



Fort Monroe Authority

Capital Improvement Plan Fiscal Years 2017 Through 2022

December 2016

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National Park Service

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

December 2016

Project Cost Summary - Five Year CIP

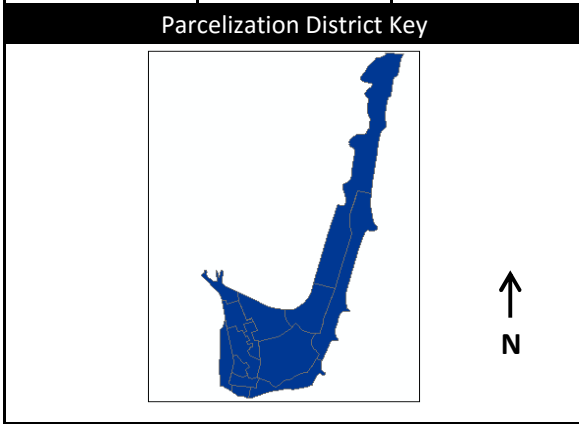
Project	Status	Funding Source	Appropriations To Date	Unappropriated Subsequent Years							
				FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022		
FY 2017											
1-008		Guidance/Wayfinding Signage	Design	VDOT	100,000						
2-003	(yr 1 of 2)	Outer Moat Wall Repairs	Design Pending	VPBA	100,000	100,000	1,000,000				
2-004		Bridge Repairs	Construction	VDOT	200,000	200,000					
3-007	(yr 1 of 2)	Mercury Blvd Water Improvements	Design Pending	VPBA	320,000	320,000	3,000,000				
3-010		Main Gate Water Line Replacement	Design	VPBA/DRM	300,000	300,000					
4-007		Sewer SSES Plan	Design	OEA	115,000	115,000					
4-008	(yr 1 of 2)	Sump Pump Discharge Improvements	Design Pending	VPBA	200,000	200,000	900,000				
8-009A		HVAC Replacements (B134)	Design Pending	MR	200,000	200,000					
8-018		Repair/Replace Roof (Multiple Buildings)	Design Pending	MR	363,705	363,705					
8-021		Replace Roof (B171)	Design Pending	VPBA	327,565	327,565					
8-022	(yr 1 of 2)	Roof/railing replacements (Multiple Buildings)	Design Pending	MR	60,000	60,000	325,000				
8-027		Building 96 Roof & HVAC Replacement	Design Pending	MR	776,000	776,000					
8-029		Building Exterior Stair/Ladder Assessment	Design	OEA	75,000	75,000					
8-030		Visitors Center (B138)	Design	VBPA	575,000	575,000	4,675,000				
8-031		Structural Repairs to B77	Design Pending	MR		50,000					
Subtotal FY 2017					3,762,270						
FY 2018					FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	
2-003	(yr 2 of 2)	Outer Moat Wall Repairs	Design Pending	VPBA	100,000	1,000,000					
1-004	(yr 1 of 3)	ADA Ramp/Sidewalk/Curbing Replacement - Phase 2	-	VDOT	-	220,000	220,000	220,000			
3-007	(yr 2 of 2)	Mercury Blvd Water Improvements	Design	VPBA	320,000	3,000,000					
4-004	(yr 1 of 2)	Pump Station 58 & Force Main Replacement	-	VPBA	-	200,000	2,000,000				
4-008	(yr 2 of 2)	Sump Pump Discharge Improvements	Design Pending	VPBA	100,000	900,000					
8-022	(yr 2 of 2)	Roof/railing replacements (Multiple Buildings)	Design Pending	MR	60,000	325,000					
8-024		Building repairs for non-residential		VPBA		255,000					
8-025		HVAC Repairs (Multiple Buildings)		VPBA		140,100					
8-032		Roof Repair/Replace (B9)		VPBA		292,000					
Subtotal FY 2018						6,332,100					
FY 2019					FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	
1-004	(yr 2 of 3)	ADA Ramp/Sidewalk/Curbing Replacement - Phase 2	-	VDOT	-	220,000	220,000	220,000			
4-003	(yr 1 of 2)	Pump Station 184 & Force Main Replacement	-	VPBA	-	-	250,000	2,500,000			
4-004	(yr 2 of 2)	Pump Station 58 & Force Main Replacement	-	VPBA	-	200,000	2,000,000				
9-001	(yr 1 of 2)	Utility Master Plan Phase 1		VPBA			300,000	3,500,000			
8-026	(yr 1 of 2)	Structural Repairs to Buildings		VPBA			218,000	2,178,200			
8-020		Replace Roof (Multiple Buildings)		VPBA			1,055,146				
Subtotal FY 2019							4,043,146				
FY 2020					FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	
1-004	(yr 3 of 3)	ADA Ramp/Sidewalk/Curbing Replacement - Phase 2	-	VDOT	-	220,000	220,000	220,000			
4-003	(yr 2 of 2)	Pump Station 184 & Force Main Replacement	-	VPBA	-	-	250,000	2,500,000			
9-001	(yr 2 of 2)	Utility Master Plan Phase 1		VPBA			300,000	3,500,000			
9-002	(yr 1 of 2)	Utility Master Plan Phase 2		VPBA			300,000	3,500,000			
8-026	(yr 2 of 2)	Structural Repairs to Buildings		VPBA			218,000	2,178,200			
4-002	(yr 1 of 2)	Pump Station 180 & Force Main Replacement	-	VPBA	-	-	-	400,000	4,000,000		
Subtotal FY 2020								9,098,200			
FY 2021					FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	
1-005	(yr 1 of 3)	Sign and Pavement Marking Replacement - Phase 2	-	VDOT	-	-	-	-	220,000	220,000	
9-002	(yr 2 of 2)	Utility Master Plan Phase 2		VPBA				300,000	3,500,000		
9-003	(yr 1 of 2)	Utility Master Plan Phase 3		VPBA					300,000	3,500,000	
4-002	(yr 2 of 2)	Pump Station 180 & Force Main Replacement	-	VPBA	-	-	-	400,000	4,000,000		
6-005		Stormwater Model & Master Plan		OEA					150,000		
8-028		Repair/Replace Roof (Multiple Buildings)		VPBA					349,550		
Subtotal FY 2021									8,519,550		
FY 2022					FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	
1-005	(yr 2 of 3)	Sign and Pavement Marking Replacement - Phase 2	-	VDOT	-	-	-	-	220,000	220,000	
1-007		MARS Access Ramp Repair		VPBA						131,600	
4-006	(yr 1 of 2)	Pump Station 256 & Force Main Replacement	-	VPBA	-	-	-			60,000	
9-003	(yr 2 of 2)	Utility Master Plan Phase 3		VPBA					300,000	3,500,000	
9-004	(yr 1 of 2)	Utility Master Plan Phase 4		VPBA						300,000	
Subtotal FY 2022										4,211,600	
Yearly Totals					3,762,270	6,332,100	4,043,146	9,098,200	8,519,550	4,211,600	35,966,866
Anticipated Funding Sources											
		MR			1,449,705	325,000	-	-	-	1,774,705	
		OEA			190,000			150,000		340,000	
		VDOT			300,000	220,000	220,000	220,000	220,000	1,400,000	
		VPBA			1,822,565	5,787,100	3,823,146	8,878,200	8,149,550	32,452,161	
		TOTAL			3,762,270	6,332,100	4,043,146	9,098,200	8,519,550	4,211,600	

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 1-004		ADA Ramp/Sidewalk/Curbing Replacement - Phase 2			
Project Type: Roadway		Parcelization District: All			
Programmed Funding					
Status	Appropriated to Date	FY 2016 Budget	Non-Appropriated Programmed CIP Funding		
			FY 2017	FY 2018	FY 2019
	\$ -	\$ -	\$ 220,000	\$ 220,000	\$ 220,000

Means of Funding		Description and Scope		
Funding Source	Amount			
VDOT	\$220000/yr	1. Installation of ADA curb ramps where missing. 2. Removal and replacement of noncompliant curb ramps per ADA standards. 3. Removal and replacement of sidewalk and curb given a moderate defect rating in the 2010 report.		

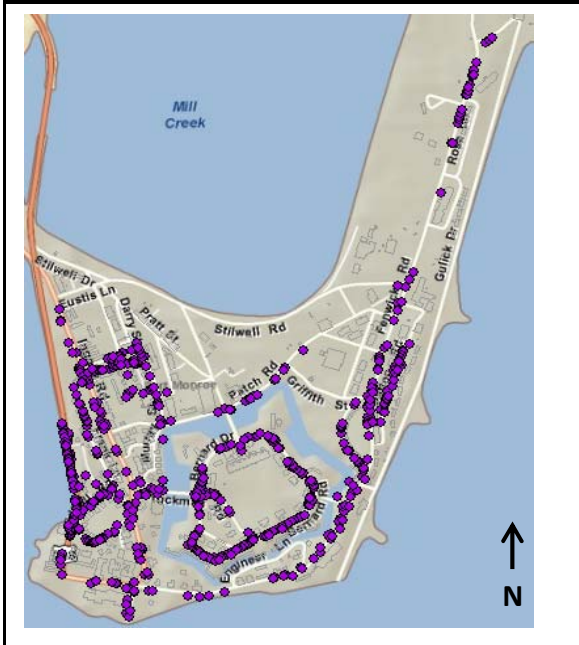
Schedule of Activities		
Project Activity	From - To	Amount



Purpose and Need

To improve safety of pedestrians, the physically disabled, and motorists, and to comply with ADA standards.

Project Map



History and Current Status

Project defined and recommended in the roadway section of the Fort Monroe Infrastructure Condition Assessment Report prepared by Kimley-Horn and Associates dated June 2010.

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 1-005			Sign and Pavement Marking Replacement - Phase 2				
Project Type:			Parcelization District:				
Roadway			All				
Programmed Funding							
Status	Appropriated to Date	FY 2016 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
	\$ -	\$ -					\$ 220,000

Means of Funding	
Funding Source	Amount
VDOT	\$ 220,000.00

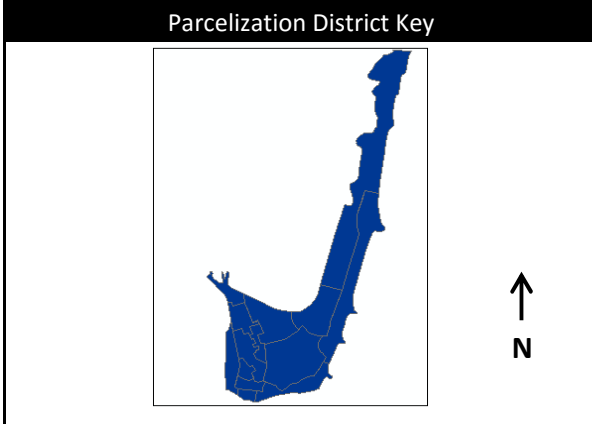
Schedule of Activities		
Project Activity	From - To	Amount

Description and Scope

1. Removal and replacement of all nonregulatory signs in poor condition and all regulatory or nonregulatory signs in fair condition per MUTCD design standards. Nonregulatory signs are classified as signs that do not give notice of traffic laws or regulations. Signs in good condition are not included in this project.

2. Removal and replacement of pavement markings given a fair or good condition rating in the 2010 report, including street and parking lines, crosswalks, stop bars, directional arrows, and island markings.

Project consists of the replacement of approximately 325 signs and 48,000 feet of pavement markings.



Purpose and Need

To improve safety for pedestrians and motorists and to comply with MUTCD standards.



History and Current Status

Project defined and recommended in the roadway section of the Fort Monroe Infrastructure Condition Assessment Report prepared by Kimley-Horn and Associates dated June 2010.

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 1-007 **MARS Access Ramp Repair**

Project Type: Roadway **Parcelization District:** E

Programmed Funding

Status	Appropriated to Date	FY 2016 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Design	\$ 131,600.00	\$ 131,600.00					

Means of Funding

Funding Source	Amount
VPBA	\$ 131,600

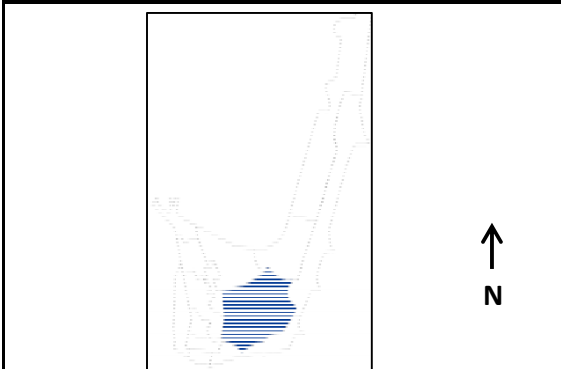
Description and Scope

Remove asphalt pavement overlay on access ramp to MARS Tower due to failure of stone retaining structure and restore proper drainage. Investigate alternative resurfacing options.

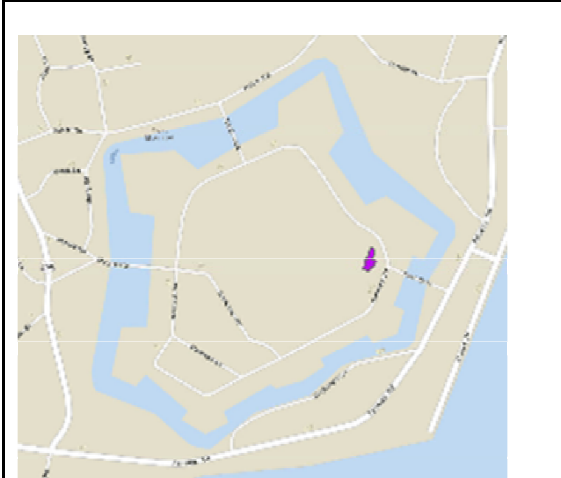
Schedule of Activities

Project Activity	From - To	Amount

Parcelization District Key



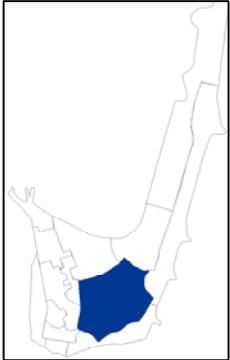
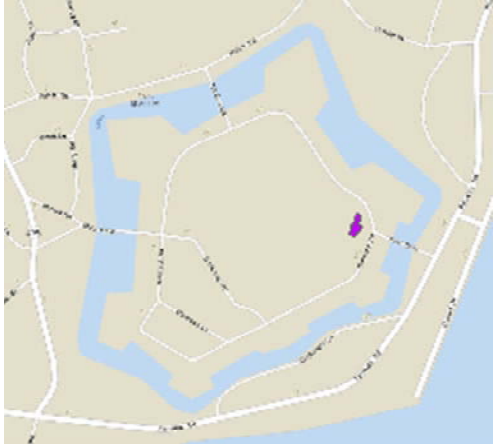
Project Map



Purpose and Need

Current pavement is failing and in need of repair.

History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022							
Project No.: 1-008				Guidance/Wayfinding Signage			
Project Type:				Parcelization District:			
Roadway				E			
Programmed Funding							
Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Design	\$ 100,000.00	\$ 100,000.00					
Means of Funding			Description and Scope				
Funding Source		Amount	Implement Guidance and Wayfinding Signage Plan				
VDOT		\$ 100,000					
Schedule of Activities							
Project Activity	From - To	Amount					
Parcelization District Key			Purpose and Need				
							
Project Map			History and Current Status				
							

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 2-003 **Outer Moat Wall Repairs**

Project Type: Bridges **Parcelization District:** E

Programmed Funding

Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Design	\$ 100,000.00	\$ 100,000.00	\$ 100,000	\$ 1,000,000			

Means of Funding **Description and Scope**

Funding Source	Amount	Design and construct necessary repairs to the historic moated fortress walls
VPBA	\$ 1,100,000	

Schedule of Activities

Project Activity	From - To	Amount

Parcelization District Key



Project Map



Purpose and Need

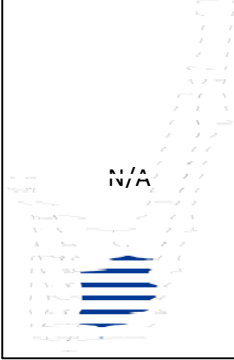
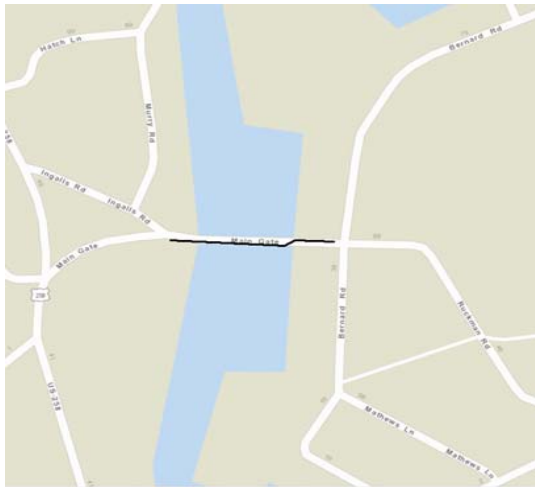

Current outer moat wall is damaged and in need of repair.

History and Current Status

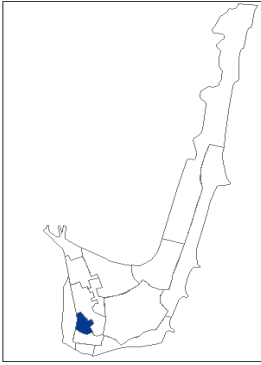

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 3-007			Mercury Boulevard Water Improvements				
Project Type:			Parcelization District:				
Water			N/A				
Programmed Funding							
Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Design	\$ 320,000.00	\$ 320,000.00		\$ 3,000,000			
Means of Funding			Description and Scope				
Funding Source		Amount	Replace approximately 6,200 lf of 14" water main and relocate the Fort Monroe master meter to the property entrance. Design in accordance with NNWW standards and line to be transferred to NNWW following construction.				
VPBA		\$ 3,320,000					
Schedule of Activities							
Project Activity	From - To	Amount					
Parcelization District Key							
N/A							
Purpose and Need							
To replace one of the two water supply lines with historical break concerns.							
Project Map							
History and Current Status							
Project defined and recommended in the water section of the Fort Monroe Infrastructure Condition Assessment Report prepared by Kimley-Horn and Associates dated June 2010. Water main was repaired and partially replaced between 2004 and 2009.							

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 3-010			Main Gate Water Line Replacement				
Project Type:			Parcelization District:				
Water			E				
Programmed Funding							
Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Design	\$ 300,000.00	\$ 300,000.00					
Means of Funding			Description and Scope				
Funding Source		Amount	Replace 10" diameter water main with 12" water main on bridge in existing location. Partially funded by DRM.				
VPBA/DRM		\$ 300,000					
Schedule of Activities							
Project Activity	From - To	Amount					
Parcelization District Key							
							
Purpose and Need							
<p>In February 2015, the existing 10" water main serving the inner fortress broke in several places due to freezing conditions on the Main Gate Bridge. The water main has been isolated, however, the inner fortress lacks appropriate fire flow and pressure for adequate protection.</p>							
Project Map							
							
							
History and Current Status							

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 4-002			Pump Station 180 Replacement				
Project Type:			Parcelization District:				
Wastewater			B-4				
Programmed Funding							
Programmed Funding	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
\$ -	\$ -	\$ -			\$ 400,000	\$ 4,000,000	
Means of Funding							
Funding Source		Amount					
VPBA		\$ 4,400,000					
Schedule of Activities			Description and Scope Replace sewer pump station #180, which includes installation of a by-pass pumping assembly and re-routing of force main in accordance with the Utility Master Plan.				
Project Activity	From - To	Amount					
Parcelization District Key			Purpose and Need To meet Department of Environmental Quality (DEQ) system reliability requirements, and improve wastewater system performance.				
							
Project Map			History and Current Status Project defined and recommended in the wastewater section of the Fort Monroe Infrastructure Condition Assessment Report prepared by Kimley-Horn and Associates dated June 2010.				
							

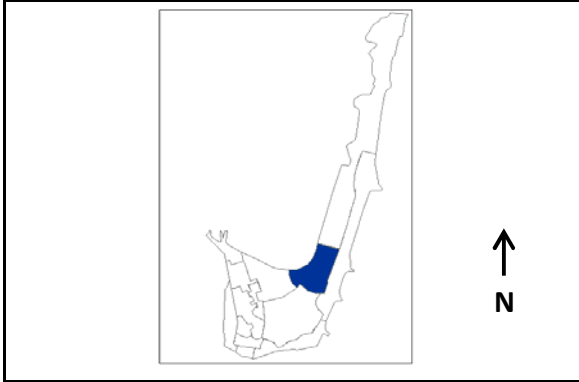
Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 4-003		Pump Station 184 & Force Main Replacement					
Project Type:		Parcelization District:					
Wastewater		C-2					
Programmed Funding							
Status	Appropriated to Date	FY 2016 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
	\$ -	\$ -			\$ 250,000	\$ 2,500,000	

Means of Funding		Amount	Description and Scope
Funding Source			
VPBA		\$ 2,750,000	Replace sewer pump station #184, which includes installation of a SCADA system and by-pass pumping assembly. This project also includes replacement of sanitary force main in accordance with the Utility Master Plan.

Schedule of Activities		
Project Activity	From - To	Amount

Parcelization District Key



Project Map



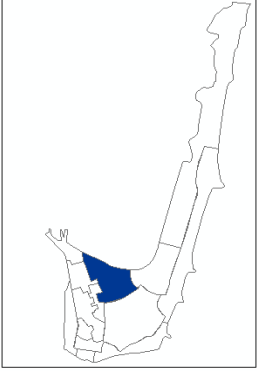



Purpose and Need

To meet Department of Environmental Quality (DEQ) system reliability requirements, and improve wastewater system performance.

History and Current Status

Project defined and recommended in the wastewater section of the Fort Monroe Infrastructure Condition Assessment Report prepared by Kimley-Horn and Associates dated June 2010.

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

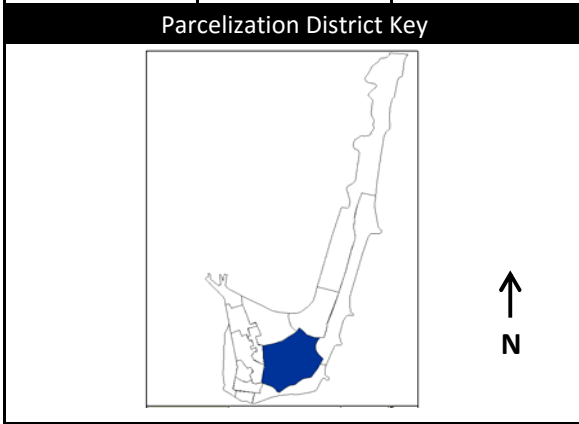
Project No.: 4-004		Pump Station 58 & Force Main Replacement				
Project Type:			Parcelization District:			
Wastewater			C-1			
Programmed Funding						
Status	Appropriated to	FY 2016 Budget	Non-Appropriated Programmed CIP Funding			
	Date		FY 2017	FY 2018	FY 2019	FY 2020
	\$ -	\$ -		\$ 200,000	\$ 2,000,000	
Means of Funding			Description and Scope			
Funding Source		Amount	Replace sewer pump station #58, which includes installation of a SCADA system and by-pass pumping assembly. This project also includes replacement of the force main in accordance with the Utility Master Plan.			
VPBA		\$ 2,200,000				
Schedule of Activities						
Project Activity	From - To	Amount				
Parcelization District Key						
						
Purpose and Need						
To meet Department of Environmental Quality (DEQ) system reliability requirements, and improve wastewater system performance.						
Project Map						
						
History and Current Status						
Project defined and recommended in the wastewater section of the Fort Monroe Infrastructure Condition Assessment Report prepared by Kimley-Horn and Associates dated June 2010.						

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 4-006		Pump Station 256 & Force Main Replacement						
Project Type:		Parcelization District:						
Wastewater		E						
Programmed Funding								
Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding					
			FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	
	\$ -	\$ -						\$ 60,000

Means of Funding		Description and Scope
Funding Source	Amount	
VPBA	\$ 660,000	Replace sewer pump station #256 and associated force main in accordance with the Utility Master Plan.

Schedule of Activities		
Project Activity	From - To	Amount



Description and Scope
 Replace sewer pump station #256 and associated force main in accordance with the Utility Master Plan.

Purpose and Need

To meet Department of Environmental Quality (DEQ) system reliability requirements, and improve wastewater system performance.



History and Current Status

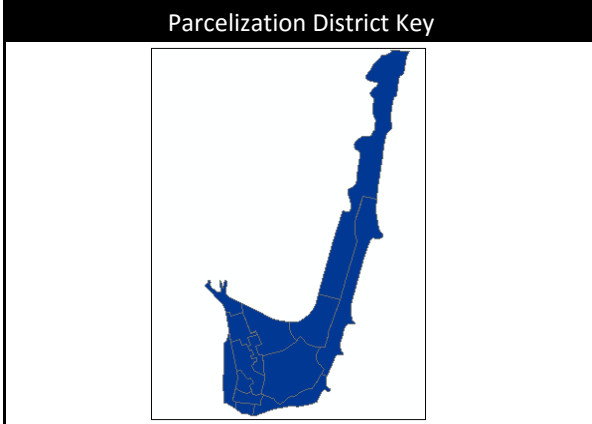
Project defined and recommended in the wastewater section of the Fort Monroe Infrastructure Condition Assessment Report prepared by Kimley-Horn and Associates dated June 2010.

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 4-007		Sewer SSES Plan					
Project Type:		Parcelization District:					
Wastewater		All					
Programmed Funding							
Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Design	\$ 115,000.00	\$ 115,000.00					

Means of Funding		Description and Scope				
Funding Source	Amount	Develop an SSES Plan in accordance with the Hampton Roads Regional Technical Standards. Information from the SSES plan will be used to develop a capital improvements plan for the sanitary sewer system to reduce inflow/infiltration and maximize hydraulic efficiency in the system.				
OEA	\$ 115,000					

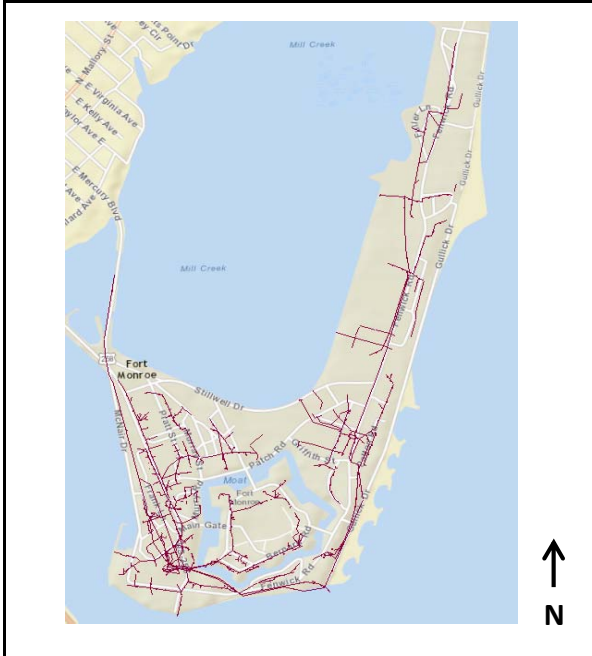
Schedule of Activities		
Project Activity	From - To	Amount



Purpose and Need

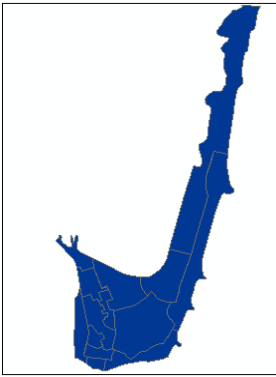

The FMA sewer system is currently in poor condition which results in significant inflow/infiltration. The FMA developed Utility Master Plans related to expected development on the property and would like to prioritize improvements based on SSES Plan recommendations.

Project Map

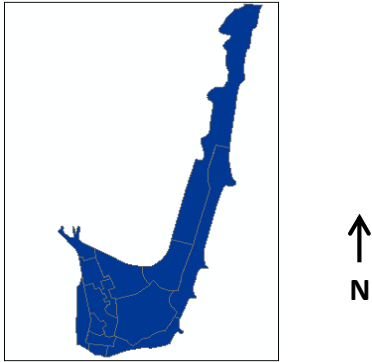



History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 4-008			Sump Pump Discharge Improvements				
Project Type:			Parcelization District:				
Wastewater			All				
Programmed Funding							
Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Design	\$ 200,000.00	\$ 200,000.00		\$ 900,000			
Means of Funding			Description and Scope				
Funding Source		Amount	Develop construction documents and construct improvements to disconnect basement sump pump discharge piping from the sanitary sewer system to the storm drainage system. This work also includes resiliency analysis for power loss to sump pumps to prevent damage to basements during power outages.				
VPBA		\$ 1,100,000					
Schedule of Activities							
Project Activity	From - To	Amount					
Parcelization District Key			Purpose and Need				
			In order to reduce inflow into the sanitary sewer system, basement sump pumps should be connected to the storm drainage system.				
Project Map			History and Current Status				
							

Fort Monroe Capital Improvement Plan - Fiscal Years 2016 through 2021

Project No.: 6-005			Stormwater Model & Master Plan				
Project Type:			Parcelization District:				
Flood Protection/Coastal			All				
Programmed Funding							
Status	Appropriated to Date	FY 2016 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Design	\$ 150,000.00	\$ 150,000					
Means of Funding			Description and Scope				
Funding Source		Amount	Using existing GIS data and mapping, develop a stormwater model for the drainage system serving the property. Work will include validation of data and calibration of the model; development of various scenarios for improved system performance to reduce flooding during storm events, and recommendations for inclusion in the FMA's Capital Improvement Program. The recommendation and report will also include the required flood management plan as part of the Coastal PMP grant recieved from the USACOE.				
OEA							
Schedule of Activities							
Project Activity	From - To	Amount					
Parcelization District Key			<p align="center">Purpose and Need</p> <p>The FMA currently does not have a stormwater model to determine recommended improvements to the system.</p>				
							
Project Map			<p align="center">History and Current Status</p>				
							

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 8-009A **HVAC Replacements (B134)**

Project Type: Building Maintenance **Parcelization District:** A, B-8, C-2 & E

Programmed Funding

Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Construction	\$ 200,000.00	\$ 200,000.00					

Means of Funding

Funding Source	Amount
DGS	\$ 200,000

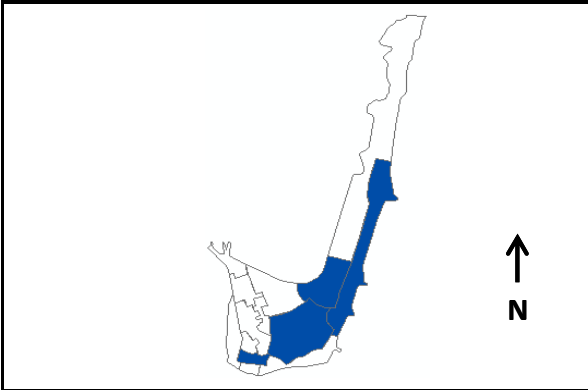
Description and Scope

Replace HVAC units at building 134 as outlined in the 2014 Building Assessment Report

Schedule of Activities

Project Activity	From - To	Amount

Parcelization District Key



Project Map



Purpose and Need

Refer to 2014 Building Assessment Report.

History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 8-018		Repair/Replace Roof (Multiple Buildings)					
Project Type:		Parcelization District:					
Building Maintenance		B-7, B-9 & E					
Programmed Funding							
Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Construction	\$ 363,705.00	\$ 363,705.00					

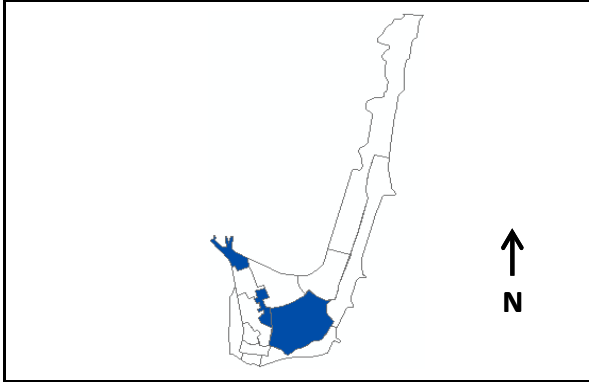
Means of Funding	
Funding Source	Amount
MR	\$ 363,705

Description and Scope

Design and Replace the roofs on the following buildings as recommended by the 2015 Roof Assessment Study and OPCRES:
Buildings 24, 59 and 87.

Schedule of Activities		
Project Activity	From - To	Amount

Parcelization District Key



Project Map



Purpose and Need

Structural damage to the roof requiring replacement.

History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

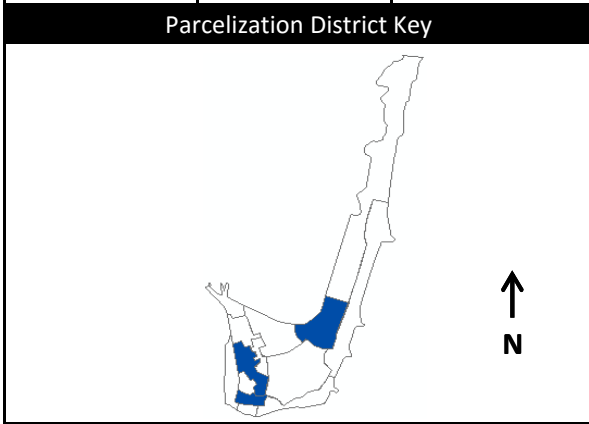
Project No.: 8-020		Replace Roof (Multiple Buildings)			
Project Type:		Parcelization District:			
Building Maintenance		B-5, B-8 & C-2			
Programmed Funding					
Status	Appropriated to Date	FY 2016 Budget	Non-Appropriated Programmed CIP Funding		
			FY 2017	FY 2018	FY 2019
On Hold				\$ 1,055,146	

Means of Funding	
Funding Source	Amount
VPBA	\$ 1,055,146

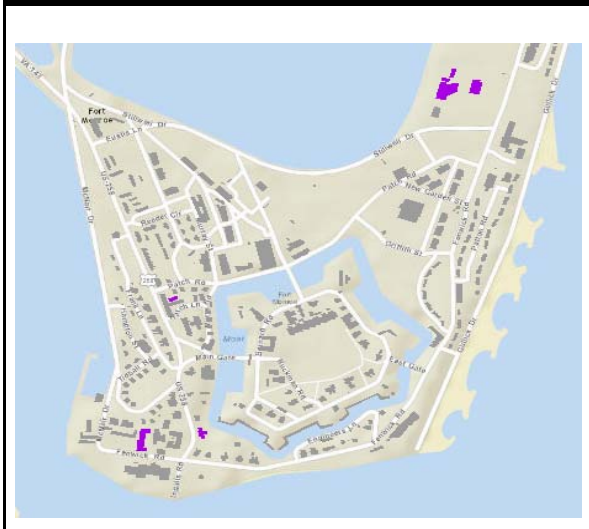
Description and Scope

Design and Replace the roofs on the following buildings as recommended by the 2015 Roof Assessment Study and OPCRES: B138, B161, B201, B218, B27a.

Schedule of Activities		
Project Activity	From - To	Amount



Project Map



Purpose and Need

Structural damage to the roof requiring replacement.

History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 8-021		Replace Roof (B171)						
Project Type:		Parcelization District:						
Building Maintenance		B-5						
Programmed Funding								
Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding					
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	
		\$ 327,565.00						

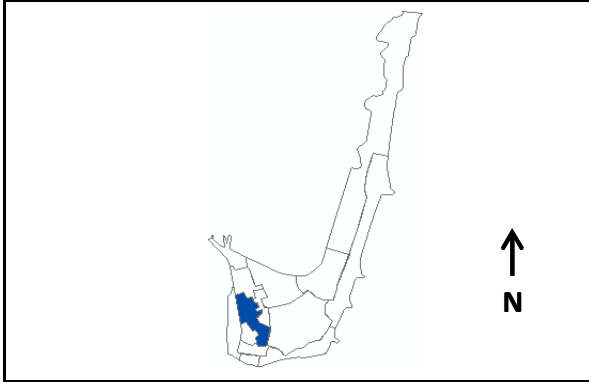
Means of Funding	
Funding Source	Amount
VPBA	\$ 327,565

Schedule of Activities		
Project Activity	From - To	Amount

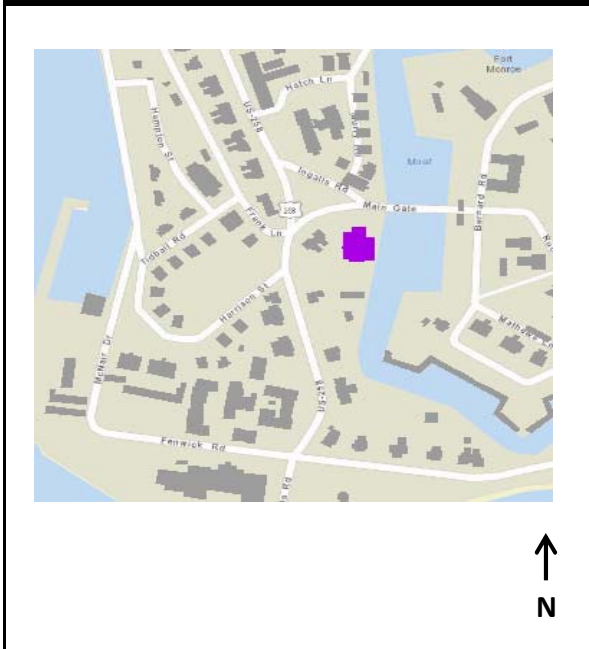
Description and Scope

Design and Replace the roofs on the following buildings as recommended by the 2015 Roof Assessment Study and OPCRES: B171.

Parcelization District Key



Project Map



Purpose and Need

Structural damage to the roof requiring replacement.

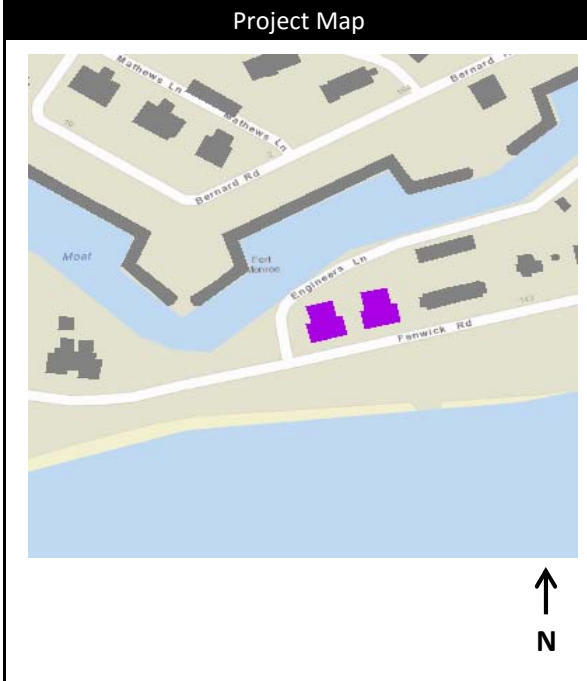
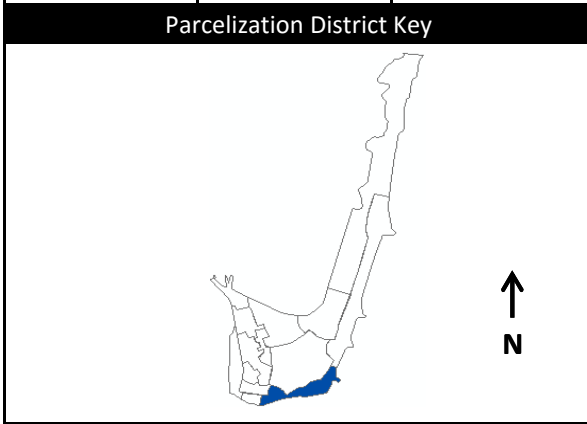
History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 8-022			Roof/railing replacements (Multiple Buildings)				
Project Type:			Parcelization District:				
Building Maintenance			B-3				
Programmed Funding							
Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Design	\$ 60,000.00	\$ 60,000.00	\$ 60,000	\$ 325,000			

Means of Funding		Amount	Description and Scope
Funding Source			
DGS		\$ 385,000	Replace railing and roof repairs for the following buildings as outlined in the 2015 Roof Assessment Report: B141 and B142

Schedule of Activities		
Project Activity	From - To	Amount



Description and Scope

Replace railing and roof repairs for the following buildings as outlined in the 2015 Roof Assessment Report: B141 and B142

Purpose and Need

Structural damage to the roof and railings requiring replacement.

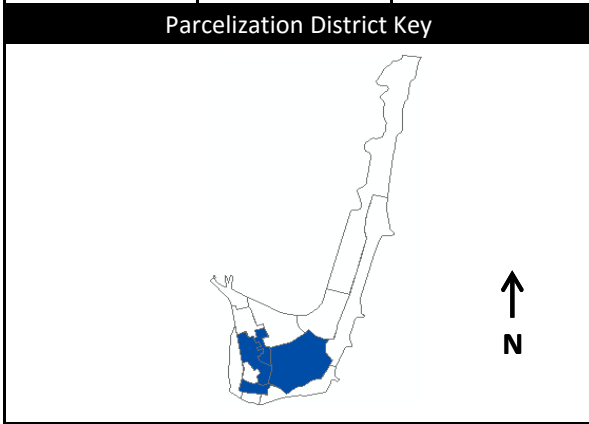
History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

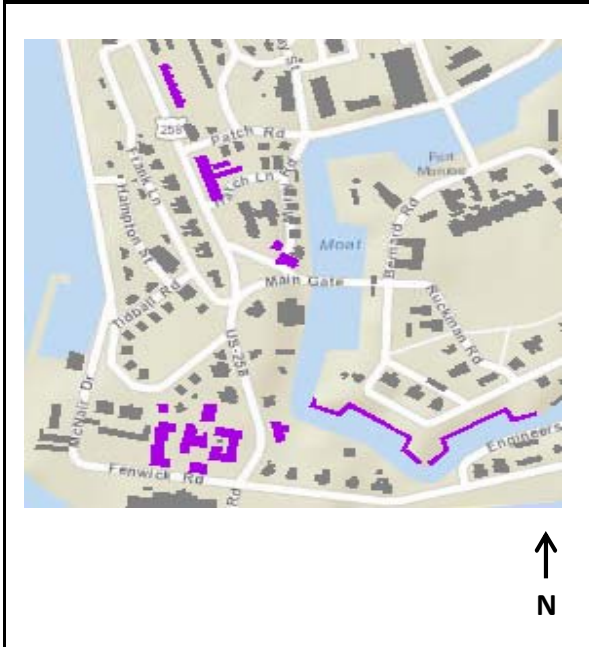
Project No.: 8-024		Building repairs for non-residential				
Project Type:		Parcelization District:				
Building Maintenance		B-5, B-8, B-9 & E				
Programmed Funding						
Status	Appropriated to Date	FY 2016 Budget	Non-Appropriated Programmed CIP Funding			
			FY 2017	FY 2018	FY 2019	FY 2020
			\$ 255,000			

Means of Funding		Description and Scope				
Funding Source	Amount	Repairs to various commercial buildings as outlined in the 2014 Building Assessment Report. Buildings include 5, 10, 27, 27A, 77 and 82.				
VPBA	\$ 255,000					

Schedule of Activities		
Project Activity	From - To	Amount



Project Map



Repairs to various commercial buildings as outlined in the 2014 Building Assessment Report. Buildings include 5, 10, 27, 27A, 77 and 82.

Purpose and Need

Refer to 2014 Building Assessment Report.

History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

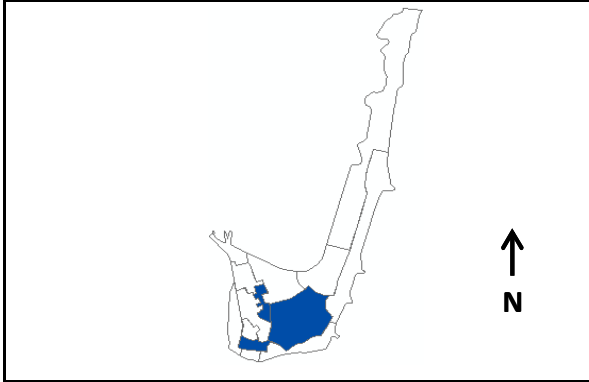
Project No.: 8-025			HVAC Repairs (Multiple Buildings)				
Project Type:			Parcelization District:				
Building Maintenance			B-8, B-9 & E				
Programmed Funding							
Status	Appropriated to Date	FY 2016 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Design				\$ 140,100			

Means of Funding	
Funding Source	Amount
VPBA	\$ 140,100

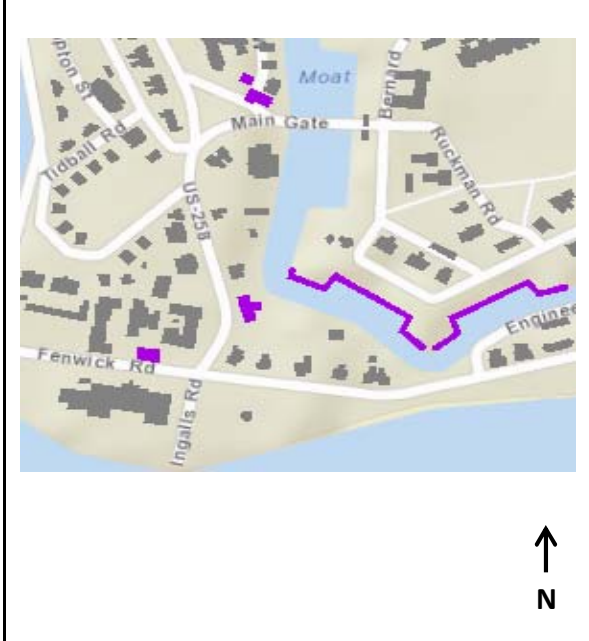
Description and Scope
 Replace HVAC units on the following buildings as outlined in the 2014 Building Assessment Report - B77 & B117.

Schedule of Activities		
Project Activity	From - To	Amount

Parcelization District Key



Project Map



Purpose and Need

Refer to 2014 Building Assessment Report.

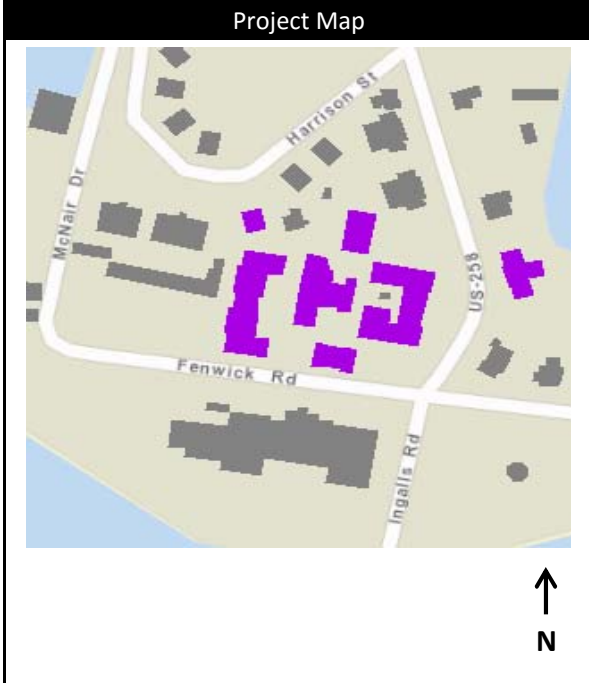
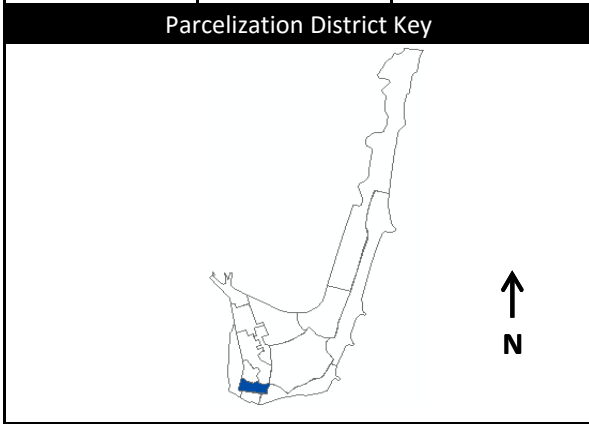
History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 8-026			Structural Repairs to Buildings				
Project Type:			Parcelization District:				
Building Maintenance			B-8				
Programmed Funding							
Status	Appropriated to Date	FY 2016 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Design					\$ 218,000	\$ 2,178,200	

Means of Funding			Description and Scope				
Funding Source	Amount		Various Structural Repairs to buildings as outlined in the 2014 Building Assessment Report. Buildings include B37, B116, B133, B161, and B163.				
VPBA	\$ 2,396,200						

Schedule of Activities		
Project Activity	From - To	Amount



Various Structural Repairs to buildings as outlined in the 2014 Building Assessment Report. Buildings include B37, B116, B133, B161, and B163.

Purpose and Need

Refer to 2014 Building Assessment Report.

History and Current Status

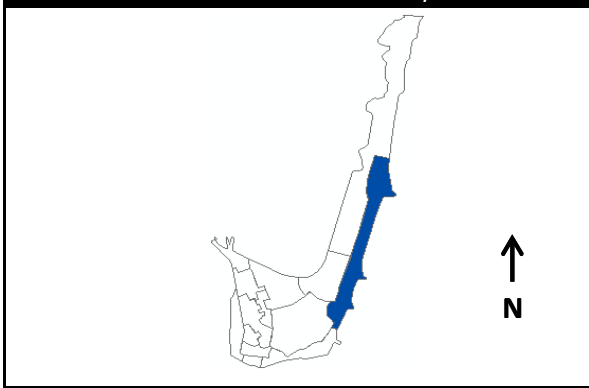
Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 8-027			Building 96 Roof & HVAC Replacement				
Project Type:			Parcelization District:				
Building Maintenance			A				
Programmed Funding							
Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
	\$ 776,000.00	\$ 776,000.00					

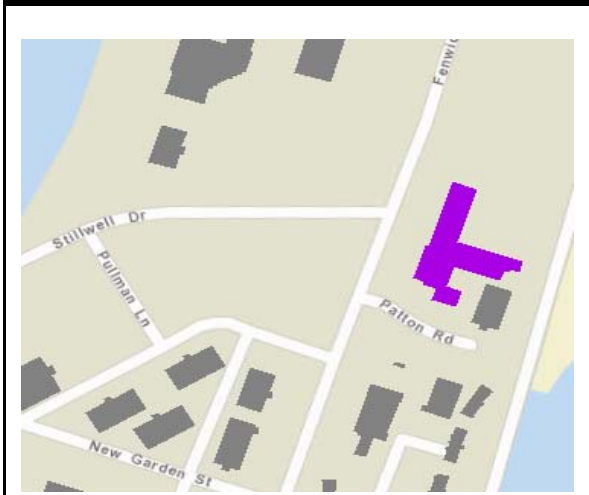
Means of Funding	
Funding Source	Amount
DGS	\$ 776,000

Schedule of Activities		
Project Activity	From - To	Amount

Parcelization District Key



Project Map



Description and Scope

Building 96 roof was assessed by BJU and Roof Consulting Services (RCS) in July 2013. The roof consists of two roof assemblies – Built Up (BUR) and Flexible sheet single ply membrane roofing and is further separated by sections of varying compositions – Areas A & D are Elastomeric coating over Gypsum Form Board; Areas B & E is Elastomeric coating over Plywood Deck; Area C is Elastomeric coating over Metal Deck; Area F is Gravel over Plywood Deck. The BJU/RCS recommendation was to replace Areas A-E in 2017 and Area F in 2024. We have found this roof to be in almost total failure and in some areas there is concern with structural safety. Using a base estimate of \$14.00 psf the cost of replacing the total roof would be

Roof Replacement- \$400,484.00
 Mechanical Replacement/Upgrade - \$ 220,000
 Soft Costs (Permitting, A/E Design, etc..) - \$155,121
Total Cost - \$ 775,605.00

Purpose and Need

B96 has nine (9) Trane Voyager package rooftop air conditioners for cooling with overhead duct system. Heating is supplied by a hot water loop heating coils in the ducts with a 1 to 1 ratio with package units. Hot water is provided by two (2) gas-fired boilers located in the mechanical room. Rooms with high heat loads are served by direct-expansion ductless mini-splits air conditioners with condensers located at exterior grade.

BJU and PHC have assessed these units as being in poor condition and are past their life expectancy as they are 12-15 years old and show significant damage from corrosion and pitting from the salt water breeze. The boilers are in fair condition, but are also past their life expectancy as they are 17 years old. PHC recommends replacing the

History and Current Status

Building 96 is a single – story masonry structure built in 1958 as a post school. After the school was closed in 1978 the building was turned over to the Army and converted for the post Education Center and in 1994 the use was changed again to be the headquarters for the Joint Warfighting Center. In 2014 after the property was turned over to the Fort Monroe Authority, Ballou Justice Upton Architects (BJU) were contracted to complete a full building inspection. The following assessment is based on this report as well as the operational history encountered by the FMA mechanical vendor, Professional Heating and Cooling (PHC).

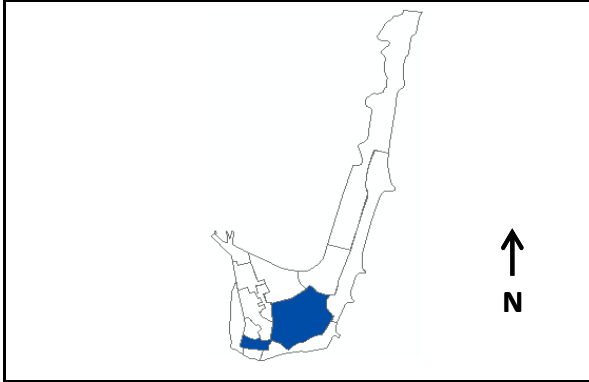
Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 8-028		Replace Roof (Multiple Buildings)							
Project Type:		Parcelization District:							
Building Maintenance		B-8 & E							
Programmed Funding									
Status	Appropriated to Date	FY 2016 Budget	Non-Appropriated Programmed CIP Funding						
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021		
									349550

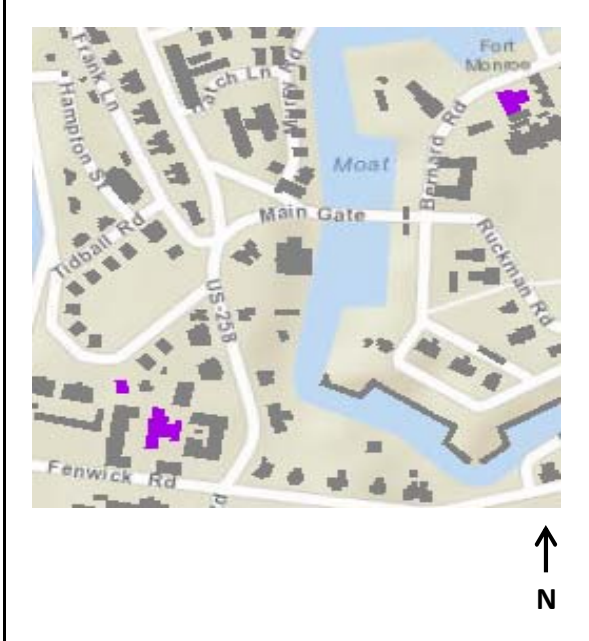
Means of Funding		Description and Scope				
Funding Source	Amount	Replace roof on Buildings 27 and 105 as outlined in the 2015 Roof Assessment Report.				
VPBA	\$ 349,550					

Schedule of Activities		
Project Activity	From - To	Amount

Parcelization District Key



Project Map



Replace roof on Buildings 27 and 105 as outlined in the 2015 Roof Assessment Report.

Purpose and Need

Refer to 2015 Roof Assessment Report

History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 8-029 **Building Exterior Stair/Ladder Assessment**

Project Type:

Parcelization District:

Building Maintenance

All

Programmed Funding

Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
	\$75,000	\$75,000					

Means of Funding

Description and Scope

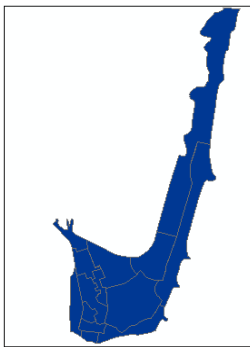
Funding Source	Amount
OEA	\$ 75,000

Perform a condition assessment of all building exterior stairways and ladders and prepare a report recommending repair or removal according to applicable building and fire codes.

Schedule of Activities

Project Activity	From - To	Amount

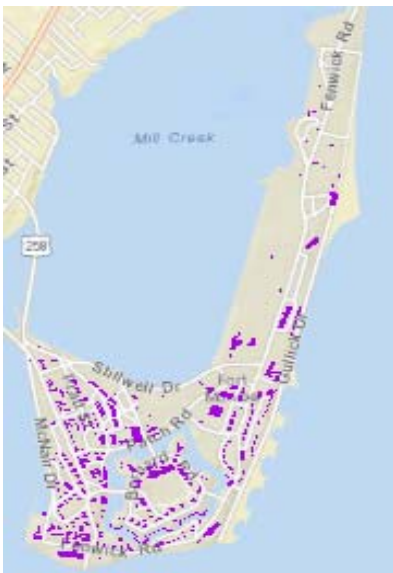
Parcelization District Key



Purpose and Need

To reduce liability of existing stair/ladder systems

Project Map



History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 8-030 **Visitors Center (B138)**

Project Type:

Parcelization District:

Building Maintenance

All

Programmed Funding

Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
	\$575,000	\$575,000		\$ 4,675,000			

Means of Funding

Description and Scope

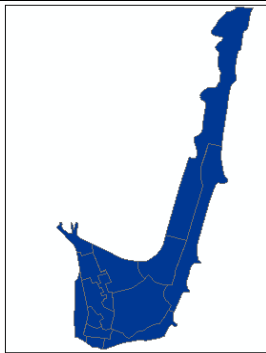
Funding Source	Amount
VBPA	\$ 5,250,000

Renovations and expansion of Building 138 for the purpose of a Visitor's Center for Fort Monroe.

Schedule of Activities

Project Activity	From - To	Amount

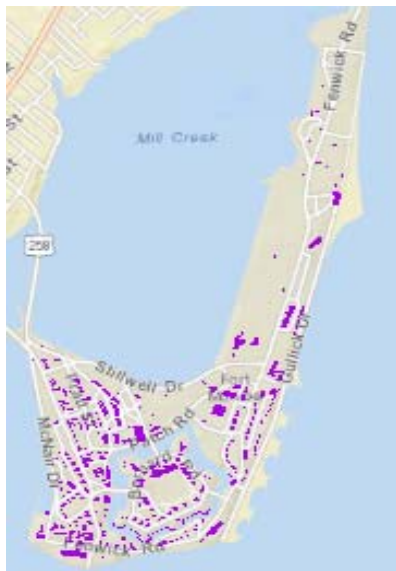
Parcelization District Key



Purpose and Need

Provide a visitor's center for the property

Project Map



History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 8-031 **Structural Repairs to B77**

Project Type: Building Maintenance **Parcelization District:** All

Building Maintenance **All**

Programmed Funding

Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
	\$50,000	\$50,000	\$ 50,000				

Means of Funding

Funding Source	Amount
Maintenance Reserve	\$ 50,000

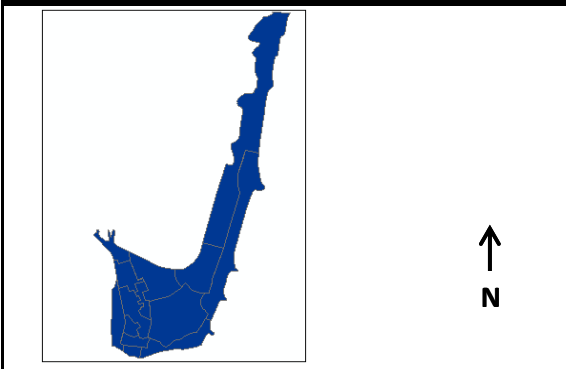
Description and Scope

Perform structural repairs to Building 77 as recommended in the recent Building Assessment program.

Schedule of Activities

Project Activity	From - To	Amount

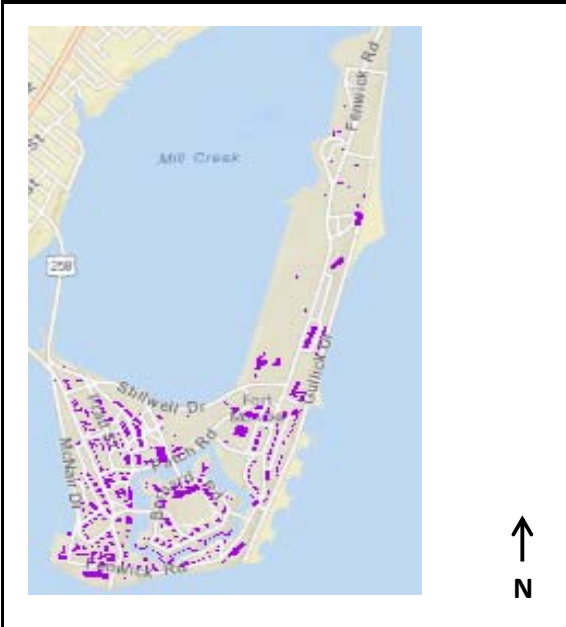
Parcelization District Key



Purpose and Need

Structural Repairs to B77

Project Map



History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 8-032 Roof Repair/Replace (B9)

Project Type: Building Maintenance Parcelization District: All

Building Maintenance All

Programmed Funding

Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
				\$ 292,000			

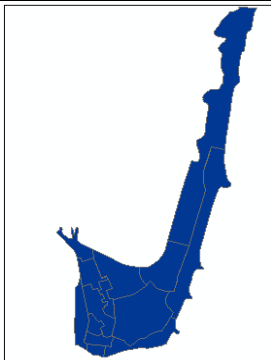
Means of Funding Description and Scope

Funding Source	Amount	Repair/Replace the roof on Building B9 in accordance with the Roof Assessment Report.
VPBA	\$ 292,000	

Schedule of Activities

Project Activity	From - To	Amount

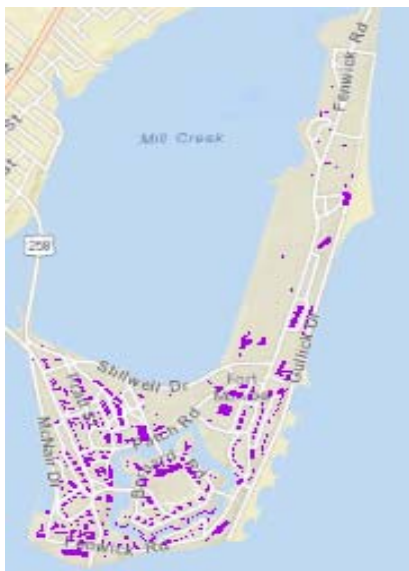
Parcelization District Key



Purpose and Need

Roof in poor condition

Project Map



History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 9-001 **Utility Master Plan Phase 1**

Project Type: Building Maintenance **Parcelization District:** All

Building Maintenance **All**

Programmed Funding

Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
					\$ 300,000	\$ 3,500,000	

Means of Funding

Funding Source	Amount
VBPA	\$ 3,800,000

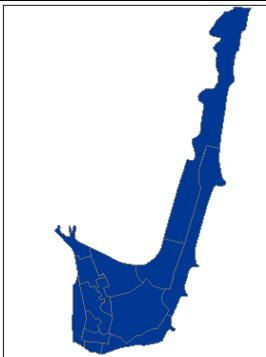
Description and Scope

Implementation of the first phase of the Utility Master Plan. Includes replacement of sewer, water, gas, storm drainage and roadway repairs.

Schedule of Activities

Project Activity	From - To	Amount

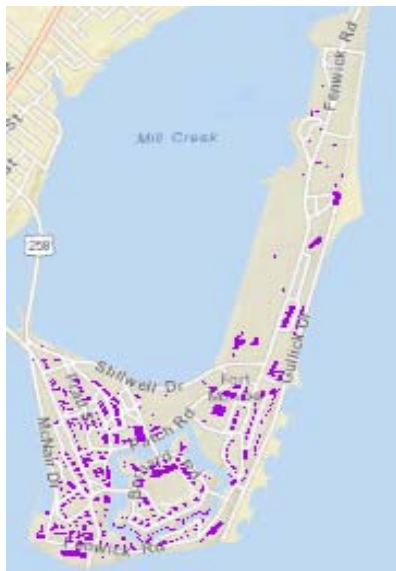
Parcelization District Key



Purpose and Need

Infrastructure improvements as planned for the allocation of assets to local utility providers.

Project Map



History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 9-002 **Utility Master Plan Phase 2**

Project Type: Building Maintenance **Parcelization District:** All

Building Maintenance **All**

Programmed Funding

Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
						\$ 300,000	3,500,000

Means of Funding

Funding Source	Amount
VBPA	\$ 3,800,000

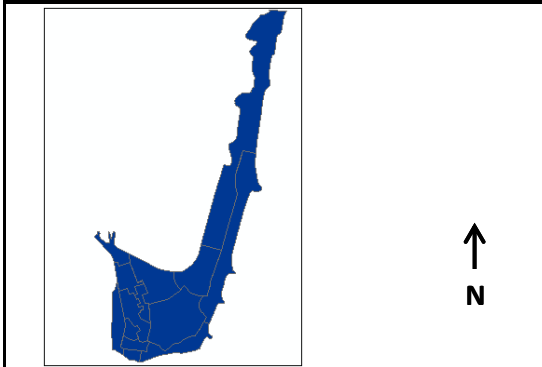
Description and Scope

Implementation of the second phase of the Utility Master Plan. Includes replacement of sewer, water, gas, storm drainage and roadway repairs.

Schedule of Activities

Project Activity	From - To	Amount

Parcelization District Key



Purpose and Need

Infrastructure improvements as planned for the allocation of assets to local utility providers.

Project Map



History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022

Project No.: 9-003 Utility Master Plan Phase 3

Project Type: Building Maintenance Parcelization District: All

Building Maintenance All

Programmed Funding

Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding				
			FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
						\$ 300,000	3,500,000

Means of Funding

Funding Source	Amount
VBPA	\$ 3,800,000

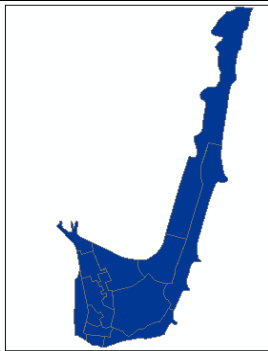
Description and Scope

Implementation of the third phase of the Utility Master Plan. Includes replacement of sewer, water, gas, storm drainage and roadway repairs.

Schedule of Activities

Project Activity	From - To	Amount

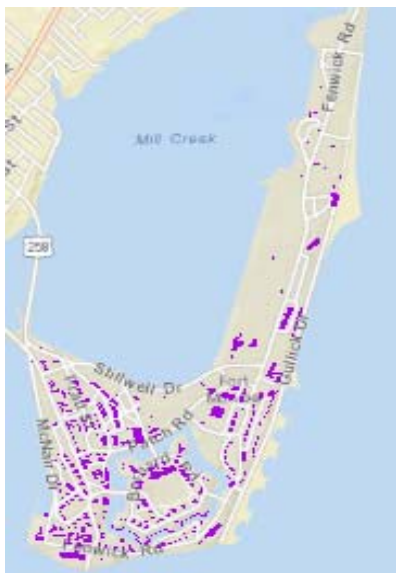
Parcelization District Key



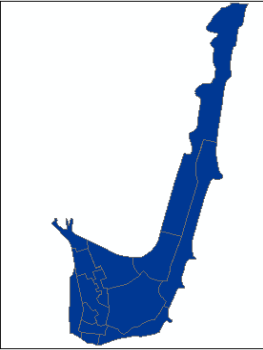
Purpose and Need

Infrastructure improvements as planned for the allocation of assets to local utility providers.

Project Map



History and Current Status

Fort Monroe Capital Improvement Plan - Fiscal Years 2017 through 2022						
Project No.: 9-004			Utility Master Plan Phase 4			
Project Type:			Parcelization District:			
Building Maintenance			All			
Programmed Funding						
Status	Appropriated to Date	FY 2017 Budget	Non-Appropriated Programmed CIP Funding			
			FY 2018	FY 2019	FY 2020	FY 2021
						300,000
Means of Funding		Description and Scope				
Funding Source	Amount	Implementation of the fourth phase of the Utility Master Plan. Includes replacement of sewer, water, gas, storm drainage and roadway repairs.				
VBPA	\$ 300,000					
Schedule of Activities						
Project Activity	From - To	Amount				
Parcelization District Key			Purpose and Need			
						
Project Map			History and Current Status			
