

Town of Jamestown
Capital Improvement Program
Town Council Work Session

MARCH 6, 2018

TOWN OF JAMESTOWN CAPITAL IMPROVEMENT FUND FY2018-2019		
	Department Head Request	Administrator Proposed
GENERAL GOVERNMENT		
Town Hall - General Maintenance	\$25,000	\$25,000
TOWN CLERK		
Probate Records Microfilming	\$2,500	\$0
Clerk Records Management	\$2,500	\$0
Codification	\$2,500	\$0
Vault Shelving	\$15,000	\$15,000
TAX ASSESSOR		
Annual revaluation set aside	\$10,000	\$10,000
PLANNING DEPARTMENT		
Planning & Development documents	\$32,500	\$15,000
Affordable Housing	\$75,000	\$75,000
INFORMATION TECHNOLOGY		
North End Cell Tower Feasibility Study	\$18,000	\$18,000
Fiber Network - Phase III - (Water/Towers)	\$18,000	\$18,000
Information Technology - Annual	\$36,500	\$36,500
POLICE PROTECTION		
Police Cruiser - Patrol Equipped Vehicle	\$40,500	\$40,500
Public Safety Building - General	\$10,000	\$0
FIRE DEPARTMENT		
Radio/Pager Replacements 800 Mhz	\$59,200	\$59,200
Phase 1 - Conversion to Radio Call Boxes	\$50,000	\$50,000
Facilities Improvements - Main Station	\$5,000	\$0
FIRE DEPARTMENT - EMS DIVISION		
Patient Stretchers (1)	\$24,000	\$24,000
(2) Laptops for EMS Reporting (R2/R3)	\$10,000	\$10,000

PUBLIC WORKS		
Road Improvement Program	\$250,000	\$250,000
North Road Improvements	\$140,000	\$140,000
Miscellaneous Road Drainage	\$20,000	\$20,000
Street Repairs	\$15,000	\$15,000
Sidewalk Repairs	\$20,000	\$20,000
Fort Getty Projects	\$75,000	\$75,000
Highway Garage Improvements	\$20,000	\$10,000
GIS Program	\$15,000	\$15,000
Bike Path Construction	\$75,000	\$0
Stormwater Management Phase II	\$5,000	\$5,000
Trash Compactor	\$50,000	\$0
Equipment Acquisition	\$10,000	\$0
LIBRARY		
Carpeting Replacement	\$10,000	\$0
Painting - Exterior	\$5,000	\$0
Restroom Rehabilitation	\$40,000	\$0
Electrical/Lighting/Energy Improvements	\$20,000	\$0
Adult Area Furninshings	\$20,000	\$0
Building Insulation	\$5,000	\$0
PARKS AND RECREATION		
Eldred Avenue Fields	\$25,000	\$10,000
Skateboard Park	\$10,000	\$0
Public ROW Management	\$5,000	\$5,000
Community Center - 41 Conanicus Ave	\$30,000	\$0
Equipment Purchase/ Replacement/ Attachements	\$15,000	\$15,000
Senior Center Facility Improvements	\$20,000	\$20,000
TOTAL CAPITAL IMPROVEMENT PROGRAM	\$1,336,200	\$996,200

Why Develop a Capital Improvement Program?

The primary focus of a Capital Program is to provide a broad-based community needs assessment;

A second important element is the development of an implementation schedule that addresses the community needs assessment priorities; and

The final action is to evaluate the Town's financial ability to manage and finance the costs associated with addressing the community's priority needs.

Capital Projects

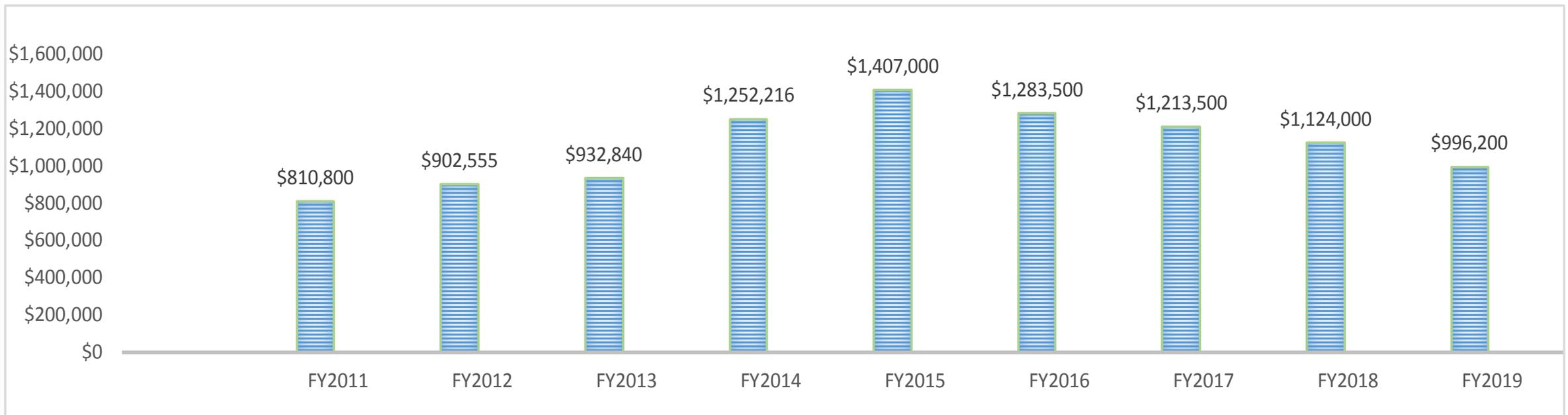
A Capital Program is a short to mid-range plan that identifies projects and equipment purchases, provides a planning schedule that includes all facilities and infrastructure for all municipal and school facilities including, public safety facilities, water and sewer systems, parks, schools, water and wastewater treatment, and other municipal assets. The plan provides a link to the Town department's, comprehensive and strategic plans and the annual Town and School budget programs.

A capital improvement or project is a large-scale non-recurring tangible fixed asset with a useful life of at least five years and a combined value in excess of \$10,000.

CIP Program Trending

Capital Improvement Program Appropriations FY2009 - 2018

\$810,800	\$902,555	\$932,840	\$1,252,216	\$1,407,000	\$1,283,500	\$1,213,500	\$1,124,000	\$996,200
FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019



CIP Program Summary

Capital Program (Pay as You Go) Annual Program	2014-2015 Adopted	2015-2016 Adopted	2016-2017 Adopted	2017-2018 Adopted	2018-2019 Proposed	Increase/ (Decrease)
General Municipal Program	\$155,000	\$189,000	\$249,500	\$360,000	\$212,500	(\$147,500)
Public Safety (Police/Fire/EMS)	220,000	151,000	144,000	164,000	183,700	\$19,700
Public Works	1,022,000	813,500	685,000	515,000	550,000	\$35,000
Parks and Recreation	10,000	130,000	135,000	85,000	50,000	(\$35,000)
Town Capital Program	\$1,407,000	\$1,283,500	\$1,213,500	\$1,124,000	\$996,200	(\$127,800)
School Capital Program	\$120,000	\$158,360	\$119,245	\$107,675	\$166,825	\$59,150
Total Capital Program	\$1,527,000	\$1,441,860	\$1,332,745	\$1,231,675	\$1,163,025	(\$68,650)

Proposed Debt Service Requirements

	Budget Adopted 2014/2015	Budget Adopted 2015/2016	Budget Adopted 2016/2017	Budget Adopted 2017/2018	Budget Proposed 2018/2019	Admin Percent Inc./ (dec.)
DEBT SERVICE						
Payment of Principal	\$520,000	\$549,876	\$580,768	\$721,528	\$743,047	2.98%
Payment of Interest	297,392	280,001	212,860	227,732	201,475	-11.53%
Renewable Energy Project (Interest only)					6,875	
TOTAL DEBT SERVICE:	\$817,392	\$829,877	\$793,628	\$949,260	\$951,397	0.23%

Legal Debt Margin	6/30/2017
Grossed Assessed Value	\$2,310,201,839
Less: exemptions and adjustments	\$43,460,776
Total Net Taxable Assessed Value	\$2,266,741,063
Debt Limit - 3 percent of total assessed value	\$68,002,232
Total Bonded Debt minus premiums	\$9,254,992
Legal Debt Margin	\$58,747,240

Computation of Legal Debt Service Margin

Purpose	Date of Issuance	Date of Maturity	Authorized and Issued	Outstanding June 30,2016	Outstanding June 30,2017
General Obligation Bonds					
General Obligation Bond	6/15/2008	6/15/2033	\$4,900,000	\$510,000	\$255,000
General Obligation Bond	11/3/2016	11/1/2036	2,500,000	0	2,500,000
Town Hall Bond	4/1/2007	4/1/2027	3,300,000	165,000	0
Landfill Closure Bonds	8/15/2013	12/1/2023	1,000,000	800,002	700,002
Refunding Bonds	8/15/2013	12/1/2023	1,483,175	1,209,664	969,990
Refunding Bonds	5/5/2016	4/1/2033	4,830,000	4,830,000	4,830,000
Issuance Premiums on Bonds					542,981
Total General Obligation Bonds Payable			\$18,013,175		\$9,797,973

- Equals 13.61% of recommended debt limit of \$68 million
- Bond Rating Aa1 by Moody's and Fitch Rating Services

General Government

General Fund	Fiscal Year 2016-2017	Fiscal Year 2017-2018	Fiscal Year 2018-2019	Fiscal Year 2019-2020	Fiscal Year 2020-2021	Fiscal Year 2021-2022	Fiscal Year 2022-2023	Fiscal Year 2023-2024	Six Year Total
<i>General Government</i>									
Town Hall - Renovations and Upkeep	\$20,000	\$0	\$25,000	\$25,000	\$0	\$0	\$10,000	\$0	\$60,000
Financial Software		\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pool Car Replacement			\$0	\$0	\$25,000	\$0	\$0	\$0	\$25,000
General Government - Subtotal	\$20,000	\$15,000	\$25,000	\$25,000	\$25,000	\$0	\$10,000	\$0	\$85,000

FY2018-2019

Town Hall Renovations and Upkeep : \$25,000
(Carpeting, Painting, Stairwells, HVAC)

Town Clerk

General Fund	Fiscal Year 2016-2017	Fiscal Year 2017-2018	Fiscal Year 2018-2019	Fiscal Year 2019-2020	Fiscal Year 2020-2021	Fiscal Year 2021-2022	Fiscal Year 2022-2023	Fiscal Year 2023-2024	Six Year Total
<i>Town Clerk</i>									
Probate Records Microfiliming	\$5,000	\$0	0	0	5,000	0	0	2,500	\$7,500
Clerk Records Management		2,500	0	2,500	2,500	2,500	2,500	2,500	\$12,500
Codification	2,500	5,000	0	5,000	2,500	5,000	2,500	5,000	\$20,000
Vault Shelving		15,000	15,000	0	0	0	0	0	\$15,000
Town Clerk - Subtotal	\$7,500	\$22,500	\$15,000	\$7,500	\$10,000	\$7,500	\$5,000	\$10,000	\$55,000

FY2018-2019

Vault Shelving: \$15,000

VAULT SHELVING

Project Cost: \$15,000 (two-year funding plan, totalling \$30,000)

- Town Hall Opens 2007 providing added professional space;
- Former vault (96 sq. ft.) was replaced with a modern, climate controlled vault (868 sq. ft.) providing for proper archival storage for land evidence, litigation, town council, boards/commissions/ committees, ordinance amendments, maps, minutes, assessment, licensing, probate and vital records;
- Space is now limited;
- New vault shelving installed in 2007 included plans for the future, and the necessary base for the installation of rails for mobile storage was built into the vault floor;
- Probate storage space is filled and there is no additional space available for land evidence materials;
- Clerk's Office stopped producing hard copy books in January 2014 as a space saving measure.



Tax Assessor

General Fund	Fiscal Year 2016-2017	Fiscal Year 2017-2018	Fiscal Year 2018-2019	Fiscal Year 2019-2020	Fiscal Year 2020-2021	Fiscal Year 2021-2022	Fiscal Year 2022-2023	Fiscal Year 2023-2024	Six Year Total
<u>Tax Assessor</u>									
Revaluation Set-aside	\$10,000	\$15,000	\$10,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$85,000
Tax Assessor - Subtotal	\$10,000	\$15,000	\$10,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$85,000

FY 2018-2019

Revaluation Set-aside: \$10,000

Scheduled Revaluations:

Statistical Reval. 2018

Full-Revaluation 2021

Statistical Reval. 2024

Tax Assessor

Tax Revaluation Program Project (Estimates)	Cost	State Reimbursement	
2018 Statistical	\$65,000	\$39,000	60%
2021 Full Revaluation	\$140,000	\$0	
2024 Statistical	\$65,000	\$39,000	60%
Total Projected Cost	<u>\$270,000</u>	<u>\$78,000</u>	
	\$270,000		
	(\$78,000)		
	(\$95,000)	Current Balance FY2018	
Net Total Required	<u>\$97,000</u>		

Average annual investment needed is \$10,000 - \$20,000.

Planning Department

General Fund	Fiscal Year 2016-2017	Fiscal Year 2017-2018	Fiscal Year 2018-2019	Fiscal Year 2019-2020	Fiscal Year 2020-2021	Fiscal Year 2021-2022	Fiscal Year 2022-2023	Fiscal Year 2023-2024	Six Year Total
<i>Planning Department</i>									
Planning Services and Development Doc.	\$10,000	\$75,000	\$15,000	\$15,000	\$20,000	\$15,000	\$20,000	\$15,000	\$100,000
Affordable Housing Grant Program	75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$450,000
Planning Department - Subtotal	\$85,000	\$150,000	\$90,000	\$90,000	\$95,000	\$90,000	\$95,000	\$90,000	\$550,000

FY 2018-2019

Planning and Development Documents: \$15,000

Affordable Housing Grant Funding: \$75,000

Planning Services and Development Documents: \$15,000 - This will provide funding for the following:

- 1) **Comprehensive Plan Update**: provide assistance to implement the next community survey, assist with public participation workshop(s), document preparation, printing, advertising, public workshops, and professional formatting/editing.
- 2) **Zoning Ordinance**: This funding will address the Update to the Zoning Ordinance including Consulting: Consultant review/performance Evaluation with specific emphasis on Article 3 – Application of District Regulations, Article 8 – RR-200 Regulations, Article 10 – Multifamily Dwellings, Article 11 – Jamestown Village Special Development District, Article 12 - Parking Regulations, Article 13 – Sign Regulations, Article 14, Accessory Family Dwelling Units, Article 15 – Single Family Cluster/Conservation Development, Article 17 – Low and Moderate Income Housing.

Affordable Housing Grant Program: \$75,000 - This funding source is needed to provide the following:

- ❑ Gap financing for rental and homeownership developments
- ❑ Subsidies for the development of family homeownership units in new developments via inclusionary zoning or at infill sites
- ❑ Purchase of land or property
- ❑ Construction of a house on donated property
- ❑ Incentives/"local" subsidy of accessory/duplex units
- ❑ Feasibility studies and predevelopment costs borne by the town



Swinburne Street Affordable Housing, developed 2012
Ronald F. DiMauro Architects, Inc.



Bridges Inc. Hammett Court Apartments
Union Studio Architecture

Capital Fund: Year 2005 – 2018

Budgeted: \$775,000.00
Expenditures: \$497,698.37
Balance: \$277,301.63

Affordable Housing Revolving Fund

Program formed in 2016 - Budget: \$400,000
Expenditures: \$122,632.00
Revenues: \$122,632.00 (Beach Ave. project)
Program Balance: \$400,000 available



**Beach Avenue
Affordable Unit**

Information Technology

General Fund	Fiscal Year 2016-2017	Fiscal Year 2017-2018	Fiscal Year 2018-2019	Fiscal Year 2019-2020	Fiscal Year 2020-2021	Fiscal Year 2021-2022	Fiscal Year 2022-2023	Fiscal Year 2023-2024	Six Year Total
<u>Information Technology</u>									
VOIP		\$0	\$0	\$0	\$10,000	\$0	\$0	\$0	\$10,000
Fiber Network - Phase III - (Water/Towers)	\$22,500	\$0	\$18,000	\$0	\$0	\$0	\$0	\$0	\$18,000
Rec Center IT Infrastructure		\$24,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Wireless System Upgrade (Phase I)		\$33,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Wireless System Upgrade (Phase II)		\$0	\$0	\$27,000	\$0	\$0	\$0	\$0	\$27,000
Information Technology - Annual	\$34,500	\$35,500	\$36,500	\$37,000	\$37,000	\$37,000	\$37,000	\$37,000	\$221,500
North end Cell Tower (Engineering/Site Study)		\$0	\$18,000	\$0	\$0	\$0	\$0	\$0	\$18,000
Town Website Enhancement		\$10,000	\$0	\$0	\$10,000	\$0	\$0	\$0	\$10,000
Town Website Redesign		\$0	\$0	\$25,000	\$25,000	\$0	\$0	\$0	\$50,000
Information Technology - Subtotal	\$57,000	\$102,500	\$72,500	\$89,000	\$82,000	\$37,000	\$37,000	\$37,000	\$354,500

FY 2018-2019

Fiber Network – Phase III (Water Division/Towers): \$18,000
Information Technology – Annual Program: \$36,500
Northend Cell Tower (Engineering/Site study): \$18,000

Fiber Network Cable Project Phase IV

Project Cost: \$18,000

- Extend Town fiber network to Water Plant on North Road from Police Station;
- Enables future redundant Town connection to OSHEAN fiber network;
- Cost savings to Water Department from elimination of backup Verizon telemetry services;
- Increased network security between North Road and Howland Avenue Tower site;
- Next-to-last fiber segment project leading to completion of the Town's Fiber Ring network;
- RITBA has expressed interest in using this new fiber for their redundant OSHEAN connection.

North End Cell Tower (Engineering/Site study)

Project Cost: \$18,000

Why should the Town consider this option?

- Poor cell service coverage on the North End which is often not usable by residents and Town's Public Safety depts.;
- A North End cell tower would solve quality/reliability cellular service issues for both Town, public safety and residents use;
- Many households can no longer afford to maintain a landline and cellular service and opting for cell service only;
- Creates need to ensure that every household that disconnects will have adequate cell service in the event of an emergency;
- A Tower site on North End is likely to be an extremely desirable location for the cellular carriers;
- Significant revenue opportunity from leasing space on the tower to cellular providers;
- The Town can also serve as a site for cellular carriers planning to offer wireless Internet service - Carrier internet service deployment is expected by 2020.

What will this study do?

- Identify potential town owned properties that could accommodate an appropriate tower and land space for carrier cell site equipment;
- Basic feasibility work necessary prior to proposing any project to build a town owned cell tower;
- Canvas established cell tower construction firms to understand the approximate range of costs to the town to build the tower on the candidate sites,
- Attempt to identify any geological constraints that could limit or interfere with engineering site requirements to build the tower.

Information Technology – Annual Program

Project Cost: \$18,000 **Program Priorities:**

- Inventory of working servers and desktop/portable computers in 5 buildings totals 54 machines; Average machine age of 4.97 years; Inventory does not include servers and computers located in the Police Department, Library and Fire Department.
- Use a minimum 5-year life cycle for workstations, with a longer life cycle goal of 8 years for servers and network switches; Whenever possible, new equipment is procured with basic 5 year warranty coverage. Approximately 38% of this budget will be used to repair or replace workstations, servers and network equipment that fails or has reached the end of its life cycle during this period and for new equipment that must be purchased to maintain and to improve the Town's installed technology base. **Costs have increased by 2% since the last budget cycle.**
- Approximately 30% of the budget will be required for the Town's Internet and communications services, including a fiber circuit lease, Internet service, Internet content filtering, backup Internet service, network router maintenance agreements and network support services from OSHEAN.
- The balance of this budget request provides for new software, software and hardware maintenance contract renewals for equipment that are used Town-wide. It also provides for replacement peripherals such as printers and external hardware, printing supplies and ink and other support equipment, including displays and UPS units that are not covered by departmental budgets. **Costs have risen approximately 8% since the last budget cycle.**

FY 2018-2019: \$40,500

Police Department

General Fund	Fiscal Year 2016-2017	Fiscal Year 2017-2018	Fiscal Year 2018-2019	Fiscal Year 2019-2020	Fiscal Year 2020-2021	Fiscal Year 2021-2022	Fiscal Year 2022-2023	Fiscal Year 2023-2024	Six Year Total
<u>Public Safety Program</u>									
Computer System Equipment			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Vehicle Replacement - Police Cruiser	\$34,000		\$40,500	\$40,500	\$40,500	\$40,500	\$40,500	\$40,500	\$243,000
Public Safety Building - Storage			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fuel Tank Replacement			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Generator Replacement			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Communications Equipment	\$10,000		\$0	\$0	\$0	\$0	\$0	\$0	\$0
Barricade Fencing			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Public Safety Building - General			\$0	\$0	\$10,000	\$40,000	\$0	\$0	\$50,000
Public Safety Dept. - Subtotal	\$44,000	\$0	\$40,500	\$40,500	\$50,500	\$80,500	\$40,500	\$40,500	\$293,000

The average mileage on a patrol unit annually is 27,000 miles. Vehicle will have 136,000 miles at time of replacement. Patrol vehicle (P-2) will be moved from a first line patrol vehicle and assigned as a detail vehicle. In 2013, the Department transitioned to purchasing the Ford Interceptor sedan all-wheel drive vehicle. In 2016, the Department purchased and deployed the Ford Interceptor SUV model. This body style of the SUV model is now the preferred model by law enforcement and makes up approximately 80% of Ford police vehicle sales. The SUV model offers additional interior space which becomes increasingly necessary as equipment demands such as printers, computer, AED, patrol cameras and other equipment needs continue to increase.

Police Department

9 Vehicle Fleet



Department	Vehicle Description	Mileage	Purchased	Replacement Year	
Police	2013 KYMCO Agility 50 4T	8803	Aug-13	scooter assigned to CSO	
Police	2005 Wells Cargo Trailer (MOBILE COMMAND)	n/a	Fed grant	traffic barrier/cone trailer	
Police	2009 FD30 (VMS-1)	n/a	Fed grant		
Police**	2011 Ford Crown Victoria (P-1) **	132385	Aug-11	assigned - detail car	2018
Police	2011 Ford Expedition (P-4)	66456	Nov-11	patrol vehicle	2022
Police	2013 Ford Taurus Interceptor (P-2)	112605	Apr-13	patrol vehi	2019
Police	2014 Ford Interceptor Sedan (P-6)	29906	Oct-15	patrol vehicle	2021
Police	2014 Ford Int 4DR Black (P-5)	84870	Sep-13	patrol vehicle	2020
Police	2017 Ford Int AWD SUV (P-3)	16435	Dec-16	patrol vehicle	2024
Police	2008 Ford Taurus AWDSEL (D1)	120319	Mar-01	assigned - detective	2020
Police	2013 Ford Taurus Interceptor (C-1)	55119	Jan-13	assigned - chief	2022
Police	2014 Ford Fusion (C-2)	47664	Jun-14	assigned - Lieutenant	2023
	** scheduled to be replaced 2018				

- Crown Victoria
- Taurus
- Ford Interceptor SUV
- Ford Fusion

Fire and EMS Services

General Fund	Fiscal Year 2016-2017	Fiscal Year 2017-2018	Fiscal Year 2018-2019	Fiscal Year 2019-2020	Fiscal Year 2020-2021	Fiscal Year 2021-2022	Fiscal Year 2022-2023	Fiscal Year 2023-2024	Six Year Total
<i>Fire and EMS Services</i>									
Radio/Pager Replacements 800 Mhz		\$5,000	\$59,200	\$5,220	\$5,220	\$5,220	\$5,220	\$5,220	\$85,300
Phase 1 - Conversion to Radio Call Boxes			\$50,000	\$25,000	\$0	\$0	\$0	\$0	\$75,000
Facilities Improvements - Main Station		\$25,000	\$0	\$5,000	\$5,000	\$0	\$0	\$0	\$10,000
A&E Design - Station Expansion		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SCBA 45 Minute Bottles		\$0	\$0	\$0	\$0	\$0	\$100,000	\$0	\$100,000
Personal Protective Equipment (PPE)		\$16,000	\$0	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200	\$56,000
Replace vehicle extrication equipment		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pumper Replacement 1992 KME Pumper		\$0	\$0	\$0	\$175,000	\$175,000	\$0	\$0	\$350,000
Replace Protector Fire Boat		\$0	\$0	\$60,000	\$0	\$0	\$0	\$0	\$60,000
Hose Replacement		\$0	\$0	\$0	\$5,000	\$0	\$0	\$5,000	\$10,000
ALS Defibrillators - Medication Kits		\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Automated CPR Machine		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Patient Stretchers (1)		\$0	\$24,000	\$0	\$0	\$0	\$0	\$0	\$24,000
Replace Car 5 - OIC Intercept Vehicle		\$0	\$0	\$30,000	\$0	\$0	\$30,000	\$0	\$60,000
(2) Laptops for EMS Reporting (R2/R3)			\$10,000						
EMS Rescue Replacement #2	\$100,000	\$88,000	\$0	\$0	\$0	\$100,000	\$100,000	\$0	\$200,000
Fire and EMS Services - Subtotal	\$100,000	\$164,000	\$143,200	\$136,420	\$201,420	\$291,420	\$246,420	\$21,420	\$1,040,300

FY 2018-2019:

Radio and Pager Replacement: \$59,200

Patient Stretchers: \$24,000

Phase I – Radio Call Box Conversion: \$50,000

Laptops for EMS Reporting: \$10,000



Radio Equipment Upgrades



Radio Upgrades

- Currently the Fire Department operates on a VHF (153.950 mhz) radio frequency assigned to us by the Federal Communications Commission;
- Currently the Fire Department has VHF 25 mobile radio units and 32 VHF portable radio units;
- The Department has been in the process of transitioning to the State (RISCON) 800 mhz radio system since 2006. Currently we have 13 mobile 800 mhz radios and 18 portable 800 mhz radios;
- We currently need an additional 18 portable radios to completely transition to the 800 mhz radio system;

Radio Upgrades

- The 800 mhz radio system is a statewide interoperable radio network.
- Two neighboring Departments - North Kingstown and Newport solely operate on the 800 mhz system and during any statewide emergency.
- Mutual Aid incident or Marine Incident all responding agencies operate on the 800 mhz system;
- Current VHF system in place since the 1960's
- Reception is inadequate and we have had severe communications issues for years;
- The JFD would continue to maintain the VHF system as a back-up radio system in case the 800mhz system was down or not operating;

Radio Upgrades

- The 800 mhz system operates off of “site antenna towers” located throughout the State;
- JPD has been operating on the 800 mhz system for several years;
- Some “dead spots” exist with the 800 mhz system although there are considerably less when compared to the current VHF system;
- Transitioning to the 800 mhz system will significantly improve our Firefighters/EMTs safety when operating at emergency incidents.



Jamestown Fire Department

Fire Alarm Replacement Project

FY 2018

Conversion to Radio Call Boxes

- The Town of Jamestown currently utilizes a coded wire 100 milli-amp telegraph Master Box system powered by a Digitize Form Four (installed 1983) regulated power supply installed at the Fire Station.
- The Fire Alarm system throughout the Town is 100% aerial cable, using 2 conductor rural “C” wire and IMSA cable. There is currently 17 (square miles) of cable in the air connected to utility poles.
- There are currently (63) Master Boxes connected to various businesses and buildings throughout Town. There are an additional (33) Street Boxes connected to Utility Poles throughout Town.
- We currently have an additional (33) businesses or buildings with Local (not-municipally connected) Fire Alarm systems in Town.

AES Wireless Radio Fire Alarm System

- The proposed Wireless Radio Fire Alarm system would create a private wireless mesh radio network to transmit Fire Alarm signals from a location to the receiving equipment in the Fire Station.
- Numerous communities in Rhode Island have discontinued their “Telegraph” reporting systems and converted to Wireless Radio systems over the past 25 years due to the long-term advantages of reduced cost and lack of trained personnel to maintain cable plants.
- The Town would no longer have to maintain the cable plant, the infrastructure and receiving equipment at the Fire Station would be replaced to current day technology.

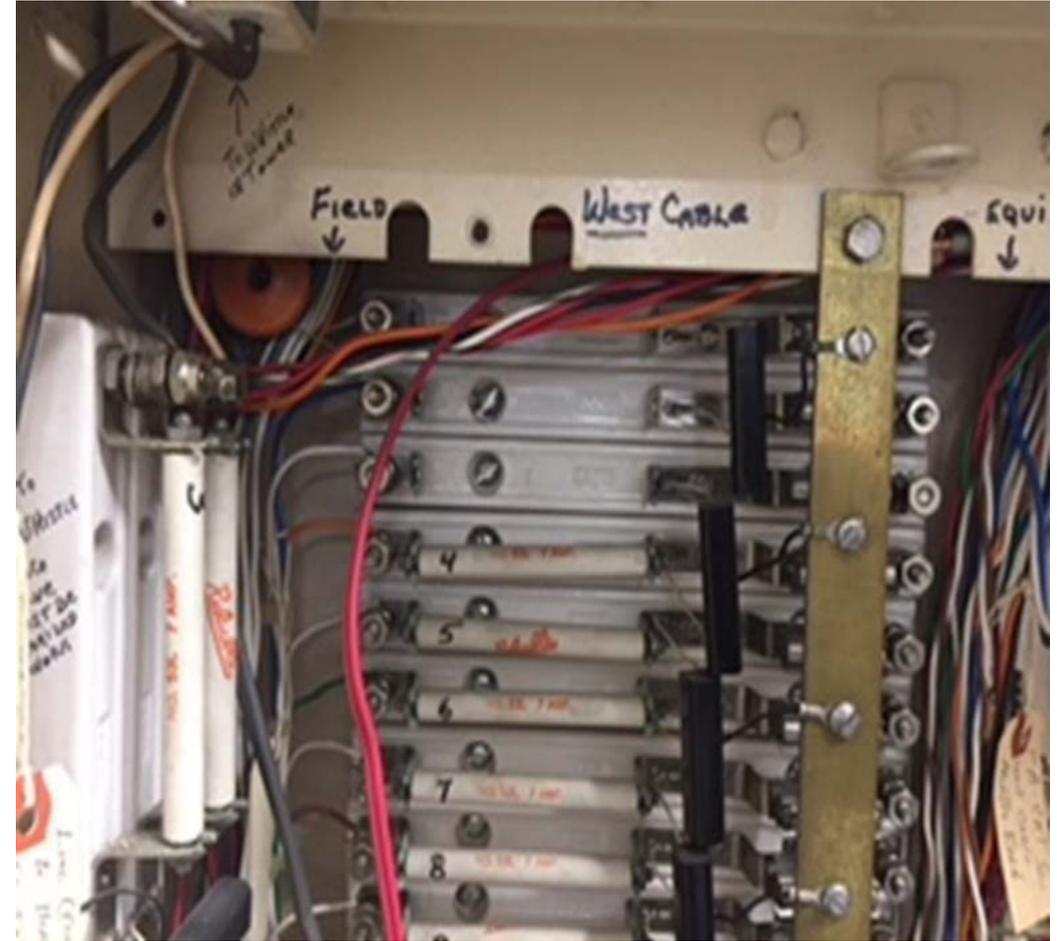
Disadvantages of Current system

- System is almost 68 years old. To maintain the system a significant capital outlay will be needed over the next 5-10 year period to replace the cable plant, the receiving equipment and the infrastructure in the Fire Station.
- One significant weather event could result in significant damage to the cable plant. Though the system is operating, it is showing significant wear and tear.
- We no longer have “volunteer” personnel to maintain the cable plant. No maintenance work has been done on the cable plant in several years. If a cable issue or problem occurred today we would have to hire an outside contractor to complete the work.

Current Fire Alarm Master Box's Cable Plant Box's in Town



Current Infrastructure - Connects into Fire Station



Form Four Fire Alarm Controller Equipment at JFD - Installed 1983



Aerial Fire Alarm Cabling



Project Cost: FY2018-2019 - \$50,000

- This initial investment would purchase and install the new AES multinet Wireless Radio Box receiving system in the Fire Station. It would also address the cost to interface and connect to the Police Station dispatch center and address the technical configuration, programming and testing of the System.
- The FY 2019/20 request of \$ 25,000 would purchase and install an additional Digitize 3505 alarm receiver and decoder so the system would be redundant. The current Digitize 3505 receiver was installed in 2009.

Project Cost – continued

- Several communities who have switched over to the Radio Call box systems have offered some assistance to business/property owners, some options include:
 - Municipality addressed initial cost of the Radio Boxes and installation and offers a payment program over a 3-5 year period for property/business owners to repay the expense. The potential for bulk and coordinated pricing agreement with installation could potentially generate cost savings for all parties;
 - Extended notification timeline for installation offered - a one or two year notification period is provided and the property/business owners have a hard operation date where the Town switches over to the new system, with all required costs paid by property owner;
 - Once a decision is made several educational meetings will be scheduled with local business and property owners as to why it is important to make this transition;
 - Business/property owners maybe able to receive a trade-in credit or sell their current Gamewell Master Box at an estimated value of \$ 200-\$300.

Box #	Location/Address	Town	Private	N/R	Yes	No	Yes	No	Yes	No
					44 Jamestown Hardware - 5 Narragansett Ave.		Yes		321 Jamestown Partners - 28 Narragansett Ave	No
									322 Jamestown EMS - 11 Knowles Court	No
12	Senior Center - 6 West Street	Yes			45 Dentist Office - 49 Narragansett Avenue		No		323 Isaac Carr House - 16 Narragansett Avenue	No
13	St. Matthews Church - 87 Narragansett Ave		Yes		61 Jamestown Fish - 14 Narragansett Avenue		No		324 Conanicut Marine - 20 Narragansett Avenue	Yes
14	Town Hall - 93 Narragansett Avenue	Yes			112 Bakers Pharmacy - 53 Narragansett Ave.		Yes		331 Bay View Condos - 53 Conanicus Avenue	Yes
15	Baptist Church - 99 Narragansett Avenue		Yes		121 Murphys Law Office - 77 Narragansett Ave.		No		332 HarborView Condos - 73 Conanicus Avenue	No
16	1 Hammett Court - Bridges, Inc.		Yes		132 Liquor Store - 30 Southwest Avenue		Yes		333 East Ferry Apartments - 10 Narragansett	Yes
17	McQuades Market - 5 Clarke Street		Yes		212 St. Mark Church - 60 Narragansett Avenue		Yes		335 Rosa Manor - 171 Conanicus Avenue	Yes
18	Jamestown Fitness - 36 Southwest Ave.			No	221 Jamestown Library - 26 North Road	Yes			344 Bay Voyage Inn - 150 Conanicus Avenue	Yes
19	The Chemical Company - 44 Southwest Ave			No	224 Jamestown Art Center - 18 Valley Street		Yes		346 Police Department - 250 Conanicus Avenue	No
24	PAC Condos - 138A Narragansett Avenue		Yes		233 Sheehan Way, LLC 49 North Main Road		Yes		354 Conanicut Yacht Club - 40 BayView Drive	Yes
27	PAC Condos - 138B Narragansett Avenue		Yes		235 Early Learning Center - 87 North Road		Yes		411 Central Garage - 35 Narragansett Avenue	Yes
31	Jamestown Place Condo - 35 Knowles Ctr		Yes		241 Jamestown Village - 21 Pemberton Avenue		Yes		412 Jacks Electric Inc. - 14 Clinton Avenue	No
34	Fire Station - 50 Narragansett Avenue		Yes		242 Island Rubbish Service - 14 Watson Ave.		No		422 Lionel Champlin House - 20 Lincoln Street	No
36	Country Club - 245 Conanicus Avenue	Yes			243 Pemberton Apartments - 45 Pemberton Ave		Yes		431 East Ferry Condos - 47 Conanicus Avenue	Yes
37	Wastewater Treatment Plant - Freebody Dr		Yes		245 Verizon - 38 Watson Avenue		No		433 Harmony Villa Condos - 9 Union Street	No
38	Public Works Garage - Freebody Lane	Yes			246 Pemberton Place - 57 Pemberton Avenue		Yes		441 Community Center - 41 Conanicus Avenue	Yes
41	Dolos Building - 23 Narragansett Avenue		Yes		253 Jamestown School - 55 Lawn Avenue	Yes			442 Ferry Wharf Condos - 1 Ferry Wharf	Yes
42	Narragansett Café - 25 Narragansett Ave.		Yes		264 Jamestown School - 76 Melrose Avenue	Yes			452 Clark Boat Yard - 120 Raquet Road	Yes
43	Trattoria Simpatico - 13 Narragansett Ave		Yes		311 Perotti Building - 38 Narragansett Avenue		Yes		454 Jamestown Boat Yard - 60 Dumpling Drive	Yes
									461 State DEM Office - Ft. Wetherill Road	Yes
									613 Gladding Garage - 645 North Main Road	No
									711 South Pond - North Road	No
									712 Water Treatment Plant - 235 North Main Rd	Yes

7707 Fire Subscribers
IntelliNet 2.0

Introducing a Newer, Smarter Alarm Communications Platform

New Feature Highlights

- Leverages state of the art technology
- Applies advanced security protection
- Offers flexible power and configuration options
- Engineered for backward compatibility with legacy systems
- Enables future ready capabilities
- Provides instant subscriber status through front panel with Power and Trouble LEDs, a backlit LCD display, and Menu/Silence button
- Improves functionality with an adaptive Graphic User Interface (GUI) for programming via smartphones, tablet and PCs
- Plus many more...



Key Benefits that Make 2.0 the Best Alarm Monitoring Solution Ever

- Built upon the solid foundation of AES-IntelliNet patented mesh radio technology for use in private licensed wireless networks
- Protects subscriber units against unauthorized access and rogue activity with a password protected Dealer Code
- Makes programming and streamlined troubleshooting easy with user friendly interface
- Adds integrated supervision of AES-IntelliPro full data module
- Provides versatile power options:
 - (1) Direct from the Fire Alarm Control Panel (FACP) without requiring an electrician onsite and without Subscriber backup battery
 - (2) Directly from the FACP with Subscriber backup battery; or
 - (3) Traditional installation with plug in Class 2 low power transformer
- Allows for enhancement upgrades and an expanded number of new features to be added easily with highly flexible and scalable alarm communications infrastructure
- Rigorously tested to the highest industry standards and future ready to meet emerging NFPA code and UL standards

Link Multiple AES-IntelliNet Networks

AES-MultiNet System

Technical Specifications

DIMENSIONS

19 in W x 3.5 in H
(48 cm W x 8.8 cm H)
(2U) x 12.24 in (31.1 cm), 13.25 in
(33.7 cm) including rack handles

APPROXIMATE RECEIVER WEIGHT

8.2 lb, 3.7 kg

STANDARD FREQUENCY RANGES

UHF 450-470 MHZ
VHF 146-174 MHZ

STANDARD OUTPUT POWER

2 Watts

OPERATING VOLTAGE

110/220 VAC, 50/60 Hz

OPERATING TEMPERATURE RANGE

0° to 50° C (32° to 122° F)

STORAGE TEMPERATURE RANGE

-10° to 60° C (14° to 140° F)

UL LISTINGS

UL 864 - Edition 9
UL 2050
UL 1610
UL 365

NFPA-72 COMPLIANT



The AES-MultiNet System consists of (2) 7705i Receivers and (2) 7170 IP Links

The AES-MultiNet system is a UL Listed and NFPA-72 compliant advanced wireless-to-Internet receiver designed to support multiple AES-IntelliNet wireless mesh networks, from one Central Monitoring Station.

AES-MultiNet 2362 Release available now!

AES is offering a new software release to authorized AES Dealers currently enrolled in our Maintenance Program. Packed with many new features and enhancements you've been asking for! Contact AES Technical Support to schedule your upgrade at (866) 237-3693 or support@aes-corp.com

Enhancements

- Handle multiple Pulse 4+2 messages that arrive in a single RF packet
- Allow non-standard CID messages to pass to the Automation
- Record all Check-Ins even when the Automatic Test Supervision is enabled
- Option to disable the reporting of Subscriber Check-In Failures
- Improved subscriber Tx-on/off functionality
- Improved handling of malicious packets

Features

- Automatic Database Backup between Primary Receiver and additional Receivers
- Display rogue or malformed IP Link packets on Admin GUI
- New tools for easier re-configuration of your Receivers by AES Technical Support
- Connect Multiple AES-IntelliNet Radio Networks to Central Monitoring Facilities
- Increase Capacity of Existing AES-IntelliNet Networks
- Control Communications Network from Central Station
- Wireless Alarm Communications Network Replaces Telephone Lines for Fire and Burglary Monitoring

Power-Load Stretcher for Rescue 3



Power – Load Stretcher

- Allows personnel to utilize the existing Power-Load (Battery operated) patient Stretcher with the proposed installation of a Power-Load fastener.



Advantages

- Personnel no longer have to lift patients on the patient stretcher into the Rescue. The Power-Load system does it automatically;
- Reduces lifting injuries;
- Since the first Power Load system was installed in Rescue 2 there have been no lifting injuries recorded.

Public Works Department

General Fund	Fiscal Year 2016-2017	Fiscal Year 2017-2018	Fiscal Year 2018-2019	Fiscal Year 2019-2020	Fiscal Year 2020-2021	Fiscal Year 2021-2022	Fiscal Year 2022-2023	Fiscal Year 2023-2024	Six Year Total
<i>Public Works Program</i>									
Road Improvement Program	\$100,000	\$125,000	\$250,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$1,750,000
North Road Improvements	\$290,000	\$200,000	\$140,000	\$150,000	\$0	\$0	\$0	\$0	\$290,000
Miscellaneous Road Drainage	\$15,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$120,000
Street Repairs	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$90,000
Sidewalk Repairs	\$30,000	\$30,000	\$20,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$170,000
Road Stripping		\$0	\$0	\$5,000	\$0	\$0	\$5,000	\$0	\$10,000
Fort Getty Projects	\$100,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$450,000
Fort Wetherill Building Improvements	\$25,000	\$0	\$0	\$0	\$10,000	\$10,000	\$0	\$0	\$20,000
Beach Pavilion Improvements		\$0	\$0	\$10,000	\$0	\$0	\$0	\$0	\$10,000
Highway Garage Improvements	\$10,000	\$0	\$10,000	\$20,000	\$10,000	\$0	\$0	\$0	\$40,000
Professional Services (Energy Projects)		\$25,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
GIS Program	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$90,000
Shared Pedestrian/Bike Path Construction	\$40,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Stormwater Management Phase II	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$30,000
Stone Wall Repairs (Cemetery- Town Hall)		\$0	\$0	\$10,000	\$0	\$10,000	\$0	\$10,000	\$30,000
Taylor Point Improvements	\$0	\$0	\$0	\$10,000	\$10,000	\$0	\$0	\$0	\$20,000
Transfer Station Improvements	\$0	\$5,000	\$0	\$10,000	\$0	\$0	\$0	\$10,000	\$20,000
Trash Compactor		\$0	\$0	\$100,000	\$0	\$0	\$0	\$0	\$100,000
Equipment Acquisition	\$40,000		\$0	\$20,000	\$50,000	\$0	\$0	\$0	\$70,000
Vehicle Replacement Program		\$0	\$0	\$50,000	\$0	\$125,000	\$75,000	\$125,000	\$375,000
Public Services Dept. - Subtotal	\$685,000	\$515,000	\$550,000	\$845,000	\$540,000	\$605,000	\$540,000	\$605,000	\$3,685,000

Road Improvement Program

Program Overview:

In November 2006, a Pavement Management Program was implemented to inventory the condition of Town roads every 5 years, with the last inventory having been performed in November of 2011.

In December 2014 the data from the November 2011 inventory was updated to reflect the paving that has occurred since 2011 and this summary is presented to the Town Council for FY 2018-2019 budget consideration. The inventory does not take into consideration road deterioration that has occurred since that time, thus costs will be greater than indicated.

Road Assessment: The procedures used to assess road conditions focus on evaluating pavement based on various levels of distress. This data was collected by Town DPW Staff based on the Roadway Pavement Management System (RSMS) developed by the T2 Center at The University of New Hampshire and the *Distress Identification Manual for the Long-Term Pavement Performance Project*, developed by National Research Council's Strategic Highway Research Program.

After the field inspection, the program assigned a Pavement Conditions Indicator (PCI) from 0 (poor) to 100 (good), based on the amount of distress that exists on the road surface. The score value and pavement history is used to develop a priority paving and road improvement list, to track the effectiveness of maintenance techniques and processes from year to year.

Summary of Jamestown Roads

78 miles of roads on Jamestown

23 miles of roads under State jurisdiction

50 miles of Town Roads

5 miles are Private Roads.

43 miles of Town roads are paved

7 miles of Town roads are unpaved

Jamestown Pavement Conditions in 2014

Upon completion of the road inspection and evaluation, The Pavement Management System produced a listing of the PCI for all 439 segments of road inspected. The Public Works Department sorted the segments by PCI and applied the following ratings scale:

<u>PCI</u>	<u>Condition</u>
0 – 25	Failed
26 – 50	Poor
51 – 70	Fair
71 – 89	Good
90 – 100	Excellent

Summary of Results

Of the 50 miles of Town roads, 59% are in good or excellent condition, 23 %, are in poor or failed condition, and 18% are in fair condition. A comparison of the 2007, 2011, and 2014 conditions are depicted in the following graphs:

<u>PCI</u>	<u>Condition</u>	<u>Miles</u>	<u>Area (Square Yards)</u>
0 – 25	Failed	7.5	76,561
26 – 50	Poor	7.82	79,772
51 – 70	Fair	11.25	128,892
71 – 89	Good	11.40	128,132
90 – 100	Excellent	12	134,968

Maintenance and Repair Costs

PCI	Condition	Repair Method	Cost (\$/sq.yd)
0-25	Failed	Reconstruction/Rehab	\$36.00
26-50	Poor	Overlay	\$13.00
51-70	Fair	Chip Seal/Surface Treatment	\$5.00
71-89	Good	Pothole Patching/Crack Sealing	\$1.60
90-100	Excellent	Defer/Misc. Maintenance	\$0.60

Project Cost - General Road Paving \$250,000

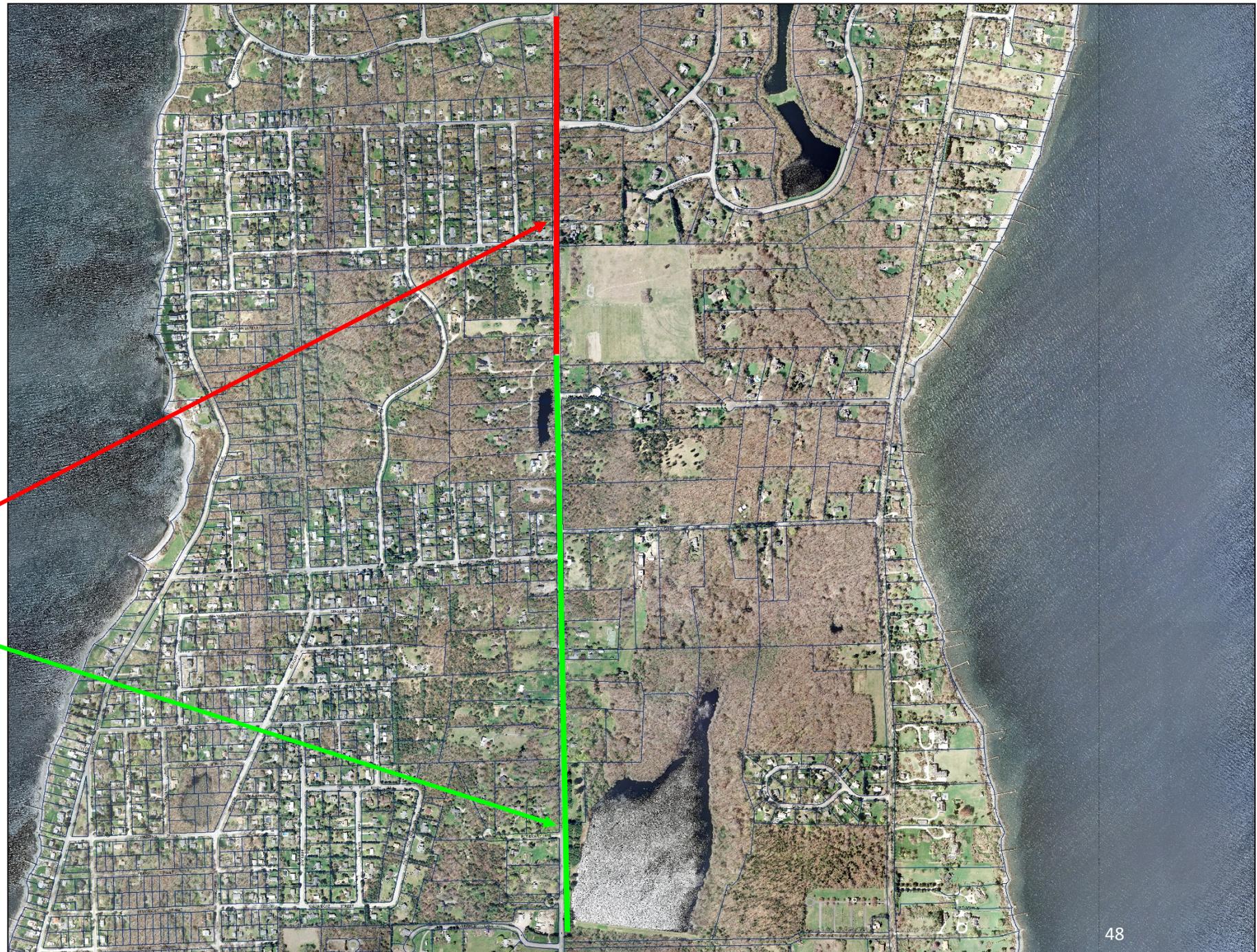
	Area	Reclamation	Asphalt
Beacon Avenue (Spirketing to Garboard)	2,110 sy	\$6,000	\$30,000
Grinnell Street	4,120 sy	\$12,000	\$65,000
Pemberton Avenue (Narragansett to Watson)	1,865 sy	\$5,500	\$35,000
Rosemary Lane	1,390 sy	\$4,500	\$30,000
Carr Lane	4,170 sy	\$12,000	\$50,000
Total		\$40,000	\$210,000

North Road Project

PHASE II

PAVE SECTION FROM
WEST REACH TO
GODENA FARM

INSTALL DRAINAGE
FROM GODENA
FARM TO NORTH
POND RESERVOIR



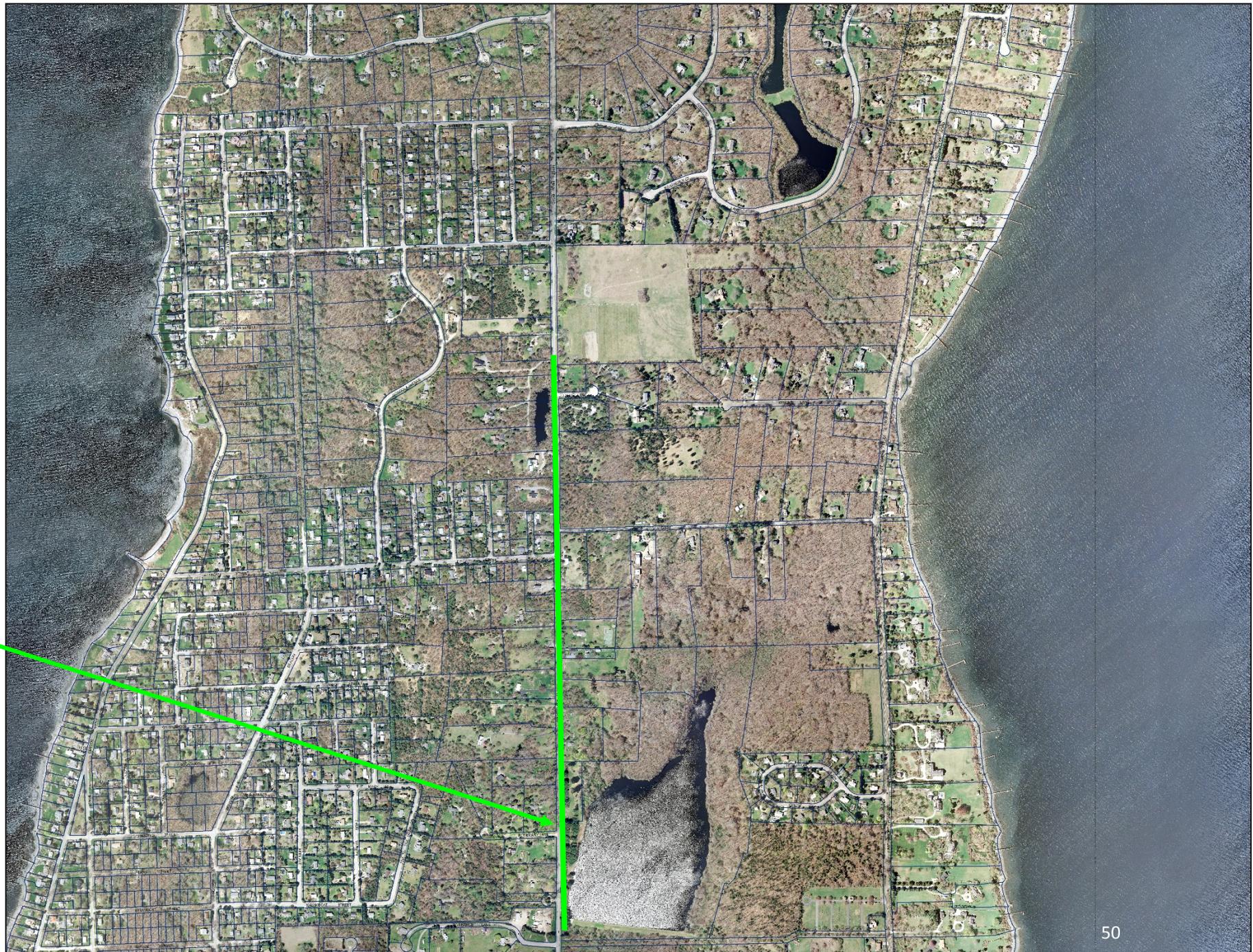
PHASE II Drainage and Phase III Paving NORTH MAIN ROAD

Project Cost Phase II & III - \$140,000 in FY2019, plus \$265,000 in Grant Funds

- Town Staff completed design and permitting of the drainage improvements for Phase II
- Work to be conducted from North Main Road between Sloop Street and the North Reservoir property.
- Drainage improvements will include catch basins, piping, and the construction of water quality basins and wetland plantings to treat the storm water before it enters the watershed to the reservoir.
- Construction of the drainage improvements for Phase II will begin in the Spring 2018.

North Road Project

PHASE III
PAVE SECTION FROM
GODENA FARM TO
NORTH POND
RESERVOIR

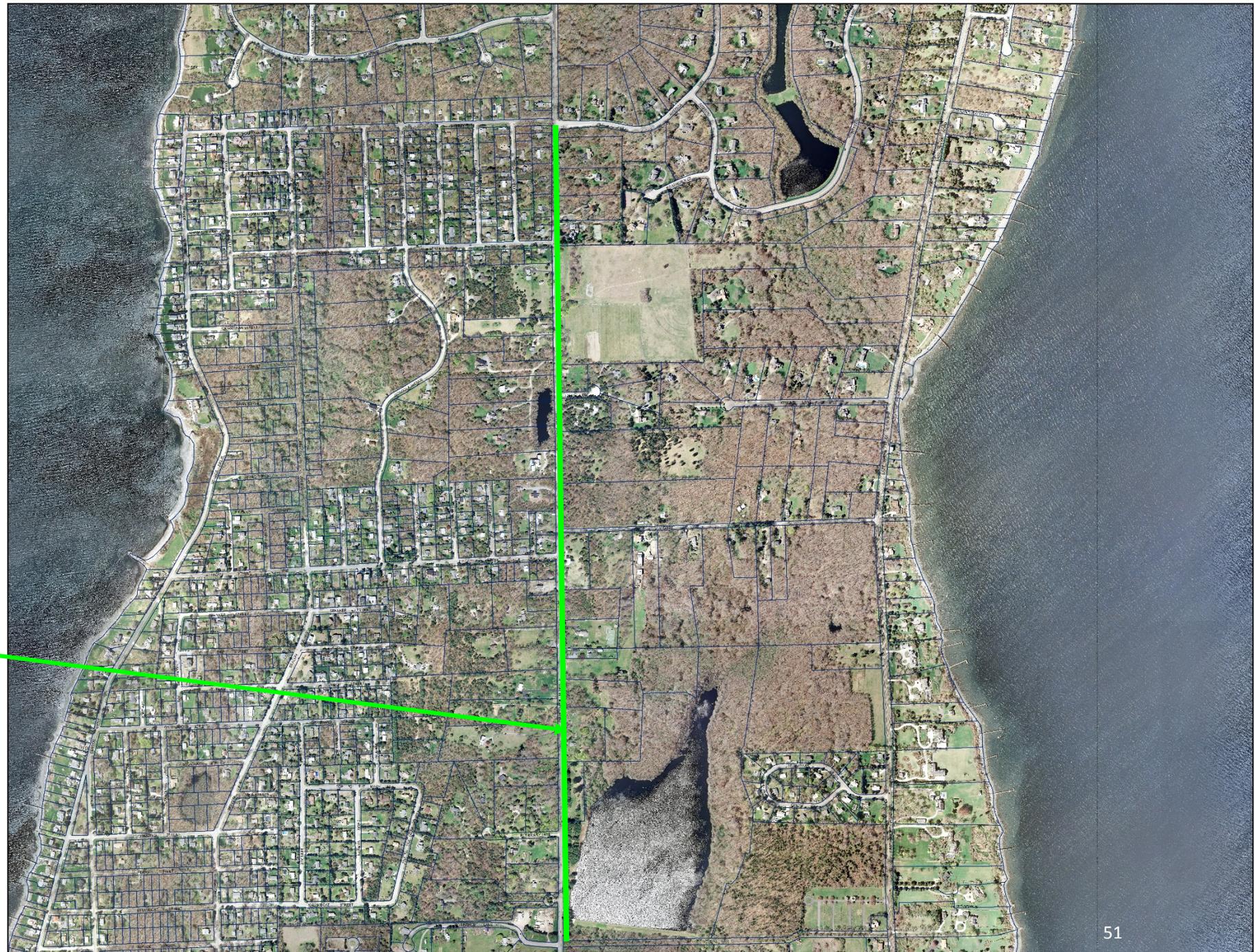


North Road Project

PHASE IV

CONSTRUCT SHARED
BIKE/PEDESTRIAN PATH
FROM AMERICA WAY TO
NORTH POND

2019 PROJECT



Road Drainage and Street Repairs

Road Drainage: Annual Project Cost \$20,000

This program provides funding to purchase materials for drainage structures that require maintenance and repair from the annual catch basin inspection and cleaning program. Drainage improvements are necessary at the easterly end of Carr Lane. This work is required before the road can be scheduled for repaving.

Street Repairs: Annual Project Cost \$15,000

This program funds needed repairs that develop and/or complaints filed regarding deteriorated road conditions. This work involves patching, asphalt berms and apron installations. Typically one truck load (7-tons) of asphalt per week during the season of (24 weeks) is used.

Sidewalk Repairs and Replacement

Project: \$20,000

It is recommending that the \$20,000 be used to continue the installation of ADA curbing and ramps at each of the following intersections along Conanicus and Walcott Avenues between Union St. and Hamilton Ave, in addition to routine repairs at various areas throughout the community.

Capital Funding

Intersection of Union Street
Bank Newport Driveway
Lincoln Street
Friendship Street
Brook Street
High Street
Hamilton Avenue

Alternate Funding

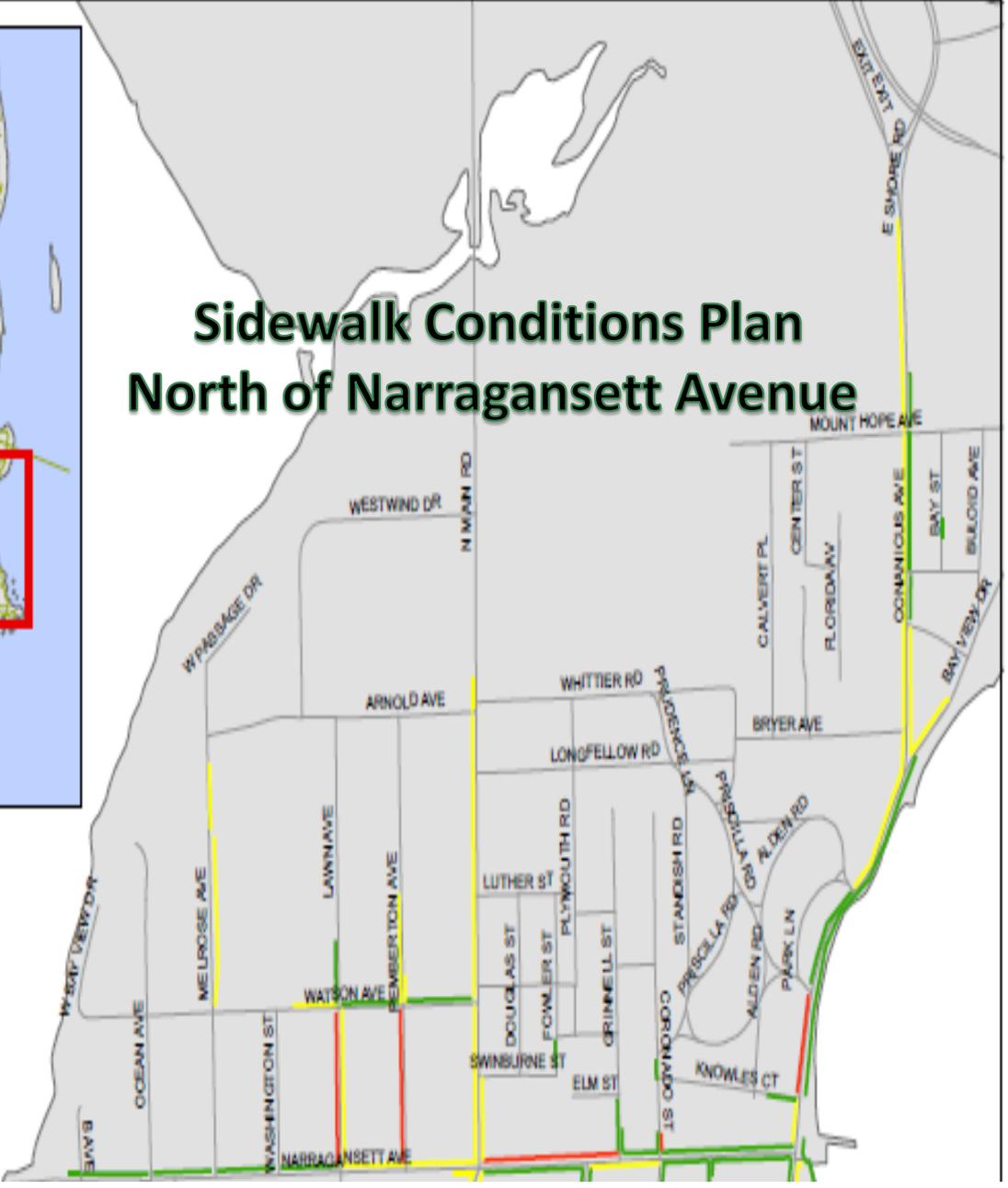
Safe Routes to School Program
East Ferry Project Sidewalks

Asphalt needs to be replaced on the sidewalk on the westerly side of Walcott Between Brook Street and High Street.

Continuation of maintenance program with concentration on trip and fall hazards and long range plan development to address the easterly side of Walcott Ave. between Hamilton Ave. and Fort Wetherill Rd. that remains in very poor condition.



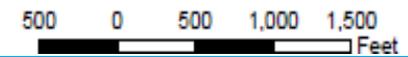
Sidewalk Conditions Plan North of Narragansett Avenue



Sidewalk Conditions Plan South of Narragansett Avenue

Town of Jamestown 2015 Sidewalk Conditions

- Sidewalk Condition**
- FAILED
 - FAIR
 - GOOD



Fort Getty Improvements



Park Priority Areas

Project Funding \$75,000

Target Areas for Improvement:

- 1) Pavilion Project Completion
- 2) Building Improvements
 - Gatehouse
 - Restroom Area/Office/Storage
 - Lower Restroom Conversion to Maintenance
 - Upper Restrooms/Shower
 - Partnership/Donor Opportunities
- 3) Waterfront Improvements
 - Pier Improvements
 - Balancing Recreational and Commercial Uses
 - Beach Improvements
- 4) Historical Military Structures



Fort Getty (Pavilion)

- Town Council awarded Architectural contract – Don Powers, at Union Studio Architecture
- Preliminary assessment to begin this winter and broader public discussions in the summer/fall.



Battery Whiting



Public Restroom Buildings

Lower Restroom Bldg.



Main Restroom



FORT GETTY - BATTERY WHITING



Public Works Carpenter Shop Development

Project Cost: FY 2018-2019 - \$10,000

(Total Cost \$40,000 funding, \$10,000 existing and balance to be requested in subsequent years)

Construction of a small carpenter workshop building adjacent to the salt storage barn. Funding will be used to purchase materials with construction of this metal building being handled in-house by the Town workforce.

The addition of the shop will allow for projects to continue through the winter months in avoiding the trucks and equipment that are stored inside the main garage thus limiting the area that can be effectively utilized during this heavy work period.

Geographic Information Systems

GIS Program

Item	Description	Cost
MainStreet GIS Web-GIS Maintenance Plan	1) Web Hosting 2) Hosting Online Property Information 3) Hosting online Tax Maps	\$5,000
Annual Printing Costs	Annual printing of plat, zoning, tax and various maps including printing 34" x 40" and 11" x 17" maps	\$2,000
GIS Software Licensing and Hardware	Annual Maintenance of ESRI/Trimble Software and hardware set-aside	\$5,000
Training	Training, Dues and Professional Development	\$3,000
Total Program		\$15,000

Geographic Information Systems

GIS Goals for FY 2018 / 2019 - \$15,000

- Continue with Utility database and mapping;
- Coordinate Parcel Mapping and updates;
- Update accuracy of Parcel Mapping;
- Complete PHASE II, CMOM, and TIER II annual reports as required by EPA;
- Increased focus of mapping integration with new municipal website;
- New project with the Historical Society to survey and map all of our historical cemeteries.

Phase II Stormwater Management

Project Stormwater Management : \$5,000 to achieve Phase II Requirements

The Town is an RIDEM designated municipal separate storm sewer system (MS4) and as such is required to have a RI Pollutant Discharge Elimination System (RIPDES) Permit to comply with EPA's Clean Water Act regarding the discharge of stormwater runoff through the Town's drainage system to Narragansett Bay. As part of the permitting process, regulated municipalities are required to have an approved Stormwater Management Plan and submit an annual report that demonstrates how the Town implements strategies to reduce the discharge of pollutants from the storm sewer system to the "Maximum extent practicable".

Specifically, RIDEM requires that the Town address the following six (6) minimum measures to protect water quality.

1. Public Education and Outreach
2. Public Participation / Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post-Construction Runoff Control
6. Good Housekeeping / Pollution Prevention

Professional Services (Energy Projects)

Feasibility assessment of various Town Facilities and property for the installation of roof-top solar arrays, including, Fort Wetherill, Fort Getty Pavilion, Highway Barn, Wastewater Plant, Transfer Station Property and the Lawn and Melrose Schools.



Solar Project Feasibility

This use of this proposed \$25,000 in FY2017-2018 was to determine preliminary feasibility of small scale solar projects on our municipal buildings. This preliminary analysis will provide information to allow for an informed decision as whether individual projects on each building will meet specific development goals and determine if there are any flaws associated with the projects. Tasks associated with this preliminary analysis will include for each site:

- Feeder information request to National Grid, if needed to determine the feasibility of an interconnection with the electrical circuit at the site;
- Develop layouts based upon current standards for NFPA and access to determine the potential size of an array;
- Structural analysis of the proposed array to determine the feasibility of construction;
- Preliminary electrical study to determine the feasibility of the interconnection with the buildings electrical system;

This Study will then be used to develop a Request for Proposals to complete final design, engineering, and installation of solar projects on municipal buildings in Jamestown.

Municipal Building Assessment

Group 1:

<u>Town Buildings Assessed</u>	<u>Total Cost</u>	<u>Grant</u>	<u>Net Cost</u>	<u>Payback</u>	<u>Yr. 1 savings</u>
Lawn Avenue Middle School	\$511,200	\$80,000	\$431,200	11.5 yrs.	\$33,092
Melrose Elementary School	\$386,575	\$80,000	\$306,575	11.1 yrs.	\$24,516
Jamestown Philomenian Library	\$170,100	\$41,310	\$128,790	12.8 yrs.	\$ 9,091
			\$866,565		\$66,699

Group 2:

Highway Garage	\$184,920	\$43,956	\$140,964	11.4 yrs.	\$11,243
Fort Wetherill Parks Garage	\$139,860	\$32,130	\$107,730	10 yrs.	\$ 7,187
Recreation Center	\$ 81,000	\$18,360	\$ 62,640	12.6 yrs.	\$ 4,741
Fort Getty Pavilion	\$113,502	\$25,704	\$ 87,798	12.5 yrs.	\$ 6,511
			\$399,132		\$ 29,682

Group 3:

Waste Water Plant	\$112,021	\$25,398	\$ 86,623	11.2 yrs.	\$ 7,265
Police Station	\$ 31,680	\$ 6,732	\$ 24,948	17.9 yrs.	\$ 1,616
Town Hall	\$145,604	\$33,048	\$112,556	15.3 yrs.	\$ 6,526
			\$224,127		\$15,407

Fort Getty Pavilion

Fort Getty Pavilion

General Information

Facility: Fort Getty

Address: 1050 Fort Getty Rd.

Solar PV Equipment Description

Solar Panels: (84) Sunpower SPR-X22-360-COM RevB

Inverters: (3) SolarEdge SE10000A-US (240V)

Solar PV Equipment Warranty

Period Solar Panels: 25 year power production
Inverters: 10 years

Solar PV System Cost and Incentives

Solar PV System Cost \$113,250

Net Solar PV System Cost: \$113,250

Existing Usage: 115,578 kWh

Production: 41,152 kWh (35.61%)

Solar PV System Rating

Power Rating: 30,240 W-DC

Power Rating: 26,612 W-AC

Annual Energy Production Annual

Production: 41,154 kWh

Existing Usage 2017 - approx.. 115,578 kWh



Recreation Center

2.1.1 PV System Details

General Information

Facility: Facility #1

Address: 41 Conanicus Ave Jamestown RI 02835

Solar PV Equipment Description

Solar Panels: (60) Sunpower SPR-X22-360-COM RevB

Inverters: (2) SolarEdge SE10000A-US (240V)

Solar PV Equipment Warranty Period

Solar Panels: 25 year power production

Inverters: 10 years

Solar PV System Cost And Incentives

Solar PV System Cost \$81,000

Net Solar PV System Cost: \$81,000

Existing Usage: 29,907 kWh

Production: 29,907 kWh (100%)

Solar PV System Rating

Power Rating: 21,600 W-DC

Power Rating: 19,009 W-AC

Annual Energy Production

Annual Production: 29,907 kWh



Fort Wetherill Parks Garage

Existing Usage: 45,673 kWh
Production: 45,673 kWh (100%)

2.1.1 PV System Details

General Information

Facility: Facility #1
Address: 4 Fort Wetherill Rd Jamestown RI 02835

Solar PV Equipment Description

Solar Panels: (105) Sunpower SPR-X22-360-COM RevB
Inverters: (3) SolarEdge SE10000A-US (240V)

Solar PV Equipment Warranty Period

Solar Panels: 25 year power production
Inverters: 10 years

Solar PV System Cost And Incentives

Solar PV System Cost	\$139,860
Net Solar PV System Cost:	\$139,860

Solar PV System Rating

Power Rating: 37,800 W-DC
Power Rating: 33,266 W-AC

Annual Energy Production

Annual Production: 45,673 kWh



Highway Barn

Existing Usage: 70,594 kWh
Production: 70,588 kWh (99.9%)

2.1.1 PV System Details

General Information

Facility: Facility #1
Address: 1 Freebody Dr Jamestown RI 02835

Solar PV Equipment Description

Solar Panels: Sunpower
Inverters: Solaredge

Solar PV Equipment Warranty Period

Solar Panels: 25 year power production
Inverters: 12 years

Solar PV System Cost And Incentives

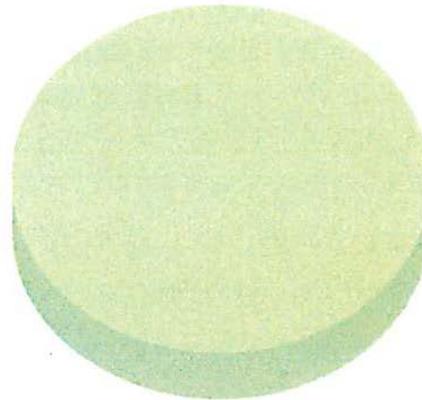
Solar PV System Cost	\$184,920
REF Cash Grant	-\$43,956
Net Solar PV System Cost:	\$140,964

Solar PV System Rating

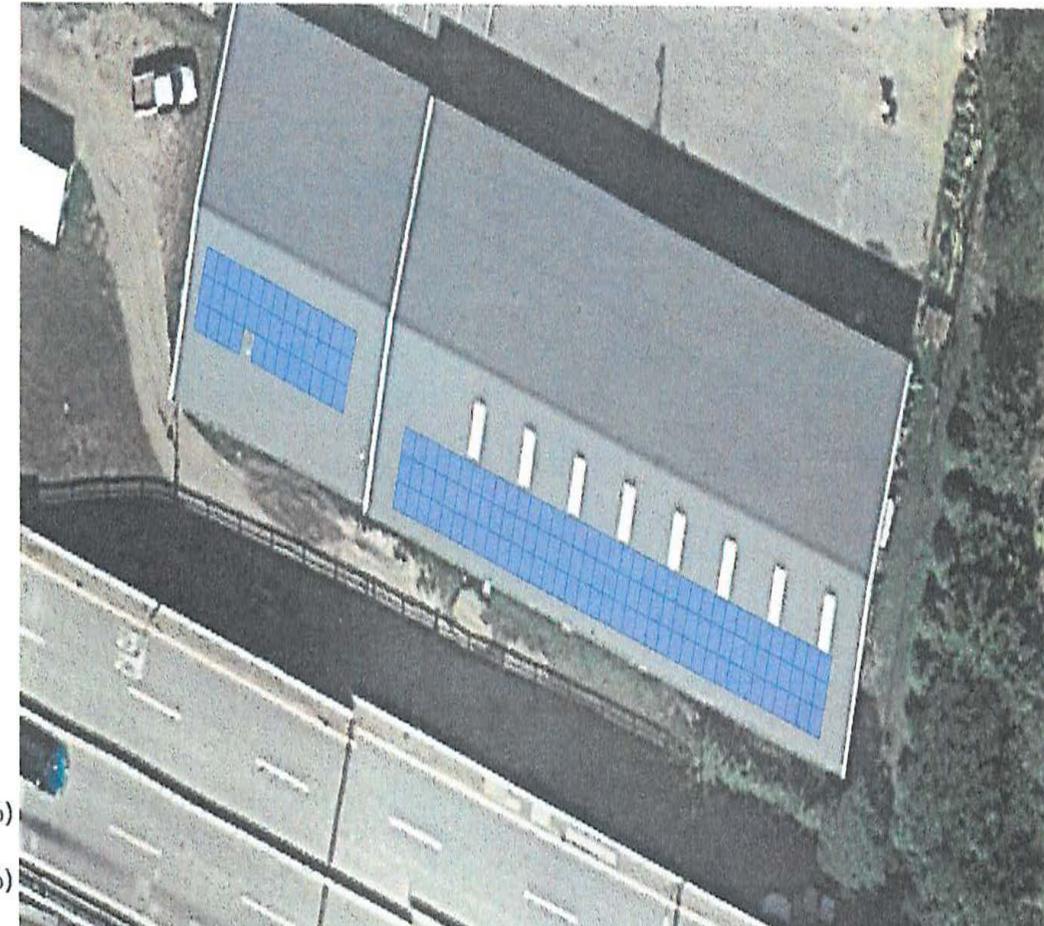
Power Rating: 53.6 kW-DC
Power Rating: 47.2 kW-AC

Energy Consumption Mix

Annual Energy Use: 70,594 kWh



Utility	6 kWh (0.01%)
Solar PV	70,588 kWh (99.99%)



Solar Project Feasibility

Group 1 Projects: Include cost within larger-scale projects as School Construction will generate a significant reimbursement through RIDE program during installation over the next two years and Library is best considered in concert with roof replacement element of large library building rehabilitation as that project takes shape also within the next few years.

Group 2: Recommendation is to borrow up to \$500,000 over a 10 yr. or less debt payback schedule period. Four projects have estimated installation cost of \$400,000 that would lower debt service costs by approximately 20%. With total principle/interest cost falling in the \$460,000 range. Initial interest cost of \$6,875 is proposed in FY2019 (avg. \$6,000/yr.) along with annual savings of approximately \$45,000 - \$50,000 per year that will address debt costs over the 10 year period paying for full project debt. Interest will add approx. 3 yrs. onto payback schedule for each project.

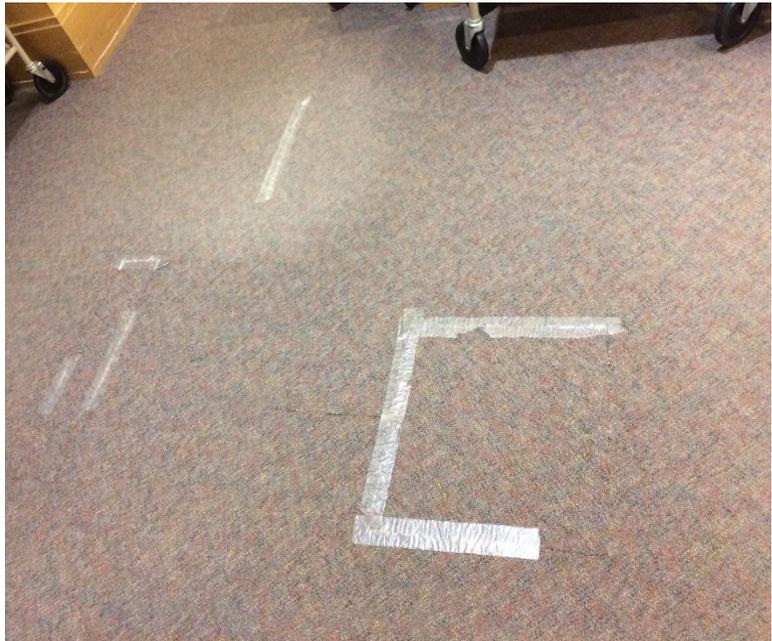
Group 3: Do not proceed at this time.

Library 6-Year Funding Plan

General Fund	Fiscal Year 2016-2017	Fiscal Year 2017-2018	Fiscal Year 2018-2019	Fiscal Year 2019-2020	Fiscal Year 2020-2021	Fiscal Year 2021-2022	Fiscal Year 2022-2023	Fiscal Year 2023-2024	Six Year Total
<i>Library Program</i>									
General Project Enhancements (Bond Issuance Option)				\$50,000	\$50,000	\$50,000	\$25,000	\$25,000	\$200,000
Carpeting Replacement		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Painting - Interior		\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Painting - Exterior		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Restroom Rehabilitation		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
HVAC System Improvements/Reserve	\$50,000	\$25,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sidewalk Repairs - ADA Improvements	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Roof Replacement/Repair		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Door Replacement		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Electrical/Lighting/Energy Improvements	\$5,000	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Area Furnishings		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Office Furnishings		\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Museum Improvements			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Building Generator			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Kitchen Improvements			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fuel Tank Replacement			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Building Insulation			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Wastewater Pump Replacement			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Outdoor Grounds Projects			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Technology Improvements			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Library Depart. - Subtotal	\$70,000	\$55,000	\$0	\$50,000	\$50,000	\$50,000	\$25,000	\$25,000	\$200,000

Library Building Improvements:

HVAC System Replacement, ADA updates, Restroom Rehabilitation, painting, carpeting, furnishings, roof replacement, solar installation, Energy/Lighting upgrades, door replacements, interior enhancements, staff work area improvements, storage expansion, access improvements, and additional elements.



Library Solar PV System

Existing Usage: 82,254 kWh

Production: 57,892 kWh (70.38%)

Payback : 12.8 yrs. Yr. 1 savings = \$9,091

General Information

Facility: Jamestown Library

Address: 26 North Rd Jamestown RI 02835

Solar PV Equipment Description

Solar Panels: Sunpower

Inverters: Solaredge

Solar PV Equipment Warranty Period

Solar Panels: 25 year power production

Inverters: 12 years

Solar PV System Cost And Incentives

Solar PV System Cost \$170,100

REF Cash Grant -\$41,310

Net Solar PV System Cost: \$128,790

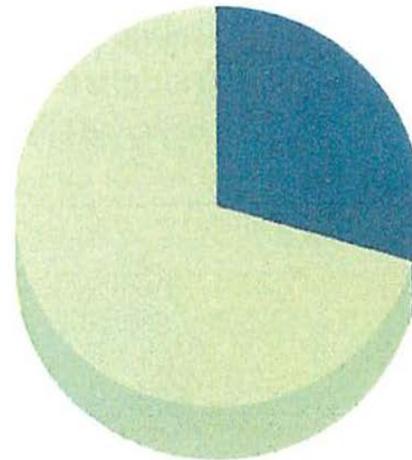
Solar PV System Rating

Power Rating: 48.6 kW-DC

Power Rating: 42.8 kW-AC

Energy Consumption Mix

Annual Energy Use: 82,254 kWh



Utility 24,362 kWh (29.62%)

Solar PV 57,892 kWh (70.38%)



Library Project Funding

Bond Authorization: \$1 million

Annual cost is in the range of \$70,000 - \$75,000 per year, including principle and interest costs.

Existing capital funds available - \$150,000 +/-

Future Capital Funds, 6-year program: \$200,000 +/-

Trust Funds: \$300,000 +/-

Champlin Grant Application?

Private Funds ?

Anticipated recovery of approximately 40% on all OLIS eligible project costs.

Library 6-Year Funding Plan

General Fund	Fiscal Year 2016-2017	Fiscal Year 2017-2018	Fiscal Year 2018-2019	Fiscal Year 2019-2020	Fiscal Year 2020-2021	Fiscal Year 2021-2022	Fiscal Year 2022-2023	Fiscal Year 2023-2024	Six Year Total
<i>Library Program</i>									
Carpeting Replacement		\$0	\$10,000	\$10,000	\$0	\$0	\$0	\$10,000	\$30,000
Painting - Interior		\$10,000	\$0	\$10,000	\$0	\$0	\$0	\$15,000	\$25,000
Painting - Exterior		\$0	\$5,000	\$5,000	\$0	\$0	\$5,000	\$0	\$15,000
Restroom Rehabilitation		\$0	\$40,000	\$0	\$0	\$50,000	\$50,000	\$0	\$140,000
HVAC System Improvements	\$50,000	\$25,000	\$0	\$50,000	\$50,000	\$50,000	\$0	\$0	\$150,000
Sidewalk Repairs - ADA	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Roof Replacement/Repair		\$0	\$0	\$100,000	\$50,000	\$0	\$0	\$0	\$150,000
Door Replacement		\$0	\$0	\$0	\$15,000	\$0	\$0	\$0	\$15,000
Electrical/Lighting /Energy Improvements	\$5,000	\$10,000	\$20,000	\$40,000	\$65,000	\$65,000	\$0	\$0	\$190,000
Area Furnishings		\$0	\$20,000	\$0	\$20,000	\$10,000	\$0	\$0	\$50,000
Office Furnishings		\$10,000	\$0	\$0	\$5,000	\$0	\$0	\$5,000	\$10,000
Museum Improvements			\$0	\$0	\$35,000	\$35,000	\$0	\$0	\$70,000
Building Generator			\$0	\$0	\$0	\$0	\$0	\$40,000	\$40,000
Kitchen Improvements			\$0	\$0	\$0	\$0	\$20,000	\$0	\$20,000
Fuel Tank Replacement(s)			\$0	\$0	\$0	\$10,000	\$0	\$0	\$10,000
Building Insulation			\$5,000	\$10,000		\$0	\$0	\$0	\$15,000
Wastewater Pump Replacement			\$0	\$0	\$0	\$10,000	\$0	\$0	\$10,000
Outdoor Grounds Projects			\$0	\$0	\$15,000	\$0	\$0	\$5,000	\$20,000
Technology Improvements			\$0	\$0	\$0	\$0	\$20,000	\$0	\$20,000
Library Depart. - Subtotal	\$70,000	\$55,000	\$100,000	\$225,000	\$255,000	\$230,000	\$95,000	\$75,000	\$980,000

Library Short-term Plan

General Fund	Fiscal Year 2016-2017	Fiscal Year 2017-2018	Fiscal Year 2018-2019
<u>Library Program</u>			
General Project Enhancements			
Carpeting Replacement		\$0	\$10,000
Painting - Interior		\$10,000	\$0
Painting - Exterior		\$0	\$0
Restroom Rehabilitation		\$0	\$0
HVAC System Improvements	\$50,000	\$25,000	\$0
Sidewalk Repairs - ADA	\$15,000	\$0	\$0
Roof Replacement/Repair		\$0	\$0
Door Replacement		\$0	\$0
Electrical/Lighting /Energy Improvements	\$5,000	\$10,000	\$0
Area Furnishings		\$0	\$20,000
Office Furnishings		\$10,000	\$0
Museum Improvements			\$0
Building Generator			\$0
Kitchen Improvements			\$0
Fuel Tank Replacement(s)			\$0
Building Insulation			\$0
Wastewater Pump Replacement			\$0
Outdoor Grounds Projects			\$0
Technology Improvements			\$0
Library Depart. - Subtotal	\$70,000	\$55,000	\$30,000

Parks and Recreation

General Fund	Fiscal Year 2016-2017	Fiscal Year 2017-2018	Fiscal Year 2018-2019	Fiscal Year 2019-2020	Fiscal Year 2020-2021	Fiscal Year 2021-2022	Fiscal Year 2022-2023	Fiscal Year 2023-2024	Six Year Total
<i>Parks and Recreation Program</i>									
Eldred Avenue Field Improvements		\$0	\$10,000	\$10,000	\$0	\$0	\$0	\$10,000	\$30,000
Lawn Avenue Field Improvements	\$10,000	\$0	\$0	\$0	\$15,000	\$0	\$25,000	\$0	\$40,000
Park Dock		\$0	\$0	\$0	\$0	\$30,000	\$0	\$0	\$30,000
Heads Beach		\$0	\$0	\$0	\$10,000	\$0	\$10,000	\$0	\$20,000
Mackerel Cove Beach		\$0	\$0	\$0	\$5,000	\$0	\$0	\$0	\$5,000
Playground Reserve	\$35,000	\$0	\$0	\$0	\$0	\$10,000	\$0	\$0	\$10,000
Basketball Court	\$20,000	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000	\$5,000
Skateboard Park	\$0	\$0	\$0	\$0	\$20,000	\$0	\$0	\$5,000	\$25,000
Tennis Court Improvements		\$0	\$0	\$0	\$10,000	\$0	\$0	\$0	\$10,000
Public ROW Management	\$5,000	\$5,000	\$5,000	\$0	\$5,000	\$0	\$0	\$0	\$10,000
Community Center - 41 Conanicus Ave	\$25,000	\$0	\$0	\$25,000	\$0	\$25,000	\$0	\$25,000	\$75,000
Vehicle Replacement Program		\$15,000	\$0	\$25,000	\$30,000	\$0	\$30,000	\$0	\$85,000
Equipment Purchase/ Replacement	\$20,000	\$50,000	\$15,000	\$30,000	\$5,000	\$0	\$0	\$15,000	\$65,000
Senior Center Facility Improvements	\$20,000	\$15,000	\$20,000	\$20,000	\$10,000	\$0	\$10,000	\$0	\$60,000
Recreation Depart. - Subtotal	\$135,000	\$85,000	\$50,000	\$110,000	\$100,000	\$65,000	\$65,000	\$60,000	\$450,000

Public ROW Management/Improv. \$5,000
 Eldred Avenue Field Improvements \$10,000

Equipment Purchase: \$15,000 Attachment Purchase
 Senior Center Facility: \$20,000 HVAC Improvements

Public ROW Management

- 39 recognized and potential Public ROW locations outlined in 2013 Shoreline Access and ROW Inventory
- 13 recognized by CRMC
- This document is presently being updated by the Friends of Jamestown ROW's and the Conservation Commission

Map Legend

Features

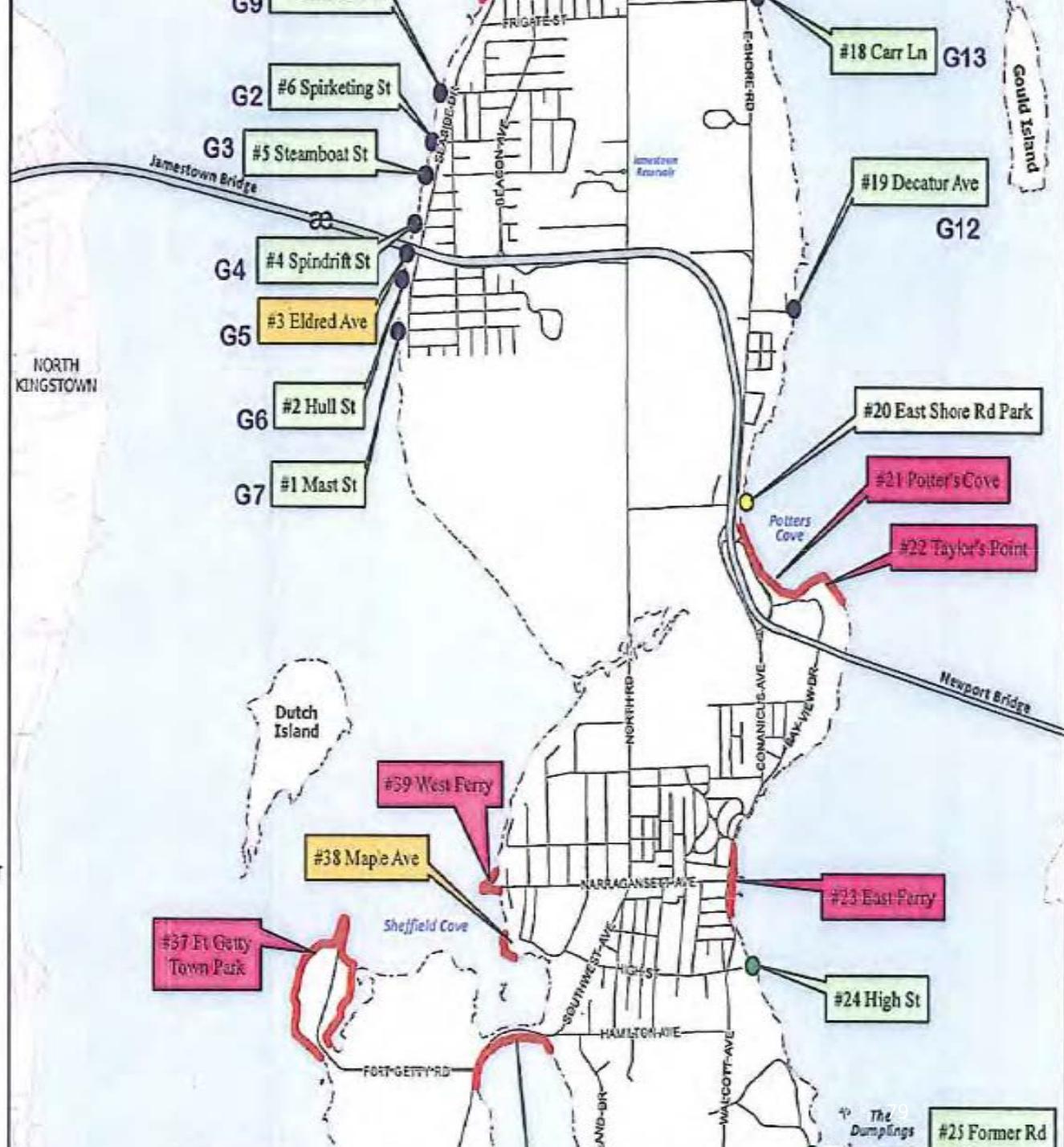
- Highways
- Roads

Boundaries

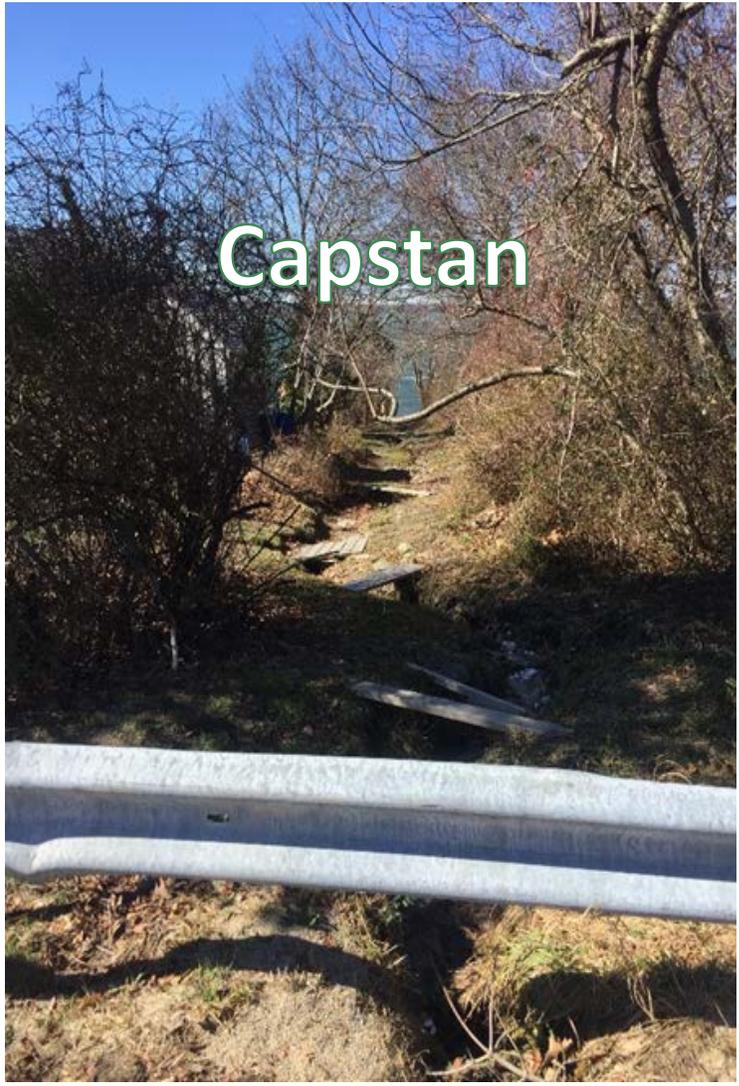
- Jamestown
- RI Municipal
- Other States

Rights-of-Way

- No 1 Priority Sites
- No 2 Priority Sites
- No 3 Priority Sites
- No recommendation until further review
- CRMC ROW Designation



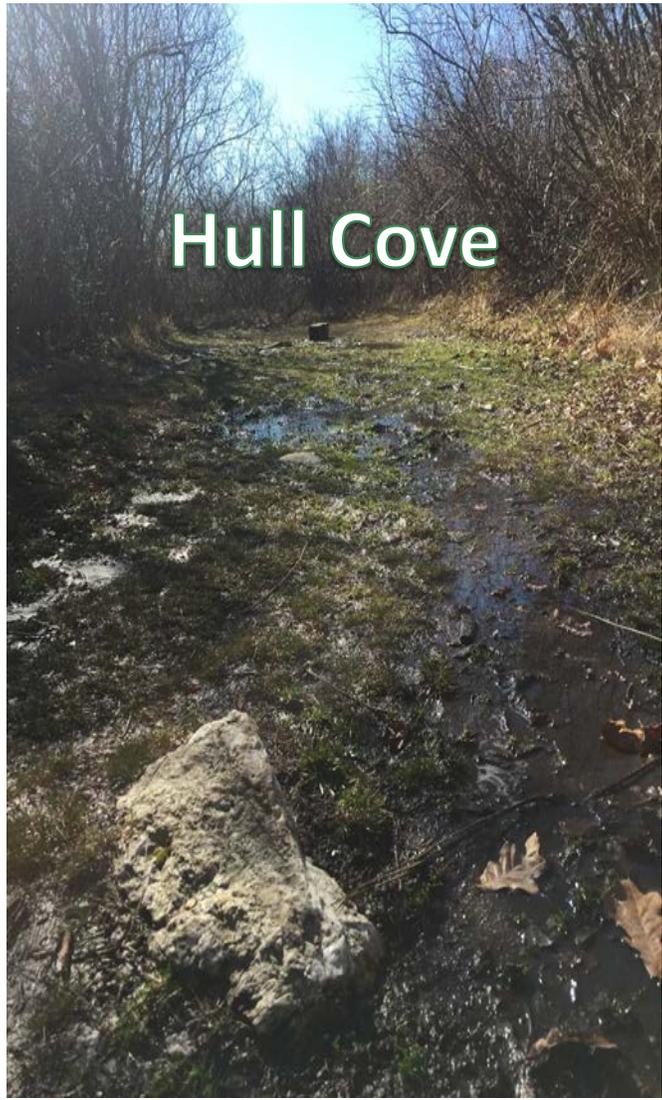
Capstan



Champlin Way



Hull Cove



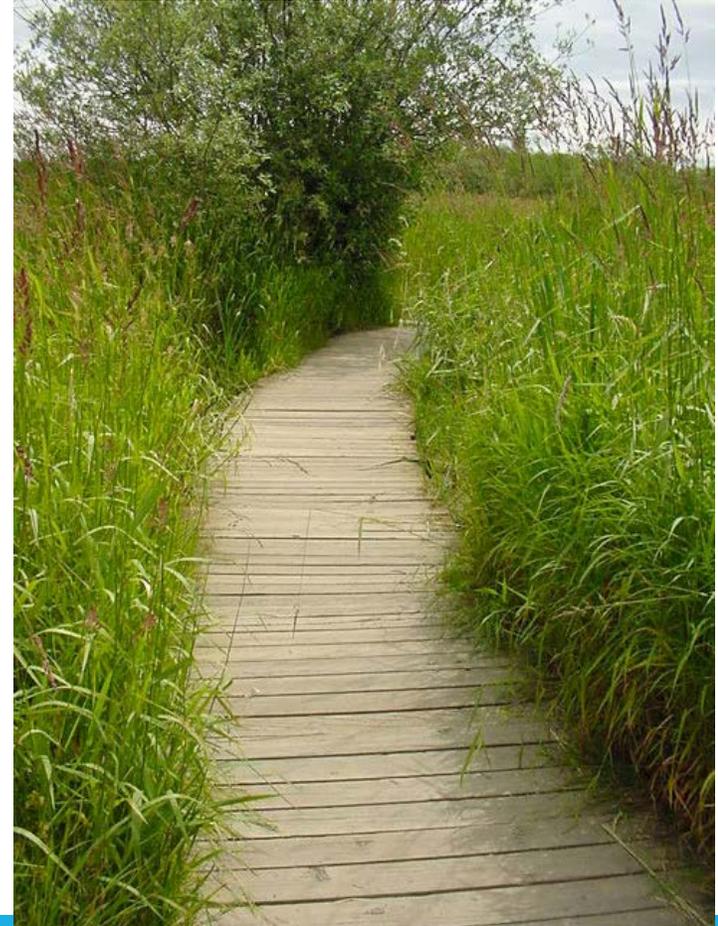
Buccaneer Way



Public ROW Management

Hulls Cove Trail

- 5ft wide, 480ft boardwalk from parking lot to beach.
- Environmentally sensitive and handicap accessible wooden boardwalk over the wetland area and along the existing public right-of-way to Hull Cove



Parks Division Equipment

Project Cost: \$15,000

- The Parks Division utilizes a two member full-time maintenance crew, supplemented with a part-time seasonal workforce. The staff utilize the Kubota L Series 6060 Tractor purchased in FY2017 for a wide variety of tasks.

Attachments for Kubota L6060



Post Hole Digger: \$3,000

- Installation of Fencing, Guardrails, Signposts
- Increase ability for Parks Staff to complete site improvements
- Increase work efficiency



Powered Rake: \$12,000

- Better cleaning and raking at Town beaches
- Ballfield preparations, infield grooming



Senior Center Improvements

Project Cost: \$20,000

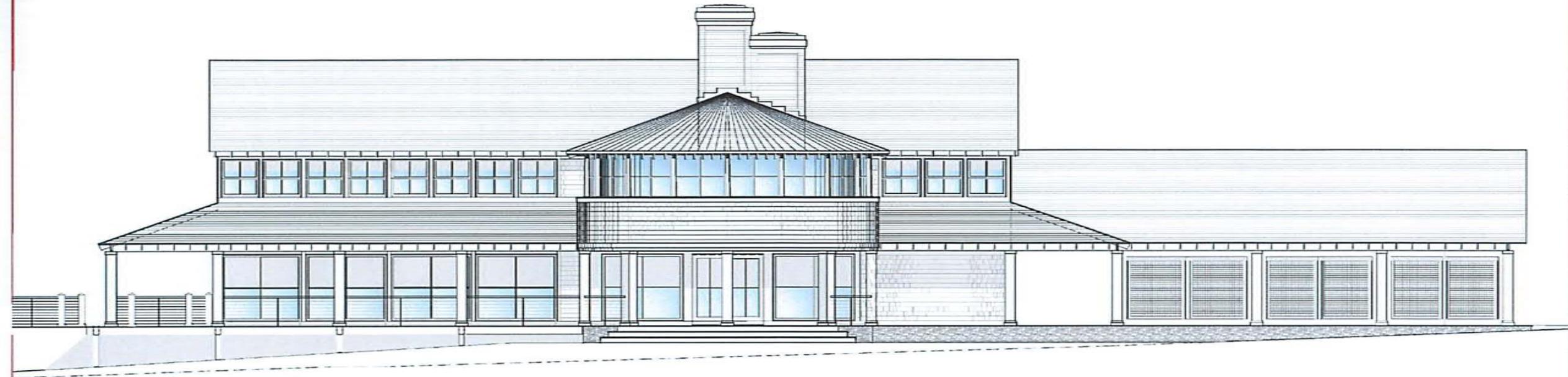
- Improved second floor heating/cooling
- 1st/2nd floor controls and soundproofing

- HVAC Upgrades
- Ductwork Replacement/Modifications



Senior Center Duct Replacement and Sound Proofing



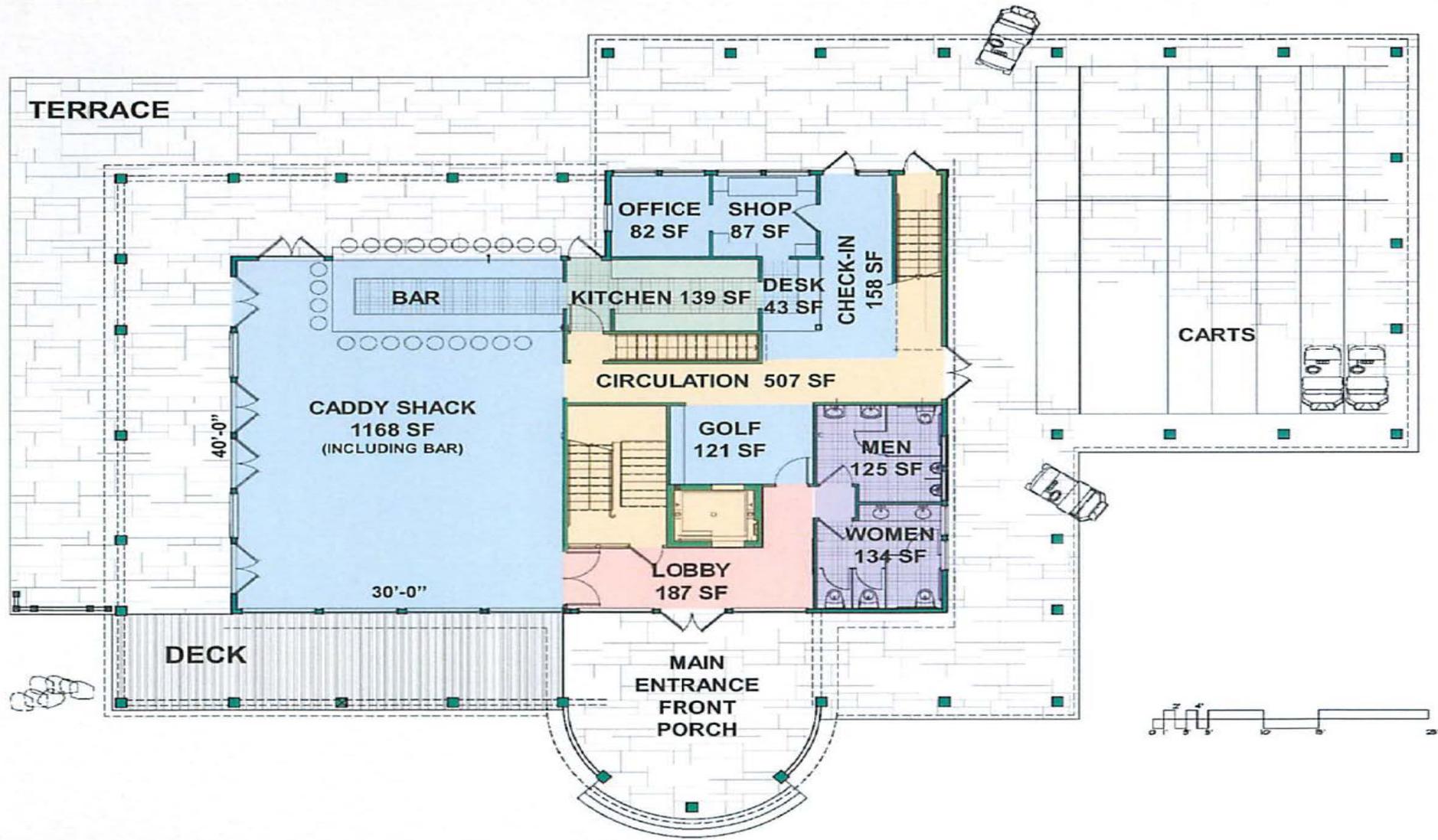


SOUTH ELEVATION

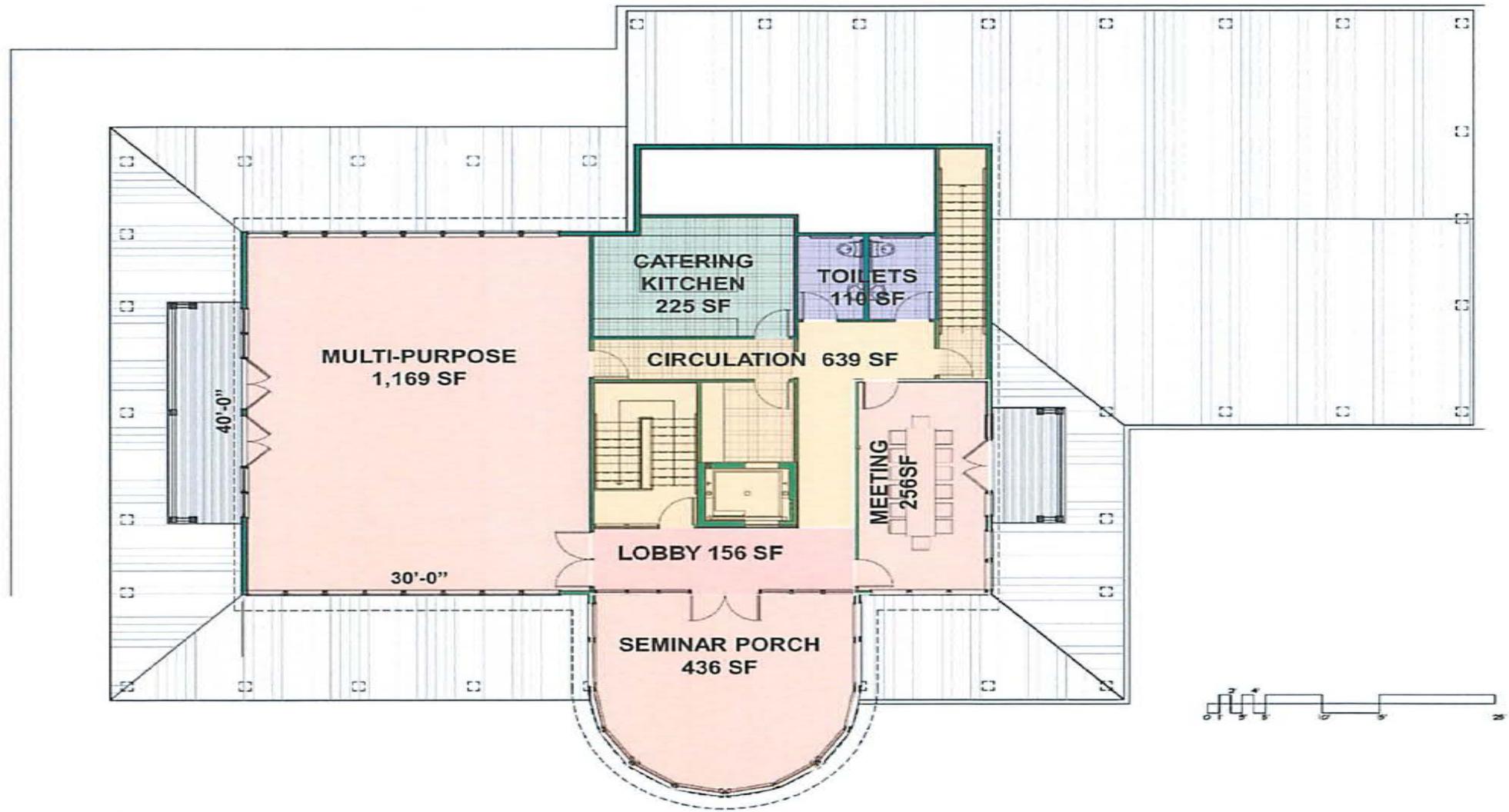
TWO STORY SCHEME

1ST FLOOR DEDICATED GOLF

2ND FLOOR COMMUNITY MULTI-PURPOSE USE



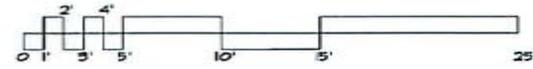
GROUND FLOOR PLAN 2,751 SF



SECOND FLOOR PLAN 2,991 SF



WEST ELEVATION



EAST ELEVATION



NORTH ELEVATION

BOND DEBT SERVICE

Town of Jamestown, Rhode Island
2018 Golf Course Taxable Issue (25 Years)
\$2.9 Million

Period Ending	Principal	Coupon	Interest	Debt Service
06/30/2019			67,425.00	67,425.00
06/30/2020	65,000	4.650%	133,338.75	198,338.75
06/30/2021	65,000	4.650%	130,316.25	195,316.25
06/30/2022	70,000	4.650%	127,177.50	197,177.50
06/30/2023	75,000	4.650%	123,806.25	198,806.25
06/30/2024	75,000	4.650%	120,318.75	195,318.75
06/30/2025	80,000	4.650%	116,715.00	196,715.00
06/30/2026	85,000	4.650%	112,878.75	197,878.75
06/30/2027	85,000	4.650%	108,926.25	193,926.25
06/30/2028	90,000	4.650%	104,857.50	194,857.50
06/30/2029	95,000	4.650%	100,556.25	195,556.25
06/30/2030	100,000	4.650%	96,022.50	196,022.50
06/30/2031	105,000	4.650%	91,256.25	196,256.25
06/30/2032	110,000	4.650%	86,257.50	196,257.50
06/30/2033	115,000	4.650%	81,026.25	196,026.25
06/30/2034	120,000	4.650%	75,562.50	195,562.50
06/30/2035	125,000	4.650%	69,866.25	194,866.25
06/30/2036	130,000	4.650%	63,937.50	193,937.50
06/30/2037	140,000	4.650%	57,660.00	197,660.00
06/30/2038	145,000	4.650%	51,033.75	196,033.75
06/30/2039	150,000	4.650%	44,175.00	194,175.00
06/30/2040	160,000	4.650%	36,967.50	196,967.50
06/30/2041	165,000	4.650%	29,411.25	194,411.25
06/30/2042	175,000	4.650%	21,506.25	196,506.25
06/30/2043	185,000	4.650%	13,136.25	198,136.25
06/30/2044	190,000	4.650%	4,417.50	194,417.50
	2,900,000		2,068,552.50	4,968,552.50

DEDICATED GOLF AND LIMITED MULTI-PURPOSE SCHEME**GROUND FLOOR 3,579 SF**

- BAR/ CADDYSHACK 499 SF
- BAR KITCHEN 130 SF
- TOILETS 284 SF
- MULTI-PURPOSE 1,118 SF
- CATERING KITCHEN 309 SF
- GOLF CHECK-IN 176 SF
- GOLF DESK 74 SF
- OFFICE 76 SF
- PROSHOP 70 SF
- STORAGE 119 SF
- LOBBY 330 SF
- CIRCULATION 394 SF

TOTAL SQUARE FEET 3,579 SF**COST ESTIMATE 2,070,935****DEDICATED GOLF AND MULTI-PURPOSE SCHEME****GROUND FLOOR 2,751 SF**

- BAR/ CADDYSHACK 1,168 SF
- BAR KITCHEN 139 SF
- TOILETS 259 SF
- GOLF CHECK-IN 279 SF
- GOLF DESK 43 SF
- OFFICE 82 SF
- PROSHOP 87 SF
- LOBBY 187 SF
- CIRCULATION 507 SF

SECOND FLOOR 2,991 SF

- MULTI-PURPOSE 1,169 SF
- SEMINAR PORCH 436 SF
- MEETING ROOM 256 SF
- CATERING KITCHEN 225 SF
- TOILETS 110 SF
- LOBBY 156 SF
- CIRCULATION 639 SF

TOTAL SQUARE FEET 5,742 SF**COST ESTIMATE 2,930,138**

BOND DEBT SERVICE

Town of Jamestown, Rhode Island
2018 Golf Course Taxable Issue (25 Years)
\$2.3 Million

Period Ending	Principal	Coupon	Interest	Debt Service
06/30/2019			53,475.00	53,475.00
06/30/2020	50,000	4.650%	105,787.50	155,787.50
06/30/2021	55,000	4.650%	103,346.25	158,346.25
06/30/2022	55,000	4.650%	100,788.75	155,788.75
06/30/2023	60,000	4.650%	98,115.00	158,115.00
06/30/2024	60,000	4.650%	95,325.00	155,325.00
06/30/2025	65,000	4.650%	92,418.75	157,418.75
06/30/2026	65,000	4.650%	89,396.25	154,396.25
06/30/2027	70,000	4.650%	86,257.50	156,257.50
06/30/2028	70,000	4.650%	83,002.50	153,002.50
06/30/2029	75,000	4.650%	79,631.25	154,631.25
06/30/2030	80,000	4.650%	76,027.50	156,027.50
06/30/2031	85,000	4.650%	72,191.25	157,191.25
06/30/2032	85,000	4.650%	68,238.75	153,238.75
06/30/2033	90,000	4.650%	64,170.00	154,170.00
06/30/2034	95,000	4.650%	59,868.75	154,868.75
06/30/2035	100,000	4.650%	55,335.00	155,335.00
06/30/2036	105,000	4.650%	50,568.75	155,568.75
06/30/2037	110,000	4.650%	45,570.00	155,570.00
06/30/2038	115,000	4.650%	40,338.75	155,338.75
06/30/2039	120,000	4.650%	34,875.00	154,875.00
06/30/2040	125,000	4.650%	29,178.75	154,178.75
06/30/2041	130,000	4.650%	23,250.00	153,250.00
06/30/2042	140,000	4.650%	16,972.50	156,972.50
06/30/2043	145,000	4.650%	10,346.25	155,346.25
06/30/2044	150,000	4.650%	3,487.50	153,487.50
	2,300,000		1,637,962.50	3,937,962.50

Capital Program

Final Slide