	-	-	500,000	-	1,000,000	1,500,00
CWM	14	Shootflying Hill Road Sewer Expansion	-	-	-	600,000	-	600,00
сwм	15	Osterville Woods Sewer Expansion	-	-	-	-	450,000	450,00
CWM	16	Long Pond Area Sewer Expansion	-	-	-	-	28,000,000	28,000,00
		SEWER CONSTRUCTION AND PRIVATE WAY MAINTENANCE AND IMPROVEMENT FUND	\$4,900,000	\$13,978,800	\$32,550,000	\$16,600,000	\$36,950,000	\$104,978,80

Five Year Capital Improvements Plan for Sewer Construction And Private Way Maintenance and Improvement Fund

Five Year Capital Improvements Plan for General Fund

LISTING	OF CAPIT	AL IMPROVEMENT PROJECTS: GENERAL FUND		FIVE YEAR COSTS				PROJECT
DEPT	PRIORITY	PROJECT TITLE	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	TOTALS
BPD	1	Police Radio Improvements	121,115	-	-	-	-	121,115
BPD	2	Storage Appliance	125,000	-	-	-	-	125,000
BPD	3	Barnstable Police Department Improvements	991,000	-	-	-	1,359,719	2,350,719
		TOTAL POLICE DEPARTMENT	\$ 1,237,115	\$ -	\$ -	\$ -	\$ 1,359,719	\$ 2,596,834
			-	-	-	-	-	
ADM	1	Unified Communications – VOIP (Voice over Internet Protocol)	342,000	-	-	-	-	342,000
		TOTAL ADMINISTRATION DEPARTMENT	\$ 342,000	\$-	\$ -	\$-	\$-	\$ 342,000
			-	-	-	-	-	
MEA	1	Channel Dredging Program	2,055,000	2,880,000	2,948,000	2,768,000	1,353,000	12,004,000
MEA	2	Patrol Vessel Replacement	300,000	-	-	-	-	300,000
MEA	3	Blish Point Construction for Long-Term Solution	-	300,000	-	-	2,000,000	2,300,000
MEA	4	Marine & Environmental Affair Interior Project Phase III	120,000	-	-	-	250,032	370,032
MEA	5	Evaluation of Little River Fish Passage Restoration	-	75,000	-	TBD	-	75,000
MEA	8	Scudder's Lane Boat Ramp Design & Construction	-	-	-	-	150,000	150,000
		TOTAL MARINE & ENVIRONMENTAL AFFAIRS DEPARTMENT	\$ 2,475,000	\$ 3,255,000	\$ 2,948,000	\$ 2,768,000	\$ 3,753,032	\$ 15,199,032
			-	-	-	-	-	
CSD	1	Town Recreation Field Improvements Project – Bay Lane Ballfields	-	154,307	127,500	-	-	281,807
CSD	2	Beach Parking Lot Rehabilitation - Keyes Memorial Beach	150,000	-	-	-	-	150,000
CSD	3	Centerville Recreation Interior Improvements	-	-	292,432	150,000	75,000	517,432
CSD	4	Salt Water Beach House Improvements	-	-	-	144,783	1,176,354	1,321,137
CSD	5	Adult Community Center Master Plan Development	-	110,000		TBD	-	110,000
		TOTAL COMMUNITY SERVICES DEPARTMENT	\$ 150,000	\$ 264,307	\$ 419,932	\$ 294,783	\$ 1,251,354	\$ 2,380,376
			-	-	-	-	-	
DPW	1	Public Roads Maintenance Program	3,550,000	3,650,000	3,750,000	3,850,000	3,950,000	18,750,000
DPW	2	School Administration Building Mechanical Cooling Upgrades	-	1,216,000	838,643	-	-	2,054,643
DPW	3	DPW Offices Phase III Construction	-	-	2,537,043	-	-	2,537,043
DPW	4	Town Hall Mechanical Improvements	-	-	-	5,637,790	-	5,637,790
DPW	5	Town Hall Security Implementation	-	337,000	TBD	-	-	337,000
DPW	7	Salt Shed Repairs	345,000	-	-	-	-	345,000
DPW	8	Kalmus Beach Parking Lot Entrance Design & Construction	50,000	350,000	-	-	-	400,000
DPW	9	200 Main Street Mansard Roof Replacement	374,000	-	-	-	-	374,000
DPW	11	Snows Creek Culvert	75,000	-	-	1,400,000	-	1,475,000
DPW	12	Oyster Harbors Bridge Study	-	200,000	-	-	-	200,000
DPW	13	Old Town Hall - JFK Museum Improvements	-	249,415	1,382,978	-	-	1,632,393
DPW	14	Culvert Improvements	-	-	-	450,000	-	450,000
DPW	15	Emergency Generator Implementation Plan	615,000	-	-	465,250	299,594	1,379,844

ISTING OF CAPIT		AL IMPROVEMENT PROJECTS: GENERAL FUND		FIVE YEAR COSTS				PROJECT	
DEPT F	PRIORITY	PROJECT TITLE	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	TOTALS	
DPW	16	Mosswood Cemetery Building Improvements	-	-	-	64,288	252,824	317,11	
DPW	17	Parking Lots Maintenance	-	-	-	-	500,000	500,00	
DPW	18	Cape Cod Airfield Hangar Repair	-	-	-	-	332,362	332,36	
DPW	19	Cape Cod Rail Trail Extension	-	-	-	275,000	750,000	1,025,00	
DPW	20	Zion Union Heritage Museum Improvements	-	-	457,390	-	-	457,3	
DPW	21	Sidewalks on Ocean Street from Snows Creek to Gosnold Street	40,000	242,000	-	-	-	282,0	
DPW	22	U.S. Custom House Interior Work	-	-	-	-	393,178	393,1	
DPW	23	Sidewalk Installation: East Bay Road	-	-	-	-	100,000	100,0	
DPW	24	Guyer Barn FY21 Facility Management Plan Implementation	-	-	-	-	140,978	140,9	
DPW	25	50 Pearl Street FY21 Facility Management Plan Implementation	-	-	-	-	204,447	204,4	
DPW	26	46 Pearl Street FY21 Facility Management Plan Implementation	-	-	-	-	175,271	175,2	
DPW	27	Cotuit Memorial Park Restoration	-	-	-	-	187,797	187,7	
DPW	28	Burgess Barn Interior	-	-	-	-	56,020	56,0	
DPW	29	West Barnstable Railroad Depot Restoration	-	-	-	-	118,227	118,2	
DPW	30	Stormwater Improvements at Impaired Ponds	300,000	300,000	300,000	300,000	300,000	1,500,0	
DPW	31	Sidewalks on Ocean Street from Gosnold Street to Kalmus Beach	665,000	-	-	-	-	665,0	
DPW	32	Town Hall Complex Improvements - Parking Lot	-	-	-	-	130,000	130,0	
DPW	34	Sidewalks on Pitchers Way (Bearse's Way to Route 28) Design & Construction	-	-	-	-	650,000	650,0	
		TOTAL PUBLIC WORKS DEPARTMENT	\$ 6,014,000	\$ 6,544,415	\$ 9,266,054	\$12,442,328	\$ 8,540,698	\$ 42,807,4	
			-	-	-	-	-		
SCH	1	Barnstable High School Sports Fields Upgrades, Phases 2 and 3.	3,039,000	-	2,950,000	-	-	5,989,0	
SCH	2	District Wide Communication, Video Security and Entry Improvements	500,000	-	-	-	-	500,0	
SCH	3	Barnstable High School (BHS) Synthetic Turf Replacement & Track Repair	-	1,200,000	-	-	-	1,200,0	
SCH	4	Barnstable United Elementary Chiller Replacement	400,000	-	-	-	-	400,0	
SCH	5	Barnstable High School Gym & Field House Improvements	250,000	250,000	250,000	-	-	750,0	
SCH	6	Barnstable School Facilities Roof Top Unit Ventilator Replacement	-	3,500,000	-	2,000,000	-	5,500,0	
SCH	7	Campus Wide Mechanical Upgrades (Burners, Boilers, HVAC & Pump Systems)	250,000	250,000	250,000	250,000	250,000	1,250,0	
SCH	8	Barnstable High School Positive Attendance System	250,000	-	-	-	-	250,0	
SCH	9	Flooring Replacement and Upgrades	100,000	100,000	100,000	100,000	100,000	500,0	
		TOTAL SCHOOL DEPARTMENT	\$ 4,789,000	\$ 5,300,000	\$ 3,550,000	\$ 2,350,000	\$ 350,000	\$ 16,339,0	
			-	-	-	-	-		
		TOTAL GENERAL FUND PROJECT COSTS	\$15,007,115	\$15,363,722	\$ 16,183,986	\$17,855,111	\$15,254,803	\$ 79,664,7	
		TOTAL CAPITAL IMPROVEMENTS PROGRAM PROJECT COSTS	\$39,314,115	\$47,053,002	\$101,326,986	\$49,270,945	\$59,864,803	\$296,829,8	

TOTAL CAPITAL IMPROVEMENTS PROGRAM PROJECT COSTS	\$39,314,115	\$47.053.002	\$101.326.986	\$49.270.945	\$59.864.803	ć 1
TOTAL CAPITAL IMPROVEMENTS PROGRAM PROJECT COSTS	\$39,314,115	\$47,053,00Z	Ş101,326,986	\$49,Z70,945	\$ 59,864,803	Ş2
Sewer Construction and Private Way Maintenance and Improvement Fund Cash Flow Analysis

Chapter 355 of the Acts of 2014 enacted by the General Court allows the Town of Barnstable to establish a special fund that may be used for planning, designing and construction of sewers and other means of comprehensive wastewater management and maintenance and improvement of private ways.

Dedicated revenue sources for this fund include 100% of the local meals excise tax and one-third of the local rooms excise tax on traditional lodging. In addition, any betterment assessed to property abutters on sewer construction and private way improvements will be credited to this fund if the fund is used to finance the improvements.

Major Assumptions Used In Table A:

- Rooms and meals tax revenue will grow 1% per year;
- Investment earnings will grow 1.1 % of beginning fund balance per year;
- Existing sewer betterments collected will average \$76,000 per year;
- 50% betterments assessments will be implemented on recommended sewer projects;
- Loan amortization on bond issues will be 5-30 years;
- The net interest cost on the bonds are estimated to be 1.5% assuming Massachusetts Clean Water Trust (MCWT) subsidies;
- The bonds will be issued at a time so that the first loan payments will not be made until the following year, for example, the first payment on a FY 2021 bond issue will be in FY 2022;
- The Federal government will not make any changes and the tax advantages of municipal bonds will remain intact; and
- No other major changes will take place in the municipal bond market.

FY 2021: Total Bond Issue \$ 4,700,000

- \$ 1,000,000 annually over 5-years
- \$4,700,000 annually over 30-years

FY 2022: Total Bond Issue \$ 12,850,000

- \$850,000 annually over 5-years
- \$ 12,000,000 annually over 30-years

FY 2023: Total Bond Issue \$ 32,550,000

- \$ 1,550,000 annually over 5-years
- \$ 31,000,000 annually over 30-years

FY 2024: Total Bond Issue \$ 16,600,000

- \$ 2,600,000 annually over 5-years
- \$ 14,000,000 annually over 30-years

FY 2025: Total Bond Issue \$ 36,950,000

- \$1,450,000 annually over 5-years
- \$35,500,000 annually over 30-years

TABLE A – Estimated Sewer Construction And Private Way Maintenance and Improvement Fund Cash Flow 5 Year Plan

		FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
1	Beginning Trust Fund Balance	\$ 16,459,186	\$ 18,122,382	\$ 18,472,827	\$ 19,559,863	\$ 19,136,911	\$ 17,398,357	\$ 14,732,373	\$ 12,321,419	\$ 10,118,591	\$ 8,246,156
	Resources:										
2	Investment Earnings	181,051	199,346	203,201	215,158	210,506	191,382	162,056	135,536	111,304	90,708
3	Meals Tax	1,653,304	1,669,837	1,686,535	1,703,400	1,720,434	1,737,639	1,755,015	1,772,565	1,790,291	1,808,194
4	Rooms Tax	1,037,974	1,048,354	1,058,837	1,069,426	1,080,120	1,090,921	1,101,830	1,112,849	1,123,977	1,135,217
5	Total Assessments	92,509	88,335	535,917	1,103,636	1,085,685	2,102,557	2,069,846	2,037,134	2,025,256	1,991,712
6	Total Current Year Resources	2,964,838	3,005,871	3,484,491	4,091,621	4,096,745	5,122,499	5,088,748	5,058,084	5,050,829	5,025,830
7	Total Available Resources	19,424,024	21,128,254	21,957,317	23,651,484	23,233,657	22,520,857	19,821,120	17,379,503	15,169,420	13,271,986
	Commitments:										
8	Existing Debt Service Payments	(501,926)	(502,283)	(502,647)	(503,019)	(503,400)	(503,788)	(504,185)	(504,591)	(505,006)	(505,430
9	Authorized Unissued Debt Prior Years CIP (\$12m)	(599,715)	(593,511)	(587,307)	(581,103)	(574,899)	(568,695)	(562,491)	(556,288)	(550,084)	(543,880
10a	Estimated Debt Service on FY21 CIP (\$5m)		(430,833)	(424,750)	(418,667)	(412,583)	(406,500)	(208,125)	(204,733)	(201,342)	(204,733
10b	Estimated Debt Service on FY22 CIP (\$12.9m)			(882,750)	(870,200)	(857,650)	(845,100)	(832,550)	(675,000)	(664,000)	(653,000
10c	Estimated Debt Service on FY23 CIP (\$32.5m)				(2,141,583)	(2,111,100)	(2,080,617)	(2,050,133)	(2,019,650)	(1,743,750)	(1,715,333
10d	Estimated Debt Service on FY24 CIP (\$16.6m)					(1,375,667)	(1,356,200)	(1,336,733)	(1,317,267)	(1,297,800)	(787,500
10e	Estimated Debt Service on FY25 CIP (\$37m)						(2,027,583)	(2,005,483)	(1,983,383)	(1,961,283)	(1,939,183
11	Cash Program	(200,000)	(1,128,800)	-	-	-	-	-	-	-	-
12	Total Current Year Commitments	(1,301,642)	(2,655,427)	(2,397,454)	(4,514,572)	(5,835,299)	(7,788,484)	(7,499,702)	(7,260,912)	(6,923,264)	(6,349,059
13	Increase (Decrease) in Trust Fund	1,663,196	350,444	1,087,037	(422,952)	(1,738,554)	(2,665,985)	(2,410,954)	(2,202,828)	(1,872,435)	(1,323,229
14	Ending Fund Balance	\$ 18,122,382	\$ 18,472,827	\$ 19,559,863	\$ 19,136,911	\$ 17,398,357	\$ 14 732 373	\$ 12,321,419	\$ 10,118,591	\$ 8,246,156	\$ 6 922 927

This table illustrates the Sewer Construction And Private Way Maintenance and Improvement Fund cash flow incorporating all existing loan payments on previously authorized projects. The analysis also includes estimates on previously authorized projects with unissued loans as well as future recommended projects. Cash funded projects in FY 2021 total \$200,000 and bond funded projects total \$5 million. Bond issues over the next 10-year analysis include all submissions provided in the five-year plan. Line 8 in the table above illustrates all existing loan payments. Lines 10a and 10e illustrate the estimated debt service payments on new projects included in the five-year plan.

Capital Trust Fund (CTF) Cash Flow Analysis

The Capital Trust Fund (CTF) is used as a mechanism to finance the Town's General Fund Capital Improvements Program within the limitations of Proposition 2½. Annually, the Town transfers a sum of money from the General Fund into the CTF. The resources within the CTF are then used to make the annual loan payments on the bonds issued to finance the Town's capital program. The CTF operates essentially as a debt service fund. Some of the Town's capital appropriations are financed using the reserves within the CTF as opposed to bond issues. Annually, the Town reviews the projected cash flow of the CTF for the prospective 10-year period in order to measure the capacity level of the fund.

For the most part, this fund is not the funding source for Enterprise Fund capital improvements. Most Enterprise Funds pay 100% of their capital cost, which is recovered through their respective user fees. Enterprise Fund capital improvements may be funded from the CTF, which is a policy decision. The two current exceptions are the bond issues for the construction of the Hyannis Youth & Community Center (HYCC) and the bond issue for the Barnstable Harbor Marina bulkhead replacement.

The FY 2021 General Fund Capital Improvements Program includes a combination of "pay-as-you-go" or cash financing and new bond issues. The cash-financing portion of the program is funded from the Capital Trust Fund reserves and balances remaining in appropriations from completed projects. This "pay-as-you-go" financing approach saves the Town thousands of dollars in the form of bond issuance and interest cost. It also provides the opportunity to have some capital program on an annual basis, and provides flexibility within the budget. With just a debt service program, the CTF can become saturated with loan payments and prohibit the approval of any new projects until the debt service from other projects expire. This would also reduce the Town's flexibility in its resource allocation as future cash flows are committed to fixed annual loan payments.

In the event of absolute necessity, the cash portion of the program could be converted to a debt program to allow for a larger capital program up front. For example, the Town could allocate \$1 million in cash per year for capital improvements or allocate \$1 million per year towards new debt service. A \$1 million in new annual debt service could pay for a bond issue of approximately \$9 million with an amortization period of 10-years.

Furthermore, the cash program portion, if reduced or eliminated, could decrease the annual contribution from the General Fund to the CTF, if the need for funding General Fund operations is determined to be greater than the need for the capital expenditure. Countless scenarios can be created to allocate the annual cash flow of the CTF between cash and borrowing programs.

The annual contribution to the CTF has grown to \$10.7 million in FY 2021. This amount is projected to increase by 2.5 percent per year in order to allocate more funds to the capital program. Even as more funds are allocated to the capital program, the Town's capital needs require a higher contribution level. Opportunities to increase this contribution are examined every year.

Table A below illustrates the CTF cash flow for the next 10-years incorporating all existing loan payments and the FY 2021 proposed Capital Improvements Program (CIP). Table B illustrates the CIP Five-Year Plan within the CTF over the next 10-years, and Table C provides the detailed amortization of all existing loans to be paid out of the CTF.

Major Assumptions Used In Table A:

- Investment earnings will average 1.1% per year;
- The base transfer from the General Fund will increase 2.5% per year; plus additional \$ 200,000 for new growth;
- Additional General Fund contributions of \$ 1,000,000 staggered over three year intervals;
- Loan amortization on the FY 2021 bond issues will include:
 - \$ 1,145,000 over 5-years;
 - \$1,457,000 over 10-years;
 - \$6,021,462 over 15-years; and
 - \$ 1,765,000 over 20-years.
- The net interest cost on the bonds are estimated to average 4%;
- The FY 2021 bonds will be issued at a time so that the first loan payments will not be made until FY 2022;
- There are no estimated savings from bond refinancing included in the projection;
- The Federal government will not make any changes and the tax advantages of municipal bonds will remain intact;
- No other major changes will take place in the municipal bond market; and
- The cash funded portion of the capital program will average total \$4 million per year.

Major Assumptions Used In Table B:

In addition to all of the assumptions in Table A, additional bond issues for the next four years are included for the FY 2022 through FY 2025 capital programs with the following amortization amounts:

FY 2022: Total Bond Issue \$ 11,074,415

- \$1,978,415 annually over 5-years
- \$ 1,200,000 annually over 10-years
- \$3,180,000 annually over 15-years
- \$4,716,000 annually over 20-years

FY 2023: Total Bond Issue \$ 11,914,054

- \$ 500,000 annually over 5-years
- \$ 457,390 annually over 10-years
- \$ 6,198,000 annually over 15-years
- \$ 4,758,664 annually over 20-years

FY 2024: Total Bond Issue \$ 13,911,874

- \$ 250,000 annually over 5-years
- \$740,250 annually over 10-years
- \$3,883,834 annually over 15-years
- \$ 9,037,790 annually over 20-years

FY 2025: Total Bond Issue \$ 10,879,803

- \$ 380,000 annually over 5-years
- \$1,911,638 annually over 10-years
- \$4,303,000 annually over 15-years
- \$4,285,165 annually over 20-years

TABLE A – Estimated Capital Trust Fund Cash Flow FY 2021 – FY 2030

	ESTIMATED CAPITAL TRUST FUND CASH FLOW												
		FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030		
1	Beginning Trust Fund Balance	\$ 16,758,687	\$ 16,364,427	\$ 15,153,064	\$ 14,817,806	\$ 16,531,534	\$ 18,644,110	\$ 21,676,385	\$ 27,031,624	\$ 32,799,765	\$ 39,698,684		
	Resources:												
2	Investment Earnings	184,346	180,009	166,684	162,996	181,847	205,085	238,440	297,348	360,797	436,686		
3	Transfer From General Fund	10,692,825	11,160,146	11,639,150	12,130,129	12,633,382	13,149,217	13,677,947	14,219,896	14,775,393	15,344,778		
4	Additional Contribution From General Fund	1,000,000	-	-	1,000,000	-	-	1,000,000	-	-	1,000,000		
5	Other Resources	-	-	-	-	-	-	-	-	-	-		
6	Total Current Year Resources	11,877,171	11,340,155	11,805,834	13,293,125	12,815,229	13,354,302	14,916,387	14,517,244	15,136,190	16,781,464		
7	Total Available Resources	28,635,857	27,704,581	26,958,898	28,110,931	29,346,763	31,998,412	36,592,773	41,548,868	47,935,955	56,480,147		
	Commitments:												
8	Existing Debt Service Payments	(6,828,113)	(6,227,486)	(5,787,927)	(5,197,099)	(4,291,221)	(4,104,261)	(3,586,338)	(2,779,088)	(2,272,050)	(2,181,169)		
9	Authorized Unissued Debt Prior Years CIP (\$13m)	(1,430,403)	(1,394,112)	(1,357,821)	(1,321,529)	(1,285,238)	(1,076,147)	(1,046,767)	(1,017,388)	(988,009)	(958,629)		
10a	Estimated Debt Service on FY21 CIP (\$10m)		(1,279,919)	(1,245,344)	(1,210,769)	(1,176,194)	(1,141,618)	(878,043)	(852,628)	(827,213)	(801,797)		
11	Public Roads Program	(3,550,000)	(3,650,000)	(3,750,000)	(3,850,000)	(3,950,000)	(4,000,000)	(4,050,000)	(4,100,000)	(4,150,000)	(4,200,000)		
12	Other Cash Program	(462,914)	-	-	-	-	-	-	-	-	-		
13	Total Current Year Commitments	(12,271,430)	(12,551,517)	(12,141,092)	(11,579,397)	(10,702,653)	(10,322,026)	(9,561,148)	(8,749,104)	(8,237,271)	(8,141,596)		
14	Increase (Decrease) in Trust Fund	(394,260)	(1,211,363)	(335,258)	1,713,728	2,112,576	3,032,276	5,355,239	5,768,140	6,898,919	8,639,868		
15	Ending Trust Fund Balance	\$ 16,364,427	\$15,153,064	\$ 14,817,806	\$ 16,531,534	\$ 18,644,110	\$ 21,676,385	\$ 27,031,624	\$ 32,799,765	\$ 39,698,684	\$ 48,338,552		
16	Commitments as a % of Available Resources (max = 80%)	43%	45%	45%	41%	36%	32%	26%	21%	17%	14%		
17	Amount of available trust fund resources CY (max = 80%)	\$ 10,637,255	\$ 9,612,148	\$ 9,426,026	\$10,909,348	\$ 12,774,757	\$ 15,276,703	\$ 19,713,070	\$ 24,489,991	\$ 30,111,493	37,042,522		

This table illustrates the Capital Trust Fund's (CTF) cash flow incorporating all existing loan payments on previously authorized projects and the recommended projects for FY 2021. Cash funded projects in FY 2021 total \$4 million and bond funded projects total \$10 million. The bonds will be issued in FY 2021 and the first estimated loan payment of \$1.3 million is anticipated to be made in FY 2022 as illustrated above on line 10a. Line 8 in the table above includes all existing loan payments. Lines 11 and 12 include estimates on future cash appropriations for capital to be financed from the trust fund's reserves. One-time additional resources to be added to the fund are included on line 4 and 5. The percentage of the trust fund's current year resources that are committed in any year are less than the Administrative Code limit of 80% (line 16) indicating that the fund has the capacity to absorb more debt financed projects in future years.

TABLE B – Capital Trust Fund Estimated Capacity 5 Year Plan

	ESTIMATED CAPITAL TRUST FUND CASH FLOW ANALYSIS												
		FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030		
1	Beginning Trust Fund Balance	\$ 16,758,687	\$ 16,364,427	\$ 14,513,757	\$ 12,245,075	\$ 10,830,077	\$ 8,492,685	\$ 6,013,209	\$ 4,911,592	\$ 4,505,959	\$ 4,180,291		
	Resources:												
2	Investment Earnings	184,346	180,009	159,651	134,696	119,131	93,420	66,145	54,028	49,566	45,983		
3	Transfer From General Fund	10,692,825	11,160,146	11,639,150	12,130,129	12,633,382	13,149,217	13,677,947	14,219,896	14,775,393	15,344,778		
4	Additional Contribution From General Fund	1,000,000	-	-	1,000,000	-	-	1,000,000	-	-	1,000,000		
5	Other Resources	-	-	-	-	-	-	-	-	-	-		
6	Total Current Year Resources	11,877,171	11,340,155	11,798,801	13,264,825	12,752,513	13,242,637	14,744,092	14,273,924	14,824,959	16,390,761		
7	Total Available Resources	28,635,857	27,704,581	26,312,559	25,509,900	23,582,590	21,735,321	20,757,302	19,185,515	19,330,917	20,571,052		
	Commitments:												
8	Existing Debt Service Payments	(6,828,113)	(6,227,486)	(5,787,927)	(5,197,099)	(4,291,221)	(4,104,261)	(3,586,338)	(2,779,088)	(2,272,050)	(2,181,169)		
9	Authorized Unissued Debt Prior Years CIP (\$13.0m)	(1,430,403)	(1,394,112)			(1,285,238)	(1,076,147)	(1,046,767)	(1,017,388)	(988,009)	(958,629)		
-	Estimated Debt Service on FY21 CIP (\$10m)	(1,130,103)	(1,279,919)			(1,176,194)	(1,141,618)	(878,043)	(852,628)	(827,213)	(801,797)		
	Estimated Debt Service on FY22 CIP (\$11m)		(1,2,5,515)	(1,406,460)		(1,329,381)	(1,290,842)	(1,252,302)	(818,080)	(795,368)	(772,656)		
	Estimated Debt Service on FY23 CIP (\$12m)			(1,400,400)	(1,273,434)	(1,241,559)	(1,209,685)	(1,177,810)	(1,145,935)	(1,014,060)	(986,185)		
	Estimated Debt Service on FY24 CIP (\$14m)				(1)=70,101	(1,391,312)	(1,357,918)	(1,324,525)	(1,291,131)	(1,257,738)	(1,174,344)		
	Estimated Debt Service on FY25 CIP (\$11m)					(1)001)012)	(1,203,481)	(1,172,749)	(1,142,018)	(1,111,286)	(1,080,555)		
	Estimated Debt Service on FY26 CIP (\$8m)						(1)200) 101)	(972,176)	(946,536)	(920,897)	(895,257)		
	Estimated Debt Service on FY27 CIP (\$4.4m)							(3/2)2/0/	(524,447)	(510,440)	(496,433)		
-	Estimated Debt Service on FY28 CIP (\$9.9m)								(0=1) 111	(1,203,566)	(1,171,260)		
	Estimated Debt Service on FY29 CIP (\$11m)									(_,,,,,	(1,073,491)		
	Public Roads Program	(3,550,000)	(3,650,000)	(3,750,000)	(3,850,000)	(3,950,000)	(4,000,000)	(4,050,000)	(4,100,000)	(4,150,000)	(4,200,000)		
	Other Cash Program	(462,914)	(639,307)	(519,932)		(425,000)	(338,160)	(385,000)	(62,306)	(100,000)	(200,000)		
	Total Current Year Commitments	(12,271,430)	(13,190,824)	, , ,	, ,	, , ,	, , ,	, , ,	1 . ,	, , ,	, , ,		
14	Increase (Decrease) in Trust Fund	(394,260)	(1,850,670)	(2,268,682)	(1,414,998)	(2,337,392)	(2,479,475)	(1,101,618)	(405,633)	(325,668)	398,984		
15	Ending Trust Fund Balance	\$ 16,364,427	\$ 14,513,757	\$ 12,245,075	\$ 10,830,077	\$ 8,492,685	\$ 6,013,209	\$ 4,911,592	\$ 4,505,959	\$ 4,180,291	\$ 4,579,275		
16	Commitments as a % of Available Resources (max = 80%)	43%	48%	53%	58%	64%	72%	76%	77%	78%	78%		
17	Amount of available trust fund resources CY (max = 80%)	10,637,255	8,972,841	6,982,563	5,728,097	3,776,167	1,666,145	760,131	668,856	314,107	465,064		

Including the proposed FY 2021 capital program, it is estimated the Capital Trust Fund can absorb approximately \$146 million in projects over the next 10-years and stay within the maximum allowable commitment of 80% as shown on line 16. Cash financed capital is estimated at \$43 million and bond financed capital is estimated at \$103 million through FY 2030. The estimated annual loan payments on the bonds are illustrated on lines 9 through 10i.

TABLE C – Capital Trust Fund Debt Amortization Schedule As Of June 30, 2019

CAPITAL TRUST FUND DEBT SERVICE PROGRAM	Issued	Maturity	Principal	Payments											
Purpose	Date	Date	Amount	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
CTF MWPAT CW-04-31 Pool 11		07/15/20	389,216	33,999	-	-	-	-	-	-	-	-	-	-	-
CTF School Building Improvements	06/16/10		936,000	61,144	59,794	58,331	56,869	55,294	53,719	52,088	50,288	48,600	46,800		-
CTF Dredging	06/16/10		419,250	33,725	32,825	31,850	25,875	-	-	-	-	-	-	-	-
CTF Lake Treatment	06/16/10		275,000	17,475	17,025	16,538	16,050	15,525	-	-	-	-	-	-	-
CTF Municipal Facility Improvements	06/16/10		402,500	6,594	6,444	6,281	6,119	5,944	5,769	5,588	5,388	5,200		-	-
CTF Police Facility	06/16/10		508,000	33,969	33,219	32,406	31,594	30,719	29,844	28,938	27,938	27,000	26,000	-	-
CTF Nitrogen Management CW-04-31-A	03/15/11		211,460	23,330	-	-	-	-	-	-	-	-	-	-	-
CTF School Facilities Upgrades/Repairs V (I)	06/14/11		884,000	63,319	61,519	59,719	57,919	56,400	54,825	53,138	46,450	44,850	43,250	41,650	-
CTF Boat Ramp Renovations	06/14/11	06/15/21	250,000	26,000	-	-	-	-	-	-	-	-	-	-	-
CTF Bridge Repair	06/14/11	1 - 1	250,000	26,000	-	-	-	-	-	-	-	-	-	-	
CTF Building - Town Hall Space - 00-110 Refunded	06/14/11		180,000	19,760	-	-	-	-	-	-	-	-	-	-	-
CTF Dredging East Bay & Blish Point	06/14/11	06/15/21	665,000	67,600	-	-	-	-	-	-	-	-	-	-	-
CTF Municipal Facility Improvement	06/14/11		300,000	31,200	-	-	-	-	-	-	-	-	-	-	-
CTF School Facilities Upgrades/Repairs IV	06/14/11		332,000	31,200	-	-	-	-	-	-	-	-	-	-	-
CTF School Parking Lot (I)	06/14/11		250,000	26,000	-	-	-	-	-	-	-	-	-	-	-
CTF Sidewalk Improvements	06/14/11	06/15/21	350,000	36,400	-	-	-	-	-	-	-	-	-	-	
CTF Building - Town Hall Repairs - 01-087 Refunded	06/14/11		100,000	10,760	9,360	-	-	-	-	-	-	-	-	-	-
CTF School Remolding - Asbestos 00-110 Refunded	06/14/11		50,000	5,400	5,200	-	-	-	-	-	-	-	-	-	-
CTF Baxter's Neck Road - Private Way	06/14/11	06/15/26	350,000	29,725	23,725	22,925	22,125	21,450	20,750	-	-	-	-	-	-
CTF Prince Cove/Hayward Rd. Boat Ramp	06/14/11		600,000	49,050	47,450	45,850	44,250	42,900	41,500	-	-	-	-	-	-
CTF School Facilities Upgrades/Repairs II	06/14/11		179,000	12,263	11,863	11,463	11,063	10,725	10,375	-	-	-	-	-	-
CTF School Facilities Upgrades/Repairs III	06/14/11	06/15/26	190,000	12,263	11,863	11,463	11,063	10,725	10,375	-	-	-	-	-	
CTF School Improvement (I)	06/14/11		487,000	36,788	35,588	34,388	33,188	32,175	31,125	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Main St. Hyannis Infr. Improv.	04/18/12		39,100	4,162	-	-	-	-	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Building Improvements	04/18/12		96,600	10,814	10,464	6,732	-	-	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Drainage 1 (i)	04/18/12	- · · ·	193,200	21,628	18,968	15,504	-	-	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Drainage 2 (i)	04/18/12		96,700	10,818	10,468	6,834	-	-	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Police Facility Addition	04/18/12		626,900	65,700	63,600	61,200	-	-	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 School Remodel I	04/18/12		242,700	22,806	21,192	20,196	-	-	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 School Remodel II	04/18/12		193,400	21,580	17,940	15,300	-	-	-	-	-	-	-	-	-
CTF Bumps River Bridge Repair		11/15/23	120,000	10,950	10,650	10,375	10,125	-	-	-	-	-	-	-	-
CTF East Bay Dredging		11/15/23	600,000	65,700	63,900	62,250	60,750	-	-	-	-	-	-	-	-
CTF Guyer Barn Upgrades	11/22/13		148,000	16,300	15,850	15,438	10,125	-	-	-	-	-	-	-	-
CTF Highway Operations Facility Construction	11/22/13		66,000	5,475	5,325	5,188	5,063	-	-	-	-	-	-	-	-
CTF HS Library AC Units		11/15/23	450,000	49,275	47,925	46,688	45,563	-	-	-	-	-	-	-	-
CTF Hyannis Harbor Bulkhead Construction		11/15/23	142,000	16,025	10,650	10,375	10,125	-	-	-	-	-	-	-	-
CTF MEA Facility Upgrades	11/22/13		131,000	10,950	10,650	10,375	10,125	-	-	-	-	-	-	-	-
CTF Millway Boat Ramp & Dock Upgrades	11/22/13		133,000	10,950	10,650	10,375	10,125	-	-	-	-	-	-	-	-
CTF Osterville Community Building Upgrades	11/22/13	11/15/23	200,000	21,900	21,300	20,750	20,250	-	-	-	-	-	-	-	-
CTF Pearl St Building Upgrades	11/22/13	11/15/23	114,000	10,950	10,650	10,375	10,125	-	-	-	-	-	-	-	-
CTF Police Station Upgrades	11/22/13		168,000	16,425	15,975	15,563	15,188	-	-	-	-	-	-	-	-
CTF Private Road Repairs (I) \$633,000	11/22/13		633,000	65,700	63,900	62,250	60,750	-	-	-	-	-	-	-	
CTF S&G Facility Roof Repairs	11/22/13		103,000	10,950	10,650	10,375	10,125	-	-	-	-	-	-	-	-
CTF School Computer Network Infrastructure	11/22/13	1 -1 -	189,000	21,500	15,975	15,563	15,188	-	-	-	-	-	-	-	-
CTF School Fire & Communications System	11/22/13		200,000	21,900	21,300	20,750	20,250	-	-	-	-	-	-	-	-
CTF School Roof Repairs	11/22/13	11/15/23	600,000	65,700	63,900	62,250	60,750	-	-	-	-	-	-	-	-
CTF Sidewalk Overlays	11/22/13	11/15/23	190,000	21,650	21,050	15,563	15,188	-	-	-	-	-	-	-	-
CTF Tennis Courts	11/22/13		500,000	54,750	53,250	51,875	50,625	-	-	-	-	-	-	-	-
CTF Town Hall Interior Upgrades	11/22/13	11/15/23	150,000	16,425	15,975	15,563	15,188	-	-	-	-	-	-	-	-
CTF US Custom House upgrades	11/22/13	11/15/23	263,000	27,375	26,625	25,938	25,313	-	-	-	-	-	-	-	-
CTF Water Quality Evaluation	11/22/13	11/15/23	230,000	21,900	21,300	20,750	20,250	-	-	-	-	-	-	-	-
CTF West Barnstable Community Building Upgrades	11/22/13	11/15/23	72,000	5,475	5,325	5,188	5,063	-	-	-	-	-	-	-	- 1
CTF Beach Facilities Improvements (I) \$270,000 Refunded	02/15/15	02/15/22	71,300	15,120	14.560	-	-	-	-	-	-	-	-	-	-

CAPITAL TRUST FUND DEBT SERVICE PROGRAM	Issued	Maturity Date	Principal	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030	Payments FY 2031	Payments FY 2032
Purpose CTF Marstons Mills Fish Run Reconstruction	Date	02/15/30	Amount 326,000	26,825	26,025	25,225	24,425	23,625	22,825	22,225	21,625			FT 2031	FT 2032
	02/17/15		290,000	26,825	26,025	25,225	24,425	23,825	22,825	22,225	21,825	21,125 20,825	20,600 10,300		
CTF Senior Center - Parking Lot Expansion														-	-
CTF Centerville Recreation Building	02/17/15		185,000	14,463	14,063	13,663	13,263	12,863	12,463	12,163	11,863	11,613	11,350	11,050	10,750
CTF Early Learning Center Modular Facility	02/17/15		2,000,000 288,000	149,125	145,125	141,125 20,719	137,125 20,119	133,125 19,519	129,125 18,919	126,125 18,469	123,125 18,019	120,625 17,644	118,000 17,250	115,000 16,800	112,000 16,350
CTF Police Facilities CTF School Facilities Repair & Improvement (I) \$660,000 Refunded	02/17/15		199,700	21,919 41.000	21,319 38.480	20,719	20,119	- 19,519	- 18,919	18,409	18,019	17,044	- 17,250	10,800	10,350
CTF School Upgrades 1 (I) \$360,000 Refunded	02/17/15	- , -,	199,700	20.520	19.760	-	-	-			-	-	-		-
CTF Police Station Construction (I) \$400,000 Adv Refunded 6-15-05	02/17/15	- , -,	181,650	20,520	20,880	- 20,160	- 19.440	- 18.720	-	-	-	-	-	-	-
CTF Land Acquisition (I) - Hyannis Golf Course \$748,000 Refunded	02/17/15		325,200	46,080	44,560	43,040	35,520	34,240	32,960	-	-	-	-		-
CTF MME Roof Replacement (I) \$750,000 Refunded	02/17/15		329,800	46,080	44,360	43,040	40,720	34,240	32,960	-	-	-	-	-	
CTF School Health & Safety Improvements \$478,000 Refunded	02/17/15		193,400	28,660	27,700	21,740	19,980	19,260	18,540		-		-	-	-
CTF BHMCPS Roof (I) \$910,000 Refunded		02/15/20	426,900	54,050	52,330	50,610	48,890	46,170	44,490	42,230	-		-		
CTF School Upgrades 2 (I) \$150,000 Refunded	02/17/15		47,400	6,220	6,020	5,820	5,620	4,920	4,240	4,120	-		-		-
CTF Senior Center - Garden Level \$457,000 Refunded	02/17/15		195,000	23,940	23.180	22,420	21,660	20.900	20,140	19,570			-		
CTF Town Building Repairs & Renovations \$685,000 Refunded	02/17/15	- , -,	317.600	41.050	39,730	38.410	37,090	30,770	29,650	27.810	-	-	-		
CTF Nitrogen Management CW-04-31-B Series 16	05/14/15	07/15/20	157,531	27,963	-		57,050	-	-	27,810	-				
CTF BCHMCPS Façade & Roof Improvements (#2015-117)		06/30/26	260,000	31,000	30,000	29,000	28,000	27,000	26,000				-		-
CTF Channel Dredging-Barnstable Harbor (#2016-035)	02/25/16	06/30/26	490,000	61,600	59,600	57,600	55,600	48,600	46,800		-	-	-		
CTF High School & Middle School Boiler Upgrades (#2015-119)	02/25/16		350,000	43,400	42,000	40,600	39,200	37,800	36,400	-	-	-	-	-	-
CTF Paving: Bay Street Boat Ramp (#2015-099)		06/30/26	142.000	18.200	17.600	17.000	16.400	10.800	10,400	-	-	-	-		-
CTF W Village Elementary A/C Replacement (#2015-120)		06/30/26	250,000	31,000	30,000	29,000	28,000	27,000	26,000		-		-		
CTF Hamblin Pond Alum Treatment (#2015-112)	02/25/16	- · ·	300,000	27,325	26,525	25,725	24,925	24,125	23,325	22,525	22,125	21,625	21,200	20,600	
CTF Joshua's Pond Recretional Facility (#2015-111)		06/30/31	282,000	26,794	25,994	25,194	24,394	23,594	22,794	21,994	16,594	16,219	15,900	15,450	
CTF Road Repairs - Governor's Way (#2016-037)		06/30/31	304,000	27,325	26,525	25,725	24,925	24,125	23,325	22,525	22,125	21,625	21,200	20,600	-
CTF Road Repairs (#2015-102)		06/30/31	518,000	47,519	46,119	44,719	43,319	41,919	40,519	39,119	38,419	37,544	31,800	30,900	
CTF BIS Façade & Roof Improvements (#2015-116)		06/30/36	3,353,000	256,381	249,581	242,781	235,981	229,181	222,381	210,581	207,281	203,156	199,650	194,700	189,750
CTF Craigville Beach Bathhouse (#2016-031)		06/30/36	450.000	36.525	35.525	34.525	33.525	32.525	31.525	25.525	25.125	24.625	24.200	23.600	23,000
CTF Elementary School Modular Classroom (#2015-115)		06/30/36	3,720,000	280,506	273.106	265,706	258.306	250.906	243.506	236,106	232,406	227,781	223.850	218,300	212,750
CTF Guardrail Improvements (#2015-098)		06/30/36	170,000	18,600	18,000	17,400	16,800	16,200	15,600		-				
CTF Police Station Remodeling (#2015-100)	02/25/16		355,000	29,044	28,244	27,444	26,644	25,844	25,044	24,244	18,844	18,469	18,150	17,700	17,250
CTF Sidewalk Improvements (#2015-098)	02/25/16		230,000	30,200	29,200	23,200	22,400	21,600	20,800					-	-
CTF Town Hall Remodeling (#2015-101)		06/30/36	939,000	73,831	71,831	69,831	62,831	61,031	59,231	57,431	56,531	55,406	54,450	53,100	51,750
CTF Bismore Park Visitor Center - CAP \$150,000		06/30/23	48,000	11,120	8,720	10,400	-	-	-	-	-	-	-	-	-
CTF Bismore Park Visitor Center \$465,000 Refunded		06/30/23	147,500	33,520	32,320	29,120	-	-	-	-	-	-	-	-	-
CTF Boat Ramps - CAP \$927,000 Refunded	06/21/16		290,000	67,000	64,600	57,200	-	-	-	-	-	-	-	-	-
CTF Land Acquisition - CAP \$365,200 Refunded		06/30/23	115.000	26,680	23,720	21.840	-	-	-	-	-	-	-	-	-
CTF Pleasant St. Dock - 1 \$350,000 Refunded		06/30/23	109,500	24,560	22,680	21,840	-	-	-	-	-	-	-	-	-
CTF Pleasant St. Dock - 2 \$350,000 Refunded		06/30/23	110,000	24,560	22,680	21,840	-	-	-	-	-	-	-	-	-
CTF Private Road Repairs \$1,607,900	06/21/16		509,000	112,000	108,000	104,000	-	-	-	-	-	-	-	-	-
CTF Municipal Building Improvements \$297,000 Refunded		06/30/28	49,300	6,200	6,000	5,800	5,600	5,400	5,300	5,200	5,100	-	-	-	-
CTF School Facility Improvements 1 (I) \$916,600 Refunded		06/30/28	295,700	34,080	36,000	34,800	33,600	32,400	31,800	31,200	30,600	-	-	-	-
CTF IT Hardware and Software Upgrade (I) (#2016-086)	02/23/17	06/30/22	342,000	70,200	67,600	-	-	-	-	-	-	-	-	-	-
CTF Marstons Mills Parking Lot (I) (#2016-087)	02/23/17	06/30/22	246,450	53,800	46,800	-	-	-	-	-	-	-	-	-	-
CTF Beach Facility Improvement (I) (#2016-110)	02/23/17	06/30/27	438,000	57,000	55,200	53,400	51,600	44,800	43,200	41,600	-	-	-	-	-
CTF School Parking Lot Light Pole Replacement (I) (#2016-082)	02/23/17	06/30/27	435,000	57,000	55,200	53,400	51,600	44,800	43,200	41,600	-	-	-	-	-
CTF School Unit Ventilator Upgrade (I) (#2016-083)		06/30/27	230,000	31,200	30,200	29,200	23,200	22,400	21,600	20,800	-	-	-	-	-
CTF Private Roads Repairs (I) \$167,300	02/23/17	06/30/31	167,300	19,600	19,000	13,400	13,000	12,600	12,200	11,800	11,400	11,000	10,600	10,300	-
CTF Guardrail & Sidewalk Improvement Program (I) (#2016-103)	02/23/17	06/30/32	680,750	65,250	63,450	61,650	59,850	58,050	56,250	54,450	52,650	50,850	49,050	47,700	46,350
CTF Blish Point Boat Access Channel Dredging (I) (#2016-111)		06/30/37	943,900	78,506	76,506	74,506	72,506	70,506	63,506	61,706	59,906	58,106	56,306	54,956	53,606
CTF Lombard Field Improvements (I) (#2016-113)	02/23/17		895,000	72,338	70,538	68,738	66,938	65,138	63,338	61,538	59,738	57,938	56,138	54,788	53,438
CTF Osterville Bay Elem School Improvements (I) (#2016-112)	02/23/17		724,300	61,594	54,994	53,594	52,194	50,794	49,394	47,994	46,594	45,194	43,794	42,744	41,694
CTF Horace Mann Roof (I) (#2016-081)		06/30/38	2,350,000	203,119	197,119	191,119	187,519	181,519	175,519	169,519	163,519	152,519	147,919	143,319	139,869
CTF Barnstable Public Schools Unit Ventilator (I) (#2017-062)	02/27/18	06/30/28	225,000	33,250	32,000	30,750	25,000	24,000	23,000	22,000	21,000	-	-	-	-

2021 CIP - Capital Trust Fund Cash Flow Analysis

CAPITAL TRUST FUND DEBT SERVICE PROGRAM	Issued	Maturity	Principal	Payments											
Purpose	Date	Date	Amount	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
CTF Barnstable High School Learning Center (I) (#2017-063)	02/27/18	06/30/38	2,968,500	254,856	247,356	239,856	235,356	227,856	220,356	212,856	205,356	197,856	191,856	185,856	176,356
CTF Barnstable Public Schools Asbestos Abatement (I) (#2017-066)	02/27/18	06/30/28	270,000	40,000	38,500	32,000	31,250	30,000	28,750	27,500	26,250	-	-	-	-
CTF Barnstable High School Stadium Bleachers (I) (#2017-067)	02/27/18	06/30/33	966,000	100,450	97,200	93,950	92,000	88,750	85,500	82,250	79,000	75,750	73,150	70,550	63,600
CTF Barnstable High School Cafeteria Window (I) (#2017-068)	02/27/18	06/30/38	400,000	34,125	33,125	32,125	31,525	30,525	29,525	28,525	27,525	26,525	25,725	24,925	24,325
CTF Guardrail & Sidewalk (I) (#2017-073)	02/27/18	06/30/33	287,000	30,550	29,550	28,550	27,950	26,950	25,950	24,950	23,950	22,950	22,150	16,350	15,900
CTF West Barnstable Shooting Range (I) (#2017-074)	02/27/18	06/30/28	314,000	41,400	39,900	38,400	37,500	36,000	34,500	33,000	31,500	-	-	-	-
CTF Hyannis West Elementary School Roof Truss System (2019-058)	02/26/19	06/30/39	850,000	78,300	76,050	73,800	71,550	69,300	67,050	64,800	62,550	60,300	53,050	51,050	49,850
CTF Barnstable High School Sports Field Upgrade (#2018-064)	02/26/19	06/30/34	4,600,000	500,100	484,600	469,100	453,600	433,100	417,850	402,600	387,350	372,100	356,850	341,600	332,450
CTF Design and Hazmat Removal Project Armory Building (2018-096)	02/26/19	06/30/24	461,750	113,250	103,500	99,000	94,500	-	-	-	-	-	-	-	-
CTF Senior Center Renovations (#2018-076)	02/26/19	06/30/39	659,000	60,788	59,038	57,288	55,538	53,788	52,038	50,288	48,538	46,788	45,038	38,288	37,388
CTF Osterville Recreation Building Design & Construction (#2017-086)	02/26/19	06/30/39	675,000	61,388	59,638	57,888	56,138	54,388	52,638	50,888	49,138	47,388	45,638	43,888	42,838
CTF Town Hall Restroom Renovations	02/26/19	06/30/39	560,000	52,056	50,556	49,056	47,556	46,056	44,556	43,056	41,556	40,056	38,556	37,056	31,156
CTF Former Marston Mills Elementary School Demo (2018-094)	02/26/19	06/30/24	176,050	42,000	40,250	38,500	36,750	-	-	-	-	-	-	-	-
CTF School Administration Building (#2018-092)	02/26/19	06/30/24	285,000	71,250	63,250	60,500	57,750	-	-	-	-	-	-	-	-
TOTAL GENERAL FUND DEBT SERVICE				5,693,372	5,131,185	4,733,946	4,183,158	3,314,901	3,167,786	2,684,555	2,398,688	2,209,250	2,119,769	1,942,819	1,742,419
CTF Marina Bulkhead Repair I	06/14/11	06/15/30	725,000	54,031	52,431	50,831	44,231	43,050	41,825	40,513	39,200	37,800	36,400	-	-
CTF HYCC 1 (I) \$1,000,000 Refunded	02/17/15	02/15/27	474,900	60,310	58,390	56,470	53,550	51,670	49,790	47,380	-	-	-	-	-
CTF HYCC 2 (I)\$8,000,000 Refunded	02/17/15	02/15/27	3,794,400	480,170	463,890	447,650	430,450	413,330	396,290	380,070	-	-	-	-	-
CTF HYCC 3 (I) \$1,600,000 Refunded	02/17/15	02/15/27	759,000	95,630	92,590	89,550	86,510	82,470	79,470	76,220	-	-	-	-	-
CTF HYCC 4 (I)\$6,765,000 Refunded	06/21/16	06/30/28	3,320,000	419,600	404,000	384,480	374,200	360,800	344,100	332,600	316,200	-	-	-	-
TOTAL ENTERPRISE FUND DEBT SERVICE				1,109,741	1,071,301	1,028,981	988,941	951,320	911,475	876,783	355,400	37,800	36,400	-	-
Temporary interest on bond anticipation notes				25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
GRAND TOTAL ALL DEBT SERVICE				6,828,113	6,227,486	5,787,927	5,197,099	4,291,221	4,104,261	3,586,338	2,779,088	2,272,050	2,181,169	1,967,819	1,767,419

CAPITAL TRUST FUND DEBT SERVICE PROGRAM															
	Issued	Maturity	Principal	Payments											
Purpose	Date	Date	Amount	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	FY 2042	FY 2043	Totals
CTF Marstons Mills Fish Run Reconstruction		02/15/30	326,000	-	-	-	-	-	-	-	-	-	-	-	234,525
CTF Senior Center - Parking Lot Expansion		02/15/30	290,000	-	-	-	-	-	-	-	-	-	-	-	221,525
		02/15/35	185,000	5,450	5,300	5,150	-	-	-	-	-	-	-	-	165,463
		02/15/35	2,000,000	109,000	106,000	103,000	-	-	-	-	-	-	-	-	1,867,625
		02/15/35	288,000	10,900	10,600	10,300	-	-	-	-	-	-	-	-	258,844
		02/15/22	199,700	-	-	-	-	-	-	-	-	-	-	-	79,480
		02/15/22	104,700	-	-	-	-	-	-	-	-	-	-	-	40,280
		02/15/25	181,650	-	-	-	-	-	-	-	-	-	-	-	100,800
		02/15/26	325,200	-	-	-	-	-	-	-	-	-	-	-	236,400
		02/15/26	329,800	-	-	-	-	-	-	-	-	-	-	-	242,200
		02/15/26	193,400	-	-	-	-	-	-	-	-	-	-	-	135,880
CTF BHMCPS Roof (I) \$910,000 Refunded	02/17/15	02/15/27	426,900	-	-	-	-	-	-	-	-	-	-	-	338,770
CTF School Upgrades 2 (I) \$150,000 Refunded	02/17/15	02/15/27	47,400	-	-	-	-	-	-	-	-	-	-	-	36,960
CTF Senior Center - Garden Level \$457,000 Refunded	02/17/15	02/15/27	195,000	-	-	-	-	-	-	-	-	-	-	-	151,810
CTF Town Building Repairs & Renovations \$685,000 Refunded	02/17/15	02/15/27	317,600	-	-	-	-	-	-	-	-	-	-	-	244,510
CTF Nitrogen Management CW-04-31-B Series 16	05/14/15	07/15/20	157,531	-	-	-	-	-	-	-	-	-	-	-	27,963
CTF BCHMCPS Façade & Roof Improvements (#2015-117)	02/25/16	06/30/26	260,000	-	-	-	-	-	-	-	-	-	-	-	171,000
CTF Channel Dredging- Barnstable Harbor (#2016-035)	02/25/16	06/30/26	490,000	-	-	-	-	-	-	-	-	-	-	-	329,800
CTF High School & Middle School Boiler Upgrades (#2015-119)	02/25/16	06/30/26	350,000	-	-	-	-	-	-	-	-	-	-	-	239,400
CTF Paving: Bay Street Boat Ramp (#2015-099)	02/25/16	06/30/26	142,000	-	-	-	-	-	-	-	-	-	-	-	90,400
CTF W Village Elementary A/C Replacement (#2015-120)	02/25/16	06/30/26	250,000	-	-	-	-	-	-	-	-	-	-	-	171,000
CTF Hamblin Pond Alum Treatment (#2015-112)	02/25/16	06/30/31	300,000	-	-	-	-	-	-	-	-	-	-	-	260,025
CTF Joshua's Pond Recretional Facility (#2015-111)	02/25/16	06/30/31	282,000	-	-	-	-	-	-	-	-	-	-	-	234,919
CTF Road Repairs - Governor's Way (#2016-037)	02/25/16	06/30/31	304,000	-	-	-	-	-	-	-	-	-	-	-	260,025
CTF Road Repairs (#2015-102)	02/25/16	06/30/31	518,000	-	-	-	-	-	-	-	-	-	-	-	441,894
CTF BIS Facade & Roof Improvements (#2015-116)	02/25/16	06/30/36	3,353,000	184.800	179.850	174.900	169.950	-	-	-	-	-	-	-	3,350,906
		06/30/36	450.000	22,400	21.800	21.200	20,600	-	-	-	-	-	-	-	436.225
• · · · · · · · · · · · · · · · · · · ·		06/30/36	3,720,000	207,200	201.650	196.100	190,550	-	-	-	-	-	-	-	3,718,731
	02/25/16		170,000	-	-	-	-	-	-	-	-	-	-	-	102,600
CTF Police Station Remodeling (#2015-100)		06/30/36	355,000	16,800	16,350	15,900	15,450	-	-	-	-	-	-	-	341.419
CTF Sidewalk Improvements (#2015-098)		06/30/36	230.000	-	-	-	-	-	-	-	-	_	-	-	147.400
		06/30/36	939,000	50.400	49.050	47.700	46.350	-	-	-	-	_	-	-	920,756
	06/21/16		48,000	-	-	-		-	-	-		-	-	-	30,240
· ·		06/30/23	147,500	-	-	-	-			-	-	-			94,960
		06/30/23	290,000	-	-	-	-	-	-	-	-	-	-	-	188,800
CTF Land Acquisition - CAP \$365,200 Refunded		06/30/23	115.000	-	-					-					72.240
• • •		06/30/23	109,500	-	-	-		-		-		-	-	-	69,080
		06/30/23	110,000	-	-	-	-	-	-	-		-	-	-	69,080
		06/30/23	509.000	-	-	-	-		-	-		-	-	-	324.000
		06/30/23	49,300	-	-	-	-	-	-	-	-	-	-	-	324,000
			295,700												264,480
		06/30/28	342.000	-	-	-	-	-	-	-	-	-	-	-	264,480
		06/30/22	,	-	-	-	-	-	-	-	-	-	-		
		06/30/22	246,450	-	-	-	-	-	-	-	-	-	-	-	100,600
		06/30/27	438,000	-	-	-	-	-	-	-	-	-	-	-	346,800
		06/30/27	435,000	-	-	-	-	-	-	-	-	-	-	-	346,800
	02/23/17		230,000	-	-	-	-	-	-	-	-	-	-	-	178,600
		06/30/31	167,300	-	-	-	-	-	-	-	-	-	-	-	144,900
		06/30/32	680,750	-	-	-	-	-	-	-	-	-	-	-	665,550
	02/23/17		943,900	52,256	50,906	49,444	47,981	46,519	-	-	-	-	-	-	1,027,731
	02/23/17		895,000	52,088	50,738	49,275	47,813	41,350	-	-	-	-	-	-	991,863
		06/30/37	724,300	40,644	39,594	38,456	37,319	36,181	-	-	-	-	-	-	782,769
CTF Horace Mann Roof (I) (#2016-081)		06/30/38	2,350,000	136,419	132,969	129,519	126,069	122,475	118,738	-	-	-	-	-	2,818,763
CTF Barnstable Public Schools Unit Ventilator (I) (#2017-062)	02/27/18	06/30/28	225,000	-	-	-	-	-	-	-	-	-	-	-	211,000

CAPITAL TRUST FUND DEBT SERVICE PROGRAM	Issued	Maturity	Principal	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	
Purpose	Date	Date	Amount	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	FY 2042	FY 2043	Totals
CTF Barnstable High School Learning Center (I) (#2017-063)	02/27/18	06/30/38	2,968,500	172,006	167,656	163,306	158,956	154,425	149,713	-	-	-	-	-	3,561,838
CTF Barnstable Public Schools Asbestos Abatement (I) (#2017-066)	02/27/18	06/30/28	270,000	-	-	-	-	-	-	-	-	-	-	-	254,250
CTF Barnstable High School Stadium Bleachers (I) (#2017-067)	02/27/18	06/30/33	966,000	61,800	-	-	-	-	-	-	-	-	-	-	1,063,950
CTF Barnstable High School Cafeteria Window (I) (#2017-068)	02/27/18	06/30/38	400,000	23,725	23,125	22,525	21,925	21,300	20,650	-	-	-	-	-	481,750
CTF Guardrail & Sidewalk (I) (#2017-073)	02/27/18	06/30/33	287,000	15,450	-	-	-	-	-	-	-	-	-	-	311,200
CTF West Barnstable Shooting Range (I) (#2017-074)	02/27/18	06/30/28	314,000	-	-	-	-	-	-	-	-	-	-	-	292,200
CTF Hyannis West Elementary School Roof Truss System (2019-058)	02/26/19	06/30/39	850,000	48,650	47,450	46,250	45,050	43,850	42,600	41,300	-	-	-	-	1,092,800
CTF Barnstable High School Sports Field Upgrade (#2018-064)	02/26/19	06/30/34	4,600,000	323,300	314,150	-	-	-	-	-	-	-	-	-	5,588,750
CTF Design and Hazmat Removal Project Armory Building (2018-096)	02/26/19	06/30/24	461,750	-	-	-	-	-	-	-	-	-	-	-	410,250
CTF Senior Center Renovations (#2018-076)	02/26/19	06/30/39	659,000	36,488	35,588	34,688	33,788	32,888	31,950	30,975	-	-	-	-	841,163
CTF Osterville Recreation Building Design & Construction (#2017-086)	02/26/19	06/30/39	675,000	41,788	40,738	34,688	33,788	32,888	31,950	30,975	-	-	-	-	868,663
CTF Town Hall Restroom Renovations	02/26/19	06/30/39	560,000	30,406	29,656	28,906	28,156	27,406	26,625	25,813	-	-	-	-	718,244
CTF Former Marston Mills Elementary School Demo (2018-094)	02/26/19	06/30/24	176,050	-	-	-	-	-	-	-	-	-	-	-	157,500
CTF School Administration Building (#2018-092)	02/26/19	06/30/24	285,000	-	-	-	-	-	-	-	-	-	-	-	252,750
TOTAL GENERAL FUND DEBT SERVICE				1,641,969	1,523,169	1,171,306	1,023,744	559,281	422,225	129,063	-	-	-	-	45,792,604
CTF Marina Bulkhead Repair I	06/14/11	06/15/30	725,000	-	-	-	-	-	-	-	-	-	-	-	440,313
CTF HYCC 1 (I) \$1,000,000 Refunded	02/17/15	02/15/27	474,900	-	-	-	-	-	-	-	-	-	-	-	377,560
CTF HYCC 2 (I) \$8,000,000 Refunded	02/17/15	02/15/27	3,794,400	-	-	-	-	-	-	-	-	-	-	-	3,011,850
CTF HYCC 3 (I) \$1,600,000 Refunded	02/17/15	02/15/27	759,000	-	-	-	-	-	-	-	-	-	-	-	602,440
CTF HYCC 4 (I) \$6,765,000 Refunded	06/21/16	06/30/28	3,320,000	-	-	-	-	-	-	-	-	-	-	-	2,935,980
TOTAL ENTERPRISE FUND DEBT SERVICE				-	-	-	-	-	-	-	-	-	-	-	7,368,143
Temporary interest on bond anticipation notes				25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	575,000
GRAND TOTAL ALL DEBT SERVICE				1,666,969	1,548,169	1,196,306	1,048,744	584,281	447,225	154,063	25,000	25,000	25,000	25,000	53,735,746

DEBT POSITION ANALYSIS

A. Type And Purpose Of Debt

The Town sells bonds to finance major capital improvements that require large cash outlays. General Obligation Bonds (G.O.B) have been sold to fund capital improvements managed by various municipal operations such as schools, public works, marine, recreation, conservation, and the Town's Enterprise Fund operations. General Obligation Bonds are supported by the full faith and credit of the Town and is repaid from property taxes collected from both current and future property owners throughout the term of the debt, except for the bonds issued to fund most capital improvements for Enterprise Fund operations. Although property taxes are pledged as collateral for Enterprise Funds most of the GOB's are repaid with revenue generated by the Enterprise Funds and not property taxes. This arrangement provides for a more favorable borrowing rate on Enterprise Fund debt. Alternatively, Enterprise Funds would have to issue what are referred to as "Revenue Bonds", which would typically carry much higher interest rates because the collateral is Enterprise Fund revenue as opposed to property taxes.

Properly structured municipal debt is tax exempt. This feature is attractive to many investors who, in turn, require less interest than they would from non-tax-exempt investments. Typical rates for municipal bonds over the past several years have been in the 1.5% to 3% range. Rates have remained low as the economy is making municipal bonds more attractive for highly rated communities. When netted out against inflation, municipal borrowing costs, especially for strong credit worthy Towns such as Barnstable is enviable.

The Town operates several Enterprise Funds that includes an airport, two golf courses, a wastewater treatment facility, a solid waste transfer station, water supply operations, four marinas, Sandy Neck Beach Park, the Hyannis Youth & Community Center and the Public, Educational and Government Access channels. These funds are expected to repay their debt from the revenues they generate unless it is determined that a General Fund contribution is necessary to provide for some fee mitigation. In addition, the Town has borrowed on behalf of the Community Preservation Fund (CPF), which was created by general legislation to enable towns in the Commonwealth to acquire open space and to finance recreation, community housing, and historic preservation projects. The CPF, a special revenue fund, is funded with 3% surtax on each real estate tax bill. The Commonwealth provides a partial matching program for the surtax billed from a state trust account, which is funded by real estate transfer taxes. The matching program is expected to decline as more communities adopt the CPF.

B. Current Debt Position

As of June 30, 2019, the Town of Barnstable had \$103 million of outstanding long-term debt. New debt issued in 2019 was \$14.5 million. The Town of Barnstable's total long-term debt decreased by \$1.7 million as \$16.2 million was retired. These debt figures include all debt incurred on behalf of the governmental funds and enterprise funds.

Projected Debt Payments by Project and Fund

The following four tables set forth the projected General Obligation Bond (G.O.B.) payments by issue for both the Town's governmental funds and the enterprise funds. There are also several low-cost financing loans through the Massachusetts Clean Water Trust (MCWT) for sewer construction and water system improvements.

Bonds Payable Schedule – Governmental Funds (Excludes Enterprise Fund Debt)

Project	Maturitie Through	Original Loan Amount	Interest Rate (%)		Outstanding at June 30, 2019
MCWT Title V Bond of 1997	2021	\$ 200,000	0.00	\$	20,600
MCWT Title V Bond of 2002	2023	200,000	0.00		40,352
MCWT Title V Bonds of 2006	2026	400,000	0.00		140,000
MCWT Title V Bond of 2007	2027	200,000	0.00		80,000
Municipal Purpose Bonds of 2007	2027	36,808,388	4.00 - 5.0	0	800,000
MCWT Bond of 2008 (CW-04-31)	2021	389,216	2.00		66,658
MCWT Bond of 2009	2021	887,454	2.00		100,525
Municipal Purpose Bonds of 2010	2030	3,873,270	2.00 - 5.0	0	1,775,000
Municipal Purpose Bonds of 2011	2031	13,584,000	2.00 - 4.0	0	3,685,000
Municipal Purpose Refunding of 2012	2023	10,037,900	2.00 - 4.0	0	3,304,500
Municipal Purpose Bonds of 2014	2024	6,248,000	2.00 - 3.0	0	2,575,000
Municipal Purpose Refunding of 2015	2027	5,265,500	2.00 - 4.5	0	3,487,000
Municipal Purpose Bonds of 2015	2035	3,930,000	2.00 - 4.5	0	2,560,000
Municipal Purpose Bonds of 2016	2036	12,113,000	2.00 - 4.0	0	9,850,000
Municipal Purpose Refunding of 2016	2028	1,674,000	2.00 - 4.0	0	1,369,000
Municipal Purpose Bonds of 2017	2037	5,105,700	3.00 - 4.0	0	4,220,000
MCWT Bond of 2017	2020	255,941	2.00		87,155
Municipal Purpose Bonds of 2018	2038	7,780,500	3.00 - 5.0	0	7,305,000
Municipal Purpose Bonds of 2019	2039	8,266,800	3.00 - 5.0	0	8,266,800
Total Bonds Payable		 			49,732,590
Add: Unamortized premium on bonds		 			2,306,967
Total Bonds Payable, net		 		\$	52,039,557

Debt service requirements for principal and interest for **Governmental Bonds Payable** in future fiscal years are as follows:

Year	Principal	_	Interest	-	Total
2020\$	7,281,063	\$	1,903,991	\$	9,185,054
2021	5,998,619		1,623,238		7,621,857
2022	5,508,204		1,373,176		6,881,380
2023	4,757,704		1,136,614		5,894,318
2024	3,658,000		955,836		4,613,836
2025	2,915,000		812,321		3,727,321
2026	2,618,000		687,183		3,305,183
2027	2,196,000		576,894		2,772,894
2028	1,980,000		492,898		2,472,898
2029	1,865,000		414,446		2,279,446
2030	1,840,000		347,370		2,187,370
2031	1,665,000		277,826		1,942,826
2032	1,515,000		227,418		1,742,418
2033	1,460,000		181,966		1,641,966
2034	1,385,000		138,172		1,523,172
2035	1,075,000		96,304		1,171,304
2036	960,000		63,742		1,023,742
2037	525,000		34,282		559,282
2038	405,000		17,230		422,230
2039	125,000	_	4,064		129,064
Total\$	49,732,590	\$	11,364,971	\$	61,097,561

The Commonwealth of Massachusetts has approved school construction assistance to the Town. The assistance program, which is administered by the Massachusetts School Building Authority, provides resources for construction costs and debt service interest of general obligation bonds outstanding. The Town is currently receiving annual payments for 64% of eligible costs in relation to the construction of the new Barnstable Intermediate School and the renovation and addition to the High School. During 2019, approximately \$3,019,000 of such assistance was received. Approximately \$860,000 will be received in future years. Of this amount, \$19,000 represents reimbursement of future long-term interest costs and \$841,000 represents reimbursement of approved construction cost and interest costs previously paid.

2021 CIP - Debt Position Analysis

Bonds Payable Schedule – Enterprise Funds

Project	Maturitie Through	-	Original Loan Amount	Interest Rate (%)		Outstanding at June 30, 2019
Airport	2039	\$	2,848,900	2.00 -5.00	\$	2,495,200
Golf Course Add: unamortized premium			3,313,200	2.00 - 5.00		2,509,000 124,713
Total Golf Course Bonds Payable, net					÷.,	2,633,713
Solid Waste Transfer Station	2027		7,515,600	0.00 - 4.50		318,500
Wastewater	2037		26,731,820	0.00 - 4.75		13,888,670
Water Supply Add: unamortized premium	2039		24,674,768	2.00 - 5.00		19,925,376 498,039
Total Water Supply Bonds Payable, net						20,423,415
Marina Recreation Add: unamortized premium				2.00 - 4.00		2,269,000 55,775
Total Marina Recreation Bonds Payable, net						2,324,775
Sandy Neck Recreation	2031		1,265,000	2.00 - 4.125	1	840,000
Hyannis Youth and Community Center Add: unamortized premium			8,348,300	2.00 - 4.75		6,980,000 636,196
Total Hyannis Youth and Community Center Bon	ds Payable	e, n	et			7,616,196
Total Bonds Payable, net					.\$	50,540,469

Debt service requirements for principal and interest for Enterprise Bonds Payable in future fiscal years are as follows:

Year	Principal	- 6-	Interest	 Total
2020\$	4,741,569	\$	1,581,910	\$ 6,323,479
2021	4,585,057		1,438,987	6,024,044
2022	4,333,412		1,238,433	5,571,845
2023	4,396,837		1,076,849	5,473,686
2024	4,269,850		919,661	5,189,511
2025	4,171,959		770,239	4,942,198
2026	3,943,678		627,252	4,570,930
2027	3,911,017		505,079	4,416,096
2028	2,747,988		387,582	3,135,570
2029	1,886,383		305,036	2,191,419
2030	1,862,772		253,910	2,116,682
2031	1,805,865		204,482	2,010,347
2032	1,317,224		163,491	1,480,715
2033	1,333,792		131,487	1,465,279
2034	909,999		102,631	1,012,630
2035	917,821		78,181	996,002
2036	910,815		53,575	964,390
2037	635,688		29,174	664,862
2038	300,107		11,506	311,613
2039	243,913	- d-	3,901	 247,814
Total \$	49,225,746	\$	9,883,364	\$ 59,109,110

The Town has entered into several loan agreements with the Massachusetts Clean Water Trust (MCWT) for which the Town has recorded the total amount of debt outstanding. However, as of June 30, 2019, the Town has not incurred \$557,657 of the eligible construction costs related to the projects and as a result has not yet received the corresponding loan proceeds from MCWT.

The Town is scheduled to be subsidized by the MCWT on a periodic basis for principal in the amount of \$288,495 and interest costs for \$76,981. The principal subsidies are guaranteed.

The Town is subject to various debt limits by statute and may issue additional general obligation debt under the normal debt limit. At June 30, 2019, the Town had the following authorized and unissued debt:

2021 CIP - Debt Position Analysis

Purpose	Amount
Sewer projects	350,000
Water projects	7,166,346
Airport projects	3,498,050
School improvements	886,000
Maher Wellfield water filtration plant construction	4,425,000
Cotuit Bay entrance channel dredging project	1,000,000
Private road repairs	2,052,950
Clear vegetation and obstruction project	300,000
Total\$	19,678,346

C. General Obligation Debt – Credit Ratings

Several factors determine the amount of debt the Town can afford to maintain. These include the strength of the local economy, the wealth of the community, and the amount of debt sold by overlapping jurisdictions (Barnstable County Government, Cape Cod Regional Transit Authority, and Cape Cod Regional Technical High School), future capital needs, the local economy as well as the Town's financial position, administrative capabilities, and level of planning. These factors, as well as many others, influence the Town's bond rating - an evaluation of the Town's ability to repay debt as determined by the rating agencies. System improvements such as programmatic budgeting, an administrative code, policy planning based on a five-year forecast, and financial fund management have helped the Town's position.

In February 2020, the Town Treasurer conducted an \$12.1 million bond sale, which required a rating to be assigned to it prior to the sale. In their most recent bond rating analysis dated February 2020 Standard & Poor's (S&P) affirmed the 'AAA' rating on the Town's outstanding debt with a stable outlook. S&P cited the following reasons for their rating and stable outlook:

- Very strong economy, with access to a broad and diverse metropolitan statistical area (MSA);
- Very strong financial management, with strong financial policies and practices under our Financial Management Assessment (FMA) methodology;
- Strong budgetary performance, with a slight operating surplus in the general fund and an operating surplus at the total governmental-fund level in fiscal 2019;
- Very strong budgetary flexibility, with available fund balance in fiscal 2019 at 24% of operating expenditures;
- Very strong liquidity, with total government available cash at 19.7% of total governmental-fund expenditures and 3.2x governmental debt service, and access to external liquidity they consider strong;
- Strong debt-and-contingent-liability position, with debt service carrying charges at 6.2% of expenditures and net direct debt that is 48.3% of total governmental-fund revenue, as well as low overall net debt at less than 3% of market value and rapid amortization, with 75% of debt scheduled to be retired within 10 years, but a large pension and other-postemployment-benefit (OPEB) obligation and the lack of a plan to sufficiently address the obligation; and
- Strong institutional framework score.

The descriptor used by S&P for this rating is "Prime Investment Grade". Strong bond ratings generally reduce interest expense to service the debt as well as bond insurance costs. Additionally, strong bond ratings enhance the prestige of the community within the financial markets and are a vote of confidence by the rating agency that the municipality is pursuing a sound financial course. This AAA rating reflects sound credit quality with associated very low risk and should result in future low borrowing costs for the Town.

It is important to understand that no single ratio or factor determines a General Obligation Bond rating or fully encompasses the fiscal health of a municipality. The factors must be taken as a group. Other debt ratios, as well as economic and administrative factors account for the differences in ratings. A growing community can afford more debt than a non-growth community, and a community with more income wealth can afford more debt than a poorer community can.

Generally, bond ratings do not change suddenly but respond more to long-range trends. The stable outlook reflects S&P's view of the town's very strong budgetary flexibility and liquidity, further supported by a strong economy. As such, they do not expect to change the rating in the next two years. However, dramatic changes are key indicators of fiscal health and can result in an immediate rating change. In projecting bond ratios, it is important to review the sensitivity of the ratios to changes in the economy.

Extract from Standard & Poor's Credit Profile of Barnstable Dated February 4, 2020

"The rating reflects our opinion of Barnstable's very strong economy, supported by a wealthy tax base and high income. In addition, we think the town's continued maintenance of very strong budgetary flexibility, with available reserves averaging about 24% of expenditures during the past three fiscal years, due to positive financial performance and very strong management further support our view of the rating. Although we think long-term retirement liabilities and costs and potential additional debt could pressure the budget, we posit that the town will likely manage these costs appropriately and that additional debt will likely remain relatively affordable due to its size and wealthy tax base. Furthermore, due to its location, the town has also undertaken various coastal-resiliency initiatives; it is currently planning for additional rising-sea-level-mitigation projects."

D. General Obligation Debt - Limitations

There are legal limitations that govern the issuance of municipal debt. Under Massachusetts statutes, the debt limit of the Town of Barnstable is 5 percent of the valuation of taxable property as last equalized by the State Department of Revenue. The Town can authorize debt up to this amount without State approval. The current debt limitation for the Town of Barnstable is close to \$746 million, which is significantly higher than the Town's outstanding general obligation debt that is subject to this limitation. It should be pointed out that much of the existing Town debt does not factor into this limitation. There are categories of general obligation debt that are exempt from, and do not count against the debt limit such as certain school bonds, water bonds, solid waste disposal facility bonds, and water pollution abatement revenue bonds.

Town's Equalized Valuation (EQV) Debt Limit – 5% of EQV	<u>\$14,932,044,600</u> \$746,602,230
Less: Outstanding Debt Applicable to Limit Authorized and Unissued Debt	\$70,132,246 <u>\$19,687,346</u>
Legal Debt Margin	<u>\$656,782,638</u>
Total debt applicable to the limit as a percentage of debt limit	12.03%

E. General Obligation Debt - Affordability

Debt analysis, future debt projections, and general obligation bond ratios help determine the amount of general obligation debt the Town can afford to issue and support. The table on the following page illustrates the various debt ratios compared to national medians reported by Standard and Poor's. As shown, Barnstable's ratios show moderate amounts of debt. However, there are a number of factors not directly under the control of the Town, which can influence key General Obligation (G.O.) bond ratios. Several of the G.O. bond ratios are very sensitive to these uncontrollable factors, and the assumptions used to project their growth can play an important role in future debt policy. Some of these factors are:

Overlapping Debt. Overlapping debt is the G.O. debt that is issued by other government entities whose jurisdictions include the citizens of Barnstable. The Town also has to be aware of the debt management practices of overlapping jurisdictions. The primary entities that have an impact on the Town are Barnstable County, Cape Cod Regional Vocational Technical School District, fire districts, and the regional transportation authority. Overlapping debt combined with the Town's own direct debt is a true measure of the G.O. debt burden placed on the citizens. To determine an issuer's overall G.O. debt burden, overlapping debt is added to the issuer's own outstanding G.O. debt. If other overlapping jurisdictions pursue aggressive capital improvements programs, some of the Town's debt ratios will increase. Therefore, it is important to be aware of not only our G.O. debt issuance plans, but also those of other surrounding jurisdictions.

Direct and Overlapping Governmental Activities Debt
As of June 30, 2019

	Debt	Percentage	Share of Overlapping
Town of Barnstable, Massachusetts	Outstanding	Applicable (1), (2)	Debt
Debt repaid with property taxes and user charges:			
Barnstable County	\$25,970,349	16.79%	\$4,360,422
Cape Cod Regional Technical High School	100,933,300	31.49%	31,783,896
Barnstable Fire District	2,238,000	100.00%	2,238,000
Centerville-Osterville-Marston Mills Fire District	2,292,532	100.00%	2,292,532
Cotuit Fire District	4,249,368	100.00%	4,249,368
Hyannis Fire District	23,630,494	100.00%	23,630,494
West Barnstable Fire District	300,000	100.00%	300,000
Subtotal, overlapping debt			68,854,712
Town direct debt			54,092,507
Total direct and overlapping debt			\$122,947,219

(1) County expenses, including debt service, are assessed upon the towns within the county in proportion to their taxable valuation.

(2) The fire districts are special governmental units. The Town serves as a collecting agent for taxes and transfers funds directly to the fire districts on a weekly basis.

Property Assessments. Several key debt ratios use property valuations in the calculation of debt burden. If the Town's property values were to rise, debt ratios will continue to improve.

Town of Barnstable Debt Ratios					
<u>Current Status</u> 0.69%	<u>Criteria</u> Direct Debt - General Fund Debt Service as a % of the Town's FY19 Equalized Property Valuation as calculated by the state. Formula – Overall General Fund Debt Service ÷ Equalized Valuation				
	Standard & Poor's rates this as Low (Less than 3%)				
5.98%	Municipal Debt Burden – Current Year Definition - Town's General Fund Debt Service ÷ Total General Fund Expenditures				
	Standard & Poor's rates this as Low (Below 8%)				
<\$0	Net Debt Per Capita Definition – Governmental Fund Debt (Short + Long Term Debt- Cash & Cash Equivalents) ÷ Town population				
	Standard & Poor's rates this as Low (below \$2,000)				
\$ 340,294	Per Capita Market Value Definition – Equalized Valuation ÷ Population Standard & Poor's rates this as Extremely Strong (Above \$100,000)				

F. Administrative Polices In Relation To Debt

This section provides policies governing the management of debt for the Town that are included in the Town's Administrative Code.

Debt Refinancing

The ability to refinance outstanding debt was eliminated by the Federal government with the tax law changes passed last year. However, if this opportunity is reintroduced, an advance refunding of outstanding debt shall only be considered when present value savings of at least 3% of the principal amount of the refunded bonds are produced, unless: (1) a debt restructuring is necessary or (2) bond covenant revisions are necessary in order to facilitate the ability to provide services or to issue additional debt. The Town, in collaboration with its Financial Advisor, will continually monitor the municipal bond market conditions to identify refinancing opportunities. An analysis shall be conducted when necessary to determine whether debt financing, cash purchase, or leasing is the most cost effective method of financing for the Town.

General Obligation Debt

1. All debt shall be financed within the limitations of Proposition 2½ with the exception of debt related to Enterprise Funds, gifts, and betterments. The requirements for such financing shall be an expenditure of at least \$250,000 and a useful life in excess of five years.

2. The term of long-term debt generally shall not exceed the expected useful life of the capital asset being financed and, in no case, shall it exceed twenty years.

3. The ratio of Net Debt (Total outstanding Town of Barnstable General Obligation debt less reimbursements) to Total Assessed Valuation shall not exceed 1.5%. This excludes debt of overlapping jurisdictions.

The debt-to- assessed value ratio for the Town of Barnstable is 0.69%.

4. The ratio of Debt Service to Total Expenditures (operating expenditures and debt service combined) shall not exceed 15%.

The Town's debt coverage ratio is 5.98%.

5. The Town shall target a Standard and Poor's (S&P) debt to income ratio of 8%. The S&P ratio is calculated by dividing Overall Net Debt per Capita by Income per Capita.

The Town's debt-to-income per capita ratio is 3.22%.

6. Current revenue should be committed annually to provide sufficient "Pay-as-you-go" financing so that at the end of five years, annual contributions from current revenues amount to 10% of new debt to be issued.

The Town currently exceeds this requirement by a significant margin. The Town intends to spend over \$22 million in the next five years as "pay-as-you-go" financing and anticipates financing about \$66 million in capital with new debt issues resulting in a 35/65 ratio.

7. Excess appropriated bond issues shall be placed into a "bond repayment fund account" at the end of a project completion. The only purpose of the "bond repayment fund account" shall be 1) to make bulk principal pay-downs against general bond debt, or 2) to be used to pay down the principal on any bond issue at the time of refinancing as provided for in Section 1.04C herein.

The Town currently has no balance in this fund. Unspent bod proceeds are redirected to new eligible projects.

Capital Trust Fund

A Capital Trust Fund has been established for the purpose of financing debt service for recommended Capital Improvements Program projects, as contained within the Town's five-year capital improvements plan.

- 1. The Capital Trust Fund will be funded through a general operation set aside of at least \$1.9 million annually. The estimated commitment for FY 2021 is approximately \$11.4 million. This is expected to be repeated for the next 5 years.
- 2. The Capital Trust Fund shall not be utilized for any purpose other than that stated herein.
- 3. The criteria for reviewing capital project eligibility for Capital Trust Fund borrowing include the following:
 - a. The capital project shall have a financing term of 20 years or less,
 - b. The capital project shall have a minimum project cost of \$250,000,
 - c. The capital project is approved by the Town Council for funding through an appropriation and loan order submitted by the Town Manager.
- 4. The Capital Trust Fund will have a commitment restriction on the fund, such that obligated estimates from authorized orders shall not exceed, at any one time, more than 80% of the amount in the fund as of the close of the fiscal year prior to the next debt service authorization, unless recommended by the Town Manager.
- 5. The Capital Trust Fund shall otherwise function in accordance with related financial policies of the Town.

2021 CIP - Debt Position Analysis

G. Debt Summarized

A responsible debt management program is an integral part of municipal finance. A Town's debt must be structured to reflect the underlying, long-term economic prospects of the community. There are statutory requirements and market forces at work to regulate a community's ability to borrow. Continuing disclosure, as required on an annual basis to the bond markets, provides a powerful incentive for a municipality to keep its financial house in order. This analysis has emphasized the importance of credit ratings because, in effect, these are municipal finance report cards. A good credit rating should be guarded jealously, since it is not easily obtained, but can be lost quickly without vigilance and sound financial management.

PART V – TOWN MANAGER RECOMMENDATIONS

Project Recommendation Rationale

Several factors were taken into consideration when determining which projects to recommend for funding in Fiscal Year 2021. In addition to the scoring by the senior staff, funding considerations are directed towards projects that had received previous funding; and therefore, are ready for the next stage of development; projects that would contribute to the economic development of the Town; projects that would preserve important infrastructure components of the Town; projects that improve high usage assets; projects that have outside funding available to offset the costs or can be covered by user fees; and projects that have an important public safety component associated with them.

The recommended projects total \$39 million. The General Fund totals \$15 million, the Sewer Construction and Private Way Maintenance and Improvement Fund totals \$5 million, and the Enterprise Funds total \$19 million.

Funding for the Enterprise Fund programs consists of using \$1.2 million of Enterprise Fund reserves, \$15.5 million in new borrowing authorizations and \$2.6 million is anticipated in federal and state grants for the Airport projects. The grant funds received will reduce the amount of any bonds authorized to finance the Airport Enterprise Fund's capital program or reduce the amount or reserves needed to finance the project. The bonds issued for the Enterprise Fund projects are expected to be paid back with Enterprise Fund revenues.

Funding for the General Fund portion of the program consists of \$4 million in Capital Trust Fund (CTF) reserves, \$10 million in new borrowing authorizations, \$483,554 from General Fund reserves and \$878,185 in transfers from closed appropriations.

		Funding Source									
Council Order Number	Project Name	R	Fund eserves		Grants	В	ond Issue	Tra	nsfers		Total
Sandy Neck:											
2020-091	Sandy Neck Parking Lot Relocation		200,000		-		-		-	\$	200,000
Total Sandy Ne	ck Enterprise Fund	\$	200,000	\$	-	\$	-	\$	-	\$	200,000
Golf Course:											
2020-092	Olde Barnstable Fairgrounds Turf Maintenance Equipment Replacement		-		-		502,000		-	\$	502,000
Total Golf Cours	se Enterprise Fund	\$	-	\$	-	\$	502,000	\$	-	\$	502,000
Airport:											
2020-093	Phase II Tree Clearing		60,000		240,000		-		-	\$	300,000
2020-094	Security Camera Upgrades		10,000		190,000		-		-	\$	200,000
2020-095	PFOS Soils, Reporting, Testing, Mitigation, Monitoring – Phase II		250,000		-		-		-	\$	250,000
2020-096	Mary Dunn Way Extension Project		-		-		3,400,000		-	\$	3,400,000
2020-097	Environmental Review for Airport Master Plan		57,500		1,092,500		-		-	\$	1,150,000
2020-098	Design & Construct New T-Hanger/FBO Offices		140,000		560,000		-		-	\$	700,000
2020-099	Avgas Fuel Tank Installation		140,000		560,000		-		-	\$	700,000
Total Airport Enterprise Fund		\$	657,500	\$ 3	2,642,500	\$	3,400,000	\$	-	\$ (5,700,000
Hyannis Youth a	& Community Center:										
2020-103	HYCC Facility Improvements		-		-		756,000		-	\$	756,000
Total Hyannis Y	outh & Community Center Enterprise Fund	\$	-	\$_	-	\$	756,000	\$_	-	\$	756,000

Enterprise Funds Recommendations

The recommended projects for the Enterprise Funds - Continued

		Funding Source						
Council Order Number	Project Name	Fund eserves	Ģ	Grants	Bond Issue	Transfers		Total
Water Pollution	Control:							
2020-116	Solids Handling Upgrades	-		-	8,000,000	-	\$	8,000,000
2020-117	Pump Station Rehabilitation Program	-		-	1,000,000	-	\$	1,000,000
2020-118	HVAC Improvements	85,000		-	-	-	\$	85,000
2020-119	Vehicle Replacement	55,000		-	-	-	\$	55,000
Total Water Pol	lution Control Enterprise Fund	\$ 140,000	\$	-	\$ 9,000,000	\$ -	\$ 9	9,140,000
Water Supply:								
2020-120	Water Pipe Replacement Program	-		-	750,000	-	\$	750,000
2020-121	Wells, Pump Station & Treatment Plant upgrades	150,000		-		-	\$	150,000
2020-122	Airport & Mary Dunn Well Treatment, Pilot Study & Conceptual Layout	-		-	300,000	-	\$	300,000
2020-123	Hyannis Port, Simmons Pond & Straightway Well Treatment, Pilot Study & Conceptual Layout	-		-	350,000	-	\$	350,000
2020-124	Maher Filtration Plant Solar Panels Design & Construction	-		-	459,000	-	\$	459,000
Total Water Su	oply Enterprise Fund	\$ 150,000	\$	-	\$ 1,859,000	\$-	\$ 2	2,009,000
Solid Waste:								
2020-125	Weigh Scale Replacement	100,000		-	-	-	\$	100,000
Total Solid Was	te Enterprise Fund	\$ 100,000	\$	-	\$ -	\$-	\$	100,000
otal All Enterpr	ise Funds	\$ 1,247,500	\$ 2	2,642,500	\$ 15,517,000	\$-	\$1	9,407,000

Sewer Construction and Private Way Maintenance and Improvement Fund Recommendations

		Funding Source					
Council Order Number	Project Name	Fund Reserves	Grants	Bond Issue	Transfers	Total	
Sewer Construction and Private Way Maintenance and Improvement Fund							
2020-126	Effluent Disposal Alternatives Analysis	-	-	1,000,000	-	\$ 1,000,000	
2020-127	Aeration System and Denitrification Technology Evaluation	200,000	-	-	-	\$ 200,000	
2020-128	Design and Permitting Route 28 Centerville Sewer Expansion	-	-	1,300,000	-	\$ 1,300,000	
2020-129	Design & Permitting Old Yarmouth Road Sewer Expansion	-	-	600,000	-	\$ 600,000	
2020-130	Design and Permitting of the Route 28 Marstons Mills Sewer Expansion Project	-	-	1,800,000	-	\$ 1,800,000	
Total Sewer Con	struction and Private Way Fund	\$ 200,000	\$-	\$ 4,700,000	\$-	\$ 4,900,000	

General Fund Recommendations

			Fu	nding Source			
Council Order Number	Project Name	Capital Trust Fund Reserves	General Fund Savings	Bond Issue	Transfers		Total
nfrastructure Pro	ojects:		0				
2020-089	Unified Communications – VOIP Project	-	-	342,000	-	\$	342,00
	Police Radio Equipment & Infrastructure						
2020-100	Upgrades	-	108,554	-	12,561	Ş	121,1
2020-101	Police Data Storage Appliance	-	125,000	-	-	\$	125,0
2020-109	Public Roads Improvement Program	3,550,000	-	-	-	\$ 3	3,550,0
2020-110	Stormwater Improvements at Impaired Ponds	-	-	300,000	-	\$	300,0
2020-111	Keyes Beach Parking Lot Rehabilitation	90,000	-	-	60,000	\$	150,0
2020-112	Snows Creek Culvert	62,914	-	-	12,086	\$	75,0
2020 442	Design & Construct Ocean St. Sidewalk –			CCE 000		ć	
2020-113	Gosnold to Kalmus Beach	-	-	665,000	-	\$	665,00
2020 444	Design & Permit Ocean St. Sidewalk – Snows	40.000				~	40.0
2020-114	Creek to Gosnold	40,000	-	-	-	\$	40,0
2020 115	Design & Permit Kalmus Beach Parking lot	F0.000				ć	F0.04
2020-115	Entrance	50,000	-	-	-	\$	50,0
otal Infrastructu	ure	\$ 3,792,914	\$ 233,554	\$ 1,307,000	\$ 84,647	\$ 5	5,418,1
/lunicipal Facilit	ing Projects						
2020-102	Police Facility Improvements			991,000		\$	991,0
2020-102	Emergency Generators	-	-	615,000	-	ې \$	615,0
2020-104	Marine & Environmental Affairs Building	-	-	013,000	-	ې	013,0
2020-105	Improvements	120,000	-	-	-	\$	120,0
2020-106	200 Main St. Facility Improvements			374,000		\$	374,0
2020-100	Salt Shed Repairs			345,000		\$	345,0
otal Municipal F		\$ 120,000	\$ -	\$ 2,325,000	\$-		2,445,0
		Ş 120,000	♀ =	\$ 2,323,000	Ý -	Υ <u>2</u>	-,3,0
Vaterways Proje							
2020-090	Patrol Vessel Replacement	-	-	300,000		\$	300,0
2020-108	Channel Dredging Program	-	-	1,525,000	530,000		2,055,0
otal Waterways	5	\$-	\$-	\$ 1,825,000	\$530,000	\$ 2	2,355,0
chool Facilities:							
2020-082	Phase II of BHS Sports Fields Upgrades	-	-	2,775,462	263,538	\$ 3	8,039,00
	BPS District-Wide Communication, Video				,		
2020-083	Surveillance & Entry Improvement	-	-	500,000	-	\$	500,0
2020-084	BUE School Chiller Replacement	-	-	400,000	-	\$	400,0
2020-085	BHS Gym & Field House Improvements	-	-	250,000	-	\$	250,0
2020-086	BPS Campus-wide Mechanical Upgrades	-	-	250,000	-	\$	250,0
2020-087	BHS Positive Attendance System	-	250,000	-	-	\$	250,0
2020-088	BPS Flooring Replacement	100,000	-	-	_	Ś	100,0
otal School Faci		\$ 100,000	Ś 250.000	\$ 4,175,462	\$263.538		1,789,0
							,,.

Additional Projects Anticipated to be Brought Forward in FY 2021

Several Projects have been identified that could be eligible for Community Preservation Fund funding. Letters in Intent will be submitted to the Community Preservation Committee (CPC) and full applications will subsequently be submitted if approved by the CPC. The potential projects include the following:

Town Recreation Field Improvements Project – Bay Lane Ballfields	\$281,807
Centerville Recreation Interior Improvements	\$517,432
Cape Cod Airfield Hangar Repair	\$332,362
Zion Union Heritage Museum Improvements	\$457,390
U.S. Custom House Interior Work	\$393,178
Guyer Barn FY21 Facility Management Plan Implementation	\$140,978
Cotuit Memorial Park Restoration	\$382,473
Burgess Barn Interior	\$398,362
West Barnstable Railroad Depot Restoration	\$490,229
Old Town Hall – JFK Museum Improvements	\$1,632,393
Centerville Recreation Building Site Design & Construction	\$1,223,040
Kennedy Memorial Renovation Construction	\$1,878,881
Cape Cod Rail Trail Extension	<u>\$2,525,000</u>
Total	\$10,653,525

Note: The amount includes the project costs over the next 5 years.

PROJECT: SCH-21

DEPARTMENT PRIORITY: 1 of 18

2020-082

Project Working Title: Barnstable High School Sports Fields Upgrades, Phases 2 and 3

Project Location: 744 West Main Street, Hyannis MA 02601

Project Description: This project is a continuation of a 3-phase plan to improve the athletic playing fields at Barnstable High School (BHS). The FY21 appropriation would be used for improvements to the varsity softball, junior varsity baseball field (s) and high school practice soccer/field hockey/lacrosse fields. The work would consist of leveling and grading of current fields, improvements to natural turf surfaces, irrigation system, and addition of walkways and resurfacing of the access road.

Project Justification: Upgrades to our sports facilities will bring the playing areas to Division I standards providing safer conditions while attracting student athletes and pay for play sports organizations.

Impact of Denial/Postponement: Student athletes will be forced to play on deteriorating field conditions with the increased risk of serious injuries.



Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$200,000
	Construction or Acquisition	\$2,529,000	\$2,500,000
	Project Management	\$40,000	-
	Project Contingency	\$470,000	\$250,000
	Total Project Cost	\$3,039,000	\$2,950,000

Basis for Cost Estimates: Probable Budget Comparison developed by JJA Sports

Project Estimated Completion Date: 2021	Design & Permit (months)	3	Construction (months)	12

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$3,039,000	Phase II Field Improvements
2022	\$2,950,000	Phase III Field Improvements

Source of Funding: Bond Issue \$2,775,462 and \$263,538 of remaining funds in completed school projects (See Appendix A).

Operating Budget Impact now or in future: Field maintenance post-project may require two full time positions and new equipment.



Sports Fields Master Plan

PROJECT: SCH-21

DEPARTMENT PRIORITY: 2 of 18

2020-083

Project Working Title: District Wide Communication, Video Security, and Entry Improvements

Project Location: District Wide

Project Description: This is a multi-year project, which includes upgrades and improvements to district telephone, video surveillance, and door entry systems. The upgrades would include centralized VOIP telephone systems and integrated video surveillance/door entry systems. The new systems will be designed to operate on the district's network. Initially our efforts will focus on the district phone system followed by surveillance and entry.

Project Justification: District phone and video surveillance systems are becoming problematic and obsolete. The existing systems are a combination of different manufacturers and technologies that are unreliable, difficult to maintain, and beginning to exhibit a high frequency of failure(s). Due to the age of the systems, components are difficult to obtain and the possibility of permanent failure is likely.

Impact of Denial/Postponement: Denial of this project will jeopardize reliable communication, security, and safety throughout the district.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$413,000	-
	Project Contingency	\$72,000	-
	All Other Cost	\$15,000	-
	Total Project Cost	\$500,000	-

Basis for Cost Estimates: Harbor Networks, Galaxy Networks, State Contract, and unit costs from previous projects

Project Estimated Completion Date: 2021

Design & Permit (months)

Construction (months) 24

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Cost Project Description/Components	
2021	\$500,000	Video Security/Entry Upgrades	

Source of Funding: Bond Issue \$500,000

Operating Budget Impact now or in future: N/A



New High School Camera Security System



Centerville Elementary School Video System

2021 CIP – School Department General Fund Projects

PROJECT: SCH-21

DEPARTMENT PRIORITY: 4 of 18

2020-084

Project Working Title: Barnstable United Elementary Chiller Replacement

Project Location: 730 Osterville-West Barnstable Road, Marstons Mills, MA 02648

Project Description: This project request is for removal and replacement of two (2) existing air conditioning chiller units at Barnstable United Elementary School.

Project Justification: Existing units are 25 years old and at end of useful life, becoming increasingly difficult to operate and maintain.

Impact of Denial/Postponement: Denial or postponement of this project will result in the likelihood of not being able to provide air conditioning to the entire building.



Project Cost Estimates:		FY 2021	Future FY
Project cost Estimates.		FT 2021	Future Ff
	Construction or Acquisition	\$320,000	-
	Project Contingency	64,000	-
	All Other Cost	\$16,000	-
	Total Project Cost	\$400,000	-

Basis for Cost Estimates: Budgetary from Trane Commercial Systems

Project Estimated Completion Date: 2021

Design & Permit (months)

Construction (months) 2

2

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$400,000	Replace BUES Chillers, Units 1 & 2, 200T	

Source of Funding: Bond Issue \$400,000

Operating Budget Impact now or in future: N/A



Barnstable United Elementary School Chillers

2021 CIP – School Department General Fund Projects

PROJECT: SCH-21

Source of Funding: Bond Issue \$250,000

Operating Budget Impact now or in future: N/A

Project Working Title: Barnstable High School Gym & Field House Improvements

Project Location: 744 West Main Street, Hyannis MA 02601

Project Description: This is a multi-year project (3 years) to replace BHS locker room fixtures, lockers, benches, flooring, and lighting. This project request will replace field house flooring, repairs to walls and fixtures, doors, and the painting of walls and ceilings. The high school gym improvements include bleacher upgrades, replacement of tile glass windows, door replacement, and ceiling/wall paint.

Project Justification: These spaces are used almost continually for athletics, public events, and school activities. The areas have not seen any major improvements or upgrades for over 30 years creating the potential for health and safety issues.

Impact of Denial/Postponement: Denial or postponement of this project will result in the continued deterioration of highly utilized and essential facility space (s).

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$50,000	-
	Construction or Acquisition	\$150,000	\$500,000
	Project Contingency	\$50,000	-
	Total Project Cost	\$250,000	\$500,000

Basis for Cost Estimates: Budgetary costs based on vendor quotes and estimates

Project Estimated Completion Date: 2021 Design & Permit (months)

Cost/De	Cost/Description FY 2021 and Follow-On Years:		
Fiscal	Year	Cost	Project Description/Components
202	21	\$250,000	BHS Gym & Field House Improvements
202	22	\$250,000	BHS Gym & Field House Improvements
202	23	\$250,000	BHS Gym & Field House Improvements



DEPARTMENT PRIORITY: 5 of 18

2020-085

Construction (months) 2

5



Barnstable High School Gym & Field House Improvements

PROJECT: SCH-21

DEPARTMENT PRIORITY: 7 of 18

2020-086

Project Working Title: Campus Wide Mechanical Upgrades (Burners, Boilers, HVAC & Pump Systems)

Project Location: Barnstable Public Schools District Wide

Project Description: District Wide Boiler, Burners, and Pump Upgrades

Project Justification: Much of our existing equipment is over 30 years old and requires replacement and/or upgrade.

Impact of Denial/Postponement: Denial or postponement of this project could result in heating system failure with the possibility of facility damage due to frozen pipes, etc.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$250,000	\$1,000,000
	Total Project Cost	\$250,000	\$1,000,000

Basis for Cost Estimates: Budgetary Estimates

Project Estimated Completion Date: 2025	Design & Permit (months)	12	Construction (months)	60
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Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	\$250,000	Mechanical Upgrades	
2022	\$250,000	Mechanical Upgrades	
2023	\$250,000	Mechanical Upgrades	
2024	\$250,000	Mechanical Upgrades	
2025	\$250,000	Mechanical Upgrades	

Source of Funding: Bond Issue \$250,000

Operating Budget Impact now or in future: This project request will have a positive impact on operating expenses by upgrading 30-year-old units with high efficiency equipment. All boiler upgrades quality for Massachusetts School Building Authority assistance and could qualify for up to 35% rebate.



Typical BHS Pumpset

WAVES Boilers



Barnstable West Barnstable Elementary School Boiler

PROJECT: SCH-21

Project Working Title: Barnstable High School Positive Attendance System

Project Location: 744 West Main Street, Hyannis MA 02601

Project Description: Implement positive attendance system for tracking BHS student attendance. System would utilize student ID cards and classroom reader to record student attendance in class. A student is absent until he or she checks in to a particular location. When students enter the class or resource room, they "check in," thus marking themselves as present in that location without teacher intervention.

Project Justification: Positive attendance system will automate the process of taking roll providing teaching staff for formal instruction.

Impact of Denial/Postponement: Without an implementation may cause a potential loss of incremental savings on a day-to-day basis due to preexisting downtime before class starts.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$250,000	-
	Total Project Cost	\$250,000	-

Basis for Cost Estimates: Budgetary quote from Galaxy Systems dated August 15, 2019.

Project Estimated Completion Date: 2021

Design & Permit (months)

- **Construction (months)** 3

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$250,000	Positive Attendance System	

Source of Funding: General Fund Reserves \$250,000

Operating Budget Impact now or in future: N/A



Example of a Positive Attendance System



DEPARTMENT PRIORITY: 8 of 18

2020-087

DEPARTMENT PRIORITY: 9 of 18

2020-088

Project Working Title: Flooring Replacement and Upgrades

Project Location: District Wide

Project Description: This is a multi-year project to begin the replacement of worn tile, carpet and vinyl tile throughout the school district. Year 1 (FY21) repairs would include refinishing of BWB/BCIS gym floors, repairs to BHS ramp, busport

Project Justification: The existing flooring has becoming worn and tattered in all schools throughout the district including gym floors.

Impact of Denial/Postponement: Denial or postponement of this request will result in continued deterioration of existing flooring and cause safety issues.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$100,000	\$400,000
	Total Project Cost	\$100,000	\$400,000

Basis for Cost Estimates: Vendor Quotes

Project Estimated Completion Date: 2025 Design & Permit (months) 1 Construct

1 **Construction (months)** 60

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$100,000	Flooring
2022	\$100,000	Flooring
2023	\$100,000	Flooring
2024	\$100,000	Flooring
2025	\$100,000	Flooring

Source of Funding: Capital Trust Fund Reserves \$100,000

Operating Budget Impact now or in future: N/A




Barnstable West Barnstable Gym Floor

Barnstable High School Hallway Floor



Barnstable High School Hallway Ramp

PROJECT: ADM-21	DEPARTMENT PRIORITY: 1 of 1	2020-089

Project Working Title: Unified Communications - VOIP (Voice over Internet Protocol)

Project Location: All Town locations connected by BFON (Barnstable Fiber Optic Network), Town Hall, DPW S&G, Highway, HYCC, Police, DNR, Cemetery, Sandy Neck Gatehouse, WPC, Transfer Station, OBF Golf, COA, 200 Main, Hyannis Golf, Airport(*) and Hyannis Water.

*Airport has a new internal phone system and we may just keep that system in place there.

Project Description: Replace existing phone system(s) with Voice over Internet Protocol (VOIP) utilizing the Barnstable Fiber Optic Network (BFON)

Project Justification: The phone systems located in Town Hall (508-862-XXXX and 508-790-XXXX exchange) will be 20 years old as of July 2020 (FY21). This is ancient by phone system standards. There will be failures the more the system ages. The Town has been told by the phone vendor that parts were hard to find for systems of this age. With the system's age and sketchy parts availability, it is overdue to be replaced with a newer system. After BFON was completed and all Town and School buildings were connected by high speed fiber, I.T. had planned that the next obvious step would be a unified communication system for all Town and School locations. With a proven solid data network backbone in place and aging telephone system(s), it makes sense to combine all Town locations into one unified communications platform. This will eliminate the islands of smaller CENTREX phone systems that exist today, (508-790-XXXX, Airport, Golf(s), Solid Waste, Police Department etc.) along with the locations that utilize POTS lines (Plain Old Telephone Systems). Note: Schools received money for VOIP in FY18.. The schools implemented their own VOIP system and based on the extremely positive reviews the schools gave their vendor (Harbor Networks), the Town has decided to use Harbor Networks as well for this VOIP project.

Impact of Denial/Postponement: The Town would have to continue to use the various older systems and hope that parts could be found should the hardware fail. There is no guarantee that replacement parts can be found in a timely fashion so that does add an element of risk to Town operations. Structures and Grounds would continue to have to pay for repair and programming costs of the old system (If repairs could even be done).

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$317,000	-
	All Other Cost	\$25,000	-
	Total Project Cost	\$342,000	-

Basis for Cost Estimates: State Contract vendors pricing and vendor quote

Project Estimated Completion Date: 2021

Design & Permit (months)

3 **Construction (months)** 6

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$342,000	Hardware and installation

Source of Funding: Bond Issue \$342,000

Operating Budget Impact now or in future: We should anticipate a savings in carrier plan costs next fiscal year. We do not have a solid number at this time as it is still being analyzed with Harbor Networks and Structures and Grounds. Structures and Grounds will no longer have to pay the yearly maintenance for the old phone system once all sites are on the VOIP system.

PROJECT: MEA-21

DEPARTMENT PRIORITY: 2 of 12

2020-090

Project Working Title: Patrol Vessel Replacement

Project Location: N/A

Project Description: The Harbormaster (HM) Division is requesting funding for a new south side patrol boat. The current patrol boat (Parker) will be transitioning into our workboat. Our oldest boat in the fleet, a 25-ft. Boston Whaler (1981) was initially used for daily HM patrols and emergency responses. Over the years, it was repurposed to a workboat and now will be retired. This vessel was used for tasks such as hauling aids to navigation and moorings from the Town of Barnstable waters. Due to its age and condition, this vessel is at the end of its useful life. The hull, deck and cabin area are structurally compromised and unsafe for use. In 2019, due to these concerns, the HM equipped the current patrol vessel to be the new workboat. These changes were necessary to allow continued placement of the Town's navigational channels and enforcement of mooring regulations. A new patrol vessel is requested to replace the 2007 Parker for south side patrols, waterway safety, enforcement, and emergency response. The new requested vessel will be similar in size, with a metal plated hull for durability - as well as outfitted with a collar, adding the ability to come along side vessels underway. In addition, this new vessel will be used to support the Barnstable Police as an additional resource in the event of a law enforcement emergency in which Police powers are necessary.

Project Justification: The Harbormasters Office provides maritime law enforcement and public safety for over 100 miles of coastal shoreline. Hyannis is home to two maritime transportation security act (MSTA) regulated facilities; a federal channel, private/public marinas; two yacht clubs and over 500 hundred permitted moorings.

Hyannis Harbor is arguably the busiest harbor on Cape Cod and the Islands. It is home to the Woods Hole, Martha's Vineyard and Nantucket Steamship Authority (Steamship Authority). The Steamship Authority's vessels carry approximately 117,000 cars and trucks and 660,500 passengers annually. Hyannis is also home to Hy-Line Cruise's whose vessels carry approximately 800,000 passengers annually. Each vessel has a capacity to range from 200-799 passengers. Hyannis is also home to over a dozen inspected passenger vessels, which offer sightseeing, deep-sea fishing and children's adventures. Additionally, Hyannis Harbor routinely hosts foreign-flagged yachts/vessel from around the world.

Barnstable Police Department is the control agency for the Cape Cod Regional Law Enforcement Council SWAT Team. This team is made up of multiple police officers and first responders. They would respond to any active shooter, improvised explosive device (IED) and weapons of mass destruction event in the harbor, town, or region. This new vessel could provide an additional asset to the Barnstable Police in the event of one of those emergences. We will be partnering with the Barnstable Police to ensure they are aware of the vessel capabilities.

The Village of Hyannis is home to the Barnstable Municipal Airport. Flight paths of the majority of flights departing from Hyannis fall or entering Hyannis are over the Town's waterways. Accidents at sea involving aircrafts have happened in the past and required extensive resources to collect data and provide security on the water.

This new vessel would provide local patrols along our coastline (Nantucket Sound) including Centerville Harbor, Three Bays, Prince Cove, East Bay, and Centerville River.

In 2019, Harbormaster staff responded to 125 calls for service Town wide. Call for service included vessels in distress, medical events at sea, persons in distress, persons in the water, etc. Providing adequate response to such incidents requires a vessel that can respond to all types of incidents and perform in all types of weather conditions.

It's important to note that Hyannis Harbor is located on the edge of the area of responsibility of Station Chatham and Station Woods Hole Coast Guard Facilities. Thus, we have no readily available Coast Guard presence. Nor do we have any State or Environmental Police presence within close proximity to Hyannis Harbor. Generally, most of the maritime public safety falls to the Town of Barnstable, Barnstable Police and its separate five fire districts.

Impact of Denial/Postponement: The Marine and Environmental Affairs Department (and to some extent the Barnstable Police Department) will be limited in its ability to provide an appropriate response to maritime emergencies – including vessel and persons in distress, and we may be limited in our ability to assist mariners in need.

2021 CIP – Marine & Environmental Affairs General Fund Projects

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$300,000	-
	Total Project Cost	\$300,000	-

Basis for Cost Estimates: Preliminary quotes from vessel manufacturing companies.

Project Estimated Completion Date: 2021

Design & Permit (months)

Construction (months)

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$300,000	Vessel Purchase

Source of Funding: Bond Issue \$300,000

Operating Budget Impact now or in future: There would be savings from the maintenance costs of up- keeping the aged old work vessel. However, these savings would be offset by the increase in fuel costs.



Above are images of our old work vessel (25 Boston Whaler)

PROJECT: SDY-21

Project Working Title: Sandy Neck Parking Lot Relocation

Project Location: 425 Sandy Neck Road, West Barnstable, MA 02668

Project Description: This project will provide design and permitting to relocate the parking area and beach access roadway, as well as analysis and selection of an appropriate offsite parking area with potential for shuttle service to the beach.

Project Justification: A detailed analysis of the long-term viability of the Sandy Neck beach parking and supporting facilities was completed as part of a grant from Coastal Zone Management (CZM) in the fall of 2016. The analysis demonstrated that in order to provide protection to the built infrastructure and maintain the viability of the parking, a relocation of the parking area was the most viable alternative. In order to supplement the information contained in the report this project will include design and permitting of relocated facilities as well as feasibility of environmentally suitable sites for parking.

Impact of Denial/Postponement: Without a long-term solution, the beach will continue to erode and continue to reduce the parking area and cause concern about the surviving septic system and the use of the beach itself for the public. Further, through multiple and lengthy talks with the regulatory agencies (DEP and NHESP), it has become apparent the Town should not assume a recovery of lost parking spaces, due to storm damage, is guaranteed under the current regulatory framework. Annual parking lot revenue equates to approximately \$250,000. This revenue source is potentially in jeopardy due to erosion from future storms.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$200,000	-
	Construction or Acquisition	-	\$2,000,000
	Project Management	-	\$240,000
	Project Contingency	-	\$400,000
	All Other Cost	-	\$10,000
	Total Project Cost	\$200,000	\$2,650,000

Basis for Cost Estimates: Department Public Works Engineering and 2016 Report

Project Estimated Completion Date: 2024

Design & Permit (months)

Construction (months) 12

12

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$200,000	Design & Permitting
2022	-	-
2023	-	-
2024	\$2,650,000	Construction & Construction Management

Source of Funding: Sandy Neck Enterprise Fund Reserves \$200,000

Operating Budget Impact now or in future: New infrastructure in locations that are more protected from tidal and flood damage is expected to reduce maintenance costs.

ndwich Scorton Stores 22 Sandy Neck Rd, West Barnstable, MA 02668 Sody Neck Baah Park West Barnstable Barnstable Barnstable Barnstable Marstons Mills Marstons Mills Centerville Conterville Contervil

DEPARTMENT PRIORITY: 2 of 2

2020-091



Sandy Neck Parking lot and Dunes

PROJECT: GOLF-21

Project Working Title: Olde Barnstable Fairgrounds Golf Course Turf Maintenance Equipment Replacement

DEPARTMENT PRIORITY: 1 of 1

Project Location: 1460 Rt. 149 Marstons Mills, MA 02648

Project Description: Replace several key pieces of turf maintenance equipment. The project will replace two (2) Triplexes, two (2) Fairway mowers, Trap Rake, large area Sweeper, and 200 gallon Spray Rig.

New equipment includes: Large area Rake-O-Vac, Pro Sweep Core Collector, two (2) Greens Pro 1260 Rollers, two (2) Groundmaster 3500 intermediate Rough Mowers, two (2) Triflex 3300 Mowers, two (2) 5010H Fairway Mowers, Sand Pro 5040 Trap Rake, Multi Pro 1750 Spray Rig, Multi Pro 5800G Spray Rig, Workman KDX Utility Vehicle, and AeraVator seeder.

Project Justification: Most of the turf maintenance equipment is 10 years of age and older, in fair/poor condition and in need of replacement. This equipment is crucial to our ability to properly manage and maintain the asset. The existing large area sweeper is 20

years old, spray rig is 13 years old, and bunker rake is 13 years old as well. The additional spraying, rolling, and seeding equipment will allow for timely completion of necessary new protocols without interfering with golfers and will greatly minimize course opening delays or closures.

Impact of Denial/Postponement: The pieces of equipment are at the end of / or past their useful life expectancy and are in poor condition. For the last few years, we have seen repair and maintenance costs skyrocket and equipment values drop. We are experiencing frequent breakdowns of major components leading to long downtimes. A diminished quality of cut, loss of productivity and reliability are noticeable. Trade in values are nil for 10 year old mowers. Postponing the acquisition of new mowers will lead to excessive and costly repairs on equipment with no value and a decline in playing conditions that could lead to decreased play and loss of revenues and market share. Not acquiring new equipment will lead to higher maintenance costs due to paying contractors to do service work and will jeopardize our ability to implement our green initiative effectively.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$502,000	-
	Total Project Cost	\$502,000	-

Basis for Cost Estimates: Prices used are from Mass Sate Contract FAC88. Price quote attached.

Project Estimated Completion Date: 2021

Design & Permit (months)

Construction (months)

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$502,000	Turf Maintenance Equipment Replacement

Source of Funding: Golf Course Enterprise Fund Bond Issue \$502,000

Operating Budget Impact now or in future: We should realize a savings on repairs and maintenance (R&M) expenses, at least for the first 2-3 years. New equipment will only need preventative maintenance versus replacing major components on old mowers for the first few years of service. We will eliminate our dependency on outside contractors to perform service work such as over seeding fairways and roughs, as we will be able to accomplish the work in-house with our own equipment and labor.

Sandwich	Shores					
2	Sar	ndy Neck Beach Park				é
	J v	Vest Barnstable	and a		Y	armouth Port
Farmersville	0	All Can	112	Barnstable	d-Cape Hwy	
	1460 Route 149, 1		UM		a-cape nwy	
Newtown	Mills, MA 02	648		arnstable Municipal Airport		
T	Marstons Mills	Y I			Hyannis	West Yarm
	A at the	Cen	terville		Ar-	
Santuit	. 2		igville Beach	Hyannis Port	<u>,</u>	ewis Bay
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leck	Sampsons Island					
3.9						

2020-092



GreensPro 1260



Rake-O-Vac



Pro Sweep



Groundsmaster 3500-D

PROJECT: AIR-21

Project Working Title: Design & Construct Tree Clearing Phase II

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Design & Construct Tree Clearing Project (Phase II) within airport approaches that has regrown creating surface clearance violations/airspace flight obstructions where regrowth has occurred.

Project Justification: There are several places where the vegetation has regrown in certain areas of the airfield creating an airspace flight obstruction. The airspace obstruction requires removal to protect federal airspace and runway approaches and meet FAA design and safety criteria. If not removed, there is not only a safety concern but also a concern for a reduction in the federal funding of future projects if obstructions are not removed.

As with any vegetation, over the past several years, the vegetation has continued to grow creating a safety concern. The airport continues to manually keep the growth down; however, a majority of the growth

that impacts the airport's runway approaches is located either off airport and/or along major roadways and requires specialized equipment for removal while allowing for continued access to/from downtown Hyannis.

Impact of Denial/Postponement: Denial will increase the probability of an adverse effect on flight minimum altitudes and negatively affect flight safety and commerce. Additionally, denial will not meet federal, state, and local permitting requirements for future development and improvements.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$300,000	-
	Total Project Cost	\$300,000	-

Basis for Cost Estimates: Prior construction projects, engineering consultant estimates, industry cost estimates, and FAA and MassDOT consultations, etc.

Project Estimated Completion Date: 2021

Design & Permit (months)

Construction (months) 1

6

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$300,000	Design & Construct Tree Clearing Phase II	

Source of Funding: FAA AIP reimbursable Grant funds at 90%; MassDOT at 5%; Airport Enterprise Fund at 5%; or MassDOT at 80%; Airport Enterprise Fund at 20% based on eligibility.

Operating Budget Impact now or in future: Routine maintenance will continue unabated to maintain the clear zones by existing staff.



DEPARTMENT PRIORITY: 1 of 23

2020-093



Approach impacts Runway 24 are an example of some of the clearing to occur

2021 CIP – Airport Enterprise Fund Projects

PROJECT: AIR-21

Project Working Title: Upgrade Airport Security Cameras

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Airport security equipment must be maintained regularly to protect airport staff and the traveling public and when certain Federal Aviation Administration (FAA) approved equipment is eligible for replacement with FAA grant assistance, such equipment must be evaluated and replaced as necessary. This project is to replace 40 airport cameras in various locations throughout the airport.

Project Justification: The Airport has 55 cameras in various locations throughout the airport, which will require replacement over the next several years. MassDOT Aeronautics added nine cameras in FY 2016, the Airport replaced three in FY 2019, and the Airport replaced another three in FY 2020. A number of the cameras are older with limited capabilities for detection and monitoring of security areas and the overall airport. The new digital cameras are now on the market and provide greatly enhanced capabilities for security and airport



DEPARTMENT PRIORITY: 2 of 23

operations observation, monitoring and detection. The new camera capability includes:

- The ability to take excellent still photos, control each camera individually with zoom capability to read license plates, aircraft numbers and perhaps even security badges.
- Higher resolution and low light capability that will improve overall airport security and the ability to better monitor airport traffic.
- Better review of security breaches, theft and/or monitoring tenants and their use of common space for payment/revenue purposes.

The intent was a multi-year program that would replace a number of cameras per year unless the project is eligible for funding from MassDOT Aeronautics Division, FAA, or Transportation Security Administration (TSA) grants. FAA has indicated that the vast majority of the cameras, but not all, are eligible for Federal and State funding. Up until this point, the Airport has funded camera replacement 100% out of the Operating Capital Budget.

Impact of Denial/Postponement: If the project request is denied the airport may not be able to meet mandated FAA/TSA regulations for security and airport operations observation, monitoring and detection, which the airport could be decertified. The airport would be unable to provide a safe operation for the continuation of commerce as part of the national airspace plan; the airport would be unable to respond to airfield security breaches as quickly and efficiently and would unnecessarily endanger lives and property.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$200,000	-
	Total Project Cost	\$200,000	-

Basis for Cost Estimates: Project costs are based on recent similar purchases of replacement cameras in FY 2020, State Bid List, FAA acquisitions, and manufacturer quotes, etc.

Project Estimated Completion Date: 2021

Design & Permit (months)

Construction (months)

6

77

6

2020-094

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	\$200,000	Upgrade Airport Security Cameras – Replace 40 Units	

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and Airport Enterprise Fund (5%). Some cameras may be 100% Airport Enterprise Funds if deemed not eligible for FAA and MassDOT reimbursement/grant eligibility.

Operating Budget Impact now or in future: Replacement Cameras. Mission remains the same.



Digital



Analog

PROJECT: AIR-21

DEPARTMENT PRIORITY: 3 of 23

2020-095

Project Working Title: Reporting, Testing, Mitigation, and Monitoring (PFOS Soils)

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Burning fuel from an aircraft accident relies on more than water to put out the flames. The Federal Aviation Administration (FAA) requires airports to carry chemical agents that are effective in smothering fuels and other onboard liquids such as hydraulic fluids, and for decades the industry standard, and only approved chemical, has been aqueous film-forming foams — known as AFFF. However, the same chemicals that make it effective for fighting fires are also linked to contamination in drinking water.

The Environmental Protection Agency (EPA) has identified per- and polyfluoroalkyl substances (PFAS) as a group of synthetic chemicals that have been in use since the 1940s and are found in a wide array of consumer and industrial products. Due to their widespread use and persistence in the environment, most people in the United States have been exposed to PFAS. However, because there is evidence that



continued exposure above specific levels to certain PFAS may lead to adverse health effects, the EPA has developed an Action Plan with an approach to identifying and understanding PFAS, approaches to addressing current PFAS contamination, and preventing future contamination.

The Massachusetts Department of Environmental Protection (MassDEP) Bureau of Waste Site Cleanup was tasked with ensuring the cleanup of oil and hazardous material releases pursuant to the Massachusetts Oil and Hazardous Material Release Prevention and Response Act (M.G.L. Chapter 21E). This law is implemented through regulations known as the Massachusetts Contingency Plan (310 CMR 40.0000 et seq. - the MCP). Both M.G.L. c 21E and the MCP require the performance of response actions to provide for protection of harm to health, safety, public welfare and the environment, which may result from releases, and/or threats of releases of oil and/or hazardous material (OHM) at disposal sites.

MassDEP is analyzing PFAS use in industrial and consumer applications, including stain- and water-resistant coatings for fabrics and carpets, oil-resistant coating for paper products approved for food contact, mining and oil well surfactants, floor polishes, insecticide formulations, and aqueous film forming foam (AFFF). In 2016, MassDEP reached out to airports across the Commonwealth of Massachusetts investigating the current and historic use of AFFF.

Currently, AFFF is the only substance approved by the FAA for use in airport emergency responses. Although the FAA is investigating alternatives, to date, none has been approved. In the interim, Barnstable Municipal Airport has modified its use of AFFF due to the health risks associated with PFAS.

Project Justification: The project will respond to MassDEP mitigation requirements. Failure to implement the project will be in direct violation with DEP requirements for hazardous materials.

Impact of Denial/Postponement: To deny or postpone funding of this capital project will not allow the Airport to be in full compliance with MassDEP directives.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$250,000	-
	Total Project Cost	\$250,000	-

Basis for Cost Estimates: Planning and engineering consultant estimates, FAA and MassDOT consultations.

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months)

2021 CIP – Airport Enterprise Fund Projects

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Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	\$250,000	Reporting, Testing, Mitigation, and Monitoring (PFOS Soils) Phase II	
2022	\$100,000	Reporting, Testing, Mitigation, and Monitoring (PFOS Soils) Phase III	
2023	\$100,000	Reporting, Testing, Mitigation, and Monitoring (PFOS Soils) Phase IV	

Source of Funding: Reimbursable funding from FAA and MassDOT Aeronautics is not available; (100%) local share

Operating Budget Impact now or in future: To be determined



Annual Testing and Tri-Annual Drill Site Location (~ 1.79-acres)



AFFF Truck Storage & Maintenance Site Location (~0.46 acres)

PROJECT: AIR-21

Project Working Title: Extend Mary Dunn Way to the limit of future growth in this area on the East Ramp, including drainage repairs and utilities (Phase II).

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: The Airport recently completed development of its Business Plan to identify priority marketing and business efforts, targeting goals that the airport is trying to meet to increase development, passenger throughput and airport use.

The Business Plan goals include:

- Improving General Aviation Services
- Diversifying Airport Revenue Stream
- Becoming a Leader in Air Transportation Options for the Cape, Islands and Southeastern Massachusetts
- Developing Airport Branding

With these goals in mind, there are a number of projects that can be implemented at the airport to help establish or improve existing

facilities and to better market the airport, such as this proposed project. This project would respond to the need to improve general aviation services.

This proposed two-phased project will provide an improved Airport Access Road on the East side of the airfield and will respond to a number of actions and objectives to meet the above goals. Each phase will be handled as a separate project.

Phase II (the subject of this project) will include extending the road to the limit of future growth on the East Ramp. This stretch of road is truly an airport access road that is an unimproved unpaved internal (inside the secure fence) access road with potholes and narrow lanes. The unimproved dirt road is currently covered with millings from rubblized past pavement projects used as a base.

Project Justification: This proposed project (Phase II) will include the final extension of Mary Dunn Road and include a new paved surface, security fence, drainage improvements, and the addition of utilities including sanitary sewer. Phase I improved the existing paved road and incorporates the extension of existing utilities. This included the addition of sanitary sewer to serve potential future hangar buildings as may be permitted.

Impact of Denial/Postponement: The impact of not implementing the project will lead to possible loss revenues due to inability to improve access conditions. Delays in the actual construction will not allow the airport to improve existing facilities or maintain leased facilities; to help market the airports facilities to enhance future development.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$3,400,000	-
	Total Project Cost	\$3,400,000	-

Basis for Cost Estimates: Cost estimates were received from the Airport's on-call engineers; however, more investigation may need to solidify estimates for sanitary sewer.

Project Estimated Completion Date: 2021

Design & Permit (months)

Construction (months) 12

3

Cost/Description FY 2021 and Follow-On Years:

Fiscal Year	Cost	Project Description/Components
2021	\$3,400,000	Extend Mary Dunn Way to the limit of future growth in this area on the East Ramp,
		including drainage repairs and utilities (Phase II).

DEPARTMENT PRIORITY: 4 of 23

Sandwich Shores Sandy Neck Baush Park West Barnstable God Airport Newtown Marstons Mills Centerville Coturt Newtown Cotterville Cottervil

2020-096

81

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) for the security fence; and possible MassDOT ASMP (80%) and Airport Enterprise Funds (20%) for the design and road construction cost. The Airport is also seeking a MassWorks Grant and is currently in communications with State Rep. Whelan to start grant request proceedings. Chapter 90 Highway Funds may also be available.

Operating Budget Impact now or in future: None, existing staff and facilities will be used.



Google Maps satellite photo depicting phase roadway improvement location.

PROJECT: AIR-21

Project Working Title: Environmental Review for Airport Master Plan Projects: MEPA, NEPA and Cape Cod Commission (CCC) Development Agreement for Airport Master Plan Projects & Permitting Phase I for Short-Term Airport Master Plan Update Projects

DEPARTMENT PRIORITY: 5 of 23

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Environmental Review of Airport Master Plan Projects to evaluate and assess the potential environmental impacts associated with various airfield safety improvements proposed at the Barnstable Municipal Airport. The scope of the project will include analysis that will examine a range of alternatives that have the potential to meet safety requirements and outline the potential environmental impacts of each. Any identified permitting requirements will be included within the scope of the project (Phase I for Short-Term Airport Master Plan Update Projects). The assessment allows for a systematic elimination of a number of different alternatives assessed, reasons why alternatives may be eliminated and reasons for alternatives that may be carried forward for detailed evaluation.

Project Justification: The Environmental Review will examine the Airport's proposed improvements as detailed in the required Federal Aviation Administration (FAA) Airport Layout Plan (ALP) and Master Plan (per FAA Advisory Circular AC150/5070-6).

The review is a necessary process per FAA regulations and will assess development alternatives that improve the airport and future operations whether it is safety or capacity related. It may consider the following possible future airport projects:

- Review the taxiway geometry and develop options for compliance with design standards for Taxiway B, D, & E;
- Identify on-airport and off-airport commercial development;
- Develop alternatives to meet aircraft parking demand for apron space; and
- Review obstruction analysis of FAR Part 77 surfaces and obstruction removal options.

Impact of Denial/Postponement: To deny or postpone funding of this capital project will not allow the Airport to be in full compliance with FAA directives. This may have long-term financial consequences with regard to receipt of FAA and MassDOT grants. The airport would not be in compliance with FAA safety directives or environmental regulations that necessitate the review of projects that could have the potential to trip various environmental thresholds that require review such as the addition of new impervious surfaces, tree clearing or other such projects.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$1,150,000	-
	Total Project Cost	\$1,150,000	-

Basis for Cost Estimates: Planning and engineering consultant estimates, FAA and MassDOT consultations.

Project Estimated Completion Date: 2021

Design & Permit (months)

Construction (months)

Cost/Descriptio	ost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	\$1,150,000	Environmental Assessment for Airport Master Plan Projects & Phase I Permitting & Design	

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%)

Operating Budget Impact now or in future: Planning process will include in-house staff review and processing.



2020-097

PROJECT: AIR-21

DEPARTMENT PRIORITY: 6 of 23

2020-098

Project Working Title: Design and Construct New T-Hangar/FBO Offices

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Design and construct a new T-hangar to provide additional hangar space to accommodate the needs of general aviation at the Barnstable Municipal Airport (HYA). The addition of a Fixed Based Operation (FBO) office space will cater to customers. The T-hangar would be constructed of metal with a concrete foundation and bi-fold doors for aircraft access on the east ramp. The office space set-up and design is to be determined, but it would include a counter/greeting area, pilot lounge, conference room, and training space.

Project Justification: The Airport recently completed development of its Business Plan to identify priority marketing and business efforts targeting goals to increase development, passenger throughput, and airport use.



The Business Plan goals include:

- Improving General Aviation Services;
- Diversifying Airport Revenue Stream;
- Becoming a Leader in Air Transportation Options for the Cape, Islands and Southeastern Massachusetts; and
- Developing Airport Branding.

With these goals in mind, there are a number of projects that can be implemented at the airport to help establish or improve existing facilities to better market the airport, such as this proposed project. This project would respond to the need to improve general aviation services. In addition, the airport has a waiting list for T-hangar space that fluctuates between 25 and 27 aircraft owners waiting for space. Some owners have also approached us wanting to build their own facilities. Revenues generated by the rental of the bays will help offset costs of construction and maintenance.

FBOs are airport service centers responsible for aircraft amenities, such as passenger handling, aircraft fueling, parking, maintenance, charters, rentals, and flight training to name a few. FBOs also take care of ground handling services, like towing and baggage handling, and other services, such as car rentals, hotel reservations, catering and pilot lounges. The airport's FBO is considered non-standard where access is limited to airfield access only as it is located behind the secure fence. The public can only gain access to the existing facility via airport personnel escort. Typically, FBOs have both a public access side and an airfield access side allowing customers to flow easily from car to plane and plane to car. This is not currently possible at the airport's existing FBO and has been identified as an issue as we began to further develop the Business Plan.

To be responsive to the Business Plan goals and commentary from a number of users, combining hangar space with office space at one end of the building allows the airport to improve general aviation services by providing more hangars and a more inviting FBO space for general aviation pilots and customers.

Impact of Denial/Postponement: Effect of denial will further decrease potential HYA revenues, and will prevent the HYA from meeting the demands of airport users for hangar space.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$700,000	-
	Total Project Cost	\$700,000	-

Basis for Cost Estimates: Prior construction projects, engineering consultant estimates, DPW estimates, FAA, and MassDOT consultations, etc.

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	\$700,000	Design and Construct New T-Hangar/FBO Offices	

Source of Funding: Airport Enterprise Funds (20%) and reimbursable funding by MassDOT AD (80%) if available. If MassDOT funds are not available, project may be funded by airport reserves or deferred indefinitely.

Operating Budget Impact now or in future: Routine maintenance costs to be determined after several years



3 Possible New Hangar/FBO Office Locations



Photo of existing FBO location and potential hangar development site.

PROJECT: AIR-21

Project Working Title: Design and Construct New Airport Owned Avgas Fuel Tank/Self-Service Tank

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: This project is to design and construct a new Avgas fuel tank on existing fuel farm or new self-service farm.

Project Justification: The Airport recently completed development of its Business Plan to identify priority marketing and business efforts targeting goals to increase development, passenger throughput, and airport use.

The Business Plan goals include:

- Improving General Aviation Services;
- Diversifying Airport Revenue Stream;
- Becoming a Leader in Air Transportation Options for the Cape, Islands and Southeastern Massachusetts; and
- Developing Airport Branding.

Sandwich Stores Sores So

DEPARTMENT PRIORITY: 7 of 23

With these goals in mind, there are a number of projects that can be implemented at the airport to help establish or improve existing facilities and to better market the airport, such as this proposed project. This project would respond to the need to improve general aviation services. Both airport tenants and aircraft owners have stressed a need for a centralized location as well as a 24-hour option for aviation (avgas) fuel. Note that this is a request for Avgas, which is different from Jet Fuel, which airport staff supplies from our Fixed Based Operation (FBO) to our customers 24 hours/day 7 days/week. Airport staff does not have or operate Avgas fuel tanks; only our tenants supply this service.

There are three current avgas tanks in place at the airport; two underground and one aboveground, each with a 10,000-gallon capacity. All are owned and operated by airport tenants, not by airport-employed staff, and none allow for self-service fueling or 24-hour Avgas fueling options. If a pilot wishes to fill up on fuel afterhours, (i.e. after airfield tenants have closed their shops for the evening – this is currently any time after 7PM) the pilot must pay a premium and afterhours fee to the tenants that supply fuel. This does not provide for good customer service to our customers nor does it help the airport meet its Business Plan goals.

If the Airport FBO were to design and construct an Airport owned Avgas fuel Tank and/or self-service tank, customers would have access to 24-hour Avgas fueling options. I stress either/or option because Airport staff operate on a 24-hour basis.

To be responsive to the Business Plan goals and commentary from a number of users, providing such a provision allow the airport to improve general aviation services by providing Avgas options for general aviation pilots and customers.

Impact of Denial/Postponement: If denied it will further decrease potential HYA revenues, and will prevent the HYA from meeting the demands of airport users.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$700,000	-
	Total Project Cost	\$700,000	-

Basis for Cost Estimates: Prior construction projects, engineering consultant estimates, DPW estimates, FAA, and MassDOT consultations, etc.

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months)



Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$700,000	Design and Construct New Airport Owned Avgas Fuel Tank/Self-Service Tank

Source of Funding: Airport Enterprise Funds (20%) and reimbursable funding by MassDOT AD (80%) if available. If MassDOT funds are not available, project may be funded by airport reserves or deferred indefinitely.

Operating Budget Impact now or in future: Routine maintenance costs to be determined after several years

PROJECT: POL-21

DEPARTMENT PRIORITY: 1 of 3

2020-100

Project Working Title: Police Radio Improvements

Project Location: The work will be completed at six sites – BPD Headquarters – 1200 Phinney's Lane, Oak St. tower – 749 Oak Street, Town Hall – 367 Main Street, Cotuit Water Tower – 9 West St. Cotuit, Barnstable High School – 744 West Main St., Barnstable County Complex – 3195 Main St. Rte 6A

Project Description: The project consists of radio equipment and infrastructure upgrades at all of the six radio receiver / repeater sites in town that support the Barnstable Police main radio channel.

Project Justification: Consistently reliable radio communications is the backbone of the emergency response system for the police department. Our main radio channel relies on a primary transmitter site located at 749 Oak St. in West Barnstable, one of the highest elevations in town. All of the transmissions come from this site and go to the police radios in cruisers and portables carried by each officer. When the officer transmits from the portable or cruiser the signal goes to the closest repeater and is then transferred through a hard line from that receiver site to the police department dispatch center. The repeater sites are what carry the weak signal from the cruiser and portables back to the station by repeating it and strengthening the signal so that all listeners can hear the transmission. The main pieces of equipment at each site consists of an antenna mounted on top of a building or a tower, antenna cable to a control room, radio equipment in each control room and finally a hard line that carries that data back to the police department. The radio equipment used at each site is out of date and no longer serviceable. The antennas at each site have an effective usable life of approximately twenty years and are close to or have passed that usable life. The hard lines that carry the data from the sites to the department are copper phone lines in 4 of the locations. The copper phone lines are no longer being supported and are prone to problems. Problems with the copper lines between the Oak St. tower and the department have been incredibly problematic and have caused the main radio channel to be down for approximately three months now while work is done on a replacement. There are better solutions for all of the aforementioned issues that collectively will provide the police department with drastically increased reliability and increased radio coverage. Replacing the outdated equipment and antennas will improve quality and coverage. Vacating the copper phone lines for fiber optic lines will drastically increase the reliability of the service.

Impact of Denial/Postponement: The entire radio system for the police department has not had any proactive attention for many years. As a result, the reliability of the system is at the peril of the outdated equipment supporting it. In the summer of 2019, the department lost the use of the main channel for three months due to the copper phone lines transmitting between Oak St. and the police department failing intermittently. Constant troubleshooting with Verizon and radio technicians could not solve the problem. The real world impact on the street when the radio is intermittently working is devastating. There were several instances during very busy times that the radio was "dropping out" meaning that the dispatchers were transmitting but the cruisers were not receiving them. In each case, it took several transmissions before it was realized and they were able to switch to an emergency backup channel. The department has been running for several months on the secondary channel. The secondary channel does not have equally good coverage and is not as clear.

Clear and reliable radio communications for the police department is necessary. We have made many recent upgrades in the dispatch center and have many additional radio options available to us in an emergency through collaboration with the Hyannis Fire Department. All of the improvements made become meaningless if the infrastructure of the rest of the system is not upgraded also.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$100,929	-
	Project Contingency	\$20,186	-
	Total Project Cost	\$121,115	-

Basis for Cost Estimates: In house BPD Personnel did extensive research regarding our current system including visiting the sites and working with BCSO radio technicians. The budgetary quotes for the replacement of the equipment are the result of collaboration with CyberComm, BCSO and OpenCape.

Project Estimated Completion Date: 2020

Design & Permit (months)

¹ **Construction (months)** 1

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$121,115	Police Radio Improvements

Source of Funding: General Fund Reserves \$108,554 and remaining funds from Town Council Order 2017-088 \$12,561

Operating Budget Impact now or in future: Any of the ongoing costs associated with running data on fiber optic lines would be offset by eliminating telephone lines. There is a potential for small savings once all of the old phone lines are removed for service.

DEPARTMENT PRIORITY: 2 of 3

2020-101

Project Working Title: Storage Appliance

Project Location: Police facility at 1200 Phinneys Ln, Centerville, MA 02632 and 367 Main St, Hyannis, MA 02601

Project Description: Replace an aging on-premise storage appliance with two new storage appliances in order to refresh our data storage systems and to implement a Backup, Disaster Recovery, and Business Continuity solution. One appliance will be housed in the BPD Datacenter while the other would be housed at the Town Hall Datacenter. By utilizing two separate and identical storage appliances will allow the PD to continue to use its Information Systems in the event of a disaster at our local datacenter by instantly failing over to the other appliance located at the Town Hall Datacenter. This is accomplished by utilizing instantaneous data replication, protection, and recovery provided by the two identical units.

Project Justification: At the moment, the Police Department's disaster recovery and business continuity solution does not include an off-site location. At the moment, all of our data is stored on-premise on local systems. If there were a failure of our storage appliance, we would not be able to use our Information Systems and could potentially suffer permanent data loss. By utilizing offsite, data replication to an identical appliance will afford the Police Department the opportunity to keep its systems running in the event of disaster in our local datacenter and will protect our data by replicating to the other device. Additionally, the manufacturer will no longer support our existing storage appliance within the next 6 to 12 months, and as a result, the appliance will not receive updates, support, or service from the manufacturer in the near future.

Further, by transitioning to the proposed devices, the Police Department would realize significantly improved storage performance, increased productivity, no downtime due to failures or updates/upgrades, and a lower total cost of ownership. The proposed systems will save approximately 33% over traditional systems by offering non-disruptive upgrades included with its annual support & maintenance subscription. In addition, as an added benefit, support & maintenance will never increase in cost and will remain flat over time.

Impact of Denial/Postponement: The manufacturer of our existing storage appliance has shifted its business model, practices and devices and as a result, the manufacturer will no longer support our device within the next 6 to 12 months. Therefore, the appliance will not receive updates, support, or service from the manufacturer. In the event of a failure of our current/local, storage appliance could result in the inoperability of our Information Systems and/or permanent data loss.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$125,000	-
	Total Project Cost	\$125,000	-

Basis for Cost Estimates: Quotations from vendors

Project Estimated Completion Date: 2021 Design & Permit (months)

Construction (months)

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$125,000	Storage Appliance	

Source of Funding: General Fund Reserves \$125,000

Operating Budget Impact now or in future: N/A

PROJECT: POL-21

Project Working Title: Barnstable Police Department Improvements

Project Location: 1200 Phinneys Ln, Hyannis, MA 02601

Project Description: The Police Department facility was constructed over 30 years ago. Significant facility improvements are required. The work has been broken into three consecutive priority phases.

Priority 1: (public and employee security and safety)

- Front lobby security upgrades
- Lobby bathroom upgrades for expanded use and ADA compliance
- Concrete ramp and step improvements for ADA compliance
- Lobby ballistic separation wall installation.

Priority 2: (operational improvements)

- Replace exterior window systems.
- Increase front parking.
- Install new garage ventilation and select overhead doors.
- Priority 3 (finish upgrades)
- Replace interior floor finishes
- Interior painting
- Ceiling grid and panel replacement
- Elevator refurbishment



DEPARTMENT PRIORITY: 3 of 3

Project Justification: Constructed in 1981, the Police Department Facility is one of the most heavily used buildings in Town. The facility is utilized 24/7 and as such building elements are worn out and need to be replaced. This building will need to service Barnstable for a very long time into the future. The lobby is outdated and not secure. There is no ballistic protection separation protecting police dispatch and reception areas from the public. Hazardous material in the exterior masonry walls has blead through the old metal windows onto interior working surfaces with documented exposure events.

Impact of Denial/Postponement: Separation between police personnel and unsecured public spaces will remain a hazard. Parking will continue to be inadequate. Disability access to the facility will continue to not meet current standards. Systems will continue to deteriorate creating opportunities for vermiculite migration into interior spaces. The old windows are outdated and compromise energy efficiency and allow the continued deterioration of the building envelope. Inflation will continue to erode purchasing power. Interior finishes will continue to erode and be sub-standard.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$90,000	\$225,148
	Construction or Acquisition	\$750,000	\$1,876,230
	Project Management	\$60,000	\$139,727
	Project Contingency	\$90,000	\$225,148
	All Other Cost	\$1,000	\$2,000
	Total Project Cost	\$991,000	\$2,468,253

Basis for Cost Estimates: Architect assisted In-house Cost Estimate

Project Estimated Completion Date: 2023

Design & Permit (months)

6 **Construction (months)** 8

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$991,000	Phase 1 upgrades (security & safety)
2022	\$1,359,719	Phase 2 upgrades (operational improvements)
2023	\$1,108,533	Phase 3 upgrades (finishes)

Source of Funding: Bond Issue \$991,000

Operating Budget Impact now or in future: This project is to stabilize an existing Town building and would require marginal increase in utility costs.



Police Headquarters Interior / Exterior

PROJECT: HYCC-21

DEPARTMENT PRIORITY: 2 of 2

2020-103

Project Working Title: Hyannis Youth and Community Center Facility Improvements

Project Location: 1412 Bassett Ln, Hyannis, Massachusetts 02601

Project Description: The Hyannis Youth and Community Center was Completed in 2008. This project has been divided into multiple years of work, each addressing specific elements of repair as identified by consultants. Some of the repairs may yet to be discovered. Design for all years of work discussed here is currently being completed. Issues that need to be addressed include metal roofing, asphalt roofing, membrane roofing, flat roofing, rubber floors, HVAC controls and systems, drinking fountains, grease traps, kitchen equipment, floor tile replacements, and other items.

Project Justification: The Department Of Public Works assumed maintenance responsibilities for the Hyannis Youth and Community Center in October of 2016. The facility was plagued with system failures due to deferred maintenance. DPW immediately commissioned a facility condition assessment to develop a



comprehensive action plan. This CIP has been developed based on the facility condition assessment that was completed in FY19.

Impact of Denial/Postponement: Continued deterioration of the building and building systems.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$40,000	-
	Construction or Acquisition	\$598,442	\$301,555
	Project Management	\$47,875	\$24,124
	Project Contingency	\$59,683	\$30,155
	All Other Cost	\$10,000	\$10,000
	Total Project Cost	\$756,000	\$365,834

Basis for Cost Estimates: Facilities Management Report

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months) 8

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	\$756,000	Phase 3 – Gates, Roof, Plumbing, Flooring, Kitchen	
2022	\$365,834	Phase 4 – Tile, Interior Finishes	

Source of Funding: Bond Issue \$756,000

Operating Budget Impact now or in future: Some efficiency savings once HVAC controls are installed.



Hyannis Youth & Community Center Roof

2021 CIP – Hyannis Youth & Community Center Enterprise Fund Projects

PROJECT: DPW-21

Project Working Title: Emergency Generator Implementation Plan

Project Location: Town Hall, School Administration Building, Hyannis Youth & Community Center, Marine & Environmental Affairs, Fleet Maintenance, and W. Barnstable Community Building.

DEPARTMENT PRIORITY: 15 of 45

Project Description: This project will fund the emergency generator implementation plan consisting of the installation of new generators at School Administration Building, HYCC, and replacement generators at Town Hall, MEA, Fleet Maintenance Building, and a portable backup unit with a fueling trailer. The portable backup generator unit would be utilized to power buildings where generators have failed or where a generator has not yet been installed. FY21: 50 KW Fleet Maintenance Generator, Portable Emergency Generator, Transfer Switches, Aux fuel trailer. FY22: 175KW SAB Generator, FY23: HYCC Generator, FY24: 175 KW Town Hall Generator.

Project Justification: HUREX 2019 exercises revealed that in the case of hurricane or major storm landfall the town's generator inventory is lacking. This CIP addresses the need for emergency standby generator enhancements. The program includes purchase of a mobile generator and installation of transfer switches at critical locations. The first year funding will support generator installation at critical infrastructure facilities.

Impact of Denial/Postponement: The fleet maintenance-building generator is a critical unit as it allows operation of the facility during power outages. Without power to this facility, snow and ice and storm operations are handicapped. The portable backup unit will be utilized to power critical locations where generators fail, or where funding has not been appropriated for a new generator.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$56,700	\$145,688
	Construction or Acquisition	\$472,500	\$1,214,063
	Project Management	\$37,800	\$97,125
	Project Contingency	\$47,000	\$121,406
	All Other Cost	\$1,000	\$3,000
	Total Project Cost	\$615,000	\$1,581,282

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2020

Design & Permit (months)

Construction (months) 6

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$615,000	Design and Construction – Fleet Maintenance & Portable Units	
2022	\$299,594	Design and Construction – SAB Generator	
2023	\$896,782	Design and Construction – HYCC Generator	
2024	\$384,906	Design and Construction – Town Hall Generator Replacement	

Source of Funding: Bond Issue \$615,000

Operating Budget Impact now or in future: This project upgrades generators. Staffing will remain the same.

4





Emergency Generators

DEPARTMENT PRIORITY: 4 of 12

2020-105

Project Working Title: Marine & Environmental Affair Interior Project Phase III

Project Location: 1189 Phinneys Ln, Centerville, MA 02632

Project Description: The project consists of interior improvements of the existing Marine & Environmental Affairs building.

Project Justification: Phases I & II Renovations of the Marine and Environmental Affairs building were recently completed, which converted temporary work areas into needed permanent open office areas. Phase III of the planned renovation work will include reconfiguration of the main entrance area to comply with accessibility requirements. The reception areas and receiving counter will be modified for ADA compliance. Flooring, ceilings, lighting will be improved along with other unforeseen conditions. Much needed storage areas will be completed in the garage area. Future improvements will address restroom improvements to make them ADA compliant.



Impact of Denial/Postponement: The entrance and receiving counter are non-compliant in ADA terms. The front entrance and counter do not meet ADA requirements. This gives a poor impression of the Town to the visiting public using these facilities.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$8,500	\$17,861
	Construction or Acquisition	\$94,500	\$196,450
	Project Management	\$7,550	\$15,876
	Project Contingency	\$9,450	\$19,845
	Total Project Cost	\$120,000	\$250,032

Basis for Cost Estimates: In-house Cost Estimate

Project Estimated Completion Date: 2021

Design & Permit (months)

6 **Construction (months)** 6

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$120,000	Design & Construction - Entrance
2022	\$250,032	Design & Construction – Restroom Facilities

Source of Funding: Capital Trust Fund Reserves \$120,000

Operating Budget Impact now or in future: This project upgrades existing spaces to make them ADA compliant. There will be no operating budget impact



Marine & Environmental Affairs Building

PROJECT: DPW-21

DEPARTMENT PRIORITY: 9 of 45

2020-106

Project Working Title: 200 Main Street Mansard Evaluation and Repair

Project Location: 200 Main St, Hyannis, MA 02601

Project Description: Replacement of the wood framed mansard roof and asphalt shingles that have now deteriorated to the point where they are falling off of the building. Recently the Structures and Grounds department removed asphalt shingles from the front mansard roof due to falling shingles. Shingles on the side and rear of the building are failing and in danger of falling. Structural elements and plywood have deteriorated in some areas.

Project Justification: Asphalt shingles have deteriorated to the point that water is infiltrating into the sub-structure and rotting the sheathing and framing of the mansard roof.

Impact of Denial/Postponement: Water will continue to infiltrate into the enclosed framing and eventually cause a structural failure. Falling asphalt shingles will continue to create a life safety hazard.



Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$23,681	-
	Construction or Acquisition	\$296,010	-
	Project Management	\$23,681	-
	Project Contingency	\$29,574	-
	All Other Cost	\$1,000	-
	Total Project Cost	\$374,000	-

Basis for Cost Estimates: Department of Public Works In-house Estimates

Project Estimated Completion Date: 2021	Design & Permit (months)	6	Construction (months)	6	
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Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$374,000	Design & Construction

Source of Funding: Bond Issue \$374,000

Operating Budget Impact now or in future: This work is exterior in nature and will not affect insulation valves or mechanical systems



200 Main Street Mansard Roof

PROJECT: DPW-21

DEPARTMENT PRIORITY: 7 of 45

2020-107

Project Working Title: Salt Shed Repairs

Project Location: 382 Falmouth Road, Hyannis & 45 Flint Street, Marstons Mills

Project Description: The two salt sheds, one at the highway department, and one at the transfer station, protect purchased salt used for snow and ice operations from the elements and prevent it from washing into the environment. The existing salt sheds at both locations have been heavily used over the years. The use of heavy machinery and the side loading of salt within the buildings have created serious structural damage.

Project Justification: Although maintained by town employees over the years, the damage to these two structures has reached a point where intervention that is more extensive is required. The side loading of salt over the years has broken side buttresses and wall elements. Salt loading operations have broken the bottom chords of several trusses.



Impact of Denial/Postponement: The building will continue to deteriorate and will become unusable, necessitating a complete replacement.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$37,744	-
	Construction or Acquisition	\$251,625	-
	Project Management	\$20,130	-
	Project Contingency	\$25,501	-
	All Other Cost	\$10,000	-
	Total Project Cost	\$345,000	-

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2021

Design & Permit (months)

4 **Construction (months)** 6

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$345,000	Design and Construction

Source of Funding: Bond Issue \$345,000

Operating Budget Impact now or in future: None



Public Works Salt Sheds
DEPARTMENT PRIORITY: 1 of 12

2020-108

Project Working Title: Channel Dredging Program

Project Location: Various Town-owned navigational channels

Project Description: This project involves the ongoing design, permitting, and maintenance dredging of Town-owned navigational channels.

Project Justification: The Town completed a Comprehensive Dredge Plan in 2017 based on surveyed conditions and historic dredging frequencies. The plan identifies dredge needs in the following channels during this five-year CIP:

Barnstable Inner Harbor Channel	East Bay Entrance Channel		
Barnstable Outer Harbor Channel	East Bay Outer Embayment Channel		
Bismore Park Pier Basin	Gateway Marina Channel		
Blish Point Boat Ramp Channel	Lewis Bay Boat Ramp		
Cotuit Bay Embayment Channel	West Bay Inner Entrance Channel		
Cotuit Bay Entrance Channel	West Bay Outer Entrance Channel		
Dead Neck Sampsons Island West Bay Spur Channel			
East Bay Inner Embayment Channel			

These channels provide important navigational access for significant numbers of recreational and commercial boats, as well as regulatory and emergency response vessels. The failure to maintain these channels can result in very dangerous conditions, which can threaten the safety of our residents and risk serious damage to boats, in addition to impairing commercial and recreational activities.

Impact of Denial/Postponement: The channels will continue to shoal and eventually completely close off access for recreational and commercial boating.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$200,000	\$500,000
	Construction or Acquisition	\$1,620,000	\$8,349,000
	Project Management	\$50,000	\$200,000
	Project Contingency	\$185,000	\$900,000
	Total Project Cost	\$2,055,000	\$9,949,000

Basis for Cost Estimates: Town of Barnstable Comprehensive Dredge Plan and DPW Engineering.

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months)

Fiscal Year	Cost	Project Description/Components
2021	\$2,055,000	Phase III of Deck Neck Sampsons Island (\$1,250,000), Blish Point Boat Ramp Construction (\$500,000) Lewis Bay Boat Ramp Design (\$80,000), Bismore Park Pier Basin Design & Permitting (\$75,000), Gateway Marina Channel Design & Permitting (\$75,000), Project Management/Contingency (\$75,000)
2022	\$2,880,000	East Bay Outer Embayment Channel (\$1,361,000), East Bay Inner Embayment Channel (\$1,159,000), Barnstable Outer Entrance Channel (\$310,000), Project Management/Contingency (\$50,000)
2023	\$2,948,000	Bismore Park Pier Basin (\$620,000), Gateway Marina Channel (\$750,000), West Bay Outer Entrance Channel (\$133,000), Phase I West Bay Inner Entrance Channel (\$977,000), West Bay Spur Channel (\$63,000), Seapuit River Channel (\$355,000), Project Management/Contingency (\$50,000)
2024	\$2,768,000	Blish Point Boat Ramp Channel (\$475,000), Cotuit Bay Entrance Channel (\$399,000), Cotuit Bay Embayment Channels (\$867,000), Phase 2 West Bay Inner Entrance Channel (\$977,000), Project Management/Contingency (\$50,000)
2025	\$1,353,000	Lewis Bay Boat Ramp (\$837,000), East Bay Entrance Channel (\$113,000), Centerville River Channel Lower Reach (\$89,000), Centerville River Channel Upper Reach (\$143,000), Centerville River Spur Channel (\$79,000), Bumps River Channel (\$42,000), Project Management/Contingency (\$50,000)

Note: The dredge schedule may be amended to improve efficiency (for example, to group projects by geographic location); due to regulatory restrictions (for example, dredging prohibited during certain marine life mating and migration seasons); to shift priorities (for example, if a channel fills-in faster than expected due to storms or other reasons); or due to logistical factors (for example, based on availability of the county dredge).

Source of Funding: Bond Issue \$1,525,000 and remaining funds in Town Council order 2016-111 of \$530,000.

Note: The State has established a yearly Massachusetts Dredging Program Grant opportunity to funding dredging projects. The Town received a \$1,000,000 in FY19 for Phase 1 of the Dead Neck Sampson's Island Project through this grant's pilot program. The Town will continue to seek funding via this grant opportunity and others than may arise.

Operating Budget Impact now or in future: Not applicable – this is ongoing maintenance dredging of existing facilities. Performing the maintenance dredging in a systematic, planned manner is expected to reduce expenses by avoiding expediting costs and reducing mobilization costs where possible.





West Bay

Cotuit Bay



East Bay



Bismore and Gateway Marinas



Barnstable Marina

2021 CIP – Marine & Environmental Affairs General Fund Projects

DEPARTMENT PRIORITY: 1 of 45

2020-109

Project Working Title: Public Roads Maintenance

Project Location: Road rehabilitation work, milling and/or repaving of Dale Avenue, Hyannis; Gosnold Street, Hyannis; Main Street, Marstons Mills; Marrick Court, Centerville; Ocean View Avenue, Cotuit; Parkway Place, Hyannis; Richardson Road, Centerville; Scudder Bay Circle, Centerville. Other roads may be substituted if necessary due to accelerated deterioration rates, unexpected damages, opportunities to address certain roads with other funding, or other factors. Smaller drainage projects, chipsealing and preventive maintenance are also planned for various roads town-wide (approx. 7 miles) to extend their service life. Associated costs are included in this project.

Project Description: Repairs may include one of several different approaches including full depth reconstruction, reclamation, asphalt overlay, milling, and paving, applying a chipseal surface layer or cracksealing. In addition to surface repairs, projects typically include installation or upgrading of drainage systems, curbing, and sidewalks wherever practicable. Traffic calming and ADA accessibility will also be incorporated where possible and as appropriate.

Project Justification: The Pavement Management Program's current backlog is approximately \$13.2 million for public road repairs. In addition, the Town has a backlog of approximately 180 locations where drainage improvements are required. Finally, DPW receives numerous requests for speed evaluations on public roads and traffic calming investigations.

Impact of Denial/Postponement: The impact of denial or postponement will be accelerated deterioration of our public roadway network resulting in public safety hazards and liability, potential damage to private property, and increased repair costs. One example is the chip seal projects that are proposed; allowing these roads to deteriorate would require more expensive maintenance operations such as milling and placing an asphalt overlay that would cost significantly more than the proposed preventative maintenance.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$300,000	\$1,200,000
	Construction or Acquisition	\$2,550,000	\$11,200,000
	Project Management	\$400,000	\$1,600,000
	Project Contingency	\$300,000	\$1,200,000
	Total Project Cost	\$3,550,000	\$15,200,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: -

Design & Permit (months) 12

Construction (months) 12

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$3,550,000	Planning, analysis, design, construction & construction management	
2022	\$3,650,000	Planning, analysis, design, construction & construction management	
2023	\$3,750,000	Planning, analysis, design, construction & construction management	
2024	\$3,850,000	Planning, analysis, design, construction & construction management	
2025	\$3,950,000	Planning, analysis, design, construction & construction management	

Source of Funding: Capital Trust Fund Reserves \$3,550,000

Operating Budget Impact now or in future: The purpose of this project is primarily to maintain the existing roadway network and reduce the impacts of deferred maintenance on operating and capital budgets.





Example of Public Roads needing maintenance

PROJECT: DPW-21

DEPARTMENT PRIORITY: 30 of 45

2020-110

Project Working Title: Stormwater Improvements at Impaired Ponds

Project Location: Various Locations

Project Description: This project will fund the design, permitting, and construction of stormwater improvement projects to remove untreated stormwater discharges to ponds. The project will focus on activities that can be completed within public property (i.e. roadway layouts, town landings, parking areas, etc.).

It is envisioned that this would be a reoccurring project for these types of stormwater improvements. Year 1 would fund stormwater improvements to remove discharges to Long Pond, Marstons Mills from stormwater outfalls connected to the drainage systems on Lake Shore Drive and Head of the Pond Road, which are public roads.

Project Justification: In recent years, many ponds in Town have seen a decrease in water quality resulting in pet advisories, pond closures to swimming and algae blooms (most noteably cyanobacteria). One of the major causes of reduced water quality in ponds is unmitigated and untreated stormwater runoff to ponds. These result in surges of nutrients and pollutants to the ponds, which can exacerbate water quality issues. There are dozens, possibly hundreds, of locations where this condition exists.

Impact of Denial/Postponement: Stormwater runoff to ponds will remain unmitigated and water quality in ponds will continue to decline.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$10,000	\$40,000
	Construction or Acquisition	\$270,000	\$1,080,000
	Project Management	\$6,500	\$26,000
	Project Contingency	\$13,500	\$54,000
	Total Project Cost	\$300,000	\$1,200,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: Annual	Design & Permit (months)	3	Construction (months)	3
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Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components		
2021	\$300,000	Design, Permitting, Construction		
2022	\$300,000	Design, Permitting, Construction		
2023	\$300,000	Design, Permitting, Construction		
2024	\$300,000	Design, Permitting, Construction		
2025	\$300,000	Design, Permitting, Construction		

Source of Funding: Bond Issue \$300,000

Operating Budget Impact now or in future: None

PROJECT: CSD-21

DEPARTMENT PRIORITY: 2 of 13

2020-111

Project Working Title: Beach Parking Lot Rehabilitation - Keyes Memorial Beach

Project Location: Ocean Avenue, Hyannis

Project Description: Project would include providing a level and overlay of pavement to Keyes Memorial Beach and new line striping.

Project Justification: The existing pavement has deteriorated such that rehabilitation is necessary. In some places, the pavement condition may be difficult or unsafe for some pedestrians.

Impact of Denial/Postponement: The parking lot will deteriorate further resulting in the need for more complete reconstruction. The facility will not properly serve the thousands of annual visitors to the beach.



Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$11,000	-
	Construction or Acquisition	\$110,000	-
	Project Management	\$5,000	-
	Project Contingency	\$21,000	-
	All Other Cost	\$3,000	-
	Total Project Cost	\$150,000	-

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2023Design & Permit (months)6Construction (months)6

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year Cost Project Description/Components			
2021 \$150,000 Design & Permitting, Construction & Construction Management			

Source of Funding: Capital Trust Fund Reserves \$90,000 and remaining balance from Town Council Order 2017-070 \$30,000 & 2018-031 \$30,000

Operating Budget Impact now or in future: New infrastructure is expected to reduce maintenance costs.



Keyes Memorial Beach Parking Lot

PROJECT: DPW-21

Project Working Title: Snows Creek Culvert

Project Location: Snows Creek crossing at Ocean Street Hyannis

Project Description: Replacement of an existing small culvert with a larger box culvert. Installation of a sidewalk on the west side of Ocean Street in the culvert vicinity and construction of safety railings and boardwalk on the east side of Ocean St.

Project Justification: The existing small culvert under Ocean Street is in disrepair with cracked headwalls and eroded embankments. Installation of a new larger culvert will address the aged infrastructure and provide increased "flushing" into the upstream creek, which is expected to improve water quality. A new boardwalk is also proposed on the east side of Ocean Street as part of the project. The Town will also seek grants to reduce the overall impact. The Ocean Street Neighborhood Enhancement Team recommends this project.

Impact of Denial/Postponement: Failure to construct this project will mean further deterioration of the infrastructure and creek estuary with associated loss of aquatic and land based species.

Potential expansion of algae growth and invasive species will harm the value of this resource area and affect the neighboring property values.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$75,000	-
	Construction or Acquisition	-	\$900,000
	Project Management	-	\$100,000
	Project Contingency	-	\$290,000
	All Other Cost	-	\$110,000
	Total Project Cost	\$75,000	\$1,400,000

Basis for Cost Estimates: Consulting Engineers analysis w/ DPW review

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months) 7

6

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$75,000	Additional Design and Permitting	
2022	-	-	
2023	\$1,400,000	Construction and Construction Management	

Source of Funding: Capital Trust Fund Reserves \$62,914 and remaining balance Town Council Order 2014-109 \$8,389 & 2016-078 \$3,697

Operating Budget Impact now or in future: Additional maintenance may be required by DPW personnel to maintain the proposed boardwalk.



DEPARTMENT PRIORITY: 11 of 45

2020-112



Snows Creek Culvert

PROJECT: DPW-21

DEPARTMENT PRIORITY: 31 of 45

2020-113

Project Working Title: Sidewalks on Ocean Street from Gosnold Street to Kalmus Beach

Project Location: Adjacent to Ocean Street from Gosnold Street to Kalmus Beach

Project Description: Provide pedestrian access along the east side of Ocean Street and safety lighting for residents and tourists utilizing the Legacy Trail along Ocean Street from the JFK Memorial near Gosnold Street to Kalmus Beach at the end of Ocean Street near Hawes Avenue.

Project Justification: The Legacy Trail has great importance to the historical nature of this area of Town. Although this location has not been formally added as a landmark on the Legacy Trail, Kalmus Beach has views of Egg Island, which was used by the Kennedy's for quiet leisurely retreats. This will also provide pedestrian accommodations for local residents and tourists who desire to visit Kalmus Beach and its amenities, and allow Kalmus Beach visitors to safely travel to the JFK and Veterans Memorials.



Impact of Denial/Postponement: Failure to implement this project construction will perpetuate unsafe conditions for pedestrians traveling along the road as well as vehicular traffic at night.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$500,000	-
	Project Management	\$50,000	-
	Project Contingency	\$100,000	-
	All Other Cost	\$15,000	-
	Total Project Cost	\$665,000	-

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2023

Design & Permit (months)

ths) 12 Construction (months)

6

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$665,000	Construction & Construction Management	

Source of Funding: Bond Issue \$665,000

Operating Budget Impact now or in future: Normal maintenance requirements will be expanded to this section of sidewalk including snow removal and also the additional electrical cost for the decorative lighting.



Adjacent to Ocean Street from Gosnold Street to Kalmus Beach

PROJECT: D	PW-21
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DEPARTMENT PRIORITY: 21 of 45

2020-114

Project Working Title: Sidewalks on Ocean Street from Snows Creek to Gosnold Street

Project Location: Adjacent to Ocean Street from Snows Creek to Gosnold Street

Project Description: Provide pedestrian access along the east side of Ocean Street from the JFK Memorial near Gosnold Street to the culvert at Snows Creek and a crosswalk to connect to the existing sidewalk on the west side of Ocean Street from Snows Creek that runs all the way to Hyannis Harbor and Bismore Memorial Park.

Project Justification: The construction of this sidewalk will allow local residents and tourists who desire to visit the John F. Kennedy Memorial, Korean War Memorial and Veterans Beach to safely travel from Hyannis Harbor and Bismore Park. This will also provide an eventual connection to Kalmus Beach upon completion of sidewalks on Ocean Street from Gosnold Street to Kalmus Beach (design underway). This project is recommended by the Ocean Street Neighborhood Enhancement Team.

Impact of Denial/Postponement: Failure to implement this project will perpetuate unsafe conditions for pedestrians.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$40,000	-
	Construction or Acquisition	-	\$200,000
	Project Management	-	\$15,000
	Project Contingency	-	\$20,000
	All Other Cost	-	\$7,000
	Total Project Cost	\$40,000	\$242,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2022

Design & Permit (months)

8 **Construction (months)** 4

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$40,000	Design & Permitting	
2022	\$242,000	Construction & Acquisition	

Source of Funding: Capital Trust Fund Reserves \$40,000

Operating Budget Impact now or in future: Normal maintenance requirements will be expanded to this section of driveway.



Sidewalks on Ocean Street from Snows Creek to Gosnold Street

PROJECT: DPW-21

DEPARTMENT PRIORITY: 8 of 45

2020-115

Project Working Title: Kalmus Beach Parking Lot Entrance Design & Construction

Project Location: 11 Hawes Ave, Barnstable, MA 02601

Project Description: Construct a new two-way traffic entrance, approximately 350-ft long, to allow for queuing of vehicles as they pay to park in the Kalmus Beach parking lot, and queuing of vehicles as they exit the lot. The existing Kalmus Beach parking entrance will be closed, providing a safer vehicular egress and vehicular queuing for residents and tourists using the existing Kalmus Beach parking lot from Ocean Street.

Project Justification: The entrance to Kalmus Beach parking lot has been identified as a safety hazard for traffic along Ocean Street and Hawes Ave due to sight line issues as a result of the entrance and roadway geometry. This project is recommended by the Ocean Street Neighborhood Team



Impact of Denial/Postponement: Failure to implement this project

construction will perpetuate unsafe conditions for vehicles entering and existing Kalmus Beach parking lot.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$50,000	-
	Construction or Acquisition	-	\$300,000
	Project Management	-	\$10,000
	Project Contingency	-	\$30,000
	All Other Cost	-	\$10,000
	Total Project Cost	\$50,000	\$350,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months) 6

12

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$50,000	Design & Permitting	
2022	\$350,000	Construction	

Source of Funding: Capital Trust Fund Reserves \$50,000

Operating Budget Impact now or in future: N/A



Kalmus Beach Parking Lot Entrance

PROJECT: WPC-21

DEPARTMENT PRIORITY: 1 of 12

2020-116

Project Working Title: Solids Handling Upgrades Construction

Project Location: 617 Bearse's Way Hyannis MA 02601

Project Description: The purpose of this project is to rehabilitate the solids handling building at the Barnstable WPCF, as outlined in the 2019 Solids Handling Evaluation report. This project involves the demolition and replacement of septic and sludge processing equipment that is at or past the end of its design life. This includes gravity belt thickeners, polymer systems, chemical feed pumps, odor control systems, grit sludge tank blowers, septic receiving classifiers, station, instrumentation, controls, electrical panels, and all associated piping and valves. The septic waste receiving station will be rehabilitated and a new metering and billing system will be installed. The project also addresses several safety and code deficiencies identified within the building. Instrumentation and automation will be updated, allowing for processing to occur for more hours per day, which will increase the solids handling capacity of the facility. The project includes structural repairs to the building, including the sludge holding tanks.



Project Justification: The solids handling building was built in 1990 and has reached the end of its design life. The building, the associated processes, and thickened sludge disposal practices were evaluated as part of a 2014 CIP request. The project was put on hold to ensure that future flows identified in the CWMP would be accounted for while designing this project. Now complete, the evaluation recommends a full-scale renovation of the building and equipment in order to extend the useful life on the facility by another 20 to 30 years. The solids handling building is critical to the wastewater treatment process, acting as the "guts" of the wastewater treatment facility by pumping and processing sludge from a variety of sources. The building handles up to 12,000,000 gallons of septage, 1,000,000 gallons of grease, and 11,000,000 of wastewater sludge per year. Because of the corrosive and abrasive nature of the work carried out in the building, the condition of the equipment in this building is degrading rapidly.

Impact of Denial/Postponement: If denied, the solids processing building will continue to operate beyond its expected design life. Equipment will continue to fail, leading to excessive downtime, potential system failure, and an increased risk of permit violations. Working conditions will continue to deteriorate resulting in an unsafe work environment.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$6,400,000	-
	Project Management	\$730,000	-
	Project Contingency	\$870,000	-
	Total Project Cost	\$8,000,000	-

Basis for Cost Estimates: Engineers Cost Estimate

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months) 24

1

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year Cost Project Description/Components			
2021	\$8,000,000	Solids Handling Upgrades Construction	

Source of Funding: Water Pollution Control Enterprise Fund Bond Issue \$8,000,000

Operating Budget Impact now or in future: Normal levels of preventative maintenance will continue, with minimal impact on the WPCD operating budget. Equipment will break down less frequently allowing for some savings on repairs. The need to

2021 CIP – Water Pollution Control Enterprise Fund Projects

hire an additional shift operator becomes less likely with upgrades to automation.





Septage Building

Septage Blower Room



Sludge Pump Room



Sludge Thickening Belt

PROJECT: WPC-21

DEPARTMENT PRIORITY: 2 of 12

2020-117

Project Working Title: Pump Station Rehabilitation

Project Location: 617 Bearse's Way Hyannis MA 02601

Project Description: The purpose of this project is to carry out critical repairs to 16 of the Town's 27 sewage pump stations as identified in the Town's 2019 Wastewater Pump Station Asset Management Plan. This project includes structural, mechanical, electrical, HVAC, odor control, and coastal resiliency improvements needed to keep the Town's sewage pump stations in proper working order. On-site emergency generators will be installed at four pump stations where portable tow-behind generators were previously relied upon. Flood protection will be installed at coastal pump stations within FEMA flood zones in order to provide continuous sewer service throughout major storm events.

Project Justification: The 2019 Wastewater Pump Station Asset Management Plan completed by Wright Pierce evaluated all 27 Townowned sewage pump stations and prioritized the necessary improvements over a 20-year timeframe. The pump stations were



evaluated based on overall equipment condition, age, capacity, coastal resiliency, and energy efficiency. Necessary repairs were prioritized based on the likelihood and consequence of pump station failure. This request targets improvements that are deemed critical and in need of immediate repair. The majority of these pump stations have exceeded their design life and are in need of improvement in order to extend their service life and to provide uninterrupted service to sewer users.

Impact of Denial/Postponement: If this project were not funded, critical components of sewage pump stations would be at increased risk of failure. Pump station failure could result in sanitary sewer overflow onto Town roadways, into Town waterways, or into private properties, putting public health at risk.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$17,000	\$200,000
	Construction or Acquisition	\$793,000	\$3,500,000
	Project Management	\$120,000	\$200,000
	Project Contingency	\$70,000	\$300,000
	Total Project Cost	\$1,000,000	\$4,200,000

Basis for Cost Estimates: Engineers Cost Estimate

Project Estimated Completion Date: 2025

Design & Permit (months)

Construction (months)

1

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$1,000,000	Pump Station Rehabilitation	
2022	\$2,000,000	Pump Station Rehabilitation	
2023	\$500,000	Pump Station Rehabilitation	
2024	\$500,000	Pump Station Rehabilitation	
2025	\$1,200,000	Pump Station Rehabilitation	

Source of Funding: Water Pollution Control Enterprise Fund Bond Issue \$1,000,000

Operating Budget Impact now or in future: Normal levels of preventative maintenance will continue with minimal impact on the WPCD operating budget. This project will help mitigate the risk of a pump station failure and costly emergency repairs. Staff hours previously spent fixing faulty equipment will be refocused on preventative maintenance activities. Electrical

2021 CIP – Water Pollution Control Enterprise Fund Projects

11

efficiency improvements will help delay the need for future increases to the WPCD electric budget.





Bayshore Road Pump Station

Old Colony Pump Station Wet Well



Freezer Road Pump Room



Kalmus Beach Pump Station



720 Main Street Pump Station

Oak Neck Road Pump Station

PROJECT: WPC-21

Project Working Title: HVAC Improvements

Project Location: 617 Bearse's Way Hyannis MA 02601

Project Description: Demolition and replacement of the existing hot water boilers in the WPCF control building, mechanics shop, and garage bays. Replacement of heat circulation pumps, modification of heating control loops, and replacement of unit heaters. Modifications to ventilation pipe work.

Project Justification: The boiler heating systems at the Barnstable WPCF are original to the building and at 40 years old, these units have reached the end of their design life. The boilers were identified as needing to be replaced by the WPCD's HVAC service contractor. A recent energy audit by Rise Engineering also identified the heating systems as being in need of upgrade. Replacing these systems with high efficiency units will provide a more efficient and reliable heating system for the WPCD control building, mechanics workshop, and garage bays.

Impact of Denial/Postponement: If unfunded, the heating systems in employee working areas will operate at increased risk of failure. Emergency repairs for broken down equipment are not eligible for utility incentives, and would be carried out at a higher cost.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$1,000	-
	Construction or Acquisition	\$79,000	-
	Project Contingency	\$5,000	-
	Total Project Cost	\$85,000	-

Basis for Cost Estimates: Engineer and Contractor Cost Estimates

Project Estimated Completion Date: 2021

Design & Permit (months)

1 Construction (months) 3

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	ar Cost Project Description/Components		
2021	\$85,000	HVAC Improvements	

Source of Funding: Water Pollution Control Enterprise Fund Reserves \$85,000

Operating Budget Impact now or in future: The installation of high efficiency boilers will reduce gas consumption at the WPCF by an estimated \$900/year, delaying the need to request an increase in the WPCD gas utility budget.



DEPARTMENT PRIORITY: 3 of 12

2020-118



Mechanics Building Boiler



Control Building Boiler

PROJECT: WPC-21

Project Working Title: Truck 258 Replacement

Project Location: 617 Bearse's Way Hyannis MA 02601

Project Description: Replacement of Truck 258 with a new ¾ ton pickup truck

Project Justification: Truck 258 was purchased in 2004, and while it has served the Town well, it is showing advanced signs of wear and tear. It has been recommended by DPW Highway Fleet Maintenance that this truck be replaced. This truck will be replaced with a larger truck with more tow capacity, plowing capabilities, and more storage for tools and equipment.

Impact of Denial/Postponement: Truck 258 will be 16 years old at the time of replacement. It is likely this truck will fail in the near future if not replaced. This would leave WPCD staff without adequate transportation for routine maintenance.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$55,000	-
	Total Project Cost	\$55,000	-

Basis for Cost Estimates: In-house Cost Estimate based on recent truck purchases.

Project Estimated Completion Date: 2021

Design & Permit (months)

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$55,000	Truck Replacement	

Source of Funding: Water Pollution Control Enterprise Fund Reserves \$55,000

Operating Budget Impact now or in future: Normal levels of preventative maintenance will continue with no impact to the WPCD operating budget.



Construction (months)

1

DEPARTMENT PRIORITY: 4 of 12

2020-119



Truck 258

DEPARTMENT PRIORITY: 1 of 6

2020-120

Project Working Title: Pipe Replacement and Upgrade Program

Project Location: The drinking water distribution system for Hyannis, Hyannis Port, and West Hyannis Port.

Project Description: This is a continuation of a 30 year, phased, pipe replacement and upgrade program for the Hyannis Water System; as recommended by Weston & Sampson Engineering, Inc. in their April 2007 Master Plan.

Project Justification: It is important to implement a structured program to replace and upgrade the water pipes in the distribution system, some of which are over 100 years old. This program is in addition to the routine maintenance and repair program to be performed by the contracted water system operator. The proposed capital budget for this pipe replacement and upgrade program is \$1,050,000 per year, and includes a capitally funded water works project manager to oversee and implement this program. This continuing project will ensure the long-term ability of the Hyannis Water System to provide sufficient drinking water and fire readiness protection for all its customers.

Impact of Denial/Postponement: Water distribution capacity will continue to be less reliable over time, which would limit water supply availability during emergencies, for existing customers, and preclude the ability to accommodate new economic growth.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$75,000	\$300,000
	Construction or Acquisition	\$675,000	\$3,900,000
	Total Project Cost	\$750,000	\$4,200,000

Basis for Cost Estimates: Previous years' experience

Project Estimated Completion Date: 2021

Design & Permit (months)

Construction (months)

8

4

Cost/Description	Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components		
2021	\$750,000	Design & Construction		
2022	\$1,050,000	Design & Construction		
2023	\$1,050,000	Design & Construction		
2024	\$1,050,000	Design & Construction		
2025	\$1,050,000	Design & construction		

Source of Funding: Water Supply Enterprise Fund Bond Issue \$750,000

Operating Budget Impact now or in future: The upgrades will be to the existing distribution piping which are already maintained by the DPW. Replacing these pipes will likely result in less maintenance cost and should not result in the need for additional personnel (The project manager, which is funded by this project, is an existing capitally funded position).

PROJECT: WS-21	DEPARTMENT PRIORITY: 2 of 6	2020-121

Project Working Title: Wells, Pump Stations, Treatment Plant Repair & Upgrade Program

Project Location: Existing wells, pumping stations, and treatment facilities Hyannis Water System.

Project Description: This CIP is a continuation of the repairs and upgrades program started in FY 2007. With the exception of the Straightway well #2, all of the wells were constructed in the early to mid-1970. The prior year's monies were used to install emergency generators, lighting, and fencing and implement pavement improvements. Starting in FY 2014 the Hyannis Water Board approved the recommendation to implement a structured rehabilitation program dealing with major facility components needing upgrades or replacements. These facility components and cost allocations are \$45,000 for buildings, \$40,000 for process control equipment, \$40,000 for safety and security components, and \$45,000 for electrical equipment. Project management and oversight will be provided by a project engineer, partially funded out of this program in the amount of approximately \$30,000.

Project Justification: It is appropriate to implement a structured program to repair and upgrade the wells, pump stations and treatment facilities as many of these components are approximately 40 years old. This program is in addition to, and may supplement, the routine maintenance program to be performed by the contracted water system operator.

Impact of Denial/Postponement: Water supply and pumping capacity will become less reliable over time, thus limiting water supply availability for all customers and during emergencies.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$20,000	\$80,000
	Construction or Acquisition	\$91,500	\$566,000
	Project Management	\$30,000	\$120,000
	Project Contingency	\$8,500	\$34,000
	Total Project Cost	\$150,000	\$800,000

Basis for Cost Estimates: Previous years' experience

Project Estimated Completion Date: 2021Design & Permit (months)2Construction (months)10

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	\$150,000	Design & Construction	
2022	\$200,000	Design & Construction	
2023	\$200,000	Design & Construction	
2024	\$200,000	Design & Construction	
2025	\$200,000	Design & construction	

Source of Funding: Water Supply Enterprise Fund Reserves \$150,000

Operating Budget Impact now or in future: The upgrades will be to the existing well buildings, treatment, and other facilities, which are currently maintained by the DPW. Some operating budget savings may be realized by replacing existing equipment with more energy efficient equipment, and a reduction in maintenance cost.

PROJECT: WS-21

DEPARTMENT PRIORITY: 3 of 6

2020-122

Project Working Title: Airport & Mary Dunn Wells, Treatment, Pilot Study & Conceptual Layout.

Project Location: Airport & Mary Dunn wells, Mary Dunn Road, Hyannis

Project Description: This is the next phase of the project to maximize water production of existing wells in the Mary Dunn area, dealing with the pilot study of the recommend water treatment equipment and treatment plant layout configurations to minimize the need for new wells.

Project Justification: This CIP is the next phase of the project to maximize water production of existing wells in the Mary Dunn area and the implementation of a recommendation discussed in the new source alternatives evaluation report produced by Weston & Sampson in 2018. Currently the Airport well's use is minimized due to high iron in the source water and the presence of PFAS, which is also an issue with other wells in that area. The Mary Dunn Treatment Plant is treating all water from the five (5) wells in the area and by doing so is the largest treatment plant of the Hyannis Water System. DEP regulations require



the water system to be able to supply maximum water demand with the Mary Dunn Treatment Plant off line, which has consequences for new wells needed.

Impact of Denial/Postponement: The denial or postponement of this project will impair the long-term planning effort of the Hyannis Water System and obscure a clear decision-making process path relative to the acquisition of needed new wells, capital planning, and rate setting efforts.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$300,000	\$500,000
	Construction or Acquisition	-	\$5,100,850
	Project Management	-	\$400,000
	Project Contingency	-	\$1,959,150
	All Other Cost	-	\$40,000
	Total Project Cost	\$300,000	\$8,000,000

Basis for Cost Estimates: Previous design and construction experience, Maher Filtration Plant, etc.

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months)

12

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Cost Project Description/Components		
2021	\$300,000	Pilot study & treatment plant layout configurations		
2022	-	-		
2023	\$8,000,000	Design & construction of the water treatment facility		

Source of Funding: Water Supply Enterprise Fund Bond Issue \$300,000

Operating Budget Impact now or in future: None- The project is a planning project.

2021 CIP – Water Supply Enterprise Fund Projects

PROJECT: WS-21

Project Working Title: Hyannis Port, Simmons Pond & Straightway Wells, Treatment, Pilot Study & Conceptual Layout.

DEPARTMENT PRIORITY: 4 of 6

Project Location: Smith Street and Straightway, Hyannis

Project Description: This is the next phase of the project to maximize water production of existing wells in the Hyannis Port area, dealing with the pilot study of the recommend water treatment equipment and treatment plant layout configurations to minimize the need for new wells.

Project Justification: This CIP is the next phase of the project to maximize water production of existing wells in the Hyannis Port area and the implementation of a recommendation discussed in the new source alternatives evaluation report produced by Weston & Sampson in 2018. Currently the four wells in the area are minimized due to high iron, PFAS, 1,4 Dioxane, Nitrates and low levels of VOC's in the source water.

Impact of Denial/Postponement: The denial or postponement of this project will impair the long-term planning effort of the Hyannis Water System and obscure a clear decision-making process path relative to the acquisition of needed new wells, capital planning, and rate setting efforts.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$350,000	\$600,000
	Construction or Acquisition	-	\$9,262,875
	Project Management	-	\$450,000
	Project Contingency	-	\$3,637,125
	All Other Cost	-	\$50,000
	Total Project Cost	\$350,000	\$14,000,000

Basis for Cost Estimates: Previous design and construction experience, Maher Filtration Plant, etc.

Project Estimated Completion Date: 2023

Design & Permit (months)

12 **Construction (months)**

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$350,000	Pilot study & treatment plant layout configurations	
2022	-	-	
2023	-	-	
2024	\$14,000,000	Design & construction of water treatment facilities	

Source of Funding: Water Supply Enterprise Fund Bond Issue \$350,000

Operating Budget Impact now or in future: The project is a planning project. It has nothing to do with the operating budget.



2020-123

PROJECT: WS-21

Project Working Title: Maher Filtration Plant, Solar Panels, Design & Construction

Project Location: 47 Old Yarmouth Rd, Hyannis, MA 02601

Project Description: This is an additional phase of a current construction project to maximize the use of solar electric power for drinking water treatment.

Project Justification: This CIP is an additional phase of a current construction project to maximize the use of solar electric power for drinking water treatment. This phase will design and install solar panels on the roof of the Maher Filtration Plant currently under construction to partially offset the electric power use and cost of the new filtration plant.

Impact of Denial/Postponement: The denial or postponement of this project will affect the operational cost of the new Maher Filtration Plant.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$15,000	-
	Construction or Acquisition	\$298,425	-
	Project Management	\$25,000	-
	Project Contingency	\$115,575	-
	All Other Cost	\$5,000	-
	Total Project Cost	\$459,000	-

Basis for Cost Estimates: Previous design and construction experience, Tata & Howard memo regarding preliminary budgetary cost for the addition of rooftop solar electric system.

Project Estimated Completion Date: 2021

Design & Permit (months)

Construction	(months)	4
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6

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$459,000	Design, permitting & construction	

Source of Funding: Water Supply Enterprise Fund Bond Issue \$459,000

Operating Budget Impact now or in future: Positive, the details will be determined during the early stages of design.



DEPARTMENT PRIORITY: 5 of 6

PROJECT: SW-21

Project Working Title: Weigh Scale Replacement

Project Location: 45 Flint St, Marstons Mills, MA 02648

Project Description: Replacement of certified weigh scale

Project Justification: The weigh scale at the Transfer Station & Recycling Center is utilized each day the facility is open for a variety of operations. The scale has exceeded its useful life expectancy and needs replacement.

Impact of Denial/Postponement: Denial of this request will result in the loss of ability to properly and correctly weigh, document and charge for material. This will result in lost revenue for the enterprise account and loss of future users of the facility. Denial of this request will also affect other divisions in Public Works where certified weights are needed for record keeping and contract completion of projects.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$100,000	-
	Total Project Cost	\$100,000	-

Basis for Cost Estimates: Quotes obtained through vendors and expected increases in costs

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months) 6

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Fiscal Year Cost Project Description/Components		
2021	\$100,000	Replacement of certified weigh scale	

Source of Funding: Solid Waste Enterprise Fund Reserves \$100,000

Operating Budget Impact now or in future: Normal levels of operation would continue with no impact on staffing or operating budget



DEPARTMENT PRIORITY: 1 of 4

2020-125



Weigh Scale at the Transfer Station & Recycling Center

2020-126

Project Working Title: Effluent Disposal Alternatives

Project Location: Various

Project Description: This project will continue the Town's efforts to identify, evaluate, design, permit, and eventually construct an alternative effluent disposal site(s). This request is for follow up work, which will build on previous evaluations and planning efforts.

Project Justification: In 2019, the Town completed a groundwater-modeling project to precisely and definitively quantifying the amount of effluent that can be disposed of at the Barnstable WPCF. The study concluded that the WPCF is nearing the limits of its disposal capacity and that additional effluent disposal locations will be required to accommodate the increase flows proposed in the Town's Comprehensive Wastewater Management Plan (CWMP). The Town has also funded an effluent location study to explore alternative disposal sites, which is an on-going effort. The CWMP calls for an additional 1.8 MGD to be treated at the Barnstable WPCF over the course of the next 30 years. This appropriation will ensure that the Town has funds on hand to move expeditiously towards a solution to this important issue.

Impact of Denial/Postponement: Locating and developing a new effluent disposal site(s) is one of the most critical components of the CWMP. Failing to find an alternative effluent disposal site would delay wastewater expansion efforts. Water quality will continue to degrade in the Town's waterways as sewer projects are put on hold.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$1,000,000	TBD
	Total Project Cost	\$1,000,000	TBD

Basis for Cost Estimates: In-house Cost Estimate. Future construction costs cannot be estimated at this time.

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months)

N/A

24

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$1,000,000	Effluent Disposal Alternatives	
2022	-	-	
2023	TBD	Construction	

Source of Funding: Special Revenue Fund Bond Issue \$1,000,000

Operating Budget Impact now or in future: This project is a planning project and carries no impact to the operating budget.

2021 CIP – Sewer Construction & Private Way Maintenance & Imp. Fund Projects

PROJECT: CWM -21

DEPARTMENT PRIORITY: 2 of 16

2020-127

Project Working Title: Aeration System and Denitrification Technology Evaluation

Project Location: 617 Bearse's Way Hyannis MA 02601

Project Description: This project includes an evaluation and conceptual design of upgrades to the Water Pollution Control Facility aeration system and denitrification technologies that could be constructed at the WPCF. The evaluation will focus on the condition and capacity of the existing aeration tanks, mechanical equipment, instrumentation, and electrical components, and provide recommendations for improvements in order to extend the useful life of the system and to provide capacity in order to accommodate future flows as outlined in the Town's Comprehensive Wastewater Management Plan (CWMP). The evaluation will also determine what upgrades could be carried out to reduce the total nitrogen concentration of the treated effluent being discharge from the facility, through aeration configurations or other technologies. A conceptual design of these improvements will be included in the project scope.



Project Justification: The Town's CWMP calls for an additional 1.8 MGD wastewater to be treated at the WPCF over the next thirty years. Recent plant modeling efforts have concluded that additional aeration capacity will be required in order to accommodate these flows while still meeting DEP groundwater discharge permit limits. This project will evaluate aeration configurations that could be implemented in order to reduce the total nitrogen concentration in plant effluent, and if significant reduction cannot be achieved through aeration improvements, what other technologies the plant could utilize to reduce total nitrogen in WPCF effluent. Reducing nitrogen concentration in plant effluent will not only reduce the total nitrogen load to the Lewis Bay watershed, which will minimize the number of required sewer projects in the Hyannis area to offset the nitrogen load. Additionally, reduced nitrogen concentrations will expand the Town's options for alternative effluent disposal sites. Special consideration will be given to electrical efficiency and potential partnerships with Cape Light Compact to explore high efficiency blower technology and a reduction in electrical consumption at the facility.

Impact of Denial/Postponement: If left unfunded the WPCF would be unable to meet DEP Groundwater Discharge Permit limits with additional flows proposed in the CWMP. The Town will continue to treat a total nitrogen concentration of 6 mg/L, limiting the ability to find viable alternative effluent disposal locations.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$200,000 (evaluation)	-
	Construction or Acquisition	-	\$5,000,000
	Total Project Cost	\$200,000	\$5,000,000

Basis for Cost Estimates: Engineer's cost estimate for the evaluation phase. Future construction costs are an in-house cost estimate, which will be modified as necessary when the evaluation is complete.

Project Estimated Completion Date: 2021

Design & Permit (months)

Construction (months) TBD

12

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	scal Year Cost Project Description/Components		
2021	\$200,000	Aeration system and denitrification technology evaluation	
2022	-	-	
2023	\$5,000,000	Construction	

Source of Funding: Special Revenue Fund Reserves \$200,000

2021 CIP – Sewer Construction & Private Way Maintenance & Imp. Fund Projects

Operating Budget Impact now or in future: The evaluation will have no impact on the operating budget for the WPCD. The evaluation will determine what future budget impacts would be expected from the construction phase.



Middle and South Aeration Tanks



North Aeration Tank

PROJECT: CWM -21

DEPARTMENT PRIORITY: 3 of 16

2020-128

Project Working Title: Route 28 Centerville Sewer Expansion Project Design and Permitting (Project formerly Marstons Mills School Pump Station and associated RT 28 Collection System)

Project Location: Route 28 from Phinneys Lane to East Osterville Road, East Osterville Road, and West Villages and United Elementary schools; 730/760 Osterville West Barnstable Road, Marstons Mills

Project Description: The proposed project will extend municipal sewer on Route 28 from the proposed pump station at the intersection of Phinneys Lane and Route 28, planned to be completed as part of the Route 28 East Sewer Expansion Project, to East Osterville Road in Marstons Mills. Also included in this project would be the conversion of the existing Marstons Mills Wastewater Treatment Plant (MMWWTP) to a municipal wastewater pump station which would be designed to sewer the nearby properties, as part of a future Phase 1 project. The project is identified in Phase 1 of the Comprehensive Wastewater Management Plan (CWMP).

Project Justification: The project will install critical infrastructure, which will facilitate sewer expansion to the western portion of the Town as



required by the CWMP. Additionally, the project will decommission the MMWWTP, which was constructed in 1993 and is beyond its 20-year design life.

Impact of Denial/Postponement: The western sewer expansion required in the CWMP would be delayed, resulting in continued water quality degradation in the western part of Town. In addition, the Town would continue to invest money into the MMWWTP, which has reached its expected life cycle.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$1,250,000	-
	Construction or Acquisition	-	\$11,000,000
	Project Management	\$50,000	\$500,000
	Project Contingency	-	\$2,000,000
	All Other Cost	-	\$500,000
	Total Project Cost	\$1,300,000	\$14,000,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2026

Design & Permit (months)

Construction (months) 36

36

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$1,300,000	Design and Permitting	
2022	-	-	
2023	-	-	
2024	\$14,000,000	Construction	

Source of Funding: Special Revenue Fund Bond Issue \$1,300,000

Operating Budget Impact now or in future: 0.5 Full-time Equivalent, Grade 8 Operator (post construction)

2021 CIP – Sewer Construction & Private Way Maintenance & Imp. Fund Projects



Route 28 Centerville Sewer Expansion Project

2021 CIP – Sewer Construction & Private Way Maintenance & Imp. Fund Projects
PROJECT: CWM -21

DEPARTMENT PRIORITY: 4 of 16

2020-129

Project Working Title: Old Yarmouth Road Sewer Expansion

Project Location: Old Yarmouth Road, Hyannis

Project Description: Expanding sewer to the north of Route 28 and east of Yarmouth Road. This project would provide municipal sewer to businesses and residences on Old Yarmouth Road, Joaquim Road, Bodick Road, and Ferndoc Street. The Planning & Development Department has identified this area as a region for economic development. The Hyannis Water Systems Maher drinking water wells, which have experienced contamination over the years, are located adjacent to the proposed sewer expansion area. As a result, this project was identified in Phase 1 of the Comprehensive Wastewater Management Plan (CWMP) to address economic development and drinking water protection.

Project Justification: Businesses and residences in this area are completely dependent on on-site solutions to address their wastewater, which has restricted economic growth in the area.



Additionally, the proposed sewer expansion area is entirely located within the Zone II to the Hyannis Water System's Maher drinking water wells, which have experienced contamination over the years. As a result, this project was identified in Phase 1 of the Comprehensive Wastewater Management Plan (CWMP) to address economic development and drinking water protection.

Impact of Denial/Postponement: The area would remain unsewered, growth would be limited to what traditional on-site wastewater systems could sustain, and the adjacent drinking water wells would remain vulnerable to pollutants from septic systems.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$575,000	-
	Construction or Acquisition	-	\$5,200,000
	Project Management	\$25,000	\$520,000
	Project Contingency	-	\$260,000
	All Other Cost	-	\$20,000
	Total Project Cost	\$600,000	\$6,000,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2024

Design & Permit (months)

24

Construction (months) 18

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	\$600,000	Evaluation and Design	
2022	-	-	
2023	\$6,000,000	Construction & Construction Management	

Source of Funding: Special Revenue Fund Bond Issue \$600,000

Operating Budget Impact now or in future: 0.5 Full-time Equivalent, Grade 8 Operator (post construction)

2021 CIP – Sewer Construction & Private Way Maintenance & Imp. Fund Projects



Old Yarmouth Road Sewer Expansion Location

2021 CIP – Sewer Construction & Private Way Maintenance & Imp. Fund Projects

PROJECT: CWM-21

DEPARTMENT PRIORITY: 5 of 16

2020-130

Project Working Title: Route 28 Marstons Mills Sewer Expansion Project

Project Location: Route 28 from East Osterville Road to Old Post Road

Project Description: The proposed project will extend municipal sewer on Route 28 from the end of the Route 28 Centerville Sewer Expansion Project at East Osterville Road to Old Post Road in Marstons Mills. The project will install the main sewer trunk line, which will collect flow from sewer expansion in the Three Bays Watershed and convey it to the Barnstable Water Pollution Control Facility. As a result, the project is identified in Phase 1 of the Comprehensive Wastewater Management Plan (CWMP).

Project Justification: The project will install critical infrastructure, which will facilitate sewer expansion into the Three Bays Watershed as required by the CWMP. The intent is to design this project in coordination with the Route 28 Centerville Sewer Expansion Project to ensure common designs and realize savings.



Impact of Denial/Postponement: The western sewer expansion required in the CWMP would be delayed, resulting in continued water quality degradation in the Three Bays Watershed. Delaying funding for the design of this project would result in the two Route 28 projects being designed as separate efforts, likely resulting in additional expenses and potential project coordination issues.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$1,650,000	-
	Construction or Acquisition	-	\$10,500,000
	Project Management	\$50,000	\$500,000
	Project Contingency	\$100,000	\$2,000,000
	All Other Cost	-	\$500,000
	Total Project Cost	\$1,800,000	\$13,500,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2029

Design & Permit (months)

Construction (months) 36

60

Cost/Descriptio	ost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components		
2021	\$1,800,000	Design and Permitting		
2022	-	-		
2023	-	-		
2024	-	-		
2025	-	(\$13,500,000 Construction FY 2028)		

Source of Funding: Special Revenue Fund Bond Issue \$1,800,000

Operating Budget Impact now or in future: 0.5 Full-time Equivalent, Grade 8 Operator (post construction)

2021 CIP – Sewer Construction & Private Way Maintenance & Imp. Fund Projects



Route 28 Marstons Mills Sewer Expansion Project

PART VI – DETAILED DESCRIPTIONS OF DEFERRED PROJECTS

Enterprise Fund Projects

Airport Enterprise Fund

PROJECT: AIR-21

DEPARTMENT PRIORITY: 8 of 23

Project Working Title: Replace Runway 24 Departure End Safety Area (Engineered Material Arresting System (EMAS) or Runway SAFE System) Including Inspection and Field Strength Test

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: The original Runway 6/24 Engineered Material Arresting System (EMAS) bed was installed in 2003 to provide an equivalent level of safety for aircraft overshoots on runways that do not meet traditional Federal Aviation Administration (FAA) Runway Safety Area (RSA) length and width requirements. The EMAS bed was constructed to provide an equivalent level of safety to reduce, if not prevent, loss of life or injury and minimize aircraft and property damage. The EMAS bed primarily consists of light weight cellular concrete blocks installed in 2003 with a composite material lid that was added in 2013. A field strength test and feasibility study will be completed in 2019 as part of the comprehensive Airport Layout Plan/FAA Master Plan Update project to determine whether it should be replaced or repaired due to continued deterioration.



Project Justification: The Barnstable Municipal Airport (HYA) EMAS is a

"first generation" system with a projected 10-year lifespan originally constructed in 2003. HYA was able to extend the life of the existing bed by installing 68 new concrete blocks and the new top board in 2013. Unfortunately, the weather and seagull damage to the system's seams has apparently caused the system to deteriorate at a faster than normal rate. In 2017, in an effort to lengthen the life of the system, our Airport Maintenance Department installed a new wider seam tape to replace tape eaten by seagulls and thus far, the seagulls have remained uninterested to the new tape. However, damage has already occurred.

The 2019 project to conduct an Airport Master Plan update and Airport Layout Plan will inspect and examine the status of the existing system to determine whether it should be further repaired or replaced. The original system was essentially sole source procurement as there was only one FAA authorized system approved for airports at that time. The 2019 Master Plan Update should determine its future viability and identify the type of replacement system to be installed as there are now additional systems available that meet FAA requirements and "Buy American" requirements.

Impact of Denial/Postponement: This is a FAA safety requirement to provide an equivalent level of safety for aircraft overshoots on runways that do not meet traditional RSA length and width requirements, which for this runway is 1,000 feet long by 500 feet wide. The location of Route 28 does not allow the airport to meet the traditional length requirements. The EMAS bed is deteriorating and doing nothing may increase the risk of failure if used to prevent an overshoot. The Airport will continue to provide frequent maintenance of the EMAS bed costing more money. Lack of replacement will increase the risk of loss of life and property and may jeopardize future federal and state funding for airport improvements if not implemented.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$7,000,000
	Total Project Cost	-	\$7,000,000

2021 CIP - Deferred Airport Enterprise Fund Projects

Basis for Cost Estimates: N/A

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months)

-

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	\$7,000,000	Replace Runway 24 Departure End Safety Area (Engineered Material Arresting System (EMAS) or Runway SAFE System) Including Inspection and Field Strength Test

Source of Funding: Funding by FAA (90%) (AIP and /or FAA Discretionary Funds), MassDOT AD (5%), and local share (5%) from airport enterprise funds.

Operating Budget Impact now or in future: None – replacement of existing fixed system.





(Engineer Material Arresting System (EMAS) or Runway SAFE System)

2021 CIP - Deferred Airport Enterprise Fund Projects

PROJECT: AIR-21

Project Working Title: Environmental Permitting Phase II for Airport Master Plan Update Projects

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Environmental permitting associated with various airfield safety improvements proposed at the Barnstable Municipal Airport as part of the Airport Master Plan Update. The scope of the project will include any identified permitting requirements for Phase II - Airport Master Plan Update Projects.

Project Justification: The environmental permitting as required by Federal, State, and Local agencies for implementation of proposed improvements.

Permitting may be needed and necessary to implement development alternatives that improve the airport and future operations whether it is safety or capacity related. It may consider the following airport projects:

- Viability and options for extending Runway 15;
- Review the taxiway geometry and develop options for compliance with design standards for Taxiway B, D, & E;
- Review Runways 15/33 & 6/24 Enhancements & Improvements;
- Identify on-airport and off-airport commercial development;
- Develop alternatives to meet aircraft parking demand for apron space; and
- Review obstruction analysis of FAR Part 77 surfaces and obstruction removal options.

Impact of Denial/Postponement: To deny or postpone funding of this capital project will not allow the Airport to be in full compliance with environmental permitting as required by Federal, State, and Local agencies and may also have long term financial consequences with regard to receipt of FAA and MassDOT grants if permits are not processed and approvals provided as dictated via various environmental regulations.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$225,000
	Total Project Cost	-	\$225,000

Basis for Cost Estimates: Planning and engineering consultant estimates, and FAA and MassDOT consultations.

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months)

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	\$225,000	Environmental Permitting Phase II for Airport Master Plan Update Projects

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%)

Operating Budget Impact now or in future: None - Planning process will include in-house staff review and processing.



DEPARTMENT PRIORITY: 9 of 23

DEPARTMENT PRIORITY: 10 of 23

Project Working Title: Replace Aircraft Rescue and Fire Fighting (ARFF) Equipment

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Aircraft Rescue and Fire Fighting (ARFF) equipment must be maintained regularly to better serve their function and quickly and efficiently respond to airfield emergencies; and if certain FAA approved equipment is eligible for replacement with FAA grant assistance, ARFF vehicles and equipment must be evaluated and replaced as necessary. This project is to replace the 1992 E-One Titan Aircraft Rescue and Firefighting vehicle with tools and equipment and is an approved FAA capital planning project.

Project Justification: With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained; and to maintain our FAA FAR Part 139 airport certification, certain equipment must be available and in good condition to perform as required.



Impact of Denial/Postponement: The airport may not be able to meet mandated FAA FAR Part 139 certification requirements and would be decertified; the airport would not be able to maintain operations, nor keep the runways open and safe for operation; the airport would be unable to provide a safe operation for the continuation of commerce as part of the national airspace plan; the airport would be unable to respond to airfield emergencies, with the potential for decreased flight safety, increased property damage, and would unnecessarily endanger lives and property.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$975,000
	Total Project Cost	-	\$975,000

Basis for Cost Estimates: Recent similar purchases, State Bid List, FAA acquisitions, manufacturer quotes, etc.

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months)

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	\$975,000	Replace Aircraft Rescue and Fire Fighting (ARFF) Equipment – Airport #820 (Response
		Rescue and Firefighting Truck Circa 1992)

Source of Funding: FAA AIP reimbursable Grant funds at 90%; MassDOT at 5%; BMA at 5%

Operating Budget Impact now or in future: Replacement Vehicles. Mission remains the same.



Aircraft Rescue and Fire Fighting (ARFF) Equipment

DEPARTMENT PRIORITY: 11 of 23

Project Working Title: Easements for Future Construction/Runway 15 Approach & Design & Construct Tree Clearing Phase II

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: The Airport's required FAA Airport Layout Plan (ALP) and Master Plan (per FAA Advisory Circular AC150/5070-6) is a comprehensive long-term plan for airport development. As part of the Comprehensive Airport Layout Plan/FAA Master Plan Update project, proposed in FY2019, a number of key issues will be evaluated as the airport seeks to meet existing and growing demand as well as to diversify its revenue streams in a sustainable manner. The Comprehensive Airport Layout Plan/FAA Master Plan Update will analyze the viability and options for extending Runway 15.

The extension of Runway 15 is deemed a development item that will improve airport facilities for the future with the primary purpose of accommodating aircraft operations on a longer runway with the intent to provide the length necessary to accommodate non-stop flights to southern destinations such as Florida. The proposed extension of



Runway 15/33 is approximately 926 feet to provide a better margin of safety for regional and longer range private and commercial jet aircraft.

Project Justification: Although the extension of the Runway can occur within existing airport property boundaries, there is the potential need for easement acquisitions to maintain navigational aid equipment located off airport. This project will identify and obtain any necessary easements to implement/support the runway extension.

This project will also include Design & Construct Tree Clearing Project (Phase II) within airport approaches for surface clearance violations/airspace flight obstructions where growth may impede the proposed new runway threshold location (if extended). This project will also include any other tree clearing requirements not tackled in Design & Construct Tree Clearing Project (Phase I).

Impact of Denial/Postponement: The impact of not implementing the project will lead to delays in the actual runway extension construction. FAA requires that all easements necessary for airport improvements are achieved prior to the actual improvement. Additionally, the FAA requires that the approach for any new runway threshold be clear of obstructions.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$600,000
	Total Project Cost	-	\$600,000

Basis for Cost Estimates: Cost estimates were received from the Airport's on-call engineers.

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months)

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$600,000	Easements for Future Construction/Runway 15 Approach & Design & Construct Tree	
		Clearing Phase II	

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%)

Operating Budget Impact now or in future: None - Once easements are secure and payments made, no additional funds will be necessary.

2021 CIP - Deferred Airport Enterprise Fund Projects

DEPARTMENT PRIORITY: 12 of 23

Project Working Title: Replace Snow Removal Equipment (SRE) (Chevy 2500HD – Heavy Duty Vehicle with Plow– Airport Vehicle #32 Circa 2001)

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Snow Removal Equipment (SRE) must be maintained regularly and when certain FAA approved equipment is eligible for replacement with FAA grant assistance, SRE vehicles and equipment must be evaluated and replaced as necessary. This project is to replace a 2001 Chevy Heavy Duty Carrier Vehicle with Plow (Airport Vehicle #32).

Project Justification: With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained and opened as soon as possible during snow events and to maintain our FAA FAR Part 139 airport certification, certain equipment must be available and in good condition to perform as required.

Impact of Denial/Postponement: The airport may not be able to meet



mandated FAA FAR Part 139 certification requirements and would be decertified; the airport would not be able to maintain operations, nor remove snow in order to keep the runways open and safe for operation; the airport would be unable to provide a safe operation for the continuation of commerce as part of the national airspace plan; the airport would be unable to respond to airfield emergencies, with the potential for decreased flight safety, increased property damage, and would unnecessarily endanger lives and property.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$55,000
	Total Project Cost	-	\$55,000

Basis for Cost Estimates: Recent similar purchases, State Bid List, FAA acquisitions, etc.

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months)

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	\$55,000	Replace Snow Removal Equipment (SRE) (Chevy 2500HD – Heavy Duty Vehicle with Plow–
		Airport Vehicle #32 Circa 2001)

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) and/or use of FAA Passenger Facility Charges (PFCs).

Operating Budget Impact now or in future: None - Replacement Vehicles. Mission remains the same.





Snow Removal Equipment (SRE) (Chevy 2500HD – Heavy Duty Vehicle with Plow– Airport Vehicle #32 Circa 2001)

DEPARTMENT PRIORITY: 13 of 23

Project Working Title: Replace SRE Equipment (ASV Skid Steer Plow for EMAS Circa 2004 – Airport #38)

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Snow Removal Equipment (SRE) must be maintained regularly to better serve their function and quickly and efficiently respond to airfield snow removal tasks and emergencies; and if certain FAA approved equipment is eligible for replacement with FAA grant assistance, SRE vehicles and equipment must be evaluated and replaced as necessary. This project is to replace the 2004 ASV Diesel Skid Steer Plow for use on the EMAS system in FY2021 and is pending MassDOT ASMP funding.

Project Justification: With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained, including snow removal; and to maintain our FAA FAR Part 139 airport certification, certain equipment must be available and in good condition to perform as required.



Impact of Denial/Postponement: The airport may not be able to meet mandated FAA FAR Part 139 certification requirements and would be decertified; the airport would not be able to maintain operations, nor remove snow on the EMAS system in order to keep the runways open and safe for operation; the airport would be unable to provide a safe operation for the continuation of commerce as part of the national airspace plan; the airport would be unable to respond to airfield emergencies, with the potential for decreased flight safety, increased property damage, and would unnecessarily endanger lives and property.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$100,000
	Total Project Cost	-	\$100,000

Basis for Cost Estimates: Recent similar purchases, State Bid List, FAA acquisitions, manufacturer quotes, etc.

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months)

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	\$100,000	Replace SRE/ARFF Equipment (ASV Skid Steer Plow for EMAS) – Airport #38

Source of Funding: MDOT ASMP reimbursable Grant funds at 80% and BMA funds at 20% for the Skid Steer Plow

Operating Budget Impact now or in future: None - Replacement Vehicles. Mission remains the same.



The ASV Skid Steer with plow is a specialized low PSI vehicle for plowing the Engineered Material Arresting System (EMAS) -Airport Vehicle #38

Project Working Title: Terminal Upgrades - Baggage Belt Extension

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: The Airport recently completed development of its Business Plan to identify priority marketing and business efforts targeting goals that the airport is trying to meet to increase development, passenger throughput and airport use.

The Business Plan goals include:

- Diversifying Airport Revenue Stream
- Becoming a Leader in Air Transportation Options for the Cape, Islands and Southeastern Massachusetts
- Developing Airport Branding

With these goals in mind, there are a number of projects that can be implemented at the airport to help establish or improve existing facilities and to better market the airport.

Project Justification: The new airport terminal building commenced operations in 2011. Due to budgetary constraints, the original design was considerably reduced and certain aspects were eliminated that would have better accommodated larger and more air carrier aircraft operating at the airport. With the addition of a third airline at the airport in 2016, Rectrix Shuttle, and conversations with other potential new airline entrants, it became evident that the existing baggage belt located behind the airline ticket counters will need to be extended to accommodate Rectrix Shuttle and other future carriers.

The existing belt only accommodates two ticket counters, currently being used by JetBlue and Cape Air to carry baggage to the TSA secure baggage x-ray/investigation facility. However, the last two counters do not have access to the belt. Rectrix Shuttle has indicated a desire to access the belt for future secure flights to New York. Additionally, the airport has been in conversations with a number of airlines to entice them to provide service from Barnstable Airport. However, facility improvements such as the extension of the baggage belt behind the counters is necessary to provide such airlines with the facilities needed to conduct their business.

Impact of Denial/Postponement: The impact of not implementing the project will lead to facilities not equipped to accommodate future growth and development of the airport and possible continued budgetary constraints.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$400,000
	Total Project Cost	-	\$400,000

Basis for Cost Estimates: Cost estimates were received from the Airport's on-call Architect, Fennick & McCredie.

Project Estimated Completion Date: 2022

Design & Permit (months)

6 **Construction (months)** 8

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$400,000	Terminal Upgrades (baggage belt extension)	

Source of Funding: Airport enterprise funds are normally used. However, the Airport will seek MassDOT/FAA funds if available.

Operating Budget Impact now or in future: None - Future expenses for improvement to existing facilities.



DEPARTMENT PRIORITY: 14 of 23

DEPARTMENT PRIORITY: 15 of 23

Project Working Title: Reconstruct RWY 6-24 (Approx. 4,700ft x 150ft.)

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Runway 6/24 (circa 1991) has exceeded its pavement's 20-year design life and will, therefore, be programmed by the FAA and State for a full reconstruction. This project will include the design and reconstruction of 4,700 feet of runway. The full length of the runway is 5,425 feet; however, approximately 725 feet of Runway 6/24 were reconstructed as part of the 2017 Runway 15/33 reconstruction project (i.e. completing the intersection of the two runways). The project will consist of the runway reconstruction of existing pavement including in-pavement lighting and edge lights, and regrading of the side turf safety areas. The project will also include other miscellaneous related airfield improvements to navigational aids and power sources. This project will extend the design life of the pavement for another two decades.

ect will extend the design life of the des.

Project Justification: Runway pavements are given a 20-year useful life by the FAA, after which time a major reconstruction is justified. Runway 6/24 will have exceeded its useful life by 2022, at which time it is scheduled for a rebuild. This will avoid hazards to flight safety from failing pavement, and potential aircraft

condition index report is being conducted in 2017/2018 to update and confirm the earlier study.



risks that must be addressed. The intersection of Runways 6/24 and 15/33 will be reconstructed during the 2017 project to rehabilitate Runway 15/33; and the remaining overall length of approximately 4,700ft will be accomplished with this project. In June of 2013, the MassDOT Aeronautics Division completed a statewide pavement management report that shows the majority of Runway 6/24 as having a pavement condition index (PCI) of 54 to 73 depending upon location, with 0 being the worst condition, to 100 being the best condition. A PCI of 55 to 70 requires major rehabilitation. A new MassDOT pavement

damage. Crack sealing and crack repairs have extended its useful life until now but further deterioration poses serious safety

Impact of Denial/Postponement: To deny or postpone funding of this capital project will have flight safety consequences with regard to airport operations; and will increasingly affect the ability of pilots to operate on the runway, due to the potential for aircraft damage and lessened flight safety. Eventually the runway would be unusable and the Airport would be in violation of their Grant Assurances and not in compliance with Airport Certification requirements with resultant loss of operational capability.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$13,045,000
	Total Project Cost	-	\$13,045,000

Basis for Cost Estimates: Prior construction projects, engineering consultant estimates, FAA and MassDOT consultations, etc.

Project Estimated Completion Date: 2023/4

Design & Permit (months)

Construction (months)

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	\$13,045,000	Reconstruct RWY 6-24 (Approx. 4,700ft x 150ft.)	

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%)

2021 CIP - Deferred Airport Enterprise Fund Projects

Operating Budget Impact now or in future: Routine maintenance would stay the same.



Runway 6-24 (Approx. 4,700ft x 150ft.)

DEPARTMENT PRIORITY: 16 of 23

Project Working Title: Runway 15-33 - Apply P-608 Surface Treatment and Repaint

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Due to a number of unforeseen challenges in completing the Runway 15-33 rehabilitation project in 2017 (additional earthwork required to meet FAA design compliancy for taxiway and runway elevations and an additional 2" pavement lift needed due to variations in original runway pavement thickness) that were not realized until the project was under construction, a number of tasks needed to be removed from the project to curtail the unforeseen escalation in construction costs. The application of P-608 was one of the items removed in the 2017 project.

Project Justification: Two primary causes of asphalt deterioration are surface oxidation and moisture damage. P-608 is designed to mitigate these impacts by reintroducing essential binders to the pavement matrix, enhancing the structure and adding years of life, while simultaneously sealing the surface to help repel water. P-608, an



asphalt emulsion, is used on airfield pavements, such as runways and taxiways to seal, bind, and rejuvenate airport pavements. When applied to pavements the P-608 rebinds surface aggregates and seals and protects the binder from surface oxidation. The binders prevent or cure surface raveling, which produces foreign object debris (FOD) that can damage or destroy jet/prop engines. It is customary to add P-608 to new pavements and reapply every 5-7 years to assist in extending the life of the pavement. Applied at over 300 airports, P-608 has proven to be a highly effective airfield pavement preservation tool.

Because P-608 is essentially sprayed onto the pavement surface, repainting of the runway is necessary and includes conducting surveys to establish markings on pavement surface to precise FAA dimensions and standards.

Impact of Denial/Postponement: The impact of not implementing the project will lead to quicker deterioration of airfield facilities. With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained, preservation of this resource is vital to the operation and maintenance of the airfield.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$475,000
	Total Project Cost	-	\$475,000

Basis for Cost Estimates: Cost estimates were received from the Airport's on-call engineers, as well as previous applications on Taxiway C in 2016 and Taxiway E in 2017/2018.

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months)

2

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	-	-
2023	\$475,000	Runway 15-33 - Apply P-608 Surface Treatment and Repaint

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%)

Operating Budget Impact now or in future: Routine maintenance would stay the same

2021 CIP - Deferred Airport Enterprise Fund Projects

1





Runway 15-33

DEPARTMENT PRIORITY: 17 of 23

Project Working Title: Replace Snow Removal Equipment (SRE) (Chevy 2500HD – Heavy Duty Vehicle with Plow– Airport Vehicle #27 Circa 2001)

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Snow Removal Equipment (SRE) must be maintained regularly and when certain FAA approved equipment is eligible for replacement with FAA grant assistance, SRE vehicles and equipment must be evaluated and replaced as necessary. This project is to replace a 2001 Chevy Heavy Duty Carrier Vehicle with Plow (Airport Vehicle #27).

Project Justification: With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained and opened as soon as possible during snow events and to maintain our FAA FAR Part 139 airport certification, certain equipment must be available and in good condition to perform as required.

Impact of Denial/Postponement: The airport may not be able to meet



mandated FAA FAR Part 139 certification requirements and would be decertified; the airport would not be able to maintain operations, nor remove snow in order to keep the runways open and safe for operation; the airport would be unable to provide a safe operation for the continuation of commerce as part of the national airspace plan; the airport would be unable to respond to airfield emergencies, with the potential for decreased flight safety, increased property damage, and would unnecessarily endanger lives and property.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$55,000
	Total Project Cost	-	\$55,000

Basis for Cost Estimates: Recent similar purchases, State Bid List, FAA acquisitions, etc.

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months) 4-6

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	\$55,000	Replace Snow Removal Equipment (SRE) (Chevy 2500HD – Heavy Duty Vehicle with Plow–	
		Airport Vehicle #27 Circa 2001)	

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) and/or use of FAA Passenger Facility Charges (PFCs).

Operating Budget Impact now or in future: None - Replacement Vehicles. Mission remains the same.



Snow Removal Equipment (SRE) (Chevy 2500HD – Heavy Duty Vehicle with Plow– Airport Vehicle #27 Circa 2001)

2021 CIP - Deferred Airport Enterprise Fund Projects

DEPARTMENT PRIORITY: 18 of 23

Project Working Title: Design and Replace Mo-Gas and Diesel Fuel Con-Vault, Gas Boy & Alarm

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Design and replace the circa 1997 era Mo-Gas (low lead gasoline) and Diesel fuel Con-Vault (concrete encased fuel tanks), Gas Boy (computerized dispensing system) and the associated alarms that have reached the end of their useful lives. The existing concrete structure and equipment is deteriorating and should be replaced with a new structure to provide proper protection and that meets current safety and security standards.

Project Justification: The Con-Vault encases two (2) 4,000 gallon above ground fuel tanks (Mo-Gas and Diesel) that is used by all Airport vehicles and by all Airport tenant vehicles on a reimbursable basis. This service is provided to tenants as a convenience since their vehicles are not licensed to operate outside the airport environment. Tenants are charged for the cost of the fuel plus a small additional fee to cover airport overhead costs. The Gas Boy is a computerized "gas station-type



pump" that monitors usage by each vehicle authorized to use the pump, with all data transmitted to the Airport finance department for recording and billing purposes. The alarm is monitored by the operations staff.

Impact of Denial/Postponement: Impact of denial will allow the Con-Vault to deteriorate to the point where it would have to be decommissioned before encountering any external fuel leakage or spills and the subsequent HAZMAT clean-up costs. Shutting the system down would be a major inconvenience and will have a significant impact on lost time as employees would have to depart the airport to obtain fuel, and would cost a significant amount of money to bring vehicles up to code to operate on the highways. If low lead and diesel fuel has to be trucked in to a temporary fueling facility, it would significantly increase the risk of a fuel spill.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$300,000
	Total Project Cost	-	\$300,000

Basis for Cost Estimates: Prior construction projects, engineering consultant estimates, FAA and MassDOT consultations, etc.

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months)

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	\$300,000	Design and Replace Mo-Gas and Diesel Fuel Con-Vault, Gas Boy & Alarm	

Source of Funding: Airport Enterprise Funds (20%) and reimbursable funding by MassDOT AD (80%) if available. If MassDOT funds are not available, project may be funded by airport reserves or deferred indefinitely.

Operating Budget Impact now or in future: Replacement of existing system.



Mo-Gas and Diesel Fuel Con-Vault, Gas Boy & Alarm

DEPARTMENT PRIORITY: 19 of 23

Project Working Title: Replace Snow Removal Equipment (SRE) (Ford F350 – Heavy Duty Vehicle with Plow and lift gate – Airport Vehicle #31 Circa 1995)

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Snow Removal Equipment (SRE) must be maintained regularly and when certain FAA approved equipment is eligible for replacement with FAA grant assistance, SRE vehicles and equipment must be evaluated and replaced as necessary. This project is to replace a Ford F350 – Heavy Duty Vehicle with Plow and lift gate – Airport Vehicle #31 Circa 1995).

Project Justification: With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained and opened as soon as possible during snow events and to maintain our FAA FAR Part 139 airport certification, certain equipment must be available and in good condition to perform as required.

Impact of Denial/Postponement: The airport may not be able to meet



mandated FAA FAR Part 139 certification requirements and would be decertified; the airport would not be able to maintain operations, nor remove snow in order to keep the runways open and safe for operation; the airport would be unable to provide a safe operation for the continuation of commerce as part of the national airspace plan; the airport would be unable to respond to airfield emergencies, with the potential for decreased flight safety, increased property damage, and would unnecessarily endanger lives and property.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$80,000
	Total Project Cost	-	\$80,000

Basis for Cost Estimates: Recent similar purchases, State Bid List, FAA acquisitions, etc.

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months) 4-6

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	-	-
2023	\$80,000	Replace Snow Removal Equipment (SRE) (Ford F350 – Heavy Duty Vehicle with Plow and lift
		gate – Airport Vehicle #31 Circa 1995)

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) and/or use of FAA Passenger Facility Charges (PFCs).

Operating Budget Impact now or in future: None - Replacement Vehicles. Mission remains the same.



Snow Removal Equipment (SRE) (Ford F350 – Heavy Duty Vehicle with Plow and lift gate)

DEPARTMENT PRIORITY: 20 of 23

Project Working Title: Design, Realign and Reconstruct a Portion of Taxiway Delta and Taxiway Echo at Runway 15-33 Intersection

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: As part of the Federal Aviation Administration's (FAA) goals to improve and correct airport layout deficiencies, enhance aircraft safety, and insure compliance with regulatory guidance, this project serves to correct major operational aircraft ground and runway safety area (RSA) deficiencies associated with a portion of taxiway Delta (circa 1998) and taxiway Echo (circa 1980) where they intersect with Runway 15-33.

Project Justification: This reconstruction project for approximately a 1,300 foot by 50 foot portion of Taxiway D (between Taxiway Charlie and Runway 15-33) and the entire 800 foot x 50 foot Taxiway Echo and aircraft engine run-up pit of approximately 54,000 square feet in size, are among the final steps in a multi-year process to modify and bring the airport runways and associated taxiways into compliance with FAA airport design criteria; and to meet the requirements of the FAA Airport



Layout Plan and the Airport Master Plan to be completed in FY 2019. In June of 2013, the MassDOT Aeronautics Division completed a statewide pavement management report that shows Taxiway Delta as having a pavement condition index (PCI) of 86, with 0 being the worst condition, to 100 being the best condition. A PCI of 85 to 100 requires normally requires only preventative maintenance. Taxiway Echo was identified in the same report as having a PCI of 59. A PCI of 55 to 70 requires major rehabilitation. A new MassDOT pavement condition index report is being conducted in 2017/2018 to update and confirm the earlier study. The project is also subject to the Airport Master Plan Update review and permitting.

Impact of Denial/Postponement: Denial or postponement of funding for this project will negatively affect aircraft and airport operations for the airport, and the airport will not be in compliance with FAA airport design criteria.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$4,500,000
	Total Project Cost	-	\$4,500,000

Basis for Cost Estimates: Prior construction projects, engineering consultant estimates, FAA and MassDOT consultations, etc.

Project Estimated Completion Date: 2024

Design & Permit (months)

Construction (months)

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	-	-	
2024	\$4,500,000	Design, Realign and Reconstruct a Portion of Taxiway Delta and Taxiway Echo	

Source of Funding: FAA share: 90%, MassDOT AD share: 5% and Airport share: 5%.

Operating Budget Impact now or in future: Reconstruction project. Routine maintenance would stay the same.



Taxiway E



Taxiway D

Taxiway Delta and Taxiway Echo at Runway 15-33 Intersection

Project Working Title: Demolish Circa 1957 T-Hangar and Replace with New Hangar

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: This is the Airport's sole t-hangar used to store small general aviation aircraft and is in need of repair.

Project Justification: The building is circa 1957 and has had its roof repaired and other skin repairs completed throughout the years. Structural engineers recommended a complete teardown.

Impact of Denial/Postponement: The impact of not implementing the project will not allow the airport to provide a safe facility to our general aviation users and fails to meet business plan goals of improving general aviation facilities at the airport.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$900,000
	Total Project Cost	-	\$900,000

Basis for Cost Estimates: Cost estimates were received from quotes.

Project Estimated Completion Date: 2024		Design & Permit (months)	6	Construction (months)	12	
Cost/Descriptio	on FY 2021 and	Follow-On Years:				
Fiscal Year	Cost	Project Description/Components				
2021	-	-				
2022	-	-				

Demolish Circa 1957 T-Hangar and Replace with New Hangar

Source of Funding: Local share (100%) from Airport Reserves.

Operating Budget Impact now or in future: None

\$900,000

2023 2024



DEPARTMENT PRIORITY: 21 of 23



Circa 1957 T-Hangar

DEPARTMENT PRIORITY: 22 of 23

Project Working Title: Replace Snow Removal Equipment (SRE) (Heavy Duty Carrier Vehicle with Plow and Sander – Airport Vehicle #47 Circa 2006)

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Snow Removal Equipment (SRE) must be maintained regularly and when certain FAA approved equipment is eligible for replacement with FAA grant assistance, SRE vehicles and equipment must be evaluated and replaced as necessary. This project is to replace a 2006 Sterling A Line Heavy Duty Carrier Vehicle with Plow and Sander (Airport Vehicle #47).

Project Justification: With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained, including snow removal; and to maintain our FAA FAR Part 139 airport certification, certain equipment must be available and in good condition to perform as required.

Impact of Denial/Postponement: The airport may not be able to meet



mandated FAA FAR Part 139 certification requirements and would be decertified; the airport would not be able to maintain operations, nor remove snow in order to keep the runways open and safe for operation; the airport would be unable to provide a safe operation for the continuation of commerce as part of the national airspace plan; the airport would be unable to respond to airfield emergencies, with the potential for decreased flight safety, increased property damage, and would unnecessarily endanger lives and property.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$300,000
	Total Project Cost	-	\$300,000

Basis for Cost Estimates: Recent similar purchases, State Bid List, FAA acquisitions, etc.

Project Estimated Completion Date: 2024

Design & Permit (months)

Construction (months) 2-5

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	-	-
2023	-	-
2024	\$300,000	Replace 2006 Sterling A Line Heavy Duty Carrier Vehicle with Plow and Sander (Airport #47)

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) and/or use of FAA Passenger Facility Charges (PFCs).

Operating Budget Impact now or in future: None - Replacement Vehicles. Mission remains the same.



2006 Sterling A Line Diesel Heavy Duty Carrier Vehicle with Plow and Sander

DEPARTMENT PRIORITY: 23 of 23

Project Working Title: Design, Realign and Reconstruct a Portion of Taxiway Bravo

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: As part of the Federal Aviation Administration's (FAA) goals to improve and correct airport layout deficiencies, enhance aircraft safety, and insure compliance with regulatory guidance, this project serves to correct major deterioration associated with taxiway Bravo (circa 1962) as well as realigning, reconstructing, shifting and extending the taxiway.

Project Justification: This project is among the final steps in a multiyear process to modify and bring the airport runways and associated taxiways into compliance with FAA airport design criteria; and to meet the requirements of the FAA Airport Layout Plan and the Airport Master Plan. In June of 2013, the MassDOT Aeronautics Division completed a statewide pavement management report that shows Taxiway Bravo as having a pavement condition index (PCI) of 34, with 0 being the worst condition, to 100 being the best condition. A PCI of 85 to 100 requires



normally requires only preventative maintenance. A PCI of 55 to 70 requires major rehabilitation. The project is also subject to the Airport Master Plan Update review and permitting which may identify the project to include realigning, reconstructing, shifting and extending the taxiway.

Impact of Denial/Postponement: Denial or postponement of funding for this project will negatively affect aircraft and airport operations for the airport, and the airport will not be in compliance with FAA airport design criteria.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$4,500,000
	Total Project Cost	-	\$4,500,000

Basis for Cost Estimates: Prior construction projects, engineering consultant estimates, FAA and MassDOT consultations, etc.

Project Estimated Completion Date: 2025

Design & Permit (months)

Construction (months) -

Cost/Description	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	-	-	
2024	-	-	
2025	\$4,500,000	Design, Realign and Reconstruct a Portion of Taxiway Bravo	

Source of Funding: FAA share: 90%, MassDOT AD share: 5% and Airport share: 5%.

Operating Budget Impact now or in future: Reconstruction project. Routine maintenance would stay the same.



Portion of Taxiway Bravo

Marina Enterprise Fund

PROJECT: MAR-21

DEPARTMENT PRIORITY: 1 of 1

Project Working Title: Bismore Park Bulkhead Improvements

Project Location: Hyannis Harbor adjacent to Ocean Street, Hyannis

Project Description: This project request is for final design and construction for the repair and replacement of existing steel bulkhead and associated capping, adjacent walkways and parking, marine structures, and all affected utilities.

Project Justification: This harbor area is the "hub" of marine activity in the Town of Barnstable. Considerable year round commercial anglers use the bulkhead, recreational boaters use the many docking opportunities, and many thousands of tourists use the "promenade" to enjoy restaurants and the artist community. The bulkhead experienced a partial collapse in the 1990's and repairs were made that are now approaching the end of their useful life.

Impact of Denial/Postponement: Lack of repair and replacement of the bulkhead could result in a catastrophic failure that would disrupt



business interests and tourist access at one of Barnstable's busiest marinas. Obviously, this is not an acceptable situation.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$300,000
	Construction or Acquisition	-	\$4,135,000
	Project Management	-	\$400,000
	Project Contingency	-	\$850,00
	All Other Cost	-	\$3,000
	Total Project Cost	-	\$5,688,000

Basis for Cost Estimates: Engineer's Estimate

Project Estimated Completion Date: 2024

Design & Permit (months)

Construction (months) 18

12

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	\$300,000	Project Design
2023	\$5,388,000	Construction & Project Management

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Regular continued maintenance of enhanced facilities will be required from MEA and DPW but this is not anticipated to exceed existing operational expenses.



Bismore Park Bulkhead

Sandy Neck Enterprise Fund

PROJECT: SDY-21

DEPARTMENT PRIORITY: 1 of 2

Project Working Title: Sandy Neck ORV Trail and Gatehouse Relocation Construction

Project Location: 425 Sandy Neck Road, West Barnstable, MA 02668

Project Description: This project will provide construction for the following: (a) to relocate the off-road vehicle trail; and (b) to relocate the gatehouse. The project includes relocating or demolishing and reconstructing the gatehouse in order to remove it from imminent flood risk at its present location.

Project Justification: A detailed analysis of the long-term viability of the Sandy Neck beach parking and supporting facilities was completed as part of a grant from Coastal Zone Management (CZM) in the fall of 2016. The analysis demonstrated that in order to provide protection to the built infrastructure and maintain the viability of the parking, a relocation of the parking area was the most viable alternative. The relocation of the parking lot will require a new ORV trail. In addition, the gatehouse was damaged by flooding during extreme high tide and storm surge events in 2018, increasing the urgency to relocate it to higher ground.



Impact of Denial/Postponement: Without relocation of the existing gatehouse to higher ground, the potential for flooding and damage remains.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$600,000
	Project Management	-	\$75,000
	Project Contingency	-	\$120,000
	All Other Cost	-	\$5,000
	Total Project Cost	-	\$800,000

Basis for Cost Estimates: Department Public Works Engineering and 2016 Report

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months) 12

12

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$800,000	ORV Trail and Gatehouse Relocation Construction	

Source of Funding: Sandy Neck Enterprise Fund

Operating Budget Impact now or in future: New infrastructure in locations that are more protected from tidal and flood damage is expected to reduce maintenance costs.


Sandy Neck ORV Trail and Gatehouse

Hyannis Youth & Community Center Enterprise Fund

PROJECT: HYCC-21

DEPARTMENT PRIORITY: 1 of 2

Project Working Title: Hyannis Youth & Community Center Storage Building

Project Location: 1412 Bassett Ln, Hyannis, Massachusetts 02601

Project Description: This building would provide storage for HYCC event flooring, temporary judging platforms, 11 recreation boats, aquatic program equipment, and other recreational equipment currently stored at other facilities around town.

Project Justification: The recreation department has a lot of equipment stored at various locations around the Town. This equipment is constantly being relocated whenever maintenance of facilities occurs negatively impacting resources. Existing temporary storage sheds are deteriorating. A central storage location is needed. The storage building will be located on the grounds of the HYCC facility.

Impact of Denial/Postponement: The renovation work at the Armory has decreased storage opportunities for various user groups around town. Items left in the weather will deteriorate prematurely.



Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$21,733	-
	Construction or Acquisition	\$217,328	-
	Project Management	\$17,386	-
	Project Contingency	\$21,733	-
	All Other Cost	\$2,300	-
	Total Project Cost	\$280,480	-

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2021

Design & Permit (months)

4

Construction (months) 6

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	\$280,480	Design and Construction	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Additional costs for electric lighting will be incurred.



Hyannis Youth & Community Center Storage Building

Water Pollution Control Enterprise Fund

PROJECT: WPC-21

DEPARTMENT PRIORITY: 5 of 12

Project Working Title: WPCF Facility Study (DEP Required)

Project Location: 617 Bearse's Way Hyannis MA 02601

Project Description: The purpose of this project is to hire a consultant to carry out an evaluation of the Water Pollution Control Facility in order to ensure that it can remain compliant with its groundwater discharge permit and all other applicable requirements through the next five-year groundwater discharge permit cycle (2023-2028).

Project Justification: As part of the supplemental conditions of the Hyannis Water Pollution Control Facility's latest groundwater discharge permit, the Massachusetts Department of Environmental Protection requires a facility study to ensure continued compliance with the conditions of the permit. This facility study will recommend what modifications (if any) will be required for the WPCF to continue meeting permit conditions. The report is due with the groundwater discharge permit renewal application in the fall of 2022.



Impact of Denial/Postponement: Denial or postponement of this study would cause the WPCF to fall out of compliance with the conditions of its groundwater discharge permit. This could result in a notice of non-compliance and/or costly fines to the Town.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$150,000
	Total Project Cost	-	\$150,000

Basis for Cost Estimates: In-house Cost Estimate

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months)

9

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	\$150,000	Evaluation of WPCF

Source of Funding: Water Pollution Control Enterprise Fund

Operating Budget Impact now or in future: This project is an evaluation only, and will not affect the WPCD operating budget.

DEPARTMENT PRIORITY: 6 of 12

Project Working Title: Sewer System Rehabilitation Program

Project Location: Hyannis, Barnstable Village

Project Description: The purpose of this project is to fund a sewer rehabilitation program targeting areas within the sewer collection system that are in need of repair. Efforts will include pipe relining, pipe replacement, and manhole rehabilitation.

Project Justification: The Town's sewer collection system dates back to 1935 and is in need of targeted rehabilitation in certain areas. As part of the Town's infiltration and inflow analysis and subsequent sewer system evaluation survey (SSES) work, several pipe defects have been located. These include cracks in pipes, manhole defects, cross connections between stormwater and sewer infrastructure, and other related issues. Repairs targeting sources of infiltration and inflow will reduce the amount of stormwater unnecessarily transported, treated, and disposed of at the WPCF. These repairs will free up pipe capacity, pump station capacity, treatment capacity, and disposal capacity at the WPCF. This will reduce the impact of severe storms on the wastewater treatment process by alleviating large in flow spikes during wet weather events. Other repairs unrelated to infiltration and inflow will provide more reliable sewer service by removing defects that may cause obstructions in the Town's sewer system.

Impact of Denial/Postponement: If left unfunded, major sewer repairs will be deferred until funding is made available. Sources of infiltration and inflow would remain in place, meaning that stormwater will continue to find its way into the sewer system, taking up existing system capacity.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$1,150,000
	Total Project Cost	-	\$1,150,000

Basis for Cost Estimates: In-house Cost Estimate to be used as a placeholder until SSES work is complete.

Project Estimated Completion Date: 2022

Design & Permit (months)

2 Construction (months) 12

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$400,000	Sewer system rehabilitation	
2023	\$250,000	Sewer system rehabilitation	
2024	\$250,000	Sewer system rehabilitation	
2025	\$250,000	Sewer system rehabilitation	

Source of Funding: Water Pollution Control Enterprise Fund

Operating Budget Impact now or in future: Normal levels of preventative maintenance will continue with minimal impact on the WPCD operating budget or staffing.

DEPARTMENT PRIORITY: 7 of 12

Project Working Title: Truck 247 Replacement

Project Location: 617 Bearse's Way Hyannis MA 02601

Project Description: Replacement of Crane Truck 247

Project Justification: Crane Truck 247 was purchased in 2007 and will be 14 years old at the time of replacement. This truck is equipped with a crane used for hoisting pumps and equipment and is heavily relied upon in order to perform maintenance at submersible pump stations. Because of the workload placed on this truck, it has experienced a large amount of wear and tear. This truck must be replaced in order to continue carrying out routine maintenance and emergency response for the Town's wastewater treatment plant and sewer collection system.

Impact of Denial/Postponement: If left unfunded, the condition of this important truck will continue to deteriorate, leading to significant downtime while the truck is being repaired. This could hinder the WPCD's ability to respond to emergencies at the Town's pump stations and wastewater treatment plant.



Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$75,000
	Total Project Cost	-	\$75,000

Basis for Cost Estimates: In-house Cost Estimate based on previous truck purchases.

Project Estimated Completion Date: 2021

Design & Permit (months)

Construction (months) 1

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	\$75,000	Purchase of new crane truck 247

Source of Funding: Water Pollution Control Enterprise Fund

Operating Budget Impact now or in future: With the replacement of Truck 247, normal levels of preventative maintenance will continue with little impact on the WPCD operating budget.



Truck 247

DEPARTMENT PRIORITY: 8 of 12

Project Working Title: Vacuum Truck Replacement

Project Location: 617 Bearse's Way Hyannis MA 02601

Project Description: Replacement of the WPCD Vacuum Truck #28

Project Justification: The WPCD's vacuum sewer truck was purchased in 2003 and has reached the end of its expected useful life. In recent years, the truck has shown increasing amounts of corrosion, and has been taken out of service for emergency repairs frequently. The truck is used for preventative cleaning of Town sewer lines, cleaning of tanks at the Water Pollution Control Facility, cleaning pump station wet wells, and to clear obstructions in sewer mains. This truck is the last line of defense before a sanitary sewer overflow occurs. Having a reliable vacuum sewer truck with updated technology will allow WPCD staff to keep sewers and tanks clean and allow for reliable sewer service.



Impact of Denial/Postponement: If this purchase is not funded, the Town will be at greater risk of sewer blockages and sanitary sewer

overflows, putting public health at risk. The WPCD would need to contract out emergency response for sewer blockages, increasing the response time and decreasing the overall effectiveness of the operation.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$600,000
	Total Project Cost	-	\$600,000

Basis for Cost Estimates: Cost Estimate based on recent vacuum truck purchases by neighboring communities.

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months) 3

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	\$600,000	Purchase of vacuum truck	

Source of Funding: Water Pollution Control Enterprise Fund

Operating Budget Impact now or in future: A decrease in vacuum truck repairs can be expected for the first several years of service.





Vacuum Truck 28

2021 CIP – Deferred Water Pollution Control Enterprise Fund Projects

DEPARTMENT PRIORITY: 9 of 12

Project Working Title: Headworks Evaluation and Preliminary Design

Project Location: 617 Bearse's Way Hyannis MA 02601

Project Description: The purpose of this project is to evaluate the condition, capacity, and performance of the headworks station at the Water Pollution Control Facility and to prepare a preliminary design of improvements to the building and its associated processes.

Project Justification: The headworks building at the WPCF is the beginning of the treatment process. Wastewater is screened, grit and debris are removed from the waste stream, and flow is metered in this location. The headworks station includes odor control systems including chemical scrubbers and chemical addition. The existing headwork building was originally constructed in 1973, and the building has been expanded and upgraded since it was put in service. In recent years the building has shown advanced signs of degradation requiring emergency repair including leaking walls, grit system failures, failing concrete, and a failing odor control system. The odor control unit is housed in a



location with inadequate access to carry out routine maintenance. In addition to these issues, there is limited space in the influent receiving channel to accept more force main connections. It is necessary to evaluate options for upgrades or replacement of this critical component of the wastewater treatment process in order to accommodate the flows proposed in the Town's Comprehensive Wastewater Management Plan.

Impact of Denial/Postponement: If this project is not funded, the condition of the headworks building will continue to deteriorate. Grit and debris removal systems could potentially fail resulting in the need for costly emergency repairs. The odor control system will operate at increased risk of failure resulting in excessive odors in the area surrounding the treatment plant.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$250,000
	Total Project Cost	-	\$250,000

Basis for Cost Estimates: In-house Cost Estimate

Project Estimated Completion Date: 2023

Design & Permit (months)

12 **Construction (months)**

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	\$250,000	Headworks Evaluation and Preliminary Design	

Source of Funding: Water Pollution Control Enterprise Fund

Operating Budget Impact now or in future: This project is an evaluation only, and would have no impact on the WPCD operating budget.



Mechanical Bar Screen



Odor Control System Access



Grit Cyclone



Grit Pumps

Project Working Title: Effluent Sand Bed Valve Rehabilitation

Project Location: 617 Bearse's Way Hyannis MA 02601

Project Description: This project involves an evaluation of the effluent distribution valves at the Water Pollution Control Facility and upgrades to any valves requiring replacement.

Project Justification: The Water Pollution Control Facility discharges treated effluent via 36 rapid infiltration beds. The beds are rotated in order to prevent overgrowth and to allow for routine sand bed maintenance. There are twelve 24-inch valves responsible for distributing effluent to the sand bed network and another sixty-three 6-inch valves used to distribute flow within the individual sand beds. Over the years, the majority of the 6-inch valves have failed, and WPCD staff has used plugs to distribute flow within these beds. The large valves are becoming increasingly difficult to operate and most of the motorized valve actuators have failed. In order to distribute flow properly, and to have reliable control of flow to the effluent sand beds, valve rehabilitation will be required.

Impact of Denial/Postponement: If unfunded, the effluent distribution valves will continue to degrade to the point of failure. Costly emergency repairs will be necessary in order to repair valves as they fail. Flow will not be able to be distributed equally around the sand beds until repairs are made.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$50,000
	Construction or Acquisition	-	\$200,000
	Project Management	-	\$20,000
	Project Contingency	-	\$30,000
	Total Project Cost	-	\$300,000

Basis for Cost Estimates: In-house Cost Estimate based on similar valve replacement projects.

Project Estimated Completion Date: 2023

Design & Permit (months)

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	\$50,000	Evaluation of sand bed valves	
2024	\$250,000	Sand bed valve replacements	

Source of Funding: Water Pollution Control Enterprise Fund

Operating Budget Impact now or in future: Normal levels of preventative maintenance will occur with no impact to the operating budget or staffing.



12

nonths) 6 Construction (months)



Valve Structure #6



Valve Structure #7

DEPARTMENT PRIORITY: 11 of 12

Project Working Title: Main Switchboard (MSB) Generator Design and Construction

Project Location: 617 Bearse's Way Hyannis MA 02601

Project Description: This project involves the design and construction of a second emergency backup generator at the WPCD's "MSB" switchgear.

Project Justification: A 2014 backup power evaluation recommended replacing the generator at switchgear MSA with a 750kw diesel powered generator, and constructing a 450kw diesel powered generator at switchgear MSB when future loads dictate. The MSA generator construction was completed in 2017. It is anticipated that the WPCF will be taking on additional flows as the Town executes its Comprehensive Wastewater Management Plan, likely requiring major plant upgrades, and an increase in electrical demand. In order to provide enough backup power to energize the treatment plant in the event of a power outage, an additional generator will be necessary. This generator will also provide redundancy in the event that the MSA generator fails.



Impact of Denial/Postponement: Denial of this project could result in a lack of backup power for the wastewater treatment plant under future conditions, and would not be viewed favorably by the Massachusetts DEP. In the event of a failure of the MSA generator, portable backup generators can be used to power up small pieces of equipment such as the effluent pumps. This would allow the WPCD to continue to move water through the plant, however it would remain mostly untreated, and this would result in effluent violations and possibly a notice of non-compliance from the DEP.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$46,000
	Construction or Acquisition	-	\$420,000
	Project Management	-	\$42,000
	Project Contingency	-	\$42,000
	Total Project Cost	-	\$550,000

Basis for Cost Estimates: Engineer's Cost Estimate

Project Estimated Completion Date: 2024

Design & Permit (months)

Construction (months) 12

6

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	-	-	
2024	\$550,000	Design & Construction	

Source of Funding: Water Pollution Control Enterprise Fund

Operating Budget Impact now or in future: Normal levels of preventative maintenance would continue with no impact on operating budget or staffing.

DEPARTMENT PRIORITY: 12 of 12

Project Working Title: 91 South Street Pump Station Demolition

Project Location: 91 South St, Hyannis, MA 02601

Project Description: Demolition of the abandoned 91 South Street Pump Station

Project Justification: The 91 South Street Pump Station was constructed in 1935 and served as the primary sewage pump station for downtown Hyannis from 1935 until 1989. The building is now abandoned and all equipment has been removed from the building. The WPCD has attempted to sell or repurpose the building several times over the past thirty years without success. A recent inspection concluded that there is nearly no potential for reuse of this building. There is currently no sanitary sewer service at the building, there are hazardous materials in need of remediation, and the layout of the building is not conducive to any type of activity aside from pumping wastewater. The ceiling tiles have failed and the windows are in need of replacement. The access hatches on the main floor are not



structurally sound for continuous occupancy. The steel support beams were compromised when contractors used torches to remove process equipment from the facility. The adjacent storage room has no access and cannot be connected to the rest of the building internally, as it sits at a higher elevation than the main floor. The wet well ceiling is failing, there is groundwater intrusion through the concrete walls, and the floors sit on grates above abandoned sewage collection tanks making the area unsafe for foot traffic unless the tanks are filled in. The time spent by WPCD staff maintaining this building would be better spent maintaining wastewater infrastructure that is currently in use. The cost to restore this building would be extensive and would yield minimal usable space. It is recommended that the building be demolished and that the Town explore alternative uses for the property, including green space, a new building, or property sale.

Impact of Denial/Postponement: If demolition is not approved, a significant amount of money will need to be allocated to the restoration of this property. Once restored, the building will be of minimal use to any future occupants due to the layout of the building.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$160,000
	Total Project Cost	-	\$160,000

Basis for Cost Estimates: Town Architect Estimate

Project Estimated Completion Date: 2025

Design & Permit (months)

Construction (months) 2

6

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	-	-	
2024	-	-	
2025	\$160,000	Demolition of 91 South Street Pump Station	

Source of Funding: Water Pollution Control Enterprise Fund

Operating Budget Impact now or in future: Staff hours dedicated to maintaining this building will be reallocated to wastewater related activities with no impact on the WPCD operating budget.

2021 CIP – Deferred Water Pollution Control Enterprise Fund Projects

Water Supply Enterprise Fund

PROJECT: WS-21	DEPARTMENT PRIORITY: 6 of 6

Project Working Title: New Well Exploration Program, Wells & Treatment Plant: Design & Construction.

Project Location: Town of Barnstable, exact site not known yet

Project Description: This is an additional phase of an existing effort to locate needed water supply sources for the Hyannis Water System.

Project Justification: This CIP is an additional phase of an existing effort to locate needed water supply sources for the Hyannis Water System. This phase would consist of the design and construction of four wells and a treatment plant.

Impact of Denial/Postponement: The denial or postponement of this CIP will affect the long term planning and ability of the Hyannis Water System to deliver sufficient drinking water to their customers.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$14,000,000
	Total Project Cost	-	\$14,000,000

Basis for Cost Estimates: Previous design and construction experience, new well exploration report

Project Estimated Completion Date: 2025

Design & Permit (months)

Construction (months)

4

2

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	ar Cost Project Description/Components		
2021	-	-	
2022	\$3,000,000	Design & construction of two wells	
2023	\$8,000,000	Design & construction of a treatment plant	
2024	\$3,000,000	Design & construction of two wells	

Source of Funding: Water Supply Enterprise Fund

Operating Budget Impact now or in future: No information yet.

Solid Waste Enterprise Fund

PROJECT: SW-21

DEPARTMENT PRIORITY: 2 of 4

Project Working Title: Roll Off Truck Replacement

Project Location: 45 Flint St, Marstons Mills, MA 02648

Project Description: Replacement of 1989 Roll Off Truck

Project Justification: The roll off truck is essential to the operation of the Solid Waste Division. This vehicle handles the full and empty containers at the facility. The truck also hauls full containers over the road to vendors for proper disposal of items. It is a vital component to the operation of the Transfer Station & Recycling Center.

Impact of Denial/Postponement: The 1989 model Roll Off Truck has more than exceeded its useful life. The truck is at the point where it will no longer pass inspection and can only be used at the facility.



Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$250,000
	Total Project Cost	-	\$250,000

Basis for Cost Estimates: Quotes obtained through vendors and expected increases in costs

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months) 6

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	\$250,000	Replacement of 1989 Roll Off Truck	

Source of Funding: Solid Waste Enterprise Fund

Operating Budget Impact now or in future: Normal levels of operation would continue with no impact on staffing or operating budget.



1989 Roll Off Truck

2021 CIP – Deferred Solid Waste Enterprise Fund Projects

DEPARTMENT PRIORITY: 3 of 4

Project Working Title: Municipal Packer Replacement

Project Location: 45 Flint St, Marstons Mills, MA 02648

Project Description: Replacement of existing municipal packer

Project Justification: The municipal packer provides trash removal services for Town of Barnstable buildings, beaches, parks, main streets and other locations throughout the Town. This piece of equipment is vital to removing trash from town properties.

Impact of Denial/Postponement: Denial of this request will result in the delay of trash removal from town buildings and properties. Holding on to this vehicle for too long will result in breakdowns that will adversely affect town properties and buildings. The longer the vehicle stays in the fleet, the greater the chance of a major breakdown involving costly repairs and lost worktime.



Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$300,000
	Total Project Cost	-	\$300,000

Basis for Cost Estimates: Quotes obtained through vendors and expected increases in costs

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months) 6

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	-	-	
2024	\$300,000	Replacement of Municipal Packer	

Source of Funding: Solid Waste Enterprise Fund

Operating Budget Impact now or in future: Normal levels of operation would continue with no impact on staffing or operating budget.





Municipal Packer

2021 CIP – Deferred Solid Waste Enterprise Fund Projects

PROJECT: SW-21

Project Working Title: Rubber Tire Loader Replacement

Project Location: 45 Flint St, Marstons Mills, MA 02648

Project Description: Replacement of 2003 Caterpillar Rubber Tire Loader

Project Justification: The rubber tire loader is essential to the operation of the Solid Waste Division. This machine is used in multiple functions of the division. This machine loads and moves various types of material to containers and locations to ensure safe and efficient operations. Additionally, the machine is utilized in emergency operations not only for the facility but also for the rest of DPW. It is a vital component to the operation of the Transfer Station & Recycling Center.

Impact of Denial/Postponement: The 2003 Caterpillar Loader will fulfill its useful expectancy by FY 2024. The loader will be at the point where repairs will be expensive and extensive. The loader is just beginning to show some signs of many years of continual service.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$300,000
	Total Project Cost	-	\$300,000

Basis for Cost Estimates: Quotes obtained through vendors and expected increases in costs

Project Estimated Completion Date: 2024

Design & Permit (months)

Construction (months)

6

Cost/Description	Cost/Description FY 2021 and Follow-On Years:				
Fiscal Year	Cost	roject Description/Components			
2021	-	-			
2022	-	-			
2023	-	-			
2024	-	-			
2025	\$300,000	Replacement of 2003 Caterpillar Rubber Tire Loader			

Source of Funding: Solid Waste Enterprise Fund

Operating Budget Impact now or in future: Normal levels of operation would continue with no impact on staffing or operating budget.



DEPARTMENT PRIORITY: 4 of 4



Rubber Tire Loader

Sewer Construction and Private Way Improvements Fund Projects

PROJECT: CWM-21

DEPARTMENT PRIORITY: 6 of 16

Project Working Title: Private Road Repair - Old Mill Road, School Street and Asa Meigs Road

Project Location: Asa Meigs Road, School Street and Old Mill Road in Marstons Mills

Project Description: Legislation passed in 2014 (Chapter 339 of the Acts of 2014 - signed by the Governor on 10/3/2014) allows that "the Town of Barnstable may from time to time, for the purpose of ensuring the safety of the general public, enter and make expenditures for undertaking maintenance and improvements within the layout, or any portion thereof, of one or more private ways within the Town". To do this the Town must make "a declaration of common usage of such private way by the general public by vote of the Town Council". Common usage is defined as "a road or any portion thereof that has been commonly used by the general public for a period of at least 20 consecutive years of travel directly from 1 public road or area to another public road or area." For this CIP, it is proposed to repair Asa Meigs Road, School Street, and Old Mill Road in Marstons Mills. These roads required almost 25 emergency repairs in the past 18 months.



Project Justification: The roads in question are in common usage, in need of repair, and are heavily traveled. All proposed roads will be reclaimed.

Impact of Denial/Postponement: The roads will continue to deteriorate, possibly leading to unsafe and ultimately unpassable conditions.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$1,050,000	-
	Project Management	\$50,000	-
	All Other Cost	\$28,800	
	Total Project Cost	\$1,128,800	-

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2022

Design & Permit (months)

6 Constr

Construction (months)

6

Cost/Description FY 2021 and Follow-On Years:				
Fiscal Year	Fiscal Year Cost Project Description/Components			
2021	\$1,128,800	Design, Construction & Construction Management, Police Details		

Source of Funding: Comprehensive Water Management and Private Way Improvement Fund

Operating Budget Impact now or in future: Repairs should result in a decrease of emergency repairs to private roads required for these three roads. The Town is incurring over \$2,000 per day on emergency repairs.



Private Road Repair - Old Mill Road, School Street and Asa Meigs Road

DEPARTMENT PRIORITY: 7 of 16

Project Working Title: Route 28 East Sewer Expansion

Project Location: Route 28, Hyannis and Centerville

Project Description: The project will expand sewer infrastructure westerly along Route 28 to the intersection of Route 28 and Phinneys Lane. The project will include the construction of gravity sewer from Strawberry Hill Road to Phinneys Lane, a new sewer pump station (located at the intersection of Route 28 and Phinneys Lane), sewer force mains connecting to the Water Pollution Control Facility (WPCF) and modifications at the WPCF to accommodate the new force mains. The infrastructure installed as part of this project will serve the western sewer expansion described in the Comprehensive Wastewater Management Plan (CWMP).

Project Justification: During planning of the CWMP, the Department of Public Works (DPW) identified a need for the design and construction of a booster sewer pump station along the Route 28 corridor, which would be capable of conveying significant wastewater from planned future



western expansion directly to the Barnstable Water Pollution Control Facility (BWPCF). This project will install this infrastructure. As a result, this project was identified in Phase 1 of the Comprehensive Wastewater Management Plan (CWMP) to address economic development and drinking water protection.

Impact of Denial/Postponement: The western sewer expansion required in the CWMP would be delayed, resulting in continued water quality degradation in the western part of Town.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$9,500,000
	Project Management	-	\$400,000
	Project Contingency	-	\$1,700,000
	All Other Cost	-	\$400,000
	Total Project Cost	-	\$12,000,000

Basis for Cost Estimates: Department of Public Works Estimates

Project Estimated Completion Date: 2024

Design & Permit (months)

Construction (months) 18

24

Cost/Description FY 2021 and Follow-On Years:				
Fiscal Year	Fiscal Year Cost Project Description/Components			
2021	-	-		
2022	\$12,000,000	Construction & Construction Management		

Source of Funding: Comprehensive Water Management Fund

Operating Budget Impact now or in future: 0.4 Full Time Equivalent, Grade 8 Operator.



Route 28 East Sewer Expansion

Project Working Title: Marstons Mills River Treatment System

Project Location: Marstons Mills River

Project Description: This project will continue the Town's efforts to enhance the natural nitrogen treatment abilities of the Marstons Mills River from its cranberry bogs in its upper reaches to where it discharges into North Bay by using a series of nontraditional projects in a way that acts as a comprehensive treatment system.

The first project is to dredge Mill Pond back to its original depths (sand layer) and perimeter. It has been estimated this would require the removal of up to 60,000 cubic yards of material; and pond depths would be restored to approximately 8 feet in the deepest areas.

Project Justification: Mill Pond has progressively been filling with silt and debris since its creation, to the point that it is in danger of becoming a bog with a stream meandering through it. Its nitrogen removal capacity has been on the decline from a measured 20%

removal to 10% removal during the past 20 years. By comparison, healthy ponds have exhibited 30% to 50% nitrogen removal. Assuming that the nitrogen attenuation capacity of Mill Pond could be restored to 50% removal, it has been estimated it could remove in excess of 2,200 kg/year of additional nitrogen from the downstream system. This would equal to approximately half of the nitrogen that is required to be removed from Prince Cove, as an example.

Impact of Denial/Postponement: The Town would have to rely on purely traditional means to address its nitrogen removal requirements.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	TBD
	Construction or Acquisition	-	TBD
	Total Project Cost	-	TBD

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2023

Design & Permit (months)

24

Construction (months)

Cost/Description FY 2021 and Follow-On Years:				
Fiscal Year	Cost	Project Description/Components		
2021	-	-		
2022	TBD	Master Plan Development		
2023	TBD	Dredging Construction Mill Pond		
2024	TBD	Design Next Project(s)		
2025	TBD	Construction Next Project(s)		

Source of Funding: Comprehensive Water Management Fund

Operating Budget Impact now or in future: Once dredged, it is not expected that the Town would incur any additional regular maintenance items.



DEPARTMENT PRIORITY: 8 of 16

TBD



Mill Pond Dredging Project

DEPARTMENT PRIORITY: 9 of 16

Project Working Title: Long Beach Sewer Expansion

Project Location: Vicinity of Craigville Beach, Long Beach, Short Beach and Lake Elizabeth, Centerville

Project Description: Expanding sewer to properties in the vicinity of Craigville Beach, Long Beach, Short Beach and Lake Elizabeth. This project will include mostly gravity sewer, some low-pressure sewer, at least one municipal pump station, decommissioning of the tight tanks at Craigville Beach, and the decommissioning of the shared septic system near Lake Elizabeth. This project was identified in Phase 1 of the Comprehensive Wastewater Management Plan (CWMP).

Project Justification: Residences in this area are completely dependent on-site solutions to address their wastewater. Most properties in this area are within flood zones and velocity zones and have high groundwater, making replacing on-site septic systems very expensive. Additionally, the project will remove the need to maintain the tight tanks at Craigville Beach and the Lake Elizabeth shared septic system. As a result, this project was identified in Phase 1 of the CWMP.



Impact of Denial/Postponement: The area would remain unsewered, residents would be subject to high costs to replace failed septic systems, and the Town would continue to have to maintain the Craigville Beach tight tanks and the Lake Elizabeth shared septic system.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$1,050,000
	Construction or Acquisition	-	\$6,000,000
	Project Management	-	\$300,000
	Project Contingency	-	\$1,050,000
	All Other Cost	-	\$150,000
	Total Project Cost	-	\$8,550,000

Basis for Cost Estimates: Department of Public Works Estimates

Project Estimated Completion Date: 2024

Design & Permit (months)

hs) 24 Con

Construction (months) 18

Cost/Description FY 2021 and Follow-On Years:				
Fiscal Year	Cost	Project Description/Components		
2021	-	-		
2022	\$300,000	Preliminary Design		
2023	\$750,000	Final Design & Permitting		
2024	-	-		
2025	\$7,500,000	Construction & Construction Management		

Source of Funding: Comprehensive Water Management Fund

Operating Budget Impact now or in future: 0.45 Full Time Equivalent, Grade 8 Operator.



Long Beach Sewer Expansion Project

DEPARTMENT PRIORITY: 10 of 16

Project Working Title: Great Marsh Road Sewer Expansion

Project Location: Great Marsh Road and adjacent neighborhoods, Centerville

Project Description: Expanding sewer to properties located on Great Marsh Road and adjacent neighborhoods. This project will include the installation of mostly gravity sewer and some low-pressure sewer. The project area has been identified as a needs area for nitrogen removal and pond protection and as a result, this project was identified in Phase 1 of the Comprehensive Wastewater Management Plan (CWMP). Construction is anticipated to begin in FY 2026.

Project Justification: The western half of the project area has been identified as a needs area for nitrogen removal within the Centerville River Watershed by Massachusetts Estuaries Program (MEP) modeling. Additionally, residences in this area are located in very close proximity to Lake Wequaquet and are completely dependent on-site solutions to address their wastewater. Most properties close to the lake have high



groundwater, making replacing on-site septic systems very expensive. In recent years, Lake Wequaquet has experienced declining water quality. As a result, the project area is identified as a needs area for nitrogen removal and pond protection and the project was identified in Phase 1 of the CWMP.

Impact of Denial/Postponement: The area would remain unsewered, the Centerville River Watershed and Lake Wequaquet would continue to receive nutrients and pollutants from septic systems, and residents adjacent to the lake would be subject to high costs to replace failed septic systems.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$1,800,000
	Construction or Acquisition	-	\$12,100,000
	Project Management	-	\$500,000
	Project Contingency	-	\$2,400,000
	All Other Cost	-	\$500,000
	Total Project Cost	-	\$17,300,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2028

Design & Permit (months)

onths) 36 Cons

Construction (months) 24

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$550,000	Preliminary Design	
2023	-	-	
2024	\$1,250,000	Final Design & Permitting – (\$15,500,000 Construction FY 2026)	

Source of Funding: Comprehensive Water Management Fund

Operating Budget Impact now or in future: 0.95 Full Time Equivalent, Grade 8 Operator (FY 2026)



Great Marsh Road Sewer Expansion Project

2021 CIP – Deferred Sewer Construction & Private Way Imp. Projects

Project Working Title: Phinney's Lane Sewer Expansion

Project Location: Phinney's Lane, Hyannis - Centerville

Project Description: Sewer expansion into neighborhoods north of Route 28 off Phinney's Lane and Wequaquet Lane in Centerville. It will include gravity sewer, and a relatively small amount of low-pressure sewer. This project is identified in Phase 1 of the Comprehensive Wastewater Management Plan (CWMP).

Project Justification: Residences in this area are completely dependent on on-site solutions to address their wastewater, which has had a negative effect on Lake Wequaquet and the Centerville River. As a result, the CWMP has identified this project in Phase 1.

Impact of Denial/Postponement: If this project is not approved, homes in this area will have to continue to rely on on-site wastewater systems. As a result, Lake Wequaquet and the Centerville River will continue to receive nutrients at higher than recommended levels.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$15,500,000
	Project Management	-	\$750,000
	Project Contingency	-	\$3,000,000
	All Other Cost	-	\$750,000
	Total Project Cost	-	\$20.000.000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2025

Design & Permit (months)

24	Construction (months)	24

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	-	-
2023	\$20,000,000	Construction & Construction Management

Source of Funding: Comprehensive Water Management Fund

Operating Budget Impact now or in future: 0.71 Full Time Equivalent, Grade 8 Operator.





Phinney's Lane Sewer Expansion Project

DEPARTMENT PRIORITY: 12 of 16

Project Working Title: Huckins Neck Sewer Expansion

Project Location: Huckins Neck, Centerville

Project Description: Expanding sewer to properties located on Huckins Neck, adjacent to Lake Wequaquet, Shallow Pond, and Bearse Pond. This project will include the installation of mostly gravity sewer, some low-pressure sewer, and at least one municipal pump station. The project area was identified as a needs area for pond protection and as a result, this project was identified in Phase 1 of the Comprehensive Wastewater Management Plan (CWMP). Construction is anticipated to begin in FY 2026.

Project Justification: Residences in this area are located in very close proximity to Lake Wequaquet, Shallow Pond, and Bearse Pond and are completely dependent on-site solutions to address their wastewater. Additionally, most properties in this area have high groundwater, making replacing on-site septic systems very expensive. In recent years, Lake Wequaquet, Shallow Pond, and Bearse Pond have experienced



declining water quality. As a result, the project area was identified as a needs area for pond protection and the project was identified in Phase 1 of the CWMP.

Impact of Denial/Postponement: The area would remain unsewered, Lake Wequaquet, Shallow Pond, and Bearse Pond would continue to receive pollutants and nutrients from septic systems, and residents would be subject to high costs to replace failed septic systems.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$900,000
	Construction or Acquisition	-	\$5,000,000
	Project Management	-	\$250,000
	Project Contingency	-	\$750,000
	All Other Cost	-	\$100,000
	Total Project Cost	-	\$7,000,000

Basis for Cost Estimates: Department of Public Works Estimates

Project Estimated Completion Date: 2024

Design & Permit (months)

24

Construction (months) 18

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	-	-
2023	\$300,000	Preliminary Design
2024	\$750,000	Final Design & Permitting (\$5,950,000 Construction FY 2026)

Source of Funding: Comprehensive Water Management Fund

Operating Budget Impact now or in future: 0.3 Full Time Equivalent, Grade 8 Operator.



Huckins Neck Sewer Expansion Project
PROJECT: CWM -21

DEPARTMENT PRIORITY: 13 of 16

Project Working Title: Old Craigville Road Sewer Expansion

Project Location: Old Craigville Road and adjacent neighborhoods, Centerville

Project Description: Expanding sewer to properties located on Old Craigville Road and adjacent neighborhoods. This project will include the installation of mostly gravity sewer, some low-pressure sewer and at least one municipal pump station. The properties served will feed to the infrastructure to be installed as part of the Strawberry Hill Sewer Expansion Project. This project area has been identified as a needs area for nitrogen removal, pond protection, and drinking water well protection and as a result, this project was identified in Phase 1 of the Comprehensive Wastewater Management Plan (CWMP). Construction is anticipated to begin in FY 2027.

Project Justification: The northern portions of the project area have been identified as a needs area for nitrogen removal within the Centerville River Watershed by Massachusetts Estuaries Program (MEP)



modeling as well as drinking water well protection (COMM Water supply wells). The southerly portion of the project area has been identified as a needs area for pond protection as residences in this area are located in close proximity to Red Lily Pond and Lake Elizabeth and are completely dependent on-site solutions to address their wastewater. As a result, the project area was identified as a needs area for nitrogen removal and pond protection and the project was identified in Phase 1 of the CWMP.

Impact of Denial/Postponement: The area would remain unsewered and the Centerville River Watershed, COMM drinking water wells, Red Lily Pond and Lake Elizabeth would continue to receive nutrients and pollutants from septic systems.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$1,500,000
	Construction or Acquisition	-	\$11,500,000
	Project Management	-	\$500,000
	Project Contingency	-	\$2,500,000
	All Other Cost	-	\$500,000
	Total Project Cost	-	\$16,500,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2028

Design & Permit (months)

s) 36 Construction

Construction (months) 24

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	\$500,000	Preliminary Design	
2024	-	-	
2025	\$1,000,000	Final Design & Permitting – (\$15,000,000 Construction FY 2027)	

Source of Funding: Comprehensive Water Management Fund

Operating Budget Impact now or in future: 0.9 Full Time Equivalent, Grade 8 Operator (FY 2027)

2021 CIP – Deferred Sewer Construction & Private Way Imp. Projects



Old Craigville Road Sewer Expansion Project

PROJECT: CWM -21

DEPARTMENT PRIORITY: 14 of 16

Project Working Title: Shootflying Hill Road Sewer Expansion

Project Location: Shootflying Hill Road and adjacent neighborhoods, Centerville

Project Description: Expanding sewer to properties located on Shootflying Hill Road and adjacent neighborhoods. This project will include the installation of mostly gravity sewer, some low-pressure sewer and at least one municipal pump station. The project area has been identified as a needs area for nitrogen removal and pond protection and as a result, this project was identified in Phase 1 of the Comprehensive Wastewater Management Plan (CWMP). Construction is anticipated to begin in FY 2028.

Project Justification: The southern half of the project area has been identified as a needs area for nitrogen removal within the Centerville River Watershed by Massachusetts Estuaries Program (MEP) modeling. Additionally, many residences in this project area are located in close proximity to Lake Wequaquet and are completely dependent on-site



solutions to address their wastewater needs. Most properties close to the lake have high groundwater, making replacing onsite septic systems very expensive. In recent years, Lake Wequaquet has experienced declining water quality. As a result, the project area was identified as a needs area for nitrogen removal and pond protection and the project was identified in Phase 1 of the CWMP.

Impact of Denial/Postponement: The area would remain unsewered, the Centerville River Watershed and Lake Wequaquet would continue to receive nutrients and pollutants from septic systems, and residents adjacent to the lake would be subject to high costs to replace failed septic systems.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$1,950,000
	Construction or Acquisition	-	\$13,500,000
	Project Management	-	\$700,000
	Project Contingency	-	\$2,550,000
	All Other Cost	-	\$700,000
	Total Project Cost	-	\$19,400,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2028

Design & Permit (months)

36

Construction (months) 24

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components		
2021	-	-		
2022	-	-		
2023	-	-		
2024	\$600,000	Preliminary Design – (Final Design FY 2026, \$18,800,000 Construction FY 2028)		

Source of Funding: Comprehensive Water Management Fund

Operating Budget Impact now or in future: 0.95 Full Time Equivalent, Grade 8 Operator (FY 2028)



Shootflying Hill Road Sewer Expansion Project

PROJECT: CWM -21

DEPARTMENT PRIORITY: 15 of 16

Project Working Title: Osterville Woods Sewer Expansion

Project Location: Osterville Woods neighborhoods, Osterville

Project Description: Expanding sewer to the residential properties located in the "Osterville Woods" neighborhood and adjacent neighborhoods. This project will include the installation of mostly gravity sewer, some low-pressure sewer and at least one municipal pump station. The properties served will feed to the infrastructure to be installed as part of the Route 28 Centerville and Route 28 East projects. This project area has been identified as a needs area for nitrogen removal and drinking water well protection and as a result, this project was identified in Phase 1 of the Comprehensive Wastewater Management Plan (CWMP). Construction is anticipated to begin in FY 2028.

Project Justification: The western portion of the project area have been identified as a needs area for nitrogen removal within the Three Bays Watershed by Massachusetts Estuaries Program (MEP) modeling. The



entire project area has been identified as a needs area for drinking water well protection as the project area is located within the Zone II to COMM Water supply wells. As a result, the project area was identified as a needs area for nitrogen removal and pond protection and the project was identified in Phase 1 of the CWMP.

Impact of Denial/Postponement: The area would remain unsewered and the Three Bays Watershed and COMM drinking water wells would continue to receive nutrients and pollutants from septic systems.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$1,500,000
	Construction or Acquisition	-	\$10,500,000
	Project Management	-	\$500,000
	Project Contingency	-	\$2,000,000
	All Other Cost	-	\$500,000
	Total Project Cost	-	\$15,000,000

Basis for Cost Estimates: Department of Public Works Estimates

Project Estimated Completion Date: 2029

Design & Permit (months)

Construction (months) 24

30

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	-	-	
2024	-	-	
2025	\$450,000	Preliminary Design (Final Design FY 2026, \$14,550,000 Construction FY 2028)	

Source of Funding: Comprehensive Water Management Fund

Operating Budget Impact now or in future: 0.85 Full Time Equivalent, Grade 8 Operator (FY 2029)



Osterville Woods Sewer Expansion Project

PROJECT: CWM -21

Project Working Title: Long Pond Area Sewer Expansion

Project Location: Long Pond Area, Centerville

Project Description: This project is for construction of sewer expansion to the south of Route 28 around Long Pond in Centerville. It will include gravity sewer, low-pressure sewer, and one or more submersible pump station(s).

Project Justification: Businesses and residences in this area are completely dependent on on-site solutions to address their wastewater, which has had a deleterious effect on Long Pond and the Centerville River. As a result, the project is identified in Phase 1 of the Comprehensive Wastewater Management Plan.

Impact of Denial/Postponement: Homes and businesses will continue to have to rely on on-site wastewater solutions. Long Pond and Centerville River will continue to receive unhealthy levels of nutrients. The Town ultimately may find that it is forced into this work by regulators due to the Centerville River TMDL.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$22,000,000
	Project Management	-	\$1,000,000
	Project Contingency	-	\$4,000,000
	All Other Cost	-	\$1,000,000
	Total Project Cost	-	\$28,000,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2027

Design & Permit (months)

Construction (months) 24

18

Cost/Description FY 2021 and Follow-On Years: **Fiscal Year** Cost **Project Description/Components** 2021 2022 _ _ 2023 _ _ 2024 _ _ 2025 \$28,000,000 **Construction & Construction Management**

Source of Funding: Comprehensive Water Management Fund

Operating Budget Impact now or in future: 1.3 Full Time Equivalent, Grade 8 Operator.





Long Pond Area Sewer Expansion Project

General Fund Projects

Marine & Environmental Affairs General Fund Projects

PROJECT: MEA-21

DEPARTMENT PRIORITY: 3 of 12

Project Working Title: Blish Point Construction for Long Term Solution

Project Location: 307 Millway, Barnstable, MA 02630

Project Description: This project is for design and permitting of a long-term solution to stabilize the coastal bank with stone revetment, if approved by regulators, or other alternative protective armoring.

Project Justification: The unarmored coastal bank has experienced severe erosion on about a 2-year frequency in recent years due to severe storms, extreme high tides, and storm surges. This may be contributing to the recurring need to dredge accumulated sand/sediment from the Barnstable Harbor entrance channel every few years. Over a longer-term life cycle, a hardened revetment, similar to the one on the private side of the same beach is anticipated to be more cost effective and has been a proven approach for protecting Town assets at the Millway Beach parking lot.



Impact of Denial/Postponement: The cycle of erosion, sand

replacement, and erosion will continue, and is expected to worsen due to the predictions of more frequent severe storms and sea level rise. This is costly and eventually the erosion will be severe enough to damage or destroy the observation deck, bathhouse, parking lots, and road.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$300,000	-
	Construction or Acquisition	-	\$2,000,000
	Total Project Cost	-	\$2,000,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2024

Design & Permit (months)

24 **Construction (months)**

6

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	\$300,000	Design & Permitting	
2022	-	-	
2023	\$2,000,000	Construction & Construction Management	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: A permanent solution is expected to reduce O&M costs and substantially reduce repair costs.



Millway Beach

DEPARTMENT PRIORITY: 5 of 12

Project Working Title: Evaluation of Little River Fish Passage Restoration

Project Location: Little River, Cotuit

Project Description: A comprehensive assessment of restoring fish passage in Little River. Little River was historically a vibrant herring run with fish traveling to spawn in Lovells Pond in Cotuit. However, current conditions prohibit the migration of fish into the herring run in multiple locations, most notably at the mouth of the river at Lovells Pond, but also at multiple culverts that have been installed throughout the Natural Resources Department worked system. The with Massachusetts Division of Marine Fisheries (DMF) to perform a 2-year habitat assessment on Lovells Pond to determine if the pond provided favorable spawning habitat and water quality for herring. The results of the assessment were satisfactory despite recent concerns of eutrophication. DMF provided a letter of support and a memorandum summarizing the results of the study. Little River is a major watershed of Cotuit Bay. Restoring this herring run would minimize these limiting issues and rebuild the river's herring population.



Project Justification: The goal of this project is to prepare a comprehensive evaluation of the necessary restoration to improve the ecological health of Little River by enhancing and naturalizing the existing river in the context of the current landscape. The river was once a viable and successful herring run but due to alterations in flow of the river, herring populations no longer exist in this system. American eel have been observed in the system but it is unlikely they are able to make it to Lovells Pond due to the numerous physical obstructions that restrict flow especially during times of low water. Evaluation is the first step in making this system a thriving fish passage again. Understanding restoration requirements will put the Town in position to seek potential future grant funding.

Impact of Denial/Postponement: The system will continue to be deficient for the passage of fish.

Project Cost Estimates:		FY 2021	Future FY
	Eval. & Conceptual Design	\$75,000	-
	Design & Permitting	-	TBD
	Construction or Acquisition	-	TBD
	Total Project Cost	\$75,000	TBD

Basis for Cost Estimates: Public Works Engineering

Project Estimated Completion Date: 2021

Design & Permit (months)

Construction (months)

12

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components		
2021	\$75 <i>,</i> 000	Evaluation and Conceptual Design		
2022	TBD	Design and Permitting		
2023	-	-		
2024	TBD	Construction		

Source of Funding: Capital Trust Fund or other grants may be available for evaluation and construction.

Operating Budget Impact now or in future: None



Little River, Cotuit Herring Run

DEPARTMENT PRIORITY: 6 of 12

Project Working Title: Mill Pond & Long Pond Fish Ways – Construction

Project Location: Mill Pond Adjacent to Route 149 Marstons Mills & Long Pond off Holly Lane, Centerville

Project Description: Rehabilitation work at the Mill Pond site including replacement of the concrete flume, dam and associated access walks and fencing to allow appropriate fish passage. This project also includes construction at the Long Pond site of a permanent control structure and fish way, together with stream bank stabilization.

Project Justification: Alewife and blueback herring are collectively known as "river herring". The two species are very similar in appearance and have been historically harvested and managed jointly. In 2006, river herring were identified by National Marine Fisheries Service (NMFS) as a "Species of Concern" due to drastic declines throughout much of their range. It is critical to provide appropriate fish passage for these species. The current layout for both locations does not achieve these goals and will need to be further designed with a plan approval by the Department of Marine and Fisheries.

Impact of Denial/Postponement: Delay of appropriating construction funding for these projects will result in continuation of the inability of fish to access headwaters and therefore upset the balance of nature in the ponds. This in turn will negatively affect the cultural and economic benefits to be gained.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$725,000
	Project Management	-	\$80,000
	Project Contingency	-	\$145,000
	Total Project Cost	-	\$950,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2024

Design & Permit (months)

6 Construction (months)

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Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components		
2021	-	-		
2022	-	-		
2023	\$950,000	Construction & Construction Management		

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: New construction will minimize the O&M costs that MEA division has been handling to keep this running active. Volunteers also continue to help with these fish runs. The Department of Marine Fisheries will draft an O&M plan for the Town to implement.



Mill Pond Herring Run

Long Pond Herring Run

DEPARTMENT PRIORITY: 7 of 12

Project Working Title: Hyannis Breakwater Evaluation & Preliminary Design

Project Location: Hyannis Harbor

Project Description: Evaluation and preliminary design of the Hyannis Harbor Breakwater, final design, and construction costs will be established after preliminary work.

Project Justification: Support stones have been displaced along the breakwater resulting in gaps in the structure therefore reducing its effectiveness of protecting the harbor. The poor condition of the breakwater is a safety hazard for navigation, and the public who walk upon it. Harbormaster staff, Fire Dept., and other Public Officials have been called to rescue people trapped on the breakwater.

Impact of Denial/Postponement: Postponing study and analysis of the breakwater will allow more deterioration of the breakwater structure. Future storms will reduce the function of the breakwater allowing potential shoreline damage. The safety of the public walking on the breakwater will not be addressed.



Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$157,500
	Project Contingency	-	\$7,785
	All Other Cost	-	\$1,715
	Total Project Cost	-	\$167,000

Basis for Cost Estimates: Department of Public Works Engineering - Comparison with West Bay breakwater design costs from RFP.

Project Estimated Completion Date: TBD

Design & Permit (months)

18 **Construction (months)**

Cost/Description	Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components		
2021	-	-		
2022	\$167,000	Study and Preliminary Design		
2023	TBD	Final design and Permitting		
2024	TBD	Construction and Construction Management		

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: None



Hyannis Breakwater

DEPARTMENT PRIORITY: 8 of 12

Project Working Title: Scudder's Lane Boat Ramp Design & Construction

Project Location: 210 Scudders Ln, Barnstable, MA 02630

Project Description: Remove existing asphalt boat ramp and replace with concrete ramp, add additional storm water structures in the parking area.

Project Justification: The boat ramp is very old and the asphalt is collapsing creating both a safety hazard and restriction on use for the recreational and commercial (shellfish) needs of access to the water.

Impact of Denial/Postponement: Denial of moving forward with this project will result in the need for costly temporary repairs, and as the ramp deteriorates further, could result in closure of the ramp thus restricting access to important commercial shell fishing operations and recreational boating.



Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$150,000
	Construction or Acquisition	-	\$600,000
	Project Management	-	\$10,000
	Project Contingency	-	\$40,000
	Total Project Cost	-	\$800,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2024

Design & Permit (months)

12 **Construction (months)**

6

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components		
2021	-	-		
2022	\$150,000	Design & Permitting		
2023	-	-		
2024	\$650,000	Construction & Construction Management		

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Provision of a new ramp will alleviate the need for continues special repairs.



Scudder's Lane Boat Ramp

DEPARTMENT PRIORITY: 9 of 12

Project Working Title: West Bay Breakwaters – Design and Construction

Project Location: West Bay Osterville

Project Description: A detailed report prepared by Ocean & Coastal Consultants published in March 2014 recommended repairs to reset the armor stones currently displaced and recommended a second layer of armor stones designed to accommodate the 100-year storm be integrated into the existing stone to increase the thickness and "soften" the side slopes of the breakwaters.

Project Justification: Numerous storms, heavy seas, and constant wave action have damaged the breakwaters that protect both sides of the channel entering West Bay from Nantucket Sound. The integrity of the structures is now compromised; the breakwaters have lost stones and have settled. The breakwaters provide for safe navigation in the area and prevent shoaling of the entrance channel.



Impact of Denial/Postponement: If not remedied, the structures will

continue to deteriorate and the shoaling in the inlet will worsen as a result and the channel become non-navigable. Water quality in the bay could become compromised.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$450,000	-
	Construction or Acquisition	-	\$4,900,000
	Total Project Cost	\$450,000	\$4,900,000

Basis for Cost Estimates: Consultant and Department of Public Works Engineering Estimate

Project Estimated Completion Date: 2023

Design & Permit (months)

12

Construction (months) 4

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components		
2021	\$450,000	Project Design & Permitting		
2022	-	-		
2023	\$4,900,000	Project Design, Construction & Project Management		

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Minimal maintenance is required on the breakwaters when functioning properly, and current maintenance costs are far below the costs that the Town would incur to have to dredge the harbor or close the harbor if the channel becomes non-navigable.





West Bay Breakwaters

DEPARTMENT PRIORITY: 10 of 12

Project Working Title: Bay Shore Road Boat Ramp-Design and Construction

Project Location: Bay Shore Road, Hyannis

Project Description: The existing boat ramp will be replaced and the adjacent parking area will be reconstructed with improved stormwater systems. Engineering design plans and environmental permitting will be completed prior to bidding and construction.

Project Justification: The Bay Shore Road boat ramp and associated parking area serve important mooring fields within Hyannis Harbor and are heavily used by the boating population in the neighborhood. The existing asphalt ramp is deteriorated and needs replacement. Stormwater facilities that were improved several years ago will undergo a further upgrade to protect water quality.

Impact of Denial/Postponement: If repairs are not made the ramp will continue to deteriorate and will eventually become unsafe and unusable. A ramp that is poor condition poses a safety hazard and could



prove to be a liability should an accident occur due to the condition of the ramp.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$150,000
	Construction or Acquisition	-	\$500,000
	Project Contingency	-	\$100,000
	Total Project Cost	-	\$750,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2024

Design & Permit (months)

Construction (months) 6

12

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components		
2021	-	-		
2022	-	-		
2023	\$150,000	Design & Permitting		
2024	\$600,000	Construction & Construction Management		

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Normal operating costs for the facility will continue.



Bay Shore Road Boat Ramp

DEPARTMENT PRIORITY: 11 of 12

Project Working Title: Cotuit Town Dock Extension

Project Location: 37 Oyster Place Rd, Cotuit, MA 02635

Project Description: This project would fund the construction required to extend the existing dock at the Cotuit Town Dock. This extension would allow public safety vessel to utilize the dock for emergency response as well as other municipal departments requiring access to Cotuit Bay and Nantucket Sound.

Project Justification: This need has been identified as a deficiency for this area for emergency response.

Impact of Denial/Postponement: Public safety vessels would not be able to dock at this location.



Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	TBD
	Construction or Acquisition	-	TBD
	Total Project Cost	-	TBD

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2022

Design & Permit (months)

18 **Construction (months)**

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Cost Project Description/Components	
2021	-	-	
2022	TBD	Construction & Project Management	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: N/A



Cotuit Town Dock

DEPARTMENT PRIORITY: 12 of 12

Project Working Title: Bridge Street Pier

Project Location: 71 Bridge St, Osterville, MA 02655

Project Description: This project would fund construction of a new pier to be used by local fire department and other emergency entities for marine access to West Bay.

Project Justification: This need has been identified because of the deficiency for emergency response.

Impact of Denial/Postponement: Public safety vessels would not be able to dock at this location and there would be limited emergency access to West Bay.



Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	TBD
	Construction or Acquisition	-	TBD
	Total Project Cost	-	TBD

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2023

Design & Permit (months)

18 **Construction (months)**

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	TBD	Construction & Project Management	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Maintenance would be required for the new municipal pier.



Bridge Street Pier

Community Services General Fund Projects

PROJECT: CSD-21

DEPARTMENT PRIORITY: 1 of 13

Project Working Title: Town Recreation Field Improvements Project – Bay Lane Ballfields

Project Location: Bay Lane, Centerville

Project Description: This year's project will fund improvements to the Bay Lane Ballfields. The project will include: replacement of player benches, installation of spectator seating, repair and tightening of the existing fence, gates, and backstops, installation of a new irrigation well and irrigation system, amend fields growing medium via loam, sand, and organic matter, over seed, install concrete pads, aluminum seating for player benches and spectator areas, amend skinned infield, replace bases as needed. We propose eliminating one of the baseball diamonds and installing a turf multi-use field in its place. The project is broken into two phases. The first phase will rehabilitate the larger ballfield; the second will rehabilitate the smaller field. No parking lot or stormwater improvements are planned for the site at this time.

Project Justification: The current site has no irrigation system, which harms the turf during high use periods. Turf cannot withstand this



amount of traffic without adequate water. The uneven surface of the fields is a safety concern for all users and the current dugouts are also a safety hazard and are deteriorated and non-compliant. The site is currently used for Little League, baseball clinics with members of the Cape League, Centerville Elementary School P.E. and other user groups. The proposed improvements will provide residents of Barnstable a much safer recreational area. It will also provide opportunities for various groups seeking open space venues and other recreational activities. This project is consistent with the recently completed field study report, which focuses on smaller incremental changes to facilities, using principally the Town's labor (with select subcontractors for specialties items like well drilling, fencing, etc.) and requires smaller capital investment per field.

Impact of Denial/Postponement: The field will continue to be a hazard and not properly utilized.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$139,370	\$114,500
	Project Contingency	\$13,937	\$12,000
	All Other Cost	\$1,000	\$1,000
	Total Project Cost	\$154,307	\$127,500

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months) 36

12

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$154,307	Design and rehabilitation of larger field	
2022	\$127,500	Rehabilitation of the smaller field	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: The operating budget will need to increase to cover the increased cost of electricity, water, fertilization, repairing the irrigation system and improved cultural practices to maintain the Town's investment.



Bay Lane Ballfields

PROJECT: CSD-21

DEPARTMENT PRIORITY: 3 of 13

Project Working Title: Centerville Recreation Interior Improvements

Project Location: 524 Main St, Centerville, MA 02632

Project Description: Additional interior work: This project will fund the on-going historic adaptive reuse improvements to the Centerville Community Building and its related systems including:

- Replacement of steam heat, including installation of modulating gas boilers. This item includes work to all steam pipe and radiators/baseboard heaters.
- Corridor white paneling to be removed, original drywall, or plaster to be restored, with new doors installed at the old first floor classroom.
- Ceiling repair work will be done through various spaces. Lighting and concealed wiring work will include new energy efficient light fixtures that reflect the historic character of the building. New kitchen cabinets and counters are to be installed chalkboards will be restored and the interior spaces painted.



Project Justification: The Centerville Community Building is a facility that is heavily used by Recreation Division programs, and the public on a daily basis, with its adjoining playground and play field. It is one of the busiest Town facilities used by our residents and programs. For the past several years, improvements have been made to the interior and exterior of the building and adjoining program areas. Continuing to renovate and maintain this town asset adds to the preservation of a historic town resource. Funding the improvements would alleviate high-energy costs and make a more comfortable facility. Given the heavy use of this facility, the interior needs a significant amount of upkeep and maintenance, which has been deferred for years. Our intention is to bring the building up to standard for safe use by all the citizenry.

Impact of Denial/Postponement: The interior of this building is in poor condition and will continue to decline without much needed maintenance and repair. The building will lose popularity with its users. This building has great historical significance, containing two, albeit in poor condition old school rooms with Coleman murals, which are a valuable historical resource.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$12,584	-
	Construction or Acquisition	\$254,680	\$225,000
	All Other Cost	\$25,168	-
	Total Project Cost	\$292,432	\$225,000

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2023

Design & Permit (months)

3

Construction (months) 6

Cost/Description FY 2021 and Follow-On Years:				
Fiscal Year	Cost	Project Description/Components		
2021	\$292,432	Replace steam heat with new gas modulating boiler, pipe work, and radiators, replace paneling, and restore corridor, doors, chalkboard, and historic paint.		
2022	\$150,000	Replace worn out aluminum windows with new energy efficient historic wood windows. Additional insulation to building. Install new window treatments and blinds.		
2023	\$75,000	Interior wainscoting and trim to be replaced with historically correct trim, additional painting		

Source of Funding: Capital Trust Fund and/or Community Preservation Funding

2021 CIP - Deferred Community Services General Fund Projects

Operating Budget Impact now or in future: Some energy cost savings is expected from boilers that are more efficient.



Centerville Recreation Building

PROJECT: CSD-21

DEPARTMENT PRIORITY: 4 of 13

Project Working Title: Salt Water Beach House Improvements

Project Location: Dowses, Sea Street, Kalmus, Covells, Loops

Project Description: This project will fund improvements to the Town's salt-water beach houses. This multi-year project is a continuation of a beach program to revitalize the town's salt-water beach facilities. FY21 funding for architectural and engineering services finalizes scope and analysis of five beach facility locations.

Project Justification: These buildings have been patched, repaired, and painted, but heavier renovations are now necessary. The beach houses are in need of new fixtures and service systems throughout concerning plumbing, electrical, and airhandling equipment as well as structural: walls, ceilings and floors renovations. It is not solely cosmetic; many of the needs are safety related. In some cases, it is recommended that the structures be demolished and replaced with a new facility.

Priority 1: Beach House design and engineering, emphasis on Dowses Beach improvements.

Priority 2: Dowses Beach

Priority 2: Sea Street Beach

Priority 3: Kalmus Beach

Priority 4: Covell's Beach

Priority 5: Loops Beach

Impact of Denial/Postponement: Continued deferred maintenance of these facilities will contribute to their deterioration. Replacement of worn facilities with new ones will insure the high standard of recreational facilities in our town.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$90,489	\$632,933
	Construction or Acquisition	-	\$6,329,334
	Project Management	\$36,196	\$506,348
	Project Contingency	-	\$632,933
	All Other Cost	\$18,098	\$126,587
	Total Project Cost	\$144,783	\$8,228,135

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: -

Design & Permit (months) 12 Construction (months)

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$144,783	Evaluation & Design	
2022	\$1,176,354	Dowses Beach – New Bathhouse	
2023	\$1,387,107	Sea Street Beach – New Bathhouse	
2024	\$4,296,700	Kalmus Beach – New Bathhouse	
2025	\$1,367,974	Covell's Beach – New Bathhouse	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: With new construction technology, we will realize continued savings in energy and maintenance costs.



Beach House Facilities

PROJECT: CSD-21

DEPARTMENT PRIORITY: 5 of 13

Project Working Title: Adult Community Center Master Plan Development

Project Location: 825 Falmouth Rd, Hyannis, MA 02601

Project Description: This project will fund development of a master plan for the Barnstable Adult Community Center. Possible improvements to the site may include senior housing development, pickle ball court location, Outdoor exercise stations, expanded outdoor recreational space, lawn activity areas, and develop an accessible path and viewing platform at Dunns Pond. Other development options will be discussed and reviewed. Any remaining design funds would be used towards improvements.

Project Justification: The Barnstable Adult Community Center is a heavily used facility that provides services to a large number of citizens. The center continues to receive requests for additional services that the facility currently does not include. The Center is continually striving to meet the needs of its growing constituents.



Impact of Denial/Postponement: The Adult Community Center Site will continue to be underutilized.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$80,000	TBD
	Construction or Acquisition	-	TBD
	Project Management	\$30,000	-
	Total Project Cost	\$110,000	TBD

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2021 Design &

Design & Permit (months) 5

Construction (months) TBD

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$110,000	Study And Schematic Design	
2022	TBD	TBD	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: It is expected that some of the elements contained in the master plan will be fundable through the Community Preservation Act. Portions of the project are fundable with Community Block Development Grant funds.



Adult Community Center Aerial View

2021 CIP - Deferred Community Services General Fund Projects

PROJECT: CSD-21

DEPARTMENT PRIORITY: 6 of 13

Project Working Title: Centerville Recreation Building Site Design & Construction

Project Location: 524 Main St, Centerville, MA 02632

Project Description: The Centerville Recreation Building and playground are heavily used with recreation department activities and citizen groups. The parking area is crowded and under sized. The playground equipment and surfacing needs to be replaced to meet current playground standards.

Project Justification: The existing playground is unsafe by current standards. Parking is inadequate as the building and grounds are heavily used. The existing ball field has deep holes and ruts and is at the end of its useful life. Currently there is no handicapped access to the playground.

Impact of Denial/Postponement: Currently there is no code compliant accessibility path to the playground. This project will install new ADA compliant playground equipment and access, restore the playing fields, and expand the parking lot.



Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$112,896	-
	Construction or Acquisition	-	\$940,800
	Project Management	\$75,264	-
	Project Contingency	-	\$94,080
	Total Project Cost	\$188,160	\$1,034,880

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2022
Design & Permit (months)
6
Construction (months)
8

Cost/Description FY 2021 and Follow-On Years:
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Froject Description/Components
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Source of Funding: Capital Trust Fund and/or Community Preservation Funding

Operating Budget Impact now or in future: N/A



Centerville Recreation Building
PROJECT: CSD-21

DEPARTMENT PRIORITY: 7 of 13

Project Working Title: Hamblin Pond Bathhouse and Site Improvements

Project Location: 415 Route-149, Marstons Mills, MA 02648

Project Description: The project scope includes: (a) demolishing the existing bathhouse and constructing a new, larger bathhouse that meets current building code and accessibility requirements, and addressing recreational programming needs; (b) installing a new pavilion with outdoor showers, picnic tables, benches, landscaping, and associated amenities; (c) restoring beach frontage along the entire shoreline of the property and improving the beach elevation and width; and (d) reconfiguring and paving the parking lot(s), constructing accessible walkway(s) to the beach, repaving the access drive, installing a new gate, improving drainage, stormwater management and erosion controls, and associated infrastructure improvements.

Project Justification: A comparison of historical and current aerial photos shows that the beach at Hamblin Pond is less than half the size it was 50 years ago due to encroaching vegetation. The increasing



frequency of high intensity rainstorms in recent years has caused substantial erosion on the site, creating hazardous ruts, the need for substantially more maintenance, and potential impacts to natural resources. The bathhouse is outdated and is not satisfying programmatic needs. The site lacks accessible facilities, lacks clear delineation of areas where vehicles are offlimits, and lacks additional amenities beachgoers expect to have. The project will address these and other deficiencies to improve public safety, access, and enjoyment of this resident-only freshwater beach.

Impact of Denial/Postponement: The condition of the property will continue to deteriorate, resulting in escalating maintenance costs, reduced utility, and lower public satisfaction.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$210,000	-
	Construction or Acquisition	-	\$1,320,000
	Project Management	\$60,000	\$60,000
	Project Contingency	\$30,000	\$250,000
	Total Project Cost	\$300,000	-

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months)

12

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$300,000	Design & Permitting
2022	\$1,630,000	Construction & Construction Management

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: New infrastructure will be more energy efficient and reductions in some existing types of maintenance (e.g., regrading gravel parking) are expected to offset new types of maintenance (e.g., parking lot restriping).

12





2019 Aerial View



Hamblin Pond

PROJECT: CSD-21

DEPARTMENT PRIORITY: 8 of 13

Project Working Title: Hathaway's Pond Bathhouse and Site Improvements

Project Location: 1431 Phinneys Ln, Barnstable, MA 02630

Project Description: The project scope includes: (a) demolishing the existing bathhouse and constructing a new, larger bathhouse meeting current building code and accessibility requirements, and addressing recreational programming needs; (b) installing a new pavilion with outdoor showers, picnic tables, benches, landscaping, and associated amenities; (c) restoring beach frontage along the entire shoreline of the property and improving the beach elevation and width; and (d) reconfiguring and paving the parking lot(s), constructing accessible walkway(s) to the beach, repaving the access drive, installing a new gate, improving drainage, stormwater management and erosion controls, and associated infrastructure improvements. (e) design and construction of a new playground for two age groups (2 to 5 years) and (5 to 12 years).

Project Justification: A comparison of historical and current aerial



photos shows that the beach at Hamblin Pond is less than half the size it was 20 years ago due to rising water levels. The increasing frequency of high intensity rainstorms in recent years has caused substantial erosion on the site, creating hazardous ruts, the need for substantially more maintenance, and potential impacts to natural resources. The bathhouse is outdated and is not satisfying programmatic needs. The site lacks accessible facilities and additional amenities beachgoers expect to have. The project will address these and other deficiencies to improve public safety, access, and enjoyment of this public freshwater beach.

Impact of Denial/Postponement: The condition of the property will continue to deteriorate, resulting in escalating maintenance costs, reduced utility, and lower public satisfaction.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$300,000	-
	Construction or Acquisition	-	\$2,080,000
	Project Management	\$95,000	\$95,000
	Project Contingency	\$55,000	\$380,000
	Total Project Cost	\$450,000	\$2,555,000

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months) 12

12

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$450,000	Design & Permitting
2022	\$2,555,000	Construction & Construction Management

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: New infrastructure will be more energy efficient and reductions in some existing types of maintenance (e.g., repairing potholes) are expected to offset new types of maintenance.



2001 Aerial View

2019 Aerial View



Hathaway's Pond Bathhouse and Site Improvements

DEPARTMENT PRIORITY: 9 of 13

Project Working Title: Beach Parking Lot Rehabilitation - Craigville Beach

Project Location: 997 Craigville Beach Rd, Centerville, MA 02632

Project Description: Project would include providing a level and overlay of pavement and new line striping for half of the parking lot at Craigville Beach.

Project Justification: The existing pavement has deteriorated such that rehabilitation is necessary. In some places the pavement condition may be difficult or unsafe for some pedestrians. Funding was provided in FY20 for a level and overlay of half of the parking lot. This request is for a level and overlay of the remainder of the parking lot.

Impact of Denial/Postponement: The parking lot will deteriorate further resulting in the need for more complete reconstruction. The facility will not properly serve the thousands of annual visitors to the beach.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$5,000	-
	Construction or Acquisition	\$150,000	-
	Project Management	\$5,000	-
	Project Contingency	\$15,000	-
	All Other Cost	\$5,000	-
	Total Project Cost	\$180,000	-

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2021 Design & Permit (months)

6

Construction (months) 6

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$180,000	Design & Permitting, Construction & Construction Management	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: New infrastructure is expected to reduce maintenance costs.





Craigville Beach Parking Lot

2021 CIP - Deferred Community Services General Fund Projects

PROJECT: CSD-21

DEPARTMENT PRIORITY: 10 of 13

Project Working Title: Osterville Recreation Building Design & Construction

Project Location: 93 1st Ave, Osterville, MA 02655

Project Description: Construction / restoration of new ball field, playground, basketball, field hockey court, multipurpose fields, and construction of a new recreation building.

Project Justification: The existing recreation building and site elements have reached the end of their useful life and are beyond repair. Site and new building plans have been developed through schematic design and approved by the Osterville Civic Association. Funds were appropriated in FY17 for demolition of the Bay School and recreation building. The Bay School building has been demolished and two new tennis courts constructed in its location. This request continues the process of restoring the site and constructing a new facility.

Impact of Denial/Postponement: Expired recreational elements will continue to be unusable. Deterioration of the existing recreation building will continue.



Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$9,069,732
	Project Management	-	\$544,184
	Project Contingency	-	\$325,146
	All Other Cost	-	\$30,000
	Total Project Cost	-	\$9,969,062

Basis for Cost Estimates: In-house and professional estimates

Project Estimated Completion Date: 2025

Design & Permit (months)

8

Construction (months) 18

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	\$9,969,062	Construction	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Additional custodian for cleaning the facility will be required.



Osterville Recreation Building Design

PROJECT: CSD-21

DEPARTMENT PRIORITY: 11 of 13

Project Working Title: Kennedy Memorial Renovation Construction

Project Location: 480 Ocean St, Hyannis, MA 02601

Project Description: This project includes final engineering and construction of the JFK Memorial, based on recommendations from Weston & Sampson. In FY15 funds were appropriated for a designers review and recommendation for the JFK Memorial. Weston & Sampson, in coordination with the engineering department developed an analysis for a new design for the site, which restored important elements and replaced others. The preferred design restores the historic stonewall and bronze seal, replaces the fountain, and introduces granite paver inserts with Kennedy life timeline engravings.

Project Justification: Town of Barnstable owns and operates the John F. Kennedy Memorial Park located at 480 Ocean Street, Hyannis. The park was constructed in 1965 and dedicated on July 8, 1966, to memorialize our 35th President and his association with Cape Cod. The park has been a major tourist destination since its inception, and continues to be



heavily visited. The park is currently in disrepair with aging fountain equipment and poor memorial surface conditions.

Impact of Denial/Postponement: This project has been identified as a priority by the JFK trust fund committee and Town Manager. The pool fountain and associated mechanical equipment is in a state of failure. Delay will result in rapid deterioration and increased costs of repairs.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$50,000
	Construction or Acquisition	-	\$1,580,808
	Project Management	-	\$58,992
	Project Contingency	-	\$158,081
	All Other Cost	-	\$31,000
	Total Project Cost	-	\$1,878,881

Basis for Cost Estimates: Consulting Architect Estimate

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months) 6

6

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	\$1,878,881	Design & Construction

Source of Funding: Capital Trust Fund and/or additional funding may be available through the Community Preservation Committee

Operating Budget Impact now or in future: N/A



Kennedy Memorial Renovation Construction

PROJECT: CSD-21

DEPARTMENT PRIORITY: 12 of 13

Project Working Title: Veterans Park Improvements

Project Location: 480 Ocean St, Hyannis, MA 02601

Project Description: Renovations and improvements to Veterans Park. Improvements include renovations to the existing lifeguard building to add new code compliant toilet facilities and changing rooms. GPI landscape architects spent a year working with the community and town officials to develop schematic designs for the site, which include improvements to parking and traffic flow within the site, the creation, and organization of memorial spaces, concession, seating, and performance spaces while maintaining the character of wooded and picnic areas.

Project Justification: Veterans Park serves as a picnic area for beachgoers, a playground for children, and as a memorial area for reverence and reflection. The Town of Barnstable owns and operates the park and recognizes that a variety of capital improvements and upgrades are required. Significant issues and design elements that



require attention include, pedestrian/auto conflicts, clarification/separation of uses, pedestrian circulation, safe drop-off areas, and emergency/maintenance access. The existing toilet facilities are out dated and are in need of replacement.

Impact of Denial/Postponement: The park will continue to operate in its existing state. Facilities will continue to age and not properly serve the public.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$294,360
	Construction or Acquisition	-	\$2,943,600
	Project Management	-	\$117,744
	Project Contingency	-	\$294,360
	All Other Cost	-	\$10,000
	Total Project Cost	-	\$3,660,064

Basis for Cost Estimates: Consulting Architect & In-House Estimate

Project Estimated Completion Date: 2025

Design & Permit (months)

hs) 12 Const

Construction (months) 12

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	\$334,360	Design	
2024	\$3,325,704	Construction	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: There will be some cost saving by not needing to maintain an existing deteriorated facility.



Veterans Park

2021 CIP - Deferred Community Services General Fund Projects

PROJECT: CSD-21

DEPARTMENT PRIORITY: 13 of 13

Project Working Title: Joshua's Pond Handicap Accessibility and Beach Improvements

Project Location: 290 Tower Hill Rd, Osterville, MA 02655

Project Description: The project will fund design and permitting to construct a handicapped accessible ramp from the parking lot to the beach, stabilize the embankment between the parking lot and the beach, and enhance the beach by increasing its area and elevation with respect to fluctuating water levels.

Project Justification: Some residents have requested a ramp to the beach as access is currently limited to stairs down a steep embankment. In addition, during 2018 the pond level rose several feet higher than normal, submerging the beach, causing the stairs to separate, and creating large cracks in the mortared stone armoring on the embankment. These issues significantly limit recreational use of the beach and recreational programming such as swimming lessons. The ramp and beach improvements will complement improvements to the access drive and parking lot completed in 2017, allowing more utilization and enjoyment of this resident-only freshwater beach.



Impact of Denial/Postponement: Continuing the liability of user groups attempting to use the inadequate infrastructure to traverse onto the beach safely, and the possibility that the beach may have to be closed for public safety due to the compromised slope armoring.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$199,000
	Construction or Acquisition	-	\$1,324,000
	Project Management	-	\$40,000
	All Other Cost	-	\$11,000
	Total Project Cost	-	\$1,727,000

Basis for Cost Estimates: Department of Public Works Cost Estimate and Consultant Estimate

Project Estimated Completion Date: 2024

Design & Permit (months)

12 Construction (months) 12

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$240,000	Design and Permitting	
2023	\$1,487,000	Construction and Construction Management	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: These renovations are not expected to have a measurable impact on the Operating Budget.



Joshua's Pond

Public Works General Fund Projects

PROJECT: DPW-21

DEPARTMENT PRIORITY: 1 of 45

Project Working Title: School Administration Building Mechanical Cooling Upgrades

Project Location: 230 South St, Hyannis, MA 02601

Project Description: Many building systems at the School Administration Building are outdated and in need of improvements. The original funding request was broken into three stages at the request of the finance department in 2018: 1. Life Safety & Emergency mechanical upgrades. 2. HVAC improvements. 3. Emergency Power. Stage 1 elements were funded in FY20 and are in the design phase. Stage 2 elements are part of this request to be funded in FY21. Stage 3 will be requested as part of the FY22 CIP process.

Stage 2:

- Insulate Pipes
- Replace gas hot water heater
- Condensate piping
- Fan coil unit replacement
- Pumps, controls, hvac upgrades
- Power distribution
- Bathroom alterations to meet handicap access requirements.

Stage 3

- Elevator Replacement
- New 250 KE generator that will power the SAB building and Town Hall

Any remaining design funds will be utilized for unforseen items discovered during the design process or subsequent phases.

Project Justification: The Historic Building Study reported significant deficiencies in this building. The exterior restoration work was previously completed utilizing part CIP and CPA funds. Outdated mechanical work remains to be completed for efficiency of operation. With this work, the building will be fully renovated with some limited work remaining for the second floor school department office upgrades.

Impact of Denial/Postponement: The building condition study indicates the need for significant head-end mechanical and accessibility improvements. If left as is, further deterioration will occur with increased scope of mechanical repairs resulting in additional inflation and restoration cost.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	\$1,020,360	\$702,240
	Project Management	\$81,629	\$56,179
	Project Contingency	\$102,036	\$70,224
	All Other Cost	\$11,526	\$10,000
	Total Project Cost	\$1,215,551	\$838,643

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2022

Design & Permit (months)

8 Construction (months) 15

2021 CIP - Deferred Public Works General Fund Projects



Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$1,215,551	Construction Stage 2
2022	\$838,643	Construction Stage 3

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: There is a 5% to 8% energy savings expected from front-end mechanical upgrades.







School Administration Building Mechanical Cooling & Elevator

DEPARTMENT PRIORITY: 2 of 45

Project Working Title: MS4 Municipal Separate Storm Sewer System Program

Project Location: Various

Project Description: This project is intended to continue the program which brings the Town of Barnstable into compliance with the recent EPA National Pollution Discharge Elimination System Phase II Municipal Separate Storm Sewer Systems (MS4) Permit. The previous CIP's (2016-104 & 2019-127) are being used for the following:

- Preparing and submitting a Notice of Intent (NOI), including endangered species and historic preservation documentation. Status: Completed
- Updating the Town's Storm water Management Program (SWMP) Plan to incorporate the requirements of, and the Town's approach to, meeting the final permit. Status: Draft Completed
- Preparing and submitting an Illicit Discharge Detection and Elimination (IDDE) Plan. Status: Draft Completed
- Investigations and surveys to collect additional information on storm water infrastructure as required. Status: In Progress
- Delineating and prioritizing outfall catchments. Status: In Progress

The FY 2021-2025 CIP will include the following:

- Updating the storm system mapping
- Preparing and/or updating Storm water Pollution Prevention Plans (SWPPPs) for select Town facilities including but not limited to:
 - Maintenance Garages
 - Public Works Yards
 - o Transfer Stations
 - \circ $\;$ Other waste handling facilities where pollutants are exposed to storm water
- Preparing Spill Prevention Control and Countermeasure (SPCC) Plans as required
- Assisting in the development of ordinances and regulations to address storm water on new or redeveloped sites
- Develop O&Ms for storm water installations, and facilities as needed.
- Assist in Outfall Sampling/Screening/Inspections as required
- Public Education & Outreach (on-going)
- Other items identified during the original CIP effort.

Additional budget requirements (CIP or Operations) will focus on:

- Projects, identified during the first two CIP efforts, required to bring the Town into compliance with the permit
- Development and funding of Operational Requirements to bring the Town into compliance, such as:
 - Street sweeping (annual)
 - CB Cleaning (>50% full)
 - o Inspect and maintain storm water facilities
 - o Submit annual reports
 - o Etc.
- Outfall Sampling/Screening/Inspections (on-going)
- Public Education & Outreach (on-going)

Project Justification: This is a program that is mandated by the EPA. The Town must comply or is subject to fines

Impact of Denial/Postponement: The Town could face fines from the Environmental Protection Agency

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$120,000	\$680,000
	Project Management	\$30,000	\$120,000
	Total Project Cost	\$150,000	\$800,000

Basis for Cost Estimates: Consultant and Department of Public Works Cost Estimates

2021 CIP - Deferred Public Works General Fund Projects

Project Estimated Completion Date: N/A

Design & Permit (months)

Construction (months)

12

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:				
Fiscal Year	Cost	Project Description/Components			
2021	\$150,000	Continued Plan implementation			
2022	\$200,000	Continued Plan implementation			
2023	\$150,000	Continued Plan implementation			
2024	\$150,000	Continued Plan implementation			
2025	\$150,000	Continued Plan implementation			

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Additional locations for catch basin cleanings and street sweepers would be identified as part of this permit. The current O&M budget would be increased by \$40,000 per year.





Municipal Separate Storm Sewer System (MS4) Reference: Phase II MS4 Permit Improving Central Massachusetts Stormwater Management

DEPARTMENT PRIORITY: 3 of 45

Project Working Title: Department of Public Works Offices Phase III Construction

Project Location: 382 Falmouth Rd, Hyannis, MA 02601

Project Description: This project is for construction of the Administrative and Highway Division managerial offices, employee lockers, showers, and toilet rooms within the current garage area of the existing Administration / Highway building. This project continues renovation and expansion work to meet department space demands.

Project Justification: This project will provide much needed accommodations for our growing female staff, and office space for the administrative staff, which has filled every available slot in the building. With the projected Engineering staff, expansion to address the work on the Wastewater Management Plan additional space is required.

Impact of Denial/Postponement: The DPW feasibility study has shown that greater efficiency will be realized through consolidation of the Administrative and Highway offices at this site. Once the work is



completed, the remaining staff trailer will then be demolished. Decreased operational and utility costs will be realized by elimination of the last trailer with the renovation.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$193,730	-
	Construction or Acquisition	\$1,937,300	-
	Project Management	\$154,983	-
	Project Contingency	\$193,730	-
	All Other Cost	\$57,300	-
	Total Project Cost	\$2,537,043	-

Basis for Cost Estimates: Department of Public Works In-house estimate

Project Estimated Completion Date: 2023

Design & Permit (months)

6 **Construction (months)** 6

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$2,537,043	Construction

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Phase III should have a negligible impact on the Operating Budget. Utility costs for the new spaces will be offset by elimination of the utilities on the existing, inefficient, temporary trailers that currently house employees.



Department of Public Works Headquarters

Project Working Title: Town Hall Mechanical Improvements

Project Location: 367 Main St, Hyannis, MA 02601

Project Description: Mechanical heating, air-conditioning, makeup air, fire suppression, and interior renovation work at the Barnstable Town hall.

The Scope includes:

- Install 116 induction coil units
- Install new air cooled chiller
- New boiler connection
- New hot, chilled water pumps
- New boiler pumps
- New duct work
- New HVAC contols
- New conditioned makup air system
- Floor by floor asbestos abatement
- New interior room layouts as applicable
- New suspended ceiling system
- New lighting system
 Structural modifications to the underground coal bin

Structural modifications to the underground coal bin **Project Justification:** In FY16 funding was approved to replace the existing steam heating system, at Town Hall, with a hot water based heating system. Review of mechanical systems revealed the need for multiple systems upgrades throughout the building. Heating, air-conditioning, hot water, and makeup air systems all require replacing. This work was beyond the scope of the FY16 funding request. The Department Of Public Works hired GGD Consulting Engineers to complete a mechanical system economic analysis for the building. The life cycle analysis determined that an induction unit system represented the most cost effective solution.

In addition, space planning of office areas revealed extensive asbestos related issues at various locations throughout the building that would be affected multiple times by a limited mechanical upgrade program. Multiple small projects would displace occupants multiple times and require repeated removal and abatement of building elements.

This proposal will replace existing heating, air-conditioning, and makeup air systems with a new chilled/hot water induction unit system, which will resolve all building mechanical issues at once. The induction unit system will use chilled and hot water pipes to warm or cool room air while supplying fresh air to all spaces. Each room will control its own temperature.

The Town Hall heating and air-conditioning system is at the end of its useful life and is in need of full replacement. Unconditioned moist air is currently brought in from the outside untreated, and distributed into the occupied areas. This moist air condenses on poorly insulated cool piping and creates moisture and mold issues within the building. The moisture increases condensation, overloading condensate drains allowing water to drip, creating marks on ceiling tiles and providing an environment for mold growth. The current makeup air system does not meet today's air quality standards. This has resulted in saturated pipe insulation, which is growing mold. Presently, heavy mechanical equipment currently sits over the old underground coal bin, which was temporarily shored during existing equipment installation. Areas under the new cooling equipment will need to be permanently supported. Coal bin structural concerns were raised in the historic building assessment.

Impact of Denial/Postponement: The building condition study indicates the need for significant head-end mechanical improvements. If left as is, further deterioration will occur with increased scope of mechanical repairs resulting in additional inflation, restoration cost, and downtime.

Sandwich Shores Sandy Neck Beach Pars

DEPARTMENT PRIORITY: 4 of 45

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$440,439	-
	Construction or Acquisition	\$4,404,393	-
	Project Management	\$220,219	-
	Project Contingency	\$440,439	-
	All Other Cost	\$132,300	-
	Total Project Cost	\$5,637,790	-

Basis for Cost Estimates: Engineer assisted / Department of Public Works Cost Estimate

Project Estimated Completion Date: 2021	Design & Permit (months)	8	Construction (months)	10

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$5,637,790	Design And Construction

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: An induction unit system represents the most cost effective system studied by yielding an approximate \$119,814 in energy savings over a 30-year period. There will also be savings due to reduced emergency repair costs.











Town Hall Mechanical and Interior

2021 CIP - Deferred Public Works General Fund Projects

Project Working Title: Town Hall Security Implementation

Project Location: 367 Main St, Hyannis, MA 02601

Project Description: Phased implementation of the recommendations contained within the Internal Security Evaluation. The FY21 work includes:

- Upgrade exterior protection of the Town Hall building and exterior gas valves.
- Secure the half-moon walking path from vehicular access.
- Install metal detector at the main entrance
- Install a CCTV system to monitor the internal and external sides of all entrances
- Other related security measures.

Project Justification: FY15 Town Council approved a CIP to evaluate the security risks in Town Hall. During initial project meetings between Town leaders, the Barnstable Police Department (BPD), the Department

of Public Works (DPW) it was decided that the actual evaluation could be handled internally, and the monies in that CIP should be used for implementation of identified security measures. The evaluation has been completed, and the FY15 money was used for the FY17 portion implementation plan.

Impact of Denial/Postponement: The Town will still face the same risks, but without thoughtful proactive measures in place to mitigate those risks, it is vulnerable to a potentially horrible, preventable, outcome.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$29,304	-
	Construction or Acquisition	\$244,200	-
	Project Management	\$19,536	-
	Project Contingency	\$24,420	-
	All Other Cost	\$20,000	-
	Total Project Cost	\$337,460	-

Basis for Cost Estimates: In-house estimate

Project Estimated Completion Date: 2022

Design & Permit (months)

 Cost/Description FY 2021 and Follow-On Years:

 Fiscal Year
 Cost
 Project Description/Components

 2021
 \$337,460
 FY21 Town Hall Security Implementation

 2022
 TBD
 Future Town Hall Security Implementation Requirements

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: This project requires the hire of one security position in FY23



Construction (months)

DEPARTMENT PRIORITY: 5 of 45

12







Town Hall Exterior and Interior

2021 CIP - Deferred Public Works General Fund Projects

DEPARTMENT PRIORITY: 6 of 45

Project Working Title: Marstons Mills School Demolition

Project Location: 2095 Main St, Marstons Mills, MA 02648

Project Description: Demolition of the structures on the Marstons Mills School property is scheduled to be completed in two phases. Phase one, which was funded in FY19, will demolish the modular units attached to the main school building including the removal of all hazardous material and utilities. Phase one also includes hazardous materials surveying of the main school building and removal of asbestos that is not required to keep the building weather tight. This funding request will fund the abatement of all remaining hazardous materials, engineering, bidding, and demolition of the main school building, and loaming and seeding the project site upon removal of the building.

Project Justification: The former elementary school was closed in 2009 by the Barnstable Public Schools during a major reconfiguration of the schools districts. It was used for two years as a storage facility to support the surplus school furniture from the closure of four facilities



across the district. During that time the school was heated and kept clean to avoid deterioration. Twice the facility, and its accompanying land, was advertised for lease by the school department to no avail. In 2012, the school committee declared the building surplus to their needs and transferred it to the Town Manager's control. The Town then tried to lease the space, also to no avail. It has now been decided that the best course of action is to demolish the structures on the property, and perform basic site restoration (loam and seed), in preparation for to be determined future use.

Impact of Denial/Postponement: The structures will continue to deteriorate, be un-occupyable, and render the remainder of the property unusable. At some point, the Town will have to address these issues, or risk the structures collapsing and becoming a public safety issue.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$108,500	-
	Construction or Acquisition	\$723,330	-
	Project Management	\$50,633	-
	Project Contingency	\$72,333	-
	All Other Cost	\$40,300	-
	Total Project Cost	\$995,096	-

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months) 6

6

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Fiscal Year Cost Project Description/Components	
2021	\$995,096	Demolition, loam and seed for site rstoration

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: N/A



Marston Mills Elementary School (Closed in 2010) to be demolished

DEPARTMENT PRIORITY: 10 of 45

Project Working Title: Hyannis Main Street West End Rotary Study Design and Construction

Project Location: At the west end of Main Street, intersection with Scudder Lane, North Street and West Main Street and Main and South Streets up to Sea Street.

Project Description: A comprehensive review of vehicle, pedestrian and bicycle needs for this important "gateway" to Hyannis. Of particular concern is the lack of pedestrian access around the rotary and proper property access in its vicinity. All potential improvements will be considered including the possibility of a reconfiguration to include a modern roundabout. Storm water improvements and review of existing utilities will also be addressed.

Project Justification: Connecting pedestrian facilities from Main Street to West Main Street and North Street is non-existent. Important receptors including schools, open space and business uses will benefit from pedestrian access. In 2018, DPW Engineering developed a contract to mill and overlay improving the aesthetics of this location. However, it does not address any of the concerns noted above.



Impact of Denial/Postponement: Lack of progress on this project will result in perpetuating unsafe conditions for pedestrians and cyclists. Vehicle movement will also be hampered especially during the summer season. Water quality in adjacent pond receiving waters will continue to deteriorate.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$250,000	-
	Construction or Acquisition	-	\$1,800,000
	Project Management	-	\$200,000
	Project Contingency	-	\$400,000
	All Other Cost	-	\$100,000
	Total Project Cost	\$250,000	\$2,500,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2024

Design & Permit (months)

12 Constru

Construction (months) 12

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	\$250,000	Design & Permitting	
2022	-	-	
2023	\$2,500,000	Construction & Construction Management	

Source of Funding: Capital Trust Fund and/or Chapter 90 Funding

Operating Budget Impact now or in future: Required regular maintenance by DPW Highway Division will continue. Cost savings will result in less heavy maintenance for pot hole repair and drainage structure repair for the expected life of the project (20 years). The design could yield a requirement for O&M of decorative lighting.





Hyannis Main Street West End Rotary

2021 CIP - Deferred Public Works General Fund Projects

Project Working Title: Oyster Harbors Bridge Study

Project Location: Bridge Street at North Bay, Osterville

Project Description: Prepare a feasibility study to evaluate potential bridge replacements.

Project Justification: The existing Oyster Harbors Bridge was constructed in 1946 and is approaching the end of its useful life. This study will evaluate bridge replacement options and be developed in conjunction with the Town Councilor and a citizen team from Osterville. It will make recommendations on best approach and timing moving forward.

Impact of Denial/Postponement: This type of study is the normal first step in undertaking a very large infrastructure project of this nature. Without the study, the Town will not be well positioned to discuss options and gather input from residents and Town leaders, to apply for grant funding, or to commence design and permitting.

Project Cost Estimates:		FY 2021	Future FY
	Study	\$200,000	TBD
	Total Project Cost	\$200,000	TBD

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2022

Study	(months)
Sluuy	(IIIOIILIIS)

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24 Construction (months)
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Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components		
2021	\$200,000	Study		
2022	-	-		
2023	-	-		
2024	-	-		
2025	TBD	-		

Source of Funding: Capital Trust Fund, but the Town may seek grant funding, although often a study may not be eligible.

Operating Budget Impact now or in future: None

2021 CIP - Deferred Public Works General Fund Projects





Oyster Harbors Bridge

DEPARTMENT PRIORITY: 13 of 45

Project Working Title: Old Town Hall - JFK Museum Improvements

Project Location: 397 Main St, Hyannis, MA 02601

Project Description: This project implements the facility management study completed October 15, 2018. Improvements as outlined in the facility management plan include, replacement of fan coil units, elevator controls, plumbing and electrical upgrades, fire alarm upgrades, exterior lighting, and roof repairs / replacement, and other needed building improvements.

Project Justification: The Town Of Barnstable constructed the building in 1926 as the Barnstable Town Hall and served that use for decades. The building currently houses the John F Kennedy Museum, which sees over 50,000 visitors per year. Installed in 2002 the fan coil units that heat and cool the Old Town Hall have exceeded their useful life. Although currently operating, replacement parts for these units are no longer available. The facility management study identified additional elements of the building that need to be addressed. FY21 funds will



allow for the design of replacement systems and elements. FY22 funds will allow the installation of the systems.

Impact of Denial/Postponement: Mechanical systems will continue to be inefficient. Repair parts are becoming increasingly rare. The units will eventually not be repairable. This building houses the JFK Museum. This is a highly used building by the public with 60,000 visitors each year.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$119,415	-
	Construction or Acquisition	-	\$1,194,148
	Project Management	\$50,000	\$69,415
	Project Contingency	-	\$119,415
	All Other Cost	\$80,000	-
	Total Project Cost	\$249,415	\$1,382,978

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2021

Design & Permit (months)

8 **Construction (months)**

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year Cost Project Description/Components			
2021	\$249,415	Design	
2022	\$1,382,978	Construction	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: There will be an energy efficiency cost savings of \$1,000 per year.

4



Old Town Hall - JFK Museum

DEPARTMENT PRIORITY: 14 of 45

Project Working Title: Culvert Improvements

Project Location: Falcon Road - W. Barnstable, Parker Road - Osterville, South County Road - Osterville & Route 149 - Marston Other culverts may be substituted if necessary due to accelerated deterioration rates, unexpected damages, Mills. opportunities to address certain culverts with other funding, or other factors.

Project Description: Design, permitting and construction of improvements to various existing culverts in need of repair throughout the Town of Barnstable.

Project Justification: After receipt of multiple complaints, inspection by DPW Staff, as well as temporary repairs by DPW personnel, the culverts listed are in a state of failure and need to be renovated to be brought to current design and safety standards. Renovations will vary at each project location.

Impact of Denial/Postponement: Failure to repair the listed culverts will result in further deterioration of the culverts, potentially resulting in un-passable roads and flooding. They will become a safety risk to residents and visitors of the Town of Barnstable.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$75,000	-
	Construction or Acquisition	\$330,000	-
	Project Management	\$15,000	-
	Project Contingency	\$30,000	-
	Total Project Cost	\$450,000	-

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2022

Design & Permit (months) 10 Construction (months)

6

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	\$450,000	Design, Permitting & Construction	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Failure to repair will result in continued temporary repairs by DPW staff and potential for emergency repairs.



Culvert Improvements Needed

DEPARTMENT PRIORITY: 16 of 45

Project Working Title: Mosswood Cemetery Building Improvements

Project Location: 280 Putnam Ave, Cotuit, MA 02635

Project Description: Renovation to the present Mosswood Office for the purpose of providing ADA accessibility and restroom facilities.

Project Justification: Mosswood, our largest cemetery, has one inadequate restroom that is used by employees, visitors, and mourners while they conduct business at the office and attend burial services. The renovation would provide a new toilet that will be handicapped accessible, and provide public handicap access to the building. In order to renovate, modifications to the front entrance will be required. A small addition to the side of the building will accomplish this.

Impact of Denial/Postponement: We will continue to not have an accessible public restroom or acceptable access to the building. Customers and residents will continue to be inconvenienced by the existing conditions. There will be continued use of inadequate facilities by our employees.



Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$27,581	-
	Construction or Acquisition	-	\$229,840
	Project Management	\$18,387	-
	Project Contingency	-	\$22,984
	All Other Cost	\$18,300	-
	Total Project Cost	\$64,268	\$252,824

Basis for Cost Estimates: Department of Public Works In-house Cost Estimate

Project Estimated Completion Date: 2021

Design & Permit (months)

4 **Construction (months)** 8

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$64,288	Design
2022	\$252,824	Construction

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: There will be some minor increase in utility costs associated with the addition, estimated at \$800 per year.










Mosswood Cemetery Building

DEPARTMENT PRIORITY: 17 of 45

Project Working Title: Parking Lots Maintenance

Project Location: Various Town Parking Lots

Project Description: This CIP would allow funding for an evaluation of the existing municipal parking lots condition, and prioritize repairs based on need. It would additionally develop a recurring, annual budget, for refurbishing said parking lots.

Project Justification: The Town has 54 parking lots that the DPW maintains. The DPW addresses small maintenance type items, but does not have the budgets for larger issues such as resurfacing, significant drainage reconstruction, rebuilding, etc. This request is intended to start an annual program, much like the public roads program, that allows the department to address these larger work items in a systematic way.

Impact of Denial/Postponement: Denial of the project will result in unresolved safety concerns (i.e. tripping hazards, unsafe traffic flows due to illegible pavement markings, etc.) for residents and visitors utilizing these deteriorating parking lots. Currently, the parking lots are only addressed to this level of maintenance on a project by project basis, and generally only once the parking lot has significantly deteriorated.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$60,000	\$240,000
	Construction or Acquisition	\$350,000	\$1,400,000
	Project Management	\$30,000	\$120,000
	Project Contingency	\$60,000	\$240,000
	Total Project Cost	\$500,000	\$500,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: N/A

Design & Permit (months)

Construction (months)

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components		
2021	\$500,000	Design & Construction		
2022	\$500,000	Design & Construction		
2023	\$500,000	Design & Construction		
2024	\$500,000	Design & Construction		
2025	\$500,000	Design & Construction		

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: None



Various Town Parking Lots

2021 CIP - Deferred Public Works General Fund Projects

PROJECT: DPW-21

Project Working Title: Cape Cod Airfield Hangar Repair

Project Location: 1000 Race Lane West Barnstable, MA 02668

Project Description: This project would fund needed structural, exterior, and hangar door repairs to the 1920 hangar building. Work will include repair / replacement of the metal roof and siding, cleaning, repair, and painting of interior corroded structural steel, and repair of the existing partially failed hangar door. These funds would provide for design, renovation and construction.

Project Justification: Originally constructed in 1920, the hangar building has been used extensively for 96 years. Roof leaks have caused structural deterioration of columns and metal roof trusses. Metal roof and siding panels are deteriorated and in some cases missing. A structural assessment of the building was conducted in 2008. The assessment revealed extensive deterioration of structural elements along with additional issues. Temporary repairs and patching will no longer protect the building contents. CPA Funds were sought in 2008

longer protect the building contents. CPA Funds were sought in 2008 but not granted due to the age of the building not being 100 years old thus not considered historic. An adjacent hangar similar to this building was destroyed during Hurricane Bob in 1991.

Impact of Denial/Postponement: Continued deferred maintenance of this facility will contribute to its inevitable loss.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$29,517	-
	Construction or Acquisition	\$245,971	-
	Project Management	\$19,678	-
	Project Contingency	\$24,597	-
	All Other Cost	\$12,599	-
	Total Project Cost	\$332,362	-

Basis for Cost Estimates: Architect assisted In-house Estimate

Project Estimated Completion Date: 2021Design & Permit (months)6Construction (months)8

Cost/Description FY 2021 and Follow-On Years:				
Fiscal Year	Fiscal Year Cost Project Description/Components			
2021	\$332,362	Design and Construction / Repair		

Source of Funding: Capital Trust Fund and/or Community Preservation Funds

Operating Budget Impact now or in future: These renovations are not expected to have a measurable impact on the Operating Budget.



DEPARTMENT PRIORITY: 18 of 45



Cape Cod Airfield Hangar

DEPARTMENT PRIORITY: 19 of 45

Project Working Title: Cape Cod Rail Trail Ext. Shared Use Path from Yarmouth Town Line to Sandwich Town Line – Design

Project Location: CCRT Phase 3 (Old Town House Road in Yarmouth to a parking lot adjacent Mary Dunn Road in Barnstable) is currently being designed and is scheduled for construction starting in 2022. CCRT Phase 4 (Mary Dunn Road to Sandwich Town Line) is in preliminary planning and its alignment and construction timeframe are To Be Determined.

Project Description: The Town is responsible for design and permitting, property/easement acquisitions, and non-participating items. The project provides a budget for the Town to continue this effort. MassDOT is responsible for construction.

Project Justification: The Town is responsible for design and permitting, property/easement acquisitions, and non-participating items. MassDOT is responsible for construction. Phase 3 design, permitting, and acquisitions have been funded from Community Preservation funds, as has the Phase 4 study of route alternatives. Design, permitting, and acquisition for Phase 4 is anticipated to cost about \$2,500,000 over several years; at this time Town funding is the anticipated source.

Impact of Denial/Postponement: The regionally important expansion of the major shared use path connection on Cape Cod will be delayed, thereby affecting the overall economic growth of the region. Off-road paths for bicycle and other non–vehicular users are a major attraction to visitors and residents alike and this link is essential to the "vision" of connectivity.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$275,000	\$1,000,000
	Construction or Acquisition	-	\$1,000,000
	Project Contingency	-	\$250,000
	Total Project Cost	\$275,000	\$2,250,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date:2023 (PhaseDesign & Permit (months)24Construction (months)363), TBD (Phase 4)

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components		
2021	\$275,000	Design & Permitting		
2022	\$750,000	Design & Permitting, Acquisition		
2023	\$500,000	Design & Permitting, Acquisition		
2024	\$500,000	Design & Permitting, Acquisition		
2025	\$500,000	Design & Permitting, Acquisition, Contingency		

Source of Funding: We anticipate seeking MassDOT funding, Community Preservation funding, and grant funding.

Operating Budget Impact now or in future: It has been the standard practice for the Mass. Division of Conservation and Recreation to be responsible for the maintenance of completed shared use paths, however there may be some incidental maintenance activity increase in areas connected to the facility.



Cape Cod Rail Trail Ext. Shared Use Path from Yarmouth Town Line to Sandwich Town Line

DEPARTMENT PRIORITY: 20 of 45

Project Working Title: Zion Union Heritage Museum Improvements

Project Location: 296 North St, Hyannis, MA 02601

Project Description: The Town of Barnstable purchased the Zion Union Heritage Museum in 2007. Recently the community preservation committee was approached for preservation funding to repair sheetrock, repair egress stairs, improves handicapped access, restore, / replace windows and siding, replace gutters, improve life/safety items. Although some of these elements are eligible for CPC funding, others are not, and are included in this CIP request.

Project Justification: Elements of the 110 year old structure are worn and beyond their useful life. Handicap access does not meet modern day requirements. Egress stairs were recently reconstructed by the Structures and Grounds division as they were impassable. Extensive repairs, restoration, and upgrades are required.

Impact of Denial/Postponement: The building will continue with compromised security.



Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$38,916	-
	Construction or Acquisition	\$324,300	-
	Project Management	\$25,944	-
	Project Contingency	\$32,430	-
	All Other Cost	\$35,800	-
	Total Project Cost	\$457,390	-

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2021

Design & Permit (months)

4 **Construction (months)** 6

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost Project Description/Components	
2021	\$457,390	Design and Construction

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: This project relocates and upgrades an existing space within the building. Staffing will remain the same.



Zion Union Heritage Museum

Project Working Title: U.S. Custom House Interior Work

Project Location: 2252 Main St, Barnstable, MA 02668

Project Description: This project would fund needed interior repairs for finishes, HVAC systems, and lighting.

Project Justification: Erected in 1856 the building has been patched, repaired and painted but heavier renovations are now necessary. Handicap access, handicap accessible toilets, and interior finishes need to be addressed.

Impact of Denial/Postponement: Continued deferred repair of the interior of this facility will contribute to its deterioration, and could ultimately result in a increase in repair costs, or require the replacement of existing building items in the future while limiting the public's use of the building.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$30,814
	Construction or Acquisition	-	\$308,143
	Project Management	-	\$15,407
	Project Contingency	-	\$30,814
	All Other Cost	-	\$8,000
	Total Project Cost	-	\$393,178

Basis for Cost Estimates: Architect assisted in-house estimate

Project Estimated Completion Date: 2023 Design

Design & Permit (months)

Construction (months) 10

6

Cost/Description FY 2021 and Follow-On Years:				
Fiscal Year	Fiscal Year Cost Project Description/Components			
2021	-	-		
2022	\$393,178	Interior design and restoration		

Source of Funding: Capital Trust Fund and/or Possible CPC funds & state grant funds for construction.

Operating Budget Impact now or in future: This work will result in some reduction in maintenance requirements, but should not have a significant impact on the Operating Budgets.



DEPARTMENT PRIORITY: 22 of 45







U.S. Custom House

2021 CIP - Deferred Public Works General Fund Projects

PROJECT: DPW-21

Project Working Title: Sidewalk Installation: East Bay Road

Project Location: Intersection of East Bay Rd and Bates Rd to intersection of East Bay Road and Wianno Ave

Project Description: Installation of new sidewalks from the end of the existing sidewalk that connect to Main Street the entire length to the intersection of Wianno Ave.

Project Justification: The Osterville Village Association citizens have requested a pedestrian sidewalk for safe pedestrian access from Wianno Ave to Main Street.

Impact of Denial/Postponement: Denial of the project will result in a lack of sidewalks for pedestrians along these routes, which will adversely affect pedestrian safety and access.



Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2023

Design & Permit (months)

12

Construction (months) 12

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components		
2021	\$100,000	Planning & Design		
2022	-	-		
2023	\$610,000	Construction		

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: This project will increase the Town's sidewalk maintenance costs by an estimated \$3,000 per year for snow clearing, sweeping, brush clearing, and pavement maintenance and repairs.



DEPARTMENT PRIORITY: 23 of 45



East Bay Road

DEPARTMENT PRIORITY: 24 of 45

Project Working Title: Guyer Barn Facility Management Plan Implementation

Project Location: 250 South Street, Hyannis, MA 02601

Project Description: This project implements the recommendations from the facility management study that was completed in October 15, 2018. The Town Of Barnstable purchased the property in 1959 and in1986 the Board of Selectmen unanimously approved the Guyer Barn as its present use as an art gallery. Emergency lighting, Interior wall finishes, water heater replacement, exit lighting, exterior lighting, and historic window restoration are scheduled to be completed at this time. Some of these items are required to meet life safety requirements.

Project Justification: The Guyer Barn is currently utilized as a year round community art space for established and emerging artists. This space is used for visual and performing arts experiences providing support for the arts and culture program. It is the hub of the pearl street arts and culture complex. This 156 year old structure requires on-going restoration and improvements to preserve its historical significance and continued use for the arts program.



Impact of Denial/Postponement: Life safety improvements will be differed. Building and site elements will continue to deteriorate due to deferred improvements resulting in greater future costs.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$17,464	-
	Construction or Acquisition	\$87,318	-
	Project Management	\$17,464	-
	Project Contingency	\$8,732	-
	All Other Cost	\$10,000	-
	Total Project Cost	\$140,978	-

Basis for Cost Estimates: EMG Facilities Condition Assessment

Project Estimated Completion Date: 2021Design & Permit (months)6Construction (months)6

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$140,978	Design and Construction

Source of Funding: Capital Trust Fund and it is estimated that \$93,226 is eligible for Community Preservation Funding.

Operating Budget Impact now or in future: Minimal energy savings with new water heater and restored windows.



Guyer Barn

DEPARTMENT PRIORITY: 25 of 45

Project Working Title: 50 Pearl Street Facility Management Plan Implementation

Project Location: 50 Pearl Street, Hyannis, MA 02601

Project Description: This project implements recommendations from the facility management study that was completed in October 15, 2018. FY21 improvements are limited to exterior envelope and mechanical improvements as outlined in the facility management plan, and include basement wall leak repairs, exterior shingle replacement and other exterior work, exterior door restoration / replacement, plumbing fixture replacement, water heater replacement, electric distribution system upgrade, fire alarm system repairs. FY22 improvements include Interior wall, ceiling, and floor finishes, signage, lighting work.

Project Justification: The building at 50 Pearl Street is currently utilized as an art gallery and work space for established and emerging artists. The facility provides individual spaces for multiple artists to display and sell their work. This building is the only dedicated art gallery in the art complex. This building provides a vital role in the success of the arts



and culture program. The 189 year old structure is open to the public and needs to meet public safety requirements.

Impact of Denial/Postponement: Life safety improvements will be differed. Building and site elements will continue to deteriorate due to deferred improvements resulting in greater future costs.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$18,586	\$9 <i>,</i> 475
	Construction or Acquisition	\$154,885	\$78,960
	Project Management	\$15,488	\$7,896
	Project Contingency	\$15,488	\$7,896
	Total Project Cost	\$204,447	\$104,227

Basis for Cost Estimates: EMG Facilities Condition Assessment

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months) 8

8

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$204,447	Design and Construction
2022	\$104,227	Design and Construction

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Minimal energy savings with new water heater.







50 Pearl Street

DEPARTMENT PRIORITY: 26 of 45

Project Working Title: 46 Pearl Street Facility Management Plan Implementation

Project Location: 46 Pearl Street, Hyannis, MA 02601

Project Description: This project implements recommendation from the facility management study completed October 15, 2018. The facility condition assessment and twenty year replacement reserves report is attached. The Town of Barnstable purchased the property in 2007, and it must be maintained as affordable housing and must carry as an asset on the books. FY21 improvements include window replacement, exterior door repair / replacement, roof replacement, rear deck replacement. Future funds will be required to upgrade interior elements.

Project Justification: The building at 46 Pearl Street is currently utilized as an artist residence and work space for resident artists. The facility is dedicated to promoting the arts in Barnstable. As such, it provides housing and art spaces for artists. This building provides a vital role in the success of the arts and culture program.



Impact of Denial/Postponement: Building and site elements will continue to deteriorate due to deferred improvements resulting in greater future costs.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$18,672	\$6,808
	Construction or Acquisition	\$124,479	\$45,388
	Project Management	\$18,672	\$6,808
	Project Contingency	\$12,448	\$4,539
	All Other Cost	\$1,000	\$1,000
	Total Project Cost	\$175,271	\$64,543

Basis for Cost Estimates: EMG Facilities Condition Assessment

Project Estimated Completion Date: 2022 Design & Permit (months) 8 Construction (months) 8

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$175,271	Design and Construction
2022	\$64,543	Design and Construction

Source of Funding: Capital Trust Fund and it is estimated that \$123,856 is eligible for Community Preservation Funding

Operating Budget Impact now or in future: This project relocates and upgrades an existing space within the building. Staffing will remain the same.





46 Pearl Street

DEPARTMENT PRIORITY: 27 of 45

Project Working Title: Cotuit Memorial Park Restoration

Project Location: 871 Main St, Cotuit, MA 02635

Project Description: This project will fund the design and restoration of the existing Park. Work will include the installation of new brick walks, relocation of one war memorial, installation of a new flagpole, tree replacements, benches, landscaping. This project will correct handicapped accessibility issues and replace decaying Norway maple trees.

Project Justification: The Cotuit Memorial park is the focal point for the village connecting the library, waterfront, playground, and post office. It provides support for local events including the artisan fair, village day, craft festivals, and non-profit fund raising activities. The Cotuit Civic Association has requested the rejuvenation of the park and has worked with the Town Architect and Grounds division to develop preliminary designs for the enhancement of the site. These plans will improve pedestrian accessibility by bringing non-conforming walks into



compliance with ADA, as well as replacing park benches, deteriorated flag pole, diseased trees, and asphalt walks. This work will decrease the amount of maintenance currently required to maintain the park as well as allow expanded use. Broken into two phases the first phase will address the flagpole, monument, access to the library stairs, street access walk, and limited tree work near Main Street. The second phase, which will be submitted in FY22, will complete regrading and rerouting of the walkway to make the park accessible from School Street, as well as address tree and grounds issues.

Impact of Denial/Postponement: The condition of the park and trees will continue to decline. The asphalt walkways will continue to be displaced by tree roots and settling. The use of the park will continue to be limited.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$17,335	\$17,970
	Construction or Acquisition	\$144,459	\$149,751
	Project Management	\$11,557	\$11,980
	Project Contingency	\$14,446	\$14,975
	Total Project Cost	\$187,797	\$194,676

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2021

Design & Permit (months)

6 **Construction (months)**

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$187,797	Design & Construction – Phase I
2022	\$194,676	Design & Construction – Phase II

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Any savings will be offset by new maintenance costs.

4





Cotuit Village Green

Project Working Title: Burgess Barn Interior

Project Location: 559 Route-149, Marstons Mills, MA 02648

Project Description: This project would fund interior renovations and stabilization of the building interior and access improvements to the Burgess Barn. The work would include floor construction, mechanical, electrical, thermal insulation, interior restoration, and installation of new ADA toilet facilities.

Project Justification: Erected in the late 1700's, the building was and is in a state of significant disrepair and in danger of being lost. CPA funding was approved in FY14 to fund extensive preservation of the exterior of the building. Windows and doors have been restored and new siding has been installed. The roof was replaced in 2016. Additional funding would allow the building to become usable by adding ADA access, toilet, and storage facilities. The Marstons Mills Village Association that utilizes the Burgess House envisions use of the barn for larger meetings and events. The building would also provide

accessible toilet facilities for the property. Without additional funding, the building will remain suitable for cold storage only and underutilized.

Impact of Denial/Postponement: Continued deferred renovation of this building will continue its non-use resulting in deterioration of work previously funded by the Community Preservation Board.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$31,122
	Construction or Acquisition	-	\$311,220
	Project Management	-	\$24,898
	Project Contingency	-	\$31,122
	Total Project Cost	-	\$398,362

Basis for Cost Estimates: Architect Assisted In-house Estimate

Project Estimated Completion Date: 2023

Design & Permit (months)

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$56,020	Design	
2023	\$342,342	Construction	

Source of Funding: Capital Trust Fund and Possible CPC funding, if approved for construction

Operating Budget Impact now or in future: This project is to stabilize an existing Town building and would require marginal increase in utility costs.



Construction (months)

6

DEPARTMENT PRIORITY: 28 of 45

8



Burgess Barn

2021 CIP - Deferred Public Works General Fund Projects

PROJECT: DPW-21

Project Working Title: West Barnstable Railroad Depot Restoration

Project Location: 2469 Meetinghouse Way (Route 149) West Barnstable

Project Description: Undertake required exterior roof & fenestration repairs of the West Barnstable Train Station.

Project Justification: Erected in 1910, the Arts & Crafts / Mission Style Architecture building has been patched, repaired and painted, but more substantive renovations are now necessary. The clay tile roof is leaking, causing damage to underlayment, soffits and interior historic finishes. Interior finishes and windows need to be restored and or repaired. Exterior deterioration continues to allow moisture penetration into the structure, causing further damage. It is expected that additional repair items will be discovered during the design and construction process. This is a contributing structure to the West Barnstable Historic District as well as the Old Kings Highway Regional Historic District. This building is a leased property with historic significance.



DEPARTMENT PRIORITY: 29 of 45

Impact of Denial/Postponement: Continuing to defer maintenance on this facility will contribute to its deterioration, and will result in increased future repair costs and extensive structural damage. At some point the structure could become inhabitable.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$40,582	-
	Construction or Acquisition	-	\$338,184
	Project Management	\$33,818	-
	Project Contingency	-	\$33,818
	All Other Cost	\$43,827	-
	Total Project Cost	\$118,227	\$372,002

Basis for Cost Estimates: Architect Assisted Department of Public Works In-house Estimate

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months) 8

6

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$118,227	Design
2022	\$372,002	Restoration

Source of Funding: Capital Trust Fund and/or Community Preservation funds or State Historic grants

Operating Budget Impact now or in future: This facility is an existing facility that is currently maintained by the DPW. These improvements are not expected to impact the Operating Budget.



West Barnstable Railroad Depot

DEPARTMENT PRIORITY: 32 of 45

Project Working Title: Town Hall Complex Improvements - Parking Lot

Project Location: 367 Main St, Hyannis, MA 02601

Project Description: The project will fund the design and construction of paving, curb, landscape, lighting, and drainage work to resolve issues with a disorganized site with traffic conflicts and multiple curb cuts.

Project Justification: Town Hall parking lot is the central parking facility for town and school offices, art, and historical museum activities, and overflow parking for Main Street commerce. The proposed project would correct deficiencies in the current automobile traffic pattern and provide safe pedestrian access to associated connection points. Current vehicular and pedestrian traffic practices, and the interaction between the two, are dangerous and inconvenient. The proposed alterations are designed to correct these issues.

Impact of Denial/Postponement: We will continue to have problems with pedestrian and vehicular traffic. The public will continue to endure poor lighting conditions and security issues while attending evening meetings.



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Project Cost Estimates:		FY 2021	
	Design & Demoitting		

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$90,000
	Construction or Acquisition	-	\$700,000
	Project Management	-	\$40,000
	Project Contingency	-	\$150,000
	Total Project Cost	-	\$980,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months) 6

12

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$130,000	Design & Permitting	
2023	\$850,000	Construction & Construction Management	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Additional electrical cost may occur if decorative lighting is included.



Town Hall/School Administration Building Parking Lot

DEPARTMENT PRIORITY: 33 of 45

Project Working Title: Hyannis National Guard Armory Building Improvements

Project Location: 225 South St, Barnstable, MA 02601

Project Description: Design and hazardous materials remediation for this project was funded in FY19. This project will fund the restoration of the Armory to a point where the building is habitable. Subsequent projects will fund the main construction effort. The entire project will convert the armory from its existing state into a totally renovated space that houses the Executive and Legislative Branches of Town Government including:

- Town Manager's Offices
- Legal Offices
- Community Services Department Head/Director of Communications
- Town Council Offices, and the
- Town Council Hearing Room

The project will result in:

- 6,000 ft2 of Office Space
- 4,600 square feet of meeting area
- 250 seat Town Council Hearing Room with modern communications
- Modern Conference Room/Executive Emergency Operations Center
- One Level ADA access to Town Manager, Town Council offices and hearing room
- Saving a historically significant structure in a way the public can use and enjoy

Project Justification: There has been a long, unsuccessful, history trying to find a suitable tenant for this facility, with one of the main deterrents being its existing condition. This project changes direction and leverages its unique location (adjacent to existing Town Campus) to provide key Town offices that are one level, ADA friendly, and easily accessible by the public. The remainder of Town Hall can then have additional security measures placed on it to protect those employees that do not need routine public access. If the Town elects to not pursue this project but instead demolish the facility that has been estimated to cost approximately \$1,300,000, and then someone will have to pay to develop the empty lot. If the Town instead wishes to continue to the effort to find a tenant for the building, basic improvements to help make the facility more marketable have been estimated to cost \$2,500,000.

Impact of Denial/Postponement: The building will continue to deteriorate, and continue to be un-occupiable. At some point, the Town will have to address these issues for the building, or risk it falling into complete ruin.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$280,000
	Construction or Acquisition	-	\$4,076,000
	Project Management	-	\$192,000
	Project Contingency	-	\$212,000
	Total Project Cost	-	\$4,760,000

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2023

Design & Permit (months)

12 **Construction (months)** 12



Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$1,835,000	Construction for remainder of minimum solution	
2023	-	-	
2024	\$2,925,000	Construction for final build out (municipal solution)	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Though an existing building, it currently is a cold storage facility. Custodial staff (assumed to be one full time Grade 4) will be needed to clean the building and perform light maintenance.

Once minimum repairs are completed the building will be occupied. Utility costs consisting of electricity, gas, and water will be incurred. Utility fees for occupied buildings with medium use cost is \$1.50 per square foot. The estimated utility cost for the Armory would be \$20,000 per year





Armory Building

DEPARTMENT PRIORITY: 34 of 45

Project Working Title: Sidewalks on Pitchers Way (Bearse's Way to Route 28) Design & Construction

Project Location: Adjacent to Pitchers Way from Bearse's Way to Route 28

Project Description: Provide pedestrian access for residents along Pitchers Way and its abutting streets to the commercial area north on Route 132 and to the south via the Route 28 bike path.

Project Justification: The section of Pitcher's Way from Route 28 to Route 132 is heavily populated and an attractive pedestrian way to various locations on Route 132. A pedestrian fatality in this section of Pitcher's Way highlights the need for a sidewalk. The project will be a great benefit to walkers and joggers in the area.

Impact of Denial/Postponement: Failure to implement this project construction will perpetuate unsafe conditions for pedestrians traveling along the road.



Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$50,000
	Construction or Acquisition	-	\$450,000
	Project Management	-	\$45,000
	Project Contingency	-	\$95,000
	All Other Cost	-	\$10,000
	Total Project Cost	-	\$650,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2023

Design & Permit (months)

6 **Construction (months)** 6

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Cost Project Description/Components	
2021	-	-	
2022	\$650,000	Design, Construction & Construction Management	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Normal maintenance requirements will be expanded to this section of sidewalk including snow removal.



Adjacent to Pitchers Way from Bearse's Way to Route 28

DEPARTMENT PRIORITY: 35 of 46

Project Working Title: Sidewalk Installation: Bumps River Rd Centerville, Main St Cotuit, South St Hyannis

Project Location: Bumps River Road, Centerville (Fuller Road to Babbling Brook Road); Main Street Cotuit (Ocean View Avenue to Freedom Hall); and South Street Hyannis (Ocean Street to Pleasant Street)

Project Description: Installation of new sidewalks

Project Justification: Citizens have brought to our attention the need for improvements to our network of sidewalks on Town arterial and connector roads. The staff has reviewed these needs, and has prioritized the requests based on safety considerations, pedestrian activity, and the speed and volume of traffic additional criterion that is also considered is location with respect to activity centers such as schools, libraries, recreational facilities, and commercial areas.

Impact of Denial/Postponement: Denial of the project will result in a lack of sidewalks for pedestrians along these routes, which will adversely affect pedestrian safety and access.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$75,000
	Construction or Acquisition	-	\$650,000
	Project Management	-	\$15,000
	Project Contingency	-	\$75,000
	All Other Cost	-	\$10,000
	Total Project Cost	-	\$825,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2023	Design & Permit (months)	12	Co
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onstruction (months) 8

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$825,000	Bumps River Rd, Centerville (Fuller Rd. to Bubbling Brook Rd) Main Street Cotuit (Ocean View Ave to Freedom Hall) and South Street, Hyannis , Hyannis (Ocean St. to Pleasant St.) Design & Construction.	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: This project will increase the Town's sidewalk maintenance costs by an estimated \$3,000 per year for snow clearing, sweeping, brush clearing, and pavement maintenance and repairs.







Sidewalk Installation: Bumps River Rd Centerville, Main St Cotuit, South St Hyannis

DEPARTMENT PRIORITY: 36 of 45

Project Working Title: Highway Truck Storage Facilities Design & Construction

Project Location: 382 Falmouth Rd, Hyannis, MA 02601

Project Description: This project is for the design of a new enclosed and insulated truck garage and shops, with drive-through capability that will be used to park and store trucks and equipment. The new building will incorporate the design of taller doors, which allow for access by larger equipment, and would have a lean-to for plow storage. Sanding trucks must be kept protected, in a temperate environment, allowing for quick response to snow and ice emergencies. This design work includes site master planning for the entire campus.

Project Justification: The garage is required to provide for the protection, storage and daily maintenance of valuable trucks and equipment. Currently most trucks are left outside and deteriorate at a much faster rate and cannot be accessed quickly during storm events and emergencies.



Impact of Denial/Postponement: The trucks continue to be stored outside and will negatively impact snow and ice operations and result in more rapid deterioration of the fleet.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$467,460
	Construction or Acquisition	-	\$4,674,600
	Project Management	-	\$233,730
	Project Contingency	-	\$467,460
	All Other Cost	-	\$55,000
	Total Project Cost	-	\$5,898,250

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2024

Design & Permit (months)

Construction (months) 12

12

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$756,190	Design of new Highway Truck Garage	
2023	-	-	
2024	\$5,142,060	Construction of new Highway Truck Garage	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Protection and increased longevity of vehicles will offset the cost of increased utilities. One custodial position will be required to clean the facility.





Highway Truck Storage Facilities Design & Construction
Project Working Title: DPW Salt Storage Facility Design & Construction

Project Location: 382 Falmouth Rd, Hyannis, MA 02601

Project Description: This involves the demolition of the existing salt shed and the design and construction of a new 13,000 SF salt shed with 6,500-ton storage capacity.

Project Justification: The Town has two existing salt sheds, which are located at the DPW Highway facility and the Solid Waste Division transfer station. Together, the capacity of both salt sheds equals approximately 4,000 tons of salt. The existing salt storage does not provide enough capacity to perform best management practices during a major snowstorm event. Also, inconsistent salt deliveries provide unreliable response during snow emergencies. The proposed salt shed at the DPW would provide adequate storage for one winter season, which would increase the effectiveness to respond to snow emergencies. The old salt shed has been damaged over the years and is in need of extensive repairs. Even with repairs the building will need

continual maintenance due to its age and below standard condition. The height of the roof trusses are too low for modern equipment and continue to suffer damage. Side wall buttresses are cracked and some have failed due to the weight of salt over the years.

Impact of Denial/Postponement: Failure to construct, this project will decrease the Department's effectiveness during snow emergency responses. In addition, further deterioration of the existing salt shed would result in failure long-term.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$160,000
	Construction or Acquisition	-	\$1,600,000
	Project Management	-	\$160,000
	Project Contingency	-	\$80,000
	Total Project Cost	-	\$2,000,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2025

Design & Permit (months)

6 **Construction (months)** 6

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	\$2,000,000	Design & Construction of a Salt Shed	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Additional electrical cost will be required, also minimal since it would only occur during deliveries and snow events.



DEPARTMENT PRIORITY: 37 of 45



DPW Salt Storage Facility

DEPARTMENT PRIORITY: 38 of 45

Project Working Title: South Street Improvements Design and Construction

Project Location: South Street Hyannis (Sea Street to Lewis Bay Road)

Project Description: Design and permitting of a complete street, involving traffic flow analysis, roadway base and subbase analysis, bicycle and pedestrian movement analysis, and an evaluation of the sidewalks, roadway surface and storm water systems.

Project Justification: South Street is one of the main transportation arteries in Hyannis. The roadway carries traffic from the west enabling access to the Cape Cod Hospital, Hyannis waterfront, arts centers, museums and the center of Town government. Several years ago, the water mains were upgraded in the roadway but only a thin overlay was provided to cover the resulting trenches. Presently the gas utilities are being replaced. Next, sewer work is scheduled. At the end of all this work the road surface will need to be addressed. Additionally, the major signalized intersection at Old Colony, South and Ocean Street needs upgrading. The adjacent curbing and sidewalks are showing signs of disrepair. Lighting should be provided for pedestrian and vehicle safety. Drainage systems in the roadway are inadequate, resulting in major flooding in the road at times of heavy rainfall. Allocation of space in the road layout for bicycles and pedestrians will result in addressing the needs for these modes of travel and increase the accessibility to the many attractions along the roadway for local users and visitors alike.

Impact of Denial/Postponement: Failure to fund South Street improvements will result in continued deterioration of the roadway surface features and underground utilities. An opportunity to upgrade the corridor to provide excellent access to the many businesses, cultural attractions and Municipal offices will be lost. Safety issues with curb ramps and sidewalks will be exacerbated and excessive maintenance funds required to provide a minimum level of service.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$400,000
	Construction or Acquisition	-	\$5,500,000
	Project Management	-	\$500,000
	Project Contingency	-	\$600,000
	All Other Cost	-	\$100,000
	Total Project Cost	-	\$7,100,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2025 Design & Permit (months) 12 Construction (months) 24

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$400,000	Design & Permitting	
2023	-	-	
2024	\$6,700,000	Construction & Construction Management	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: With new construction, extra maintenance from the Highway division will be reduced. Over the past 18 months, DPW Highway has occurred approximately \$10,750 in emergency repairs to the road. Additional electrical cost will occur if decorative lighting is added.









South Street Hyannis (Sea Street to Lewis Bay Road)

2021 CIP - Deferred Public Works General Fund Projects

DEPARTMENT PRIORITY: 39 of 45

Project Working Title: Barnstable Road Reconstruction Design and Construction

Project Location: Barnstable Rd, Hyannis, Massachusetts 02601

Project Description: The project will consist of the design and permitting for a complete reconstruction of Barnstable Road in Hyannis and its associated utilities. The Water Division intends to complete necessary water improvements as part of the annual pipe replacement program. This request is to cover the design of stormwater improvements, curbs/sidewalk improvements and road reconstruction.

Project Justification: The April 2007 Water Division Master Plan recommended the 3,200 feet water main in Barnstable Road is replaced. WPCD performed an evaluation in 2019 which indicated only minor repairs are required for the sewer in Barnstable Road. Barnstable Road is expected to deteriorate over the next 5-10 years. As a result, the DPW would like to take this opportunity to address all utilities and the road at once, rather than with multiple projects over a



number of years. It is felt this would limit inconvenience to the citizen to one project while addressing multiple problems at once.

Impact of Denial/Postponement: Work will be accomplished in a piece-meal way. The water work will proceed, leaving a large trench patch in the road. Sewer work will be accomplished within the next 5 years leaving yet another trench patch. Storm drainage will not be addressed and the road will deteriorate.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$400,000
	Construction or Acquisition	-	\$5,500,000
	Project Management	-	\$500,000
	Project Contingency	-	\$600,000
	All Other Cost	-	\$100,000
	Total Project Cost	-	\$7,100,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2024

Design & Permit (months)

ths) 12 Cons

Construction (months) 24

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$400,000	Design & Permitting	
2023	-	-	
2024	\$6,700,000	Construction & Construction Management	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: The additional impact to the budget will be due to the electrical cost of the new decorative lighting. Over the past 18 months, DPW Highway has incurred approximately \$500 in emergency repairs to the road.



Barnstable Road

Project Working Title: Commerce Road Culvert Construction

Project Location: Commerce Road, Barnstable Village

Project Description: This project will replace the aging Maraspin Creek culvert and raise the adjacent portions of Commerce Road above the modeled flood zone elevation to increase the ability of residents to evacuate the neighborhood when flooding occurs.

Project Justification: Commerce like Road, many coastal roads/neighborhoods has experienced an increase in flooding in recent years. This has led to residents being trapped in their homes due to that flooding, and emergency services workers having to make rescues during the heights of the storms. Based on predictions concerning sea level rise, it is expected that these types of incidents will only increase with time. This proposal will provide improved egress for residents to evaluate the neighborhood during flooding events, but will not prevent flooding from happening or the associated property damage.

Impact of Denial/Postponement: Commerce Road will continue to overtop during flooding events, rendering it impassable and preventing residents from evaluating.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$1,500,000
	Project Management	-	\$30,000
	Project Contingency	-	\$200,000
	All Other Cost	-	\$20,000
	Total Project Cost	-	\$1,750,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months)

24

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$1,750,000	Construction & Construction Management	

Source of Funding: Capital Trust Fund and/or Additional grant opportunities will be submitted through State and Federal agencies, including MVP and NRCS grants.

Operating Budget Impact now or in future: N/A



DEPARTMENT PRIORITY: 40 of 45

18



Commerce Road Culvert

2021 CIP - Deferred Public Works General Fund Projects

DEPARTMENT PRIORITY: 41 of 45

Project Working Title: Signalized Intersection at Osterville West Barnstable Road and Race Lane

Project Location: Osterville West Barnstable & Race Lane, Marstons Mills

Project Description: In January 2012, a traffic engineering inventory analysis and operations plan was developed for 24 existing Townowned traffic signal systems. A recommendation from this study concluded that the intersection of Osterville West Barnstable Road and Race Lane should be signalized.

Project Justification: Traffic signal installation is recommended at this location to improve the current level of service (LOS E for morning peak traffic and a LOS F for evening peak traffic) and reduce the risk of crashes. The Osterville West Barnstable Road southbound approach to Race Lane is offset by 170 feet to the west of the northbound approach.

Impact of Denial/Postponement: Failure to install a signalized intersection at this location will continue to provide a very poor level of

service during peak hours for residents and tourists at this location. It also increases the risk of motor vehicle and pedestrian accidents.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$85,000
	Construction or Acquisition	-	\$330,000
	Project Management	-	\$20,000
	Project Contingency	-	\$100,000
	Total Project Cost	-	\$535,000

Basis for Cost Estimates: Consultant Estimate

Project Estimated Completion Date: 2023

Design & Permit (months)

Construction (months) 6

6

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$85,000	Design & Permitting	
2023	\$450,000	Construction & Construction Management	

Source of Funding: The additional cost would consist of maintenance and electrical metering.

Operating Budget Impact now or in future:











Signalized Intersection at Osterville West Barnstable Road and Race Lane

2021 CIP - Deferred Public Works General Fund Projects

DEPARTMENT PRIORITY: 42 of 45

Project Working Title: Old Jail Repairs

Project Location: 3365 Main St, Barnstable, MA 02630

Project Description: This project would fund needed structural, exterior and site improvements to the building. These funds would provide for design and renovation/construction.

Project Justification: In 2011 CBI Consulting completed a historic building study for this building. Originally constructed in 1690, the building has been moved, patched, repaired and painted, but additional renovations are now necessary. Extensive deterioration of original floor supports has been observed in the basement. Repair work documented in 2011 is included as part of this project.

Impact of Denial/Postponement: Continued deferred maintenance of this facility will contribute to its continued deterioration.



Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$42,000
	Construction or Acquisition	-	\$242,316
	Project Management	-	\$12,000
	Project Contingency	-	\$24,000
	Total Project Cost	-	\$320,316

Basis for Cost Estimates: Architect Assisted In-house Estimate

Project Estimated Completion Date: 2026

Design & Permit (months)

6 Construction (months)

8

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	-	-	
2023	-	-	
2024	\$320,316	Design / Construction / Restoration / Preservation	

Source of Funding: Capital Trust Fund and/or Possible Community Preservation Funds and State Historic Grant

Operating Budget Impact now or in future: These renovations are not expected to have a measurable impact on the Operating Budget.



Old Jail House

Project Working Title: U.S. Custom House Site Improvements

Project Location: 3353 Main St, Barnstable, MA 02630

Project Description: This project funds needed site improvements, including restoration of perimeter iron fence, new site walls, parking areas, planting, and lighting.

Project Justification: Erected in 1856, the building is in the process of a phased restoration. Work to the historic landcape is now necessary. Landcape items such as the historic cast iron fence is deteriorating or Parking areas have deteriorated and become undefined. missing. Stone parking areas need new surfacing.

Impact of Denial/Postponement: Continuing to defer maintenance on this facility will contribute to its deterioration and will result in increased future repair costs and damage.



Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$40,634
	Construction or Acquisition	-	\$270,894
	Project Management	-	\$21,672
	Project Contingency	-	\$27,089
	Total Project Cost	-	\$360,289

Basis for Cost Estimates: Architect Assisted In-house Estimate

Project Estimated Completion Date: 2021

Design & Permit (months)

6 **Construction (months)** 8

Cost/Description	on FY 2021 and Fo	bllow-On Years:
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	\$62,306	Site Restoration Design
2023	\$297,983	Site Restoration Construction

Source of Funding: Capital Trust Fund and/or Possible Community Preservation Funds or State Historic Grants

Operating Budget Impact now or in future: This facility is an existing facility that is currently maintained by the DPW. These improvements are not expected to impact the Operating Budget.

DEPARTMENT PRIORITY: 43 of 45













U.S. Custom House Site

DEPARTMENT PRIORITY: 44 of 45

Project Working Title: Sidewalk Overlay and Guardrail

Project Location: Town wide

Project Description: The project funds the removal and replacement of 6,000 linear feet of old deteriorated concrete post w/o steel cable, damaged galvanized guardrails; and the repair of existing sidewalks.

Project Justification: The Town of Barnstable has approximately 9.2 miles of guardrail, much of which does not meet the MUTCD standards, that needs replacing. It consists of concrete posts w/o steel cables, numerous sections of damaged galvanized guardrail throughout the Town. Additionally, the sidewalks throughout the Town are overgrown with vegetation, narrowing, heaving with roots, and deteriorating pavement which is causing numerous trip hazards. The sidewalks are very difficult to maintain during snow and ice.

Impact of Denial/Postponement: Accidents resulting in personal injury may occur as a direct result of vehicles leaving the road through an aging guardrail system, or people tripping on a broken sidewalk.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$1,472,057
	Project Contingency	-	\$95,707
	Total Project Cost	-	\$1,567,764

Basis for Cost Estimates: Invitation for Bid - Construction Costs are based on an average of \$50.82 per lineal foot as determined by FY-20 Invitation for bid Contract for weathered steel beam cor-10 Guardrail with wooden posts with a 5% increase annually. Sidewalk costs are based on a linear footage price from a past invitation for bid including prep work.

Project Estimated Completion Date: -

Design & Permit (months)

Construction (months) 12

Cost/Descriptio	on FY 2021 and F	ollow-On Years:
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	\$363,740	Design and Construction
2023	\$381,927	Design and Construction
2024	\$401,023	Design and Construction
2025	\$421,074	Design and Construction

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: This is existing infrastructure which is already being maintained. This work should decrease the need for expenditure in the short term.



Sidewalk Overlay and Guardrail Locations

Project Working Title: DPW 382 Falmouth Rd Facility Parking Lot Repairs

Project Location: 382 Falmouth Rd, Hyannis, MA 02601

Project Description: Reclaim/regrade parking lot, provide new asphalt paving and line striping.

Project Justification: This parking lot is the hub of activity for employee and visitors parking at the DPW main facility. In addition, working vehicles use the lot extensively. The parking lot has deteriorated with many cracks and irregularities.

Impact of Denial/Postponement: Failure to repair the parking lot will result in further damage to the surface from vehicle and snow removal activities. The parking lot will become difficult to use for critical functions and become a safety hazard for vehicles and pedestrians alike.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$235,000
	Project Contingency	-	\$40,000
	Total Project Cost	-	\$275,000

Basis for Cost Estimates: Department of Public Works Engineering

Project Estimated Completion Date: 2022Design & Permit (months)-Construction (months)3

Cost/Descriptio	n FY 2021 and Fo	bllow-On Years:
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	\$275,000	Construction & Construction Management

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: There would be no impact on the operating budget.



DEPARTMENT PRIORITY: 45 of 45



Department of Public Works Parking Lot

School Department Projects

PROJECT: SCH-21

DEPARTMENT PRIORITY: 3 of 18

Project Working Title: Barnstable High School (BHS) Synthetic Turf Replacement & Track Repair

Project Location: 744 West Main Street, Hyannis MA 02601

Project Description: The removal and replacement of existing synthetic sports turf at the BHS stadium. This project includes removal and proper disposal of existing turf, re-grade of existing base, leveling stone, inlaid sports markings, and replacement of infill.

Project Justification: Existing turf is nearing end of life (8 years) and is becoming increasingly difficult to properly groom leaving surface with excess infill build up. The excessive build-up creates slippery conditions for sports play and subsequent safety issues.

Impact of Denial/Postponement: Denial or postponement of this project increases the probability of increased sports injuries and affects the overall quality of play.



Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	\$40,028	-
	Construction or Acquisition	\$994,500	-
	Project Contingency	\$149,175	-
	All Other Cost	\$16,297	-
	Total Project Cost	\$1,200,000	-

Basis for Cost Estimates: Cost estimate provided by JJA Sports, 11/3/19.

Project Estimated Completion Date: 2021

Design & Permit (months)

Construction (months) 2

2

Cost/Descriptio	on FY 2021 and Fo	ollow-On Years:
Fiscal Year	Cost	Project Description/Components
2021	\$1,200,000	Replace BHS Stadium Fields Synthetic Turf & Track Repairs

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: N/A



Barnstable High School Synthetic Turf Replacement

DEPARTMENT PRIORITY: 6 of 18

Project Working Title: Barnstable High School & Barnstable Intermediate School Roof Top Unit Ventilator (RTU) Replacement

Project Location: 744 West Main Street & 895 Falmouth Road, Hyannis MA 02601

Project Description: Multi-phased plan to replace and upgrade existing RTU units at BHS/BIS.

Project Justification: Existing RTU's at both locations are greater than 20 years old. In many units, the air conditioning compressors have failed and replacement parts are not available leaving areas of the building without ample cooling. Additionally the chassis, frame, and cabinet components of the units are deteriorating allowing infiltration into the unit causing eventual leaks within the building.

Impact of Denial/Postponement: Denial or postponement of this project will result in continued deterioration of existing equipment with eventual permanent loss of heating and ventilation.



Project Cost Estimates:		FY 2022	Future FY
	Design & Permitting	\$500,000	-
	Construction or Acquisition	\$2,016,454	-
	Project Contingency	\$391,948	-
	All Other Cost	\$591,598	-
	Total Project Cost	\$3,500,000	\$8,000,000

Basis for Cost Estimates: CBI/PM&C Cost/Engineering Study, Nov 4, 2019

Project Estimated Completion Date: 2022

Design & Permit (months)

6 **Construction (months)**

Cost/Descriptio	on FY 2021 and Fe	ollow-On Years:
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	\$3,500,000	Barnstable High School RTU Upgrades
2023	\$2,000,000	RTU Upgrades (Estimate)
2024	\$2,000,000	RTU Upgrades (Estimate)
2025	\$2,000,000	RTU Upgrades (Estimate)

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Can expect a minimum of 10% energy savings attributable to motor, variable-frequency drive (VFD) and control upgrades, and minimum annual maintenance savings cost of \$10,000. We will apply for any applicable utility rebates and incentives.



Roof Top Units (RTU)

2021 Deferred School Department General Fund Projects

Project Working Title: Hyannis West Interior/Exterior Door Replacement

Project Location: 549 West Main Street, Hyannis, MA 02601

Project Description: Upgrade and replace aged/dated interior and exterior door throughout building to improve security and energy usage.

Project Justification: Existing doors are > 50 years old and in need of replacement. Some units are warped to the point where air/rodent infiltration has become an issue and places building security at risk.

Impact of Denial/Postponement: Denial or postponement affects efficient food handling and storage operations. Eventual permanent failure of existing reach-in could result loss of food inventory.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$100,000
	Total Project Cost	-	\$100,000

Basis for Cost Estimates: Previous installations and vendor budgetary quotes

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months) 2	
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1

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	\$100,000	HYW Door Replacement

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Interior/Exterior door replacements will result in energy savings due to reduced air/water infiltration.



DEPARTMENT PRIORITY: 10 of 18



Hyannis West Door Photos

DEPARTMENT PRIORITY: 11 of 18

Project Working Title: Barnstable West Barnstable & Barnstable Charter Intermediate School & Centerville Emergency Generators

Project Location: District Wide

Project Description: Install Emergency Generators to provide power for critical circuits.

Project Justification: Due to remoteness of these facilities and power is routinely interrupted during periods of high wind and winter storms. The addition of an emergency power source will provide additional safety, security, and comfort during periods of prolonged outages.

Impact of Denial/Postponement: Denial or postponement will negatively affect the safety, security, and operations of these facilities.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$45,000
	Construction or Acquisition	-	\$345,000
	Project Contingency	-	\$10,000
	Total Project Cost	-	\$400,000

Basis for Cost Estimates: Budgetary estimated based on other projects and Barnstable Adult Community Center

Project Estimated Completion Date: 2022

Design & Permit (months)

3 **Construction (months)** 12

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$400,000	BWB, Centerville & BCIS Emergency Generators	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: N/A

DEPARTMENT PRIORITY: 12 of 18

Project Working Title: Barnstable Public School Campus Wide Paving

Project Location: District Wide

Project Description: Pave and repair campus parking lots and sidewalks as needed.

Project Justification: Safety and maintenance

Impact of Denial/Postponement: Denial or postponement will result in continued deterioration to school/town properties and assets.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$1,000,000
	Total Project Cost	-	\$1,000,000

Basis for Cost Estimates: In house estimates provided by Town of Barnstable Department of Public Works

Project Estimated Completion Date: 2025

Design & Permit (months)

3 **Construction (months)** 48

Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$250,000	Paving/Masonry/Crack Sealing	
2023	\$250,000	Paving/Masonry/Crack Sealing	
2024	\$250,000	Paving/Masonry/Crack Sealing	
2025	\$250,000	Paving/Masonry/Crack Sealing	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: N/A



Paving/Sidewalks

PROJECT: S	CH-21
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DEPARTMENT PRIORITY: 13 of 18

Project Working Title: Electric Utility Transformer Upgrade

Project Location: Barnstable West Barnstable, Barnstable Community Horace Mann Charter Public School, Osterville Elementary

Project Description: All three of these locations are still electrically serviced by transformers, which are housed in on-site underground vaults. These transformers should be removed and replaced with above ground transformers and all service panels should be upgraded.

Project Justification: Increased Safety & Reliability

Impact of Denial/Postponement: Denial or postponement of this request could adversely affect service in the event of a transformer failure.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$275,000
	Project Contingency	-	\$25,000
	Total Project Cost	-	\$300,000

Basis for Cost Estimates: Vendor budgetary quotes

Project Estimated Completion Date:2024Design & Permit (months)6Construction (months)36

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	-	-
2022	\$300,000	Replace Underground Transformers

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Transformer retrofit will provide increased service reliability.



Typical Underground Transformer Vault

Project Working Title: Barnstable High School Culinary Arts Kitchen

Project Location: 744 West Main Street, Hyannis MA 02601

Project Description: Design and installation of a full service commercial/culinary arts type kitchen at the Barnstable High School. The project would include HVAC, commercial exhaust, equipment, and all necessary infrastructures to support a Culinary Arts/Massachusetts Skills Capital Grant Program.

Project Justification: Addition of this facility would provide the necessary teaching space to prepare students who are interested in pursuing a career in the food service industry. Barnstable public schools have already received a matching grant for \$50,000 for equipment and design. BPS will also be applying for a future grant of \$100,000.

Impact of Denial/Postponement: Postponement of project would delay implementation of Barnstable High School Culinary.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$500,000
	Total Project Cost	-	\$500,000

Basis for Cost Estimates: Budgetary estimate provided by CBI Consulting and GGD Mechanical.

Project Estimated Completion Date: 2022

Design & Permit (months)

Construction (months)

6

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$500,000	Design and engineering for Culinary Arts Kitchen	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: N/A



6

DEPARTMENT PRIORITY: 15 of 18

Project Working Title: Barnstable United Courtyard Improvements

Project Location: 730 Osterville-West Barnstable Road, Marstons Mills, MA 02648

Project Description: This project seeks to improve the school's central courtyard, which once housed a manmade combination pond, and wetlands area that had significantly contributed to major building moisture infiltration issues. Through student, staff and private contractor efforts, the entire system have been removed (2012-2014). The courtyard is currently almost entirely hardscape. The project will redesign the courtyard to include a greater landscape to hardscape ratio, featuring increased areas for absorption of storm water via drought tolerant landscaped areas, pervious paving, and bioswales. The improved courtyard will reduce storm water runoff and provide an outdoor educational environment that facilitate curriculum for science programs, geography, photography, 2D art and English composition.



Project Justification: This funding is needed to complete the project and make the courtyard a more usable space for school and community use.

Impact of Denial/Postponement: Denial or postponement of this project will render the courtyard space unusable with loss of educational programming opportunities.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$100,000
	Total Project Cost	-	\$100,000

Basis for Cost Estimates: Previous installations and vendor budgetary quotes, (Astro Park Experience).

Project Estimated Completion Date: 2021Design & Permit (months)2Construction (months)12

Cost/Description FY 2021 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$100,000	BUE Courtyard Improvements

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: N/A



Barnstable Unit Elementary Courtyard Improvements

2021 Deferred School Department General Fund Projects

Project Working Title: Centerville School Window Replacement

Project Location: 658 Bay Lane Centerville, MA 02632

Project Description: This project involves the replacement of the 1950's era single pane windows. With the exception of the windows on the front building (replaced FY08/FY09) current windows are drafty and damp and will be replaced with energy efficient units.

Project Justification: Existing units are leaking and inefficient, failure to replace will result in security, maintenance, and energy consumption issues. Existing windows create uncomfortable learning spaces due to excessive solar gain, heat loss due to infiltration and security issues.

Impact of Denial/Postponement: Single pane windows will continue to hamper the education of children, a cause of frustration for teachers, and a waste of energy dollars due to continual repair work orders for our maintenance staff. Unsafe window sections will continue to be repaired and possibly replaced with inferior solutions to prevent accidents to children.

Project Cost Estimates:		FY 2021	Future FY
	Design & Permitting	-	\$1,000,000
	Total Project Cost	-	\$1,000,000

Basis for Cost Estimates:

Project Estimated Completion Date: 2022

Design & P	ermit (m	onths)
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1 **Construction (months)** 12

Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components	
2021	-	-	
2022	\$1,000,000	Window Replacement	

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: Can expect heating energy savings of +10%, project will qualify for MSBA funding (typically at 30%).

Sandwich	Shores	T.				
2 0		Sandy Neck Beach	h Park			6
\sim		West Barnst	table		11	A.
				Barnstable	Ya	rmouth Por
Farmersville	Cape Cod Airpor	Hada	147y 112	Mid-C	ape Hwy	
Newtown	4			Barnstable Municipal	1	
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0	R		58 Bay Ln,			-
Santuit		Center	ville, MA 02632 Centerville	Hyannis Port	- L	ewis Bay
	Os Little Island		Harbor	The	ę	z y
Cotuit Jeck	Sampsons	Wianno			1	2
3.51	Island					

DEPARTMENT PRIORITY: 16 of 18



Centerville Windows

DEPARTMENT PRIORITY: 17 of 18

Project Working Title: Network Server Upgrades

Project Location: Barnstable Public School District Wide

Project Description: Upgrades to district network servers

Project Justification: Upgrades necessary to maintain reliability and performance of district information network.

Impact of Denial/Postponement: Postponement to project could result in network failures and potential loss of service and data.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$200,000
	Total Project Cost	-	\$200,000

Basis for Cost Estimates: Costs determined using budgetary market pricing.

Project Estimated Completion Date: 2025	Design & Permit (months)	1	Construction (months)	24
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Cost/Descriptio	Cost/Description FY 2021 and Follow-On Years:			
Fiscal Year	Cost	Project Description/Components		
2021	-	-		
2022	-	-		
2023	-	-		
2024	\$100,000	Network Server Upgrades		
2025	\$100,000	Network Server Upgrades		

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: N/A

DEPARTMENT PRIORITY: 18 of 18

Project Working Title: Wireless Access Upgrades

Project Location: Barnstable Public Schools District Wide

Project Description: Upgrades to district wireless access points.

Project Justification: Upgrades necessary to maintain reliability and performance of district information network.

Impact of Denial/Postponement: Postponement to project could result in wireless access performance.

Project Cost Estimates:		FY 2021	Future FY
	Construction or Acquisition	-	\$100,000
	Total Project Cost	-	\$100,000

Basis for Cost Estimates: N/A

Project Estimated Completion Date: 2025

Design & Permit (months) 1 Construction (months) 12

Cost/Description	Cost/Description FY 2021 and Follow-On Years:				
Fiscal Year	Cost	Project Description/Components			
2021	-	-			
2022	-	-			
2023	-	-			
2024	-	-			
2025	\$100,000	Wireless Access Upgrades			

Source of Funding: Capital Trust Fund

Operating Budget Impact now or in future: N/A
APPENDIX A – FISCAL YEAR 2021 CAPITAL BUDGET APPROPRIATIONS ORDERS

2020-082 APPROPRIATION, TRANSFER AND LOAN ORDER General Fund Capital Improvement Plan (Two-thirds vote)

ORDERED:

That the sum of **\$3,039,000** be appropriated for the purpose of funding Phase II of the Barnstable High School Sports Fields Upgrades as part of the Barnstable High School Sports Field Upgrade Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the following sums be transferred from the remaining available balances;

Town Council order 2013-106	\$150
Town Council order 2015-116	\$7,726
Town Council order 2016-081	\$8,240
Town Council order 2016-082	\$849
Town Council order 2017-062	\$3 <i>,</i> 541
Town Council order 2017-063	\$18,710
Town Council order 2017-067	\$723
Town Council order 2017-068	\$17,110
Town Council order 2018-106	\$1,905
Town Council order 2018-066	\$1,073
Town Council order 2019-058	\$203,511

and that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$2,775,462** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes.

2020-083 APPROPRIATION AND LOAN ORDER General Fund Capital Improvement Plan (Two-thirds vote)

ORDERED:

That the sum of **\$500,000** be appropriated for the purpose of funding the Barnstable Public School District –Wide Communication, Video Surveillance and Entry Improvement Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$500,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes.

2020-084 APPROPRIATION AND LOAN ORDER General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$400,000** be appropriated for the purpose of funding the Barnstable United Elementary School Chiller Replacement as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$400,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes.

2020-085 APPROPRIATION AND LOAN ORDER General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$250,000** be appropriated for the purpose of funding the Barnstable High School Gym & Field House Improvements Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$250,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes.

2020-086 APPROPRIATION AND LOAN ORDER General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$250,000** be appropriated for the purpose of funding the Barnstable Public School Campus Wide Mechanical Upgrades Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$250,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes.

2020-087 APPROPRIATION AND TRANSFER ORDER General Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$250,000** be appropriated for the purpose of funding the Barnstable High School Positive Attendance System Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$250,000** be transferred from the General Fund reserves and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes.

2020-088 APPROPRIATION AND TRANSFER ORDER General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$100,000** be appropriated for the purpose of funding the Barnstable Public School Flooring Replacement and Upgrade Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$100,000** be transferred from the Capital Trust Fund Reserves, and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes.

2020-089 APPROPRIATION AND LOAN ORDER General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$342,000** be appropriated for the purpose of funding the Unified Communications – VOIP (Voice over Internet Protocol) Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$342,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-090 APPROPRIATION AND LOAN ORDER

General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$300,000** be appropriated for the purpose of funding the Patrol Vessel Replacement as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$300,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-091 APPROPRIATION AND TRANSFER ORDER Sandy Neck Enterprise Fund (Majority Vote)

ORDERED:

That the sum of **\$200,000** be appropriated for the purpose of funding the Design and Permitting of the Sandy Neck Parking Lot Relocation Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$200,000** be transferred from the Sandy Neck enterprise Fund Reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-092 APPROPRIATION TRANSFER AND LOAN ORDER Golf Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$502,000** be appropriated for the purpose of funding the Olde Barnstable Fairgrounds Golf Course Turf Maintenance Equipment Replacement Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$502,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-093 APPROPRIATION AND LOAN ORDER

Airport Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$300,000** be appropriated for the purpose of funding the design and construction of the Airport's Phase II Tree Clearing project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$300,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2020-094 APPROPRIATION AND TRANSFER ORDER Airport Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$200,000** be appropriated for the purpose of funding the Airport's Security Camera Upgrade project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the sum of **\$200,000** be transferred from the Airport Enterprise Fund reserves, and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2020-095 APPROPRIATION AND TRANSFER ORDER Airport Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$250,000** be appropriated for the purpose of funding the Airport's PFOS Soils Reporting, Testing, Mitigation, and Monitoring Phase II project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the sum of **\$250,000** be transferred from the Airport Enterprise Fund reserves, and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2020-096 APPROPRIATION AND LOAN ORDER Airport Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$3,400,000** be appropriated for the purpose of funding Phase II of the Airport's Mary Dunn Way Extension project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$3,400,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2020-097 APPROPRIATION AND LOAN ORDER

Airport Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$1,150,000** be appropriated for the purpose of funding the Airport's Environmental Review for Airport Master Plan Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$1,150,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2020-098 APPROPRIATION AND LOAN ORDER Airport Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$700,000** be appropriated for the purpose of funding the Airport's Design and Construct New T-Hangar/FBO Offices project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$700,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2020-099 APPROPRIATION AND LOAN ORDER

Airport Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$700,000** be appropriated for the purpose of funding the Airport's Design and Construct New Airport Owned Avgas Fuel Tank/Self-Service Tank project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$700,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2020-100 APPROPRIATION AND TRANSFER ORDER

General Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$121,115** be appropriated for the purpose of funding the Police Department Radio Improvement Program as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$12,561** be transferred from the remaining funds under Town Council order **2017-099**, and that **\$108,554** be transferred from the General Fund Reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-101 APPROPRIATION AND TRANSFER ORDER

General Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$125,000** be appropriated for the purpose of funding the Police Department Data Storage Appliance Program as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$125,000** be transferred from the General Fund Reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-102 APPROPRIATION AND LOAN ORDER General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$991,000** be appropriated for the purpose of funding the Barnstable Police Department Facility Improvement Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$991,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-103 APPROPRIATION AND LOAN ORDER General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$756,000** be appropriated for the purpose of funding the Hyannis Youth & Community Center Facility Improvement Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$756,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-104 APPROPRIATION AND LOAN ORDER

General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$615,000** be appropriated for the purpose of funding the Emergency Generator Implementation Plan as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$615,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-105 APPROPRIATION AND TRANSFER ORDER General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$120,000** be appropriated for the purpose of funding the Marine & Environmental Affairs Building Interior Phase III Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the sum of **\$120,000** be transferred from the Capital Trust Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-106 APPROPRIATION AND LOAN ORDER General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$374,000** be appropriated for the purpose of funding the 200 Main Street Mansard Evaluation and Repair Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$374,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-107 APPROPRIATION AND LOAN ORDER

General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$345,000** be appropriated for the purpose of funding the Salt Shed Repairs Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$345,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-108 APPROPRIATION AND LOAN ORDER General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$2,055,000** be appropriated for the purpose of funding the Channel Dredging Program Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$530,000** be transferred from the remaining available funds under Town Council order **2016-111**, and that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$1,525,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-109 APPROPRIATION AND TRANSFER ORDER General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$3,550,000** be appropriated for the purpose of funding the Public Roads Maintenance Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$3,550,000** be transferred from the Capital Trust Fund Reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-110 APPROPRIATION AND LOAN ORDER

General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$300,000** be appropriated for the purpose of funding the Stormwater Improvements at Impaired Ponds Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$300,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-111 APPROPRIATION AND TRANSFER ORDER

General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$150,000** be appropriated for the purpose of funding the Beach Parking Lot Rehabilitation at Keyes Memorial Beach as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$30,000** be transferred from the remaining funds in Town Council order **2017-070** and the **\$30,000** be transferred from the remaining funds in Town Council order **2018-031**, and that **\$90,000** be transferred from the Capital Trust Fund Reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-112 APPROPRIATION AND TRANSFER ORDER General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$75,000** be appropriated for the purpose of funding the Design and Permitting of the Snows Creek Culvert Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, the **\$8,389** be transferred from the remaining fund under Town Council order **2014-109**, and that **\$3,697** be transferred from the remaining funds under Town Council order **2014-109**, and that **\$3,697** be transferred from the remaining funds under Town Council order **2016-078**, and that **\$62,914** be transferred from the Capital Trust Fund Reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-113 APPROPRIATION AND LOAN ORDER

General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$665,000** be appropriated for the purpose of funding the Sidewalks on Ocean Street from Gosnold Street to Kalmus Beach Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$665,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-114 APPROPRIATION AND TRANSFER ORDER General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$40,000** be appropriated for the purpose of funding the Design and Permitting of Sidewalks on Ocean Street from Snows Creek to Gosnold Street Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$40,000** be transferred from the Capital Trust Fund Reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-115 APPROPRIATION AND TRANSFER ORDER General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$50,000** be appropriated for the purpose of funding the Design and Permitting of the Kalmus Beach Parking Lot Entrance Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$50,000** be transferred from the Capital Trust Fund Reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-116 APPROPRIATION AND LOAN ORDER Water Pollution Control Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$8,000,000** be appropriated for the purpose of funding the Solids Handling Upgrades Construction Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$8,000,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-117 APPROPRIATION AND LOAN ORDER

Water Pollution Control Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$1,000,000** be appropriated for the purpose of funding the Pump Station Rehabilitation Program as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$1,000,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-118 APPROPRIATION AND TRANSFER ORDER

Water Pollution Control Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$85,000** be appropriated for the purpose of funding the HVAC Improvements Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$85,000** be transferred from the Water Pollution Control Enterprise Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-119 APPROPRIATION AND TRANSFER ORDER

Water Pollution Control Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$55,000** be appropriated for the purpose of funding a Vehicle Replacement as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$55,000** be transferred from the Water Pollution Control Enterprise Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-120 APPROPRIATION AND LOAN ORDER Water Supply Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$750,000** be appropriated for the purpose of funding the Pipe Replacement and Upgrade Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$750,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-121 APPROPRIATION AND TRANSFER ORDER

Water Supply Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$150,000** be appropriated for the purpose of funding the Wells, Pump Stations, Treatment Plant Repair & Upgrade Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$150,000** be transferred from the Water Supply Enterprise Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-122 APPROPRIATION AND LOAN ORDER

Water Supply Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$300,000** be appropriated for the purpose of funding the Airport & Mary Dunn Wells, Treatment, Pilot Study & Conceptual Layout Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$300,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-123 APPROPRIATION AND LOAN ORDER Water Supply Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$350,000** be appropriated for the purpose of funding the Hyannis Port, Simmons Pond & Straightway Wells, Treatment, Pilot Study & Conceptual Layout Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$350,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-124 APPROPRIATION AND LOAN ORDER

Water Supply Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$459,000** be appropriated for the purpose of funding the Maher Filtration Plant, Solar Panels, Design & Construction Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$459,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-125 APPROPRIATION AND TRANSFER ORDER

Solid Waste Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$100,000** be appropriated for the purpose of funding the Weigh Scale Replacement Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$100,000** be transferred from the Solid Waste Enterprise Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-126 APPROPRIATION AND LOAN ORDER

Sewer Construction and Private Way Improvements Fund Capital Improvement Program (Two-thirds Vote)

ORDERED:

That the sum of **\$1,000,000** be appropriated for the purpose of funding the Effluent Disposal Alternatives Analysis Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$1,000,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-127 APPROPRIATION AND TRANSFER ORDER

Sewer Construction and Private Way Improvements Fund Capital Improvement Program (Majority Vote)

ORDERED:

That the sum of **\$200,000** be appropriated for the purpose of funding the Aeration System and Denitrification Technology Evaluation as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$200,000** be transferred from the Sewer Construction and Private Way Maintenance and Improvement Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-128 APPROPRIATION AND LOAN ORDER

Sewer Construction and Private Way Improvements Fund Capital Improvement Program (Two-thirds Vote)

ORDERED:

That the sum of **\$1,300,000** be appropriated for the purpose of funding the Design & Permitting of the Route 28 Centerville Sewer Expansion Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$1,300,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-129 APPROPRIATION AND LOAN ORDER

Sewer Construction and Private Way Improvements Fund Capital Improvement Program (Two-thirds Vote)

ORDERED:

That the sum of **\$600,000** be appropriated for the purpose of funding the Design & Permitting of the Old Yarmouth Road Sewer Expansion Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$600,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

2020-130 APPROPRIATION AND LOAN ORDER

Sewer Construction and Private Way Improvements Fund Capital Improvement Program (Two-thirds Vote)

ORDERED:

That the sum of **\$1,800,000** be appropriated for the purpose of funding the Design and Permitting of the Route 28 Marstons Mills Sewer Expansion Project as outlined in the FY 2021 - FY 2025 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$1,800,000** under and pursuant to M.G.L. c. 44, §§7 or 8, or pursuant to any other enabling authority, and to issue bonds or notes of the Town therefor; and that in accordance with M.G.L. c. 44, §20, any premium received by the Town upon the sale of any bonds or notes authorized by this order, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, thereby reducing the amount authorized to be borrowed by this order by a like amount; and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes.

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2021 CIP – CIP Appropriations Orders

APPENDIX B - DEBT AMORTIZATION SCHEDULES AS OF JUNE 30, 2019

2021 CIP - Appendix B - Debt Amortization Schedules

LAND ACQUISITION INTEREST & PRINCIPAL	Issue	Maturity	Original	Payments	Payments	Payments	Paymen							
	Date	Date	Amount	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
TF Land Acquisition (I) - Hyannis Golf Course \$748,000 Refunded	02/17/15	02/15/26	325,200 115.000	46,080 26.680	44,560 23.720	43,040 21.840	35,520	34,240	32,960	-	-	-		
TF Land Acquisition - CAP \$365,200 Refunded Total Land Acquisition Interest & Princ		06/30/23	115,000	26,680	68,280	21,840 64,880	- 35,520	- 34,240	32,960	-	-	-	-	
Iotal Land Acquisition interest & Princ	раі			72,700	08,280	04,000	33,320	34,240	32,900	-	-	-		
	Issue	Maturity	Original	Payments	Payments	Payments	Paymer							
SCHOOLS INTEREST & PRINCIPAL	Date	Date	Amount	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 203
TF School Building Improvements	06/16/10	06/15/30	936,000	61,144	59,794	58,331	56,869	55,294	53,719	52,088	50,288	48,600	46,800	i
TF School Facilities Upgrades/Repairs V (I)	06/14/11		884,000	63,319	61,519	59,719	57,919	56,400	54,825	53,138	46,450	44,850	43,250	4
TF School Parking Lot (I)	06/14/11		250,000	26,000	-	-	-	-	-	-	-	-	-	
TF School Facilities Upgrades/Repairs IV		06/15/21	332,000	31,200	-	-	-	-	-	-	-	-	-	
TF School Remolding - Asbestos 00-110 Refunded	06/14/11		50,000	5,400	5,200	-	-	-	-	-	-	-	-	
TF School Facilities Upgrades/Repairs II	06/14/11		179,000	12,263	11,863	11,463	11,063	10,725	10,375	-	-	-		
TF School Facilities Upgrades/Repairs III		06/15/26	190,000 487,000	12,263 36,788	11,863 35,588	11,463 34,388	11,063	10,725	10,375	-	-	-	-	
TF School Improvement (I) TF Advance Refund 6/15/2003 School Remodel II	06/14/11	06/15/26	487,000 193,400	36,788	35,588	34,388	33,188	32,175	31,125	-	-	-		
TF Advance Refund 6/15/2003 School Remodel II TF Advance Refund 6/15/2003 School Remodel I	04/18/12		242,700	21,580	21,192	20,196	-	-	-	-	-	-	-	
TF School Roof Repairs	11/22/13		600,000	65,700	63,900	62,250	60,750	-		-	-	-		
TF HS Library AC Units	11/22/13		450,000	49,275	47,925	46,688	45,563	-			-	-	-	
TF School Fire & Communications System	11/22/13		200.000	21.900	21.300	20.750	20.250	-	-		-	-		
TF School Computer Network Infrastructure		11/15/23	189,000	21,500	15,975	15,563	15,188	-	-	-	-	-		
TF Early Learning Center Modular Facility		02/15/35	2,000,000	149,125	145,125	141,125	137,125	133,125	129,125	126,125	123,125	120,625	118,000	11
TF School Upgrades 1 (I) \$360,000 Refunded		02/15/22	104,700	20,520	19,760		-	-					-	
TF School Facilities Repair & Improvement (I) \$660,000 Refunded	02/17/15		199,700	41,000	38,480	-	-	-	-	-	-	-	-	
TF School Health & Safety Improvements \$478,000 Refunded	02/17/15	02/15/26	193,400	28,660	27,700	21,740	19,980	19,260	18,540	-	-	-	-	
TF MME Roof Replacement (I) \$750,000 Refunded	02/17/15	02/15/26	329,800	46,280	44,760	43,240	40,720	34,240	32,960	-	-	-	-	
TF School Upgrades 2 (I) \$150,000 Refunded	02/17/15	02/15/27	47,400	6,220	6,020	5,820	5,620	4,920	4,240	4,120	-	-	-	
TF BHMCPS Roof (I) \$910,000 Refunded	02/17/15	02/15/27	426,900	54,050	52,330	50,610	48,890	46,170	44,490	42,230	-	-	-	
TF School Facility Improvements 1 (I) \$916,600 Refunded	06/21/16	06/30/28	295,700	34,080	36,000	34,800	33,600	32,400	31,800	31,200	30,600	-	-	
TF Elementary School Modular Classroom (#2015-115)		06/30/36	3,720,000	280,506	273,106	265,706	258,306	250,906	243,506	236,106	232,406	227,781	223,850	21
TF BIS Façade & Roof Improvements (#2015-116)		06/30/36	3,353,000	256,381	249,581	242,781	235,981	229,181	222,381	210,581	207,281	203,156	199,650	19
TF BCHMCPS Façade & Roof Improvements (#2015-117)	02/25/16		260,000	31,000	30,000	29,000	28,000	27,000	26,000	-	-	-	-	
TF High School & Middle School Boiler Upgrades (#2015-119)		06/30/26	350,000	43,400	42,000	40,600	39,200	37,800	36,400	-	-	-	-	
TF W Village Elementary A/C Replacement (#2015-120)	02/25/16		250,000	31,000	30,000	29,000	28,000	27,000	26,000	-	-	-	-	
TF School Parking Lot Light Pole Replacement (I) (#2016-082)	02/23/17		435,000	57,000	55,200	53,400	51,600	44,800	43,200	41,600	-	-	-	
TF School Unit Ventilator Upgrade (I) (#2016-083)	02/23/17		230,000	31,200	30,200	29,200	23,200	22,400	21,600	20,800	-	-	-	
TF Horace Mann Roof (I) (#2016-081)		06/30/38	2,350,000	203,119	197,119	191,119	187,519	181,519	175,519	169,519	163,519	152,519	147,919	14
TF Barnstable Public Schools Unit Ventilator (I) (#2017-062)		06/30/28	225,000 2,968,500	33,250 254,856	32,000 247,356	30,750 239,856	25,000 235,356	24,000 227,856	23,000 220,356	22,000 212,856	21,000 205,356	-	- 191,856	
TF Barnstable High School Learning Center (I) (#2017-063) TF Barnstable Public Schools Asbestos Abatement (I) (#2017-066)		06/30/38	2,968,500	40,000	38.500	32.000	31,250	30.000	220,356	212,856	205,356	197,856	191,856	18
TF Barnstable High School Stadium Bleachers (I) (#2017-067)		06/30/28	966,000	100,450	97,200	93,950	92,000	88,750	85,500	82,250	79,000	- 75,750	73,150	7
TF Barnstable High School Statistin Bleachers (1) (#2017-007)		06/30/38	400,000	34,125	33,125	32,125	31,525	30,525	29,525	28,525	27,525	26,525	25,725	2
TF Hyannis West Elementary School Roof Truss System (2019-058)		06/30/39	850,000	78,300	76,050	73,800	71,550	69,300	67,050	64,800	62,550	60,300	53,050	5
TF Barnstable High School Sports Field Upgrade (#2018-064)		06/30/34	4,600,000	500,100	484.600	469,100	453.600	433.100	417,850	402.600	387,350	372,100	356,850	34
Total Schools Interest & Principal	,,	,,-	.,,	2,805,758	2,660,270	2,505,831	2,389,873	2,159,571	2,088,211	1,828,038	1,662,700	1,530,063	1,480,100	1,38
PUBLIC WAYS INTEREST & PRINCIPAL	Issue	Maturity	Original	Payments	Payments	Payments	Payme							
POBLIC WATS INTEREST & PRINCIPAL	Date	Date	Amount	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 20
TF Bridge Repair	06/14/11		250,000	26,000	-	-	-	-	-	-	-	-	-	
TF Sidewalk Improvements	06/14/11		350,000	36,400	-	-	-	-	-	-	-	-	-	
TF Baxter's Neck Road - Private Way		06/15/26	350,000	29,725	23,725	22,925	22,125	21,450	20,750	-	-	-	-	
TF Advance Refund 6/15/2003 Main St. Hyannis Infr. Improv.		09/15/20	39,100	4,162	-	-	-	-	-	-	-	-	-	
TF Advance Refund 6/15/2003 Drainage 1 (i)	04/18/12		193,200	21,628	18,968	15,504	-	-	-	-	-	-	-	
TF Private Road Repairs (I) \$633,000	11/22/13		633,000	65,700	63,900	62,250	60,750	-	-	-	-	-	-	
TF Sidewalk Overlays	11/22/13		190,000	21,650	21,050	15,563	15,188	-	-	-	-	-		
TF Bumps River Bridge Repair	11/22/13		120,000	10,950	10,650	10,375	10,125	-	-	-	-	-	-	
TF Guardrail Improvements (#2015-098)	02/25/16		170,000	18,600 30,200	18,000 29,200	17,400 23,200	16,800 22,400	16,200 21,600	15,600 20,800	-	-	-	<u> </u>	
TF Sidewalk Improvements (#2015-098) TF Road Repairs (#2015-102)		06/30/36 06/30/31	230,000 518,000	30,200 47,519	29,200 46,119	23,200 44,719	22,400 43,319	21,600 41,919	20,800 40,519	- 39,119	- 38,419	- 37,544	- 31,800	3
TF Road Repairs (#2015-102) TF Road Repairs - Governor's Way (#2016-037)		06/30/31	304.000	47,519 27,325	46,119	44,/19	43,319 24,925	41,919 24,125	23,325	22,525	38,419	37,544 21,625	31,800	
TF Private Road Repairs \$1,607,900	06/21/16		509.000	112.000	108.000	104.000	24,925	24,125	23,325	22,525	22,125	21,025	21,200	2
TF Private Road Repairs \$1,607,900 TF Private Roads Repairs (I) \$167,300		06/30/23	167,300	112,000	108,000	13,400	13,000	12,600	12,200	11,800	- 11,400	- 11,000	10,600	1
in invate nears neparis (1) \$107,300			680,750	65,250	63,450	61,650	59,850	58,050	56,250	54,450	52,650	50,850	49,050	4
TE Guardrail & Sidewalk Improvement Program (I) (#2016-103)	02/22/17													
TF Guardrail & Side walk Improvement Program (I) (#2016-103) TF Guardrail & Side walk (I) (#2017-073)	02/23/17	06/30/32	287,000	30,550	29.550	28.550	27,950	26,950	25.950	24.950	23.950	22.950	22.150	1

PUBLIC FACILITIES INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030	Payments FY 2031
CTF Municipal Facility Improvements	06/16/10		402,500	6,594	6,444	6,281	6,119	5,944	5,769	5,588	5,388	5,200	F1 2030	-
CTF Police Facility	06/16/10		508,000	33,969	33,219	32,406	31,594	30,719	29,844	28,938	27,938	27,000	26,000	
CTF Building - Town Hall Space - 00-110 Refunded	06/14/11	06/15/21	180,000	19,760	-	-	-	-	-	-	-	-	-	-
CTF Municipal Facility Improvement	06/14/11	06/15/21	300,000	31,200	-	-	-	-	-	-	-	-	-	-
CTF Building - Town Hall Repairs - 01-087 Refunded	06/14/11	06/15/22	100,000	10,760	9,360	-	-	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Building Improvements	04/18/12		96,600	10,814	10,464	6,732	-	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Police Facility Addition	04/18/12	09/15/22	626,900	65,700	63,600	61,200	-	-	-	-	-	-	-	-
CTF Tennis Courts	11/22/13		500,000	54,750	53,250	51,875	50,625	-	-	-	-	-	-	-
CTF US Custom House upgrades	11/22/13		263,000	27,375	26,625	25,938	25,313	-	-	-	-	-	-	
CTF Osterville Community Building Upgrades	11/22/13 11/22/13		200,000 168,000	21,900 16,425	21,300 15,975	20,750 15,563	20,250 15,188	-	-	-	-	-	-	
CTF Police Station Upgrades CTF Town Hall Interior Upgrades	11/22/13	11/15/23	150,000	16,425	15,975	15,563	15,188		-		-	-	-	
CTF Guyer Barn Upgrades	11/22/13	11/15/23	148,000	16,300	15,850	15,438	10,125	-	-	-	-	-	-	
CTF MEA Facility Upgrades	11/22/13	11/15/23	131,000	10,950	10,650	10,375	10,125	-	-	-	-	-	-	-
CTF Pearl St Building Upgrades	11/22/13	11/15/23	114,000	10,950	10,650	10,375	10,125	-	-	-	-	-	-	-
CTF S&G Facility Roof Repairs	11/22/13	11/15/23	103,000	10,950	10,650	10,375	10,125	-	-	-	-	-	-	-
CTF West Barnstable Community Building Upgrades	11/22/13		72,000	5,475	5,325	5,188	5,063	-	-	-	-	-	-	-
CTF Highway Operations Facility Construction	11/22/13		66,000	5,475	5,325	5,188	5,063	-	-	-	-	-	-	-
CTF Centerville Recreation Building	02/17/15	02/15/35	185,000	14,463	14,063	13,663	13,263	12,863	12,463	12,163	11,863	11,613	11,350	11,050
CTF Senior Center - Parking Lot Expansion	02/17/15	02/15/30	290,000	26,525	25,725	24,925	24,125	23,325	22,525	21,925	21,325	20,825	10,300	-
CTF Police Facilities	02/17/15		288,000	21,919	21,319	20,719	20,119	19,519	18,919	18,469	18,019	17,644	17,250	16,800
CTF Police Station Construction (I) \$400,000 Adv Refunded 6-15-05	02/17/15	02/15/25	181,650	21,600	20,880	20,160	19,440	18,720	-	-	-	-	-	-
CTF Beach Facilities Improvements (I) \$270,000 Refunded	02/15/15	02/15/22	71,300	15,120	14,560	- 22,420	- 21,660	- 20,900	-	- 19,570	-	-	-	-
CTF Senior Center - Garden Level \$457,000 Refunded CTF Town Building Repairs & Renovations \$685,000 Refunded	02/17/15	02/15/27 02/15/27	195,000 317,600	23,940 41,050	23,180 39,730	38,410	37,090	30,770	20,140 29,650	27,810	-	-	-	
CTF Police Station Remodeling (#2015-100)	02/17/13		355,000	29,044	28,244	27,444	26,644	25,844	25,044	24,244	18,844	18,469	18,150	17,700
CTF Town Hall Remodeling (#2015-101)	02/25/16	06/30/36	939,000	73,831	71,831	69,831	62,831	61,031	59,231	57,431	56,531	55,406	54,450	53,100
CTF Joshua's Pond Recretional Facility (#2015-111)	02/25/16		282,000	26,794	25,994	25,194	24,394	23,594	22,794	21,994	16,594	16,219	15,900	15,450
CTF Craigville Beach Bathhouse (#2016-031)	02/25/16	06/30/36	450,000	36,525	35,525	34,525	33,525	32,525	31,525	25,525	25,125	24,625	24,200	23,600
CTF Bismore Park Visitor Center - CAP \$150,000	06/21/16		48,000	11,120	8,720	10,400	-	-	-	-	-	-	-	-
CTF Bismore Park Visitor Center \$465,000 Refunded	06/21/16	06/30/23	147,500	33,520	32,320	29,120	-	-	-	-	-	-	-	-
CTF Municipal Building Improvements \$297,000 Refunded	06/21/16	06/30/28	49,300	6,200	6,000	5,800	5,600	5,400	5,300	5,200	5,100	-	-	-
CTF IT Hardware and Software Upgrade (I) (#2016-086)	02/23/17	06/30/22	342,000	70,200	67,600	-	-	-	-	-	-	-	-	-
CTF Marstons Mills Parking Lot (I) (#2016-087)	02/23/17	06/30/22	246,450	53,800	46,800	-	-	-	-	-	-	-	-	-
CTF Beach Facility Improvement (I) (#2016-110)	02/23/17	06/30/27	438,000	57,000	55,200	53,400	51,600	44,800	43,200	41,600	-	-	-	-
CTF Osterville Bay Elem School Improvements (I) (#2016-112)	02/23/17		724,300	61,594	54,994	53,594	52,194	50,794	49,394	47,994	46,594	45,194	43,794	42,744
CTF Lombard Field Improvements (I) (#2016-113) CTF West Barnstable Shooting Range (I) (#2017-074)	02/23/17 02/27/18	06/30/37 06/30/28	895,000 314,000	72,338 41,400	70,538 39,900	68,738 38,400	66,938 37,500	65,138 36,000	63,338 34,500	61,538 33,000	59,738 31,500	57,938	56,138	54,788
CTF Design and Hazmat Removal Project Armory Building (2018-096)	02/27/18	06/30/28	461,750	113,250	103,500	99,000	94,500	30,000	34,300	33,000	31,500	-	-	
CTF Senior Center Renovations (#2018-076)	02/26/19		659,000	60,788	59,038	57,288	55,538	53,788	52,038	50,288	48,538	46,788	45,038	38,288
CTF Osterville Recreation Building Design & Construction (#2017-086)	02/26/19		675,000	61,388	59,638	57,888	56,138	54,388	52,638	50,888	49,138	47,388	45,638	43,888
CTF Town Hall Restroom Renovations	02/26/19		560,000	52,056	50,556	49,056	47,556	46,056	44,556	43,056	41,556	40,056	38,556	37,056
CTF Former Marston Mills Elementary School Demo (2018-094)	02/26/19	06/30/24	176,050	42,000	40,250	38,500	36,750	-	-	-	-	-	-	-
CTF School Administration Building (#2018-092)	02/26/19	06/30/24	285,000	71,250	63,250	60,500	57,750	-	-	-	-	-	-	-
Total Public Facilities Interest & Principal				1,514,484	1,394,014	1,212,217	1,060,053	662,115	622,865	597,218	483,788	434,363	406,763	354,463
WATERWAYS INTEREST & PRINCIPAL	Issue	Maturity	Original	Payments										
	Date	Date	Amount	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
CTF Dredging	06/16/10		419,250	33,725	32,825	31,850	25,875	-	-	-	-	-	-	-
CTF Boat Ramp Renovations	06/14/11	06/15/21	250,000	26,000	-	-	-	-	-	-	-	-	-	-
CTF Dredging East Bay & Blish Point	06/14/11 06/14/11	06/15/21 06/15/26	665,000 600,000	67,600	- 47,450	- 45,850	- 44,250	- 42,900	- 41,500	-	-	-	-	
CTF Prince Cove/Hayward Rd. Boat Ramp CTF East Bay Dredging	11/22/13	11/15/23	600,000	49,050 65,700	47,450 63,900	45,850 62,250	44,250 60,750	42,900	41,500	-	-	-	-	
CTF Hyannis Harbor Bulkhead Construction	11/22/13		142,000	16,025	10,650	10,375	10,125	-	-	-				<u> </u>
CTF Millway Boat Ramp & Dock Upgrades	11/22/13		133,000	10,950	10,650	10,375	10,125	-		- 1	-	-	-	-
CTF Marstons Mills Fish Run Reconstruction	02/17/15	02/15/30	326,000	26,825	26,025	25,225	24,425	23,625	22,825	22,225	21,625	21,125	20,600	-
CTF Paving: Bay Street Boat Ramp (#2015-099)	02/25/16	06/30/26	142,000	18,200	17,600	17,000	16,400	10,800	10,400	-				-
CTF Channel Dredging- Barnstable Harbor (#2016-035)	02/25/16	06/30/26	490,000	61,600	59,600	57,600	55,600	48,600	46,800	-	-	-	-	-
CTF Pleasant St. Dock - 1 \$350,000 Refunded	06/21/16		109,500	24,560	22,680	21,840	-	-	-	-	-	-	-	-
CTF Pleasant St. Dock - 2 \$350,000 Refunded	06/21/16		110,000	24,560	22,680	21,840	-	-	-	-	-	-	-	-
CTF Boat Ramps - CAP \$927,000 Refunded	06/21/16	06/30/23	290,000	67,000	64,600	57,200	-	-	-	-	-	-	-	-
CTF Blish Point Boat Access Channel Dredging (I) (#2016-111)	02/23/17	06/30/37	943,900	78,506	76,506	74,506	72,506	70,506	63,506	61,706	59,906	58,106	56,306	54,956
Total Waterways Interest & Principal				570,301	455,166	435,911	320,056	196,431	185,031	83,931	81,531	79,231	76,906	54,956

WATER QUALITY INTEREST & PRINCIPAL	Issue	Maturity	Original	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments
CTF MWPAT CW-04-31 Pool 11	Date 11/09/07	Date 07/15/20	Amount 389,216	FY 2021 33,999	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
CTF Lake Treatment	06/16/10		275,000	17,475	17,025	16,538	16,050	15,525						
CTF Nitrogen Management CW-04-31-A		07/15/20	211,460	23,330		-	-		-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Drainage 2 (i)		09/15/22	96,700	10,818	10,468	6,834	-	-	-	-	-	-	-	-
CTF Water Quality Evaluation	11/22/13	11/15/23	230,000	21,900	21,300	20,750	20,250	-	-	-	-	-	-	-
CTF Nitrogen Management CW-04-31-B Series 16	05/14/15	07/15/20	157,531	27,963	-	-	-	-	-	-	-	-	-	
CTF Hamblin Pond Alum Treatment (#2015-112)		06/30/31	300,000	27,325	26,525	25,725	24,925	24,125	23,325	22,525	22,125	21,625	21,200	20,60
Total Water Quality Interest & Princip	al			162,810	75,318	69,847	61,225	39,650	23,325	22,525	22,125	21,625	21,200	20,60
TOTAL GENERAL FUND BOND OBLIGATIO	NS			5,693,372	5,131,185	4,733,946	4,183,158	3,314,901	3,167,786	2,684,555	2,398,688	2,209,250	2,119,769	1,942,81
	loguo	Maturity	Original	Doumonts	Doumonts	Doumonts	Doumonts	Boumonts	Doumonto	Doumonts	Doumonts	Doumonto	Boumonts	Doumonts
AIRPORT INTEREST & PRINCIPAL	Issue Date	Date	Amount	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030	Payments FY 2031
Airport (O)		06/15/31	730,000	53,000	51,600	55,200	53,600	52,250	50,850	54,350	52,663	50,863	54,063	52,06
Airport Terminal Ramp Construction - Phase 2 (O) (#2013-0101)		06/30/37	428,000	28,613	28,013	32,413	31,613	30,813	30,013	29,213	28,413	32,613	31,613	30,86
Airport New Fuel Farm (I) (#2013-102)	02/23/17	06/30/36	634,500	44,875	43,875	47,875	46,675	45,475	44,275	48,075	46,675	45,275	43,875	47,82
Airport East Ramp Design & Construction (O) (#2014-053)	02/23/17	06/30/37	641,200	45,169	44,169	43,169	47,169	45,969	44,769	43,569	42,369	46,169	44,769	43,71
Runway Reconstruction & Generator Replacement	02/26/19	06/30/39	355,500	34,144	33,144	32,144	31,144	30,144	29,144	28,144	27,144	26,144	25,144	19,14
Airfield Improvements	02/26/19	06/30/31	59,700	7,650	7,400	7,150	6,900	6,650	6,400	6,150	5,900	5,650	5,400	5,15
Total Airport Fund Bonds				213,450	208,200	217,950	217,100	211,300	205,450	209,500	203,163	206,713	204,863	198,76
GOLF COURSE INTEREST & PRINCIPAL	Issue	Maturity	Original	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments
Hyannis Golf Course Acquisition \$3,900,000 Refunded	Date 02/17/15	Date 02/15/25	Amount 1,951,500	FY 2021 289,600	FY 2022 289,080	FY 2023 288,200	FY 2024 291,960	FY 2025 290,160	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Olde Barnstable Building Improvements (#2015-105)		06/30/26	174,000	19,600	289,080	23,200	291,980	230,180	20,800	-	-	-	-	
Hyannis Building Improvements (#2015-106)		06/30/26	140,000	18,600	18,000	17,400	16,800	16,200	15,600			-		
Olde Barnstable Fairgrounds Golf Course (I) (#2016-107)		06/30/37	245,000	22,313	21,713	21,113	20,513	19,913	19,313	13,713	13,313	12,913	12,513	12,21
Hyannis Golf Course Improvements (I) (#2016-108)		06/30/37	292,700	23,675	23,075	22,475	21,875	21,275	20,675	20,075	19,475	18,875	18,275	17,82
Hyannis Golf Course Turf Maintenance (I) (#2017-085)	02/27/18	06/30/23	310,000	67,800	64,800	61,800	-	-	-	-	-	-	-	-
Total Golf Course				441,588	440,668	434,188	373,548	369,148	76,388	33,788	32,788	31,788	30,788	30,038
WATER POLLUTION CONTROL INTEREST & PRINCIPAL	Issue	Maturity	Original	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments
	Date	Date	Amount	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Shallow Well Injection - CW-00-60 - Pool 8	08/25/04		436,370	33,040	32,250	30,750	-	-	-	-	-	-	-	
Shallow Well Injection - CW-00-60 - Pool 8 Sewer 98-44A	08/25/04	08/01/22	(subsidy) 1,582,178	(10,267) 126,588	(9,974) 121,424	(9,028) 120,681	- 115,000	-	-	-	-	-	-	
Sewer 98-44A	12/14/06		(subsidy)	(42,911)	(40,775)	(38,360)	(34,430)	-	-	-	-	-	-	
Sewer 98-49A		08/01/23	556,458	45,863	43,989	41,976	40,000	-	-	-	-	-	-	
Sewer 98-49A		08/01/23	(subsidy)	(15,082)	(14,307)	(13,463)	(12,096)	-	-	-	-	-	-	-
MWPAT CW-04-35		07/15/27	4,938,114	326,668	326,668	326,668	326,668	326,668	326,668	326,668	326,668	-	-	-
Sewer 05-28 Restructured		07/15/28	629,403	41,637	41,637	41,636	41,637	41,637	41,637	41,636	41,637	41,636	-	
Sewer (I)		06/15/21	300,000	31,200	-	-	-	-	-	-	-	-	-	
Sewer CW-04-35A Pool 13		07/15/27	1,469,137	107,284	107,272	107,259	107,247	107,234	107,221	107,207	107,193	-	-	-
Rehab Clarifiers (#2015-091)		06/30/36	1,000,000	75,813	73,813	71,813	69,813	67,813	65,813	63,813	62,813	61,563	60,500	59,00
Pump Station/Sewer Main Const (#2009-132) Waste Water Treament Plant Sewer Turbine Generator \$570,000 Refunded		06/30/21	318,000 251,000	62,400 31,080	- 30,080	- 26,080	- 33,200	- 27,000	- 26,500	- 26,000	- 25,500	-		-
Waste water Treament Plant Sewer Turbine Generator \$570,000 Refunded Wastewater Treatment Plant Clarifiers Rehab (O) (#2016-097)		06/30/28	1,146,000	94,819	92,419	90,019	87,619	85,219	26,500 82,819	26,000 75,419	73,219	- 71,019	68,819	67,16
Wastewater Treatment Plant Clariners Kenab (0) (#2016-097) Wastewater Treatment Plant Backup Generator (0) (#2016-098)		06/30/37	862,000	71,250	69,450	67,650	65,850	64,050	62,250	60,450	58,650	56,850	50,050	48,85
Total Water Pollution Control Enterprise		-,,21	,500	979,381	873,944	863,680	840,507	719,619	712,907	701,193	695,679	231,068	179,369	175,01
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	Issue	Maturity	Original	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments
SOLID WASTE INTEREST & PRINCIPAL	Date	Date	Amount	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Advance Refund 6/15/2003 Transfer Station Improvements	04/18/12		241,500	27,035	22,240	20,910	-	-	-	-	-	-	-	-
Solid Waste Facility (I) \$630,000 Refunded	02/17/15	02/15/27	284,900	36,360	35,200	33,040	31,920	30,800	29,680	28,840	-	-	-	-
Total Solid Waste Fund				63,395	57,440	53,950	31,920	30,800	29,680	28,840	-	-	-	-
			Orisi I	Daving	Deven	David	Davia	Daving	Davin i	Denm	Daving	Davin i	Daving	David
WATER SUPPLY INTEREST & PRINCIPAL	Issue	Maturity	Original	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments
MWPAT DWS-09-02	Date	Date 07/15/30	Amount 2,788,911	FY 2021 169,184	FY 2022 169,185	FY 2023 169,184	FY 2024 169,184	FY 2025 169,185	FY 2026 169,184	FY 2027 169,184	FY 2028 169,184	FY 2029 169,184	FY 2030 169,184	FY 2031 169,18
DWP-11-10 Series 17A		01/15/33	560,761	34,193	34,238	34,285	34,332	34,382	34,431	34,482	34,534	34,587	34,641	34,69
Water Main Loop		02/15/35	540,000	42,938	41,738	40,538	39,338	34,382	36,938	36,038	35,138	34,388	23,600	23,00
Water Co. (Level Debt) (O) \$10,000,000 Refunded		02/15/27	5,704,800	693,870	691,350	692,070	691,870	689,750	692,750	692,160	-	-		
DW-09-02 Series 16		07/15/32	533,117	35,129	35,170	35,213	35,256	35,300	35,346	35,391	35,439	35,487	35,536	35,58
DWP-11-09 Series 17A		01/15/33	793,438	52,689	52,759	52,831	52,904	52,980	53,057	53,135	53,215	53,298	53,381	53,46
Water Main Replacement (#2010-097)	02/25/16	06/30/21	380,000	78,000	-	-	-	-				_	-	
Pipe Replacement Upgrade FY17 (#2015-085)		06/30/36	900,000	68,231	66,431	64,631	62,831	61,031	59,231	57,431	56,531	55,406	54,450	53,10

WATER SUPPLY INTEREST & PRINCIPAL	Issue	Maturity	Original	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments
Paint/Repair Mary Dunn 2 (#2015-087)	Date 02/25/16	Date 06/30/21	Amount 615,000	FY 2021 124,800	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Hyannis Water System Pipe Replacement (O) (#2016-093)	02/23/18	06/30/21	858,400	71,050	- 69,250	67,450	65,650	63,850	62,050	60,250	58,450	51,650	50,050	48,850
DWP-14-09 Mass Clean Water Trust (#2014-071, 2013-085, 2013-088)	04/13/17	07/15/37	1,467,339	89,017	89,127	89,240	89,354	89,471	89,591	89,713	89,838	89,966	90,096	90,229
Well Reactivation (O) (#2017-080)	02/27/18		276,000	24,813	24,063	23,313	22,863	22,113	21,363	20,613	19,863	19,113	18,513	17,913
Water Pipe Replacement (O) (#2017-081)	02/27/18	06/30/38	468,000	41,575	40,325	39,075	38,325	37,075	35,825	34,575	33,325	32,075	31,075	30,075
Mary Dunn Water Storage Tank Site Work (O) (#2017-083)		06/30/38	600,500	51,188	49,688	48,188	47,288	45,788	44,288	42,788	41,288	39,788	38,588	37,388
Water Carbon Filter Units (O) (#2017-079)		06/30/18	440,000	61,600	59,350	57,100	55,750	53,500	51,250	44,000	42,000	-	-	-
MCWT Series 21 DWP-16-17 (#2014-073, #2016-146,#, #2016-163, #2017-010)	09/12/18		2,939,657	176,696	176,881	177,069	177,262	177,458	177,659	177,864	178,073	178,288	178,506	178,730
Pipe Replacement Upgrade FY19 (#2018-081) Carbon Treatment System Construction at Maher Wellfield (2017-099)	02/26/19	06/30/39 06/30/28	1,050,000 318.500	96,063 49,000	93,313 47,250	90,563 45,500	87,813 43,750	85,063 42,000	82,313 40,250	79,563 38.500	76,813 36,750	74,063	66,313	63,813
Well Exploration Program (2013-087)		06/30/28	489,500	76,500	73,750	71,000	68,250	42,000	62,750	55,000	52,500			-
MCWT Series 19 DWP-13-01 Reamortization		07/15/36	1,736,865	120,433	120,585	120,740	120,898	121,059	121,225	121,394	121,566	121,742	121,922	122,106
MCWT Series DWP 18-10 (2018-173) & (2017-099)		07/15/40	9,754,852	65,032	585,744	586,342	586,954	587,579	588,217	588,869	589,535	590,216	590,912	591,623
Total Water Enterprise Fund	1			2,222,000	2,520,196	2,504,330	2,489,872	2,471,220	2,457,716	2,430,948	1,724,040	1,579,249	1,556,765	1,549,757
MARINA INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030	Payments FY 2031
CTF Marina Bulkhead Repair I	06/14/11	06/15/30	725,000	54,031	52,431	50,831	44,231	43,050	41,825	40,513	39,200	37,800	36,400	-
Marina Bulkhead Repair II	06/14/11	06/15/30	525,000	37,300	41,300	40,100	38,900	37,888	36,838	40,713	39,400	38,000	41,600	-
Advance Refund 6/14/2004 Prince Cove Marina Acquisition		09/15/22	864,000	98,550	95,400	91,800	-	-	-	-	-	-	-	-
Gateway Marina Dredging (#2015-108)	02/25/16		280,000	36,400	35,200	29,000	28,000	27,000	26,000	-		-	-	-
Prince Cover Marina Bulkhead (#2015-109) Hyannis Harbor Bulkhead (#2015-110)	02/25/16	06/30/36 06/30/21	570,000 158,000	44,588 31,200	43,388	42,188	40,988	39,788	38,588	37,388	36,788	36,038	35,400	29,500
Gateway Marina Maintenance Dredging (I) (#2016-109)		06/30/21	476.500	31,200	38.475	37.475	- 36.475	- 35.475	34.475	33.475	32.475	- 31.475	- 30.475	29.725
Total Marina Enterprise Fund	02/23/17	00/30/37	470,500	341,544	306,194	291,394	188,594	183,200	177,725	152,088	147,863	143,313	143,875	59,225
Total Marina Enterprise Fund				541,544	500,194	251,354	100,004	105,200	177,725	192,000	147,005	145,515	143,075	35,225
SANDY NECK INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030	Payments FY 2031
Sandy Neck Beach House II	06/14/11	06/15/26	81,000	6,319	6,119	5,919	5,719	5,550	10,375	-	-	-	-	-
Sandy Neck Beach House I	06/14/11	06/15/31	966,491	68,806	72,006	70,006	68,006	71,319	69,394	72,331	70,081	67,681	70,281	67,681
Sandy Neck Beach House III	06/14/11	06/15/31	217,509	15,056	14,656	14,256	13,856	13,519	13,169	12,794	17,419	16,819	16,219	15,619
Total Sandy Neck Enterprise Fund				90,181	92,781	90,181	87,581	90,388	92,938	85,125	87,500	84,500	86,500	83,300
HYCC INTEREST & PRINCIPAL	lssue Date	Maturity Date	Original	Payments	Payments FY 2022	Payments FY 2023	Payments	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments	Payments FY 2029	Payments	Payments
CTF HYCC 1 (I) \$1,000,000 Refunded	02/17/15	02/15/27	Amount 474,900	FY 2021 60,310	58,390	56,470	FY 2024 53,550	51,670	49,790	47,380	FY 2028	FT 2029	FY 2030	FY 2031
CTF HYCC 2 (I) \$8,000,000 Refunded	02/17/15							413,330	396,290	380,070	-			
CTF HYCC 3 (I) \$1,600,000 Refunded			3.794.400	480,170	463.890	447.650	430.450					-	-	
	02/17/15	02/15/27 02/15/27	3,794,400 759,000	480,170 95,630	463,890 92,590	447,650 89,550	430,450 86,510	82,470	79,470	76,220	-	-	-	
CTF HYCC 4 (I) \$6,765,000 Refunded	02/17/15							82,470 360,800			- 316,200	-	- - -	-
CTF HYCC 4 (I) \$6,765,000 Refunded Total HYCC Enterprise Fund		02/15/27	759,000	95,630	92,590	89,550	86,510		79,470	76,220	- 316,200 316,200	- - - -		
	06/21/16	02/15/27 06/30/28	759,000 3,320,000	95,630 419,600 1,055,710	92,590 404,000 1,018,870	89,550 384,480 978,150	86,510 374,200 944,710	360,800 908,270	79,470 344,100 869,650	76,220 332,600 836,270	316,200	-		
	06/21/16 Issue	02/15/27 06/30/28 Maturity	759,000 3,320,000 Original	95,630 419,600 1,055,710 Payments	92,590 404,000 1,018,870 Payments	89,550 384,480 978,150 Payments	86,510 374,200 944,710 Payments	360,800 908,270 Payments	79,470 344,100 869,650 Payments	76,220 332,600 836,270 Payments	316,200 Payments	- - Payments	- - - Payments	Payments
Total HYCC Enterprise Fund	06/21/16 Issue Date	02/15/27 06/30/28 Maturity Date	759,000 3,320,000 Original Amount	95,630 419,600 1,055,710 Payments FY 2021	92,590 404,000 1,018,870 Payments FY 2022	89,550 384,480 978,150 Payments FY 2023	86,510 374,200 944,710 Payments FY 2024	360,800 908,270 Payments FY 2025	79,470 344,100 869,650 Payments FY 2026	76,220 332,600 836,270 Payments FY 2027	316,200 Payments FY 2028	- Payments FY 2029	FY 2030	Payments FY 2031
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations	06/21/16 Issue Date 06/16/10	02/15/27 06/30/28 Maturity Date 06/15/30	759,000 3,320,000 Original Amount 1,332,520	95,630 419,600 1,055,710 Payments FY 2021 88,319	92,590 404,000 1,018,870 Payments FY 2022 86,369	89,550 384,480 978,150 Payments	86,510 374,200 944,710 Payments	360,800 908,270 Payments	79,470 344,100 869,650 Payments	76,220 332,600 836,270 Payments	316,200 Payments	- - Payments		
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref 6/15/2002	06/21/16 Issue Date 06/16/10 06/14/11	02/15/27 06/30/28 Maturity Date 06/15/30 06/15/22	759,000 3,320,000 Original Amount 1,332,520 7,065,000	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240	89,550 384,480 978,150 Payments FY 2023 84,256	86,510 374,200 944,710 Payments FY 2024	360,800 908,270 Payments FY 2025	79,470 344,100 869,650 Payments FY 2026	76,220 332,600 836,270 Payments FY 2027	316,200 Payments FY 2028	- Payments FY 2029	FY 2030	
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref 6/15/2002 Advance Refund 6/15/2003 Landbank Acquisitions	06/21/16 Issue Date 06/16/10	02/15/27 06/30/28 Maturity Date 06/15/30 06/15/22 09/15/22	759,000 3,320,000 Original Amount 1,332,520 7,065,000 964,600	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480 104,009	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240 100,684	89,550 384,480 978,150 Payments FY 2023 84,256 - 96,492	86,510 374,200 944,710 Payments FY 2024 82,144 - -	360,800 908,270 Payments FY 2025	79,470 344,100 869,650 Payments FY 2026	76,220 332,600 836,270 Payments FY 2027	316,200 Payments FY 2028	- Payments FY 2029	FY 2030	
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref 6/15/2002	06/21/16 Issue Date 06/16/10 06/14/11 04/18/12 04/18/12	02/15/27 06/30/28 Maturity Date 06/15/30 06/15/22 09/15/22	759,000 3,320,000 Original Amount 1,332,520 7,065,000	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240	89,550 384,480 978,150 Payments FY 2023 84,256	86,510 374,200 944,710 Payments FY 2024	360,800 908,270 Payments FY 2025 79,869 -	79,470 344,100 869,650 Payments FY 2026 77,594 -	76,220 332,600 836,270 Payments FY 2027 75,238 -	316,200 Payments FY 2028	- - - FY 2029 70,200 - -	FY 2030	
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref 6/15/2002 Advance Refund 6/15/2003 Landbank Acquisitions Advance Refund 6/15/2004 Landbank Acquisitions 3	06/21/16 Issue Date 06/16/10 06/14/11 04/18/12 04/18/12	02/15/27 06/30/28 Maturity Date 06/15/30 06/15/22 09/15/22 09/15/22	759,000 3,320,000 Original Amount 1,332,520 7,065,000 964,600 5,385,600	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480 104,009 623,374	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240 100,684 597,544	89,550 384,480 978,150 Payments FY 2023 84,256 - 96,492 567,732	86,510 374,200 944,710 Payments FY 2024 82,144 - - -	360,800 908,270 Payments FY 2025 79,869 - - -	79,470 344,100 869,650 Payments FY 2026 77,594 - -	76,220 332,600 836,270 Payments FY 2027 75,238 - - -	316,200 Payments FY 2028 72,638 - - -	- - - FY 2029 - - - - -	FY 2030 67,600 - - -	FY 2031 - - -
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref 6/15/2002 Advance Refund 6/15/2003 Landbank Acquisitions Advance Refund 6/15/2004 Landbank Acquisitions 3 Advance Refund 6/15/2004 Landbank Acquisitions 2 Land Acquisition - 2004-105 Bone Hill \$200k Refunded Land Acquisition - 06-15-05 - 2004-106 \$180k Refunded	06/21/16 Issue Date 06/16/10 06/14/11 04/18/12 04/18/12 04/18/12 02/17/15	02/15/27 06/30/28 Maturity Date 06/15/30 06/15/22 09/15/22 09/15/22 02/15/25 02/15/25	759,000 3,320,000 Original Amount 1,332,520 7,065,000 964,600 5,385,600 227,300 90,850 73,600	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480 104,009 623,374 27,375 10,800 11,040	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240 100,684 597,544 26,500 10,440 4,640	89,550 384,480 978,150 FY 2023 FY 2023 - 96,492 567,732 25,500 10,080 4,480	86,510 374,200 944,710 Payments FY 2024 82,144 - - - - - - - - - - - - - - - - - -	360,800 908,270 Payments FY 2025 - - - - - - 9,360 4,160	79,470 344,100 869,650 Payments FY 2026 77,594 - - -	76,220 332,600 836,270 Payments FY 2027 75,238 - - - -	316,200 Payments FY 2028 72,638 - - - - -	- - Payments FY 2029 70,200 - - - - -	FY 2030 67,600 - - - - -	FY 2031 - - - -
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref 6/15/2002 Advance Refund 6/15/2003 Landbank Acquisitions 3 Advance Refund 6/15/2004 Landbank Acquisitions 3 Advance Refund 6/15/2004 Landbank Acquisitions 2 Land Acquisition - 2004-105 Bone Hill \$200K Refunded Land Acquisition - 06-15-05 - 2004-106 \$180k Refunded Land Acquisition - Hyanis Golf \$5,500,000 Refunded	06/21/16 Date 06/16/10 06/14/11 04/18/12 04/18/12 04/18/12 02/17/15 02/17/15	02/15/27 06/30/28 Maturity Date 06/15/30 06/15/22 09/15/22 09/15/22 02/15/25 02/15/25	759,000 3,320,000 Original Amount 1,332,520 7,065,000 964,600 227,300 90,850 73,600 73,600 2,496,300	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480 104,009 623,374 27,375 10,800 11,040 301,580	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240 100,684 597,544 26,500 10,440 4,640 286,500	89,550 384,480 978,150 Payments FY 2023 84,256 - - 96,492 25,67,732 25,500 10,080 4,480 277,620	86,510 374,200 944,710 Payments FY 2024 - - - 9,720 4,320 266,700	360,800 908,270 Payments FY 2025 79,869 - - - - - 9,360 4,160 255,320	79,470 344,100 869,650 Payments FY 2026 77,594 - - - - -	76,220 332,600 836,270 Payments FY 2027 75,238 - - - -	316,200 Payments FY 2028 72,638 - - - - -	- - Payments FY 2029 70,200 - - - - -	FY 2030 67,600 - - - - -	FY 2031 - - - -
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref6/15/2002 Advance Refund 6/15/2004 Landbank Acquisitions 3 Advance Refund 6/15/2004 Landbank Acquisitions 2 Land Acquisition - 2004-105 Bone Hill \$200K Refunded Land Acquisition - 4004-105 \$180k Refunded Land Acquisition - 4005 \$500,000 Refunded Land Acquisition - Archibald \$500,000 Refunded	06/21/16 Date 06/16/10 06/14/11 04/18/12 04/18/12 04/18/12 02/17/15 02/17/15	02/15/27 06/30/28 Maturity Date 06/15/30 06/15/22 09/15/22 09/15/22 02/15/25 02/15/25	759,000 3,320,000 Original Amount 1,332,520 7,065,000 964,600 5,385,600 227,300 90,850 73,600	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480 104,009 623,374 27,375 10,800 11,040 301,580 23,370	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240 100,684 597,544 26,500 10,440 4,640 286,500 28,410	89,550 384,480 978,150 Payments FY 2023 FY 2023 96,492 567,732 25,500 10,080 4,480 277,620 226,450	86,510 374,200 944,710 Payments FY 2024 - - - - - - - - - - - - - - - - - - -	360,800 908,270 Payments FY 2025 79,869 - - - - 9,360 4,160 255,320 24,610	79,470 344,100 869,650 Payments FY 2026 - - - - - - - - - - - - - - - - - - -	76,220 332,600 836,270 Payments FY 2027 75,238 - - - - - - - - - - - - -	316,200 Payments FV 2028 72,638	Payments FY 2029 70,200 - - - - - - - - - - - -	FY 2030 67,600 - - - - - - - - - - - -	FY 2031 - - - -
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref 6/15/2002 Advance Refund 6/15/2003 Landbank Acquisitions 3 Advance Refund 6/15/2004 Landbank Acquisitions 3 Advance Refund 6/15/2004 Landbank Acquisitions 2 Land Acquisition - 2004-105 Bone Hill \$200K Refunded Land Acquisition - 06-15-05 - 2004-106 \$180k Refunded Land Acquisition - Hyanis Golf \$5,500,000 Refunded	06/21/16 Date 06/16/10 06/14/11 04/18/12 04/18/12 04/18/12 02/17/15 02/17/15	02/15/27 06/30/28 Maturity Date 06/15/30 06/15/22 09/15/22 09/15/22 02/15/25 02/15/25	759,000 3,320,000 Original Amount 1,332,520 7,065,000 964,600 227,300 90,850 73,600 73,600 2,496,300	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480 104,009 623,374 27,375 10,800 11,040 301,580	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240 100,684 597,544 26,500 10,440 4,640 286,500	89,550 384,480 978,150 Payments FY 2023 84,256 - - 96,492 25,67,732 25,500 10,080 4,480 277,620	86,510 374,200 944,710 Payments FY 2024 - - - 9,720 4,320 266,700	360,800 908,270 Payments FY 2025 79,869 - - - - - 9,360 4,160 255,320	79,470 344,100 869,650 Payments FY 2026 77,594 - - - - -	76,220 332,600 836,270 Payments FY 2027 75,238 - - - -	316,200 Payments FY 2028 72,638 - - - - -	- - Payments FY 2029 70,200 - - - - -	FY 2030 67,600 - - - - -	FY 2031 - - - -
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref6/15/2002 Advance Refund 6/15/2004 Landbank Acquisitions 3 Advance Refund 6/15/2004 Landbank Acquisitions 2 Land Acquisition - 2004-105 Bone Hill \$200K Refunded Land Acquisition - 4004-105 \$180k Refunded Land Acquisition - 4005 \$500,000 Refunded Land Acquisition - Archibald \$500,000 Refunded	06/21/16 Issue Date 06/16/10 06/14/11 04/18/12 04/18/12 04/18/12 02/17/15 02/17/15 02/17/15	02/15/27 06/30/28 Maturity Date 06/15/30 06/15/22 09/15/22 09/15/22 09/15/22 02/15/25 02/15/25 02/15/26	759,000 3,320,000 Original Amount 1,332,520 7,065,000 964,600 5,385,600 227,300 90,850 73,600 2,496,300 212,100	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480 104,009 623,374 27,375 10,800 11,040 301,580 29,370 1,820,347	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240 100,684 597,544 26,500 10,440 4,640 286,500 28,410 1,667,327	89,550 384,480 978,150 Payments FY 2023 - 96,492 567,732 25,500 10,080 4,480 277,620 26,450 1,092,610	86,510 374,200 944,710 Payments FY 2024 - - - 9,720 4,320 266,700 25,530 388,414	360,800 908,270 Payments FY 2025 79,869 - - - - - - - - - - - - - - - - - - -	79,470 344,100 869,650 Payments FY 2026 - - - - - - - - - - - - - - - - - - -	76,220 332,600 836,270 Payments FY 2027 - - - - - - - - - - - - - - - - - - -	316,200 Payments FY 2028 72,638	Payments FY 2029 70,200 - - - - - - - - - - - - - - - - - -	FY 2030 67,600 - - - - - - - - - - - - - - - - - -	FY 2031
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref 6/15/2002 Advance Refund 6/15/2004 Landbank Acquisitions 3 Advance Refund 6/15/2004 Landbank Acquisitions 2 Land Acquisition - 2004-105 Bone Hill \$200K Refunded Land Acquisition - 400-105 \$180k Refunded Land Acquisition - 400-105 \$500,000 Refunded Land Acquisition - Archibald \$500,000 Refunded	06/21/16 1ssue Date 06/16/10 06/14/11 04/18/12 04/18/12 04/18/12 02/17/15 02/17/15 02/17/15 02/17/15	02/15/27 06/30/28 Maturity Date 06/15/22 09/15/22 09/15/22 02/15/25 02/15/25 02/15/26 Maturity	759,000 3,320,000 Original Amount 1,332,520 7,065,000 964,500 227,300 90,850 73,660 2496,300 212,100 Original	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480 104,009 623,374 27,375 10,800 11,040 301,580 29,370 1,820,347 Payments	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240 100,684 597,544 597,544 26,500 10,440 4,640 286,500 28,410 1,667,327 Payments	89,550 384,480 978,150 Payments FY 2023 84,256 - - 95,492 25,57,732 25,500 10,080 4,480 277,620 26,450 1,092,610 Payments	86,510 374,200 944,710 Payments 82,144 - - 9,720 4,320 2,66,700 25,530 388,414 Payments	360,800 908,270 Payments FY 2025 79,869 - - - - - - - - - - - - - - - - - - -	79,470 344,100 869,650 Payments FY 2026 77,594 - - - - - 23,690 101,284 Payments	76,220 332,600 836,270 Payments FY 2027 75,238 - - - - - 75,238 Payments	316,200 Payments FY 2028 72,638 72,638 Payments	Payments FY 2029 70,200 - - - - - - - - - - - - - - - - - -	FY 2030 67,600 - - - - - - - - - - - - - - - - - -	FY 2031
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref 6/15/2002 Advance Refund 6/15/2004 Landbank Acquisitions 3 Advance Refund 6/15/2004 Landbank Acquisitions 3 Advance Refund 6/15/2004 Landbank Acquisitions 2 Land Acquisition - 2004-105 Bone Hill \$200k Refunded Land Acquisition - 2004-105 Sone Hill \$200k Refunded Land Acquisition - 4nchibald \$500,000 Refunded Land Acquisition - Archibald \$500,000 Refunded Land Acquisition - Archibald \$500,000 Refunded Total Community Preservation Fund TITTLE V FUND INTEREST & PRINCIPAL	06/21/16 Issue Date 06/16/10 06/16/10 06/16/11 04/18/12 04/18/12 04/18/12 02/17/15 02/17/15 02/17/15 02/17/15	02/15/27 06/30/28 Maturity Date 06/15/30 06/15/30 09/15/22 09/15/22 02/15/25 02/15/25 02/15/25 02/15/26	759,000 3,320,000 0riginal Amount 1,332,520 7,065,000 964,600 5,385,600 2,27,300 90,850 73,600 2,2496,300 2,2496,300 2,122,100 Original Amount	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480 104,009 623,374 27,375 10,800 11,040 301,580 29,370 1,820,347 Payments FY 2021	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240 100,684 597,544 26,500 10,440 4,640 286,500 28,410 1,667,327	89,550 384,480 978,150 Payments FY 2023 - 96,492 567,732 25,500 10,080 4,480 277,620 26,450 1,092,610	86,510 374,200 944,710 Payments FY 2024 - - - 9,720 4,320 266,700 25,530 388,414	360,800 908,270 Payments FY 2025 79,869 - - - - - - - - - - - - - - - - - - -	79,470 344,100 869,650 Payments FY 2026 - - - - - - - - - - - - - - - - - - -	76,220 332,600 836,270 Payments FY 2027 - - - - - - - - - - - - - - - - - - -	316,200 Payments FY 2028 72,638	Payments FY 2029 70,200 - - - - - - - - - - - - - - - - - -	FY 2030 67,600 - - - - - - - - - - - - - - - - - -	FY 2031
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref 6/15/2002 Advance Refund 6/15/2004 Landbank Acquisitions 3 Advance Refund 6/15/2004 Landbank Acquisitions 2 Land Acquisition - 2004-105 Bone Hill \$200K Refunded Land Acquisition - 2004-105 Bone Hill \$200K Refunded Land Acquisition - 0:15-50 - 2004-106 \$180K Refunded Land Acquisition - Hyannis Golf \$5,500,000 Refunded Land Acquisition - Archibald \$500,000 Refunded Land Acquisition - Archibald \$500,000 Refunded	06/21/16 1ssue Date 06/16/10 06/14/11 04/18/12 04/18/12 04/18/12 02/17/15 02/17/15 02/17/15 02/17/15	02/15/27 06/30/28 Maturity Date 06/15/30 06/15/22 09/15/22 09/15/22 02/15/25 02/15/25 02/15/26 Maturity Date 08/01/20	759,000 3,320,000 Original Amount 1,332,520 7,065,000 964,500 227,300 90,850 73,660 2496,300 212,100 Original	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480 104,009 623,374 27,375 10,800 11,040 301,580 29,370 1,820,347 Payments	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240 100,684 597,544 597,544 26,500 10,440 4,640 286,500 28,410 1,667,327 Payments	89,550 384,480 978,150 Payments FY 2023 84,256 - - 95,492 25,57,732 25,500 10,080 4,480 277,620 26,450 1,092,610 Payments	86,510 374,200 944,710 Payments 82,144 - - 9,720 4,320 2,66,700 25,530 388,414 Payments	360,800 908,270 Payments FY 2025 79,869 - - - - - - - - - - - - - - - - - - -	79,470 344,100 869,650 Payments FY 2026 77,594 - - - - - 23,690 101,284 Payments	76,220 332,600 836,270 Payments FY 2027 75,238 - - - - - 75,238 Payments	316,200 Payments FY 2028 72,638 72,638 Payments	Payments FY 2029 70,200 - - - - - - - - - - - - - - - - - -	FY 2030 67,600 - - - - - - - - - - - - - - - - - -	FY 2031
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref 6/15/2002 Advance Refund 6/15/2003 Landbank Acquisitions Advance Refund 6/15/2004 Landbank Acquisitions 3 Advance Refund 6/15/2004 Landbank Acquisitions 2 Land Acquisition - 2004-105 Bone Hill \$200k Refunded Land Acquisition - 06-15-05 - 2004-106 \$180k Refunded Land Acquisition - Hyannis Golf \$5,500,000 Refunded Land Acquisition - Archibald \$500,000 Refunded Land Acquisition - Archibald \$500,000 Refunded Total Community Preservation Fund TITLE V FUND INTEREST & PRINCIPAL Title V - Phase I - 97-1131 Series 6-	06/21/16 Issue Date 06/16/10 06/16/10 04/18/12 04/18/12 02/17/15 02/	02/15/27 06/30/28 Maturity Date 06/15/30 06/15/30 09/15/22 09/15/22 02/15/25 02/15/25 02/15/25 02/15/26 Waturity Date 08/01/20	759,000 3,320,000 Original Amount 1,332,520 7,065,000 964,600 5,385,600 9,227,300 9,0,850 73,600 2,496,300 2,496,300 2,121,100 Original Amount 197,403	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480 104,009 623,374 27,375 10,800 11,040 301,580 29,370 1,820,347 Payments FY 2021 10,0468	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240 100,684 597,544 597,544 26,500 10,440 4,640 286,500 28,410 1,667,327 Payments	89,550 384,480 978,150 Payments FY 2023 84,256 - - 95,492 25,57,732 25,500 10,080 4,480 277,620 26,450 1,092,610 Payments	86,510 374,200 944,710 Payments 82,144 - - 9,720 4,320 2,66,700 25,530 388,414 Payments	360,800 908,270 Payments FY 2025 79,869 - - - - - - - - - - - - - - - - - - -	79,470 344,100 869,650 Payments FY 2026 77,594 - - - - - 23,690 101,284 Payments	76,220 332,600 836,270 Payments FY 2027 75,238 - - - - - 75,238 Payments	316,200 Payments FY 2028 72,638 72,638 Payments	Payments FY 2029 70,200 - - - - - - - - - - - - - - - - - -	FY 2030 67,600 - - - - - - - - - - - - - - - - - -	FY 2031
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref 6/15/2002 Advance Refund 6/15/2003 Landbank Acquisitions Advance Refund 6/15/2004 Landbank Acquisitions 3 Advance Refund 6/15/2004 Landbank Acquisitions 2 Land Acquisition - 2004-105 Bone Hill \$200k Refunded Land Acquisition - 0.5-05 - 2004-105 §180k Refunded Land Acquisition - Archibald §500,000 Refunded Total Community Preservation Fund TITLE V FUND INTEREST & PRINCIPAL Title V - Phase I - 97-1131 Series 6- Title V - Phase I - 97-1131 Series 6-	06/21/16 06/21/16 06/16/10 06/16/10 06/14/11 04/18/12 04/18/12 04/18/12 02/17/15 02/17/	02/15/27 06/30/28 Maturity Date 06/15/30 06/15/32 09/15/22 09/15/22 02/15/25 02/15/25 02/15/26 02/15/27 02/15/2	759,000 3,320,000 0riginal Amount 1,332,520 7,065,000 964,500 227,300 90,850 73,660 2496,300 2,496,300 2,496,300 2,12,100 0riginal Amount 197,403 (subsidy)	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480 104,009 623,374 27,375 10,800 301,580 29,370 1,820,347 Payments FY 2021 10,468 (268)	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240 100,684 597,544 26,500 10,440 4,640 286,500 28,410 1,667,327 Payments FY 2022	89,550 384,480 978,150 Payments FY 2023 84,256 	86,510 374,200 944,710 Payments 82,144 - - 9,720 4,320 2,66,700 25,530 388,414 Payments	360,800 908,270 Payments FY 2025 79,869 - - - - - - - - - - - - - - - - - - -	79,470 344,100 869,650 Payments FY 2026 77,594 - - - - - 23,690 101,284 Payments	76,220 332,600 836,270 Payments FY 2027 75,238 - - - - - 75,238 Payments	316,200 Payments FY 2028 72,638 72,638 Payments	Payments FY 2029 70,200 - - - - - - - - - - - - - - - - - -	FY 2030 67,600 - - - - - - - - - - - - - - - - - -	FY 2031
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref 6/15/2002 Advance Refund 6/15/2003 Landbank Acquisitions Advance Refund 6/15/2004 Landbank Acquisitions 3 Advance Refund 6/15/2004 Landbank Acquisitions 2 Land Acquisition - 2004-105 Bone Hill \$200k Refunded Land Acquisition - 06-15-05 - 2004-105 §180k Refunded Land Acquisition - Hyannis Golf \$5,500,000 Refunded Land Acquisition - Archibald \$500,000 Refunded Total Community Preservation Fund TITLE V FUND INTEREST & PRINCIPAL Title V - Phase I - 97-1131 Series 6- Title V - Phase I - 97-1131 Series 6 Title V - Phase I - 97-1131 Series 6 Title V - Phase I I - 9011 T5-97-1131-2	06/21/16 06/21/16 06/16/10 06/14/11 04/18/12 04/18/12 02/17/15 02/17/	02/15/27 06/30/28 Maturity Date 06/15/30 06/15/32 09/15/22 09/15/22 09/15/22 02/15/25 02/15/25 02/15/26 Maturity Date 08/01/20 08/01/22 08/01/22 07/15/25	759,000 3,320,000 0riginal Amount 1,332,520 7,065,000 964,600 5,385,600 227,300 90,850 73,600 2,496,300 212,100 0riginal Amount 197,403 (subsidy) 190,580 (subsidy) 200,000	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480 104,009 623,374 27,375 10,800 11,040 301,580 29,370 1,820,347 Payments FY 2021 10,468 (268) 11,242 (1,270) 10,000	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240 100,684 597,544 26,500 10,440 4,640 286,500 28,410 1,667,327 Payments FY 2022 - - - - - - - - - - - - - - - - - -	89,550 384,480 978,150 Payments FY 2023 96,492 567,732 25,500 10,080 4,480 277,620 26,450 1,092,610 Payments FY 2023	86,510 374,200 944,710 Payments 82,144 - - 9,720 4,320 2,66,700 25,530 388,414 Payments	360,800 908,270 Payments FY 2025 79,869 - - - - - - - - - - - - - - - - - - -	79,470 344,100 869,650 Payments FY 2026 77,594 - - - - - 23,690 101,284 Payments	76,220 332,600 836,270 Payments FY 2027 75,238 - - - - - 75,238 Payments	316,200 Payments FY 2028 72,638 72,638 Payments	Payments FY 2029 70,200 - - - - - - - - - - - - - - - - - -	FY 2030 67,600 - - - - - - - - - - - - - - - - - -	FY 2031
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref 6/15/2002 Advance Refund 6/15/2003 Landbank Acquisitions Advance Refund 6/15/2004 Landbank Acquisitions 3 Advance Refund 6/15/2004 Landbank Acquisitions 2 Land Acquisition - 2004-105 Bone Hill \$200k Refunded Land Acquisition - 06-15-06 - 2004-106 S180k Refunded Land Acquisition - 06-15-06 - 2004-106 S180k Refunded Land Acquisition - 06-15-06 - 2004-106 S180k Refunded Land Acquisition - 0-15-06 - 2004-106 S180k Refunded Land Acquisition - 0-15-06 - 2004-106 S180k Refunded Land Acquisition - Archibald \$500,000 Refunded Total Community Preservation Fund Total Community Preservation Fund Title V - Phase I - 97-1131 Series 6- Title V - Phase I - 97-1131 Series 6 Title V - Phase I - 97-1131 Series 6 Title V - Phase I - 97-1131-2 Title V - Phase I I - Pool 11 T5-97-1131-2 Title V - Phase I V - Poil 11 T5-97-1131-3	06/21/16 06/21/16 06/16/10 06/16/10 06/14/11 04/18/12 04/18/12 04/18/12 02/17/15 07/25/02 07/02/02/10 07/12/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/02/04 07/02/02 07/02/04 07/04 07/02/04 07/02/04 07/02/04 07/02/04 07/02/04 07/02/	02/15/27 06/30/28 Maturity Date 06/15/30 06/15/30 09/15/22 09/15/22 09/15/22 02/15/25 02/15/25 02/15/25 02/15/26 08/01/20 08/01/20 08/01/22 08/01/22	759,000 3,320,000 3,320,000 7,065,000 964,600 5,385,600 227,300 90,850 73,600 212,100 24,96,300 212,100 07iginal Amount 197,403 (subsidy) 190,580 (subsidy) 200,000	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480 104,009 623,374 427,375 10,800 11,040 301,580 29,370 1,820,347 Payments FY 2021 10,468 (268) 11,242 (1,270) 10,000	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240 100,684 597,544 26,500 10,440 4,640 286,500 28,410 1,667,327 Payments FY 2022 	89,550 384,480 978,150 Payments FY 2023 84,256 - - 95,492 567,732 25,500 10,080 4,480 277,620 26,450 1,092,610 Payments FY 2023 - - 10,459 (255) 10,000	86,510 374,200 944,710 Payments FY 2024 - - - 9,720 4,320 2,56,700 2,5,530 3,88,414 Payments FY 2024 - - - - - - - - - - - - - - - - - - -	360,800 908,270 Payments FY 2025 79,869 - - - - - - - - - - - - - - - - - - -	79,470 344,100 869,650 Payments FY 2026 - - - - 23,690 101,284 Payments FY 2026 - - - - - - - - - - - - - - - - - - -	76,220 332,600 836,270 Payments FY 2027 - - - - - - - - - - - - - - - - - - -	316,200 Payments FY 2028 72,638 72,638 Payments FY 2028	Payments FY 2029 70,200 - - - - - - - - - - - - - - - - 70,200 Payments FY 2029 - - - - - - - - - - - - - - - - - - -	FY 2030 67,600 - - - - - - - - - - - - - - - - - -	FY 2031
Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations Land Acquisition 1 Adv Ref 6/15/2002 Advance Refund 6/15/2003 Landbank Acquisitions Advance Refund 6/15/2003 Landbank Acquisitions 3 Advance Refund 6/15/2004 Landbank Acquisitions 2 Land Acquisition - 2004-105 Bone Hill \$200k Refunded Land Acquisition - 0615 05 - 2004-106 \$180k Refunded Land Acquisition - 4006 \$500,000 Refunded Land Acquisition - Archibald \$500,000 Refunded Total Community Preservation Fund TITLE V FUND INTEREST & PRINCIPAL Title V - Phase I - 97-1131 Series 6- Title V - Phase I - 97-1131 Series 6 Title V - Phase I - 97-1131 Series 6 Title V - Phase II - 97-1131 Series 6 Title V - Phase II - 97-1131 Series 6 Title V - Phase II - 97-1131 Series 6	06/21/16 06/21/16 06/16/10 06/16/10 06/14/11 04/18/12 04/18/12 04/18/12 02/17/15 07/25/02 07/02/02/10 07/12/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/10/04 07/02/02 07/02/04 07/02/02 07/02/04 07/04 07/02/04 07/02/04 07/02/04 07/02/04 07/02/04 07/02/	02/15/27 06/30/28 Maturity Date 06/15/30 06/15/32 09/15/22 09/15/22 09/15/22 02/15/25 02/15/25 02/15/26 Maturity Date 08/01/20 08/01/22 08/01/22 07/15/25	759,000 3,320,000 0riginal Amount 1,332,520 7,065,000 964,600 5,385,600 227,300 90,850 73,600 2,496,300 212,100 0riginal Amount 197,403 (subsidy) 190,580 (subsidy) 200,000	95,630 419,600 1,055,710 Payments FY 2021 88,319 624,480 104,009 623,374 27,375 10,800 11,040 301,580 29,370 1,820,347 Payments FY 2021 10,468 (268) 11,242 (1,270) 10,000	92,590 404,000 1,018,870 Payments FY 2022 86,369 526,240 100,684 597,544 26,500 10,440 4,640 286,500 28,410 1,667,327 Payments FY 2022 - - - - - - - - - - - - - - - - - -	89,550 384,480 978,150 Payments FY 2023 - 96,492 567,732 25,500 10,080 4,480 277,620 26,450 1,092,610 Payments FY 2023 - - - - - - - - - - - - - - - - - - -	86,510 374,200 944,710 Payments FY 2024 - - - - - - - - - - - - - - - - - - -	360,800 908,270 Payments FY 2025 79,869 - - - - - - - - - - - - - - - - - - -	79,470 344,100 869,650 Payments FY 2026 - - - - - 23,690 101,284 Payments FY 2026 - - - - - - - - - - - - - - - - - - -	76,220 332,600 836,270 Payments FY 2027 - - - - - - - - - - - - - - - - - - -	316,200 Payments FY 2028 72,638 72,638 Payments	Payments FY 2029 70,200 - - - - - - - - - - - - - - - - - -	FY 2030 67,600 - - - - - - - - - - - - - - - - - -	FY 2031

WATER QUALITY IMPROVEMENT FUND INTEREST & PRINCIPAL	Issue	Maturity	Original	Payments										
	Date 07/08/10	Date	Amount	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
MWPAT CWS-09-07 Sewer CWS-09-07-A Series 16		07/15/30	3,285,646 4,592,367	199,318 302,608	199,318 302,965	199,318 303,329	199,318 303,701	199,318 304,082	199,318 304,471	199,318 304,868	199,318 305,273	199,318 305,688	199,318 306,111	199,318 306,544
Total Water Quality Management & Private Way Impr			4,392,307	501,926	502,283	502,647	503,019	503,400	503,788	504,185	504,591	505,006	505,430	505,862
TOTAL ENTERPRISE FUND BOND OBLIGATIO	ONS			7,779,694	7,728,106	7,069,284	6,095,264	5,890,663	5,257,525	5,067,174	3,784,459	2,851,835	2,775,189	2,601,963
GRAND TOTAL TOWN OF BARNSTABLE BOND OBL	IGATIONS			13,473,065	12,859,290	11,803,230	10,278,421	9,205,564	8,425,311	7,751,729	6,183,147	5,061,085	4,894,957	4,544,782
LAND ACQUISITION INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
CTF Land Acquisition (I) - Hyannis Golf Course \$748,000 Refunded	02/17/15	02/15/26	325,200	-	-	-	-	-	-	-	-	-	-	236,400
CTF Land Acquisition - CAP \$365,200 Refunded	06/21/16	06/30/23	115,000	-	-	-	-	-	-	-	-	-	-	72,240
Total Land Acquisition Interest & Princip	al			-	-	-	-	-	-	-	-	-	-	308,640
	Issue	Maturity	Original	Payments	Payments	Payments	Payments	Doumonts	Payments	Payments	Payments	Payments	Payments	
SCHOOLS INTEREST & PRINCIPAL	Date	Date	Amount	FY 2032	FY 2033	FY 2034	FY 2035	Payments FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	Balance
CTF School Building Improvements	06/16/10		936,000	-	-	-	-	-	-	-	-	-		542,925
CTF School Facilities Upgrades/Repairs V (I)	06/14/11		884,000	-	-	-	-	-	-	-	-	-	-	583,038
CTF School Parking Lot (I)	06/14/11	06/15/21	250,000	-	-	-	-	-	-	-	-			26,000
CTF School Facilities Upgrades/Repairs IV		06/15/21	332,000	-	-	-	-	-	-	-	-			31,200
CTF School Remolding - Asbestos 00-110 Refunded CTF School Facilities Upgrades/Repairs II	06/14/11	06/15/22	50,000 179,000	-	-	-	-	-	-	-	-	-	-	10,600 67,750
CTF School Facilities Opgrades/Repairs II CTF School Facilities Upgrades/Repairs III	06/14/11		190,000					-			-			67,750
CTF School Improvement (I)		06/15/26	487,000	-	-	-	-	-	-	-	-			203,250
CTF Advance Refund 6/15/2003 School Remodel II		09/15/22	193,400	-	-	-	-	-	-	-	-	-	-	54,820
CTF Advance Refund 6/15/2003 School Remodel I	04/18/12	09/15/22	242,700	-	-	-	-	-	-	-	-	-	-	64,194
CTF School Roof Repairs	11/22/13	11/15/23	600,000	-	-	-	-	-	-	-	-	-	-	252,600
CTF HS Library AC Units		11/15/23	450,000	-	-	-	-	-	-	-	-	-	-	189,450
CTF School Fire & Communications System		11/15/23	200,000	-	-	-	-	-	-	-	-	-	-	84,200
CTF School Computer Network Infrastructure		11/15/23	189,000	-	-	-	-	-	-	-	-	-	-	68,225
CTF Early Learning Center Modular Facility		02/15/35	2,000,000 104,700	112,000	109,000	106,000	103,000	-	-	-	-	-	-	1,867,625 40,280
CTF School Upgrades 1 (I) \$360,000 Refunded CTF School Facilities Repair & Improvement (I) \$660,000 Refunded		02/15/22	199,700					-			-			79,480
CTF School Health & Safety Improvements \$478,000 Refunded		02/15/26	193,400	-	-	-	-	-	-	-	-	-	-	135,880
CTF MME Roof Replacement (I) \$750,000 Refunded		02/15/26	329,800	-	-	-	-	-	-	-	-	-	-	242,200
CTF School Upgrades 2 (I) \$150,000 Refunded	02/17/15	02/15/27	47,400	-	-	-	-	-	-	-	-	-	-	36,960
CTF BHMCPS Roof (I) \$910,000 Refunded		02/15/27	426,900	-	-	-	-	-	-	-	-	-	-	338,770
CTF School Facility Improvements 1 (I) \$916,600 Refunded		06/30/28	295,700	-	-	-	-	-	-	-	-	-	-	264,480
CTF Elementary School Modular Classroom (#2015-115)		06/30/36	3,720,000	212,750	207,200	201,650	196,100	190,550	-	-	-	-	-	3,718,731
CTF BIS Façade & Roof Improvements (#2015-116) CTF BCHMCPS Façade & Roof Improvements (#2015-117)		06/30/36	3,353,000 260,000	189,750 -	184,800	179,850 -	174,900	169,950	-	-	-	-	-	3,350,906
CTF High School & Middle School Boiler Upgrades (#2015-119)		06/30/26	350,000	-			-	-	-	-	-			171,000 239,400
CTF W Village Elementary A/C Replacement (#2015-120)		06/30/26	250,000	-	-	-	-	-	-	-	-			171,000
CTF School Parking Lot Light Pole Replacement (I) (#2016-082)	02/23/17		435,000	-	-	-	-	-	-	-	-	-	-	346,800
CTF School Unit Ventilator Upgrade (I) (#2016-083)	02/23/17	06/30/27	230,000	-	-	-	-		-		-	-	-	178,600
CTF Horace Mann Roof (I) (#2016-081)		06/30/38	2,350,000	139,869	136,419	132,969	129,519	126,069	122,475	118,738	-	-	-	2,818,763
CTF Barnstable Public Schools Unit Ventilator (I) (#2017-062)		06/30/28	225,000	-	-	-	-	-	-	-	-			211,000
CTF Barnstable High School Learning Center (I) (#2017-063)		06/30/38	2,968,500	176,356	172,006	167,656	163,306	158,956	154,425	149,713	-	-	-	3,561,838
CTF Barnstable Public Schools Asbestos Abatement (I) (#2017-066) CTF Barnstable High School Stadium Bleachers (I) (#2017-067)	02/27/18	06/30/28 06/30/33	270,000 966,000	- 63,600	- 61,800	-	-	-	-	-	-	-	-	254,250 1,063,950
CTF Barnstable High School Stadium Bleachers (I) (#2017-067) CTF Barnstable High School Cafeteria Window (I) (#2017-068)	02/27/18	06/30/33	400,000	24,325	61,800	- 23,125	- 22,525	- 21,925	- 21,300	- 20,650	-			1,063,950 481,750
CTF Hyannis West Elementary School Roof Truss System (2019-058)		06/30/38	850,000	49,850	48,650	47,450	46,250	45,050	43,850	42,600	41,300	-	-	1,092,800
CTF Barnstable High School Sports Field Upgrade (#2018-064)		06/30/34	4,600,000	332,450	323,300	314,150	-	-	-	-	-	-	-	5,588,750
Total Schools Interest & Principal				1,300,950	1,266,900	1,172,850	835,600	712,500	342,050	331,700	41,300	-	-	28,501,214
PUBLIC WAYS INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
CTF Bridge Repair		06/15/21	250,000	-	-	-	-	-	-	-	-			26,000
CTF Sidewalk Improvements		06/15/21	350,000	-	-	-	-	-	-	-	-	-	-	36,400
CTF Baxter's Neck Road - Private Way		06/15/26	350,000	-	-	-	-	-	-	-	-	-	-	140,700
CTF Advance Refund 6/15/2003 Main St. Hyannis Infr. Improv.		09/15/20	39,100	-	-	-	-	-	-	-	-	-	-	4,162
	04/18/12	09/15/22	193,200	-	-	-	-	-	-	-	-			56,100 252,600
CTF Advance Refund 6/15/2003 Drainage 1 (i)		A . 14 - 1												
CTF Private Road Repairs (I) \$633,000	11/22/13	11/15/23	633,000	-	-	-	-	-	-	-	-	-	-	
	11/22/13 11/22/13	11/15/23 11/15/23 11/15/23	633,000 190,000 120,000				-				-			73,450

PUBLIC WAYS INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
CTF Guardrail Improvements (#2015-098)	02/25/16	06/30/36	170,000	FY 2032	FT 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FT 2039	FY 2040	FY 2041	102,600
CTF Sidewalk Improvements (#2015-098)	02/25/16	06/30/36	230,000	-	-	-	-	-	-	-	-	-	-	147,400
CTF Road Repairs (#2015-102)		06/30/31	518,000	-	-	-	-	-	-	-	-	-	-	441,894
CTF Road Repairs - Governor's Way (#2016-037)	02/25/16	06/30/31	304,000	-	-	-	-	-	-	-	-	-	-	260,025
CTF Private Road Repairs \$1,607,900	06/21/16	06/30/23	509,000	-	-	-	-	-	-	-	-	-	-	324,000
CTF Private Roads Repairs (I) \$167,300	02/23/17	06/30/31	167,300	-	-	-	-	-	-	-	-	-	-	144,900
CTF Guardrail & Sidewalk Improvement Program (I) (#2016-103)		06/30/32	680,750	46,350	-	-	-	-	-	-	-	-	-	665,550
CTF Guardrail & Sidewalk (I) (#2017-073)	02/27/18	06/30/33	287,000	15,900	15,450	-	-	-	-	-	-	-	-	311,200
Total Public Ways Interest & Principal				62,250	15,450	-	-	-	-	-	-	-	-	3,029,080
	Issue	Maturity	Original	Payments										
PUBLIC FACILITIES INTEREST & PRINCIPAL	Date	Date	Amount	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	Balance
CTF Municipal Facility Improvements	06/16/10	06/15/29	402,500	-	-	-	-	-	-	-	-	-	-	53,325
CTF Police Facility	06/16/10	06/15/30	508,000	-	-	-	-	-	-	-	-	-	-	301,625
CTF Building - Town Hall Space - 00-110 Refunded		06/15/21	180,000	-	-	-	-	-	-	-	-	-	-	19,760
CTF Municipal Facility Improvement	06/14/11	06/15/21	300,000	-	-	-	-	-	-	-	-	-	-	31,200
CTF Building - Town Hall Repairs - 01-087 Refunded	06/14/11	06/15/22	100,000	-	-	-	-	-	-	-	-	-	-	20,120
CTF Advance Refund 6/15/2003 Building Improvements	04/18/12	09/15/22	96,600	-	-	-	-	-	-	-	-	-	-	28,010
CTF Advance Refund 6/15/2003 Police Facility Addition	04/18/12	09/15/22	626,900		-		-	-	-	-	-	-	-	190,500
CTF Tennis Courts	11/22/13	11/15/23	500,000	-	-	-	-	-	-	-	-	-	-	210,500
CTF US Custom House upgrades CTF Osterville Community Building Upgrades	11/22/13	11/15/23 11/15/23	263,000 200,000	-	-	-	-	-	-	-	-	-	-	105,250 84,200
CTF Police Station Upgrades		11/15/23	168,000	-	-	-	-	-	-	-	-	-	-	63,150
CTF Town Hall Interior Upgrades		11/15/23	150,000	-	-	-	-	-	-	-	-	-		63,150
CTF Guyer Barn Upgrades		11/15/23	148,000	-				-	-					57,713
CTF MEA Facility Upgrades	11/22/13		131.000	-	-	-				-		-	-	42.100
CTF Pearl St Building Upgrades		11/15/23	114,000	-	-	-	-	-	-	-	-	-	-	42,100
CTF S&G Facility Roof Repairs		11/15/23	103,000	-	-	-	-	-	-	-	-	-	-	42,100
CTF West Barnstable Community Building Upgrades	11/22/13	11/15/23	72,000	-	-	-	-	-	-	-	-	-	-	21,050
CTF Highway Operations Facility Construction	11/22/13	11/15/23	66,000	-	-	-	-	-	-	-	-	-	-	21,050
CTF Centerville Recreation Building	02/17/15	02/15/35	185,000	10,750	5,450	5,300	5,150	-	-	-		-	-	165,463
CTF Senior Center - Parking Lot Expansion		02/15/30	290,000	-	-	-	-	-	-	-	-	-	-	221,525
CTF Police Facilities	02/17/15	02/15/35	288,000	16,350	10,900	10,600	10,300	-	-	-	-	-	-	258,844
CTF Police Station Construction (I) \$400,000 Adv Refunded 6-15-05	02/17/15	02/15/25	181,650	-	-	-	-	-	-	-	-	-	-	100,800
CTF Beach Facilities Improvements (I) \$270,000 Refunded	02/15/15	02/15/22	71,300	-	-	-	-	-	-	-	-	-	-	29,680
CTF Senior Center - Garden Level \$457,000 Refunded	02/17/15	02/15/27	195,000	-	-	-	-	-	-	-		-	-	151,810
CTF Town Building Repairs & Renovations \$685,000 Refunded CTF Police Station Remodeling (#2015-100)	02/17/15 02/25/16	02/15/27 06/30/36	317,600 355,000	- 17,250	- 16,800	- 16,350	- 15,900	- 15,450	-	-	-	-	-	244,510 341,419
CTF Town Hall Remodeling (#2015-100)		06/30/36	939,000	51,750	50,400	49,050	47,700	46,350	-	-				920,756
CTF Joshua's Pond Recretional Facility (#2015-111)		06/30/31	282,000	-	-	43,030	47,700	40,330	-					234,919
CTF Craigville Beach Bathhouse (#2016-031)		06/30/36	450,000	23,000	22,400	21,800	21,200	20,600	-	-		-	-	436,225
CTF Bismore Park Visitor Center - CAP \$150,000		06/30/23	48,000	-		-	-	-	-	-	-	-	-	30,240
CTF Bismore Park Visitor Center \$465,000 Refunded	06/21/16	06/30/23	147,500	-	-	-	-	-	-	-	-	-	-	94,960
CTF Municipal Building Improvements \$297,000 Refunded		06/30/28	49,300	-	-	-	-	-	-	-	-	-	-	44,600
CTF IT Hardware and Software Upgrade (I) (#2016-086)	02/23/17	06/30/22	342,000	-	-	-	-	-	-	-	-	-	-	137,800
CTF Marstons Mills Parking Lot (I) (#2016-087)		06/30/22	246,450	-	-	-	-	-	-	-	-	-	-	100,600
CTF Beach Facility Improvement (I) (#2016-110)		06/30/27	438,000	-	-	-	-	-	-	-	-	-	-	346,800
CTF Osterville Bay Elem School Improvements (I) (#2016-112)		06/30/37	724,300	41,694	40,644	39,594	38,456	37,319	36,181	-	-	-	-	782,769
CTF Lombard Field Improvements (I) (#2016-113)	02/23/17	06/30/37	895,000	53,438	52,088	50,738	49,275	47,813	41,350	-	-	-	-	991,863
CTF West Barnstable Shooting Range (I) (#2017-074)	02/27/18	06/30/28	314,000	•	-	· ·	-	-	-	-	-	-	-	292,200
CTF Design and Hazmat Removal Project Armory Building (2018-096) CTF Senior Center Renovations (#2018-076)	02/26/19	06/30/24 06/30/39	461,750 659,000	- 37,388	- 36,488	- 35,588	- 34,688	- 33,788	- 32,888	- 31,950	- 30,975	-	-	410,25
CTF Osterville Recreation Building Design & Construction (#2017-086)	02/26/19	06/30/39	675,000	42,838	41,788	40,738	34,688	33,788	32,888	31,950	30,975	-	-	868,663
CTF Town Hall Restroom Renovations	02/26/19		560,000	42,858	30,406	29,656	28,906	28,156	27,406	26,625	25,813	-	-	718,244
CTF Former Marston Mills Elementary School Demo (2018-094)		06/30/24	176.050	-	-	-	-	-	- 27,400	-				157,500
CTF School Administration Building (#2018-092)		06/30/24	285,000	-	-	-				-		-	-	252,750
Total Public Facilities Interest & Principal				325,613	307,363	299,413	286,263	263,263	170,713	90,525	87,763	-	-	10,573,253
WATERWAYS INTEREST & PRINCIPAL	lssue Date	Maturity Date	Original Amount	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
CTF Dredging		Date 06/15/24	Amount 419,250	FT 2032	FT 2033	FT 2034	FT 2035	FT 2030	FT 2037	FT 2038	FT 2039	FT 2040	FT 2041	124,275
CTF Boat Ramp Renovations	06/16/10	06/15/24	250,000	-	-		-	-	-	-				26,000
CTF Dredging East Bay & Blish Point	06/14/11		665,000	-	-		-	-	-		-			67,600
			203,000	-	-	-	-	-	-	-	-	-	-	
CTF Prince Cove/Hayward Rd. Boat Ramp	06/14/11	06/15/26	600,000	-	-	-	-	-	-	-	-	-	-	271,000

	Inner	D.C. at	Ordeland	Designation	Desume a sete	Deventer	December	Devene e este	Devenuente	Desuments	Devenue a seta	Deventer	Devenente	
WATERWAYS INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
CTF Hyannis Harbor Bulkhead Construction		11/15/23	142,000	FY 2032	FT 2033	FT 2034	FY 2035	FT 2036	FT 2037	FT 2038	FT 2039	FT 2040	FY 2041	47,1
CTF Millway Boat Ramp & Dock Upgrades		11/15/23	142,000	-	-			-	-	-				47,1
CTF Marstons Mills Fish Run Reconstruction		02/15/30	326,000		-	-	-	-	-	-	-	-		234,5
CTF Paving: Bay Street Boat Ramp (#2015-099)		06/30/26	142,000	-	-	-	-	-	-	-	-	-	-	234,3
CTF Channel Dredging- Barnstable Harbor (#2016-035)		06/30/26	490,000	-	-	-	-	-	-	-	-	-		329,8
CTF Pleasant St. Dock - 1 \$350,000 Refunded		06/30/23	109,500	-	-			-	-	-				69,0
CTF Pleasant St. Dock-2 \$350,000 Refunded		06/30/23	110,000	-	-	-	-	-	-	-			-	69,0
CTF Boat Ramps - CAP \$927,000 Refunded		06/30/23	290,000	-	-			-	-	-	-	-		188,8
CTF Blish Point Boat Access Channel Dredging (I) (#2016-111)		06/30/37	943,900	53,606	52,256	50,906	49,444	47,981	46.519	-				1,027,7
Total Waterways Interest & Principal	02/20/1/	00,00,01	540,500	53,606	52,256	50,906	49,444	47,981	46,519	_	_	-	-	2,840,1
iotai watei ways interest & i meipa				55,000	52,250	50,500	43,444	47,501	40,515	-	_	_	_	2,040,1
	Issue	Maturity	Original	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	
WATER QUALITY INTEREST & PRINCIPAL	Date	Date	Amount	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	Balance
CTF MWPAT CW-04-31 Pool 11	11/09/07		389,216											33,9
CTF Lake Treatment		06/15/25	275,000	-	-	-		-	-	-		-	-	82.
CTF Nitrogen Management CW-04-31-A		07/15/20	211,460	-	-	-	-	-	-	-	-	-	-	23,
CTF Advance Refund 6/15/2003 Drainage 2 (i)		09/15/22	96,700	-	-	-		-	-	_		-	-	28,
CTF Water Quality Evaluation		11/15/23	230,000	_		_	_	-	-	_	_	_	_	84,
CTF Nitrogen Management CW-04-31-B Series 16		07/15/20	157,531	-		-		-	-	-		-	-	27,
CTF Hamblin Pond Alum Treatment (#2015-112)		06/30/31	300,000	_		_	_	-	-	_	_	_	_	260,
Total Water Quality Interest & Principa		,,	200,000	-	-	-	-	-	-	-	-	-	-	540,
Total water quarty interest & Filitip	-			-	-	-	-	-	-	_	-	-	-	540,
TOTAL GENERAL FUND BOND OBLIGATIO	MC			1,742,419	1,641,969	1,523,169	1,171,306	1,023,744	559,281	422,225	129,063			45.792.
IOTAL GENERAL FUND BOND OBLIGATIO	NS			1,742,419	1,641,969	1,523,169	1,1/1,306	1,023,744	559,281	422,225	129,063	-	-	45,792,0
	Innua	B.C. abundan	Original	Devenuente	Des una a sta	Devenente	Davana anta	Devenuente	Devenente	Devenuente	Devenente	Devenente	Bauma anta	
AIRPORT INTEREST & PRINCIPAL	Issue Date	Maturity	Original	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
A instant (0)		Date OC (15 (21	Amount	FY 2032	FT 2033	FT 2034	FY 2035	FT 2036	FT 2037	FT 2038	FT 2039	FT 2040	FY 2041	580,
Airport (O)		06/15/31 06/30/37	730,000	-	-	-	-	-	-	-	-	-	-	
Airport Terminal Ramp Construction - Phase 2 (O) (#2013-0101)			428,000	30,113	29,363	28,613	27,800	31,988	31,013	-	-	-	-	513,
Airport New Fuel Farm (I) (#2013-102)		06/30/36	634,500	46,625	45,425	44,225 45,419	47,925	46,463	46,519	-	-	-	-	735,
Airport East Ramp Design & Construction (O) (#2014-053)		06/30/37	641,200	42,669	46,619		44,119	42,819		-	-	-		759,
Runway Reconstruction & Generator Replacement		06/30/39	355,500	18,694	18,244	17,794	17,344	16,894	16,444	15,975	15,488	-	-	452,
Airfield Improvements	02/26/19	06/30/31	59,700	-	-	-	-	-	-	-	-	-	-	70,
Total Airport Fund Bonds				138,100	139,650	136,050	137,188	138,163	93,975	15,975	15,488	-	-	3,111,
	Issue	B.C. abouting	Original	Davanta	Design a set o	Devenente	Davana anta	Day was a set o	Devenente	Devenuente	Devenente	Devenente	Davanta	
GOLF COURSE INTEREST & PRINCIPAL	Date	Maturity Date	Original Amount	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
Hyannis Golf Course Acquisition \$3,900,000 Refunded		02/15/25	1,951,500	FY 2032	FY 2033	FT 2034	FY 2035	FT 2036	FY 2037	FY 2038	FT 2039	FY 2040	FY 2041	1,449,
Olde Barnstable Building Improvements (#2015-105)		06/30/26	174,000	-	-	-	-	-	-	-	-	-	-	1,449,
Hyannis Building Improvements (#2015-106)		06/30/26	140,000	-	-	-	-	-	-	-	-	-	-	131,
Olde Barnstable Fairgrounds Golf Course (I) (#2016-107)				-	-	-		-	-	-	-			
Hyannis Golf Course Improvements (I) (#2016-107)	02/23/1/		345 000	11 012	11 (12	44.242	10.000	10.002	10 220			-	-	
		06/30/37	245,000	11,913	11,613	11,313	10,988	10,663	10,338	-	-	-	-	256,
	02/23/17	06/30/37	292,700	17,375	11,613 16,925	16,475	10,988 10,988	10,663 10,663	10,338 10,338	-	-	-		256, 310,
Hyannis Golf Course Turf Maintenance (I) (#2017-085)	02/23/17			17,375 -	16,925	16,475	10,988	10,663	10,338		-			256, 310, 194,4
	02/23/17	06/30/37	292,700	17,375		16,475					- - - -	- - - - -		256,3 310,3
Hyannis Golf Course Turf Maintenance (I) (#2017-085)	02/23/17	06/30/37 06/30/23	292,700 310,000	17,375 - 29,288	16,925 - 28,538	16,475 - 27,788	10,988 - 21,975	10,663 - 21,325	10,338 - 20,675	-	-	-	-	256, 310, 194,
Hyannis Golf Course Turf Maintenance (I) (#2017-085)	02/23/17 02/27/18 Issue	06/30/37 06/30/23 Maturity	292,700 310,000 Original	17,375 - 29,288 Payments	16,925 - 28,538 Payments	16,475 - 27,788 Payments	10,988 21,975 Payments	10,663 - 21,325 Payments	10,338 - 20,675 Payments	- - Payments	- Payments	Payments	- - Payments	256, 310, 194,
Hyannis Golf Course Turf Maintenance (I) (#2017-085) Total Golf Course WATER POLLUTION CONTROL INTEREST & PRINCIPAL	02/23/17 02/27/18 Issue Date	06/30/37 06/30/23 Maturity Date	292,700 310,000 Original Amount	17,375 - 29,288	16,925 - 28,538	16,475 - 27,788	10,988 - 21,975	10,663 - 21,325	10,338 - 20,675	-	-	-	-	256, 310, 194, 2,444, Balance
Hyannis Golf Course Turf Maintenance (I) (#2017-085) Total Golf Course WATER POLLUTION CONTROL INTEREST & PRINCIPAL Shallow Well Injection - CW-00-60 - Pool 8	02/23/17 02/27/18 Issue Date 08/25/04	06/30/37 06/30/23 Maturity Date 08/01/22	292,700 310,000 Original Amount 436,370	17,375 - 29,288 Payments	16,925 - 28,538 Payments	16,475 - 27,788 Payments	10,988 21,975 Payments	10,663 - 21,325 Payments	10,338 - 20,675 Payments	- - Payments	- Payments	Payments	- - Payments	256, 310, 194, 2,444, Balance 96,
Hyannis Golf Course Turf Maintenance (I) (#2017-085) Total Golf Course WATER POLLUTION CONTROL INTEREST & PRINCIPAL Shallow Well Injection - CW-00-60 - Pool 8 Shallow Well Injection - CW-00-60 - Pool 8	02/23/17 02/27/18 Issue Date 08/25/04 08/25/04	06/30/37 06/30/23 Maturity Date 08/01/22 08/01/22	292,700 310,000 Original Amount 436,370 (subsidy)	17,375 - 29,288 Payments FY 2032 - -	16,925 - 28,538 Payments	16,475 - 27,788 Payments	10,988 21,975 Payments	10,663 - 21,325 Payments	10,338 - 20,675 Payments	- - Payments	- Payments	Payments	- - Payments	256, 310, 194, 2,444, Balance 96, (29,
Hyannis Golf Course Turf Maintenance (I) (#2017-085) Total Golf Course WATER POLLUTION CONTROL INTEREST & PRINCIPAL Shallow Well Injection - CW-00-60 - Pool 8 Shallow Well Injection - CW-00-60 - Pool 8 Sewer 98-44A	02/23/17 02/27/18 Issue Date 08/25/04 08/25/04 12/14/06	06/30/37 06/30/23 Maturity Date 08/01/22 08/01/22 08/01/23	292,700 310,000 Original Amount 436,370 (subsidy) 1,582,178	17,375 - 29,288 Payments FY 2032 - - -	16,925 - 28,538 Payments FY 2033 - - -	16,475 - 27,788 Payments FY 2034 - -	10,988 - 21,975 Payments FY 2035 - - -	10,663 - 21,325 Payments FY 2036 - -	10,338 - 20,675 Payments	Payments FY 2038	- Payments	Payments	- - - - - - - - - -	256 310 194 2,444 Balance 96 (29 483
Tyannis Golf Course Turf Maintenance (I) (#2017-085) Total Golf Course WATER POLLUTION CONTROL INTEREST & PRINCIPAL Shallow Well Injection - CW-00-60 - Pool 8 Shallow Well Injection - CW-00-60 - Pool 8 Sewer 98-44A Sewer 98-44A	02/23/17 02/27/18 Issue Date 08/25/04 08/25/04 12/14/06 12/14/06	06/30/37 06/30/23 Maturity Date 08/01/22 08/01/22 08/01/23 08/01/23	292,700 310,000 Original Amount 436,370 (subsidy) 1,582,178 (subsidy)	17,375 - 29,288 Payments FY 2032 - - - -	16,925 - 28,538 Payments FY 2033 - - - - -	16,475 - 27,788 Payments FY 2034 - - -	10,988 - 21,975 Payments FY 2035 - - - -	10,663 - 21,325 Payments FY 2036 - - - -	10,338 - 20,675 Payments FY 2037 - - -	- Payments FY 2038 - - -	- Payments FY 2039 - - - -	- Payments FY 2040 - - -		256 310 194 2,444 Balance 96 (29 483 (156
Tyannis Golf Course Turf Maintenance (I) (#2017-085) Total Golf Course WATER POLLUTION CONTROL INTEREST & PRINCIPAL Shallow Well Injection - CW-00-60 - Pool 8 Shallow Well Injection - CW-00-60 - Pool 8 Siewer 98-44A Siewer 98-49A	02/23/17 02/27/18 Issue Date 08/25/04 08/25/04 12/14/06 12/14/06	06/30/37 06/30/23 Maturity Date 08/01/22 08/01/22 08/01/23 08/01/23	292,700 310,000 Original Amount 436,370 (subsidy) 1,582,178 (subsidy) 556,458	17,375 - 29,288 Payments FY 2032 - - -	16,925 - 28,538 Payments FY 2033 - - -	16,475 - 27,788 Payments FY 2034 - -	10,988 - 21,975 Payments FY 2035 - - -	10,663 - 21,325 Payments FY 2036 - -	10,338 - 20,675 Payments	Payments FY 2038	- Payments	Payments	- - - - - - - - - -	256 310 194 2,444 Balance 96 (29 483 (156 171
Ayannis Golf Course Turf Maintenance (I) (#2017-085) Total Golf Course WATER POLLUTION CONTROL INTEREST & PRINCIPAL Shallow Well Injection - CW-00-60 - Pool 8 Siballow Well Injection - CW-00-60 - Pool 8 Siewer 98-44A Siewer 98-44A Siewer 98-49A Siewer 98-49A	02/23/17 02/27/18 Issue Date 08/25/04 08/25/04 12/14/06 12/14/06 12/14/06	06/30/37 06/30/23 Maturity Date 08/01/22 08/01/23 08/01/23 08/01/23 08/01/23	292,700 310,000 Original Amount 436,370 (subsidy) 1,582,178 (subsidy) 555,458 (subsidy)	17,375 - 29,288 Payments FY 2032 - - - -	16,925 - 28,538 Payments FY 2033 - - - - -	16,475 - 27,788 Payments FY 2034 - - -	10,988 - 21,975 Payments FY 2035 - - - -	10,663 - 21,325 Payments FY 2036 - - - -	10,338 - 20,675 Payments FY 2037 - - -	- Payments FY 2038 - - -	- Payments FY 2039 - - - -	- Payments FY 2040 - - -		256 310 194 2,444 Balance 96 (29 483 (156 171 (54
Tyannis Golf Course Turf Maintenance (I) (#2017-085) Total Golf Course WATER POLLUTION CONTROL INTEREST & PRINCIPAL Shallow Well Injection - CW-00-60 - Pool 8 Shallow Well Injection - CW-00-60 - Pool 8 Sever 98-44A Sever 98-44A Sever 98-49A Sever 98-49A WWPAT CW-04-35	02/23/17 02/27/18 Issue Date 08/25/04 08/25/04 12/14/06 12/14/06 12/14/06 12/14/06	06/30/37 06/30/23 Maturity Date 08/01/22 08/01/23 08/01/23 08/01/23 08/01/23 08/01/23	292,700 310,000 Original Amount 436,370 (subsidy) 1,582,178 (subsidy) 556,458 (subsidy) 4,938,114	17,375 - 29,288 Payments FY 2032 - - - -	16,925 - 28,538 Payments FY 2033 - - - - -	16,475 - 27,788 Payments FY 2034 - - -	10,988 - 21,975 Payments FY 2035 - - - -	10,663 - 21,325 Payments FY 2036 - - - -	10,338 - 20,675 Payments FY 2037 - - -	- Payments FY 2038 - - -	- Payments FY 2039 - - - -	- Payments FY 2040 - - -		256 310 194 2,444 Balance 96 (29 483 (156 171 (54 2,613
Tyannis Golf Course Turf Maintenance (I) (#2017-085) Total Golf Course WATER POLLUTION CONTROL INTEREST & PRINCIPAL Shallow Well Injection - CW-00-60 - Pool 8 Siewer 98-40A Siewer 98-40A Siewer 98-40A Siewer 98-49A Siewer 98-49A Siewer 98-49A Siewer 98-49A Siewer 98-49A	02/23/17 02/27/18 Issue Date 08/25/04 12/14/06 12/14/06 12/14/06 12/14/06 12/15/09 03/15/11	06/30/37 06/30/23 Maturity Date 08/01/22 08/01/23 08/01/23 08/01/23 08/01/23 08/01/23 08/01/23	292,700 310,000 Original Amount 436,370 (subsidy) 1,582,178 (subsidy) 556,458 (subsidy) 4,938,114 4,938,114	17,375 - 29,288 Payments FY 2032 - - - - - - - - - - - -	16,925 28,538 Payments FY 2033 - - - - - - - - - -	16,475 - 27,788 Payments FY 2034 - - - - - - - - - - - - - - - -	10,988 - 21,975 FY 2035 - - - - - - - - -	10,663 - 21,325 Payments FY 2036 - - - - - - - - - - -	10,338 - 20,675 Payments FY 2037 - - - - - - - - - - - - - - - -	Payments FY 2038 - - - - - - - -	Payments FY 2039 - - - - - - - - - -	- Payments FY 2040 - - -	Payments FY 2041	256 310 194 2,444 Balanc 96 (29 483 (156 171 (54 2,613) 374
Ayannis Golf Course Turf Maintenance (I) (#2017-085) Total Golf Course WATER POLLUTION CONTROL INTEREST & PRINCIPAL water pollution - CW-00-60 - Pool 8 water 98-44A water 98-49A water 98-49A	02/23/17 02/27/18 02/27/18 02/27/18 08/25/04 08/25/04 08/25/04 12/14/06 12/14/06 12/14/06 12/14/06 12/14/06 12/15/03 03/15/11 06/14/11	06/30/37 06/30/23 Maturity Date 08/01/22 08/01/23 08/01/23 08/01/23 08/01/23 08/01/23 07/15/27 07/15/28	292,700 310,000 Original Amount 436,370 (subsidy) 1,582,178 (subsidy) 555,458 (subsidy) 4,938,114 629,403 629,400 300,000	17,375 - 29,288 Payments FY 2032 - - - -	16,925 - 28,538 Payments FY 2033 - - - - -	16,475 - 27,788 Payments FY 2034 - - -	10,988 - 21,975 Payments FY 2035 - - - -	10,663 - 21,325 Payments FY 2036 - - - -	10,338 - 20,675 FY 2037 - - - - - - - - - - - - - - - - - -	Payments FY 2038 - - - - - - - - - - - - - - - - - - -	- Payments FY 2039 - - - -	- Payments FY 2040 - - -	Payments FY 2041 - - - - - - - - - - - - - - - - - - -	256 310 194 2,444 Balanc (29 4333 (156 171 (54 2,613 374 31
Tyannis Golf Course Turf Maintenance (i) (#2017-085) Total Golf Course WATER POLLUTION CONTROL INTEREST & PRINCIPAL Shallow Well Injection - CW-00-60 - Pool 8 Sever 98-44A Sever 100-5-28 Restructured Sever 100-2000 Sever 100-	02/23/17 02/27/18 02/27/18 08/25/04 08/25/04 08/25/04 12/14/06 12/14/06 12/14/06 12/14/06 12/15/09 03/15/11 06/14/11 06/06/12	06/30/37 06/30/23 Maturity Date 08/01/22 08/01/22 08/01/23 08/01/23 08/01/23 08/01/23 07/15/27 07/15/28	292,700 310,000 Original Amount 436,370 (subsidy) 1,582,178 (subsidy) 556,458 (subsidy) 4,938,114 629,403 300,000 1,469,137	17,375 - 29,288 Payments FY 2032 - - - - - - - - - - - - - - - -	16,925 - 28,538 Payments FY 2033 - - - - - - - - - - - - - - - - - -	16,475 - 27,788 Payments FY 2034 - - - - - - - - - - - - - -	10,988 21,975 Payments FY 2035	10,663 - 21,325 Payments FY 2036 - - - - - - - - - - - - - - - - -	10,338 - 20,675 Payments FY 2037 - - - - - - - - - - - - - - - - - - -	Payments FY 2038 - - - - - - - - - - - - -	Payments FY 2039 - - - - - - - - - - - - -	- Payments FY 2040	Payments FY 2041 - - - - - - - - - - - - - -	256 310 194 2,444 Balancc 96 (29 483 (156 (171 (54 2,613) 374 311 857
Tyannis Golf Course Turf Maintenance (I) (#2017-085) Total Golf Course WATER POLLUTION CONTROL INTEREST & PRINCIPAL Shallow Well Injection - CW-00-60 - Pool 8 Sewer 98-44A Sewer 98-44A Sewer 98-44A Sewer 98-49A Sewer 98-49A MWPAT CW-04-35 Sewer 05-28 Restructured Sewer 00 Sewer 013 Sewer CW-04-35A Pool 13 Rehab Clarifiers (#2015-091)	02/23/17 02/27/18 Issue Date 08/25/04 08/25/04 12/14/06 12/14/06 12/14/06 12/14/06 12/14/06 12/15/09 03/15/11 06/06/12 02/25/16	06/30/37 06/30/23 Maturity Date 08/01/22 08/01/22 08/01/23 06/15/21 0//15/27 0//15/28 06/15/21 0//15/23 0//15/27 0//15/28 0//15/27 0//15/28	292,700 310,000 Original Amount 436,370 (subsidy) 1,582,178 (subsidy) 1,582,178 (subsidy) 4,938,114 629,403 300,000 1,469,137 1,000,000	17,375 - 29,288 Payments FY 2032 - - - - - - - - - - - -	16,925 28,538 Payments FY 2033 - - - - - - - - - -	16,475 - 27,788 Payments FY 2034 - - - - - - - - - - - - - - - -	10,988 - 21,975 FY 2035 - - - - - - - - -	10,663 - 21,325 Payments FY 2036 - - - - - - - - - - -	10,338 - 20,675 FY 2037 - - - - - - - - - - - - - - - - - -	Payments FY 2038 - - - - - - - - - - - - - - - - - - -	Payments FY 2039 - - - - - - - - - -	- Payments FY 2040 - - -	Payments FY 2041 - - - - - - - - - - - - - - - - - - -	256 310 194 2,444 Balance 966 (29 483 (156 171 (54 2,613 374 31 857 1,005
Hyannis Golf Course Turf Maintenance (I) (#2017-085) Total Golf Course WATER POLLUTION CONTROL INTEREST & PRINCIPAL Shallow Well Injection - CW-00-60 - Pool 8 Shallow Well Injection - CW-00-60 - Pool 8 Sewer 98-44A Sewer 98-44A Sewer 98-49A Sewer 98-49A Sewer 98-49A Sewer 98-49A Sewer 05-28 Restructured Sewer (I) Sewer CW-04-35A Pool 13 Rehab Clarifiers (#2015-091) Pump Station/Sewer Main Const (#2009-132)	02/23/17 02/27/18 Issue Date 08/25/04 08/25/04 12/14/06 12/14/06 12/14/06 12/14/06 12/15/09 03/15/11 06/04/11 06/06/12 02/25/16	06/30/37 06/30/23 Maturity Date 08/01/22 08/01/22 08/01/23	292,700 310,000 Original Amount 436,370 (subsidy) 1,582,178 (subsidy) 556,458 (subsidy) 4,938,114 629,403 300,000 1,469,137 1,000,000 318,000	17,375 - 29,288 FV 2032 - - - - - - - - - - - - - - - - - - -	16,925 - 28,538 Payments FY 2033 - - - - - - - - - - - - - - - - - -	16,475 - 27,788 Payments FY 2034 - - - - - - - - - - - - - -	10,988 - 21,975 Payments FY 2035	10,663 - 21,325 Payments FY 2036 - - - - - - - - - - - - -	10,338 - 20,675 Payments FY 2037 - - - - - - - - - - - - - - - - - - -	Payments FY 2038 - - - - - - - - - - - - - -	Payments FY 2039 - - - - - - - - - - - -	- Payments FY 2040	Payments FY 2041	256 310 194 2,444 Balance 96 (29 483 (156 (156) 171 (54) 2,613 374 311 837 3374 311 857 1,005 62
Tyannis Golf Course Turf Maintenance (i) (#2017-085) Total Golf Course WATER POLLUTION CONTROL INTEREST & PRINCIPAL Shallow Well Injection - CW-00-60 - Pool 8 Shallow Well Injection - CW-00-60 - Pool 8 Sewer 98-44A Sewer 98-44A Sewer 98-44A Sewer 98-49A MWPAT CW-04-35 Sewer 100 Sewer 1	02/23/17 02/27/18 Issue Date 08/25/04 12/14/06 12/14/06 12/14/06 12/14/06 12/14/06 12/14/06 12/15/09 03/15/11 06/14/11 06/06/12 02/25/16 06/21/16	06/30/37 06/30/23 Maturity Date 08/01/22 08/01/23 08/01/23 08/01/23 08/01/23 08/01/23 08/01/23 08/01/23 07/15/27 07/15/27 06/15/21 06/15/21 06/30/36	292,700 310,000 Original Amount 436,370 (subsidy) 1,582,178 (subsidy) 4,938,114 629,403 300,000 1,469,137 1,000,000 318,000 318,000	17,375 - 29,288 FY 2032 - - - - - - - - - - - - - - - - - - -	16,925 - 28,538 Payments FY 2033 - - - - - - - - - - - - - - - - - -	16,475 - 27,788 Payments FY 2034 - - - - - - - - - - - - - - - - - - -	10,988 21,975 Payments FY 2035	10,663 - 21,325 Payments FY 2036 - - - - - - - - - - - - -	10,338 20,675 Payments FY 2037	Payments FY 2038 - - - - - - - - - - - - - -	Payments FY 2039 - - - - - - - - - - - -	- Payments FY 2040	Payments FY 2041 - - - - - - - - - - - - - -	2566 310 1944 2,444 Balance 966 (29 4833 (1566 1711 (544 2,613) 3744 3744 3744 3745 3745 3745 3745 2,255 622 22255 622 22255 2
Tyannis Golf Course Turf Maintenance (i) (#2017-085) Total Golf Course WATER POLLUTION CONTROL INTEREST & PRINCIPAL ishallow Well Injection - CW-00-60 - Pool 8 ishallow Well Injection - CW-00-60 - Pool 8 ishallow Well Injection - CW-00-60 - Pool 8 iswer 98-49A Sewer 98-49A WWPAT CW-04-35 Sewer 05-28 Restructured isewer (i) isewer CW-04-35A Pool 13 Rehab Clarifiers (#2015-091) Jump Station/Sewer Main Const (#2009-132) Waste Water Treament Plant Sewer Turbine Generator \$570,000 Refunded Wastewater Treament Plant Clarifiers Rehab (0) (#2016-097)	02/23/17 02/27/18 15500 08/25/04 08/25/04 08/25/04 12/14/06 12/14/06 12/14/06 12/14/06 12/14/06 03/15/11 06/06/11 06/06/11 06/02/12	06/30/37 06/30/23 Maturity Date 08/01/22 08/01/23 08/01/23 08/01/23 08/01/23 08/01/23 08/01/23 08/01/23 06/15/27 07/15/27 06/30/36 06/30/21 06/30/37	292,700 310,000 Original Amount 436,370 (subsidy) 1,582,178 (subsidy) 4,938,114 629,403 300,000 1,469,137 1,000,000 318,000 251,000 1,146,000	17,375 - 29,288 Payments FY 2032 - - - - - - - - - - - - - - - - - - -	16,925 - 28,538 Payments FY 2033 - - - - - - - - - - - - - - - - - -	16,475 - 27,788 Payments FY 2034 - - - - - - - - - - - - - - - - - - -	10,988 21,975 Payments FY 2035	10,663 - 21,325 Payments FY 2036 - - - - - - - - - - - - - - - - - - -	10,338 20,675 Payments FY 2037	Payments FY 2038 - - - - - - - - - - - - - - - - - - -	Payments FY 2039 - - - - - - - - - - - -	- Payments FY 2040	Payments FY 2041	256 310, 194, 2,444 Balance 96, (29, 483, (156 (171, (54, 2,613, 374, 31, 374, 31, 857, 1,005, 62, 225, 1,256,
iyannis Golf Course Turf Maintenance (i) (#2017-085) Total Golf Course WATER POLLUTION CONTROL INTEREST & PRINCIPAL ishallow Well Injection - CW-00-60 - Pool 8 ishallow Well Injection - CW-00-60 - Pool 8 isewer 98-44A isewer 98-44A isewer 98-44A isewer 98-49A MWPAT CW-04-35 isewer 05-28 Restructured isewer 05-28 Restructured isewer CW-04-35A Pool 13 isewer CW-04-35A Pool 13 isewar CW-04-35A Pool 13 isewar CW-04-35A Pool 13 isewar CM-04-35A Pool 14 isewar CM-04-35A Po	02/23/17 02/27/18 02/27/18 02/27/18 08/25/04 08/25/04 12/14/06 12/14/06 12/14/06 12/14/06 12/14/06 03/15/11 06/04/11 06/04/11 06/04/11 02/25/16 02/25/16 02/23/17	06/30/37 06/30/23 Maturity Date 08/01/22 08/01/23 08/01/23 08/01/23 08/01/23 08/01/23 08/01/23 08/01/23 07/15/27 07/15/27 06/15/21 06/15/21 06/30/36	292,700 310,000 Original Amount 436,370 (subsidy) 1,582,178 (subsidy) 4,938,114 629,403 300,000 1,469,137 1,000,000 318,000 318,000	17,375 - 29,288 FY 2032 - - - - - - - - - - - - - - - - - - -	16,925 - 28,538 Payments FY 2033 - - - - - - - - - - - - - - - - - -	16,475 - 27,788 Payments FY 2034 - - - - - - - - - - - - - - - - - - -	10,988 21,975 Payments FY 2035	10,663 - 21,325 Payments FY 2036 - - - - - - - - - - - - -	10,338 20,675 Payments FY 2037	Payments FY 2038 - - - - - - - - - - - - -	Payments FY 2039 - - - - - - - - - - - - -	- Payments FY 2040	Payments FY 2041	2566 310 1944 2,444 Balance 966 (29 4833 (1566 1711 (544 2,613) 3744 3744 3744 3745 3745 3745 3745 2,255 622 22255 622 22255 2

	Issue	Maturity	Original	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	
SOLID WASTE INTEREST & PRINCIPAL	Date	Date	Amount	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	Balance
Advance Refund 6/15/2003 Transfer Station Improvements	04/18/12	09/15/22	241,500	-	-	-	-	-	-	-	-	-	-	70,18
Solid Waste Facility (I) \$630,000 Refunded	02/17/15	02/15/27	284,900	-	-	-	-	-	-	-	-	-	-	225,84
Total Solid Waste Fund				-	-	-	-	-	-	-	-	-	-	296,02
WATER SUPPLY INTEREST & PRINCIPAL	Issue	Maturity	Original	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Balance
	Date 07/08/10	Date 07/15/30	Amount	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	1,861,02
MWPAT DWS-09-02 DWP-11-10 Series 17A		01/15/33	2,788,911 560,761	- 34,754	34,812	-	-	-	-	-	-	-	-	448,36
Water Main Loop		02/15/35	540,000	22,400	21,800	21,200	20,600	-	-	-	-	-	-	477,78
Water Co. (Level Debt) (O) \$10,000,000 Refunded		02/15/27	5,704,800	-	-	-	-	-	-	-	-	-	-	4,843,82
DW-09-02 Series 16		07/15/32	533,117	35,637	35,689	-	-	-	-	-	-	-	-	460,1
DWP-11-09 Series 17A		01/15/33	793,438	53,553	53,643	-	-	-	-	-	-	-	-	690,9
Water Main Replacement (#2010-097)		06/30/21	380,000	-	-	-	-	-	-	-	-	-	-	78,0
Pipe Replacement Upgrade FY17 (#2015-085) Paint/Repair Mary Dunn 2 (#2015-087)		06/30/36 06/30/21	900,000 615,000	51,750	50,400	49,050	47,700	46,350	-	-	-	-	-	904,5
Hyannis Water System Pipe Replacement (O) (#2016-093)		06/30/37	858,400	47,650	46,450	45,250	43,950	42,650	41,350				-	935,8
DWP-14-09 Mass Clean Water Trust (#2014-071, 2013-085, 2013-088)		07/15/37	1,467,339	90,366	90,505	90,647	90,791	90,939	91,091	-	-	-	-	1,529,9
Well Reactivation (O) (#2017-080)		06/30/38	276,000	17,463	17,013	11,563	11,263	10,963	10,650	10,325	-	-	-	323,7
Water Pipe Replacement (O) (#2017-081)		06/30/38	468,000	24,325	23,725	23,125	22,525	21,925	21,300	20,650	-	-	-	550,9
Mary Dunn Water Storage Tank Site Work (O) (#2017-083)		06/30/38	600,500	36,488	35,588	34,688	33,788	32,888	31,950	30,975	-	-	-	722,6
Water Carbon Filter Units (O) (#2017-079)		06/30/18	440,000	-	-	-	-	-	-	-	-	-	-	424,5
MCWT Series 21 DWP-16-17 (#2014-073, #2016-146,#, #2016-163, #2017-010)		07/15/38	2,939,657	178,958	179,191	179,430	179,673	179,922	180,177	180,436	180,702	-	-	3,392,9
Pipe Replacement Upgrade FY19 (#2018-081)	02/26/19	06/30/39 06/30/28	1,050,000 318,500	62,313	60,813	59,313	57,813	56,313	54,813	53,250	51,625	-	-	1,351,9 343,0
Carbon Treatment System Construction at Maher Wellfield (2017-099) Well Exploration Program (2013-087)		06/30/28	489,500	-	-	-	-	-	-	-	-	-	-	525,2
MCWT Series 19 DWP-13-01 Reamortization		07/15/36	1,736,865	122,294	122,486	122,682	122,882	123,087	-	-	-		-	1,947,1
MCWT Series DWP 18-10 (2018-173) & (2017-099)		07/15/40	9,754,852	592,348	593,091	593,848	594,622	595,414	596,223	597,049	597,892	598,755	599,636	11,909,9
Total Water Enterprise Fund	1			1,370,296	1,365,204	1,230,794	1,225,607	1,200,450	1,027,553	892,685	830,220	598,755	599,636	33,847,2
MARINA INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
CTF Marina Bulkhead Repair I	06/14/11	06/15/30	725,000	-	-	-	-	-	-	-	-	-	-	440,31
Marina Bulkhead Repair II	06/14/11	06/15/30	525,000	-	-	-	-	-	-	-	-	-	-	392,0
Advance Refund 6/14/2004 Prince Cove Marina Acquisition	04/18/12	09/15/22	864,000	-	-	-	-	-	-	-	-	-	-	285,7
Gateway Marina Dredging (#2015-108)		06/30/26	280,000	-	-	-	-	-	-	-	-	-	-	181,6
Prince Cover Marina Bulkhead (#2015-109)		06/30/36	570,000	28,750	28,000	27,250	26,500	25,750	-	-	-	-	-	560,8
Hyannis Harbor Bulkhead (#2015-110)		06/30/21	158,000	-	-	-	-	-	-	-	-	-	-	31,20
Gateway Marina Maintenance Dredging (I) (#2016-109)	02/23/17	06/30/37	476,500	28,975	23,225	22,625	21,975	21,325	20,675	-	-	-	-	518,2
Total Marina Enterprise Fund				57,725	51,225	49,875	48,475	47,075	20,675	-	-	-	-	2,410,0
SANDY NECK INTEREST & PRINCIPAL	Issue	Maturity	Original	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Balance
	Date	Date	Amount	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	
Sandy Neck Beach House II	06/14/11	06/15/26	81,000	-	-	-	-	-	-	-	-	-	-	40,0
Sandy Neck Beach House I	06/14/11	06/15/31	966,491	-	-	-	-	-	-	-	-	-	-	767,5
	00/14/14/4		217 500							-	-	-	-	
Sandy Neck Beach House III	06/14/11	06/15/31	217,509	-	-	-	-	-	-					
Sandy Neck Beach House III Total Sandy Neck Enterprise Fund	06/14/11		217,509	-	-	-	-	-	-	-	-	-	-	970,9
Total Sandy Neck Enterprise Fund	Issue	06/15/31 Maturity	Original	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	970,9 Balance
Total Sandy Neck Enterprise Fund	Issue Date	06/15/31 Maturity Date	Original Amount											Balance
Total Sandy Neck Enterprise Fund HYCC INTEREST & PRINCIPAL CTF HYCC 1 (i) \$1,000,000 Refunded	Issue Date 02/17/15	06/15/31 Maturity Date 02/15/27	Original Amount 474,900	Payments FY 2032	Payments FY 2033	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Balance 377,5
Total Sandy Neck Enterprise Fund HYCC INTEREST & PRINCIPAL CTF HYCC 1 (I) \$1,000,000 Refunded CTF HYCC 2 (I) \$8,000,000 Refunded	Issue Date 02/17/15 02/17/15	06/15/31 Maturity Date 02/15/27 02/15/27	Original Amount 474,900 3,794,400	Payments FY 2032 - -	Payments FY 2033 - -	Payments FY 2034 - -	Payments FY 2035 - -	Payments FY 2036 - -	Payments FY 2037 -	Payments	Payments	Payments	Payments FY 2041 - -	Balance 377,5 3,011,8
Total Sandy Neck Enterprise Fund HYCC INTEREST & PRINCIPAL CTF HYCC 1 (I) \$1,000,000 Refunded CTF HYCC 2 (I) \$8,000,000 Refunded CTF HYCC 3 (I) \$1,600,000 Refunded	Issue Date 02/17/15 02/17/15 02/17/15	06/15/31 Maturity Date 02/15/27 02/15/27 02/15/27	Original Amount 474,900 3,794,400 759,000	Payments FY 2032	Payments FY 2033	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Balance 377,5 3,011,8 602,4
Total Sandy Neck Enterprise Fund HYCC INTEREST & PRINCIPAL CTF HYCC 1 (I) \$1,000,000 Refunded CTF HYCC 2 (I) \$8,000,000 Refunded CTF HYCC 3 (I) \$1,500,000 Refunded CTF HYCC 4 (I) \$6,765,000 Refunded	Issue Date 02/17/15 02/17/15 02/17/15	06/15/31 Maturity Date 02/15/27 02/15/27	Original Amount 474,900 3,794,400	Payments FY 2032 - -	Payments FY 2033 - - -	Payments FY 2034 - -	Payments FY 2035 - - -	Payments FY 2036 - - -	Payments FY 2037 - - -	Payments FY 2038 - -	Payments FY 2039 - -	Payments FY 2040 - - -	Payments FY 2041 - -	Balance 377,5 3,011,8 602,4 2,935,9
Total Sandy Neck Enterprise Fund HYCC INTEREST & PRINCIPAL CTF HYCC 1 (I) \$1,000,000 Refunded CTF HYCC 2 (I) \$8,000,000 Refunded CTF HYCC 3 (I) \$1,600,000 Refunded	Issue Date 02/17/15 02/17/15 02/17/15	06/15/31 Maturity Date 02/15/27 02/15/27 02/15/27	Original Amount 474,900 3,794,400 759,000	Payments FY 2032 - -	Payments FY 2033 - - -	Payments FY 2034 - -	Payments FY 2035 - - -	Payments FY 2036 - - -	Payments FY 2037 - - -	Payments FY 2038 - -	Payments FY 2039 - -	Payments FY 2040 - - -	Payments FY 2041 - -	Balance 377,5 3,011,8 602,4 2,935,9
Total Sandy Neck Enterprise Fund HYCC INTEREST & PRINCIPAL CTF HYCC 1 (I) \$1,000,000 Refunded CTF HYCC 2 (I) \$8,000,000 Refunded CTF HYCC 3 (I) \$1,500,000 Refunded CTF HYCC 4 (I) \$6,765,000 Refunded	Issue Date 02/17/15 02/17/15 02/17/15 06/21/16 Issue	06/15/31 Maturity Date 02/15/27 02/15/27 06/30/28 Maturity	Original Amount 474,900 3,794,400 759,000 3,320,000 Original	Payments FY 2032 - - - - Payments	Payments FY 2033 - - - - - Payments	Payments FY 2034 - - - - - Payments	Payments FY 2035 - - - - - Payments	Payments FY 2036 - - - - - Payments	Payments FY 2037 - - - - Payments	Payments FY 2038 - - - - - Payments	Payments FY 2039 - - - - - Payments	Payments FY 2040 - - - - - Payments	Payments FY 2041 - - - - Payments	Balance 377,5 3,011,8 602,4 2,935,9
Total Sandy Neck Enterprise Fund HYCC INTEREST & PRINCIPAL CTF HYCC 1 (I) \$1,000,000 Refunded CTF HYCC 2 (I) \$8,000,000 Refunded CTF HYCC 3 (I) \$1,600,000 Refunded CTF HYCC 4 (I) \$6,765,000 Refunded Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL	Issue Date 02/17/15 02/17/15 02/17/15 06/21/16 Issue Date	06/15/31 Maturity Date 02/15/27 02/15/27 02/15/27 06/30/28 Maturity Date	Original Amount 474,900 3,794,400 759,000 3,320,000 Original Amount	Payments FY 2032 - - - - -	Payments FY 2033 - - - - -	Payments FY 2034 - - - - -	Payments FY 2035 - - - - -	Payments FY 2036 - - - - -	Payments FY 2037 - - - - -	Payments FY 2038 - - - - - -	Payments FY 2039 - - - - -	Payments FY 2040 - - - - -	Payments FY 2041 - - - - -	Balance 377,5 3,011,8 602,4 2,935,9 6,927,8 Balance
Total Sandy Neck Enterprise Fund HYCC INTEREST & PRINCIPAL CTF HYCC 1 (I) \$1,000,000 Refunded CTF HYCC 2 (I) \$1,600,000 Refunded CTF HYCC 3 (I) \$1,600,000 Refunded CTF HYCC 3 (I) \$1,600,000 Refunded CTF HYCC 4 (I) \$6,765,000 Refunded Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL Town Hall Renovations	Issue Date 02/17/15 02/17/15 02/17/15 06/21/16 Issue Date 06/16/10	06/15/31 Maturity Date 02/15/27 02/15/27 02/15/27 06/30/28 Maturity Date 06/15/30	Original Amount 474,900 3,794,400 759,000 3,320,000 Original Amount 1,332,520	Payments FY 2032	Payments FY 2033 - - - - - - - - - - - - - - - - - -	Payments FY 2034 - - - - - Payments	Payments FY 2035 - - - - - Payments	Payments FY 2036 - - - - - Payments	Payments FY 2037 - - - - Payments	Payments FY 2038 - - - - - Payments	Payments FY 2039 - - - - - Payments	Payments FY 2040 - - - - - Payments	Payments FY 2041 - - - - - - - - - - - - - - - - - - -	Balance 377,5 3,011,8 602,4 2,935,9 6,927,8 Balance 784,2
Total Sandy Neck Enterprise Fund HYCC INTEREST & PRINCIPAL CTF HYCC 1 (I) \$1,000,000 Refunded CTF HYCC 2 (I) \$8,000,000 Refunded CTF HYCC 3 (I) \$1,600,000 Refunded CTF HYCC 4 (I) \$6,765,000 Refunded Total HYCC Enterprise Fund COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL	Issue Date 02/17/15 02/17/15 02/17/15 06/21/16 Issue Date 06/16/10	06/15/31 Maturity Date 02/15/27 02/15/27 02/15/27 06/30/28 Maturity Date	Original Amount 474,900 3,794,400 759,000 3,320,000 Original Amount	Payments FY 2032 - - - - Payments	Payments FY 2033 - - - - - Payments	Payments FY 2034 - - - - - Payments	Payments FY 2035 - - - - - Payments	Payments FY 2036 - - - - - Payments	Payments FY 2037 - - - - Payments	Payments FY 2038 - - - - - Payments	Payments FY 2039 - - - - - Payments	Payments FY 2040 - - - - - Payments	Payments FY 2041 - - - - Payments	Balance 377,5 3,011,8 602,4 2,935,9 6,927,8 Balance

COMMUNITY PRESERVATION FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
Advance Refund 6/15/2004 Landbank Acquisitions 2		2 09/15/22	227,300	-	-	-	-	-	-	-	-	-	-	79,37
and Acquisition - 2004-105 Bone Hill \$200k Refunded		5 02/15/25	90,850	-	-	-	-	-	-	-	-	-	-	50,40
and Acquisition - 06-15-05 - 2004-106 \$180k Refunded	02/17/15	5 02/15/25	73,600	-	-	-	-	-	-	-	-	-	-	28,64
and Acquisition - Hyannis Golf \$5,500,000 Refunded	02/17/15	5 02/15/25	2,496,300	-	-	-	-	-	-	-	-	-	-	1,387,7
and Acquisition - Archibald \$500,000 Refunded	02/17/15	5 02/15/26	212,100	-	-	-	-	-	-	-	-	-	-	158,0
Total Community Preservation Fur	d			-	-	-	-	-	-	-	-	-	-	5,728,9
TITTLE V FUND INTEREST & PRINCIPAL	Issue	Maturity	Original	Payments	Balance									
	Date	Date	Amount	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	
itle V - Phase I - 97-1131 Series 6- itle V - Phase I - 97-1131 Series 6-		2 08/01/20	197,403 (subsidy)	-	-	-	-	-	-	-	-	-	-	10,4
itle V - Phase I - 97-1131 Series 6- Title V - Phase I - 97-1131 Series 6		2 08/01/20 1 08/01/22	(subsidy) 190.580	-	-	-	-	-	-	-	-	-	-	(
itle V - Phase I - 97-1131 Series 6		1 08/01/22 1 08/01/22	(subsidy)	-	-	-	-	-	-	-	-	-	-	32,
itle V - Phase II - 97-1131 Series 6		5 07/15/25	(subsidy) 200.000	-	-	-	-	-	-	-	-	-	-	(2, 60.
itle V - Phase III - Pool 11 15-97-1131-2		5 07/15/25	200,000	-	-	-	-	-	-	-	-	-	-	60,
Title V - Phase V - Pool 12 97-1131-30		6 07/15/26	200,000				-			-	-	-	-	70.0
Total Title V	12/14/00	07/13/20	200,000	-		-	-		-		-	-	-	230.5
				-	-	-	-	-	-	-	-	-	-	230,.
WATER QUALITY IMPROVEMENT FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
/WPAT CWS-09-07		0 07/15/30	3.285.646	-	FT 2033	FT 2034	FT 2035	F1 2030	F1 2037	FT 2038	F1 2035	F1 2040	FT 2041	2,192,
ewer CWS-09-07-A Series 16		5 07/15/32	4.592.367	306.986	307.438	-	-	-	-	-	-	-	-	3,964,
Total Water Quality Management & Private Way In			4,002,007	306.986	307,438	-	-		-		-		-	6.156.
total trace quarty management of mate tray in	iprovenient ru			500,500	557,455									0)150)
TOTAL ENTERPRISE FUND BOND OBLIGA	TOTAL ENTERPRISE FUND BOND OBLIGATIONS				2,058,373	1,606,476	1,590,625	1,559,806	1,261,085	908,660	845,707	598,755	599,636	70,003,
GRAND TOTAL TOWN OF BARNSTABLE BOND O	BLIGATIONS			3,815,483	3,700,342	3,129,645	2,761,932	2,583,550	1,820,366	1,330,885	974,770	598,755	599,636	115,795,

Budget Action Calendar

DATE	ACTION
Tuesday, September 17, 2019	Town Manager issues instructions to Departments for FY 2021 Operating & Capital budgets
Monday, October 21, 2019	Town Manager & School Superintendent develop annual policy agreement on allocation of projected FY 2021 General Fund revenue
Monday, October 21, 2019	Departments submit Calendar Year permit and fees change requests to Town Manager along with supporting documentation
Thursday, October 24, 2019	Municipal Departments submit preliminary listing of any proposed FY 2021 position changes with supporting justification to Human Resources (HR) with copy to Town Manager
Tuesday, November 12, 2019	Town Manager conducts public hearing on any changes to Calendar Year permits and fees
Monday, November 18, 2019	Departments submit Capital Improvements Project (CIP) project data sheets with supporting photos and review of existing capital projects to Town Manager
Wednesday, November 20, 2019	HR Director submits position changes summary including comments to Town Manager
Thursday, November 21, 2019	Town Council conducts joint meeting/workshop with School Committee in accordance with Town Charter to review financial condition of the Town
Monday, November 25, 2019	CIP Task Force provided copy of CIP submissions
Thursday, December 5, 2019	Annual Organization of Town Council (TM must submit budget to Town Council within 170 days per M.G.L. 44 § 32) (Friday, May 22, 2020)
Wednesday, December 11, 2019	CIP Task Force conducts workshop on CIP submissions
Wednesday, December 18, 2019	Department Managers submit Operating Budget Decision Packages
Tuesday, January 21, 2020	Department Managers submit Operating Budget Narratives including photos
Tuesday, January 28, 2020	Departments submit Fiscal Year permit and fees change requests to Town Manager along with supporting documentation
Monday, February 24, 2020	Town Manager submits recommended FY 2021 Capital Budget to Town Council per Part VI, Section 6-5 (a) of the Charter (<i>TC must adopt plan BEFORE June 1, 2020</i>)
Monday, February 24, 2020	CFAC submits their review of recommended FY 2021 Capital Budget to Town Manager & Town Council
Thursday, March 5, 2020	Town Council conducts first reading of FY 2021 Capital Budget Orders. Capital Budget presentation made to the Town Council.
Tuesday, March 10, 2020	Town Manager conducts public hearing on <i>Fiscal Year</i> permits and fees
Thursday, March 19, 2020	Town Council conducts first public hearing on FY 2021 Capital Budget
Friday, March 20, 2020	School Department submits adopted FY 2021 School budget to Town Manager
Thursday, April 2, 2020	Town Council conducts second public hearing on FY 2021 Capital Budget
Thursday, April 16, 2020	Town Council conducts third public hearing on FY 2021 Capital Budget, if needed
Tuesday, April 21, 2020	Town Manager submits recommended FY 2021 Operating Budget to the Town Council. Town Council must adopt budget within 45 days (by June 5, 2020) otherwise it becomes part of FY21
Tuesday, April 21, 2020	CFAC submits their review of recommended FY 2021 Operating Budget to Town Manager & Town Council
Thursday, May 7, 2020	Town Council conducts first reading of the FY 2021 Operating Budget Orders. Operating Budget presentation made to Town Council.
Thursday, May 21, 2020	Town Council conducts first public hearing on FY 2021 Operating Budget
Thursday, June 4, 2020	Town Council conducts second public hearing on FY 2021 Operating Budget. This is the last weekday FY 2021 Operating Budget can be adopted by Town Council per Part VI Section 6-3 (b) of the charter
Tuesday, June 30, 2020	Unless otherwise provided for in the vote of Town Council <u>or</u> encumbered by <u>contractual obligation</u> , remaining balances in Specific Appropriations authorized <u>during & before FY 2018</u> <u>expire</u>

\$125.32 Million Capital Budget All Years -

What's it For? How's it funded?

Capital Budget broken down by Department -



Ledger Details

Department	Appropriation	96	Project Expenditures to Date	%	Encumbered	%	Unencumbered Balance	96
PUBLIC WORKS	\$82,492,595	65.82%	\$28,639,559	34.72%	\$22,550,975	27.34%	\$31,302,061	37.95%
SCHOOL	\$20,958,174	16.72%	\$9,705,482	46.31%	\$4,628,017	22.08%	\$6,624,675	31.61%
AIRPORT	\$8,044,900	6.42%	\$857,412	10.66%	\$527,450	6.56%	\$6,660,038	82.79%
COMMUNITY SERVICES	\$6,520,345	5.20%	\$1,905,566	29.22%	\$685,829	10.52%	\$3,928,950	60.26%
MARINE & ENVIRONMENTAL AFFAIRS	\$4,186,045	3.34%	\$2,005,364	47.91%	\$44,291	1.06%	\$2,136,390	51.04%
TOWN MANAGER	\$1,815,261	1.45%	\$1,148,820	63.29%	\$114,337	6.30%	\$552,104	30.41%
HYANNIS YOUTH & COMMUNITY CENTER	\$679,000	0.54%	\$0	0%	\$0	0%	\$679,000	100.00%
PLANNING AND DEVELOPMENT	\$372,000	0.30%	\$368,457	99.05%	\$0	0%	\$3,543	0.95%
ADMINISTRATIVE SERVICES	\$255,000	0.20%	\$56,953	22.33%	\$21,750	8.53%	\$176,297	69.14%

∧ Hide

Town of Barnstable's operating and capital budgets are on line at <u>http://budget.townofbarnstable.us</u>