

GOVERNMENT OF GUAM

PROJECT PORTFOLIO

SAME INDUSTRY FORUM
2019

PORT **MODERNIZATION** at a GLANCE



Port Modernization Program Update

SAME 2019 Guam Industry Forum

Hyatt Regency Guam Hotel

August 8 - 9, 2019



Completed Projects (2007 – 2018)

- **DoD / MARAD Guam Commercial Port Improvement (GCPI) Program**
\$ 50 Million
- **DHS / FEMA Port Security Grant Program**
\$ 12.3 Million
- **DOI OIA / FWS / FWA /PAG Funded Program**
\$ 9.1 Million
- **USDA / PAG Equipment Acquisition Program**
\$ 16.9 Million

Ongoing Projects (2018 - 2020)

- **Hotel Wharf Upgrade & Access Road Repair**
- **Golf Pier Repair**
- **Waterline, Warehouse 1, & EQMR Building Repair**
- **Terminal Booth & CMU Wall Repainting & Barb Wire Replacement**
- **Container Yard Striping**
- **Load Center Rehabilitation and Upgrade**
- **CCTV and Access Control System Upgrades**
- **Agat Marina Dock B Demolition & Repair**
- **Harbor of Refuge Repair**
- **Gantry Cranes 2 & 3 Demolition**
- **Tariff Simplification Project**
- **Environmental, Health, & Safety Program Development**

The Way Forward (2019 - 2022)

Planned Modernization Initiatives

- **2020 Master Plan Update**
- **JDE World Migration to JDE EnterpriseOne Financial Management system**
- **New Crane Acquisition Program**
- **Port Wharves Assessment & Upgrade**
- **New Admin. Annex Bldg. Construction and Old Admin. Bldg. Renovation (Bond Funded Project)**
- **F1 & Golf Pier Fuel Connectivity Pipeline**
- **Deep Draft Wharf Improvement Project Feasibility Study**
- **Customs Inspection Feasibility Study**

Port Authority of Guam

Dominic Muna
Acting General Manager
dgmuna@portguam.com



CIPs IN-PROGRESS



- **3rd Floor International Arrivals Corridor** (WIP)



- **TSA Security Screening Expansion** (WIP)



- **ARFF Facility** (WIP)



CIPs UNDER SOLICITATION



- **Airport Aprons & Taxiway Rehabilitation**

(Pending FAA approval of NTP for construction)



- **Runway 6L Rehabilitation**

(Pending FAA approval of NTP for construction)



- **Cargo Apron-Extend Fuel System – Design**

(RFP issued for 2019 for Design Phase)



OTHER AIRPORT DEVELOPMENT



Spaceport Certification

(Pre-application process underway)



OTHER AIRPORT DEVELOPMENT



- **Ground Transportation
Commercial Parking**



- **Ground Transportation/Parking
Garage P³ Partnerships**
 - In planning phase for FY2020
 - \$5.5m annual revenue



ARRIVING IN 2020



MASTER PLAN UPDATE

- Update to 2012 Master Plan
- Maximize capacity
- Optimize revenue generation

RESIDENTIAL SOUND SOLUTION PROGRAM

- Noise Compatibility Study
- Update NEMs

ROADWAYS

- Tiyan Parkway Phase II
- Route 10A (Airport Road Expansion)
- Mitigate traffic flow during construction period

HVAC & ELECTRICAL UPGRADES

- Cooling system & airfield lighting upgrades
- Integrate energy efficient systems & green technology



Department of Public Works Projects



U.S. Department of Transportation
#GoWithTheFlow

PARSONS

wsp





Key Future Projects

- Route 1 Replacement of Multiple Bridges (Hagatna to Piti): GU-DAR-0001(131)
 - Anticipated Advertise Date: 2020 (Design) & 2022 (Construction)
- Under Pavement Infrastructure Retrofit: GU-DAR-0001(131)
 - Anticipated Advertise Date: 2020 (Design) & 2022 (Construction)
- Route 5 and Portion of Route 12, Reconstruction and Widening: GU-NH-0005(003)
 - Anticipated Advertise Date: 2022



U.S. Department of Transportation
Federal Highway Administration

PARSONS





Projects in Design

- Route 1, Atantano Bridge, Temporary Repair
 - Estimated Value: \$0.5M
 - Anticipated Advertise Date: Fall 2019
- Route 1 Resurfacing from Route 30 to Route 10A
 - Estimated Value: \$4.5M
 - Anticipated Advertise Date: Fall 2019
- Route 20 Tiyan Parkway, Phase 2 (Sunset Boulevard to Route 10A)
 - Estimated Value: \$22M
 - Anticipated Advertise Date: TBD



U.S. Department of Transportation
Federal Highway Administration

PARSONS





On-Going Construction Projects

- Route 3 Widening (Route 28 to Chalan Kareta)
 - Current Contract Value: \$45.6 million
 - Anticipated Completion: May 2020
- Route 1 / Route 8 Resurfacing and Route 8 / Canada Toto Loop Road Intersection Improvements
 - Current Contract Value: \$9 million
 - Anticipated Completion: February 2020
- Route 1 / Route 3 Intersection Improvements
 - Current Contract Value: \$7.2 million
 - Anticipated Completion: November 2019



Guam Water and Wastewater Infrastructure Improvements



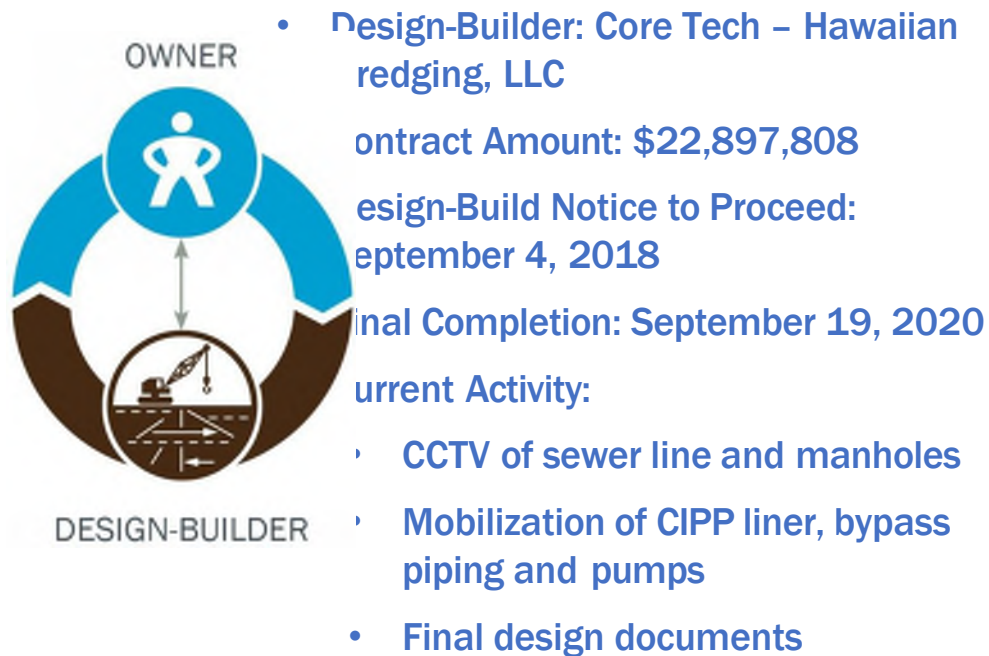
OEA Grant 1

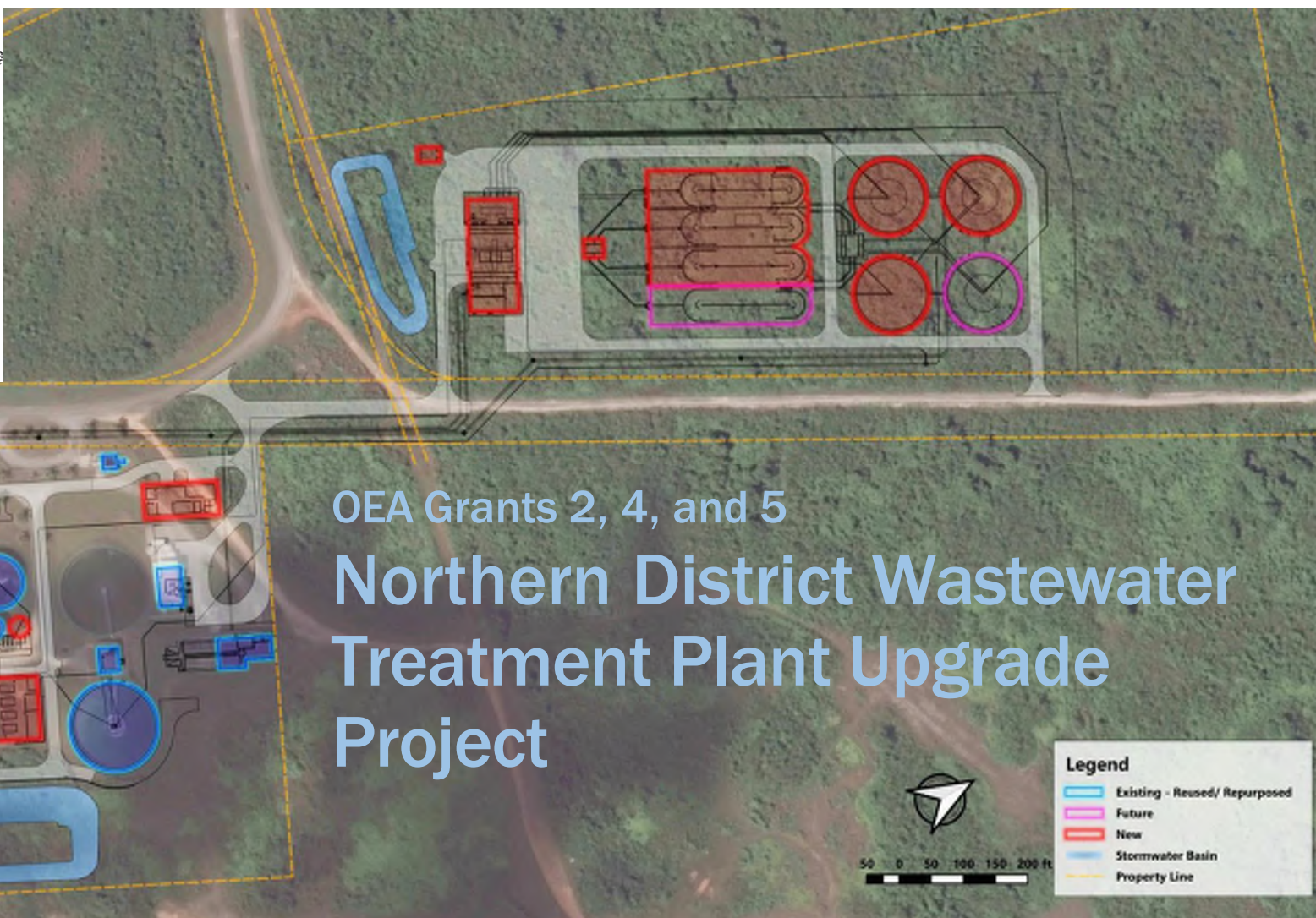
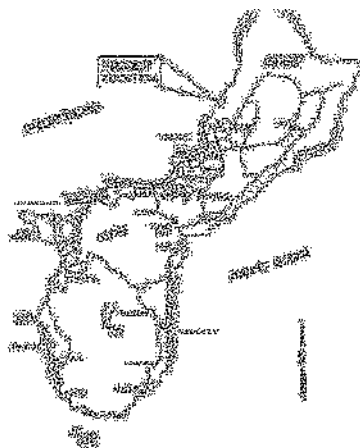
Interceptor Sewer Refurbishment Project



- Sewer runs from AAFB to NDWWTP
 - 45,000 LF
 - 18" to 42" diameters
 - Approx. 130 manholes
- Refurbishment method: Ultraviolet Cured-in-place Pipe

Interceptor Sewer Refurbishment Quick Facts





OEA Grants 2, 4, and 5 Northern District Wastewater Treatment Plant Upgrade Project

Treatment Upgrades Include:



- ✓ Screening and grit removal
- ✓ Activated sludge process: Oxidation Ditches
- ✓ Secondary clarification
- ✓ Sludge thickening
- ✓ Centrifuge dewatering
- ✓ Possible ATAD digestion system
- ✓ UV disinfection
- ✓ Possible upgrades to septage receiving and administrative building

NDWWTP Upgrade Quick Facts



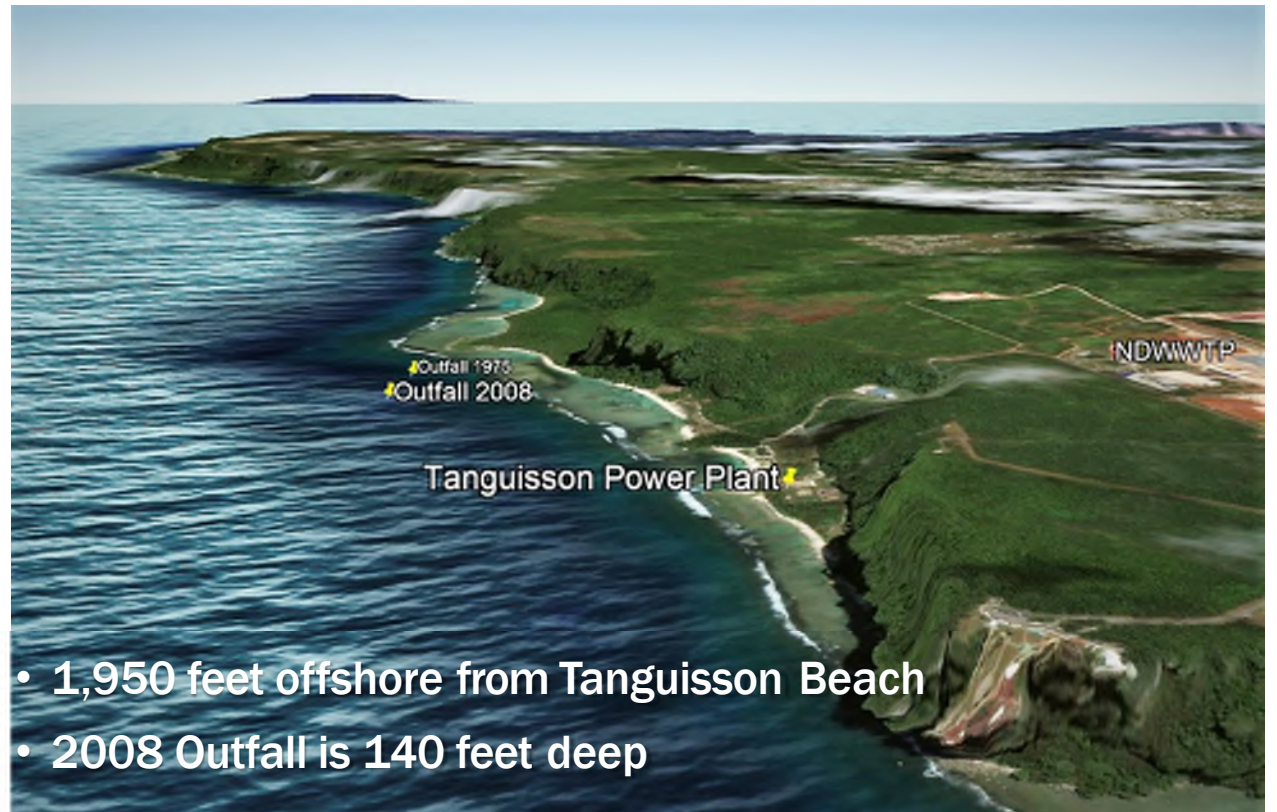
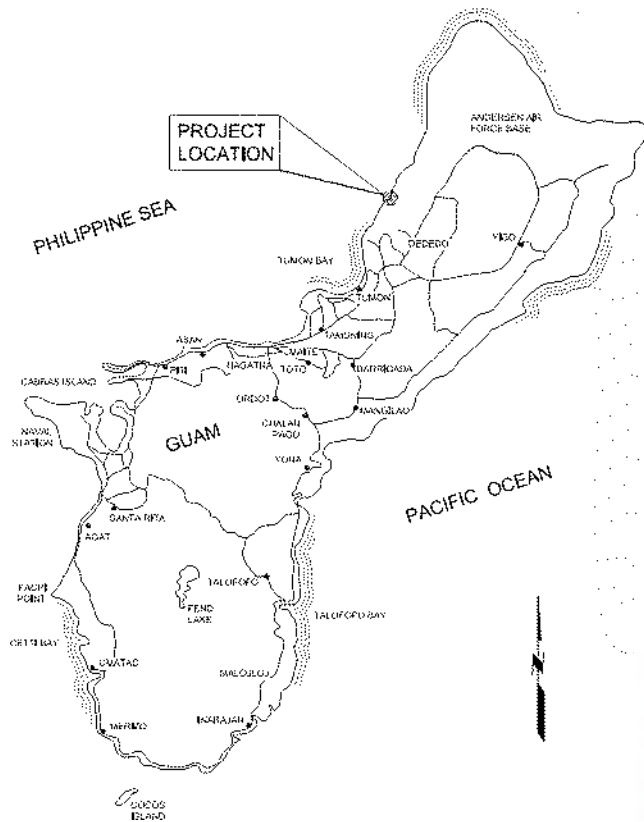
- **Prime Designer:**
Duenas, Camacho, & Associates
 - Contract Amount: \$9,000,000
 - Notice to Proceed: August 8, 2017
 - Final Design Completion: March 4, 2019
- **Site Preparation Contractor:**
IAN Corporation
 - Contract Amount: \$599,998
 - Notice to Proceed: Not yet issued
 - Final Completion: July 2019
- **Vertical Construction Contractor:**
Out for Bid
 - Final Completion: December 31, 2021



GRESHAM
SMITH AND
PARTNERS



NDWWTP Ocean Outfall Diffuser



- **1,950 feet offshore from Tanguisson Beach**
- **2008 Outfall is 140 feet deep**

NDWWTP Ocean Outfall Diffuser Quick Facts



- Prime Designer: Brown and Caldwell
- Prime Contractor: To be determined
 - One bid received on September 13, 2018, but exceeds budget
 - On-water construction: March- July 2020
- Final Completion Goal: September 2020
- Current Status:
 - Discussing value engineering options with contractor to reduce construction cost



OEA Grant 3

NGLA Monitoring System Expansion/ Rehabilitation Project

- Monitoring the NGLA ensures adequate supplies of quality potable water
- 7 new groundwater monitoring wells on DoD property
- 12 wells to be rehabilitated on DoD, GovGuam, and private property
- Captures data for sub-basins not currently monitored
- Discussing GWA-Navy cost sharing for program sustainment



NGLA Monitoring System Quick Facts



- Prime Designer: Current Status: Brown and Caldwell
 - Design finalized
- Prime Contractor: To be determined
 - Awaiting final military site approvals for two wells
- Final Completion Goal: December 2021
 - Coordinating with SHPO, GANDA, and USEPA on archaeological surveys
- Estimated Construction Cost: \$3,200,000
 - Coordination with USEPA for NEPA
- Estimated Construction Time: 15 months
 - Environmental Assessment, Permitting Process



Guam Power Authority

SAME Industry Forum

August 9, 2019

PHASE II RENEWABLE ENERGY ACQUISITION

- Solar PV + Battery Energy Storage System (BESS)
- Hanwha
 - 60 MW Solar PV
 - Renewable Integration BESS
 - 45 MW
 - 65 MWH
 - Energy Shifting BESS
 - 15 MW
 - 15 MWH
- KEPCO/LG CNS
 - 60 MW Solar PV
 - Renewable Integration BESS
 - 32 MW
 - 32 MWH

SPORD Projects

	Assigned	Area	Description
Ongoing Procurement	MAT	Fuel/Operations	Handling and Hauling Used Oil/Used Oil Processing
	MAT	Integrated Resource Planning	Planning & Optimization Software Suite
	RAC	Distribution Studies	Consulting for Advanced Distribution Studies using Smart Grid Analytics
	FJI	Renewable Energy Acquisition	Phase III Renewable Energy Acquisition
	JGS	Power Supply	New Generation IPP
	RAC	Electric Vehicle Infrastructure	Electric Vehicles
Development	MAT	Renewable Energy Acquisition	Phase IV Renewable Energy Acquisition
	RAC	Electric Vehicle Infrastructure	EV Charging Infrastructure
	ANF	Fuel/Operations	GPA Bulk Storage Facility PMC
	ANF	Fuel/Operations	ULSD Bulk Supply (New Power Plant + All Locations)
	ANF	Fuel/Operations	WSD ULSD Supply

ENGINEERING CONSTRUCTION PROJECTS (1-20)

Item #	Capital Improvement Project Name	Proposed Budget (\$000)						Project
		FY19	FY20	FY21	FY22	FY23	FY24	Total (\$000)
1	Upgrade Fire Protection Manenggon Diesel		520	380	200			1,100
2	Tumon Bay Lateral Conversion	1,000	4,280					5,280
3	Energy Storage and Renewable Energy Mitigation	22,122	3,500					35,604
4	Generator Protection Upgrade with Fault Recorders		190	188				580
5	Agat Shoreline Pole Restoration Project		712					809
6	System Protection Imprvmt & Cap Bank Controllers	50	556	556				1,312
7	Network Communication - Fiber to Fadian Complex	409	150					1,100
8	Mobile Workforce Management	398	102					500
9	Facilities Physical Security	200	500	300				1,350
11	SGIG (not covered by grant)		630					630
12	Substation Navy Metering Changeout	30	20					141
13	Substation Snake Fence (All Outdoor Substations)	120	98					380
14	Dededo Substation Capacitor Bank		165					165
15	LED Streetlight Conversion and T&D Line Maintenance Support		1,604	1,980	1,000			4,584
16	Disposal of Unusable Power Poles	150						450
17	Tank Farm Pipeline Upgrade	544	136					680
18	115 kV and 34.5 kV Breaker Upgrades	923	986	900	521			3,330
19	Network Communication - Fiber to All Substations	350	450	510	510			2,070
20	Substation and Transmission Improvements	200	100	100	200	200		1,000
	Totals	26,496	14,699	4,914	2,431	200		61,065

ENGINEERING CONSTRUCTION PROJECTS (21-40)

Item #	Capital Improvement Project Name	Proposed Budget (\$000)						Project
		FY19	FY20	FY21	FY22	FY23	FY24	Total (\$000)
21	T&D Master Plan (Transportation)		1,600	3,900				5,500
22	T&D Master Plan (T&D Admin, Meter/Relay)		2,125	5,175				7,300
23	System Protection Upgrade (34.5 kV Line Clearing Times Reduction)	900	900					1,800
24	Predictive Based Maintenance - Islandwide		650					650
25	Tank 1934 & 1935 API Inspection (Recertification) and Refurbishment	1,000	4,000	4,000				9,000
26	New USLD Pipeline System (Navy Tie-In to Tank Farm/Power Plants)	500	4,000					4,500
27	Tenjo Vista Remote Control System/Auto-Start		430					430
28	Pole Numbering	50	90	90	90			320
29	System Protection Upgrade (115-kV and 34.5 kV Line Clearing Times Reduction)	144	454	454	454			1,506
30	Tumon Bay Lateral Conversion - Revenue (PDM 25% Match)		400					400
31	GBNPSB - 2nd UPS System		500					500
32	GPWA Tumon Office Renovation	170	1,930					2,100
33	Streetlight/Line/Transformer Monitoring		1,825	1,825				3,650
34	Typhoon Mangkhut Permanent Repairs (75% FEMA Funded)		175					175
35	GPA Tank Farm Access Road Rehabilitation (50% PAG Funded)	50	183					233
36	KEPCO/LG ESS Ancillary Services		4,600					4,600
37	Kaiser Hybrid Conversion (San Antonio Avenue) - FEMA PDM 25% Match		400					400
38	Kaiser Hybrid Conversion (San Antonio Avenue)		800	200				1,000
39	Disaster Recovery Office Building		1,500	8,100	4,300			13,900
40	Automatic Generation Control (AGC)/Economic Dispatch (ED)		1,000					1,000
	Totals	2,814	27,562	23,744	4,844			58,964

ENGINEERING CONSTRUCTION PROJECTS (41-59)

Item #	Capital Improvement Project Name	Proposed Budget (\$000)						Project
		FY19	FY20	FY21	FY22	FY23	FY24	Total (\$000)
41	Talofofo ESS (Upgrade)		4,600					4,600
42	Tenjo Vista Firewall and Transformer Relocation		250					250
43	Apra Heights Substation - 115/34.5 kV Transformer Upgrade		300					300
44	Macheche/Yigo CT Remote Control System/Auto-Start			430	430			859
45	Synchronous Condenser Modification of TEMES Combustion Turbine			2,250	2,250			4,500
46	Synchronous Condenser Modification of Macheche CT			500	1,000			1,500
47	Synchronous Condenser Modification of Yigo CT			500	1,000			1,500
48	Macheche CT Control System Upgrade			469	469			938
49	Yigo CT Control System Upgrade			469	469			938
50	Marbo to Pagat 34.5 kV Line Upgrade			846	1,692	1,692		4,230
51	Radio Barrigada to Pagat 34.5 kV Line Upgrade			680	1,360	1,360		3,400
52	Agana to Radio Barrigada 34.5 kV Line Upgrade			320	640	640		1,600
53	New Malojloj – Agana 115-kV Transmission Line			4,600	15,000	15,000	11,400	46,000
54	New Dandan Substation Improvements with 100 MVA 115/34.5 kV Transformer			4,975	4,975			9,951
55	Kaiser Hybrid Conversion (Chichirica, Sta Barbara, Amates)			1,000	1,000	600		2,600
56	Hanwha ESS Ancillary Services				4,600			4,600
57	Dededo CT Remote Control System/Auto-Start				7,943			7,943
58	Liguan Terrace Hybrid Conversion - Phase I				1,000	1,000		2,000
59	Liguan Terrace Hybrid Conversion - Phase II					1,000	1,000	2,000
	Totals		5,150	17,039	43,828	21,292	12,400	99,709
	Grand Total	29,310	47,411	45,697	51,103	21,492	12,400	219,738

QUESTIONS/CONTACTS

John J. Cruz Jr., PE, CEM, CEA / jcruz@gpagwa.com

Assistant General Manager, Engineering & Technical Services (AGMETs)

Joven G. Acosta, PE / jacosta@gpagwa.com

Manager of Engineering

Jennifer G. Sablan, PE, CEM, CEA / jsablan@gpagwa.com

SPORD Manager