

Initial Real Property Cost Analysis

An initial analysis of GNRA real property using NPS and DoD cost analysis and prior year NPS financial execution

16 May 2013

Version of 16 May 2013

Cost Working Group

- Members:
 - Shawn Welch
 - Mike Holenstein
 - Guy Hembling
 - NPS Support – Pete McCarthy
- Purpose - Provide detailed information and cost analysis to support Fort Hancock 21st Century Committee fact finding, analysis, deliberations and recommendations

Introduction

- Background –
 - The Fort Hancock Historic District (FHHD) is a subset of the entire former Army defense installation of Fort Hancock which is currently known as “Sandy Hook Unit of Gateway National Recreation Area (GNRA)”.
 - The Historic District contains the vast majority of the building structures that gave life, operating capability and command and control for the total of Fort Hancock and more specifically the seacoast gun and later NIKE missile defenses for the harbor and city of New York and surrounding areas.
 - The Fort Hancock 21st Century Federal Advisory Committee has been chartered by NPS via appointment by the Secretary of the Interior to develop recommendations for NPS to consider for the future reuse of the majority of the FHHD main post cantonment buildings.
- Baseline Assumption – Initial restoration and modernization investment is required to attract and retain future investment and operating capability for the FHHD.

Fort Hancock Historic District

Facts

- The requirement to preserve the buildings for future generations is part of the overall Historic District designation under the National Historic Preservation Act of 1966, As amended through 2006 (NHPA).
- The GMP, now under preparation, will likely call for preservation and use of the structures in the nationally significant FHHD
- The former Army installation “Fort Hancock” was turned over to the NPS in 1976.
 - The vast majority of the buildings have not received routine maintenance and repair since 1976
 - There is no reliable High Speed Internet capability on Fort Hancock
 - Utilities overall require upgrade to 21st Century standards
- NPS manages GNRA as one park for planning, budgeting and execution purposes

Fort Hancock Historic District

Assumptions

- The buildings within the historic district will require restoration to a basic operational level for an expected category of use (projected use for analysis only) in order to set conditions for potential partners to enter into agreements with NPS to operate and maintain the FHHD historic structures.
- All roofs must be replaced, windows, walls and eaves sealed, and general utilities upgrades applied prior to use for any proposed purpose
- Without basic restoration and limited modernization, it will be nearly impossible to secure potential investment partners.
- Most initial restoration funding must be secured from within federal government sources.
- An analysis by GNRA unit of the real property inventory (RPI) using congressionally accepted DoD and Army cost factors, NPS cost estimates (using MAXIMO) and five year budget and execution can provide insight that can lead to the development of viable Courses of Action to resource restoration and limited modernization of the real property within the FHHD.

Fort Hancock Historic District

Summary of Approach and Methods

- Provide detailed information and analysis to support Fort Hancock 21st Century Committee fact finding, analysis, deliberations and recommendations
- Show graphically and quantitatively:
 - How FHHD is nested within greater Fort Hancock/Sandy Hook
 - How the total Fort Hancock/Sandy Hook compares to the other units of GNRA
- Identify basic costs for restoring and operating FHHD using:
 - NPS generated costs
 - Department of Defense and US Army facilities cost factors applied as possible to NPS real property inventory to generate additional cost analysis information
- Identify past expenditure trends by NPS w/in GNRA and compare those with DoD/Army cost analysis.
- Identify current leases, revenue stream, and responsibilities between NPS and partners.
- Provide recommendations to Full Committee for inclusion in the recommendations to NPS by the full committee.

Fort Hancock Historic District

Summary of Initial Analysis

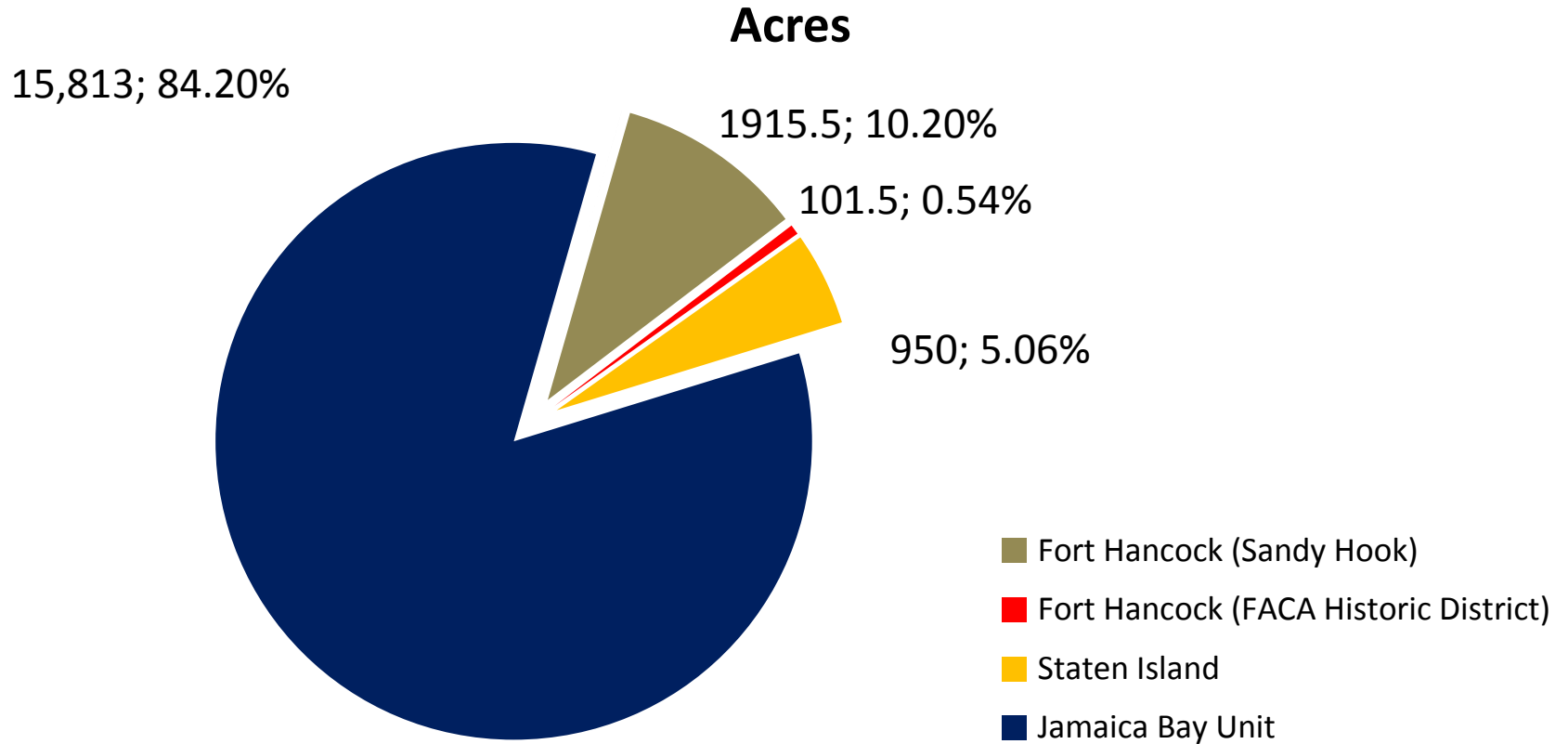
- Basic cost data table built – can be adjusted and updated to support and shape recommendations of other working groups and sub-committees
 - Real property holdings for GNRA are the basic data set for the cost data table
- Detailed 3 to 5 year NPS financial execution has been provided and a comparative analysis is underway

INITIAL FINDINGS:

- Must bring the buildings to a minimal level of stabilization and fitness for intended purpose to enable immediate occupancy and use
- Must develop the outline for a functioning multi-use cantonment area (village) that has basic services and amenities to support prospective users and visitors
- Initial analysis and data tables provide on following slides

Continue to refine to support other committee recommendations

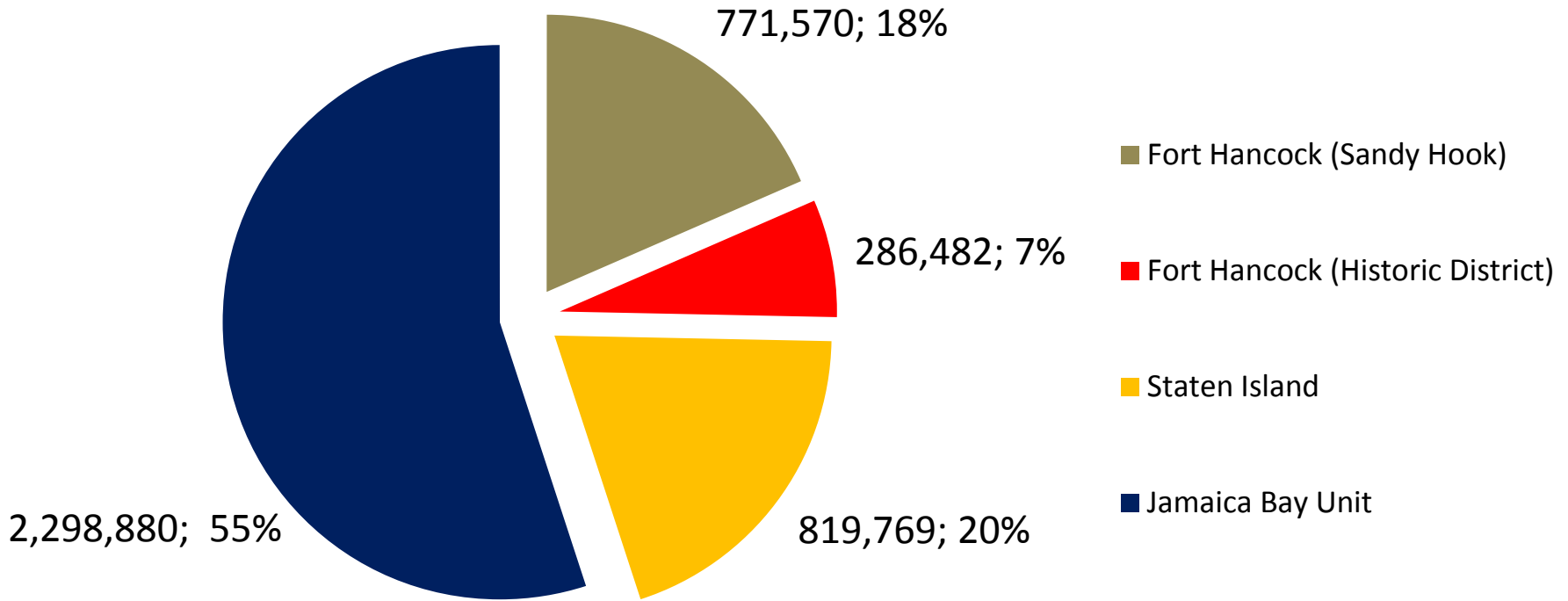
Gateway National Recreation Area



Sources: All acreage data from NPS, revised 20 May 2013

Gateway National Recreation Area

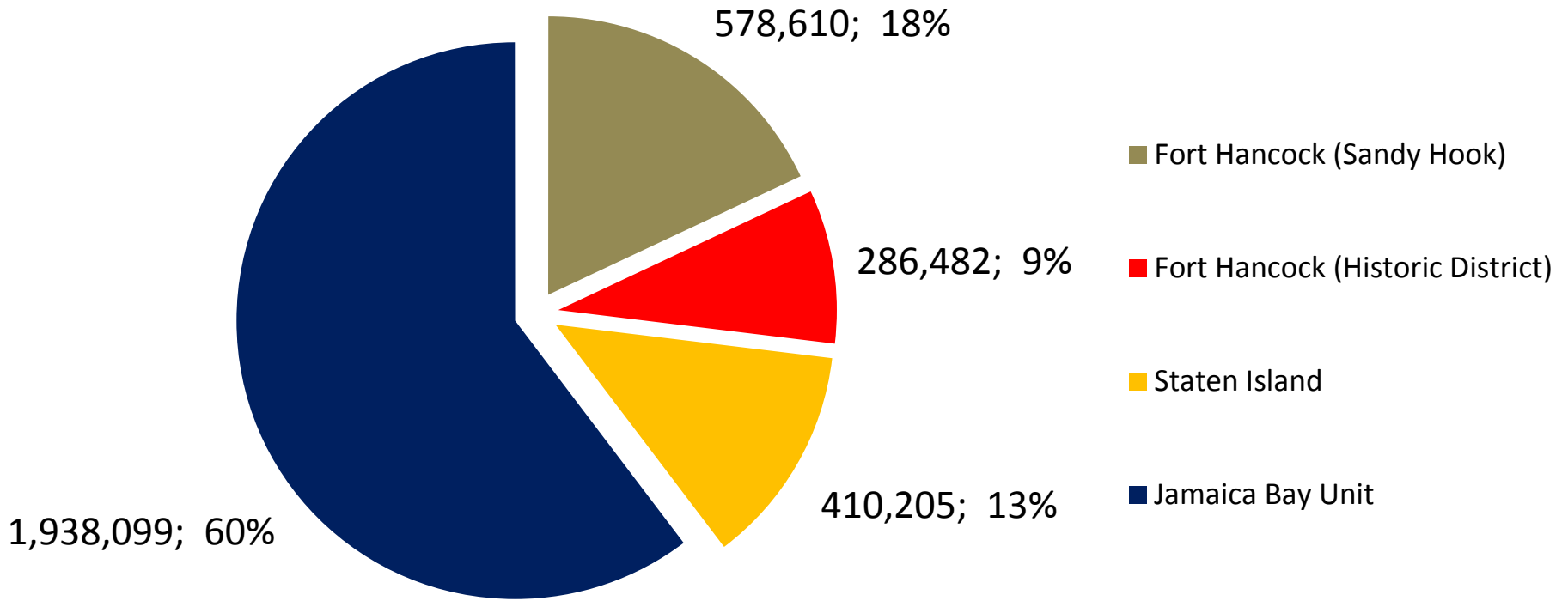
Total Square Footage



Sources: From GNRA real property inventory as recorded in MAXIMO and provided by Public Works office.

Gateway National Recreation Area

Occupied/In Use Square Footage



Sources: From GNRA real property inventory as recorded in MAXIMO and provided by Public Works office.

Fort Hancock Historic District is currently unoccupied, but is considered occupied for this analysis.

Costs of GNRA By Unit

All GNRA real property records with DoD/Army cost factors applied. Full requirement assumes 100% standards are met – seldom achieved even in the most lavish funding conditions. All structures within GNRA were costed via OSD categories (FACs) that were assigned *hypothetically* with the *purpose of facilitating costing only*. Different facility types (FACs) when proposed by the FH21 Committee will yield different costs.

GNRA w/FHHD	Count of Records	Sum of FH21 UM	Sum of DM	Sum of CSDM	Sum of Est. Army Restoration Cost MAX w/Hist CF (FY15) - no condition - occupied only	Sum of Est. Army Restoration Cost MAX w/Hist CF (FY15) - Condition For Occupied	Sum of Est. Army Restoration Std Dev Cost w/Hist CF (FY15)	Sum of Est Cost Facilities Sustainment (Maint & Repair)	Sum of Annual Cost - Facility Operations
Fort Hancock - FHHD	35	286,482	\$29,668,970	\$2,492,677	\$25,926,908	\$21,970,720	\$5,765,654	\$2,042,582	\$2,227,255
Fort Hancock - Sandy Hook	336	2,228,484	\$50,138,325	\$7,774,769	\$56,023,865	\$30,053,370	\$17,346,288	\$8,578,886	\$2,347,944
Jamaica Bay	620	4,114,988	\$467,563,304	\$59,310,280	\$102,800,843	\$50,105,604	\$63,161,044	\$25,770,964	\$11,909,190
Staten Island	334	1,335,402	\$82,649,720	\$16,626,225	\$55,674,294	\$26,868,397	\$15,224,919	\$8,095,034	\$1,886,868
Grand Total	1325	7,965,356	\$630,020,320	\$86,203,950	\$240,425,910	\$128,998,092	\$101,497,904	\$44,487,467	\$18,371,257

Definitions:

DM (Deferred Maintenance) and CSDM are generated by NPS MAXIMO.

Sum of Est. Army Restoration Cost MAX w/Hist CF (FY15) - no condition - occupied only – applies 15% of total cost to unoccupied facilities, 100% to occupied buildings. This projects an average **ONE TIME** cost for full facility restoration assuming the worst conditions are present across the building’s components.

Sum of Est. Army Restoration Cost MAX w/Hist CF (FY15) - Condition For Occupied bldgs only = same as above and also applies 100% for Facility Condition Index “Poor” and “Serious”; 50% for “Fair”; 0% for “good”

Est. Army Restoration Std Dev Cost w/Hist CF (FY15) – applies cost to occupied buildings only. This is a period improvement cost factor and is the standard deviation across cost factors for all building components.

Est Cost Facilities Sustainment (Maint & Repair) – annual recurring routine maintenance and repair for existing real property inventory to maintain it in an operable condition throughout its lifecycle.

Annual Cost - Facility Operations – utilities, real property services, trash collection, pest control

FHHD Costs by *Example* OSD Facility Type

All 35 structures under consideration by FH21 Committee with OSD categories (FACs) assigned *hypothetically* with the *purpose of facilitating costing only*. Different facility types (FACs) will yield different costs.

FH21 Proposed OSD FAC Definition	Count of Records	Sum of FH21 UM	Sum of DM	Sum of CSDM	Sum of Est. Army Restoration Cost MAX w/Hist CF (FY15) - no condition - occupied only	Sum of Est. Army Restoration Cost MAX w/Hist CF (FY15) - Condition For Occupied	Sum of Est. Army Restoration Std Dev Cost w/Hist CF (FY15)	Sum of Est. Cost Facilities Sustainment (Maint & Repair)	Sum of Annual Cost - Facility Operations
General Administrative Building	12	95,085	\$12,612,194	\$1,151,538	\$5,094,540	\$5,081,145	\$1,420,077	\$542,913	\$534,172
Exchange Eating Facility	3	20,028	\$3,265,291	\$265,636	\$1,089,704	\$1,089,704	\$309,296	\$223,132	\$721,464
Exchange Sales Facility	1	1,325	\$255,542	\$43,519	\$62,851	\$62,851	\$17,024	\$7,961	\$4,197
Indoor Physical Fitness Facility	2	26,236	\$89,214	\$0	\$963,268	\$134,856	\$299,203	\$136,335	\$90,100
Museum	2	9,833	\$1,369,773	\$506,002	\$276,627	\$276,627	\$77,108	\$59,489	\$51,302
Rec Lodging	9	70,140	\$4,251,422	\$179,162	\$9,653,859	\$8,123,611	\$1,907,193	\$447,927	\$422,355
Trans Lodging	6	63,835	\$7,825,534	\$346,820	\$8,786,058	\$7,201,925	\$1,735,752	\$624,827	\$403,665
Grand Total	35	286,482	\$29,668,970	\$2,492,677	\$25,926,908	\$21,970,720	\$5,765,654	\$2,042,582	\$2,227,255

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Est Cost Facilities Sustainment (Maint & Repair) – annual recurring routine maintenance and repair for existing real property inventory to maintain it in an operable condition throughout its lifecycle.

Annual Cost - Facility Operations – utilities, real property services, trash collection, pest control

FHHD Costs by Building and *Example* OSD Facility Type

FH21 Proposed OSD FAC Definition	Bldg #	Sum of FH21 UM	Sum of DM	Sum of CSDM	Sum of Est. Army Restoration Cost MAX w/Hist CF (FY 15) - no condition -	Sum of Est. Army Restoration Cost MAX w/Hist CF (FY 15) - Condition For Occupied bldgs only	Sum of Est. Army Restoration Std Dev Cost w/Hist CF (FY 15)	Sum of Est Cost Facilities Sustainment (Maint & Repair)	Sum of Annual Cost - Facility Operations
General Administrative Building	15	8,556	\$500,059	\$0	\$458,420	\$458,420	\$127,782	\$48,853	\$48,066
	16	7,412	\$392,589	\$1,907	\$397,126	\$397,126	\$110,697	\$42,321	\$41,639
	17	7,412	\$434,339	\$12,338	\$397,126	\$397,126	\$110,697	\$42,321	\$41,639
	20	2,000	\$133,146	\$5,968	\$107,158	\$107,158	\$29,870	\$11,420	\$11,236
	23	17,145	\$1,597,189	\$305,692	\$918,609	\$918,609	\$256,057	\$97,894	\$96,318
	24	17,116	\$1,532,883	\$297,161	\$917,055	\$917,055	\$255,624	\$97,728	\$96,155
	25	17,145	\$6,304,528	\$90,904	\$918,609	\$918,609	\$256,057	\$97,894	\$96,318
	33	2,740	\$496,674	\$53,199	\$146,806	\$146,806	\$40,921	\$15,645	\$15,393
	36	7,629	\$523,027	\$215,983	\$408,753	\$408,753	\$113,938	\$43,560	\$42,858
	53	6,180	\$481,922	\$2,311	\$331,117	\$331,117	\$92,297	\$35,286	\$34,718
76	1,250	\$215,838	\$166,074	\$66,974	\$66,974	\$18,669	\$7,137	\$7,022	
79	500	\$0	\$0	\$0	\$26,789	\$13,395	\$7,467	\$2,855	\$2,809
Exchange Eating Facility	55	6,676	\$1,246,838	\$13,072	\$363,235	\$363,235	\$103,099	\$74,377	\$240,488
	56	6,676	\$809,658	\$64,983	\$363,235	\$363,235	\$103,099	\$74,377	\$240,488
	57	6,676	\$1,208,795	\$187,581	\$363,235	\$363,235	\$103,099	\$74,377	\$240,488
Exchange Sales Facility	60	1,325	\$255,542	\$43,519	\$62,851	\$62,851	\$17,024	\$7,961	\$4,197
Indoor Physical Fitness Facility	40	18,890	\$89,214	\$0	\$693,556	\$0	\$215,427	\$88,691	\$63,938
	70	7,346	\$0	\$0	\$269,712	\$134,856	\$83,776	\$47,644	\$26,162
Museum	28	4,670	\$699,857	\$145,373	\$0	\$0	\$0	\$30,009	\$22,297
	47	5,163	\$669,915	\$360,629	\$276,627	\$276,627	\$77,108	\$29,479	\$29,005
Rec Lodging	3	7,412	\$377,626	\$6,366	\$1,020,165	\$1,020,165	\$201,541	\$47,334	\$44,632
	4	7,412	\$383,026	\$0	\$1,020,165	\$1,020,165	\$201,541	\$47,334	\$44,632
	5	7,412	\$340,165	\$105,436	\$1,020,165	\$510,083	\$201,541	\$47,334	\$44,632
	6	7,412	\$398,830	\$5,271	\$1,020,165	\$1,020,165	\$201,541	\$47,334	\$44,632
	7	7,412	\$335,027	\$7,191	\$1,020,165	\$510,083	\$201,541	\$47,334	\$44,632
	8	7,412	\$357,081	\$3,569	\$1,020,165	\$510,083	\$201,541	\$47,334	\$44,632
	9	8,556	\$440,243	\$0	\$1,177,622	\$1,177,622	\$232,648	\$54,640	\$51,521
	10	8,556	\$769,844	\$5,584	\$1,177,622	\$1,177,622	\$232,648	\$54,640	\$51,521
	11	8,556	\$849,580	\$45,747	\$1,177,622	\$1,177,622	\$232,648	\$54,640	\$51,521
	Trans Lodging	12	10,724	\$1,281,775	\$5,149	\$1,476,019	\$1,476,019	\$291,599	\$104,968
13		8,556	\$331,885	\$18,866	\$1,177,622	\$588,811	\$232,648	\$83,748	\$54,105
14		8,556	\$430,234	\$8,081	\$1,177,622	\$1,177,622	\$232,648	\$83,748	\$54,105
27		10,303	\$476,024	\$135,067	\$1,418,074	\$709,037	\$280,151	\$100,847	\$65,152
80		2,080	\$0	\$0	\$286,285	\$0	\$56,558	\$20,359	\$13,153
114		23,616	\$5,305,616	\$179,658	\$3,250,435	\$3,250,435	\$642,148	\$231,157	\$149,338
Grand Total		286,482	\$29,668,970	\$2,492,677	\$25,926,908	\$21,970,720	\$5,765,654	\$2,042,582	\$2,227,255

Prior Year NPS Financial Execution

Sum of Funded Amount			
Type (Repar-Rehab/	Location	Total	
<input checked="" type="checkbox"/> Cyclic Maintenance	Fort Hancock	\$654,531	20.64%
	GATE	\$309,616	9.76%
	Jamaica Bay	\$1,602,788	50.53%
	Staten Island	\$604,736	19.07%
Cyclic Maintenance Total		\$3,171,671	
<input checked="" type="checkbox"/> Repair/Rehab	Fort Hancock	\$49,000	1.32%
	GATE	\$2,030,014	54.72%
	Jamaica Bay	\$519,577	14.01%
	Staten Island	\$1,111,026	29.95%
Repair/Rehab Total		\$3,709,617	
<input checked="" type="checkbox"/> Sustainment	Fort Hancock	\$9,391,400	28.38%
	Jamaica Bay	\$14,343,889	43.35%
	Staten Island	\$9,352,106	28.26%
Sustainment Total		\$33,087,395	
Grand Total		\$39,968,683	

Additional analysis required

Total Line Item Construction from 2008-2012 - \$9.1M

Prior Year NPS Financial Execution

Line Item Construction Appropriation

Unit	Description	FY2008	FY2009	FY2010	FY2011	FY2012	5 Year Total	5 Yr Average
JABA	Ft Tilden Water Distribution	\$ 843,810	\$ 90,042	\$ 78,480	\$ 18,722	\$ -	\$ 1,031,053	
JABA	Replace Electrical Cables Floyd Bennet Field	\$ -	\$ -	\$ -	\$ 5,346,643	\$ 448,065	\$ 5,794,707	
	JABA Subtotal	\$ 843,810	\$ 90,042	\$ 78,480	\$ 5,365,364	\$ 448,065	\$ 6,825,760	\$ 1,365,152
SAHO	Sand Replenishment at Sandy Hook	\$ 1,618,363	\$ 69,187	\$ 16,831	\$ -	\$ -	\$ 1,704,381	
SAHO	Stabilize Historic Gun Batteries Potter, Gunnison & Mortar	\$ -	\$ -	\$ 657,636	\$ -	\$ -	\$ 657,636	
	SAHO Subtotal	\$ 1,618,363	\$ 69,187	\$ 674,467	\$ -	\$ -	\$ 2,362,018	\$ 472,404
	GATE Total	\$ 2,462,173	\$ 159,229	\$ 752,947	\$ 5,365,364	\$ 448,065	\$ 9,187,778	\$ 1,837,556

Prior Year NPS Financial Execution

Annual Operating Appropriations

	2010			2011			2012			3 Year Average		
	Cost Breakout	Fixed*	Non-Fixed	Cost Breakout	Fixed*	Non-Fixed	Cost Breakout	Fixed*	Non-Fixed	Cost Breakout	Fixed	Non-Fixed
Personal Services (salary and benefits)	\$ 19,445,362.43	\$ 19,445,362	\$ -	\$ 19,169,468	\$ 19,169,468	\$ -	\$ 19,777,230.41	\$ 19,777,230	\$ -	\$ 19,464,020	\$ 19,464,020	\$ -
Transit Subsidy	\$ 25,674.07	\$ 25,674	\$ -	\$ 23,134	\$ 23,134	\$ -	\$ 19,840.05	\$ 19,840	\$ -	\$ 22,883	\$ 22,883	\$ -
Utilities	\$ 3,385,906.73	\$ 3,385,907	\$ -	\$ 3,143,612	\$ 3,143,612	\$ -	\$ 3,114,178.02	\$ 3,114,178	\$ -	\$ 3,214,566	\$ 3,214,566	\$ -
Travel	\$ 124,736.90	\$ 25,000	\$ 99,737	\$ 155,433	\$ 40,000	\$ 115,433	\$ 146,117.58	\$ 14,612	\$ 131,506	\$ 142,096	\$ 26,537	\$ 115,559
Supplies	\$ 1,424,691.10	\$ 140,000	\$ 1,284,691	\$ 1,263,495	\$ 140,000	\$ 1,123,495	\$ 1,123,966.16	\$ 112,397	\$ 1,011,570	\$ 1,270,717	\$ 130,799	\$ 1,139,919
Equipment	\$ 202,881.80	\$ 50,000	\$ 152,882	\$ 144,860	\$ 45,000	\$ 99,860	\$ 250,696.23	\$ 25,070	\$ 225,627	\$ 199,479	\$ 40,023	\$ 159,456
Printing	\$ 50,558.70	\$ 10,000	\$ 40,559	\$ 12,665	\$ 1,500	\$ 11,165	\$ 7,558.48	\$ 756	\$ 6,803	\$ 23,594	\$ 4,085	\$ 19,509
Contracted Services	\$ 627,995.20	\$ 100,000	\$ 527,995	\$ 753,373	\$ 110,000	\$ 643,373	\$ 704,303.83	\$ 70,430	\$ 633,873	\$ 695,224	\$ 93,477	\$ 601,747
Other	\$ 103,893.00	\$ -	\$ 103,893	\$ 113,760	\$ -	\$ 113,760	\$ (36,891.00)	\$ -	\$ (36,891)	\$ 60,254	\$ -	
Total	\$ 25,391,700	\$ 23,181,943	\$ 2,209,757	\$ 24,779,800	\$ 22,672,714	\$ 2,107,086	\$ 25,107,000	\$ 23,134,513	\$ 1,972,487	\$ 25,092,833	\$ 22,996,390	\$ 2,036,189

*Certain fixed costs are part of DOI and NPS service contracts (e.g. Uniforms, Software Licenses, Contingency Funds, etc) , and the costs are assessed from our budget PRIOR to it being allocated. As such, these fixed costs are not reflected above.

	GATE	Headquarters	Sandy Hook	Staten Island	Jamaica Bay
2008	\$ 24,115,442	\$ 5,957,342	\$ 6,286,000	\$ 4,436,000	\$ 7,436,100
2009	\$ 24,200,000	\$ 5,954,200	\$ 6,363,900	\$ 4,437,100	\$ 7,444,800

	GATE	Parkwide Functions	Sandy Hook					Staten Island					Jamaica Bay				
			District Operations	Maintenance	Protection	Utilities	Total	District Operations	Maintenance	Protection	Utilities	Total	District Operations	Maintenance	Utilities	Protection	Total
2010	\$ 25,391,700	\$ 11,842,450.00	\$ 258,200	\$ 1,847,700	\$ 2,704,650	\$ 400,000	\$ 5,210,550	\$ 656,700	\$ 1,683,700	\$ -	\$ 700,000	\$ 3,040,400	\$ 1,252,700	\$ 2,545,600	\$ 1,500,000	\$ -	\$ 5,298,300
2011	\$ 24,779,800	\$ 11,178,250.00	\$ 300,100	\$ 1,759,700	\$ 2,857,350	\$ 400,000	\$ 5,317,150	\$ 698,400	\$ 1,730,900	\$ -	\$ 700,000	\$ 3,129,300	\$ 1,350,600	\$ 2,304,500	\$ 1,500,000	\$ -	\$ 5,155,100
2012	\$ 25,107,000	\$ 11,793,375.00	\$ 229,600	\$ 1,684,300	\$ 2,856,525	\$ 400,000	\$ 5,170,425	\$ 636,500	\$ 1,634,700	\$ -	\$ 700,000	\$ 2,971,200	\$ 1,269,700	\$ 2,402,300	\$ 1,500,000	\$ -	\$ 5,172,000

GATE was organized into three operational units and a HQ until September 30, 2009. From October 1, 2009 through September 30, 2012 a functional based organization was in place. Unit budgets for 2010, 2011, and 2012 are estimated.

Fort Hancock-Sandy Hook Leases

Name	Instrument	Com. Date	Expiration Date	Facilities	Cost of Lease(s) per month	Who Sustains Building
Army Ground Forces Association	General Agreement	5/23/2010	5/23/2015	B337 (Btry Gunnison/New Peck)	\$0	NPS
American Littoral Society	Cooperative Agreement	4/27/2012	4/27/2017	B18		
H.S. Concessions, Inc	Concession	1/1/2005	12/31/2014	B601, B602, B603, B604, B606, B607, B609, B610, B620, B621, B625		
Marine Academy of Science and Technology	MOA	9/22/1993	9/22/2018	B77, B301, B302, B303, B304, B305, B315, B316, B317, B318, B319, B320 B321, B357		
New Jersey Marine Science Consortium	Lease	7/1/2005	6/30/2026	B22		
National Oceanic and Atmospheric Administration	Interagency Agreement	12/16/2008	12/31/2012	B45		
Sandy Hook Foundation	General Agreement	2/21/2002	2/21/2022	B84 (Lighthouse Keeper's Quarters)		
Sandy Hook Child Care Center	Lease (In Development, LOI Signed)	n/a	n/a	B335		
State of New Jersey	Land Lease (P.L. 100-515)	8/13/1991	8/13/2090	B74		
State of New Jersey	Management Agreement	1/30/2009	1/29/2014	B74		

Additional Lease Information

Need the following information (Pete and Guy are working)

- Each lease at Fort Hancock, cost, and termination/renewal date
- Lease provisions for operations (utilities) and Maintenance and Repair (sustainment).

Fort Hancock Historic District

Next Steps

- Continue refining cost tables – apply FY13 (inflated to FY15) DoD/Army cost factors (table update)
- Refine presentation and comparison of NPS financial execution
- Obtain, understand and analyze NPS lease program at Fort Hancock
- Obtain and analyze NPS five year future maintenance plan
- Review and gain understanding of NPS Cyclic Maintenance and Repair Rehabilitation guidance and how it can support committee recommendations
- Coordinate with other working groups to provide cost analysis support to emerging findings and recommendations.

Other Recommendations for future actions????

Initial Real Property Cost Analysis

Backup Material

Fort Hancock Historic District

Data and Cost Factor Sources

- GNRA provided Real Property Inventory data (by unit, building, square footage and current/design use, cost execution data by facility operations, facility sustainment (routine maintenance and repair), restoration and other Park Operations.
- Army Restoration and Modernization Cost Factors were provided by the Army's Office of the Assistant Chief of Staff for Installation Management (OACSIM) in FY15 dollars. These factors are available for review by contacting COL Shawn Welch, Army Program Analysis and Evaluation
- Office Secretary of Defense (OSD) Deputy Secretary of Defense for Installations and Environment (DUSD-I&E) Facility Sustainment and Operations cost factors for FY10 and FY07 (utilities) inflated to FY15 dollars. These cost factors are available for review in the OSD Facilities Pricing Guide issued by fiscal year and available at http://www.acq.osd.mil/ie/fim/programanalysis_budget/tool_metrics/FPG/fpg.shtml though some data is only available using DoD Common Access Card.

Data and Analysis Assumptions

- “Costing” applied DoD and Army cost factors to each record by its Unit of Measure (UM)
 - Cost Factors provided from the OSD Pricing Guide version 10 applied for Sustainment, Engineering and Real Property Services, Utilities (version 7), solid waste collection and pest control.
 - Cost Factors for Restoration from the Army version 15 of the Installation Status Report and either taken at maximum factor or standard deviation factor across “components” of a given facility analysis category (FAC) or Facility Category Group (FCG) which relates to a single OSD FAC.
 - All records applied Earle, NJ area cost factor and inflated to FY15 dollars.
- Several UM’s were converted to align with the OSD/Army cost factors . Most changes involved:
 - Square Feet (SF) to Square Yards (SY)
- Estimated Army Restoration Cost maximum applies
 - Historic (monumental construction) cost factor (1.5)
 - Only applied to occupied buildings.
 - Condition ratings applied; Good = 0 ; Fair = 50%; poor & serious = 100%
 - Estimated cost for full restoration to usable standards

Data and Analysis Assumptions

- GNRA provided a real property inventory listing with 1,325 records
 - 896 records were costed (67% of total)
 - 666 records were Unit of Measure (UM) Square Feet (SF) (50% of total records)
 - 490 UM SF were costed (36% of total records, 73% of SF records)
- 429 records (32%) were not costed.
 - Consisted of 36% of adjusted UM inventory and 19.14% of NPS Deferred maintenance inventory
 - Much of this inventory had UM that could not be converted to appropriate UM for application of OSD and Army cost factors
 - Examples included pump houses, water lines, sewage lines and electric lines/stations.
 - Some records of UM “each” had no applicable cost factor
 - Some records were not costed due to small size and/or no related cost factor
- Fort Hancock Historic District is considered “Occupied” in this analysis.

Acronyms

- CF = Cost Factor
- SF = Square Feet
- UM = Unit of Measure
- DoD = Department of Defense
- DM = Deferred Maintenance (from NPS MAXIMO)
- FAC = Facility Analysis Category
- FCI = Facility Condition Index
- FHHD = Fort Hancock Historic District (FACA buildings)
- FH21 = Fort Hancock 21st Century Committee
- FSM = Facility Sustainment Model
- FY = Fiscal year
- GNRA = Gateway National Recreation Area
- OSD = Office of Secretary of Defense
- MAXIMO – NPS commercial real property management system
 - (<http://www-03.ibm.com/software/products/us/en/maximoassetmanagement/>)

Costs of GNRA By Unit

All costed GNRA real property records minus all "parking, surfaced" records using EXAMPLE DOD facility types for costing purposes only. Different Facility types will yield different costs.

GNRA w/FHHD	Count of Records	Sum of FH21 UM	Sum of DM	Sum of CSDM	Sum of Est. Army Restoration Cost	MAX w/Hist CF (FY15) - no condition - occupied only	Sum of Est. Army Restoration Cost MAX	Army Restoration w/Hist CF (FY15) - Condition For Occupied bldgs only	Sum of Est. Restoration Std Dev Cost w/Hist CF (FY15)	Facilities Sustainment (Maint & Repair) Operations	Cost - Facility
Fort Hancock - FHHD	35	\$29,668,970	\$2,492,677	\$25,926,908	\$21,970,720	\$5,765,654	\$2,042,582	\$10,873,531	\$1,975,901	\$2,227,255	
Fort Hancock - Sandy Hook	277	\$41,179,686	\$5,759,179	\$36,035,275	\$20,241,658	\$12,349,140	\$3,087,444	\$10,484,650	\$1,975,901	\$2,227,255	
Jamaica Bay	551	\$194,340,015	\$43,310,404	\$67,878,715	\$23,196,731	\$54,430,512	\$10,484,650	\$10,873,531	\$1,975,901	\$2,227,255	
Staten Island	272	\$77,810,574	\$15,202,500	\$43,092,307	\$23,966,421	\$12,079,422	\$2,587,574	\$1,513,734	\$1,513,734	\$2,227,255	
Grand Total	1135	\$342,999,246	\$66,764,759	\$172,933,205	\$89,375,530	\$84,624,728	\$18,202,251	\$16,590,421	\$16,590,421	\$2,227,255	

Costs of GNRA By Unit

All costed GNRA real property records, only Occupied and records measured in Square Feet

GNRA w/FHHD	Count of Records	Sum of FH21 UM	Sum of DM	Sum of CSDM	Sum of Est. Army Restoration Cost MAX w/Hist CF (FY15) - no condition - occupied only	Sum of Est. Army Restoration Cost MAX w/Hist CF (FY15) - Condition For Occupied bldgs only	Sum of Est. Army Restoration Std Dev Cost w/Hist CF (FY15)	Sum of Est Cost Facilities Sustainment (Maint & Repair)	Sum of Annual Cost - Facility Operations
Fort Hancock - FHHD	35	286,482	\$29,668,970	\$2,492,677	\$25,926,908	\$21,970,720	\$5,765,654	\$2,042,582	\$2,227,255
Fort Hancock - Sandy Hook	178	771,570	\$27,699,490	\$4,779,750	\$21,357,041	\$10,959,389	\$5,981,716	\$1,868,705	\$1,964,634
Jamaica Bay	320	2,298,881	\$100,926,843	\$14,678,185	\$53,348,958	\$17,668,100	\$48,360,717	\$7,881,311	\$10,854,732
Staten Island	133	819,769	\$44,976,823	\$10,937,086	\$34,684,460	\$20,623,513	\$8,297,757	\$2,534,740	\$1,504,875
Grand Total	666	4,176,702	\$203,272,127	\$32,887,697	\$135,317,367	\$71,221,721	\$68,405,844	\$14,327,338	\$16,551,496

Costs of GNRA Units by *Example* OSD Facility Type

GNRA w/FHHD	FH21 Proposed OSD FAC Definition	Count of Records	Sum of FH21 UM	Sum of DM	Sum of CSDM	Sum of Est. Army Restoration Cost MAX w/Hist CF (FY15) - no condition - occupied only	Sum of Est. Army Restoration Cost MAX w/Hist CF (FY15) - Condition For Occupied bldgs only	Sum of Est. Army Restoration Std Dev Cost w/Hist CF (FY15)	Sum of Est. Cost Facilities Sustainment (Maint & Repair)	Sum of Annual Cost - Facility Operations
Fort Hancock - FHHD	General Administrative Building	12	95,085	\$12,612,194	\$1,151,538	\$5,094,540	\$5,081,145	\$1,420,077	\$542,913	\$534,172
	Exchange Eating Facility	3	20,028	\$3,265,291	\$265,636	\$1,089,704	\$1,089,704	\$309,296	\$223,132	\$721,464
	Exchange Sales Facility	1	1,325	\$255,542	\$43,519	\$62,851	\$62,851	\$17,024	\$7,961	\$4,197
	Indoor Physical Fitness Facility	2	26,236	\$89,214	\$0	\$963,268	\$134,856	\$299,203	\$136,335	\$90,100
	Museum	2	9,833	\$1,369,773	\$506,002	\$276,627	\$276,627	\$77,108	\$59,489	\$51,302
	Rec Lodging	9	70,140	\$4,251,422	\$179,162	\$9,653,859	\$8,123,611	\$1,907,193	\$447,927	\$422,355
	Trans Lodging	6	63,835	\$7,825,534	\$346,820	\$8,786,058	\$7,201,925	\$1,735,752	\$624,827	\$403,665
Fort Hancock - FHHD Total		35	286,482	\$29,668,970	\$2,492,677	\$25,926,908	\$21,970,720	\$5,765,654	\$2,042,582	\$2,227,255
Fort Hancock - Sandy Hook	General Administrative Building	8	54,194	\$4,391,680	\$643,805	\$2,124,153	\$1,013,229	\$592,097	\$226,366	\$208,298
	General Administrative Building (Misc)	60	101,422	\$6,068,790	\$1,885,779	\$3,567,349	\$1,535,301	\$994,380	\$380,164	\$231,003
	General Administrative Building (Def)	12	139,454	\$1,868,064	\$0	\$1,668,712	\$0	\$465,145	\$177,830	\$119,051
	Dependent School	12	27,283	\$69,334	\$30,951	\$870,329	\$0	\$228,371	\$188,347	\$135,331
	Exchange Eating Facility	8	19,214	\$251,799	\$34,196	\$1,045,415	\$0	\$296,725	\$214,063	\$692,141
	Latrine/Shower Facility	13	11,607	\$77,714	\$369	\$328,397	\$0	\$1,083,166	\$105,760	\$205,835
	Rec Lodging	19	76,316	\$6,815,558	\$1,025,115	\$10,503,905	\$7,902,291	\$2,075,126	\$487,368	\$315,602
	Road, Surfaced	37	279,171	\$9,831,216	\$335,605	\$11,918,740	\$9,254,518	\$5,959,370	\$27	\$2
	Sidewalk and Walkway	11	62,793	\$303,292	\$246,412	\$2,680,840	\$27,751	\$403,169	\$102,257	\$7,165
	Trans Lodging	2	9,073	\$472,275	\$320,107	\$1,248,781	\$508,569	\$246,706	\$88,808	\$57,374
	Vehicle Parking, Surfaced	59	397,478	\$8,958,639	\$2,015,591	\$19,988,590	\$9,811,712	\$4,997,148	\$5,491,442	\$372,043
	Water Treatment Facility	1	280	\$7,523	\$0	\$74,405	\$0	\$3,902	\$1,700	\$0
	Water Well, Potable	1	137	\$209	\$0	\$4,249	\$0	\$983	\$1,114,756	\$4,099
	DAYCARE	1	1,202	\$110,791	\$86,188	\$0	\$0	\$0	\$0	\$0
	LAB	1	54,940	\$15,167	\$0	\$0	\$0	\$0	\$0	\$0
	(blank)	91	993,920	\$10,896,275	\$1,150,650	\$0	\$0	\$0	\$0	\$0
	Fort Hancock - Sandy Hook Total		336	2,228,484	\$50,138,325	\$7,774,769	\$56,023,865	\$30,053,370	\$17,346,288	\$8,578,886
Jamaica Bay	General Administrative Building	6	28,246	\$1,957,528	\$376,674	\$786,810	\$379,552	\$219,319	\$83,848	\$69,054
	General Administrative Building (Misc)	85	606,348	\$33,426,456	\$9,159,025	\$30,806,808	\$10,913,198	\$8,587,240	\$3,283,005	\$2,176,686
	General Administrative Building (Def)	12	45,450	\$84,692	\$0	\$0	\$0	\$0	\$0	\$0
	Exchange Eating Facility	6	35,731	\$1,118,784	\$56,741	\$1,935,765	\$0	\$549,437	\$396,374	\$1,280,645
	Latrine/Shower Facility	90	399,966	\$15,039,571	\$672,949	\$11,316,230	\$3,424,756	\$37,324,820	\$3,644,383	\$7,092,180
	Rec Lodging	15	41,757	\$2,723,979	\$303,904	\$5,300,869	\$2,950,593	\$1,047,227	\$245,953	\$131,504
	Road, Surfaced	52	358,289	\$44,335,174	\$13,279,710	\$11,109,279	\$5,245,788	\$5,554,640	\$21,717	\$2
	Sidewalk and Walkway	29	81,685	\$6,508,000	\$2,049,131	\$3,411,173	\$282,843	\$513,003	\$140,551	\$9,821
	Trans Lodging	4	61,328	\$1,036,684	\$0	\$3,202,476	\$0	\$632,673	\$227,747	\$104,661
	Vehicle Parking, Surfaced	69	694,095	\$273,223,289	\$15,999,876	\$34,922,128	\$26,908,873	\$8,730,532	\$15,286,315	\$1,035,658
	Water Well, Potable	1	300	\$0	\$0	\$9,304	\$0	\$2,153	\$2,441,072	\$8,977
	(blank)	251	1,761,793	\$88,109,147	\$17,412,270	\$0	\$0	\$0	\$0	\$0
	Jamaica Bay Total		620	4,114,988	\$467,563,304	\$59,310,280	\$102,800,843	\$50,105,604	\$63,161,044	\$25,770,964
Staten Island	General Administrative Building	2	2,552	\$0	\$0	\$136,733	\$0	\$38,114	\$14,571	\$14,337
	General Administrative Building (Misc)	40	443,282	\$30,083,120	\$6,705,438	\$14,913,233	\$9,466,597	\$4,156,987	\$1,589,266	\$952,692
	General Administrative Building (Def)	20	172,094	\$11,152,574	\$0	\$0	\$0	\$0	\$0	\$0
	Exterior Lighting, Pole	27	27	\$23,657	\$0	\$39,733	\$1,472	\$11,866	\$2,537	\$5,443
	Latrine/Shower Facility	9	2,550	\$165,716	\$7,381	\$72,147	\$18,504	\$237,966	\$23,235	\$45,221
	Rec Lodging	34	142,130	\$7,713,085	\$3,595,382	\$19,562,347	\$11,138,412	\$3,864,690	\$907,667	\$492,626
	Road, Surfaced	39	176,593	\$7,006,120	\$3,880,544	\$7,239,559	\$3,311,679	\$3,600,077	\$3,224	\$117
	Sidewalk and Walkway	14	26,434	\$56,847	\$0	\$1,128,555	\$29,757	\$169,722	\$47,074	\$3,299
	Vehicle Parking, Surfaced	62	250,074	\$4,839,146	\$1,423,724	\$12,581,987	\$2,901,977	\$3,145,497	\$5,507,460	\$373,134
(blank)	87	119,667	\$21,609,455	\$1,013,756	\$0	\$0	\$0	\$0	\$0	
Staten Island Total		334	1,335,402	\$82,649,720	\$16,626,225	\$55,674,294	\$26,868,397	\$15,224,919	\$8,095,034	\$1,886,868
Grand Total		1325	7,965,356	\$630,020,320	\$86,203,950	\$240,425,910	\$128,998,092	\$101,497,904	\$44,487,467	\$18,371,257