

FY 2019

**FY 2019 CAPITAL BUDGET
AND
FY 2019 – FY 2023
CAPITAL IMPROVEMENTS PLAN**



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
Award*

PRESENTED TO

**Town of Barnstable
Massachusetts**

For the Fiscal Year Beginning

July 1, 2017

Executive Director

*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, 2017. 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 **seventeenth consecutive year** that the Town of Barnstable has been presented with this prestigious award.*

The criterion on which the award for fiscal year 2017 was based is that which has been used as a guide in preparing the budget for fiscal year 2018. Therefore, it is my belief that the Capital and Operating budgets presented for fiscal year 2018 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 fifteen awards.

Mark S. Ells
Town Manager

Front Cover Photo: Runway Construction – Airport Enterprise Fund Project

Back Cover Photo: Exterior Renovations – Barnstable Intermediate School

ELECTED OFFICIALS

BARNSTABLE TOWN COUNCIL

Eric R. Steinhilber, Council President, Precinct 2
James H. Crocker, Jr., Council Vice President, Precinct 5
John G. Flores, Precinct 1
Paul Hebert, Precinct 3
Britt Beedenbender, Precinct 4
Paul C. Neary, Precinct 6
Jessica Rapp Grasseti, Precinct 7
Debra S. Dagwan, Precinct 8
James M. Tinsley, Precinct 9
Mathew P. Levesque, Precinct 10
Philip N. Wallace, Precinct 11
Paula K. Schnepf, Precinct 12
Jennifer L. Cullum, Precinct 13

BARNSTABLE SCHOOL COMMITTEE

Chris Joyce, Chair
Stephanie Ellis, Vice Chair
Mike Judge
R. Patrick Murphy
Barbara Dunn

TOWN CLERK

Ann M. Quirk, CMC

TOWN COLLECTOR

Maureen Niemi

TOWN ADMINISTRATION

Mark S. Ells	Town Manager
Andrew M. Clyburn	Assistant Town Manager
Roland W. Breault	Barnstable Municipal Airport Manager
Cynthia A. Lovell	Town Council Administrator
Paul B. MacDonald	Chief of Police
Elizabeth Jenkins	Director of Planning & Development
Lynne M. Poyant	Director of Community Services
Daniel Horn	Director of Marine & Environmental Affairs
Daniel W. Santos	Director of Public Works
Richard V. Scali	Director of Licensing
Brian Florence	Building Commissioner

SCHOOL ADMINISTRATION

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

OTHER TOWN OFFICIALS

Ruth J. Weil, Esq.	Town Attorney
Mark A. Milne, C.P.A.	Director of Finance
Debra Blanchette	Treasurer
Edward O'Neil	Director of Assessing
William E. Cole	Director of Human Resources
Daniel J. Wood	Director of Information Technology
Greg Quilty	Veterans Services

AIRPORT COMMISSION

John T. Griffin, Jr., Chairman
Mary F. Smith, Vice Chairman
Stephen P. Cobb, Clerk
Elizabeth Young
James DellaMorte
Zachary Lesinski
Joseph J. Berlandi

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PART I – CAPITAL IMPROVEMENTS PLAN SUBMISSIONS

Cost and Fiscal Year Summary

The capital projects identified by the Town departments in this year’s CIP process represent a total of \$33,929,936 in requests for FY 2019, and a combined total of \$249,453,672 over a five-year period. Of the \$249 million, approximately \$67 million represents Enterprise Funds, \$141 million are General Fund requests and \$40 million are Sewer Construction Fund requests.

	Enterprise Funds	General Fund	Sewer Construction & Private Way Fund	Total
FY 2019	\$9,301,146	\$19,661,790	\$4,967,000	\$33,929,936
FY 2020	\$10,050,901	\$50,329,478	-	\$60,380,379
FY 2021	\$18,479,756	\$30,828,746	\$35,508,000	\$84,816,502
FY 2022	\$22,100,067	\$25,544,060	-	\$47,644,127
FY 2023	\$7,609,728	\$15,073,000	-	\$22,682,728
Totals	\$67,541,598	\$141,437,074	\$40,475,000	\$249,453,672

Enterprise Fund projects are distributed by fund as follows:

Fund	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Totals
Airport	\$1,420,000	\$3,285,000	\$6,500,000	\$12,200,000	\$4,075,000	\$27,480,000
Golf	\$4,293,478	\$380,000	\$690,000	\$1,150,000	\$1,500,000	\$8,013,478
Water Pollution	\$1,046,000	\$2,805,000	\$4,325,000	\$5,220,000	\$750,000	\$14,146,000
Water Supply	\$1,970,000	\$3,282,745	\$1,283,406	\$3,284,067	\$1,284,728	\$11,104,946
Sandy Neck	\$376,000	-	-	-	-	\$376,000
Marina	-	-	\$5,047,250	-	-	\$5,047,250
HYCC	\$195,668	\$298,156	\$634,100	\$246,000	-	\$1,373,924
Totals	\$9,301,146	\$10,050,901	\$18,479,756	\$22,100,067	\$7,609,728	\$67,541,598

General Fund projects are distributed as follows:

Department	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Totals
Police Dept.	-	-	\$846,600	-	-	\$846,600
Admin. Services	-	\$501,669	-	-	-	\$501,669
Comm. Services	\$6,271,797	\$12,626,830	\$7,501,824	\$8,803,200	\$3,975,400	\$39,179,051
Public Works	\$7,464,993	\$26,950,979	\$18,880,322	\$13,640,860	\$8,047,600	\$74,984,754
Schools	\$5,925,000	\$10,250,000	\$3,600,000	\$3,100,000	\$3,050,000	\$25,925,000
Totals	\$19,661,790	\$50,329,478	\$30,828,746	\$25,544,060	\$15,073,000	\$141,437,074

Detail Project Listing

The description and justification for each project listed on the following tables are included in Part IV and Part VII of this document. Part IV contains projects recommended for funding in the FY 2019 program while Part VII includes those projects that will be addressed in subsequent years.

Project Submissions for Enterprise Funds

DEPARTMENT			FIVE YEAR COSTS					TOTALS
PRIORITY	DEPT	PROJECT TITLE	2019	2020	2021	2022	2023	2019-2023
1	BMA	Comprehensive Airport Layout Plan/FAA Master Plan Update	300,000	-	-	-	-	300,000
2	BMA	Replace Snow Removal Equipment (SRE) (Heavy Duty Carrier Vehicle with Plow and Sander)	175,000	-	-	-	-	175,000
3	BMA	Replace Snow Removal Equipment (SRE) (Kodiak Snow Blower)	800,000	-	-	-	-	800,000
4	BMA	Replace Aircraft Rescue and Fire Fighting (ARFF) Equipment (Rapid Response Vehicle)	145,000	-	-	-	-	145,000
5	BMA	Terminal Upgrades (baggage belt extension and Café window/door installation)	-	-	400,000	-	-	400,000
6	BMA	Runway 15-33 - Apply P-608 Surface Treatment and Repaint	-	475,000	-	-	-	475,000
7	BMA	Easements for Runway 15 Approach	-	300,000	-	-	-	300,000
8	BMA	Repair Mary Dunn Way from Steamship Authority Parking Area to Gate Mike	-	1,000,000	1,000,000	-	-	2,000,000
9	BMA	Main Terminal Ramp Hardstands for Heavy Aircraft Parking	-	185,000	-	-	-	185,000
10	BMA	ARFF Upgrades - building roof repairs to repair water infiltration	-	100,000	-	-	-	100,000
11	BMA	Environmental Assessment for Airport Master Plan Projects & (Phase 1) Permitting & Design	-	925,000	-	-	-	925,000
12	BMA	Permitting & Design for Airport Tree Clearing & Obstruction Removal	-	300,000	-	-	-	300,000
13	BMA	Replace Runway 24 Departure End Safety Area (EMAS or Runway SAFE System)	-	-	5,000,000	-	-	5,000,000
14	BMA	Replace SRE/ARFF Equipment (ASV Skid Steer Plow for EMAS)	-	-	100,000	-	-	100,000
15	BMA	Reconstruct RWY 6-24 (Approx. 4,700ft x 150ft.)	-	-	-	11,000,000	-	11,000,000
16	BMA	Design & Construct SRE Vehicle Storage Building (Deferred from FY2018)	-	-	-	400,000	-	400,000
17	BMA	Replace Circa 1997 Mo-Gas and Diesel Fuel Con-Vault, Gas Boy & Alarm (Deferred from FY2018)	-	-	-	150,000	-	150,000
18	BMA	Design and Construct New T-Hangar (Deferred from FY2018)	-	-	-	650,000	-	650,000
19	BMA	Replace 1992 SRE/ARFF Equipment - Airport #820 (ARRF Truck and Equipment)	-	-	-	-	800,000	800,000
20	BMA	Reconstruct and Re-Align Taxiways Delta and Echo at Runway 15 (includes Run-Up Pit)	-	-	-	-	3,000,000	3,000,000
21	BMA	Replace SRE Equipment 10-wheeler - Airport #47 (Carrier Vehicle with plow and sander)	-	-	-	-	275,000	275,000
TOTAL AIRPORT			1,420,000	3,285,000	6,500,000	12,200,000	4,075,000	27,480,000
1	CSD	Hyannis Golf Course Restoration Project	4,177,193	-	-	-	-	4,177,193
2	CSD	Hyannis Golf Course - Improvements - Maintenance Building	58,511	180,000	500,000	400,000	-	1,138,511
3	CSD	Olde Barnstable Fairgrounds Golf Club Facility Improvements.	57,774	200,000	190,000	750,000	1,500,000	2,697,774
TOTAL COMMUNITY SERVICES GOLF			4,293,478	380,000	690,000	1,150,000	1,500,000	8,013,478
1	CSD	Beach Park Coastline Stabilization	376,000	-	-	-	-	376,000
TOTAL COMMUNITY SERVICES SANDY NECK			376,000	-	-	-	-	376,000

Project Submissions for the Enterprise Funds – Continued

DEPARTMENT			FIVE YEAR COSTS					TOTALS
PRIORITY	DEPT	PROJECT TITLE	2019	2020	2021	2022	2023	2019-2023
1	CSD	Hyannis Youth & Community Center Roof Replacement	195,668	298,156	634,100	246,000	-	1,373,924
TOTAL COMMUNITY SERVICES HYCC			195,668	298,156	634,100	246,000	-	1,373,924
1	CSD	Bismore Park Bulkhead Improvement Design	-	-	5,047,250	-	-	5,047,250
TOTAL COMMUNITY SERVICES MARINAS			-	-	5,047,250	-	-	5,047,250
1	WPC	Effluent Disposal Capacity Study & Design	195,000	-	-	-	-	195,000
2	WPC	Pleasant Street Utility and Road Upgrade	701,000	-	-	-	-	701,000
3	WPC	Effluent Discharge Location Evaluations	150,000	-	-	-	-	150,000
4	WPC	Pump Station Rehabilitation Design & Construction	-	400,000	-	4,000,000	-	4,400,000
5	WPC	Sewer Rehabilitation Program	-	750,000	750,000	750,000	750,000	3,000,000
6	WPC	South Street Sewer Rehabilitation	-	800,000	-	-	-	800,000
7	WPC	Barnstable Road Sewer Evaluation Design and Construction	-	855,000	-	-	-	855,000
8	WPC	Septage Building Construction	-	-	3,500,000	-	-	3,500,000
9	WPC	Denitrification Sand Filter Replacement Marstons Mills Wastewater Treatment	-	-	75,000	-	-	75,000
10	WPC	MSB Generator Design and Construction	-	-	-	470,000	-	470,000
TOTAL PUBLIC WORKS WATER POLLUTION CONTROL			1,046,000	2,805,000	4,325,000	5,220,000	750,000	14,146,000
1	WS	Pipe Replacement and Upgrade Program	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	5,250,000
2	WS	Wells, Pump Stations, Treatment Plant Repair & Upgrade Program	200,000	200,000	200,000	200,000	200,000	1,000,000
3	WS	New Well Exploration Program	555,000	2,032,745	33,406	2,034,067	34,728	4,689,946
4	WS	Permanent Interconnection with COMM water system	165,000	-	-	-	-	165,000
TOTAL PUBLIC WORKS WATER SUPPLY			1,970,000	3,282,745	1,283,406	3,284,067	1,284,728	11,104,946
TOTAL ENTERPRISE FUNDS			9,301,146	10,050,901	18,479,756	22,100,067	7,609,728	67,541,598

Project Submissions for the Sewer Construction Private Way Maintenance & Improvement Fund

DEPARTMENT			FIVE YEAR COSTS					TOTALS
PRIORITY	DEPT	PROJECT TITLE	2019	2020	2021	2022	2023	2019-2023
2	DPW	Marstons Mills River Treatment System	612,000	TBD	TBD	TBD	TBD	612,000
51	DPW	Santuit River Culvert & Old Kings Road Construction	154,000	-	-	-	-	154,000
14	DPW	Attucks Lane Pumps Station Area, Sewer Expansion	1,291,000	-	-	-	-	1,291,000
12	DPW	Old Yarmouth Road Sewer Expansion	520,000	-	6,281,000	-	-	6,801,000
16	DPW	Long Pond Area Sewer Expansion Preliminary Design & Construction	1,340,000	-	16,386,000	-	-	17,726,000
15	DPW	Phinney's Sewer Expansion Preliminary Design & Construction	1,050,000	-	12,841,000	-	-	13,891,000
SEWER CONSTRUCTION AND PRIVATE WAY IMPROVEMENTS FUND			4,967,000	-	35,508,000	-	-	40,475,000

Project Submissions for the General Fund

DEPARTMENT PRIORITY	DEPT	PROJECT TITLE	FIVE YEAR COSTS					TOTALS
			2019	2020	2021	2022	2023	2019-2023
1	BPD	Barnstable Police Department Window Replacement	-	-	846,600	-	-	846,600
		TOTAL POLICE DEPARTMENT	-	-	846,600	-	-	846,600
1	ASD	Unified Communications - VOIP (Voice Over Internet Protocol)	-	501,669	-	-	-	501,669
		TOTAL ADMINISTRATIVE SERVICES DEPARTMENT	-	501,669	-	-	-	501,669
1	CSD	Channel Dredging Program	1,000,000	1,774,240	2,334,120	3,450,600	3,975,400	12,534,360
2	CSD	Craigville Bathhouse Handicap Accessibility Upgrades & Site Work	315,000	655,720	-	-	-	970,720
3	CSD	Barnstable Senior Center Renovations Sprinkler Kitchen Rear Deck	727,000	-	-	-	-	727,000
4	CSD	Beach Parking Lot Rehabilitation - Covell's Beach	-	432,500	-	-	-	432,500
5	CSD	Osterville Recreation Building Design & Construction	-	2,714,669	-	5,327,600	-	8,042,269
6	CSD	Kennedy Memorial Renovation Construction	1,828,881	-	-	-	-	1,828,881
7	CSD	Blish Point Design for Long Term Solutions	-	196,500	1,600,000	-	-	1,796,500
8	CSD	MEA Interior Project Phase III	263,538	-	-	-	-	263,538
9	CSD	Veterans Park Improvements	334,360	-	3,325,704	-	-	3,660,064
10	CSD	Hyannis Breakwater Study Preliminary Design	-	-	167,000	TBD	TBD	167,000
11	CSD	Centerville Recreation Building Site Design & Construction	176,147	895,951	-	-	-	1,072,098
12	CSD	Centerville Recreation Interior Improvements	292,432	-	75,000	25,000	-	392,432
13	CSD	Mill Pond & Long Pond Fish Ways	75,000	910,000	-	-	-	985,000
14	CSD	West Bay Breakwater	-	5,047,250	-	-	-	5,047,250
15	CSD	MEA Building Site Work Construction	774,439	-	-	-	-	774,439
16	CSD	Beach Parking Lot Rehabilitation – Keyes Memorial Beach	485,000	-	-	-	-	485,000
		TOTAL COMMUNITY SERVICES DEPARTMENT	6,271,797	12,626,830	7,501,824	8,803,200	3,975,400	39,179,051
1	DPW	Public Roads Maintenance	3,750,000	3,810,000	3,870,000	3,930,000	3,990,600	19,350,600
3	DPW	DPW Offices Phase III Construction	103,500	-	982,825	-	-	1,086,325
4	DPW	Town Hall Security Improvements	480,000	250,000	TBD	-	-	730,000
5	DPW	Cape Cod Airfield (Marstons Mills) Fuel Tank Replacement	300,000	-	-	-	-	300,000
6	DPW	School Administration Building Mechanical Cooling Upgrades	285,000	1,971,473	-	-	-	2,256,473
7	DPW	Armory Building Envelope, Electrical, and Mechanical Improvements	667,000	1,835,000	-	-	2,925,000	5,427,000
8	DPW	Bumps River Bridge Repairs	100,000	900,000	-	-	-	1,000,000
9	DPW	Town Hall Building Mechanical Cooling	72,228	358,112	-	-	-	430,340
10	DPW	Cape Cod Rail Trail Ext. Shared Use Path from Yarmouth Town Line to Sandwich Town Line	50,000	250,000	250,000	250,000	250,000	1,050,000
11	DPW	Hyannis Main Street West End Rotary Study Design and Construction	230,000	2,375,404	-	-	-	2,605,404
13	DPW	200 Main Street Mansard Roof Replacement	340,139	-	-	-	-	340,139
17	DPW	Town Hall Complex Improvements-Parking Lot	125,000	827,000	-	-	-	952,000
18	DPW	West Barnstable Railroad Depot Restoration / Repair	91,386	335,671	-	-	-	427,057
19	DPW	Horizontal Assets - Inventory & Preliminary Assessment	500,000	-	-	-	-	500,000
20	DPW	Town Hall Interior Renovations	-	562,000	256,000	-	-	818,000
21	DPW	Joshua's Pond - Handicap Accessibility to the Beach	72,000	792,000	-	-	-	864,000

Project Submissions for the General Fund – Continued

DEPARTMENT			FIVE YEAR COSTS					TOTALS
PRIORITY	DEPT	PROJECT TITLE	2019	2020	2021	2022	2023	2019-2023
22	DPW	Marstons Mills Elementary School Improvements	253,740	-	995,096	-	-	1,248,836
23	DPW	Coastal Resiliency Master Plan Development	-	225,000	TBD	TBD	TBD	225,000
24	DPW	West Barnstable Shooting Range Comprehensive Site Assessment	-	350,000	TBD	-	-	350,000
25	DPW	MS4 Municipal Separate Storm Sewer System Program	-	250,000	-	-	-	250,000
26	DPW	Utility Capacity Limitations within the Growth Incentive Zone (GIZ)	-	TBD	TBD	TBD	TBD	-
27	DPW	Highway Truck Storage Facilities- Design & Construction	-	410,256	4,299,900	-	-	4,710,156
28	DPW	U.S. Custom House Interior Work	-	367,943	-	-	-	367,943
29	DPW	Cape Cod Airfield Hangar Repair	-	341,120	-	-	-	341,120
30	DPW	Millway Beach ADA Access	-	-	304,920	-	-	304,920
31	DPW	Old Jail Repairs	-	-	-	320,316	-	320,316
32	DPW	Burgess Barn Interior	-	-	46,856	334,734	-	381,590
33	DPW	DPW Salt Storage Facility	-	2,038,000	-	-	-	2,038,000
34	DPW	Signalized Intersection at Osterville West Barnstable Road and Race Lane	-	75,000	400,000	-	-	475,000
35	DPW	Sidewalks on Pitchers Way (Bears's Way to Route 28) Design & Construction	-	595,000	-	-	-	595,000
36	DPW	Private Road Repair	-	750,000	750,000	750,000	-	2,250,000
37	DPW	Scudder's Lane Boat Ramp Design & Construction	-	255,500	-	-	-	255,500
38	DPW	Parking Lots Maintenance	-	500,000	500,000	500,000	500,000	2,000,000
39	DPW	Huckin's Neck Road Reconstruction	-	3,566,500	-	-	-	3,566,500
40	DPW	Snows Creek Culvert Construction	-	1,430,000	-	-	-	1,430,000
41	DPW	Bears's Way Bike Path Construction	-	100,000	900,000	-	-	1,000,000
42	DPW	Sidewalk Installation: Bumps River Rd Centerville, Main St Cotuit, South St Hyannis	-	-	797,160	-	-	797,160
43	DPW	South Street Improvements Design and Construction	-	290,000	3,527,500	-	-	3,817,500
44	DPW	Barnstable Road Reconstruction Design and Construction	-	225,000	-	2,660,000	-	2,885,000
45	DPW	Craigville Beach Road Pump Station and Force Main	-	-	577,500	3,623,000	-	4,200,500
46	DPW	Bay Shore Road Boat Ramp-Design and Construction	-	-	50,000	450,000	-	500,000
47	DPW	DPW 382 Falmouth Rd Facility Parking Lot Repairs	-	-	-	264,000	-	264,000
48	DPW	Sidewalks on Ocean Street from Gosnold Street to Kalmus Beach	45,000	585,000	-	-	-	630,000
49	DPW	U.S. Custom House Site Improvements	-	-	26,565	194,810	-	221,375
50	DPW	Sidewalk Overlay and Guardrail	-	330,000	346,000	364,000	382,000	1,422,000
TOTAL PUBLIC WORKS DEPARTMENT			7,464,993	26,950,979	18,880,322	13,640,860	8,047,600	74,984,754

Project Submissions for the General Fund – Continued

DEPARTMENT			FIVE YEAR COSTS					TOTALS
PRIORITY	DEPT	PROJECT TITLE	2019	2020	2021	2022	2023	2019-2023
1	SCH	Barnstable High School Sports Fields Upgrades	4,600,000	5,000,000	-	-	-	9,600,000
2	SCH	District Wide Communication, Video Surveillance And Entry Improvements	250,000	500,000	500,000	-	-	1,250,000
3	SCH	Barnstable High School & Barnstable Intermediate School Roof Top Unit Ventilator Replacement	100,000	1,000,000	1,000,000	2,000,000	2,600,000	6,700,000
4	SCH	Unit Ventilator Upgrades, Phase III	250,000	250,000	-	-	-	500,000
5	SCH	Hyannis West Walk-In Cooler & Freezer Upgrades	125,000	-	-	-	-	125,000
6	SCH	West Villages Elementary Emergency Generator Replacement	100,000	-	-	-	-	100,000
7	SCH	School Facilities Maintenance Operations Building Roof Replacement	75,000	-	-	-	-	75,000
8	SCH	Building Interior & Exterior Painting Improvements	100,000	100,000	100,000	100,000	100,000	500,000
9	SCH	Flooring Replacement and Upgrades	100,000	100,000	100,000	100,000	100,000	500,000
10	SCH	Barnstable Intermediate School Walk-In Freezer	-	75,000	-	-	-	75,000
11	SCH	Hyannis West Interior/Exterior Door Replacement	-	100,000	100,000	-	-	200,000
12	SCH	BHS Gym and Field House Improvements	-	250,000	250,000	250,000	-	750,000
13	SCH	Barnstable United Courtyard Improvements	-	100,000	-	-	-	100,000
14	SCH	Campus Wide Mechanical Upgrades (Burners, Boilers, HVAC & Pumps)	-	250,000	250,000	250,000	250,000	1,000,000
15	SCH	Hyannis West Elementary Roof Replacement	-	350,000	-	-	-	350,000
16	SCH	Centerville Elementary Roof Replacement	-	200,000	-	-	-	200,000
17	SCH	BPS Campus Wide Paving	225,000	250,000	300,000	400,000	-	1,175,000
18	SCH	Synthetic Turf Replacement	-	1,000,000	-	-	-	1,000,000
19	SCH	Electric Utility Transformer Upgrade	-	300,000	-	-	-	300,000
20	SCH	Bubbler and water cooler replacement	-	75,000	-	-	-	75,000
21	SCH	Centerville School Window Replacement	-	100,000	1,000,000	-	-	1,100,000
22	SCH	Centerville Elementary School Elevator Project	-	250,000	-	-	-	250,000
TOTAL SCHOOL DEPARTMENT			5,925,000	10,250,000	3,600,000	3,100,000	3,050,000	25,925,000
TOTAL GENERAL FUND			19,661,790	50,329,478	30,828,746	25,544,060	15,073,000	141,437,074
TOTAL CAPITAL IMPROVEMENTS PROGRAM PROJECT COSTS			33,929,936	60,380,379	84,816,502	47,644,127	22,682,728	249,453,672

PART II – CAPITAL SUBMISSION REVIEW PROCESS

The Town Administration has implemented a review process for capital submissions that scores projects twice and then averages their rank to determine an overall ranking. This two-step process requires a task force 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.

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 task force team. Most Enterprise Fund projects were excluded from this workshop as they are not competing for General Fund financing. This process provided task force 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 task force 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 40 projects out of 85 General Fund submissions were reviewed. One Enterprise Fund project was 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 is not included within a two-year program because of funding limitations.

Round 2 Evaluation Criteria

Traditionally, the task force members were asked to evaluate all project submissions against a set of 10 evaluation criteria. A total of 130 projects were submitted and it was determined to evaluate only the 40 projects scored in the first round using the traditional 10 criteria. The second round is conducted individually based on the 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.** Each capital submission is then scored based on its level of impact. The scores from the task force 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.	<p>Project is necessary to <u>alleviate a significant, existing, documented</u> health or safety hazard. This could include:</p> <ul style="list-style-type: none"> 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 	<p>Project is necessary to <u>prevent the onset</u> of a likely health and safety hazard or <u>alleviate an existing, minor</u> hazard. If problem does not currently exist, failure to act would result in hazard being present within one-two years. May include:</p> <ul style="list-style-type: none"> 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. 	<p>Project is needed to <u>maintain the current level of</u> health and safety services provided to residents. Failure to complete project may result in appearance of hazard within 2-5 years. May include:</p> <ul style="list-style-type: none"> 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. 	<p>Project <u>does not relate to, nor have any impact on</u> public health and safety issues within the town.</p>
EDUCATION -- applicability of project to educational priorities of the town.	<p>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</p>	<p>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.</p>	<p>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.</p>	<p>Project is <u>not intended</u> to be used for educational purposes.</p>

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 impact</u> on the ability to retain and expand business within the town. May include: <ul style="list-style-type: none"> • 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 <u>major contribution</u> to the Town's ability to retain and expand business. May include: <ul style="list-style-type: none"> • 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 contribution</u> to the Town's ability to retain and expand businesses. May include: <ul style="list-style-type: none"> • 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 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.	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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)
<p>QUALITY OF LIFE - degree to which project addresses town-wide quality of life for its residents.</p>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Project maintains or enhances the ability to deliver cultural and/or human services. • Project enhances the existing quality of life within the town. 	<ul style="list-style-type: none"> • Project supports the delivery of cultural an/or human services. • Project supports the existing quality of life within the town. 	<ul style="list-style-type: none"> • Project is not related to the delivery of cultural and/or human services. • Project does not impact the quality of life within the town.
<p>FINANCING -- availability of non-general fund financing overall financial feasibility.</p>	<p>Project has a highly positive fiscal impact due to the following:</p> <ul style="list-style-type: none"> • 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. 	<p>Project has a generally positive fiscal impact due to the following:</p> <ul style="list-style-type: none"> • 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. 	<p>Project has a neutral to slightly positive fiscal impact due to the following:</p> <ul style="list-style-type: none"> • Additional revenues would not offset additional costs. • Project supported by 1-25% of non-general fund revenues. 	<p>Project has a negative fiscal impact due to the following:</p> <ul style="list-style-type: none"> • None of the cost of the project will be funded by non-general funds. • Project would not bring in additional revenues.
<p>OPERATING BUDGET IMPACT -- degree to which project is required to reduce or eliminate short-term operating costs; and its impact on future operating budget.</p>	<p>Project has a highly positive impact on the operating budget due to:</p> <ul style="list-style-type: none"> • 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). 	<p>Project has a generally positive impact on the operating budget due to:</p> <ul style="list-style-type: none"> • 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. 	<p>Project has a neutral to slightly positive impact on the operating budget due to:</p> <ul style="list-style-type: none"> • Implementing project may decrease or have a neutral effect on current operating fund expenditures due to on-going 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. 	<p>Projects has a negative impact on the operating budget due to:</p> <ul style="list-style-type: none"> • 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)
<p>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.</p>	<p>Project is specifically included in a plan adopted by a State, Regional or Local Legislative body, such as:</p> <ul style="list-style-type: none"> • 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. 	<p>Project is part of an Executive Order or Plan of Action adopted by the School Board and/or the Town Manager, such as:</p> <ul style="list-style-type: none"> • 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 	<p>Project is included as part of a Town Departmental Work Plan, or part of a functional service delivery system such as.</p> <ul style="list-style-type: none"> • 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 	<p>Project is not related to the plans, policies or resolves adopted by the Town Council or other agencies of the town.</p>
<p>USAGE AND SERVICE DEMAND -- degree to which project is used by population and manner in which it is used.</p>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Project will be only intermittently used. • Project will provide limited services to a very limited service area.

The grades from the first and second evaluation methods were used to rank the projects by priority using their average ranking from each procedure. Many of the highest ranking projects are recommended for funding in FY 2019. Some of the higher scoring projects that did not receive any funding in FY19 may be a result of the project not being ready for the construction phase, the cost 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 FY19 proposed program.

Project Ranking Results

DEPT PRIORITY	DEPT NAME	PROJECT TITLE	PRIORITY	PRIORITY	DIFFERENCE	ROUND 1 SCORE	ROUND 2 SCORE	AVERAGE SCORE	ROUND 1 RANK	ROUND 2 RANK	AVERAGE RANK
			BY AVG. RANK	BY AVG. SCORE	IN PRIORITY						
1	DPW	Public Roads Maintenance	1	1	0	3.58	22.36	12.97	3	1	2
1	CSD	Channel Dredging Program	2	2	0	3.33	22.27	12.80	6	2	4
2	DPW	Marstons Mills River Treatment System	4	5	-1	3.33	20.36	11.85	6	6	6
1	SCH	Barnstable High School Sports Fields Upgrades	5	3	2	2.83	21.18	12.01	17	3	10
4	SCH	Unit Ventilator Upgrades, Phase III	7	7	0	3.25	20.09	11.67	11	11	11
4	DPW	Town Hall Security Improvements	6	8	-2	3.67	19.55	11.61	1	20	11
1	CSD	Hyannis Golf Course Restoration Project	8	9	-1	2.83	20.36	11.60	17	6	12
4	CSD	Beach Parking Lot Rehabilitation - Covell's Beach	8	11	-3	3.33	19.82	11.58	6	17	12
1	RSD	Hydrilla Control - Mystic Lake, Middle Pond, and Long Pond (Centerville) (Moved to Ops Budget)	3	4	-1	3.33	20.67	12.00	6	5	6
3	SCH	Barnstable High School & Barnstable Intermediate School Roof Top Unit Ventilator Replacement	11	10	1	3.25	19.91	11.58	11	15	13
3	CSD	Barnstable Senior Center Renovations Sprinkler Kitchen Rear Deck	10	20	-10	3.67	18.45	11.06	1	24	13
14	DPW	Attucks Lane Pumps Station Area, Sewer Expansion	12	12	0	2.75	20.36	11.56	21	6	14
2	SCH	District Wide Communication, Video Surveillance And Entry Improvements	12	21	-9	3.58	18.45	11.02	3	24	14
12	DPW	Old Yarmouth Road Sewer Expansion	14	6	8	2.58	21.00	11.79	25	4	15
9	DPW	Bumps River Bridge Repairs	15	13	2	2.50	20.36	11.43	27	6	17
18	SCH	Synthetic Turf Replacement	16	16	0	2.83	19.82	11.33	17	17	17
16	DPW	Long Pond Area Sewer Expansion	17	14	3	2.50	20.18	11.34	27	10	19
8	CSD	Beach Parking Lot Rehabilitation - Craigville Beach	18	15	3	2.67	20.00	11.33	24	14	19
5	SCH	Hyannis West Walk-In Cooler & Freezer Upgrades	18	25	-7	3.25	18.27	10.76	11	27	19
3	DPW	DPW Offices Phase III Construction	20	32	-12	3.42	16.82	10.12	5	36	21
7	CSD	Blish Point Design for Long Term Solutions	21	17	4	2.42	20.09	11.25	32	11	22
6	DPW	School Administration Building Mechanical Cooling Upgrades	21	22	-1	2.75	19.27	11.01	21	22	22
9	CSD	MEA Interior Project Phase III	23	37	-14	3.33	16.18	9.76	6	38	22
28	DPW	Utility Capacity Limitations within the Growth Incentive Zone (GIZ)	24	19	5	2.50	19.64	11.07	27	19	23
7	SCH	School Facilities Maintenance Operations Building Roof Replacement	24	28	-4	2.92	17.64	10.28	16	30	23
6	SCH	West Villages Elementary Emergency Generator Replacement	26	29	-3	3.08	17.36	10.22	15	33	24
1	ASD	Unified Communications - VOIP (Voice Over Internet Protocol)	26	31	-5	3.17	17.09	10.13	14	34	24
15	DPW	Phinney's Sewer Expansion	28	18	10	2.33	19.91	11.12	35	15	25
10	CSD	Veterans Park Improvements	28	26	2	2.50	18.82	10.66	27	23	25
8	DPW	Pleasant Street Utility and Road Upgrade	30	23	7	1.92	20.09	11.00	41	11	26
6	CSD	Kennedy Memorial Renovation Construction	31	24	7	2.33	19.36	10.85	35	21	28
20	DPW	West Barnstable Railroad Depot Restoration / Repair	31	36	-5	2.75	16.91	9.83	21	35	28
5	DPW	Cape Cod Airfield (Marstons Mills) Fuel Tank Replacement	33	33	0	2.50	17.64	10.07	27	30	29
24	DPW	Marstons Mills School Demolition	33	40	-7	2.83	13.64	8.23	17	40	29
7	DPW	Armory Building Envelope, Electrical, and Mechanical Improvements	35	27	8	2.42	18.36	10.39	32	26	29
1	POL	Barnstable Police Department Window Replacement	36	38	-2	2.58	16.82	9.70	25	36	31
9	SCH	Flooring Replacement and Upgrades	37	35	2	2.42	17.55	9.98	32	32	32
5	CSD	Osterville Recreation Building Design & Construction	38	30	8	2.25	18.09	10.17	37	28	33
11	DPW	Cape Cod Rail Trail Ext. Shared Use Path from Yarmouth Town Line to Sandwich Town Line	39	34	5	2.25	17.73	9.99	37	29	33
8	SCH	Building Interior & Exterior Painting Improvements	40	39	1	2.17	15.55	8.86	39	39	39
2	ASD	Migrate Munis to SaaS	41	41	0	2.00	13.18	7.59	40	41	41

PART III – STATUS OF EXISTING CAPITAL APPROPRIATIONS

Balances in Completed Projects Used to Fund the FY 2019 Capital Program

Part of the annual Capital Improvements Program 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 \$443,117 has been identified in prior appropriations and will be applied as follows:

Original Appropriation Order	Available Amount	Project Allocation
2014-106 Senior Center Parking Lot Expansion	\$68,247	Senior Center Renovations
2016-110 Beach Facility Improvements	\$315,116	Craigville Bathhouse Site Improvements
2016-107 OBF Golf Club Facility Improvements	\$52,607	OBF Golf Club Facility Improvements
2016-108 HGC Facility Improvements	\$7,147	HGC Maintenance Building Improvements
Total	\$443,117	

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 2/9/2018)

GENERAL FUND:

Council	Order	FY CIP	PROJECT #	Dept.	Project Title	Appropriation	Expended	Encumbered	Balance	Status
	2010-111	2011	10111	DPW	FY11 WEST BAY BRIDGE REP	650,000	477,791	79,790	92,418	Expires when encumbrance is paid or liquidated
	2010-113	2011	10113	DPW	FY11 COMPREHENSIVE WASTE	600,000	125,199	126,730	348,071	Expires when encumbrance is paid or liquidated
	2012-097	2013	2097H	DPW	FY13 SIDEWALKS PROGRAM	70,000	65,099	-	4,901	Close at June 30, 2018
	2012-097	2013	2097L	DPW	FY13 SNOWS CREEK CULVERT	75,000	64,846	5,344	4,810	Expires when encumbrance is paid or liquidated
	2012-097	2013	2097M	DPW	FY13 BUMPS RIVER BRIDGE	29,000	15,502	13,498	-	Expires when encumbrance is paid or liquidated
	2012-097	2013	2097Q	DPW	FY13 WEST BAY BREAKWATER	75,000	46,233	28,650	117	Expires when encumbrance is paid or liquidated
	2013-114	2014	13114	DPW	FY14 WATER QUALITY EVALU	300,000	183,560	105,440	11,000	Expires when encumbrance is paid or liquidated
	2013-116	2014	3116C	DPW	FY14 TOWN HALL INTERIOR	150,000	136,653	1,036	12,310	Expires when encumbrance is paid or liquidated
	2013-116	2014	3116G	DPW	FY14 WB COMMUNTY BLDG IM	72,000	63,832	-	8,168	Close at June 30, 2018
	2013-116	2014	3116H	DPW	FY14 US CUSTOMS HOUSE UP	278,000	277,691	-	309	Close at June 30, 2018
	2013-116	2014	3116K	CSD	FY14 BEACH FACILITY DESI	115,000	112,137	2,862	0	Expires when encumbrance is paid or liquidated
	2013-116	2014	3116L	CSD	FY14 LOMBARD PARK & FIEL	101,000	99,819	1,181	(0)	Expires when encumbrance is paid or liquidated
	2013-116	2014	3116M	CSD	FY14 TENNIS COURTS RECON	500,000	345,140	-	154,860	Expires June 30, 2018 if not encumbered before
	2014-100	2015	14100	ASD	FY15 AERIAL FLYOVER-MAPP	140,000	137,876	-	2,124	Close at June 30, 2018
	2014-102	2015	14102	BPD	FY15 POLICE FACILITY IMP	288,000	166,824	22,693	98,484	Expires when encumbrance is paid or liquidated
	2014-106	2015	14106	CSD	FY15 PARKING LOT EXPANSI	290,000	221,753	-	68,247	Will use balance for FY19 CIP
	2014-108	2015	14108	CSD	FY15 MARSTONS MILLS FISH	393,500	23,778	5,000	364,722	Expires when encumbrance is paid or liquidated
	2014-109	2015	14109	DPW	FY15 MILL POND & LONG PO	42,000	21,164	15,326	5,510	Expires when encumbrance is paid or liquidated
	2014-111	2015	14111	CSD	FY15 VETERANS' PARK PLAN	50,000	32,828	7,300	9,872	Expires when encumbrance is paid or liquidated
	2014-116	2015	14116	DPW	FY15 COMPREHENSIVE DREDG	350,310	217,500	54,394	78,416	Expires when encumbrance is paid or liquidated
	2014-118	2015	14118	CSD	FY15 CENTERVILLE RECREAT	185,000	39,446	5,038	140,517	Expires when encumbrance is paid or liquidated
	2014-119	2015	14119	DPW	FY15 TOWN FACILITIES SEC	100,000	8,000	35,921	56,079	Expires when encumbrance is paid or liquidated
	2014-120	2015	14120	DPW	FY15 PAINE BLACK HOUSE	240,000	239,285	715	0	Expires when encumbrance is paid or liquidated
	2015-030	2015	15030	BSD	FY15 E-PERMITTING PROJEC	211,544	194,397	16,665	482	Expires when encumbrance is paid or liquidated
	2015-063	2015	15063	DPW	FY15 TECH EVAL STEWARTS	40,000	38,575	-	1,425	Close at June 30, 2018
	2015-096	2016	15096	DPW	FY16 PUBLIC ROAD MAINTEN	3,250,000	3,195,282	54,718	0	Expires when encumbrance is paid or liquidated
	2015-097	2016	15097	DPW	FY16 SCHOOL ZONE TRAFFIC	92,700	90,227	1,176	1,297	Expires when encumbrance is paid or liquidated
	2015-098	2016	15098	DPW	FY16 GUARDRAIL & SIDEWAL	400,000	308,939	88,684	2,377	Expires when encumbrance is paid or liquidated
	2015-099	2016	15099	DPW	FY16 BAY STREET BOAT RAM	289,000	288,545	455	-	Expires when encumbrance is paid or liquidated
	2015-100	2016	15100	BPD	FY16 POLICE FACILITY IMP	355,000	30,000	4,707	320,293	Expires June 30, 2018 if not encumbered before
	2015-101	2016	15101	DPW	FY16 TOWN HALL IMPROVEME	939,000	48,439	3,150	887,411	Expires June 30, 2018 if not encumbered before

GENERAL FUND – CONTINUED:

Council Order	FY CIP	PROJECT #	Dept.	Project Title	Appropriation	Expended	Encumbered	Balance	Status
2015-103	2016	15103	CSD	FY16 JFK MEMORIAL RESTOR	87,000	36,422	48,900	1,678	Expires when encumbrance is paid or liquidated
2015-111	2016	15111	CSD	FY16 JOSHUA'S POND SITE	317,000	291,005	25,404	591	Expires when encumbrance is paid or liquidated
2015-112	2016	15112	P&D	FY16 ALUM TREATMENT - HA	300,000	275,620	-	24,380	Expires June 30, 2018 if not encumbered before
2015-114	2016	15114	DPW	FY16 DEMO PORTABLS @ MM	50,000	9,982	-	40,018	Expires June 30, 2018 if not encumbered before
2015-147	2016	15147	DPW	FY16 POLE BARN ADDITION	36,415	34,415	2,000	-	Expires when encumbrance is paid or liquidated
2016-026	2016	16026	DPW	FY16 SHOOTING RNG MONITO	35,000	27,610	4,240	3,150	Expires when encumbrance is paid or liquidated
2016-037	2016	16037	DPW	FY16 PRIVATE RD- GOVERNO	323,386	288,692	-	34,694	Expires June 30, 2018 if not encumbered before
2016-039	2016	16039	DPW	FY16 GPS AUTO VEH LOCAT	145,000	125,890	19,110	-	Expires when encumbrance is paid or liquidated
2016-076	2016	16076	P&D	FY16 BISMORE PARK REPAIR	15,000	13,848	-	1,152	Close at June 30, 2018
2016-078	2016	16078	DPW	FY16/17 DOG PARK-HATHAW	279,850	24,408	235,698	19,744	Expires when encumbrance is paid or liquidated
2016-086	2017	16086	ASD	FY17 IT HARDWARE & SOFTW	418,000	411,040	6,461	499	Expires June 30, 2019
2016-087	2017	16087	P&D	FY17 MM PARKING LOT ACQU	290,000	264,900	25,100	-	Expires June 30, 2019
2016-088	2017	16088	P&D	FY17 WALKWAY TO THE SEA	133,300	25,184	102,329	5,787	Expires June 30, 2019
2016-102	2017	16102	DPW	FY17 PUBLIC ROAD MAINT P	3,250,000	2,828,200	421,800	-	Expires June 30, 2019
2016-103	2017	16103	DPW	FY17 SIDEWALK/GUARDRAIL	730,000	431,956	131,601	166,444	Expires June 30, 2019
2016-104	2017	16104	DPW	FY17 MS4 STORM MGMT PLAN	87,500	67	76,300	11,133	Expires June 30, 2019
2016-105	2017	16105	DPW	FY17 TRAFFIC SIGNAL UPGR	150,000	-	-	150,000	Expires June 30, 2019
2016-110	2017	16110	CSD	FY17 BEACH FACILITY IMPR	618,717	302,321	1,280	315,116	Will use balance for FY19 CIP
2016-111	2017	16111	DPW	FY17 BLISH POINT DREDGIN	1,079,788	432,106	78,321	569,361	Expires June 30, 2019
2016-112	2017	16112	DPW	FY17 OSTERVILLE BAY ELM	900,444	430,511	94,656	375,277	Expires June 30, 2019
2016-113	2017	16113	CSD	FY17 LOMBARD FIELD IMPRO	1,754,499	601,821	1,101,044	51,634	Expires June 30, 2019
2017-003	2017	17003	DPW	FY17 PRVT RD REP-BLUE HE	180,000	119,139	37,242	23,619	Expires June 30, 2019
2017-039	2017	17039	DPW	STRAWBERRY HILL ACQUISIT	1,710	-	-	1,710	Expires June 30, 2019
2017-069	2018	17069	DPW	TOWN HALL RESTROOM RENOV	560,000	-	-	560,000	Expires June 30, 2020
2017-070	2018	17070	DPW	TOWNHALL & SAB MASONRY S	116,000	-	-	116,000	Expires June 30, 2020
2017-071	2018	17071	DPW	FY18 PUBLIC ROADS IMPROV	3,250,000	784,884	757,513	1,707,603	Expires June 30, 2020
2017-072	2018	17072	DPW	JFK MUSEUM PLAZA REPLACE	235,000	-	-	235,000	Expires June 30, 2020
2017-073	2018	17073	DPW	FY18 SIDEWALK/GUARDRAIL	314,000	-	-	314,000	Expires June 30, 2020
2017-074	2018	17074	DPW	SHOOTING RANGE ASSESSMEN	350,000	6,848	1,637	341,515	Expires June 30, 2020
2017-086	2018	17086	DPW	OSTERVILLE REC BLDG DESI	675,000	-	-	675,000	Expires June 30, 2020
2017-087	2018	17087	CSD	SENIOR CTR STANDBY GENER	209,000	-	-	209,000	Expires June 30, 2020
2017-088	2018	17088	BPD	DISPATCH CTR RENOVATIONS	158,000	20,901	99,992	37,107	Expires June 30, 2020
2017-089	2018	17089	BSD	FY18 HYDRILLA CONTROL	82,000	78,457	3,543	-	Expires June 30, 2020

GENERAL FUND – CONTINUED:

Council Order	FY CIP	PROJECT #	Dept.	Project Title	Appropriation	Expended	Encumbered	Balance	Status
2017-095	2018	17095	ASD	TYLER CONTENT MGR SOFTWA	105,000	-	-	105,000	Expires June 30, 2020
2018-031	2018	18031	DPW	THREE BAY TOWN PIER EVAL	30,000	-	-	30,000	Expires June 30, 2020
2018-033	2018	18033	DPW	BARNSTABLE HARBOR TOWN P	30,000	-	-	30,000	Expires June 30, 2020
2018-055	2018	18055	DPW	MILL POND DREDGING	250,000	-	-	250,000	Expires June 30, 2020
TOTAL MUNICIPAL PROJECTS					28,217,663	15,182,589	3,954,644	9,080,431	

Council Order	FY CIP	Dept.	Project Title	Appropriation	Expended	Encumbered	Balance	Status
2013-105	FY14	SCH	MODULAR CLASSROOMS-REMOV	125,000	121,100	-	3,900	Close at June 30, 2018
2014-096	FY15	SCH	BU A/C AND CHILLER PIPES	200,000	188,449	11,551	1	Expires when encumbrance is paid or liquidated
2014-097	FY15	SCH	BPS LOCK UPGRADES 2015	100,000	98,664	-	1,336	Close at June 30, 2018
2015-115	FY16	SCH	CONSTRUCT MODULAR CLASSR	4,151,719	4,150,199	-	1,519	Close at June 30, 2018
2015-116	FY16	SCH	FACADE/ROOF IMPROVEMENTS at BIS	3,353,000	3,345,273	7,726	1	Expires when encumbrance is paid or liquidated
2015-117	FY16	SCH	FACADE & ROOF IMPROVMNTS	260,000	200,775	59,225	-	Expires when encumbrance is paid or liquidated
2015-118	FY16	SCH	INTERNET & DIGITAL RESOU	213,000	211,900	-	1,100	Close at June 30, 2018
2015-119	FY16	SCH	BOILER REPLACEMENT - HS	350,000	342,189	-	7,811	Close at June 30, 2018
2015-120	FY16	SCH	REPLACE A/C-WEST VILLAGE	250,000	249,738	-	262	Close at June 30, 2018
2016-081	FY17	SCH	FACADE & ROOF IMPROVMNTS	4,286,000	453,676	1,139,932	2,692,392	Expires on June 30, 2019
2016-082	FY17	SCH	LT POLE REPLMT/REST RM F	475,000	267,714	24,793	182,493	Expires on June 30, 2019
2016-083	FY17	SCH	UNIT VENTILATOR UPGRADES	250,000	246,718	2,179	1,103	Expires on June 30, 2019
2016-084	FY17	SCH	PUMP FLANGE REPLMT-BHS	70,000	68,995	1,005	(0)	Close at June 30, 2018
2016-085	FY17	SCH	WALK-IN COOLER REPLMT-BH	160,000	159,716	-	284	Close at June 30, 2018
2017-062	FY18	SCH	BPS UNIT VENTILATOR UPGR	250,000	178,135	66,812	5,053	Expires on June 30, 2020
2017-063	FY18	SCH	BHS 21ST CENTURY LEARNIN	3,500,363	17,750	83,050	3,399,563	Expires on June 30, 2020
2017-064	FY18	SCH	BPS NETWORK INFRA UPGRAD	250,000	236,083	645	13,272	Expires on June 30, 2020
2017-065	FY18	SCH	COMMUNICATIONS/SECURITY	100,000	9,840	-	90,160	Expires on June 30, 2020
2017-066	FY18	SCH	BPS ASBESTOS ABATEMENT	300,000	14,512	11,340	274,148	Expires on June 30, 2020
2017-067	FY18	SCH	BHS STADIUM BLEACHERS	1,055,000	36,750	953,217	65,033	Expires on June 30, 2020
2017-068	FY18	SCH	BHS CAF STOREFRONT/BWB R	425,000	14,799	178	410,024	Expires on June 30, 2020
TOTAL SCHOOL PROJECTS				20,124,082	10,612,975	2,361,652	7,149,454	

AIRPORT ENTERPRISE FUND:

Council Order	FY CIP	Project Title	Appropriation	Expended	Encumbered	Balance	Status
2010-095	FY11	RUNWAY 15 RVZ CLEARING	75,000	64,675	2,270	8,055	Expires when encumbrance is paid or liquidated
2011-079	FY12	GROUNDWATER BIOREMEDIATI	207,000	133,148	73,832	20	Expires when encumbrance is paid or liquidated
2012-091	FY13	RUNWAY 15 RVZ CLEARING-P	246,000	241,080	-	4,920	Close June 30, 2018
2012-094	FY13	TERMINAL ENHANCEMENTS 20	200,000	32,878	78,075	89,047	Expires when encumbrance is paid or liquidated
2013-098	FY14	TERMINAL & AARF IMPVMTS	200,000	36,001	61,900	102,099	Expires when encumbrance is paid or liquidated
2013-099	FY14	ACCESS CONTROL & SECURIT	90,000	13,091	74,967	1,941	Expires when encumbrance is paid or liquidated
2013-102	FY14	CONSTRUCT FUEL FARM-2014	1,540,000	1,382,585	4,362	153,054	Expires when encumbrance is paid or liquidated
2014-086	FY15	RECONSTRUCT RUNWAY 6-24	400,000	-	-	400,000	Close unless encumbered by June 30, 2018
2014-087	FY15	PLACE EAST RAMP T-HANGAR	100,000	-	-	100,000	Close unless encumbered by June 30, 2018
2014-090	FY15	TERMINAL & BLDG IMPROVEM	200,000	-	5,700	194,300	Expires when encumbrance is paid or liquidated
2015-124	FY16	REPLACE GENERATOR/REMOVE	90,000	84,370	5,630	-	Expires when encumbrance is paid or liquidated
2015-147	FY16	REPLACE AIRFIELD EQUIPME	162,000	-	119,620	42,380	Expires when encumbrance is paid or liquidated
2016-090	FY17	AIRFIELD IMPRVMT	9,095,571	9,062,372	25,468	7,731	Expires on June 30, 2019
2016-092	FY17	RUNWAY/TAXIWAY MARKINGS	150,000	55,616	-	94,384	Expires on June 30, 2019
2017-058	FY17	FY17 MASSDEP-NOR	95,000	93,600	1,400	0	Expires on June 30, 2019
2017-059	FY17	SLURRY SEAL-TERMINAL APR	138,000	42,999	1,129	93,872	Expires on June 30, 2019
2017-091	FY18	FAA AIRPORT LAYOUT/MASTE	700,000	-	-	700,000	Expires on June 30, 2020
2017-093	FY18	CLEAR VEGETATION/OBSTRUC	300,000	-	-	300,000	Expires on June 30, 2020
2017-094	FY18	RUNWAY/TAXIWAY MARKING P	75,000	-	-	75,000	Expires on June 30, 2020
AIRPORT CAPITAL FUND			14,063,571	11,242,416	454,352	2,366,803	

GOLF ENTERPRISE FUND:

Council Order	FY CIP	Project Title	Appropriation	Expended	Encumbered	Balance	Status
2015-106	FY16	HGC FACILITY IMPROVEMENTS	140,000	107,647	32,353	-	Expires when encumbrance is paid or liquidated
2016-107	FY17	CLUB FACILITY IMPROV-OBF	258,000	205,393	-	52,607	Will use balance for FY19 CIP
2016-108	FY17	CLUB FACILITY IMPROV-HYA	307,000	299,853	-	7,147	Will use balance for FY19 CIP
GOLF COURSE CAPITAL FUND			565,000	505,246	-	59,754	

SOLID WASTE ENTERPRISE FUND:

Council Order	FY CIP	Project Title	Appropriation	Expended	Encumbered	Balance	Status
2015-092	FY16	REPLACE TRUCK SCALE	50,000	-	-	50,000	Close unless encumbered by June 30, 2018
2015-094	FY16	ROLL-OFF TRAILER	50,000	-	-	50,000	Close unless encumbered by June 30, 2018
2015-095	FY16	PURCHASE COMPACTOR UNITS	100,000	-	-	100,000	Close unless encumbered by June 30, 2018
2016-099	FY17	MACK TRUCK REPLMT	150,000	129,800	-	20,200	Close June 30, 2018
2016-100	FY17	VEHICLE REPLACEMENT	50,000	42,574	-	7,426	Close June 30, 2018
2016-101	FY17	SITE IMPROVEMENTS PHASE	2,500,000	127,720	10,702	2,361,578	Expires on June 30, 2019
SOLID WASTE CAPITAL FUND			2,900,000	300,094	10,702	2,589,204	

WATER POLLUTION CONTROL ENTERPRISE FUND:

Council Order	FY CIP	Project Title	Appropriation	Expended	Encumbered	Balance	Status
2010-017	FY10	STEWART'S CREEK-WEST SID	3,300,000	2,430,837	13,886	855,277	Expires when encumbrance is paid or liquidated
2009-096	FY10	SWR EXPANSION-STEWARTS C	3,900,000	2,119,170	53,390	1,727,440	Expires when encumbrance is paid or liquidated
2013-091	FY14	BACK-UP PUMP-BEARSE'S WA	80,000	41,068	-	38,932	Close June 30, 2018
2013-092	FY14	PRETREATMENT BLDG & CLAR	50,000	49,846	-	154	Close June 30, 2018
2013-093	FY14	HYDRAULIC LOAD TESTING A	50,000	17,621	14,379	18,000	Expires when encumbrance is paid or liquidated
2014-076	FY15	SEPTAGE BLDG EVALUATION-	450,000	40,322	298,030	111,648	Expires when encumbrance is paid or liquidated
2014-077	FY15	GENERATOR STORAGE BLDG	132,000	18,070	4,450	109,480	Expires when encumbrance is paid or liquidated
2014-078	FY15	PLANT UPGRADE STUDY 2015	200,000	-	-	200,000	Close unless encumbered by June 30, 2018
2015-014	FY15	STUDY OF WW ENERGY RECOV	50,000	27,400	1,294	21,306	Expires when encumbrance is paid or liquidated
2015-089	FY16	RELINE SEWERS/LATERALS -	84,500	-	-	84,500	Close unless encumbered by June 30, 2018
2015-090	FY16	EVALUATE-SEWER COLLECTIO	200,000	108,406	25,674	65,920	Expires when encumbrance is paid or liquidated
2016-097	FY17	CLARIFIERS REHAB	1,289,505	1,049,238	208,905	31,362	Expires June 30, 2019
2016-098	FY17	BACKUP GENERATOR REPLMT	904,000	467,253	146,700	290,046	Expires June 30, 2019
2017-075	FY18	WPC PUMP STATION EVALUAT	200,000	-	-	200,000	Expires June 30, 2020
2017-076	FY18	WPC NEW PICK UP TRUCK	55,000	49,328	3,500	2,172	Close June 30, 2018
2017-077	FY18	WPC COMPUTERIZED SIMULAT	55,000	-	-	55,000	Expires June 30, 2020
2017-078	FY18	DESIGN SEWER UPGRADES BA	72,000	-	-	72,000	Expires June 30, 2020
SEWER CAPITAL FUND			11,072,005	6,418,558	770,208	3,883,238	

WATER SUPPLY ENTERPRISE FUND:

Council Order	FY CIP	Project Title	Appropriation	Expended	Encumbered	Balance	Status
2010-099	FY11	DESIGN WATER MAIN UPGRAD	110,000	4,959	-	105,041	Close unless encumbered by June 30, 2018
2012-084	FY12	NEW WATER MAIN-SCUDDER A	1,070,000	1,069,600	-	400	Close June 30, 2018
2013-085	FY14	PIPE REPLACEMENT & UPGRA	1,050,000	1,049,991	-	9	Close June 30, 2018
2013-087	FY14	WELL EXPLORATION PROGRAM	489,500	38,484	451,016	-	Expires when encumbrance is paid or liquidated
2013-088	FY14	AIR STRIPPER UPGRADE 201	300,000	268,096	-	31,904	Close June 30, 2018
2014-073	FY15	NEW WELL EXPLORATION 201	583,000	50,796	344,636	187,568	Expires when encumbrance is paid or liquidated
2014-075	FY15	WATER MAIN UPGRADES 2015	95,900	-	-	95,900	Close unless encumbered by June 30, 2018
2015-146	FY16	INSTALL CARBON FILTER TR	744,000	743,016	984	-	Expires when encumbrance is paid or liquidated
2016-093	FY17	PIPE REPLMT/UPGRADE	1,050,000	537,248	512,752	-	Expires when encumbrance is paid or liquidated
2016-094	FY17	PUMP STATION UPGRADES	200,000	199,091	909	(0)	Expires when encumbrance is paid or liquidated
2016-095	FY17	MARY DUNN TANK UPGRADE	52,000	30,099	13,543	8,358	Expires when encumbrance is paid or liquidated
2016-163	FY17	MARY DUNN #3 TREATMENT S	540,000	528,422	11,578	(0)	Expires when encumbrance is paid or liquidated
2017-010	FY17	3 BUILDINGS FOR CARBON T	1,113,000	1,112,417	583	(0)	Expires when encumbrance is paid or liquidated
2017-079	FY18	LEASE BUY OUT CARBON FIL	491,000	490,840	-	160	Close June 30, 2018
2017-080	FY18	WELL REACTIVATION PROJEC	295,000	8,258	-	286,742	Expires June 30, 2020
2017-081	FY18	FY18 PIPE REPLACEMENT	500,000	232,501	103,947	163,552	Expires June 30, 2020
2017-082	FY18	FY18 PUMP STATION UPGRAD	200,000	34,010	115,728	50,262	Expires June 30, 2020
2017-083	FY18	ROOF-MARY DUNN 1	638,000	253,743	362,741	21,516	Expires June 30, 2020
2017-084	FY18	WATER NEW PICK UP TRUCK	45,000	39,613	-	5,387	Expires June 30, 2020
2017-099	FY18	MAHER CARBON TREATMENT S	6,500,000	288,566	188,103	6,023,331	Expires June 30, 2020
WATER SUPPLY CAPITAL FUND			16,066,400	6,979,751	2,106,519	6,980,130	

MARINA ENTERPRISE FUND:

Council Order	FY CIP	Project Title	Appropriation	Expended	Encumbered	Balance	Status
2011-081	FY12	PRINCE COVE BULKHEAD DES	20,000	19,623	-	377	Close June 30, 2018
2012-095	FY13	GATEWAY MARINA DREDGING	80,000	52,611	-	27,389	Close June 30, 2018
2015-108	FY16	DREDGING - GATEWAY MARIN	280,000	268,184	11,816	-	Expires when encumbrance is paid or liquidated
2015-109	FY16	RECONSTRUCT PRINCE COVE	570,000	539,605	11,300	19,095	Expires when encumbrance is paid or liquidated
2015-110	FY16	HYANNIS HARBOR BULKHEAD-	158,000	-	-	158,000	Close unless encumbered by June 30, 2018
2016-109	FY17	GATEWAY MARINA DREDGING	500,000	444,000	-	56,000	Expires June 30, 2019
MARINA CAPITAL FUND			1,608,000	1,324,022	23,116	260,862	

SANDY NECK ENTERPRISE FUND:

Council Order	FY CIP	Project Title	Appropriation	Expended	Encumbered	Balance	Status
2014-023	FY14	BEACH & PARKING STABILIZ	175,000	157,229	1,525	16,246	Expires when encumbrance is paid or liquidated
SANDY NECK CAPITAL FUND			175,000	157,229	1,525	16,246	

PART IV – FIVE YEAR FUNDING PLAN

A total of 132 projects amounting \$249 million were submitting for requests over the next 5 years. This includes General 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, each individual enterprise fund and the Sewer Construction and Private Way Maintenance & Improvement Special Revenue 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, investment income, free cash reserves and excess overlay reserves. The largest source of funding is a transfer from the General Fund every year. The projected transfer for FY19 is \$9.5 million. This amount represents the minimum annual General Fund resources dedicated to the town's capital program. This amount is enhanced every year with a minimum of 2.5% growth.

A newer funding tool in the form of the Sewer Construction and Private Way Maintenance & Improvement Special Revenue Fund was created in FY11. 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 rooms tax to this fund for the purposes stated in the funds title. Additionally, the town has filed a Bill (House Bill 3953) to expand the use of this fund for "other means of comprehensive wastewater management". If approved, this will provide the town with more flexibility in addressing its comprehensive wastewater management planning and associated water quality improvements.

A majority of the Enterprise Fund 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 General Fund capital program.

The schedules on the following pages illustrate what a 5 year Capital Improvement Plan might look like. Most of the 40 projects that went through the evaluation processes in the development of this year's Capital Improvement Plan can be funded over the next 5 years. The projects listed under FY 2019 are recommended for funding in this year's plan while the outer years of 2020 to 2023 are shown for illustrative purposes. It is anticipated many of these projects will come forward for funding in the respective year shown, however, some may get 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 \$174 million in capital projects. Enterprise funds total \$66 million, the Sewer Construction Fund totals \$21 million and the General Fund totals \$87 million. This includes 81 projects; 40 for the Enterprise funds and 41 for the Sewer Construction and General funds. The recommended Capital Program for FY 2019 includes 36 projects totaling \$18.4 million.

Enterprise Fund Five Year Capital Improvements Plan

DEPARTMENT		PROJECT TITLE	FIVE YEAR COSTS					TOTALS
PRIORITY	DEPT		2019	2020	2021	2022	2023	2019-2023
1	BMA	Comprehensive Airport Layout Plan/FAA Master Plan Update	300,000	-	-	-	-	300,000
2	BMA	Replace Snow Removal Equipment (SRE) (Heavy Duty Carrier Vehicle with Plow and Sander)	175,000	-	-	-	-	175,000
3	BMA	Replace Snow Removal Equipment (SRE) (Kodiak Snow Blower)	800,000	-	-	-	-	800,000
4	BMA	Replace Aircraft Rescue and Fire Fighting (ARFF) Equipment (Rapid Response Vehicle)	145,000	-	-	-	-	145,000
5	BMA	Terminal Upgrades (baggage belt extension and Café window/door installation)	-	-	400,000	-	-	400,000
6	BMA	Runway 15-33 - Apply P-608 Surface Treatment and Repaint	-	475,000	-	-	-	475,000
7	BMA	Easements for Runway 15 Approach	-	300,000	-	-	-	300,000
8	BMA	Repair Mary Dunn Way from Steamship Authority Parking Area to Gate Mike	-	1,000,000	1,000,000	-	-	2,000,000
9	BMA	Main Terminal Ramp Hardstands for Heavy Aircraft Parking	-	185,000	-	-	-	185,000
10	BMA	ARFF Upgrades - building roof repairs to repair water infiltration	-	100,000	-	-	-	100,000
11	BMA	Environmental Assessment for Airport Master Plan Projects & (Phase 1) Permitting & Design	-	925,000	-	-	-	925,000
12	BMA	Permitting & Design for Airport Tree Clearing & Obstruction Removal	-	300,000	-	-	-	300,000
13	BMA	Replace Runway 24 Departure End Safety Area (EMAS or Runway SAFE System)	-	-	5,000,000	-	-	5,000,000
14	BMA	Replace SRE/ARFF Equipment (ASV Skid Steer Plow for EMAS)	-	-	100,000	-	-	100,000
15	BMA	Reconstruct RWY 6-24 (Approx. 4,700ft x 150ft.)	-	-	-	11,000,000	-	11,000,000
16	BMA	Design & Construct SRE Vehicle Storage Building (Deferred from FY2018)	-	-	-	400,000	-	400,000
17	BMA	Replace Circa 1997 Mo-Gas and Diesel Fuel Con-Vault, Gas Boy & Alarm (Deferred from FY2018)	-	-	-	150,000	-	150,000
18	BMA	Design and Construct New T-Hangar (Deferred from FY2018)	-	-	-	650,000	-	650,000
19	BMA	Replace 1992 SRE/ARFF Equipment - Airport #820 (ARRF Truck and Equipment)	-	-	-	-	800,000	800,000
20	BMA	Reconstruct and Re-Align Taxiways Delta and Echo at Runway 15 (includes Run-Up Pit)	-	-	-	-	3,000,000	3,000,000
21	BMA	Replace SRE Equipment 10-wheeler - Airport #47 (Carrier Vehicle with plow and sander)	-	-	-	-	275,000	275,000
TOTAL AIRPORT			1,420,000	3,285,000	6,500,000	12,200,000	4,075,000	27,480,000
1	CSD	Hyannis Golf Course Restoration Project	-	216,494	3,960,699	-	-	4,177,193
2	CSD	Hyannis Golf Course - Improvements - Maintenance Building	58,511	180,000	500,000	400,000	-	1,138,511
3	CSD	Olde Barnstable Fairgrounds Golf Club Facility Improvements.	57,774	200,000	190,000	750,000	1,500,000	2,697,774
TOTAL COMMUNITY SERVICES GOLF			116,285	596,494	4,650,699	1,150,000	1,500,000	8,013,478
1	CSD	Beach Park Coastline Stabilization	-	376,000	-	-	-	376,000
TOTAL COMMUNITY SERVICES SANDY NECK			-	376,000	-	-	-	376,000
1	CSD	Bismore Park Bulkhead Improvement Design	-	175,000	4,872,250	-	-	5,047,250
TOTAL COMMUNITY SERVICES MARINAS			-	175,000	4,872,250	-	-	5,047,250

Enterprise Fund Five Year Capital Improvements Plan - Continued

DEPARTMENT			FIVE YEAR COSTS					TOTALS
PRIORITY	DEPT	PROJECT TITLE	2019	2020	2021	2022	2023	2019-2023
1	DPW	Effluent Disposal Capacity Study & Design	195,000	-	-	-	-	195,000
2	DPW	Pleasant Street Utility and Road Upgrade	701,000	-	-	-	-	701,000
3	DPW	Effluent Discharge Location Evaluations	150,000	-	-	-	-	150,000
4	DPW	Pump Station Rehabilitation Design & Construction	-	400,000	-	4,000,000	-	4,400,000
5	DPW	Sewer Rehabilitation Program	-	750,000	750,000	750,000	750,000	3,000,000
6	DPW	South Street Sewer Rehabilitation	-	800,000	-	-	-	800,000
7	DPW	Barnstable Road Sewer Evaluation Design and Construction	-	855,000	-	-	-	855,000
8	DPW	Septage Building Construction	-	-	3,500,000	-	-	3,500,000
9	DPW	Denitrification Sand Filter Replacement Marstons Mills Wastewater Treatment	-	-	75,000	-	-	75,000
10	DPW	MSB Generator Design and Construction	-	-	-	470,000	-	470,000
TOTAL PUBLIC WORKS WATER POLLUTION CONTROL			1,046,000	2,805,000	4,325,000	5,220,000	750,000	14,146,000
1	DPW	Pipe Replacement and Upgrade Program	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	5,250,000
2	DPW	Wells, Pump Stations, Treatment Plant Repair & Upgrade Program	200,000	200,000	200,000	200,000	200,000	1,000,000
3	DPW	New Well Exploration Program	555,000	2,032,745	33,406	2,034,067	34,728	4,689,946
4	DPW	Permanent Interconnection with COMM water system	165,000	-	-	-	-	165,000
TOTAL PUBLIC WORKS WATER SUPPLY			1,970,000	3,282,745	1,283,406	3,284,067	1,284,728	11,104,946
TOTAL ENTERPRISE FUNDS			4,552,285	10,520,239	21,631,355	21,854,067	7,609,728	66,167,674

Sewer Construction And Private Way Maintenance & Improvement Fund Five year Capital Improvements Plan

DEPARTMENT			FIVE YEAR COSTS					TOTALS
PRIORITY	DEPT	PROJECT TITLE	2019	2020	2021	2022	2023	2019-2023
2	DPW	Marstons Mills River Treatment System	-	612,000	TBD	TBD	TBD	612,000
51	DPW	Old Kings Rd Improvements	154,000	-	-	-	-	154,000
14	DPW	Attucks Lane Pumps Station Area Sewer Expansion Design & Construction	100,000	1,191,000	-	-	-	1,291,000
16	DPW	Long Pond Area Sewer Expansion Design & Construction	402,000	938,000	-	16,386,000	-	17,726,000
15	DPW	Phinney's Sewer Expansion Design (Construction in FY24)	315,000	735,000	-	-	-	1,050,000
SEWER CONSTRUCTION AND PRIVATE WAY IMPROVEMENTS FUND			971,000	3,476,000	-	16,386,000	-	20,833,000

General Fund Five Year Capital Improvements Plan

DEPARTMENT			FIVE YEAR COSTS					TOTALS
PRIORITY	DEPT	PROJECT TITLE	2019	2020	2021	2022	2023	2019-2023
1	BPD	Barnstable Police Department Window Replacement	-	-	846,600	-	-	846,600
		TOTAL POLICE DEPARTMENT	-	-	846,600	-	-	846,600
1	ASD	Unified Communications - VOIP (Voice Over Internet Protocol)	-	501,669	-	-	-	501,669
		TOTAL ADMINISTRATIVE SERVICES DEPARTMENT	-	501,669	-	-	-	501,669
1	CSD	Channel Dredging Program	1,000,000	1,774,240	2,334,120	3,450,600	3,975,400	12,534,360
2	CSD	Craigville Bathhouse Handicap Accessibility Upgrades & Site Work	315,116	655,720	-	-	-	970,836
3	CSD	Barnstable Senior Center Renovations Sprinkler Kitchen Rear Deck	727,247	-	-	-	-	727,247
1	CSD	Hyannis Youth & Community Center Roof Replacement	195,668	298,156	634,100	246,000	-	1,373,924
4	CSD	Beach Parking Lot Rehabilitation - Covell's Beach	-	432,500	-	-	-	432,500
5	CSD	Osterville Recreation Building Design & Construction	-	-	2,714,669	5,327,000	-	8,041,669
6	CSD	Kennedy Memorial Renovation Construction	-	-	-	1,828,881	-	1,828,881
7	CSD	Blish Point Design for Long Term Solutions	-	196,500	1,600,000	-	-	1,796,500
8	CSD	MEA Interior Project Phase III	-	263,538	-	-	-	263,538
9	CSD	Veterans Park Improvements	-	-	-	334,360	3,325,704	3,660,064
		TOTAL COMMUNITY SERVICES DEPARTMENT	2,238,031	3,620,654	7,282,889	11,186,841	7,301,104	31,629,519
1	DPW	Public Roads Maintenance	3,412,500	3,450,000	3,550,000	3,650,000	3,750,000	17,812,500
3	DPW	DPW Offices Phase III Construction	103,500	-	982,825	-	-	1,086,325
4	DPW	Town Hall Security Improvements	-	480,000	250,000	-	-	730,000
5	DPW	Cape Cod Airfield (Marstons Mills) Fuel Tank Replacement	300,000	-	-	-	-	300,000
6	DPW	School Administration Building Mechanical Cooling Upgrades	285,000	1,971,473	-	-	-	2,256,473
7	DPW	Armory Building Envelope, Electrical, and Mechanical Improvements	667,000	1,835,000	-	-	2,925,000	5,427,000
9	DPW	Bumps River Bridge Repairs	100,000	900,000	-	-	-	1,000,000
10	DPW	Town Hall Building Mechanical Cooling	-	72,228	358,112	-	-	430,340
11	DPW	Cape Cod Rail Trail Ext. Shared Use Path from Yarmouth Town Line to Sandwich Town Line	-	50,000	250,000	250,000	250,000	800,000
12	DPW	Sidewalk Overlay & Guardrails	-	330,000	346,000	364,000	382,000	1,422,000
20	DPW	West Barnstable Railroad Depot Restoration / Repair	-	-	91,386	335,671	-	427,057
24	DPW	Marstons Mills School Demolition	253,740	-	995,096	-	-	1,248,836
26	DPW	West Barnstable Shooting Range Comprehensive Site Assessment	-	350,000	-	-	-	350,000
37	DPW	Sidewalks on Pitchers Way (Bears's Way to Route 28) Design & Construction	-	-	595,000	-	-	595,000
44	DPW	Sidewalk Installation: Bumps River Rd Centerville, Main St Cotuit, South St Hyannis	-	-	-	797,160	-	797,160
50	DPW	Sidewalks on Ocean Street from Gosnold Street to Kalmus Beach	45,000	585,000	-	-	-	630,000
		TOTAL PUBLIC WORKS DEPARTMENT	5,166,740	10,023,701	7,418,419	5,396,831	7,307,000	35,312,691

General Fund Five Year Capital Improvements Plan – Continued

DEPARTMENT			FIVE YEAR COSTS					TOTALS
PRIORITY	DEPT	PROJECT TITLE	2019	2020	2021	2022	2023	2019-2023
2	DPW	Marstons Mills River Treatment System	-	612,000	TBD	TBD	TBD	612,000
51	DPW	Old Kings Rd Improvements	154,000	-	-	-	-	154,000
14	DPW	Attucks Lane Pumps Station Area Sewer Expansion Design & Construction	100,000	1,191,000	-	-	-	1,291,000
16	DPW	Long Pond Area Sewer Expansion Design & Construction	402,000	938,000	-	16,386,000	-	17,726,000
15	DPW	Phinney's Sewer Expansion Design (Construction in FY24)	315,000	735,000	-	-	-	1,050,000
SEWER CONSTRUCTION AND PRIVATE WAY IMPROVEMENTS FUND			971,000	3,476,000	-	16,386,000	-	20,833,000

GENERAL FUND PROJECTS			FIVE YEAR COSTS					PROJECT TOTALS	
DEPARTMENT	PRIORITY	DEPT	PROJECT TITLE	2019	2020	2021	2022	2023	2019-2023
SCH	1	SCH	Barnstable High School Sports Fields Upgrades	4,600,000	-	2,500,000	-	2,500,000	9,600,000
SCH	2	SCH	District Wide Communication, Video Surveillance And Entry Improvements	250,000	500,000	500,000	-	-	1,250,000
SCH	3	SCH	Barnstable High School & Barnstable Intermediate School Roof Top Unit Ventilator Replacement	100,000	1,000,000	1,000,000	2,000,000	2,600,000	6,700,000
SCH	4	SCH	Unit Ventilator Upgrades, Phase III	250,000	250,000	-	-	-	500,000
SCH	5	SCH	Hyannis West Walk-In Cooler & Freezer Upgrades	125,000	-	-	-	-	125,000
SCH	6	SCH	West Villages Elementary Emergency Generator Replacement	100,000	-	-	-	-	100,000
SCH	7	SCH	School Facilities Maintenance Operations Building Roof Replacement	75,000	-	-	-	-	75,000
SCH	18	SCH	Synthetic Turf Replacement	-	1,000,000	-	-	-	1,000,000
TOTAL SCHOOL DEPARTMENT			5,500,000	2,750,000	4,000,000	2,000,000	5,100,000	19,350,000	
TOTAL GENERAL FUND			12,904,771	16,896,024	19,547,908	18,583,672	19,708,104	87,640,479	
TOTAL CAPITAL IMPROVEMENTS PROGRAM			18,428,056	30,892,263	41,179,263	56,823,739	27,317,832	174,641,153	

Sewer Construction And Private Way Maintenance And Improvements 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 the construction of sewers; and the maintenance and improvements of private ways. Legislation has been filed to expand the use of this fund to include any costs associated planning and designing of sewers and other means of comprehensive wastewater management.

Dedicated revenue sources for this fund include 100% of the local meals excise tax and one-third of the local rooms excise tax. 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.

The Stewart's Creek sewer construction, West Main Street Pump Station and FY16 private way improvement projects are the only projects to date that have been accounted for within this special fund. The Town borrowed money from the Massachusetts Clean Water Trust to finance the construction of the sewer projects. The Town received low interest loans and principal subsidies on the loans. The loans will be paid back from the resources credited to this special fund. Betterments on the Stewarts Creek project were assessed to property abutters in the amount of 50% of the project costs. The betterments collected are credited to this fund.

Major Assumptions Used In Table A:

- Rooms and meals tax revenue will grow 1% per year;
- Investment earnings will average 0.75 % per year;
- Existing sewer betterments collected will average \$46,000 per year;
- Long Pond Area Sewer Expansion assessments will average \$409,650 per year starting in FY23;
- Loan amortization on bond issues will be 20 years;
- The net interest cost on the bonds are estimated to be 3.5%;
- The FY20 bonds will be issued at a time so that the first loan payments will not be made until FY21 and the first payment on the FY22 bond issue will be in FY23;
- 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 will be \$971,000 in FY19.

TABLE A – Estimated Sewer Construction And Private Way Maintenance And Improvements Fund Cash Flow FY 2019 – FY 2028

SEWER CONSTRUCTION & PRIVATE WAY MAINTENANCE AND IMPROVEMENTS FUND CASH FLOW ANALYSIS 10-Year Projection										
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Beginning Trust Fund Balance	\$ 16,100,649	\$ 17,319,868	\$ 19,543,994	\$ 21,514,350	\$ 23,529,064	\$ 24,617,555	\$ 25,768,724	\$ 26,989,292	\$ 28,279,409	\$ 29,640,481
Resources:										
1 Hotel/Motel Rooms Tax 1/3	995,143	1,005,095	1,015,146	1,025,297	1,035,550	1,045,906	1,056,365	1,066,928	1,077,598	1,088,374
2 Meals Tax	1,515,450	1,530,604	1,545,910	1,561,369	1,576,983	1,592,753	1,608,680	1,624,767	1,641,015	1,657,425
3 Earning on Investment	120,755	129,899	146,580	161,358	176,468	184,632	193,265	202,420	212,096	222,304
4 Assessments	60,106	60,106	60,106	58,349	478,241	472,244	472,244	471,619	471,619	471,619
5 Total Current Year Resources	2,691,454	2,725,704	2,767,742	2,806,374	3,267,242	3,295,534	3,330,554	3,365,734	3,402,327	3,439,721
6 Total Available Resources	18,792,103	20,045,572	22,311,736	24,320,723	26,796,305	27,913,089	29,099,279	30,355,026	31,681,736	33,080,202
Commitments:										
8 Existing Debt Service Payments	(501,235)	(501,578)	(501,926)	(502,283)	(502,647)	(503,019)	(503,400)	(503,788)	(504,185)	(504,591)
9a Estimated Debt Service on FY20 CIP (\$3.4m)	-	-	(295,460)	(289,377)	(283,294)	(277,211)	(271,128)	(265,045)	(258,962)	(252,879)
9b Estimated Debt Service on FY22 CIP (\$16.3m)	-	-	-	-	(1,392,810)	(1,364,135)	(1,335,459)	(1,306,784)	(1,278,108)	(1,249,433)
10 Other Cash Program	(971,000)	-	-	-	-	-	-	-	-	-
11 Total Current Year Commitments	(1,472,235)	(501,578)	(797,386)	(791,660)	(2,178,751)	(2,144,365)	(2,109,987)	(2,075,617)	(2,041,255)	(2,006,902)
12 Increase (Decrease) in Trust Fund	1,219,219	2,224,126	1,970,356	2,014,714	1,088,491	1,151,169	1,220,567	1,290,117	1,361,072	1,432,819
13 Ending Trust Fund Balance	\$ 17,319,868	\$ 19,543,994	\$ 21,514,350	\$ 23,529,064	\$ 24,617,555	\$ 25,768,724	\$ 26,989,292	\$ 28,279,409	\$ 29,640,481	\$ 31,073,300

This table illustrates the Sewer Construction And Private Way Maintenance And Improvements Fund cash flow incorporating all existing loan payments on previously authorized projects as well as future recommended projects. Cash funded projects in FY19 total \$971,000 and bond funded projects over the ten-year analysis include all submissions provided in the five-year plan. Line 8 in the table above illustrates all existing loan payments. Lines 9a and 9b illustrate the estimated debt service payments on new projects included in the five-year plan. Line 11 includes all existing as well as estimated commitments to the fund.

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 flows of the CTF for the prospective 20-year period in order to measure the level of additional capital appropriations the fund can absorb.

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 FY19 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. \$1 million in new debt service could pay for a bond issue of approximately \$8 million in interest 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 \$9.5 million in FY19. 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. In FY18, an additional \$1 million was transferred from the General Fund reserves to provide for a greater level of capital funding over the next five years and another \$4 million is anticipated for FY19.

Table A below illustrates the CTF cash flow for the next 10-years incorporating all existing loan payments and the FY19 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 \$300,000 for new growth;
- Loan amortization on the FY18 & FY19 bond issues will include:
 - \$314,000 and \$1,705,740 over 5-years;
 - \$900,000 and \$300,000 over 10-years;
 - \$1,730,000 and \$1,000,000 over 15-years; and
 - \$4,143,000 and \$5,259,000 over 20-years.
- The net interest cost on the bonds are estimated to be 3.5%;
- The FY18 bonds will be issued at a time so that the first loan payments will not be made until FY19 and the first payment on the FY19 bond issue will be in FY20;
- 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 \$4.6 million per year.

Major Assumptions Used In Table B:

In addition to all of the assumptions in Table A, bond issues for the next four years are included for the FY20 through FY28 capital programs with the following amortization amounts:

FY20: Total Bond Issue \$11,822,076

- \$796,500 annually over 5-years
- \$4,748,707 annually over 10-years
- \$3,674,240 annually over 15-years
- \$2,602,629 annually over 20-years

FY21: Total Bond Issue \$13,191,853

- \$1,346,000 annually over 10-years
- \$6,882,328 annually over 15-years
- \$4,963,525 annually over 20-years

FY23: Total Bond Issue \$17,423,001

- \$334,360 annually over 5-years
- \$614,000 annually over 10-years
- \$6,247,760 annually over 15-years
- \$10,26,881 annually over 20-years

FY23: Total Bond Issue \$13,033,104

- \$632,000 annually over 10-years
- \$6,575,400 annually over 15-years
- \$5,825,704 annually over 20-years

TABLE A – Estimated Capital Trust Fund Cash Flow FY 2019 – FY 2028

ESTIMATED CAPITAL TRUST FUND CASH FLOW FY 2019 - FY 2028										
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
1 Beginning Trust Fund Balance	\$ 14,729,735	\$ 17,809,971	\$ 17,557,905	\$ 19,532,187	\$ 21,214,120	\$ 22,502,683	\$ 24,903,949	\$ 29,610,994	\$ 33,777,764	\$ 38,735,782
Resources:										
2 Investment Earnings	162,027	195,910	193,137	214,854	233,355	247,530	273,943	325,721	371,555	426,094
3 Private Road Betterments Collected	65,000	60,000	55,000	50,000	45,000	40,000	35,000	30,000	25,000	20,000
4 Transfer From General Fund	9,517,045	10,039,157	10,574,305	11,122,815	11,685,020	12,261,263	12,551,895	12,849,774	13,155,082	13,468,005
5 Additional Contribution From General Fund	4,000,000	-	-	1,000,000	-	-	1,000,000	-	-	1,000,000
6 Other Resources	583,000	1,600,000	2,714,669	335,000	-	-	-	-	-	-
7 Total Current Year Resources	14,327,072	11,895,067	13,537,111	12,722,669	11,963,375	12,548,793	13,860,838	13,205,495	13,551,637	14,914,099
8 Total Available Resources	29,056,807	29,705,037	31,095,016	32,254,856	33,177,495	35,051,476	38,764,787	42,816,489	47,329,401	53,649,880
Commitments:										
9 Existing Debt Service Payments	(6,094,100)	(5,708,820)	(5,111,232)	(4,575,855)	(4,196,046)	(3,655,618)	(2,988,990)	(2,847,030)	(2,374,106)	(1,611,856)
10a Estimated Debt Service on FY18 CIP (\$7.1M)	(777,737)	(760,747)	(743,758)	(726,768)	(709,778)	(692,789)	(675,799)	(658,810)	(641,820)	(624,830)
10b Authorized Unissued Debt Prior Years CIP (\$2.9m)	-	(252,535)	(247,336)	(242,137)	(236,937)	(231,738)	(226,539)	(221,340)	(216,140)	(210,941)
10c Estimated Debt Service on FY19 CIP (\$8.2m)	-	(990,031)	(965,504)	(940,977)	(916,450)	(891,924)	(875,249)	(858,662)	(841,076)	(823,489)
11 Public Roads Program	(3,750,000)	(3,810,000)	(3,870,000)	(3,930,000)	(3,990,600)	(4,050,459)	(4,111,216)	(4,172,884)	(4,235,477)	(4,299,010)
12 Other Cash Program	(625,000)	(625,000)	(625,000)	(625,000)	(625,000)	(625,000)	(625,000)	(625,000)	(625,000)	(625,000)
13 Total Current Year Commitments	(11,246,836)	(12,147,132)	(11,562,829)	(11,040,736)	(10,674,812)	(10,147,527)	(9,153,793)	(9,038,725)	(8,593,620)	(7,860,126)
14 Increase (Decrease) in Trust Fund	3,080,236	(252,066)	1,974,282	1,681,933	1,288,563	2,401,266	4,707,046	4,166,769	4,958,018	7,053,972
15 Ending Trust Fund Balance	\$ 17,809,971	\$ 17,557,905	\$ 19,532,187	\$ 21,214,120	\$ 22,502,683	\$ 24,903,949	\$ 29,610,994	\$ 33,777,764	\$ 38,735,782	\$ 45,789,754
16 % of trust fund resources committed in CY (max = 80%)	39%	41%	37%	34%	32%	29%	24%	21%	18%	15%

This table illustrates the Capital Trust Fund’s (CTF) cash flow incorporating all existing loan payments on previously authorized projects, authorized but unissued debt on approved projects, FY18 estimated loan payments and the recommended projects for FY19. Cash funded projects in FY19 total \$4,375,000 and bond funded projects total \$8.264 million. The bonds will be issued in FY19 and the first estimated loan payment of \$990,031 is anticipated to be made in FY20 as illustrated above on line 10c. Line 9 in the table above includes all existing loan payments. Line 10a illustrates the estimate debt service payment on the Town’s FY18 bond issue, which has not been sold at the time of writing this report. 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 in FY19, FY22, FY25, and FY28 are included on line 5 and 6. 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 For The Next 10 Years

		ESTIMATED CAPITAL TRUST FUND CASH FLOW 10 Year Plan Projection									
		FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
1	Beginning Trust Fund Balance	\$ 14,729,735	\$ 17,544,940	\$ 16,552,730	\$ 15,231,876	\$ 14,744,822	\$12,535,651	\$10,213,307	\$10,235,034	\$ 9,915,408	\$10,424,193
Resources:											
2	Investment Earnings	162,027	192,994	182,080	167,551	162,193	137,892	112,346	112,585	109,069	114,666
3	Private Road Betterments Collected	65,000	60,000	55,000	50,000	45,000	40,000	35,000	30,000	25,000	20,000
4	Transfer From General Fund	9,517,045	10,039,157	10,574,305	11,122,815	11,685,020	12,261,263	12,551,895	12,849,774	13,155,082	13,468,005
5	Additional Contribution From General Fund	4,000,000	-	-	1,000,000	-	-	1,000,000	-	-	1,000,000
6	Other Resources	583,000	1,600,000	2,714,669	335,000	-	-	-	-	-	-
7	Total Current Year Resources	14,327,072	11,892,151	13,526,054	12,675,366	11,892,213	12,439,155	13,699,241	12,992,359	13,289,151	14,602,671
8	Total Available Resources	29,056,807	29,437,091	30,078,784	27,907,242	26,637,035	24,974,806	23,912,548	23,227,393	23,204,560	25,026,864
Commitments:											
9	Existing Debt Service Payments	(6,094,100)	(5,708,820)	(5,111,232)	(4,575,855)	(4,196,046)	(3,655,618)	(2,988,990)	(2,847,030)	(2,374,106)	(1,611,856)
10a	Estimated Debt Service on FY18 CIP (\$7.1M)	(777,737)	(760,747)	(743,758)	(726,768)	(709,778)	(692,789)	(675,799)	(658,810)	(641,820)	(624,830)
10b	Authorized Unissued Debt Prior Years CIP (\$2.9m)	-	(252,535)	(247,336)	(242,137)	(236,937)	(231,738)	(226,539)	(221,340)	(216,140)	(210,941)
10c	Estimated Debt Service on FY19 CIP (\$8.2m)	-	(990,031)	(965,504)	(940,977)	(916,450)	(891,924)	(526,249)	(513,662)	(501,076)	(488,489)
10d	Estimated Debt Service on FY20 CIP (\$11.8m)	-	-	(1,423,024)	(1,387,700)	(1,352,377)	(1,317,053)	(1,281,729)	(1,087,105)	(1,057,357)	(1,027,609)
10e	Estimated Debt Service on FY21 CIP (\$13.1m)	-	-	-	(1,303,313)	(1,273,857)	(1,244,401)	(1,214,945)	(1,185,489)	(1,156,033)	(1,126,577)
10f	Estimated Debt Service on FY22 CIP (\$17.4m)	-	-	-	-	(1,665,938)	(1,628,974)	(1,592,009)	(1,555,044)	(1,518,080)	(1,414,243)
10g	Estimated Debt Service on FY23 CIP (\$13m)	-	-	-	-	-	(1,249,004)	(1,221,254)	(1,193,505)	(1,165,755)	(1,138,006)
11	Public Roads Program	(3,412,500)	(3,450,000)	(3,550,000)	(3,650,000)	(3,750,000)	(3,850,000)	(3,950,000)	(4,050,000)	(4,150,000)	(4,250,000)
12	Other Cash Program	(1,227,531)	(1,722,228)	(2,806,055)	(335,671)	-	-	-	-	-	-
13	Total Current Year Commitments	(11,511,867)	(12,884,360)	(14,846,908)	(13,162,420)	(14,101,384)	(14,761,499)	(13,677,514)	(13,311,985)	(12,780,367)	(11,892,551)
14	Increase (Decrease) in Trust Fund	2,815,205	(992,209)	(1,320,854)	(487,055)	(2,209,171)	(2,322,344)	21,727	(319,625)	508,784	2,710,120
15	Ending Trust Fund Balance	\$ 17,544,940	\$ 16,552,730	\$ 15,231,876	\$ 14,744,822	\$ 12,535,651	\$10,213,307	\$10,235,034	\$ 9,915,408	\$10,424,193	\$13,134,312
16	% of trust fund resources committed in CY (max = 80%)	40%	44%	49%	47%	53%	59%	57%	57%	55%	48%

Including the proposed FY19 capital program, it is estimated the Capital Trust Fund can absorb approximately \$133 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 \$44 million and bond financed capital is estimated at \$88.7 million through FY28. The estimated annual loan payments on the bonds are illustrated on lines 10a through 10g.

TABLE C – Capital Trust Fund Debt Amortization Schedule As Of June 30, 2017

DEBT SERVICE PROGRAM		Issued	Maturity	Principal	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments
Purpose		Date	Date	Amount	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2028
CTF Building - Senior Center - Refunded	I	02/15/07	02/15/19	702,378	26,250	-	-	-	-	-	-	-	-	-	-
CTF MWPAT CW-04-31 Pool 11	I	11/09/07	07/15/20	389,216	33,999	33,999	33,999	-	-	-	-	-	-	-	-
CTF School Building Improvements	I	06/16/10	06/15/30	936,000	64,744	62,494	61,144	59,794	58,331	56,869	55,294	53,719	52,088	50,288	50,288
CTF Dredging	I	06/16/10	06/15/24	419,250	36,125	34,625	33,725	32,825	31,850	25,875	-	-	-	-	-
CTF Lake Treatment	I	06/16/10	06/15/25	275,000	24,075	23,075	23,075	17,475	17,025	16,538	16,050	15,525	-	-	-
CTF Municipal Facility Improvements	I	06/16/10	06/15/29	402,500	6,994	6,744	6,594	6,444	6,281	6,119	5,944	5,769	5,588	5,388	5,388
CTF Police Facility	I	06/16/10	06/15/30	508,000	35,969	34,719	33,969	33,219	32,406	31,594	30,719	29,844	28,938	27,938	27,938
CTF Nitrogen Management CW-04-31-A	I	03/15/11	07/15/20	211,460	23,330	23,330	23,330	-	-	-	-	-	-	-	-
CTF School Facilities Upgrades/Repairs V (I)	I	06/14/11	06/15/31	884,000	66,919	65,119	63,319	61,519	59,719	57,919	56,400	54,825	53,138	46,450	46,450
CTF Advance Refund 6/15/2002 Land Acquisitions BUTAPS	I	06/14/11	06/15/20	1,102,000	140,400	135,200	-	-	-	-	-	-	-	-	-
CTF Boat Ramp Renovations	I	06/14/11	06/15/21	250,000	28,000	27,000	26,000	-	-	-	-	-	-	-	-
CTF Bridge Repair	I	06/14/11	06/15/21	250,000	28,000	27,000	26,000	-	-	-	-	-	-	-	-
CTF Building - Town Hall Space - 00-110 Refunded	I	06/14/11	06/15/21	180,000	21,280	20,520	19,760	-	-	-	-	-	-	-	-
CTF Dredging East Bay & Blish Point	I	06/14/11	06/15/21	665,000	72,800	70,200	67,600	-	-	-	-	-	-	-	-
CTF Municipal Facility Improvement	I	06/14/11	06/15/21	300,000	33,600	32,400	31,200	-	-	-	-	-	-	-	-
CTF School Facilities Upgrades/Repairs IV	I	06/14/11	06/15/21	332,000	33,600	32,400	31,200	-	-	-	-	-	-	-	-
CTF School Parking Lot (I)	I	06/14/11	06/15/21	250,000	28,000	27,000	26,000	-	-	-	-	-	-	-	-
CTF Sidewalk Improvements	I	06/14/11	06/15/21	350,000	39,200	37,800	36,400	-	-	-	-	-	-	-	-
CTF Building - Town Hall Repairs - 01-087 Refunded	I	06/14/11	06/15/22	100,000	11,560	11,160	10,760	9,360	-	-	-	-	-	-	-
CTF School Remolding - Asbestos 00-110 Refunded	I	06/14/11	06/15/22	50,000	5,800	5,600	5,400	5,200	-	-	-	-	-	-	-
CTF Baxter's Neck Road - Private Way	I	06/14/11	06/15/26	350,000	31,725	30,725	29,725	23,725	22,925	22,125	21,450	20,750	-	-	-
CTF Prince Cove/Hayward Rd. Boat Ramp	I	06/14/11	06/15/26	600,000	52,250	50,650	49,050	47,450	45,850	44,250	42,900	41,500	-	-	-
CTF School Facilities Upgrades/Repairs II	I	06/14/11	06/15/26	179,000	13,063	12,663	12,263	11,863	11,463	11,063	10,725	10,375	-	-	-
CTF School Facilities Upgrades/Repairs III	I	06/14/11	06/15/26	190,000	18,263	17,663	17,063	16,463	15,863	15,263	14,725	14,375	-	-	-
CTF School Improvement (I)	I	06/14/11	06/15/26	487,000	39,188	37,988	36,788	35,588	34,388	33,188	32,175	31,125	-	-	-
CTF Advance Refund 6/15/2003 Main St. Hyannis Infr. Improv.	I	04/18/12	09/15/20	39,100	5,348	5,198	4,162	-	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Building Improvements	I	04/18/12	09/15/22	96,600	11,414	11,114	10,814	10,464	6,732	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Drainage 1 (i)	I	04/18/12	09/15/22	193,200	22,828	22,228	21,628	18,968	15,504	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Drainage 2 (i)	I	04/18/12	09/15/22	96,700	11,418	11,118	10,818	10,468	6,834	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Police Facility Addition	I	04/18/12	09/15/22	626,900	71,229	67,500	65,700	63,600	61,200	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 School Remodel I	I	04/18/12	09/15/22	242,700	29,389	28,609	22,806	21,192	20,196	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 School Remodel II	I	04/18/12	09/15/22	193,400	22,780	22,180	21,580	17,940	15,300	-	-	-	-	-	-
CTF Beach Facility Design	I	11/22/13	11/15/18	115,000	20,200	-	-	-	-	-	-	-	-	-	-
CTF Guardrail Replacements	I	11/22/13	11/15/18	60,000	10,100	-	-	-	-	-	-	-	-	-	-
CTF Intermediate School Roof & Façade Design	I	11/22/13	11/15/18	100,000	20,200	-	-	-	-	-	-	-	-	-	-
CTF Lombard Parking & Ballfield Design	I	11/22/13	11/15/18	101,000	20,200	-	-	-	-	-	-	-	-	-	-
CTF School Grounds Maintenance Equipment	I	11/22/13	11/15/18	150,000	30,300	-	-	-	-	-	-	-	-	-	-
CTF School Gym Bleacher Upgrades	I	11/22/13	11/15/18	55,000	10,100	-	-	-	-	-	-	-	-	-	-
CTF School Hot Water Pump Replacement	I	11/22/13	11/15/18	85,000	15,150	-	-	-	-	-	-	-	-	-	-
CTF School Kitchen equipment	I	11/22/13	11/15/18	110,000	20,200	-	-	-	-	-	-	-	-	-	-
CTF Sewer Expansion Analysis	I	11/22/13	11/15/18	70,000	10,100	-	-	-	-	-	-	-	-	-	-
CTF Bumps River Bridge Repair	I	11/22/13	11/15/23	120,000	11,500	11,250	10,950	10,650	10,375	10,125	-	-	-	-	-
CTF East Bay Dredging	I	11/22/13	11/15/23	600,000	69,000	67,500	65,700	63,900	62,250	60,750	-	-	-	-	-
CTF Guyer Barn Upgrades	I	11/22/13	11/15/23	148,000	17,125	16,750	16,300	15,850	15,438	10,125	-	-	-	-	-
CTF Highway Operations Facility Construction	I	11/22/13	11/15/23	66,000	5,750	5,625	5,475	5,325	5,188	5,063	-	-	-	-	-
CTF HS Library AC Units	I	11/22/13	11/15/23	450,000	51,750	50,625	49,275	47,925	46,688	45,563	-	-	-	-	-
CTF Hyannis Harbor Bulkhead Construction	I	11/22/13	11/15/23	142,000	16,850	16,475	16,025	10,650	10,375	10,125	-	-	-	-	-
CTF MEA Facility Upgrades	I	11/22/13	11/15/23	131,000	16,700	16,325	10,950	10,650	10,375	10,125	-	-	-	-	-
CTF Millway Boat Ramp & Dock Upgrades	I	11/22/13	11/15/23	133,000	16,700	16,325	10,950	10,650	10,375	10,125	-	-	-	-	-
CTF Osterville Community Building Upgrades	I	11/22/13	11/15/23	200,000	23,000	22,500	21,900	21,300	20,750	20,250	-	-	-	-	-
CTF Pearl St Building Upgrades	I	11/22/13	11/15/23	114,000	11,500	11,250	10,950	10,650	10,375	10,125	-	-	-	-	-
CTF Police Station Upgrades	I	11/22/13	11/15/23	168,000	17,250	16,875	16,425	15,975	15,563	15,188	-	-	-	-	-

DEBT SERVICE PROGRAM		Issued Date	Maturity Date	Principal Amount	P&I Payments FY 2019	P&I Payments FY 2020	P&I Payments FY 2021	P&I Payments FY 2022	P&I Payments FY 2023	P&I Payments FY 2024	P&I Payments FY 2025	P&I Payments FY 2026	P&I Payments FY 2027	P&I Payments FY 2028
CTF Private Road Repairs (I) \$633,000	I	11/22/13	11/15/23	633,000	74,200	72,575	65,700	63,900	62,250	60,750	-	-	-	-
CTF S&G Facility Roof Repairs	I	11/22/13	11/15/23	103,000	11,500	11,250	10,950	10,650	10,375	10,125	-	-	-	-
CTF School Computer Network Infrastructure	I	11/22/13	11/15/23	189,000	22,600	22,100	21,500	21,000	20,500	20,000	-	-	-	-
CTF School Fire & Communications System	I	11/22/13	11/15/23	200,000	23,000	22,500	21,900	21,300	20,700	20,250	-	-	-	-
CTF School Roof Repairs	I	11/22/13	11/15/23	600,000	69,000	67,500	65,700	63,900	62,250	60,750	-	-	-	-
CTF Sidewalk Overlays	I	11/22/13	11/15/23	190,000	22,750	22,250	21,650	21,050	20,500	20,000	-	-	-	-
CTF Tennis Courts	I	11/22/13	11/15/23	500,000	57,500	56,250	54,750	53,250	51,875	50,625	-	-	-	-
CTF Town Hall Interior Upgrades	I	11/22/13	11/15/23	150,000	17,250	16,875	16,425	15,975	15,563	15,188	-	-	-	-
CTF US Custom House upgrades	I	11/22/13	11/15/23	263,000	28,750	28,125	27,375	26,625	25,938	25,313	-	-	-	-
CTF Water Quality Evaluation	I	11/22/13	11/15/23	230,000	28,200	27,575	26,900	26,200	25,500	24,800	-	-	-	-
CTF West Barnstable Community Building Upgrades	I	11/22/13	11/15/23	72,000	8,500	8,250	7,975	7,700	7,425	7,150	-	-	-	-
CTF Beach Facilities Improvements (I) \$270,000 Refunded	I	02/15/15	02/15/22	71,300	16,310	15,680	15,120	14,560	-	-	-	-	-	-
CTF Marston Mills Fish Run Reconstruction	I	02/17/15	02/15/30	326,000	33,750	27,625	26,825	26,025	25,225	24,425	23,625	22,825	22,025	21,225
CTF Senior Center - Parking Lot Expansion	I	02/17/15	02/15/30	290,000	28,225	27,325	26,525	25,725	24,925	24,125	23,325	22,525	21,725	20,925
CTF Centerville Recreation Building	I	02/17/15	02/15/35	185,000	15,313	14,863	14,463	14,063	13,663	13,263	12,863	12,463	12,063	11,663
CTF Early Learning Center Modular Facility	I	02/17/15	02/15/35	2,000,000	157,625	153,125	149,125	145,125	141,125	137,125	133,125	129,125	125,125	121,125
CTF Police Facilities	I	02/17/15	02/15/35	288,000	23,194	22,519	21,919	21,319	20,719	20,119	19,519	18,919	18,319	17,719
CTF Blish Point Sand Management	I	02/17/15	02/15/20	215,000	43,400	41,600	-	-	-	-	-	-	-	-
CTF Dredge Permitting/Planning	I	02/17/15	02/15/20	341,000	70,525	67,600	-	-	-	-	-	-	-	-
CTF Sidewalk/Guardrail Improvements 1	I	02/17/15	02/15/20	200,000	43,400	41,600	-	-	-	-	-	-	-	-
CTF Sidewalk/Guardrail Improvements 2	I	02/17/15	02/15/20	85,000	16,275	15,600	-	-	-	-	-	-	-	-
CTF School Facilities Repair & Improvement (I) \$660,000 Refunded	I	02/17/15	02/15/22	199,700	49,455	42,520	41,000	38,480	-	-	-	-	-	-
CTF School Upgrades 1 (I) \$360,000 Refunded	I	02/17/15	02/15/22	104,700	27,360	21,280	20,520	19,760	-	-	-	-	-	-
CTF Police Station Construction (I) \$400,000 Adv Refunded 6-15-05	I	02/17/15	02/15/25	181,650	23,130	22,320	21,600	20,880	20,160	19,440	18,720	-	-	-
CTF Land Acquisition (I) - Hyannis Golf Course \$748,000 Refunded	I	02/17/15	02/15/26	325,200	49,310	47,600	46,080	44,560	43,040	41,520	40,000	38,480	36,960	35,440
CTF MME Roof Replacement (I) \$750,000 Refunded	I	02/17/15	02/15/26	329,800	49,510	47,800	46,280	44,760	43,240	41,720	40,200	38,680	37,160	35,640
CTF School Health & Safety Improvements \$478,000 Refunded	I	02/17/15	02/15/26	193,400	30,700	29,620	28,660	27,700	26,740	25,780	24,820	23,860	22,900	21,940
CTF BHMCPSP Roof (I) \$910,000 Refunded	I	02/17/15	02/15/27	426,900	57,705	55,770	54,050	52,330	50,610	48,890	47,170	45,450	43,730	42,010
CTF School Upgrades 2 (I) \$150,000 Refunded	I	02/17/15	02/15/27	47,400	6,645	6,420	6,220	6,020	5,820	5,620	5,420	5,220	5,020	4,820
CTF Senior Center - Garden Level \$457,000 Refunded	I	02/17/15	02/15/27	195,000	25,555	24,700	23,940	23,180	22,420	21,660	20,900	20,140	19,380	18,620
CTF Town Building Repairs & Renovations \$685,000 Refunded	I	02/17/15	02/15/27	317,600	44,940	43,410	41,050	39,730	38,410	37,090	35,770	34,450	33,130	31,810
CTF Nitrogen Management CW-04-31-B Series 16	I	05/14/15	07/15/20	157,531	27,882	27,922	27,963	-	-	-	-	-	-	-
CTF BCHMCPSP Façade & Roof Improvements (#2015-117)	I	02/25/16	06/30/26	260,000	33,000	32,000	31,000	30,000	29,000	28,000	27,000	26,000	25,000	24,000
CTF Channel Dredging- Barnstable Harbor (#2016-035)	I	02/25/16	06/30/26	490,000	65,600	63,600	61,600	59,600	57,600	55,600	53,600	51,600	49,600	47,600
CTF High School & Middle School Boiler Upgrades (#2015-119)	I	02/25/16	06/30/26	350,000	46,200	44,800	43,400	42,000	40,600	39,200	37,800	36,400	35,000	33,600
CTF Paving: Bay Street Boat Ramp (#2015-099)	I	02/25/16	06/30/26	142,000	19,400	18,800	18,200	17,600	17,000	16,400	15,800	15,200	14,600	14,000
CTF W Village Elementary A/C Replacement (#2015-120)	I	02/25/16	06/30/26	250,000	33,000	32,000	31,000	30,000	29,000	28,000	27,000	26,000	25,000	24,000
CTF Hamblin Pond Alum Treatment (#2015-112)	I	02/25/16	06/30/31	300,000	28,925	28,125	27,325	26,525	25,725	24,925	24,125	23,325	22,525	21,725
CTF Joshua's Pond Recreational Facility (#2015-111)	I	02/25/16	06/30/31	282,000	28,394	27,594	26,794	25,994	25,194	24,394	23,594	22,794	21,994	21,194
CTF Road Repairs - Governor's Way (#2016-037)	I	02/25/16	06/30/31	304,000	28,925	28,125	27,325	26,525	25,725	24,925	24,125	23,325	22,525	21,725
CTF Road Repairs (#2015-102)	I	02/25/16	06/30/31	518,000	50,319	48,919	47,519	46,119	44,719	43,319	41,919	40,519	39,119	37,719
CTF BIS Façade & Roof Improvements (#2015-116)	I	02/25/16	06/30/36	3,353,000	269,981	263,181	256,381	249,581	242,781	235,981	229,181	222,381	215,581	208,781
CTF Craigville Beach Bathhouse (#2016-031)	I	02/25/16	06/30/36	450,000	38,525	37,525	36,525	35,525	34,525	33,525	32,525	31,525	30,525	29,525
CTF Elementary School Modular Classroom (#2015-115)	I	02/25/16	06/30/36	3,720,000	300,706	293,106	285,506	277,906	270,306	262,706	255,106	247,506	239,906	232,306
CTF Guardrail Improvements (#2015-098)	I	02/25/16	06/30/36	170,000	25,200	24,400	23,600	22,800	22,000	21,200	20,400	19,600	18,800	18,000
CTF Police Station Remodeling (#2015-100)	I	02/25/16	06/30/36	355,000	30,644	29,844	29,044	28,244	27,444	26,644	25,844	25,044	24,244	23,444
CTF Sidewalk Improvements (#2015-098)	I	02/25/16	06/30/36	230,000	32,200	31,200	30,200	29,200	28,200	27,200	26,200	25,200	24,200	23,200
CTF Town Hall Remodeling (#2015-101)	I	02/25/16	06/30/36	939,000	77,831	75,831	73,831	71,831	69,831	67,831	65,831	63,831	61,831	59,831
CTF Bismore Park Visitor Center - CAP \$150,000	I	06/21/16	06/30/23	48,000	11,920	11,520	11,120	10,720	10,320	9,920	9,520	9,120	8,720	8,320
CTF Bismore Park Visitor Center \$465,000 Refunded	I	06/21/16	06/30/23	147,500	35,900	34,200	33,520	32,820	32,120	31,420	30,720	30,020	29,320	28,620
CTF Boat Ramps - CAP \$927,000 Refunded	I	06/21/16	06/30/23	290,000	66,600	64,400	62,200	60,000	57,800	55,600	53,400	51,200	49,000	46,800
CTF Land Acquisition - CAP \$365,200 Refunded	I	06/21/16	06/30/23	115,000	28,600	27,640	26,680	25,720	24,760	23,800	22,840	21,880	20,920	19,960

DEBT SERVICE PROGRAM		Issued Date	Maturity Date	Principal Amount	P&I Payments FY 2019	P&I Payments FY 2020	P&I Payments FY 2021	P&I Payments FY 2022	P&I Payments FY 2023	P&I Payments FY 2024	P&I Payments FY 2025	P&I Payments FY 2026	P&I Payments FY 2027	P&I Payments FY 2028
	Purpose													
	CTF Pleasant St. Dock - 1 \$350,000 Refunded	06/21/16	06/30/23	109,500	27,380	25,960	24,560	22,680	21,840	-	-	-	-	-
	CTF Pleasant St. Dock - 2 \$350,000 Refunded	06/21/16	06/30/23	110,000	27,400	26,480	24,560	22,680	21,840	-	-	-	-	-
	CTF Private Road Repairs \$1,607,900	06/21/16	06/30/23	509,000	125,360	120,160	112,000	108,000	104,000	-	-	-	-	-
	CTF Municipal Building Improvements \$297,000 Refunded	06/21/16	06/30/28	49,300	6,572	5,672	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	06/21/16	06/30/28	295,700	39,428	36,928	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	80,800	78,000	70,200	67,600	-	-	-	-	-	-
	CTF Marstons Mills Parking Lot (I) (#2016-087)	02/23/17	06/30/22	246,450	57,800	55,800	53,800	46,800	-	-	-	-	-	-
	CTF Beach Facility Improvement (I) (#2016-110)	02/23/17	06/30/27	438,000	60,600	58,800	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	60,600	58,800	57,000	55,200	53,400	51,600	44,800	43,200	41,600	-
	CTF School Unit Ventilator Upgrade (I) (#2016-083)	02/23/17	06/30/27	230,000	33,200	32,200	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	20,800	20,200	19,600	19,000	13,400	13,000	12,600	12,200	11,800	11,400
	CTF Guardrail & Sidewalk Improvement Program (I) (#2016-103)	02/23/17	06/30/32	680,750	68,850	67,050	65,250	63,450	61,650	59,850	58,050	56,250	54,450	52,650
	CTF Blish Point Boat Access Channel Dredging (I) (#2016-111)	02/23/17	06/30/37	943,900	82,506	80,506	78,506	76,506	74,506	72,506	70,506	63,506	61,706	59,906
	CTF Lombard Field Improvements (I) (#2016-113)	02/23/17	06/30/37	895,000	75,938	74,138	72,338	70,538	68,738	66,938	65,138	63,338	61,538	59,738
	CTF Oosterville Bay Elem School Improvements (I) (#2016-112)	02/23/17	06/30/37	724,300	64,794	63,194	61,594	54,994	53,594	52,194	50,794	49,394	47,994	46,594
	CTF CW-04-31-R Mass Clean Water Trust (#2002-081)	04/13/17	07/15/20	255,941	88,750	88,898	-	-	-	-	-	-	-	-
	TOTAL GENERAL FUND DEBT SERVICE				4,876,568	4,538,639	3,976,491	3,479,553	3,142,065	2,641,676	2,012,670	1,910,555	1,472,324	1,231,456
	CTF HYCC 1 (I) \$1,000,000 Refunded	02/17/15	02/15/27	474,900	64,390	62,230	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	515,775	495,450	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	103,135	98,670	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	452,000	433,200	419,600	404,000	384,480	374,200	360,800	344,100	332,600	316,200
	CTF Marina Bulkhead Repair I	06/14/11	06/15/30	725,000	57,231	55,631	54,031	52,431	50,831	44,231	43,050	41,825	40,513	39,200
	TOTAL ENTERPRISE FUND DEBT SERVICE				1,192,531	1,145,181	1,109,741	1,071,301	1,028,981	988,941	951,320	911,475	876,783	355,400
	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
	GRAND TOTAL ALL DEBT SERVICE				6,094,100	5,708,820	5,111,232	4,575,855	4,196,046	3,655,618	2,988,990	2,847,030	2,374,106	1,611,856

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, recreation, conservation, and the Town's Enterprise Fund operations. General Obligation Debt, (G.O.D), is 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 Fund GOB's, most of the bonds are repaid with revenue generated by the Enterprise Funds and not property taxes. This arrangement provides for more favorable borrowing rate for Enterprise Fund debt and is required by Massachusetts General Laws. Alternatively, Enterprise Funds would have to issue what are referred to as "Revenue Bonds", which would typically carry much higher interest rates, as 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 4% range. Rates remain low in FY18 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 including the airport, two golf courses, a wastewater treatment facility, a solid waste transfer station, water supply operations, four marinas, Sandy Neck Beach Park, and the Hyannis Youth & Community Center. These funds are expected to repay their debt from the revenues that 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) that 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 three percent 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, real estate transactions declining, as well as a decline in the State's trust fund balance.

B. Current Debt Position

As of June 30, 2017, the Town of Barnstable had \$107 million of outstanding long-term debt. New debt issued in FY17 was \$12.5 million and existing debt retired was \$14.2 million, representing a \$1.8 million net decrease in the outstanding long-term debt level from June 30, 2016. 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 Debt (G.O.D.) payments by issue for both the Town's governmental funds and the enterprise funds. It is significant to note the State reimburses for school construction projects at the rate of 64% including interest costs incurred, as well as several Massachusetts Clean Water Trust (MCWT) loans for sewer construction, water system improvements and landfill capping loans.

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

Projects	Maturities Through	Original Loan Amount	Coupon Rate (%)	Outstanding at June 30, 2016	Issued	Redeemed	Outstanding at June 30, 2017
MCWT Title V Bond of 1997.....	2021	\$ 200,000	0.00	\$ 51,800	\$ -	\$ (10,400)	\$ 41,400
MCWT Title V Bond of 2002.....	2023	200,000	0.00	70,268	-	(9,972)	60,296
MCWT Title V Bonds of 2006.....	2026	400,000	0.00	200,000	-	(20,000)	180,000
MCWT Title V Bond of 2007.....	2027	200,000	0.00	110,000	-	(10,000)	100,000
Municipal Purpose Bonds of 2007.....	2027	43,910,388	3.38 - 4.75	13,235,000	-	(4,335,000)	8,900,000
MCWT Bond of 2008 (CW-04-31).....	2021	389,216	2.00	161,778	-	(31,075)	130,703
Municipal Purpose Bonds of 2008.....	2028	5,928,700	3.75 - 4.50	726,000	-	(363,000)	363,000
MCWT Bond of 2009.....	2021	887,454	2.00	243,678	-	(46,728)	196,950
Municipal Purpose Bonds of 2010.....	2030	3,873,270	2.00 - 5.00	2,350,000	-	(195,000)	2,155,000
Municipal Purpose Bonds of 2011.....	2031	13,584,000	2.00 - 4.00	7,595,000	-	(1,325,000)	6,270,000
Municipal Purpose Refunding of 2012.....	2023	10,037,900	2.00 - 4.00	5,969,500	-	(900,000)	5,069,500
Municipal Purpose Bonds of 2014.....	2024	6,248,000	2.00 - 3.00	4,705,000	-	(725,000)	3,980,000
Municipal Purpose Refunding of 2015.....	2027	5,265,500	2.00 - 4.50	4,966,400	-	(290,000)	4,676,400
Municipal Purpose Bonds of 2015.....	2035	3,930,000	2.00 - 4.50	3,575,000	-	(345,000)	3,230,000
Municipal Purpose Bonds of 2016.....	2036	12,113,000	2.00 - 4.00	12,113,000	-	(768,000)	11,345,000
Municipal Purpose Refunding of 2016.....	2028	1,674,000	2.00 - 4.00	1,674,000	-	-	1,674,000
Municipal Purpose Bonds of 2017.....	2037	5,105,700	3.00 - 4.00	-	5,105,700	-	5,105,700
MCWT Bond of 2017.....	2020	255,941	2.00	-	255,941	-	255,941
Total Bonds Payable.....				57,746,424	5,361,641	(9,374,175)	53,733,890
Add: unamortized premium.....				<u>1,704,559</u>	<u>316,300</u>	<u>(579,598)</u>	<u>1,441,261</u>
Total Bonds Payable, net.....				\$ 59,450,983	\$ 5,677,941	\$ (9,953,773)	\$ 55,175,151

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

Year	Principal	Interest	Total
2018.....	\$ 9,808,370	\$ 2,090,205	\$ 11,898,575
2019.....	9,764,731	1,679,394	11,444,125
2020.....	6,164,263	1,252,125	7,416,388
2021.....	4,893,618	1,011,358	5,904,976
2022.....	4,413,204	816,544	5,229,748
2023.....	3,667,704	634,732	4,302,436
2024.....	2,573,000	499,356	3,072,356
2025.....	2,015,000	410,093	2,425,093
2026.....	1,718,000	329,951	2,047,951
2027.....	1,296,000	264,664	1,560,664
2028.....	1,080,000	225,666	1,305,666
2029.....	1,045,000	192,216	1,237,216
2030.....	1,025,000	162,438	1,187,438
2031.....	860,000	129,944	989,944
2032.....	725,000	103,688	828,688
2033.....	670,000	81,938	751,938
2034.....	670,000	61,838	731,838
2035.....	670,000	41,426	711,426
2036.....	555,000	21,012	576,012
2037.....	120,000	4,050	124,050
Total.....	\$ 53,733,890	\$ 10,012,638	\$ 63,746,528

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 Middle School and the renovation and addition to the High School. During 2017, approximately \$3,019,000 of such assistance was received. Approximately \$6,897,000 will be received in future years. Of this amount, \$403,000 represents reimbursement of future long-term interest costs and \$6,494,000 represents reimbursement of approved construction cost and interest costs previously paid.

Bonds Payable Schedule – Enterprise Funds

Projects	Maturities Through	Original Loan Amount	Coupon Rate (%)	Outstanding at June 30, 2016	Issued	Redeemed	Outstanding at June 30, 2017
Golf Course.....	2026	\$ 7,453,200	2.00 - 5.00	\$ 2,705,000	\$ 537,700	\$ (344,000)	\$ 2,898,700
Add: unamortized premium.....				260,547	-	(50,074)	210,473
Total Golf Course Bonds Payable, net.....				2,965,547	537,700	(394,074)	3,109,173
Wastewater.....	2036	30,614,319	0.00 - 4.75	16,069,591	2,008,000	(1,471,010)	16,606,581
Water.....	2037	28,092,611	2.00 - 5.00	14,952,654	2,325,739	(1,065,962)	16,212,431
Add: unamortized premium.....				850,553	-	(127,001)	723,552
Total Water Bonds Payable, net.....				15,803,207	2,325,739	(1,192,963)	16,935,983
Solid Waste Transfer Station.....	2027	8,145,600	0.00 - 4.50	1,805,100	-	(483,500)	1,321,600
Sandy Neck.....	2031	1,265,000	4.00	1,010,000	-	(55,000)	955,000
Marinas.....	2036	3,598,500	3.00 - 5.00	2,607,000	476,500	(263,000)	2,820,500
Add: unamortized premium.....				90,143	-	(12,550)	77,593
Total Marinas Bonds Payable, net.....				2,697,143	476,500	(275,550)	2,898,093
Hyannis Youth and Community Center.....	2028	25,713,300	3.375 - 5.00	9,553,900	-	(868,000)	8,685,900
Add: unamortized premium.....				952,666	-	(102,726)	849,940
Total Hyannis Youth and Community Center Bonds Payable, net.....				10,506,566	-	(970,726)	9,535,840
Airport.....	2031	2,433,700	2.00 - 4.12	590,000	1,703,700	(30,000)	2,263,700
Total Bonds Payable, net.....				\$ 51,447,154	\$ 7,051,639	\$ (4,872,823)	\$ 53,625,970

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

Year	Principal	Interest	Total
2018.....	\$ 4,600,619	\$ 1,770,301	\$ 6,370,920
2019.....	4,679,143	1,528,618	6,207,761
2020.....	4,283,261	1,351,798	5,635,059
2021.....	4,137,773	1,195,718	5,333,491
2022.....	3,883,905	1,044,482	4,928,387
2023.....	3,945,059	902,265	4,847,324
2024.....	3,875,750	760,989	4,636,739
2025.....	3,775,488	628,031	4,403,519
2026.....	3,544,784	501,551	4,046,335
2027.....	3,519,648	395,937	3,915,585
2028.....	2,354,090	294,542	2,648,632
2029.....	1,614,901	228,156	1,843,057
2030.....	1,593,650	186,292	1,779,942
2031.....	1,539,045	145,930	1,684,975
2032.....	1,057,648	111,707	1,169,355
2033.....	1,071,400	86,233	1,157,633
2034.....	649,729	63,954	713,683
2035.....	654,612	45,998	700,610
2036.....	644,602	27,940	672,542
2037.....	339,305	10,224	349,529
Total.....	\$ 51,764,412	\$ 11,280,664	\$ 63,045,076

The Town is scheduled to be subsidized by the MCWT on a periodic basis for principal in the amount of \$697,433 and interest costs for \$213,043 for a portion of the Enterprise Fund debt. The principal subsidies are guaranteed.

The Town issued \$5,245,000 in General Obligation Refunding Bonds on June 21, 2016, for an advance debt refunding of \$5,375,000 in outstanding General Obligation Bonds originally issued in 2008. The \$5,375,000 of General Obligation Bonds was refunded by placing the proceeds of the refunding bonds plus a net bond premium for a total of \$5,740,080 in an irrevocable trust to refund the outstanding debt when they are callable on June 15, 2018. As a result, the refunded bonds are considered defeased and the liability has been removed from the statement of net position. The reacquisition price exceeded the net carrying amount of the old debt by \$2,454,045. This refunding was undertaken to reduce total debt service payments by \$536,776 and resulted in an economic gain of \$588,662.

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, 2017, the Town had the following authorized and unissued debt:

<u>Purpose</u>	<u>Amount</u>
Sewer projects.....	\$ 9,088,246
Water projects.....	9,638,483
Airport projects.....	26,529,006
Fish run reconstruction.....	500
School improvements.....	4,236,000
Parking lot improvements.....	25,000
Landfill projects.....	<u>2,000,000</u>
 Total.....	 <u>\$ 51,517,235</u>

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 ten-year forecast, and financial fund management have helped the Town’s position.

In February 2017, the Town Treasurer conducted an \$11.259 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 7, 2017 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 management, with "strong" financial policies and practices under our Financial Management Assessment 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 2016;

- Very strong budgetary flexibility, with an available fund balance in fiscal 2016 of 23% of operating expenditures;
- Very strong liquidity, with total government available cash at 24.0% of total governmental fund expenditures and 3.7x governmental debt service, and access to external liquidity we consider strong;
- Strong debt and contingent liability profile, with debt service carrying charges at 6.4% of expenditures and net direct debt that is 48.9% of total governmental fund revenue, as well as low overall net debt at less than 3% of market value and rapid amortization, with 78.1% of debt scheduled to be retired in 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. In August 2007, Moody’s Rating Services upgraded its bond rating for the Town from Aa3 to Aa1, a two-step increase.

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 Printed February 6, 2018

“The stable outlook reflects S&P Global Ratings’ opinion of the town’s very strong economy and budgetary flexibility, supported by strong budgetary performance. We believe the town’s very strong management and liquidity further support the rating. Although the town has large long-term liabilities and increasing retirement costs, we believe management will likely make the necessary budgetary adjustments to maintain balanced financial operations. Therefore, we do not expect to change the rating within the two-year outlook period. However, while unlikely, we could lower the rating if a prolonged period of structural imbalance were to result in significant available reserve deterioration.”

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 \$683 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)	<u>\$13,665,091,900</u>
Debt Limit – 5% of EQV	\$683,254,595
Less:	
Outstanding Debt Applicable to Limit	\$71,103,125
Authorized and Unissued Debt	<u>\$46,073,235</u>
Legal Debt Margin	<u>\$566,078,235</u>

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. There are a number of factors not directly under the control of the Town that 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 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.

As of June 30, 2017

<u>Town of Barnstable, Massachusetts</u>	<u>Debt Outstanding</u>	<u>Percentage Applicable (1), (2)</u>	<u>Share of Overlapping Debt</u>
Debt repaid with property taxes and user charges:			
Barnstable County.....	\$ 22,114,734	17.40%	\$ 3,847,964
Barnstable Fire District.....	873,888	100.00%	873,888
Centerville-Osterville-Marston Mills Fire District.....	1,765,757	100.00%	1,765,757
Cotuit Fire District.....	1,300,000	100.00%	1,300,000
Hyannis Fire District.....	2,576,000	100.00%	<u>2,576,000</u>
Subtotal, overlapping debt.....			10,363,609
Town direct debt.....			<u>55,175,148</u>
Total direct and overlapping debt.....			<u>\$ 65,538,757</u>

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

Current Status

Criteria

0.1085%

Direct Debt - General Fund Debt Service as a % of the Town's FY17 Equalized Property Valuation as calculated by the state.
Formula – Overall General Fund Debt Service ÷ Equalized Valuation

Standard & Poor's rates this as low (favorable)

6.9%

Municipal Debt Burden – Current Year
Definition - Town's General Fund Debt Service ÷ Total General Fund Expenditures

Standard & Poor's rates this as moderate

\$1,691

Net Direct Debt Per Capita
Definition – Governmental Fund Net Debt (Short + Long Term Debt – Cash) ÷ Town population

Standard & Poor's rates this as low (favorable)

\$ 307,170

Per Capita Market Value
Definition – Equalized Valuation ÷ Population
Standard & Poor's rates this as very high (favorable)

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

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, continually monitors 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 0.82%.

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 6.9%.

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 6.70%.

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 \$19 million in the next five years as "pay-as-you-go" financing and anticipates financing about \$35 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.

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 2019 is approximately \$9.2 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 debt service restriction on the fund, such that debt service estimates from authorized loan 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.

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.

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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 2019. In addition to the scoring by the senior staff, specific consideration went to projects that had received previous funding and are ready for the next stage of their 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 \$18,428,056. The General and Sewer Construction Funds program totals \$13,875,771 and the Enterprise Funds total \$4,552,285. Funding for the General Fund portion of the program consists of \$4,056,668 in Capital Trust Fund (CTF) reserves, \$8,264,740 in new borrowing authorizations and \$583,363 in transfers from closed appropriations and school revolving funds.

Funding for the Enterprise Fund programs consists of using \$837,531 of Enterprise Fund reserves, \$2,306,000 in new borrowing authorizations, \$59,754 in transfers from closed appropriations and \$1,349,000 is anticipated in federal and state grants for the Airport projects. The grant funds received will reduce the amount of any bonds issued or the reserves used to finance the Airport Enterprise Fund’s capital program. The bonds issued for the Enterprise Fund projects are expected to be paid back with Enterprise Fund revenues.

Enterprise Funds Recommendations

Project Name and Council Order Number	Funding Source				Total
	Enterprise Fund Reserves	Transfers	Grants	Bond Issue	
AIRPORT:					
Comprehensive Airport Layout Plan/FAA Master Plan Update 2018-069	\$15,000	-	\$285,000	-	\$300,000
Replace Snow Removal Equipment 2018-070	\$48,750	-	\$926,250	-	\$975,000
Replace Aircraft Rescue and Fire Fighting Equipment 2018-071	\$7,250	-	\$137,750	-	\$145,000
Total Airport Enterprise Fund	\$71,000	-	\$1,349,000	-	\$1,420,000
GOLF:					
Hyannis Golf Course Maintenance Building Improvements 2018-072	\$51,364	\$7,147	-	-	\$58,511
Olde Barnstable Fairgrounds Golf Club Facility Improvements 2018-073	\$5,167	\$52,607	-	-	\$57,774
Total Golf Course enterprise Fund	\$56,531	\$59,754	-	-	\$116,285

The recommended projects for the Enterprise Funds *(continued)*

Project Name and Council Order Number	Funding Source				
	Enterprise Fund Reserves	Transfers	Grants	Bond Issue	Total
WATER POLLUTION CONTROL:					
Effluent Disposal Capacity Study & Design 2018-078	\$195,000	-	-	-	\$195,000
Effluent Discharge Location Evaluations 2018-079	\$150,000	-	-	-	\$150,000
Pleasant Street Sewer Line Upgrade 2018-080	-	-	-	\$701,000	\$701,000
Total Water Pollution Control Enterprise Fund	\$345,000	-	-	\$701,000	\$1,046,000
WATER SUPPLY:					
Pipe Replacement and Upgrade 2018-081	-	-	-	\$1,050,000	\$1,050,000
Wells, Pump Stations, Treatment Plant Repair & Upgrade 2018-082	\$200,000	-	-	-	\$200,000
New Well Exploration 2018-083	-	-	-	\$555,000	\$555,000
Permanent Interconnection with COMM water system 2018-084	\$165,000	-	-	-	\$165,000
Total Water Supply Enterprise Fund	\$365,000	-	-	\$1,605,000	\$1,970,000
Total All Enterprise Funds	\$837,531	\$59,754	\$1,349,000	\$2,306,000	\$4,552,285

General and Sewer Construction Fund Recommendations

Project Name and Council Order Number	Funding Source				
	Capital Trust Fund Reserves	Bond Issue	Sewer Construction Private Way Fund	Transfers	Total
INFRASTRUCTURE:					
Attucks Lane Pump Station Area Sewer Expansion 2018-085	-	-	\$100,000	-	\$100,000
Long Pond Area Sewer Expansion Preliminary Design 2018-086	-	-	\$402,000	-	\$402,000
Phinney's Sewer Expansion Preliminary Design 2018-087	-	-	\$315,000	-	\$315,000
Old King's Road Improvements 2018-088	-	-	\$154,000	-	\$154,000
Public Roads Improvements 2018-089	\$3,412,500	-	-	-	\$3,412,500
Design Bumps River Bridge Repairs 2018-093	\$100,000	-	-	-	\$100,000
Design of the Sidewalk on Ocean St. 2018-095	\$45,000	-	-	-	\$45,000
Total	\$3,557,500	-	\$971,000	-	\$4,528,500
MUNICIPAL FACILITIES:					
Craigville Bathhouse Site Improvements 2018-075	-	-	-	\$315,116	\$315,116
Senior Center Renovations 2018-076	-	\$659,000	-	\$68,247	\$727,247
HYCC Roof Replacement 2018-077	\$195,668	-	-	-	\$195,668
Design and Permitting of Phase III of the Department of Public Works Offices 2018-090	\$103,500	-	-	-	\$103,500
Cape Cod Airfield Fuel Tank Replacement 2018-091	-	\$300,000	-	-	\$300,000
School Administration Building Mechanical Cooling Upgrades 2018-092	-	\$285,000	-	-	\$285,000
Demolition of Portable Structures and Hazmat Evaluation 2018-094	-	\$253,740	-	-	\$253,740
Armory Building Envelope, Electrical, and Mechanical Improvements 2018-096	-	\$667,000	-	-	\$667,000
Total	\$299,168	\$2,164,740	-	\$383,363	\$2,847,271

The recommended projects for the General Fund *(continued)*

Project Name and Council Order Number	Funding Source				
	Capital Trust Fund Reserves	Bond Issue	Sewer Construction Private Way Fund	Transfers	Total
WATERWAYS:					
Channel Dredging 2018-074	-	\$1,000,000	-	-	\$1,000,000
Total	-	\$1,000,000	-	-	\$1,000,000
SCHOOL FACILITIES:					
Barnstable High School Sports Fields Upgrades 2018-064	-	\$4,600,000	-	-	\$4,600,000
District Wide Communication, Video Surveillance & Entry Improvements 2018-065	-	\$250,000	-	-	\$250,000
BHS & BIS Roof Top Unit Ventilator Replacement 2018-066	\$100,000		-	-	\$100,000
Elementary School Unit Ventilator Upgrades 2018-067	-	\$250,000	-	-	\$250,000
West Villages Elementary Emergency Generator Replacement 2018-068	\$100,000		-	-	\$100,000
School Maintenance Operations Building Roof Replacement	-		-	\$75,000	\$75,000
Hyannis West Walk-in Cooler & Freezer Upgrades	-		-	\$125,000	\$125,000
Total	\$200,000	\$5,100,000	-	\$200,000	\$5,500,000
Grand totals	\$4,056,668	\$8,264,740	\$971,000	\$583,363	\$13,875,771

School Department General Fund Projects

PROJECT: SCH-19-1	DEPARTMENT PRIORITY: 1 of 22	2018-064
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Project Working Title: Barnstable High School Sports Fields Upgrades

Project Location: 744 Main Street, Hyannis, MA 02601

Project Description: Current varsity baseball field requires major restoration and infrastructure upgrades. The existing playing surfaces are rutted, uneven and creating safety hazards for our student athletes. This project includes construction and installation of a full size multi-use (Varsity baseball, soccer, lacrosse) synthetic turf field, rest rooms, concession stand, picnic area, dugouts with storage, lighting, improved parking and sidewalks. This project is phase 1 of a 3-phased master plan, which includes improvements, and reconfiguration of the remaining playing fields located at Barnstable High School.



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 2019	Future FY
Design & Permitting	\$360,000	\$391,304
Construction or Acquisition	\$3,287,000	\$3,572,826
Project Management	\$160,000	\$173,913
Project Contingency	\$516,000	\$560,870
All Other Costs	\$277,000	\$301,087
Total Project Cost	\$4,600,000	\$5,000,000

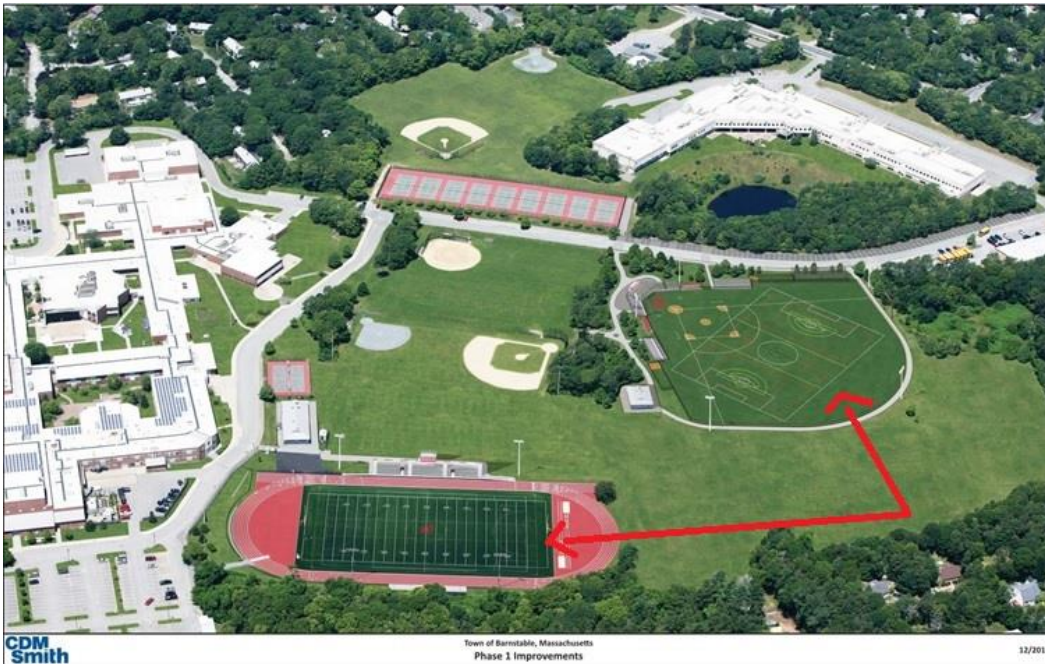
Basis for Cost Estimates: CDM Smith Architects (August 2017)

Project Estimated Completion Date: 2019 **Design & Permit (months)** 6 **Construction (months)** 7

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$4,600,000	Design, permitting, bidding and construction of Phase I
2020	\$5,000,000	Phase II & III (estimates)

Source of Funding: Bond Issue \$4,600,000

Operating Budget Impact now or in future: Revenue projections for new field rentals outside of school activities are initially estimated at \$20K per year. New equipment and labor costs estimated at \$45K/yr.



Barnstable High School Sports Fields

Project Working Title: District Wide Communication, Video Surveillance 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 be focused 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 making them 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 2019	Future FY
	Core Software/Hardware	\$75,000	\$250,000
	Phones, Cameras, Hardware	\$100,000	\$600,000
	Install Services/Engineering	\$50,000	\$100,000
	Project Contingency	\$25,000	\$50,000
	Total Project Cost	\$250,000	\$1,000,000

Basis for Cost Estimates: Harbor Networks (BPS Network Consultant/Contractor)

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** 36

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$250,000	VOIP Phone Upgrades
2020	\$500,000	VOIP Phone Upgrades
2021	\$500,000	Surveillance/Entry Upgrades (Estimated)

Source of Funding: Bond Issue \$250,000

Operating Budget Impact now or in future: None



20 Year Old Simplex PBX Phone System (High School)



Existing High School Demark



Typical Surveillance System

Project Working Title: Barnstable High School (BHS) & Barnstable Intermediate School (BIS) Roof Top Unit Ventilator (RTU) Replacement

Project Location: 744 Main Street, Hyannis, MA 02601 & 895 Falmouth Road, Hyannis, MA 02601

Project Description: Perform engineering and design efforts to develop specification and bid documents for 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 with 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 2019	Future FY
	Design & Permitting	\$100,000	TBD
	Total Project Cost	\$100,000	\$6,600,000

Basis for Cost Estimates: Past Project Costs

Project Estimated Completion Date: 2019 **Design & Permit (months)** 12 **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$100,000	Engineering design, specs and bid documents
2020	\$1,000,000	RTU Upgrades (Estimate)
2021	\$1,000,000	RTU Upgrades (Estimate)
2022	\$2,000,000	RTU Upgrades (Estimate)
2023	\$2,600,000	RTU Upgrades (Estimate)

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

Operating Budget Impact now or in future: Can expect a minimum of 10% energy savings attributable to motor, 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 Unit Ventilators (RTU)

Project Working Title: Unit Ventilator Upgrades (Phase III)

Project Location: Barnstable West Barnstable Elementary School (BWB ES), 2463 Main St Route A, West Barnstable, MA 02668 & Centerville Elementary School, 658 Bay In, Centerville, MA 02632

Project Description: Replace outdated unit ventilators at BWB ES & Centerville ES, 47 units.

Project Justification: The ventilator units are over 50 years old. These ventilators are failing as well as not operating to current American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) and Massachusetts Department of Elementary and Secondary Education (DES) standards.

Impact of Denial/Postponement: Denial or postponement will continue to impact air quality, occupant health, heating, and ventilation efficiency.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	\$15,000	\$15,000
	Construction or Acquisition	\$202,500	\$202,500
	Project Management	\$10,000	\$10,000
	Project Contingency	\$22,500	\$22,500
	Total Project Cost	\$250,000	\$250,000

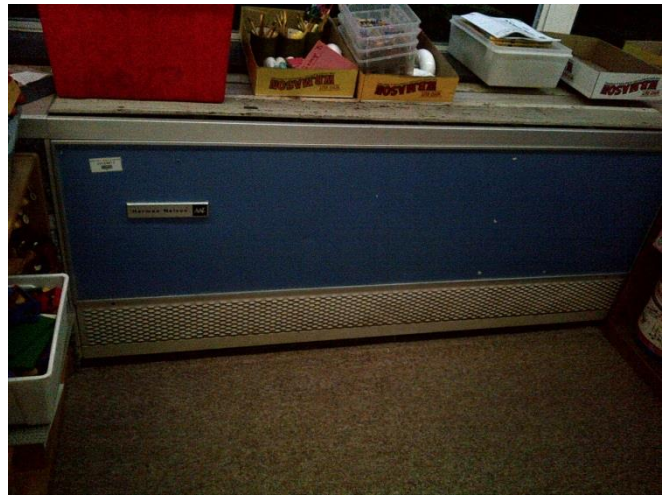
Basis for Cost Estimates: Engineering Estimates & Previous Project Costs

Project Estimated Completion Date: 2020 **Design & Permit (months)** 2 **Construction (months)** 24

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$250,000	Unit Ventilator Replacement
2020	\$250,000	Unit Ventilator Replacement

Source of Funding: Borrow Issue \$250,000

Operating Budget Impact now or in future: Could expect 10 - 15 % savings on energy costs.



Unit Ventilators

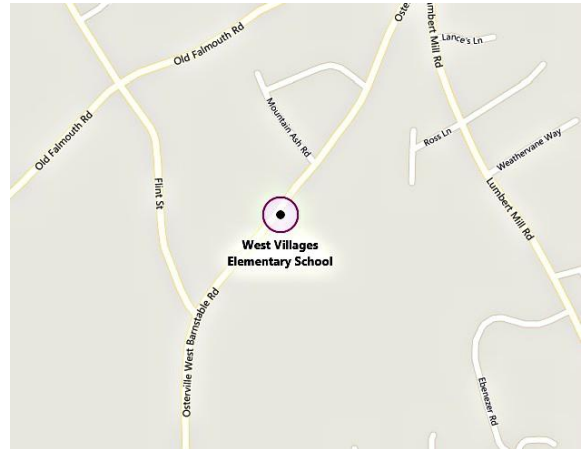
Project Working Title: West Villages Elementary Emergency Generator Replacement

Project Location: 760 Osterville – West Barnstable Road, Marstons Mills, MA 02648

Project Description: Replacement of existing emergency generator, (70kW).

Project Justification: Existing unit is becoming costly to maintain and unreliable.

Impact of Denial/Postponement: Denial of this project would affect the safety and operation of the facility in the event of power outage during class/programs sessions and winter storm events , (ie: Emergency lighting, lack of heating/cooling and frozen pipes).



Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition	\$80,000	-
	Project Contingency	\$10,000	-
	All Other Costs	\$10,000	-
	Total Project Cost	\$100,000	-

Basis for Cost Estimates: Vendor Quotes

Project Estimated Completion Date: 2018 **Design & Permit (months)** - **Construction (months)** 4

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$100,000	Purchase and installation of 70kW Emergency Generator

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

Operating Budget Impact now or in future: The replacement of this unit will reduce increasing maintenance and operating costs.



Emergency Generator

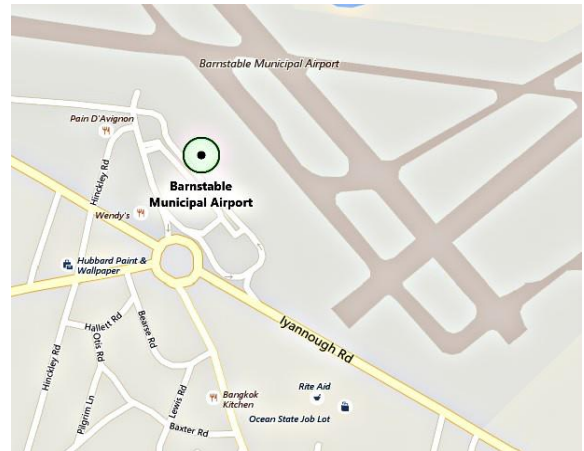
Airport Enterprise Fund Projects

PROJECT: AIR-19-1	DEPARTMENT PRIORITY: 1 of 21	2018-069
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Project Working Title: Comprehensive Airport Layout Plan/FAA Master Plan Update including Underground GIS Utilities Survey; Taxiways Bravo, Delta and Echo; Runways 15/33 & 6/24 Enhancements & Improvements; Engineered Material Arresting System (EMAS) Replacement, Obstruction Analysis Part 77 surfaces, aircraft parking demand analysis.

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 the airport development that should be revisited and updated periodically. Barnstable Municipal Airport last updated its Master Plan in 2008. An updated Master Plan is needed to address a number of recently evolving issues at the airport. The Airport is seeking to meet existing and growing demand as well as to diversify revenue streams in a sustainable manner. The intent of the Comprehensive Airport Layout Plan/FAA Master Plan Update will address the following key issues:



Project Justification: The present FAA Airport Master Plan was last updated in 2008 and an update is needed to address a number of recently evolving issues at the airport and to keep the airport in compliance with FAA regulations.

The Airport Layout Plan and other required portions of the Plan are kept up-to-date; however, a comprehensive airport layout plan does not appear to have been brought up to date for many years and will help in identifying future development in coordination with the FAA for funding the identified and approved future projects.

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 that may have long-term financial consequences with regard to completion of identified future projects, and the receipt of FAA and MassDOT grants. Failure to analyze alternative revenue generation for the airport will increase the risk of budgetary impacts if air carrier activity continues to decline. Failure to extend the runway will increase the risk of flight accidents with existing aircraft using the Airport, and will have a negative impact on the ability to safely handle additional private, charter and scheduled airline service. Failure to realign and rehabilitate Taxiways B, C and E will have long-term safety effects and will jeopardize our continued compliance with FAA safety directives, and pose an increased risk of runway incursions. A “do nothing” approach to continued runway end erosion will have safety concerns for both aircraft and maintenance staff. Failure to inspect and repair/replace the EMAS system will have serious flight safety concerns and may cause the loss of air carrier service to the airport, and the airport would not comply with FAA safety directives. The lack of a utilities plan will have safety consequences with regard to airport operations and future construction activities.

Project Cost Estimates:		FY 2019	Future FY
	Project Management	\$300,000	-
	Total Project Cost	\$300,000	-

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

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** 18

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$300,000	Commence Planning Project

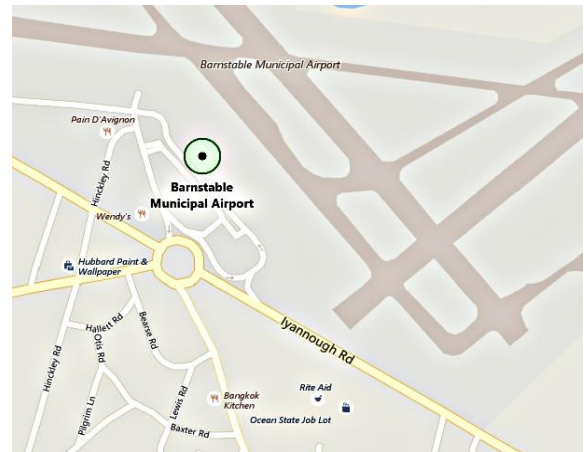
Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%)

Operating Budget Impact now or in future: None

Project Working Title: Replace Snow Removal Equipment (SRE) (Heavy Duty Carrier Vehicle with Plow and Sander)

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 1995 Ford L-8000 Heavy Duty Carrier Vehicle with Plow and Sander.



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 2019	Future FY
	Construction or Acquisition	\$175,000	-
	Total Project Cost	\$175,000	-

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

Project Estimated Completion Date: 2019 **Design & Permit (months)** - **Construction (months)** 5

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$175,000	Replace 1995 Ford Heavy Duty Carrier Vehicle with Plow and Sander

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: Any savings derived by new equipment would be available to maintain remainder of deteriorating SRE vehicles.

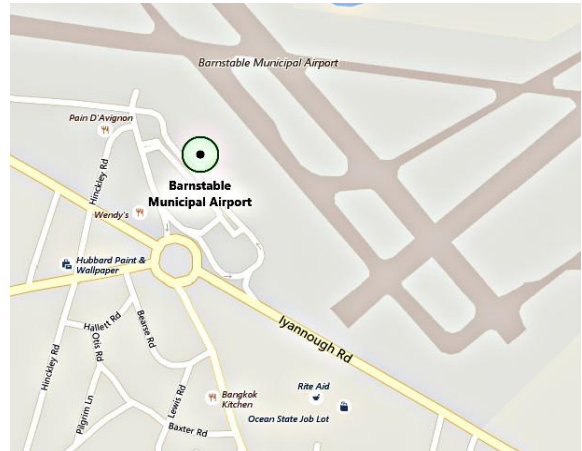


1995 Ford L-8000 Heavy Duty Carrier Vehicle with Plow and Sander

Project Working Title: Replace Snow Removal Equipment (SRE) (Kodiak Snow Blower)

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 1998 Kodiak Diesel 4x4 Snow Blower (Airport Vehicle #36).



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 2019	Future FY
	Construction or Acquisition	\$800,000	-
	Total Project Cost	\$800,000	-

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

Project Estimated Completion Date: 2019 **Design & Permit (months)** - **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$800,000	Replace 1998 Kodiak Diesel 4x4 Snow Blower

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: Any savings derived by new equipment would be available to maintain remainder of deteriorating SRE vehicles.

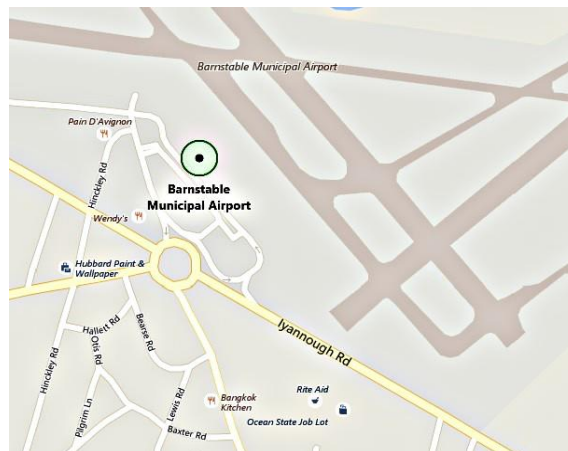


1998 Kodiak Diesel 4x4 Snow Blower

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

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Aircraft Rescue and Fire Fighting (ARFF) equipment must be maintained regularly and when 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 a 1999 Ford F-450 Heavy Duty Flatbed Truck with fire combat unit with tools and equipment.



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; 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 2019	Future FY
	Construction or Acquisition	\$145,000	-
	Total Project Cost	\$145,000	-

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

Project Estimated Completion Date: 2019 **Design & Permit (months)** - **Construction (months)** 2

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$145,000	1999 Ford F-450 Heavy Duty Truck and fire combat unit (Rapid Response Vehicle)

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) and/or use of FAA Passenger Facility Charges (PFCs). Fire combat unit may be 100% Airport Enterprise Fund reserves at \$30,000 if deemed not eligible for FAA and MassDOT reimbursement.

Operating Budget Impact now or in future: Any savings derived by new equipment would be available to maintain remainder of deteriorating ARFF and SRE vehicles.



1999 Ford F-450 Heavy Duty Flatbed Truck

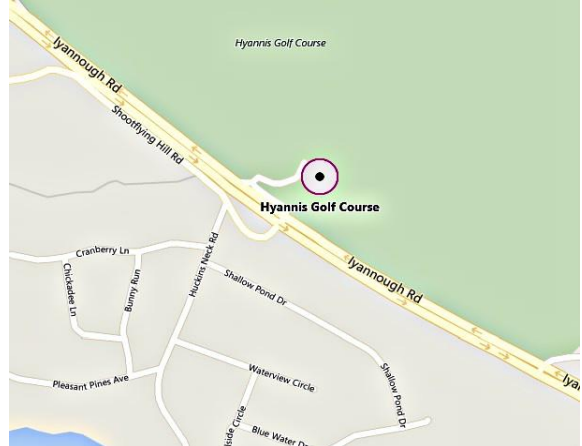
Golf Enterprise Fund Projects

PROJECT: GOLF-19-2	DEPARTMENT PRIORITY: 2 of 3	2018-072
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Project Working Title: Hyannis Golf Course - Improvements - Maintenance Building

Project Location: 1800 Iyannough Rd, Route 132, Hyannis MA 02601

Project Description: This Phase includes the restoration of the existing maintenance building. Work will include removal and installation of a new asphalt shingle roof, exterior trim, new gutters, and exterior paint. It is expected that some additional work items will be required and other needed improvements will be incorporated as well.



Project Justification: The existing maintenance building built in the mid 1970's and is in desperate need of improvements. The building is essential to the entire town golf operation, which provides facilities to over 1,100 members and the public. The maintenance building houses the turf maintenance equipment and provides staff with crew's quarters and restroom facilities. Due to a lack of funding, many of these improvements have been deferred and have become urgently needed.

Impact of Denial/Postponement: The maintenance building will fall further into disrepair. Deferment of maintenance will result in the inability to maintain and protect the town's asset. This may result in the loss of members and fee-paying guests and loss in market share to area competition.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting		\$5,755
Construction or Acquisition		\$43,600	\$804,772
Project Management		\$2,398	\$44,262
Project Contingency		\$6,758	\$124,739
Total Project Cost		\$58,511	\$1,080,000

Basis for Cost Estimates: Architect Assisted & In-House Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** 3 **Construction (months)** 3

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$58,511	Maintenance Building roof, trim, gutters, and exterior painting
2020	\$180,000	Interior Paint, carpeting, furniture, and fixtures replacements
2021	\$500,000	Parking lot expansion, resurfacing ,and landscape improvements
2022	\$400,000	New cart Barn, lower restaurant reopened, and new lower deck

Source of Funding: Golf Course Enterprise Fund Reserves \$51,364 & Town Council Order 2016-108 \$7,147

Operating Budget Impact now or in future: As the facility is renovated potential customers will find it much more appealing and conducive for their banquet functions and large golf outings. The lessee will be able to reach revenue thresholds triggering additional monies to the golf division. The golf course will attract more large golf tournaments and outings, which will also increase revenues.



Hyannis Golf Course Maintenance Building Needed Repairs

Project Working Title: Olde Barnstable Fairgrounds Golf Club Facility Improvements.

Project Location: 1460 Route 149, Marstons Mills, MA 02648

Project Description: Replacement of clubhouse carpeting, furniture and fixtures

Project Justification: The existing clubhouse was constructed in 1991. The site provides services to over 1,100 members and the public. The facility houses a restaurant, golf pro shop, function room and large wrap around deck. Previous phases have addressed many deficiencies. This phase will complete clubhouse upgrades.



Impact of Denial/Postponement: The flooring in the clubhouse will continue to deteriorate. Excessive wear patterns will turn into holes creating trip hazards. The wooden benches used by customers to sit on in the main lobby are for outdoor use. Fixtures and merchandise displays are antiquated and inadequate for a retail store setting.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$255,992
	Construction or Acquisition	\$57,774	\$1,881,512
	Project Management	-	\$106,665
	Project Contingency	-	\$395,831
	Total Project Cost	\$57,774	\$2,640,000

Basis for Cost Estimates: Architect Assisted & In-House Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$57,774	Replace clubhouse carpeting, furniture, fixtures and merchandise displays
2020	\$200,000	Cart Barn roof replacement, cart barn overhead door replacement
2021	\$190,000	Replacement of two 1,000-gallon underground fuel tanks and dispensary systems. Cold storage building construction
2022	\$750,000	Complete sand bunker renovation and restoration.
2023	\$1,500,000	Replacement of irrigation system

Source of Funding: Golf Course Enterprise Fund Reserves \$5,167 & Town Council Order 2016-107 \$52,607

Operating Budget Impact now or in future: There should be no impact on the operating budget as far as expenses are concerned.

Community Services General Fund Projects

PROJECT: CSD-19-1	DEPARTMENT PRIORITY: 1 of 16	2018-074
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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
- Barnstable Outer Harbor Channel
- Bismore Park Pier Basin
- Blish Point Boat Ramp Channel
- Cotuit Bay Embayment Channel
- Cotuit Bay Entrance Channel
- East Bay Entrance Channel
- East Bay Inner Embayment Channel
- East Bay Outer Embayment Channel
- Gateway Marina Channel
- Lewis Bay Boat Ramp
- West Bay Inner Entrance Channel
- West Bay Outer Entrance Channel
- West Bay Spur 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 2019	Future FY
Design & Permitting	-	\$665,430
Construction or Acquisition	\$800,000	\$8,562,058
Project Contingency	\$200,000	\$2,306,872
Total Project Cost	\$1,000,000	\$11,534,360

Basis for Cost Estimates: Town of Barnstable Comprehensive Dredge Plan (2017) and 2% annual cost inflation.

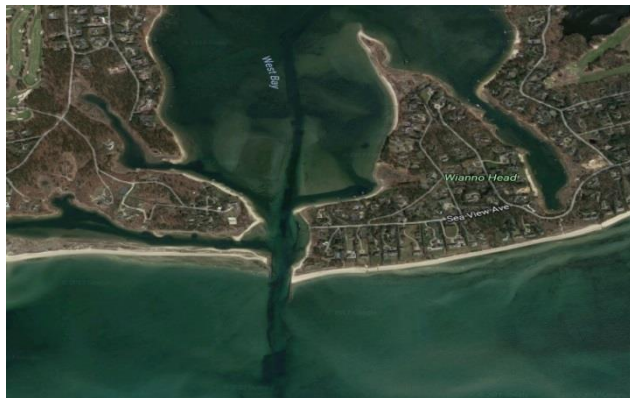
Project Estimated Completion Date: 2023 **Design & Permit (months)** - **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$1,000,000	Cotuit Bay Entrance Channel Cut
2020	\$1,774,240	Blish Point Boat Ramp Channel, West Bay Inner Entrance Channel, West Bay Outer Entrance Channel, West Bay Inner Entrance Channel
2021	\$2,334,120	Lewis Bay Boat Ramp, Cotuit Bay Entrance Channel, Bay Street Channel
2022	\$3,450,600	Barnstable Outer Harbor Channel, East Bay Inner Embayment Channel, East Bay Outer Embayment Channel, Cotuit Bay Embayment Channel (10' section)
2023	\$3,975,400	Blish Point Boat Ramp Channel, Bismore Park Pier Basin, Gateway Marina Channel, Cotuit Bay Embayment Channel (11' section)

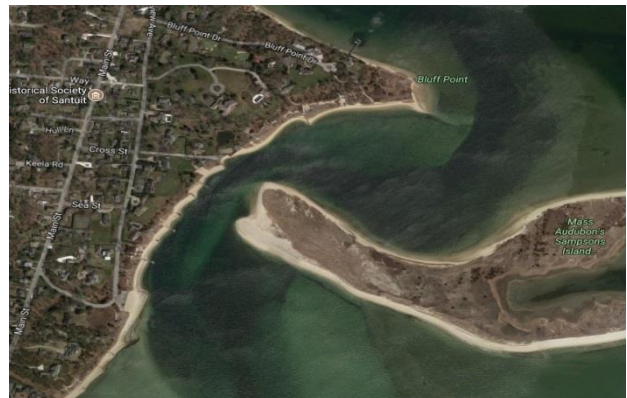
Note: The dredge schedule may be amended to improve efficiency by grouping projects by geographic location. Due to regulatory restrictions, dredging prohibited during certain marine life mating and migration seasons. There may be a shift in priorities, if a channel fills-in faster than expected due to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

Source of Funding: Bond Issue \$1,000,000

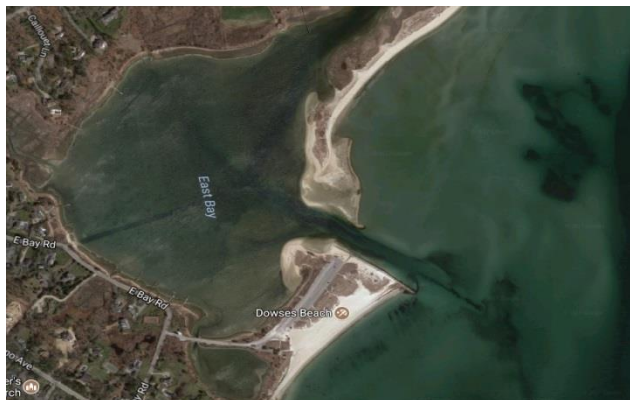
Operating Budget Impact now or in future: Not applicable – this is ongoing maintenance dredging of existing facilities. Performing the maintenance dredging in a systematic, planned manner is expected to reduce expenses by avoiding expediting costs and reducing mobilization costs where possible.



West Bay Channel



Cotuit Bay Channel



East Bay Channel

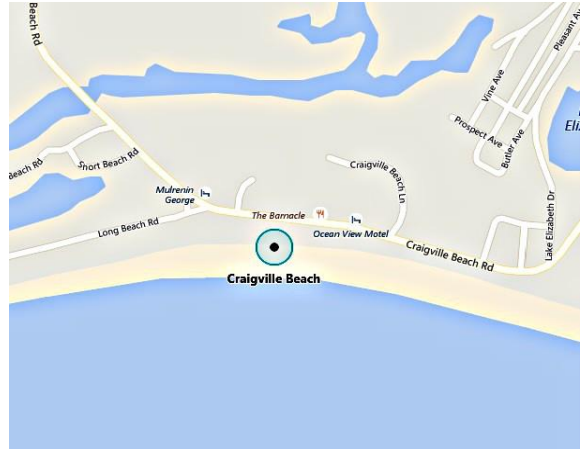


Hyannis Harbor Channel

Project Working Title: Craigville Bathhouse Handicap Accessibility Upgrades & Site Work

Project Location: 997 Craigville Beach Road, Centerville, MA 02632

Project Description: This project would fund improvements at the Craigville Bathhouse consisting of patching, striping, gates, guardrails and ADA access walks. Funding for this project continues the multi-year improvement project at this location improving the interior and exterior of the building and making the facility operational. These funds would provide for design and renovation/construction of the project.



Project Justification: The site is in need of improvements with regard to Patching, striping, layout, walks, rails, and gates. It is not solely cosmetic; many of the needs are safety related. The intention is to bring the site up to standard for safe use by all the citizenry.

Impact of Denial/Postponement: The public heavily uses this facility. The site is in poor condition and will continue to decline without the much-needed repairs. The building will lose popularity with its users without improvements to this aging facility.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting		\$40,000
Construction or Acquisition		\$215,116	\$570,091
Project Management		\$30,000	\$28,504
Project Contingency		\$30,000	\$57,009
Total Project Cost		\$315,116	\$655,604

Basis for Cost Estimates: In-House Cost Estimates

Project Estimated Completion Date: 2019 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$315,116	Design & Construction
2020	\$655,604	Paving

Source of Funding: Town Council Order 2016-110 \$315,116

Operating Budget Impact now or in future: There is no operating budget impact for Recreation.

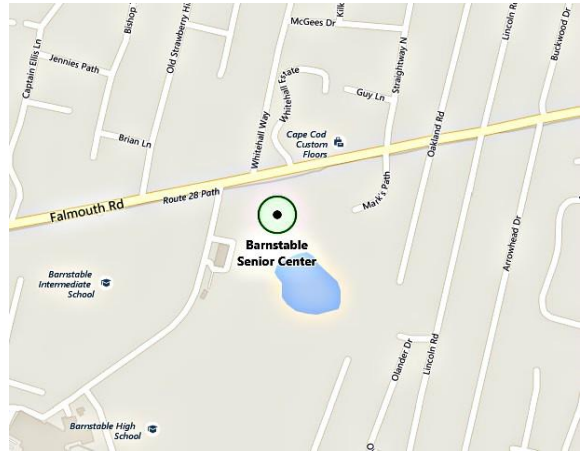


Craigville Beach Bathhouse & Parking Lot

Project Working Title: Barnstable Senior Center Renovations Sprinkler Kitchen Rear Deck

Project Location: 825 Falmouth Road, Hyannis MA 02601

Project Description: The existing sprinkler system contains outdated sprinkler heads that need to be replaced as well as repairs to the existing sprinkler pipe system. The kitchen floor has been repaired a number of times to the point that replacement is required. Kitchen equipment is outdated and needs replacement. Cabinet and surfacing repairs are required. Laminated wood beams supporting the rear deck need to be replaced. Other needed improvements will be incorporated as well.



Project Justification: The Senior Center Kitchen is original to the building and constructed in 1998. The 20 year old kitchen floor has been patch and coated, but currently needs replacing. It is time for the kitchen equipment to be replaced. Due to original construction deficiencies, the building sprinkler system needs evaluation. It is expected that unsafe conditions need to be corrected. The building sprinkler pipes have corroded in areas and need to be repaired. The existing rear deck is supported on laminated wood beams. These beams are in the state of decay and need to be replaced. It is expected that other miscellaneous work will be found during improvement work and will need to be corrected.

Impact of Denial/Postponement: Unsafe conditions will continue to exist without repairs to the sprinkler system. These unsafe conditions could result in loss of life and extensive damage to the facility. Kitchen elements that go uncorrected will create safety issues.

Project Cost Estimates:	FY 2019	Future FY
Design & Permitting	\$59,080	-
Construction or Acquisition	\$580,800	-
Construction Contingency	\$58,080	-
Project Management	\$29,040	-
Total Project Cost	\$727,000	-

Basis for Cost Estimates: Architect Assisted & In-House Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** 9 **Construction (months)** 8

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$727,000	Design & Construction

Source of Funding: Bond Issue \$659,000 & Town Council Order 2014-106 \$68,247

Operating Budget Impact now or in future: This project will alleviate use of operating capital to chase building system repairs. Some savings will be realized from the installation of energy efficient kitchen equipment.



Senior Center Kitchen And Sprinkler System Upgrades Needed

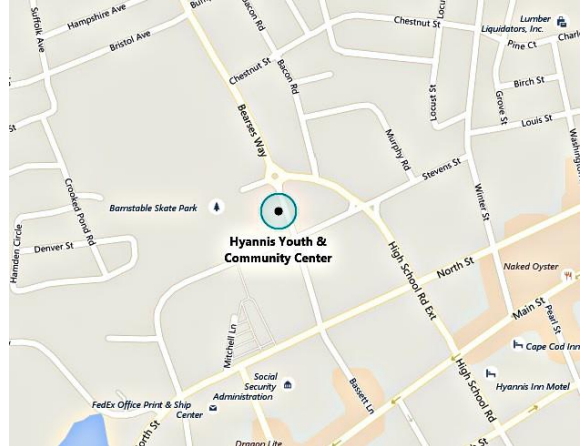
Hyannis Youth & Community Center Enterprise Fund Projects

PROJECT: HYCC-19-1	DEPARTMENT PRIORITY: 1 of 1	2018-077
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Project Working Title: Hyannis Youth & Community Center Roof Replacement

Project Location: 141 Bassett Lane, Hyannis, MA 02601

Project Description: The Hyannis Youth and Community Center was Completed in 2008. The existing membrane roof system and asphalt shingle roof have developed leaks. This project has been divided into multiple phases of work, each addressing specific elements of repair as identified by consultants. Some of the repairs may yet to be discovered. Design for all phases of work will be developed year one.



Project Justification: Completed in 2008 portions of the existing roof system have developed leaks. A phased approach has been developed to correct failing conditions over time. Without repair / replacement water leaks will continue to penetrate the exterior skin of the building and create issues additional issues.

Impact of Denial/Postponement: Deterioration of building systems.

Project Cost Estimates:	FY 2019	Future FY
Design & Permitting	\$100,000	\$40,000
Construction or Acquisition	\$72,600	\$939,200
Project Management	\$5,808	\$75,136
Project Contingency	\$7,260	\$93,920
All Other Costs	\$10,000	\$30,000
Total Project Cost	\$195,668	\$1,178,256

Basis for Cost Estimates: Architect Assisted & In-House Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** 3 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$195,668	Phase 1 - Design of all phases, Temporary leak repair
2020	\$298,156	Phase 2 - Flat Roof Repair
2021	\$634,100	Phase 3 – Asphalt Roof Replacement
2022	\$246,000	Phase 4 – Metal Roof Repair

Source of Funding: Capital Trust Fund Reserves \$195.668

Operating Budget Impact now or in future: None, this work will replace systems already in place.



Hyannis Youth & Community Center Needed Roof Repairs

Water Pollution Control Enterprise Fund Projects

PROJECT: WPC-19-1	DEPARTMENT PRIORITY: 1 of 10	2018-078
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Project Working Title: Effluent Disposal Capacity Study & Design

Project Location: 617 Bearse’s Way, Hyannis, MA 02601

Project Description: The purpose of this project is to hire a consultant to lead an Effluent Disposal Capacity Study & Design for the Hyannis Water Pollution Control Facility (WPCF). Currently the WPCF discharges treated effluent into sand filter beds, which allow the treated water to percolate back into the groundwater. This project builds off previous groundwater modeling efforts in order to determine the exact amount of treated water that can be disposed of at the Hyannis WPCF. While previous modeling efforts have provided the Town with a ballpark estimate of the discharge capacity of the WPCF, this project aims to formulate a more precise capacity limit, which accounts for seasonal fluctuations of flow and groundwater levels. This model will take into account geologic conditions in the area of the WPCF, and will be calibrated using historical groundwater levels. Once the model is completed, it will be utilized to identify potential high groundwater areas and guide decision-making efforts regarding effluent disposal at the Hyannis WPCF.



Project Justification: The Hyannis WPCF has a permitted treatment capacity of 4.2 million gallons per day (MGD) and currently treats an average daily flow of 1.55 MGD. Recent modeling efforts have suggested that the WPCF may not be able to discharge 4.2 MGD without affecting septic systems and basements located at downgradient properties. Recently, the Water Resource Advisory Committee completed a comprehensive wastewater management plan, which calls for the sewerage of several additional areas of Barnstable with an estimated increase of wastewater flow of 1.80 MGD. In order to move forward with this plan, the WPCF will need to be prepared to accommodate these future wastewater flows, or search for a new disposal site. Having an accurate groundwater model is a critical component of wastewater planning in the Town of Barnstable.

Impact of Denial/Postponement: Without a firm understanding of the groundwater dynamics in the area of the WPCF, future sewer expansion plans may need to be put on hold. The WPCF would continue to operate well under its design capacity.

Project Cost Estimates:	FY 2019	Future FY
Design & Permitting	\$5,000	-
Construction or Acquisition	\$160,000	-
Project Management	\$20,000	-
Project Contingency	\$10,000	-
Total Project Cost	\$195,000	-

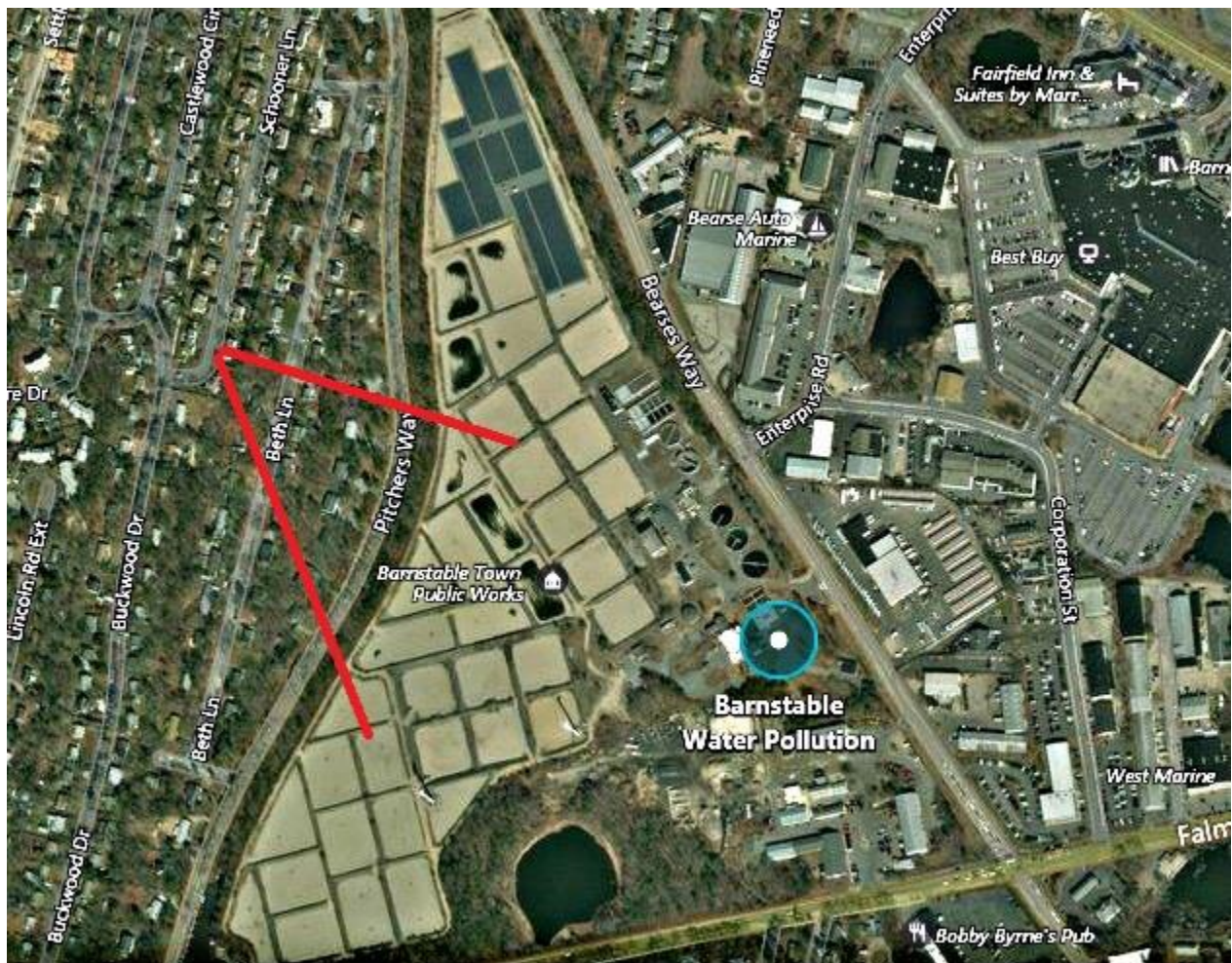
Basis for Cost Estimates: Engineers Cost Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** 12 **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$195,000	Effluent Disposal Capacity Study

Source of Funding: Water Pollution Control Enterprise Fund Reserves \$295,000

Operating Budget Impact now or in future: This project will have no immediate impact on the WPCD operating budget. However, once completed, the WPCD will be able to accommodate new connections. This will result in an increase in revenue and expenses.



Water Pollution Control Sand Filter Beds

Project Working Title: Effluent Discharge Location Evaluations

Project Location: Various

Project Description: The purpose of the project is to conduct a comprehensive study to identify, and begin evaluation of, possible effluent disposal locations/options across the Town.

Project Justification: Currently the WPCF discharges treated effluent into sand filter beds which percolates back into the groundwater. The facility has a permitted treatment capacity of 4.2 million gallons per day (MGD), but recent modeling efforts have suggested that the WPCF may not be able to discharge 4.2 MGD without impacting septic systems and basements located at downgradient properties. Though the WPCF is going to be conducting an independent study to evaluate the validity of this claim, it also needs to prepare in case those suggestions are proven to be correct. This project will begin that process by identifying and conducting some initial evaluation of the best disposal options/sites.

Impact of Denial/Postponement: Without a firm understanding of the WPCF's disposal options, future sewer expansion plans may need to be put on hold. The WPCF would be forced to operate well under its design capacity.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	\$150,000	-
	Total Project Cost	\$150,000	-

Basis for Cost Estimates: Engineers Cost Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** 18 **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$150,000	Design and Permitting

Source of Funding: Water Pollution Control Reserves \$150,000

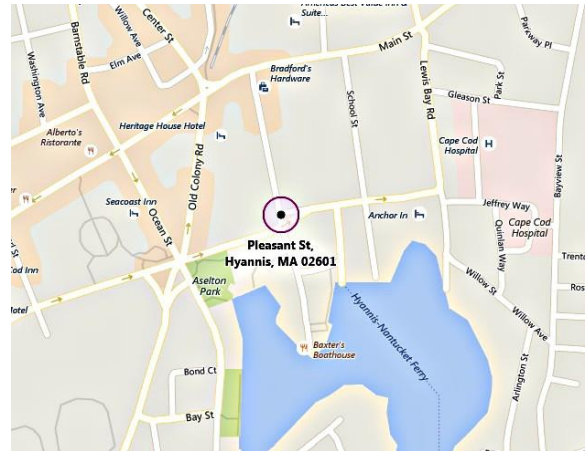
Operating Budget Impact now or in future: This project will have no immediate impact on the WPCD operating budget. However, once completed, the WPCD will be able to accommodate new connections. This will result in an increase in revenue and expenses.

Project Working Title: Pleasant Street Utility and Road Upgrade

Project Location: Pleasant Street, Hyannis, MA 02601

Project Description: Upgrading sewer lines within Pleasant Street and making improvements to storm drainage, and repaving the road curb to curb. Water line installation will be addressed by the Water Supply Division and not funded via this request.

Project Justification: As was identified in the 2007 Growth Incentive Zone (GIZ), the utilities on Pleasant Street do not have adequate capacity to allow the desired growth. This project will address sewer shortfalls, some of the storm water drainage system, and repave the road curb to curb. It is expected that sidewalk and streetscape improvements will be by others.



Impact of Denial/Postponement: As was identified in the 2007 Growth Incentive Zone (GIZ), the utilities on Pleasant Street do not have adequate capacity, and thus will impede the desired growth.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting		\$50,000
Construction or Acquisition		\$554,000	-
Project Management		\$50,000	-
Project Contingency		\$27,000	-
All Other Costs		\$20,000	-
Total Project Cost		\$701,000	-

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$701,000	Design and Construction

Source of Funding: Bond Issue \$701,000

Operating Budget Impact now or in future: This work replaces an existing sewer pipe, with a new sewer pipe. It is expected it will result in minimal operational impact.

Water Supply Enterprise Fund Projects

PROJECT: WS-19-1	DEPARTMENT PRIORITY: 1 of 4	2018-081
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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 capially 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 2019	Future FY
	Design & Permitting	\$75,000	\$300,000
	Construction or Acquisition	\$975,000	\$3,900,000
	Total Project Cost	\$1,050,000	\$4,200,000

Basis for Cost Estimates: Engineers Cost Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** 4 **Construction (months)** 8

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$1,050,000	Design & Construction
2020	\$1,050,000	Design & Construction
2021	\$1,050,000	Design & Construction
2022	\$1,050,000	Design & Construction
2023	\$1,050,000	Design & Construction

Source of Funding: Bond Issue \$1,050,000

Operating Budget Impact now or in future: The upgrades will be to the existing distribution piping which are already maintained by 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 capially funded position).



Water Pipe Replacement

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. A project engineer, partially funded out of this program for \$30,000, will provide project management and oversight.

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 2019	Future FY
	Design & Permitting		\$20,000
Construction or Acquisition		\$141,500	\$566,000
Project Management		\$30,000	\$120,000
Project Contingency		\$8,500	\$34,000
Total Project Cost		\$200,000	\$800,000

Basis for Cost Estimates: Engineers Cost Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** 2 **Construction (months)** 10

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$200,000	Design & Construction
2020	\$200,000	Design & Construction
2021	\$200,000	Design & Construction
2022	\$200,000	Design & Construction
2023	\$200,000	Design & Construction

Source of Funding: Water Supply Division Reserves \$200,000

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 DPW. Some operating budget savings may be realized by replacing existing equipment with more energy efficient equipment, and a reduction in maintenance cost.



Water System Components: Pumps and Electrical

Project Working Title: New Well Exploration Program

Project Location: Town of Barnstable

Project Description: To continue the on-going new well exploration program with the permitting, designing and construction of new wells for the Hyannis Water System. This capital request is for the third of four phases of the new well exploration program. The first phase consisted of exploratory test wells, environmental notifications, evaluations and recommendations. The second phase dealt with DEP new source approvals, 8" test well construction, and 5 day pumping tests. This third phase will consist of the design and permitting of the new well buildings and appurtenances with all environmental impact reporting requirements. The fourth phase will be the construction phase. A project engineer, partially funded out of this program, will provide a project management and oversight.

Project Justification: Water quality study results and recent UCMR3 sampling and testing indicated that seven of the DPW's twelve wells have water quality issues (1,4 Dioxane, iron and manganese) that cannot be addressed with our current treatment systems. As a result, these seven wells are in need to be replaced, or have additional treatment added to them.

Impact of Denial/Postponement: The ability to provide the ratepayers of the Hyannis Water System with the highest possible water quality will continue to deteriorate and the redundancy of water pumping capacity will diminish.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting		\$555,000
Construction or Acquisition		-	\$3,500,138
Project Management			\$133,645
Project Contingency		-	\$501,163
Total Project Cost		\$555,000	\$4,134,946

Basis for Cost Estimates: Consultant Cost Estimates.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 12 **Construction (months)** 18

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$555,000	Design & Permitting of needed wells
2020	\$2,032,745	Well construction
2021	\$33,406	Project Management
2022	\$2,034,067	Well construction
2023	\$34,728	Project Management

Source of Funding: Bond Issue \$555,000

Operating Budget Impact now or in future: It is expected that some moderate financial impact on the operating contract will occur after FY 2020 due to slight increases in utility and maintenance costs. The dollar amount will be determined in FY 2019.



Well Exploration

Project Working Title: Permanent Interconnection with COMM water system

Project Location: Hyannis Water System

Project Description: This construction would permanently interconnect Hyannis with the Centerville-Osterville-Marston Mills (COMM) public water supply system.

Project Justification: This project is needed to ensure water supply availability for the Hyannis Water System's customers in case of major mechanical or electrical failures at water pumping or treatment facilities or well contamination issues.

Impact of Denial/Postponement: The water supply system for Hyannis will not have the permanent redundancy it needs to ensure sufficient water volume, especially during the high demand summer months.

Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition	\$137,500	-
	Project Contingency	\$27,500	-
	Total Project Cost	\$165,000	-

Basis for Cost Estimates: Engineers Cost Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** 6 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$165,000	Construction of the permanent interconnection with COMM

Source of Funding: Water Supply Division Reserves \$165,000

Operating Budget Impact now or in future: The impact on the operating budget was part of the FY18 Suez contractual increase dealing with all newly built structures, including the temporary interconnecting building. Since the proposal is to move the building to its permanent location, expenditures will be similar. The water purchase impact is handled via the FY19 Operating budget evaluation process.



Centerville-Osterville-Marston Mills Interconnection Point

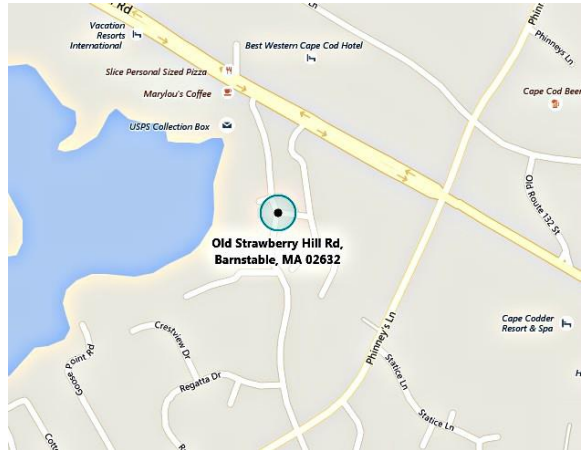
Sewer Construction & Private Way Maintenance And Improvement Fund Projects

PROJECT: DPW-19-14	DEPARTMENT PRIORITY: 14 of 51	2018-085
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Project Working Title: Attucks Lane Pump Station Area, Sewer Expansion

Project Location: RT 132, Old Strawberry Hill Road, MA 02632

Project Description: Installing sewer to feed the soon to be installed Attucks Lane Pump Station to south of Route 132 and Old Strawberry Hill Road.



Project Justification: This project will provide the businesses and residences a municipal solution to their wastewater issues, and in doing so begin to protect Shallow Pond from nutrients. This project is addressing areas that are included in the Water Resource Advisory Committee recommended Wastewater Management Plan.

Impact of Denial/Postponement: This area would not be sewerred, and Shallow Pond would be unprotected.

Project Cost Estimates:	FY 2019	Future FY
Design & Permitting	\$100,000	-
Construction or Acquisition	-	\$1,002,000
Project Management	-	\$100,000
Project Contingency	-	\$49,000
All Other Costs	-	\$40,000
Total Project Cost	\$100,000	\$1,191,000

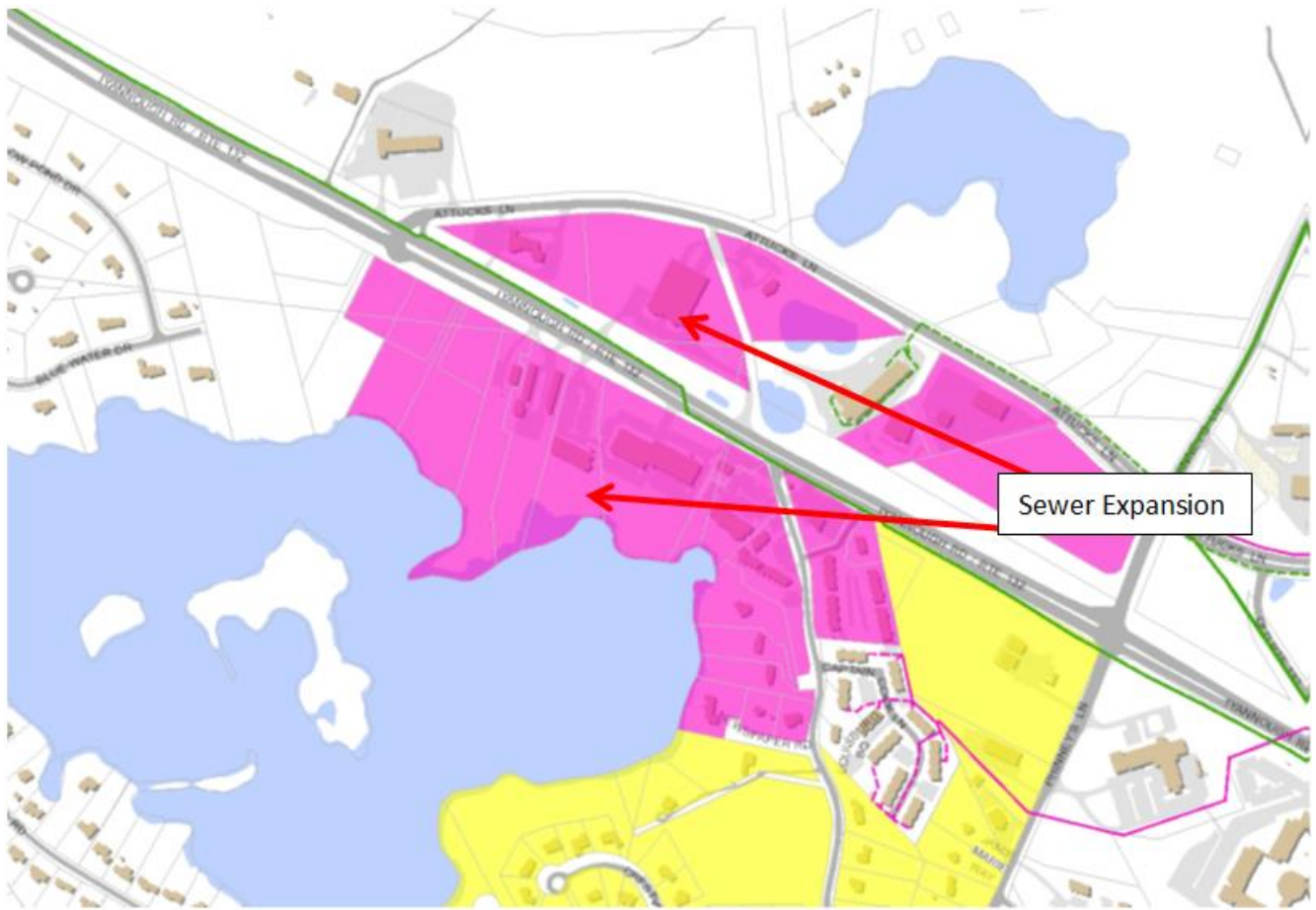
Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$100,000	Design
2020	\$1,191,000	Construction

Source of Funding: Sewer Construction & Private Way Fund Reserves \$100,000

Operating Budget Impact now or in future: This project will require a Grade 8 position operator.

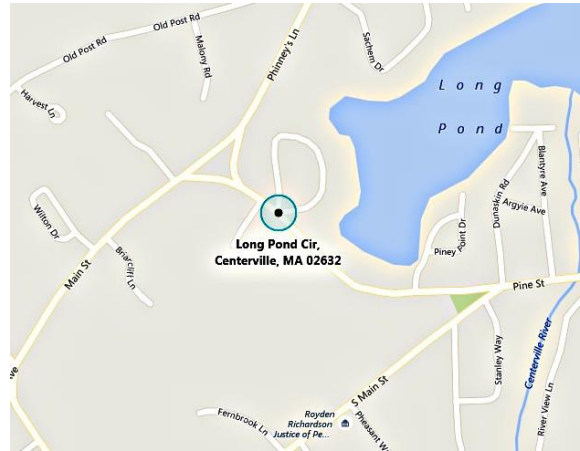


Attucks Lane Pumps Station Area, Sewer Expansion

Project Working Title: Long Pond Area Sewer Expansion: Preliminary Design & Construction

Project Location: Long Pond Area, Centerville, MA 02632

Project Description: Expanding sewer to south of Route 28 around Long Pond in Centerville. It will include gravity sewer, low-pressure sewer, and a submersible pump station preliminary envisioned to be located at Mother’s Park.



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 Water Resource Advisory Committee has recommended this area to be included in Phase I of its 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 2019	Future FY
	Design & Permitting		\$402,000
Construction or Acquisition		-	\$13,704,000
Project Management		-	\$1,340,000
Project Contingency		-	\$672,000
All Other Costs		-	\$670,000
Total Project Cost		\$402,000	\$17,323,000

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 18 **Construction (months)** 18

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$402,000	Evaluation and Preliminary Design
2020	\$938,000	Final Design
2021	\$16,386,000	Construction

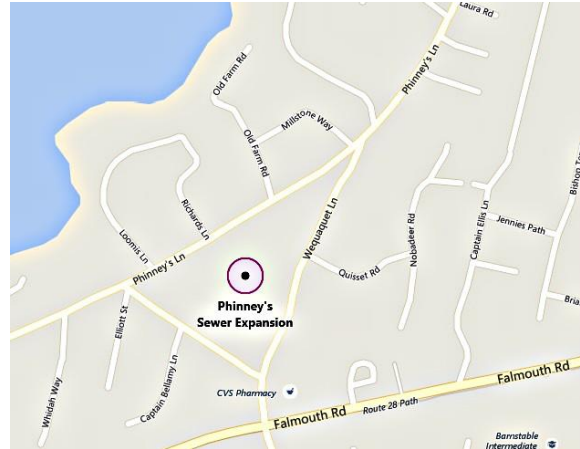
Source of Funding: Sewer Construction & Private Way Fund Reserves \$402,000

Operating Budget Impact now or in future: This project will require a Grade 8 position operator.

Project Working Title: Phinney’s Sewer Expansion: Preliminary Design & Construction

Project Location: Phinney’s Lane, Hyannis/Centerville, MA 02601

Project Description: Expanding sewer to north of Route 28 along Phinney’s Lane and Wequaquet Lane area in Centerville to approximately Old Strawberry Hill Road. It will include gravity sewer, relatively small amount low-pressure sewer. As envisioned, the project requires a submersible pump station be located in Mother’s Park. To avoid redundancy, the cost for this pump station is included in the Long Pond Area Sewer Expansion project cost estimate, and not this project.



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 to a lesser extent the Centerville River. As a result, the Water Resource Advisory Committee included this work in Phase II their recommended Wastewater Management Plan.

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 will continue to receive nutrients at higher than recommended levels.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting		\$315,000
Construction or Acquisition		-	\$10,735,000
Project Management		-	\$1,050,000
Project Contingency		-	\$526,000
All Other Costs		-	\$530,000
Total Project Cost		\$315,000	\$13,576,000

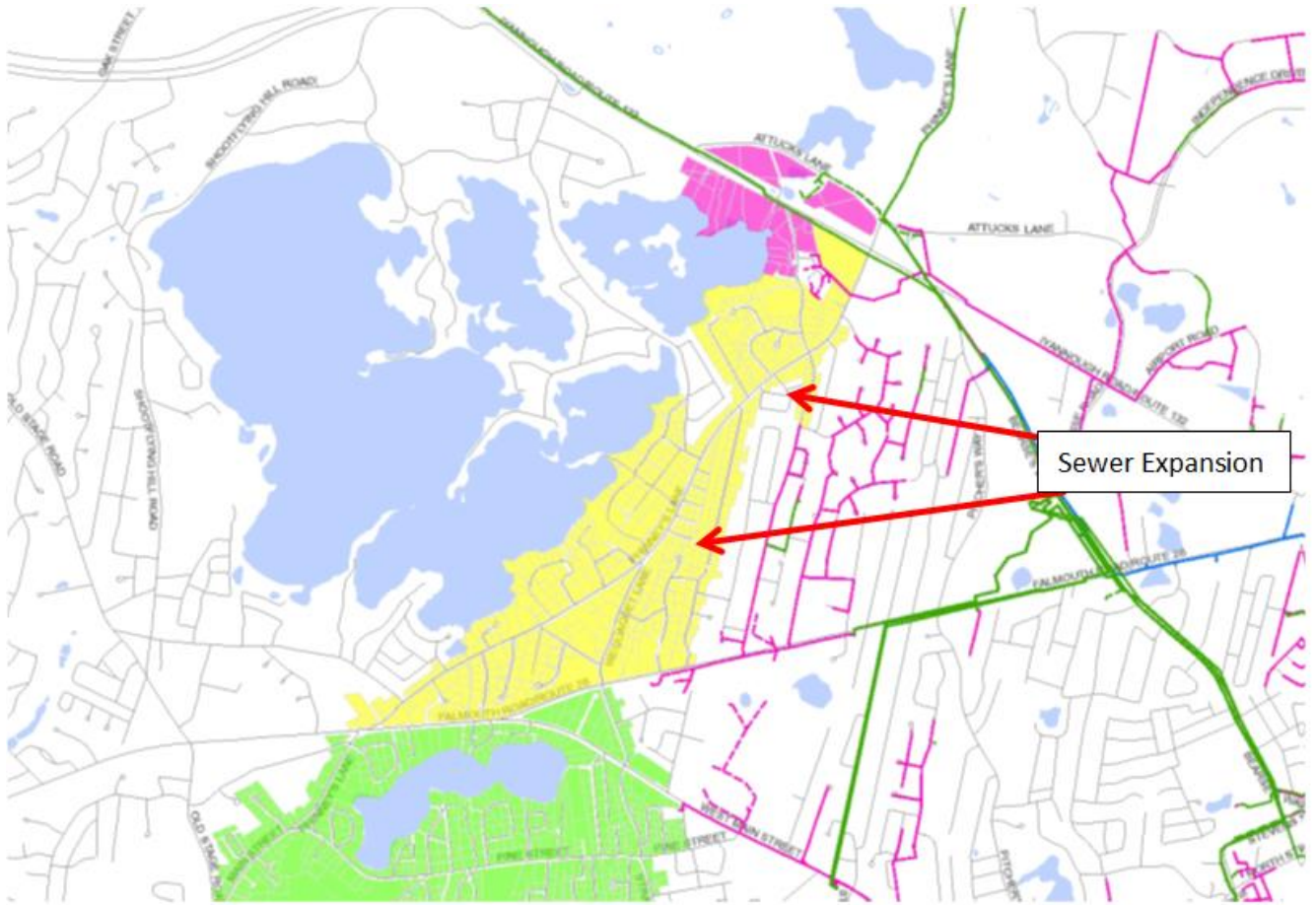
Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 18 **Construction (months)** 18

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$315,000	Evaluation and Preliminary Design
2020	\$735,000	Final Design
2021	\$12,841,000	Construction

Source of Funding: Sewer Construction & Private Way Fund Reserves \$315,000

Operating Budget Impact now or in future: This project will require a Grade 8 position operator.



Phinney's Sewer Expansion

Project Working Title: Santuit River Culvert & Old Kings Road Construction

Project Location: Old Kings Road, Cotuit from Main Street to the Mashpee Town line

Project Description: The project will consist of repaving of Old Kings Road, Cotuit from Main Street to the Mashpee Town line. This project will be done in conjunction with the culvert replacement project on the Town line between Barnstable and Mashpee along the Santuit River, which is being funded by a grant from NRCS.

Project Justification: The road and culvert are in common usage, in need of despite repair, and heavily traveled. Also, since this culvert is jointly owned with the Town of Mashpee, it is imperative the Town join together on addressing these concerns.

Impact of Denial/Postponement: The road & culvert will continue to deteriorate, possibly leading to unsafe and ultimately unpassable condition.

Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition	\$135,000	-
	Project Contingency	\$19,000	-
	Total Project Cost	\$154,000	-

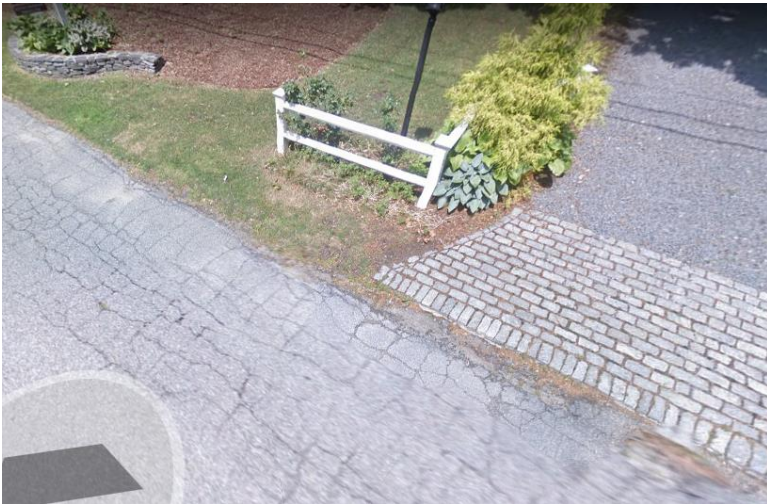
Basis for Cost Estimates: In house cost estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** 9 **Construction (months)** 8

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$154,000	Construction

Source of Funding: Sewer Construction & Private Way Fund Reserves \$154,000

Operating Budget Impact now or in future: Repairs should result in a decrease of emergency repairs to private roads required.



Public Works General Fund Projects

PROJECT: DPW-19-1	DEPARTMENT PRIORITY: 1 of 51	2018-089
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Project Working Title: Public Roads Maintenance

Project Location: Road rehabilitation work, milling and/or repaving of Bay Lane, Emerson Way, Longfellow Drive, Crosby Circle, Bayberry Lane, Glenwood Avenue and Highland Drive in Centerville, Anchor Lane, Mariner Circle and Mooring Drive in Cotuit, Winter Street in Hyannis, Pond Street in Osterville, Cedar Street in West Barnstable. Major drainage improvements are planned for Clifton Lane and Old Stage Road in Centerville, Santuit Road in Cotuit, Oak Neck Road in Hyannis, and Great Bay Road in Osterville.

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: In 2007, the DPW submitted their first Public Roads Maintenance Capital Improvements Plan to maintain their roads in the amount of \$3.25M. According to construction cost indexes, prices for road construction have increased by at least 15% in the past 10 years, so \$3.75M is needed to continue road maintenance at the same pace. In recent years, the condition of the Town's road system is continuing to deteriorate each year, making maintenance and reconstruction essential to preserve this major capital asset. A request to increase this budget is to continue to address Pavement Management Program's current backlog of approximately \$18.0 million of needed public road repairs. This represents a reduction of the \$19.2 million backlog presented in the FY 2017 CIP. In addition, the Town has a backlog of approximately 245 locations where drainage improvements are required to protect public safety and prevent potential property damage. Approximately \$800k is allocated to drainage improvements as well as an increase of 230 drainage locations in the FY 2019 CIP. In addition, the DPW receives numerous requests for speeding evaluation for their roads, and where justified, traffic calming may be a practicable application.

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 crack 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 2019	Future FY
Design & Permitting	\$300,000	\$1,400,000
Construction or Acquisition	\$2,750,000	\$11,200,000
Project Management	\$275,000	\$1,200,000
Project Contingency	\$425,000	\$1,800,600
Total Project Cost	\$3,750,000	\$15,600,600

Basis for Cost Estimates: Cost estimates and locations developed through the Barnstable pavement management system, which includes cost/benefit comparisons for guidance in the selection of projects. Costs calculated based on the level of labor, equipment and materials required to complete the construction. Quantities for individual items calculated based on actual field counts, measurements and observations.

Historical cost data and the most current unit rates applied for each item and/or activity to determine estimated costs. Input provided by Highway Department personnel to assist in identification of problematic roadway conditions and recent repair history.

Project Estimated Completion Date: N/A **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$3,750,000	Planning, analysis, design, construction & construction management
2020	\$3,810,000	Planning, analysis, design, construction & construction management
2021	\$3,870,000	Planning, analysis, design, construction & construction management
2022	\$3,930,000	Planning, analysis, design, construction & construction management
2023	\$3,990,600	Planning, analysis, design, construction & construction management

Source of Funding: Capital Trust Fund Reserves \$3,412,500

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.



BAY LANE



EMERSON WAY



LONGFELLOW DRIVE



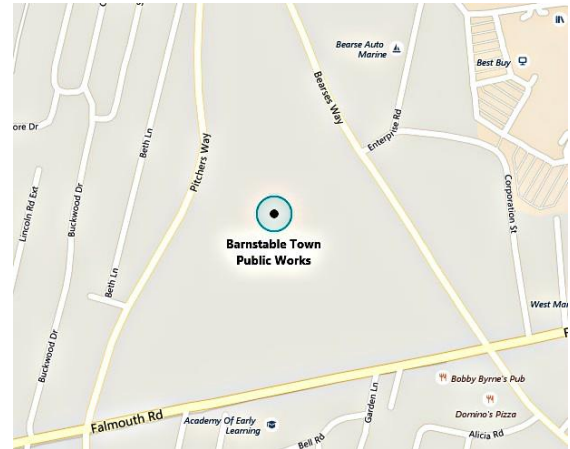
BAYBERRY LANE

Project Working Title: DPW Offices Phase III Construction

Project Location: 382 Falmouth Road, Hyannis, MA 02601

Project Description: This project request will construct employee lockers, showers, and toilet rooms within the garage area of the existing Administration / Highway Building. The design and construction of the new truck garage (Phase IV) and the design and construction of a new salt shed (Phase V) are listed in separate CIP requests.

Project Justification: The third phase of this five-phase 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. Construction will also allow for the removal of the remaining old “temporary” staff trailers facility (which is at the end of its useful life), thus increasing much needed parking. If this project is not started, expenses will be incurred to repair the old dilapidated temporary trailer.



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 Phase III is completed, the remaining staff trailer will then be demolished. Decreased operational and utility costs will be realized by elimination of the last trailers with the renovation.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	\$103,500	-
	Construction or Acquisition	-	\$896,825
	Project Management	-	\$11,000
	Project Contingency	-	\$75,000
	Total Project Cost	\$103,500	\$982,825

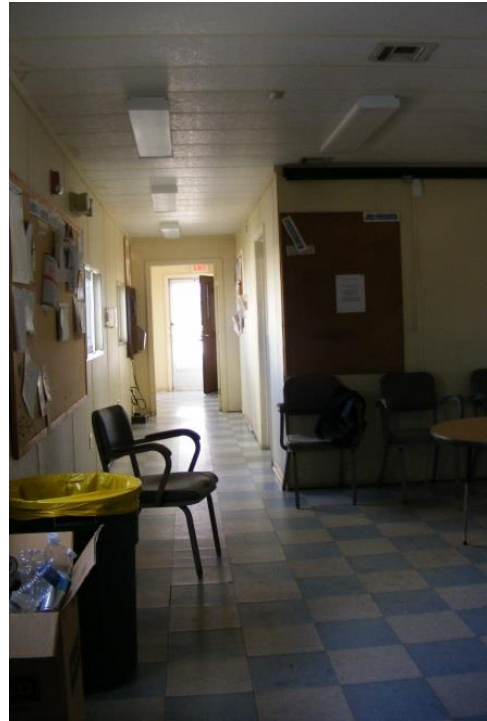
Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 9 **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$103,500	Design
2020	-	-
2021	\$982,825	Construction

Source of Funding: Capital Trust Fund Reserves \$103,500

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.



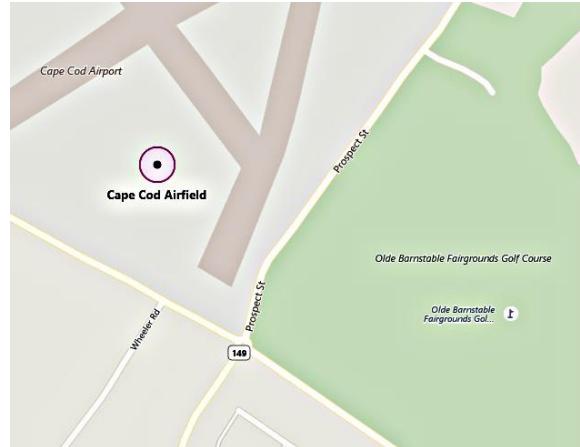
Department of Public Works Employee Facilities

Project Working Title: Cape Cod Airfield (Marstons Mills) Fuel Tank Replacement

Project Location: 1000 Race Lane, Marstons Mills, MA 02648

Project Description: This project would fund removal of the existing 2,000-gallon underground fuel tank at the Cape Cod Airfield, and installation of a new aboveground fuel tank with new fuel distribution equipment. These funds would provide for design, removal and installation.

Project Justification: The existing 2,000-gallon underground fuel tank and pump assembly is aged and it is time for its removal before it deteriorates and leaks fuel into the ground.



Impact of Denial/Postponement: Deferring this item increases the opportunity for the underground tank to fail and leak fuel into the soil.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	\$40,000	-
	Construction or Acquisition	\$200,000	-
	Project Contingency	\$60,000	-
	Total Project Cost	\$300,000	-

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** 4 **Construction (months)** 2

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$300,000	Design and Construction / Restoration

Source of Funding: Bond Issue \$300,000

Operating Budget Impact now or in future: These renovations are not expected to have a measurable impact on the Operating Budget.



Cape Cod Air Field



Cape Cod Air Field Aerial View



Cape Cod Air Field Fuel Tank Pump



Cape Cod Air Field Underground Fuel Tank

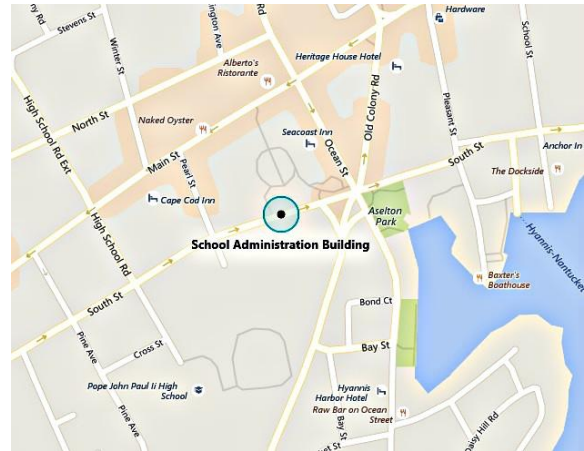
Project Working Title: School Administration Building Mechanical Cooling Upgrades

Project Location: 230 South Street, Hyannis, MA 02601

Project Description: Phase I is for the design services. Future Phase II is for construction.

The Scope includes:

- Mechanical/Headend upgrades at Lower Level;
- Emergency generator, cooling plant, sprinkler and hot water system equipment replacement;
- Renovation and expansion of the existing basement mechanical room and egress paths to accommodate a replacement emergency generator and replacement of the 30-ton cooling plant including the head-end upgrade of the sprinkler service;
- Removal of the old concrete mounting pad;
- Replacement of the existing electric hot water heater with a new gas fired hot water heater and thermostatic mixing valve;
- Relocate the gas service from the electric room into the mechanical room, which would resolve a major code violation;
- Installation of new fire rated walls and ceilings throughout the basement level, including rated door improvements along the access ways. This is a public safety issue needing attention;
- First floor interior reorganization of space (HR), new finishes, ADA access rest room improvements and new lighting;
- Mechanical/electrical service distribution, replacement, and energy conservation improvements throughout including new electrical service, HVAC controls, ventilation, communications, plumbing and related HVAC improvements, and new elevator; and
- Any remaining design funds will be utilized during the construction phase.



Project Justification: The historic building study reported significant deficiencies in this building. The exterior restoration work is completed utilizing part CIP and CPA funds. The additional work was not accomplished during the exterior restoration project. 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 2019	Future FY
	Design & Permitting	\$285,000
Construction or Acquisition	-	\$1,608,321
Construction Contingency	-	\$60,952
Project Management	-	\$60,952
Project Contingency	-	\$241,248
Total Project Cost	\$285,000	\$1,971,473

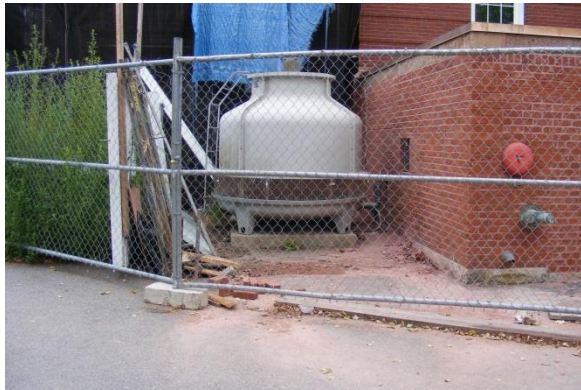
Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** 8 **Construction (months)** 15

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$285,000	Design of MEP Headend Upgrades
2020	\$1,971,473	Construction

Source of Funding: Bond Issue \$285,000

Operating Budget Impact now or in future: Project would Improve energy efficiency for Air Conditioning. We are expecting a 15% reduction in cooling costs, which would result in an electric system cost savings of around \$450 per season. There will also be savings by not having to maintain an outdated system with parts that are no longer available.



Cooling Unit



Mechanical Induct system



Mechanical Controls to Cooling System

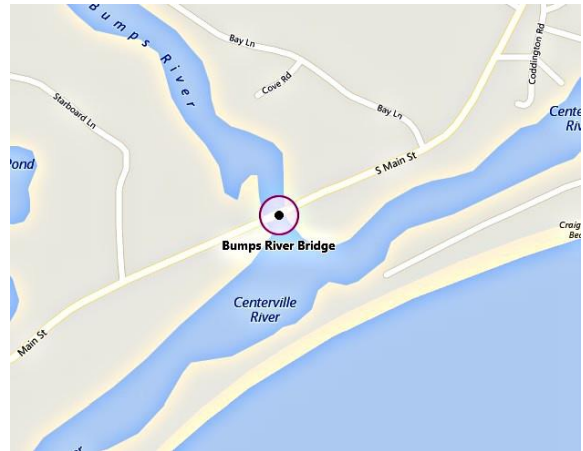
Project Working Title: Bumps River Bridge Repairs

Project Location: South Main Street, Centerville

Project Description: Repairs to the bridge.

Project Justification: Inspections by MassDOT and analyses performed by our consultant have identified necessary maintenance and safety repairs.

Impact of Denial/Postponement: Failure to implement the recommended maintenance will result in future deterioration necessitating repairs that are more expensive. Failure to complete the necessary repairs will jeopardize the safety of the traveling public and the bridge will no longer be safe for emergency vehicles.



Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	\$100,000	-
	Construction or Acquisition	-	\$700,000
	Construction Contingency	-	\$200,000
	Total Project Cost	\$100,000	\$900,000

Basis for Cost Estimates: Rough order of magnitude estimate based on discussions with MassDOT and consultant.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$100,000	Design & Permitting
2020	\$900,000	Construction & Construction Management

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

Operating Budget Impact now or in future: Not applicable – proposing repairs.

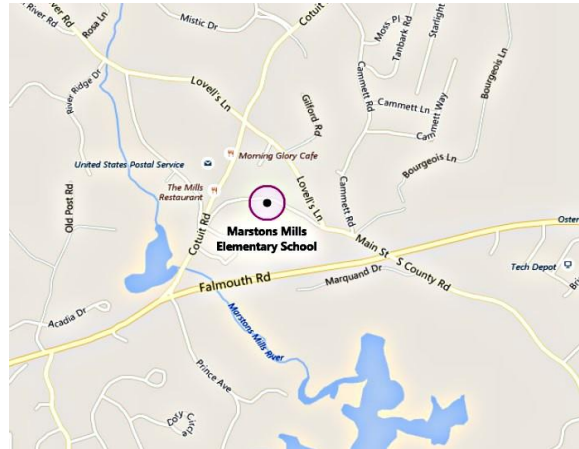


Bumps River Bridge Infrastructure

Project Working Title: Marstons Mills Elementary School Improvements

Project Location: 2095 Main Street , Marstons Mills, MA 0648

Project Description: The three portable / modular structures located at the facility are joined to the main building by a covered hallway. These structures are in excess of twenty-five years old and have completely outlived their useful lives. As they sit and deteriorate due to insect infestation and non-use. They have become a nuisance and continue to attract vandals. The space is not salvageable and they need to be removed. The project involves the design, permitting, abatement, disconnection, labor and disposal fees to demolish and dispose of the temporary structures. Part of the work will include hazardous materials testing and evaluation of the existing school building. Additional work will be accomplished as required based on discovered conditions during evaluation and demolition.



Project Justification: The former elementary school was closed in 2009 by the Barnstable Public Schools during a major reconfiguration of the school district. At that time, certain schools, which required extensive renovation, coupled with a severe decline in the number of students attending the school district, led to the closure of this school. 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. The facility and the accompanying land were put out for lease through a Request for Proposal process two times by the school department. In 2012, the school committee declared the building surplus to their needs and transferred it to the Town Manager’s control. A third RFP issued in 2014 resulted in a single proposal which is not acceptable. Currently the building has electricity and is alarmed, but heat has been discontinued for 4 to 5 years.

Impact of Denial/Postponement: The unheated building will degrade rapidly. Mold and dampness will destroy interior finishes and create larger problems.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	\$24,425	\$108,500
	Construction & Acquisition	\$148,030	\$723,330
	Project Management	\$11,398	\$50,633
	Project Contingency	\$31,087	\$72,333
	All Other Costs	\$38,800	\$40,300
	Total Project Cost	\$253,740	\$995,096

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 8 **Construction (months)** 18

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$253,740	Design, Utility disconnects, Modular unit demolition, Hazardous materials testing of main building
2020	-	-
2021	\$995,096	Demolition Of Existing School

Source of Funding: Bond Issue \$253,740

Operating Budget Impact now or in future: Electric Utility Savings from discontinued use of about \$20 per month.

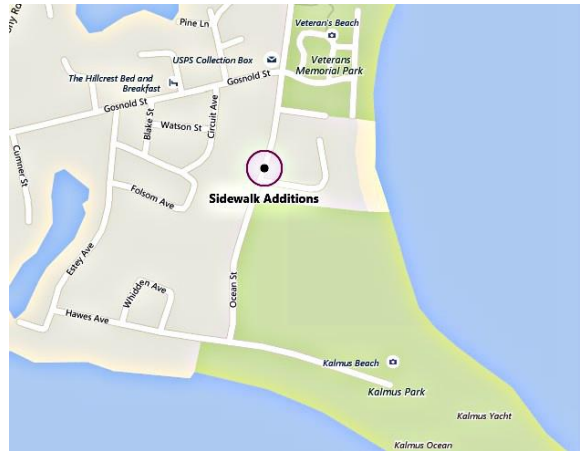


Marston Mills Elementary School (Closed in 2010) to be demolished

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 accommodations for local residents and tourists who desire to visit Kalmus Beach and its amenities. This would also provide Kalmus Beach visitors safe travel to the JFK Memorial, Veterans Memorial and its amenities.

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 with the lack of lighting on Ocean Street in this area.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	\$45,000	-
	Construction or Acquisition	-	\$450,000
	Project Management	-	\$45,000
	Project Contingency	-	\$90,000
	Total Project Cost	-	\$585,000

Basis for Cost Estimates: DPW Cost Estimates

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$45,000	Design & Permitting
2020	\$585,000	Project Construction & Management

Source of Funding: Capital Trust Fund Reserves \$45,000

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



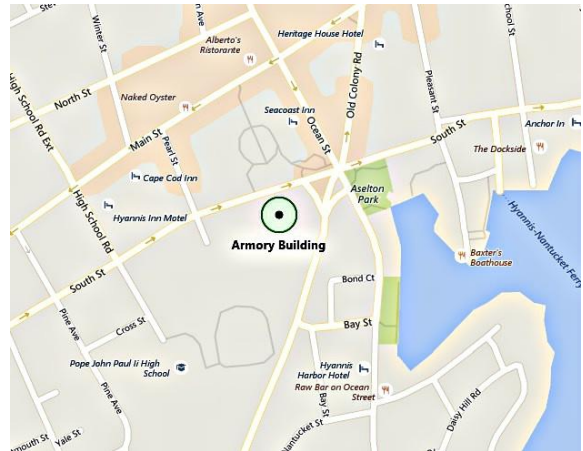
Sidewalks on Ocean Street from Gosnold Street to Kalmus Beach

Project Working Title: Armory Building Improvements

Project Location: 225 South Street, Hyannis, MA 02601

Project Description: This project will fund the renovation of the Armory. The work will be accomplished in phases to allow the Town maximum flexibility regarding its ultimate usage. The phases will proceed as follows:

- a. FY19 - Preliminary and Final Design of the “minimum solution” and hazmat design and removal.
- b. FY20 – Construction money for the “minimum solution”. The “minimum solution” includes work to improve the basic infrastructure of the facility including the structure, utility services, the heating system, fire protection and electrical systems.
- c. FY21 & FY22 – This time is to finish the minimum solution project, and allow the Town to evaluate its options (trying again to find a tenant, or proceeding to a municipal solution) regarding the space.
- d. FY23 – Remainder of design money and construction money for final municipal solution (if selected). This work would result in a totally renovated space that could house 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 final project would 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 arrests that deterioration, and gives the Town flexibility regarding its ultimate use. If the Town chooses the municipal solution it would leverage the Armory’s 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 series of CIPs, 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.

Impact of Denial/Postponement: The building will continue to deteriorate, and continue to be un-occupiable as is. 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 2019	Future FY
	Design & Permitting	\$330,000	\$280,000
	Construction or Acquisition	\$300,000	\$4,076,000
	Project Management	\$17,000	\$192,000
	Project Contingency	\$20,000	\$212,000
	Total Project Cost	\$667,000	\$4,760,000

Note: Current Year Funding Design is for full, ultimate project, and not just Phase I.

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$667,000	Preliminary and Final Design of minimum solution, Hazmat design and removal, and start of Permitting
2020	\$1,835,000	Construction for remainder of minimum solution
2021	-	-
2022	-	-
2023	\$2,925,000	Construction for final build out (municipal solution)

Source of Funding: Bond Issue \$667,000

Operating Budget Impact now or in future: Though an existing building, it currently is a cold storage facility. Custodial staff (assumed one full-time Grade 4) will be needed to clean the building and preform light maintenance.



Armory Building Exterior



Armory Building Exterior

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PART VI –DETAILED DESCRIPTIONS OF DEFERRED PROJECTS

Enterprise Fund Projects

Airport Enterprise Fund

PROJECT: AIR-19-5

DEPARTMENT PRIORITY: 5 of 21

Project Working Title: Terminal Upgrades (baggage belt extension and Café window/door installation to provide outdoor seating)

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Due to existing budgetary constraints, the airport has embarked on the development of a Marketing Plan to identify priority-marketing efforts that delve into low cost marketing as well as a public relations plan. This plan sets goals that the airport is trying to meet in order to increase development and use demand.

A series of workshops have been conducted to help develop the marketing plan for the Airport and to identify priority goals. Those goals include marketing the Airport to: Improve General Aviation Services; Diversify Revenue Stream; Improve Air Transportation options for the Cape, the Islands and southeast Massachusetts; Attract more air service; Enhance available land/project-ready development; and bring customers back.

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 such as the extension of the baggage belt and adding a window/door to access outdoor seating for the café.

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 carriers 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, which is 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 have 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 in providing service from Barnstable Airport. The 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.

With airport service being more seasonal in nature, it has proven difficult to maintain a restaurant on an annual basis. With the addition of Cape Cod Coffee in October 2017 in the airport's café, year-round use of



the café needed a new approach and visibility so that customers not only visiting the airport to catch a flight or a bus to Boston, but could enjoy the café’s offerings. This includes customers in the general area who could come to frequent the establishment. Discussions with the owners of Cape Cod Coffee, who have a vast amount of experience in customer service, indicate that outdoor seating would enhance the cafes visibility at the airport; bushes, plantings and trees have already been removed from the front windows of the café. The plan is to provide future outdoor seating on the access road side of the café; plans that are currently in motion and permits with the building department for the town are in process.

Project Justification: Current clients have expressed a lack of amenities are the terminal to provide adequate growth.

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 2019	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: 2021 **Design & Permit (months)** 2 **Construction (months)** 4

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2021	\$400,000	Terminal Upgrades (baggage belt extension)

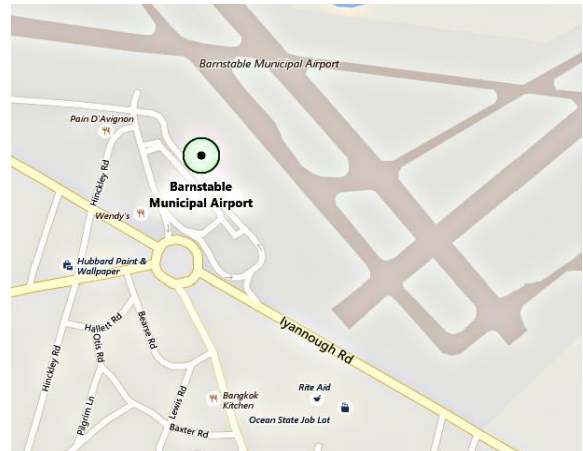
Source of Funding: Airport Enterprise Fund reserves are normally used. However, the Airport will seek MassDOT/FAA funds if available.

Operating Budget Impact now or in future: Future expenses for improvement to existing facilities.

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 such as, the need for additional earthwork to be FAA compliant with taxiway and runway elevations, and an additional 2” pavement lift needed due to variations in original runway pavement thickness not realized until the project was under construction. Because of this, 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.



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 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.

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.

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 2019	Future FY
	Construction or Acquisition		\$475,000
Total Project Cost		\$475,000	-

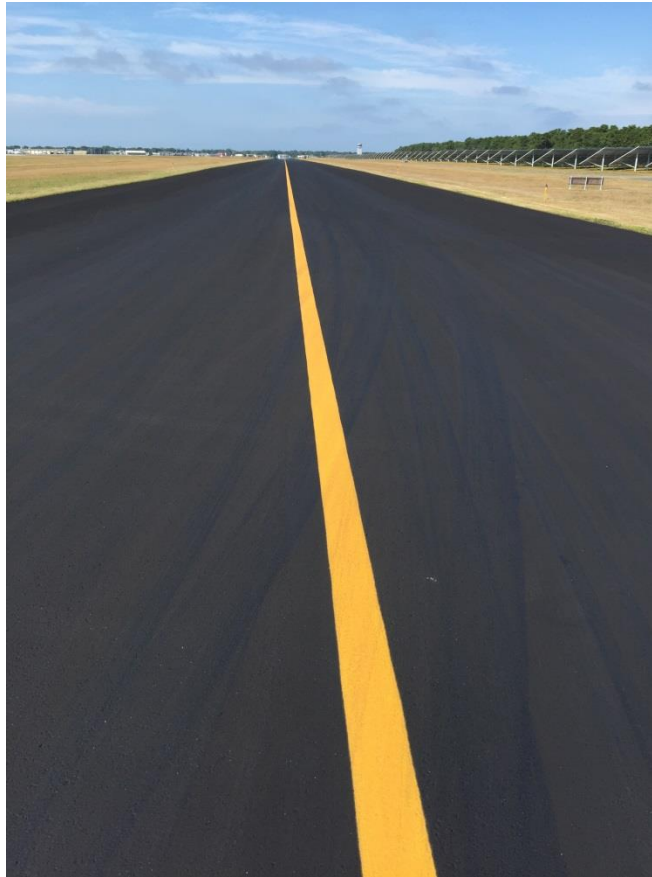
Basis for Cost Estimates: Cost estimates were received from the Airport’s on-call engineers, Jacobs Engineering as well as previous applications on Taxiway C in 2016 and Taxiway E in 2017.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 2 **Construction (months)** 1

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$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

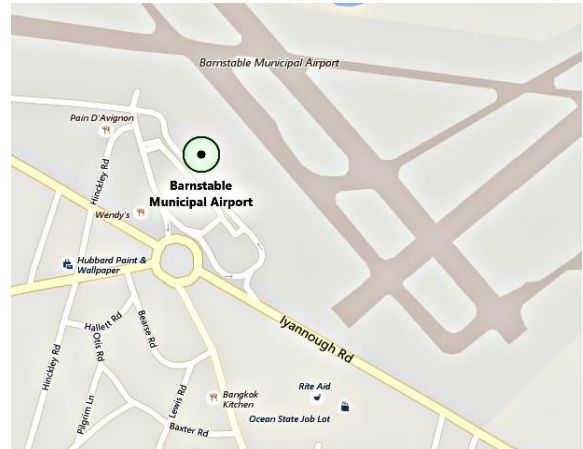


Recent P-608 applications (Taxiway E and Taxiway C)

Project Working Title: Easements for Runway 15 Approach

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: As part of the Comprehensive Airport Layout Plan/FAA Master Plan Update project, proposed in FY 2019, 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 the airport facility for the future. This is because the primary purpose of accommodating aircraft operations on a longer runway will 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.

This project will identify and obtain any necessary easements to implement/support the runway extension.

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.

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.

Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition	-	\$300,000
	Total Project Cost	-	\$300,000

Basis for Cost Estimates: Cost estimates were received from the Airport’s on-call engineers, Jacobs Engineering.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 1 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$300,000	Easements for Runway 15 Approach

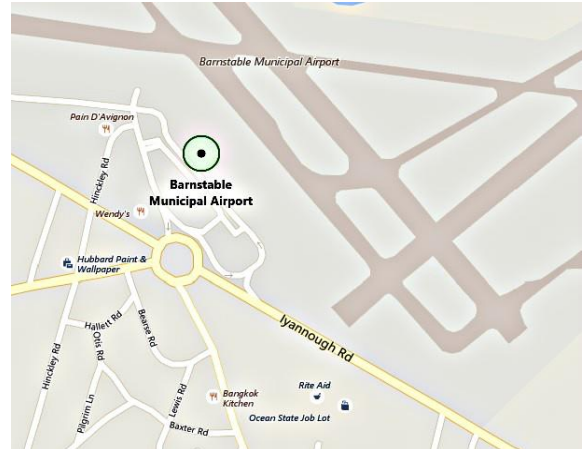
Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%)

Operating Budget Impact now or in future: None

Project Working Title: Repair Mary Dunn Way from Steamship Authority Parking Area to Gate Mike, including drainage repairs (Phase I)

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Due to existing budgetary constraints, the airport has embarked on the development of a Marketing Plan to identify priority marketing efforts that delve into low cost marketing and a public relations plan that targets goals that the airport is trying to meet to increase development and passenger and use demand.



A series of workshops have been conducted to help develop the marketing plan for the Airport and to identify priority goals. Those goals include marketing the Airport to: Improve General Aviation services; Diversify revenue stream; Improve air transportation options for the Cape, the Islands and southeast Mass; Attract more air service; Enhance available land/project-ready development; and bring customers back. 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 help market the airports facilities such as this project.

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 I (the subject of this project) will include the area from Mary Dunn Way at the current parking lot leased to the Steamship Authority to the current Gate Mike (M). This stretch of road has a mix of failing asphalt and failing drainage (a number of flooding events have made the road impassible) with potholes and narrow lanes. Phase II will provide an Airport Access Road on the East side of the airfield from the current Gate Mike (M) to the limit of future growth in this area and to existing buildings located on the East Ramp. Phase II design and permitting is already partially complete as it was subject to a previous CIP and project that was deferred. The existing surface of the phase II project is an unimproved dirt road with millings from rubblized past pavement projects used as a base.

This proposed project (Phase I) will incorporate existing utilities as well as an extension of those utilities including sanitary sewer to serve potential future hangar buildings as may be permitted. Phase II will include the installation of approximately 2,500 feet of new pavement, security fence and drainage improvements.

Project Justification: This project will provide an improved Airport Access Road that shows signs of failing asphalt and drainage, which makes the road impassible at time.

Impact of Denial/Postponement: The impact of not implementing the project will lead to further deterioration of the existing paved surface as well as further deterioration of the drainage systems now in place that appear to have failed. 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 2019	Future FY
	Construction or Acquisition	-	\$2,000,000
	Total Project Cost	-	\$2,000,000

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

Project Estimated Completion Date: 2020 **Design & Permit (months)** 3 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$1,000,000	Repair Mary Dunn Way from Steamship Authority Parking Area to Gate Mike, including drainage repairs (Phase I)
2021	\$1,000,000	Repair Mary Dunn Way from Gate Mike to the limit of future growth in this area and to existing buildings located on the East Ramp, including drainage repairs (Phase II)

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 BMA 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

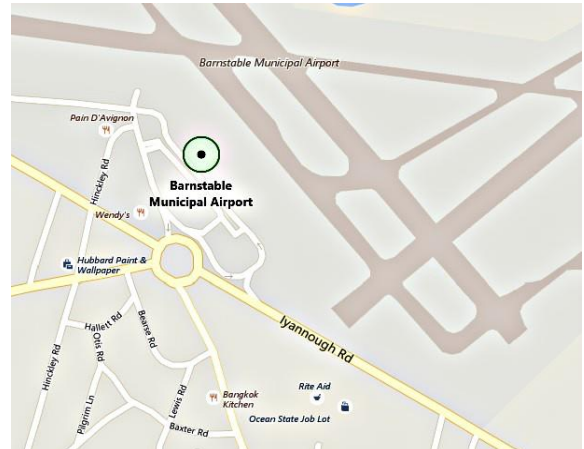


Phase I Roadway Improvement Location

Project Working Title: Main Terminal Ramp Hardstands for Heavy Aircraft Parking

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Heavy aircraft can sometimes be parked on areas of paved ramps/aprons where the weight distribution of the aircraft’s main gear is too heavy for the existing pavement causing the landing gear to sink into the pavement and become mired. Although these pavements are normally built to provide a firm, stable and durable surface that can adequately support the heavy loads imposed by the airplanes that use them, the main terminal ramp at Barnstable Airport appears to be failing under the weight of the Embraer 190 aircraft used by JetBlue.



The depressions noticed on the main ramp are localized pavement surface areas having elevations slightly lower than those of the surrounding pavement. The depressions are starting to take on water creating “birdbath” areas and visibly show staining created by the ponding of water when dry. It is unknown whether the depressions are caused by settlement of the foundation soil or as built during initial construction.

The purpose of this project is to design and construct two (2) hardstands on the main ramp where the depressions have developed for use by the JetBlue aircraft or any other aircraft of like size and weight. The hardstands will be paved with concrete, which is thicker and more durable in order to support the weight of heavy aircraft.

Project Justification: The impact of not implementing the project will lead to further deterioration of the existing paved surface.

Impact of Denial/Postponement: The depressions that now exist will become deeper and increase the elevation differences between the depression and the surrounding pavement. If left in the existing state, these depressions will continued to decline and fill with water of sufficient depth causing possible hydroplaning of aircraft, further deterioration of surrounding pavement, possible tripping hazards for staff operating around aircraft and the eventual failure of the ramp could then lead to the loss of air carrier activity and airport revenues.

Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition	-	\$185,000
	Total Project Cost	-	\$185,000

Basis for Cost Estimates: Cost estimates were received from the Airport’s on-call engineers, Jacobs Engineering.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 1 **Construction (months)** 1

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$185,000	Main Terminal Ramp Hardstands for Heavy Aircraft Parking

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

Operating Budget Impact now or in future: None

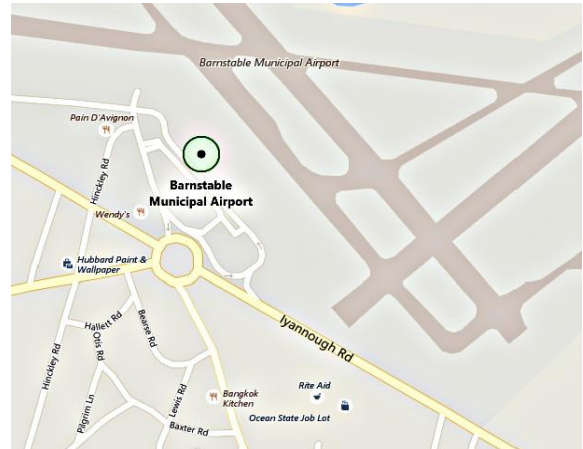


Pavement depressions due to heavy aircrafts

Project Working Title: ARFF Upgrades - building roof repairs to repair water infiltration

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: The Aircraft Rescue Fire Fighting (ARFF) building was designed and constructed in 1995 and houses both the ARFF and maintenance departments for the airport. The ARFF facility is located at the northern area of the building with the maintenance facility at the opposite end. The portion of the building dedicated to ARFF use contains garage for emergency vehicles, observation tower, command center, locker rooms, bathrooms, and lounge. The maintenance section includes a garage for trucks, salt storage, maintenance shop and offices.



This 22-year-old building is in relatively good condition but requires some additional repair and updating. The building envelope has some significant issues with the roof membrane detached at the perimeter anchorages. Leaking within the interior of the building has been experienced. This should be rectified as soon as possible as high winds could add significant damage. The detachment has also caused moisture to infiltrate through the air/vapor chamber located between the inner and outer concrete walls. Signs of moisture damage with efflorescence and mold are visible.

Project Justification: This project is to fix the deteriorating roof membrane, if exposure to the outside elements continues due to leaks. The building will continue to make the environment damp causing further growth of mold or equipment to deteriorate faster than norm.

Impact of Denial/Postponement: The impact of not implementing the project will lead to further deterioration of the existing roof and possible deterioration of the entire facility by infiltration of rainwater and further growth of mold. Additional interior deterioration will also occur as more and more leaks that are interior are detected.

Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition	-	\$100,000
	Total Project Cost	-	\$100,000

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

Project Estimated Completion Date: 2020 **Design & Permit (months)** 2 **Construction (months)** 1

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$100,000	ARFF Upgrades - building roof repairs to repair water infiltration

Source of Funding: Airport Enterprise Fund reserves are normally used. However, reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) may be possible.

Operating Budget Impact now or in future: None

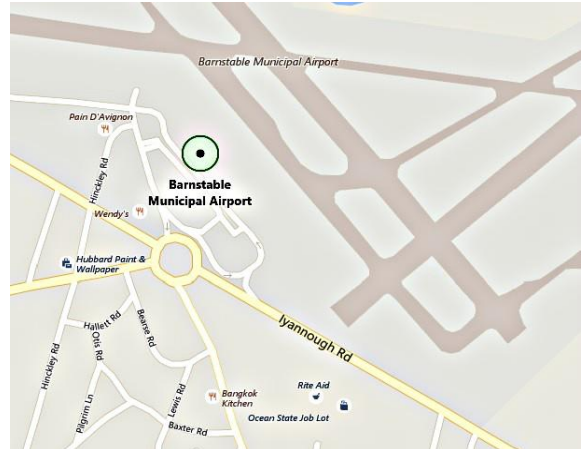


Roof of the Aircraft Rescue Fire Fighting (ARFF) Building

Project Working Title: Environmental Assessment for Airport Master Plan Projects & Phase I Permitting & Design (for short-term projects) (AGIS)

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: The Environmental Assessment (EA) concerns the potential environmental impacts associated with various airfield safety improvements proposed at the Barnstable Municipal Airport. The EA will examine a range of alternatives that have the potential to meet safety requirements and outline the potential environmental impacts of each; and any identified permitting requirements will be conducted within the scope of the project. 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. The following identifies various airfield safety improvements at the Barnstable Municipal Airport that could be included in the EA.



- Runway 15/33 enhancements & improvements;
- Taxiway B, D, & E geometry and improvements;
- Runway 6/24 enhancements & improvements including Engineered Material Arresting System (EMAS) replacement;
- Aircraft parking improvements; and
- Airport security fence improvements and tree clearing.

The EA will examine the Airport's required FAA Airport Layout Plan (ALP) and Master Plan (per FAA Advisory Circular AC150/5070-6) for their comprehensive long-term plans for airport development particularly in order for all planning projects to be in compliance with the Commonwealth of Massachusetts and Federal Environmental regulations.

Development items that improve an airport for the primary purpose of accommodating aircraft operations that would be included in the EA would include the Runway 15/33 enhancements and improvements by the possible extension of approximately 926 feet to provide a better margin of safety for all aircraft using the airport.

The EA will also consider the possible realignment and reconstruction of Taxiways Bravo, Delta and Echo for required safety enhancements and improvements; and the aircraft maintenance run-up pit and its ability to attenuate aircraft noise on the local environment.

Runway 6/24 enhancements and improvements will include reconstruction of the over 20-year runway and the analysis and possible replacement of the Engineered Material Arresting System (EMAS). Runway 6/24 (circa 1991) has exceeded its pavement's 20-year design life, and therefore will be programmed by the FAA and State for a full reconstruction. This project will include the design and reconstruction of the full length (5,425 feet) of the runway, in place, including in-pavement lighting and edge lights, and will extend the design life of the pavement for another two decades, and will include other miscellaneous related airfield improvements. The original Runway 6-24 Engineered Material Arresting System (EMAS) bed was installed in 2003 to prevent concerns related to aircraft overshoots on runways that do not meet FAA Runway Safety Area (RSA) requirements, to prevent loss of life or injury, and minimize aircraft and property damage. The

installation on Runway 6-24 primarily consists of lightweight cellular concrete blocks with a composite material lid that was installed in 2013. A field strength test and feasibility study will be completed in 2018 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. Both projects are assumed to be replacement in kind and in the same location of the existing facilities; however, regrading of the turf areas on either runway to meet FAA design standards and drainage needs will need to be analyzed.

Aircraft parking improvements will be analyzed by reviewing the size and layout of the Main Terminal Ramp for ease of use, utility and access for a mix of commercial and general aviation aircraft.

The specific areas for replacement and/or relocation of the airport security fence will be examined due to vegetation regrowth that may not be able to be “managed”. Any impacts of possible fence line relocation to have sufficient space to allow the required 10-foot clear buffer zones on both sides of the fence and remain within the airport property lines and any obstruction removal requirements.

Project Justification: To deny or postpone funding of this capital project will not allow the Airport to be in full compliance with FAA directives that may have long-term financial consequences with regard to receipt of FAA and MassDOT grants.

Impact of Denial/Postponement: 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 2019	Future FY
	Design & Permitting	-	\$925,000
	Total Project Cost	-	\$925,000

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

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

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$925,000	Environmental Assessment for Airport Master Plan Projects & Phase I Permitting & Design (for short term projects) (AGIS)

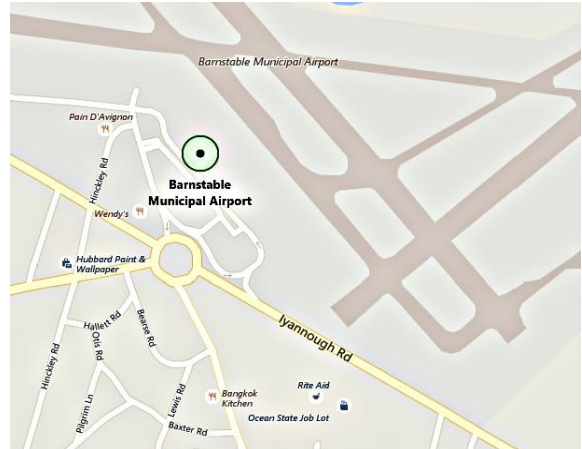
Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%)

Operating Budget Impact now or in future: None

Project Working Title: Permitting & Design for Airport Tree Clearing & Obstruction Removal (including fence line clearing); acquire easements for future construction.

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: This project will design, permit, and clear vegetation along the airport’s fence line that has regrown along most of the Airport buffer zone that is creating potential Transportation Security Administration (TSA) security violations. There are places where the vegetation has regrown in certain areas of the airfield where it is creating an airspace flight obstruction – sometimes called a Federal Aviation Administration (FAA) FAR Part 77 airspace obstruction.



The existing perimeter fence line was installed in phases over many years to first meet FAA airfield and flight safety requirements, but subsequent to the September 11, 2001 terrorist incident. The TSA has required all FAA FAR Part 139 airports to have a security fence along the entire perimeter that is 8 feet tall with 3 strands of barbed wire along the top, with a 10-foot clear buffer zone on each side of the fence line if possible. Over the past several years, the vegetation has continued to grow back along the entire fence line creating a safety and security concern. The airport continues to manually attempt to keep the growth off and away from the fence, without the use of herbicides, with existing personnel, and with the use of AmeriCorps volunteers, JTEC volunteers, temporary employees or occasional in conjunction with other projects in close proximity to the fence line.

Project Justification: The Airport encompasses 683 acres of land, more or less, the maintenance of the fence is time consuming and in some areas inaccessible. Some areas do not allow for access via airport vehicles and can only be reached on foot. The FAA requires at a minimum 10-foot paths on either side of the fence to maintain vegetative growth and to allow vehicular oversight to monitor security. We cannot keep up with the vegetation without this project. The results of a new land survey also identified the perimeter length and associated fence line.

Impact of Denial/Postponement: Denial will continue to affect airport personnel’s ability to keep the fence line clear of vegetation. This will increase the maintenance workload on a limited staff; it will increase the probability of incurring a security violation from the TSA; and it will increase the probability of an adverse effect on flight minimum altitudes and negatively affect flight safety and commerce.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$30,000
Construction or Acquisition	-	\$270,000	
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: 2020 **Design & Permit (months)** 6 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$300,000	Permitting & Design for Airport Tree Clearing & Obstruction Removal (including fence line clearing); acquire easements for future construction.

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

Operating Budget Impact now or in future: To be determined, however, routine maintenance will continue unabated to maintain the clear zones.

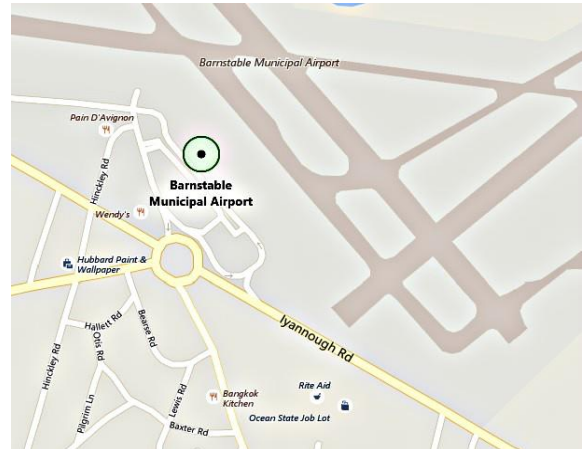


Airport Buffer Zone : Fencing and Vegetation

Project Working Title: Runway 24 Departure End Safety Area (Engineered Material Arresting System (EMAS) or Runway SAFE System) Reconstruction or Replacement

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: The installation on Runway 6/24 primarily consists of lightweight cellular concrete blocks with a composite material lid that was installed in 2013. A field strength test and feasibility study will be completed in 2018 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.



The Barnstable Municipal Airport (BMA) EMAS is a “first generation” system with a projected 10-year lifespan originally constructed in 2003. The BMA was able to extend the life of the existing bed by installation of 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 2018 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 the sole source procurement and construction project as there was only one FAA authorized system approved for airports at that time. The 2018 Master Plan Update should determine its future viability and identify the type of replacement system to be installed, as there are now more approved systems available if they meet FAA requirements and “Buy American” requirements.

Project Justification: The original Runway 6/24 Engineered Material Arresting System (EMAS) bed was installed in 2013 to prevent concerns related to aircraft overshoots on runways that do not meet FAA Runway Safety Area (RSA) requirements, to prevent loss of life or injury, and minimize aircraft and property damage.

Impact of Denial/Postponement: This is a Federal Aviation Administration (FAA) safety requirement. 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 and lack of replacement will increase the risk of loss of life and property.

Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition		-
Total Project Cost		-	\$5,000,000

Basis for Cost Estimates: Exact costs will not be available until 2018.

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

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	\$5,000,000	Runway 24 Departure End Safety Area (Engineered Material Arresting System (EMAS) or Runway SAFE System) Reconstruction or Replacement

Source of Funding: Funding by FAA (90%) (AIP and /or FAA Discretionary Funds), MassDOT AD (5%), and local share (5%) from Airport Enterprise Fund reserves.

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



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

Project Working Title: Replace SRE/ARFF Equipment (ASV Skid Steer Plow for EMAS)

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 2019	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: 2021 **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	\$100,000	Replace SRE/ARFF Equipment (ASV Skid Steer Plow for EMAS)

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

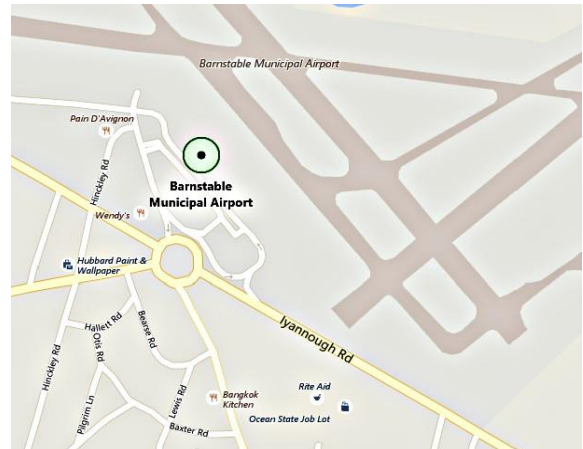


Snow Removal Equipment (SRE)

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, therefore, it will 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.



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 damage. Crack sealing and crack repairs have extended its useful life until now but further deterioration poses serious safety 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 condition index report is being conducted in 2017/2018 to update and confirm the earlier study.

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, the Airport would be in violation of their Grant Assurances, and not in compliance with Airport Certification, and requirements will resultant loss of operational capability.

Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition	-	\$11,000,000
Total Project Cost	-	\$11,000,000	

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

Project Estimated Completion Date: 2022 **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	-	-
2022	\$11,000,000	Reconstruct RWY 6-24 (Approx. 4,700ft x 150ft.)

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

Operating Budget Impact now or in future: None

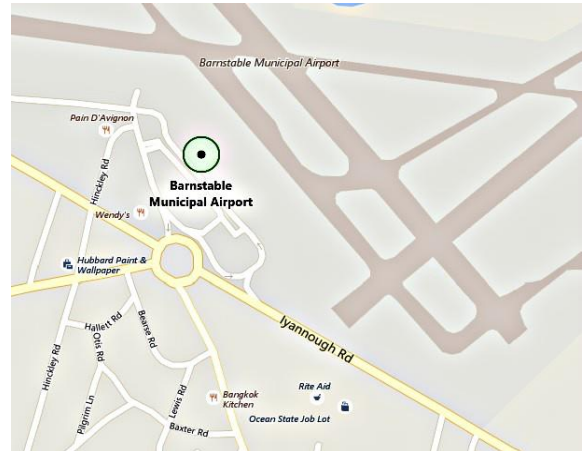


Barnstable Municipal Airport : Runway 6/24

Project Working Title: Design & Construct Snow Removal Equipment (SRE) Vehicle Storage Building

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: This project request will design and construct a new Snow Removal Equipment (SRE) and vehicle storage building of approximately 10,000 square feet to provide additional covered parking space to accommodate the needs of the Barnstable Municipal Airport (BMA). The new storage building would be constructed of metal with a concrete slab foundation and with a 24-foot wide by 22-foot high door for vehicle and plow ingress and egress, or similar pre-fab type construction depending upon structure life span and cost. The new building would be located on the east side of the airport.



Project Justification: The existing Aircraft Rescue and Firefighting (ARFF) maintenance building provides insufficient vehicle garage bays and storage capability to meet the storage and parking requirements for all airport’s (SRE) and other operational vehicles. Currently we must store many of our vehicles, plows and sanders, and specialty equipment outside in the elements, which contributes to an already corrosive operating environment and shortens their useful life. We currently have limited covered space in the ARFF building, and in a portion of the Hangar II bay – the majority of which is leased to Cape Air, who have expressed a desire to lease the entire hangar. The new building would be of metal construction, built on a slab, with no heat and no water, or similar pre-fab type construction. It would have electrical power, vehicle exhaust vents if necessary, and lights only - to be built at minimal cost for “cold” storage. This new facility would help preserve our very costly vehicles for a longer period and reduce our long-term maintenance and replacement costs.

Impact of Denial/Postponement: Impact of denial will shorten the useful life of the very costly airport vehicles needed to maintain operations and certification requirements; it will increase the airport’s annual maintenance costs, and it will increase the airport’s vehicle replacement costs. Only certain (SRE) vehicles are eligible for FAA and MassDOT grant funding assistance. All other vehicle replacement costs will adversely affect the Airport Enterprise Fund Reserves.

Project Cost Estimates:	FY 2019	Future FY
	Design & Permitting	-
Construction or Acquisition	-	\$340,000
Total Project Cost	-	\$400,000

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

Project Estimated Completion Date: 2022 **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	-	-
2022	\$400,000	Design & Construct SRE Vehicle Storage Building

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: Any derived savings would be a reduction in recurring vehicle maintenance costs and replacement costs

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: Any derived savings would be a reduction in recurring maintenance costs – to be determined.

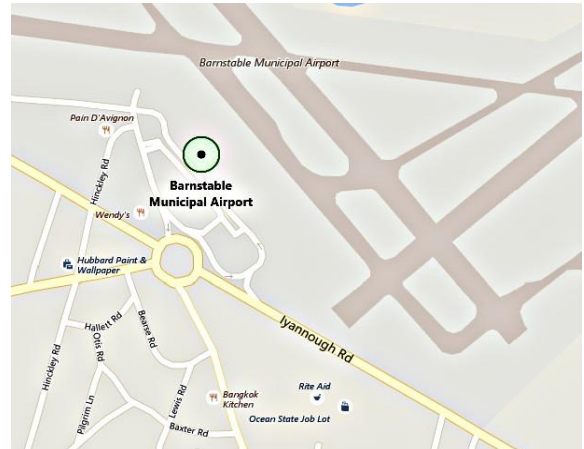


Mo-Gas and Diesel Fuel Con-Vault

Project Working Title: Design and Construct New T-Hangar

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Design and construct a new 6-bay nested T-hangar to provide additional hangar space to accommodate the needs of general aviation at the Barnstable Municipal Airport (BMA). The T-hangar would be constructed of metal with a concrete foundation and with bi-fold doors for aircraft access to the east ramp.



Project Justification: The recently completed Airport access road and the construction of the new fuel farm mandated the demolition of one of the two airport-owned existing T-hangars, located adjacent to Gate Foxtrot (F). Since this T-hangar serviced Airport users that had to be displaced, the Airport desires to construct a new T-hangar on the East ramp to accommodate this loss of space. In addition, the BMA holds a waiting list for T-hangar space that fluctuates between 25 and 27 aircraft owners waiting for space, and projections for the future of General Aviation at the BMA forecasts an additional demand for hangar space. Revenues generated by the rental of the bays will help offset costs of construction and maintenance.

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

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$50,000
	Construction or Acquisition	-	\$600,000
	Total Project Cost	-	\$650,000

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

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

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	-	-
2022	\$650,000	Design and Construct New T-Hangar

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: Any derived savings would be a reduction in recurring maintenance costs – to be determined.

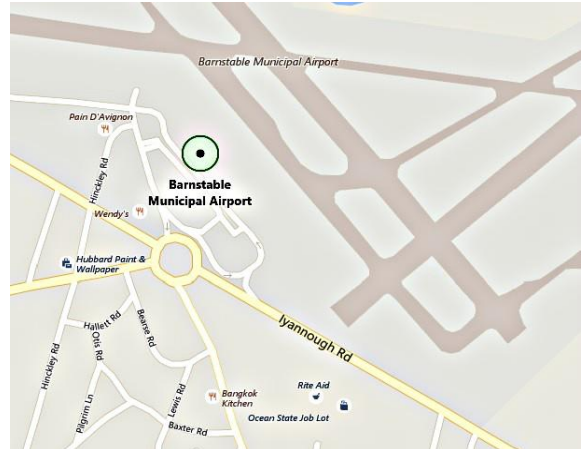


Airport-owned Existing T-hangar

Project Working Title: Replace Aircraft Rescue and Fire Fighting (ARFF) Equipment – Airport #820 (Response Rescue and Firefighting Truck)

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 in FY2023 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. In addition, 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 2019	Future FY
	Construction or Acquisition		-
Total Project Cost		-	\$800,000

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

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

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	-	-
2022	-	-
2023	\$800,000	Replace Aircraft Rescue and Fire Fighting (ARFF) Equipment (First Response Rescue and Firefighting Truck)

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

Operating Budget Impact now or in future: Any savings derived by new equipment would be available to maintain remainder of deteriorating ARFF vehicles.

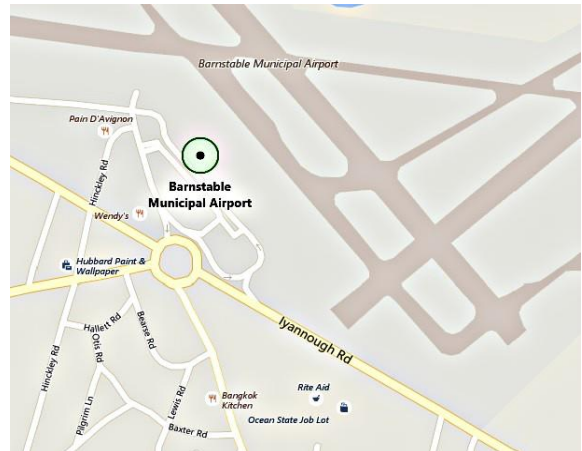


Aircraft Rescue and Fire Fighting (ARFF) Equipment

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. The reconstruction will 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 FY2018. 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 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 requested under CIP Project Air-19-01.

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 2019	Future FY
	Design & Permitting	-	\$300,000
	Construction or Acquisition	-	\$2,700,000
	Total Project Cost	-	\$3,000,000

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 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	-	-
2022	-	-
2023	\$3,000,000	Design, Realign and Reconstruct a Portion of Taxiway Delta and Taxiway Echo at Runway 15-33 Intersection

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

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

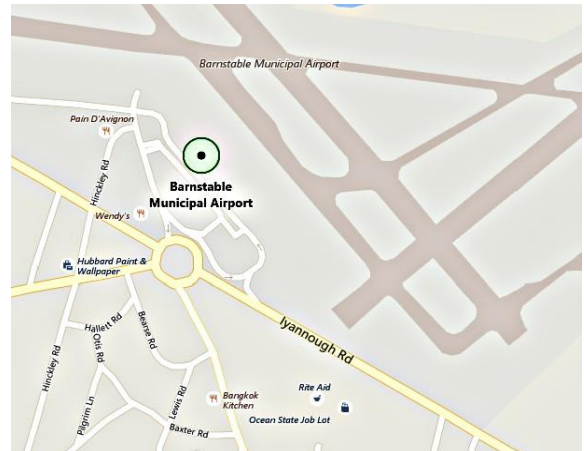


Taxiway Echo

Project Working Title: Replace Snow Removal Equipment (SRE) (Heavy Duty Carrier Vehicle with Plow and Sander)

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.



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. Also, 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 2019	Future FY
	Construction or Acquisition	-	\$275,000
	Total Project Cost	-	\$275,000

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

Project Estimated Completion Date: 2023 **Design & Permit (months)** - **Construction (months)** 5

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	-	-
2022	-	-
2023	\$275,000	Replace 2006 Sterling A Line Heavy Duty Carrier Vehicle with Plow and Sander

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



2006 Sterling A Line Diesel Heavy Duty Carrier Vehicle with Plow and Sander

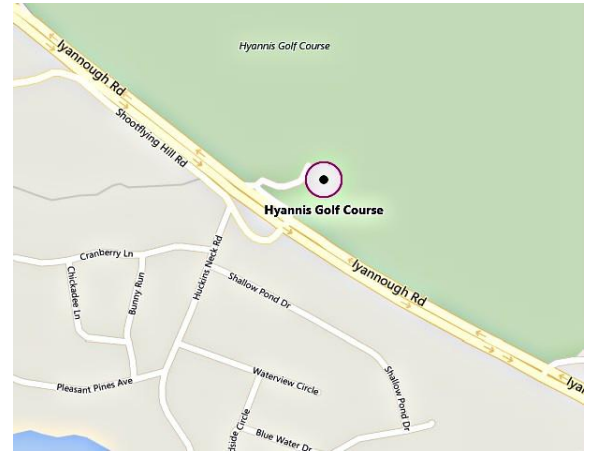
Golf Enterprise Fund

PROJECT: GOLF-19-1	DEPARTMENT PRIORITY: 1 of 3
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Project Working Title: Hyannis Golf Course Restoration Project

Project Location: 1800 Iyannough Rd, Route 132, Hyannis MA 02601

Project Description: Restoration and rehabilitation of the Hyannis Golf Course plan calls for the replacement of an entire irrigation system. Complete comprehensive bunker rehabilitation is necessary. Installation of forward tee boxes on each hole will ease the difficulty of the golf course and encourage beginners, juniors, women and seniors to come play. The refurbish existing cart paths as well as install new paths where none presently exists. Select tree removal and widening of golf holes will ease the degree of difficulty and speed up play.



Project Justification: The main goal is to protect the asset and keep the business viable. Major golf course features are well beyond their natural life cycle. Infrastructure is deteriorating after 40+ years of use without attention. Heavy local competition gives customers attractive alternative options. Hyannis GC is too difficult for many golfers. Bunkers are in extremely poor condition. Irrigation system is archaic, obsolete and inefficient. Failure of a major component of the pump station leaves us with NO water as we only have one (1) pump.

Impact of Denial/Postponement: Each year we delay the project conditions continue to deteriorate and the cost associated with the renovation increases.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	\$216,494	-
	Construction or Acquisition	\$3,350,699	-
	Project Management	\$100,000	-
	Project Contingency	\$510,000	-
	Total Project Cost	\$4,177,193	-

Basis for Cost Estimates: Cost estimates based on the Restoration Business Plan produced by Richard Mandell Golf Architecture using the "recommended restoration option"

Project Estimated Completion Date: 2019 **Design & Permit (months)** 8 **Construction (months)** 5

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$4,177,193	Design and permitting

Source of Funding: A combination of General Fund, golf enterprise fund and other (CPC) funding sources needs to be examined. Post renovation revenue increases can also help offset project costs. Possible use of Golf Surplus will also be considered.

Operating Budget Impact now or in future: Operating expenses for maintenance will stabilize. Resources will be expended on labor and supplies for continual irrigation system maintenance. Furthermore, cart path and bunker repairs will be significantly being reduced. A state of the art irrigation system will result in water conservation, vastly improved distribution and coverage, and improved energy efficiency. There will be less sand bunkers to maintain. The rehabilitated bunkers and other newly constructed features will be designed with ease of maintenance in mind. There should be no impact on the Operating Budget.



Hole #2 Deteriorating Bunker



Hole #16 Deteriorating Cart Path



Hole #10 Deteriorating Cart Path



Hole #13 Deteriorating Cart Path & Bunker

Sandy Neck Enterprise Fund

PROJECT: SANDY-19-1

DEPARTMENT PRIORITY: 1 of 1

Project Working Title: Sandy Neck Beach Park Coastline Stabilization

Project Location: 425 Sandy Neck Rd, Barnstable, MA 02630

Project Description: This project will provide design and permitting of a relocated 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 2019	Future FY
Design & Permitting	\$375,000	-
All Other Costs	\$1,000	-
Total Project Cost	\$376,000	-

Basis for Cost Estimates: Environmental Engineering Cost Estimate

Project Estimated Completion Date: N/A **Design & Permit (months)** 12 **Construction (months)** 18

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$376,000	Design and Permitting

Source of Funding: Sandy Neck Enterprise Fund Reserves & Possible Grant funding from CZM for a part of the cost

Operating Budget Impact now or in future: Reconfiguration of the parking lots and off road beach would improve traffic flow and beach safety. More efficient beach access would free staff from traffic control duties. Therefore, no staffing increases are anticipated. However, off-site parking would require a shuttle bus, which would equate to additional costs. An analysis would be needed in order to determine cost of service and corresponding user fee adjustments.



Sandy Neck Beach Parking Lot

Marina Enterprise Fund

PROJECT: MAR-19-1

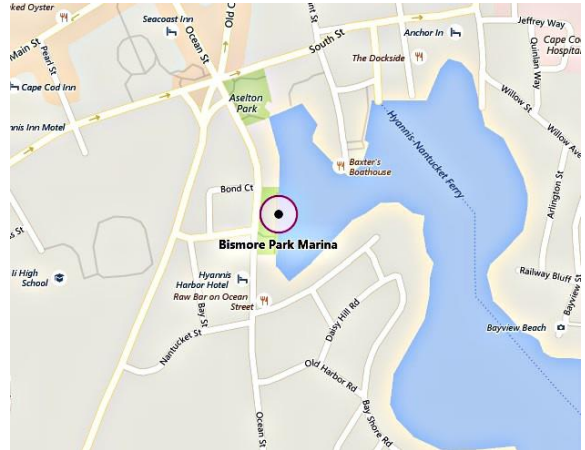
DEPARTMENT PRIORITY: 1 of 1

Project Working Title: Bismore Park Bulkhead Improvement Design

Project Location: Hyannis Harbor adjacent to Ocean Street
Hyannis

Project Description: This project will provide design and construction for repair and replacement of existing steel bulkhead and associated capping, adjacent walkways 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 visitors use the “promenade” to enjoy restaurants and the artist community. The bulkhead experienced a partial collapse in the 1990’s and the reasonable life expectancy of those repairs is ending. Future planning of a multitude of projects in the area depends upon a solid bulkhead.



Impact of Denial/Postponement: Lack of repair and replacement of the bulkhead could result in a catastrophic failure that would disrupt business interests and visitor access. Obviously, this is not an acceptable situation.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$175,000
Construction or Acquisition	-	\$3,850,000	
Project Management	-	\$423,500	
Project Contingency	-	\$596,750	
All Other Cost	-	\$2,000	
Total Project Cost	-	\$5,047,250	

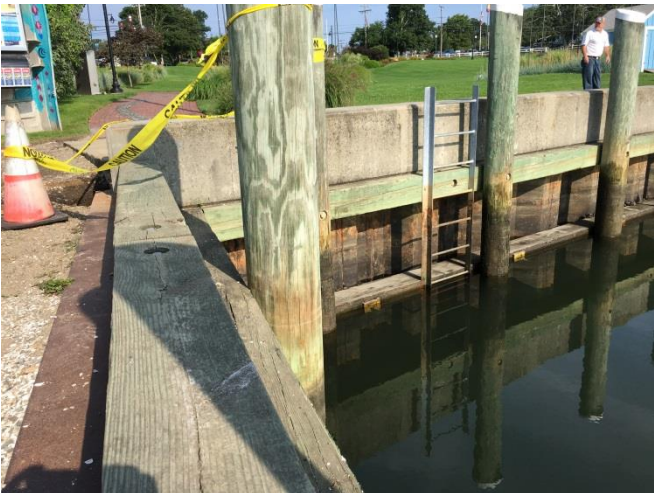
Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** - **Construction (months)** 18

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	\$5,047,250	Project Design, Construction & Project Management

Source of Funding: Capital Trust Fund Reserves & Marina Enterprise Fund Reserves

Operating Budget Impact now or in future: Regular continued maintenance of enhanced facilities will be required from MEA and DPW. Delay of project most likely will result in increased need for maintenance including piling replacement, repair to decking, patches to asphalt and concrete areas, etc.. Catastrophic failure will result in loss of revenues and have a huge impact on the facility and park.



Bismore Park Marina Bulkhead

Water Pollution Control Enterprise Fund

PROJECT: WPC-19-4

DEPARTMENT PRIORITY: 4 of 10

Project Working Title: Pump Station Rehabilitation Design & Construction

Project Location: 617 Bears's Way, Hyannis, MA 02601

Project Description: The Water Pollution Control Division maintains twenty-seven pump stations in the Town of Barnstable. The purpose of this project is to design and construct improvements to twenty-two pump stations as deemed necessary by the evaluation phase. In addition to addressing any issues with the structural, electrical, and mechanical components of these stations, these improvements will address the emergency backup power options for each pump station, the vulnerability of the Town's shoreline pump stations, and the remaining available capacity for each pump station. This request serves as a placeholder until the evaluation phase is completed.



Project Justification: Pump stations are a critical component of the wastewater collection system. Pump station failure could lead to the overflow of sewage into homes, businesses, catch basins, and waterways. The pump stations being rehabilitated were built between 1968 and 1993. The remaining five stations are newly constructed, in excellent working order, and are not in need of rehabilitation. Several shoreline pump stations remain unprotected at 100-year flood elevations and are vulnerable during major storm events. Several other pump stations are in need of emergency backup power upgrades. Rehabilitating these pump stations will greatly reduce the risk of pump station failure.

Impact of Denial/Postponement: Denial of this project would put the Town's pump stations at risk of failure. Failure of a pump station such as the Old Colony Pump station could lead to up to 600,000 gallons per day of sewage overflow into Hyannis Harbor. Failure of other pump stations would lead to sewage backing up into resident's houses or area businesses, putting public health at risk. By proactively rehabilitating these pump stations, the risk of sewage overflow is greatly reduced.

Project Cost Estimates:	FY 2019	Future FY
Design & Permitting	-	\$400,000
Construction or Acquisition	-	\$3,320,000
Project Management	-	\$340,000
Project Contingency	-	\$340,000
Total Project Cost	-	\$4,400,000

Basis for Cost Estimates: In-House Estimate - Placeholder pending the results of the evaluation phase.

Project Estimated Completion Date: 2023 **Design & Permit (months)** 12 **Construction (months)** 24

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$400,000	Design
2021	-	-
2022	\$4,000,000	Construction

Source of Funding: Water Pollution Control Enterprise Fund Reserves

Operating Budget Impact now or in future: Unknown at this time, pending the results of the evaluation phase. A slight reduction in maintenance costs can be assumed for any pump station undergoing rehabilitation.



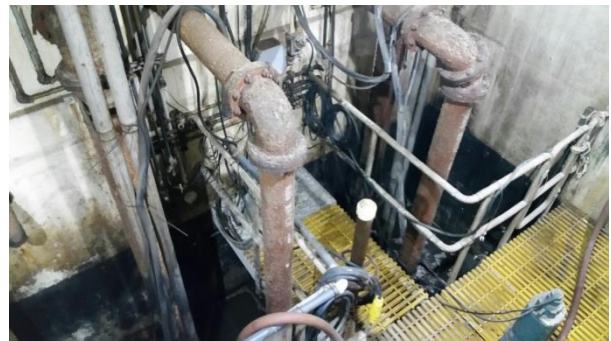
Rendezvous Lane



Bay Shore Road



Old Colony Road



Old Colony Wet Well



Freezer Road Pumps



Kalmus Beach

Project Working Title: Sewer Rehabilitation Program

Project Location: Town Wide

Project Description: The purpose of this request is to fund a yearly sewer rehabilitation program that will construct improvements to the Town's aging sewer infrastructure. Rehabilitation efforts will center on areas with a high likelihood of failure and areas exhibiting excessive amounts of infiltration and inflow of storm water.

Project Justification: The Town's sewer pipe network dates back to 1935 clay pipes that cover the downtown area of Hyannis. The system has been expanding ever since. Currently the system is comprised of 47 miles of gravity sewer, 25 miles of force main, 1.5 miles of vacuum sewer, 1.2 miles of low-pressure sewer, and 1,258 manholes. In the past, a patchwork style approach to pipe rehabilitation has been utilized. Moving forward the WPCD seeks to systematically and proactively rehabilitate sewer pipe infrastructure that is exhibiting any signs of potential of failure.

Impact of Denial/Postponement: If denied, the WPCD will continue to utilize a patchwork style of rehabilitation, fixing pipes as they break. This would undoubtedly cost more money than a proactive approach, as the ability to utilize cheaper innovative technologies such as pipe bursting or relining would be lost.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$220,000
	Construction or Acquisition	-	\$2,340,000
	Project Management	-	\$220,000
	Project Contingency	-	\$220,000
	Total Project Cost	-	\$3,000,000

Basis for Cost Estimates: Engineers Cost Estimate

Project Estimated Completion Date: Yearly **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$750,000	Design and Construction
2021	\$750,000	Design and Construction
2022	\$750,000	Design and Construction
2023	\$750,000	Design and Construction

Source of Funding: Water Pollution Control Enterprise Fund Reserves

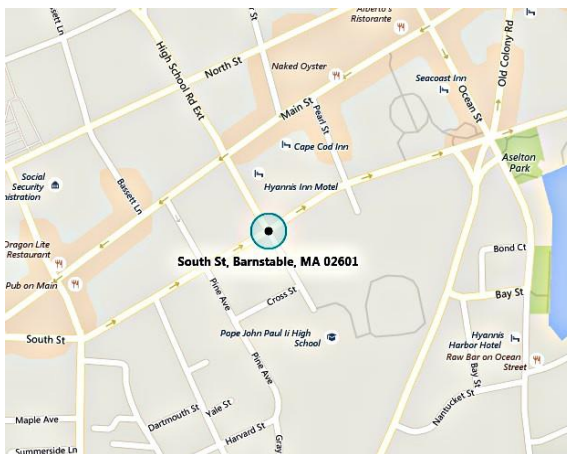
Operating Budget Impact now or in future: A small amount of savings can be expected as the need for root control and CCTV inspections will become less necessary. Savings can also be expected by removing infiltration and inflow from the collection system, as this water will no longer need to be collected, pumped, and moved through the wastewater treatment plant.

Project Working Title: South Street Sewer Rehabilitation

Project Location: South Street, Hyannis, MA 02601

Project Description: This request serves as a placeholder for the construction phase of the South Street sewer improvements. These improvements will address pipe defects and capacity restrictions within the South Street sewer system.

Project Justification: This is the second phase of this project, following up on the design phase. The sewers on South Street were installed in 1935 in 3-foot sections of clay pipe. Increasingly, the pipe has been suffering from cracks and root intrusion. When root intrusion progresses, the likelihood of large breaks and sewer collapse increases. By proactively relining or replacing the South Street sewer, the Town will avoid a pipe collapse that could cut off sewer service to a large number of properties. Additionally, this project will address capacity issues within the South Street sewers, which were identified in a 2016 sewer capacity analysis.



Impact of Denial/Postponement: Denial of this project would put the South Street sewer system in serious jeopardy. This stretch of road, along with other sewers feeding into this road, would risk losing sewer service in the event of a major pipe failure. The South Street sewer system serves a large portion of town including Main Street and Sea Street.

Project Cost Estimates:		FY 2019	Future FY
		Construction or Acquisition	-
	Project Management	-	\$65,000
	Project Contingency	-	\$65,000
	Total Project Cost	-	\$800,000

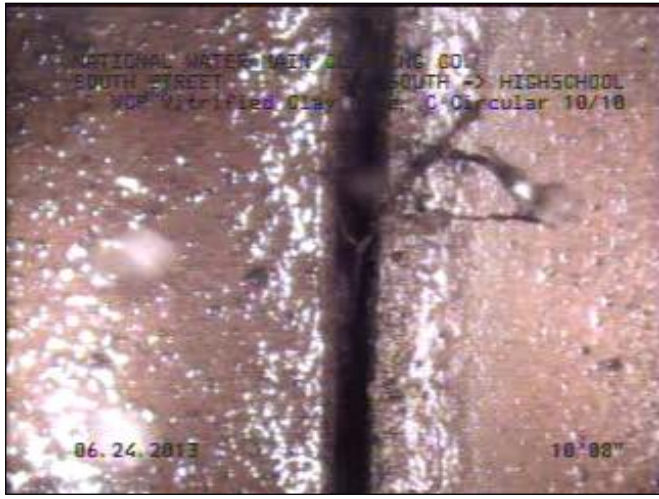
Basis for Cost Estimates: In-House Estimate - This is based on prior relining projects. An updated cost estimate can be expected after the design phase of this project.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 1 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$800,000	Construction

Source of Funding: Water Pollution Control Enterprise Fund Reserves

Operating Budget Impact now or in future: None



Sewer Pipe Root Intrusion



South Street Sewer Pipe Built in 1935

Project Working Title: Barnstable Road Sewer Evaluation Design and Construction

Project Location: Barnstable Road, Hyannis, MA 02601

Project Description: This project serves as a placeholder for the construction phase of the Barnstable Road sewer rehabilitation project. Construction of the recommended improvements will occur in conjunction with Hyannis Water Department’s water main improvements in a future fiscal year.



Project Justification: The Water Department’s 2007 Master Plan calls for the replacement of 3200 feet of water main, valves, hydrants, and service connections on Barnstable Road. These funds will be used to construct improvements as recommended during the evaluation and design phase of this project. Certain stretches of sewer on Barnstable Road are 80 years old and the need to repair these lines is becoming imminent. This project will coordinate these repairs with other utilities in order to save on overall project costs and minimize any inconvenience to the public that would be caused by frequent road openings.

Impact of Denial/Postponement: If denied, the water main replacement would continue as planned, and any sewer repairs would be carried out later, independent of this project. An opportunity to coordinate repairs with other utilities would be lost, meaning more road openings going forward and more disruption to local traffic and businesses in this area.

Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition	-	\$715,000
	Project Management	-	\$70,000
	Project Contingency	-	\$70,000
	Total Project Cost	-	\$855,000

Basis for Cost Estimates: Engineers Cost Estimate

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

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$855,000	Construction

Source of Funding: Water Pollution Control Enterprise Fund Reserves

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

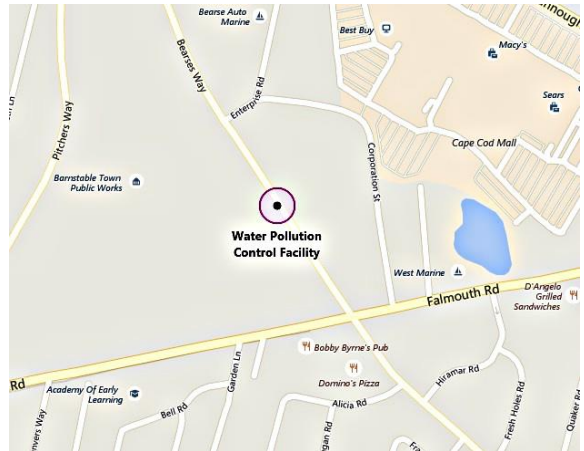


Barnstable Road Deteriorating Pipe

Project Working Title: Septage Building Construction

Project Location: 617 Bears’s Way Hyannis, MA 02601

Project Description: This project recommends improvements to the WPCF septage building and solids handling process. This request serves as a placeholder until the evaluation and design are complete.



Project Justification: The WPCF’s solids handling process and sludge processing building (septage building) are currently being evaluated because of a 2014 CIP request. The septage building was built in 1990 and is at the end of its design life. The building processes 12,000,000 gallons of septic waste, 11,000,000 gallons of sludge, and 1,000,000 gallons of grease per year. The septage building is a critical component of the wastewater treatment process. Improvements will be made to the mechanical equipment, piping, electrical components and building structure. These improvements will increase the efficiency of the sludge thickening process, potentially resulting in savings with sludge disposal costs. These improvements will extend the life of the building by approximately 20 years.

Improvements will be made to the mechanical equipment, piping, electrical components and building structure. These improvements will increase the efficiency of the sludge thickening process, potentially resulting in savings with sludge disposal costs. These improvements will extend the life of the building by approximately 20 years.

Impact of Denial/Postponement: If denied, the septage building will continue to operate beyond its expected design life, using inefficient technologies and expensive sludge disposal methods. Working conditions will continue to deteriorate resulting in an unsafe work environment.

Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition	-	\$2,930,000
	Project Management	-	\$285,000
	Project Contingency	-	\$285,000
	Total Project Cost	-	\$3,500,000

Basis for Cost Estimates: In-House Estimate - Placeholder until a more accurate cost estimate for this project is developed when the evaluation and design phase is complete.

Project Estimated Completion Date: 2022 **Design & Permit (months)** 1 **Construction (months)** 24

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	\$3,500,000	Construction

Source of Funding: Water Pollution Control Reserves

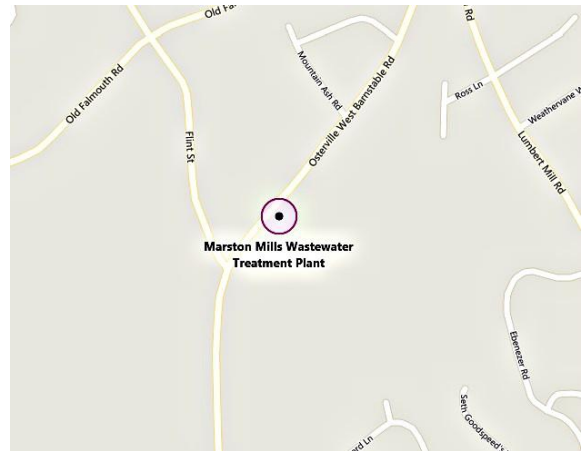
Operating Budget Impact now or in future: Unknown until completion of evaluation. There is potential for savings on sludge disposal costs.



Water Pollution Control Facility - Septage Building and Solids Handling Components

Project Working Title: Denitrification Sand Filter Replacement Marstons Mills Wastewater Treatment Plant

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



Project Description: This project includes the replacement of the denitrification sand filter media at the Marstons Mills Wastewater Treatment Plant. This project also includes the replacement of all backwash nozzles and the rehabilitation of tank walls and pipework.

Project Justification: The denitrification sand filter beds and nozzles were last replaced in 2005 and have exceeded their design life of 10 years. While the sand filters are still functional at this time, the units are beginning to show signs of age, including slow percolation and the deterioration of tank walls and pipe work. The denitrification sand filters are a vital component of the treatment process, as they provide the proper environment for removing nitrogen from wastewater.

Impact of Denial/Postponement: If left unfunded, the condition of this vital piece of equipment will continue to deteriorate. The treatment plant will operate at less than its design capacity due to the restriction of flow through the filter beds. It can be expected that plant performance will suffer, leading to reduced effluent quality and an increased likelihood of a permit violation.

Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition	-	\$65,000
	Project Contingency	-	\$10,000
	Total Project Cost	-	\$75,000

Basis for Cost Estimates: In-House Cost Estimate - This is based on previous cost of sand filter replacement and expected costs of tank rehabilitation.

Project Estimated Completion Date: 2021 **Design & Permit (months)** 1 **Construction (months)** 1

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	\$75,000	Sand Filter Replacement and Tank Rehabilitation

Source of Funding: Water Pollution Control Reserves

Operating Budget Impact now or in future: The Marstons Mills WWTP will continue to function as designed, and this project will have no impact on the operating budget.

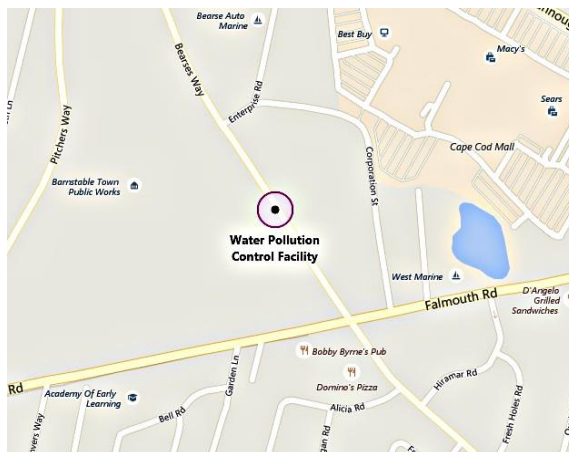


Denitrification Sand Filter

Project Working Title: MSB Generator Design and Construction

Project Location: 617 Bears’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 “MSB” when future loads dictate. It is anticipated that the WPCD will be taking on additional flows as the Town continues to expand its sewer network. It is also likely that the plant will undergo another major upgrade in the near future. 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 would result in a lack of backup power for the wastewater treatment plant, 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 untreated and this would result in effluent violations and possibly a notice of non-compliance from the DEP.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$35,000
Construction or Acquisition	-	\$365,000	
Project Management	-	\$35,000	
Project Contingency	-	\$35,000	
Total Project Cost	-	\$470,000	

Basis for Cost Estimates: Engineer’s Cost Estimate

Project Estimated Completion Date: 2023 **Design & Permit (months)** - **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	-	-
2022	\$470,000	Design & Construction

Source of Funding: Water Pollution Control Reserves

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

General Fund Projects

Administrative Services General Fund Projects

PROJECT: IT-19-1	DEPARTMENT PRIORITY: 1 of 1
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Project Working Title: Unified Communications – VOIP (Voice over Internet Protocol)

Project Location: All Town locations connected by Barnstable Fiber Optic Network (BFON)

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

Project Justification: The PBX phone system located in Town Hall (508-862-XXXX exchange) will be 19 years old as of July 2019. The 508-862-XXXX exchange has experienced failures more and more as it ages. The phone vendor has told the Town 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 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, and Police Department etc.) along with the locations that utilize POTS lines (Plain Old Telephone Systems). Note: Schools received money for VOIP in fiscal 18. Schools were looking into systems specifically designed for schools and security.

Impact of Denial/Postponement: The Town would have to continue to use the various older systems and hope that parts can be found should 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.

Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition	-	\$501,669
	Total Project Cost	-	\$501,669

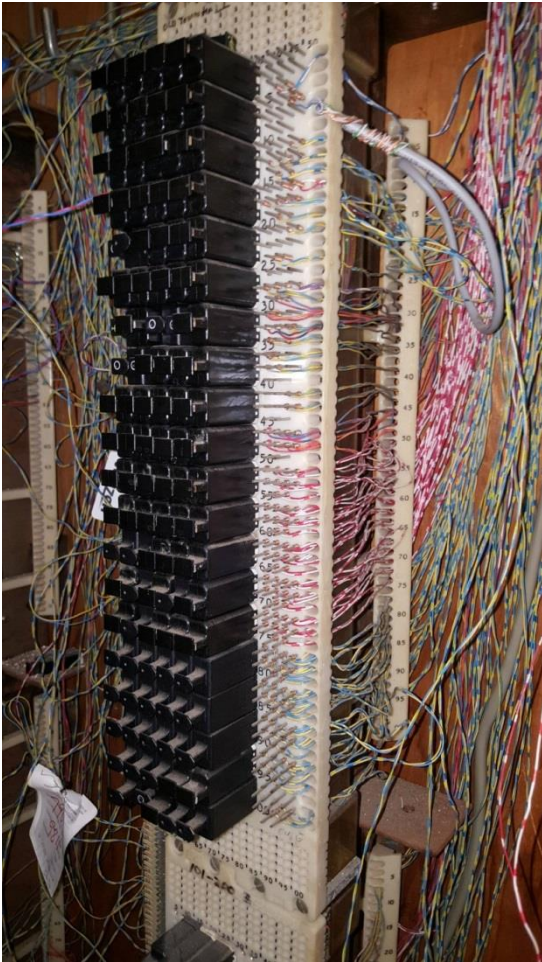
Basis for Cost Estimates: State Contract Vendor Pricing

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

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$501,669	Acquisition

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: As stated above, approximately \$40,000 a year for maintenance beginning in FY 2023. The salary for the requested Network Engineers position, which has not yet been graded, would need to be added to the Operating Budget for fiscal 2020.



Private Branch Exchange (PBX) Phone System

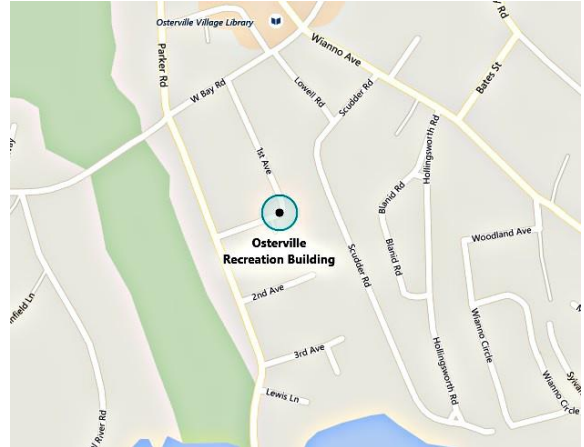


Covell's Beach Parking Lot Needed Repairs

Project Working Title: Osterville Recreation Building Design & Construction

Project Location: 93 First Avenue, Osterville, MA 02655

Project Description: This project request will demolish existing buildings and construct a new recreation building and recreation fields.



Project Justification: The existing Osterville Recreation Building and the former Bay Elementary School have reached the end of their useful life and are beyond repair. Funds were appropriated in FY17 for demolition of the buildings. Funds were appropriated in FY18 for designing the fields, bandstand, and new recreation building. This request continues the process of creating a new facility. A new facility will give the Town a recreation facility for the West Villages that will meet many of the needs of the community. That facility will bring in revenue from rentals. Barnstable Youth Basketball would prefer to use our facility, but in its current state and size are unable to operate their program there. The same for many Adult Volleyball rentals – the current facility does not meet their needs. The Recreation Division is also in need of a site for their Leisure Program as all other sites in Town are full. The Village of Osterville also needs a voting site and the new Recreation Building may fill that need. This facility should meet the needs of Osterville, Marstons Mills and Cotuit.

Impact of Denial/Postponement: The public will continue to use a worn out, leaking, in inadequate facility.

Project Cost Estimates:	FY 2019		Future FY
	Construction or Acquisition	-	\$6,589,690
Project Management	-	\$390,000	
Project Contingency	-	\$753,314	
All Other Costs	-	\$309,265	
Total Project Cost	-	\$8,042,269	

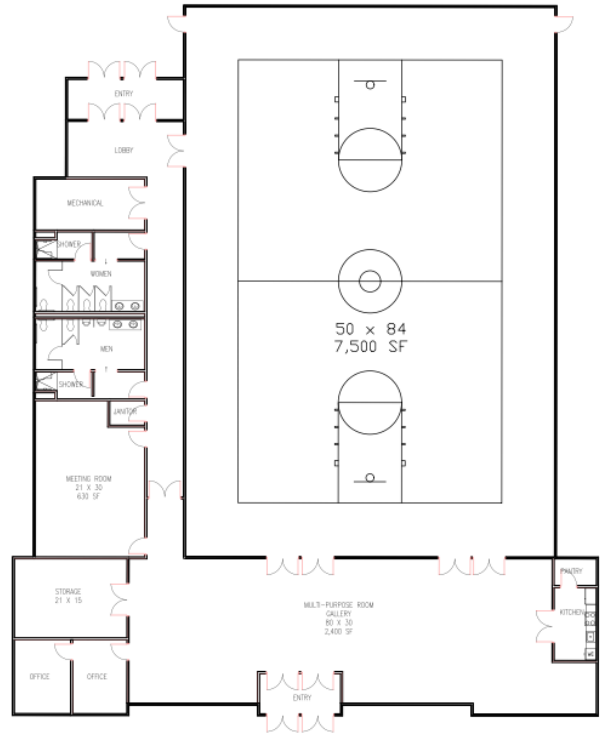
Basis for Cost Estimates: DPW Cost Estimates & Professional Estimates

Project Estimated Completion Date: 2021 **Design & Permit (months)** 8 **Construction (months)** 18

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$2,714,669	Fields & Band Stand Construction
2021	-	-
2022	\$5,327,600	Building Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: There is a potential for savings on utilities with new high efficiency equipment.

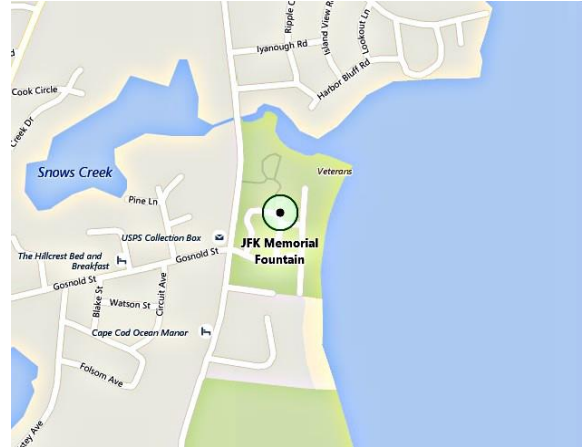


Osterville Recreation Building & Design

Project Working Title: Kennedy Memorial Renovation Construction

Project Location: 480 Ocean Street, Hyannis, MA 02601

Project Description: Historic restoration and preservation of the John F. Kennedy Memorial Park. Work consists of the restoration of the patio, granite benches, fountain, and landscape enhancements as needed.



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 24 hours a day. Weston & Sampson Engineers have just completed preliminary design analysis of the Memorial. The attached pricing reflects the results of their design process.

Impact of Denial/Postponement: the JFK Memorial Trust Fund committee and Town Manager have identified this project as a priority. 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 2019	Future FY
	Design & Permitting		\$80,200
Construction or Acquisition		\$1,506,718	-
Project Management		\$60,269	-
Project Contingency		\$150,672	-
All Other Costs		\$31,022	-
Total Project Cost		\$1,828,881	-

Basis for Cost Estimates: Consulting Architect Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** - **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$1,828,881	Design & Construction

Source of Funding: Capital Trust Fund Reserves or Potentially Community Preservation Funds (CPC) & the JFK Memorial Trust Fund Committee.

Operating Budget Impact now or in future: Replacement of the fountain and associated mechanical equipment will free funds currently used to keep the antiquated system running.

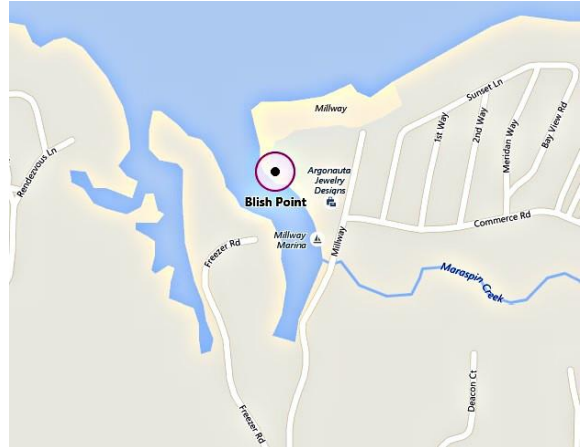


JFK Memorial Fountain

Project Working Title: Blish Point Design for Long Term Solutions

Project Location: Blish Point and Millway Beach, Barnstable, MA 02630

Project Description: This project involves a three-phase approach to the sand loss issues at Blish Point. Phase I (completed) was the design and construction of an immediate, near term, "soft" solution to protect the point. Phase II involves designing and permitting a more permanent solution for the sand management at Blish Point. Phase III involves the construction of the more permanent solution to deal with the sand transportation issue.



Project Justification: On two occasions, a side slope soft solution for erosion control to protect the sedimentation basin has been installed, and each time it has failed. The erosion along the dune edge has continued to provide the source of sand and sediment that is filling in the Barnstable Inner Harbor. This has resulted in the need for regular removal of deposited sand at the State boat ramp, and sand continues to fill in the recently dredged areas of the harbor. Phase I work is complete. A more permanent solution to the erosion issue is needed.

Impact of Denial/Postponement: The dune edge will continue to erode and eventually completely breach the sedimentation basin, releasing undesirable sediment onto the beach and into the Inner Harbor.

Project Cost Estimates:	FY 2019	Future FY
Design & Permitting	-	\$165,000
Construction or Acquisition	-	\$1,600,000
Project Management	-	\$15,750
Project Contingency	-	\$15,750
Total Project Cost	-	\$1,796,500

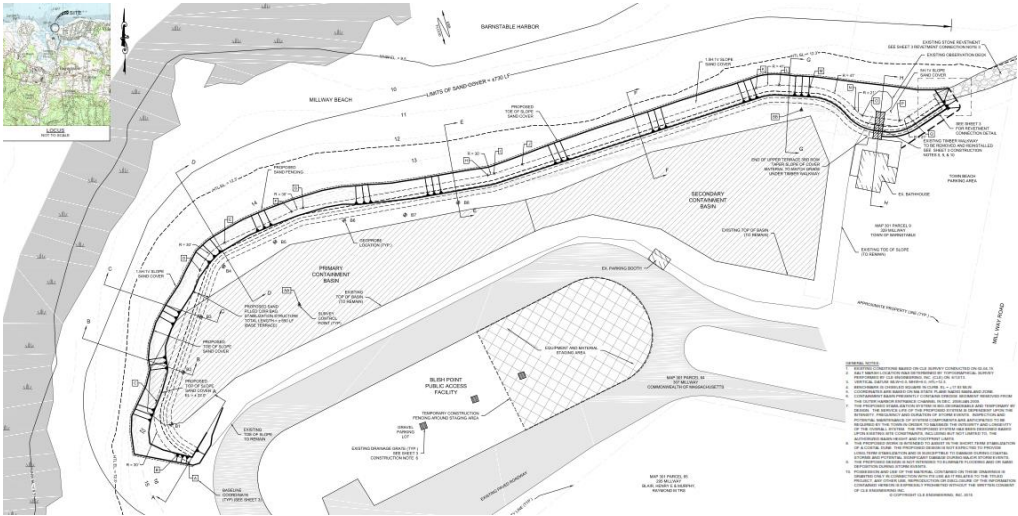
Basis for Cost Estimates: DPW Cost Estimates & Professional Estimates

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

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$196,500	Phase II Design and Permitting of permanent solution
2021	\$1,600,000	Phase III Construction of permanent solution

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: In the long term, not moving forward with this may have an effect on revenues collected at Blish Point due to accessibility issues at the boat ramp, and may affect the overall economy of the inner harbor area due to shoaling/accessibility issues. It may also increase the need and timeframe for future dredge projects. In the short – this may affect DPW operating budget because of the need to more frequently remove sand from the ramp.



Blish Point Schematic & Erosion

Project Working Title: MEA Interior Project Phase III

Project Location: 1189 Phinney’s Lane, Barnstable, 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, restrooms will be made ADA compliant. Interior office areas will be refinished with new paint, flooring, and lighting.



Impact of Denial/Postponement: The restrooms are non-compliant in ADA terms and existing offices are below acceptable standards and need upgrading. This gives a poor impression of the Town to the visiting public using these facilities.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting		\$13,068
Construction or Acquisition		\$217,800	-
Project Management		\$10,890	-
Project Contingency		\$21,780	-
Total Project Cost		\$263,538	-

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$263,538	Design & Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: New facility will protect equipment and add to its longevity by putting it under cover. Increased utilities cost \$1,000 per year. No MEA operating impact.

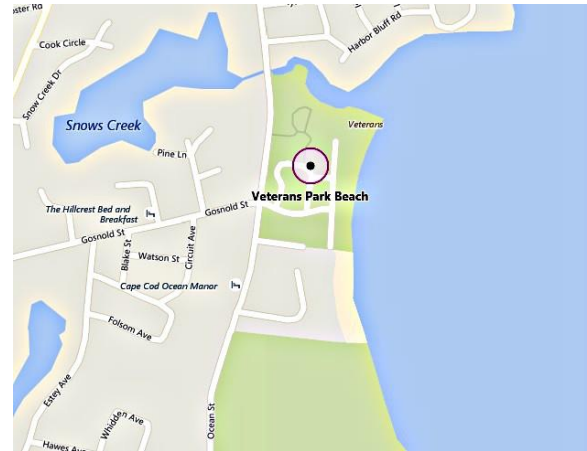


Marine & Environmental Affairs Office Building Interior

Project Working Title: Veterans Park Improvements

Project Location: 480 Ocean Street, Hyannis, MA 02601

Project Description: Restoration and improvements to Veterans Park include renovations to the existing lifeguard building to add new code compliant toilet facilities and changing rooms. GPI landscape architects have spent the last 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, 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, 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 2019	Future FY
Design & Permitting	\$334,360	-
Construction or Acquisition	-	\$2,943,600
Project Management	-	\$87,744
Project Contingency	-	\$294,360
Total Project Cost	\$334,360	\$3,325,704

Basis for Cost Estimates: Consulting Architect & DPW Cost Estimate

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

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$334,360	Design
2020	-	-
2021	\$3,325,704	Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: There will be some cost saving by not needing to maintain an existing deteriorated facility.



Veterans Park & Campus Design
 Barnstable, MA

PRELIMINARY CONCEPT

April 2017

GPI (GreaterPlymouth.com, Inc.)

No. **6**

Veteran's Park & Campus Design

Project Working Title: Hyannis Breakwater Study Preliminary Design (for future repairs)

Project Location: Hyannis Harbor

Project Description: Analysis 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 2019	Future FY
	Design & Permitting	\$157,500	-
	Project Contingency	\$7,875	-
	All Other Costs	\$1,625	-
	Total Project Cost	\$167,000	-

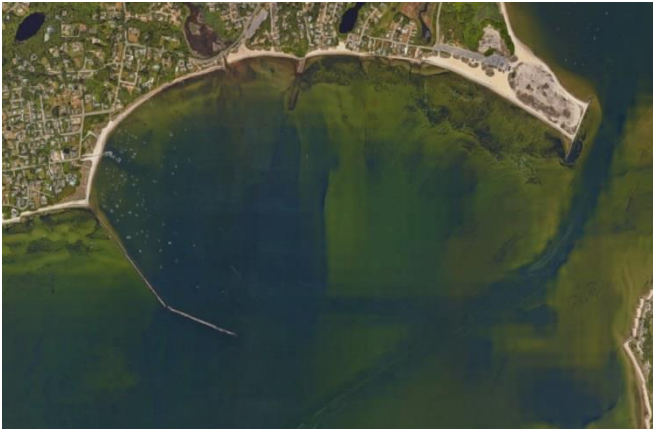
Basis for Cost Estimates: DPW Engineering - Comparison with West Bay breakwater design costs from RFP.

Project Estimated Completion Date: N/A **Design & Permit (months)** 18 **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	\$167,000	Study and Preliminary Design
2022	TBD	Final design and Permitting
2023	TBD	Construction and Construction Management

Source of Funding: The Army Corps of Engineers has committed to repair the breakwater following the Steamship Authority (SSA) ferry accident in 2017. However, the Corps' commitment appears to be contingent on insurance monies from the SSA, and the timeframe for their repairs is indefinite. It is unclear whether a Town contribution might be required.

Operating Budget Impact now or in future: No impact on operating budget.



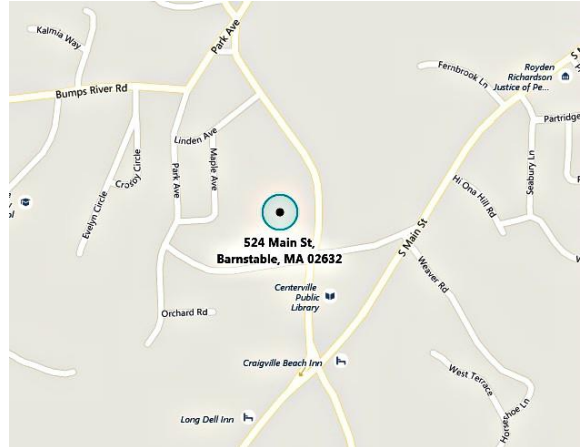
Hyannis Breakwater

Project Working Title: Centerville Recreation Building Site Design & Construction

Project Location: 524 Main Street, Centerville, MA 02632

Project Description: Design of parking expansion, drainage, lighting, new playground equipment, and ballfield improvements.

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: Centerville Village will be without a needed parking lot for events at the Recreation Building, ballfield, and library along Main Street and the Historical Society. This is the center of the village.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	\$132,110	-
	Construction & Acquisition	-	\$737,051
	Project Management	\$44,037	-
	Project Contingency	-	\$158,900
	Total Project Cost	\$176,147	\$895,951

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$176,147	Design
2020	\$895,951	Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Snow plowing and playground maintenance expenses will be incurred. Additional costs of \$5,000 per year are estimated. No operational budget impacts for Recreation (other than the playground in not up to code and could potentially have impacts on insurance claims).



Centerville Recreation Playground And Ball Field

Project Working Title: Centerville Recreation Interior Improvements

Project Location: 524 Main Street, 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. For the past several years, improvements have been made to the interior and exterior of the building and adjoining program areas. These funds will continue repair and restoration work to related items of greatest concern:



- Replacement of steam heat, including systems with 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; and
- Ceiling repair work will be done through various spaces. 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 ballfield. It is one of the busiest Town facilities used by our residents and programs. 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 2019	Future FY
	Design & Permitting		\$12,584
Construction or Acquisition		\$254,680	\$100,000
Project Management		\$12,584	-
Project Contingency		\$12,584	-
Total Project Cost		\$292,432	\$100,000

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 3 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$292,432	Replace steam heat with new gas modulating boiler, pipe work and radiators, replace paneling and restore corridor and doors, restore old chalkboard and historic paint.
2020	-	-
2021	\$75,000	Interior wainscoting and trim to be replaced with historically correct trim, additional painting
2022	\$25,000	Attic floor and insulation to be repaired, review roof ventilation

Source of Funding: Capital Trust Fund Reserves & Possible Community Preservation Funds (CPC)

Operating Budget Impact now or in future: There are no operating impacts for Recreation. The only impact would be if the facility imprint changes and it becomes a more desirable site for rental groups. The plan to improve the HVAC could result in savings.



Centerville Recreation Interior Needed Repairs

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. Construction at the Long Pond site is a permanent control structure and fish way, together with stream bank stabilization. In order to achieve the goals above, additional exploration and detailed design must be performed.

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 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. The DPW will also continue its working relationship to work with the Association to Preserve Cape Cod (APCC) to seek out grant and other funding opportunities.

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 2019	Future FY
	Design & Permitting		\$75,000
Construction or Acquisition		-	\$700,000
Project Management		-	\$70,000
Project Contingency		-	\$140,000
Total Project Cost		-	\$910,000

Basis for Cost Estimates: DPW Engineering Analysis.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** 9

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$75,000	Additional Design Services
2020	\$910,000	Construction and Construction Management

Source of Funding: Capital Trust Fund Reserves

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 continue to help remove leaves from the fish run. The Department of Marine Fisheries will draft an O&M for the Town to implement.



Mill Pond Herring Run



Long Pond Herring Run

Project Working Title: West Bay Breakwater – Permitting 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 breakwater.

Project Justification: Numerous storms, heavy seas and constant wave action have damaged the stone breakwater that protects both sides of the channel entering West Bay from Nantucket Sound. The integrity of the structure 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: Postponement of project could affect overall economy because of access issues to the Three Bays, water quality could become more compromised because of lack of movement of water, and cost to remedy would increase. If not remedied, the structure 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 will be compromised.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$5,047,250
Total Project Cost	-	\$5,047,250	

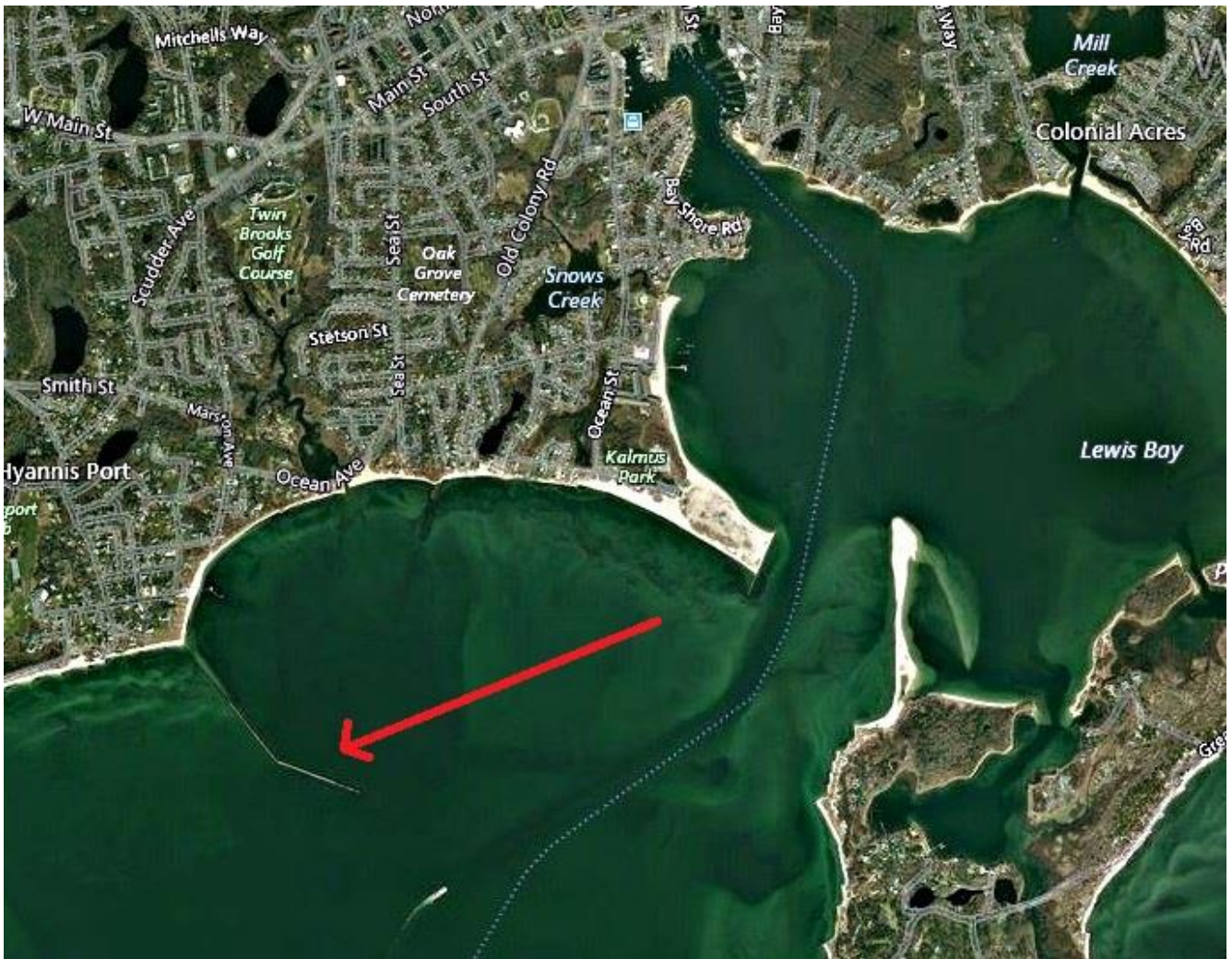
Basis for Cost Estimates: DPW Cost Estimate And Consultant

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** 4

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$5,047,250	Project Design, Construction & Project Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Provision of a new ramp will alleviate the need for continues special repairs. No impact on operating budget.



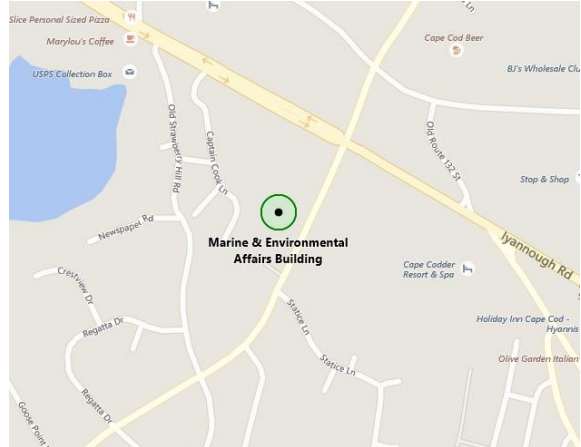
West Bay Breakwater

Project Working Title: MEA Building Site Work Construction

Project Location: 1189 Phinney’s Lane, Centerville, MA 02632

Project Description: The project consists of a 2,500 spare foot storage addition and related site work and upgrades to the existing Marine Environmental Affairs building.

Project Justification: The Marine and Environmental Affairs building currently are insufficient in size to accommodate equipment. Because of various reorganizations and repositioning of staff over the years, MEA has had to create office space in the garage area, which further limits the ability to have a sufficient working area and reduce space for the storage of vehicles and boats. This project will provide the needed space that will allow for the garaging of the division’s vehicles and boats, protecting them from the elements; and allow for covered and protected maintenance on them. The office building should then be used for the growing office functions, therein, separating vehicle and boat storage areas from the office functions.



Impact of Denial/Postponement: Pedestrian hazards and deterioration of valuable stored Town assets will continue.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting		\$40,057
Construction & Acquisition		\$667,620	-
Project Management		\$33,381	-
Project Contingency		\$33,381	-
Total Project Cost		\$774,439	-

Basis for Cost Estimates: Owner’s Project Manager (OPM) Cost Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** 4 **Construction (months)** 8

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$774,439	Design & Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: No impact on MEA operating budget. Additional building area will result in additional heating and electricity costs. Utility increase cost is estimated at \$5,000 per year.



Marine & Environmental Affairs Building

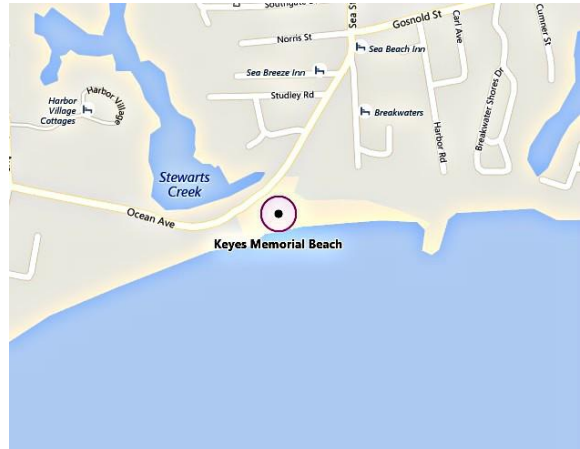
Project Working Title: Beach Parking Lot Rehabilitation – Keyes Memorial Beach

Project Location: 170 Ocean Avenue, Barnstable, MA 02601

Project Description: Reclaim parking lot and construct storm water controls. Provide new line striping and signage.

Project Justification: The existing pavement has deteriorated such that rehabilitation is necessary and large areas of puddles exist after rains inconveniencing paying customers to the beach.

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 2019	Future FY
	Design & Permitting	\$80,000	-
	Construction & Acquisition	\$340,000	-
	Project Contingency	\$65,000	-
	Total Project Cost	\$485,000	-

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: N/A **Design & Permit (months)** 6 **Construction (months)** 4

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$485,000	Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: There is no operational impact for Recreation (other than liability/insurance claims). It would save DPW from consistently being called in to do repairs to potholes.



Keys Memorial Beach Parking Lot Needed Repairs

Public Works General Fund Projects

PROJECT: DPW-19-2

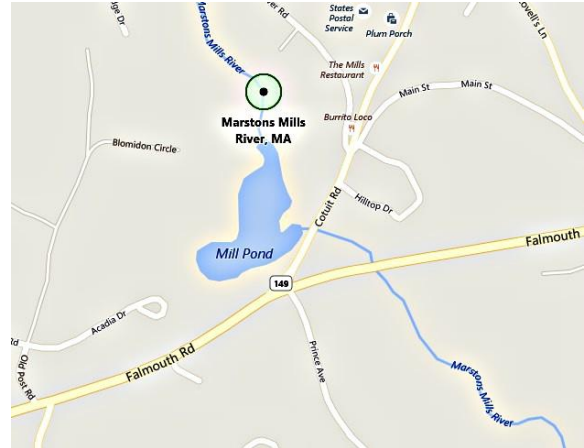
DEPARTMENT PRIORITY: 2 of 51

Project Working Title: Marstons Mills River Treatment System

Project Location: Marstons Mills River

Project Description: Enhance the natural nitrogen treatment abilities of the Marstons Mills River from the cranberry bogs in its upper reaches to where it exists into North Bay with a series of projects in a way that it 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 (CYs) 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. According to reporting, assuming that the nitrogen attenuation capacity of Mill Pond could be restored to 50% removal, it could remove in excess of 2,200 kg/year of additional nitrogen from the downstream system. A viable scenario proposed in the total maximum daily loads (TMDL) of what needs to be removed from the Three Bays is outlined in the table below. As can be seen the Mill Pond project has the potential to remove half of the nitrogen that is required to be removed from Prince Cove, as an example.

Controllable Nitrogen Reduction Scenario to Achieve Target Loading

Sub-embayment	Controllable Watershed Load (kg/day) ¹	Threshold Watershed Load (kg/day) ²	Percent Reductions to Achieve Threshold Levels
Cotuit Bay	23.77	22.34	6%
West Bay	17.9	15.97	11%
Seapuit River	3.77	3.77	0%
North Bay	27.48	4.47	84%
Prince Cove	31.3	17.89	43%
Warren Cove	10.08	5.05	50%
Prince Cove Channel	5.02	0.77	85%

1. Based on 1999-2004 data

2. A scenario proposed in the TMDL to meet target threshold.

Impact of Denial/Postponement: The Town would have to rely on purely traditional means to address its nitrogen removal requirements.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	\$612,000	TBD
	Total Project Cost	\$612,000	TBD

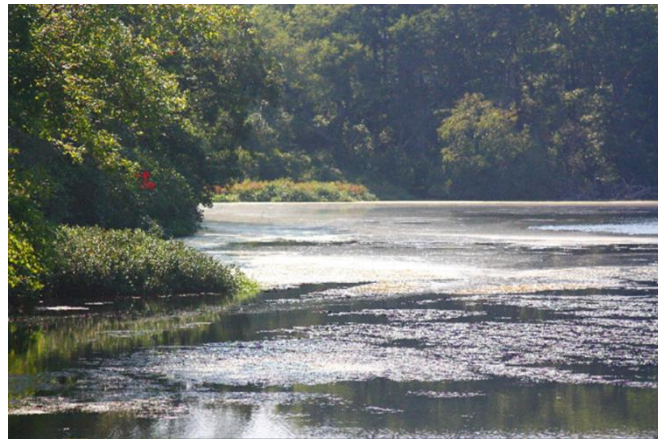
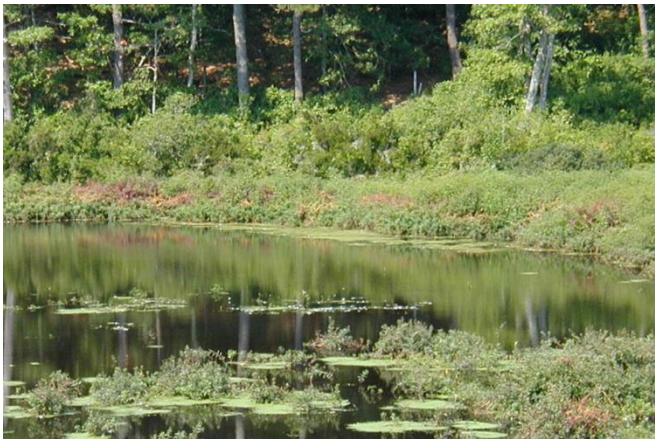
Basis for Cost Estimates: DPW Cost Estimate

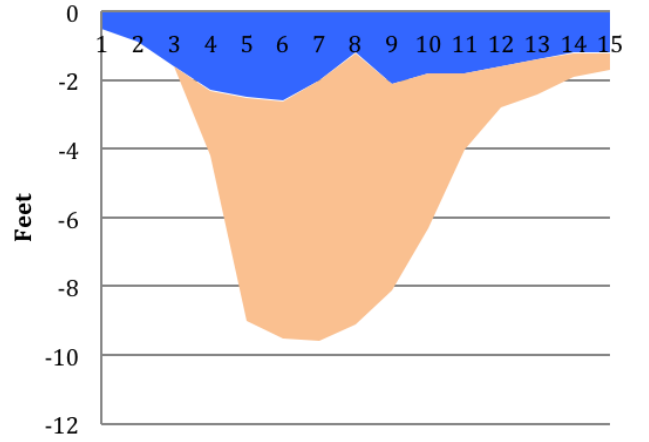
Project Estimated Completion Date: 2021 **Design & Permit (months)** 24 **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$612,000	Design and Permitting Mill Pond
2020	TBD	Master Plan Development
2021	TBD	Dredging Construction Mill Pond
2022	TBD	Design Next Project(s)
2023	TBD	Construction Next Project(s)

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: To be determined





Mill Pond Basin Material Removal

Mill Pond Location and Depth Chart

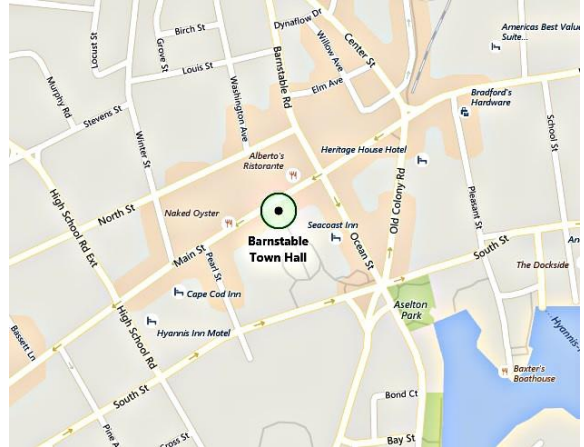
Project Working Title: Town Hall Security Improvements

Project Location: 367 Main Street, Hyannis, MA 02601

Project Description: Phased implementation of the recommendations contained within the Internal Security Evaluation.

The FY18 work includes:

- Issue all Town Employees a picture ID card that also acts as a door lock access card, with associated pass-code;
- Install door lock readers that the ID cards work with;
- Create the “Greeter’s” position in Town Hall. The Greeter should be located in the small information room that is located on the left as one enters the building from the main entrance;
- Rework access to the Town Clerk’s office window to allow citizens to interact with the clerk’s office employees without physically entering the space;
- Refit the Tax Collector’s window with ballistic resistant glass;
- Rework/replace the exit doors so all entrances to the building, with the exception of the main entrance, are locked, monitored by a video camera (see FY19 recommendations), and only accessible from the outside by employees with an ID card and pass code;
- Install internal security doors on the main floor as appropriate;
- Modify the elevator so the public cannot proceed beyond the second floor without an ID card;
- Install security doors to prevent the public from proceeding beyond the second floor without an ID card; and
- 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), and 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 is being used for the FY17 portion of the implementation plan. This CIP is to fund the FY18 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 2019	Future FY
	Construction or Acquisition		\$480,000
Total Project Cost		\$480,000	\$250,000

Basis for Cost Estimates: DPW Cost Estimate

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

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$480,000	FY18 Town Hall Security Implementation
2020	\$250,000	FY19 Town Hall Security Implementation
2021	TBD	Future Town Hall Security Implementation Requirements

Source of Funding: Capital Trust Fund Reserves

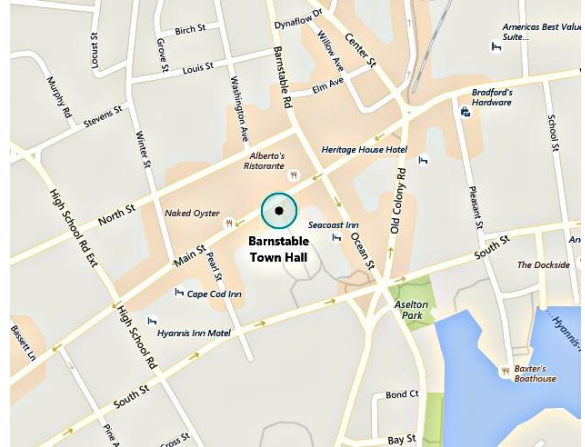
Operating Budget Impact now or in future: This will not be clear until the study is complete, and the Town for implementation has selected recommendations. There will be costs incurred for a greeter position, badge and badge programming equipment, lock and badge system maintenance. Expenses could be as much as \$50,000 per year.

Project Working Title: Town Hall Building Mechanical Cooling

Project Location: 367 Main Street, Hyannis, MA 02601

Project Description: Phase I is for the design services. Future Phase II is for construction. The Scope includes:

- New 80 Ton Chiller Design;
- 150 Ton cooling plant;
- Removal of the old concrete mounting pad; and
- Any remaining design funds will be utilized during the construction phase.



Project Justification: The historic building study reported significant deficiencies in this building. The exterior restoration work is completed utilizing part CIP and CPA funds. The additional work was not accomplished during the exterior restoration project. Outdated mechanical work remains to be completed for efficiency of operation.

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 2019	Future FY
	Design & Permitting	\$72,228
Construction or Acquisition	-	\$315,480
Project Management	-	\$11,084
Project Contingency	-	\$31,548
Total Project Cost	\$72,228	\$358,112

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** 8 **Construction (months)** 15

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$72,228	Design of MEP Chiller And Cooling Plant Upgrades
2020	\$358,112	Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: A 15% air conditioning energy efficiency savings is expected over energy costs of the existing system, which represents about \$675 per season.



Town Hall Building Mechanical Cooling System

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 is currently proposed from Old Town House Road in Yarmouth to a parking lot adjacent Mary Dunn Road in Barnstable. CCRT Phase 4 is proposed to extend from Mary Dunn Road along Independence Drive, to a bridge over Route 132 at a location to be determined, and then along the north side of Service Road to the Sandwich town line.

Project Description: The Town is responsible for funding a study of alignment options, property/easement acquisitions, and non-participating items. MassDOT is responsible for design, permitting, and construction costs.

Project Justification: This project is a significant link in the “vision” to create an off-road path from the Cape Cod Canal to Provincetown. At this time, construction has recently been completed on a section of the path terminating at Station Avenue in Yarmouth and plans have been developed to the 25% design stage for the path extension to Mary Dunn Road in Barnstable. To the west, construction is underway on a section of the path in Sandwich and a Project Information Form has been submitted to MassDOT for the section of path in Sandwich from Route 130 to the Barnstable Town Line.

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 2019	Future FY
	Design & Permitting	\$50,000	-
	Construction or Acquisition	-	\$1,000,000
	Total Project Cost	\$50,000	\$1,000,000

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 24 **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$50,000	Study of Phase 4 Alignment Options
2020	\$250,000	Reserve for Land/Easement Acquisitions, Non-Participating Items
2021	\$250,000	Reserve for Land/Easement Acquisitions, Non-Participating Items
2022	\$250,000	Reserve for Land/Easement Acquisitions, Non-Participating Items
2023	\$250,000	Reserve for Land/Easement Acquisitions, Non-Participating Items

Source of Funding: Capital Trust Fund Reserves & Massachusetts Department of Transportation (MASSDOT)

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.

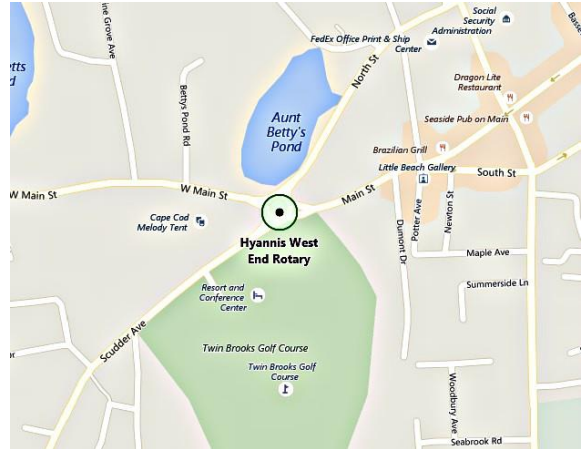


Cape Cod Rail Trail Extension Paths

Project Working Title: Hyannis Main Street West End Rotary Study Design and Construction

Project Location: Intersection with Scudder Avenue, North Street and West Main 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 the 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: The existing physical pavement and drainage conditions at this location are due for improvement. 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.

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 2019	Future FY
Design & Permitting	\$230,000	-
Construction or Acquisition	-	\$1,716,750
Project Management	-	\$197,427
Project Contingency	-	\$356,227
All Other Costs	-	\$105,000
Total Project Cost	\$230,000	\$2,375,404

Basis for Cost Estimates: DPW Cost Estimate

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

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$230,000	Study, Design& Permitting
2020	\$2,375,404	Construction & Construction Management

Source of Funding: Capital Trust Fund Reserves

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 pothole 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.

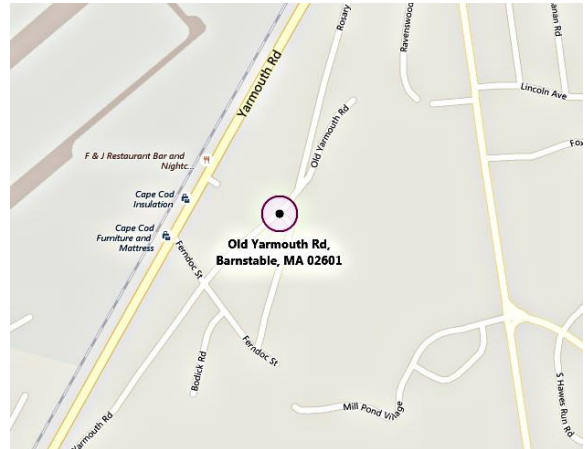


Hyannis Main Street West End Rotary

Project Working Title: Old Yarmouth Road Sewer Expansion

Project Location: Old Yarmouth , Hyannis, MA 02601

Project Description: Expanding sewer to north of Route 28 and East of Yarmouth Road. An identified project in the recent Water Resource Advisory Committee recommended Wastewater Management Plan. This project would provide municipal sewer to businesses and residences on Old Yarmouth Road, Joaquim Road, Bodick Road, and Ferndoc Street.



Project Justification: Businesses and residences in this area are completely dependent on on-site solutions to address their wastewater, which has limited economic growth. As a result, the Planning Department has identified this project as a priority and requested it be included in Phase I of the Water Resource Advisory Committee recommended Wastewater Management Plan.

Impact of Denial/Postponement: The DPW is not currently prepared to address the changing coastal hazards. The Department has mapping capability, but lacks the modeling capability and expertise to adequately predict what public infrastructure needs to be addressed and how. Denial of this proposal will leave the department without a robust plan to address what are predicted to be critical vulnerabilities.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	\$520,000	-
	Construction or Acquisition	-	\$5,501,000
	Project Management	-	\$520,000
	Project Contingency	-	\$260,000
	Total Project Cost	\$520,000	\$6,281,000

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 18 **Construction (months)** 18

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$520,000	Evaluation and Design
2020	-	-
2021	\$6,281,000	Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: This project will require a Grade 8 position operator.



Old Yarmouth Road Sewer Expansion Location

Project Working Title: 200 Main Street Mansard Roof Replacement

Project Location: 200 Main Street, Hyannis, MA 02601

Project Description: In FY11, funds were appropriated for the replacement of the flat roof portion of the building. The wood framed mansard roof and asphalt shingles have deteriorated to the point where they need to be replaced.

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

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



Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	\$340,139	-
	Total Project Cost	\$340,139	-

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$340,139	Design & Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: There will be no budget impact because work is exterior in nature and will not affect insulation or mechanical systems.



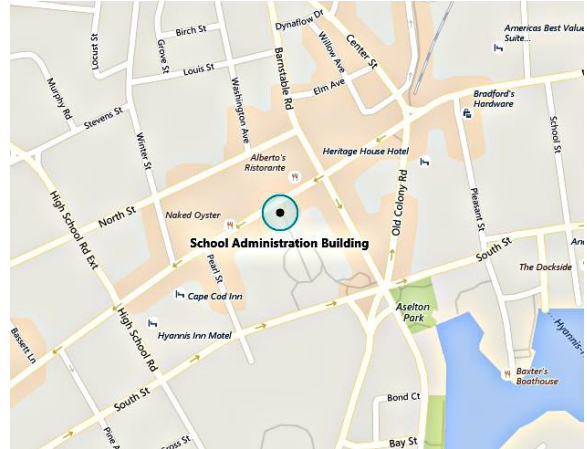
200 Main Street Building Needed Roof Repairs

Project Working Title: Town Hall Complex Improvements-Parking Lot

Project Location: 367 Main Street, Hyannis, MA 02601

Project Description: The project will fund the design and construction of paving, curb, landscape, lighting and drainage work that will resolve a disorganized site with traffic conflicts and multiple curb cuts.

Project Justification: Town Hall Square is the center of our town and school offices, art and historical museum activities, and 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 vehicle and pedestrian traffic is dangerous and inconvenient within the area. The proposed alterations are designed to correct these issues. Additional barrier free parking spaces will be created as part of this project.



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.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting		\$125,000
Construction or Acquisition		-	\$660,000
Project Management		-	\$25,000
Project Contingency		-	\$142,000
Total Project Cost		\$125,000	\$827,000

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** 4 **Construction (months)** 8

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$125,000	Design
2020	\$827,000	Construction

Source of Funding: Capital Trust Fund Reserves

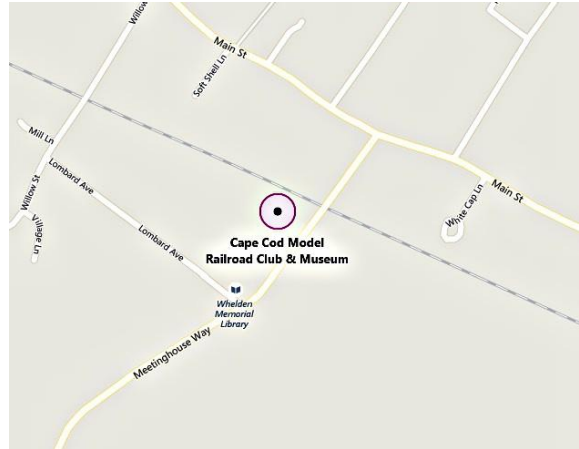
Operating Budget Impact now or in future: Additional electrical cost may occur if decorative lighting is included.



School Administration Parking Lot

Project Working Title: West Barnstable Railroad Depot Restoration / Repair

Project Location: 2469 Meetinghouse Way Route 149 West Barnstable



Project Description: This project would fund needed exterior roof & fenestration repairs of the West Barnstable Train Station. These funds would provide for design of proposed restoration work.

Project Justification: Erected in 1910, the Arts & Crafts / Mission Style Architecture building has been patched, repaired and painted, but heavier renovations are now necessary. The clay tile roof is leaking, causing damage to 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 furthering 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.

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 uninhabitable.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	\$91,386	-
	Construction or Acquisition	-	\$294,448
	Project Contingency	-	\$29,445
	All Other Costs	-	\$11,778
	Total Project Cost	\$91,386	\$335,671

Basis for Cost Estimates: Architect Assisted DPW Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 6 **Construction (months)** 8

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$91,386	Railroad Depot Design
2020	\$335,671	Railroad Depot Construction / Repair

Source of Funding: Capital Trust Fund Reserves

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 affect the Operating Budget. This project consists of repairs to the building. There may be some energy savings once the windows are repaired but utility costs are paid by the tenant and would not result in savings to the operating budget.



West Barnstable Railroad Depot

Project Working Title: Horizontal Assets - Inventory & Preliminary Assessment

Project Location: Town-wide

Project Description: Provide inventory and preliminary assessment for horizontal assets on Town Owned Property. This project would provide a written report of the property research required and prioritized of needs for the horizontal assets throughout the Town. The preliminary assessment would inform the Town which assets need additional evaluation. This further evaluation will be requested at a further date. Data will be organized in a format that facilitates updating over time, cost estimating, and sorting for project prioritization and budgeting.

Project Justification: The Town owns and maintains over 1,000 parcels by many Town departments. Many horizontal assets within the Town have not been quantified or prioritized based on their condition. These horizontal assets include the following: breakwaters, bridges, bulkheads, culverts, dams, docks, fishing platforms, fishways, lighting, parking lots, pumpouts, retaining walls, rock revetments, septic systems, storm water management facilities, tidal exchanges, and others. Asset management best practices include comprehensive inventories and condition assessments to systematically plan and budget for regular maintenance, rehabilitation, and removal/replacement of facilities in a life-cycle process. Benefits of these approaches include data-driven decision-making, improved risk management, and more cost-effective outcomes.

Impact of Denial/Postponement: The unknown magnitude of risk throughout the town for the unknown conditions of the Town's horizontal assets will continue the past practice of reacting after a failure has occurred. This yields more expensive construction costs than proactive approaches for planned renewal and replacement of assets in a life-cycle management approach.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	\$500,000	-
	Total Project Cost	\$500,000	-

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2019 **Design & Permit (months)** 12 **Construction (months)** -

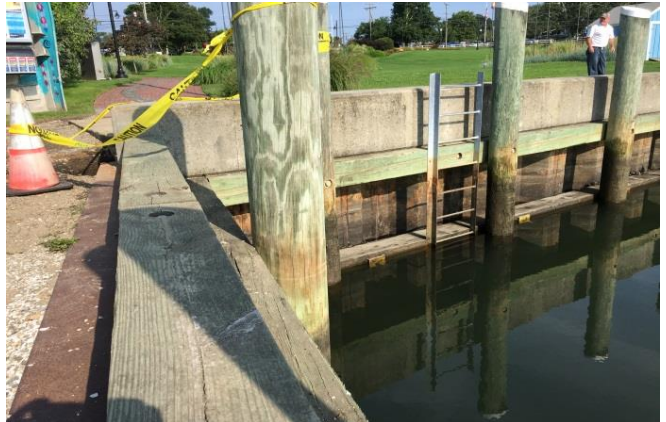
Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$500,000	Inventory and Preliminary Assessment

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: This project may bring to light assets that were heretofore unidentified, perhaps with associated operating and maintenance needs that were previously unknown. However, at this time there is insufficient basis for estimating potential operating budget impacts resulting from this CIP.



Bumps River Bridge



Gateway Marina Bulkhead



Storm Water Drainage



Town Owned Parking Lot



Landscape Parcels



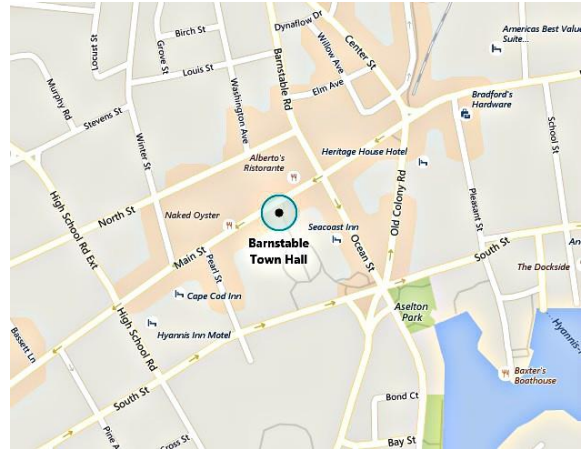
Storm Water Drainage

Examples of Town Owned Horizontal Assets

Project Working Title: Town Hall Interior Renovations

Project Location: 367 Main Street, Hyannis, MA 02601

Project Description: This project continues the work needed to maintain the existing building. The exterior restoration work has been completed using CPA funds. Many of the interior improvements planned relate to public health, safety and code issues that need immediate attention. Recommendations from the building study by the historic architect are also contained within the scope of work. Preliminary space programming changes are under design and will be coordinated with the space occupants.



Due to the magnitude of the scope of work for renovations and possible reconfigurations, it is proposed that this work be executed under a multi-phased program. This will allow the Town Hall to function while in the renovation process.

Phase I work is proposed for FY19 and includes architectural and engineering design, cost estimating, contract documents and renovation work for the lower basement and first floors of the building. The areas affected include Tax Collection, Assessors, Lunchroom, Mail and Copy Center and Corridor. Included will be the relocation of the existing TV Studio, energy efficient room lighting, power distribution, installation of new interior floor, wall and ceiling finishes throughout, renovation of the sprinkler system to suit revised floor plan and upgraded lighting and alarm systems

Project Justification: The Town Hall is the public image of the Town. The building needs continual upgrades and improvements. The public areas in Town Hall are in poor condition and give a negative impression of the Town of Barnstable, with chipped paint, peeling wallpaper and significant water damaged exterior walls. The funding for the additional bathrooms and upgrade to ADA standards are being sought in a separate CIP. The lighting and electrical systems are inefficient and costly. The fire alarm system does not meet present day code standards. Air quality concerns exist with mold within walls and ceilings due to a poor HVAC system and many years of moisture leaking through the walls from the exterior. The existing steam based system is being replaced under a separate FY16 CIP. Much of the exterior plaster and drywall surfaces are in need of full replacement. Any plan changes will require basic changes to all building systems. Spreading out this project over several years will only increase the total cost of the project and subject the occupants and residents to years of construction and inconvenience.

Impact of Denial/Postponement: Mechanical systems will continue to degrade and require increased maintenance and operating costs. The Fire alarm system will continue to degrade and may result in a system that does not function properly thus compromising life safety. The offices are greatly in need of renovation, will continue to be cramped and ineffective workspaces. The public areas of the building will still be in deplorable condition, leaving a poor impression of Town Government. With the waterproofing of the exterior walls being completed, interior walls need major repairs to correct the damage and mold that has occurred by water penetration over many years.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$80,521
	Construction or Acquisition	-	\$552,570
	Project Management	-	\$36,533
	Project Contingency	-	\$148,376
	Total Project Cost	-	\$818,000

Basis for Cost Estimates: Architect's Estimate and Studies & DPW Cost Estimates

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$562,000	Phase I Basement and First Floor Renovations, Public Corridors, Security Improvements, Interior Repairs, Misc. Renovation.
2021	\$256,000	Phase II Design & Renovation, Second Floor

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: The facility is an existing Town facility that is currently maintained by the DPW. Improvements/upgrades are expected to result in improvement in energy usage with new lighting, insulation and HVAC, and are not expected to adversely affect the Operating Budget.



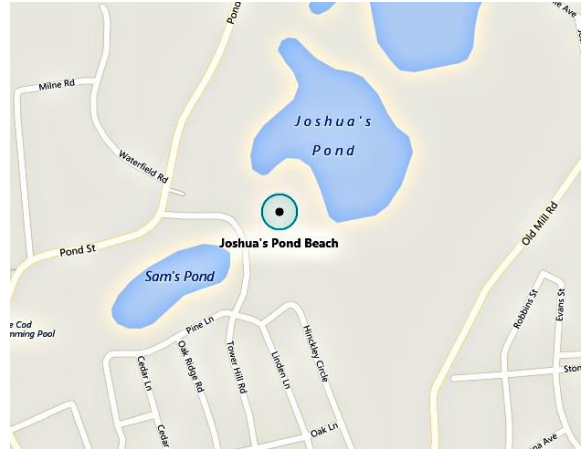


Town Hall Interior Repairs Needed

Project Working Title: Joshua's Pond - Handicap Accessibility to the Beach

Project Location: 290 Tower Hill Drive, Osterville, MA 02655

Project Description: The project would provide accessibility to Joshua’s Pond Beach for all users. Currently a steep set of stairs provides access to the beach. The existing retaining wall would be demolished and the existing sloped embankment would be reconstructed.



Project Justification: There is difficulty accessing Joshua’s Pond Beach for its visitors. With improvements made in 2017, adequate access has been obtained from the bathhouse to the top of the retaining wall.

Impact of Denial/Postponement: Without proper access for all users would cause continued liability of user groups attempting to use the inadequate infrastructure to traverse onto the beach safely.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting		\$72,000
Construction or Acquisition		-	\$600,000
Project Contingency		-	\$192,000
Total Project Cost		\$72,000	\$792,000

Basis for Cost Estimates: Consultant Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 8 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$72,000	Design and Permitting
2020	\$792,000	Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: These renovations are not expected to have a measurable impact on the Operating Budget.



Joshua's Pond Embankment and Design

Project Working Title: Coastal Resiliency Master Plan Development

Project Location: Town-wide

Project Description: Project request will create a Master Plan to address changing public infrastructure needs and requirements because of the impacts of climate change, increasingly severe (and frequent) storms, and sea level rise over the next several decades.

Project Justification: While various agencies throughout all levels of government have attempted to mitigate the impacts of coastal hazards, particularly because of climate change and predicted sea level changes, it is difficult for local communities to convert the separate requirements of state and federal agencies into a plan. This is especially true for DPWs that are responsible for the public infrastructure, where several questions arise. How might the existing infrastructure be affected by current and future coastal hazards? What modifications are required to address these hazards? Does infrastructure need to be relocated? If so, what of the existing properties served by that infrastructure? Does redundant infrastructure need to be constructed (for example, if the primary evacuation route/road for an area is likely to be flooded/washed away during an event, then a backup route needs to be identified)? This project is intended to look specifically at the public infrastructure, its vulnerabilities, and requirements concerning coastal hazards. It will also make recommendations to mitigate those risks and concerns.

Impact of Denial/Postponement: DPW is not currently prepared to address the changing coastal hazards. The department has mapping capability, but lacks the modeling capability and expertise to adequately predict what public infrastructure needs to be addressed and how. Denial of this proposal will leave the department without a robust plan to address what are predicted to be critical vulnerabilities.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$225,000
Total Project Cost	-	\$225,000	

Basis for Cost Estimates: Placeholder - DPW Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 18 **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$225,000	Master Plan Development
2021	TBD	Resulting Projects
2022	TBD	Resulting Projects
2023	TBD	Resulting Projects

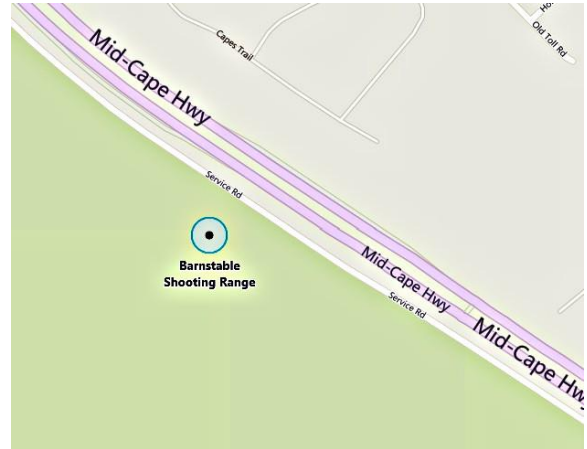
Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None

Project Working Title: West Barnstable Shooting Range Comprehensive Site Assessment

Project Location: Service Rd, West Barnstable, MA 02668

Project Description: The first phase of the project funded by a 2018 CIP included lead reclamation of the “Crocker Road Lobe”, and the active ranges (pistol, rifle, and shotgun); shooting position improvements; and safety improvements (fencing). This request is to conduct a comprehensive site assessment of the entire range, particularly focusing on the area outside the active ranges, but within the 600-ppm area. Future requests will implement the recommendations made in the comprehensive site assessment, which are assumed to include some level of remediation/cleanup of the lead shot area that is located outside the active ranges.



Project Justification: The State’s lead shot initiative allows gun ranges to operate under an Environmental Stewardship Plan. The Plan for the West Barnstable Shooting Range (Horsley & Witten, 2003) requires the removal of lead on a regular basis. This work has not been accomplished to date. Furthermore, activities at the shooting range over the past five decades have resulted in the presence of lead in soils, that far exceed the DEP’s maximum contaminant level of 600 parts per million, over nearly 27 acres.

Impact of Denial/Postponement: Ranges will not be able to open due to non-compliance with the Environmental stewardship plan and unsafe conditions.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$350,000
	Total Project Cost	-	\$350,000

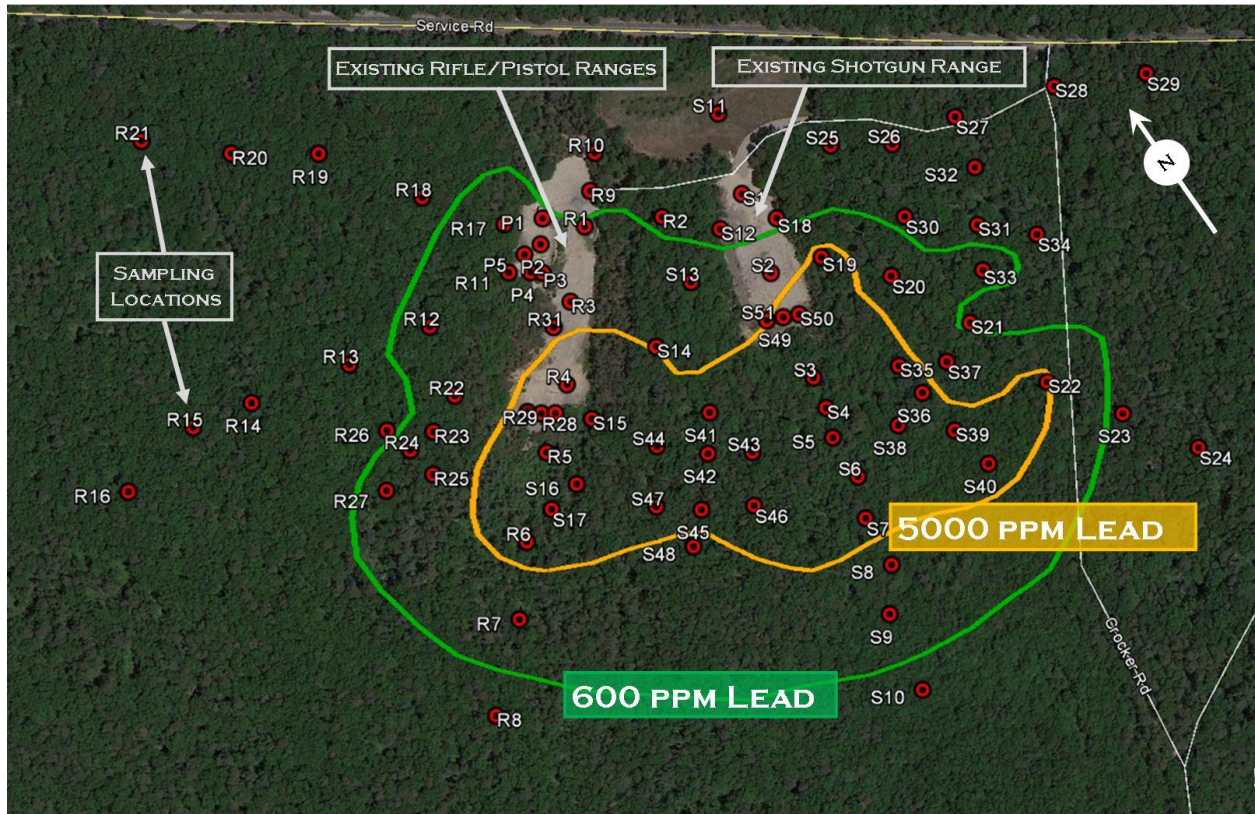
Basis for Cost Estimates: DPW Cost Estimate & Consultant Recommendation

Project Estimated Completion Date: 2020 **Design & Permit (months)** 12 **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$350,000	Comprehensive Site Assessment
2021	TBD	Lead shot remediation within the 600ppm area

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None



Shooting Range Aerial View - Lead Contamination Site

Project Working Title: MS4 Municipal Separate Storm Sewer System Program

Project Location: Town Wide

Project Description: This project is intended to continue to help bring 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 FY2020-2024 CIP will include the following:

Preparing and/or updating Storm Water Pollution Prevention Plans (SWPPPs) for select Town facilities including but not limited to:

- Updating the storm system mapping.
- Maintenance Garages;
- Public Works Yards;
- Transfer Stations;
- Other waste handling facilities where pollutants are exposed to storm water;
- Preparing Spill Prevention Control and Countermeasure (SPCC) Plans as required;
- Other items identified during the original CIP effort;
- 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; and
- Public Education & Outreach (on-going).

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);
- Inspect and maintain storm water facilities;
- Submit annual reports;
- Outfall Sampling/Screening/Inspections (on-going); and
- Public Education & Outreach (on-going).

Project Justification: This is a program that is mandated by the EPA, which the Town must comply.

Impact of Denial/Postponement: The Town could face fines from the EPA.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$250,000
	Total Project Cost	-	\$250,000

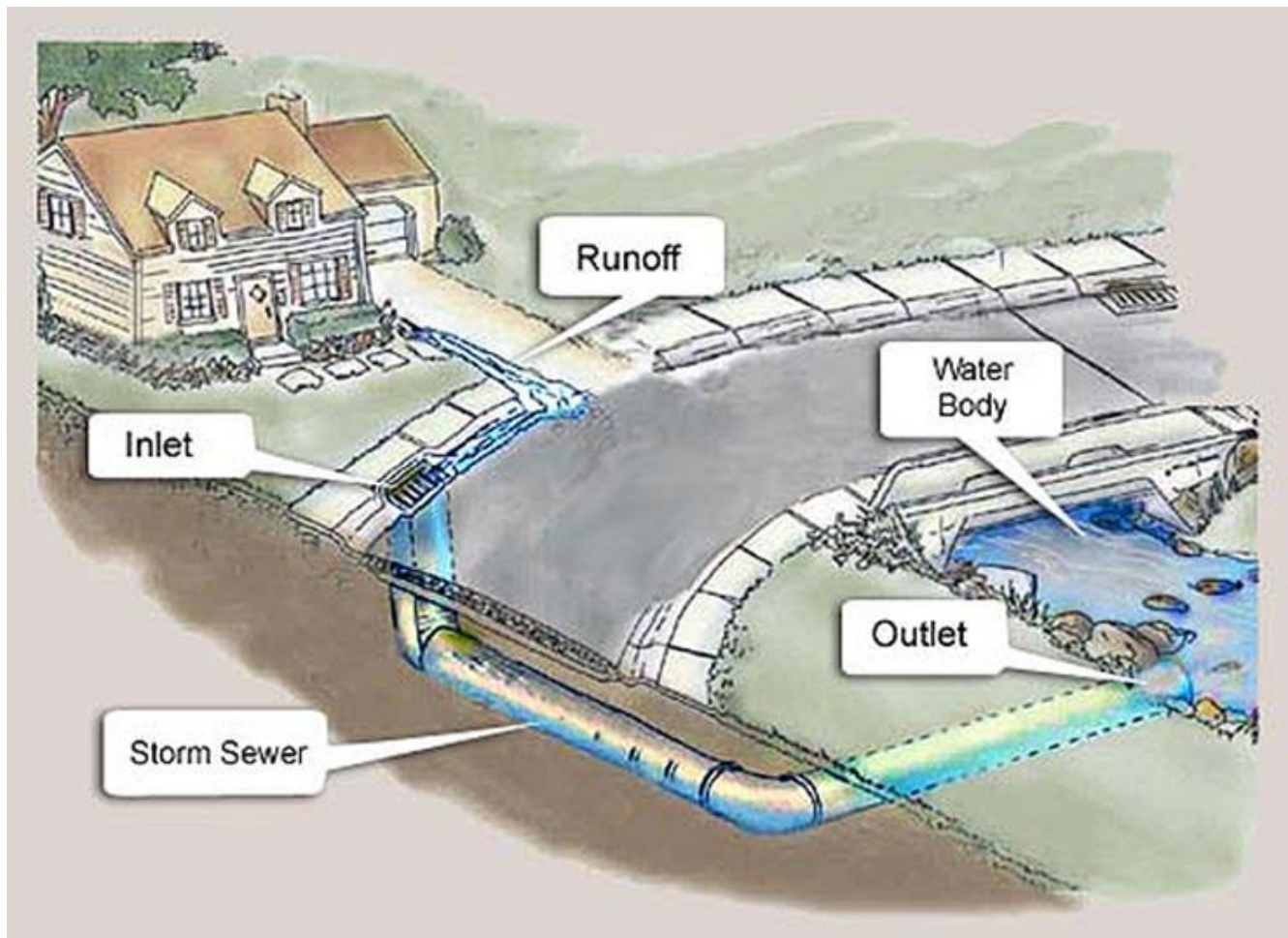
Basis for Cost Estimates: In-House Engineering Estimate - Placeholder

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$250,000	Plan implementation

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: N/A



Municipal Separate Storm Sewer System (MS4)

Resource: Phase II MS4 Permit: Improving Central Massachusetts Stormwater Management

Project Working Title: Utility Capacity Limitations within the Growth Incentive Zone (GIZ)

Project Location: Downtown Hyannis Village Zoning Districts

Project Description: A placeholder for future projects which would address any capacity limitation within the GIZ that were restricting or preventing the desired growth in the Hyannis area. When the 2018 GIZ update is completed, the DPW will do an analysis of infrastructure shortfalls and will begin to program upgrades to those items via this CIP.

Project Justification: The GIZ area is the area equal to the Downtown Hyannis Village Zoning Districts. Generally, the Airport Rotary and Route 28, on the East by the Yarmouth Town line and the Hyannis Inner Harbor, on the South by the Hyannis Inner Harbor and on the West by the West End Rotary and Aunt Betty's Pond bound the District on the North. The Growth Incentive Zone allows the Town better direct opportunities to the center of Hyannis Village, where there are underperforming properties and infrastructure currently exists. As part of the GIZ update, the DPW will be identifying areas where that existing infrastructure is not adequate for the vision set forward by Town Planners. It then will be submitting CIP requests to fund projects to address those needs thus ensuring the GIZ can accommodate the growth the Towns desires.

Impact of Denial/Postponement: Without these projects, the GIZ would not be able to reach its full potential, resulting in a loss of economic development opportunity for the community.

Project Cost Estimates:		FY 2019	Future FY
	Total Project Cost	-	TBD

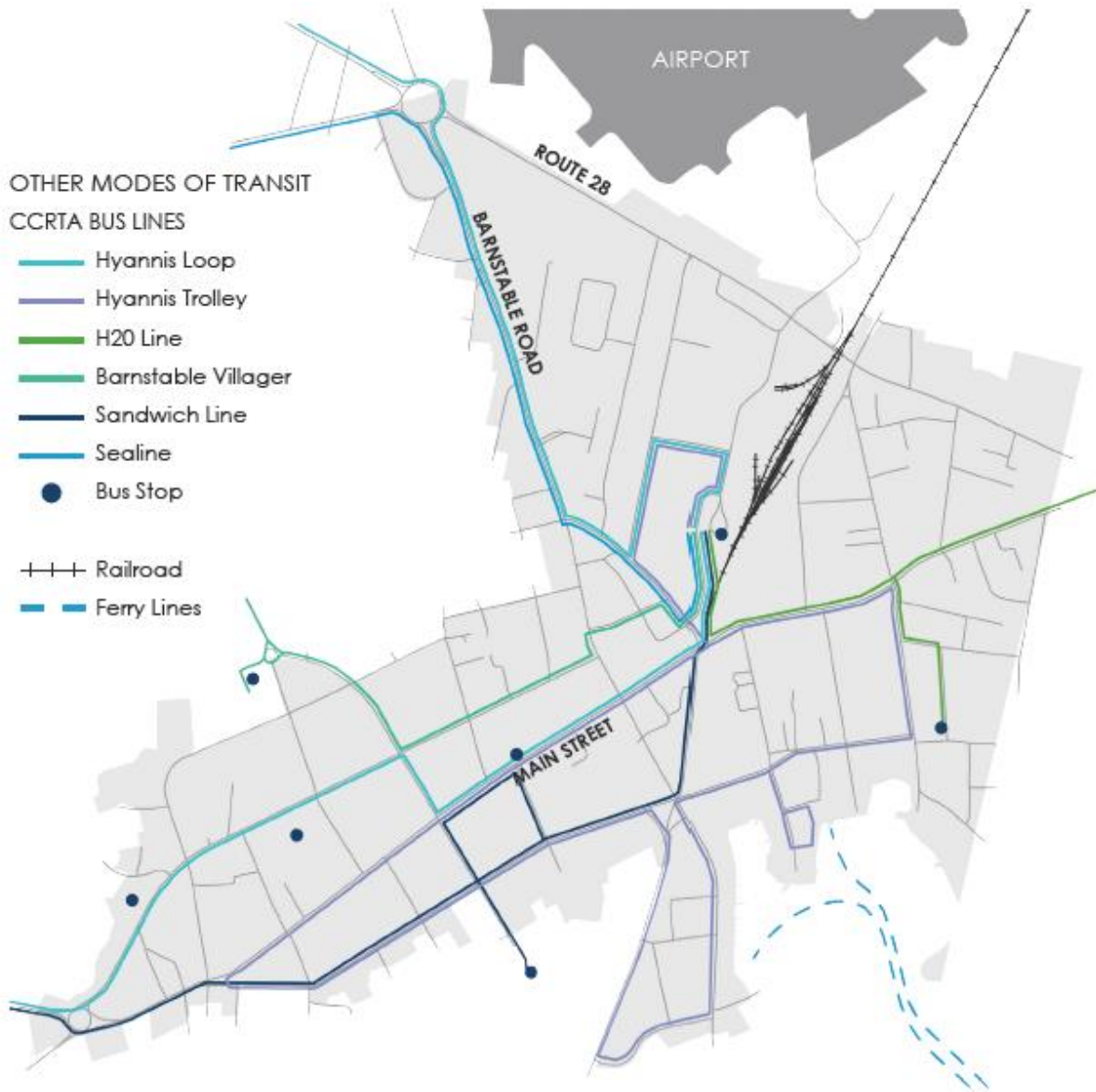
Basis for Cost Estimates: DPW Cost Estimate - Placeholder

Project Estimated Completion Date: TBD **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	TBD	GIZ related Projects
2021	TBD	GIZ related Projects
2022	TBD	GIZ related Projects
2023	TBD	GIZ related Projects

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None. The infrastructure exists currently. Changing its capacity is not envisioned to change its operational needs, unless a new pump station, etc., is required.

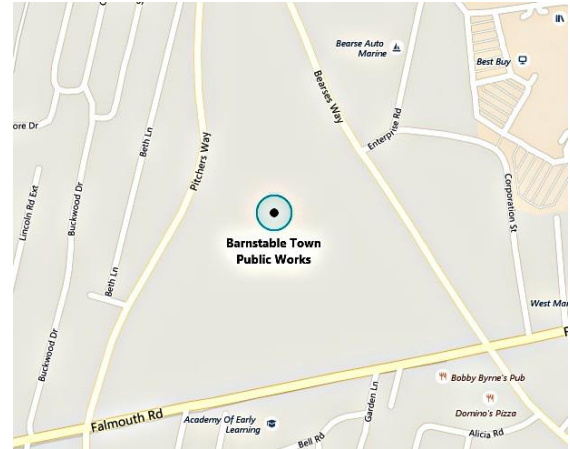


Growth Incentive Zone (GIZ)

Project Working Title: Highway Truck Storage Facilities- Design & Construction

Project Location: 382 Falmouth Road, Hyannis, MA 02601

Project Description: This project is for the design of a new enclosed and insulated truck garage, with drive-through capability, which will be used to park, store and secure snowplows, trucks and equipment. The new building will incorporate the design of taller doors, which will allow for access by larger equipment, and will 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. Following projects include construction of the truck storage garage and site improvements developed in this phase.



Project Justification: This Project will involve design work required to create a new enclosed and insulated truck garage. This is a badly needed space to provide for the protection, storage and protection of valuable trucks and equipment. Currently most trucks are left outside which causes them to deteriorate at a much faster rate. Equipment and vehicles stored outside cannot be accessed quickly during storm events and emergencies.

Impact of Denial/Postponement: Vehicles and snow removal equipment will continue to deteriorate from being exposed to the elements. Outside storage of equipment negatively affects snow and ice operations. The construction of the truck garage will resolve this issue.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting		\$305,256
Construction or Acquisition		-	\$3,815,700
Project Management		\$75,000	\$77,630
Project Contingency		-	\$381,570
All Other Costs		\$30,000	\$25,000
Total Project Cost		\$410,256	\$4,299,900

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$410,256	Phase 1V - Design of new Highway Truck Garage
2021	\$4,299,900	Phase V - Construction of new Highway Truck Garage

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Increased operating costs will be incurred for utilities of \$23,500 per year and additional maintenance costs of \$13,000 per year. Protecting and increased longevity of equipment will offset some of these additional expenses.



Public Works Highway Equipment – Outside Storage

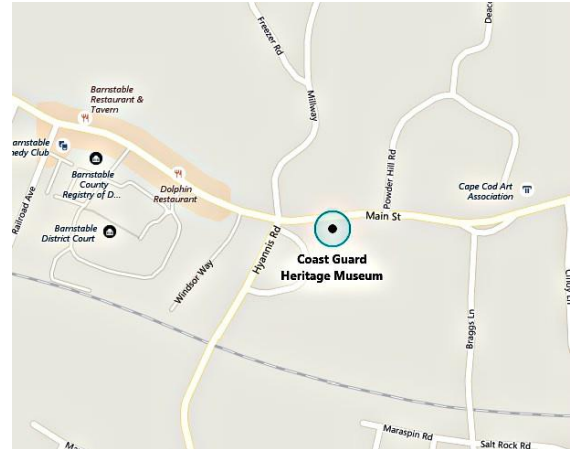
Project Working Title: U.S. Custom House Interior Work

Project Location: 3353 Main St, Barnstable, MA 02630

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 an 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 2019	Future FY
Design & Permitting	-	\$29,435
Construction or Acquisition	-	\$267,595
Construction Contingency	-	\$26,760
Project Management	-	\$14,718
Project Contingency	-	\$29,435
Total Project Cost	-	\$367,943

Basis for Cost Estimates: Architect Assisted In-House Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** 10

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$367,943	Phase III interior design and restoration

Source of Funding: Capital Trust Fund Reserves 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.

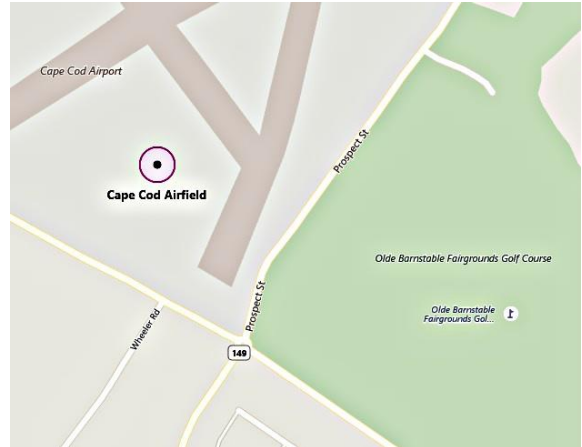


U.S Customs House Interior

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 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 2019	Future FY
	Design & Permitting	-	\$31,000
Construction or Acquisition	-	\$257,144	
Project Management	-	\$15,375	
Project Contingency	-	\$25,626	
All Other Costs	-	\$11,975	
Total Project Cost	-	\$341,120	

Basis for Cost Estimates: Architect Assisted & DPW Cost Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** 8

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$341,120	Design and Construction / Repair

Source of Funding: Capital Trust Fund Reserves 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.



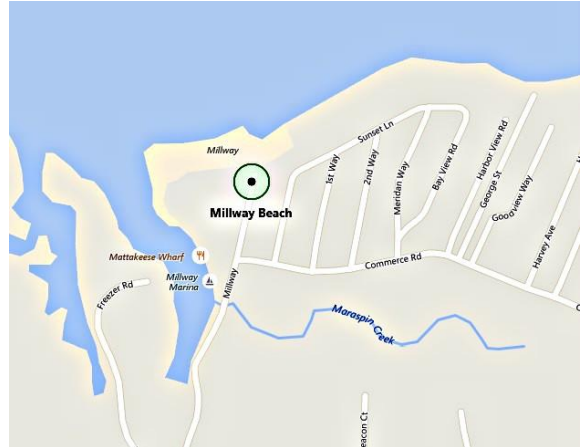
Cape Cod Airfield Hangar

Project Working Title: Millway Beach ADA Access

Project Location: 399 Millway, Barnstable, MA 02630

Project Description: This project will fund the design and construction of a new ADA ramp to the beach.

Project Justification: Currently there is inadequate beach access for disabled persons at this location. The Architectural Access Board Regulations require the provision of code-compliant access to amenities provided by the Town. Temporary solutions have been attempted at this site, which have not satisfactorily met access requirements. This project would provide a permanent solution.



Impact of Denial/Postponement: Use of the facility will continue to violate current access requirements by not providing compliant access. The town will continue to be susceptible to legal action including civil rights violations. The Town is required to provide access to amenities that it provide to the public. Certain members of the public will continue to be in danger of injury from inadequate access.

Project Cost Estimates:	FY 2019	Future FY
	Design & Permitting	-
Construction or Acquisition	-	\$254,100
Project Management	-	\$12,705
Project Contingency	-	\$25,410
Total Project Cost	-	\$304,920

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 4 **Construction (months)** 4

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	\$304,920	Design and Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: N/A



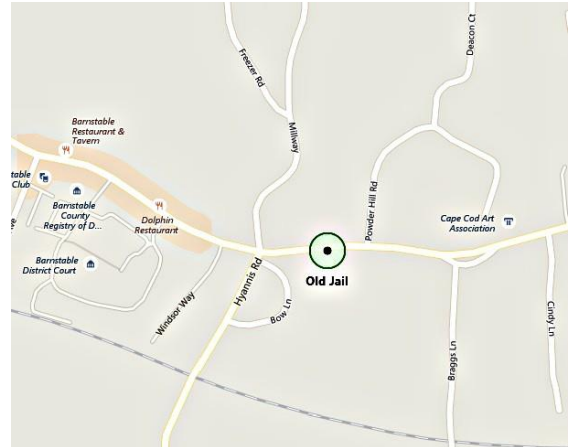
Americans with Disabilities PathMat Beach Access Walkway

Project Working Title: Old Jail Repairs

Project Location: 3365 Main Street, Route 6A, 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: 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.



Impact of Denial/Postponement: Continued deferred maintenance of this facility will contribute to its continued deterioration.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$42,000
	Construction or Acquisition	-	\$242,316
	Project Management	-	\$36,000
	Total Project Cost	-	\$320,316

Basis for Cost Estimates: Architect Assisted & DPW Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 6 **Construction (months)** 8

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	-	-
2022	\$320,316	Design / Construction / Restoration / Preservation

Source of Funding: Capital Trust Fund Reserves 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.

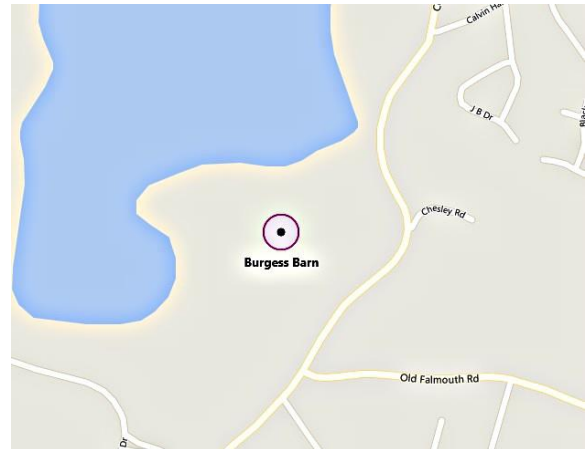


Old Jail House Interior and Exterior Repairs Needed

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 in a state of significant disrepair and in danger of being lost. Recently CPA funding was approved to preserve the exterior of the building. Work is being complete to shore up structural elements. Windows and doors have been restored and new siding has been installed. The roof was replaced in 2016. Additional funding for would allow the building to become usable by added ADA access, toilet and storage facilities. Without additional funding, the building would be 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 2019	Future FY
	Design & Permitting	-	\$24,344
	Construction or Acquisition	-	\$304,304
	Project Management	-	\$15,215
	Project Contingency	-	\$37,727
	Total Project Cost	-	\$381,590

Basis for Cost Estimates: Architect Assisted & DPW Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 6 **Construction (months)** 8

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	\$46,856	Design
2022	\$334,734	Construction / Stabilization

Source of Funding: Capital Trust Fund Reserves or possible Community Preservation Funds

Operating Budget Impact now or in future: None. This project adds additional features to the existing structure and would require increase in utility and maintenance (janitorial) costs. Rental / lease fees would offset these additional utility and cleaning costs.



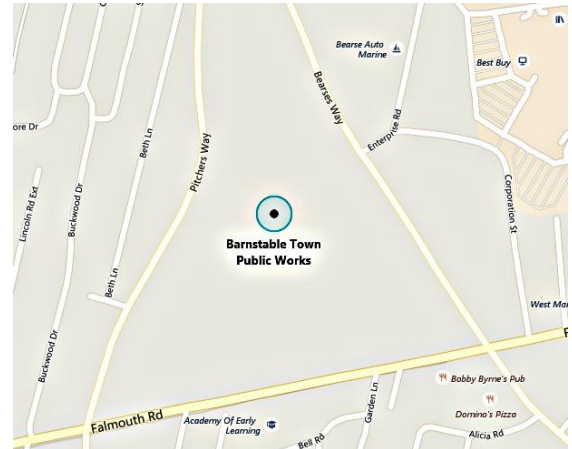
Burgess Barn Interior and Exterior Needed Repairs

Project Working Title: DPW Salt Storage Facility

Project Location: 382 Falmouth Road, 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 and the transfer station. Together, the capacity of both salt sheds yields 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. In addition, 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.



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 2019	Future FY
	Design & Permitting	-	\$163,000
Construction or Acquisition	-	\$1,630,000	
Project Management	-	\$163,000	
Project Contingency	-	\$82,000	
Total Project Cost	-	\$2,038,000	

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$2,038,000	Design & Construction of a Salt Shed

Source of Funding: Capital Trust Fund Reserves

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.

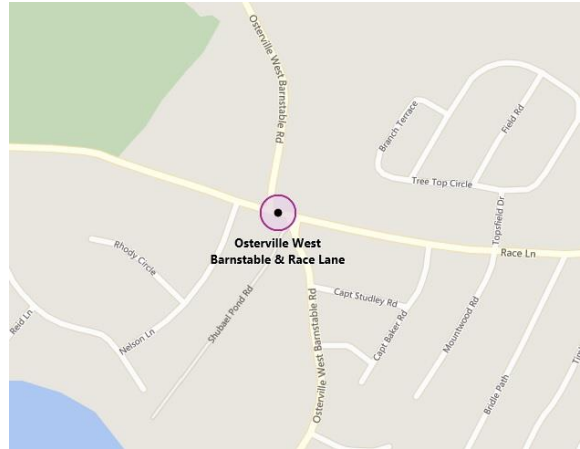


DPW Salt Storage Facility

Project Working Title: Signalized Intersection at Osterville West Barnstable Road and Race Lane

Project Location: Osterville West Barnstable & Race Lane, Marstons Mills, MA 02648

Project Description: In January 2012, a traffic engineering inventory, analysis, and operations plan was developed for 24 existing Town-owned traffic signal systems. A recommendation from this study concluded signalized of the intersection of Osterville West Barnstable Road and Race Lane.



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 2019	Future FY
	Design & Permitting	-	\$75,000
	Construction or Acquisition	-	\$300,000
	Project Contingency	-	\$100,000
	Total Project Cost	-	\$475,000

Basis for Cost Estimates: Consultant Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$75,000	Design
2021	\$400,000	Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: The additional cost would consist of maintenance and electrical metering.



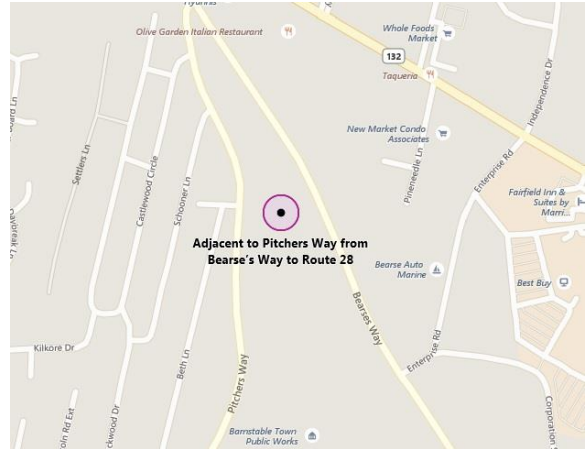
Osterville West Barnstable & Race Lane, Marstons Mills Intersection

Project Working Title: Sidewalks on Pitchers Way (Bears’s Way to Route 28) Design & Construction

Project Location: Adjacent to Pitchers Way from Bears’s Way to Route 28

Project Description: Provide pedestrian access for residents along Pitchers Way and its abutting streets to the commercial area north by Route 132 and south by 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 attractions on Route 132. An unfortunate pedestrian fatality on 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 2019	Future FY
		Construction or Acquisition	-
	Construction Contingency	-	\$45,000
	Project Management	-	\$50,000
	Project Contingency	-	\$50,000
	Total Project Cost	-	\$595,000

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$595,000	Project Construction & Project Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Normal maintenance requirements will be expanded to this section of sidewalk including snow removal.



Create Sidewalks on Pitchers Way (Bears Way to Route 28)

Project Working Title: Private Road Repair

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." In FY2016, two roads were improved under this legislation Flint Street and Willow Street. For this CIP, it is proposed repair Asa Meigs Road, School Street and Old Mill Road in Marstons Mills.

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 2019	Future FY
	Design & Permitting	-	\$100,000
Construction or Acquisition	-	\$1,750,000	
Project Contingency	-	\$400,000	
Total Project Cost	-	\$2,250,000	

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: N/A **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$750,000	Design and Construction
2021	\$750,000	Design and Construction
2022	\$750,000	Design and Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Repairs should result in a decrease of emergency repairs to private roads required for these three roads.



Asa Meigs Road, School Street and Old Mill Road in Marstons Mills Needed Repairs

Project Working Title: Scudder’s Lane Boat Ramp Design & Construction

Project Location: 210 Scudder’s Lane, 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 access to important shell fishing and recreational boating.

Project Cost Estimates:	FY 2019	Future FY
Design & Permitting	-	\$30,600
Construction or Acquisition	-	\$170,000
Project Management	-	\$10,200
Project Contingency	-	\$44,200
All Other Costs	-	\$500
Total Project Cost	-	\$255,500

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: N/A **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$255,500	Design & Construction

Source of Funding: Capital Trust Fund Reserves

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

Project Working Title: Parking Lots Maintenance

Project Location: Various Town Parking Lots

Project Description: A recurring, annual budget, for refurbishing the Town's municipal parking lots.

Project Justification: The Town has 54 parking lots that the DPW maintains. These range from the large, highly-used, ones such as the Town Hall Parking Lot and Craigville Beach Parking Lot (over 20,000SY); to smaller ones such as the Bay Street Landing Parking Lot (almost 600SY). 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 visitors and residents 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 2019	Future FY
	Design & Permitting	-	\$200,000
	Construction or Acquisition	-	\$1,800,000
	Total Project Cost	-	\$2,000,000

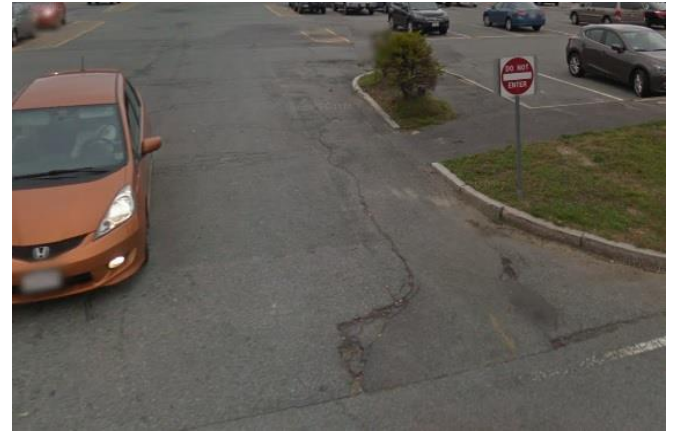
Basis for Cost Estimates: DPW Cost Estimate. A traditional Mill and Overlay of a parking lot is budgeted at approximately \$20/SY, without significant drainage or lighting work. This budget will allow essentially one large parking lot in a year, or multiple smaller ones.

Project Estimated Completion Date: - **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$500,000	Annual Parking Lot Program
2021	\$500,000	Annual Parking Lot Program
2022	\$500,000	Annual Parking Lot Program
2023	\$500,000	Annual Parking Lot Program

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Work will be completed by contractors, and project-funded employees; and scheduled during traditionally slower times for the Engineering inspectors.

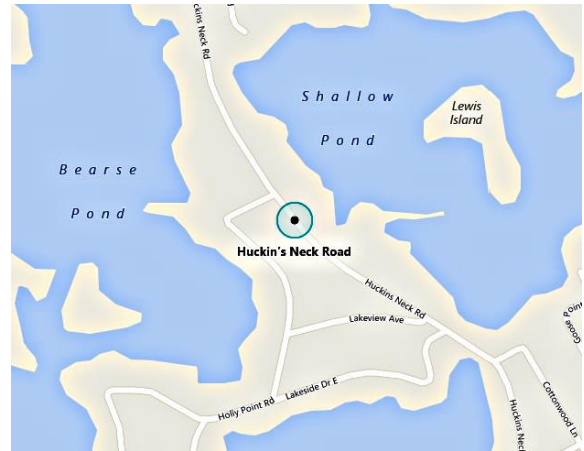


Various Parking Lots Town wide

Project Working Title: Huckin's Neck Road Reconstruction

Project Location: Centerville, connecting Phinney's Lane with Route 132, MA 02632

Project Description: Project includes roadway reclamation of Huckin's Neck Road, which is approximately 6,500 feet long, which consists of 12-inches of reclaimed base, 2.5-inches of stone base and 4-inches of binder and final paving and storm water improvements. The project also includes horizontal and vertical sight line improvements. Design of this project was previously funded by the DPW Public Roads Maintenance CIP.



Project Justification: The "Roadway Asset Management" system identified this section of roadway as needing of repair. The road surface was inspected and received a 'very poor' rating. The road also has drainage issues that need to be corrected. There are sections of Huckin's Neck which have substandard horizontal and vertical geometry. The minimum width of a road should be 20 feet, while sections of Huckin's Neck Road are 17 feet wide.

Impact of Denial/Postponement: The roadway surface will continue to deteriorate and cause more frequent "call outs" for repair. Failed storm water systems create water quality issues, which roadway runoff into adjacent ponds will not be addressed and safety of the traveling public could be jeopardized. Isolated flooding areas will not provide proper emergency access.

Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition		-
Project Management		-	\$142,000
Project Contingency		-	\$569,500
All Other Costs		-	\$5,000
Total Project Cost		-	\$3,566,500

Basis for Cost Estimates: Consultant Cost Estimate & DPW Engineering Dept.

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** 18

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$3,566,500	Construction and construction management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Normal maintenance will need to be continued by the DPW Highway Division. A reduction in "call outs" for emergency repairs will be experienced. Additional cost for snow removal of the sidewalks would occur.



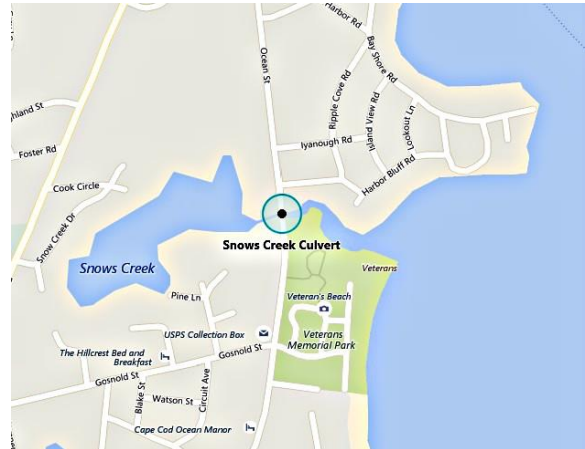
Huckin's Neck Road

Project Working Title: Snows Creek Culvert Construction

Project Location: Snows Creek crossing at Ocean Street Hyannis, MA 02601

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

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. This will improve water quality. A new sidewalk is also proposed on the east side of Ocean Street as part of the project.



Impact of Denial/Postponement: Failure to construct this project will mean further deterioration of the 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 2019	Future FY
	Construction or Acquisition	-	\$950,000
Project Management	-	\$95,000	
Project Contingency	-	\$285,000	
All Other Costs	-	\$100,000	
Total Project Cost	-	\$1,430,000	

Basis for Cost Estimates: Consulting Engineers & DPW review

Project Estimated Completion Date: 2021 **Design & Permit (months)** - **Construction (months)** 7

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$1,430,000	Project Construction and project Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: This project will increase the Town’s annualized maintenance costs by an estimated \$2,800 per year for snow clearing, sweeping, brush clearing, pavement maintenance and repairs, railing maintenance and repairs, grate cleaning, and wingwall/headwall/culvert inspection, cleaning, sealing and repairs.

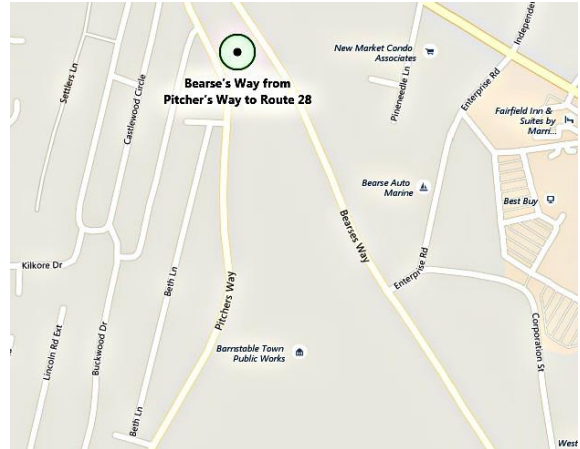


Snows Creek Culvert

Project Working Title: Bearse’s Way Bike Path Construction

Project Location: Bearse’s Way from Pitcher’s Way to Route 28, MA 02601

Project Description: Project includes the construction of a multi-use path with an asphalt surface twelve (12) feet wide located between the road edge and adjacent property boundaries. The majority of the route will maintain a wide green space between the road and the path. The path will join the soon to be constructed path approach to Route 28 that forms part of the MassDOT Bearse’s Way/ Route 28 intersection improvement project presently under construction. This path will allow cyclists to avoid riding on the busy, high-speed section of Bearse’s Way roadway.



Project Justification: This path will complete a bike access route to Hyannis joining the existing path running along Route 132 from Shootflying Hill Road to the multi-use path along Bearse’s Way south of Route 28, The impending construction of the Route 28 /Bearse’s Way intersection project will allow safe crossing of Route 28.

Impact of Denial/Postponement: Failure to complete this project will result in an unsafe section of roadway for bicycle riders expecting to travel toward Hyannis on the existing bike route links.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$100,000
	Construction or Acquisition	-	\$700,000
	Project Contingency	-	\$200,000
	Total Project Cost	-	\$1,000,000

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$100,000	Completion of project design
2021	\$900,000	Project construction & project management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: This project will increase the Town’s sidewalk maintenance costs by an estimated \$3,300 per year for snow clearing, sweeping, brush clearing, and pavement maintenance and repairs.



Location of Bike Path at Bears's Way from Pitcher's Way to Route 28

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 2019	Future FY
	Design & Permitting	-	\$62,400
	Construction or Acquisition	-	\$624,000
	Project Management	-	\$10,400
	Project Contingency	-	\$69,160
	All Other Costs	-	\$31,200
	Total Project Cost	-	\$797,160

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 12 **Construction (months)** 8

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	\$797,160	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 Reserves

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.

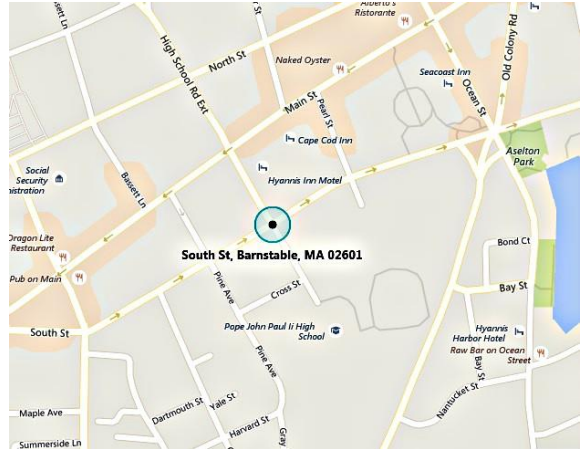


Sidewalk Installation: Bumps River Rd Centerville, Main St Cotuit, South St Hyannis

Project Working Title: South Street Improvements Design and Construction

Project Location: South Street Hyannis (Main Street to Lewis Bay Road), MA 02601

Project Description: Design and construction of a complete street, involving traffic flow analysis, addressing bicycle and pedestrian movement needs and installing new infrastructure including sidewalks, roadway surface and storm water upgrades.



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 2019	Future FY
Design & Permitting	-	\$290,000
Construction or Acquisition	-	\$2,727,000
Project Management	-	\$275,500
Project Contingency	-	\$420,000
All Other Costs	-	\$105,000
Total Project Cost	-	\$3,817,500

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 12 **Construction (months)** 24

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$290,000	Design and Permitting
2021	\$3,527,500	Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: With new construction, extra maintenance from Highway division will be reduced. Additional electrical cost will occur if decorative lighting is added.





South Street Hyannis

Project Working Title: Barnstable Road Reconstruction Design and Construction

Project Location: Barnstable Road, Hyannis, MA 02601

Project Description: The project will consist of a complete reconstruction of Barnstable Road in Hyannis and its associated utilities. The Water Division has previously requested, and been granted, design monies for their pipe replacement. The Water Pollution Control Department is making a similar request for their pipe in this year’s CIPs. This request is to cover the design of the storm water utilities, and actual road reconstruction.



Project Justification: The April 2007 Water Division Master Plan recommended a 3,200 feet water main in Barnstable Road to be replaced. The Water Pollution Control Division has sewer in the Barnstable Road that dates back to the 1930s. Barnstable Road is expected to deteriorate over the next 5-10 years. As a result, 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 2019	Future FY
Design & Permitting	-	\$225,000
Construction or Acquisition	-	\$1,790,000
Project Management	-	\$225,000
Project Contingency	-	\$645,000
Total Project Cost	-	\$2,885,000

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2023 **Design & Permit (months)** 12 **Construction (months)** 9

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$225,000	Design and Permitting
2021	-	-
2022	\$2,660,000	Construction

Source of Funding: Capital Trust Fund Reserves

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.

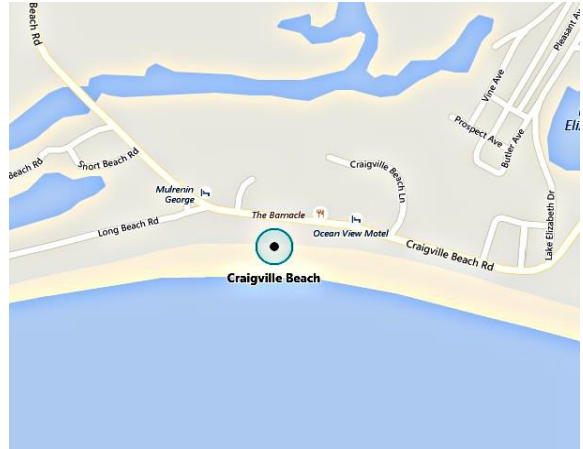


Barnstable Road, Hyannis, MA 02601

Project Working Title: Craigville Beach Road Pump Station and Force Main

Project Location: 997 Craigville Beach Rd, Centerville, MA 02632

Project Description: Construct a new wastewater pumping station beside the existing bathhouse, standby generator, construction of a sanitary sewer force main and collector line in anticipation of sewer expansion in the area. This project will also include rehabilitation of the roadway after construction to include trench patching.



Project Justification: Craigville Beach is one of the most heavily utilized beaches in Town. In 2014, the FEMA maps rezoned the area of the Craigville Beach bathhouse as part of the flood (velocity) zone. The Town’s Board of Health has no record of the existing septic tank at the bathhouse. Its condition and capacity is unknown and may fail in the near future.

The project location lies directly within the Districts of Critical Planning Concern, DEP Wetlands, Nitrogen Removal area, and Area of Concern (AOC) as identified in the Comprehensive Wastewater Management Plan (June 2010) and Wastewater Facilities Plan (1994). Identified as an AOC in 1994, this area was found to not be suitable for septic systems. While this project does not address the entire sewer extension to this area, it will provide the backbone infrastructure needed to allow future connections. This project will address approximately 140 properties and their future wastewater needs.

Impact of Denial/Postponement: Denial of the project will result in Town not being able to provide alternatives for nearby residents with failing septic systems, which will affect nearby receiving waters.

Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$577,500
Construction or Acquisition	-	\$2,923,000	
Project Contingency	-	\$700,000	
Total Project Cost	-	\$4,200,500	

Basis for Cost Estimates: DPW Engineering Estimates

Project Estimated Completion Date: 2023 **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	\$577,500	Design
2022	\$3,623,000	Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: A new pump station would bring additional costs for maintenance, electrical, gas and personnel.

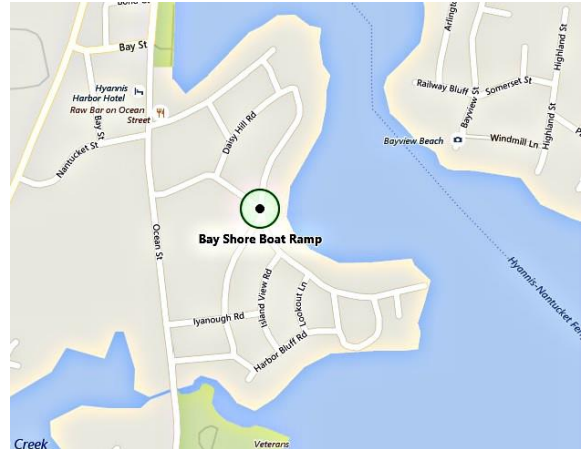


Craigville Bathhouse Septic Location

Project Working Title: Bay Shore Road Boat Ramp-Design and Construction

Project Location: Bay Shore Road, Hyannis, MA 02601

Project Description: The existing boat ramp will be replaced and the adjacent parking area will be reconstructed with storm water detention or retention 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. Storm water 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 2019	Future FY
	Design & Permitting	-	\$50,000
	Construction or Acquisition	-	\$350,000
	Project Contingency	-	\$100,000
	Total Project Cost	-	\$500,000

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 12 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	\$50,000	Design & Permitting
2022	\$450,000	Construction & Construction Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Normal operating costs for the facility will continue.



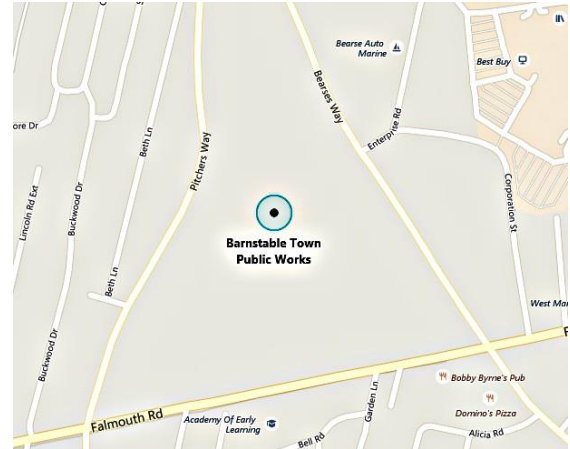
Bay Shore Road Boat Ramp

Project Working Title: DPW 382 Falmouth Rd Facility Parking Lot Repairs

Project Location: 382 Falmouth Road, 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 2019	Future FY
	Construction or Acquisition	-	\$220,000
	Project Contingency	-	\$44,000
	Total Project Cost	-	\$264,000

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	-	-
2022	\$264,000	Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: There would be no negative impact on the operating budget.



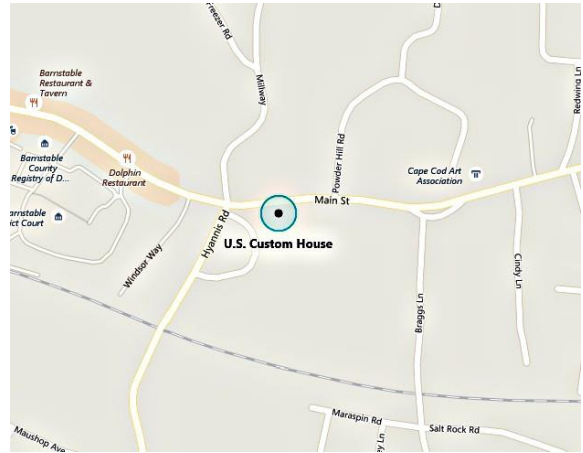
DPW Facility Parking Lot Repairs

Project Working Title: U.S. Custom House Site Improvements

Project Location: 3353 Main Street, 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 landscape is now necessary. Landscape items such as the historic cast iron fence is deteriorating or missing. Parking areas have deteriorated and become undefined. 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 2019	Future FY
	Design & Permitting	-
Construction or Acquisition	-	\$177,100
Project Management	-	\$8,855
Project Contingency	-	\$8,855
Total Project Cost	-	\$221,375

Basis for Cost Estimates: DPW Cost Estimates

Project Estimated Completion Date: 2022 **Design & Permit (months)** 6 **Construction (months)** 8

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	\$26,565	Site Restoration Design
2022	\$194,810	Site Restoration Construction

Source of Funding: Capital Trust Fund Reserves

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 affect the Operating Budget.



U.S. Custom House Site Improvements

Project Working Title: Sidewalk Overlay and Guardrail

Project Location: Town wide

Project Description: There are two aspects to this project, the first is to remove and replace approximately 6,000 linear feet of old deteriorated concrete post and steel cable guardrails. The second is to remove old broken asphalt, and vegetation, from within existing sidewalks' footprints, and overlay them with a 1.5 inch layer of new asphalt.

Project Justification: The Town of Barnstable has approximately 9.2 miles of guardrail, a significant portion does not meet the Manual on Uniform Traffic Control Devices (MUTCD) standards and needs replacing. A large number of sidewalks throughout the Town are in need of significant repair. Many have pavement that is in poor condition, may be heaving with roots, and have narrowed over time due to the encroachment of vegetation. This is a safety issue for those that are trying to use those sidewalks, and makes the sidewalks difficult to maintain during snow and ice.

Impact of Denial/Postponement: Though delayed a year, completely curtailing these programs would be a mistake, and expose the citizens of the Town to significant safety issues.

Project Cost Estimates:		FY 2019	Future FY
		Construction or Acquisition	-
	Total Project Cost	-	\$1,422,000

Basis for Cost Estimates: Barnstable County Bid - Construction Costs are based on an average of \$23.80 per lineal foot as determined by the Barnstable County Contract for weathered steel beam cor-10 Guardrail with wooden posts with a 3% increase annually. Sidewalk costs are based on a linear footage price from an invitation for bid including prep work.

Project Estimated Completion Date: - **Design & Permit (months)** - **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$330,000	Design and Construction
2021	\$346,000	Design and Construction
2022	\$364,000	Design and Construction
2023	\$382,000	Design and Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: This is existing infrastructure, which is already being maintained. This work should decrease the need for expenditures in the short term.



Deteriorating Sidewalks

Police General Fund Projects

PROJECT: POL-19-1

DEPARTMENT PRIORITY: 1 of 1

Project Working Title: Barnstable Police Department Window Replacement

Project Location: 1200 Phinney's Lane, Hyannis, MA 02632

Project Description: The Police Department facility was constructed over 30 years ago. The windows in the original building are coming to the end of their useful life and need replacement.

Project Justification: 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.



Impact of Denial/Postponement: Windows will continue to deteriorate, compromising energy efficiency and will allow the continued deterioration of the building envelope. Inflation will continue to erode purchasing power.

Project Cost Estimates:	FY 2019	Future FY
	Design & Permitting	-
Construction or Acquisition	-	\$620,000
Project Management	-	\$40,000
Project Contingency	-	\$75,000
Total Project Cost	-	\$846,600

Basis for Cost Estimates: DPW Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 8

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	-	-
2021	\$846,600	Design & Construction

Source of Funding: Capital Trust Fund Reserves or Community Preservation Funds

Operating Budget Impact now or in future: None. This project will stabilize an existing Town building and would require marginal increase in utility costs.



Police Department Windows

School Department Projects

PROJECT: SCH-19-5

DEPARTMENT PRIORITY: 5 of 22

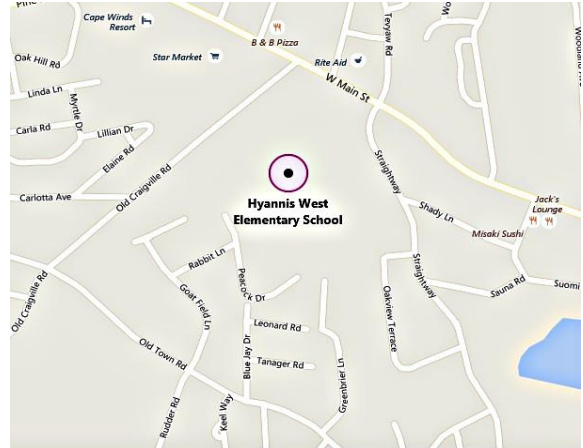
Project Working Title: Hyannis West Walk-In Cooler & Freezer Upgrades

Project Location: 549 West Main Street, Barnstable, MA 02601

Project Description: Replacement of existing walk-in cooler and freezer at HYW ES.

Project Justification: The existing equipment has reached its end of life causing safety, reliability, and efficiency problems. The units suffer from faulty and damaged door assemblies and slippery floors due to icing problems.

Impact of Denial/Postponement: Denial or postponement will result in the continued expense for repairs to operate equipment, spoiled food and increase the risk of injury to employees.



Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition	\$110,000	-
	Project Contingency	\$15,000	-
	Total Project Cost	\$125,000	-

Basis for Cost Estimates: Previous Project Costs & Vendor Estimates

Project Estimated Completion Date: 2019 **Design & Permit (months)** 1 **Construction (months)** 4

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$125,000	Replace walk-in cooler & freezer at HYW

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Replacement refrigeration equipment will be high efficiency and will qualify utility rebates. Energy consumption will be reduced by a minimum of 10%.



HYW Walk-In Freezer



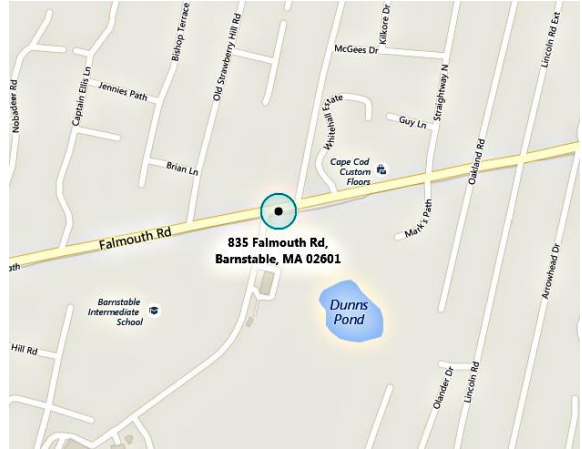
HYW Air Cooled Compressor

Project Working Title: School Facilities Maintenance Operations Building Roof Replacement

Project Location: 835 Falmouth Road, Barnstable, MA 02601

Project Description: Replace existing roof on school facilities maintenance operations building.

Project Justification: Existing roof has numerous leaks and has been patched numerous times. The facilities building house all of the district’s office, facilities maintenance and grounds operations. Additionally, the building is used for the warehousing of custodial paper and cleaning supplies. The current condition of the roof compromises dry storage of supplies, records and equipment.



Impact of Denial/Postponement: Denial or postponement of this request will result in damage and loss of school facilities assets.

Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition	\$75,000	-
	Total Project Cost	\$75,000	-

Basis for Cost Estimates: Vendor Budgetary Estimates

Project Estimated Completion Date: 2018 **Design & Permit (months)** 1 **Construction (months)** 2

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$75,000	Facilities Building Roof Replacement

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Replacement of roof will extend the useful life of the building ~ 20 years.



School Facilities Maintenance Operations Building

PROJECT: SCH-19-8

DEPARTMENT PRIORITY: 8 of 22

Project Working Title: Building Interior & Exterior Painting Improvements

Project Location: District-wide

Project Description: Repair and Paint Common Building Areas.

Project Justification: Preventative Maintenance and Aesthetics.

Impact of Denial/Postponement: Denial or postponement of this project will affect visual appearance and life of interior/exterior of district buildings.

Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition	\$100,000	\$400,000
Total Project Cost	\$100,000	\$400,000	

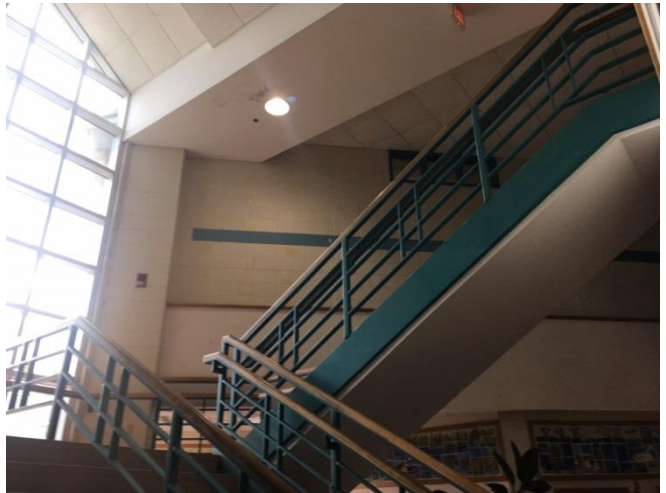
Basis for Cost Estimates: Vendor Quotes

Project Estimated Completion Date: 2022 **Design & Permit (months)** - **Construction (months)** 60

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$100,000	Painting
2020	\$100,000	Painting
2021	\$100,000	Painting
2022	\$100,000	Painting
2023	\$100,000	Painting

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Repair and painting will protect building surfaces from deterioration and the need for more extensive repairs.



School Facilities Interior Needing Painting

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.

Project Justification: Existing flooring is 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, which will cause safety issues.

Project Cost Estimates:		FY 2019	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: 2018 **Design & Permit (months)** 1 **Construction (months)** 3

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$100,000	Flooring
2020	\$100,000	Flooring
2021	\$100,000	Flooring
2022	\$100,000	Flooring
2023	\$100,000	Flooring

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None



Barnstable West Barnstable Gym Floor



Barnstable High School Hallway Floor



Barnstable High School Hallway Ramp



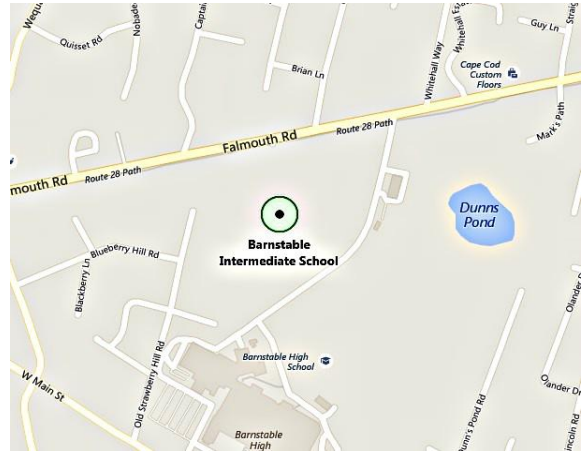
Project Working Title: Barnstable Intermediate School Walk-In Freezer

Project Location: 895 Falmouth Road, Hyannis, MA 02601

Project Description: A new walk-in freezer at Barnstable Intermediate School (BIS).

Project Justification: Existing reach-in unit is at end of life and does not have enough food storage capacity to support current lunch program.

Impact of Denial/Postponement: Denial or postponement affects efficient food handling and storage operations. Eventual permanent failure of existing reach-in could result in loss of food inventory.



Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$10,000
	Construction or Acquisition	-	\$65,000
	Total Project Cost	-	\$75,000

Basis for Cost Estimates: Previous Installations & Vendor Budgetary Quotes.

Project Estimated Completion Date: 2019 **Design & Permit (months)** 2 **Construction (months)** 2

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$75,000	BIS Walk-In Freezer

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None



Barnstable Intermediate School Reach-In Freezer



Proposed Space for New Walk-In Freezer

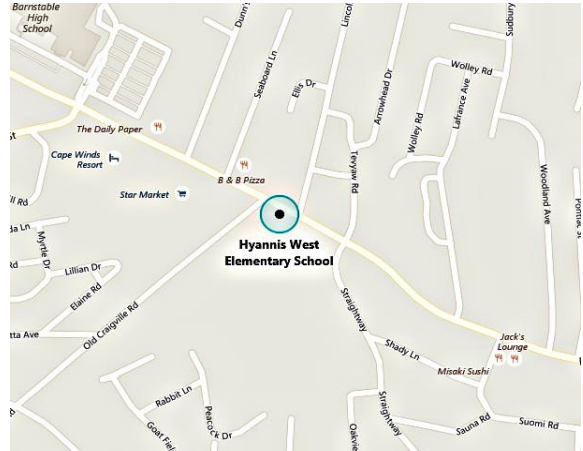
Project Working Title: Hyannis West Interior/Exterior Door Replacement

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 2019	Future FY
	Construction or Acquisition	-	\$200,000
	Total Project Cost	-	\$200,000

Basis for Cost Estimates: Previous Installations & Vendor Budgetary Quotes.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 2 **Construction (months)** 4

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	HYW Door Replacement
2020	\$100,000	HYW Door Replacement
2021	\$100,000	HYW Door Replacement

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Will realize energy savings due to reduced air/water infiltration.



Hyannis West Door Needing Replacement

Project Working Title: Barnstable High School (BHS) Gym and Field House Improvements

Project Location: 744 Main Street, Hyannis, MA 02601

Project Description: Repairs to Barnstable High School’s Field House interior space and doors. The Field House’s open room design allows for ultimate athletic and wellness program flexibility and is large enough to host large community events and town meetings. We use the field house for freshman and JV volleyball practice and games. It is also used in the fall on inclement weather days by football, field hockey, boys’ soccer and girls’ soccer teams as a practice facility during the week. It is used on Saturday mornings as a workout area for JV/Varsity football. We host multiple school pre-season volleyball playdates. In the winter, it is used for sub varsity boys and girls basketball practices and as a winter track training facility during the week and on Saturdays. We also host wrestling, volleyball and basketball tournaments. The scope of the project includes flooring, painting and equipment upgrades.



Project Justification: Improvements are necessary to be able to provide safe and acceptable areas for sports programs.

Impact of Denial/Postponement: Denial or postponement of this project will cause floors, walls and equipment to suffer continued deterioration and increased safety liabilities.

Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition	-	\$750,000
	Total Project Cost	-	\$750,000

Basis for Cost Estimates: Past Project Cost

Project Estimated Completion Date: 2019 **Design & Permit (months)** 2 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$250,000	Field House Improvements
2021	\$250,000	HS Gym & Field House Improvements
2022	\$250,000	HS Gym & Field House Improvements

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None

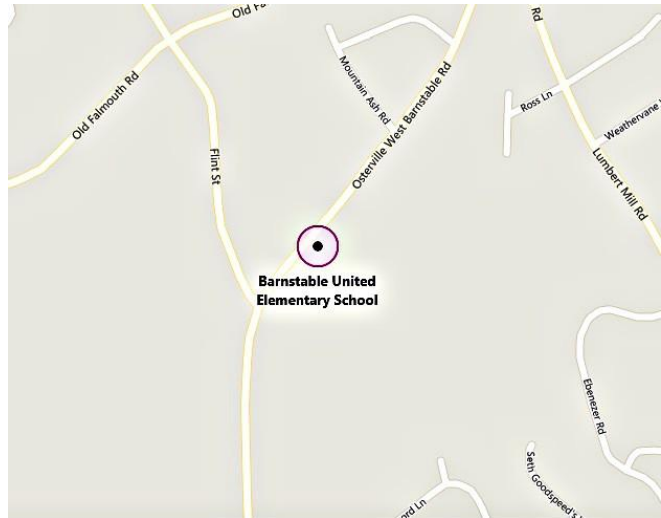


Barnstable High School Field House

Project Working Title: Barnstable United Courtyard Improvements

Project Location: 730 Osterville-West Barnstable, Marston 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 bios wales. 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 2019	Future FY
	Construction or Acquisition	-	\$100,000
	Total Project Cost	-	\$100,000

Basis for Cost Estimates: Previous Installations & Vendor Quotes, (Astro Park Experience).

Project Estimated Completion Date: 2019 **Design & Permit (months)** 2 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$100,000	BUE Courtyard Improvements

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None



BUE Courtyard Improvements

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

Project Location: District-wide

Project Description: District wide mechanical system upgrade to include boilers, burners and pumps at all school owned buildings including Osterville and Cotuit.

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 2019	Future FY
	Construction or Acquisition	-	\$1,000,000
	Total Project Cost	-	\$1,000,000

Basis for Cost Estimates: Budgetary Estimates

Project Estimated Completion Date: 2023 **Design & Permit (months)** 12 **Construction (months)** 36

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$250,000	Mechanical Upgrades
2021	\$250,000	Mechanical Upgrades
2022	\$250,000	Mechanical Upgrades
2023	\$250,000	Mechanical Upgrades

Source of Funding: Capital Trust Fund Reserves

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



Cotuit Elementary School Boiler

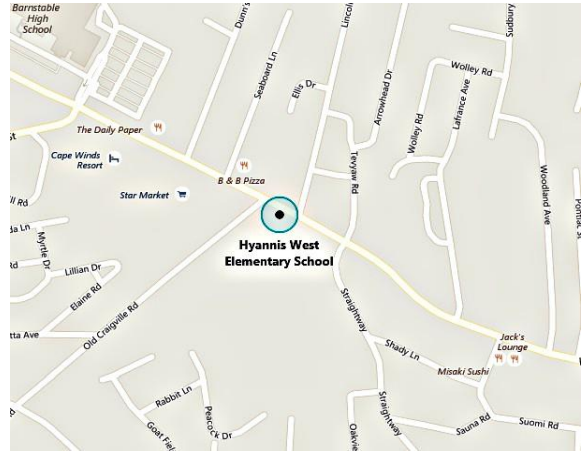
Project Working Title: Hyannis West Elementary Roof Replacement

Project Location: 549 West Main Street, Hyannis, MA 02601

Project Description: Replace existing shingled roof.

Project Justification: Existing roof is > 20 years old and is nearing end of life.

Impact of Denial/Postponement: Denial or postponement of this request may result in interior water damage.



Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$25,000
	Construction or Acquisition	-	\$300,000
	Project Contingency	-	\$25,000
	Total Project Cost	-	\$350,000

Basis for Cost Estimates: Past Project Cost

Project Estimated Completion Date: 2020 **Design & Permit (months)** 3 **Construction (months)** 3

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$350,000	Hyannis West Elementary Roof Replacement

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None



Hyannis West Elementary School Needs Roof Replacement

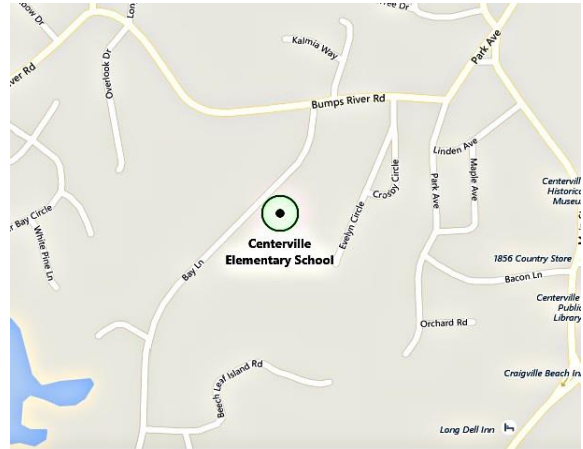
Project Working Title: Centerville Elementary Roof Replacement

Project Location: 658 Bay Lane, Centerville, MA 02632

Project Description: Replace existing shingled roof.

Project Justification: Existing roof is > 20 years old and is nearing end of life.

Impact of Denial/Postponement: Denial or postponement of this request may result in interior water damage.



Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$12,500
	Construction or Acquisition	-	\$175,000
	Project Contingency	-	\$12,500
	Total Project Cost	-	\$200,000

Basis for Cost Estimates: Past Project Cost

Project Estimated Completion Date: 2018 **Design & Permit (months)** 3 **Construction (months)** 3

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$200,000	Centerville Elementary Roof Replacement

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None



Centerville Elementary School Needs Roof Replacement

Project Working Title: BPS 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 2019	Future FY
	Construction or Acquisition	\$225,000	\$950,000
	Total Project Cost	\$225,000	\$950,000

Basis for Cost Estimates: DPW Cost Estimates

Project Estimated Completion Date: 2020 **Design & Permit (months)** 3 **Construction (months)** 48

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	\$225,000	Paving/Masonry/Crack Sealing
2020	\$250,000	Paving/Masonry/Crack Sealing
2021	\$300,000	Paving/Masonry/Crack Sealing
2022	\$400,000	Paving/Masonry/Crack Sealing

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None



Paving/Sidewalks

Project Working Title: Barnstable High School Synthetic Turf Replacement

Project Location: 744 Main Street, Hyannis, MA 02601

Project Description: Replace Field Synthetic Turf

Project Justification: Existing Turf is at the end of 10 year life expectancy (Installed November 2010)

Impact of Denial/Postponement: Denial or postponement will result in continued deterioration to school/town properties and assets.



Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting		-
Construction or Acquisition		-	\$900,000
Project Contingency		-	\$75,000
Total Project Cost		-	\$1,000,000

Basis for Cost Estimates: Vendor Budgetary Quotes

Project Estimated Completion Date: 2020 **Design & Permit (months)** 2 **Construction (months)** 3

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$1,000,000	Replace HS Synthetic Turf

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None



High School Synthetic Turf Replacement

Project Working Title: Electric Utility Transformer Upgrade

Project Location: Barnstable West Barnstable, Barnstable Community Horace Mann Charter Public School, Osterville Elementary, Cotuit Elementary

Project Description: All four 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 2019	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: 2020 **Design & Permit (months)** 6 **Construction (months)** 36

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$300,000	Replace Underground Transformers

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Transformer retrofit will provide increased service reliability.



Typical Underground Transformer Vault

Project Working Title: Bubbler And Water Cooler Replacement

Project Location: District-wide

Project Description: Replacement of existing water coolers and bubblers.

Project Justification: Existing drinking fountains are 20 to 50 years old and at the end of life. Additionally, current concerns regarding lead and copper levels in drinking water warrants strong consideration for replacement.

Impact of Denial/Postponement: Denial or postponement of this project could result in issues with the supply of quality drinking water in our school facilities.

Project Cost Estimates:		FY 2019	Future FY
	Construction or Acquisition	-	\$75,000
	Total Project Cost	-	\$75,000

Basis for Cost Estimates: Costs Determined Using Market Pricing

Project Estimated Completion Date: 2018 **Design & Permit (months)** 1 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$75,000	Bubbler and Water Cooler Replacement

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None



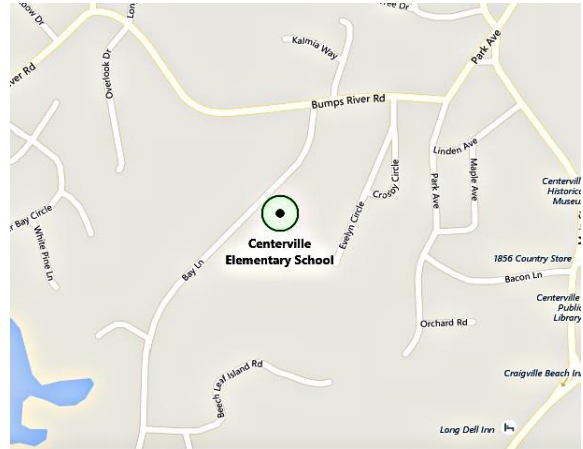
District Bubbler Replacement

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 as a continual source of 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 2019	Future FY
	Design & Permitting	-	\$1,100,000
	Total Project Cost	-	\$1,100,000

Basis for Cost Estimates: Costs Determined Using Market Pricing

Project Estimated Completion Date: 2020 **Design & Permit (months)** 1 **Construction (months)** 12

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$100,000	Window replacement bid documents
2021	\$1,000,000	Window Replacement

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Can expect heating energy savings of +10%, project will qualify for MSBA funding (typically at 30%).



Centerville Windows

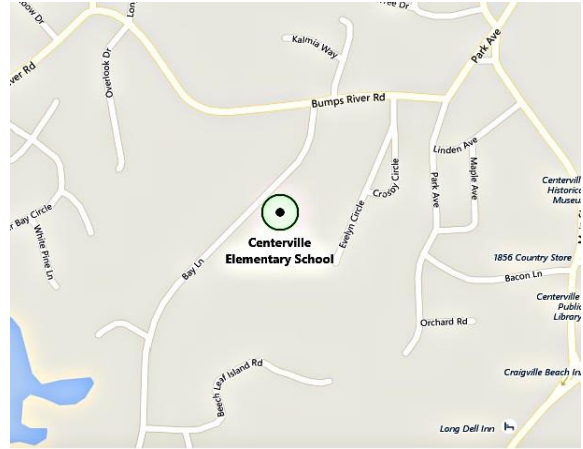
Project Working Title: Centerville Elementary School Elevator Project

Project Location: 658 Bay Lane, Centerville, MA 02632

Project Description: Replace existing wheel chair lift with conventional 2-stop elevator car.

Project Justification: Existing configuration is not suitable for growing population of students needing daily access elevator service between floors.

Impact of Denial/Postponement: Denial or postponement of this request will result in continued use of wheelchair lift, which is not suited for continuous daily use.



Project Cost Estimates:		FY 2019	Future FY
	Design & Permitting	-	\$20,000
	Construction or Acquisition	-	\$220,000
	Project Contingency	-	\$10,000
	Total Project Cost	-	\$250,000

Basis for Cost Estimates: Eagle Elevator Budgetary Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** 3 **Construction (months)** 6

Cost/Description FY 2019 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2019	-	-
2020	\$250,000	Elevator install and components

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None



Centerville Elevator

APPENDIX A – FISCAL YEAR 2019 CAPITAL BUDGET APPROPRIATIONS ORDERS

2018-064 APPROPRIATION AND LOAN ORDER **General Fund Capital Improvement Plan (Two-thirds vote)**

ORDERED:

That the sum of **\$4,600,000** be appropriated for the purpose of funding the Barnstable Public School High School Sports Field Upgrade Project as outlined in the FY 2019 - FY 2023 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 **\$4,600,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, 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, and that the Barnstable School Committee 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.

2018-065 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 District – Wide Communication, Video Surveillance and Entry Improvement Project as outlined in the FY 2019 - FY 2023 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**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, 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, and that the Barnstable School Committee 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.

2018-066 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 High School & Intermediate School Roof Top Unit Ventilator Replacement Project as outlined in the FY 2019 - FY 2023 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$100,000** be transferred from available funds within the Capital Trust Fund, and that the Barnstable School Committee 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.

2018-067 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 Elementary School Unit Ventilator Replacement Project as outlined in the FY 2019 - FY 2023 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**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, 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, and that the Barnstable School Committee 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.

2018-068 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 Emergency Generator Replacement at West Villages Elementary School as outlined in the FY 2019 - FY 2023 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$100,000** be transferred from available funds within the Capital Trust Fund, and that the Barnstable School Committee 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.

2018-069 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 Comprehensive Airport Layout Plan and Master Plan Project as outlined in the FY 2019 - FY 2023 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**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, 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, 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.

2018-070 APPROPRIATION AND LOAN ORDER
Airport Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$975,000** be appropriated for the purpose of funding the Airport's Replacement of Snow Removal Equipment as outlined in the FY 2019 - FY 2023 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 **\$975,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, 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, 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.

2018-071 APPROPRIATION AND TRANSFER ORDER
Airport Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$145,000** be appropriated for the purpose of funding the Airport's Replacement of Aircraft and Fire Fighting Equipment Response Vehicle as outlined in the FY 2019 - FY 2023 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$145,000** 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.

2018-072 APPROPRIATION AND TRANSFER ORDER
Golf Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$58,511** be appropriated for the purpose of funding the Hyannis Golf Course Maintenance Building Improvements as outlined in the FY 2019 - FY 2023 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$7,147** be transferred from the available funds remaining under Town Council Order 2016-108 and the **\$51,364** be transferred from the Golf Course Enterprise Fund Reserves, and that the Town Manager 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.

2018-073 APPROPRIATION AND TRANSFER ORDER
Golf Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$57,774** be appropriated for the purpose of funding the Olde Barnstable Fairgrounds Replacement of Clubhouse Carpeting, Furniture, Fixtures and Merchandise Displays as outlined in the FY 2019 - FY 2023 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$52,607** be transferred from the available funds remaining under Town Council Order 2016-107 and the **\$5,167** be transferred from the Golf Course Enterprise Fund Reserves, and that the Town Manager 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.

2018-074 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$1,000,000** be appropriated for the purpose of funding the Cotuit Bay Entrance Channel Dredging Project as outlined in the FY 2019 - FY 2023 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**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, 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, and that the Town Manager 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.

2018-075 APPROPRIATION AND TRANSFER ORDER
General Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$315,116** be appropriated for the purpose of funding the Craigville Bathhouse and Site Work Improvements Project as outlined in the FY 2019 - FY 2023 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$315,116** be transferred from the available funds remaining under Town Council Order 2016-110; and that the Town Manager 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.

2018-076 APPROPRIATION, TRANSFER AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$727,247** be appropriated for the purpose of funding the Senior Center Renovations Project as outlined in the FY 2019 - FY 2023 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$68,247** be transferred from the available funds remaining under Town Council Order 2014-106; and that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$659,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, 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, and that the Town Manager 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.

2018-077 APPROPRIATION AND TRANSFER ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$195,668** be appropriated for the purpose of funding the Hyannis Youth & Community Center Roof Replacement Project as outlined in the FY 2019 - FY 2023 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$195,668** be transferred from available funds within the Capital Trust Fund, and that the Town Manager 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.

2018-078 APPROPRIATION AND TRANSFER ORDER
Water Pollution Control Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$195,000** be appropriated for the purpose of funding the Effluent Disposal Capacity Study and Evaluation for the Water Pollution Control Facility as outlined in the FY 2019 - FY 2023 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$195,000** 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 and be authorized to accept any grants or gifts in relation thereto.

2018-079 APPROPRIATION AND TRANSFER ORDER
Water Pollution Control Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$150,000** be appropriated for the purpose of funding the Effluent Discharge Location Evaluation for the Water Pollution Control Facility as outlined in the FY 2019 - FY 2023 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 Pollution Control Enterprise Fund Reserves, and that the Town Manager 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.

2018-080 APPROPRIATION AND LOAN ORDER
Water Pollution Control Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$701,000** be appropriated for the purpose of funding the Pleasant Street Sewer Line Upgrade Project as outlined in the FY 2019 - FY 2023 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 **\$701,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, 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, and that the Town Manager 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.

2018-081 APPROPRIATION AND LOAN ORDER
Water Supply Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$1,050,000** be appropriated for the purpose of funding the Pipe Replacement and Upgrade Project as outlined in the FY 2019 - FY 2023 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 **\$1,050,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, 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, and that the Town Manager 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.

2018-082 APPROPRIATION AND TRANSFER ORDER
Water Supply Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$200,000** be appropriated for the purpose of funding the Wells, Pump Stations and Treatment Plant Repair and Upgrade Program as outlined in the FY 2019 - FY 2023 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 Water Supply Enterprise Fund Reserves, and that the Town Manager 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.

2018-083 APPROPRIATION AND LOAN ORDER
Water Supply Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$555,000** be appropriated for the purpose of funding the New Well Exploration Program Project as outlined in the FY 2019 - FY 2023 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 **\$555,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, 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, and that the Town Manager 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.

2018-084 APPROPRIATION AND TRANSFER ORDER
Water Supply Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$165,000** be appropriated for the purpose of funding the Construction of a Permanent Interconnection with the COMM Public Water Supply System as outlined in the FY 2019 - FY 2023 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$165,000** 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 and be authorized to accept any grants or gifts in relation thereto.

2018-085 APPROPRIATION AND TRANSFER ORDER
Sewer Construction and Private Way Maintenance & Improvement Fund (Majority vote)

ORDERED:

That the sum of **\$100,000** be appropriated for the purpose of funding the Attucks Lane Pump Station Sewer Expansion Design Project as outlined in the FY 2019 - FY 2023 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 Sewer Construction and Private Way Fund Reserves, and that the Town Manager 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.

2018-086 APPROPRIATION AND TRANSFER ORDER
Sewer Construction and Private Way Maintenance & Improvement Fund (Majority vote)

ORDERED:

That the sum of **\$402,000** be appropriated for the purpose of funding the Long Pond Area Sewer Expansion Preliminary Design as outlined in the FY 2019 - FY 2023 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$402,000** be transferred from the Sewer Construction and Private Way Fund Reserves, and that the Town Manager 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.

2018-087 APPROPRIATION AND TRANSFER ORDER
Sewer Construction and Private Way Maintenance & Improvement Fund (Majority vote)

ORDERED:

That the sum of **\$315,000** be appropriated for the purpose of funding the Phinney's Sewer Expansion Preliminary Design as outlined in the FY 2019 - FY 2023 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$315,000** be transferred from the Sewer Construction and Private Way Fund Reserves, and that the Town Manager 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.

2018-088 APPROPRIATION AND TRANSFER ORDER
Sewer Construction and Private Way Maintenance & Improvement Fund (Majority vote)

ORDERED:

That the sum of **\$154,000** be appropriated for the purpose of funding the Old King's Road Improvement Project as outlined in the FY 2019 - FY 2023 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$154,000** be transferred from the Sewer Construction and Private Way Fund Reserves, and that the Town Manager 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.

2018-089 APPROPRIATION AND TRANSFER ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$3,412,500** be appropriated for the purpose of funding the Public Roads Improvement Program as outlined in the FY 2019 - FY 2023 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$3,412,500** be transferred from available funds within the Capital Trust Fund, and that the Town Manager 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.

2018-090 APPROPRIATION AND TRANSFER ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$103,500** be appropriated for the purpose of funding the Design and Permitting of Phase III of the Department of Public Works Offices as outlined in the FY 2019 - FY 2023 Capital Improvement Plan,

including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$103,500** be transferred from available funds within the Capital Trust Fund, and that the Town Manager 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.

2018-091 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 Cape Cod Airfield Fuel Tank Replacement Project as outlined in the FY 2019 - FY 2023 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**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, 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, and that the Town Manager 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.

2018-092 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$285,000** be appropriated for the purpose of funding the School Administration Building Mechanical Cooling Upgrades Project as outlined in the FY 2019 - FY 2023 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 **\$285,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, 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, and that the Town Manager 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.

2018-093 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 Design of the Bumps River Bridge Repairs as outlined in the FY 2019 - FY 2023 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$100,000** be transferred from available funds within the Capital Trust Fund, and that the Town Manager 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.

2018-094 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$253,740** be appropriated for the purpose of funding the Demolition of the Portable Structures at the Former Marstons Mills Elementary School and the Hazardous Material Evaluation Study of the Main Facility as outlined in the FY 2019 - FY 2023 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 **\$253,740**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, 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, and that the Town Manager 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.

2018-095 APPROPRIATION AND TRANSFER ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$45,000** be appropriated for the purpose of funding the Design of the Sidewalk on Ocean St. as outlined in the FY 2019 - FY 2023 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$45,000** be transferred from available funds within the Capital Trust Fund, and that the Town Manager 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.

2018-096 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$667,000** be appropriated for the purpose of funding the Design and Hazmat Removal Project at the Armory Building as outlined in the FY 2019 - FY 2023 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 **\$667,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, 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, and that the Town Manager 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.

2018-097 APPROPRIATION AND TRANSFER ORDER
General Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$4,000,000** be transferred from General Reserves to the Capital Trust Fund.

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APPENDIX B - DEBT AMORTIZATION SCHEDULES AS OF JUNE 30, 2017

Purpose GENERAL FUND INTEREST & PRINCIPAL	Debt	Levy	Issue	Maturity	Original	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments	Payments
	Limit	Limit	Date	Date	Amount	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY2025	FY2026	FY2027
CTF Land Acquisition (I) - Hyannis Golf Course \$748,000 Refunded	I	I	02/17/15	02/15/26	325,200	52,065	49,310	47,600	46,080	44,560	43,040	35,520	34,240	32,960	-
CTF Land Acquisition - CAP \$365,200 Refunded	I	I	06/21/16	06/30/23	115,000	4,600	28,600	27,640	26,680	23,720	21,840	-	-	-	-
CTF Land Acquisition - CAP	I	I	06/26/08	06/15/23	365,200	25,140	-	-	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2002 Land Acquisitions BUTAPS	I	I	06/14/11	06/15/20	1,102,000	145,600	140,400	135,200	-	-	-	-	-	-	-
Total Land Acquisition Interest & Principal						227,405	218,310	210,440	72,760	68,280	64,880	35,520	34,240	32,960	-
High School Construction - Refunded	O	O	02/15/07	02/15/19	27,486,190	3,434,250	3,433,500	-	-	-	-	-	-	-	-
Barnstable Middle School - Refunded 2	O	O	02/15/07	02/15/20	1,548,520	165,300	158,050	150,800	-	-	-	-	-	-	-
Barnstable Middle School - Refunded 1	O	O	02/15/07	02/15/20	7,071,300	757,660	719,200	681,200	-	-	-	-	-	-	-
CTF School Upgrades 1 (I) \$360,000 Refunded	I	I	02/17/15	02/15/22	104,700	28,127	27,360	21,280	20,520	19,760	-	-	-	-	-
CTF School Facilities Repair & Improvement (I) \$660,000 Refunded	I	I	02/17/15	02/15/22	199,700	51,390	49,455	42,520	41,000	38,480	-	-	-	-	-
CTF School Health & Safety Improvements \$478,000 Refunded	I	I	02/17/15	02/15/26	193,400	31,780	30,700	29,620	28,660	27,700	21,740	19,980	19,260	18,540	-
CTF MME Roof Replacement (I) \$750,000 Refunded	I	I	02/17/15	02/15/26	329,800	52,056	49,510	47,800	46,280	44,760	43,240	40,720	34,240	32,960	-
CTF School Upgrades 2 (I) \$150,000 Refunded	I	I	02/17/15	02/15/27	47,400	6,766	6,645	6,420	6,220	6,020	5,820	5,620	4,920	4,240	4,120
CTF BHMCPs Roof (I) \$910,000 Refunded	I	I	02/17/15	02/15/27	426,900	60,581	57,705	55,770	54,050	52,330	50,610	48,890	46,170	44,490	42,230
CTF School Facility Improvements 1 (I) \$916,600 Refunded	I	I	06/21/16	06/30/28	295,700	9,428	39,428	36,928	34,080	36,000	34,800	33,600	32,400	31,800	31,200
CTF School Facility Improvements 1 (I)	I	I	06/26/08	06/15/28	916,600	31,425	-	-	-	-	-	-	-	-	-
CTF School Building Improvements	I	I	06/16/10	06/15/30	936,000	65,869	64,744	62,494	61,144	59,794	58,331	56,869	55,294	53,719	52,088
CTF School Facilities Upgrades/Repairs V (I)	I	I	06/14/11	06/15/31	884,000	68,719	66,919	65,119	63,319	61,519	59,719	57,919	56,400	54,825	53,138
CTF School Parking Lot (I)	I	I	06/14/11	06/15/21	250,000	29,000	28,000	27,000	26,000	-	-	-	-	-	-
CTF School Facilities Upgrades/Repairs IV	I	I	06/14/11	06/15/21	332,000	34,800	33,600	32,400	31,200	-	-	-	-	-	-
CTF School Remolding - Asbestos 00-110 Refunded	I	I	06/14/11	06/15/22	50,000	6,000	5,800	5,600	5,400	5,200	-	-	-	-	-
CTF School Facilities Upgrades/Repairs II	I	I	06/14/11	06/15/26	179,000	13,463	13,063	12,663	12,263	11,863	11,463	11,063	10,725	10,375	-
CTF School Facilities Upgrades/Repairs III	I	I	06/14/11	06/15/26	190,000	18,863	18,263	12,663	12,263	11,863	11,463	11,063	10,725	10,375	-
CTF School Improvement (I)	I	I	06/14/11	06/15/26	487,000	45,588	39,188	37,988	36,788	35,588	34,388	33,188	32,175	31,125	-
HS Addition & Renovation Advance Refund 6/15/2003	O	O	04/18/12	09/15/18	58,100	10,443	8,222	-	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 School Remodel II	I	I	04/18/12	09/15/22	193,400	23,480	22,780	22,180	21,580	17,940	15,300	-	-	-	-
CTF Advance Refund 6/15/2003 School Remodel I	I	I	04/18/12	09/15/22	242,700	30,299	29,389	28,609	22,806	21,192	20,196	-	-	-	-
CTF School Roof Repairs	I	I	11/22/13	11/15/23	600,000	70,200	69,000	67,500	65,700	63,900	62,500	60,750	-	-	-
CTF HS Library AC Units	I	I	11/22/13	11/15/23	450,000	52,650	51,750	50,625	49,275	47,925	46,688	45,563	-	-	-
CTF School Fire & Communications System	I	I	11/22/13	11/15/23	200,000	23,400	23,000	22,500	21,900	21,300	20,750	20,250	-	-	-
CTF School Computer Network Infrastructure	I	I	11/22/13	11/15/23	189,000	23,000	22,600	22,100	21,500	15,975	15,563	15,188	-	-	-
CTF Intermediate School Roof & Façade Design	I	I	11/22/13	11/15/18	100,000	20,600	20,200	-	-	-	-	-	-	-	-
CTF School Hot Water Pump Replacement	I	I	11/22/13	11/15/18	85,000	15,450	15,150	-	-	-	-	-	-	-	-
CTF School Gym Bleacher Upgrades	I	I	11/22/13	11/15/18	55,000	10,300	10,100	-	-	-	-	-	-	-	-
CTF School Grounds Maintenance Equipment	I	I	11/22/13	11/15/18	150,000	30,900	30,300	-	-	-	-	-	-	-	-
CTF School Kitchen Equipment	I	I	11/22/13	11/15/18	110,000	20,600	20,200	-	-	-	-	-	-	-	-
CTF Early Learning Center Modular Facility	I	I	02/17/15	02/15/35	2,000,000	162,125	157,625	153,125	149,125	145,125	141,125	137,125	133,125	129,125	126,125
CTF Elementary School Modular Classroom (#2015-115)	I	I	02/25/16	06/30/36	3,720,000	308,306	300,706	293,106	280,506	273,106	265,706	258,306	250,906	243,506	236,106
CTF BIS Façade & Roof Improvements (#2015-116)	I	I	02/25/16	06/30/36	3,353,000	276,781	269,981	263,181	256,381	249,581	242,781	235,981	229,181	222,381	210,581
CTF BCHMCPs Façade & Roof Improvements (#2015-117)	I	I	02/25/16	06/30/26	260,000	39,200	33,000	32,000	31,000	30,000	29,000	28,000	27,000	26,000	-
CTF High School & Middle School Boiler Upgrades (#2015-119)	I	I	02/25/16	06/30/26	350,000	47,600	46,200	44,800	43,400	42,000	40,600	39,200	37,800	36,400	-
CTF W Village Elementary A/C Replacement (#2015-120)	I	I	02/25/16	06/30/26	250,000	34,000	33,000	32,000	31,000	30,000	29,000	28,000	27,000	26,000	-
CTF School Parking Lot Light Pole Replacement (I) (#2016-082)	I	I	02/23/17	06/30/27	435,000	62,013	60,600	58,800	57,000	55,200	53,400	51,600	44,800	43,200	41,600
CTF School Unit Ventilator Upgrade (I) (#2016-083)	I	I	02/23/17	06/30/27	230,000	33,996	33,200	32,200	31,200	30,200	29,200	23,200	22,400	21,600	20,800
Total Schools Interest & Principal						6,206,405	6,098,131	2,450,989	1,561,558	1,454,320	1,343,131	1,262,073	1,074,521	1,040,661	817,988
CTF Private Road Repairs \$1,607,900	I	I	06/21/16	06/30/23	509,000	20,360	125,360	120,160	112,000	108,000	104,000	-	-	-	-
CTF Private Road Repairs	I	I	06/26/08	06/15/23	1,607,900	112,083	-	-	-	-	-	-	-	-	-
CTF Bridge Repair	I	I	06/14/11	06/15/21	250,000	29,000	28,000	27,000	26,000	-	-	-	-	-	-
CTF Sidewalk Improvements	I	I	06/14/11	06/15/21	350,000	40,600	39,200	37,800	36,400	-	-	-	-	-	-
CTF Baxter's Neck Road - Private Way	I	I	06/14/11	06/15/26	350,000	32,725	31,725	30,725	29,725	23,725	22,925	22,125	21,450	20,750	-
CTF Advance Refund 6/15/2003 Main St. Hyannis Infr. Improv.	I	I	04/18/12	09/15/20	39,100	5,523	5,348	5,198	4,162	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Drainage 1 (I)	I	I	04/18/12	09/15/22	193,200	23,528	22,828	22,228	21,628	18,968	15,504	-	-	-	-

Purpose	Debt Limit	Levy Limit	Issue Date	Maturity Date	Original Amount	Payments FY2028	Payments FY2029	Payments FY2030	Payments FY2031	Payments FY2032	Payments FY2033	Payments FY2034	Payments FY2035	Payments FY2036	Payments FY2037	-
GENERAL FUND INTEREST & PRINCIPAL																
CTF Land Acquisition (I) - Hyannis Golf Course \$748,000 Refunded	I	I	02/17/15	02/15/26	325,200	-	-	-	-	-	-	-	-	-	-	385,375
CTF Land Acquisition - CAP \$365,200 Refunded	I	I	06/21/16	06/30/23	115,000	-	-	-	-	-	-	-	-	-	-	133,080
CTF Land Acquisition - CAP	I	I	06/26/08	06/15/23	365,200	-	-	-	-	-	-	-	-	-	-	25,140
CTF Advance Refund 6/15/2002 Land Acquisitions BUTAPS	I	I	06/14/11	06/15/20	1,102,000	-	-	-	-	-	-	-	-	-	-	421,200
Total Land Acquisition Interest & Principal						-	-	-	-	-	-	-	-	-	-	964,795
Schools																
High School Construction - Refunded	O	O	02/15/07	02/15/19	27,486,190	-	-	-	-	-	-	-	-	-	-	6,867,750
Barnstable Middle School - Refunded 2	O	O	02/15/07	02/15/20	1,548,520	-	-	-	-	-	-	-	-	-	-	474,150
Barnstable Middle School - Refunded 1	O	O	02/15/07	02/15/20	7,071,300	-	-	-	-	-	-	-	-	-	-	2,158,060
CTF School Upgrades 1 (I) \$360,000 Refunded	I	I	02/17/15	02/15/22	104,700	-	-	-	-	-	-	-	-	-	-	117,047
CTF School Facilities Repair & Improvement (I) \$660,000 Refunded	I	I	02/17/15	02/15/22	199,700	-	-	-	-	-	-	-	-	-	-	222,845
CTF School Health & Safety Improvements \$478,000 Refunded	I	I	02/17/15	02/15/26	193,400	-	-	-	-	-	-	-	-	-	-	227,980
CTF MME Roof Replacement (I) \$750,000 Refunded	I	I	02/17/15	02/15/26	329,800	-	-	-	-	-	-	-	-	-	-	391,566
CTF School Upgrades 2 (I) \$150,000 Refunded	I	I	02/17/15	02/15/27	47,400	-	-	-	-	-	-	-	-	-	-	56,791
CTF BHMCPs Roof (I) \$910,000 Refunded	I	I	02/17/15	02/15/27	426,900	-	-	-	-	-	-	-	-	-	-	512,826
CTF School Facility Improvements 1 (I) \$916,600 Refunded	I	I	06/21/16	06/30/28	295,700	30,600	-	-	-	-	-	-	-	-	-	350,264
CTF School Facility Improvements 1 (I)	I	I	06/26/08	06/15/28	916,600	-	-	-	-	-	-	-	-	-	-	31,425
CTF School Building Improvements	I	I	06/16/10	06/15/30	936,000	50,288	48,600	46,800	-	-	-	-	-	-	-	736,031
CTF School Facilities Upgrades/Repairs V (I)	I	I	06/14/11	06/15/31	884,000	46,450	44,850	43,250	41,650	-	-	-	-	-	-	783,794
CTF School Parking Lot (I)	I	I	06/14/11	06/15/21	250,000	-	-	-	-	-	-	-	-	-	-	110,000
CTF School Facilities Upgrades/Repairs IV	I	I	06/14/11	06/15/21	332,000	-	-	-	-	-	-	-	-	-	-	132,000
CTF School Remolding - Asbestos 00-110 Refunded	I	I	06/14/11	06/15/22	50,000	-	-	-	-	-	-	-	-	-	-	28,000
CTF School Facilities Upgrades/Repairs II	I	I	06/14/11	06/15/26	179,000	-	-	-	-	-	-	-	-	-	-	106,938
CTF School Facilities Upgrades/Repairs III	I	I	06/14/11	06/15/26	190,000	-	-	-	-	-	-	-	-	-	-	117,538
CTF School Improvement (I)	I	I	06/14/11	06/15/26	487,000	-	-	-	-	-	-	-	-	-	-	326,013
HS Addition & Renovation Advance Refund 6/15/2003	O	O	04/18/12	09/15/18	58,100	-	-	-	-	-	-	-	-	-	-	18,665
CTF Advance Refund 6/15/2003 School Remodel II	I	I	04/18/12	09/15/22	193,400	-	-	-	-	-	-	-	-	-	-	123,260
CTF Advance Refund 6/15/2003 School Remodel I	I	I	04/18/12	09/15/22	242,700	-	-	-	-	-	-	-	-	-	-	152,491
CTF School Roof Repairs	I	I	11/22/13	11/15/23	600,000	-	-	-	-	-	-	-	-	-	-	459,300
CTF HS Library AC Units	I	I	11/22/13	11/15/23	450,000	-	-	-	-	-	-	-	-	-	-	344,475
CTF School Fire & Communications System	I	I	11/22/13	11/15/23	200,000	-	-	-	-	-	-	-	-	-	-	153,100
CTF School Computer Network Infrastructure	I	I	11/22/13	11/15/23	189,000	-	-	-	-	-	-	-	-	-	-	135,925
CTF Intermediate School Roof & Façade Design	I	I	11/22/13	11/15/18	100,000	-	-	-	-	-	-	-	-	-	-	40,800
CTF School Hot Water Pump Replacement	I	I	11/22/13	11/15/18	85,000	-	-	-	-	-	-	-	-	-	-	30,600
CTF School Gym Bleacher Upgrades	I	I	11/22/13	11/15/18	55,000	-	-	-	-	-	-	-	-	-	-	20,400
CTF School Grounds Maintenance Equipment	I	I	11/22/13	11/15/18	150,000	-	-	-	-	-	-	-	-	-	-	61,200
CTF School Kitchen Equipment	I	I	11/22/13	11/15/18	110,000	-	-	-	-	-	-	-	-	-	-	40,800
CTF Early Learning Center Modular Facility	I	I	02/17/15	02/15/35	2,000,000	123,125	120,625	118,000	115,000	112,000	109,000	106,000	103,000	-	-	2,340,500
CTF Elementary School Modular Classroom (#2015-115)	I	I	02/25/16	06/30/36	3,720,000	232,406	227,781	223,850	218,300	212,750	207,200	201,650	196,100	190,550	-	4,620,850
CTF BIS Façade & Roof Improvements (#2015-116)	I	I	02/25/16	06/30/36	3,353,000	207,281	203,156	199,650	194,700	189,750	184,800	179,850	174,900	169,950	-	4,160,850
CTF BCHMCPs Façade & Roof Improvements (#2015-117)	I	I	02/25/16	06/30/26	260,000	-	-	-	-	-	-	-	-	-	-	275,200
CTF High School & Middle School Boiler Upgrades (#2015-119)	I	I	02/25/16	06/30/26	350,000	-	-	-	-	-	-	-	-	-	-	378,000
CTF W Village Elementary A/C Replacement (#2015-120)	I	I	02/25/16	06/30/26	250,000	-	-	-	-	-	-	-	-	-	-	270,000
CTF School Parking Lot Light Pole Replacement (I) (#2016-082)	I	I	02/23/17	06/30/27	435,000	-	-	-	-	-	-	-	-	-	-	528,213
CTF School Unit Ventilator Upgrade (I) (#2016-083)	I	I	02/23/17	06/30/27	230,000	-	-	-	-	-	-	-	-	-	-	277,996
Total Schools Interest & Principal						690,150	645,013	631,550	569,650	514,500	501,000	487,500	474,000	360,500	-	28,183,639
Other																
CTF Private Road Repairs \$1,607,900	I	I	06/21/16	06/30/23	509,000	-	-	-	-	-	-	-	-	-	-	589,880
CTF Private Road Repairs	I	I	06/26/08	06/15/23	1,607,900	-	-	-	-	-	-	-	-	-	-	112,083
CTF Bridge Repair	I	I	06/14/11	06/15/21	250,000	-	-	-	-	-	-	-	-	-	-	110,000
CTF Sidewalk Improvements	I	I	06/14/11	06/15/21	350,000	-	-	-	-	-	-	-	-	-	-	154,000
CTF Baxter's Neck Road - Private Way	I	I	06/14/11	06/15/26	350,000	-	-	-	-	-	-	-	-	-	-	235,875
CTF Advance Refund 6/15/2003 Main St. Hyannis Infr. Improv.	I	I	04/18/12	09/15/20	39,100	-	-	-	-	-	-	-	-	-	-	20,231
CTF Advance Refund 6/15/2003 Drainage 1 (I)	I	I	04/18/12	09/15/22	193,200	-	-	-	-	-	-	-	-	-	-	124,684

Purpose	Debt Limit	Levy Limit	Issue Date	Maturity Date	Original Amount	Payments FY 2018	Payments FY 2019	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY2025	Payments FY2026	Payments FY2027
GENERAL FUND INTEREST & PRINCIPAL															
CTF Private Road Repairs (I) \$633,000	I	I	11/22/13	11/15/23	633,000	75,500	74,200	72,575	65,700	63,900	62,250	60,750	-	-	-
CTF Sidewalk Overlays	I	I	11/22/13	11/15/23	190,000	23,150	22,750	22,250	21,650	21,050	15,563	15,188	-	-	-
CTF Bumps River Bridge Repair	I	I	11/22/13	11/15/23	120,000	16,750	11,500	11,250	10,950	10,650	10,375	10,125	-	-	-
CTF Guardrail Replacements	I	I	11/22/13	11/15/18	60,000	10,300	10,100	-	-	-	-	-	-	-	-
CTF Sidewalk/Guardrail Improvements 1	I	I	02/17/15	02/15/20	200,000	45,200	43,400	41,600	-	-	-	-	-	-	-
CTF Sidewalk/Guardrail Improvements 2	I	I	02/17/15	02/15/20	85,000	16,950	16,275	15,600	-	-	-	-	-	-	-
CTF Guardrail Improvements (#2015-098)	I	I	02/25/16	06/30/36	170,000	26,000	25,200	24,400	18,600	18,000	17,400	16,800	16,200	15,600	-
CTF Sidewalk Improvements (#2015-098)	I	I	02/25/16	06/30/36	230,000	33,200	32,200	31,200	30,200	29,200	23,200	22,400	21,600	20,800	-
CTF Road Repairs (#2015-102)	I	I	02/25/16	06/30/31	518,000	51,719	50,319	48,919	47,519	46,119	44,719	43,319	41,919	40,519	39,119
CTF Road Repairs - Governor's Way (#2016-037)	I	I	02/25/16	06/30/31	304,000	29,725	28,925	28,125	27,325	26,525	25,725	24,925	24,125	23,325	22,525
CTF Private Roads Repairs (I) \$167,300	I	I	02/23/17	06/30/31	167,300	23,648	20,800	20,200	19,600	19,000	13,400	13,000	12,600	12,200	11,800
CTF Guardrail & Sidewalk Improvement Program (I) (#2016-103)	I	I	02/23/17	06/30/32	680,750	76,055	68,850	67,050	65,250	63,450	61,650	59,850	58,050	56,250	54,450
Total Public Ways Interest & Principal						692,015	656,980	626,280	536,708	448,587	416,710	288,481	195,944	189,444	127,894
CTF Police Station Construction (I) \$400,000 Adv Refunded 6-15-05	I	I	02/17/15	02/15/25	181,650	23,783	23,130	22,320	21,600	20,880	20,160	19,440	18,720	-	-
CTF Building - Senior Center - Refunded	I	I	02/15/07	02/15/19	702,378	79,790	26,250	-	-	-	-	-	-	-	-
CTF Beach Facilities Improvements (I) \$270,000 Refunded	I	I	02/15/15	02/15/22	71,300	17,985	16,310	15,680	15,120	14,560	-	-	-	-	-
CTF Senior Center - Garden Level \$457,000 Refunded	I	I	02/17/15	02/15/27	195,000	31,635	25,555	24,700	23,940	23,180	22,420	21,660	20,900	20,140	19,570
CTF Town Building Repairs & Renovations \$685,000 Refunded	I	I	02/17/15	02/15/27	317,600	46,470	44,940	43,410	41,050	39,730	38,410	37,090	30,770	29,650	27,810
CTF Bismore Park Visitor Center - CAP \$150,000	I	I	06/21/16	06/30/23	48,000	1,920	11,920	11,520	11,120	8,720	10,400	-	-	-	-
CTF Bismore Park Visitor Center - CAP	I	I	06/26/08	06/15/23	150,000	10,475	-	-	-	-	-	-	-	-	-
CTF Bismore Park Visitor Center \$465,000 Refunded	I	I	06/21/16	06/30/23	147,500	5,900	35,900	34,200	33,520	32,320	29,120	-	-	-	-
CTF Bismore Park Visitor Center	I	I	06/26/08	06/15/23	465,000	32,473	-	-	-	-	-	-	-	-	-
CTF Municipal Building Improvements \$297,000 Refunded	I	I	06/21/16	06/30/28	49,300	1,572	6,572	5,672	6,200	6,000	5,800	5,600	5,400	5,300	5,200
CTF Municipal Building Improvements	I	I	06/26/08	06/15/28	297,000	5,238	-	-	-	-	-	-	-	-	-
CTF Municipal Facility Improvements	I	I	06/16/10	06/15/29	402,500	7,119	6,994	6,744	6,594	6,444	6,281	6,119	5,944	5,769	5,588
CTF Police Facility	I	I	06/16/10	06/15/30	508,000	36,594	35,969	34,719	33,969	33,219	32,406	31,594	30,719	29,844	28,938
CTF Building - Town Hall Space - 00-110 Refunded	I	I	06/14/11	06/15/21	180,000	23,080	21,280	20,520	19,760	-	-	-	-	-	-
CTF Municipal Facility Improvement	I	I	06/14/11	06/15/21	300,000	34,800	33,600	32,400	31,200	-	-	-	-	-	-
CTF Building - Town Hall Repairs - 01-087 Refunded	I	I	06/14/11	06/15/22	100,000	11,960	11,560	11,160	10,760	9,360	-	-	-	-	-
CTF Advance Refund 6/15/2003 Building Improvements	I	I	04/18/12	09/15/22	96,600	11,764	11,414	11,114	10,814	10,464	6,732	-	-	-	-
CTF Advance Refund 6/15/2003 Police Facility Addition	I	I	04/18/12	09/15/22	626,900	76,557	71,229	67,500	65,700	63,600	61,200	-	-	-	-
CTF Tennis Courts	I	I	11/22/13	11/15/23	500,000	58,500	57,500	56,250	54,750	53,250	51,875	50,625	-	-	-
CTF US Custom House upgrades	I	I	11/22/13	11/15/23	263,000	29,250	28,750	28,125	27,375	26,625	25,938	25,313	-	-	-
CTF Oosterville Community Building Upgrades	I	I	11/22/13	11/15/23	200,000	23,400	23,000	22,500	21,900	21,300	20,750	20,250	-	-	-
CTF Police Station Upgrades	I	I	11/22/13	11/15/23	168,000	17,550	17,250	16,875	16,425	15,975	15,563	15,188	-	-	-
CTF Town Hall Interior Upgrades	I	I	11/22/13	11/15/23	150,000	17,550	17,250	16,875	16,425	15,975	15,563	15,188	-	-	-
CTF Guyer Barn Upgrades	I	I	11/22/13	11/15/23	148,000	17,425	17,125	16,750	16,300	15,850	15,438	10,125	-	-	-
CTF MEA Facility Upgrades	I	I	11/22/13	11/15/23	131,000	17,000	16,700	16,325	10,950	10,650	10,375	10,125	-	-	-
CTF Beach Facility Design	I	I	11/22/13	11/15/18	115,000	20,600	20,200	-	-	-	-	-	-	-	-
CTF Pearl St Building Upgrades	I	I	11/22/13	11/15/23	114,000	11,700	11,500	11,250	10,950	10,650	10,375	10,125	-	-	-
CTF S&G Facility Roof Repairs	I	I	11/22/13	11/15/23	103,000	11,700	11,500	11,250	10,950	10,650	10,375	10,125	-	-	-
CTF Lombard Parking & Ballfield Design	I	I	11/22/13	11/15/18	101,000	20,600	20,200	-	-	-	-	-	-	-	-
CTF West Barnstable Community Building Upgrades	I	I	11/22/13	11/15/23	72,000	10,900	5,750	5,625	5,475	5,325	5,188	5,063	-	-	-
CTF Highway Operations Facility Construction	I	I	11/22/13	11/15/23	66,000	5,850	5,750	5,625	5,475	5,325	5,188	5,063	-	-	-
CTF Centerville Recreation Building	I	I	02/17/15	02/15/35	185,000	15,763	15,313	14,863	14,463	14,063	13,663	13,263	12,863	12,463	12,163
CTF Senior Center - Parking Lot Expansion	I	I	02/17/15	02/15/30	290,000	29,125	28,225	27,325	26,525	25,725	24,925	24,125	23,325	22,525	21,925
CTF Police Facilities	I	I	02/17/15	02/15/35	288,000	23,869	23,194	22,519	21,919	21,319	20,719	20,119	19,519	18,919	18,469
CTF Police Station Remodeling (#2015-100)	I	I	02/25/16	06/30/36	355,000	31,444	30,644	29,844	29,044	28,244	27,444	26,644	25,844	25,044	24,244
CTF Town Hall Remodeling (#2015-101)	I	I	02/25/16	06/30/36	939,000	79,831	77,831	75,831	73,831	71,831	69,831	67,831	65,831	63,831	61,831
CTF Joshua's Pond Recreational Facility (#2015-111)	I	I	02/25/16	06/30/31	282,000	29,194	28,394	27,594	26,794	25,994	25,194	24,394	23,594	22,794	21,994
CTF Craigville Beach Bathhouse (#2016-031)	I	I	02/25/16	06/30/36	450,000	39,525	38,525	37,525	36,525	35,525	34,525	33,525	32,525	31,525	25,525
CTF IT Hardware and Software Upgrade (I) (#2016-086)	I	I	02/23/17	06/30/22	342,000	85,376	80,800	78,000	70,200	67,600	-	-	-	-	-
CTF Marstons Mills Parking Lot (I) (#2016-087)	I	I	02/23/17	06/30/22	246,450	64,206	57,800	55,800	53,800	46,800	-	-	-	-	-
CTF Beach Facility Improvement (I) (#2016-110)	I	I	02/23/17	06/30/27	438,000	65,131	60,600	58,800	57,000	55,200	53,400	51,600	44,800	43,200	41,600

Purpose	Debt Limit	Levy Limit	Issue Date	Maturity Date	Original Amount	Payments FY2028	Payments FY2029	Payments FY2030	Payments FY2031	Payments FY2032	Payments FY2033	Payments FY2034	Payments FY2035	Payments FY2036	Payments FY2037	-
GENERAL FUND INTEREST & PRINCIPAL																
CTF Private Road Repairs (I) \$633,000	I	I	11/22/13	11/15/23	633,000	-	-	-	-	-	-	-	-	-	-	474,875
CTF Sidewalk Overlays	I	I	11/22/13	11/15/23	190,000	-	-	-	-	-	-	-	-	-	-	141,600
CTF Bumps River Bridge Repair	I	I	11/22/13	11/15/23	120,000	-	-	-	-	-	-	-	-	-	-	81,600
CTF Guardrail Replacements	I	I	11/22/13	11/15/18	60,000	-	-	-	-	-	-	-	-	-	-	20,400
CTF Sidewalk/Guardrail Improvements 1	I	I	02/17/15	02/15/20	200,000	-	-	-	-	-	-	-	-	-	-	130,200
CTF Sidewalk/Guardrail Improvements 2	I	I	02/17/15	02/15/20	85,000	-	-	-	-	-	-	-	-	-	-	48,825
CTF Guardrail Improvements (#2015-098)	I	I	02/25/16	06/30/36	170,000	-	-	-	-	-	-	-	-	-	-	178,200
CTF Sidewalk Improvements (#2015-098)	I	I	02/25/16	06/30/36	230,000	-	-	-	-	-	-	-	-	-	-	244,000
CTF Road Repairs (#2015-102)	I	I	02/25/16	06/30/31	518,000	38,419	37,544	31,800	30,900	-	-	-	-	-	-	592,850
CTF Road Repairs - Governor's Way (#2016-037)	I	I	02/25/16	06/30/31	304,000	22,125	21,625	21,200	20,600	-	-	-	-	-	-	346,800
CTF Private Roads Repairs (I) \$167,300	I	I	02/23/17	06/30/31	167,300	11,400	11,000	10,600	10,300	-	-	-	-	-	-	209,548
CTF Guardrail & Sidewalk Improvement Program (I) (#2016-103)	I	I	02/23/17	06/30/32	680,750	52,650	50,850	49,050	47,700	46,350	-	-	-	-	-	877,505
Total Public Ways Interest & Principal						124,594	121,019	112,650	109,500	46,350	-	-	-	-	-	4,693,155
CTF Police Station Construction (I) \$400,000 Adv Refunded 6-15-05	I	I	02/17/15	02/15/25	181,650	-	-	-	-	-	-	-	-	-	-	170,033
CTF Building - Senior Center - Refunded	I	I	02/15/07	02/15/19	702,378	-	-	-	-	-	-	-	-	-	-	106,040
CTF Beach Facilities Improvements (I) \$270,000 Refunded	I	I	02/15/15	02/15/22	71,300	-	-	-	-	-	-	-	-	-	-	79,655
CTF Senior Center - Garden Level \$457,000 Refunded	I	I	02/17/15	02/15/27	195,000	-	-	-	-	-	-	-	-	-	-	233,700
CTF Town Building Repairs & Renovations \$685,000 Refunded	I	I	02/17/15	02/15/27	317,600	-	-	-	-	-	-	-	-	-	-	379,330
CTF Bismore Park Visitor Center - CAP \$150,000	I	I	06/21/16	06/30/23	48,000	-	-	-	-	-	-	-	-	-	-	55,600
CTF Bismore Park Visitor Center - CAP	I	I	06/26/08	06/15/23	150,000	-	-	-	-	-	-	-	-	-	-	10,475
CTF Bismore Park Visitor Center \$465,000 Refunded	I	I	06/21/16	06/30/23	147,500	-	-	-	-	-	-	-	-	-	-	170,960
CTF Bismore Park Visitor Center	I	I	06/26/08	06/15/23	465,000	-	-	-	-	-	-	-	-	-	-	32,473
CTF Municipal Building Improvements \$297,000 Refunded	I	I	06/21/16	06/30/28	49,300	5,100	-	-	-	-	-	-	-	-	-	58,416
CTF Municipal Building Improvements	I	I	06/26/08	06/15/28	297,000	-	-	-	-	-	-	-	-	-	-	5,238
CTF Municipal Facility Improvements	I	I	06/16/10	06/15/29	402,500	5,388	5,200	-	-	-	-	-	-	-	-	74,181
CTF Police Facility	I	I	06/16/10	06/15/30	508,000	27,938	27,000	26,000	-	-	-	-	-	-	-	408,906
CTF Building - Town Hall Space - 00-110 Refunded	I	I	06/14/11	06/15/21	180,000	-	-	-	-	-	-	-	-	-	-	84,640
CTF Municipal Facility Improvement	I	I	06/14/11	06/15/21	300,000	-	-	-	-	-	-	-	-	-	-	132,000
CTF Building - Town Hall Repairs - 01-087 Refunded	I	I	06/14/11	06/15/22	100,000	-	-	-	-	-	-	-	-	-	-	54,800
CTF Advance Refund 6/15/2003 Building Improvements	I	I	04/18/12	09/15/22	96,600	-	-	-	-	-	-	-	-	-	-	62,302
CTF Advance Refund 6/15/2003 Police Facility Addition	I	I	04/18/12	09/15/22	626,900	-	-	-	-	-	-	-	-	-	-	405,786
CTF Tennis Courts	I	I	11/22/13	11/15/23	500,000	-	-	-	-	-	-	-	-	-	-	382,750
CTF US Custom House upgrades	I	I	11/22/13	11/15/23	263,000	-	-	-	-	-	-	-	-	-	-	191,375
CTF Osterville Community Building Upgrades	I	I	11/22/13	11/15/23	200,000	-	-	-	-	-	-	-	-	-	-	153,100
CTF Police Station Upgrades	I	I	11/22/13	11/15/23	168,000	-	-	-	-	-	-	-	-	-	-	114,825
CTF Town Hall Interior Upgrades	I	I	11/22/13	11/15/23	150,000	-	-	-	-	-	-	-	-	-	-	114,825
CTF Guyer Barn Upgrades	I	I	11/22/13	11/15/23	148,000	-	-	-	-	-	-	-	-	-	-	109,013
CTF MEA Facility Upgrades	I	I	11/22/13	11/15/23	131,000	-	-	-	-	-	-	-	-	-	-	92,125
CTF Beach Facility Design	I	I	11/22/13	11/15/18	115,000	-	-	-	-	-	-	-	-	-	-	40,800
CTF Pearl St Building Upgrades	I	I	11/22/13	11/15/23	114,000	-	-	-	-	-	-	-	-	-	-	76,550
CTF S&G Facility Roof Repairs	I	I	11/22/13	11/15/23	103,000	-	-	-	-	-	-	-	-	-	-	76,550
CTF Lombard Parking & Ballfield Design	I	I	11/22/13	11/15/18	101,000	-	-	-	-	-	-	-	-	-	-	40,800
CTF West Barnstable Community Building Upgrades	I	I	11/22/13	11/15/23	72,000	-	-	-	-	-	-	-	-	-	-	43,325
CTF Highway Operations Facility Construction	I	I	11/22/13	11/15/23	66,000	-	-	-	-	-	-	-	-	-	-	38,275
CTF Centerville Recreation Building	I	I	02/17/15	02/15/35	185,000	11,863	11,613	11,350	11,050	10,750	5,450	5,300	5,150	-	-	211,400
CTF Senior Center - Parking Lot Expansion	I	I	02/17/15	02/15/30	290,000	21,325	20,825	10,300	-	-	-	-	-	-	-	306,200
CTF Police Facilities	I	I	02/17/15	02/15/35	288,000	18,019	17,644	17,250	16,800	16,350	10,900	10,600	10,300	-	-	328,425
CTF Police Station Remodeling (#2015-100)	I	I	02/25/16	06/30/36	355,000	18,844	18,469	18,150	17,700	17,250	16,800	16,350	15,900	15,450	-	433,350
CTF Town Hall Remodeling (#2015-101)	I	I	02/25/16	06/30/36	939,000	56,531	55,406	54,450	53,100	51,750	50,400	49,050	47,700	46,350	-	1,154,250
CTF Joshua's Pond Recreational Facility (#2015-111)	I	I	02/25/16	06/30/31	282,000	16,594	16,219	15,900	15,450	-	-	-	-	-	-	320,100
CTF Craigville Beach Bathhouse (#2016-031)	I	I	02/25/16	06/30/36	450,000	25,125	24,625	24,200	23,600	23,000	22,400	21,800	21,200	20,600	-	551,800
CTF IT Hardware and Software Upgrade (I) (#2016-086)	I	I	02/23/17	06/30/22	342,000	-	-	-	-	-	-	-	-	-	-	381,976
CTF Marstons Mills Parking Lot (I) (#2016-087)	I	I	02/23/17	06/30/22	246,450	-	-	-	-	-	-	-	-	-	-	278,406
CTF Beach Facility Improvement (I) (#2016-110)	I	I	02/23/17	06/30/27	438,000	-	-	-	-	-	-	-	-	-	-	531,331

Purpose	Debt Limit	Levy Limit	Issue Date	Maturity Date	Original Amount	Payments FY 2018	Payments FY 2019	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY2025	Payments FY2026	Payments FY2027
GENERAL FUND INTEREST & PRINCIPAL															
CTF Osterville Bay Elem School Improvements (I) (#2016-112)	I	I	02/23/17	06/30/37	724,300	70,275	64,794	63,194	61,594	54,994	53,594	52,194	50,794	49,394	47,994
CTF Lombard Field Improvements (I) (#2016-113)	I	I	02/23/17	06/30/37	895,000	77,010	75,938	74,138	72,338	70,538	68,738	66,938	65,138	63,338	61,538
Total Public Facilities Interest & Principal						1,331,887	1,217,153	1,114,540	1,072,353	977,883	811,586	674,321	471,884	439,134	419,986
CTF Pleasant St. Dock - 1 \$350,000 Refunded	I	I	06/21/16	06/30/23	109,500	4,380	27,380	25,960	24,560	22,680	21,840	-	-	-	-
CTF Pleasant St. Dock - 1	I	I	06/26/08	06/15/23	350,000	24,093	-	-	-	-	-	-	-	-	-
CTF Pleasant St. Dock - 2 \$350,000 Refunded	I	I	06/21/16	06/30/23	110,000	4,400	27,400	26,480	24,560	22,680	21,840	-	-	-	-
CTF Pleasant St. Dock - 2	I	I	06/26/08	06/15/23	350,000	24,093	-	-	-	-	-	-	-	-	-
CTF Boat Ramps - CAP \$927,000 Refunded	I	I	06/21/16	06/30/23	290,000	11,600	66,600	69,400	67,000	64,600	57,200	-	-	-	-
CTF Boat Ramps - CAP	I	I	06/26/08	06/15/23	927,000	64,945	-	-	-	-	-	-	-	-	-
CTF Dredging	I	I	06/16/10	06/15/24	419,250	36,875	36,125	34,625	33,725	32,825	31,850	25,875	-	-	-
CTF Boat Ramp Renovations	I	I	06/14/11	06/15/21	250,000	29,000	28,000	27,000	26,000	-	-	-	-	-	-
CTF Dredging East Bay & Blish Point	I	I	06/14/11	06/15/21	665,000	75,400	72,800	70,200	67,600	-	-	-	-	-	-
CTF Prince Cove/Hayward Rd. Boat Ramp	I	I	06/14/11	06/15/26	600,000	53,850	52,250	50,650	49,050	47,450	45,850	44,250	42,900	41,500	-
CTF East Bay Dredging	I	I	11/22/13	11/15/23	600,000	70,200	69,000	67,500	65,700	63,900	62,250	60,750	-	-	-
CTF Hyannis Harbor Bulkhead Construction	I	I	11/22/13	11/15/23	142,000	17,150	16,850	16,475	16,025	10,650	10,375	10,125	-	-	-
CTF Millway Boat Ramp & Dock Upgrades	I	I	11/22/13	11/15/23	133,000	17,000	16,700	16,325	10,950	10,650	10,375	10,125	-	-	-
CTF Blish Point Sand Management	I	I	02/17/15	02/15/20	215,000	50,425	43,400	41,600	-	-	-	-	-	-	-
CTF Dredge Permitting/Planning	I	I	02/17/15	02/15/20	341,000	78,675	70,525	67,600	-	-	-	-	-	-	-
CTF Marstons Mills Fish Run Reconstruction	I	I	02/17/15	02/15/30	326,000	34,875	33,750	27,625	26,825	26,025	25,225	24,425	23,625	22,825	22,225
CTF Paving: Bay Street Boat Ramp (#2015-099)	I	I	02/25/16	06/30/26	142,000	20,000	19,400	18,800	18,200	17,600	17,000	16,400	10,800	10,400	-
CTF Channel Dredging - Barnstable Harbor (#2016-035)	I	I	02/25/16	06/30/26	490,000	67,600	65,600	63,600	61,600	59,600	57,600	55,600	48,600	46,800	-
CTF Blish Point Boat Access Channel Dredging (I) (#2016-111)	I	I	02/23/17	06/30/37	943,900	87,792	82,506	80,506	78,506	76,506	74,506	72,506	70,506	68,506	61,706
Total Waterways Interest & Principal						772,352	728,286	704,346	570,301	455,166	435,911	320,056	196,431	185,031	83,931
CTF MWPAT CW-04-31 Pool 11	I	I	11/09/07	07/15/20	389,216	33,999	33,999	33,999	33,999	-	-	-	-	-	-
CTF Coastal Water Quality Improvements	O	I	06/26/08	06/15/18	250,000	25,140	-	-	-	-	-	-	-	-	-
CTF Lake & Pond Improvements	I	I	06/26/08	06/15/18	250,000	25,140	-	-	-	-	-	-	-	-	-
CTF Lake Treatment	I	I	06/16/10	06/15/25	275,000	24,575	24,075	23,075	17,475	17,025	16,538	16,050	15,525	-	-
CTF Nitrogen Management CW-04-31-A	I	I	03/15/11	07/15/20	211,460	23,330	23,330	23,330	23,330	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Drainage 2 (I)	I	I	04/18/12	09/15/22	96,700	11,768	11,418	11,118	10,818	10,468	6,834	-	-	-	-
CTF Nitrogen Management CW-04-31-B Series 16	I	I	05/14/15	07/15/20	157,531	27,842	27,882	27,922	27,963	-	-	-	-	-	-
CTF Water Quality Evaluation	I	I	11/22/13	11/15/23	230,000	28,700	28,200	27,575	21,900	21,300	20,750	20,250	-	-	-
CTF Sewer Expansion Analysis	I	I	11/22/13	11/15/18	70,000	15,350	10,100	-	-	-	-	-	-	-	-
CTF Hamblin Pond Alum Treatment (#2015-112)	I	I	02/25/16	06/30/31	300,000	29,725	28,925	28,125	27,325	26,525	25,725	24,925	24,125	23,325	22,525
CTF CW-04-31-R Mass Clean Water Trust (#2002-081)	I	I	04/13/17	07/15/20	255,941	87,353	88,750	88,898	-	-	-	-	-	-	-
Total Water Quality Interest & Principal						332,923	276,680	264,043	162,810	75,318	69,847	61,225	39,650	23,325	22,525
TOTAL GENERAL FUND BOND OBLIGATIONS						9,562,987	9,195,540	5,370,638	3,976,491	3,479,553	3,142,065	2,641,676	2,012,670	1,910,555	1,472,324
ENTERPRISE FUND INTEREST & PRINCIPAL															
Airport (O)	O	I	06/14/11	06/15/31	730,000	51,800	50,600	54,400	53,000	51,600	55,200	53,600	52,250	50,850	54,350
Airport Terminal Ramp Construction - Phase 2 (O) (#2013-0101)	O	I	02/23/17	06/30/37	428,000	27,992	29,813	29,213	28,613	28,013	32,413	31,613	30,813	30,013	29,213
Airport New Fuel Farm (I) (#2013-102)	I	I	02/23/17	06/30/36	634,500	46,847	46,875	45,875	44,875	43,875	47,875	46,675	45,475	44,275	48,075
Airport East Ramp Design & Construction (O) (#2014-053)	O	I	02/23/17	06/30/37	641,200	43,705	47,169	46,169	45,169	44,169	43,169	47,169	45,969	44,769	43,569
Total Airport Fund Bonds						170,344	174,456	175,656	171,656	167,656	178,656	179,056	174,506	169,906	175,206
Hyannis Golf Course Acquisition \$3,900,000 Refunded	I	I	02/17/15	02/15/25	1,951,500	292,200	290,660	289,760	289,600	289,080	288,200	291,960	290,160	-	-
Olde Barnstable Golf Course Maintenance Equipment	I	I	02/17/15	02/15/20	200,000	45,200	43,400	41,600	-	-	-	-	-	-	-
Olde Barnstable Building Improvements (#2015-105)	I	I	02/25/16	06/30/26	174,000	21,400	20,800	20,200	19,600	24,000	23,200	22,400	21,600	20,800	-
Hyannis Building Improvements (#2015-106)	I	I	02/25/16	06/30/26	140,000	15,200	19,800	19,200	18,600	18,000	17,400	16,800	16,200	15,600	-
Olde Barnstable Fairgrounds Golf Course (I) (#2016-107)	I	I	02/23/17	06/30/37	245,000	23,910	23,513	22,913	22,313	21,713	21,113	20,513	19,913	19,313	13,713
Hyannis Golf Course Improvements (I) (#2016-108)	I	I	02/23/17	06/30/37	292,700	33,243	24,875	24,275	23,675	23,075	22,475	21,875	21,275	20,675	20,075
Total Golf Course						431,153	423,048	417,948	373,788	375,868	372,388	373,548	369,148	76,388	33,788

Purpose	Debt Limit	Levy Limit	Issue Date	Maturity Date	Original Amount	Payments FY2028	Payments FY2029	Payments FY2030	Payments FY2031	Payments FY2032	Payments FY2033	Payments FY2034	Payments FY2035	Payments FY2036	Payments FY2037	-
GENERAL FUND INTEREST & PRINCIPAL																
CTF Osterville Bay Elem School Improvements (I) (#2016-112)	I	I	02/23/17	06/30/37	724,300	46,594	45,194	43,794	42,744	41,694	40,644	39,594	38,456	37,319	36,181	981,032
CTF Lombard Field Improvements (I) (#2016-113)	I	I	02/23/17	06/30/37	895,000	59,738	57,938	56,138	54,788	53,438	52,088	50,738	49,275	47,813	41,350	1,218,948
Total Public Facilities Interest & Principal						313,056	300,131	277,531	235,231	214,231	198,681	193,431	187,981	167,531	77,531	10,696,065
CTF Pleasant St. Dock - 1 \$350,000 Refunded	I	I	06/21/16	06/30/23	109,500	-	-	-	-	-	-	-	-	-	-	126,800
CTF Pleasant St. Dock - 1	I	I	06/26/08	06/15/23	350,000	-	-	-	-	-	-	-	-	-	-	24,093
CTF Pleasant St. Dock - 2 \$350,000 Refunded	I	I	06/21/16	06/30/23	110,000	-	-	-	-	-	-	-	-	-	-	127,360
CTF Pleasant St. Dock - 2	I	I	06/26/08	06/15/23	350,000	-	-	-	-	-	-	-	-	-	-	24,093
CTF Boat Ramps - CAP \$927,000 Refunded	I	I	06/21/16	06/30/23	290,000	-	-	-	-	-	-	-	-	-	-	336,400
CTF Boat Ramps - CAP	I	I	06/26/08	06/15/23	927,000	-	-	-	-	-	-	-	-	-	-	64,945
CTF Dredging	I	I	06/16/10	06/15/24	419,250	-	-	-	-	-	-	-	-	-	-	231,900
CTF Boat Ramp Renovations	I	I	06/14/11	06/15/21	250,000	-	-	-	-	-	-	-	-	-	-	110,000
CTF Dredging East Bay & Blish Point	I	I	06/14/11	06/15/21	665,000	-	-	-	-	-	-	-	-	-	-	286,000
CTF Prince Cove/Hayward Rd. Boat Ramp	I	I	06/14/11	06/15/26	600,000	-	-	-	-	-	-	-	-	-	-	427,750
CTF East Bay Dredging	I	I	11/22/13	11/15/23	600,000	-	-	-	-	-	-	-	-	-	-	459,300
CTF Hyannis Harbor Bulkhead Construction	I	I	11/22/13	11/15/23	142,000	-	-	-	-	-	-	-	-	-	-	97,650
CTF Millway Boat Ramp & Dock Upgrades	I	I	11/22/13	11/15/23	133,000	-	-	-	-	-	-	-	-	-	-	92,125
CTF Blish Point Sand Management	I	I	02/17/15	02/15/20	215,000	-	-	-	-	-	-	-	-	-	-	135,425
CTF Dredge Permitting/Planning	I	I	02/17/15	02/15/20	341,000	-	-	-	-	-	-	-	-	-	-	216,800
CTF Marstons Mills Fish Run Reconstruction	I	I	02/17/15	02/15/30	326,000	21,625	21,125	20,600	-	-	-	-	-	-	-	330,775
CTF Paving: Bay Street Boat Ramp (#2015-099)	I	I	02/25/16	06/30/26	142,000	-	-	-	-	-	-	-	-	-	-	148,600
CTF Channel Dredging- Barnstable Harbor (#2016-035)	I	I	02/25/16	06/30/26	490,000	-	-	-	-	-	-	-	-	-	-	526,600
CTF Blish Point Boat Access Channel Dredging (I) (#2016-111)	I	I	02/23/17	06/30/37	943,900	59,906	58,106	56,306	54,956	53,606	52,256	50,906	49,444	47,981	46,519	1,278,536
Total Waterways Interest & Principal						81,531	79,231	76,906	54,956	53,606	52,256	50,906	49,444	47,981	46,519	5,045,151
CTF MWPAT CW-04-31 Pool 11	I	I	11/09/07	07/15/20	389,216	-	-	-	-	-	-	-	-	-	-	135,997
CTF Coastal Water Quality Improvements	O	I	06/26/08	06/15/18	250,000	-	-	-	-	-	-	-	-	-	-	25,140
CTF Lake & Pond Improvements	I	I	06/26/08	06/15/18	250,000	-	-	-	-	-	-	-	-	-	-	25,140
CTF Lake Treatment	I	I	06/16/10	06/15/25	275,000	-	-	-	-	-	-	-	-	-	-	154,338
CTF Nitrogen Management CW-04-31-A	I	I	03/15/11	07/15/20	211,460	-	-	-	-	-	-	-	-	-	-	93,321
CTF Advance Refund 6/15/2003 Drainage 2 (I)	I	I	04/18/12	09/15/22	96,700	-	-	-	-	-	-	-	-	-	-	62,424
CTF Nitrogen Management CW-04-31-B Series 16	I	I	05/14/15	07/15/20	157,531	-	-	-	-	-	-	-	-	-	-	111,610
CTF Water Quality Evaluation	I	I	11/22/13	11/15/23	230,000	-	-	-	-	-	-	-	-	-	-	168,675
CTF Sewer Expansion Analysis	I	I	11/22/13	11/15/18	70,000	-	-	-	-	-	-	-	-	-	-	25,450
CTF Hamblin Pond Alum Treatment (#2015-112)	I	I	02/25/16	06/30/31	300,000	22,125	21,625	21,200	20,600	-	-	-	-	-	-	346,800
CTF CW-04-31-R Mass Clean Water Trust (#2002-081)			04/13/17	07/15/20	255,941	-	-	-	-	-	-	-	-	-	-	265,001
Total Water Quality Interest & Principal						22,125	21,625	21,200	20,600	-	-	-	-	-	-	1,413,895
TOTAL GENERAL FUND BOND OBLIGATIONS						1,231,456	1,167,019	1,119,838	989,938	828,688	751,938	731,838	711,425	576,013	124,050	50,996,700
ENTERPRISE FUND INTEREST & PRINCIPAL																
Airport (O)	O	I	06/14/11	06/15/31	730,000	52,663	50,863	54,063	52,063	-	-	-	-	-	-	737,300
Airport Terminal Ramp Construction - Phase 2 (O) (#2013-0101)	O	I	02/23/17	06/30/37	428,000	28,413	32,613	31,613	30,863	30,113	29,363	28,613	27,800	31,988	31,013	600,092
Airport New Fuel Farm (I) (#2013-102)	I	I	02/23/17	06/30/36	634,500	46,675	45,275	43,875	47,825	46,625	45,425	44,225	47,925	46,463	-	875,035
Airport East Ramp Design & Construction (O) (#2014-053)	O	I	02/23/17	06/30/37	641,200	42,369	46,169	44,769	43,719	42,669	46,619	45,419	44,119	42,819	46,519	896,212
Total Airport Fund Bonds						170,119	174,919	174,319	174,469	119,406	121,406	118,256	119,844	121,269	77,531	3,108,638
Hyannis Golf Course Acquisition \$3,900,000 Refunded	I	I	02/17/15	02/15/25	1,951,500	-	-	-	-	-	-	-	-	-	-	2,321,620
Olde Barnstable Golf Course Maintenance Equipment	I	I	02/17/15	02/15/20	200,000	-	-	-	-	-	-	-	-	-	-	130,200
Olde Barnstable Building Improvements (#2015-105)	I	I	02/25/16	06/30/26	174,000	-	-	-	-	-	-	-	-	-	-	194,000
Hyannis Building Improvements (#2015-106)	I	I	02/25/16	06/30/26	140,000	-	-	-	-	-	-	-	-	-	-	156,800
Olde Barnstable Fairgrounds Golf Course (I) (#2016-107)	I	I	02/23/17	06/30/37	245,000	13,313	12,913	12,513	12,213	11,913	11,613	11,313	10,988	10,663	10,338	326,698
Hyannis Golf Course Improvements (I) (#2016-108)	I	I	02/23/17	06/30/37	292,700	19,475	18,875	18,275	17,825	17,375	16,925	16,475	10,988	10,663	10,338	392,731
Total Golf Course						32,788	31,788	30,788	30,038	29,288	28,538	27,788	21,975	21,325	20,675	3,522,048

Purpose	Debt Limit	Levy Limit	Issue Date	Maturity Date	Original Amount	Payments FY 2018	Payments FY 2019	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY2025	Payments FY2026	Payments FY2027
ENTERPRISE FUND INTEREST & PRINCIPAL															
Sewer 98-27, Series 5	I	I	08/25/04	08/01/19	329,295	29,398	28,194	26,961	-	-	-	-	-	-	-
Sewer 98-27	I	I	08/25/04	08/01/19	(subsidy)	(9,987)	(9,441)	(8,491)	-	-	-	-	-	-	-
Sewer 98-42, Series 5	I	I	08/25/04	08/01/19	216,429	17,061	16,357	20,550	-	-	-	-	-	-	-
Sewer 98-42, Series 5	I	I	08/25/04	08/01/19	(subsidy)	(6,561)	(6,241)	(5,578)	-	-	-	-	-	-	-
Sewer 98-44, Series 5	I	I	08/25/04	08/01/19	112,262	9,936	9,530	9,113	-	-	-	-	-	-	-
Sewer 98-44, Series 5	I	I	08/25/04	08/01/19	(subsidy)	(3,414)	(3,229)	(2,908)	-	-	-	-	-	-	-
Sewer 98-46, Series 5	I	I	08/25/04	08/01/19	1,398,265	118,418	118,436	118,163	-	-	-	-	-	-	-
Sewer 98-46, Series 5	I	I	08/25/04	08/01/19	(subsidy)	(42,564)	(40,301)	(36,199)	-	-	-	-	-	-	-
Shallow Well Injection - CW-00-60 - Pool 8	I	I	08/25/04	08/01/22	436,370	31,771	31,305	33,983	33,040	32,250	30,750	-	-	-	-
Shallow Well Injection - CW-00-60 - Pool 8	I	I	08/25/04	08/01/22	(subsidy)	(11,852)	(11,704)	(10,636)	(10,267)	(9,974)	(9,028)	-	-	-	-
Sewer 98-44A	I	I	12/14/06	08/01/23	1,582,178	132,061	126,434	126,831	126,588	121,424	120,681	115,000	-	-	-
Sewer 98-44A	I	I	12/14/06	08/01/23	(subsidy)	(49,202)	(46,919)	(45,096)	(42,911)	(40,775)	(38,360)	(34,430)	-	-	-
Sewer 98-49A	I	I	12/14/06	08/01/23	556,458	46,257	44,287	42,747	45,863	43,989	41,976	40,000	-	-	-
Sewer 98-49A	I	I	12/14/06	08/01/23	(subsidy)	(17,277)	(16,478)	(15,872)	(15,082)	(14,307)	(13,463)	(12,096)	-	-	-
Waste Water Treatment Plant Sewer Turbine Generator \$570,000 Refunded	I	I	06/21/16	06/30/28	251,000	8,040	33,040	31,040	31,080	30,080	26,080	33,200	27,000	26,500	26,000
Waste Water Treatment Plant Sewer Turbine Generator	I	I	06/26/08	06/15/28	570,000	25,140	-	-	-	-	-	-	-	-	-
MWPAT CW-04-35	O	I	12/15/09	07/15/27	4,938,114	326,668	326,668	326,669	326,668	326,668	326,668	326,668	326,668	326,668	326,668
Sewer 05-28 Restructured	O	I	03/15/11	07/15/28	629,403	41,636	41,636	41,636	41,637	41,637	41,636	41,637	41,637	41,637	41,636
Sewer (I)	I	I	06/14/11	06/15/21	300,000	34,800	33,600	32,400	31,200	-	-	-	-	-	-
Sewer CW-04-35A Pool 13	I	I	06/06/12	07/15/27	1,469,137	107,318	107,307	107,295	107,284	107,272	107,259	107,247	107,234	107,221	107,207
Rehab Clarifiers (#2015-091)	O	I	02/25/16	06/30/36	1,000,000	81,813	79,813	77,813	75,813	73,813	71,813	69,813	67,813	65,813	63,813
Pump Station/Sewer Main Const (#2009-132)	I	I	02/25/16	06/30/31	318,000	75,000	72,400	64,800	62,400	-	-	-	-	-	-
Wastewater Treatment Plant Clarifiers Rehab (O) (#2016-097)	O	I	02/23/17	06/30/37	1,146,000	102,124	99,619	97,219	94,819	92,419	90,019	87,619	85,219	82,819	75,419
Wastewater Treatment Plant Backup Generator (O) (#2016-098)	O	I	02/23/17	06/30/37	862,000	78,025	74,850	73,050	71,250	69,450	67,650	65,850	64,050	62,250	60,450
Total Water Pollution Control Enterprise Fund						1,124,609	1,109,162	1,105,487	979,381	873,944	863,680	840,507	719,619	712,907	701,193
Solid Waste Landfill Closure - 98-24, Series 4	O	I	08/25/04	08/01/18	5,166,301	464,424	465,350	-	-	-	-	-	-	-	-
Solid Waste Landfill Closure - 98-24, Series 4	O	I	08/25/04	08/01/18	(subsidy)	(140,492)	(129,348)	-	-	-	-	-	-	-	-
Solid Waste Facility (I) \$630,000 Refunded	I	I	02/17/15	02/15/27	284,900	40,026	38,825	37,520	36,360	35,200	33,040	31,920	30,800	29,680	28,840
Advance Refund 6/15/2003 Transfer Station Improvements	O	I	04/18/12	09/15/22	241,500	29,410	28,535	27,785	27,035	22,240	20,910	-	-	-	-
Total Solid Waste Fund						393,367	403,362	65,305	63,395	57,440	53,950	31,920	30,800	29,680	28,840
Water Co. (Level Debt) (O) \$10,000,000 Refunded	I	I	02/17/15	02/15/27	5,704,800	689,556	691,615	690,430	693,870	691,350	692,070	691,870	689,750	692,750	692,160
MWPAT DWS-09-02	O	I	07/08/10	07/15/30	2,788,911	169,184	169,185	169,184	169,184	169,185	169,184	169,184	169,185	169,184	169,184
DW-09-02 Series 16	O	I	05/14/15	07/15/32	533,117	35,010	35,049	35,089	35,129	35,170	35,213	35,256	35,300	35,346	35,391
DWP-11-09 Series 17A	O	I	05/14/15	01/15/33	793,438	52,486	52,552	52,620	52,689	52,759	52,831	52,904	52,980	53,057	53,135
DWP-11-10 Series 17A	O	I	05/22/13	01/15/33	560,761	34,062	34,104	34,148	34,193	34,238	34,285	34,332	34,382	34,431	34,482
Water Main Loop	I	I	02/17/15	02/15/35	540,000	46,838	45,488	44,138	42,938	41,738	40,538	39,338	38,138	36,938	36,038
MCWT Series 19 DWP-13-01	O	I	02/11/16	06/30/36	2,418,547	146,373	146,546	146,723	146,904	147,089	147,278	147,471	147,668	147,870	148,076
Water Main Replacement (#2010-097)	O	I	02/25/16	06/30/21	380,000	87,000	84,000	81,000	78,000	-	-	-	-	-	-
Pipe Replacement Upgrade FY17 (#2015-085)	O	I	02/25/16	06/30/36	900,000	73,631	71,831	70,031	68,231	66,431	64,631	62,831	61,031	59,231	57,431
Paint/Repair Mary Dunn 2 (#2015-087)	I	I	02/25/16	06/30/21	615,000	144,600	139,600	129,600	124,800	-	-	-	-	-	-
Hyannis Water System Pipe Replacement (O) (#2016-093)	O	I	02/23/17	06/30/37	858,400	79,284	74,650	72,850	71,050	69,250	67,450	65,650	63,850	62,050	60,250
DWP-14-09 Mass Clean Water Trust (#2014-071, 2013-085, 2013-088)	I	I	04/13/17	07/15/37	1,467,339	81,527	88,805	88,910	89,017	89,127	89,240	89,354	89,471	89,591	89,713
Total Water Enterprise Fund						1,639,551	1,633,424	1,614,723	1,606,005	1,396,338	1,392,720	1,388,191	1,381,754	1,380,448	1,375,860
CTF Marina Bulkhead Repair I	I	I	06/14/11	06/15/30	725,000	58,831	57,231	55,631	54,031	52,431	50,831	44,231	43,050	41,825	40,513
Marina Bulkhead Repair II	I	I	06/14/11	06/15/30	525,000	40,300	39,300	38,300	37,300	41,300	40,100	38,900	37,888	36,838	40,713
Advance Refund 6/14/2004 Prince Cove Marina Acquisition	I	I	04/18/12	09/15/22	864,000	112,470	109,145	105,310	98,550	95,400	91,800	-	-	-	-
Gateway Marina Dredging (#2015-108)	I	I	02/25/16	06/30/26	280,000	40,000	38,800	37,600	36,400	35,200	29,000	28,000	27,000	26,000	-
Prince Cover Marina Bulkhead (#2015-109)	I	I	02/25/16	06/30/36	570,000	48,188	46,988	45,788	44,588	43,388	42,188	40,988	39,788	38,588	37,388
Hyannis Harbor Bulkhead (#2015-110)	I	I	02/25/16	06/30/21	158,000	34,800	33,600	32,400	31,200	-	-	-	-	-	-
Gateway Marina Maintenance Dredging (I) (#2016-109)	I	I	02/23/17	06/30/37	476,500	43,645	41,475	40,475	39,475	38,475	37,475	36,475	35,475	34,475	33,475
Total Marina Enterprise Fund						378,234	366,539	355,504	341,544	306,194	291,394	188,594	183,200	177,725	152,088

Purpose	Debt Limit	Levy Limit	Issue Date	Maturity Date	Original Amount	Payments FY2028	Payments FY2029	Payments FY2030	Payments FY2031	Payments FY2032	Payments FY2033	Payments FY2034	Payments FY2035	Payments FY2036	Payments FY2037	-
ENTERPRISE FUND INTEREST & PRINCIPAL																
Sewer 98-27, Series 5	I	I	08/25/04	08/01/19	329,295	-	-	-	-	-	-	-	-	-	-	84,553
Sewer 98-27	I	I	08/25/04	08/01/19	(subsidy)	-	-	-	-	-	-	-	-	-	-	(27,919)
Sewer 98-42, Series 5	I	I	08/25/04	08/01/19	216,429	-	-	-	-	-	-	-	-	-	-	53,967
Sewer 98-42, Series 5	I	I	08/25/04	08/01/19	(subsidy)	-	-	-	-	-	-	-	-	-	-	(18,380)
Sewer 98-44, Series 5	I	I	08/25/04	08/01/19	112,262	-	-	-	-	-	-	-	-	-	-	28,578
Sewer 98-44, Series 5	I	I	08/25/04	08/01/19	(subsidy)	-	-	-	-	-	-	-	-	-	-	(9,551)
Sewer 98-46, Series 5	I	I	08/25/04	08/01/19	1,398,265	-	-	-	-	-	-	-	-	-	-	355,016
Sewer 98-46, Series 5	I	I	08/25/04	08/01/19	(subsidy)	-	-	-	-	-	-	-	-	-	-	(119,064)
Shallow Well Injection - CW-00-60 - Pool 8	I	I	08/25/04	08/01/22	436,370	-	-	-	-	-	-	-	-	-	-	193,098
Shallow Well Injection - CW-00-60 - Pool 8	I	I	08/25/04	08/01/22	(subsidy)	-	-	-	-	-	-	-	-	-	-	(63,461)
Sewer 98-44A	I	I	12/14/06	08/01/23	1,582,178	-	-	-	-	-	-	-	-	-	-	869,019
Sewer 98-44A	I	I	12/14/06	08/01/23	(subsidy)	-	-	-	-	-	-	-	-	-	-	(297,693)
Sewer 98-49A	I	I	12/14/06	08/01/23	556,458	-	-	-	-	-	-	-	-	-	-	305,120
Sewer 98-49A	I	I	12/14/06	08/01/23	(subsidy)	-	-	-	-	-	-	-	-	-	-	(104,576)
Waste Water Treatment Plant Sewer Turbine Generator \$570,000 Refunded	I	I	06/21/16	06/30/28	251,000	25,500	-	-	-	-	-	-	-	-	-	297,560
Waste Water Treatment Plant Sewer Turbine Generator	I	I	06/26/08	06/15/28	570,000	-	-	-	-	-	-	-	-	-	-	25,140
MWPAT CW-04-35	O	I	12/15/09	07/15/27	4,938,114	326,668	-	-	-	-	-	-	-	-	-	3,593,350
Sewer 05-28 Restructured	O	I	03/15/11	07/15/28	629,403	41,637	41,636	-	-	-	-	-	-	-	-	499,639
Sewer (I)	I	I	06/14/11	06/15/21	300,000	-	-	-	-	-	-	-	-	-	-	132,000
Sewer CW-04-35A Pool 13	I	I	06/06/12	07/15/27	1,469,137	107,193	-	-	-	-	-	-	-	-	-	1,179,835
Rehab Clarifiers (#2015-091)	O	I	02/25/16	06/30/36	1,000,000	62,813	61,563	60,500	59,000	57,500	56,000	54,500	53,000	51,500	-	1,244,500
Pump Station/Sewer Main Const (#2009-132)	I	I	02/25/16	06/30/21	318,000	-	-	-	-	-	-	-	-	-	-	274,600
Wastewater Treatment Plant Clarifiers Rehab (O) (#2016-097)	O	I	02/23/17	06/30/37	1,146,000	73,219	71,019	68,819	67,169	65,519	63,869	62,219	60,431	58,644	56,856	1,555,056
Wastewater Treatment Plant Backup Generator (O) (#2016-098)	O	I	02/23/17	06/30/37	862,000	58,650	56,850	50,050	48,850	47,650	46,450	45,250	43,950	42,650	41,350	1,168,575
Total Water Pollution Control Enterprise Fund						695,679	231,068	179,369	175,019	170,669	166,319	161,969	157,381	152,794	98,206	11,218,961
Solid Waste Landfill Closure - 98-24, Series 4	O	I	08/25/04	08/01/18	5,166,301	-	-	-	-	-	-	-	-	-	-	929,774
Solid Waste Landfill Closure - 98-24, Series 4	O	I	08/25/04	08/01/18	(subsidy)	-	-	-	-	-	-	-	-	-	-	(269,841)
Solid Waste Facility (I) \$630,000 Refunded	I	I	02/17/15	02/15/27	284,900	-	-	-	-	-	-	-	-	-	-	342,211
Advance Refund 6/15/2003 Transfer Station Improvements	O	I	04/18/12	09/15/22	241,500	-	-	-	-	-	-	-	-	-	-	155,915
Total Solid Waste Fund																1,158,059
Water Co. (Level Debt) (O) \$10,000,000 Refunded	I	I	02/17/15	02/15/27	5,704,800	-	-	-	-	-	-	-	-	-	-	6,915,421
MWPAT DWS-09-02	O	I	07/08/10	07/15/30	2,788,911	169,184	169,184	169,184	169,184	-	-	-	-	-	-	2,368,581
DW-09-02 Series 16	O	I	05/14/15	07/15/32	533,117	35,439	35,487	35,536	35,586	35,637	35,689	-	-	-	-	565,325
DWP-11-09 Series 17A	O	I	05/14/15	01/15/33	793,438	53,215	53,298	53,381	53,466	53,553	53,643	-	-	-	-	848,571
DWP-11-10 Series 17A	O	I	05/22/13	01/15/33	560,761	34,534	34,587	34,641	34,698	34,754	34,812	-	-	-	-	550,681
Water Main Loop	I	I	02/17/15	02/15/35	540,000	35,138	34,388	23,600	23,000	22,400	21,800	21,200	20,600	-	-	614,250
MCWT Series 19 DWP-13-01	O	I	02/11/16	06/30/36	2,418,547	148,286	148,501	148,720	148,945	149,174	149,408	149,647	149,891	150,141	-	2,814,712
Water Main Replacement (#2010-097)	O	I	02/25/16	06/30/21	380,000	-	-	-	-	-	-	-	-	-	-	330,000
Pipe Replacement Upgrade FY17 (#2015-085)	O	I	02/25/16	06/30/36	900,000	56,531	55,406	54,450	53,100	51,750	50,400	49,050	47,700	46,350	-	1,120,050
Paint/Repair Mary Dunn 2 (#2015-087)	I	I	02/25/16	06/30/21	615,000	-	-	-	-	-	-	-	-	-	-	538,600
Hyannis Water System Pipe Replacement (O) (#2016-093)	O	I	02/23/17	06/30/37	858,400	58,450	51,650	50,050	48,850	47,650	46,450	45,250	43,950	42,650	41,350	1,162,634
DWP-14-09 Mass Clean Water Trust (#2014-071, 2013-085, 2013-088)			04/13/17	07/15/37	1,467,339	89,838	89,966	90,096	90,229	90,366	90,505	90,647	90,791	90,939	91,091	1,789,222
Total Water Enterprise Fund						680,614	672,466	659,658	657,056	485,283	482,707	355,794	352,932	330,080	132,441	19,618,046
CTF Marina Bulkhead Repair I	I	I	06/14/11	06/15/30	725,000	39,200	37,800	36,400	-	-	-	-	-	-	-	612,006
Marina Bulkhead Repair II	I	I	06/14/11	06/15/30	525,000	39,400	38,000	41,600	-	-	-	-	-	-	-	509,938
Advance Refund 6/14/2004 Prince Cove Marina Acquisition	I	I	04/18/12	09/15/22	864,000	-	-	-	-	-	-	-	-	-	-	612,675
Gateway Marina Dredging (#2015-108)	I	I	02/25/16	06/30/26	280,000	-	-	-	-	-	-	-	-	-	-	298,000
Prince Cover Marina Bulkhead (#2015-109)	I	I	02/25/16	06/30/36	570,000	36,788	36,038	35,400	29,500	28,750	28,000	27,250	26,500	25,750	-	701,850
Hyannis Harbor Bulkhead (#2015-110)	I	I	02/25/16	06/30/21	158,000	-	-	-	-	-	-	-	-	-	-	132,000
Gateway Marina Maintenance Dredging (I) (#2016-109)	I	I	02/23/17	06/30/37	476,500	32,475	31,475	30,475	29,725	28,975	28,225	27,475	26,725	25,975	25,225	643,870
Total Marina Enterprise Fund						147,863	143,313	143,875	59,225	57,725	51,225	49,875	48,475	47,075	20,675	3,510,339

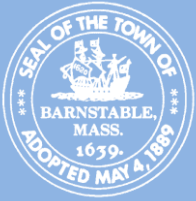
Purpose	Debt Limit	Levy Limit	Issue Date	Maturity Date	Original Amount	Payments FY 2018	Payments FY 2019	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY2025	Payments FY2026	Payments FY2027
ENTERPRISE FUND INTEREST & PRINCIPAL															
Sandy Neck Beach House II	I	I	06/14/11	06/15/26	81,000	6,919	6,719	6,519	6,319	6,119	5,919	5,719	5,550	10,375	-
Sandy Neck Beach House I	I	I	06/14/11	06/15/31	966,491	69,006	72,406	70,606	68,806	72,006	70,006	68,006	71,319	69,394	72,331
Sandy Neck Beach House III	I	I	06/14/11	06/15/31	217,509	16,256	15,856	15,456	15,056	14,656	14,256	13,856	13,519	13,169	12,794
Total Sandy Neck Enterprise Fund						92,181	94,981	92,581	90,181	92,781	90,181	87,581	90,388	92,938	85,125
CTF HYCC 1 (I) \$1,000,000 Refunded															
CTF HYCC 1 (I) \$1,000,000 Refunded	I	I	02/17/15	02/15/27	474,900	66,446	64,390	62,230	60,310	58,390	56,470	53,550	51,670	49,790	47,380
CTF HYCC 2 (I) \$8,000,000 Refunded	I	I	02/17/15	02/15/27	3,794,400	535,190	515,775	495,450	480,170	463,890	447,650	430,450	413,330	396,290	380,070
CTF HYCC 3 (I) \$1,600,000 Refunded	I	I	02/17/15	02/15/27	759,000	107,645	103,135	98,670	95,630	92,590	89,550	86,510	82,470	79,470	76,220
CTF HYCC 4 (I) \$6,765,000 Refunded	I	I	06/21/16	06/30/28	3,320,000	107,000	452,000	433,200	419,600	404,000	384,480	374,200	360,800	344,100	332,600
CTF HYCC 4	I	I	06/26/08	06/15/28	6,765,000	354,055	-	-	-	-	-	-	-	-	-
Total HYCC Enterprise Fund						1,170,336	1,135,300	1,089,550	1,055,710	1,018,870	978,150	944,710	908,270	869,650	836,270
Land Acquisition - 2004-105 Bone Hill \$200k Refunded															
Land Acquisition - 2004-105 Bone Hill \$200k Refunded	I	I	02/17/15	02/15/25	90,850	11,813	11,565	11,160	10,800	10,440	10,080	9,720	9,360	-	-
Land Acquisition - 06-15-05 - 2004-106 \$180k Refunded	I	I	02/17/15	02/15/25	73,600	10,832	10,845	11,440	11,040	4,640	4,480	4,320	4,160	-	-
Land Acquisition - Hyannis Golf \$5,500,000 Refunded	I	I	02/17/15	02/15/25	2,496,300	328,741	321,835	308,540	301,580	286,500	277,620	266,700	255,320	-	-
Land Acquisition - Archibald \$500,000 Refunded	I	I	02/17/15	02/15/26	212,100	32,490	31,410	30,330	29,370	28,410	26,450	25,530	24,610	23,690	-
Town Hall Renovations	I	I	06/16/10	06/15/30	1,332,520	95,144	93,519	90,269	88,319	86,369	84,256	82,144	79,869	77,594	75,238
Land Acquisition 1 Adv Ref 6/15/2002	I	I	06/14/11	06/15/22	7,065,000	856,160	817,960	684,120	624,480	526,240	-	-	-	-	-
Advance Refund 6/15/2003 Landbank Acquisitions	I	I	04/18/12	09/15/22	964,600	113,034	109,709	106,859	104,009	100,684	96,492	-	-	-	-
Advance Refund 6/15/2004 Landbank Acquisitions 3	I	I	04/18/12	09/15/22	5,385,600	713,224	682,234	650,624	623,374	597,544	567,732	-	-	-	-
Advance Refund 6/15/2004 Landbank Acquisitions 2	I	I	04/18/12	09/15/22	227,300	29,750	28,875	28,125	27,375	26,500	25,500	-	-	-	-
Total Community Preservation Fund						2,191,188	2,107,952	1,921,467	1,820,347	1,667,327	1,092,610	388,414	373,319	101,284	75,238
Title V - Phase I - 97-1131 Series 6-															
Title V - Phase I - 97-1131 Series 6-	O	I	07/25/02	08/01/20	197,403	12,359	11,774	11,209	10,468	-	-	-	-	-	-
Title V - Phase I - 97-1131 Series 6-	O	I	07/25/02	08/01/20	(subsidy)	(1,959)	(1,374)	(809)	(268)	-	-	-	-	-	-
Title V - Phase I - 97-1131 Series 6	O	I	07/01/04	08/01/22	190,580	12,737	12,239	11,741	11,242	10,969	10,459	-	-	-	-
Title V - Phase I - 97-1131 Series 6	O	I	07/01/04	08/01/22	(subsidy)	(2,765)	(2,267)	(1,769)	(1,270)	(765)	(255)	-	-	-	-
Title V - Phase III - Pool 11 T5-97-1131-2	O	I	10/31/05	07/15/25	200,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	-
Title V - Phase IV - Pool 11 T5-97-1131-3	O	I	10/31/05	07/15/25	200,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	-
Title V - Phase V - Pool 12 97-1131-4D	O	I	12/14/06	07/15/26	200,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Total Title V						50,372	50,372	50,372	50,172	40,204	40,204	30,000	30,000	30,000	10,000
MWPAT CWS-09-07															
MWPAT CWS-09-07	I	I	07/08/10	07/15/30	3,285,646	199,318	199,318	199,318	199,318	199,318	199,318	199,318	199,318	199,318	199,318
Sewer CWS-09-07-A Series 16	I	I	05/14/15	07/15/32	4,592,367	301,583	301,917	302,260	302,608	302,965	303,329	303,701	304,082	304,471	304,868
Total Sewer Construction & Private Way Trust Fund						500,902	501,235	501,578	501,926	502,283	502,647	503,019	503,400	503,788	504,185
TOTAL ENTERPRISE FUND BOND OBLIGATIONS						8,142,237	7,999,831	7,390,171	7,054,105	6,498,904	5,856,579	4,955,539	4,764,403	4,144,713	3,977,793
GRAND TOTAL TOWN OF BARNSTABLE BOND OBLIGATIONS						17,705,224	17,195,371	12,760,809	11,030,596	9,978,457	8,998,644	7,597,216	6,777,073	6,055,268	5,450,116

Purpose	Debt Limit	Levy Limit	Issue Date	Maturity Date	Original Amount	Payments FY2028	Payments FY2029	Payments FY2030	Payments FY2031	Payments FY2032	Payments FY2033	Payments FY2034	Payments FY2035	Payments FY2036	Payments FY2037	-
ENTERPRISE FUND INTEREST & PRINCIPAL																
Sandy Neck Beach House II	I	I	06/14/11	06/15/26	81,000	-	-	-	-	-	-	-	-	-	-	60,156
Sandy Neck Beach House I	I	I	06/14/11	06/15/31	966,491	70,081	67,681	70,281	67,681	-	-	-	-	-	-	979,613
Sandy Neck Beach House III	I	I	06/14/11	06/15/31	217,509	17,419	16,819	16,219	15,619	-	-	-	-	-	-	210,950
Total Sandy Neck Enterprise Fund						87,500	84,500	86,500	83,300	-	-	-	-	-	-	1,250,719
CTF HYCC																
CTF HYCC 1 (I) \$1,000,000 Refunded	I	I	02/17/15	02/15/27	474,900	-	-	-	-	-	-	-	-	-	-	570,626
CTF HYCC 2 (I) \$8,000,000 Refunded	I	I	02/17/15	02/15/27	3,794,400	-	-	-	-	-	-	-	-	-	-	4,558,265
CTF HYCC 3 (I) \$1,600,000 Refunded	I	I	02/17/15	02/15/27	759,000	-	-	-	-	-	-	-	-	-	-	911,890
CTF HYCC 4 (I) \$6,765,000 Refunded	I	I	06/21/16	06/30/28	3,320,000	316,200	-	-	-	-	-	-	-	-	-	3,928,180
CTF HYCC 4	I	I	06/26/08	06/15/28	6,765,000	-	-	-	-	-	-	-	-	-	-	354,055
Total HYCC Enterprise Fund						316,200	-	-	-	-	-	-	-	-	-	10,323,016
Community Preservation Fund																
Land Acquisition - 2004-105 Bone Hill \$200k Refunded	I	I	02/17/15	02/15/25	90,850	-	-	-	-	-	-	-	-	-	-	84,938
Land Acquisition - 06-15-05 - 2004-106 \$180k Refunded	I	I	02/17/15	02/15/25	73,600	-	-	-	-	-	-	-	-	-	-	61,757
Land Acquisition - Hyannis Golf \$5,500,000 Refunded	I	I	02/17/15	02/15/25	2,496,300	-	-	-	-	-	-	-	-	-	-	2,346,836
Land Acquisition - Archibald \$500,000 Refunded	I	I	02/17/15	02/15/26	212,100	-	-	-	-	-	-	-	-	-	-	252,290
Town Hall Renovations	I	I	06/16/10	06/15/30	1,332,520	72,638	70,200	67,600	-	-	-	-	-	-	-	1,063,156
Land Acquisition 1 Adv Ref 6/15/2002	I	I	06/14/11	06/15/22	7,065,000	-	-	-	-	-	-	-	-	-	-	3,508,960
Advance Refund 6/15/2003 Landbank Acquisitions	I	I	04/18/12	09/15/22	964,600	-	-	-	-	-	-	-	-	-	-	630,787
Advance Refund 6/15/2004 Landbank Acquisitions 3	I	I	04/18/12	09/15/22	5,385,600	-	-	-	-	-	-	-	-	-	-	3,834,732
Advance Refund 6/15/2004 Landbank Acquisitions 2	I	I	04/18/12	09/15/22	227,300	-	-	-	-	-	-	-	-	-	-	166,125
Total Community Preservation Fund						72,638	70,200	67,600	-	-	-	-	-	-	-	11,949,582
Title V																
Title V - Phase I - 97-1131 Series 6-	O	I	07/25/02	08/01/20	197,403	-	-	-	-	-	-	-	-	-	-	45,809
Title V - Phase I - 97-1131 Series 6-	O	I	07/25/02	08/01/20	(subsidy)	-	-	-	-	-	-	-	-	-	-	(4,409)
Title V - Phase I - 97-1131 Series 6	O	I	07/01/04	08/01/22	190,580	-	-	-	-	-	-	-	-	-	-	69,387
Title V - Phase I - 97-1131 Series 6	O	I	07/01/04	08/01/22	(subsidy)	-	-	-	-	-	-	-	-	-	-	(9,091)
Title V - Phase III - Pool 11 T5-97-1131-2	O	I	10/31/05	07/15/25	200,000	-	-	-	-	-	-	-	-	-	-	90,000
Title V - Phase IV - Pool 11 T5-97-1131-3	O	I	10/31/05	07/15/25	200,000	-	-	-	-	-	-	-	-	-	-	90,000
Title V - Phase V - Pool 12 97-1131-4D	O	I	12/14/06	07/15/26	200,000	-	-	-	-	-	-	-	-	-	-	100,000
Total Title V						-	-	-	-	-	-	-	-	-	-	381,696
MWPAT CWS-09-07																
MWPAT CWS-09-07	I	I	07/08/10	07/15/30	3,285,646	199,318	199,318	199,318	199,318	-	-	-	-	-	-	2,790,452
Sewer CWS-09-07-A Series 16	I	I	05/14/15	07/15/32	4,592,367	305,273	305,688	306,111	306,544	306,986	307,438	-	-	-	-	4,869,824
Total Sewer Construction & Private Way Trust Fund						504,591	505,006	505,430	505,862	306,986	307,438	-	-	-	-	7,660,276
TOTAL ENTERPRISE FUND BOND OBLIGATIONS						2,707,990	1,913,259	1,847,538	1,684,969	1,169,357	1,157,632	713,681	700,607	672,543	349,529	73,701,379
GRAND TOTAL TOWN OF BARNSTABLE BOND OBLIGATIONS						3,939,446	3,080,277	2,967,375	2,674,906	1,998,045	1,909,569	1,445,519	1,412,032	1,248,555	473,579	124,698,078

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FY 2019 Budget Action Calendar

DATE	ACTION
Thursday, September 28, 2017	Town Council conducts joint meeting/workshop with School Committee in accordance with Town Charter to review financial condition of the Town
TBD	Town Council meets to review and update their Strategic Plan
Monday, October 2, 2017	Town Manager & School Superintendent develop annual policy agreement on allocation of projected FY 2019 General Fund revenue
Friday, October 6, 2017	Town Manager issues instructions to Departments for FY 2019 Operating & Capital budgets
Friday, October 20, 2017	Municipal Departments submit preliminary listing of any proposed FY 2019 position changes with supporting justification to Human Resources (HR) with copy to Town Manager
Monday, October 23, 2017	Departments submit Calendar Year permit and fees change requests to Town Manager along with supporting documentation
Tuesday, November 7, 2017	Town Manager conducts public hearing on Calendar Year permits and fees
Thursday, November 9, 2017	HR Director submits position changes summary including comments to Town Manager
Monday, November 13, 2017	Departments submit Capital Improvements Project (CIP) project data sheets with supporting photos and review of existing capital projects to Town Manager
Monday, November 20, 2017	Town Manager begins formal review of CIP project requests with individual Department Managers
Monday, November 20, 2017	CIP scoring team provided copy of CIP submissions
Thursday, December 7, 2017	Annual Organization of Town Council (TM must submit budget to Town Council within 170 days per M.G.L. 44 § 32) (Friday, June 1, 2018)
Thursday, December 14, 2017	CIP Task Force conducts workshop on CIP submissions
Wednesday, December 20, 2017	Department Managers submit Operating Budget Decision Packages
Monday, January 8, 2018	Town Manager begins review of Operating Budget requests with Department Managers
Wednesday, January 17, 2018	Department Managers submit Operating Budget Narratives including photos
Tuesday, January 30, 2018	Departments submit Fiscal Year permit and fees change requests to Town Manager along with supporting documentation
Tuesday, February 13, 2018	Town Manager conducts public hearing on Fiscal Year permits and fees
Monday, February 26, 2018	Town Manager submits recommended FY 2019 Capital Budget to Town Council per Part VI, Section 6-5 (a) of the Charter (TC must adopt plan BEFORE June 1, 2018)
Thursday, March 15, 2018	Town Council conducts first reading of FY 2019 Capital Budget Orders
Friday, March 30, 2018	CFAC submits their review of recommended FY 2019 Capital Budget to Town Council
Wednesday, April 4, 2018	School Department submits adopted FY 2019 School budget due to Town Manager
Thursday, April 5, 2018	Town Council conducts first public hearing on FY 2019 Capital Budget per Part VI Section 6-5 of the Charter
Wednesday, April 4, 2018	School Department submits adopted FY 2019 School budget due to Town Manager
Thursday, April 19, 2018	Town Council conducts second public hearing on FY 2019 Capital Budget if needed
Thursday, April 26, 2018	Town Manager submits recommended FY 2019 Operating Budget to the Town Council (TC must adopt budget within 45 days, otherwise it becomes part of FY19 appropriations per Section 6-3 (b) of the Charter)
Thursday, May 3, 2018	Town Council conducts first reading of FY 2019 Operating Budget Orders
Thursday, May 17, 2018	CFAC submits their review of recommended FY 2019 Operating Budget to Town Council
Thursday, May 17, 2018	Town Council conducts first public hearing on 2019 Operating Budget
Thursday, May 31, 2018	Town Council conducts second public hearing on FY 2019 Operating Budget (3 rd meeting in May)
Thursday, May 31, 2018	Last weekday FY 2019 Capital Improvements Plan can be adopted by Town Council per Part VI, Section 6-5 (d) of the Charter
Thursday, June 7, 2018	Town Council conducts third public hearing on FY 2019 Operating Budget (if needed)
Friday, June 8, 2018	Last weekday FY 2019 Operating Budget can be adopted by Town Council per Part VI Section 6-3 (b) of the charter (TC must adopt within 45 days of receiving budget)
Saturday, June 30, 2018	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 2016 expire</u>



FY 2019