United States Coast Guard
Civil Engineering Unit Cleveland

Hurricane Execution Plan at Sector/Station Key West, Florida

Final Environmental Assessment

CG SFRL P/N: 11067550
Contract: 70Z05018DBERBAM04
Task Order: 70Z04719FPKWPAE00

March 2021

Cover Photo: The Coast Guard Cutter Joseph Gerczak conducts sea trials off the coast of Key West, Florida. (U.S. Coast Guard photo by Eric D. Woodall)

United States Coast Guard Environmental Assessment for Hurricane Execution Plan, Sector/Station Key West, FL

The Final Environmental Assessment (EA) for the Hurricane Execution Plan at Sector/Station Key West has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) (42 U.S. Code [USC]); Council on Environmental Quality (CEQ) *Regulations for Implementing NEPA* (40 Code of Federal Regulations [CFR] Parts 1500-1508); Department of Homeland Security Management Directive 023-01; and Coast Guard Commandant Instruction (COMDTINST) 5090.1, *U.S. Coast Guard Environmental Planning Policy and Environmental Planning Implementing Procedures* (April 2019).

This Final EA serves as a concise public document to briefly provide sufficient evidence and analysis for determining the need to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI). This Final EA concisely describes the Proposed Action, the need for the Proposed Action, alternatives, and the environmental impacts of the Proposed Action and alternatives. This Final EA also contains a comparative analysis of the action and alternatives, a statement of the environmental significance of the preferred alternative, and a list of the agencies and persons consulted during the Final EA preparation.

DOBBINS-NOBLE.LESLEY.CAROLE.1047416848 Digitally signed by DOBBINS-NOBLE.LESLEY.CAROLE.1047416848 Date: 2021.04.02 12:58:15 -04'00'	Environmental Protection Specialist	Level II
Lesley Dobbins-Noble Document Preparer	Title/Position	NEPA Warrant Program

I reviewed the Final EA and submitted my comments to the Proponent.

HYLTON.RICHARD.D.JR.1229466069 Digitally signed by HYLTON.RICHARD.D.JR.1229466069 Date: 2021.04.05 08:52:19 -04'00'	Environmental Engineer	Level II
Richard D. Hylton, P.E. Environmental Reviewer & Senior Environmental Professional	Title/Position	NEPA Warrant Program

In reaching my decision/ recommendation for the USCG's Proposed Action, I considered the information contained in this Final EA and considered the written comments submitted to me from the Environmental Reviewer(s).

Digitally signed by BARRESI.JOHN.F.JRII.1187016629 Date: 2021.04.06 09:36:25 -04'00'	Commanding Officer - Facilities Design and Construction Center
Captain J.F. Barresi Proponent	Title/Position

United States Coast Guard Finding of No Significant Impact (FONSI) for Hurricane Execution Plan, Sector/Station Key West, FL

The U.S. Coast Guard (USCG) proposes to repair/replace facilities at Sector and Station Key West that were damaged by Hurricane Irma in September 2017. The Preferred Alternative is Alternative 1, as described in the Final Environmental Assessment (EA). The overarching need for the Proposed Action is to provide Sector Key West and Station Key West with facilities and infrastructure that will allow them to adequately execute their mission requirements.

Summary of the results of the environmental impact evaluation: The Final EA prepared for this proposal presents the purpose and need for the action, the Proposed Action and its alternatives, a description of the affected environment, and an analysis of direct and indirect environmental consequences. Based on the findings of the Final EA, the USCG concluded no significant impacts would result from implementing the Proposed Action (Preferred Alternative - Alternative 1) or any of the other alternatives evaluated in the Final EA.

Mitigation commitments that will be implemented to reduce otherwise significant impacts: While the USCG would comply with all regulatory requirements, mitigation measures and best management practices (BMPs) as described in the Final EA would be implemented to eliminate or reduce adverse impacts, ensuring that no significant adverse impacts would occur. In response to consultation initiated by the USCG, the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) Protected Resources Division, NOAA NMFS Habitat Conservation Division, and the Florida Keys National Marine Sanctuary requested detailed project design plans and a coral rescue/relocation plan to complete their reviews. Once the USCG awards the design contract, the USCG will provide the requested material via a resubmitted request for consultation, and will commit to comply with any additional mitigation measures deemed necessary to ensure the impacts of the Proposed Action are not significant, including obtaining appropriate incidental take permits for the relocation of federally listed coral species. Additionally, the USCG will not perform any in-water work until all required consultation is complete.

This FONSI is based on the attached contractor-prepared Final EA that has been independently evaluated by the USCG and determined to adequately and accurately discuss the environmental issues and impacts of the Proposed Action and its alternatives, and provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. USCG takes full responsibility for the accuracy, scope, and content of the attached contractor-prepared Final EA.

I reviewed the Final EA, which is the basis for this FONSI, and submitted my comments to the Proponent.

DOBBINS-NOBLE.LESLEY.CAROLE.1047416848 Digitally signed by DOBBINS-NOBLE.LESLEY.CAROLE.1047416848 Date: 2021.04.02 12:58:33 -04'00'

Environmental Protection Specialist	Level II
Title/Position	NEPA Warrant Program

Lesley Dobbins-Noble
Environmental Reviewer

I reviewed the Final EA, which is the basis for this FONSI, and submitted my comments to the Proponent.

HYLTON.RICHARD.D.JR.1229466069 Digitally signed by HYLTON.RICHARD.D.JR.1229466069 Date: 2021.04.05 08:53:52 -04'00'

Richard D. Hylton, P.E. Senior Environmental Professional	Environmental Engineer Title/Position	Level II NEPA Warrant Program

In reaching my decision/ recommendation for USCG's Proposed Action, I considered the information contained in this Final EA/FONSI and considered the written comments submitted to me from the Environmental Reviewer(s). Based on the information in the Final EA and this FONSI document, I agree that the Proposed Action as described above, and in the Final EA, will have no significant impact on the environment.

Digitally signed by BARRESI.JOHN.F.JRII.1187016629 Date: 2021.04.06 09:36:45 -04'00'

Captain J.F. Barresi Proponent	Commanding Officer - Facilities Design and Construction Center Title/Position

EXECUTIVE SUMMARY

ES.1 Introduction

The U.S. Coast Guard (USCG) proposes to repair/replace facilities at Sector and Station Key West that were damaged by Hurricane Irma in September 2017. This environmental assessment (EA) was prepared in accordance with the National Environmental Policy Act (NEPA) (42 United States Code [U.S.C.] §§4321 et. seq.); Council on Environmental Quality (CEQ) Regulations for Implementing NEPA (40 Code of Federal Regulations [CFR] §§1500-1508), and associated CEQ guidelines; Department of Homeland Security Management Directive 023-01, Implementation of the National Environmental Policy Act; and Coast Guard Commandant Instruction (COMDTINST) 5090.1, U.S. Coast Guard Environmental Planning Policy.

ES.2 Background

Sector Key West is a unified command consisting of six Fast Response Cutters, three small boat stations, an Aids to Navigation Team (ANT), and three staff departments. Sector Key West's area of responsibility includes 55,000 square miles bordering the territorial seas of Cuba and the Bahamas.

In September 2017, Sector Key West and Station Key West suffered extensive damage to many facilities from Hurricane Irma. To implement projects to mitigate the damage and close gaps in the existing infrastructure vulnerabilities, the USCG has developed alternatives to achieve the following three concurrent efforts:

- Rebuild Engineering Building (Building 105) at Sector Key West, Florida, to meet resiliency thresholds.
- Rebuild waterfront and shore facilities for Station Key West.
- Rebuild the electrical distribution system serving Sector Key West.

ES.3 Purpose and Need

The purpose of the Proposed Action is to provide facilities and infrastructure at Sector Key West and Station Key West that meet the operational, space, and maintenance requirements so that they can fully execute their strategic missions. This includes increasing the resiliency of Sector and Station facilities so that they can remain operational during future weather events and return to full operation after an event is over.

The overarching need for the Proposed Action is to provide Sector Key West and Station Key West with facilities and infrastructure that will allow them to adequately execute their mission requirements. Currently, the Sector and Station are operating from facilities that were damaged by Hurricane Irma, are in poor condition, and do not meet authorized space requirements as set forth in COMDTINST M11012.9, Shore Facilities Standards Manual, or resiliency thresholds as required by Chief, Office of Civil Engineering (CG-43) Key Planning Factors. The facilities are also being supported by inadequate electrical infrastructure systems that limit the operational capabilities of the Sector and the Station.

ES.4 Proposed Action and Alternatives

Under the Proposed Action, the USCG would rebuild facilities damaged during Hurricane Irma by (1) demolishing and rebuilding the Sector Engineering/Electronics Support Detachment (ESD) Building (Building 105) at Sector Key West to meet resilience thresholds, (2) rebuilding waterfront and shore facilities for Station Key West, including demolishing existing facilities and constructing a new Station building, grounds work, pier, docks, and boat house, and (3) rebuilding the electrical distribution system serving Sector Key West to include a transformer and electrical distribution to the waterfront, shore facilities, and on-site energy generation and storage. Figure ES-1 provides an overview of the locations of the alternatives discussed below; Figure ES-2 shows the facilities to be demolished and relocated or replaced. Additionally, Table ES-1 provides a summary of the alternatives.

ES 4.1 Alternative 1—Preferred Alternative

Sector Engineering Facility

Under the Preferred Alternative, the USCG would demolish the existing Sector Engineering/ESD Facility (Building 105) and build a new 36,073-gross-square-foot (GSF) facility in the location of the parking lot immediately east of its current location on Pier D2. The parking lot would be moved to the current location of Building 105 once it is demolished. The new facility would include Sector Engineering administrative and maintenance spaces, ESD administrative and operational spaces, and two boat maintenance bays that could accommodate USCG's 45-foot Response Boat – Medium (45 RB-M). The existing travel lift pier would be demolished and reconstructed along the southern quay wall of Pier D2 at the east end of Berth 8 to provide direct access to the boat maintenance bays of the Sector Engineering Facility without crossing any of the base roads. Additionally, Building 108 on Pier D3 would be demolished, and storage Building 5 (Quonset Hut OV 7) would be demolished and rebuilt in that location. Materials currently stored in Building 108 would be stored in the new Sector Engineering Facility.

Station and ANT Facility

Currently, the Station operates out of Building 101, and the ANT operates out of Building 105. Under the Preferred Alternative, the USCG would demolish Building 101 and Building 106 and construct a new three-story, 23,486-GSF Station and ANT Facility adjacent and to the east of the current Building 101 location. The new building would include facility support space, Station administrative and operational spaces, an armory, and berthing and marine maintenance space. It would also provide ANT administrative and operational spaces and marine maintenance space. Because the existing building is in a floodplain, the first floor would house shop spaces only. The second floor would accommodate all administrative functions, the armory, the command and control center, recreation space, and the central dining area. The third floor would house berthing spaces. Temporary storage of the spare parts currently housed in Building 106 would be provided. Permanent storage would be provided in the new Station and ANT Facility. Existing utilities and services would be relocated to the new building. Additional supporting improvements would include paving, walks, curbs and gutters, and storm drainage. The diesel fuel storage tank currently located to the east of Building 101 would be temporarily relocated during construction and eventually replaced with two new 11,000-gallon diesel fuel storage tanks located in the footprint of the existing Building 101. New underground fuel lines would be installed from the new location of the tanks to the pier. Similar to the existing underground fuel lines, the new fuel lines would be double piped with a sump monitor for detecting leaks between them.

Figure ES-1. Project Site Locations

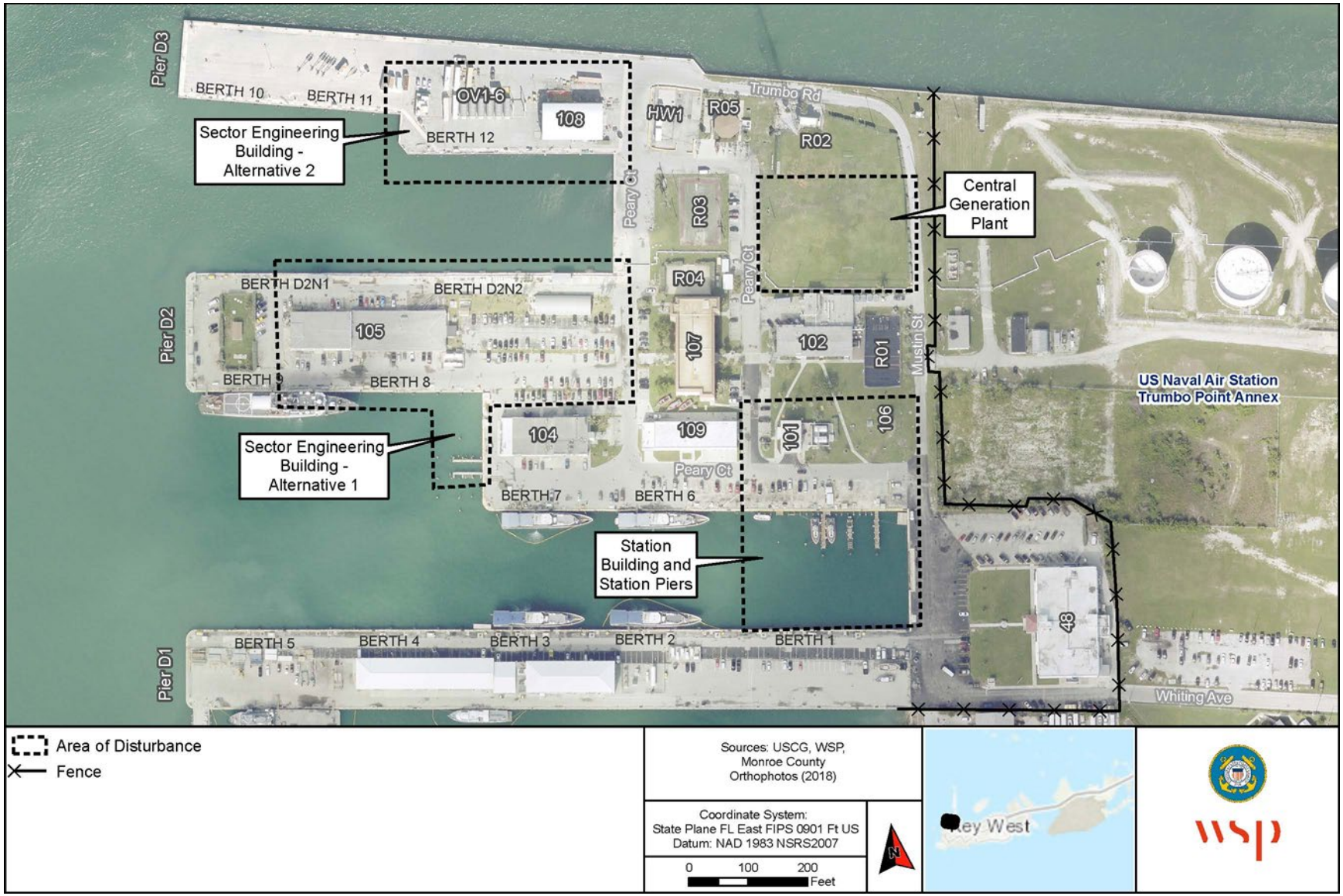
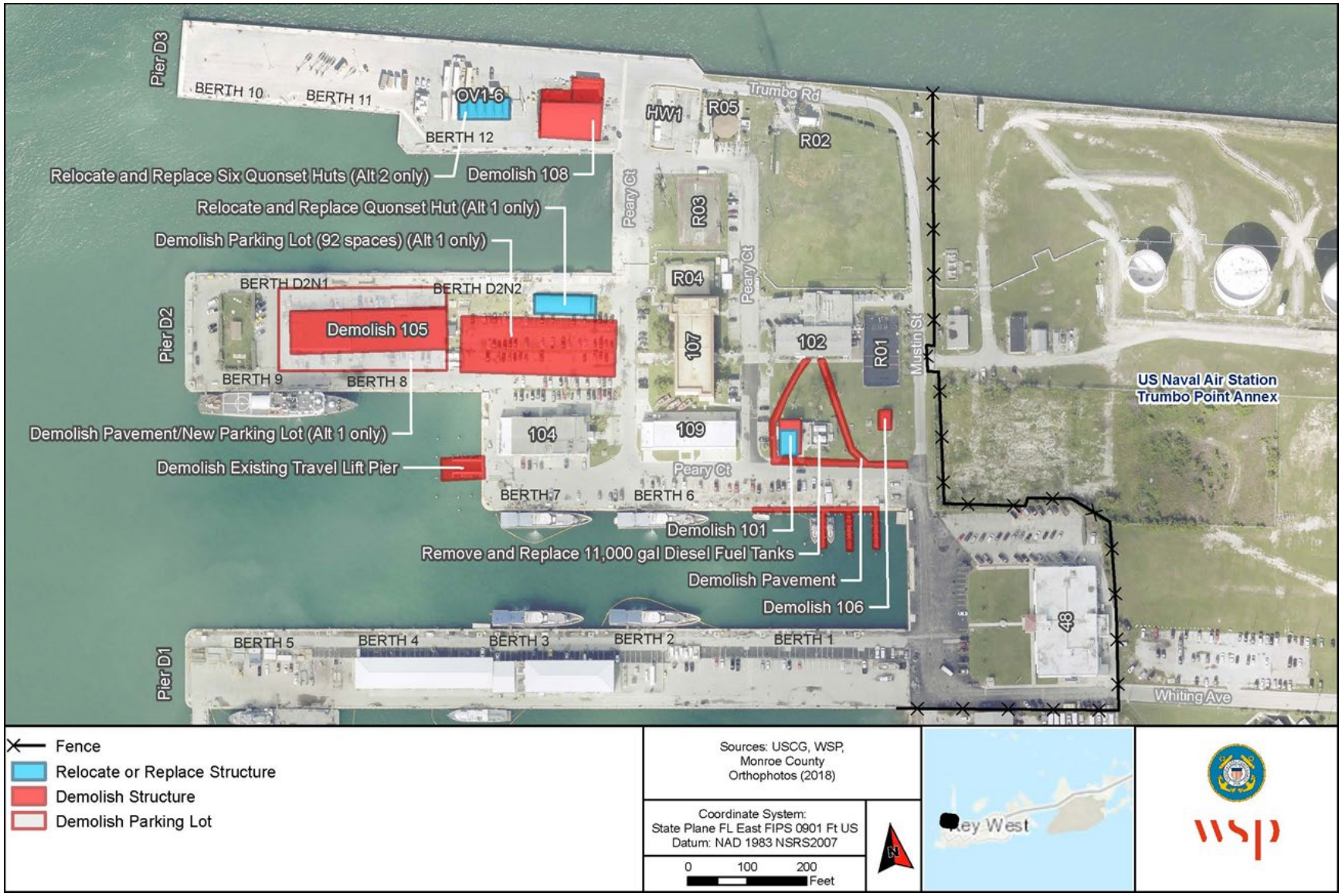


Figure ES-2. Demolition Plans



The USCG would also construct new Station piers with two covered moorings along the bulkhead between Piers D1 and D2 in an east-west orientation. With this orientation, no wave attenuation structure would be required to protect vessels moored at the piers. Temporary mooring and utilities for Station, Customs and Border Patrol, and contingency vessels would be provided in the existing basin/wharf through leased slips at an adjacent commercial facility, via temporary floating piers, or by using two of the three existing piers while demolition and construction activities are ongoing. The pier closest to the new pier location would be demolished to accommodate the new construction; the remaining two piers would be demolished after construction is complete. Portable wharf utilities such as the existing gas tank, oil waste tank, and diesel fuel pump would be relocated to service the new piers. The Station piers would accommodate mooring of Station Key West vessels and provide two covered moorings. If the Sector Engineering Facility is constructed first, swing space would be provided for the ANT prior to the construction of the new Station and ANT Facility.

Electrical

Under the Preferred Alternative, the USCG would rebuild the electrical distribution system serving Sector Key West with a new complete and usable infrastructure that meets current mission requirements. It would replace electrical lines, including conductors and conduits; encase all primary distribution conduits in concrete; demolish and replace existing electrical distribution equipment, including distribution transformers throughout the base, and raise all exterior electrical distribution equipment to 3 feet above the 100-year flood elevation; replace and install substations; install proposed medium voltage, fast response switchgear throughout the base on elevated platforms; replace overhead branch circuit conductors with proposed subterranean conductors in conduit and encased in concrete; replace emergency generators; install standardized equipment to simplify operations and maintenance, repair, and replacement; replace hurricane-damaged light poles with concrete poles; replace hurricane-damaged existing exterior pole-mounted area lights, floodlights, and sports light fixture heads with LED equivalents; and incorporate sustainable systems in all existing and proposed buildings.

A new 3,600-square-foot (SF) central generation plant would be constructed in the northeast portion of the base. The plant would include four parallel 1,000 kilowatt (kW) (with a 900-kW prime power rating), medium-voltage diesel or JP-5 generators (with black start capabilities) that provide N+2 (in conjunction with building level emergency generators evaluated for repair, upgrade, or replacement) to all critical facilities, and N+1 for the entire base. The generators would be able to carry the maximum demand load used by Sector Key West over a one-year period at 125 percent (1.8 megawatt), as required by the National Electrical Code, for a period of 10 days. Two 1-megawatt generators were selected for their 900-kW prime rating because of the run time required. In addition, an all-in-one battery energy storage system (with 30–45 minutes battery storage capacity) would be installed to store energy for short outages and to filter the incoming power.

The fuel for the diesel or JP-5 generators would be supplied from a proposed fuel line connecting the generators to two new 20,000-gallon tanks that would be located adjacent to the generator plant. The 40,000 gallons of dedicated central generation storage would meet the 10-day independent operation requirement. Additionally, a photovoltaic (PV) system would be constructed on the roofs of the proposed buildings and Building 48 and on top of carports throughout the parking areas.

ES 4.2 Alternative 2—Sector Engineering Facility

Under Alternative 2, the Sector Engineering Facility would be demolished and reconstructed on the east end of Pier D3, where Buildings 108 and Quonset Huts OV 1 through 6 are currently located. The location would be outside the explosive safety quantity distance (ESQD) for the loading/unloading and storage of munitions. The new travel lift pier would be relocated to Pier D3 to provide direct access to the boat maintenance bays in the southwest corner of the Sector Engineering Facility without crossing any of the base roads. Building 108 would be demolished, and the six Quonset Huts would be relocated just to the west of their current location. No additional parking would be provided because there would be no loss of parking spaces. Personnel would either use existing parking in the vicinity of the new building or use the parking lot north of Building 104 and walk to the new facility.

ES 4.3 Alternative 3—Station Piers

Alternative 3 presents one additional site where the Station piers could be located. Under Alternative 3, the construction and location of the new Station and ANT Facility would be the same as described under the Preferred Alternative; however, the Station piers would be reconstructed in their existing footprint. Temporary mooring and utilities for Station, Customs and Border Patrol, and contingency vessels would be provided in the existing basin/wharf, through leased slips at an adjacent commercial facility, or via temporary floating piers while demolition and construction activities are ongoing. Portable wharf utilities (e.g., the existing gas tank, oil waste tank, and diesel fuel pump) would be relocated as necessary to service the new piers. The piers would be oriented in a north-south direction, perpendicular to the direction of incoming waves. To avoid potential damage from waves, a wave attenuation structure would be constructed immediately west of the piers.

ES 4.4 No-Action Alternative

The No-Action Alternative would not meet the purpose and need or USCG mission requirements. Under the No-Action Alternative, Sector Key West and Station Key West would continue to work out of facilities that are in poor condition and that do not meet authorized space requirements, resulting in multiple inefficiencies in carrying out their mission.

Sector Engineering Facility

Under the No-Action Alternative the Sector ESD functions would continue to operate out of old facilities that are in poor condition and do not meet authorized space requirements. Building 105, the main ESD Facility, which is located on Pier D2, was built in 1960 and does not have a boat bay to support the maintenance mission for the 45 RB-M. Additionally, the travel lift pier for removing the vessel from the water for maintenance is isolated from Building 105 with no feasible transportation route from the pier to the building. Under the No-Action Alternative, RB-M maintenance functions would continue to occur outside on Pier D2, away from Building 105, while the vessel sits in the travel lift cradle. This situation requires maintenance personnel to transport tools to the vessel to conduct maintenance operations outside where weather can also hinder maintenance efforts. Building 105 would continue to require monetary investment to address structural and termite issues. Additionally, material and equipment storage would continue to be disconnected from the ESD functions because these items would continue to be stored in Building 108 on Pier D3. This facility was also constructed in 1960 and currently has holes and widespread corrosion on the exterior metal sheathing.

Station and ANT Facility

Under the No-Action Alternative, the Station and ANT functions would remain in facilities that are in poor condition and do not meet authorized space requirements. Ongoing investment would be required to address structural and termite issues in Building 101 (Station Building). Material and equipment storage would remain disconnected from Station functions, and Building 101 would continue to lack a boat bay to support the Station's maintenance mission. Thus, maintenance personnel would continue to need to transport tools from disconnected shops to the vessels to perform maintenance outside where weather can hinder the ability to accomplish their mission. Additionally, Station vessels could continue to be moored in damaged and substandard Station piers with deficient structural supports and damaged walkways.

Electrical

Under the No-Action Alternative, the electrical infrastructure would not be upgraded, and Sector and Station Key West would continue to operate under limited capabilities to accomplish USCG's strategic mission. A Condition Assessment Study of Existing Electrical Distribution System, dated 30 November 2018, noted several deficiencies in the electrical infrastructure, including base-wide corrosion of feeder conduits, equipment being housed in enclosures that are not suitable for the coastal environment, equipment being at or near the end of its useful life cycle, and non-code compliant wiring methods. Additionally, Sector Key West would continue to be unable to provide the entire base with electricity for 10 days should a base-wide power outage occur.

ES.5 Agency and Public Involvement Process

The NEPA process requires that opportunities be provided for public review and comment on an EA. Publication of the draft EA kicked off a 30-day public comment period, offering a formal opportunity for public involvement. The 30-day review and public comment period began with the initial publication of the Notice of Availability on December 12, 2020, in the *Key West Citizen* newspaper. The draft EA was also posted online at https://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-Engineering-Logistics-CG-4-/Program-Offices/Environmental-Management/Environmental-Planning-and-Historic-Preservation/. In addition, the USCG provided a copy of the EA to the Monroe County Public Library in Key West, Florida. The library provided curbside services in response to the coronavirus (COVID-19) pandemic in the United States. Written comments were accepted via mail to Lesley Dobbins-Noble, Environmental Protection Specialist, USCG Facilities Design and Construction Center, 5505 Robin Hood Road, Suite K, Norfolk, VA 23513 or via electronic mail to Lesley.C.DobbinsNoble@uscg.mil. No public comments were received.

The USCG distributed the draft EA to public agencies and interested parties. The agencies and interested parties are listed below, with their full contact information provided in Appendix A. All agency correspondence is provided in Appendix D.

- National Oceanic and Atmospheric Administration (NOAA) – Office of National Marine Sanctuaries, Florida Keys National Marine Sanctuary (FKNMS)
- NOAA, National Marine Fisheries Service (NMFS) – Southeast Regional Office
- U.S. Environmental Protection Agency (USEPA) Region 4
- U.S. Fish and Wildlife Service (USFWS)
- U.S. Department of the Navy (Navy) – Naval Air Station (NAS) Key West
- United States Army Corps of Engineers

- Florida Department of Environmental Protection (Florida DEP)
- Florida Department of State – Division of Historical Resources
- Florida Fish and Wildlife Conservation Commission
- South Florida Water Management District
- City of Key West – Community Services
- City of Key West – Mayor
- City of Key West – Port Operations

ES.6 Environmental Consequences

Implementation of the Proposed Action and its alternatives have the potential to affect the following resource areas: air quality and greenhouse gases, geology and soils, water resources, biological resources, utilities, transportation, and human health and safety. Potential effects from glint and glare and hazardous and toxic material and waste are also discussed in this EA. Table ES-2 summarizes the impacts to these resources. The resources are discussed in detail in Section 3.0. Table ES-3 identifies those resources that were dismissed from detailed analysis because they would not experience a measurable impact as a result of the implementation of the Proposed Action and its alternatives.

Table ES-1. Summary of Alternatives

Component	Alternative 1 (Preferred Alternative)	Alternative 2 (Sector Engineering Facility)	Alternative 3 (Station Piers)	No-Action Alternative
Sector Engineering Facility	**Demolition:** • Sector Engineering/ESD Facility (Building 105) • Existing travel lift pier • Building 108 on Pier D3 • Storage Building 5 (Quonset Hut OV 7) **Construction:** • Sector Engineering Facility east of Building 105 at an existing parking lot • Parking lot in the current location of Building 105 • Travel pier along the southern quay wall of Pier D2 at the east end of Berth 8 • Storage Building at the current location of Building 108	**Demolition:** • Sector Engineering/ESD Facility (Building 105) (Green space post demolition) • Existing travel lift pier • Building 108 on Pier D3 **Construction:** • Sector Engineering Facility at the east end of Pier D3 • Travel lift pier to Pier D3 **Relocation:** • Six Quonset Huts to the west of their current location	Same as Preferred Alternative.	**Requirements and Issues:** • Sector ESD functions would continue to operate out of old facilities that are in poor condition and do not meet authorized space requirements or resiliency thresholds, requiring continued maintenance to address structural and termite issues. • Building 105 would not have a boat bay to support the maintenance mission for the 45 RB-M and maintenance functions would continue to be hindered. • Travel lift pier would continue to be isolated from Building 105. • Material and equipment storage would continue to be disconnected from the ESD functions. • Widespread corrosion on the exterior metal sheathing.
Station and ANT Facility	**Demolition:** • Buildings 101 and 106 • Existing Station piers (one prior to construction of new piers and two after construction of new piers is complete) **Construction:** • Station and ANT Facility east of Building 101, to include an armory and berthing and Station/ANT marine maintenance space • Station piers along the bulkhead between Piers D1 and D2 in an east-west orientation **Replacement:** • Diesel fuel storage tank to the east of Building 101 with two new 11,000-gallon diesel fuel storage tanks in the footprint of Building 101	Same as Preferred Alternative.	Station and ANT Facility - same as Preferred Alternative **Demolition:** • Existing Station piers **Construction:** • Station piers in their existing footprint oriented in a north-south direction • A wave attenuation structure immediately west of the piers **Relocation:** • Portable wharf utilities	**Requirements and Issues:** • Station and ANT functions would remain in facilities that are in poor condition and do not meet space requirements or resiliency thresholds. • Continued maintenances issues with ongoing structural and termite issues in Building 101. Material and equipment storage would remain disconnected from Station functions. • Building 101 would continue to lack a boat bay to support the Station's maintenance mission. • Station vessels could continue to be moored in damaged and substandard Station piers with deficient structural supports and damaged walkways.

Component	Alternative 1 (Preferred Alternative)	Alternative 2 (Sector Engineering Facility)	Alternative 3 (Station Piers)	No-Action Alternative

Electrical	Rebuild the electrical distribution system to include:
	• Replacement of electrical lines
	• Demolition and replacement of existing electrical distribution equipment
	• Replacement and installation of substations
	• Replacement of emergency generators
	• Incorporation of sustainable systems in all existing and proposed buildings
	  ○ Construction of a new 3,600-SF central generation plant
	  ○ Installation of an all-in-one battery energy storage system
	  ○ Installation of two new 20,000-gallon fuel tanks adjacent to the generator plant
	  ○ Construction of a PV system on the roofs of the proposed buildings, Building 48, and on top of carports
		Same as Preferred Alternative.	Same as Preferred Alternative.	**Requirements and Issues:**
				• Continued deficiencies in the electrical infrastructure.
				• Sector Key West would continue to be unable to provide the entire base with electricity for 10 days during a base-wide power outage.

Table ES-2. Summary of the Impacts

Resource	Alternative 1—Preferred Alternative	Alternative 2—Sector Engineering Facility	Alternative 3—Station Piers	No-Action Alternative
Glint and Glare Effects	Only green glare would result from the proposed PV panels, and under Federal Aviation Administration policy, green glare is acceptable for the flight paths. NEPA: no significant impact.	Same as Preferred Alternative. NEPA: no significant impact.	Same as Preferred Alternative. NEPA: no significant impact.	No impact. No solar panels currently exist in the project area. NEPA: no significant impact.
Air Quality and Greenhouse Gases	No ongoing or permanent air emissions from periodic operation of new emergency backup generators. Temporary emissions during construction would be minimal, and dust control measures would be implemented to minimize particulate matter emissions during demolition activities. Clean Air Act: the Proposed Action is exempt from the General Conformity Rule because it is not located in a nonattainment or maintenance area. NEPA: no significant impact.	Similar to Preferred Alternative. Clean Air Act: the Proposed Action is exempt from the General Conformity Rule because it is not located in a nonattainment or maintenance area. NEPA: no significant impact.	Similar to Preferred Alternative. Clean Air Act: the Proposed Action is exempt from the General Conformity Rule because it is not located in a nonattainment or maintenance area. NEPA: no significant impact.	No impact, existing emission sources would continue. Clean Air Act: no impact. NEPA: no significant impact.
Geology and Soils—*Terrestrial Soils*	Cutting, filling, grading, and paving activities related to demolition and construction of building facilities, as well as the installation of utility lines would adversely affect topsoil. Removal and compaction during construction would also expose and disturb soils, increasing the potential for soil erosion and sedimentation. Once asphalt has been laid on surface parking areas, a minimal increase in runoff is expected. Overall, adverse impacts on soils are anticipated to be minimal because most of the project area is covered with impervious surfaces, and structures and terrestrial soils no longer have their natural morphological features. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	No impact. NEPA: no significant impact.
Geology and Soils—*Marine Sediments*	Sediment disturbance for pile removal and installation of the travel pier and new Station piers would directly affect less than 1 acre of marine sediment. Sediment plumes are expected to settle out of the water column within a few hours. Continued use of vessels would generate propeller wash, which would disturb sediment. Best management practices (BMPs) for pile removal and placement would be followed to reduce large sediment disturbance and avoid returning sediment to waterways. Overall, direct, adverse impacts are anticipated to be minimal in the short- and long-term because future vessel operations in the pier basins would not change from current conditions. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	No new impacts. However, storm events and human activity, such as propeller wash from vessels in each berthing space on site would continue to disturb marine sediments. NEPA: no significant impact.

Resource	Alternative 1—Preferred Alternative	Alternative 2—Sector Engineering Facility	Alternative 3—Station Piers	No-Action Alternative
Water Resources—*Surface Water*	On-land construction activities: Removal of petroleum-contaminated soils would require dewatering and discharging treated water on-site. Proposed BMPs would limit water runoff and reduce short-term impacts on local water quality. Increase in impervious area would be negligible. For the installation of two 20,000-gallon fuel tanks for the central generation plant, the USCG would be required to prepare a Facility Response Plan (FRP), which would assist the USCG in identifying potential oil spill threats and having the necessary response resources in place to minimize the severity of a discharge impact. Therefore, impacts on water resources as a result of implementing the proposed on-land construction activities would be minor. Station Piers: In-water removal and installation of piers would result in localized sediment movement and have short-term minimal impacts. Impacts would be temporary and not change the composition of the local substrate. Clean Water Act: measurable impacts on water quality, but pollutant concentrations would be below applicable standards, regulations, and guidelines, and within existing conditions or designated uses. NEPA: no significant impact.	On-land construction activities: Similar to Preferred Alternative. Station Piers: Similar to Preferred Alternative. Clean Water Act: measurable impacts on water quality, but pollutant concentrations would be below applicable standards, regulations, and guidelines, and within existing conditions or designated uses. NEPA: no significant impact.	On-land construction activities: Similar to Preferred Alternative. Station Piers: Similar to Preferred Alternative. Clean Water Act: measurable impacts on water quality, but pollutant concentrations would be below applicable standards, regulations, and guidelines, and within existing conditions or designated uses. NEPA: no significant impact.	No impact. Clean Water Act: no impact. NEPA: no significant impact.
Water Resources—*Floodplains*	Although all construction activities would occur within the defined flood zones of Sector Key West, new facilities would be constructed above the Federal Emergency Management Agency (FEMA)-defined 100-year base flood elevation. Executive Order 11988: no impact. NEPA: no significant impact.	Similar to Preferred Alternative. Executive Order 11988: no impact. NEPA: no significant impact.	Similar to Preferred Alternative. Executive Order 11988: no impact. NEPA: no significant impact.	No impact; however, Sector Key West would not be able to ensure continued operations and safety for the existing infrastructure after a flood event. Executive Order 11988: no impact. NEPA: no significant impact.
Coastal Zone	The USCG has prepared a Coastal Consistency Determination for the Proposed Action. Alternative 1—Preferred Alternative would be consistent, to the maximum extent practicable, with the plans and policies of the Florida Coastal Management Program. Coastal Zone Management Act: consistent to the maximum extent practicable, with federally approved enforceable plans and policies NEPA: no significant impact.	Similar to Preferred Alternative. Coastal Zone Management Act: consistent to the maximum extent practicable, with federally approved enforceable plans and policies NEPA: no significant impact.	Similar to Preferred Alternative. Coastal Zone Management Act: consistent to the maximum extent practicable, with federally approved enforceable plans and policies NEPA: no significant impact.	No impact. Coastal Zone Management Act: no impact. NEPA: no significant impact.

Resource	Alternative 1—Preferred Alternative	Alternative 2—Sector Engineering Facility	Alternative 3—Station Piers	No-Action Alternative
Biological Resources— *Marine Submerged Aquatic Vegetation (SAV)*	Sediment disturbances from in-water work could affect SAV habitats outside the project area if sediments are transported. However, any potential increase in sedimentation in nearby SAV habitats would be minimal and would not result in loss of SAV because of the temporary nature of the impacts. Additionally, the USCG would implement BMPs during in-water work that would minimize the potential for adverse impacts. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	No impact. NEPA: no significant impact.
Biological Resources—*Marine Fauna*	Underwater noise, turbidity, and sedimentation would result in adverse impacts on marine fauna in the marina basins during demolition and construction activities for the travel lift and Station piers. BMPs designed to minimize turbidity and other potential water quality impacts associated with removal and installation of pilings would minimize impacts on marine fauna; no in-water work would begin until all regulatory consultations are complete. Additionally, an FRP would help the USCG identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on marine habitat and fauna. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	Similar to Preferred Alternative. Some species, including protected corals, would benefit over the long term because the structure would provide additional hard bottom habitat. Conversion of a small amount of soft bottom habitat within the footprint of the structure would permanently alter essential fish habitat (EFH) and coral EFH-Habitat Areas of Particular Concern (HAPC) but is not likely to adversely affect any federally managed species over the long term. NEPA: no significant impact.	No impact. NEPA: no significant impact.
Biological Resources—*Essential Fish Habitat (EFH)*	Underwater noise, particularly from the removal and installation of pilings for the travel lift and Station piers, turbidity, and sedimentation would have adverse impacts on EFH and coral EFH-HAPC during construction. A coral rescue/relocation plan would be developed, no in-water work would begin until all regulatory consultations are complete, and BMPs designed to minimize turbidity and other potential water quality impacts associated with the removal and installation of pilings would minimize impacts on EFH and coral EFH-HAPC. Additionally, an FRP would help the USCG identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on marine habitat, EFH, and coral EFH-HAPC. Magnuson-Stevens Act: minimal adverse effects to EFH and coral EFH-HAPC. NEPA: no significant impact.	Similar to Preferred Alternative. Magnuson-Stevens Act: minimal adverse effects to EFH and coral EFH-HAPC. NEPA: no significant impact.	Similar to Preferred Alternative. Conversion of a small amount of soft bottom habitat within the footprint of the structure would permanently alter EFH and coral EFH-HAPC but is not likely to adversely affect any federally managed species over the long term. Magnuson-Stevens Act: minimal adverse effects to EFH and coral EFH-HAPC. NEPA: no significant impact.	No impact. Magnuson-Stevens Act: no effects to EFH and no effect to coral EFH-HAPC. NEPA: no significant impact.

Resource	Alternative 1—Preferred Alternative	Alternative 2—Sector Engineering Facility	Alternative 3—Station Piers	No-Action Alternative
Biological Resources—*Protected Species*	Marine: Underwater noise, turbidity, and sedimentation would result in adverse impacts on marine protected species. Demolition of the travel lift and Station piers would have adverse impacts (i.e., take) on the federally threatened mountainous star coral, which has been documented on the support pilings for these structures. Preparing a coral rescue/relocation plan and implementing mitigation measures to relocate all colonies of the threatened coral to coral nurseries, research institutes, or suitable natural habitat outside the project area would minimize impacts but would still be considered a "take" under the Endangered Species Act. Therefore, the USCG would obtain appropriate incidental take permits from NOAA NMFS. Twenty additional protected coral species, 18 stony corals, and 2 soft corals, would also be adversely affected by in-water demolition and construction work. Relocating colonies larger than 10 centimeters in size and implementing BMPs during in-water work would minimize adverse impacts, but these impacts would not be avoidable. However, affected species are expected to recolonize disturbed areas and potentially colonize new underwater surfaces following construction. Therefore, no protected corals are expected to be eliminated from the project area. An FRP would help the USCG identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on marine habitat and protected species. No in-water work would begin until all regulatory consultations are complete. Terrestrial: Noise during demolition and construction activities could affect one terrestrial species—roseate tern. However, this species is tolerant of urban environments. Therefore, any adverse impacts would likely be limited to temporary displacement of individual birds. The PV system would be limited to building and carport rooftops; a much smaller array than that of a utility-scale PV facility; therefore, adverse impacts on roseate tern associated with glare from the PV system would be extremely unlikely to occur. NEPA: no significant impact.	Similar to Preferred Alternative; though an additional take of the federally threatened mountainous star coral could occur. While the species is not currently documented in the vicinity of where the new travel lift would be constructed, a survey would need to be conducted prior to in-water work to confirm this. If a new colony is documented, mitigation measures to relocate colonies of the threatened coral to coral nurseries, research institutes, or suitable natural habitat outside the project area would minimize impacts. Because relocation of the coral would still be considered a take, the USCG would obtain the appropriate incidental take permit from NOAA NMFS. No in-water work would begin until all regulatory consultations are complete. NEPA: no significant impact.	Similar to Preferred Alternative. Some species, including protected corals, would benefit over the long term because the structure would provide additional hard bottom habitat. NEPA: no significant impact.	No impact. NEPA: No significant impact.

Resource	Alternative 1—Preferred Alternative	Alternative 2—Sector Engineering Facility	Alternative 3—Station Piers	No-Action Alternative
Biological Resources—*National Marine Sanctuary Resources*	Underwater noise, turbidity, and sedimentation would result in adverse impacts on marine protected species. Demolition of the travel lift and Station piers would have adverse impacts (i.e., take) on the federally threatened mountainous star coral, which has been documented on the support pilings for these structures. Preparing a coral rescue/relocation plan and implementing mitigation measures to relocate all colonies of coral to coral nurseries, research institutes, or suitable natural habitat outside the project area would minimize impacts, yet still constitute an injury to resources of the FKNMS. Affected species are expected to recolonize disturbed areas and potentially colonize new underwater surfaces following construction. An FRP would help the USCG identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on marine habitat and protected species. No in-water work would begin until all regulatory consultations are complete. National Marine Sanctuaries Act: likely to injure a sanctuary resource NEPA: no significant impact.	Similar to Preferred Alternative; additional coral colonies could be impacted through rescue/relocation. National Marine Sanctuaries Act: likely to injure a sanctuary resource. NEPA: no significant impact.	Similar to Preferred Alternative. Some species, including corals, would benefit over the long term because the structure would provide additional hard bottom habitat. National Marine Sanctuaries Act: likely to injure a sanctuary resource. NEPA: no significant impact.	No impact. National Marine Sanctuaries Act: no effect to a sanctuary resource. NEPA: no significant impact.
Utilities—*Water, Wastewater, Stormwater, and Electric*	Impacts on utilities would result from service disruptions during connection and disconnection of the utilities. Any potential service disruptions would be coordinated with the affected facilities, and their impacts could be minimized by conducting them during weekends or after hours during the week. Beneficial impacts from replacing the existing electrical system would improve reliability and resiliency on base at Sector Key West. NEPA: no significant impact.	Impacts to utilities would be the same as those described for the Preferred Alternative with differences related to construction of the Station piers in their current footprint. Installation of a new outlet in the existing seawall would be necessary for underground conveyance of roof runoff. The location of the proposed Sector Engineering Facility conflicts with an existing electric line that would need to be removed and disposed of prior to construction of the facility. Utility service connections to the relocated Quonset Huts and travel lift pier would be limited to electricity, which is available near their respective locations. Like the Preferred Alternative, any potential service disruptions would be coordinated with the affected facilities, and their impacts could be minimized by conducting them during weekends or after hours during the week. Same beneficial impacts as the Preferred Alternative. NEPA: no significant impact.	Impacts to utilities would be the same as those described for the Preferred Alternative with differences related to construction of the Station piers in their current footprint. The proposed location for the Station and ANT Facility conflicts with an existing electric line and sewer line that could serve other on-site facilities. The connectivity of these lines should be determined during the design phase of the project. Same beneficial impacts as the Preferred Alternative. NEPA: no significant impact.	The existing electrical infrastructure on base at Sector Key West is in poor condition and has limited resiliency to future storm events. NEPA: significant impact to utilities on base.

Resource	Alternative 1—Preferred Alternative	Alternative 2—Sector Engineering Facility	Alternative 3—Station Piers	No-Action Alternative
Utilities—*Diesel Fuel*	Replacement of diesel fuel storage tanks would require temporary mitigation to minimize impacts. To maintain minimum endurance during Severe Weather Response Operations (i.e., hurricane season) for USCG vessels assigned to Station Key West, the work associated with the tanks would occur, if possible, outside hurricane season (June 1 through November 30). However, if this were not possible, the construction contractor would need to provide additional temporary fuel storage during the disruption to the fueling system to minimize operational impacts during a critical time of year. Additionally, the USCG would be required to prepare an FRP, which would help it identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on Sector Key West. NEPA: no significant impact.	Same as Preferred Alternative. NEPA: no significant impact.	Similar to Preferred Alternative. The diesel fuel system would likely be adversely affected for a longer time when the existing tanks are removed and the new tanks are installed. Operational impacts would be minimized as described under the Preferred Alternative by using temporary fuel tanks and conducting the work outside the hurricane season if possible. Additionally, the USCG would be required to prepare an FRP, which would help it identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on Sector Key West. NEPA: no significant impact.	No impact. NEPA: no significant impact.
Transportation	Minor temporary impacts would occur from the use of a nearby temporary parking lot and truck traffic associated with construction and soil removal. The number of truck trips estimated each day is insignificant compared to the number of trucks already using the expected routes to Station Key West and not enough to create traffic problems inside the Station. NEPA: no significant impact.	Same as Preferred Alternative. NEPA: no significant impact.	Same as Preferred Alternative. NEPA: no significant impact.	No impact. NEPA: no significant impact.
Hazardous and Toxic Material and Waste— *Soil and Groundwater Contamination*	Contamination is present; however, impacts would be minimized with continued regulatory compliance, use of BMPs, and disposal of petroleum-contaminated soils at an off-site permitted landfill. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	No impacts from the potential handling of hazardous materials and hazardous waste, such as contaminated soils. However, existing contamination would remain in place and would require ongoing investigation and remediation. NEPA: no significant impact.
Hazardous and Toxic Material and Waste—*Building Material Assessment*	Hazardous waste from demolition activities would be disposed of per regulations. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	No impacts from the potential handling of hazardous materials and hazardous waste, such as asbestos-containing material and lead-based paint. However, existing contamination would remain in place. NEPA: no significant impact.

Resource	Alternative 1—Preferred Alternative	Alternative 2—Sector Engineering Facility	Alternative 3—Station Piers	No-Action Alternative
Human Health and Safety	Impacts to workers and public from potential safety hazards would be minimized with compliance to applicable regulations and guidance. Rebuilding the electrical distribution system serving Sector Key West would eliminate the health and safety risks associated with existing electrical code issues. Executive Order 13045: no disproportionate environmental health or safety risks to children, because children are not typically in the project area. NEPA: no significant impact.	Similar to Preferred Alternative. Executive Order 13045: no disproportionate environmental health or safety risks to children, because children are not typically in the project area. NEPA: no significant impact.	Similar to Preferred Alternative. Executive Order 13045: no disproportionate environmental health or safety risks to children, because children are not typically in the project area. NEPA: no significant impact.	Deterioration of the electric distribution system and existing code/safety issues would continue. Additionally, the proposed facilities and infrastructure would not be built at least 3 feet above the base levels; therefore, Sector Key West would not be able to ensure continued operations and safety for the existing infrastructure after a flood event. Executive Order 13045: no disproportionate environmental health or safety risks to children, because children are not typically in the project area. NEPA: no significant impact.

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Table ES-3. Resource Areas Dismissed from Further Analysis

Resource Area	Rationale for Dismissal
Land Use	The Proposed Action would be fully consistent with existing land uses at Sector Key West and is integral to meeting the ongoing roles and missions of Sector Key West and Station Key West.
Biological Resources—Terrestrial Vegetation	Most of Sector Key West is developed land; undeveloped areas are sparsely landscaped with ornamental species. Any vegetated areas disturbed during demolition and construction would be revegetated where possible.
Biological Resources—Terrestrial Wildlife	Sector Key West does not contain any habitats that support wildlife except those species adapted to urban environments. These species may be temporarily displaced during demolition and construction activities, but once those activities are completed, the species are expected to return.
Biological Resources—Migratory Birds	Sector Key West does not contain suitable habitat for most migratory bird species. While some migratory birds may occasionally be found in the area and may temporarily avoid the area during demolition and construction, they are expected to return once construction is complete. Additionally, given the relatively small scale of the PV panels proposed for the buildings and carports at Sector Key West, any glare from them is unlikely to affect birds in the area. One migratory bird species that could occur in the project area, roseate tern, is listed as federally threatened under the Endangered Species Act and is analyzed under Protected Species.
Cultural Resources	Sector Key West does not contain any resources that are considered potentially eligible for listing in the National Register of Historic Places. All the buildings are contained within a developed, industrial site and lack architectural character that would set them apart as unique. However, the USCG will coordinate with the Division of Historical Resources about the buildings to be demolished so the Florida Master Site File can be updated.
Water Resources—Wetlands	Tidal and subtidal wetlands around Sector Key West are classified as basins or channels that were excavated by humans. No terrestrial wetlands exist at Sector Key West.
Water Resources—Groundwater	The layer of freshwater beneath Key West is subject to saltwater intrusion through the porous Key Largo limestone formation and is exposed to pollution from exfiltrating sewer lines. No known source of potable artesian water exists in Key West.
Noise	The Proposed Action would occur entirely on USCG property, which is surrounded by U.S. Department of the Navy (Navy) property. The local ambient noise environment is dominated by the presence of USCG and Navy operations. While demolition and construction activities would increase noise in the immediate vicinity of the activities on Sector Key West, the noise would be temporary and minimal.

Resource Area	Rationale for Dismissal
Visual and Aesthetic Resources	The local visual and aesthetic resources of Sector Key West are dominated by the presence of USCG and Navy waterfront and military facilities, buildings, and vessels. The Proposed Action would replace existing facilities on Sector Key West and would not introduce any new elements that would differ from the existing facilities or alter the nature of the visual or aesthetic resources of the working waterfront environment.
Utilities—Telecommunications, Natural Gas, and Solid Waste	The Proposed Action would extend telecommunications systems and natural gas to the new facilities. These upgrades would be necessary to meet the requirements of the new facilities, but the current capacity of these systems is adequate to support the Proposed Action. In addition, solid waste disposal capacity is adequate to support the Proposed Action.
Environmental Justice	The Proposed Action would occur within the boundary of Sector Key West and would not disproportionately affect minority or low-income communities, nor would it displace any residents, eliminate jobs, or affect wages.

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1.0 PURPOSE AND NEED

1.1 Introduction

The U.S. Coast Guard (USCG) proposes to repair/replace facilities at Sector and Station Key West that were damaged by Hurricane Irma in September 2017 (Figure 1-1). This environmental assessment (EA) was prepared in accordance with the National Environmental Policy Act (NEPA) (42 United States Code [U.S.C.] §§4321 et. seq.); Council on Environmental Quality (CEQ) Regulations for Implementing NEPA (40 Code of Federal Regulations [CFR] §§1500-1508), and associated CEQ guidelines; Department of Homeland Security Management Directive 023-01, Implementation of the National Environmental Policy Act; and Coast Guard Commandant Instruction (COMDTINST) 5090.1, U.S. Coast Guard Environmental Planning Policy.

The information and analysis contained in this EA will serve as the basis for a USCG decision on whether implementing the Proposed Action or any alternative actions would result in a significant impact to the environment that would require the preparation of an environmental impact statement, or if no significant impacts would occur and therefore a Finding of No Significant Impact would be appropriate. CEQ regulations and COMDTINST 5090.1 require that EAs identify and evaluate all reasonable alternatives, including a "No-Action Alternative" in which the Proposed Action is not undertaken.

1.2 Background

Sector Key West is a unified command consisting of six Fast Response Cutters, three small boat stations, an Aids to Navigation Team (ANT), and three staff departments. The Sector Commander performs the duties of Search and Rescue Mission Coordinator; Captain of the Port; Federal Maritime Security Coordinator; Federal On-Scene Coordinator; and Officer in Charge, Marine Inspection. Sector Key West's area of responsibility includes 55,000 square miles bordering the territorial seas of Cuba and the Bahamas.

In September 2017, Sector Key West and Station Key West, a Small Boat Station unit of and collocated on Sector Key West, suffered extensive damage from Hurricane Irma. To implement projects to mitigate the damage and close gaps in the existing infrastructure vulnerabilities, the USCG solicited an architect/engineering contract to develop engineering, environmental, and planning studies of the existing infrastructure to support the development of alternatives to achieve the following three concurrent efforts:

- Rebuild Engineering Building (Building 105) (Figure 1-2) at Sector Key West, Florida, to meet resiliency thresholds.
- Rebuild waterfront and shore facilities for Station Key West (Figure 1-3).
- Rebuild the electrical distribution system serving Sector Key West.

1.3 Purpose of the Action

The purpose of the Proposed Action is to provide facilities and infrastructure at Sector Key West and Station Key West that meet the operational, space, and maintenance requirements so that they can fully execute their strategic missions. This includes increasing the resiliency of Sector and Station facilities so that they can remain operational during future weather events and return to full operation after an event is over.

Figure 1-1. Regional Map

Figure 1-2. Sector Engineering Facility

1.4 Need for the Action

The overarching need for the Proposed Action is to provide Sector Key West and Station Key West with facilities and infrastructure that will allow them to adequately execute their mission requirements. Currently, Sector Key West and Station Key West are operating from facilities that were damaged by Hurricane Irma, are in poor condition, and do not meet authorized space requirements as set forth in COMDTINST M11012.9, Shore Facilities Standards Manual, or resiliency thresholds as required by Chief, Office of Civil Engineering (CG-43) Key Planning Factors. The facilities are also being supported by inadequate electrical infrastructure systems that limit the operational capabilities of the Sector and the Station.

Figure 1-3. Station Key West and Station Piers

1.5 Agency and Public Involvement Process

The NEPA process requires that opportunities be provided for public review and comment on an EA. The publication of this draft EA will kick off a 30-day public comment period, offering a formal opportunity for public involvement. The 30-day review and public comment period began with the initial publication of the Notice of Availability on December 12, 2020, in the *Key West Citizen* newspaper. The draft EA was posted online at https://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-Engineering-Logistics-CG-4-/Program-Offices/Environmental-Management/Environmental-Planning-and-Historic-Preservation/. In addition, the USCG also provided a copy of the EA to the Monroe County Public Library in Key West, Florida. The library provided curbside services in response to the coronavirus (COVID-19) pandemic in the United States. Written comments were accepted via mail to Lesley Dobbins-Noble, Environmental Protection Specialist, USCG Facilities Design and Construction Center, 5505 Robin Hood Road, Suite K, Norfolk, VA 23513 or via electronic mail to Lesley.C.DobbinsNoble@uscg.mil. No public comments were received.

The USCG distributed the draft EA to public agencies and interested parties. The agencies and interested parties are listed below, with their full contact information provided in Appendix A. All agency correspondence is provided in Appendix D.

- National Oceanic and Atmospheric Administration (NOAA) – Office of National Marine Sanctuaries, Florida Keys National Marine Sanctuary (FKNMS)
- NOAA, National Marine Fisheries Service (NMFS) – Southeast Regional Office
- U.S. Environmental Protection Agency (USEPA) Region 4
- U.S. Fish and Wildlife Service (USFWS)
- U.S. Department of the Navy (Navy) – Naval Air Station (NAS) Key West
- United States Army Corps of Engineers
- Florida Department of Environmental Protection (Florida DEP)
- Florida Department of State – Division of Historical Resources
- Florida Fish and Wildlife Conservation Commission
- South Florida Water Management District
- City of Key West – Community Services
- City of Key West – Mayor
- City of Key West – Port Operations

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2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action

Under the Proposed Action, the USCG would rebuild facilities damaged during Hurricane Irma by (1) demolishing and rebuilding the Sector Engineering/Electronics Support Detachment (ESD) Building (Building 105) at Sector Key West to meet resilience thresholds, (2) rebuilding waterfront and shore facilities for Station Key West, including demolishing existing facilities; and constructing a new Station building, grounds work, pier, docks, and boat house, and (3) rebuilding the electrical distribution system serving Sector Key West to include a transformer and electrical distribution to the waterfront, shore facilities, and on-site energy generation and storage. Figure 2-1 provides an overview of the locations of the alternatives discussed below; Figure 2-2 shows the facilities to be demolished and relocated or replaced.

2.1.1 Alternative 1—Preferred Alternative

Sector Engineering Facility

Under the Preferred Alternative, the USCG would demolish the existing Sector Engineering/ESD Facility (Building 105) and build a new 36,073-gross-square-foot (GSF) facility in the location of the parking lot immediately east of its current location on Pier D2. The parking lot would be moved to the current location of Building 105 once it is demolished. The new facility would include Sector Engineering administrative and maintenance spaces, ESD administrative and operational spaces, and two boat maintenance bays that could accommodate USCG's 45-foot Response Boat – Medium (45 RB-M). Utilities (water, sewer, stormwater, natural gas, electric, and telecommunications) for the new facility would be connected to existing nearby utility lines. The existing travel lift pier would be demolished and reconstructed along the southern quay wall of Pier D2 at the east end of Berth 8 to provide direct access to the boat maintenance bays of the Sector Engineering Facility without crossing any base roads. Building 108 on Pier D3 would be demolished, and storage Building 5 (Quonset Hut OV 7) would be demolished and rebuilt in that location. Materials currently stored in Building 108 would be stored in the new Sector Engineering Facility. Figures 2-2 and 2-3 include the demolition and site plans, respectively, under the Preferred Alternative.

Station and ANT Facility

Currently, the Station operates out of Building 101, and the ANT operates out of Building 105. Under the Preferred Alternative, the USCG would demolish Building 101 and Building 106 and construct a new three-story, 23,486-GSF Station and ANT Facility adjacent and east of the current Building 101 location (see Figures 2-2 and 2-3). The new building would include facility support space, Station administrative and operational spaces, an armory, and berthing and marine maintenance space. In addition, it would provide ANT administrative and operational spaces and marine maintenance space. Because the existing building is in a floodplain, the first floor would house shop spaces only. The second floor would accommodate all administrative functions, the armory, the command and control center, recreation space, and the central dining area. The third floor would house berthing spaces. Temporary storage of spare parts currently housed in Building 106 would be provided. Permanent storage would be provided in the new Station and ANT Facility. Existing utilities and services would be relocated to the new building and connected to existing nearby utility lines. Additional supporting improvements would include paving, walks, curbs and gutters, and storm drainage. The two 11,600-gallon diesel fuel storage tanks located to the east of Building 101 would be temporarily relocated during construction and eventually replaced with two new 11,000-gallon diesel fuel storage tanks located in the footprint of the existing Building 101. New underground fuel lines would be installed from the new location of the tanks to the pier. Like the existing underground fuel lines, the new fuel lines would be double piped with a sump monitor for detecting leaks between them.

Figure 2-1. Project Site Locations

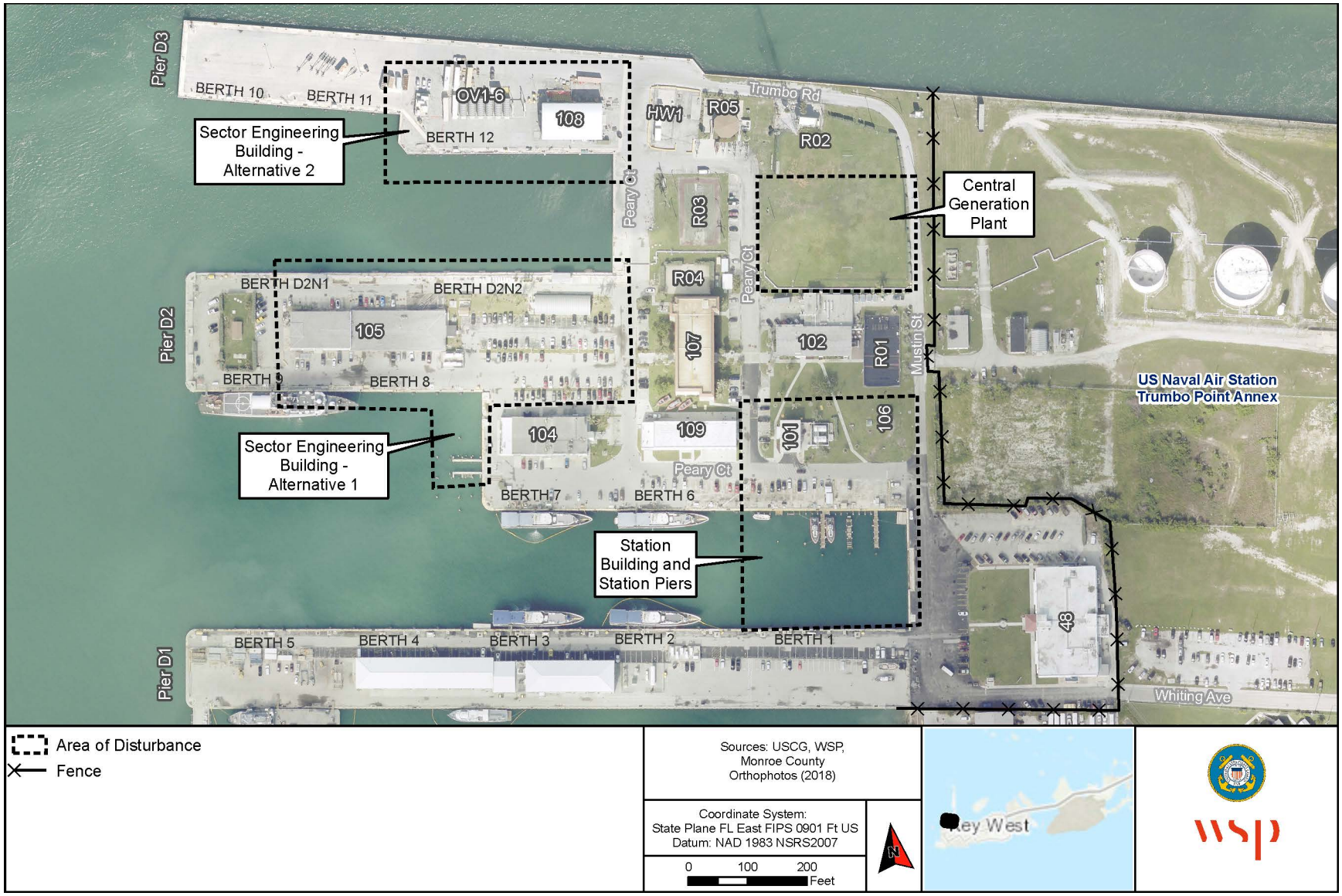


Figure 2-2. Demolition Plans

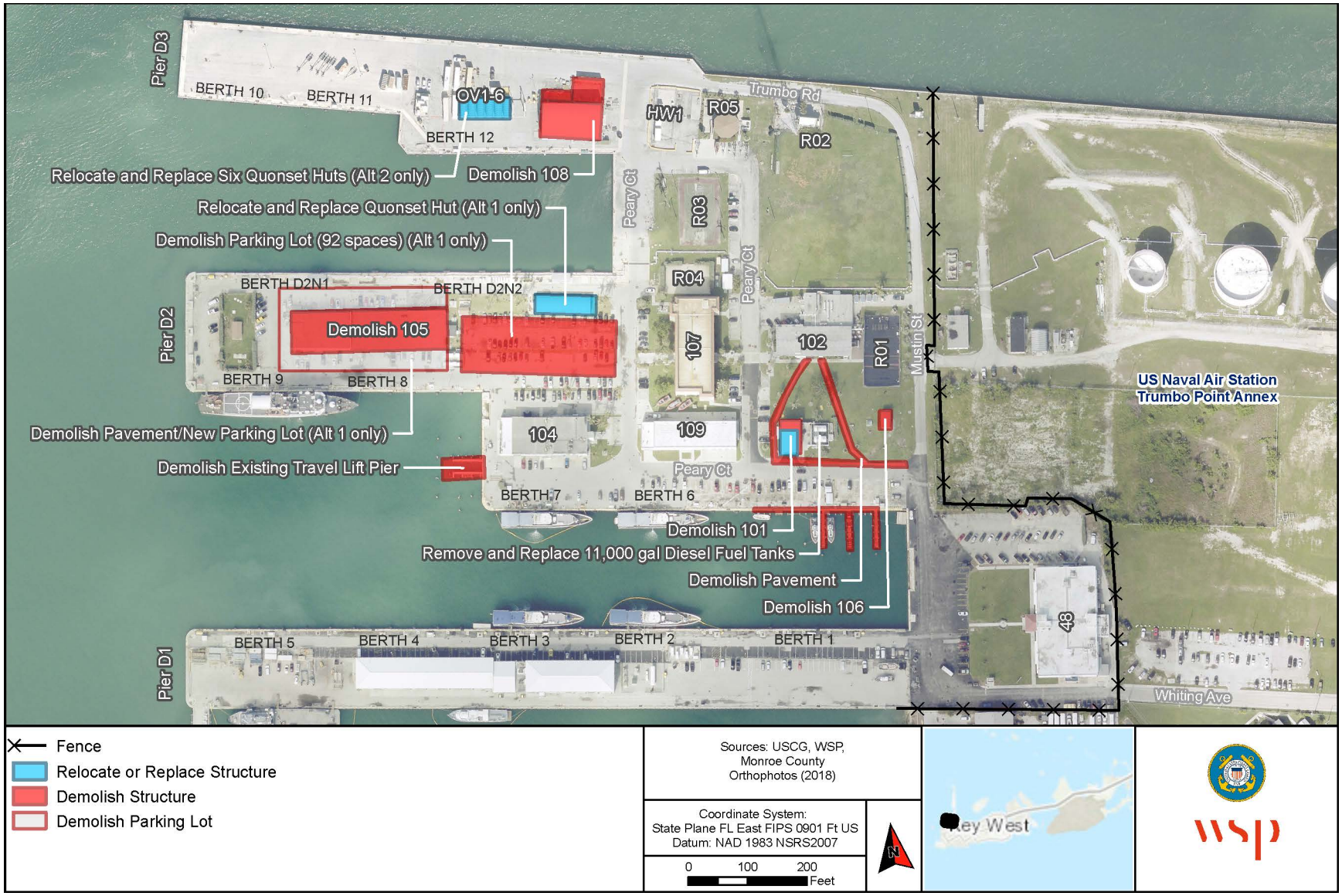
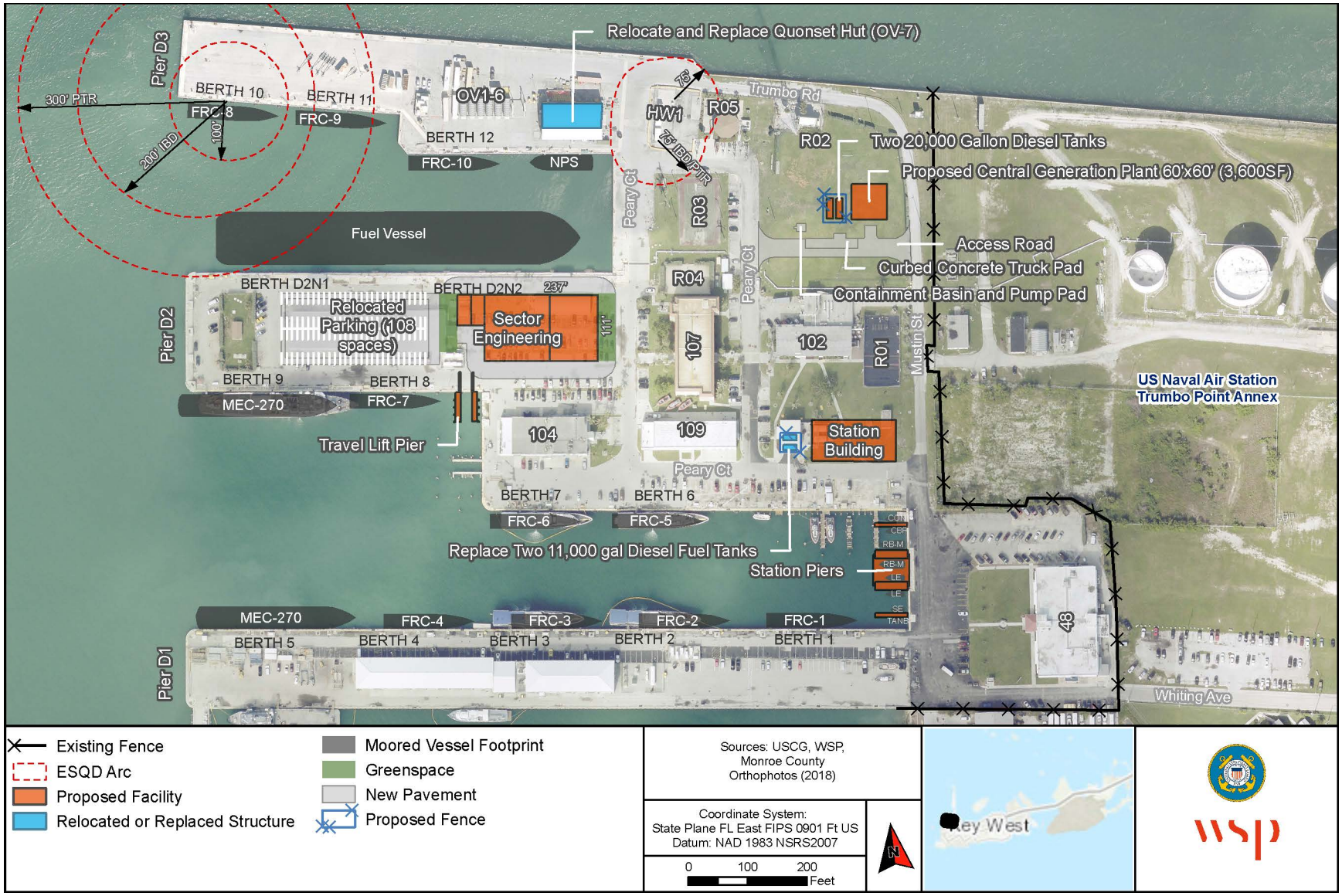


Figure 2-3. Preferred Alternative Site Plan



The USCG would also construct new Station piers with two covered moorings along the bulkhead between Piers D1 and D2 in an east-west orientation. With this orientation, no wave attenuation structure would be required to protect the vessels moored at the piers. Temporary mooring and utilities for Station, Customs and Border Patrol, and contingency vessels would be provided in the existing basin/wharf through leased slips at an adjacent commercial facility, via temporary floating piers, or by using two of the three existing piers while demolition and construction activities are ongoing. The pier closest to the new pier location would be demolished to accommodate the new construction; the remaining two piers would be demolished after construction is complete. Portable wharf utilities such as the existing gas tank, oil waste tank, and diesel fuel pump would be relocated to service the new piers. The Station piers would accommodate mooring of Station Key West vessels and provide two covered moorings. If the Sector Engineering Facility is constructed first, swing space would be provided for the ANT prior to the construction of the new Station and ANT Facility.

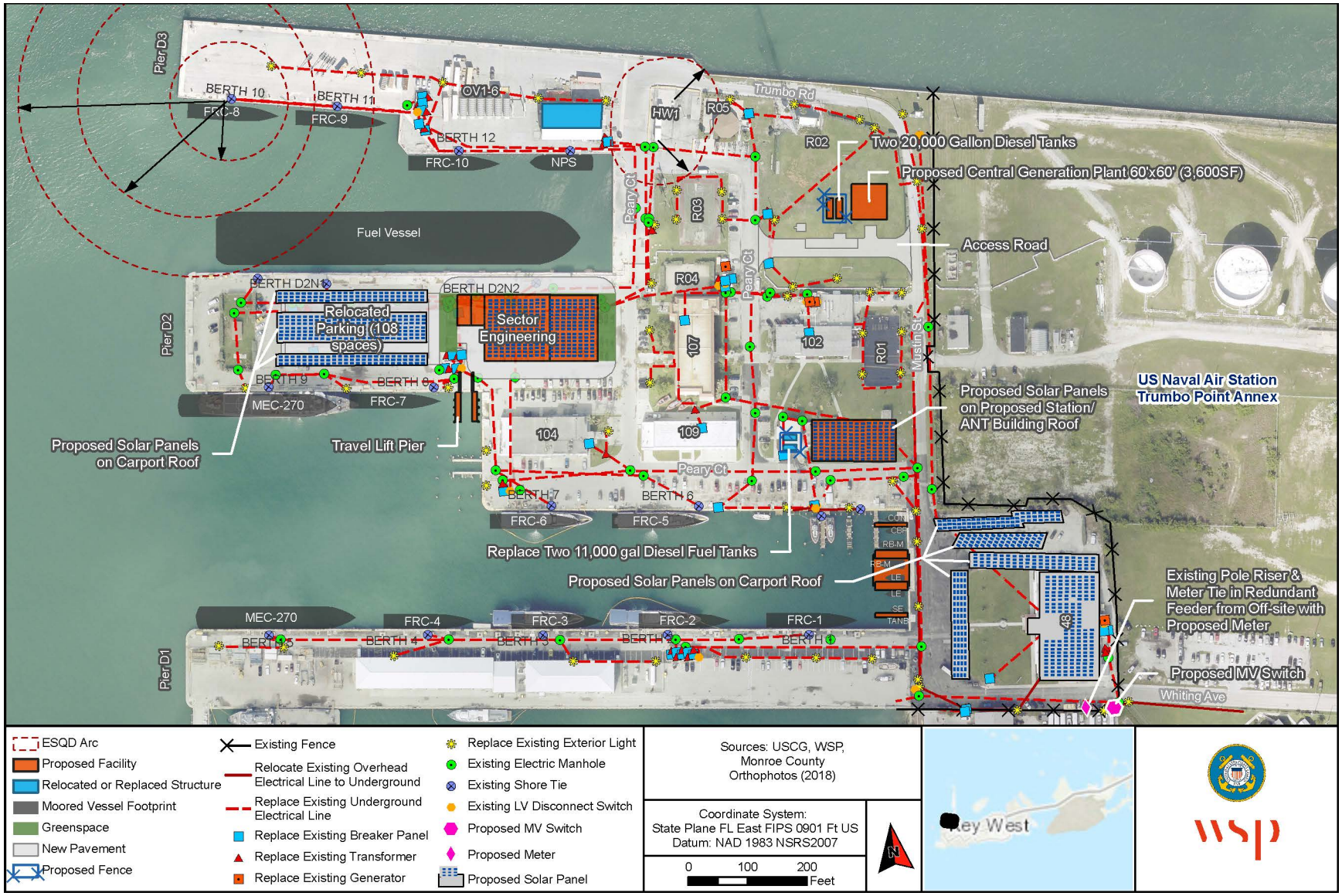
Electrical

Under the Preferred Alternative, the USCG would rebuild the electrical distribution system serving Sector Key West with a new complete and usable infrastructure that meets current mission requirements. It would replace electrical lines, including conductors and conduits; encase all primary distribution conduits in concrete; demolish and replace existing electrical distribution equipment, including distribution transformers throughout the base, and raise all exterior electrical distribution equipment to 3 feet above the 100-year flood elevation; replace and install substations; install proposed medium voltage, fast response switchgear throughout the base on elevated platforms; replace overhead branch circuit conductors with proposed subterranean conductors in conduit and concrete encased; replace emergency generators; install standardized equipment to simplify operations and maintenance, repair, and replacement; replace hurricane-damaged light poles with concrete poles; replace hurricane-damaged existing exterior pole-mounted area lights, floodlights, and sports light fixture heads with LED equivalents; and incorporate sustainable systems in all existing and proposed buildings.

A new 3,600-square-foot (SF) central generation plant would be constructed in the northeast portion of the base. The plant would include four parallel 1,000 kilowatt (kW) (with a 900-kW prime power rating), medium-voltage diesel or jet propellant-5 (JP-5) generators (with black start capabilities) that provide N+2 (i.e., two backup components in conjunction with building level emergency generators evaluated for repair, upgrade, or replacement) to all critical facilities, and N+1 (i.e., one backup component) for the entire base. The generators would be able to carry the maximum demand load used by Sector Key West over a one-year period at 125 percent (1.8 megawatt), as required by the National Electrical Code, for a period of 10 days. Two 1-megawatt generators were selected for their 900-kW prime rating because of the run time required. In addition, an all-in-one battery energy storage system (with 30–45 minutes battery storage capacity) would be installed to store energy for short outages and to filter the incoming power.

The fuel for the diesel or JP-5 generators would be supplied from a proposed fuel line connecting the generators to two new 20,000-gallon fuel tanks located adjacent to the generator plant. The 40,000 gallons of dedicated central generation fuel storage would meet the 10-day independent operation requirement. Additionally, a photovoltaic system (PV) would be constructed on the roofs of the proposed buildings and Building 48 and on top of carports throughout the parking areas. Figure 2-4 shows the electrical site plan for the Preferred Alternative.

Figure 2-4. Preferred Alternative Electrical Site Plan



2.1.2 Alternative 2—Sector Engineering Facility

Under Alternative 2, the Sector Engineering Facility would be demolished and reconstructed on the east end of Pier D3, where Buildings 108 and Quonset Huts OV 1 through 6 are currently located. Figure 2-2 includes the demolition plan under Alternative 2, and Figure 2-5 provides the site plan. The location would be outside the explosive safety quantity distance (ESQD) for the loading/unloading and storage of munitions. Utilities (water, sewer, stormwater, natural gas, electric, and telecommunications) for the new facility would be connected to existing nearby utility lines. The new travel lift pier would be relocated to Pier D3 to provide direct access to the boat maintenance bays in the southwest corner of the Sector Engineering Facility without crossing any of the base roads. Building 108 would be demolished, and the six Quonset Huts would be relocated just to the west of their current location. No additional parking would be provided because there would be no loss of parking spaces. Personnel would either use existing parking near the new building or use the parking lot north of Building 104 and walk to the new facility. Once demolished, the footprint of Building 105 would be turned into green space.

2.1.3 Alternative 3—Station Piers

Alternative 3 presents one additional site where the Station piers could be located (Figure 2-6). Under Alternative 3, the construction and location of the new Station and ANT Facility would be the same as described under the Preferred Alternative; however, the Station piers would be reconstructed in their existing footprint. Temporary mooring and utilities for Station, Customs and Border Patrol, and contingency vessels would be provided while demolition and construction activities are ongoing. Temporary mooring would either be provided in the existing basin/wharf, through leased slips at an adjacent commercial facility, or via temporary floating piers. Portable wharf utilities (e.g., the existing gas tank, oil waste tank, and diesel fuel pump) would be relocated as necessary to service the new piers. The piers would be oriented in a north-south direction, perpendicular to the direction of incoming waves. To avoid potential damage from waves, a wave attenuation structure would be constructed immediately west of the piers.

Figure 2-5. Alternative 2—Sector Engineering Facility Site Plan

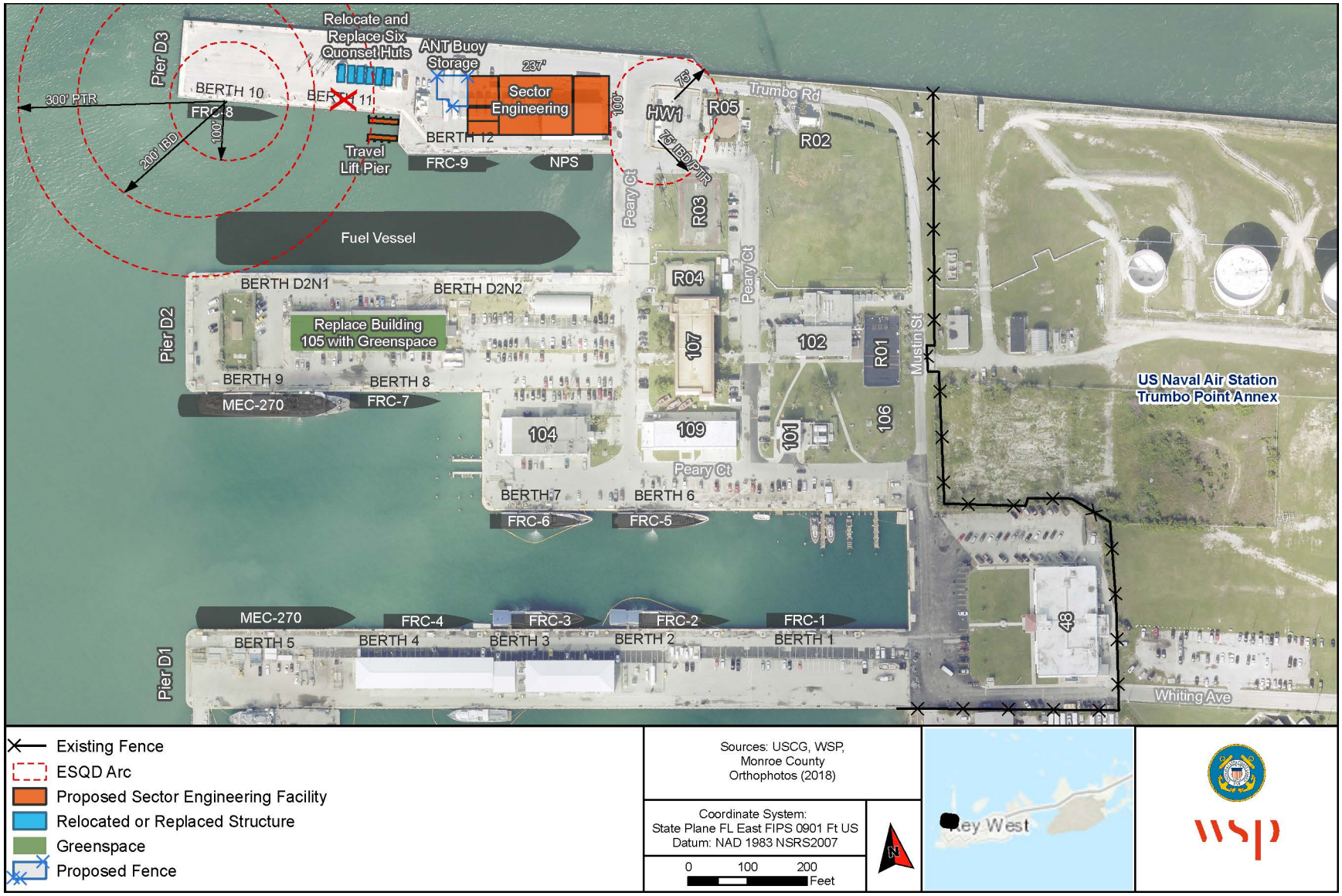
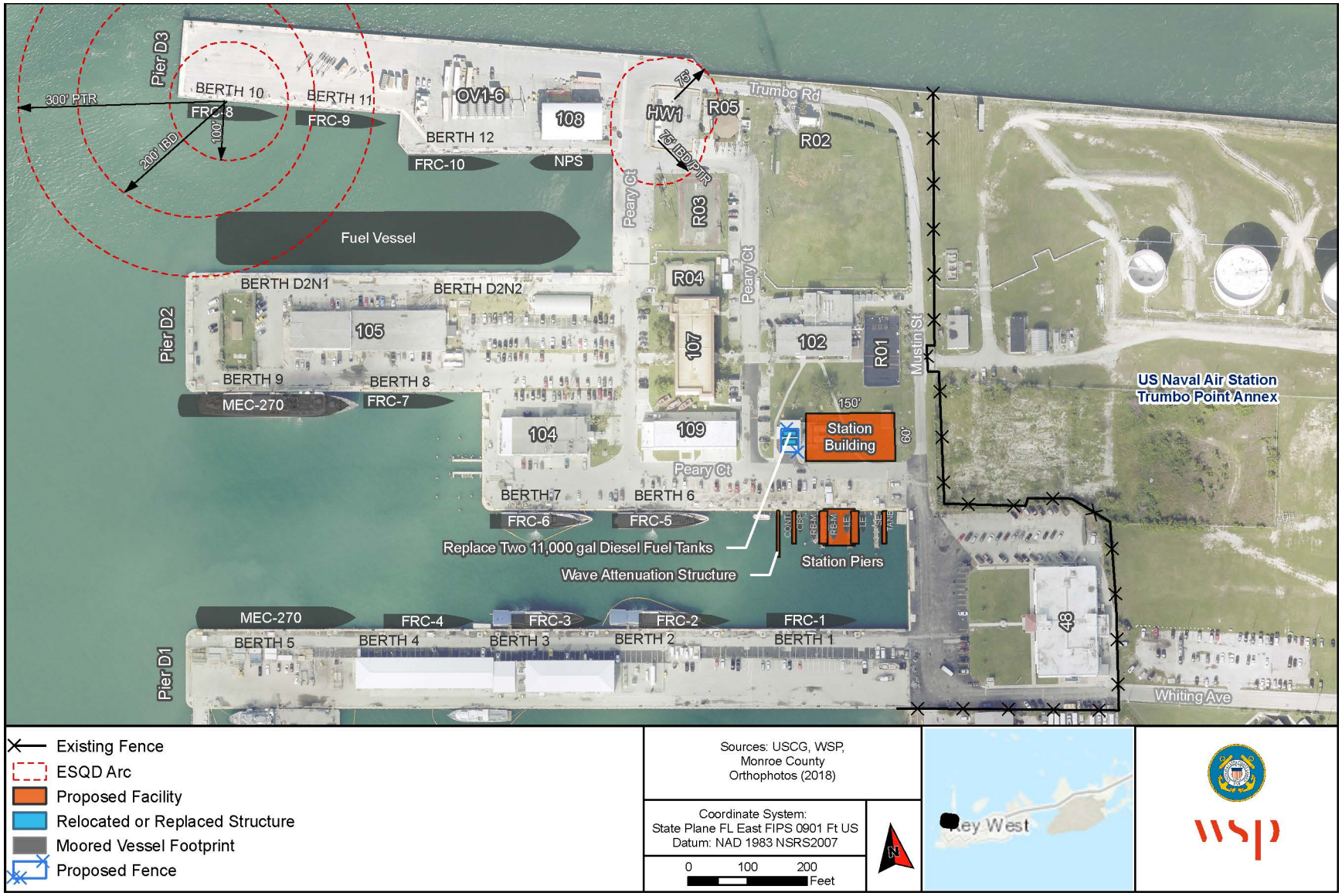


Figure 2-6. Alternative 3—Station and ANT Facility Site Plan



2.2 No-Action Alternative

The No-Action Alternative would not meet the purpose and need or USCG mission requirements. Under the No-Action Alternative, Sector and Station Key West would continue to work out of facilities that are in poor condition and that do not meet authorized space requirements or resiliency thresholds, resulting in multiple inefficiencies in carrying out their mission.

2.2.1 Sector Engineering Facility

The Sector Engineering/ESD functions would continue to operate out of old facilities that are in poor condition and do not meet authorized space requirements. Building 105, the main ESD Facility, which is located on Pier D2, was built in 1960 and does not have a boat bay to support the maintenance mission for the 45 RB-M. Additionally, the travel lift pier for removing the vessel from the water for maintenance is isolated from Building 105 with no feasible transportation route from the pier to the building. Under the No-Action Alternative, RB-M maintenance functions would continue to occur outside on Pier D2, away from Building 105, while the vessel sits in the travel lift cradle. This situation requires maintenance personnel to transport tools to the vessel to conduct maintenance operations outside where weather can also hinder maintenance efforts. Building 105 would continue to require monetary investment to address structural and termite issues. Additionally, material and equipment storage would continue to be disconnected from the ESD functions because these items would continue to be stored in Building 108 on Pier D3. This facility was also constructed in 1960 and currently has holes and widespread corrosion on the exterior metal sheathing.

2.2.2 Station and ANT Facility

The Station and ANT functions would remain in facilities that are in poor condition and do not meet authorized space requirements. Ongoing investment would be required to address structural and termite issues in Building 101 (Station Building). Material and equipment storage would continue to be disconnected from Station functions, and Building 101 would continue to lack a boat bay to support the Station maintenance mission. Thus, maintenance personnel would continue to need to transport tools from disconnected shops to the vessels to perform maintenance outside where weather can hinder the ability to accomplish their mission. Additionally, Station vessels could continue to be moored in damaged and substandard Station piers with deficient structural supports and damaged walkways.

2.2.3 Electrical

The electrical infrastructure would not be upgraded, and Sector Key West and Station Key West would continue to operate under limited capabilities to accomplish USCG's strategic mission. A Condition Assessment Study of Existing Electrical Distribution System, dated 30 November 2018, noted several deficiencies in the electrical infrastructure, including base-wide corrosion of feeder conduits, equipment being housed in enclosures that are not suitable for the coastal environment, equipment being at or near the end of its useful life cycle, and non-code compliant wiring methods. Additionally, Sector Key West would continue to not have suitable backup power to provide the entire base with electricity for 10 days should a base-wide power outage occur.

2.3 Alternatives Considered but Not Carried Forward

The USCG applied a series of key planning factors to guide the development of alternatives that meet the stated purpose and need for the project. These factors include meeting basic facility requirements (BFRs); mitigating natural hazard risks; and addressing facility operating costs, code compliance, and security concerns. Additionally, development of the alternatives considered the Sector and Station's mission requirements. Key planning factors include the following:

- Shore facility and support requirements will be based on documented mission requirements.
- Existing USCG sites will be used where possible.
- Facilities will be designed to meet operational functionality and maintenance.
- Occupied facilities will be located at least 2 feet above the 100-year flood elevation.
- Critical infrastructure will be located at least 3 feet above the 100-year flood elevation.
- Sites will consider vulnerability to natural hazards.
- Security will be maximized for new and existing buildings.
- All new construction, major renovations, and critical utilities will include resiliency in the site's ability to remain operational during a weather event and the ability to return to full operation after an event.
- Renewable energy features will not affect facility resiliency.

2.3.1 Sites Evaluated

The USCG evaluated several sites, as described below.

Sector Engineering Facility

- *Renovate Existing Facility*—Building 105 is in poor condition, and according to a 2017 Facility Condition Assessment, it has a significant backlog of repairs to be made. The building is undersized and does not meet the space requirements provided in the BFR. Renovating Building 105 would not provide the space required to meet the mission functions for the Sector, nor would it provide a boat bay to support the maintenance mission for the 45 RB-M. Therefore, this alternative was not carried forward for further consideration.
- *New Construction at the Sector Parking Lot*—The Sector parking lot to the north of Building 105 was considered as a location for constructing a new Sector Engineering Facility. However, the available buildable area at this location is 17,000 GSF, and the required footprint for the new Sector Engineering Facility is 23,666 GSF. Therefore, this site was not considered viable for new construction and was not carried forward for further consideration.
- *New Construction at the Basketball Court and Baseball Field*—The current location of the basketball court and baseball field north of the Unaccompanied Enlisted Personnel Housing was considered for the new Sector Engineering Facility. However, because the proposed Generation Plant would be sited at the same location and there were no alternative locations for the plant, construction of the Sector Engineering Facility at this site was considered unfeasible and was not carried forward for further consideration.

- *Leasing Space*—The Sector Engineering Facility is a mission requirement for the Sector and must be collocated on the base to fully perform its mission related duties. Therefore, this alternative was not carried forward for further consideration.

Station and ANT Facility

- *Renovate Existing Station Facility*—Building 101 is in poor condition and does not meet authorized space requirements provided in the BFR. Renovating Building 101 would not provide the space required to meet the mission functions for the Station, nor would it provide a boat bay to support the maintenance mission for Station. Therefore, this alternative was not carried forward for further consideration.
- *New Construction Between Piers D2 and D3 with Parallel Finger Piers*—This location is not feasible for the Station piers because the piers would conflict with berthing space for ocean tankers that use Pier D2 to deliver fuel monthly. In addition, if the Station and ANT Facility were to continue to be located here, it would remain separated from any viable Station pier location at a distance unacceptable from an operational standpoint. Therefore, this alternative was not carried forward for further consideration.
- *New Construction on Existing Site*—Constructing the new Station and ANT Facility within the footprint of the existing facility (Building 101) would require temporary facilities for the Station and ANT functions during demolition and construction activities, which would hinder their operational and maintenance mission functions. Therefore, this alternative was not carried forward for further consideration.
- *Renovate Existing Station/ANT to serve as an Administrative/Operations Building and Construct a New Machinery Tech/Boatswain's Mate Shop Building and Wetroom Adjacent to the Existing Station Pier*—Building 101 is in poor condition and does not meet the authorized space requirements provided in the BFR. Additionally, because Building 101 is located in the floodplain, the first floor cannot be an occupied space. Renovating the existing building would not provide the space required to meet the mission functions for the Station. Therefore, this alternative was not carried forward for further consideration.
- *New Construction Between Piers D1 and D2 with Parallel Finger Piers*—This location would interfere with the primary vehicle access on the base, and the existing quay wall would require significant rehabilitation. Therefore, this alternative was not carried forward for further consideration.
- *New Construction at Pier D1 with Parallel Finger Piers on the South Side of Pier D1*—This location, while within an area of Pier D1, is not currently inside USCG property limits and would require either leasing or purchasing the site. Therefore, this alternative was not carried forward for further consideration.

Electrical

- *Wind Energy*—Using wind turbines as an alternative renewable energy source was considered. However, the space to site the number of wind turbines required to produce a commensurate amount of power for the Sector is not available on the base. Additionally, the operational and maintenance investment for wind turbines is not cost-effective for this location. Therefore, this alternative was not carried forward for further consideration.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

This section describes the affected environment of USCG Sector Key West and the environmental consequences associated with each alternative. The affected environment consists of the project area (Sector Key West) and the resources within that area that may experience environmental impacts from the implementation of the alternatives described in Section 2.0.

3.2 Resource Areas Dismissed from Further Analysis

CEQ regulations (40 CFR §1501.7) state that the lead agency shall identify and eliminate from detailed study the issues or resources that are not significant or that have been covered by prior environmental review, narrowing the discussion of these issues in the document to a brief justification that demonstrates a minor impact on the human environment. After considering information gathered, factors used to evaluate the context and intensity of a potential impact, and the anticipated impacts associated with the proposed alternatives, it was determined that the following resources would not experience a measurable impact as a result of any of the alternatives. Consequently, they were dismissed from further analysis for the reasons described below:

- **Land Use**–Land use would not be affected because implementing the Proposed Action would be fully consistent with existing land uses at Sector Key West and is integral to meeting the ongoing roles and missions of Sector Key West and Station Key West. Because Sector Key West is a federal property, it is not bound by local ordinances. However, the USCG would strive to comply with local ordinances to the maximum extent practicable to ensure that land use under the Proposed Action would support the goals of the Monroe County Year 2030 Comprehensive Plan (Monroe County 2016). As noted in the Monroe County Year 2030 Comprehensive Plan, federal government involvement in Monroe County land use planning and decision-making is extensive and has heavily influenced the County's comprehensive planning process (Monroe County 2016). Coastal zone management is addressed in Section 3.7, Coastal Zone.
- **Biological Resources: Terrestrial Vegetation—**Most of Sector Key West is developed land with little terrestrial vegetation. Undeveloped areas of the base are landscaped with ornamental species, including coconut palm (*Cocos nucifera*), hibiscus (*Hibiscus* sp.), and bougainvillea (*Bougainvillea* sp.), or are maintained (i.e., mowed and landscaped) grassy areas. Landscaped areas disturbed during demolition and construction would be revegetated where possible, resulting in minimal impacts on vegetation.
- **Biological Resources: Terrestrial Wildlife—**Sector Key West does not contain any habitats that support wildlife species except those adapted to urban environments, including raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), and various song- and coastal/marine birds. These species may be temporarily displaced during demolition and construction activities, but once those activities are completed, the species are expected to return, resulting in temporary and minimal impacts on terrestrial wildlife.

- **Biological Resources: Migratory Birds**—The Migratory Bird Treaty Act of 1918 (16 U.S.C. 701-715s) is the primary legislation in the United States established to conserve migratory birds. It prohibits the taking, killing, or possessing of migratory birds unless permitted by regulation. The species of birds protected by the Act appear in Title 50, CFR, Section 10.13. Similarly, Executive Order 13186 requires federal agencies to support the conservation intent of the migratory bird conventions by integrating bird conservation principles, measures, and practices into agency activities; avoiding or minimizing adverse impacts on migratory bird resources; and minimizing the intentional take of species of concern. Hundreds of species of migratory birds can be found throughout the Florida Keys, particularly in the FKNMS and the various National Wildlife Refuges throughout the Keys. Representative migratory species found in Key West include herons, warblers, terns, sandpipers, plovers, shrikes, hawks, and other sea, shore, and songbirds. The majority of Sector Key West is developed land with undeveloped areas being sparsely landscaped with ornamental species. It is unlikely the ornamental trees or mowed grass provide valuable habitat. While some migratory birds may occasionally be found in the area and may temporarily avoid the area during demolition and construction, they are expected to readily return once construction is completed. Additionally, while large utility-scale PV arrays can have adverse effects on birds causing them to become disoriented and collide with PV panels, the PV panels proposed for the buildings and carports at Sector Key West are on a much smaller scale and unlikely to affect any birds in the area. Because of the limited habitat on Sector Key West and the temporary nature of demolition and construction activities, any impacts on migratory birds would be minimal and temporary. One migratory bird species that could occur in the project area, roseate tern, is listed as federally threatened under the Endangered Species Act. Therefore, this species is analyzed below in Section 3.8 under *Protected Species*.
- **Cultural Resources**—Though documentation is limited, USCG Trumbo (now Sector Key West), which was first established ca. 1908, contains resources that may have been associated with the Flagler Railroad. However, any evidence of the railroad is no longer extant. The railroad was built by Henry Flagler from Miami to Key West in 1912 and may have terminated at Pier D1 (Florida Department of State 2009). The Florida Master Site File, an archive and computer database of recorded historical cultural resources in the state, is maintained by the Division of Historical Resources, Florida Department of State. It lists USCG Trumbo Point as a resource group with seven contributing resources and six non-contributing resources. For resources associated with the current Proposed Action, Pier D1, Pier D2, Pier D3 (including the bulkheads and the pier steps at the head of the basin between Pier D1 and Pier D2), Building 101, and Building 48 (PV panels are proposed for the roof) are listed as contributing resources, while Building 105 and Building 108 are listed as non-contributing resources. Several surveys of the USCG Trumbo Resource Group have been conducted in the past, with the most recent in 2009. In a letter dated June 16, 2009, the Division of Historical Resources, Florida Department of State, stated that because "the design and construction of the contributing resources within the resource group are typical of their style and have numerous alterations to the structures and site…" the resource group and its individual contributing and non-contributing resources are not considered potentially eligible for listing in the National Register of Historic Places (Florida Department of State 2009). Furthermore, all the buildings are contained within a developed, industrial site and lack architectural character that would set them apart as unique. Therefore, pursuant to section 106 of the National Historic Preservation Act and its implementing regulations (36 CFR Part 800), the USCG determined that there would be no effect to historic resources as a result of implementing the Proposed Action. The USCG sent a letter to the Division of Historic Resources on December 7, 2020, seeking concurrence with its finding, and

by letter dated January 7, 2021, the Division of Historic Resources concurred (see Appendix D). However, the USCG will continue to coordinate with the Division of Historical Resources, Department of State, about the buildings to be demolished so the Florida Master Site File can be updated.

- **Water Resource: Wetlands**—The USFWS's National Wetlands Inventory classifies the wetland areas around Sector Key West as E1UBLx. This code designates the area as an estuarine system consisting of deepwater tidal habitats with adjacent tidal wetlands that are semi-enclosed by land but have open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. In addition, the project area is classified with the subsystem, subtidal. The substrate in these habitats is continuously covered with tidal saltwater. The Sector Key West classification code also includes a special modifier to identify wetland basins or channels that were excavated by humans (USFWS 2020). No terrestrial wetland areas exist at Sector Key West. Therefore, the Proposed Action would not have any effect on wetlands at Sector Key West, and wetlands are not discussed further.

- **Water Resource: Groundwater**—The layer of freshwater beneath Key West is subject to saltwater intrusion through the porous Key Largo limestone formation and is exposed to pollution from exfiltrating sewer lines. No known source of potable artesian water exists in Key West (USCG 2008). Therefore, the Proposed Action would not have any effect on groundwater at Sector Key West.

- **Noise**—Construction and demolition activities associated with the Proposed Action would occur entirely on USCG property, which is surrounded by Navy property. As a result, the local ambient noise environment is dominated by the presence of USCG and Navy operations. While demolition and construction activities would increase noise in the immediate vicinity of the activities on Sector Key West, the noise would be temporary and minimal. The generators in the central generation plant would operate for one, 24-hour period annually for testing and during emergency power outages. Noise impacts from the generators would be temporary and minimal because the generators would be housed in a building that would serve to deaden the sound to the outside environment. Noise from truck traffic during construction activities would occur on main roads, would not appreciably alter the noise environment on those roads, and would be temporary.

- **Visual and Aesthetic Resources**—The local visual and aesthetic resources of Sector Key West are dominated by the presence of USCG and Navy waterfront and military facilities, buildings, and vessels. The Proposed Action would replace existing facilities on Sector Key West and would not introduce any new elements that would differ from the existing facilities or alter the nature of the visual or aesthetic resources of the working waterfront environment.

- **Utilities: Telecommunications, Natural Gas, and Solid Waste**—The Proposed Action would extend telecommunications systems and natural gas to the new facilities. These upgrades would be necessary to meet the requirements of the new facilities, but the current capacity of these systems is adequate to support the Proposed Action. The Proposed Action would not affect the natural gas distribution system relative to Sector Key West or its capacity to support current and future USCG operations. In addition, solid waste disposal capacity is adequate to support the Proposed Action. Water, sanitary sewer, stormwater, electricity, and diesel fuel are addressed in Section 3.9 Utilities.

- **Environmental Justice**—The Proposed Action would occur within the boundary of Sector Key West and would not disproportionately affect minority or low-income communities, nor would it displace any residents, eliminate jobs, or affect wages.

3.3 Glint and Glare Effects

3.3.1 Affected Environment

PV systems introduce the possibility of light being reflected off the surface of the PV panels into the eyes of individuals. As noted by the Federal Aviation Agency (FAA), these effects are referred to as glint (a momentary flash of bright light) and glare (a continuous source of bright light) (FAA 2018). Such effects can cause disorientation and a brief loss of vision also known as flash blindness, which is defined generally as a temporary visual interference effect that persists after the source of illumination has ceased (FAA 2018). Glint and glare from PV systems can be visible to nearby residences, commuters, and aerial activities. Because glint and glare could affect air traffic, specifically pilots and air traffic controllers, a glare analysis assessed the potential for glint and glare effects from the proposed PV systems to nearby air facilities NAS Key West (Boca Chica Field) and the Key West International Airport (WSP 2020a).

Sector Key West is located approximately 7 miles east from the NAS Key West (Boca Chica Field), where the Navy conducts year-round training for its tactical aviation squadrons. The station is equipped with tactical combat training systems that track and record combat aerial maneuvers. Aerial training exercises occur frequently within the airspace above Sector Key West. The Key West International Airport is located approximately 2.5 miles east southeast of Sector Key West and handles between 50 to 60 commercial airline flights per day (Key West International Airport 2020).

Currently, most of the site proposed for the PV system consists of paved and developed lands with mowed areas. There are no solar panels installed in the area, and no glint or glare effects for nearby aircraft or residents.

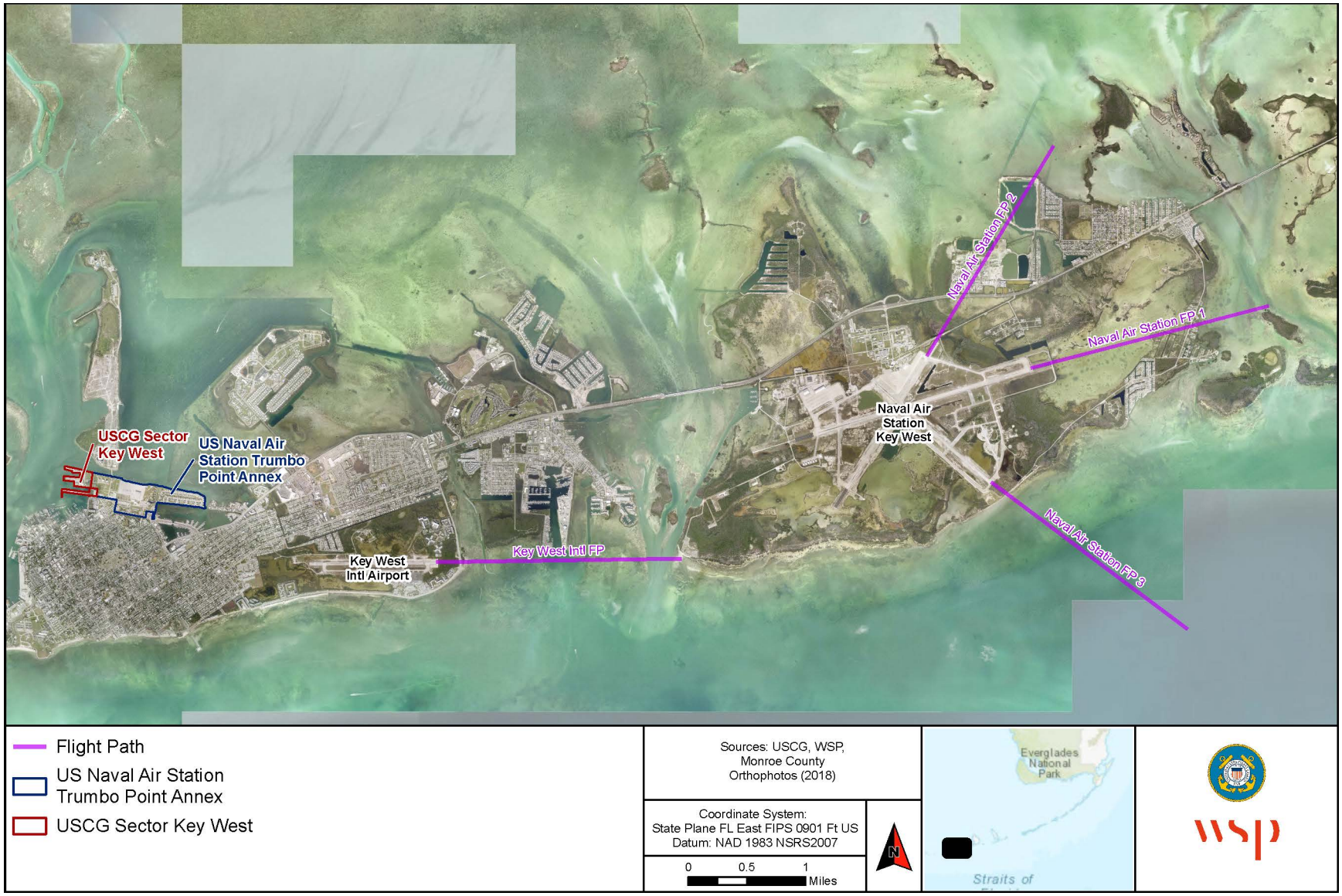
3.3.2 Environmental Consequences

Alternative 1—Preferred Alternative

Under the Preferred Alternative, the proposed development would include rooftop and carport fixed-tilt PV panels (Figure 2-4). As noted, to assess the potential for glare and glint effects from the proposed PV system on NAS Key West and Key West International Airport, a glare analysis was conducted using a web-based Solar Glare Hazard Analysis Tool supplied by ForgeSolar. This tool is used to determine the potential for glare occurrence of solar PV installations on or around airports and is focused on the safety of air travel; however, it can also be used to assess glare potential at pedestrian observation locations. The analysis tool separates glare into three levels: (1) green glare is defined as having low potential for temporary after-image; (2) yellow is glare defined as having potential for temporary after-image; and (3) red glare is glare that has the potential to cause eye damage.

Four flight paths were analyzed—three at NAS Key West and one at the Key West International Airport (Figure 3-1). The analysis performed for these flight paths assumed a glide path angle of 3 degrees and a threshold crossing height of 34 feet.

Figure 3-1. Flight Paths Analyzed for Glint and Glare Effects



The 2013 FAA Interim Policy (78 *Federal Register* 63276) requires specific criteria be met for solar energy systems on an airport property, as noted below.

- No "yellow" glare (potential for after-image) for any flight path from threshold to 2 miles
- No glare of any kind for Air Traffic Control Tower(s) (ATCT) at cab height
- Default analysis and observer characteristics

Results from the analysis show that the proposed PV system would meet all three criteria (Table 3-1). It should be noted that no ATCT receptors were analyzed because the proposed site for the PV system would be more than 1.5 miles away from the ATCTs and would not be visible from the towers.

Table 3-1. FAA Solar Energy Criteria

Component	Status	Description
Analysis Parameters	PASS	Analysis time interval and eye characteristics used are acceptable
2-mile Flight Path(s)	PASS	Flight path receptor(s) do not receive yellow glare
ATCT(s)	Not Applicable	No ATCT receptors designated

Source: WSP 2020a

The results from the analysis also show that all glares anticipated for surrounding air travel and flight paths would be "green" glare, or glare that has low potential for temporary after-image. The analysis did not result in "yellow" or "red" glare on any of the discrete observation receptors or flight path receptors analyzed. Of the four flight paths analyzed, the annual green glare in minutes would range from 726 to 2,165 minutes (Table 3-2) (WSP 2020a).

Under FAA policy, green glare is acceptable for the flight paths (FAA 2013); therefore, pursuant to NEPA, the Proposed Action would have no significant impact on air travel and flight paths from glint and glare.

Table 3-2. Total Annual Glare Received by Each Receptor

Receptor	Annual Green Glare (min)	Annual Yellow Glare (min)	Annual Red Glare (min)
Key West International Runway Flight Path	1,864	0	0
NAS Flight Path 1	907	0	0
NAS Flight Path 2	726	0	0
NAS Flight Path 3	2,165	0	0

Alternative 2—Sector Engineering Facility

Impacts would be the same as those identified for the Preferred Alternative. Therefore, pursuant to NEPA, the Proposed Action under Alternative 2 would have no significant impact on air travel and flight paths from glint and glare.

Alternative 3—Station Piers

Impacts would be the same as those identified for the Preferred Alternative. Therefore, pursuant to NEPA, the Proposed Action under Alternative 3 would have no significant impact on air travel and flight paths from glint and glare.

No-Action Alternative

Under the No-Action Alternative, no solar panels would be constructed; therefore, pursuant to NEPA, there would be no significant impact from solar glare.

3.4 Air Quality and Greenhouse Gases

3.4.1 Affected Environment

The project area is located in Monroe County, Florida, which is an attainment or unclassifiable area for all the criteria pollutants regulated under the Clean Air Act (USEPA 2020). Therefore, General Conformity requirements (40 CFR 93 Subpart B) do not apply to the project. No air quality monitoring sites are located near the project area; the closest monitoring sites are located closer to Miami.

Existing sources of emissions associated with Sector Key West include the operations of various vessels and travel by personnel to and from the base. Detailed quantification of all existing emissions associated with Sector Key West is not available. The existing facility includes six diesel backup generators with capacity as follows: 50 kW, 75 kW, 125 kW, 150 kW, 250 kW, and 500 kW. Based on 100 hours/year of operation (the standard backup generator usage assumed by Florida DEP for permitting purposes) and Air Pollutant Emissions Factors (AP-42) Table 3.3-1 (USEPA 1996), the combined potential to emit of these generators is 2.3 tons/year nitrogen oxide, 0.5 ton/year carbon monoxide, 0.2 ton/year volatile organic compounds, and 0.2 ton/year particulate matter. Actual use of the existing generators is typically 1-hour every 3 months for testing.

A Monroe County greenhouse gas inventory for calendar year 2010 estimated there were 1,853,703 metric tons of carbon dioxide -equivalent from all sources (mobile and stationary) within Monroe County (Monroe County 2012).

3.4.2 Environmental Consequences

Alternative 1—Preferred Alternative

Emissions of criteria pollutants and greenhouse gases would occur during construction. Construction emission sources include truck trips, construction worker trips, the operation of heavy equipment, and fugitive dust. Dust control measures would be implemented during demolition of existing buildings to minimize particulate matter emissions. Overall, the construction-period emissions would be minimal and would not have the potential to result in exceedance of ambient air quality standards based on the relatively small scale of construction associated with this alternative.

For long-term operational emissions, the only change that would occur is due to the installation of four new 1000-kW backup generators to be used when the entire Sector Key West loses power. The generators are sized to provide 10 days of independent operation. Up to two generators could be run simultaneously; the other two would be for redundancy/backup. The generators would run on diesel fuel or JP-5. For diesel fuel, the emissions factor for the generators was obtained from a manufacturer specification sheet for a similar generator model (CAT3512) (Caterpillar 2018); for JP-5, the emission factor was estimated using the Aviation Environmental Design Tool (an emissions model used by the FAA) (FAA 2020). Although this model is not specific to JP-5, it provides an order of magnitude estimate of jet fuel-based emissions

that is useful for the purposes of the following analysis. Maximum hourly fuel consumption for the JP-5 analysis was estimated based on specifications for a similar/typical generator model (CAT3512). Maximum potential to emit with 100 hours/year of operation is summarized in Table 3-3. Nitrogen oxide emissions from diesel are slightly higher than JP-5, but JP-5 volatile organic compound and particulate matter emissions are estimated to be higher than diesel.

Table 3-3. Annual Backup Generator Emissions (Tons/year)

Pollutant	Diesel	JP-5 (Jet Fuel)
Nitrogen Oxide	3.52	3.25
Carbon Monoxide	0.69	0.71
Volatile Organic Compounds	0.04	0.22
Particulate Matter	0.08	0.22

Note: Assumes two 1,000 kW generators running simultaneously at 100% load for 100 hours/year.

Because the generators would be used for emergency backup only, no ongoing or permanent air quality impacts from their installation would occur, regardless of the fuel type. The impact of the generators would be temporary because they would only be used during emergencies and for testing. Pursuant to the Clean Air Act, the Proposed Action is exempt from the General Conformity Rule because it is not located in a nonattainment or maintenance area; therefore, the Proposed Action would have no significant impact on air quality under NEPA.

With respect to permitting requirements, the generators would be well below the thresholds that would classify them as a major source requiring a Title V permit (i.e., 100 tons/year of any pollutant or 25 tons/year of hazardous air pollutants). If diesel were selected as the fuel, the backup generators would be exempt from Florida DEP permitting requirements because the Air General Permit exemption for emergency generators is applicable for the use of diesel, propane, or natural gas. However, if JP-5 were used in the generators, the exemption would not apply. Coordination with Florida DEP determined that the use of JP-5 may require an individual air construction permit (Moon 2020). Florida DEP requires "reasonable assurance" that federal emission regulations would be met. Normally, manufacturer certification provides the necessary reasonable assurance, but the use of JP-5 in generators designed for use with diesel invalidates the manufacturer's certification of the generator engine emissions. Therefore, to demonstrate the actual emission rate with JP-5, Florida DEP would require on-site emission testing data based on the specific generator model proposed by the USCG prior to it being put into service.

Alternative 2—Sector Engineering Facility

Under Alternative 2, temporary construction and long-term operation impacts would be similar to those described for the Preferred Alternative. Pursuant to the Clean Air Act, the Proposed Action is exempt from the General Conformity Rule because it is not located in a nonattainment or maintenance area; therefore, the Proposed Action under Alternative 2 would have no significant impact on air quality under NEPA.

Alternative 3—Station Piers

Temporary construction and long-term operation impacts would be similar to those described for the Preferred Alternative. Pursuant to the Clean Air Act, the Proposed Action is exempt from the General Conformity Rule because it is not located in a nonattainment or maintenance area; therefore, the Proposed Action under Alternative 3 would have no significant impact on air quality under NEPA.

No-Action Alternative

Under the No-Action Alternative, the Proposed Action would not occur, and air quality conditions would not change. Therefore, regional air quality would remain consistent with existing conditions and have no impact under the Clean Air Act; therefore, the No-Action Alternative would have no significant impact under NEPA.

3.5 Geology and Soils

3.5.1 Affected Environment

Terrestrial Soils

The Natural Resources Conservation Service (2020) characterizes the terrestrial soils in the project area as *urban land, 0 to 2 percent slopes.* Soils of this type have been altered, excavated, or disturbed and no longer have their natural morphological soil features. Furthermore, these soils no longer function as they did in their original state. The seasonal high-water table varies by site on these urban soils, and this variation is usually controlled to inhibit flooding of developed areas.

Most of the soil in the project area is covered by pavement, and environmental screening sampling has indicated the presence of contamination in these soils above direct exposure industrial standards. See Section 3.11, *Hazardous and Toxic Materials and Waste*, for more information concerning contaminants in the soil. The project area contains three different soil strata with different elevations and characteristics below the existing grade. These strata—from top to bottom—are summarized below (Louis Berger 2019a):

- Stratum 1: Fill and asphalt concrete/concrete pavement, in an average thickness of 10 feet
- Stratum 2: Limestone gravels, interbedded with sand, silt, and clay in average 10 feet in thickness
- Stratum 3: Coral limestone (porous) more than 45 feet in thickness

A summary of the subsurface conditions, including a brief description of the soils/materials and geologic units, is presented below.

Stratum 1 Fill and Asphalt Concrete/Concrete Pavement. This stratum appears to carry the characteristics of coral limestone, mixed with sand, silt, and local debris and pieces of wood. The entire project area has been reclaimed since the late 1800s. The thickness of fill on Sector Key West ranges from 2 feet in the south and east to 10 feet (or greater) in the north and west with an average fill thickness of less than 4 feet. The pavement has either bituminous asphalt or reinforced concrete and has a thickness between 4 and 6 inches in asphalt, and 12 inches on average in concrete. Both the asphalt and concrete carry signs of aging and fatigue.

Fill is described as white, light tan to light brown to light gray, locally dark gray fine to medium to coarse sand, some white light brown fine to medium gravel, trace silt, moist to wet. Fill contains voids in most areas, likely due to loose placement (i.e., not compacted) and/or water actions. Voids, when present, have dimensions of 1 to 3 feet. Laboratory tests conducted in this stratum indicated the following index and classification limits (Louis Berger 2019a):

- Gravel content: 12.5 percent
- Sand content: 29.0 percent
- Silt and clay content: 58.5 percent

Stratum 2 Limestone Gravels, Interbedded with Sand, Silt, and Clay. The coral limestone gravels are mixed with finer coral fragments of sand and layers of silt and clay under fill. These soils are described as light gray to light tan gravel, some coarse to fine sand (fragments of coral limestone), interbedded with white to light gray silty clay/clayey silt, trace shell fragments, saturated. On average, voids are 12 inches in diameter, but as large as 24 inches in diameter are common. It is likely that silt and clay were deposited in the solution cavities. Laboratory tests conducted in this stratum indicated the following index and classification limits (Louis Berger 2019a):

- Gravel content: 0.5 to 51.1 percent
- Sand content: 45.1 to 97.1 percent
- Silt and clay content: 15.2 to 82.7 percent
- Liquid limit: 40–51
- Plastic limit: 24–28
- Plasticity index: 12–31
- Water content: 22.6-53.0 percent
- pH: 8.1–8.2
- Chloride content: 130–210 parts per million
- Sulfate content: 90–96 parts per million

Stratum 3 Coral Limestone (Porous). Coral limestone has been observed between 8 and 30 feet below the surface of the project area; on average, it has been observed 20 feet below the existing grade. This stratum is described as light tan to white coral limestone, little shells, trace to little sand, little silt, and saturated. This stratum also contains bands of fine to medium gravel, and occasionally, medium gravels. The coral limestone is porous, and its upper 10 feet or so has a skeleton structure. Laboratory tests conducted in this stratum indicated the following index and classification limits (Louis Berger 2019a):

- Silt and clay content: 10.7 percent
- pH: 7.1
- Chloride content: 5,700 parts per million

Marine Sediments

Open waters of the Atlantic Ocean occur to the north, west, and south of the project area. The sediment in these waters consists predominately of a calcareous silt and fine sand mix. Coral fragments, seashells, algae deposition, and precipitation of aragonite particles also contribute to the composition of these sediments. The seafloor rapidly transitions to assorted mixed rock or concrete debris within feet of the existing bulkheads. The marine project area averages 30 feet deep, and the area is mostly shielded from the effects of wind and waves (AECOM 2019a). However, storm events and human activity, including propeller wash from vessels in each berthing space, disturb marine sediment. For the purposes of this analysis, discussion

of impacts on marine sediments is limited to the project area, which consists of the marina basins at Station Key West, not the surrounding open waters.

3.5.2 Environmental Consequences

Impacts on soils are considered in this analysis through four measures: soil removal, soil compaction, soil erosion, and general disturbance. Activities that may result in impacts on soils include, but are not limited to, building and pier demolition, construction of supporting facilities (e.g., pavement, curbs, and drainages), parking lot relocation, grounds work, fuel storage relocation, and replacement of electrical systems. Impacts related to contamination are addressed in Section 3.11.2, *Hazardous and Toxic Materials and Waste, Environmental Consequences.*

Alternative 1—Preferred Alternative

Terrestrial Soils. The terrestrial project area consists of approximately 22 acres of urban soil. Of this acreage, 81.5 percent (approximately 18 acres) is covered by impervious surfaces and structures; the remaining 18.5 percent (approximately 4 acres) is covered by vegetation (mostly landscaped grassy areas). Under the Preferred Alternative, cutting, filling, grading, and paving activities related to demolition and construction of building facilities, as well as the installation of utility lines would adversely affect topsoil. Removal and compaction during construction would also expose and disturb soils, increasing the potential for soil erosion and sedimentation. Once asphalt has been laid on surface parking areas, a minimal increase in runoff is expected. Additionally, the proposed Station and ANT Facility and central generation plant would represent 3 percent (27,086 SF) of Sector Key West's total area (871,200 SF), so runoff would be negligible near the facilities. These actions would result in direct, short-term and long-term, adverse impacts. Overall, adverse impacts on soils are anticipated to be minimal because most of the project area is covered with impervious surfaces and structures. Furthermore, the on-site soils have already been altered, excavated, or disturbed and no longer have their natural morphological features. Therefore, pursuant to NEPA, the Proposed Action would have no significant impact on terrestrial soils.

Marine Sediments. The marine project area consists of approximately 12 acres. Sediment disturbance for pile removal and installation for the travel pier and new Station piers would directly affect less than 1 acre. It is assumed existing piles for the travel lift and Station piers would be removed by vibratory extraction, and new piles would be installed with vibratory pile drivers and then proofed to verify capacity with an impact hammer. The removal and installation of piles and associated placement and removal of barge spuds, as well as propeller wash would disturb bottom sediments and may cause temporary increases in suspended sediment within the Station basin areas near the new travel lift and Station piers. However, the small resulting sediment plume is expected to settle out of the water column within a few hours. Best management practices (BMPs) for pile removal and placement would be followed to reduce large sediment disturbance and avoid returning sediment to waterways (USEPA 2016). Examples of BMPs for removal include (1) removing piling slowly to minimize turbidity in the water column and sediment disturbance; (2) "wake-up" piling by vibrating to break the skin friction bond between piling and sediment to avoid pulling out a large block of sediment and possibly breaking off the piling in the process; and (3) confining all work within a floating containment boom. BMPs for piling placement include (1) using vibratory methods because they reduce impacts on protected marine species; and (2) avoiding the use of hydraulic jetting devices. Upon installation of the travel lift and Station piers, ongoing use of vessels would generate propeller wash, which would disturb sediment over the long term. Direct, adverse impacts are anticipated to be minimal in the short and long term because future vessel operations in the pier basins would not change from current operations. Therefore, pursuant to NEPA, the Proposed Action would have no significant impact on marine sediments.

Alternative 2—Sector Engineering Facility

Impacts would be similar to those described for the Preferred Alternative. Therefore, pursuant to NEPA, the Proposed Action under Alternative 2 would have no significant impact on terrestrial soils or marine sediments.

Alternative 3—Station Piers

Impacts would be the same as those described under the Preferred Alternative. The existing Station piers would still be removed, and the size of the new Station piers would not change from the Preferred Alternative. Therefore, pursuant to NEPA, the Proposed Action under Alternative 3 would have no significant impact on terrestrial soils or marine sediments.

No-Action Alternative

Under the No-Action Alternative, the project would not be built; therefore, no new impacts on or disturbances to terrestrial soils or marine sediments would occur. However, storm events and human activity, such as propeller wash from vessels in each berthing space on site, would continue to disturb marine sediments. Therefore, pursuant to NEPA, the No-Action Alternative would have no significant impact on terrestrial soils or marine sediments.

3.6 Water Resources

3.6.1 Affected Environment

Surface Water

Sector Key West lies within the boundary of the FKNMS. The FKNMS comprises unique and important biological communities like coral reefs, seagrass meadows, and mangrove islands that thrive in clear low-nutrient waters and are especially sensitive to changes in water quality conditions. As designated by Florida Administrative Code 62-302.700(2)(e) and 62-302.700(9)(i), the FKNMS is classified as an Outstanding Florida Water, and the surface waters of the Florida Keys are classified as Special Waters. With these classifications, the Florida Keys' surface waters are afforded the highest protection. Specifically, several protective measures for the Florida Keys' surface waters include the prohibition of oil exploration, mining, or any type of activity that would alter the seafloor.

The passage of the Florida Keys National Marine Sanctuary and Protection Act in 1990 initiated the development of a comprehensive management plan. Subsequently the Water Quality Monitoring Program and Sanctuary Management Plan were established in 1994 and 1997, respectively. Today, the Florida Keys National Marine Sanctuary and Protection Act protects 2,900 square nautical miles of waters by addressing a variety of impacts, pressures, and threats to the Florida Keys ecosystem (NOAA n.d.).

The primary constituents of water quality in the Florida Keys include temperature, salinity, dissolved oxygen, turbidity, and nutrient concentrations, particularly nitrogen and phosphorous. Main contributors to the reduction of water quality surrounding the Florida Keys are stormwater runoff, wastewater outfall, and terrestrial sources of nutrients (i.e., nonpoint source runoff) (USCG 2008). Nutrients enter nearshore waters from land, through stormwater runoff and groundwater seepage. Groundwater carries sewage from underground septic systems to nearshore waters and canals through the porous limestone that forms the islands of the Florida Keys. Nearshore tidal currents can then transport nutrient-rich waters to sensitive habitats such as coral reefs and seagrass meadows (Diersing 2011). Contaminants from terrestrial sources, marinas, and commercial and recreational vessels can also adversely affect water quality and harm marine ecosystems. Common contaminants include chemicals such as petroleum fuels, oils, and pesticides.

From 1995 to 2010, water quality samples were collected at 154 sites throughout the Florida Keys as part of the FKNMS Water Quality Monitoring Program. Data collected during this 15-year time period indicated nearshore waters throughout the Florida Keys exhibited elevated levels of nitrate, and waters in the area north of the lower Florida Keys exhibited high turbidity, chlorophyll-a, and phosphorus levels. Waters flowing from the Southwest Florida shelf are thought to contribute to these conditions. Some of the highest nitrate levels were observed at sampling sites in this same non-populated area. Instead of originating from sewage or fertilizers, these nitrates may be entering the water column when sediment containing nitrates and other organic material is stirred up from the shallow seafloor on windy days (FKNMS 2011).

Overall, the data collected from 1995 to 2010 showed two major trends. One trend was apparent from north to south: the highest chlorophyll-a, turbidity, and dissolved nutrient levels were found north of the middle Florida Keys in sites nearest to the Southwest Florida shelf. These levels gradually decreased moving south toward the Marquesas Keys. This decline could be due to the uptake of nutrients by marine life and by mixing with ocean waters. This north-south pattern is likely driven by waters from the Southwest Florida shelf, which are high in phosphorus. The second major trend was evident from nearshore waters near the Florida Keys toward offshore waters on the ocean side. Nutrients gradually decreased from nearshore monitoring stations along the Florida Keys toward the offshore monitoring stations at the reef. This nearshore-offshore pattern points to a land-based source of nutrients (FKNMS 2011).

The 2018 Annual Report of the Water Quality Monitoring Project for the Water Quality Protection Program of the Florida Keys National Marine Sanctuary provides updated water quality data and trends through December 2018. The report indicates that no significant trends were observed for temperature or salinity over the 24-year monitoring period; however, it notes that surface and bottom dissolved oxygen saturation did increase in most areas of the FKNMS. The greatest increases in dissolved oxygen saturation occurred on the Atlantic Ocean side of the Florida Keys and in some nearshore areas on the bay side. The report indicates water column turbidity declined throughout the FKNMS, with the largest declines occurring in northern bayside waters (Briceño and Boyer 2019). While chlorophyll-a exhibited variable trends, significant trends in nitrates and phosphorus were detected but were considered very minor. The largest sustained trends were the declines in surface total organic carbon and nitrogen (Briceño and Boyer 2019).

Overall, the 2018 report indicates water quality in the Keys, including waters in the vicinity of the project area, has improved steadily since monitoring began in 1995. Dissolved oxygen concentrations have increased while turbidity and nitrogen concentrations have decreased. The declining trends observed in turbidity and total organic carbon are favorable given that both negatively affect light penetration and conditions have thus become more ideal for coral reefs and seagrass meadows. In addition, the declining trend of both of these constituents could be an indication of decreased terrestrial primary production and nonpoint source runoff (Briceño and Boyer 2019).

Sector Key West occupies 20 acres in the City of Key West, Florida, on the eastern portion of Trumbo Point. In general, land use designations occurring at Trumbo Point include general administration, community support (e.g., mess hall and recreation facilities), housing, industrial activities, and storage. Industrial activities are concentrated on the waterfront. Although some local nonpoint runoff from Sector Key West's impervious areas occurs, stormwater runoff from Sector Key West is typical of other industrialized areas.

Sector Key West's stormwater drainage discharges directly to Key West Bight. Although waters around Key West are listed as impaired for copper, fecal coliform, and mercury (in fish tissue), a specific source of the impairment has not been named. A review of the USEPA 303(d) list did not indicate that Sector Key West is considered a specific source of the impairment (AECOM 2019b). Typical of other industrial areas,

the physical characteristics (e.g., paved and unpaved surfaces) of the drainage areas and the specific industrial activities (e.g., vessel maintenance/washing) conducted in these areas affect stormwater flows at Sector Key West. On a relative basis, areas with a high percentage of paved or built surfaces (e.g., roads, parking lots, buildings, runways) tend to contribute more runoff than areas with less impervious surfaces because stormwater permeates pervious surfaces, but not impervious surfaces. Examples of non-stormwater discharges associated with Sector Key West that are not allowed to be discharged under the Multi Sector General Permit for Industrial Activities include bilge and ballast water, pressure wash water, sanitary wastes, and cooling water originating from vessels (AECOM 2019b).

Floodplains

Sector Key West occupies the coastal flood zone of the Atlantic Ocean along the eastern portion of Trumbo Point in Key West, Florida, in an area that could be severely affected by flooding from tropical depressions or hurricanes. The site is defined by the flood insurance rate zones AE and VE, both of which correspond to areas of the 100-year floodplain (FEMA n.d.). Specifically, Zone AE, which corresponds to the inland portions of Sector Key West, is defined as the 100-year floodplain with base flood elevations (BFEs) that reflect the combined influence of stillwater flood elevations and wave effects less than 3 feet (FEMA 2005). The portions of Sector Key West in Zone AE have base flood intervals of 7, 9, and 10 feet (FEMA 2003). Zone VE mainly corresponds to the areas of Sector Key West directly adjacent to the Atlantic Ocean (e.g., dock and pier areas). This zone is defined as the 100-year coastal high hazard floodplain (e.g., areas subject to high velocity water including waves) with BFEs that reflect the combined influence of stillwater flood elevations, primary frontal dunes, and wave effects of 3 feet or greater (FEMA 2005). The portions of Sector Key West within Zone VE have base flood intervals of 10, 11 and 13 feet (FEMA 2019).

3.6.2 Environmental Consequences

Alternative 1—Preferred Alternative

Surface Waters. Under the Preferred Alternative, some on-land construction activities would occur within the existing footprint of demolished buildings and an existing parking area. The remaining proposed on-land construction would occur on previously landscaped areas. Therefore, some soils would be affected and removed as a result. According to a subsurface soil investigation, petroleum-contaminated soils exist within the project area (WSP 2020b). Because construction activities would require continuous dewatering due to the shallow water table, the USCG would treat water from contaminated areas and discharge the treated water on-site. Open trenches would be covered to prevent rainwater from entering the trenches, becoming potentially contaminated, and requiring treatment.

For construction locations where activities would occur within the existing footprint of a demolished building or parking area, no new ground would be disturbed. Construction of the proposed Sector Engineering/ESD Facility (36,073 GSF) would occur in the location of an existing parking lot and therefore would not increase Sector Key West's total impervious area. For construction locations where new ground would be disturbed, all removed soils would either be used elsewhere on-site or disposed of properly off-site, including any contaminated soils (see Section 3.11). Most of the construction related to the proposed Station and ANT Facility (23,486 GSF) and central generation plant (3,600 SF) would occur in previously landscaped areas and increase the impervious area of Sector Key West. While this increase would create new localized stormwater runoff, it would likely not result in a large increase of total runoff from Sector Key West. The existing landscaped covered areas contribute less runoff than paved areas, but they have a highly compacted subsurface and are not very permeable. Additionally, the proposed Station and ANT Facility and central generation plant facilities would represent 3% (27,086 SF) of Sector Key West's total area (871,200 SF), so runoff would be negligible.

Because Sector Key West is located within the FKNMS, the USCG would implement preventive measures to avoid detrimental effects to the surrounding water quality. On-land construction BMPs (e.g., flow diversion structures, erosion and sediment control measures, and spill containment walls) would ensure that excavated debris and other construction-related material (e.g., oils, paints, solvents) do not enter surrounding waterways. A Stormwater Pollution Prevention Plan (SWPPP) is in place for Sector Key West, and stormwater impacts would be handled pursuant to the actions outlined in the plan (AECOM 2019b).

As required by provisions set forth in 40 CFR Part 112, Sector Key West has a Spill Prevention, Control, and Countermeasures (SPCC) Plan (USCG 2017) that establishes procedures, methods, equipment, and other requirements to prevent the discharge of oil from the facility into or upon the surrounding navigable waters or adjoining shorelines, or that may affect natural resources, and to contain such discharges should they occur. With the installation of two new 20,000-gallon fuel storage tanks to power the new central generation plant, Sector Key West would need to update the SPCC Plan.

Additionally, the USCG would be required to prepare a Facility Response Plan (FRP) as a result of installing two 20,000-gallon fuel tanks for the central generation plant. Sector Key West currently has a total oil capacity of 41,367 gallons (USCG 2017). Installing the two fuel tanks for the central generation plant would increase the total amount of oil/fuel storage at Sector Key West to more than 42,000 gallons. Under the Facility Response Plan Rule, USEPA requires facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters to prepare an FRP and submit it to the appropriate USEPA Regional Administrator for review. According to the rule, one of the definitions for a facility that may cause "substantial harm" is a facility that "has a total oil storage capacity greater than or equal to 42,000 gallons and it transfers oil over water to/from vessels" (USEPA 2002), which would apply to Sector Key West. An FRP is a plan for responding, to the maximum extent practicable, to a worst-case discharge and to a substantial threat of such a discharge of oil. The plan also includes responding to small and medium discharges as appropriate. The FRP requirement would help the USCG develop a response organization and ensure the availability of response resources (i.e., response equipment, trained personnel) needed to respond to an oil discharge and demonstrate that USCG response resources are available in a timely manner, thereby reducing a discharge's impact and severity. The FRP would allow the USCG to improve discharge prevention measures through the early identification of risks at Sector Key West above and beyond its current SPCC Plan and would aid local and regional response authorities to better understand the potential hazards and response capabilities in their area.

Once the USCG submits the FRP to the USEPA Regional Administrator for review, the Regional Administrator will determine if Sector Key West has the potential, not just for substantial harm, but for "significant and substantial harm." This determination can be made for several reasons, including the over-water transfer criterion, proximity to navigable waters, frequency of past spills, age of oil storage tanks, and other facility-specific and region-specific information (e.g., local impacts on public health) (USEPA 2002). If the Regional Administrator makes this determination, then the FRP would require approval by the USEPA Regional Administrator. While the Proposed Action would significantly increase the amount of oils stored on Sector Key West, the two 20,000-gallon fuel tanks for the central generation plant and the two 11,000-gallon replacement tanks for the existing 11,600-gallon diesel fuel tanks associated with Station Key West would be new tanks with proper spill prevention mechanisms. Additionally, having an FRP would help the USCG to identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact. Therefore, impacts on water resources as a result of implementing the proposed on-land construction activities would be minor.

In-water construction activities would consist of demolishing the existing Station piers and constructing new Station piers between Piers D1 and D2 in an east-west orientation and constructing a new travel lift pier along the southern quay wall of Pier D2. Demolishing the existing piers and constructing the new Station piers and travel lift pier would have localized impacts on nearby in-water areas. Existing piles for the travel lift and Station piers would be removed via vibratory extraction, and new piles would be installed with vibratory pile drivers and then proofed to verify capacity with an impact hammer. The removal and installation of piles and associated placement and removal of barge spuds, as well as tug prop wash would disturb bottom sediments and may cause temporary increases in suspended sediment within the Station basin areas, which would adversely affect water quality in the basins. However, impacts would be temporary because the small resulting sediment plume is expected to settle out of the water column within a few hours. Contaminants could also enter the water during construction as a result of increased vessel traffic, the disturbance of contaminated sediments, or runoff from on-land construction practices associated with the Proposed Action. However, the risk of moving contaminated sediments from one in-water location to another is likely very low because the local substrate is likely homogenous throughout the basin.

The Proposed Action would have measurable impacts on water quality, but pollutant concentrations would be below applicable standards, regulations, and guidelines, and within existing conditions or designated uses. Therefore, pursuant to NEPA, the Proposed Action would have no significant impact on surface waters. Impacts related to in-water construction activities would be limited and short in duration. Implementing specific piling removal BMPs (e.g., removing pilings slowly, vibrating the piling to break the friction bond between piling and sediment, and excavating sediment from around the base of the piling prior to removal) would ensure turbidity levels return to baseline conditions once the piles were removed. During pile installation, turbidity levels would be highest around the piling and would likely decrease close to background levels within a few hundred feet of the pile being driven. Conducting in-water work during low tide conditions would minimize the potential for adverse impacts on water quality. Additionally, pursuant to Rule 62-330.054 of the Florida Administrative Code, the USCG would obtain an Environmental Resource Permit (ERP) from the South Florida Water Management District. The ERP program under Section 373.4131 of the Florida Statues governs construction, alteration, operation, maintenance, repair, abandonment, and removal of, among other things, piers, structures, dredging, and filling located in, on, or over wetlands or other surface waters. As such, the project will require an Individual Permit for the removal and reconstruction of the travel lift and Station piers.

Floodplains. All the construction activities proposed under the Preferred Alternative would occur within Sector Key West's defined flood zones (i.e., Zone AE or Zone VE). As such, under the Preferred Alternative all new permanent, regularly occupied facilities would be located at least 2 feet above the Federal Emergency Management Agency (FEMA) 100-year BFE or meet the 500-year flood elevation. Locating proposed infrastructure above the 100-year BFE is necessary to account for storm surge, sea level rise, or to create usable space subject to limited, periodic flood hazard exposure as appropriate. In addition, critical facility systems and supporting infrastructure (e.g., storage tanks; transformers; switchgears; and electrical, mechanical and communication closets) would be built at least 3 feet above the BFE levels to ensure operational continuation and safety after a flood event. Overall, while the proposed facilities would still be located in floodplains, the measure to lift each facility above the 100-year BFE would reduce the flooding potential for the proposed facilities and the critical Facility systems. Pursuant to NEPA, the Proposed Action would have no significant impact on floodplains.

Pursuant to Executive Order 11988, the Proposed Action would not adversely impact the floodplain or the value of the floodplain itself; therefore, the Proposed Action would have no significant impact on floodplains under NEPA.

Table 3-4 shows the proposed facility footprint elevation, the BFE for the flood zone, and the construction elevation increase (i.e., the foundation elevation increase required to be 2 or 3 feet above the BFE).

Table 3-4. Proposed Facility Construction Elevations—Preferred Alternative

Facility	Footprint Elevation (feet)	Base Flood Elevation (feet)	Elevation Increase (feet)
Sector Engineering Facility	5.41	11	7.59
Station and ANT Facility	6.45	10	5.55
Travel Lift Pier	5.02	11	7.98
Station Piers	4.74	10	7.26
Central Generation Plant	5.53	10	7.47

Source: Base elevations from USGS n.d.; BFEs from FEMA n.d.

Alternative 2—Sector Engineering Facility

Surface Waters. While the locations of the proposed Sector Engineering Facility and travel lift pier differ under Alternative 2 compared to the Preferred Alternative, the nature of the proposed on-land and in-water construction activities would be similar to those described under the Preferred Alternative. As such, impacts on water quality from construction activities would not differ from those described for the Preferred Alternative.

Although Building 105 would be replaced with green space and reduce some local runoff, the subsurface of the proposed green area would likely be highly compacted. As such, the total amount of impervious area at Sector Key West would likely remain the same.

Similar to the Preferred Alternative, the Proposed Action under Alternative 2 would have measurable impacts on water quality, but pollutant concentrations would be below applicable standards, regulations, and guidelines, and within existing conditions or designated uses. Therefore, pursuant to NEPA, the Proposed Action under Alternative 2 would have no significant impact on surface waters. Additionally, similar to the Preferred Alternative, the USCG would obtain an Individual Permit for the removal and reconstruction of the travel lift and Station piers from the South Florida Water Management District.

Floodplains. Similar to the Preferred Alternative, the proposed infrastructure under Alternative 2 would be constructed at least 3 feet above the BFE levels to ensure operational continuation and safety after a flood event. Table 3-5 shows the proposed facility footprint elevation, the BFE for the flood zone, and the construction elevation increase (i.e., the foundation elevation increase required to be 2 or 3 feet above the BFE). Overall, while the proposed facilities would still be located in floodplains, the measure to lift each facility above the BFE would reduce the flooding potential for each facility and supporting infrastructure. Pursuant to Executive Order 11988, the Proposed Action would not adversely impact the floodplain or the value of the floodplain itself; therefore, the Proposed Action would have no significant impact on floodplains under NEPA.

Table 3-5. Proposed Facility Construction Elevations—Alternative 2

Facility	Footprint Elevation (feet)	Base Flood Elevation (feet)	Elevation Increase (feet)
Sector Engineering Facility	5.8	11	7.2
Travel Lift Pier	5.8	11	7.2

Source: Base elevations from USGS n.d.; BFEs from FEMA n.d.

Alternative 3—Station Piers

Surface Waters. Under Alternative 3, only the location of the new Station piers differs compared to the Preferred Alternative. All other on-land and in-water construction activities would be similar to those described for the Preferred Alternative.

Demolishing the existing piers and reconstructing the new Station piers in their original location would likely result in in-water effects similar to those described for the Preferred Alternative. Increases in short-term turbidity would remain the biggest impact for nearby waters. Implementing the BMPs described under the Preferred Alternative would reduce adverse impacts on local water quality. Similar to the Preferred Alternative, the Proposed Action under Alternative 3 would have measurable impacts on water quality, but pollutant concentrations would be below applicable standards, regulations, and guidelines, and within existing conditions or designated uses. Therefore, pursuant to NEPA, the Proposed Action under Alternative 3 would have no significant impact on surface waters. Additionally, similar to the Preferred Alternative, the USCG would obtain an Individual Permit for the removal and reconstruction of the travel lift and Station piers from the South Florida Water Management District.

Floodplain. Under Alternative 3, only the location of the new Station piers differs compared to the Preferred Alternative. The footprint elevation of the proposed Station piers under this alternative would be the same as the Preferred Alternative; therefore, there would be no change to floodplain considerations. All other on-land and in-water construction activities would be similar to those described for the Preferred Alternative.

Pursuant to Executive Order 11988, the Proposed Action would not adversely impact the floodplain or the value of the floodplain itself; therefore, the Proposed Action would have no significant impact on floodplains under NEPA.

No-Action Alternative

Under the No-Action Alternative, there would be no impacts on water quality or floodplains compared to existing conditions because the Proposed Action would not be implemented. However, Sector Key West would not be able to ensure continued operations and safety for the existing infrastructure after a flood event. Therefore, pursuant to the Clean Water Act and Executive Order 11988, there would be no impact. Pursuant to NEPA, there would be no significant impact.

3.7 Coastal Zone

3.7.1 Affected Environment

The Coastal Zone Management Act, codified in 16 U.S.C. §§1451 et seq., establishes a comprehensive regulatory scheme for effective management, beneficial use, protection, and development of the coastal zone and its natural resources. The Act encourages states with coastal jurisdiction to develop, obtain federal

approval for, and implement a broad-based coastal management program to balance resource protection with development in the coastal zone.

The State of Florida developed the Florida Coastal Management Program (FCMP). The NOAA approved the program in 1981, and it is codified at Chapter 380, Part II, Florida Statutes. The FCMP consists of a network of 24 Florida statutes, administered by multiple state agencies and water management districts. The FCMP includes enforceable policies that ensure the wise use and protection of the state's water, cultural, historic, and biological resources; minimize the state's vulnerability to coastal hazards; ensure compliance with the state's growth management laws; protect the state transportation system; and protect the state's proprietary interest as the owner of sovereign submerged lands.

Coastal Zone Management Act section 307 ensures that federal agency activities are carried out in a manner that is consistent to the maximum extent practicable with the enforceable policies of approved state management programs. Section 307 applies to federal agency activity in a state's coastal zone and to federal agency activity outside the coastal zone, if the activity affects a land or water use or natural resources of the coastal zone. Federal agency activities include those performed by a federal agency, approved by a federal agency, or for which a federal agency provides financial assistance. Federal agency activities must be demonstrated to be consistent with the enforceable policies of the state's coastal management program, unless full consistency is otherwise prohibited by federal law (per 15 CFR Part 930.32, "consistent to the maximum extent practicable"). Because of its geographic circumstance, the entire state of Florida is defined as part of the coastal zone within which federal actions are subject to a consistency determination. However, pursuant to 16 U.S.C. § 1453, the term "coastal zone" specifically excludes "lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents." Therefore, the coastal zone excludes Sector Key West, but includes adjacent lands (including all submerged lands) and waters within Florida's coastal zone.

3.7.2 Environmental Consequences

Action Alternatives

As required under the Coastal Zone Management Act, the USCG evaluated the enforceable policies and regulations of the FCMP and determined that the Proposed Action under the Preferred Alternative, Alternative 2, and Alternative 3 would be conducted in a manner consistent to the maximum extent practicable, with the federally approved enforceable plans and policies of the FCMP coastal management program (Coastal Consistency Determination provided in Appendix B). The USCG sent a letter dated December 7, 2020, to Florida DEP seeking concurrence with its federal consistency determination for the Proposed Action. By email correspondence dated February 2, 2021, Florida DEP concurred with the consistency determination while also noting that an ERP from the South Florida Water Management District in accordance with Rule 62-330.054 of the Florida Administrative Code would be required (see Appendix D). Therefore, pursuant to NEPA, the Proposed Action would have no significant impact on the coastal zone.

No-Action Alternative

Under the No-Action Alternative, the Proposed Action would not be implemented, and a federal consistency determination would not be required. Pursuant to NEPA, the No Action Alternative would have no significant impact on the coastal zone.

3.8 Biological Resources

3.8.1 Affected Environment

Marine Submerged Aquatic Vegetation

Of the approximately 60 known species of marine submerged aquatic vegetation (SAV) (i.e., seagrass) found worldwide, 7 grow in Florida waters. Monroe County, which encompasses the Florida Keys, contains approximately 1.5 million acres of seagrass with turtle grass (*Thalassia testudinum*), manatee grass (*Syringodium filiforme*), and shoal grass (*Halodule wrightii*) being the most common species (NOAA 2019a). Johnson's seagrass (*Halophila johnsonii*), listed as threatened under the Endangered Species Act also occurs in the Florida Keys.

Marine habitats in the project area are largely limited to the marina basins. Benthic surveys conducted at Sector Key West in December 2018 did not document any seagrasses (AECOM 2019a). Additional benthic surveys, including SAVs, were conducted in the north and central marina basins in January 2019 (Chiello et al. 2019). These surveys were designed to cover the potential locations for in-water work proposed under the action alternatives (See Appendix C). No seagrasses were observed growing within the survey area. Free-floating turtle grass and shoal grass blades were occasionally observed scattered along the bottom and floating at the surface of the marina basins (Chiello et al. 2019). However, conditions within the marina basins are not adequate to support healthy seagrass communities. Therefore, it is likely that SAV fragments observed during the surveys originated outside the project area and were transported by incoming tides. Substrates in the marina basins consist of a thick silty muck material that is easily disturbed, resulting in high turbidity conditions with minimal light penetration beyond 5 to 10 feet of depth. Regular disturbance of substrate by vessel traffic likely maintains turbidity at levels at which SAV colonization could not occur because light penetration at the bottom of the marina basins would not be sufficient to sustain SAV.

Marine Fauna

The project area is located within the FKNMS, which protects 2,900 square nautical miles of waters surrounding the Florida Keys. The Florida Keys support a diverse array of tropical, subtropical, and migratory marine species. Taxa include marine mammals such as dolphins and manatees; fish; sea turtles; and a plethora of invertebrates including lobsters, crabs, corals, and jellyfish.

As noted above, marine habitats in the project area are largely limited to the marina basins. Overall, these basins do not provide high quality habitat for many marine fauna because of the silty muck substrate material, persistent turbidity in the water column, and regular disturbance by vessel traffic. However, the marina's seawalls, docking structures, and pilings provide hard structures that serve as a substrate for encrusting organisms and other marine invertebrates. Diving surveys completed in 2018 and 2019 identified more than three dozen species of sessile invertebrates, including hard and soft corals, sponges, tunicates, barnacles, bivalves, hydroids, crustaceans, worms, and anemones (Chiello et al. 2019; AECOM 2019a). More than a dozen species of adult and juvenile fish were also documented during the surveys. Species included damselfish, parrotfish, angelfish, snapper, hogfish, porkfish, sheepshead, and pufferfish. Other species documented in the marina basin surveys include spiny lobster and moon jellies (Chiello et al. 2019).

Essential Fish Habitat

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), which was first passed in 1976, is the primary law governing marine fisheries management in federal waters of the United States. In general, the Magnuson-Stevens Act seeks to foster long-term biological and economic sustainability of the nation's marine fisheries within 200 nautical miles of the nation's coasts (NOAA 2020).

The Act also includes provisions for the protection of essential fish habitat (EFH), which is defined as, "waters and substrates necessary for fish to spawn, breed, feed, or grow to maturity." Any federal agency that takes an action that could adversely affect EFH by reducing the quantity or quality of habitat must work with the NOAA NMFS to identify impacts and steps for conserving the habitat and reducing the impact of the action (NOAA 2020).

The project area supports species that are managed by NOAA NMFS and regional fishery management councils including the Gulf of Mexico, South Atlantic, and Mid-Atlantic Councils. The project area contains EFH for reef fish, shrimp, spiny lobster, coastal migratory pelagics, various life stages of several highly migratory species, and corals (Table 3-6). Although the project area contains EFH for all the species listed in Table 3-6, the marina basins do not provide high quality habitat for most species, as described above under *Marine Fauna*. Therefore, most of these species could be present on occasion, with the most common species being reef fish. However, corals are known to be present on the vertical structures of the basin sea walls and the pilings of the travel lift and Station piers (Chiello et al. 2019). Additionally, the FKNMS has been designated as EFH-Habitat Areas of Particular Concern (HAPC) for coral, coral reefs, and live/hard bottom (SAFMC 1998). EFH for each species or group is defined in fishery management plans and subsequent amendments developed by the regional fishery management councils.

Table 3-6. EFH by Life Stage in the Project Area

Species	Eggs	Larvae/ Neonate	Juvenile	Adult
Reef Fish				
Gray triggerfish (*Balistes capriscus*)	X	X	X	X
Greater amberjack (*Seriola dumerili*)	X	X	X	X
Lesser amberjack (*Seriola fasciata*)	X	X	X	X
Almaco jack (*Seriola zonata*)	X	X	X	X
Banded rudderfish (*Seriola zonata*)	X	X	X	X
Hogfish (*Lachnolaimus maximus*)	X	X	X	X
Queen snapper (*Etelis oculatus*)	X	X	X	X
Mutton snapper (*Lutjanus analis*)	X	X	X	X
Schoolmaster (*Lutjanus apodus*)	X	X	X	X
Blackfin snapper (*Lutjanus buccanella*)	X	X	X	X
Red snapper (*Lutjanus campechanus*)	X	X	X	X
Cubera snapper (*Lutjanus cyanopterus*)	X	X	X	X
Gray (mangrove) snapper (*Lutjanus griseus*)	X	X	X	X
Dog snapper (*Lutjanus jocu*)	X	X	X	X
Mahogany snapper (*Lutjanus mahogoni*)	X	X	X	X
Lane snapper (*Lutjanus synagris*)	X	X	X	X
Silk snapper (*Lutjanus vivanus*)	X	X	X	X
Yellowtail snapper (*Ocyurus chrysurus*)	X	X	X	X
Wenchman (*Pristipomoides aquilonaris*)	X	X	X	X

Species	Eggs	Larvae/ Neonate	Juvenile	Adult
Vermilion snapper (*Rhomboplites aurorubens*)	X	X	X	X
Goldface tilefish (*Caulolatilus chrysops*)	X	X	X	X
Blackline tilefish (*Caulolatilus cyanops*)	X	X	X	X
Anchor tilefish (*Caulolatilus intermedius*)	X	X	X	X
Blueline tilefish (*Caulolatilus microps*)	X	X	X	X
Golden tilefish (*Lopholatilus chamaeleonticeps*)	X	X	X	X
Dwarf sand perch (*Diplectrum bivittatum*)	X	X	X	X
Sand perch (*Diplectrum formosum*)	X	X	X	X
Rock hind (*Epinephelus adscensionis*)	X	X	X	X
Speckled hind (*Epinephelus drummondhayi*)	X	X	X	X
Yellowedge grouper (*Epinephelus flavolimbatus*)	X	X	X	X
Red hind (*Epinephelus guttatus*)	X	X	X	X
Goliath grouper (*Epinephelus itajara*)	X	X	X	X
Red grouper (*Epinephelus morio*)	X	X	X	X
Misty grouper (*Epinephelus mystacinus*)	X	X	X	X
Warsaw grouper (*Epinephelus nigritus*)	X	X	X	X
Snowy grouper (*Epinephelus niveatus*)	X	X	X	X
Nassau grouper (*Epinephelus striatus*)	X	X	X	X
Marbled grouper (*Epinephelus inermis*)	X	X	X	X
Black grouper (*Mycteroperca bonaci*)	X	X	X	X
Yellowmouth grouper (*Mycteroperca interstitialis*)	X	X	X	X
Gag (*Mycteroperca microlepis*)	X	X	X	X
Scamp (*Mycteroperca phenax*)	X	X	X	X
Yellowfin grouper (*Mycteroperca venenosa*)	X	X	X	X
Shrimp				
Brown shrimp (*Penaeus aztecus*)	X	X	X	X
White shrimp (*Penaeus setiferus*)	X	X	X	X
Pink shrimp (*Penaeus duorarum*)	X	X	X	X
Royal red shrimp (*Pleoticus robustus*)	X	X	X	X
Spiny Lobster				
Spiny lobster (*Panulirus argus*)	X	X	X	X
Slipper lobster (*Scyllarides nodifer*)	X	X	X	X

Species	Eggs	Larvae/ Neonate	Juvenile	Adult
Coastal Migratory Pelagics				
Spanish mackerel (*Scomberomorus maculatus*)	X	X	X	X
King mackerel (*Scomberomorus cavalla*)	X	X	X	X
Highly Migratory Species				
Bull shark (*Carcharhinus leucas*)			X	X
Spinner shark (*Carcharhinus brevipinna*)		X		
Nurse shark (*Ginglymostoma cirratum*)			X	X
Lemon shark (*Negaprion brevirostris*)		X		
Great hammerhead shark (*Sphyrna mokarran*)	X	X	X	X
Scalloped hammerhead shark (*Sphyrna lewini*)			X	X
Tiger shark (*Galeocerdo cuvier*)		X	X	X
Blacktip shark - Gulf of Mexico Stock (*Carcharhinus limbatus*)		X	X	X
Blacknose shark - Gulf of Mexico Stock (*Carcharhinus acronotus*)			X	X
Bonnethead shark - Gulf of Mexico Stock (*Sphyrna tiburo*)		X	X	X
Corals/Coral Reefs/Live Hard Bottom Habitats				
Stony corals	X	X	X	X
Octocorals	X	X	X	X
Pennatulacea (sea pens and sea pansies)	X	X	X	X

Source: NOAA 2019b; SAFMC 1998

Protected Species

Federally listed species that receive protection under the Endangered Species Act that could occur in the project area are listed below in Table 3-7. Many more protected species are known to occur or may occur on the island of Key West and in adjacent marine habitats. However, only those species with reasonable potential to occur in the project area are shown in Table 3-7. As noted above under *Marine Fauna*, marine habitats in the project area are largely limited to the marina basins, which do not provide high quality habitat for many marine species. Similarly, terrestrial habitats in the project area are limited and do not provide high quality habitat for many terrestrial wildlife species because of existing development, habitat fragmentation, and high baseline levels of noise and human activity. Federally listed species in Table 3-5 are also protected at the state level in Florida. State statuses are the same as federal statuses (Florida Fish and Wildlife Conservation Commission 2018). Additionally, the FKNMS offers additional protections for all species of stony and soft corals. Benthic surveys conducted in December 2018 identified 21 coral species (AECOM 2019a). Similarly, January 2019 surveys documented 21 species of corals in the marina basins; 19 species of stony corals and 2 species of soft corals (Chiello et al. 2019).

Table 3-7. Federally Listed Species in the Project Area

Species	Status	Occurrence in the Project Area
Sea Turtles		
Green sea turtle (*Chelonia mydas*)	Threatened	This species is present throughout the Gulf of Mexico and could be occasionally present in the vicinity of the project area.
Hawksbill sea turtle (*Eretmochelys imbricata*)	Endangered	Same as above.
Kemp's ridley sea turtle (*Lepidochelys kempii*)	Endangered	Same as above.
Leatherback sea turtle (*Dermochelys coriacea*)	Endangered	Same as above.
Loggerhead sea turtle (*Caretta caretta*)	Threatened	Same as above.
Fish		
Gulf sturgeon (*Acipenser oxyrinchus desotoi*)	Threatened	Same as above.
Nassau grouper (*Epinephelus striatus*)	Threatened	This species is associated with coral reef habitats and could be present in the vicinity of the project area on occasion.
Scalloped hammerhead shark (*Sphyrna lewini*)	Threatened	This species forages in soft-bottom habitat and may be present in the vicinity of the project area.
Smalltooth sawfish (*Pristis pectinata*)	Endangered	Same as above.
Corals		
Boulder star coral (*Orbicella franksi*)	Threatened	The project area contains suitable habitat for this species.
Elkhorn coral (*Acropora palmata*)	Threatened	Same as above.
Lobed star coral (*Orbicella annularis*)	Threatened	Same as above.
Mountainous star coral (*Orbicella faveolata*)	Threatened	This species has been documented at multiple locations in the project area including the north wall of the north marina basin and on the travel lift and Station pier pilings (Chiello et al. 2019).
Pillar coral (*Dendrogyra cylindrus*)	Threatened	The project area contains suitable habitat for this species.
Rough cactus coral (*Mycetophyllia ferox*)	Threatened	Same as above.
Staghorn coral (*Acropora cervicornis*)	Threatened	Same as above.

Species	Status	Occurrence in the Project Area
Marine Mammals		
West Indian manatee (*Trichechus manatus*)	Threatened	This species is likely to be present in project area with regular frequency.
Birds		
Roseate tern (*Sterna dougallii dougallii*)	Threatened	This species is tolerant of urban environments and has been observed nesting among least terns at Truman Annex in Key West, near the project area.

3.8.2 Environmental Consequences

Alternative 1—Preferred Alternative

Marine SAV. Under the Preferred Alternative, there would be no adverse impacts on marine SAV in the project area because marine habitats are largely limited to the marina basins that do not provide suitable habitat for SAV. Sediment disturbances from in-water work could affect SAV habitats outside the project area if sediments are transported. However, any potential increase in sedimentation in nearby SAV habitats would be minimal and would not result in loss of SAV because of the temporary nature of the impacts. Implementing BMPs during in-water work would minimize the potential for adverse impacts on SAV by limiting turbidity and other potential water quality impacts associated with removal and installation of pilings for the travel lift and Station piers. BMPs could include:

- Removing pilings slowly to minimize turbidity in the water column and at the sediment surface.
- Taking care to minimize damage to treated wood pilings to reduce the release of wood-treating compounds (e.g., creosote) that could be harmful to the marine environment.

Any additional BMPs that may be developed during consultation with USFWS, NOAA NMFS, FKNMS, and other agencies would be implemented as required.

Marine Fauna. Underwater noise, turbidity, and sedimentation could result in adverse impacts on marine fauna in the marina basins during demolition and construction activities for the travel lift and Station piers. BMPs designed to minimize turbidity and other potential water quality impacts associated with removal and installation of pilings, as described above under *Marine SAV*, would minimize impacts on marine fauna. Underwater noise would mainly result from pile driving associated with pier construction. Underwater noise would be greatest at the source (pile), with sound levels rapidly attenuating as distance from the source increases. The intensity of underwater noise would depend on the type of piles and driving hammer used. For example, noise produced by a vibratory hammer is approximately 10 to 20 decibels quieter than pile driving with an impact hammer (Illingworth and Rodkin, Inc. and Jones and Stokes 2009, and amended in 2012 and 2015). The pile and hammer types to be used for project construction have not yet been determined. If an impact hammer were used for project construction, nylon cushion blocks would be used mitigate the potential effects of underwater noise on marine fauna. Nylon cushion blocks can reduce underwater noise by about 5 decibels (Illingworth and Rodkin, Inc. and Jones and Stoke 2009). Additionally, a soft start would be used to give fish and other mobile marine fauna an opportunity to vacate the area before underwater sound levels reached their peak.

Disturbances from underwater noise could modify the normal movement patterns of some individuals, but disturbances are expected to be insignificant because underwater noise would be limited in duration, affect only a small area within the project area, and would not pose a barrier to migration or the availability of other more suitable habitat. Thus, interference with feeding, reproduction, migration or other activities necessary for survival of fish or other mobile marine fauna is not expected. Most individuals would likely leave the area during demolition and construction to avoid injury or other impacts. Underwater noise would not affect corals or other sessile marine fauna.

Sessile organisms including corals and other encrusting species, particularly those that currently colonize the travel lift and Station pier pilings, would suffer mortality because the pilings would be removed. However, these species would likely recolonize disturbed areas and colonize new underwater surfaces in the months or years following completion of construction. Therefore, any adverse impacts on marine fauna would be temporary and would not alter ecosystem dynamics in the project area. No modifications to the underwater portion of the seawalls are anticipated; therefore, no corals or encrusting species would be directly impacted in those areas. If modifications to the underwater portion of the seawalls became necessary based on the final project design, the USCG would consult with both NOAA NMFS and the FKNMS to ensure that any potential impacts are minimized and are not significant.

As discussed in Section 3.6, *Water Resources*, because fuel storage at Sector Key West would increase from the installation of two 20,000-gallon fuel tanks associated with the central generation plant, the USCG would be required to update the existing SPCC Plan and prepare and submit an FRP to the USEPA Regional Administrator for review. The Administrator, upon further consideration, may determine Sector Key West to be a facility that could cause "significant and substantial harm," which would require the Regional Administrator to approve the plan. While, the Proposed Action would significantly increase the amount of oils stored on Sector Key West, the two 20,000-gallon fuel tanks for the central generation plant and the 11,000-gallon replacement tanks for the existing 11,600-gallon diesel fuel tanks associated with Station Key West would be new tanks with proper spill prevention mechanisms. Additionally, having an FRP would help the USCG identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on marine habitat and fauna.

Pursuant to Section 304(d)(1) of the National Marine Sanctuaries Act, on December 7, 2020, the USCG sent a letter to the FKNMS initiating consultation and seeking concurrence with its findings that the Proposed Action would potentially injure FKNMS resources, but that any impacts would not be significant. By email and letter dated December 18, 2020, the FKNMS indicated it could not complete its review without detailed project design plans. The FKNMS also indicated that a general permit would be required for work related to altering/disturbing the seabed, which is prohibited by sanctuary regulations, and that a coral rescue/relocation plan would be required (see Appendix D). Subsequently, the USCG withdrew its consultation request and will resubmit the request once a design contract has been awarded and detailed design plans along with a coral rescue/relocation plan can be provided to the FKNMS. The USCG would attempt to comply with all mitigation measures recommended by the FKNMS to ensure impacts to FKNMS resources are avoided or minimized and are not significant. If the USCG is unable to complete any recommended mitigation or the regulatory findings are other than what have been anticipated and described in this EA, the USCG would supplement the findings of this EA. Additionally, the USCG would not begin any in-water work until all regulatory consultation requirements are complete.

Essential Fish Habitat. Underwater noise, particularly from the removal and installation of pilings for the travel lift and Station piers, turbidity, and sedimentation would have adverse impacts on EFH and coral EFH-HAPC during construction. BMPs designed to minimize turbidity and other potential water quality impacts associated with the removal and installation of pilings, as described above under *Marine SAV*, would minimize impacts on EFH and coral EFH-HAPC. Underwater noise impacts would be the same as those described for marine fauna. BMPs including using nylon cushion blocks (if an impact hammer is used for pile driving) and soft starts would minimize these impacts. Additionally, as described below under *Protected Species*, prior to any in-water construction work, the USCG would conduct additional species surveys, prepare a coral rescue/relocation plan, and in coordination with NOAA NFMS and the FKNMS relocate all mountainous star coral colonies and colonies larger than 10 centimeters for all other scleractinian coral species to coral "rescue" nurseries managed by the FKNMS, coral restoration partner nurseries to support propagation efforts, permitted research institutions, and/or nearby natural habitats. Any additional BMPs that may be developed during consultation with NOAA NMFS, FKNMS, and other agencies would be implemented as required. Most impacts would be temporary, and conditions are expected to return to baseline shortly after construction is complete. Impacts on EFH and coral EFH-HAPC would not affect any managed species at the population level because of the small footprint of the disturbed area compared to the area of designated EFH and coral EFH-HAPC and because the marina basins do not provide high quality habitat for most species. While, the Proposed Action would significantly increase the amount of oils stored on Sector Key West, the two 20,000-gallon fuel tanks for the central generation plant and the replacement tanks for the existing 11,600-gallon diesel fuel tanks associated with Station Key West would be new tanks with proper spill prevention mechanisms. Additionally, the USCG would be required to develop an FRP that would help it identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on marine habitat, EFH, and coral EFH-HAPC.

On December 7, 2020, the USCG sent a letter to NOAA NMFS initiating consultation and seeking concurrence with its findings under the Magnuson-Stevens Act. NOAA NMFS responded by email dated February 18, 2021, indicating that it could not complete its review without a coral rescue/relocation plan (see Appendix D). In response to the letter, the USCG withdrew its current consultation request and will resubmit the request once a design contract has been awarded and detailed design plans along with a coral rescue/relocation plan can be provided to NOAA NMFS. The USCG would attempt to comply with all mitigation measures recommended by NOAA NMFS to ensure impacts to EFH and coral EFH-HAPC are avoided or minimized and are not significant. If the USCG is unable to complete any recommended mitigation or the regulatory findings are other than what have been anticipated and described above, the USCG would supplement the findings of this EA.

Pursuant to the Magnuson-Stevens Act, the Proposed Action would have minimal adverse effects on EFH and coral EFH-HAPC.

Protected Species. Underwater noise, turbidity, and sedimentation could result in adverse impacts on marine protected species that may be present in the project area during construction. BMPs designed to minimize turbidity and other potential water quality impacts associated with the removal and installation of pilings, as described above under *Marine SAV*, would minimize impacts on protected species. Underwater noise impacts associated with pile driving for pier construction would be the same as those described above for marine fauna and could affect protected species, including sea turtles, fish, and marine mammals. BMPs (e.g., using nylon cushion blocks if an impact hammer is used for pile driving) and soft starts would minimize these impacts, and mobile species would likely avoid the area during construction.

In-water demolition and construction work would also have adverse impacts on protected corals because these species are sessile and would not be able to avoid impacts. Demolition of the travel lift and Station piers would have adverse impacts (i.e., take) on the federally threatened mountainous star coral, which has been documented on the support pilings for these structures. Eighteen additional hard corals and two soft coral species that are protected within the FKNMS and have been documented on the marina basin walls and pier structures would also be adversely affected by in-water demolition and construction work. The project area also provides suitable habitat for several other federally listed species that could be present in the project area, as shown in Table 3-7. Implementing mitigation measures during in-water work would minimize adverse impacts, but these impacts would not all be avoidable. Mitigation measures that would be implemented to avoid, minimize, or mitigate impacts on protected species could include:

- Prior to in-water construction work, conduct additional species surveys, prepare a coral rescue/relocation plan, and in coordination with NOAA NFMS and the FKNMS relocate all mountainous star coral colonies and colonies larger than 10 centimeters for all other scleractinian coral species to coral "rescue" nurseries managed by the FKNMS, coral restoration partner nurseries to support propagation efforts, permitted research institutions, and/or nearby natural habitats.
- Employ dedicated visual monitors to look for marine mammals and other protected marine animals as they approach the work site during pile driving and removal activities.
- Incorporate NOAA NMFS "Sea Turtle and Smalltooth Sawfish Construction Conditions" into the project plans and specifications as described below.
    - Instructing all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish.
    - Advising all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act.
    - Using siltation barriers made of material in which a sea turtle or smalltooth sawfish cannot become entangled that are properly secured and regularly monitored to avoid protected species entrapment.
    - Operating vessels associated with the construction project at "no wake/idle" speeds at all times while in the construction area.
    - Implementing all appropriate precautions if a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, including ceasing the operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment would cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-foot radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.
    - Reporting any collision with and/or injury to a sea turtle or smalltooth sawfish immediately to NOAA NMFS's Protected Resources Division and the local authorized sea turtle stranding/rescue organization.

The USCG would not conduct any in-water work until regulatory consultation with all appropriate agencies is complete. Any additional BMPs and mitigation measures that may be developed and recommended during consultation with USFWS, NOAA NMFS, FKNMS, and other agencies would be implemented as required to ensure impacts on listed species are avoided or minimized and are not significant.

Affected species are expected to recolonize disturbed areas and potentially colonize new underwater surfaces following construction. Additionally, all federally protected mountainous star coral colonies, regardless of size, would be relocated as described above. Therefore, no protected corals are expected to be eliminated from the project area. However, rescue/relocation of any federally protected coral species would constitute a "take" under the Endangered Species Act. As a result, the USCG would obtain appropriate incidental take statements from NOAA NMFS to authorize the incidental take.

While, the Proposed Action would significantly increase the amount of oils stored on Sector Key West, the two 20,000-gallon fuel tanks for the central generation plant and the two 11,000-gallon replacement tanks for the existing 11,600-gallon diesel fuel tanks associated with Station Key West would be new tanks with proper spill prevention mechanisms. Additionally, the USCG would be required to update the current SPCC Plan and develop an FRP that would help the USCG identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on marine habitat and protected species.

Noise during demolition and construction activities could affect one terrestrial species—roseate tern. However, this species is tolerant of urban environments. Therefore, any adverse impacts would likely be limited to temporary displacement of individual birds. Glare from PV systems has been shown to negatively impact birds, causing them to become disoriented and collide with PV panels, resulting in injury or death. However, these impacts have only been documented at utility-scale PV facilities (Visser et al. 2018). Under the Preferred Alternative, the PV system would be limited to building and carport rooftops; a much smaller array than that of a utility-scale PV facility. Therefore, adverse impacts on roseate tern associated with glare from the PV system would be extremely unlikely to occur. As a result, pursuant to the Migratory Bird Treaty Act, the Proposed Action would not result in take of migratory birds.

On December 7, 2020, the USCG sent a letter to the USFWS initiating consultation and seeking concurrence with its findings under the Endangered Species Act that the Proposed Action *may affect, not likely to adversely affect* the West Indian manatee and the roseate tern (see Appendix D). Concurrence with the findings is assumed because the USFWS did not respond to the USCG.

The USCG also sent a letter to NOAA NMFS on December 7, 2020, initiating consultation and seeking concurrence with its findings under the Endangered Species Act that the Proposed Action *may affect, not likely to adversely affect* the following species: green sea turtle, hawksbill sea turtle, Kemp's ridley sea turtle, leatherback sea turtle, Gulf sturgeon, Nassau grouper, scalloped hammerhead, smalltooth sawfish, boulder star coral, elkhorn coral, lobed star coral, pillar coral, rough cactus coral, and staghorn coral, and it *may affect, likely to adversely affect* the mountainous star coral. NOAA NMFS responded by email dated January 27, 2021, indicating that it could not complete its review without detailed project design plans and will require all federally listed coral species that would be potentially impacted by the project to be relocated, regardless of the colony size (see Appendix D). In response to the letter, the USCG withdrew its current consultation request and will resubmit it once a design contract has been awarded and detailed design plans along with a coral rescue/relocation plan can be provided to NOAA NMFS. The USCG would attempt to comply with all mitigation measures recommended by NOAA NMFS to ensure impacts to protected species are avoided or minimized and are not significant. If the USCG is unable to complete any

recommended mitigation or the regulatory findings are other than what have been anticipated and described above, the USCG would supplement the findings of this EA.

Overall, pursuant to NEPA, the Proposed Action would have no significant impact on biological resources, including protected species.

Alternative 2—Sector Engineering Facility

Impacts would be similar to those described for the Preferred Alternative. While no federally listed coral species were found during the January 2019 survey (Chiello et al. 2019) on Pier D3 along the north wall of the north marina basin near the location of the proposed travel lift, the USCG would prepare a coral rescue/relocation plan prior to any in-water work, conduct an additional survey for species to confirm no federally listed species are present, and complete all required regulatory consultation requirements. If the additional survey for species were to find federally listed corals along the basin wall where the travel lift would be constructed, mitigation measures (relocating coral colonies) and other BMPs as described under the Preferred Alternative would need to be implemented to minimize adverse impacts. Any additional BMPs and mitigation measures that may be developed during consultation with USFWS, NOAA NMFS, FKNMS, and other agencies would be implemented as required. Therefore, pursuant to NEPA, the Proposed Action under Alternative 2 would have no significant impact on biological resources. Additionally, under the Magnuson-Stevens Act and the Migratory Bird Treaty Act, the Proposed Action under Alternative 2 would have minimal adverse effects on EFH and coral EFH-HAPC and would not result in a take of migratory birds.

Alternative 3—Station Piers

Impacts would be similar to those described under the Preferred Alternative, and the construction of a wave attenuation structure to be located immediately to the west of the piers would also affect biological resources. Construction of the wave attenuation structure would result in temporary, adverse impacts on marine fauna, including protected species, EFH, and coral EFH-HAPC from underwater noise and increased turbidity during construction. However, some species, including protected corals, would benefit over the long term because the structure would provide additional hard bottom habitat. Conversion of a small amount of soft bottom habitat within the footprint of the structure would permanently alter EFH and coral EFH-HAPC but is not likely to adversely affect any federally managed species over the long term. BMPs described under the Preferred Alternative would also be implemented under Alternative 3. Any additional BMPs and mitigation measures that may be developed during consultation with USFWS, NOAA NMFS, FKNMS, and other agencies would be implemented as required. Therefore, pursuant to NEPA, the Proposed Action under Alternative 3 would have no significant impact on biological resources.

No-Action Alternative

There would be no impacts on biological resources compared to existing conditions because the project would not be implemented. Therefore, the No Action Alternative would have no significant impact on biological resources pursuant to NEPA.

3.9 Utilities

3.9.1 Affected Environment

The operational and mission support organizations at Sector Key West depend on utility systems to support their critical mission requirements. The Facilities Engineering Department at Sector Key West is responsible for the on-site utilities at the base, which are generally owned and operated by the USCG to the established property line. It is assumed that the existing on-site utilities have sufficient capacity to support

the base; the documentation reviewed does not contradict this assumption (Tetratech 2018). The utilities discussed in this section include water, sanitary sewer, stormwater, electricity, and diesel fuel.

Water

The existing water distribution system at Sector Key West provides the base's various buildings, dockside tie-ins, and hydrants with water supplied by Florida Keys Aqueduct Authority via a service connection near the southeast corner of the base. The on-site water distribution system, owned and maintained by the USCG, provides potable water for domestic purposes and non-potable water for fire suppression. No water treatment occurs at the base.

The water distribution system is aging but remains functional and without detected leaks. Existing water valves have exhibited weakness when fully opened/closed—an indication that they could be nearing the end of their functional life cycle (Tetratech 2018).

Wastewater

The existing sanitary sewer collection system at Sector Key West conveys wastewater from the base's various buildings and dockside tie-ins to the City of Key West's municipal sanitary sewer system. The on-site sanitary sewer system, owned and maintained by the USCG, uses a combination of gravity and pressure flow to convey wastewater toward the approximate southeast corner of the base, where it discharges to the municipal system. Components of the system include pumping stations, grease traps, manholes, cleanouts, dockside tie-in stations, valves, and piping of various sizes. No treatment of sanitary sewerage occurs at the base. The sanitary sewer system is generally in good condition with observed deficiencies limited to minor operational setting changes at a pump station (Tetratech 2018).

Stormwater

The existing stormwater collection system is limited to select portions of Sector Key West because the majority of stormwater runoff from the installation drains directly to Man of War Harbor via overland flow. The USCG owns the on-site stormwater collection system, which includes a network of retention basins, trench drains/catch basins, manholes, and pipes that direct flow to various outfalls discharging to Man of War Harbor. The existing stormwater collection system is generally in good condition; minor maintenance issues were the only observed deficiencies (Tetratech 2018).

Because of the industrial activities conducted at the base, Sector Key West's stormwater discharges are regulated by the Clean Water Act and must satisfy the requirements of the National Pollutant Discharge Elimination System Multi-Sector General Permit for Industrial Activities. The base prepared a draft Stormwater Pollution Prevention Plan to maintain compliance with the National Pollutant Discharge Elimination System program and its local permitting authority, Florida DEP. The plan identifies existing stormwater management practices at the base and would facilitate the management of activities that may affect the quality of its stormwater discharges once it is formally approved and implemented (AECOM 2019b).

Electric

The USCG owns and maintains the on-site electrical distribution system at Sector Key West with electricity provided by Keys Power. The distribution system uses a combination of transformers, generators, breaker panels, manholes, utility poles, underground conduits and overhead wiring to power facilities throughout the base.

The electrical distribution system is exhibiting significant signs of degradation, and major repairs would be necessary to address the issues. A recently completed condition assessment identified degradation issues that were related to recent hurricane damage as well as issues related to aging infrastructure and life-cycle limitations. (Tetratech 2018).

Additional issues identified in the condition assessment included:

- Exterior transformers not rated for exterior use
- Dry-type transformer corrosion and internal failure due to flooding during hurricane
- Cracked transformer cases, cracked wire insulation, and leaking oil from housings
- Increased operating temperature in some transformers
- Damaged shore-tie locations and light poles (attributed to hurricane damage)
- Safety and code issues such as missing arc flash stickers, unlocked transformers, lack of minimal clearance, and missing labels

Diesel Fuel

Pier D2 at Sector Key West is equipped with refueling stations for dockside vessels. The associated diesel fuel is stored in two 11,600-gallon aboveground storage tanks and conveyed to the stations via a network of above and below ground pipes. The tanks are located within a secondary containment dike immediately east of Building 101. The underground pipe runs from the storage tanks to a hatch-covered piping sump on the pier side of Peary Court and are double piped with a sump monitor to detect leaks between them. From the sump, the pipe enters a concrete trench with steel cover that protects the pipe as it runs parallel along the waterfront, branching off to fueling stations as necessary. The underground portion of the pipes are double piped with a sump monitor for detecting leaks between them. The USCG owns and maintains the fueling system. Overall, between aboveground storage tanks, emergency generator day tanks, produced water containers, oil-filled operational equipment (transformers), portable storage containers, and mess deck animal fats and grease, Sector Key West has a total capacity of 41,367 gallons of oil (USCG 2017).

3.9.2 Environmental Consequences

Alternative 1—Preferred Alternative

The study area for the Preferred Alternative is effectively the entire base because replacing the entire electrical distribution system would affect all facilities.

Under the Preferred Alternative, utility services would be disconnected from the following existing facilities slated for demolition:

- Building 101 and the diesel storage tanks
- Building 105, Sector Engineering Facility
- Building 106
- Building 108
- Quonset Hut OV 7
- Travel lift pier
- Station piers

Construction of multiple new facilities would require a significant number of new utility service connections. A detailed breakdown of utility connections and relocations associated with each new facility is provided below.

- The Sector Engineering Facility would include service connections to an existing water main approximately 25 feet to the south, an existing sanitary sewer main approximately 25 feet to the east, and an existing drainage manhole approximately 75 feet to the south. A newly installed conduit to the north is anticipated to provide the facility's electrical connection. The proposed facility location conflicts with an existing electric line that would be relocated to the west of the proposed facility as part of the Preferred Alternative.
    - The new Quonset Hut would be a small unstaffed building without water, sanitary sewer, and stormwater connections. The building is expected to be connected to the new electrical system from the southeast.
    - The new travel lift pier is expected to be connected to the new electrical system from the north.
- The Station and ANT Facility would include service connections to an existing water main approximately 25 feet to the east, an existing sanitary sewer main approximately 20 feet to the east, and an existing drainage manhole approximately 40 feet to the west. It is anticipated that the facility's electrical connection will be from a newly installed conduit to the south. The proposed facility location conflicts with an existing electric line and sanitary sewer line. The electric line would be relocated to the south and west of the proposed facility, and the sanitary sewer would be relocated to the north of the proposed facility as part of the Preferred Alternative.
    - Two existing 11,600-gallon diesel fuel storage tanks would need to be replaced as part of the construction of the new Station and ANT Facility. Prior to the start of construction, temporary tanks would be installed and connected to the existing diesel fuel distribution system at the hatch-covered pipe sump on the southern side of Peary Court. Following construction of the Station Building, two new 11,000-gallon storage tanks would be installed, the temporary tanks would be disconnected, and the new permanent tanks would be connected to the existing fuel distribution system. To maintain maximum endurance during Severe Weather Response Operations (i.e., hurricane season) for USCG vessels assigned to Station Key West, the work associated with the 11,600-gallon diesel fuel tanks would occur, if possible, outside of hurricane season (June 1 through November 30). However, if this were not possible, the construction contractor would need to provide additional temporary fuel storage during the disruption to the fueling system to minimize operational impacts during a critical time of year.
    - Prior to the start of demolition activity at the Station piers, a temporary mooring location would need to be confirmed to determine the means and methods for installing temporary utilities. During construction, new dockside utility tie-ins for water and electric would be installed and connected to their respective utility systems located approximately 20 feet to the east.

- The new central generation plant would be an unstaffed building without water, sanitary sewer, or stormwater connections. The building would require two connections to the new electrical system: one service connection to meet the electrical needs of the facility during typical operating conditions and one connection to provide power to other Sector Key West facilities during emergency conditions related to public electric utility outages. The building would also be connected to two new fuel storage tanks. Fuel from these tanks would be used to power generators to provide the base with emergency power. These fuel tanks would be near the generation plant; a final location will be determined during the design phase of the project.

  Additionally, as discussed in Section 3.6, *Water Resources*, because fuel storage at Sector Key West would increase from the installation of the two 20,000-gallon fuel tanks associated with the central generation plant, the USCG would be required to update the SPCC Plan and prepare and submit an FRP to the USEPA Regional Administrator who, upon further consideration, may determine Sector Key West to be a facility that could cause "significant and substantial harm," requiring the Regional Administrator to approve the plan. While, the Proposed Action would significantly increase the amount of oils stored on Sector Key West, the two 20,000-gallon fuel tanks for the central generation plant and the 11,000-gallon replacement tanks for the existing 11,600-gallon diesel fuel tanks associated with Station Key West would be new tanks with proper spill prevention mechanisms. Additionally, having an FRP would help the USCG identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on Sector Key West.

The Preferred Alternative would replace an electrical distribution system that exhibits significant degradation as a result of its age and exposure to storm events such as Hurricane Irma in 2017. Benefits of the new electrical system would include:

- Functionality and Reliability: Replacement of existing damaged and degraded system components would improve day-to-day operation of the system and would also eliminate the potential for future age/degradation related failures of the system.
- Resiliency: The proposed central generation plant would be capable of supplying the base with full electric power for up to 10 days during an outage of the public electric utility. Proposed exterior electrical distribution equipment would be installed 3 feet above the 100-year flood elevation to improve resiliency to future storm.
- Health and Safety: Replacement of the electrical system would eliminate the health and safety risks associated with existing electrical code issues.
- Sustainability: The proposed electrical improvements would include a roof and a carport-mounted photovoltaic system to generate electricity using a sustainable fuel source. Additionally, the new system would replace existing exterior lights with LED fixtures to reduce the base's total electrical load and greenhouse gas emissions.

Adverse impacts to utilities at Sector Key West are expected to be short term and occur in the form of service disruptions during connection and disconnection of the utilities. The duration of short-term disruptions would vary, but two to six hours per utility connection is anticipated for utilities that could not be isolated from other facilities. These service disruptions would be coordinated with the affected facilities, and their impacts could be minimized by conducting them during weekends or after hours during the week. As a result, pursuant to NEPA, the Proposed Action would have no significant impact on utilities.

Alternative 2—Sector Engineering Facility

In general, the impacts on utilities would be the same as those described for the Preferred Alternative with the specific impacts related to the Sector Engineering Facility and travel lift being constructed on Pier D3 described below.

Alternative 2 would include disconnecting existing utility services to facilities slated for demolition and installing new utility service connections to the proposed Sector Engineering Facility, Quonset Huts, and travel lift pier. The proposed Sector Engineering Facility would include service connections to existing nearby water, sanitary sewer, and electric infrastructure. Without existing stormwater infrastructure in close proximity to the proposed Sector Engineering Facility, installation of a new outlet in the existing seawall would be necessary for underground conveyance of roof runoff. As noted above, the location of the proposed Sector Engineering Facility conflicts with an existing electric line that would need to be removed and disposed of prior to construction of the facility. Utility service connections to the relocated Quonset Huts and travel lift pier would be limited to electricity, which is near to their respective locations. Adverse impacts on utilities at the base would be similar to those described for the Preferred Alternative, and similar measures would be employed to minimize these impacts. As a result, pursuant to NEPA, the Proposed Action under Alternative 2 would have no significant impact on utilities.

Alternative 3—Station Piers

In general, the impacts to utilities would be the same as those described for the Preferred Alternative with the specific impacts related to construction of the Station piers in their current footprint described below. Under Alternative 3, the construction and location of the new Station and ANT Facility would be the same as described under the Preferred Alternative; however, the Station piers would be reconstructed in their existing footprint with temporary utilities provided while demolition and construction activities are ongoing.

Alternative 3 would include disconnection of existing utility services to facilities slated for demolition, installation of new utility service connections to the proposed Station and ANT Facility and Station piers, relocation of existing diesel fuel tanks, installation of temporary utilities to be used during construction, and relocation of existing electric infrastructure. The proposed location for the Station and ANT Facility conflicts with an existing electric line and sewer line that could serve other on-site facilities. The connectivity of these lines should be determined during the design phase of the project. If needed, the electric line should be relocated to the south and west of the proposed facility, and the sewer line should be relocated to the north of the proposed facility. The proposed Station and ANT Facility would include service connections to existing nearby water, sanitary sewer, stormwater and electric infrastructure.

The existing diesel fuel pipe would be disconnected at the hatch-covered piping sump on the southern side of Peary Court. Following installation of the diesel storage tanks, the new diesel fuel pipe would be routed to this sump for reconnection to the existing fuel distribution system.

Prior to the start of demolition activity at the Station piers, a temporary mooring location would need to be confirmed to determine the means and methods for installing temporary utilities. Existing utility services would then be disconnected from the Station piers, and existing dockside utility tie-in stations would be removed and disposed. During construction, new dockside utility tie-ins for sanitary sewer, water, electric, and diesel fuel would be installed and connected to their respective nearby utility systems.

Similar to the Preferred Alternative, adverse impacts on utilities at surrounding buildings and facilities are expected to be short term for most utilities, occurring in the form of service disruptions during connection and disconnection of the utilities. These service disruptions would be coordinated with the affected

facilities, and their impacts could be minimized by conducting them during weekends or after hours during the week. While the diesel fuel system would likely be adversely affected for a longer time when the existing tanks are removed and the new tanks are installed, operational impacts would be minimized as described under the Preferred Alternative by using temporary fuel tanks and conducting the work outside the hurricane season if possible. As a result, pursuant to NEPA, the Proposed Action under Alternative 3 would have no significant impact on utilities.

No-Action Alternative

Under the No-Action Alternative, the Proposed Action would not occur. The current utility infrastructure on base at Sector Key West would remain in use with minimal maintenance. There would be no major renovations of the following on-base utility systems: water, sanitary sewer, stormwater, and diesel fuel. The deterioration of the electric distribution system would continue, and existing code/safety issues would need to be addressed in a piecemeal fashion as individual deficiencies were noted. Additionally, without the construction of the backup generation plant, if Sector Key West were to be impacted by another natural disaster such as occurred with Hurricane Irma in 2017, Sector Key West could again potentially lose electrical power to the base and would not be able maintain operational resiliency. Therefore, pursuant to NEPA, significant adverse impacts on the base's electrical infrastructure would occur under the No-Action Alternative, although there would be no significant impact on utilities outside the boundaries of Sector Key West.

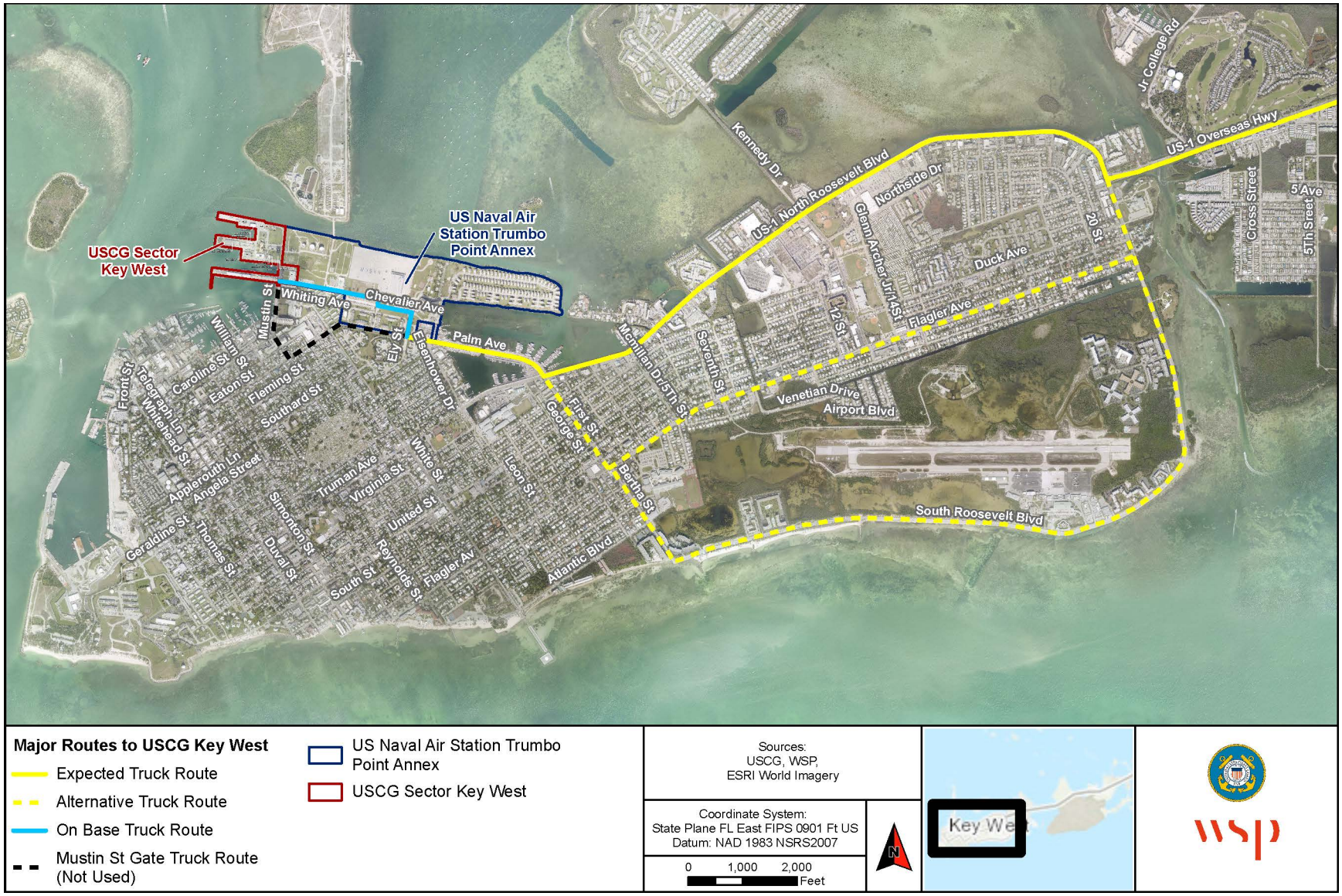
3.10 Transportation

3.10.1 Affected Environment

Sector Key West is located in the northwest corner of the City of Key West. Surrounded by water on most sides, the only frequently used ground transportation route to the Sector Key West requires traveling streets through the city and passing through the NAS Trumbo Point Annex. Sector Key West has its own gate at Mustin Street; however, this gate is not used for daily access. Thus, normal access to Sector Key West is through the NAS Trumbo Point Annex gate off Palm Avenue and a short drive through the Annex using Ely Street, Chevalier Avenue, Flatley Avenue, and Whiting Avenue (Figure 3-2).

The most practical and direct route to access the Trumbo Point Annex Gate is via North Roosevelt Boulevard, which is part of U.S. Highway 1 (US-1), and Palm Avenue. Because Key West itself is surrounded by water, the only street access is US-1, the Overseas Highway, a principal arterial road operated by the Florida Department of Transportation (FDOT) (FDOT 2019). US-1 in the Lower Keys is a four-lane divided road with mostly signaled at-grade intersections and a few grade-separated interchanges. It crosses into the east end of Key West on side by side bridges over the Cow Key Channel and immediately reaches a signaled T intersection with North Roosevelt and South Roosevelt Boulevards. US-1 continues along North Roosevelt Boulevard, also a principal arterial road operated by FDOT, which is a four lane non-divided road with a middle turning lane and at-grade intersections as far west as Palm Avenue. North Roosevelt in this area is the auto centric commercial and hotel strip of Key West, with many curb cuts for businesses, but it also features bicycle and pedestrian side paths and well-marked crosswalks. At the intersection with Eisenhower Drive, US-1 enters the historic old town and becomes Truman Avenue, a two-lane minor arterial road in a pedestrian-friendly environment.

Figure 3-2. Transportation Network Surrounding Sector Key West



Palm Avenue is a city-operated minor arterial with two lanes, at-grade intersections, and bicycle and pedestrian paths on each side. It connects US-1 (North Roosevelt) to the Trumbo Point Annex Gate and the old town via a causeway and bridge. Land use along this street consists of many boat docks along the causeway and residential uses west of the causeway. To reach the Sector Key West Gate at Mustin Street from Palm Avenue, which is usually not used for traffic, requires navigating narrow two-lane roads through the historic old town (Easton Street, Grinnell Street, and Mustin Street).

Other options for reaching the Trumbo Point Annex Gate from the US-1 Bridge into Key West are longer but may be practical if North Roosevelt Boulevard is congested. One route involves using South Roosevelt Boulevard along the south side of Key West, then Bertha Street and First Street to connect to Palm Avenue. The other option is to use Flagler Avenue and then First Street to connect to Palm Avenue. South Roosevelt is an FDOT-operated principal arterial with four non-divided lanes and bicycle side paths that pass through nature preserves, hotels, and the airport. Bertha Street and First Street are minor arterials operated by the city with two lanes and sidewalks through a residential area. Flagler Avenue is a county-operated minor arterial with four divided lanes and sidewalks through a low-density residential area (FDOT 2019).

Based on annual average daily traffic and annual average daily truck traffic (truck annual average daily traffic) from FDOT, US-1 Roosevelt Boulevard to Palm Avenue is by far the most heavily used route for both autos and trucks to get across Key West to the Trumbo Point Annex from the Overseas Highway. The Cow Key Channel Bridge is crossed by 47,000 autos and 3,102 trucks. North Roosevelt Boulevard has 40,000 autos and 2,640 trucks. Palm Avenue has 19,700 autos and 1,300 trucks. First Street, the main connection between Palm Avenue and Flagler Avenue or South Roosevelt Boulevard only has 8,000 autos and 436 trucks, suggesting that not many cars or trucks are using those two roads as alternative routes to get to Palm Avenue (FDOT 2019).

The City of Key West has unique transportation challenges for its region because of its geography as a Key and its early development. These challenges affect access to Sector Key West. As the southernmost key in the area, Key West is only accessible via a bridge on one road, US-1, which is operated by FDOT. The west side of the city was developed well before the invention of the automobile, and as such, features historic narrow streets with no opportunities for widening. Even outside the historic city, Key West is built out with limited opportunities for adding street capacity (City of Key West 2019). Thus, most of state-, county-, and city-owned system of streets on Key West have levels of service that are below plan goals, including the main streets used to access the Trumbo Point Annex Gate, Palm Avenue and US-1. Both Palm Avenue and US-1 are listed as congested roadways by the City's Transit Plan with a level of service E. The infrequently used gate at Sector Key West has additional congestion issues because it is accessed via streets in the old town that have major congestion issues because of their pre-automobile design and heavy use by tourists (Tindale Oliver 2019).

The population distribution and employment opportunities in Key West exacerbate its transportation challenges because these opportunities are heavily based around its status as a famous tourist destination. The tourists who occupy the city's almost 7,000 rental units, stay on docked cruise ships, or arrive on day trips have different travel patterns and different mode uses from residents. Members of this population are more likely to use public transit, walk, or bike. Others may not have cars at all while staying in the city (Tindale Oliver 2019).

Aside from the tourism industry, year-round employers, like schools and medical centers, generate commuter trips. The U.S. Armed Services is the largest of these, with 2,190 employees. However, the highest density of employment in Key West is tourism related around the old town, which is located just to the south and west of Sector Key West and contributes heavily to the crowding of roads used to access the

Trumbo Point Annex Gate. In terms of residents, population density is at its peak of 23 to 37 persons per acre at the northeast end of Key West between Flagler Avenue and North Roosevelt Boulevard. Areas of high population density (14 to 22 persons per acre) occur between Flagler Avenue and North Roosevelt Boulevard just south east of Trumbo Point Annex and in the old town south of Sector Key West (Tindale Oliver 2019). This distribution of employment and residents ensures that all streets used to travel to Sector Key West are also important commuting routes.

Commuting trips in Key West are relatively short; most are less than 20 minutes. Of the over 8,000 employed people in Key West, about 67 percent work within the city, and more residents commute to jobs outside the city than drive into the city for work. As is typical for the region, most commuting is done by single occupancy vehicles (58 percent). However, given the traffic congestion and close proximity of the population to jobs, alternate modes are more popular than is typical in the region, with 7 percent of commuters walking to work and 15 percent using a bicycle (Toole Design Group 2019). Public transit use for commuting is low, at 2.6 percent, but is still higher than the region in general (Tindale Oliver 2019).

Key West has a well-developed public transit system of fixed route bus routes operated by the Key West Department of Transportation and paratransit operated by Monroe County Transit. The fixed route bus service is provided on multiple routes that circulate around Key West and Stock Island, operating on one to two-hour headways. Multiple circulator routes serve Palm Avenue, North Roosevelt Boulevard (US-1), and South Roosevelt Boulevard. The Key West Shuttle service of the Key West Department of Transportation is the only non-circulator fixed bus route, and it operates north of Stock Island to Marathon. The route with the highest ridership (315,000 in 2018, or half the system's ridership) is the Duval Loop, a new circulator operating around the old town to serve residents, commuters, and tourists in that dense area. The gate for Trumbo Point Annex is served by a few bus routes and many more are within a quarter mile, providing ample mass transit options for Sector Key West workers (Tindale Oliver 2019).

The City of Key West has a network of bicycle paths (usually along the side of roads), bicycle lanes, and bicycle boulevards, which connect most points in the city for commuters and tourists who use bicycles for commuting or leisure. North Roosevelt Boulevard, South Roosevelt Boulevard, and Palm Avenue have side paths for bicycles and walkers, while many other major streets have lanes or are bicycle boulevards. The Trumbo Point Annex Gate is connected to the paths on Palm Avenue, providing Sector Key West workers excellent access to the bicycle and pedestrian network as it connects to the rest of the bicycle network on Key West. Unfortunately, because of the high use of these modes and congested streets, Key West also has a high incidence of crashes. Key West has ranked first in the number of bicycle injuries and fatalities and third to 12th place for pedestrian injuries and fatalities for a city in its size category. It should be noted that many of the bicycle and pedestrian incidents occur at North Roosevelt Boulevard at the intersection of Palm Avenue and many of the intersections east of there (Toole Design Group 2019).

3.10.2 Environmental Consequences

Alternative 1—Preferred Alternative

The Preferred Alternative would have no permanent impacts on transportation because it would maintain the same operations using new buildings and docks at Sector Key West and would not increase the level of employment, deliveries, or visitors to the base. Thus, it would not create any new demands on the local transportation network. Good access to the street system, mass transit, and the bicycle and pedestrian facilities of Key West through the Trumbo Point Annex Gate would be maintained for employees and deliveries. The number of parking spaces at the Sector would increase slightly from 92 spaces to 106 spaces when the new parking lot is constructed.

Temporary impacts would be minimal. During the construction of the new parking lot, temporary parking would be used most likely on Pier D3, which is close to the existing parking lot. Construction and demolition of buildings and the docks would generate truck trips to the Sector that would likely consist of heavy 16-ton trucks carrying in construction materials and leaving empty and dump trucks (around 14-ton loads) arriving empty and leaving with construction waste and demolition debris. Dump trucks would also be used to haul away petroleum-contaminated soil excavated during construction. Based on an analysis of truck routes and density on local roads in Section 3.10.1, these trucks would likely use the Trumbo Point Annex Gate, Palm Avenue, and North Roosevelt to arrive and depart Key West (FDOT 2019). Soil excavation and construction is currently expected to occur during an estimated two-year time frame from approximately January 2022 to December 2023. Construction truck traffic would operate during this window on workdays.

A construction plan has not been developed to estimate the number of truck trips; however, estimates of truck load generation for construction materials and debris based on building GSF were developed from USEPA reports (USEPA 1998, 2003). About 942 trucks (including empty return trips) are estimated to operate over the construction time frame of about 520 workdays (Table 3-8) for an average of 1.8 trucks each workday. Based on the volume of soil to be excavated, 17,886 cubic yards, (Table 3-9), this translates to 2,811 trucks (including empty return trips) over about 520 workdays for an average of 5.4 truck trips each day. During the period when both construction and soil removal is occurring, there would be approximately 7.2 daily truck trips. The truck traffic each day could vary above or below the 7.2 average over the construction period because deliveries of materials and soil excavation would peak at different times. However, given that the truck annual average daily traffic along the expected route ranges from 1,300 daily trucks to 2,640 trucks, with 3,102 trucks crossing into Key West on the US-1 Cow Key Channel Bridge, the addition of these trucks each workday would be imperceptible.

Temporary impacts from this truck traffic inside Sector Key West and the NAS Trumbo Point Annex would be minor and would consist of construction trucks passing through the Trumbo Point Annex by using Ely Street, Chevalier Avenue, Flatley Avenue, and Whiting Avenue. These streets presently have no congestion, so the addition of a few trucks each day would not degrade their level of service. Once inside Sector Key West, the trucks would have to maneuver into loading and unloading areas at the construction sites, creating several minute blockages of roads, parking lots, and driveways. The loading and unloading zones themselves would be delineated to allow traffic to avoid any parked trucks and minimize the impact to traffic circulation on the base.

The Preferred Alternative would have no permanent impacts on transportation and minimal temporary impacts. Thus, pursuant to NEPA, the Proposed Action would have no significant impact on transportation resources.

Table 3-8. Estimated Truck Trips—Construction/Demolition

Building Construction and Demolition	Building GSF	Workdays	Average Amount of Material (Pounds/GSF)	Tons	Truck Size	Truck Type	Truck Loads	Trucks per Workday
New Building Material for Sector Engineering/ESD Facility	36,073	520	155	2,795.7	16	Heavy Truck	175	0.34
New Building Material for Sector Engineering/ESD Facility (Wastage)	36,073	520	4	72.1	14	Dump Truck	5	0.01
Building 105 Demolish	17,843	520	155	1,382.8	14	Dump Truck	99	0.19
Building 108 Demolish	6,720	520	155	520.8	14	Dump Truck	37	0.07
New Building Material for Station and ANT Facility	23,486	520	155	1,820.2	16	Heavy Truck	114	0.22
New Central Generation Plant	3,600	520	155	279.0	16	Heavy Truck	17	0.03
New Building Material for Station and ANT Facility (Wastage)	23,486	520	4	47.0	14	Dump Truck	3	0.01
Building 101 Demolish	3,266	520	155	253.1	14	Dump Truck	18	0.03
Building 106 Demolish	439	520	155	34.0	14	Dump Truck	2	0.00
Total Inbound (New Construction Martials)		520		4,895			306	0.6
Total Outbound (Demolition / Waste)		520		2,310			165	0.3
Total Inbound (Empty)		520		0			165	0.3
Total Outbound (Empty)		520		0			306	0.6
Total		520		7,205			942	1.8

Construction is currently expected to occur during an estimated two-year time frame from approximately January 2022 to December 2023.

Table 3-9. Estimated Truck Trips—Soil Removal

Soil Removal	Soil Cubic Yards from Building	Workdays	Average Amount of Material (Ton/Cubic Yard)	Tons	Truck Size	Truck Type	Truck Loads	Trucks per Workday
Soil from Station and ANT Facility	2,200	520	1.1	2,420	14	Dump Truck	173	0.33
Soil from Sector Engineering/ESD Facility	4,200	520	1.1	4,620	14	Dump Truck	330	0.63
Soil from Central Generation Plant	500	520	1.1	550	14	Dump Truck	39	0.08
Soil from Electrical Ductwork	10,986	520	1.1	12,084.6	14	Dump Truck	863	1.66
Total Outbound (Loaded Soil)	17,886	520	1.1	19,674.6		Dump Truck	1,405	2.70
Total Inbound (Empty)		520		0		Dump Truck	1,405	2.70
Total Soil		520		19,674.6		Dump Truck	2,811	5.4

Soil removal is currently expected to occur during an estimated two-year time frame from approximately January 2022 to December 2023.

Alternative 2—Sector Engineering Facility

Permanent and temporary impacts on transportation under Alternative 2 would be the same as those identified for the Preferred Alternative. Therefore, pursuant to NEPA, the Proposed Action under Alternative 2 would have no significant impact on transportation resources.

Alternative 3—Station Piers

Permanent and temporary impacts would be the same as those identified for the Preferred Alternative. Therefore, pursuant to NEPA, the Proposed Action under Alternative 3 would have no significant impact on transportation resources.

No-Action Alternative

Under the No-Action Alternative, the Proposed Action would not occur and there would be no change to traffic conditions. Therefore, traffic would remain consistent with existing conditions. Pursuant to NEPA, the No Action Alternative would have no significant impact on transportation resources.

3.11 Hazardous and Toxic Materials and Waste

3.11.1 Affected Environment

Soil and Groundwater Contamination

According to the Superfund National Priorities List Where You Live Map, there are no superfund National Priorities List sites in the project area (USEPA 2019).

The USEPA website mapper identified three facilities of interest in the Toxic Releases and Hazardous Waste databases: the USCG Key West Trumbo Annex, the Key West Pipeline Company, and the NAS Key West (USEPA n.d.). These facilities are identified on Figure 3-3. The USCG Key West Trumbo Annex is a Small Quantity Generator for the following waste codes: D001 ignitable waste, D002 corrosive waste, D005 barium, D008 lead, D035 methyl ethyl ketone, and F003 and F005 spent non-halogenated solvents. The USEPA (Florida DEP in this case) regulate sites that generate, transport, store, treat, and/or dispose of hazardous waste as defined by the Resource Conservation Recovery Act of 1976 and the Hazardous and Solid Waste Amendments of 1984. Small Quantity Generators generate between 100 and 1,000 kilograms of hazardous waste per month.

Figure 3-3. Facilities Identified in the USEPA Hazardous Waste Database and Active Florida DEP Cleanup Sites

In addition to the two facilities listed in the hazardous waste generator database (Figure 3-3), two active Florida DEP petroleum cleanup sites (non-hazardous waste) are located east of Sector Key West on the NAS Trumbo Point Annex: the U.S. Navy – Trumbo Point Fuel Farm Building #A929 and the Key West Pipeline Company (Figure 3-3).

- According to an online Florida Department of Regulations (now part of Florida DEP) report (Florida Department of Environmental Regulation 1989), in 1942, the Trumbo Point Fuel Farm had 19 large capacity fuel storage tanks and a network of underground pipelines designed to transmit fuel into and out of the facility during World War II. Groundwater investigations conducted at the Trumbo Point Fuel Farm indicate that past operating practices contributed to the degradation of the soil and shallow groundwater with petroleum products (e.g., aviation gas, jet fuel, and diesel fuel). Floating free product has historically been measured in some monitoring wells at the Trumbo Point Fuel Farm. Groundwater contamination associated with tank contents has included jet fuel, aviation gas, waste oil, bunker oil, diesel fuel, motor gas, and other petroleum substances.
- The Key West Pipeline Company petroleum release dates to a 1981 release of approximately 20,000 gallons of diesel from an underground piping leak at the Trumbo Point Fuel Farm that discharged into the surface water at the piers and into the stormwater system (Florida Department of Environmental Regulation 1995).

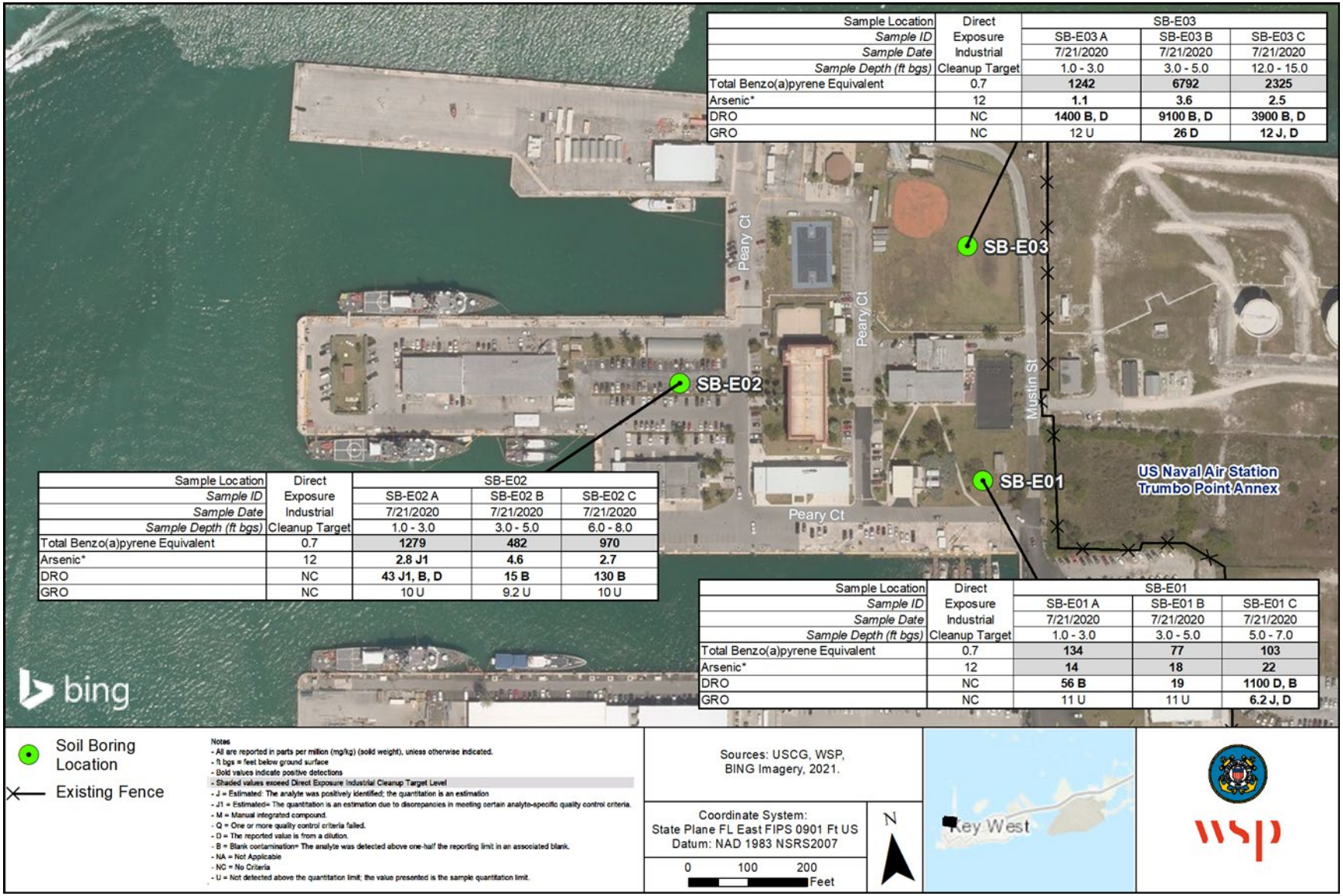
Historic fueling and storage operations at the adjacent U.S. Naval Annex may have affected soils and groundwater at Sector Key West. In 2019, a geotechnical investigation was conducted to explore and evaluate subsurface conditions at Sector Key West. The samples were also screened for volatile organic compounds (Louis Berger 2019a). During soil sampling, petroleum odors and affected soils were noted in the geotechnical borings collected. Screening samples were collected from selected clippings and analyzed for total petroleum hydrocarbon, target compound list volatile organic compounds, polyaromatic hydrocarbons, polychlorinated biphenyls (PCBs), and Resource Conservation and Recovery Act 8 metals, including mercury. Analytical results showed concentrations above direct exposure industrial standards were exceeded for total petroleum hydrocarbon, benzene, and arsenic.

In July 2020, an additional environmental soil investigation was conducted to characterize the subsurface soils by advancing soil borings at three locations where proposed buildings would be constructed as part of the Proposed Action to identify the type and extent of existing contamination that would require removal and/or treatment prior to construction activities (WSP 2020b). The soil borings are identified as SB-E01, SB-E02, and SB-E03. Figure 3-4 displays the location of these soil borings and the corresponding analytical data that exceeded the Direct Exposure Industrial Soil Cleanup Target Levels (SCTL).

Soil Boring SB-E01 was made in a lawn area where the new Station and ANT Facility is proposed. Petroleum odors were noted beneath the water table (approximately 2 feet below ground surface [bgs]) at depths of approximately 6.5 feet bgs and between 12 and 15 feet bgs. The analytical results showed the calculated benzo(a)pyrene toxicity equivalence for the carcinogenic semi-volatile organic compounds exceeded the SCTL at all three depth intervals. Arsenic was the only metal found above the SCTL. It exceeded the SCTL at all three depth intervals; however, the concentrations detected were consistent with ambient literature values for the metal (USGS 1984).

Soil Boring SB-E02 was made in a parking lot area where the new Sector Engineering Facility is proposed. Petroleum odors were noted beneath the water table (approximately 6 feet bgs) at depths of approximately 9 to 12 feet bgs. The analytical results showed the calculated benzo(a)pyrene toxicity equivalence for the carcinogenic semi-volatile organic compounds exceeded the SCTL at all three sample depths, with the highest concentration found in the shallow sample above the water table.

Figure 3-4. Soil Boring Locations and Analytical Results



Sample Location	Direct	SB-E03		
Sample ID	Exposure	SB-E03 A	SB-E03 B	SB-E03 C
Sample Date	Industrial	7/21/2020	7/21/2020	7/21/2020
Sample Depth (ft bgs)	Cleanup Target	1.0 - 3.0	3.0 - 5.0	12.0 - 15.0
Total Benzo(a)pyrene Equivalent	0.7	**1242**	**6792**	**2325**
Arsenic*	12	**1.1**	**3.6**	**2.5**
DRO	NC	**1400 B, D**	**9100 B, D**	**3900 B, D**
GRO	NC	12 U	**26 D**	**12 J, D**

Sample Location	Direct	SB-E02		
Sample ID	Exposure	SB-E02 A	SB-E02 B	SB-E02 C
Sample Date	Industrial	7/21/2020	7/21/2020	7/21/2020
Sample Depth (ft bgs)	Cleanup Target	1.0 - 3.0	3.0 - 5.0	6.0 - 8.0
Total Benzo(a)pyrene Equivalent	0.7	**1279**	**482**	**970**
Arsenic*	12	**2.8 J1**	**4.6**	**2.7**
DRO	NC	**43 J1, B, D**	**15 B**	**130 B**
GRO	NC	10 U	9.2 U	10 U

Sample Location	Direct	SB-E01		
Sample ID	Exposure	SB-E01 A	SB-E01 B	SB-E01 C
Sample Date	Industrial	7/21/2020	7/21/2020	7/21/2020
Sample Depth (ft bgs)	Cleanup Target	1.0 - 3.0	3.0 - 5.0	5.0 - 7.0
Total Benzo(a)pyrene Equivalent	0.7	**134**	**77**	**103**
Arsenic*	12	**14**	**18**	**22**
DRO	NC	**56 B**	**19**	**1100 D, B**
GRO	NC	11 U	11 U	**6.2 J, D**

Soil Boring SB-E03 was made in a lawn area where the central generation plant is proposed. Petroleum odors were noted at the water table at 4 feet bgs to depths of approximately 12 feet bgs. Intermittent staining was also observed between approximately 8 and 13 feet bgs. The analytical results showed the calculated benzo(a)pyrene toxicity equivalence for the carcinogenic semi-volatile organic compounds exceeded the SCTL at all three depth intervals, with the highest concentration detected at the water table.

It should be noted that the total petroleum hydrocarbon diesel range organics and gasoline range organics results show that diesel range organics were found at higher concentrations than gasoline range organics, and the highest diesel range organic concentrations were found below the observed water table for all three soil boring locations. The findings of this subsurface soil investigation show evidence of historical environmental contamination. The detection of diesel and gasoline range organics detected at or below the water table suggests that contaminants were not the result of a surface spill, and the contamination appears to be migrating along the water table. Therefore, based on the analytical data from the 2020 soil investigation, contamination is present at the proposed construction areas of new Sector Engineering Facility and Station and ANT Facility, at a minimum.

Building Material Assessment

In 2019, an inspection for the presence or absence of asbestos containing materials (ACM), lead-based paint, and PCB-contaminated electrical equipment was conducted at Sector Key West (Louis Berger 2019b). Analytical results did not indicate building materials as ACM. Lead-based paint was confirmed for the gray metal columns and blue concrete walls in the engineering bay. No suspect PCB-contaminated electrical equipment was found on-site.

3.11.2 Environmental Consequences

Alternative 1—Preferred Alternative

Because the project area has been assessed for the presence of hazardous and toxic materials and waste and found to contain petroleum-contaminated soil, the Preferred Alternative would disturb hazardous substances, including petroleum contamination, which was found below the water table at depths of approximately 9 to 12 feet bgs. In addition, a semi-volatile organic compound, benzo[a]pyrene, was found in the shallow sample above the water table and above the SCTL.

An environmental investigation would be designed and conducted at the location of the selected alternative in accordance with all appropriate protocol and proposed construction activities anticipated. A materials management plan would be developed to manage all wastes and materials generated during construction. Currently, the USCG is assuming all excavated soils are petroleum contaminated. Excavated soils would be further sampled and characterized by the contractor and disposed of at an appropriately permitted off-site landfill. Groundwater sampling would be performed by the contractor to evaluate construction dewatering effluent handling and permitting requirements, if needed. If required, dewatering effluent would be treated on-site. Open trenches would also be covered to prevent rainwater from entering the trenches, becoming potentially contaminated, and requiring treatment. Appropriate health and safety measures would be evaluated and implemented to be protective of workers and the public's health and safety.

Additionally, because the project area has been assessed for the presence of ACM and lead-based paint, the USCG would review remediation records to confirm previous removal of ACM Black Asphaltic HVAC Duct Sealer, which was not found at the location specified in a 2003 report (Louis Berger 2019b). ACM and lead-based paint materials would require complete abatement prior to the start of the project as per all federal and state regulations.

During construction, temporary secondary containment equipment would be used where practicable to ensure accidental releases of hazardous material are prevented or limited in scope in accordance with Sector Key West's Spill Prevention, Control and Countermeasures Plan (USCG 2017). Portable catch basins, containment berms, and other similar equipment would be used for refueling equipment where feasible. Spill kits would be kept on-site to provide easily accessible cleanup materials should a spill occur. Hazardous materials/waste used or generated during proposed activities would be handled according to applicable law and regulations.

USEPA regulates the transportation, storage, and disposal of hazardous materials and the management of hazardous waste through Titles 49 and 40 CFR Parts 172 and 266, respectively, under the authority of the Resource Conservation and Recovery Act. All hazardous materials and wastes associated with the Proposed Action would be handled in accordance the regulations. Therefore, pursuant to NEPA, the Proposed Action under Alternative 1 would not result in a significant impact associated with hazardous material and hazardous waste.

Alternative 2—Sector Engineering Facility

Alternative 2 would disturb hazardous substances, and impacts would be similar to those described for the Preferred Alternative. Therefore, pursuant to NEPA, the Proposed Action under Alternative 2 would not result in a significant impact associated with hazardous material and hazardous waste.

Alternative 3—Station Piers

Alternative 3 would disturb hazardous substances, and impacts would be similar to those described for the Preferred Alternative. Therefore, pursuant to NEPA, the Proposed Action under Alternative 3 would not result in a significant impact associated with hazardous material and hazardous waste.

No-Action Alternative

Under the No-Action Alternative, the project would not be built; therefore, no impacts or disturbances to potentially hazardous substances sites would occur from improvements made as part of the project. In addition, there would be no impacts from the potential handling of hazardous substances, such as contaminated soils. However, with the No-Action Alternative existing contamination would remain in place and would require on-going investigation and remediation. Pursuant to NEPA, the No Action Alternative would not result in a significant impact associated with hazardous material and hazardous waste.

3.12 Human Health and Safety

3.12.1 Affected Environment

Human health and safety addresses issues related to the health and wellbeing of construction workers, military personnel, and civilians working or living in the area. Executive Order 13045 provides for the protection of children from environmental health risks and safety risks because children are more susceptible to risk factors.

Safety and emergency response for the area located within the Sector Key West are currently the responsibility of the USCG; the fenced area is not accessible to unauthorized entry of non-licensed personnel. Outside Sector Key West, the Monroe County Police Department and Key West Fire Department serve the area.

The Lower Keys Medical Center and the NAS Key West Naval Branch Health Clinic, both located in Key West, provide emergency medical services. No family housing is located on Sector Key West.

Because Sector Key West stores munitions, explosive handling scenarios are evaluated to determine fragment and blast hazard ranges. These ranges are recorded as ESQD. The USCG uses Pier D3 to store and subsequently load and unload munitions onto its vessels. Two ESQD arcs are related to munitions on Pier D3: one is located at Berth 10, and the other is located around Building HW1 (Figure 2-3). The ESQD arcs at Berth 10 have radii of 100-feet, 200-feet, and 300-feet. These arcs are temporary in nature and only in place during the loading or unloading of munitions from vessels. The ESQD arc at Building HW1, where munitions are stored, has an approximately 75-foot radius.

3.12.2 Environmental Consequences

Alternative 1—Preferred Alternative

Construction activities would comply with the applicable regulations and guidance, including 29 CFR Part 1926, Safety and Health Regulations for Construction, and applicable subparts of 29 CFR Part 1910, Occupational Safety and Health Standards, and would ensure the safety and health of workers during construction. To minimize potential safety hazards to construction workers and the public, Sector Key West would implement a health and safety program that ensures that construction workers are aware of the hazards associated with the proposed project and the safety measures that must be taken to prevent injury and hazardous conditions within and outside the working environment. The program would identify and address safety issues such as site access, construction hazards, safe work practices, security, heavy equipment transportation, traffic management, emergency procedures, unknown hazards, and fire control. It also would identify requirements for temporary fencing around staging areas, storage yards, and excavation areas during construction, as well as measures to be taken during operation of the proposed project.

To comply with Occupational Safety and Health Administration standards and protection of its employees Sector Key West would develop an occupational health and safety plan that addresses identification, evaluation, and assessment of all physical, chemical, biological, radiation, or nuclear hazards in all tasks or processes for the Proposed Action. The plan would address personal protective equipment usage and risk management that deal with the stated hazards.

Safety requirements for handling of hazardous materials and wastes are discussed in Section 3.11.2.

Additionally, rebuilding the electrical distribution system serving Sector Key West would eliminate the health and safety risks associated with existing electrical code issues.

Pursuant to NEPA, the Proposed Action would have no significant impact on human health and safety. Additionally, pursuant to Executive Order 13045, the Proposed Action under Alternative 1 would not result in disproportionate environmental health or safety risks to children, because there is no family housing on Sector Key West and children are not typically in the project area.

Alternative 2—Sector Engineering Facility

The Sector Engineering Facility and the travel lift would be located on Pier D3. The new facility would be constructed on Pier D3 between, but outside, the two ESQD arcs associated with Berth 10 and Building HW1 (see Figure 2-5). The ESQD arcs associated with Berth 10 are temporary and only in place during the loading and unloading of munitions, which would also need to be transported along the pier to the immediate north of the Sector Engineering Facility. During demolition and construction activities associated with the Sector Engineering Facility and travel lift, all construction personnel would be required to remain outside the ESQD arcs during the loading and unloading of munitions. All other impacts from demolition and construction-related activities would be similar to those described for the Preferred Alternative. While the ESQD arcs would not affect operations within the facility once constructed, to

protect personnel during the loading and unloading of munitions, all unnecessary personnel outside the building would be removed from the vicinity, and security personnel would ensure no personnel enter the explosive arc during the evolution. The ESQD arc associated with Building HW1 is permanent because the building serves as a storage facility for munitions and personnel would be required to cross the ESQD arc daily to access the Sector Engineering Facility.

Pursuant to NEPA, the Proposed Action would have no significant impact on human health and safety. Additionally, pursuant to Executive Order 13045, the Proposed Action under Alternative 2 would not result in disproportionate environmental health or safety risks to children because there is no family housing on Sector Key West and children are not typically in the project area.

Alternative 3—Station Piers

Impacts related to demolition and construction-related activities would be similar to those described for the Preferred Alternative. Pursuant to NEPA, the Proposed Action would have no significant impact on human health and safety. Additionally, pursuant to Executive Order 13045, the Proposed Action under Alternative 3 would not result in disproportionate environmental health or safety risks to children, since because there is no family housing on Sector Key West and children are not typically in the project area.

No-Action Alternative

Under the No-Action Alternative, the project would not be built, and in general, there would be no change in impacts to human health or safety from current conditions. However, deterioration of the electric distribution system would continue, and existing code/safety issues could result in personal injury if not individually corrected/fixed in the future. Additionally, the proposed facilities and infrastructure would not be built at least three 3 feet above the BFE levels; therefore, Sector Key West would not be able to ensure continued operations and safety for the existing infrastructure after a flood event. Pursuant to NEPA, the No Action Alternative would have no significant impact on human health and safety. Additionally, pursuant to Executive Order 13045, the No Action Alternative would not result in disproportionate environmental health or safety risks to children since because there is no family housing on Sector Key West and children are not typically in the project area.

4.0 SUMMARY OF ENVIRONMENTAL CONSEQUENCES

The purpose of the Proposed Action is to provide facilities and infrastructure at Sector Key West and Station Key West that meet the operational, space, and maintenance requirements so that they can fully execute their strategic missions. This includes increasing the resiliency of Sector and Station facilities so that they can remain operational during future weather events and return to full operation after an event is over. A summary of impacts by resource area for the alternatives as evaluated in Section 3.0 of this EA is provided in Table 4-1.

Table 4-1. Summary of Environmental Consequences

Resource	Alternative 1—Preferred Alternative	Alternative 2—Sector Engineering Facility	Alternative 3—Station Piers	No-Action Alternative
Glint and Glare Effects	Only green glare would result from the proposed PV panels, and under Federal Aviation Administration policy, green glare is acceptable for the flight paths. NEPA: no significant impact.	Same as Preferred Alternative. NEPA: no significant impact.	Same as Preferred Alternative. NEPA: no significant impact.	No impact. No solar panels currently exist in the project area. NEPA: no significant impact.
Air Quality and Greenhouse Gases	No ongoing or permanent air emissions from periodic operation of new emergency backup generators. Temporary emissions during construction would be minimal, and dust control measures would be implemented to minimize particulate matter emissions during demolition activities. Clean Air Act: the Proposed Action is exempt from the General Conformity Rule because it is not located in a nonattainment or maintenance area. NEPA: no significant impact.	Similar to Preferred Alternative. Clean Air Act: the Proposed Action is exempt from the General Conformity Rule because it is not located in a nonattainment or maintenance area. NEPA: no significant impact.	Similar to Preferred Alternative. Clean Air Act: the Proposed Action is exempt from the General Conformity Rule because it is not located in a nonattainment or maintenance area. NEPA: no significant impact.	No impact, existing emission sources would continue. Clean Air Act: no impact. NEPA: no significant impact.
Geology and Soils—*Terrestrial Soils*	Cutting, filling, grading, and paving activities related to demolition and construction of building facilities, as well as the installation of utility lines would adversely affect topsoil. Removal and compaction during construction would also expose and disturb soils, increasing the potential for soil erosion and sedimentation. Once asphalt has been laid on surface parking areas, a minimal increase in runoff is expected. Overall, adverse impacts on soils are anticipated to be minimal because most of the project area is covered with impervious surfaces, and structures and terrestrial soils no longer have their natural morphological features. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	No impact. NEPA: no significant impact.

Resource	Alternative 1—Preferred Alternative	Alternative 2—Sector Engineering Facility	Alternative 3—Station Piers	No-Action Alternative
Geology and Soils—*Marine Sediments*	Sediment disturbance for pile removal and installation of the travel pier and new Station piers would directly affect less than 1 acre of marine sediment. Sediment plumes are expected to settle out of the water column within a few hours. Continued use of vessels would generate propeller wash, which would disturb sediment. Best management practices (BMPs) for pile removal and placement would be followed to reduce large sediment disturbance and avoid returning sediment to waterways. Overall, direct, adverse impacts are anticipated to be minimal in the short- and long-term because future vessel operations in the pier basins would not change from current conditions. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	No new impacts. However, storm events and human activity, such as propeller wash from vessels in each berthing space on site would continue to disturb marine sediments. NEPA: no significant impact.
Water Resources—*Surface Water*	On-land construction activities: Removal of petroleum-contaminated soils would require dewatering and discharging treated water on-site. Proposed BMPs would limit water runoff and reduce short-term impacts on local water quality. Increase in impervious area would be negligible. For the installation of two 20,000-gallon fuel tanks for the central generation plant, the USCG would be required to prepare a Facility Response Plan (FRP), which would assist the USCG in identifying potential oil spill threats and having the necessary response resources in place to minimize the severity of a discharge impact. Therefore, impacts on water resources as a result of implementing the proposed on-land construction activities would be minor. Station Piers: In-water removal and installation of piers would result in localized sediment movement and have short-term minimal impacts. Impacts would be temporary and not change the composition of the local substrate. Clean Water Act: measurable impacts on water quality, but pollutant concentrations would be below applicable standards, regulations, and guidelines, and within existing conditions or designated uses. NEPA: no significant impact.	On-land construction activities: Similar to Preferred Alternative. Station Piers: Similar to Preferred Alternative. Clean Water Act: measurable impacts on water quality, but pollutant concentrations would be below applicable standards, regulations, and guidelines, and within existing conditions or designated uses. NEPA: no significant impact.	On-land construction activities: Similar to Preferred Alternative. Station Piers: Similar to Preferred Alternative. Clean Water Act: measurable impacts on water quality, but pollutant concentrations would be below applicable standards, regulations, and guidelines, and within existing conditions or designated uses. NEPA: no significant impact.	No impact. Clean Water Act: no impact. NEPA: no significant impact.
Water Resources—*Floodplains*	Although all construction activities would occur within the defined flood zones of Sector Key West, new facilities would be constructed above the Federal Emergency Management Agency (FEMA)-defined 100-year base flood elevation. Executive Order 11988: no impact. NEPA: no significant impact.	Similar to Preferred Alternative. Executive Order 11988: no impact. NEPA: no significant impact.	Similar to Preferred Alternative. Executive Order 11988: no impact. NEPA: no significant impact.	No impact; however, Sector Key West would not be able to ensure continued operations and safety for the existing infrastructure after a flood event. Executive Order 11988: no impact. NEPA: no significant impact.

Resource	Alternative 1—Preferred Alternative	Alternative 2—Sector Engineering Facility	Alternative 3—Station Piers	No-Action Alternative
Coastal Zone	The USCG has prepared a Coastal Consistency Determination for the Proposed Action. Alternative 1—Preferred Alternative would be consistent, to the maximum extent practicable, with the plans and policies of the Florida Coastal Management Program. Coastal Zone Management Act: consistent to the maximum extent practicable, with federally approved enforceable plans and policies NEPA: no significant impact.	Similar to Preferred Alternative. Coastal Zone Management Act: consistent to the maximum extent practicable, with federally approved enforceable plans and policies NEPA: no significant impact.	Similar to Preferred Alternative. Coastal Zone Management Act: consistent to the maximum extent practicable, with federally approved enforceable plans and policies NEPA: no significant impact.	No impact. Coastal Zone Management Act: no impact. NEPA: no significant impact.
Biological Resources—*Marine Submerged Aquatic Vegetation (SAV)*	Sediment disturbances from in-water work could affect SAV habitats outside the project area if sediments are transported. However, any potential increase in sedimentation in nearby SAV habitats would be minimal and would not result in loss of SAV because of the temporary nature of the impacts. Additionally, the USCG would implement BMPs during in-water work that would minimize the potential for adverse impacts. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	No impact. NEPA: no significant impact.
Biological Resources—*Marine Fauna*	Underwater noise, turbidity, and sedimentation would result in adverse impacts on marine fauna in the marina basins during demolition and construction activities for the travel lift and Station piers. BMPs designed to minimize turbidity and other potential water quality impacts associated with removal and installation of pilings would minimize impacts on marine fauna, and no in-water work would begin until all regulatory consultations are complete. Additionally, an FRP would help the USCG identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on marine habitat and fauna. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	Similar to Preferred Alternative. Some species, including protected corals, would benefit over the long term because the structure would provide additional hard bottom habitat. Conversion of a small amount of soft bottom habitat within the footprint of the structure would permanently alter EFH and coral EFH-HAPC but is not likely to adversely affect any federally managed species over the long term. NEPA: no significant impact.	No impact. NEPA: no significant impact.
Biological Resources—*Essential Fish Habitat (EFH)*	Underwater noise, particularly from the removal and installation of pilings for the travel lift and Station piers, turbidity, and sedimentation would have adverse impacts on EFH and coral EFH-HAPC during construction. A coral rescue/relocation plan would be developed, no in-water work would begin until all regulatory consultations are complete, and BMPs designed to minimize turbidity and other potential water quality impacts associated with the removal and installation of pilings would minimize impacts on EFH and coral EFH-HAPC. Additionally, an FRP would help the USCG identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a	Similar to Preferred Alternative. Magnuson-Stevens Act: minimal adverse effects to EFH and coral EFH-HAPC. NEPA: no significant impact.	Similar to Preferred Alternative. Conversion of a small amount of soft bottom habitat within the footprint of the structure would permanently alter EFH and coral EFH-HAPC but is not likely to adversely affect any federally managed species over the long term. Magnuson-Stevens Act: minimal adverse effects to EFH and coral EFH-HAPC. NEPA: no significant impact.	No impact. Magnuson-Stevens Act: no effects to EFH and no effect to coral EFH-HAPC. NEPA: no significant impact.

Resource	Alternative 1—Preferred Alternative	Alternative 2—Sector Engineering Facility	Alternative 3—Station Piers	No-Action Alternative
	discharge impact on marine habitat, EFH, and coral EFH-HAPC. Magnuson-Stevens Act: minimal adverse effects to EFH and coral EFH-HAPC. NEPA: no significant impact.			
Biological Resources—*Protected Species*	Marine: Underwater noise, turbidity, and sedimentation would result in adverse impacts on marine protected species. Demolition of the travel lift and Station piers would have adverse impacts (i.e., take) on the federally threatened mountainous star coral, which has been documented on the support pilings for these structures. Preparing a coral rescue/relocation plan and implementing mitigation measures to relocate all colonies of the threatened coral to coral nurseries, research institutes, or suitable natural habitat outside the project area would minimize impacts but would still be considered a "take" under the Endangered Species Act. Therefore, the USCG would obtain appropriate incidental take permits from NOAA NMFS. Twenty additional protected coral species, 18 stony corals and 2 soft corals would also be adversely affected by in-water demolition and construction work. Relocating colonies larger than 10 centimeters in size and implementing BMPs during in-water work would minimize adverse impacts, but these impacts would not be avoidable. However, affected species are expected to recolonize disturbed areas and potentially colonize new underwater surfaces following construction. Therefore, no protected corals are expected to be eliminated from the project area. An FRP would help the USCG identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on marine habitat and protected species. No in-water work would begin until all regulatory consultations are complete. Terrestrial: Noise during demolition and construction activities could affect one terrestrial species—roseate tern. However, this species is tolerant of urban environments. Therefore, any adverse impacts would likely be limited to temporary displacement of individual birds. The PV system would be limited to building and carport rooftops; a much smaller array than that of a utility-scale PV facility; therefore, adverse impacts on roseate tern associated with glare from the PV system would be extremely unlikely to occur. NEPA: no significant impact.	Similar to Preferred Alternative; though an additional take of the federally threatened mountainous star coral could occur. While the species is not currently documented in the vicinity of where the new travel lift would be constructed, a survey would need to be conducted prior to in-water work to confirm this. If a new colony is documented, mitigation measures to relocate colonies of the threatened coral to coral nurseries, research institutes, or suitable natural habitat outside the project area would minimize impacts. Because relocation of the coral would still be considered a take, the USCG would obtain the appropriate incidental take permit from NOAA NMFS. No in-water work would begin until all regulatory consultations are complete. NEPA: no significant impact.	Similar to Preferred Alternative. Some species, including protected corals, would benefit over the long term because the structure would provide additional hard bottom habitat. NEPA: no significant impact.	No impact. NEPA: No significant impact.

Resource	Alternative 1—Preferred Alternative	Alternative 2—Sector Engineering Facility	Alternative 3—Station Piers	No-Action Alternative
Biological Resources—*National Marine Sanctuary Resources*	Underwater noise, turbidity, and sedimentation would result in adverse impacts on marine protected species. Demolition of the travel lift and Station piers would have adverse impacts (i.e., take) on the federally threatened mountainous star coral, which has been documented on the support pilings for these structures. Preparing a coral rescue/relocation plan and implementing mitigation measures to relocate all colonies of coral to coral nurseries, research institutes, or suitable natural habitat outside the project area would minimize impacts, yet still constitute an injury to resources of the FKNMS. Affected species are expected to recolonize disturbed areas and potentially colonize new underwater surfaces following construction. An FRP would help the USCG identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on marine habitat and protected species. No in-water work would begin until all regulatory consultations are complete. National Marine Sanctuaries Act: likely to injure a sanctuary resource NEPA: no significant impact.	Similar to Preferred Alternative; additional coral colonies could be impacted through rescue/relocation. National Marine Sanctuaries Act: likely to injure a sanctuary resource. NEPA: no significant impact.	Similar to Preferred Alternative. Some species, including corals, would benefit over the long term because the structure would provide additional hard bottom habitat. National Marine Sanctuaries Act: likely to injure a sanctuary resource. NEPA: no significant impact.	No impact. National Marine Sanctuaries Act: no effect to a sanctuary resource. NEPA: no significant impact.
Utilities—*Water, Wastewater, Stormwater, and Electric*	Impacts on utilities would result from service disruptions during connection and disconnection of the utilities. Any potential service disruptions would be coordinated with the affected facilities, and their impacts could be minimized by conducting them during weekends or after hours during the week. Beneficial impacts from replacing the existing electrical system would improve reliability and resiliency on base at Sector Key West. NEPA: no significant impact.	Impacts to utilities would be the same as those described for the Preferred Alternative with differences related to construction of the Station piers in their current footprint. Installation of a new outlet in the existing seawall would be necessary for underground conveyance of roof runoff. The location of the proposed Sector Engineering Facility conflicts with an existing electric line that would need to be removed and disposed of prior to construction of the facility. Utility service connections to the relocated Quonset Huts and travel lift pier would be limited to electricity, which is available near their respective locations. Like the Preferred Alternative, any potential service disruptions would be coordinated with the affected facilities, and their impacts could be minimized by conducting them during weekends or after hours during the week. Same beneficial impacts as the Preferred Alternative. NEPA: no significant impact.	Impacts to utilities would be the same as those described for the Preferred Alternative with differences related to construction of the Station piers in their current footprint. The proposed location for the Station and ANT Facility conflicts with an existing electric line and sewer line that could serve other on-site facilities. The connectivity of these lines should be determined during the design phase of the project. Same beneficial impacts as the Preferred Alternative. NEPA: no significant impact.	The existing electrical infrastructure on base at Sector Key West is in poor condition and has limited resiliency to future storm events. NEPA: significant impact to utilities on base.

Resource	Alternative 1—Preferred Alternative	Alternative 2—Sector Engineering Facility	Alternative 3—Station Piers	No-Action Alternative
Utilities—*Diesel Fuel*	Replacement of diesel fuel storage tanks would require temporary mitigation to minimize impacts. To maintain minimum endurance during Severe Weather Response Operations (i.e., hurricane season) for USCG vessels assigned to Station Key West, the work associated with the tanks would occur, if possible, outside hurricane season (June 1 through November 30). However, if this were not possible, the construction contractor would need to provide additional temporary fuel storage during the disruption to the fueling system to minimize operational impacts during a critical time of year. Additionally, the USCG would be required to prepare an FRP, which would help it identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on Sector Key West. NEPA: no significant impact.	Same as Preferred Alternative. NEPA: no significant impact.	Similar to Preferred Alternative. The diesel fuel system would likely be adversely affected for a longer time when the existing tanks are removed and the new tanks are installed. Operational impacts would be minimized as described under the Preferred Alternative by using temporary fuel tanks and conducting the work outside the hurricane season if possible. Additionally, the USCG would be required to prepare an FRP, which would help it identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on Sector Key West. NEPA: no significant impact.	No impact. NEPA: no significant impact.
Transportation	Minor temporary impacts would occur from the use of a nearby temporary parking lot and truck traffic associated with construction and soil removal. The number of truck trips estimated each day is insignificant compared to the number of trucks already using the expected routes to Station Key West and not enough to create traffic problems inside the Station. NEPA: no significant impact.	Same as Preferred Alternative. NEPA: no significant impact.	Same as Preferred Alternative. NEPA: no significant impact.	No impact. NEPA: no significant impact.
Hazardous and Toxic Material and Waste— *Soil and Groundwater Contamination*	Contamination is present; however, impacts would be minimized with continued regulatory compliance, use of BMPs, and disposal of petroleum-contaminated soils at an off-site permitted landfill. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	No impacts from the potential handling of hazardous materials and hazardous waste, such as contaminated soils. However, existing contamination would remain in place and would require ongoing investigation and remediation. NEPA: no significant impact.
Hazardous and Toxic Material and Waste—*Building Material Assessment*	Hazardous waste from demolition activities would be disposed of per regulations. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	Similar to Preferred Alternative. NEPA: no significant impact.	No impacts from the potential handling of hazardous materials and hazardous waste, such as asbestos-containing material and lead-based paint. However, existing contamination would remain in place. NEPA: no significant impact.

Resource	Alternative 1—Preferred Alternative	Alternative 2—Sector Engineering Facility	Alternative 3—Station Piers	No-Action Alternative
Human Health and Safety	Impacts to workers and public from potential safety hazards would be minimized with compliance to applicable regulations and guidance. Rebuilding the electrical distribution system serving Sector Key West would eliminate the health and safety risks associated with existing electrical code issues. Executive Order 13045: no disproportionate environmental health or safety risks to children, because children are not typically in the project area. NEPA: no significant impact.	Similar to Preferred Alternative. Executive Order 13045: no disproportionate environmental health or safety risks to children, because children are not typically in the project area. NEPA: no significant impact.	Similar to Preferred Alternative. Executive Order 13045: no disproportionate environmental health or safety risks to children, because children are not typically in the project area. NEPA: no significant impact.	Deterioration of the electric distribution system and existing code/safety issues would continue. Additionally, the proposed facilities and infrastructure would not be built at least 3 feet above the base levels; therefore, Sector Key West would not be able to ensure continued operations and safety for the existing infrastructure after a flood event. Executive Order 13045: no disproportionate environmental health or safety risks to children, because children are not typically in the project area. NEPA: no significant impact.

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5.0 SUMMARY OF MITIGATION MEASURES AND BEST MANAGEMENT PRACTICES

While the USCG would comply with all regulatory requirements, such as Occupational Safety and Health Administration standards and hazardous material handling procedures during implementation of the Proposed Action, the following additional mitigation measures and BMPs would be implemented to eliminate or reduce adverse impacts.

- Implement dust control measures such as covering bare soil with grass or mulch or wetting down areas during demolition and construction activities to minimize particulate matter emissions.
- Develop a materials management plan to manage all contaminated soils generated during construction.
- Sample and characterize any excess soil generated during construction to evaluate potential off-site disposal options.
- Perform groundwater sampling to evaluate construction dewatering effluent handling and permitting requirements, if needed.
- Follow BMPs for pile removal and placement to reduce large sediment disturbance and avoid returning sediment to waterways. For removal: (1) remove piling slowly to minimize turbidity in the water column and sediment disturbance; (2) "wake-up" piling by vibrating to break the skin friction bond between piling and sediment to avoid pulling out a large block of sediment and possibly breaking off the piling in the process; and (3) confine all work within a floating containment boom. For piling placement: (1) use vibratory methods to reduce impacts on protected fish species and (2) do not use hydraulic jetting devices.
- Employ BMPs such as flow diversion structures, erosion and sediment control measures, and spill containment walls during demolition and construction activities to control stormwater, erosion, and transport of sediment and other debris to surrounding waterways.
- Build critical facility systems and supporting infrastructure (e.g., storage tanks; transformers; switchgears; and electrical, mechanical, and communication closets) at least 3 feet above BFE levels to ensure operational continuation and safety after a flood event.
- Relocate all mountainous star coral colonies and colonies larger than 10 centimeters for all other scleractinian coral species, to coral "rescue" nurseries managed by the FKNMS, coral restoration partner nurseries to support propagation efforts, permitted research institutions, and/or nearby, natural habitats in consultation with NOAA NMFS and the FKNMS.
- Use nylon cushion blocks to reduce underwater noise if an impact hammer is used.
- Use a soft start for pile driving to give fish and other mobile marine fauna an opportunity to vacate the area before underwater sound levels reached their peak.
- Conduct diver sweeps of each basin prior to installing turbidity curtains or construction activities to ensure the basins are cleared of mobile protected species and other fauna.
- Adhere to NOAA NMFS "Sea Turtle and Smalltooth Sawfish Construction Conditions" during construction.
- Adhere to USFWS "Standard Manatee Conditions for In-water Work" during construction.

- Coordinate utility service disruptions on base with affected facilities to minimize service impacts and conduct this work during weekends or after hours during the week to further minimize impacts.
- Conduct work associated with replacing the 11,600-gallon diesel fuel tanks associated with Station Key West outside hurricane season (June 1 through November 30), if possible, to minimize operational impacts and maintain maximum endurance during Severe Weather Response Operations (i.e., hurricane season) for USCG vessels assigned to Station Key West. However, if this were not possible, have the construction contractor provide additional temporary fuel storage during the disruption to the fueling system.
- Delineate loading and unloading zones for construction-related vehicles during demolition and construction activities to allow traffic to avoid any parked trucks and minimize the impact to traffic circulation on the base.
- Use temporary secondary containment equipment during construction, where practicable, to ensure accidental releases of hazardous material are prevented or limited in scope.
- Use portable catch basins, containment berms, and other similar equipment for refueling equipment where feasible.
- Keep spill kits on-site to provide easily accessible cleanup materials should a spill occur. Handle hazardous materials/waste used or generated during proposed activities according to applicable laws and regulations.

6.0 REGULATORY REQUIREMENTS

Table 6-1 lists the potential permits, reviews, and consultations that would be required for implementing the Proposed Action.

Table 6-1. Required Agency Permits, Reviews, and Consultations

Law, Statute, or Authority	Agency	Permit, Review, or Consultation
Clean Air Act	Florida DEP, South District Office	Florida DEP provides Categorical and Conditional Exemptions for certain types of sources from air permitting requirements at Rule 62-210.300(3)(a), Florida Administrative Code. If diesel fuel is used for the central generation plant backup generators, the generators would meet Conditional Exemptions, and no air permit approval process would be required. The exemption only applies to the use of diesel, propane, or natural gas. The use of JP-5 would invalidate the generator manufacturer's certification that the generator emissions comply with federal emission limitations. Therefore, Florida DEP would likely require on-site emissions testing and an individual air construction permit.
Section 404 of the Clean Water Act	U.S. Army Corps of Engineers	Under section 404 of the Clean Water Act, the U.S. Army Corps of Engineers regulates the tidal waters and wetlands within the project area. Permitting under one or more Nationwide Permits is required.
Section 401 of the Clean Water Act	Florida DEP	Under section 401 of the Clean Water Act, Florida regulates water quality certification in tidal waters and wetlands within the project area. Permitting under Florida DEP Environmental Resource Program Permits will be required.
Coastal Zone Management, Federal Coastal Zone Management Act of 1972 Consistency Determination	Florida DEP	The Coastal Zone Management Act of 1972 requires that the activities of federal agencies occurring within or outside the state's coastal zone must be consistent with the FCMP. The FCMP consists of a network of 24 Florida statutes, administered by multiple state agencies and water management districts. Because the project is located within the coastal zone, a Coastal Management Program consistency determination is required from Florida DEP.
Section 7 of the Endangered Species Act	USFWS and NOAA NMFS	Section 7 of the Endangered Species Act requires federal agencies to consult with the USFWS and/or NOAA NMFS to ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. Consultation with USFWS and NOAA NMFS is required.

Law, Statute, or Authority	Agency	Permit, Review, or Consultation
Section 304(d) of the National Marine Sanctuaries Act	NOAA Office of National Marine Sanctuaries / Florida DEP	The project area is located within the FKNMS. The FKNMS is administered by NOAA and jointly managed with the State of Florida. The National Marine Sanctuaries Act requires federal agencies whose actions are "likely to destroy, cause the loss of, or injure a sanctuary resource" to consult with the program before taking the action. Additionally, activities that alter the seabed within the sanctuary are prohibited. Therefore, consultation with and authorization by FKNMS is required.
Florida National Pollutant Discharge Elimination System	Florida DEP	The project will require a Notice of Intent for discharge of stormwater during construction. A Notice of Intent is required for projects disturbing over 1 acres of land.
Florida Environmental Resource Permit	South Florida Water Management District	The ERP program under Section 373.4131 of the Florida Statues governs construction, alteration, operation, maintenance, repair, abandonment, and removal of, among other things, piers, structures, dredging, and filling located in, on, or over wetlands or other surface waters, As such, the project would require an ERP from the South Florida Water Management District in accordance with Florida Administrative Code Rule 62-330.054, Individual Permits due to the removal and reconstruction of the travel lift and Station piers.
Magnuson-Stevens Act	NOAA NMFS	The Magnuson-Stevens Act requires federal agencies to consult with NOAA NMFS to if any proposed action has the potential to adversely affect federally managed fisheries species or EFH. Consultation with NOAA NMFS is required.
Marine Mammal Protection Act	NOAA NMFS	The Marine Mammal Protection Act requires federal agencies to consult with NOAA NMFS if any proposed action has the potential to adversely affect marine mammals that receive protection under the Act. Consultation with NOAA NMFS is required.
Section 106 of the National Historic Preservation Act	Florida State Historic Preservation Office	Section 106 of the National Historic Preservation Act requires federal agencies to consider the impacts of their undertakings on historic properties and archeological resources. Prior consultation in 2009 indicated no historic resources on Sector Key West, but consultation with the Florida State Historic Preservation Office will occur.

Law, Statute, or Authority	Agency	Permit, Review, or Consultation
Oil Pollution Act	USEPA	Under the FRP Rule (40 CFR 112), based on certain criteria, USEPA requires facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters to prepare an FRP and submit it to the appropriate USEPA Regional Administrator. Under the Proposed Action, Sector Key West would meet the criteria of having a total oil storage capacity greater than or equal to 42,000 gallons, while also transferring oil over water to/from vessels. Therefore, an FRP will be required to be prepared and submitted to the USEPA Regional Administrator. Upon submittal, based on additional criteria, the USEPA Regional Administrator may determine Sector Key West has the potential, not just for substantial harm, but for "significant and substantial harm" and then the USEPA Regional Administrator would need to review and approve the FRP.

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9.0 ACRONYMS

45-RB-M	45-foot Response Boat – Medium
ACM	asbestos containing materials
ANT	Aids to Navigation Team
ATCT	air traffic control towers
BFEs	base flood elevations
BFR	basic facility requirements
BGS	below ground surface
BMP	best management practice
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
COMDTINST	U.S. Coast Guard Commandant Instruction
EA	environmental assessment
EFH	essential fish habitat
ERP	Environmental Resource Permit
ESD	Electronics Support Detachment
ESQD	explosive safety quantity distance
FAA	Federal Aviation Administration
FCMP	Florida Coastal Management Program
FDOT	Florida Department of Transportation
FEMA	Federal Emergency Management Agency
FKNMS	Florida Keys National Marine Sanctuary
Florida DEP	Florida Department of Environment Protection
FRP	Facility Response Plan
GSF	gross square foot
HAPC	habitat areas of particular concern
JP-5	jet propellent-5
kW	kilowatt
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
NAS	Naval Air Station
Navy	U.S. Department of the Navy
NEPA	National Environmental Policy Act
NOAA NMFS	National Oceanic and Atmospheric Administration, National Marine Fisheries Service

PCBs	polychlorinated biphenyls
PV	photovoltaic
SAV	submerged aquatic vegetation
SCTL	Soil Cleanup Target Level
SF	square foot
SPCC	Spill Prevention, Control, and Countermeasures
US-1	U.S. Highway 1
U.S.C.	United States Code
USCG	U.S. Coast Guard
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service

10.0 APPENDICES

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10.1 Appendix A: Agency and Public Involvement

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The following public agencies and interested parties were contacted as part of the NEPA process.

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10.2 Appendix B: Coastal Zone Management Act Consistency Determination

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Introduction

This document provides the State of Florida with the U.S. Coast Guard's (USCG) Consistency Determination under Coastal Zone Management Act (CZMA) of 1972, as amended, and 15 Code of Federal Regulations (CFR) part 930, subpart c, for the proposed Hurricane Execution Plan at Sector Key West, Florida. The information in this Consistency Determination is provided pursuant to 15 CFR part 930.39.

Regulatory Background

The CZMA, codified in 16 U.S. Code (U.S.C.) section 1451 et seq., established a comprehensive regulatory scheme for effective management, beneficial use, protection, and development of the coastal zone and its natural resources. The CZMA encourages coastal states and provides a mechanism for them to develop, obtain federal approval for, and implement a broad-based coastal management program.

CZMA section 307 provides that federal agency activities shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved state management programs. Section 307 applies to federal agency activity in a state's coastal zone and to federal agency activity outside the coastal zone, if the activity affects a land or water use in or natural resources of the coastal zone. Federal agency activities include those performed by a federal agency, approved by a federal agency, or for which a federal agency provides financial assistance. Federal agency activities must be demonstrated to be consistent with the enforceable policies of the state's coastal management program, unless full consistency is otherwise prohibited by federal law (per 15 CFR part 930.32, "consistent to the maximum extent practicable"). Pursuant to 16 U.S.C. 1453, the term "coastal zone" specifically excludes "lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents." Therefore, the coastal zone excludes Sector Key West, but includes adjacent lands (including all submerged lands) and waters within Florida's coastal zone.

The State of Florida developed the Florida Coastal Management Program (FCMP), which was approved by the National Oceanic and Atmospheric Administration (NOAA) in 1981. The FCMP consists of a network of 24 Florida statutes, administered by multiple state agencies and water management districts. The FCMP includes enforceable policies that ensure the wise use and protection of the state's water, cultural, historic, and biological resources; minimize the state's vulnerability to coastal hazards; ensure compliance with the state's growth management laws; protect the state transportation system; and protect the state's proprietary interest as the owner of sovereignty submerged lands.

Description of the Proposed Federal Agency Action

Sector Key West is a unified command consisting of six Fast Response Cutters, three Small Boat Stations, an Aids to Navigation Team (ANT), and three staff departments. The Sector Commander performs the duties of Search and Rescue Mission Coordinator; Captain of the Port; Federal Maritime Security Coordinator; Federal On-Scene Coordinator; and Officer in Charge, Marine Inspection. Sector Key West's area of responsibility includes 55,000 square miles bordering the territorial seas of Cuba and the Bahamas (Figure 1).

Figure 1. Regional Map

In September of 2017, Sector and Station Key West, a Small Boat Station unit of and collocated on Sector Key West, suffered extensive damage from Hurricane Irma. The USCG proposes to rebuild facilities damaged during Hurricane Irma by (1) demolishing and rebuilding the Sector Engineering/Electronics Support Detachment (ESD) Building (Building 105) at Sector Key West to meet resilience thresholds, (2) rebuilding waterfront and shore facilities for Station Key West, including demolishing existing facilities; and constructing a new Station building, grounds work, pier, docks and boat house, and (3) rebuilding the electrical distribution system serving Sector Key West to include transformer and electrical distribution to the waterfront, shore facilities, and on-site energy generation and storage. To accomplish the necessary repairs the USCG is considering three alternatives, as described below.

Alternative 1—Preferred Alternative

Sector Engineering Facility – Under the Preferred Alternative, the USCG would demolish the existing Sector Engineering/ESD Facility (Building 105) and build a new 36,073 gross square-foot (GSF) facility in the location of the parking lot immediately east of its current location on Pier D2. The parking lot would be moved to the current location of Building 105 once it is demolished. The new facility would include Sector Engineering administrative and maintenance spaces, ESD administrative and operational spaces, and two boat maintenance bays that could accommodate USCG's 45-foot Response Boat – Medium (45 RB-M). The existing travel lift pier would be demolished and reconstructed along the southern quay wall of Pier D2 at the east end of Berth 8 to provide direct access to the boat maintenance bays of the Sector Engineering Facility without crossing any of the base roads. Additionally, Building 108 on Pier D3 would be demolished, and storage Building 5 (Quonset Hut OV 7) would be demolished and rebuilt in that location. Materials currently stored in Building 108 would be stored in the new Sector Engineering Facility. Figure 2 includes the demolition plan under the Preferred Alternative, and Figure 3 shows the site plan for the Preferred Alternative.

Figure 2. Demolition Plans

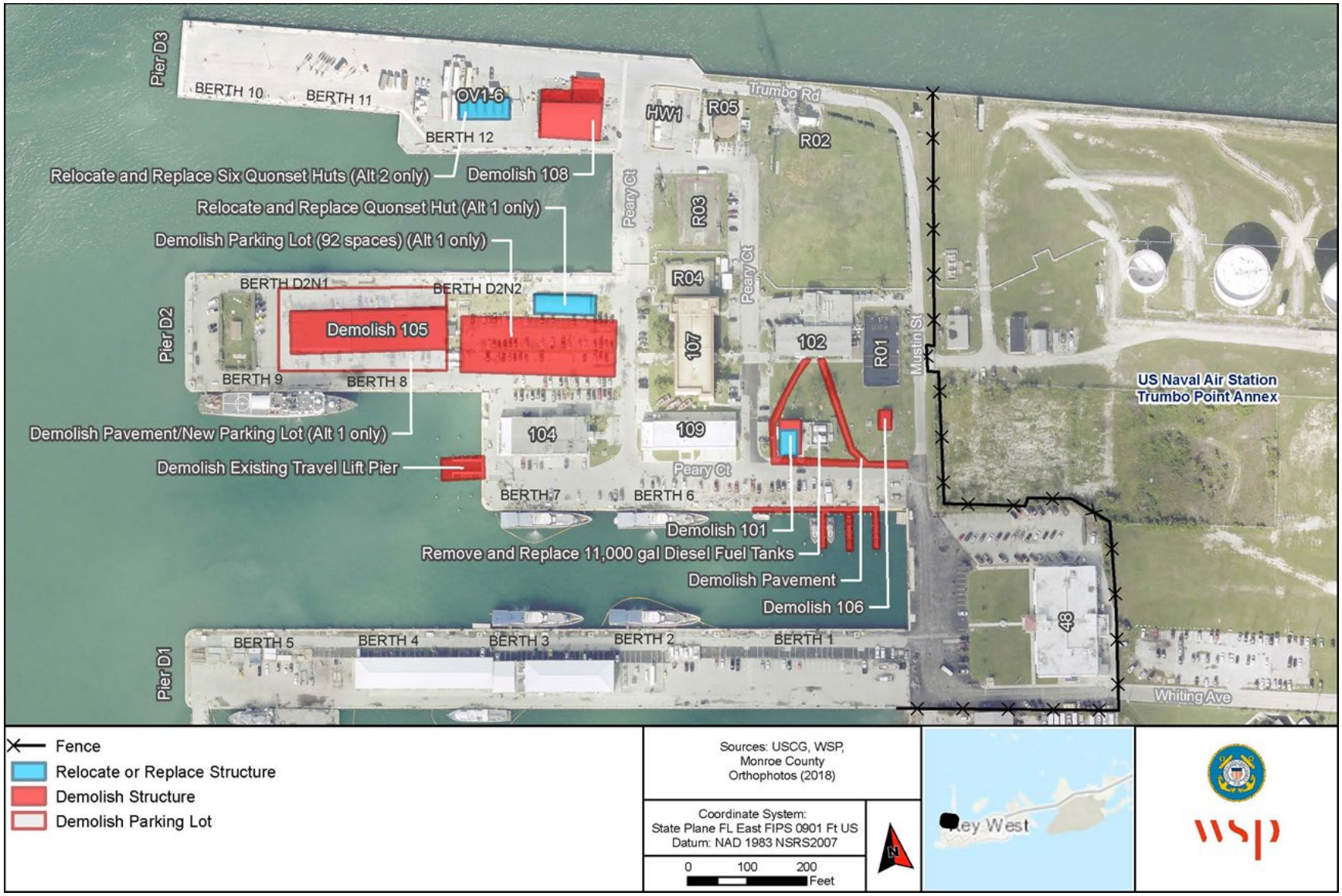
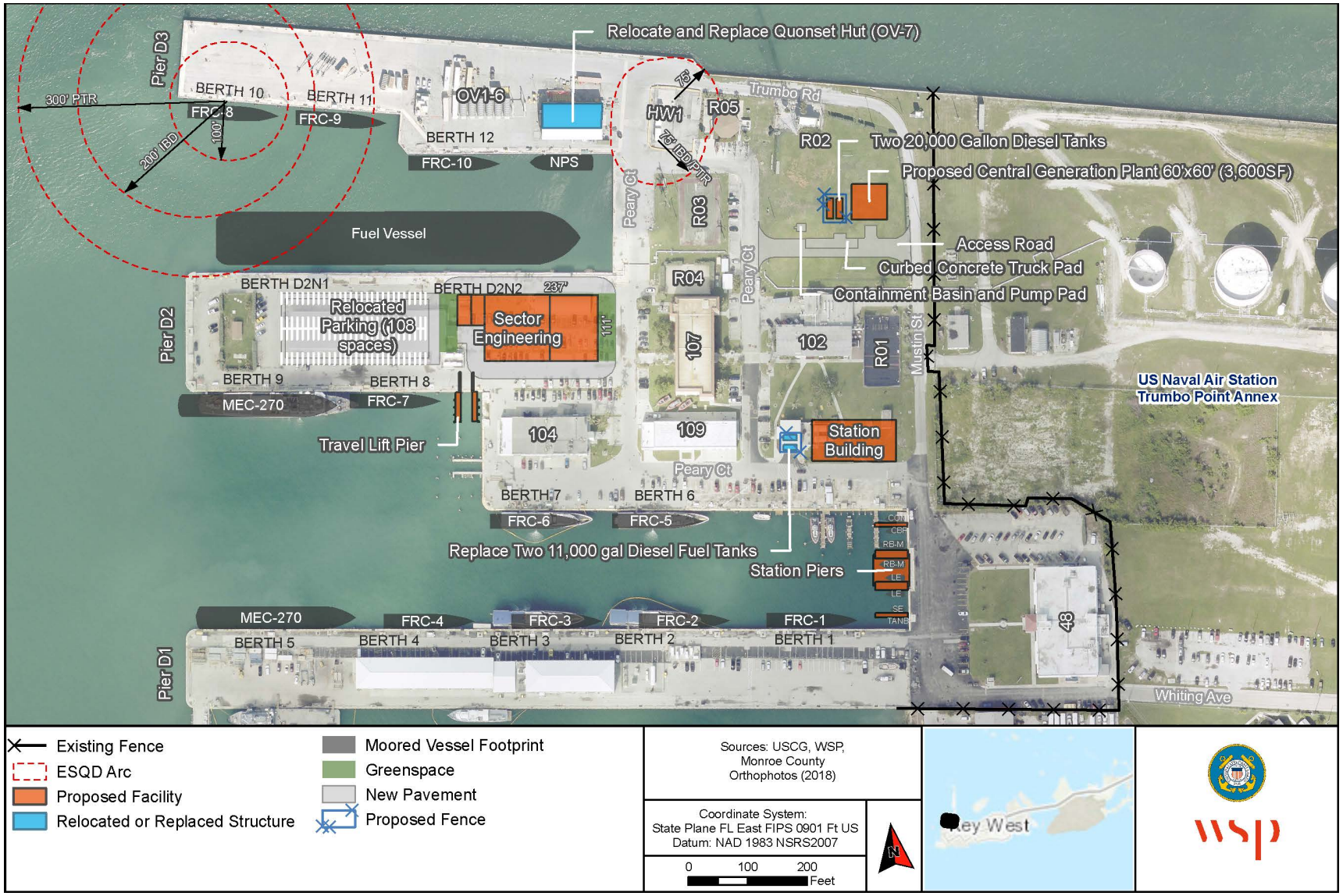


Figure 3. Preferred Alternative Site Plan



Station and ANT Facility – Currently, the Station operates out of Building 101, and the ANT operates out of Building 105. Under the Preferred Alternative, the USCG would demolish Building 101 and Building 106 and construct a new three-story, 23,486 GSF Station and ANT Facility adjacent and to the east of the current Building 101 location. The new building would include facility support space, Station administrative and operational spaces, an armory, and berthing and marine maintenance space. In addition, it would provide ANT administrative and operational spaces and marine maintenance space. Because the existing building is in a floodplain, the first floor would house shop spaces only. The second floor would accommodate all administrative functions, the armory, the command and control center, recreation space, and the central dining area. The third floor would house berthing spaces. Temporary storage of spare parts currently housed in Building 106 would be provided. Permanent storage would be provided in the new Station and ANT Facility. Existing utilities and services would be relocated to the new building and connected to existing nearby utility lines. Additional supporting improvements would include paving, walks, curbs and gutters, and storm drainage. The two 11,600-gallon diesel fuel storage tanks currently located to the east of Building 101 would be temporarily relocated during construction and eventually replaced with two new 11,000-gallon diesel fuel storage tanks located in the footprint of the existing Building 101. New underground fuel lines would be installed from the new location of the tanks to the pier. Similar to the existing underground fuel lines, the new fuel lines would be double piped with a sump monitor for detecting leaks between them.

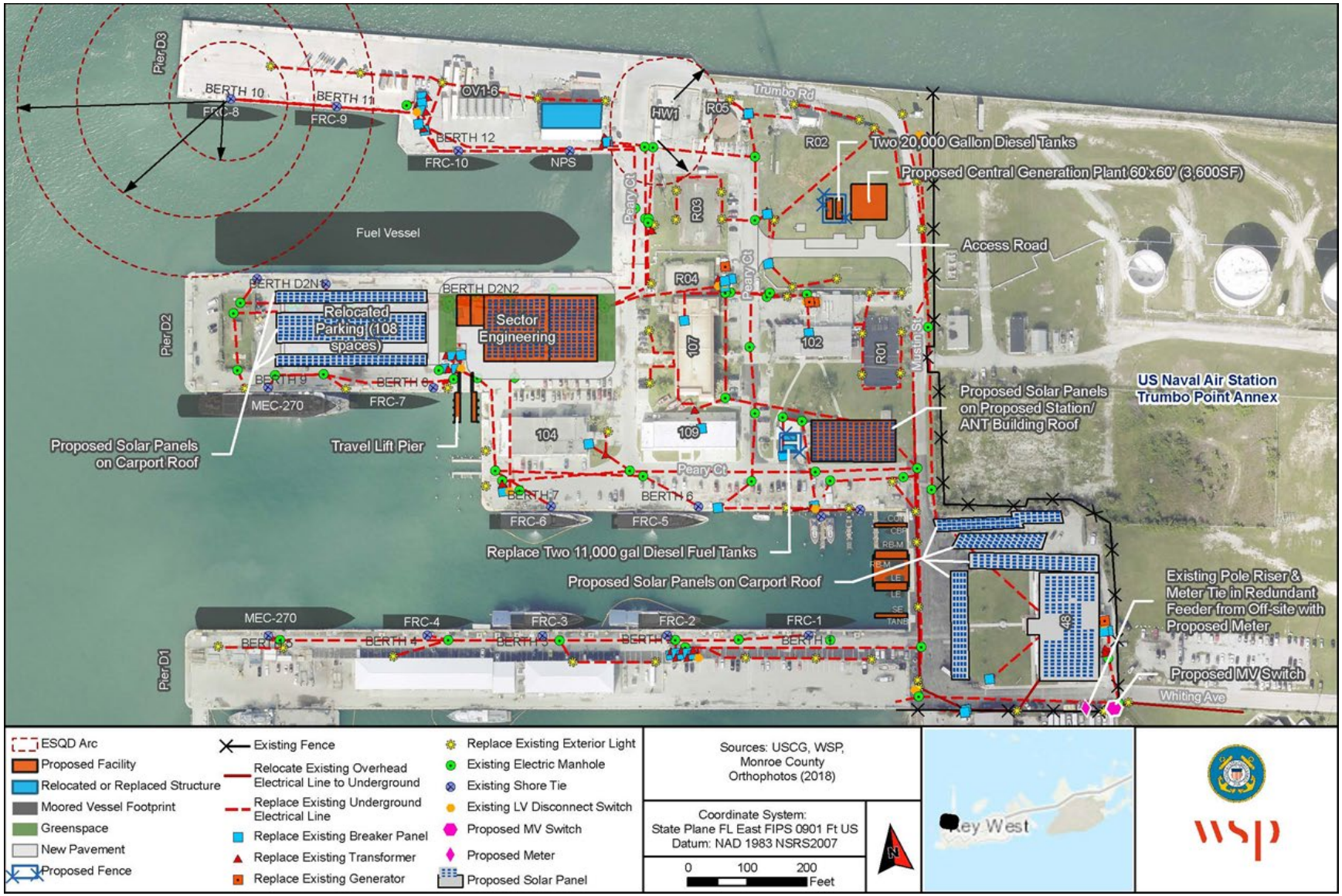
The USCG would also construct new Station piers with two covered moorings along the bulkhead between Piers D1 and D2 in an east-west orientation. With this orientation, no wave attenuation structure would be required to protect the vessels moored at the piers. Temporary mooring and utilities for Station, Customs and Border Patrol, and contingency vessels would be provided in the existing basin/wharf through leased slips at an adjacent commercial facility, via temporary floating piers, or by using two of the three existing piers while demolition and construction activities are ongoing. The pier closest to the new pier location would be demolished to accommodate the new construction; the remaining two piers would be demolished after construction is complete. Portable wharf utilities such as the existing gas tank, oil waste tank, and diesel fuel pump would be relocated to service the new piers. The Station piers would accommodate mooring of Station Key West vessels and provide two covered moorings. If the Sector Engineering Facility were constructed first, swing space would be provided for the ANT prior to the construction of the new Station and ANT Facility.

Electrical – Under the Preferred Alternative, the USCG would rebuild the electrical distribution system serving Sector Key West with a new complete and usable infrastructure that meets current mission requirements. It would replace electrical lines, including conductors and conduits; encase all primary distribution conduits in concrete; demolish and replace existing electrical distribution equipment, including distribution transformers throughout the base, and raise all exterior electrical distribution equipment to 3 feet above the 100-year flood elevation; replace and install substations; install proposed medium voltage, fast response switchgear throughout the base on elevated platforms; replace overhead branch circuit conductors with proposed subterranean conductors in conduit and concrete encased; replace emergency generators; install standardized equipment to simplify operations and maintenance, repair, and replacement; replace hurricane-damaged light poles with concrete poles; replace hurricane-damaged existing exterior pole-mounted area lights, floodlights, and sports light fixture heads with LED equivalents; and incorporate sustainable systems in all existing and proposed buildings.

A new 3,600 square-foot (SF) central generation plant would be constructed in the northeast portion of the base. The plant would include four parallel 1,000 kilowatt (kW) (with a 900-kW prime power rating), medium-voltage diesel or jet propellant-5 (JP-5) generators (with black start capabilities) that provide N+2 (i.e., two backup components in conjunction with building level emergency generators evaluated for repair, upgrade, or replacement) to all critical facilities, and N+1 (i.e., one backup component) for the entire base. The generators would be able to carry the maximum demand load used by Sector Key West over a one-year period at 125 percent (1.8 megawatt), as required by the National Electrical Code, for a period of 10 days. Two 1-megawatt generators were selected for their 900-kW prime rating because of the run time required. In addition, an all in one battery energy storage system (with 30–45 minutes battery storage capacity) would be installed to store energy for short outages and to filter the incoming power.

The fuel for the diesel or JP-5 generators would be supplied from a proposed fuel line connecting the generators to two new 20,000-gallon fuel tanks located adjacent to the generator plant. The 40,000 gallons of dedicated central generation storage would meet the 10-day independent operation requirement. Additionally, a photovoltaic system (PV) would be constructed on the roofs of the proposed buildings and Building 48 and on top of carports throughout the parking areas. Figure 4 shows the electrical site plan for the Preferred Alternative.

Figure 4. Preferred Alternative Electrical Site Plan



Alternative 2—Sector Engineering Facility

Under Alternative 2, the Sector Engineering Facility would be demolished and reconstructed on the east end of Pier D3, where Buildings 108 and Quonset Huts OV 1 through 6 are currently located. Figure 2 includes the demolition plan under Alternative 2 and Figure 5 provides the site plan. The location would be outside the explosive safety quantity distance for the loading/unloading and storage of munitions. Utilities (water, sewer, stormwater, natural gas, electric, and telecommunications) for the new facility would be connected to existing nearby utility lines. The new travel lift pier would be relocated to Pier D3 to provide direct access to the boat maintenance bays in the southwest corner of the Sector Engineering Facility without crossing any of the base roads. Building 108 would be demolished, and the six Quonset Huts would be relocated just to the west of their current location. No additional parking would be provided because there would be no loss of parking spaces. Personnel would either use existing parking near the new building or use the parking lot north of Building 104 and walk to the new facility. Once demolished, the footprint of Building 105 would be turned into green space.

Alternative 3—Station Piers

Alternative 3 presents one additional site where the Station piers could be located (Figure 6). Under Alternative 3, the construction and location of the new Station and ANT Facility would be the same as described under the Preferred Alternative; however, the Station piers would be reconstructed in their existing footprint. Temporary mooring and utilities for Station, Customs and Border Patrol, and contingency vessels would be provided while demolition and construction activities are ongoing. Temporary mooring would either be provided in the existing basin/wharf, through leased slips at an adjacent commercial facility, or via temporary floating piers. Portable wharf utilities (e.g., the existing gas tank, oil waste tank, and diesel fuel pump) would be relocated as necessary to service the new piers. The piers would be oriented in a north-south direction, perpendicular to the direction of incoming waves. To avoid potential damage from waves, a wave attenuation structure would be constructed immediately west of the piers.

Figure 5. Alternative 2—Sector Engineering Facility Site Plan

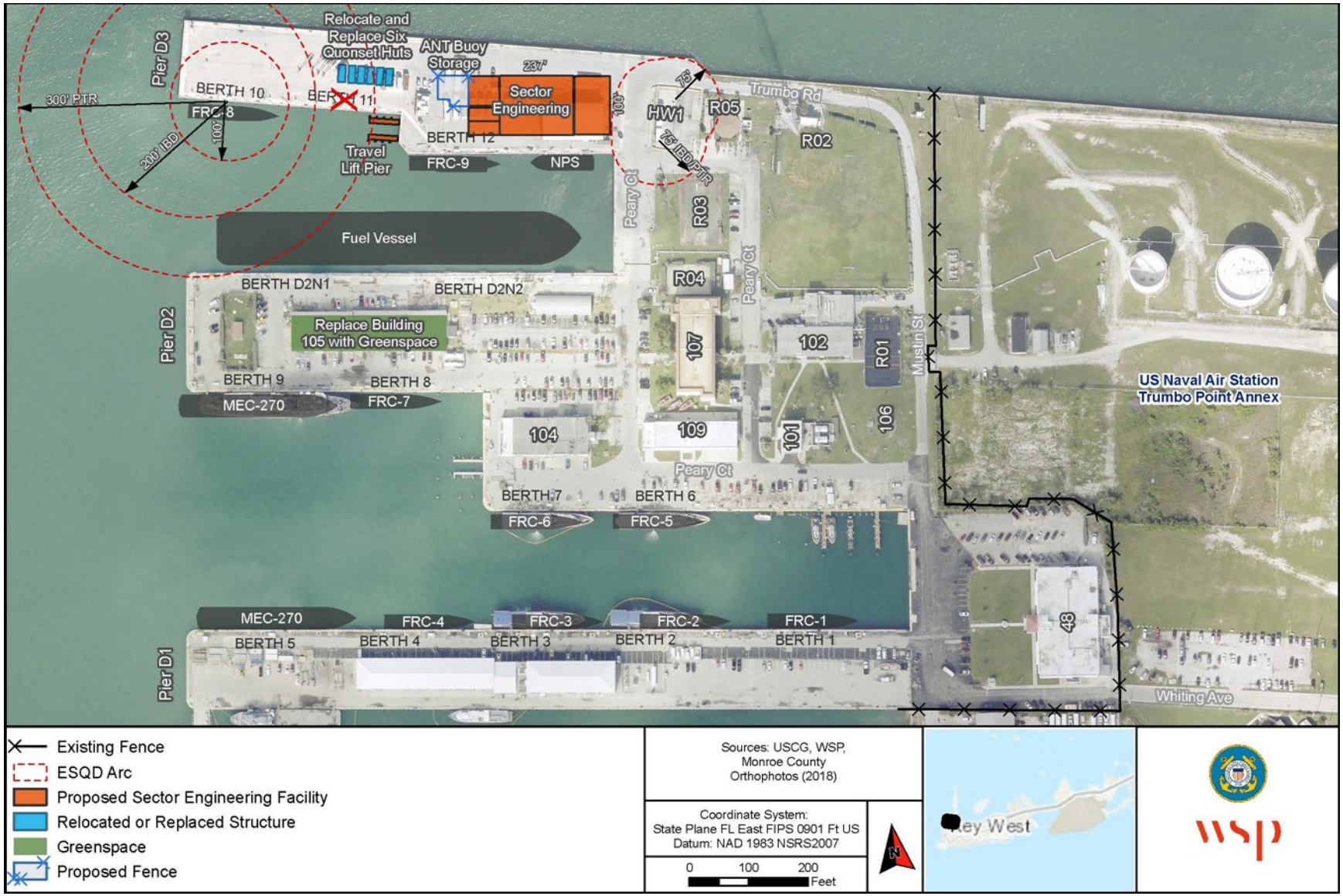
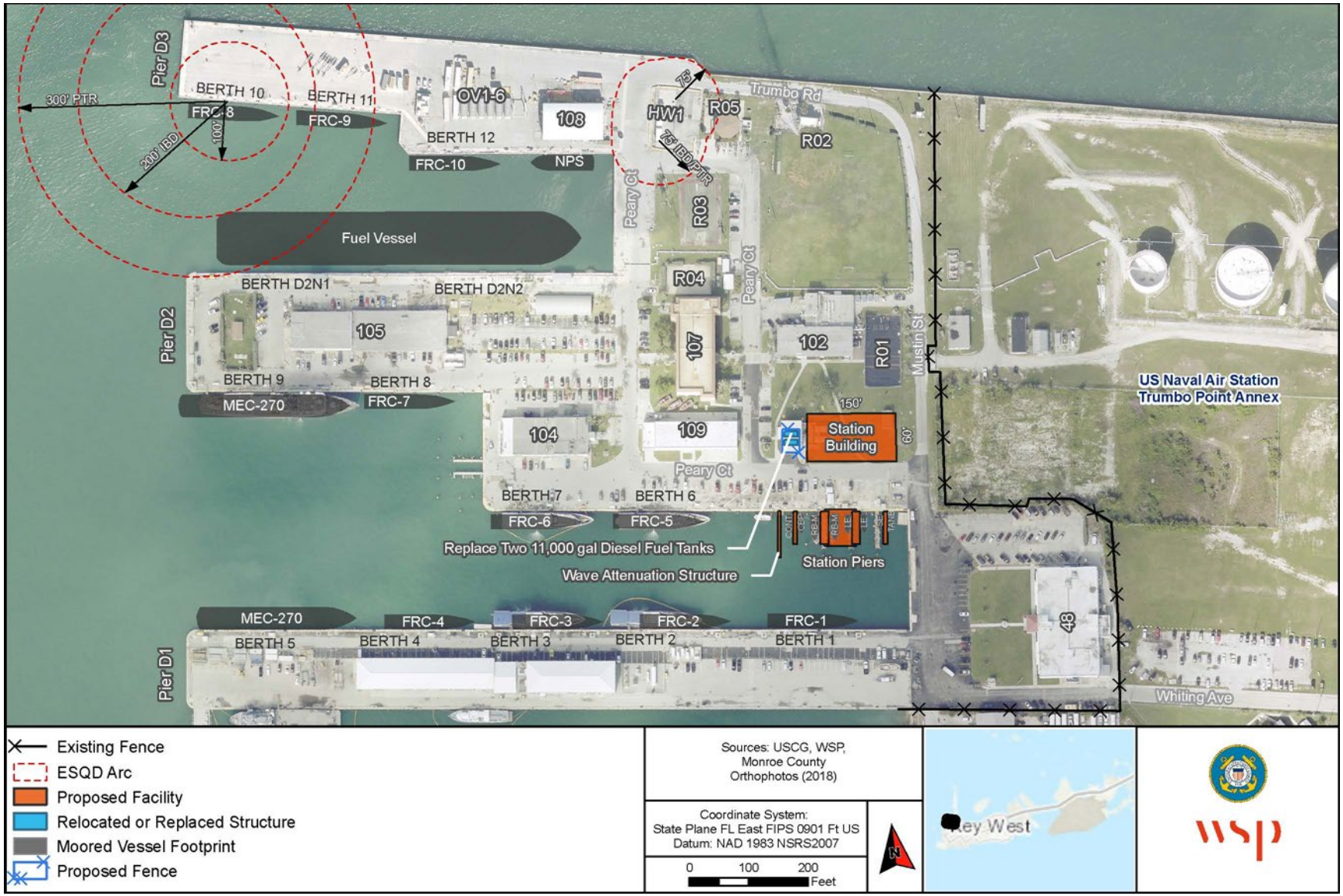


Figure 6. Alternative 3—Station and ANT Facility Site Plan



Federal Consistency Review

Pursuant to the CZMA, the USCG has reviewed FCMP and identified enforceable policies that may be applicable to the Proposed Action. The following section evaluates the Proposed Action in the context of applicable FCMP policies and makes a determination as to what degree the Proposed Action would be consistent with each enforceable policy. FCMP policies that are not applicable to the Proposed Action are discussed in Table 1. The analysis below applies to the three alternatives under consideration, as described above.

Table 1. Florida Coastal Management Program Enforceable Policies Not Applicable to the Proposed Action

Florida Statue	Legal Scope	Consistency Evaluation
Chapter 163, Part II *Growth Policy; County and Municipal Planning; Land Development Regulation*	Requires local governments to prepare, adopt, and implement comprehensive plans that encourage the most appropriate use of land and natural resources in a manner consistent with the public interest.	The Proposed Action would not affect local (municipal or county) government's ability to develop or implement comprehensive plans.
Chapter 186 *State and Regional Planning*	Provides a framework for state-wide planning at all levels of government the orderly social, economic, and physical growth of the state. Provides direction for the delivery of governmental services, a means for defining and achieving the specific goals of the state, and a method for evaluating the accomplishment of those goals	The Proposed Action would not affect Florida state- or regional-level planning requirements and would not affect the delivery of governmental services or the ability to accomplish state goals.
Chapter 252 *Emergency Management*	Provides for planning and implementation of the state's response to, efforts to recover from, and mitigation of natural and man- made disasters.	The Proposed Action would not have an impact on the ability of the state to respond to or recover from natural or man-made disasters and would not affect evacuation or emergency mitigation procedures.
Chapter 259 *Land Acquisitions for Conservation or Recreation*	Authorizes acquisition of natural areas for the purposes of protecting environmental resources, promoting restoration, and providing lands for natural resource-based recreation.	The Proposed Action would occur entirely on Sector Key West property and would not interfere with the state's ability to acquire land for conservation or recreation.
Chapter 260 *Florida Greenways and Trails Act*	Authorizes acquisition of land, planning, and management of a statewide system of greenways and trails for recreational and conservation purposes.	The Proposed Action would not have an impact on the acquisition of land, planning or management of the statewide greenways and trails system.

Florida Statue	Legal Scope	Consistency Evaluation
Chapter 267 *Historical Resources*	Addresses management and preservation of the state's archaeological and historical resources.	The Proposed Action would not affect the management or preservation of the archaeological resources of the State of Florida, as there are no known archaeological resources within the Area of Potential Effect. Per a 2009 letter from Division of Historical Resources, Florida Department of State, there are also no known historic resources listed on or eligible for listing on the National Register. Furthermore, the buildings are contained within a developed, industrial site and lack architectural character that would set them apart as unique. Therefore, there would be no impacts on historical resources as a result of implementing the Proposed Action. However, the USCG will consult with the Division of Historical Resources about the buildings to be demolished so the Florida Master Site File can be updated.
Chapter 288 *Commercial Development and Capital Improvements*	Provides a framework for promoting and developing the general business, trade, and tourism components of the state economy.	The Proposed Action would not have an impact on commercial development or capital improvements, including tourism.
Chapter 334 *Transportation Administration*	Addresses the state's policy concerning transportation administration and establishes state, county, and municipal transportation planning and development responsibilities.	The Proposed Action would not have an impact on the state's transportation administration policies or affect the state's transportation system.
Chapter 339 *Transportation Finance and Planning*	Addresses the finance and planning needs of the state's transportation system.	The Proposed Action would not have an impact on the finance and planning needs of the state's transportation system.

Florida Statue	Legal Scope	Consistency Evaluation
Chapter 375 *Outdoor Recreation and Conservation Lands*	Develops comprehensive multipurpose outdoor recreation plan to document recreational supply and demand, describe current recreational opportunities, estimate need for additional recreational opportunities, and propose means to meet the identified needs.	The Proposed Action would not impact the state's development or evaluation of multipurpose outdoor recreation plans.
Chapter 377 *Energy Resources*	Addresses regulation, planning, and development of energy resources of the state and authorizes the Florida Department of Environmental Protection to regulate all activities related to exploration, drilling, and production of oil, gas, and other petroleum products.	The Proposed Action would not have an impact on the development of Florida's energy resources or the state's ability to regulate these activities.
Chapter 388 *Mosquito Control*	Addresses mosquito control efforts in the state.	The Proposed Action would not affect mosquito control efforts of the State of Florida.
Chapter 553 *Building Construction Standards*	Provides a mechanism for the adoption, amendment, interpretation, application, and enforcement of a Florida Building Code including provisions for issuance of permits.	Federal entities are not required to obtain local building permits or to comply with local codes. Construction under the Proposed Action would comply with strict USCG and other federal building guidelines that address resiliency, structural integrity, fire safety, and other considerations. These federal requirements parallel and many times exceed local code requirements.
Chapter 597 *Aquaculture*	Establishes public policy concerning the cultivation of aquatic organisms in the state.	The Proposed Action would not affect aquaculture.

Florida Coastal Management Program Enforceable Policies Applicable to the Proposed Action

Chapter 161 – Beach and Shore Preservation

This statute authorizes the Bureau of Beaches and Coastal Systems within Florida Department of Environmental Protection to regulate construction, reconstruction, and other physical activities related to the beaches and shores of the state. It provides protections for coastal areas used or likely to be used by sea turtles and regulates activities that would jeopardize the stability of beaches and dune systems, endanger adjacent properties, or interfere with public beach access. It specifically prohibits removal of vegetative cover that binds sand on or adjacent to the state's shores.

The Proposed Action would not involve construction on or development of previously undeveloped coastal lands. All construction activities would occur on Sector Key West property within the existing developed footprint. The project area does not contain beaches or dunes. Four species of sea turtles that occur in the Gulf of Mexico could be occasionally present in the project area. However, the project area does not contain nesting habitat or optimal foraging habitat for any sea turtle species. The USCG would coordinate for all applicable permits as required by law. All coastal construction activities would be conducted in a manner consistent with Chapter 161 and all applicable permit conditions and requirements.

The USCG has determined that the Proposed Action would be fully consistent with Florida's Beach and Shore Preservation policy.

Chapter 253 – State Lands

The statute addresses the state's administration of public lands and property of the state and provides direction regarding the acquisition, disposal, and management of state lands. The statute declares that all submerged lands are to be maintained in natural condition for the propagation of fish and wildlife and for public recreation. Where multiple uses are permitted, ecosystem integrity, recreational benefits and wildlife values must be conserved protected.

Construction associated with the Proposed Action would occur on Sector Key West property, except in-water work, which would occur on state lands because all submerged lands are owned by the State of Florida. The USCG would coordinate for all applicable permits as required by law. All in-water work would be conducted in a manner consistent with Chapter 253 and all applicable permit conditions and regulatory requirements. In-water work would be limited to previously developed submerged lands (marina basins). Impacts to water quality and marine habitats and fauna resulting from in-water work would be minimized by the use of appropriate best management practices (BMPs). The Proposed Action would not permanently impair fish and marine wildlife habitat values or diminish ecosystem integrity.

The USCG has determined that the Proposed Action would be consistent to the maximum extent practicable with Florida's State Lands policy.

Chapter 258 – State Parks and Preserves

This statute addresses administration and management of state parks and preserves. It establishes policy that restrict or prohibit activities that could jeopardize natural values of state parks and preserves.

The project area is not located within a state park, aquatic preserve, or recreation area. However, it is located within the Florida Keys National Marine Sanctuary (FKNMS). Administered by NOAA, FKNMS was created and exists under federal law. However, because approximately 60 percent of the protected area falls in state waters, the sanctuary is also effective in these state waters under consent of the State of Florida. This creates a unique partnership whereby the sanctuary is administered by NOAA and jointly managed by NOAA and the State of Florida under a co-trustee agreement.

Under this agreement, NOAA's primary management partner is the Florida Department of Environmental Protection. The Florida Fish and Wildlife Conservation Commission enforces sanctuary regulations in partnership with sanctuary managers and the NOAA Office of Law Enforcement.

Two primary pieces of legislation govern FKNMS:

- National Marine Sanctuaries Act, which authorizes the Secretary of the Department of Commerce to designate and protect areas of the marine environment with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archeological, educational, or esthetic qualities as national marine sanctuaries; and
- Florida Keys National Marine Sanctuary and Protection Act, which designated FKNMS to be managed as a national marine sanctuary under the National Marine Sanctuary Act.

The Proposed Action would not permanently diminish the biological, aesthetic, or scientific values of FKNMS. The USCG would coordinate for all applicable permits as required by law. Construction associated with the Proposed Action would be conducted in a manner consistent with Chapter 258 and all applicable permit conditions and regulatory requirements.

The USCG has determined that the Proposed Action would be consistent to the maximum extent practicable with Florida's State Parks and Preserves policy.

Chapter 373 – Water Resources

This statute addresses sustainable water management; the conservation of surface and ground waters for full beneficial use; the preservation of natural resources, fish, and wildlife; protecting public land; and promoting the health and general welfare of Floridians. The state's policy manages and conserves water and related natural resources by determining whether activities will unreasonably consume water; degrade water quality; or adversely affect environmental values (such as protected species habitat, recreational pursuits, and marine productivity).

The Proposed Action would not unreasonably consume water, permanently degrade water quality, or permanently adversely affect environmental values. Potable water consumption at Sector Key West would not be expected to increase as a result of the Proposed Action. Impacts to water quality and marine habitats and fauna resulting from in-water work would be minimized by the use of appropriate BMPs. The USCG would coordinate for all applicable permits as required by law. The Proposed Action would be conducted in a manner consistent with Chapter 373 and all applicable permit conditions and regulatory requirements.

The USCG has determined that the Proposed Action would be consistent to the maximum extent practicable with Florida's Water Resources policy.

Chapter 376 – Pollution Discharge Prevention and Removal

This statute provides a framework for the protection of the state's coastline from spills, discharges, and releases of pollutants. The discharge of pollutants into or upon any coastal waters, estuaries, tidal flats, beaches, and lands adjoining the seacoast of the state is prohibited.

The statute:

- provides for hazards and threats of danger and damages resulting from any pollutant discharge to be evaluated;
- requires the prompt containment and removal of pollution; provides penalties for violations; and
- ensures the prompt payment of reasonable damages from a discharge.

The Proposed Action would include transport, storage, and handling of fuels and other hazardous material and hazardous waste. During construction, temporary secondary containment equipment would be used where practicable to ensure accidental releases of hazardous material and hazardous waste are prevented or limited in scope. Portable catch basins, containment berms, and other similar equipment would be used for refueling equipment where feasible. Spill kits would be kept on-site to provide easily accessible cleanup materials should a spill occur. Hazardous material and hazardous waste used or generated during proposed activities would be handled according to applicable law and regulations. Sector Key West has a Spill Prevention, Control, and Countermeasures Plan (USCG 2017), which would need to be updated to address the installation of two new 20,000-gallon fuel storage tanks. The USCG would also be required to prepare a Facility Response Plan as a result of installing the two 20,000-gallon fuel tanks and submit it to the appropriate USEPA Regional Administrator for review. A Facility Response Plan is a plan for responding, to the maximum extent practicable, to a worst-case discharge and to a substantial threat of such a discharge of oil.

Additionally, the USCG would coordinate for all applicable permits as required by law. The Proposed Action would be conducted in a manner consistent with Chapter 376 and all applicable permit conditions and regulatory requirements.

The USCG has determined that the Proposed Action would be fully consistent with Florida's Pollutant Discharge Prevention and Removal policy.

Chapter 379 – Fish and Wildlife Conservation

This statute establishes a framework for the management and protection of the state of Florida's wide diversity of fish and wildlife resources. It is the policy of the state to conserve and wisely manage these resources. Particular attention is given to those species defined as being endangered or threatened.

This statute contains specific provisions for the conservation and management of marine fisheries resources. Additionally, this statute supports and promotes hunting, fishing and the taking of game opportunities in the state. This statute also contains provisions for the management of lands important to the conservation of fish and wildlife.

The project area does not contain high quality habitat for most terrestrial wildlife species, although birds and small mammals that are tolerant of urban environments and frequent disturbance could be present on occasion. Marine habitats in the project area are largely limited to the marina basins that do not provide high quality habitat for many marine fauna because of the silty muck substrate material, persistent turbidity in the water column, and regular disturbance by vessel traffic. However, the marina's seawalls, docking structures, and pilings provide hard structure that provides habitat for fish and serves as a substrate for encrusting organisms and other marine invertebrates.

Seventeen federally endangered and threatened species are known to occur or could occur in the project area. The project area also supports numerous species that are managed by NOAA National Marine Fisheries Service and regional Fishery Management Councils including the Gulf of Mexico, South Atlantic, and Mid-Atlantic councils. The project area is located within designated essential fish habitat for reef fish, shrimp, spiny lobster, coastal migratory pelagics, and various life stages of several highly migratory species. The project area does not contain submerged aquatic vegetation.

Demolition and construction activities under the Proposed Action, particularly removal and installation of pilings for the travel lift and Station Piers, would result in temporary adverse impacts to marine fauna in the marina from underwater noise, turbidity, and sedimentation. Fish and other motile organisms would likely leave the area during demolition and construction. Sessile organisms including corals and other encrusting species would suffer mortality. However, these species would likely recolonize disturbed areas and colonize new underwater surfaces upon in the months or years following completion of construction. Therefore, any adverse impacts to marine fauna would be temporary and would not alter ecosystem dynamics in the project area.

In accordance with Section 7 of the Endangered Species Act, the USCG would consult with USFWS and NOAA National Marine Fisheries Service prior to implementation of the Proposed Action to ensure that adverse impacts to endangered or threatened species are avoided, minimized, or mitigated. The USCG would also consult with NOAA National Marine Fisheries Service pursuant to the Magnuson-Stevens Fishery Conservation and Management Act to ensure that adverse impacts to federally managed fisheries and essential fish habitat are avoided, minimized, or mitigated. The Proposed Action would not affect hunting or fishing opportunities in the state and would not involve land acquisition. The Proposed Action would be conducted in a manner consistent with Chapter 379 and all applicable permit conditions and regulatory requirements.

The USCG has determined that the Proposed Action would be consistent to the maximum extent practicable with Florida's Fish and Wildlife Conservation policy.

Chapter 380 – Land and Water Management

This statute establishes land and water management policies to protect natural resources and the environment and to guide and coordinate local decisions relating to growth and development. Chapter 380 also establishes the Areas of Critical State Concern designation, the Florida Communities Trust, as well as the Florida Coastal Management Act.

The Proposed Action would not affect Florida's ability to manage land and water resources. All development under the Proposed Action would occur within the existing developed footprint of Sector Key West. The project area is located within the Florida Keys Area of Critical State Concern and demolition and construction under the Proposed Action would result in temporary adverse impacts to water quality. However, these impacts would be minimized by the use of appropriate BMPs. The USCG would coordinate for all applicable permits as required by law. The Proposed Action would be conducted in a manner consistent with Chapter 380 and all applicable permit conditions and regulatory requirements.

The USCG has determined that the Proposed Action would be consistent to the maximum extent practicable with Florida's Land and Water Management policy.

Chapter 381 – Public Health, General Provisions

This statute establishes public policy concerning the state's public health system and includes provisions for water and sewer treatment and disposal systems.

The Proposed Action does not involve construction of an on-site sewage treatment and disposal system. The Proposed Action would involve constructing short lines to connect new buildings to existing public water and sanitary lines on Sector Key West. The Proposed Action would be conducted in a manner consistent with Chapter 381 and would not result in increased usage of public water and sewer systems or otherwise affect Florida's public health system.

The USCG has determined that the Proposed Action would be fully consistent with Florida's Public Health policy.

Chapter 403 – Environmental Control

This statute establishes public policy concerning environmental control in the state. Those policies most relevant to the Proposed Action include air and water pollution, pollution prevention, and ecosystem management.

The Proposed Action would slightly increase emissions of criteria pollutants associated with construction activities. The region is currently in attainment for all criteria pollutants. The Proposed Action is not expected to result in a substantial increase in mobile source emissions over the long term. Contributions from construction emissions would not jeopardize Monroe County's attainment status.

The Proposed Action would utilize a variety of BMPs for pollution prevention and spill response, as described above under Chapter 376 – Pollution Discharge Prevention and Removal. Similarly, the Proposed Action would incorporate measures to avoid, minimize, or mitigate impacts to the ecosystem, including endangered and threatened species, as described above under Chapter 379 – Fish and Wildlife Conservation.

The USCG would coordinate for all applicable permits as required by law. The Proposed Action would be conducted in a manner consistent with Chapter 403 and all applicable permit conditions and regulatory requirements.

The USCG has determined that the Proposed Action would be consistent to the maximum extent practicable with Florida's Environmental Control policy.

Chapter 582 – Soil and Water Conservation

This statute provides for the control and prevention of soil erosion. It is Florida's policy to preserve natural resources; control and prevent soil erosion; prevent floodwater and sediment damages; and further the conservation, development, and use of soil and water resources, and the disposal of water.

The construction activities associated with the Proposed Action would expose and disturb soils, leading to increased potential for soil erosion and sedimentation. Once asphalt has been laid to surface parking areas there would no longer be potential for soil erosion and runoff is expected to be minimal. Impervious surfaces and structures comprise 81.5 percent of the project area. The Proposed Action would result in a slight increase in impervious cover from the generator plant and the new station building. Given this small change within a highly developed area, stormwater runoff is not expected to increase substantially as a result of the Proposed Action. The USCG would coordinate for all applicable permits as required by law. The Proposed Action would be conducted in a manner consistent with Chapter 582 and all applicable permit conditions and regulatory requirements.

The USCG has determined that the Proposed Action would be consistent to the maximum extent practicable with Florida's Environmental Control policy.

Conclusion

As required under the CZMA, the USCG has reviewed the Proposed Action for consistency with the enforceable policies and regulations of the FCMP and determined that the Proposed Action under all three alternatives under consideration would be consistent, to the maximum extent practicable, with the plans and policies of the FCMP.

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10.3 Appendix C: U.S. Coast Guard Section Key West, Field Observation Report

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U.S. Coast Guard Sector Key West
Field Observation Report ERRATA
10 March 2021
Prepared by U.S. Coast Guard Facilities Design and Construction Center

Errata Issued for
Field Observation Report
for the
Marine Resource Survey of the North and Central Marina Basins
at the
U.S. Coast Guard Sector Key West, Key West, Monroe County, Florida
(original report dated June 2019)

After finalization of the *Field Observation Report for the Marine Resource Survey of the North and Central Marina Basins at the U.S. Coast Guard Sector Key West, Key West, Monroe County Florida (June 2019)*, several errors were identified in the content of the report. The locations of the erroneous statements and the corrections to them are listed here.

- Page 10, under Section B (Seawall Surveys), the second sentence should read (correction in **bold** type):
  "One (1) Federally listed threatened species of coral, *O. faveolata*, was observed along with **ten (10)** other non-listed species of stony coral and two (2) species of soft coral: *Gorgonia ventalina* and *Antillogorgia* spp."
- Page 16, under Section C (Structure Surveys), the second sentence of the first paragraph should read (correction in bold type):
  "One (1) Federally listed threatened species of coral, *O. faveolata*, was observed along with **thirteen (13)** other non-listed species of stony coral and two (2) species of octocoral (see Appendix D) (Table 14)."
- Page 16, under Section C (Structure Surveys), the third sentence of the second paragraph should read (correction in bold type):
  "In addition to the **fourteen (14)** species of stony coral and two (2) species of soft coral, cyanobacteria, turf algae, macroalgae, sponges, tunicates, barnacles, oysters, hydroids, crustaceans, worms, and anemones were also observed (See Table 15a – 15c)."
- Page 18, in Table 14 (List of Coral Species Observed on the Structures (Docks and Associated Pilings), in the first column, the generalization of *Pseudodiploria* spp. should actually call out the two different species: ***Pseudodiploria clivosa*** and ***P. strigosa***.

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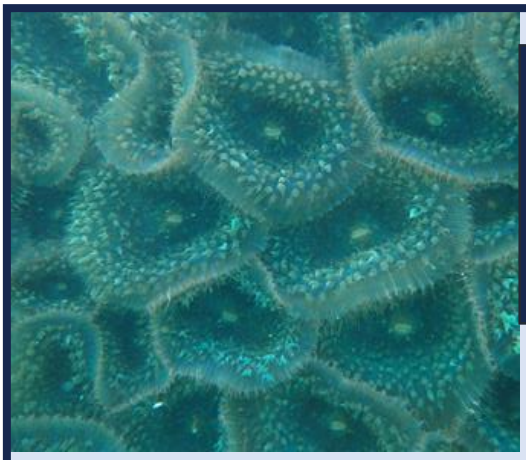

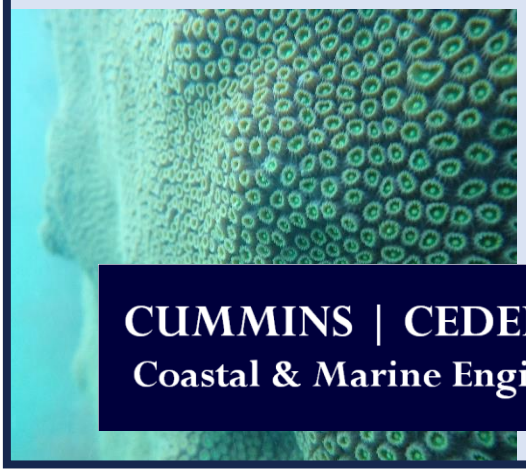

PREPARED FOR:

U.S. COAST GUARD

SECTOR KEY WEST

FIELD OBSERVATION REPORT

JUNE 2019

FIELD OBSERVATION REPORT FOR THE MARINE RESOURCE SURVEY OF THE NORTH AND CENTRAL MARINA BASINS AT THE U.S. COAST GUARD SECTOR KEY WEST, KEY WEST, MONROE COUNTY, FLORIDA

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I. INTRODUCTION

The U.S. Coast Guard (USCG) Station, located off Trumbo Point Road in Key West, Monroe County, Florida (Project site), is an approximately 25-acre (0.101 km^2) property adjacent to the Atlantic Ocean and consists of an upland unit and three (3) marina basins on the western extent. The USCG is seeking to obtain environmental regulatory authorizations for potential marina reconfiguration and/or repair. The small-craft docks and travel lift piers, currently located in the central marina basin, experienced considerable damage with the passing of Hurricane Irma in 2017 and the USCG is looking to repair/replace these structures, identify potential locations for a new boathouse, and evaluate alternatives to strengthen their facility to prepare for future storms. A marine resource survey of the existing structures and submerged substrate was required as part of a preliminary analysis to assess potential impacts to marine resources within the proposed improvement areas and assist with the planning and design process.

In 2015, Coastal Systems International, Inc. (CSI) conducted a coral survey which included surveying the southern wall of the North Basin and outer western and southern walls of the Central Basin as well as the docking structures. It is anticipated that site conditions have changed post Hurricane Irma. In addition, the proposed Project scope has changed since the 2015 survey was conducted. Environmental regulatory agencies will require current conditions and as such, a current survey was requested to update the 2015 survey and is based on the most recently proposed scope for the marina repair.

Three biologists from Cummins Cederberg, Inc. (Cummins Cederberg) performed a qualitative marine resource survey via SCUBA at the Project site January 7th – January 11th, 2019. The survey area consisted of: (1) approximately 140,000 square feet (SF) (13,006.43 m^2) of submerged lands, 1,555 linear feet (LF) (473.96 m) of bulkhead, and assessment of the travel lift piers, docking structures, and associated dolphin pilings in the Central Basin; and (2) approximately 72,200 SF (6,707.60 m^2) of submerged lands and 1,000 LF (304.8 m) of bulkhead in the North Basin. Refer to Appendix A for a location map of the survey area.

The survey identified benthic resources, including submerged aquatic vegetation (SAV, *i.e.*, seagrass), hardbottom, and coral resources, with particular attention to the Federally listed species stated below. All are listed as threatened under the Endangered Species Act (ESA) of 1973, as amended (the coral species *Dendrogyra cylindrus* is also listed under the ESA; however, it is thought highly unlikely to be found in the USCG marina basins).

- Johnson's seagrass (*Halophila johnsonii*) – threatened
- Staghorn coral (*Acropora cervicornis*) - endangered
- Elkhorn coral (*A. palmata*) – endangered
- Lobed star coral (*Orbicella annularis*) – threatened
- Mountainous star coral (*Orbicella faveolata*) – threatened
- Boulder star coral (*Orbicella franksi*) – threatened
- Rough cactus coral (*Mycetophyllia ferox)* – threatened

The Project site is located within the Florida Keys National Marine Sanctuary (FKNMS), in which Cummins Cederberg is authorized to conduct work per the terms and conditions of permit number FKNMS-2016-140. The survey was performed in accordance with the Protocol for Benthic Surveys of Coral Resources in FKNMS for Docks and In-Water Structures (2011), Protocol for Benthic Surveys of Coral Resources in FKNMS for Seawalls and Shoreline Structures (2011), and the National Marine Fisheries Service (NMFS) Recommendations for Sampling *Halophila johnsonii* at a Project Site (2002). This report summarizes the findings of the biological marine survey investigations.

II. SITE CONDITIONS

The USCG Base consists of three (3) marina basins: northern, central, and southern. This survey focused only on the North and Central basins, as these are the only basins that will experience changes with the proposed scope of work. Basins were comprised of bulkhead on the north, east, and south sides, with the western extent of the basins open to the Florida Bay. The marina basin seawalls were constructed out of sheet-pile and a majority of the walls had a concrete toe. Marina basin water depths varied between 26 and 32 feet (7.9 and 9.8 meters).

III. METHODOLOGY

The survey work was conducted January 7th to January 11th, 2019. Weather was generally sunny, with an average temperature of 72° F. Tidal fluctuations within the basin were approximately 1.5 feet between low and high tides and water temperatures were relatively consistent at 72° F. In-water visibility varied with tidal changes as well as with depth and fluctuated between 0.5 and 10 feet (0.1 and 3 meters) throughout the duration of the survey.

A. SEAGRASS SURVEYS

The seagrass surveys were performed in accordance with the National Marine Fisheries Service (NMFS) Recommendations for Sampling *Halophila johnsonii* at a Project Site (2002). Twenty-two (22) temporary transects were established along the seafloor within the North and Central marina basins at the Project site: six (6) 100-ft. and three (3) 200-ft. long transects in the North Basin (B1 – B9) and ten (10) 100-ft. and three (3) 200-ft. long transects in the Central Basin (B13 – B17, B20 – B27). Transect locations were pre-determined as to provide adequate sampling of the entire marina basin floor. At the time of the survey, USCG cutter, *Charles David Jr.*, was docked along the North Wall of the Central Basin at Berth 7 so transects B18 and B19 were not surveyed. Seagrass transects started at the seawall and were measured out perpendicular to the seawall for the pre-determined distance (100 or 200 linear feet), in either north-south or east-west orientations. Transects were spaced 75 linear feet (LF) apart along the bulkhead. Refer to the location map in Appendix A for the locations of the seagrass transects.

The beginning and end points for each transect were located using HYPACK survey software from the survey vessel and marked with temporary buoys (See Table 1 for GPS coordinates). Two Cummins Cederberg divers descended at one of the marker buoys to the seafloor and swam along the transect line slowly until the ending buoy marker. One diver navigated underwater and took photos while the second

diver collected data on underwater paper. Percent coverage, species, and substrate type were identified. The Braun-Blanquet (BB) survey method, a rapid, visual assessment technique, was used to assess abundance of seagrasses. A 0.5-m x 0.5-m quadrat was placed along the transect at pre-determined random distances from the starting point (10 quadrats for 100-m transects, and 20 quadrats for 200-m quadrats). All seagrass species occurring in the quadrat were recorded, and a Braun-Blanquet score based on the cover and density of the species in that quadrat was assigned. Percent cover, as defined for this purpose, is the fraction (percent) of the total quadrat area that is obscured by a particular species when viewed from directly above (*i.e.*, canopy cover). Representative photos of each quadrat were taken. Once the end of the transect line was reached, both divers ascended to the surface and swam to the next starting buoy marker to repeat the process for the next transect.

Abundance of seagrass using the Braun-Blanquet method was scored based on the following for each species observed:

Score	Cover
0	Taxa absent from quadrat
0.1	Taxa represented by a solitary shoot, <5% cover
0.5	Taxa represented by a few (<5) shoots, >5% cover
1	Taxa represented by many (>5) shoots, <5% cover
2	Taxa represented by many (>5) shoots, 5 - 25% cover
3	Taxa represented by many (>5) shoots, 25 - 50% cover
4	Taxa represented by many (>5) shoots, 50 - 75% cover
5	Taxa represented by many (>5) shoots, 75 - 100% cover

Table 1. Start (A) and End (B) GPS Locations of the 22 Benthic Seagrass Transects.

Waypoint	Longitude Coordinates	Latitude Coordinates
B1A	N024° 34' 02.85"	W081° 48' 04.09"
B1B	N024° 34' 01.87"	W081° 48' 04.27"
B2A	N024° 34' 02.73"	W081° 48' 03.29"
B2B	N024° 34' 01.75"	W081° 48' 03.47"
B3A	N024° 34' 02.61"	W081° 48' 02.49"
B3B	N024° 34' 01.63"	W081° 48' 02.66"
B4A	N024° 34' 01.86"	W081° 48' 01.92"
B4B	N024° 34' 00.88"	W081° 48' 02.05"
B5A	N024° 34' 01.78"	W081° 48' 01.11"
B5B	N024° 33' 59.83"	W081° 48' 01.36"
B6A	N024° 34' 01.69"	W081° 48' 00.30"
B6B	N024° 33' 59.75"	W081° 48' 00.56"
B7A	N024° 34' 01.60"	W081° 47' 59.50"
B7B	N024° 33' 59.66"	W081° 47' 59.75"
B8A	N024° 34' 00.78"	W081° 47' 58.80"
B8B	N024° 34' 00.90"	W081° 47' 59.88"
B9A	N024° 34' 00.04"	W081° 47' 58.90"
B9B	N024° 34' 00.16"	W081° 48' 00.00"
B13A	N024° 33' 58.01"	W081° 48' 03.22"
B13B	N024° 33' 57.03"	W081° 48' 03.33"
B14A	N024° 33' 57.94"	W081° 48' 02.41"
B14B	N024° 33' 56.95"	W081° 48' 02.52"
B15A	N024° 33' 57.12"	W081° 48' 01.69"
B15B	N024° 33' 57.22"	W081° 48' 02.76"
B16A	N024° 33' 56.38"	W081° 48' 01.77"
B16B	N024° 33' 56.48"	W081° 48' 02.85"
B17A	N024° 33' 55.87"	W081° 48' 01.42"
B17B	N024° 33' 54.89"	W081° 48' 01.55"
~~B18A~~[1]	~~N024° 33' 55.78"~~	~~W081° 48' 00.61"~~
~~B18B~~[1]	~~N024° 33' 54.80"~~	~~W081° 48' 00.74"~~
~~B19A~~[1]	~~N024° 33' 55.69"~~	~~W081° 47' 59.80"~~
~~B19B~~[1]	~~N024° 33' 54.71"~~	~~W081° 47' 59.93"~~
B20A	N024° 33' 55.61"	W081° 47' 59.00"
B20B	N024° 33' 54.63"	W081° 47' 59.13"
B21A	N024° 33' 55.52"	W081° 47' 58.19"
B21B	N024° 33' 54.53"	W081° 47' 58.32"
B22A	N024° 33' 55.43"	W081° 47' 57.38"
B22B	N024° 33' 54.44"	W081° 47' 57.51"
B23A	N024° 33' 55.34"	W081° 47' 56.58"
B23B	N024° 33' 53.35"	W081° 47' 56.84"
B24A	N024° 33' 55.25"	W081° 47' 55.77"
B24B	N024° 33' 53.27"	W081° 47' 56.03"
B25A	N024° 33' 55.16"	W081° 47' 54.97"
B25B	N024° 33' 53.18"	W081° 47' 55.22"
B26A	N024° 33' 54.33"	W081° 47' 54.23"
B26B	N024° 33' 54.45"	W081° 47' 55.31"
B27A	N024° 33' 53.59"	W081° 47' 54.31"
B27B	N024° 33' 53.71"	W081° 47' 55.39"

[1] Transects were not surveyed due to a USCG cutter obstructing transect access at the time of the survey.

B. SEAWALL SURVEYS

Seawall surveys were performed in accordance with the Protocol for Benthic Surveys of Coral Resources in FKNMS for Seawalls and Shoreline Structures (2011). Twenty-nine (29) temporary vertical transects were established along the seawalls that comprised the North and Central basins: ten (10) in the North Basin (C1 – C10), and nineteen (19) in the Central Basin (C11 – C29). Transects were spaced approximately 50-100 LF (15-30 m) apart along the bulkhead with locations pre-determined as to provide adequate survey coverage and sampling of each wall within the survey area (See Table 2 for GPS coordinates). Transects C8 – C23 were reproductions of transects completed in the 2015 CSI survey. Transects C1 – C7 and C24 – C29 were new transects added to the 2019 survey to cover the proposed scope of work of marina reconfiguration. Refer to the location map in Appendix A for the locations of the coral transects.

A 0.25-m x 0.5-m quadrat was used to sample and assess the marine resources along the vertical transects at 5 ft. (1.5 m), 10 ft. (3.1 m), 15 ft. (4.6 m), and 20 ft. (6.1 m) depths – as well as 25 ft. (7.6 m) for those transects located in deeper water – for a total of four to five (4 – 5) quadrats assessed along each transect (total of 0.25 – 0.31 m^2 area per transect). A total of 118 0.5-m x 0.5-m quadrats were assessed, which resulted in an assessment area of 7.38 m^2. Photographs were taken of each quadrat and additional representative photographs and video of marine resources were taken along each wall (See Appendix B and share file link). Within each 0.25-m x 0.25-m quadrat, scleractinian (stony) coral colony diameter and octocoral height were recorded to the nearest centimeter (cm). Percent planar cover of bare hard substrate (bare wall), major sessile benthos groups (functional groups) including fleshy and/or calcareous macroalgae, turf algae (green, red, or brown), encrusting red algae, sponges, hydroids, octocorals, stony corals, tunicates, and any "other" sessile benthic organisms observed were recorded to the nearest one percent. Benthic organisms in the category "other" included: seagrass, bryozoans, sessile worms, anemones, zoanthids, *Millepora* spp., bivalves, and barnacles. Each functional group was assigned a number from 0 to 100 percent, with the total coverage of all functional groups totaling 100 percent. Unattached or floating macroalgae was disregarded for coverage estimates. Octocoral and scleractinian colonies were identified to the lowest practical taxonomic level and the maximum height or width was recorded to the nearest cm. The smallest size recorded was 1 cm, for individuals less than or equal to 1 cm.

Prior to the start of each day of monitoring, the vertical seawall transects were temporarily marked with a rope attached to the uplands and a small buoy that hung over the edge of the wall, marking the start of the transect. The buoy marked the location of each transect, guiding biologists swimming from one transect to another. Measured distances were used to acquire the location of each of the vertical transects on the seawall. At the start of the survey each day, two Cummins Cederberg biologists on SCUBA entered the water from the survey vessel and swam to the first transect to be monitored. A depth gauge was used to accurately determine the water depth for placement of the quadrats along each wall. Once at a depth of 5 ft. (1.52 m), one biologist held the quadrat, while the other biologist collected data of the observed resources within the quadrat. Photographs were then taken of the resources observed within each quadrat (See Appendix C). Once the data and photographs were collected at 5 ft. (1.52 m), the biologists descended further to 10 ft. (3.05 m) and collected photographs and data at the 10 ft. depth, and this procedure was then repeated at 15 ft. (4.57 m), 20 ft. (6.10 m), and 25 ft. (7.62 m) (as depth allowed). At the base of the seawall a visual reconnaissance was conducted along the seawall toe to survey for any marine resources present

within the immediate vicinity of the end of the transect. At the end of the toe wall reconnaissance survey, the biologists ascended up the wall and swim to the next transect. During these swims between transects, supplemental videos were taken along the walls. Video documentation was accomplished using a handheld GoPro underwater video camera. A biologist swam along the wall in a serpentine pattern in order to document the benthic communities growing along the walls (See the share file link for videos and representative photographs).

Table 2. GPS Locations of the 29 Vertical Coral Seawall Transects.

Waypoint	Longitude Coordinates	Latitude Coordinates
C1	N024° 34' 02.77"	W081° 48' 03.53"
C2	N024° 34' 02.58"	W081° 48' 02.49"
C3	N024° 34' 01.89"	W081° 48' 02.08"
C4	N024° 34' 01.78"	W081° 48' 01.01"
C5	N024° 34' 01.66"	W081° 47' 59.93"
C6	N024° 34' 01.55"	W081° 47' 58.86"
C7	N024° 34' 00.69"	W081° 47' 58.81"
C8	N024° 33' 59.71"	W081° 47' 58.95"
C9	N024° 33' 59.70"	W081° 48' 00.13"
C10	N024° 33' 59.82"	W081° 48' 01.22"
C11	N024° 33' 58.03"	W081° 48' 03.41"
C12	N024° 33' 57.89"	W081° 48' 01.92"
C13	N024° 33' 57.39"	W081° 48' 01.66"
C14	N024° 33' 56.50"	W081° 48' 01.76"
C15	N024° 33' 55.90"	W081° 48' 01.69"
C16	N024° 33' 55.65"	W081° 47' 59.43"
C17	N024° 33' 55.56"	W081° 47' 58.61"
C18	N024° 33' 55.50"	W081° 47' 58.01"
C19	N024° 33' 55.43"	W081° 47' 57.41"
C20	N024° 33' 55.37"	W081° 47' 56.90"
C21	N024° 33' 55.31"	W081° 47' 56.31"
C22	N024° 33' 55.19"	W081° 47' 55.20"
C23	N024° 33' 55.13"	W081° 47' 54.71"
C24	N024° 33' 54.59"	W081° 47' 54.21"
C25	N024° 33' 53.60"	W081° 47' 54.31"
C26	N024° 33' 53.14"	W081° 47' 54.88"
C27	N024° 33' 53.26"	W081° 47' 55.95"
C28	N024° 33' 55.78"	W081° 48' 00.61"
C29	N024° 33' 57.96"	W081° 48' 02.67"

C. STRUCTURE SURVEYS

Structure surveys were performed in accordance with the Protocol for Benthic Surveys of Coral Resources in FKNMS for Docks and In-Water Structures (2011). A visual reconnaissance to locate and measure corals, including the listed species of coral, was conducted on the Central Basin docking structures by Cummins Cederberg biologists using SCUBA gear. During the survey, representative photographs of the marine resources, with close attention to any coral colonies observed on the pilings, were taken. The species, quantity, and size classes of coral species observed along each dock piling were identified. The biologists using SCUBA started at the surface of each pile at the high-water mark and descended to the substrate in a spiral pattern around the pile, taking photographs and recording species as they descended towards the seafloor, then continued the survey along the substrate to the next pile and repeated the survey, while ascending in a spiral pattern. This method was repeated along all of the concrete and wood dock piles directly under the five shore perpendicular docks and marginal dock, labeled Travel Lift Pier A, Travel Lift Pier B, Dock A, Dock B, Dock C, and Marginal Dock D, and associated dolphin piles (Travel Lift Pier A Dolphin Piles, Travel Lift Pier B Dolphin Piles, Dock A Dolphin Piles, Dock B Dolphin Piles, Dock C Dolphin Piles, and Marginal Dock D Dolphin Piles) within the Central Basin (Refer to the location map in Appendix A for the locations of the docking structures and associated pilings).

Size classes for corals documented on the marina structures were measured by the maximum diameter of the coral colony and follow the methodology used in CSI's 2015 survey report. CSI's size classes were chosen based on the Protocol for Benthic Surveys of Coral Resources in the Florida Keys National Marine Sanctuary (FKNMS, 2011). The size classes are as follows:

Colony Size (cm)	Size Class
0 – 5	1
6 – 10	2
11 – 15	3
16 – 20	4
21 – 25	5
26 – 30	6
> 30	7

IV. RESULTS

A. SEAGRASS SURVEYS

The submerged lands within the survey footprint were generally void of any benthic communities and no seagrasses were observed growing in any of the twenty-two (22) survey transects. Free-floating seagrass blades (*Thalassia testudinum* and *Halodule wrightii*) were occasionally observed scattered along the bottom substrate and floating at the surface of the basins, with an accumulation along the seawalls, but no live, attached seagrasses were observed growing within the survey area, which leads to the assumption that these were brought in from outside the marina basins with incoming tides. The bottom substrate within the marina basins generally consisted of a thick silty muck material that was easily disturbed. Beyond 5 – 10 ft. (1.5 – 3.1 m) in depth, the water became very turbid, especially on an out-going tide, and the submerged substrate

appeared to receive very little light penetration. The survey plan included placement of quadrats at random distances from the start of each transect; however, due to lack of resources during the first two (2) transects surveyed, limited visibility, and time constraints, quadrats were only placed where resources were observed along the remaining twenty (20) transects.

Scattered sponges and man-made debris were documented throughout the survey area, with greater debris density within the first 0 - 10 feet (0 – 3.1 m) waterward of the seawall along each transect and under docking structures. Small coral colonies (< 5 cm) of *Siderastrea* spp. were observed scattered along the toe wall and on debris in transects B1 and B9. A thin layer of cyanobacteria, and/or diatoms, and detritus covered a majority of the basin floor in the North Basin and sparse patches were documented in the Central Basin (see Appendix B). Occasional fish, including slippery dick (*Halichoeres bivittatus*), sheepshead (*Archosargus probatocephalis*), gray snapper (*Lutjanus griseus*), porkfish (*Anisotremus virginicus*), French angelfish (*Pomacanthus paru*), and blue-striped grunt (*Haemulon sciurus*), were observed swimming along the bottom during the surveys, with the majority of these sightings occurring closer to the seawall or near piling structures. Man-made debris was observed along the seawall where seagrass transects began.

Representative photos of the seagrass survey can be found in Appendix B.

B. SEAWALL SURVEYS

The Federally listed species *A. cervicornis*, *A. palmata*, *O. franksi*, *D. cylindrus*, *M. ferox*, *O. annularis* were not observed along any of the seawall transects. One (1) Federally listed threatened species of coral, *O. faveolata*, was observed along with eleven (11) other non-listed species of stony coral and two (2) species of soft coral: *Gorgonia ventalina* and *Antillogorgia* spp. In addition to these species of corals, macroalgae, turf algae, encrusting red algae, sponges, hydroids, bivalves, and corallimorphs were documented within the survey transects. See photos in Appendix C.

Along all surveyed walls and at all depths, the average stony coral coverage was 7.0%. Due to marked differences in the stony coral coverage among walls, average coral coverage is presented below in Table 3 for each wall. The percent coverage of stony corals was averaged, based on colony size, for quadrats at all depths (Table 4) and the average percent coverage of corals larger or smaller than 15 cm in maximum diameter was calculated for each wall (Table 5). Charts depicting percent coverage of all identified sessile benthos for each transect are available on the maps in Appendix A.

Table 3. Average Stony Coral Percent Cover for each Wall.

Wall	Avg. Percent Coral Cover
North Basin - North Wall	4.0
North Basin - East Wall	10.0
North Basin - South Wall	12.5
Central Basin - N1 Wall	6.5
Central Basin - E1 Wall	0.4
Central Basin - N2 Wall	5.7
Central Basin - E2 Wall	15.0
Central Basin - South Wall	1.8
Overall Average	**7.0**

Table 4. Average Stony Coral Percent Cover for each Quadrat Depth by Wall.

Wall	Avg. Percent Coral Cover at 5-ft. Depth	Avg. Percent Coral Cover at 10-ft. Depth	Avg. Percent Coral Cover at 15-ft. Depth	Avg. Percent Coral Cover at 20-ft. Depth
North Basin - North Wall	0.0	15.8	0.83	0.0
North Basin - East Wall	0.0	0.0	0.0	0.0
North Basin - South Wall	15.0	35.0	0.0	0.0
Central Basin - N1 Wall	6.7	13.3	3.3	2.7
Central Basin - E1 Wall	0.0	1.5	0.0	0.0
Central Basin - N2 Wall	4.2	13.3	5.0	2.9
Central Basin - E2 Wall	12.5	12.5	5.0	0.0
Central Basin - South Wall	6.0	0.0	0.0	1.0
Overall Average	**5.6**	**11.4**	**1.8**	**0.8**

Table 5. Approximate Stony Coral Percent Cover for Each Wall by Colony Size (< or ≥ 15 cm maximum diameter).

Wall	Percent Coral Cover (Corals < 15 cm)	Percent Coral Cover (Corals ≥ 15 cm)
North Basin - North Wall	0.5	3.5
North Basin - East Wall	2.5	7.5
North Basin - South Wall	2.5	10
Central Basin - N1 Wall	0.8	5.7
Central Basin - E1 Wall	0.0	0.4
Central Basin - N2 Wall	2.1	3.6
Central Basin - E2 Wall	6.5	8.5
Central Basin - South Wall	1.8	0.0

The substrate at the bottom of the seawalls was comprised of a thick silty muck material. A thin layer of silt covered the majority of surfaces within the bottom 5-10 feet (1.52 – 3.05 m) of the water column. Manmade debris was frequently observed along the seafloor adjacent to the seawalls which included items such as ladders, chains, abandoned crab traps, and various scraps of metal and wood (Appendix E). Below is a description of the findings along each wall. Due to difficulty identifying juvenile *Siderastrea* coral species less than 5 cm in maximum diameter, *S. siderea* and *S. radians* colonies were combined to the genus level, *Siderastrea* spp., for recording purposes.

North Basin North Wall

Two colonies of the Federally listed *O. faveolata* were observed on the North Wall of the North Basin: one colony (35 cm maximum diameter) on Transect C3 and one colony (72 cm maximum diameter) on Transect C6. Table 6 shows the species, size, and size class of each stony colony observed along the North Basin North Wall transects, and whether the coral was smaller than, larger than, or equal to 15 cm in maximum diameter (corals ≥ 15 cm are shaded grey).

The North Basin North Wall (Transects C1 – C6) averaged 4.7% stony coral cover (Table 3). Of the eight (8) stony coral colonies recorded, five (5 or 62.5%) had a maximum diameter greater than or equal to 15 cm, while three (3) coral colonies were smaller than 15 cm (37.5%). No stony corals were recorded at the 5 ft. or 20 ft. quadrat depths for the North Basin North Wall. All colonies were observed at the 10 ft. quadrat depth except for a single colony found at the 15 ft. depth.

Table 6. Coral Species by Location, Size, and Size Class, Observed on the North Wall, North Basin

Wall	Transect	Depth (ft.)	Coral Species	Size (cm)	Size Class	> or < 15 cm
N	C2	10	*Montastraea cavernosa*	23	5	> 15 cm
N	C3	10	*Orbicella faveolata*	35	7	> 15 cm
N	C4	10	*Porites furcata*	5	1	< 15 cm
N	C5	15	*Siderastrea* spp.	4	1	< 15 cm
N	C6	10	*Orbicella faveolata*	72	7	> 15 cm
N	C6	10	*Porites astreoides*	21	5	> 15 cm
N	C6	10	*Siderastrea* spp.	16	4	> 15 cm
N	C6	10	*Siderastrea* spp.	2	1	< 15 cm

North Basin East Wall

No Federally listed species were observed along the transects (C7 – C8) surveyed on the North Basin East Wall. Table 7 shows the species, size, and size class of each stony colony observed along the North Basin East Wall and whether the coral was smaller than, larger than, or equal to 15 cm in maximum diameter (corals ≥ 15 cm are shaded grey).

The average stony coral cover for the North Basin East Wall was 10% (Table 3). Of the six (6) recorded colonies, three (3) colonies (50%) were greater than or equal to 15 cm in maximum diameter and three (3 or 50%) were less than 15 cm in maximum diameter. All documented corals on the North Basin East Wall occurred at the 10 ft. quadrat depth.

Table 7. Coral Species by Location, Size, and Size Class, Observed on the East Wall, North Basin

Wall	Transect	Depth (ft).	Coral Species	Size (cm)	Size Class	> or < 15 cm
E	C7	10	*Colpophyllia natans*	22	5	> 15 cm
E	C7	10	*Porites astreoides*	15	3	= 15 cm
E	C7	10	*Porites astreoides*	8	2	< 15 cm
E	C8	10	*Colpophyllia natans*	19	4	> 15 cm
E	C8	10	*Colpophyllia natans*	2	1	< 15 cm
E	C8	10	*Porites astreoides*	13	3	< 15 cm

North Basin South Wall

The North Basin South Wall consisted of Transects C9 and C10. No Federally listed species were observed along this wall. Table 8 shows the species, size, and size class of each stony colony observed along the North Basin South Wall and whether the coral was smaller than, larger than, or equal to 15 cm in maximum diameter (corals ≥ 15 cm are shaded grey).

The North Basin South Wall averaged a stony coral coverage of 12.5% (Table 3). Three (3 or 60%) of the five (5) coral colonies were greater than or equal to 15 cm in maximum diameter. The remaining two (2) coral colonies (40%) were less than 15 cm Corals were only observed at the 5 ft. and 10 ft. quadrats depths. No corals were recorded at the 15 ft. or 20 ft. quadrat depths on Transects C9 or C10.

Table 8. Coral Species by Location, Size, and Size Class, Observed on the South Wall, North Basin

Wall	Transect	Depth (ft.)	Coral Species	Size (cm)	Size Class	> or < 15 cm
S	C9	10	*Montastraea cavernosa*	11	3	< 15 cm
S	C9	10	*Siderastrea* spp.	43	7	> 15 cm
S	C9	10	*Siderastrea* spp.	14	3	< 15 cm
S	C10	5	*Montastraea cavernosa*	66	7	> 15 cm
S	C10	5	*Montastraea cavernosa*	25	5	> 15 cm

Central Basin N1 Wall

No Federally listed species were observed along the Central Basin N1 Wall. Table 9 shows the species, size, and size class of each stony colony observed along the Central Basin N1 Wall and whether the coral was smaller than, larger than, or equal to 15 cm in maximum diameter (corals ≥ 15 cm are shaded grey).

The Central Basin N1 Wall (Transects C11 – C12, C29) averaged 6.50% stony coral cover between all quadrats (Table 3). Of the six (6) coral colonies, three (3 or 50%) were smaller than 15 cm in maximum diameter and three (3 or 50%) were larger than or equal to 15 cm in maximum diameter. Corals were observed at the 5 ft., 10 ft., 15 ft., and 20 ft. quadrat depths.

Table 9. Coral Species by Location, Size, and Size Class, Observed on the N1 Wall, Central Basin

Wall	Transect	Depth (ft.)	Coral Species	Size (cm)	Size Class	> or < 15 cm
N1	C11	10	*Stephanocoenia intersepta*	23	5	> 15 cm
N1	C12	5	*Stephanocoenia intersepta*	33.5	7	> 15 cm
N1	C12	5	*Siderastrea* spp.	2	1	< 15 cm
N1	C12	20	*Siderastrea* spp.	1	1	< 15 cm
N1	C12	20	*Siderastrea* spp.	6.5	2	< 15 cm
N1	C29	15	*Stephanocoenia intersepta*	23.5	5	> 15 cm

Central Basin E1 Wall

The Central Basin's E1 Wall consisted of Transects C13 – C14, neither of which contained Federally listed corals species. Only one colony was observed between the two transects, which is listed below in Table 10. Table 10 species, size, and size class of each stony colony observed along the Central Basin E1 Wall and whether the coral was smaller than, larger than, or equal to 15 cm in maximum diameter (corals ≥ 15 cm are shaded grey).

Averaging 0.38% overall stony coral coverage (Table 3), the Central Basin E1 Wall had the lowest average stony coral coverage out of all of the walls surveyed. The coral colony recorded on the North Basin East Wall occurred at the 10 ft. quadrat depth.

Table 10. Coral Species by Location, Size, and Size Class, Observed on the E1 Wall, Central Basin

Wall	Transect	Depth (ft.)	Coral Species	Size (cm)	Size Class	> or < 15 cm
E1	C13	10	*Colpophyllia natans*	15	3	= 15 cm

Central Basin N2 Wall

No Federally listed species were observed along the transects (C15 – C23, C28) surveyed on the Central Basin N2 Wall. Table 11 shows species, size, and size class of each stony colony observed along the Central Basin N2 Wall and whether the coral was smaller than, larger than, or equal to 15 cm in maximum diameter (corals ≥ 15 cm are shaded grey).

The average stony coral cover for the Central Basin N2 Wall was 5.73% (Table 3). Of the seventeen (17) recorded colonies, four (4 or 23.53%) were greater than or equal to 15 cm in maximum diameter while thirteen (13) colonies (76.47%) were less than 15 cm Corals were recorded at every quadrat depth along the Central Basin N2 Wall.

Table 11. Coral Species by Location, Size, and Size Class, Observed on the N2 Wall, Central Basin

Wall	Transect	Depth (ft.)	Coral Species	Size (cm)	Size Class	> or < 15 cm
N2	C15	10	*Siderastrea* spp.	22	5	> 15 cm
N2	C15	10	*Solenastrea bournoni*	58	7	> 15 cm
N2	C15	15	*Astrangia solitaria*	2	1	< 15 cm
N2	C15	20	*Porites astreoides*	13	3	< 15 cm
N2	C16	5	*Siderastrea* spp.	2	1	< 15 cm
N2	C17	5	*Favia fragum*	2	1	< 15 cm
N2	C17	10	*Siderastrea* spp.	3.5	1	< 15 cm
N2	C17	10	*Siderastrea* spp.	1.5	1	< 15 cm
N2	C17	15	*Siderastrea* spp.	1.5	1	< 15 cm
N2	C17	15	*Siderastrea* spp.	3	1	< 15 cm
N2	C18	5	*Siderastrea* spp.	11	3	< 15 cm
N2	C19	15	*Stephanocoenia intersepta*	19	4	> 15 cm
N2	C20	5	*Siderastrea* spp.	12	3	< 15 cm
N2	C20	10	*Siderastrea* spp.	42	7	> 15 cm
N2	C20	20	*Siderastrea* spp.	< 1	1	< 15 cm
N2	C21	10	*Siderastrea* spp.	2	1	< 15 cm
N2	C21	10	*Siderastrea* spp.	2	1	< 15 cm

Central Basin E2 Wall

No Federally listed species were observed along the Central Basin E2 Wall. Table 12 shows the species, size, and size class of each stony colony observed along the Central Basin E2 Wall and whether the coral was smaller than, larger than, or equal to 15 cm in maximum diameter (corals ≥ 15 cm are shaded grey).

The Central Basin E2 Wall (Transects C24 – C25) averaged 15% stony coral cover, the highest of all of the walls surveyed (Table 3). Of the fifteen (15) coral colonies recorded, two (2) colonies (13.33%) were greater than or equal to 15 cm in maximum diameter, while the remaining thirteen (13 or 86.67%) coral colonies were smaller than 15 cm. Corals were observed at the 5 ft., 10-ft., and 15 ft. quadrat depths. No corals were recorded at the 20 ft. quadrat depth.

Table 12. Coral Species by Location, Size, and Size Class, Observed on the E2 Wall, Central Basin

Wall	Transect	Depth (ft.)	Coral Species	Size (cm)	Size Class	> or < 15 cm
E2	C24	5	*Siderastrea* spp.	12	3	< 15 cm
E2	C24	10	*Stephanocoenia intersepta*	35	7	> 15 cm
E2	C24	10	*Siderastrea* spp.	14	3	< 15 cm
E2	C24	15	*Siderastrea* spp.	3	1	< 15 cm
E2	C24	15	*Siderastrea* spp.	1.5	1	< 15 cm
E2	C24	15	*Siderastrea* spp.	1	1	< 15 cm
E2	C25	5	*Siderastrea* spp.	10	2	< 15 cm
E2	C25	5	*Siderastrea* spp.	2	1	< 15 cm
E2	C25	5	*Siderastrea* spp.	14	3	< 15 cm
E2	C25	10	*Siderastrea* spp.	5.5	2	< 15 cm
E2	C25	10	*Siderastrea* spp.	1.5	1	< 15 cm
E2	C25	10	*Siderastrea* spp.	1.5	1	< 15 cm
E2	C25	15	*Siderastrea* spp.	8.5	2	< 15 cm
E2	C25	15	*Siderastrea* spp.	5	1	< 15 cm
E2	C25	15	*Montastraea cavernosa*	31	7	> 15 cm

Central Basin South Wall

The Central Basin's South Wall consisted of Transects C26 – C27, neither of which contained Federally listed corals species. Table 13 shows the species, size, and size class of each stony colony observed along the Central Basin South Wall and whether the coral was smaller than, larger than, or equal to 15 cm in maximum diameter (corals ≥ 15 cm are shaded grey).

The Central Basin South Wall averaged a stony coral coverage of 1.75% (Table 3). All three (3 0r 100%) colonies of coral observed within the transects were less than 15 cm in length. Corals were only recorded at the 5 ft. and 20 ft. quadrat depths.

Table 13. Coral Species by Location, Size, and Size Class, Observed on the South Wall, Central Basin

Wall	Transect	Depth (ft.)	Coral Species	Size (cm)	Size Class	> or < 15 cm
S	C26	5	*Siderastrea* spp.	6	2	< 15 cm
S	C27	5	*Favia fragum*	5	1	< 15 cm
S	C27	20	*Siderastrea* spp.	1	1	< 15 cm

C. STRUCTURE SURVEYS

The Federally listed species *A. cervicornis*, *A. palmata*, *O. franksi*, *D. cylindrus*, *M. ferox*, *O. annularis* were not observed growing on any of the docking structures or associated pilings. One (1) Federally listed threatened species of coral, *O. faveolata*, was observed along with twelve (12) other non-listed species of stony coral and two (2) species of octocoral (see Appendix D) (Table 14).

Pilings consisted of 12-inch (in.) diameter round wood pilings and 14-in. x 14-in. square concrete pilings. Extensive biological growth was documented on the wood and concrete pilings of all six docking structures. In addition to the thirteen (13) species of stony coral and two (2) species of soft coral, cyanobacteria, turf

algae, macroalgae, sponges, tunicates, barnacles, oysters, hydroids, crustaceans, worms, and anemones were also observed (See Table 15a – 15c).

No marine resources were located on the substrate under or near any of the structures. The substrate consisted of a silty muck mixture. While no resources were found along the submerged bottom, manmade debris was observed such as chain, a dingy vessel hull, and various scraps of wood and metal resting on the bottom and often covered in silt. Below is a description of the findings along each structure. As with *Siderastrea* species, due to the difficulty of identifying juvenile *Pseudodiploria* species less than 5 cm in diameter, including *Pseudodiploria clivosa* and *Pseudodiploria strigosa*, were combined to the genus level, *Pseudodiploria* spp., for recording purposes.

Table 14. List of Coral Species Observed on the Structures (Docks and Associated Pilings)

	Travel Lift A	Travel Lift A Dolphin Piles	Travel Lift B	Travel Lift B Dolphin Piles	Dock A	Dock A Dolphin Piles	Dock B	Dock B Dolphin Piles	Dock C	Dock C Dolphin Piles	Marginal Dock D	Marginal Dock D Dolphin Piles
STONY CORALS												
Colpophyllia natans			X	X	X		X	X	X		X	X
Dichocoenia stokesi			X	X	X				X		X	
Diploria labryinthiformis	X		X	X	X		X					
Favia fragum			X	X	X		X				X	
Montastrea cavernosa	X	X	X	X	X		X		X		X	
Oculina diffusa	X	X	X	X	X		X	X	X		X	
Orbicella faveolata			X	X	X				X		X	
Phyllangia americana americana									X			
Porites astreoides	X	X	X	X	X				X	X		
Pseudodiploria spp.	X	X	X					X	X		X	
Siderastrea spp.	X	X	X	X	X		X		X		X	
Solenastrea bournoni	X	X			X		X					
Stephanocoenia intersepta			X		X		X	X	X		X	
SOFT CORALS												
Antillogorgia spp.					X	X					X	
Gorgonia ventalina	X		X			X	X					

Table 15a. List of Macroalgae Species Observed on the Structures (Docks and Associated Pilings)

MACROALGAE	Travel Lift A	Travel Lift A Dolphin Piles	Travel Lift B	Travel Lift B Dolphin Piles	Dock A	Dock A Dolphin Piles	Dock B	Dock B Dolphin Piles	Dock C	Dock C Dolphin Piles	Marginal Dock D	Marginal Dock D Dolphin Piles
Acanthophora spicifera					X			X				
Acetabularia spp.			X								X	
Amphiroa fragilissima											X	
Caulerpa mexicana								X				
Caulerpa racemosa	X	X	X	X	X		X	X	X	X	X	
Caulerpa sertularioides	X	X					X		X	X	X	
Caulerpa prolifera	X	X	X	X	X		X	X		X	X	
Caulerpa verticillata	X	X										
Cyanobacteria			X		X		X			X	X	X
Dasya sp.	X	X	X	X	X	X	X	X	X	X	X	X
Dictyota spp.			X	X	X	X	X	X	X	X	X	X
Halimeda spp.	X	X	X	X	X	X	X	X	X		X	
Heterosiphonia gibbesii			X		X			X	X	X	X	
Neomaris anulata	X						X	X				
Padina sanctae-crucis			X		X	X	X	X	X	X	X	X
Penicillus spp.	X											
Turf Algae	X	X	X	X	X	X	X	X	X	X	X	X

Table 15b. List of Fish Species Observed on the Structures (Docks and Associated Pilings)

FISH		Travel Lift A	Travel Lift A Dolphin Piles	Travel Lift B	Travel Lift B Dolphin Piles	Dock A	Dock A Dolphin Piles	Dock B	Dock B Dolphin Piles	Dock C	Dock C Dolphin Piles	Marginal Dock D	Marginal Dock D Dolphin Piles
Sergeant Major	*Abudefduf saxatilis*	X		X	X			X				X	
Porkfish	*Anisotremus virginicus*	X		X		X							
Sheepshead	*Archosargus probatocephalus*										X	X	X
Spanish Hogfish	*Bodianus rufus*	X											
Hogfish	*Lachnolaimus maximus*											X	
Grey Snapper	*Lutjanus griseus*	X		X						X			X
Yellowtail Snapper	*Ocyurus chrysurus*	X		X	X	X		X		X		X	
Gray Angelfish	*Pomacanthus arcuatus*											X	
French Angelfish	*Pomacanthus paru*	X	X										
Rainbow Parrotfish	*Scarus guacamaia*					X							
Princess Parrotfish	*Scarus taeniopterus*					X						X	
Bandtail Puffer	*Sphoeroides spengleri*										X		

Table 15c. List of Miscellaneous Other Species Observed on the Structures (Docks and Associated Pilings)

OTHER		Travel Lift A	Travel Lift A Dolphin Piles	Travel Lift B	Travel Lift B Dolphin Piles	Dock A	Dock A Dolphin Piles	Dock B	Dock B Dolphin Piles	Dock C	Dock C Dolphin Piles	Marginal Dock D	Marginal Dock D Dolphin Piles
Large Black Tunicate	*Ascidia nigra*	X	X	X	X	X	X	X	X	X	X	X	X
Moon jelly	*Aurelia aurita*			X									
Corkscrew Anemone	*Bartholomea annulata*											X	
Chicken Liver Sponge	*Chondrilla nucula*	X	X	X		X		X		X			
Bulb Tunicates	*Clavelina spp.*	X		X	X			X		X	X	X	X
Button Tunicates	*Distaplia corolla*											X	
Heavenly Sponge	*Dysidea etheria*	X						X		X		X	X
Feather Duster Worms	FAMILY Sabellidae											X	
Colonial Tube Worm	FAMILY Serpulid	X	X			X	X	X	X			X	
Bearded Fireworm	*Hermodice carunculata*	X	X			X		X					
Sinker Sponge	*Ircinia felix*	X	X	X		X		X		X	X	X	
Flat Tree Oyster	*Isognomon alatus*	X	X			X		X		X		X	
Spiny Lobster	*Panulirus argus*	X											
Sponge Zoanthid	*Parazoanthus parasiticus*	X	X	X		X		X	X			X	
Bryozoa	PHYLUM Ectoprocta	X	X	X		X	X	X	X			X	
Florida Corallimorph	*Ricordea florida*	X											
Christmas Tree Worm	Spirobranchus giganteus	X	X			X		X					
Barnacles	SUBCLASS Cirripedia	X	X	X	X	X	X	X	X	X	X	X	X
Various Hydroids	Unidentified	X	X	X	X	X	X	X	X	X	X	X	X
Various Sponges	Unidentified	X	X	X	X	X	X	X	X	X	X	X	X
Various Anemones	Unidentified	X		X		X		X		X	X		

Travel Lift Pier A

Travel Lift Pier A is located in the Central Basin perpendicular to the East 1 Wall and just north of Travel Lift Pier B. Dock pilings consisted of wood and concrete piles and were covered by various organisms including hard and soft corals, macroalgae, sponges, worms, barnacles and oysters, hydroids, and zoanthids. The dominant species overall was turf algae. The concrete pilings were observed to have more sponge and tunicate growth than the wood pilings as well as all of the documented stony coral growth; no stony coral was observed growing on wood pilings. Seven (7) species of stony coral were observed growing on Travel Lift Pier A pilings, with *Oculina diffusa* being the most common species recorded, and all colonies were documented in water depths less than 15 feet. Five (5) colonies of soft coral *Gorgonia ventalina*, between 6 and 20 cm in height, were also recorded. See Tables 15a – 15c and Table 16 for a list of stony corals and octocoral species observed on Travel Lift Pier A.

Table 16. List of Coral Species and Abundance by Size Class on Travel Lift Pier A.

	Size Class						Total
STONY CORALS	**0-5 cm**	**6-10 cm**	**11-15 cm**	**16-20 cm**	**21-29 cm**	**≥ 30 cm**	
Diploria labryinthiformis						1	1
Montastrea cavernosa						2	2
Oculina diffusa		1	1	1	1		4
Porites astreoides					1	1	2
Pseudodiploria spp.						1	1
Siderastrea spp.		1		1			2
Solenastrea bournoni			1				1
OCTOCORALS							
Gorgonia ventalina		2	1	2			5
Total by Size Class		4	3	4	2	5	**18**

Travel Lift Pier A Dolphin Piles

Travel Lift Pier A Dolphin Piles consist of three (3) sets of wooden piles located northwest of the travel pier. Species observed growing on the dolphin piles were very similar to those observed growing on the associated pier pilings. The dominant species of stony coral observed on the dolphin piles was *Siderastrea* spp. out of the six (6) total scleractinian species observed. The majority (13 colonies) of stony coral colonies were less than 15 cm. One (1) *G. ventalina* colony, in the 10 – 15 cm size class, was also documented. Tables 15a – 15c and Table 17 provide a list of documented species observed growing on Travel Lift Pier A Dolphin Piles.

Table 17. Coral Inventory by Abundance and Size Class Observed on Travel Lift Pier A Dolphin Piles.

	Size Class						Total
STONY CORALS	**0-5 cm**	**6-10 cm**	**11-15 cm**	**16-20 cm**	**21-29 cm**	**≥ 30 cm**	
Montastrea cavernosa					1		1
Oculina diffusa	1		1				2
Porites astreoides	2		1	1			4
Pseudodiploria spp.						2	2
Siderastrea spp.	3	2	1				6
Solenastrea bournoni	1						1
OCTOCORALS							
Gorgonia ventalina			1				1
Total by Size Class	7	2	4	1	1	2	**17**

Travel Lift Pier B

Travel Lift Pier B is located just south of and parallel to Travel Lift Pier A in the Central Basin. The dock pilings were overgrown by turf and macroalgae, stony and octocorals, various sponges, tunicates, hydroids, and zoanthids. Eleven (11) species of stony coral and one (1) species of octocoral (*Gorgonia ventalina*) were documented. Travel Lift Pier B had highest number of coral colonies, at 60 total colonies observed, with over half (33 colonies) being between 1 and 10 cm in maximum diameter. Twenty-eight (28) of the 60 colonies were *Siderastrea* spp. See Tables 15a – 15c and Table 18 for a list of organisms observed on Travel Lift Pier B.

Table 18. List of Coral Species and Abundance by Size Class on Travel Lift Pier B.

	Size Class						Total
STONY CORALS	**0-5 cm**	**6-10 cm**	**11-15 cm**	**16-20 cm**	**21-29 cm**	**≥ 30 cm**	
Colpophyllia natans	1			2			3
Dichocoenia stokesi					1	1	2
Diploria labryinthiformis			1				1
Favia fragum	4						4
Montastrea cavernosa		1	1		3	3	8
Oculina diffusa		1	3	2	2		8
Orbicella faveolata						1	1
Porites astreoides						1	1
Pseudodiploria spp.						1	1
Siderastrea spp.	17	8	1	2			28
Stephanocoenia intersepta		1					1
OCTOCORALS							
Gorgonia ventalina					2		2
Total by Size Class	22	11	6	6	8	7	**60**

Travel Lift Pier B Dolphin Piles

Travel Lift Pier B Dolphin Piles, located south of the pier and consisting of four (4) dolphin piling clusters, had turf and macroalgae, barnacles, hydroids, various sponges, tunicates, and nine (9) scleractinian species (Tables 14 and 15). Stony coral sizes ranged from the smallest size class (0 – 5 cm) to the largest size class (> 30 cm). Two (2) large (> 30 cm) colonies of Federally listed *O. faveolata* were present. No octocorals were observed. See Tables 15a – 15c and Table 19 for a list of organisms observed on Travel Lift Pier B Dolphin Piles.

Table 19. Coral Inventory by Abundance and Size Class Observed on Travel Lift Pier B Dolphin Piles.

	Size Class						Total
STONY CORALS	**0-5 cm**	**6-10 cm**	**11-15 cm**	**16-20 cm**	**21-29 cm**	**≥ 30 cm**	
Colpophyllia natans						1	1
Dichocoenia stokesi			1				1
Diploria labryinthiformis					1		1
Favia fragum	1						1
Montastrea cavernosa				1	1	1	3
Oculina diffusa				1			1
Orbicella faveolata						2	2
Porites astreoides			3	2			5
Siderastrea spp.	3	1	2	2	1		9
Total by Size Class	4	1	6	6	3	4	**24**

Dock A

Dock A is the easternmost small boat dock located perpendicular to the North 2 Wall in the Central Basin. The dock pilings, both cement and wood, were dominantly overgrown by turf algae, macroalgae, and various species of sponges. Dock A had eleven (11) species of coral recorded, including the Federally listed *O. faveolata* (Tables 14 and 20). One (1) species of octocoral, *Antillogorgia* spp., was also documented. *S. intersepta* was the dominant stony coral species, with twenty (20) colonies recorded. A majority (34 colonies) of corals recorded on Dock A were in the 1 – 15 cm size classes. Barnacles, oysters, various worms, hydroids, tunicates, anemones, and zoanthids were also observed growing on Dock A (Table 14).

Table 20. List of Coral Species and Abundance by Size Class on Dock A.

	Size Class						Total
STONY CORALS	**0-5 cm**	**6-10 cm**	**11-15 cm**	**16-20 cm**	**21-29 cm**	**≥ 30 cm**	
Colpophyllia natans	2		1				3
Dichocoenia stokesi		1					1
Diploria labryinthiformis			1	1	1		3
Favia fragum	1						1
Montastrea cavernosa		1				1	2
Oculina diffusa	1	2	1				4
Orbicella faveolata				1			1
Porites astreoides	1						1
Siderastrea spp.		3		1			4
Solenastrea bournoni		1		1	2		4
Stephanocoenia intersepta	8	6	5	1			20
OCTOCORALS							
Antillogorgia spp.			1		1		2
Total by Size Class	13	14	9	5	4	1	**46**

Dock A Dolphin Piles

The dolphin piles associated with Dock A includes one set of three (3) wooden piles just south of the end of the dock. Dominant growth consisted of turf and macroalgae and no colonies of stony coral were observed growing on the pilings. Two (2) species of soft coral, *Antillogorgia* spp. and *G. ventalina*, were documented. See Tables 15a – 15c and Table 21 for a list of organisms observed on Marginal Dock D Dolphin Piles.

Table 21. Coral Inventory by Abundance and Size Class Observed Dock A Dolphin Piles.

	Size Class						Total
SOFT CORALS	**0-5 cm**	**6-10 cm**	**11-15 cm**	**16-20 cm**	**21-29 cm**	**≥ 30 cm**	
Antillogorgia spp.			1	2		1	4
Gorgonia ventalina				1			1
Total by Size Class			1	3		1	**5**

Dock B

Dock B is located in the Central Basin perpendicular to the North 2 Wall. It is centrally located between Dock A and Dock C. Dock B pilings consist of wood and concrete piles and were covered by various organisms including hard and soft corals, macroalgae, turf algae, cyanobacteria, sponges, various worms, barnacles and oysters, hydroids, anemones, and zoanthids. Eight (8) species of stony coral, encompassing a total of 48 colonies, as well as one (1) species of soft coral, *G. ventalina*, were growing on the dock piles. *S. intersepta* was the dominant species, with 21 colonies, and ranged in size from 0 to >30 cm. Tables 15a – 15c and Table 22 provide a list of documented species observed growing in the Dock B survey.

Table 22. List of Coral Species and Abundance by Size Class on Dock B.

	Size Class						Total
STONY CORALS	**0-5 cm**	**6-10 cm**	**11-15 cm**	**16-20 cm**	**21-29 cm**	**≥ 30 cm**	
Colpophyllia natans				1			1
Diploria labryinthiformis					1	1	2
Favia fragum			2				2
Montastrea cavernosa					1		1
Oculina diffusa	1				2		3
Siderastrea spp.	2	3	3		3	1	12
Solenastrea bournoni	1		1	1		1	4
Stephanocoenia intersepta	4	6	8	1	1	1	21
OCTOCORALS							
Gorgonia ventalina			1		1		2
Total by Size Class	8	9	15	3	9	4	**48**

Dock B Dolphin Piles

Dock B Dolphin Piles, located just south of Dock B, had four (4) total species of stony coral, which made up four (4) total colonies, growing on them (Table 23). All corals were 10 cm or less and no soft corals were recorded. Dock B Dolphin Piles also had turf and macro algae, barnacles, oysters, tube worms, hydroids, tunicates, and sponges (Table 15a – 15c).

Table 23. Coral Inventory by Abundance and Size Class Observed Dock B Dolphin Piles.

	Size Class						Total
STONY CORALS	**0-5 cm**	**6-10 cm**	**11-15 cm**	**16-20 cm**	**21-29 cm**	**≥ 30 cm**	
Colpophyllia natans		1					1
Oculina diffusa	1						1
Pseudodiploria spp.		1					1
Stephanocoenia intersepta	1						1
Total by Size Class	2	2	0	0	0	0	**4**

Dock C

Dock C is the westernmost small boat dock located perpendicular to the North 2 Wall in the Central Basin. The dock pilings, both cement and wood, were dominantly overgrown by turf algae, macroalgae, and various species of sponges. Barnacles, oysters, hydroids, tunicates, anemones, and stony corals were also observed. Ten (10) species of stony coral were documented, totaling 57 colonies. A majority (47 colonies) of these were 15 cm or less in diameter and the dominant species was *Siderastrea* spp. with 29 colonies counted. No soft corals were observed. See Tables 15a – 15c and Table 24 for a list of organisms observed on Dock C.

Table 24. List of Coral Species and Abundance by Size Class on Dock C.

	Size Class						Total
STONY CORALS	**0-5 cm**	**6-10 cm**	**11-15 cm**	**16-20 cm**	**21-29 cm**	**≥ 30 cm**	
Colpophyllia natans				1	1		2
Dichocoenia stokesi		1					1
Montastrea cavernosa	1	1	1	1			4
Oculina diffusa	4		2				6
Orbicella faveolata						2	2
Phyllangia americana	2						2
Porites astreoides	2	1					3
Pseudodiploria spp.						1	1
Siderastrea spp.	12	7	7	2		1	29
Stephanocoenia intersepta	3		3	1			7
Total by Size Class	24	10	13	5	1	4	**57**

Dock C Dolphin Piles

Dock C Dolphin Piles consist of two (2) sets of wooden pilings: one (1) just south of Dock C and one (1) to the western side of Dock C. These pilings had cyanobacteria, turf and macroalgae, barnacles, hydroids, various sponges, tunicates, and anemones (Table 15a – 15c). Only one (1) coral species, *P. astreoides*, was documented on these pilings, and no soft corals were recorded (Table 25).

Table 25. Coral Inventory by Abundance and Size Class Observed Dock C Dolphin Piles.

	Size Class						Total
STONY CORALS	**0-5 cm**	**6-10 cm**	**11-15 cm**	**16-20 cm**	**21-29 cm**	**≥ 30 cm**	
Porites astreoides				1			1
Total by Size Class	0	0	0	1	0	0	**1**

Marginal Dock D

Marginal Dock D is located on the eastern extent of the N2 Wall of the Central Basin. It runs parallel to the shoreline and connects Docks A, B, and C to the uplands. The dock pilings of Marginal Dock D, both cement and wood, were dominantly overgrown by turf algae, several species of macroalgae, and sponges. Nine (9) species of stony coral, encompassing a total of 56 colonies and including two (2) large (> 30 cm) colonies of Federally listed *O. faveolata*, as well as one (1) species of soft coral, *Antillogorgia* spp., were growing on the piles. *Siderastrea* spp. were dominant among the species of stony coral, with 23 colonies counted. The majority (34 colonies) of the corals were in the 0 – 5 cm size class. Barnacles, oysters, various tunicates, hydroids, anemones, and feather duster worms were also observed. See Tables 15a – 15c and Table 26 for a list of organisms observed on Marginal Dock D.

Table 26. List of Coral Species and Abundance by Size Class on Marginal Dock D.

	Size Class						Total
STONY CORALS	**0-5 cm**	**6-10 cm**	**11-15 cm**	**16-20 cm**	**21-29 cm**	**≥ 30 cm**	
Colpophyllia natans	4						4
Dichocoenia stokesi					1		1
Favia fragum	1						1
Montastrea cavernosa	1		3		1		5
Oculina diffusa	1	2	1				4
Orbicella faveolata						2	2
Pseudodiploria spp.	8						8
Siderastrea spp.	15	4	2	2			23
Stephanocoenia intersepta	4	1	2				7
OCTOCORALS							
Antillogorgia spp.					1		1
Total by Size Class	34	7	8	2	3	2	**56**

Marginal Dock D Dolphin Piles

The dolphin piles associated with Marginal Dock D included one set of three (3) wooden pilings just west of the end of the marginal dock. Dominant growth consisted of turf and macroalgae and only one (1) colony of stony coral was observed growing on the pilings. See Tables 15a – 15c and Table 27 for a list of organisms observed on Marginal Dock D Dolphin Piles.

Table 27. Coral Inventory by Abundance and Size Class Observed on Marginal Dock D Dolphin Piles.

	Size Class						Total
STONY CORALS	**0-5 cm**	**6-10 cm**	**11-15 cm**	**16-20 cm**	**21-29 cm**	**≥ 30 cm**	
Colpophyllia natans		1					1
Total by Size Class		1					**1**

V. CONCLUSIONS

A. SEAGRASS

H. johnsonii, listed as threatened under the Endangered Species Act by the National Marine Fisheries Service (NMFS), was not observed in either the North or Central Basin at USCG Sector Key West. Given its very limited distribution and low abundance within its range, it was not expected to be present within the vicinity of the Project site as the southernmost distribution has been reported to be near Miami, near Virginia Key in Biscayne Bay. Furthermore, none of the other four marine species of seagrasses found in south Florida were observed growing within the marina basins.

The conditions within the North and Central marina basin at Project site are not adequate to support healthy seagrass beds due to the silty muck substrate material, consistent turbidity within the water column, low light penetration to the seabed, and regular disturbance by vessel traffic. The recognized seagrass growing

season in Monroe County is year-round per the State regulatory agencies (FDEP/SFWMD and FWC); however, the Federal regulatory agencies (USACE, NMFS, FKNMS) recognize that the "peak seagrass growing season" is between June 1 and September 30. Though not anticipated for this Project site or for the proposed scope of work, if seagrass impacts are proposed as part of the Project, the Federal agencies may require an additional "in-season" seagrass survey, performed within 1 year of permit application submittal, to quantify seagrass impacts within the proposed Project limits.

B. CORALS

Overall, eighteen (18) species of stony coral and two (2) species of soft coral were recorded during the marine resource survey conducted within the North and Central Basins at USCG Sector Key West. The depth at which the majority of corals were observed, during the transects and transect video, was between approximately 8 and 12 feet (2.4 and 3.7 meters). Of the eight (8) Federally listed threatened stony coral species, only one (1), *Orbicella faveolata*, was identified within the survey area. Specific permits are required for take or incidental take of Federally listed species. However, the Project site is also located within the Florida Keys National Marine Sanctuary (FKNMS) which protects an all-inclusive list of significant marine resources, including all species of stony and octocorals. As such, moving, removing, taking, injuring, touching, breaking, cutting, or disturbing any of these species is prohibited throughout the FKNMS and any project that has the potential to disturb or destroy these resources, is subject to FKNMS review and approval. The FKNMS may place conditions on the project to avoid or limit coral impacts, including design changes or relocation of corals prior to construction.

In addition, it should be taken into consideration that while *O. faveolata* was only observed on a few of the docking structures (Travel Lift Pier B, Travel Lift Pier B Dolphin Piles, Dock A, Dock C, and Marginal Dock D) and one wall (North Basin North Wall), the surveys conducted are only representative of what exists along the transects surveyed, and the supplemental video taken during the survey and provided separately, shows many more stony coral colonies, including *O. faveolata* as well as other species, than those captured in the transects. When moving forward with reconfiguration plans, additional surveys may be required prior to permit approval to further quantify coral density at a specific location, as well as to assess the viability of corals for potential relocation.

VI. APPENDICES

APPENDIX A

MAPS

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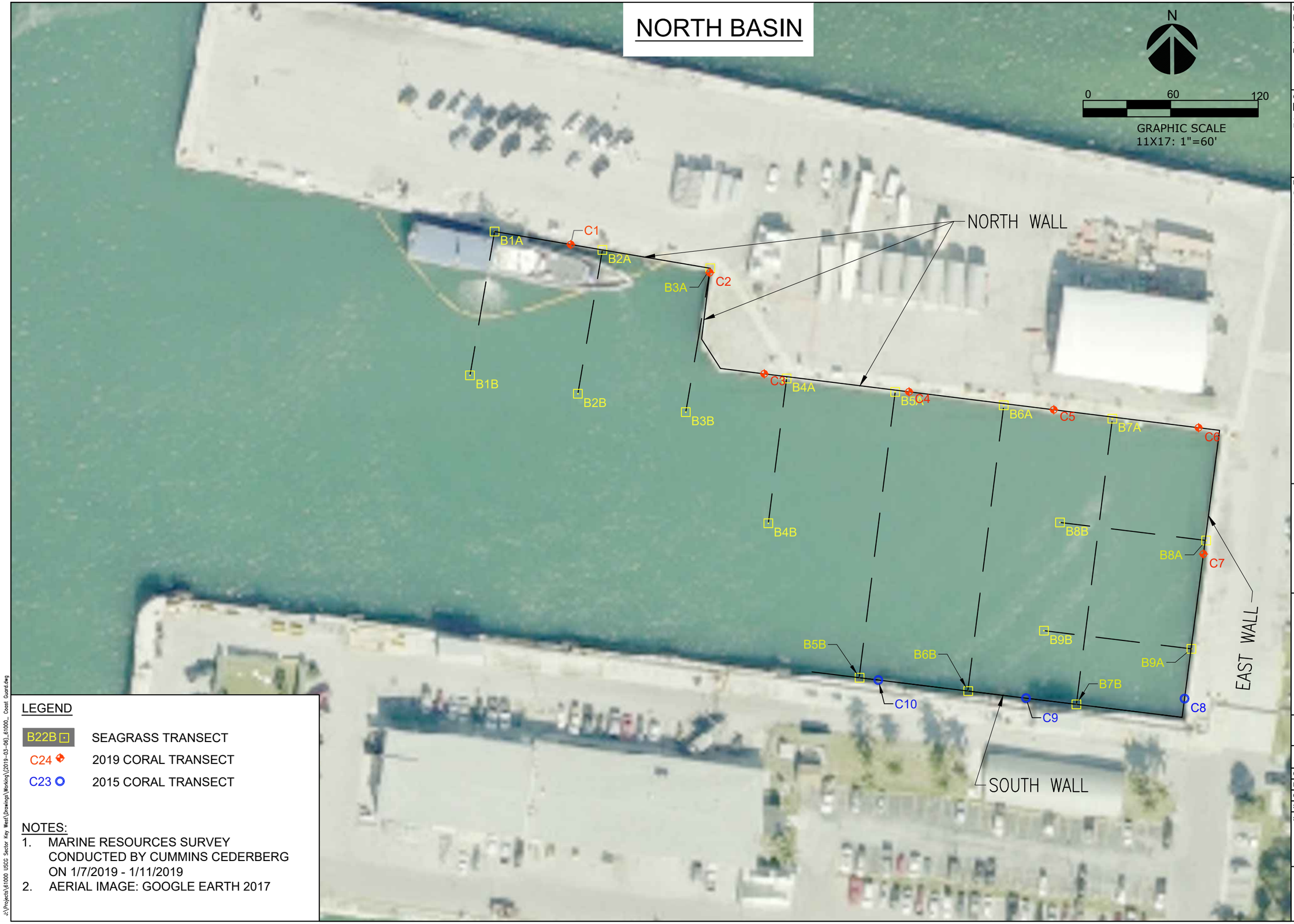
NORTH BASIN



LEGEND

B22B	SEAGRASS TRANSECT
C24	2019 CORAL TRANSECT
C23	2015 CORAL TRANSECT

NOTES:

1. MARINE RESOURCES SURVEY CONDUCTED BY CUMMINS CEDERBERG ON 1/7/2019 - 1/11/2019
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MARINE RESOURCES BASE MAP

EXHIBIT-1.0

CENTRAL BASIN

N

0 60 120

GRAPHIC SCALE
11X17: 1"=60'

NORTH 1 WALL
TRAVEL LIFT A DOLPHIN PILES
EAST 1 WALL
TRAVEL LIFT A
TRAVEL LIFT B
NORTH 2 WALL
MARGINAL DOCK D DOLPHIN PILE
MARGINAL DOCK D
DOCK C
DOCK B
DOCK A
TRAVEL LIFT B DOLPHIN PILES
DOCK C DOLPHIN PILES
DOCK B DOLPHIN PILE
DOCK A DOLPHIN PILE
EAST 2 WALL
SOUTH WALL

C11 C29 B13A B14A C12 C13 B15B B13B B14B B15A B16B B16A C14 C15 B17A C28 B18A B19A C16 B20A C17 B21A C18 B22A C19 C20 B23A C21 B24A C22 B25A C23 C24 B26B B26A B27B B27A C25 B23B B24B B25B C27 C26

B17B B18B B19B B20B B21B B22B

LEGEND

B22B	SEAGRASS TRANSECT
C24	2019 CORAL TRANSECT
C23	2015 CORAL TRANSECT
	TRANSECT NOT COMPLETED

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EXHIBIT-2.0

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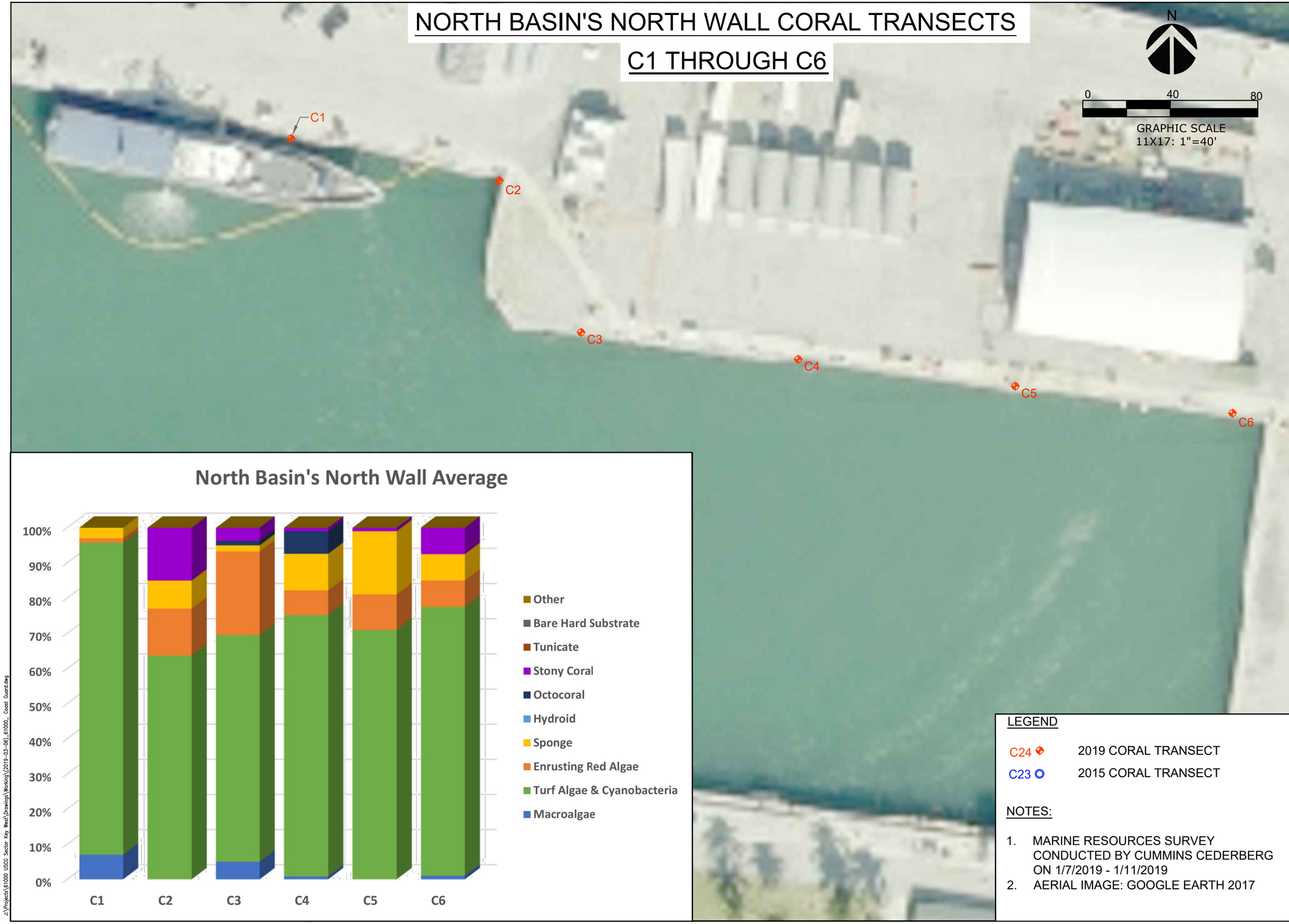
NORTH BASIN'S NORTH WALL CORAL TRANSECTS

C1 THROUGH C6



N

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GRAPHIC SCALE
11X17: 1"=40'

LEGEND

C24 2019 CORAL TRANSECT

C23 2015 CORAL TRANSECT

NOTES:

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FIG-1.0

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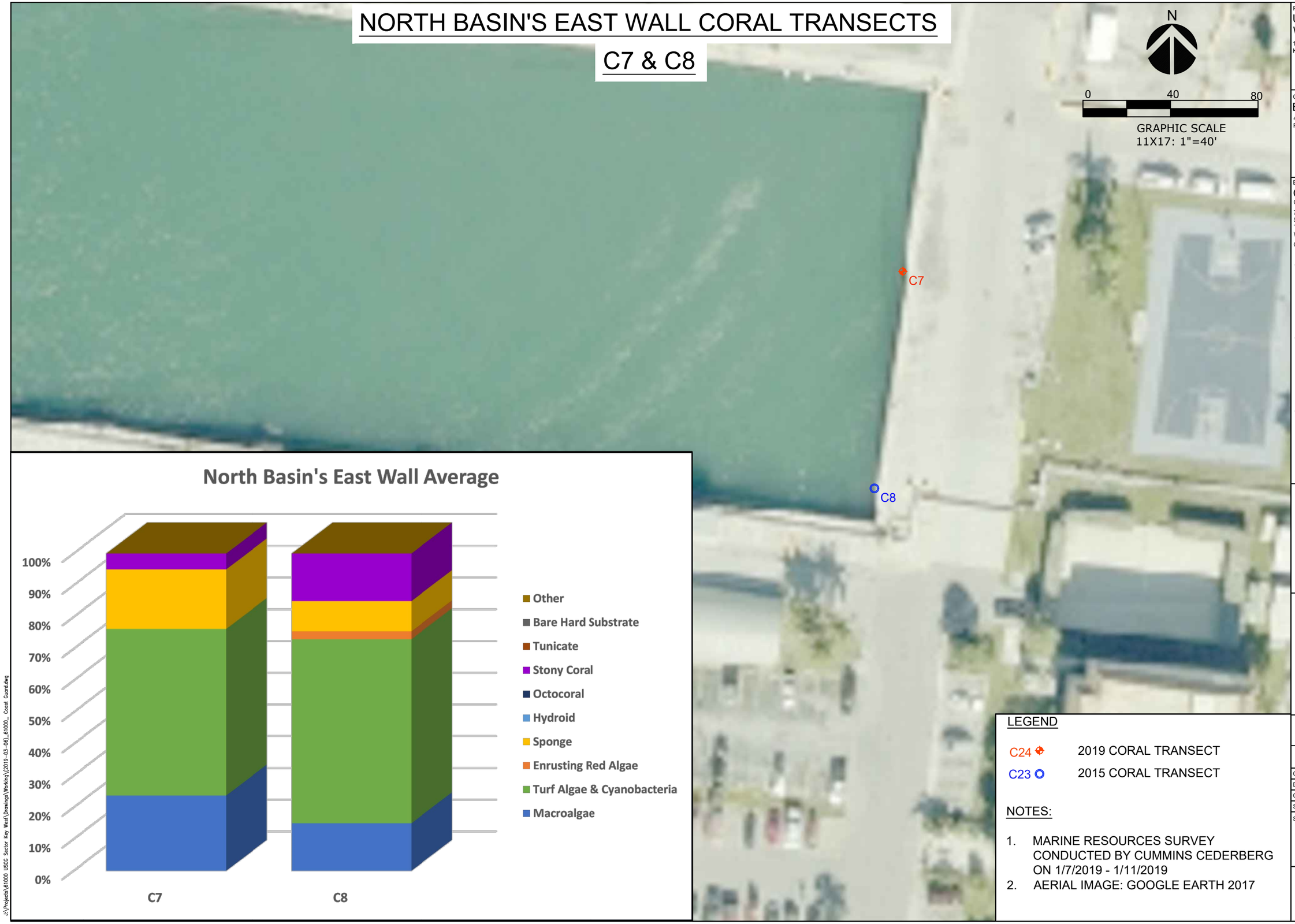
NORTH BASIN'S EAST WALL CORAL TRANSECTS

C7 & C8



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GRAPHIC SCALE
11X17: 1"=40'

LEGEND

C24 2019 CORAL TRANSECT

C23 2015 CORAL TRANSECT

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FIG-2.0

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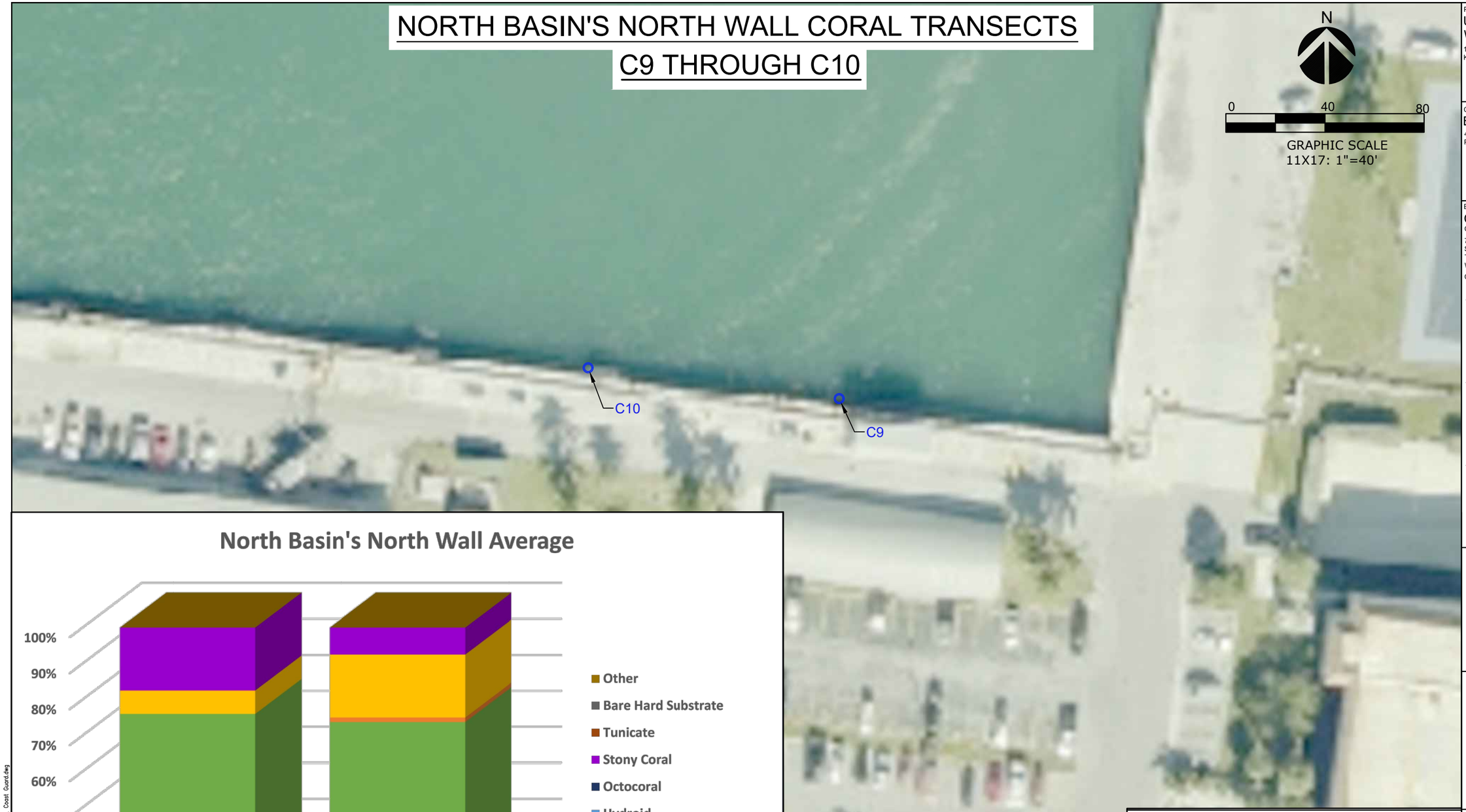
NORTH BASIN'S NORTH WALL CORAL TRANSECTS
C9 THROUGH C10



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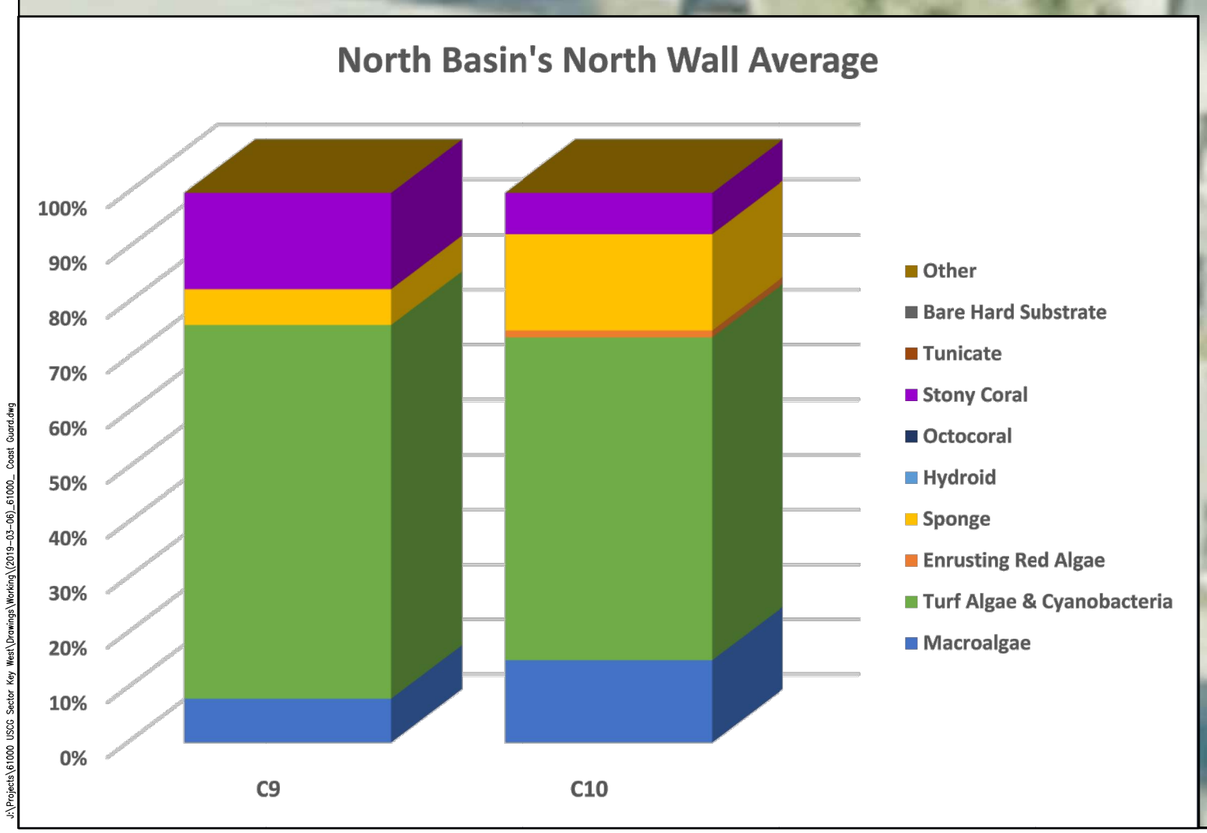
GRAPHIC SCALE
11X17: 1"=40'



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C24 2019 CORAL TRANSECT

C23 2015 CORAL TRANSECT

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FIG-3.0

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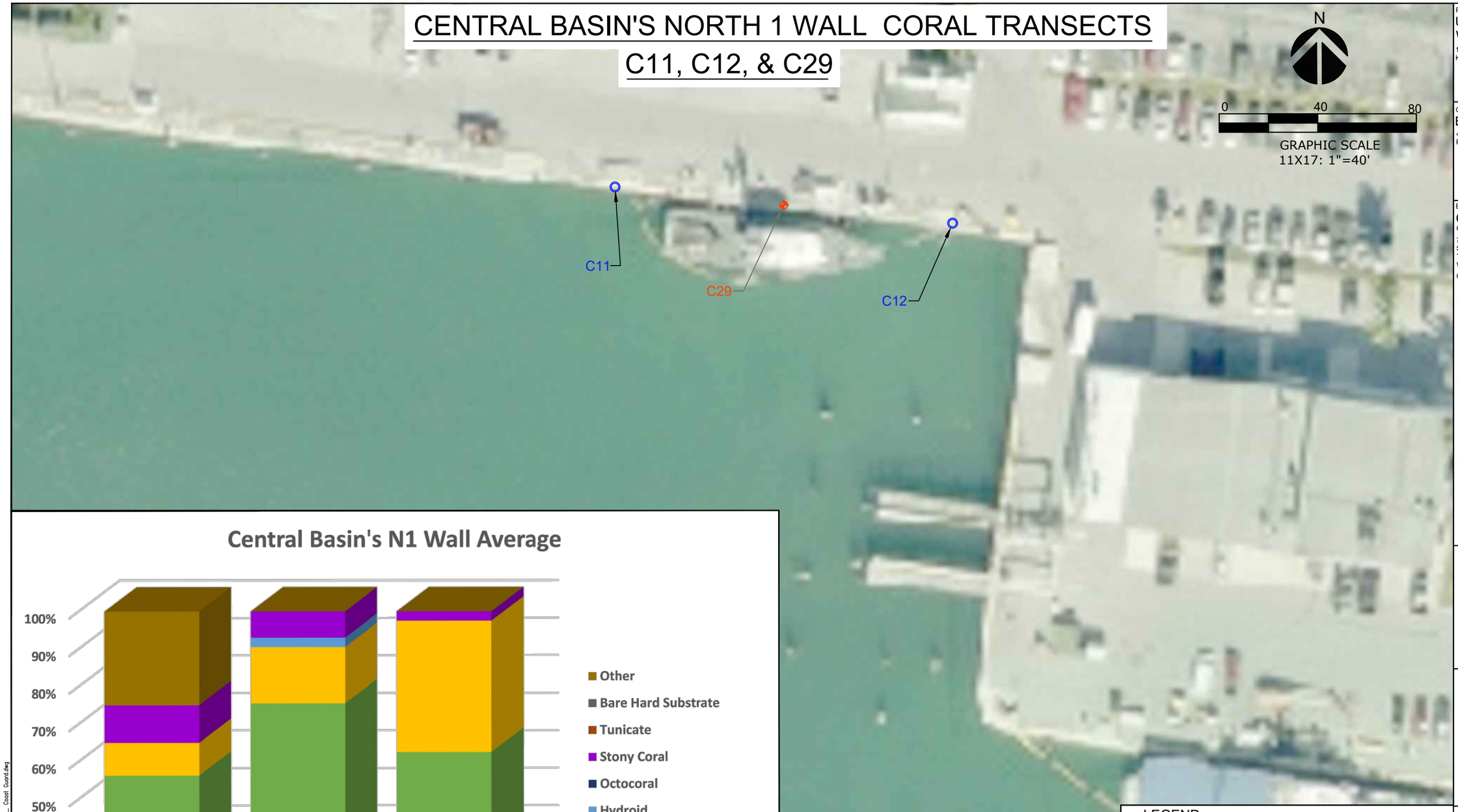
CENTRAL BASIN'S NORTH 1 WALL CORAL TRANSECTS

C11, C12, & C29



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GRAPHIC SCALE
11X17: 1"=40'

LEGEND

C24 2019 CORAL TRANSECT

C23 2015 CORAL TRANSECT

NOTES:

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FIG-4.0

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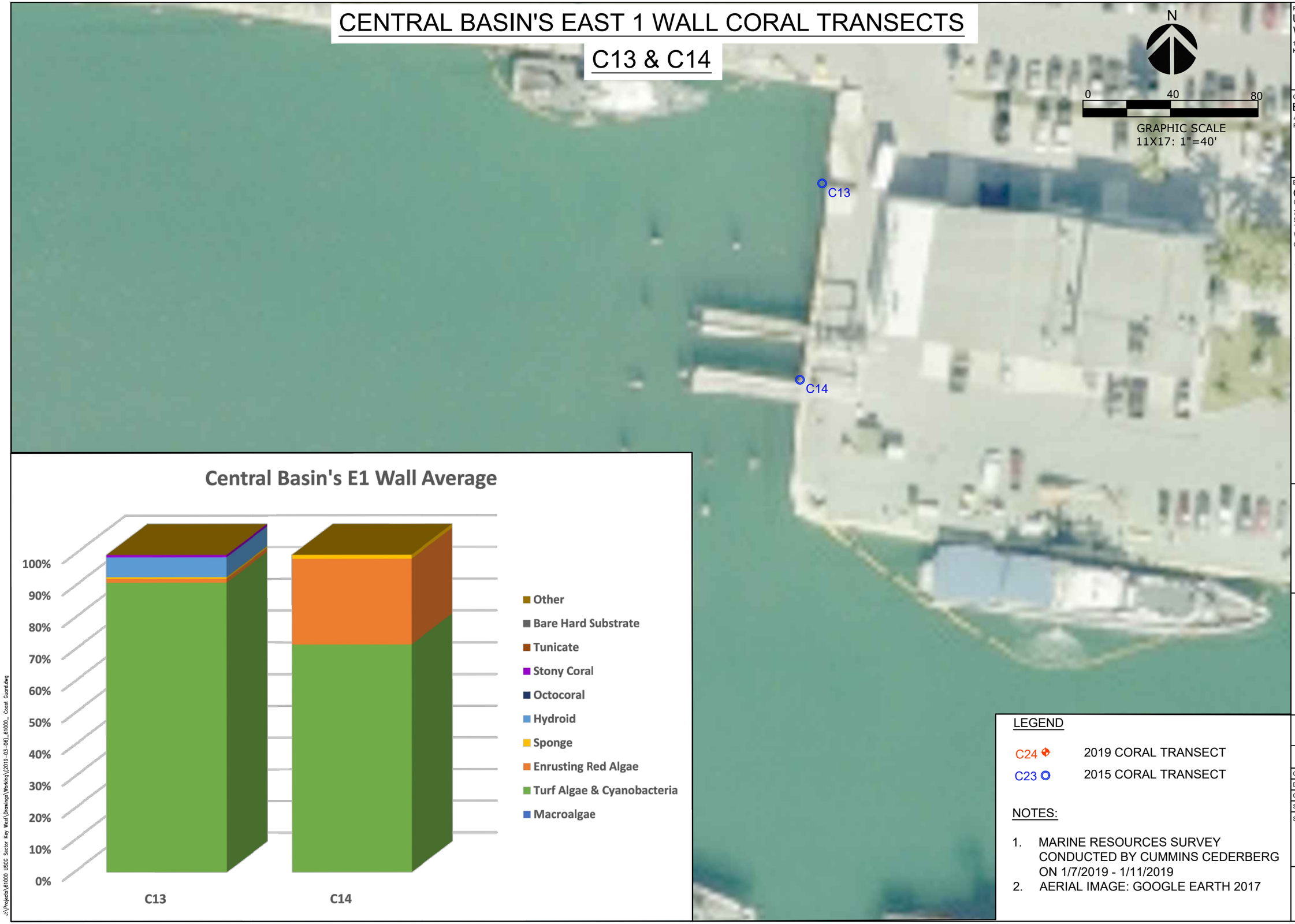
CENTRAL BASIN'S EAST 1 WALL CORAL TRANSECTS

C13 & C14



LEGEND

C24 2019 CORAL TRANSECT

C23 2015 CORAL TRANSECT

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FIG-5.0

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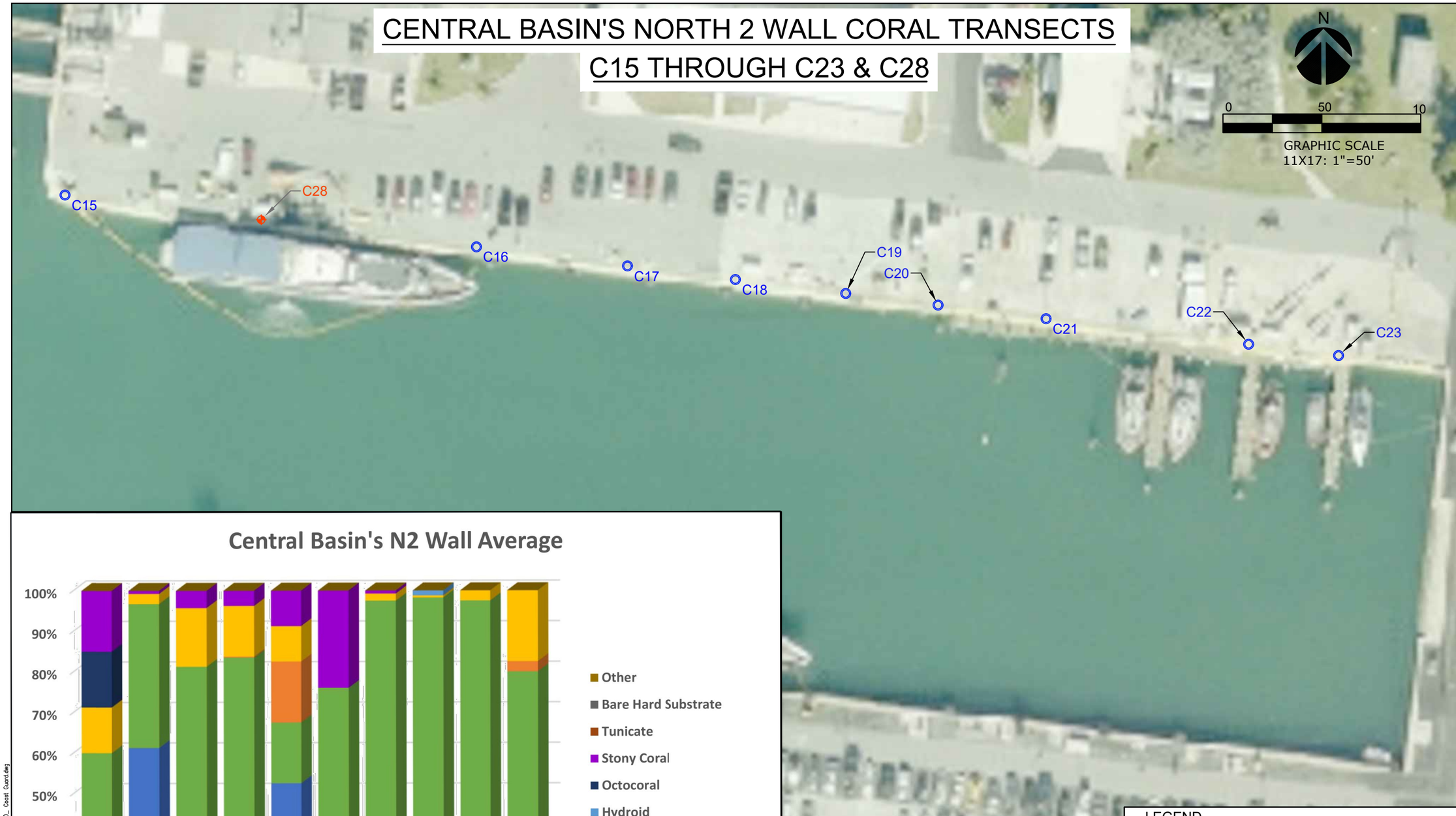
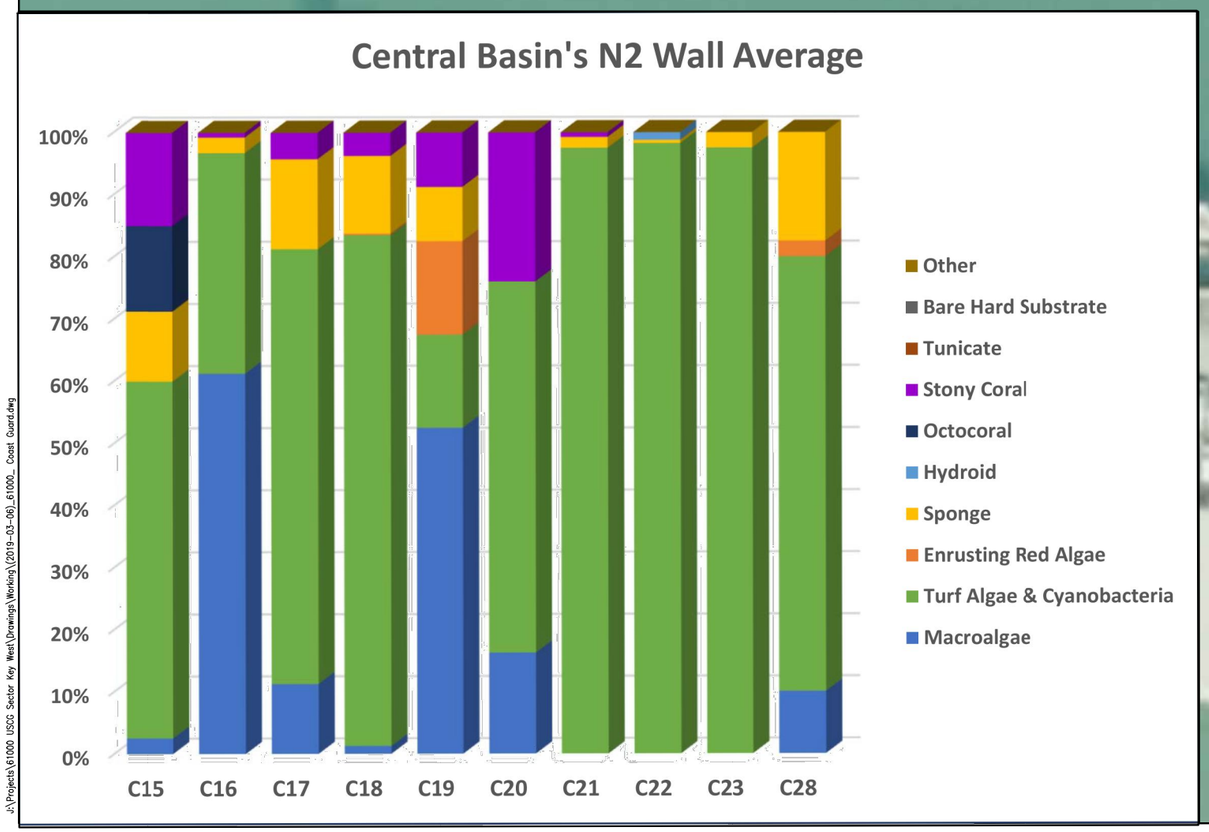
CENTRAL BASIN'S NORTH 2 WALL CORAL TRANSECTS
C15 THROUGH C23 & C28





LEGEND

C24 2019 CORAL TRANSECT

C23 2015 CORAL TRANSECT

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FIG-6.0

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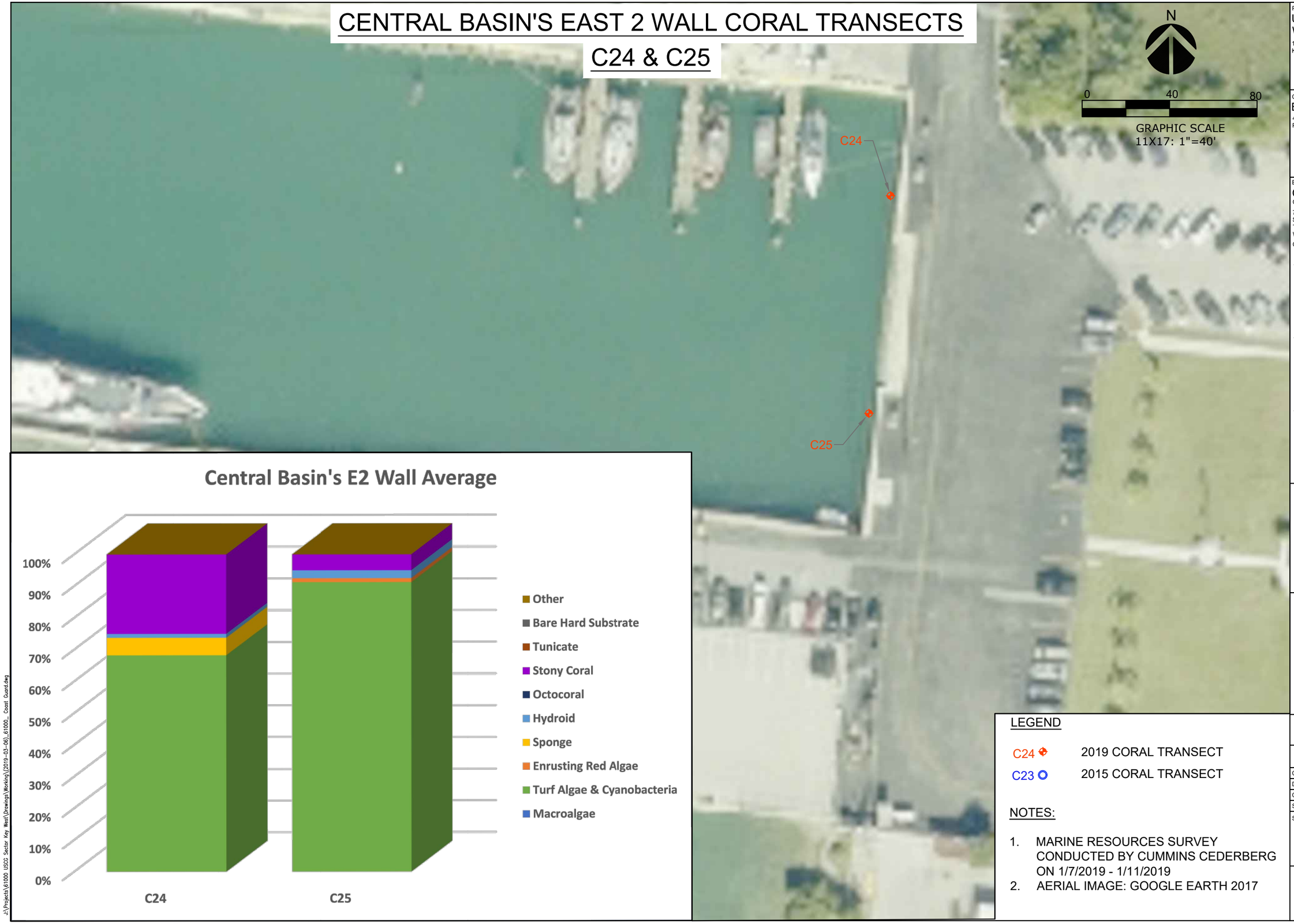
CENTRAL BASIN'S EAST 2 WALL CORAL TRANSECTS

C24 & C25



N

0 40 80

GRAPHIC SCALE
11X17: 1"=40'

LEGEND

C24 2019 CORAL TRANSECT

C23 2015 CORAL TRANSECT

NOTES:

1. MARINE RESOURCES SURVEY CONDUCTED BY CUMMINS CEDERBERG ON 1/7/2019 - 1/11/2019
2. AERIAL IMAGE: GOOGLE EARTH 2017

PROJECT
U.S.C.G. SECTOR KEY WEST
100 TRUMBO ROAD
KEY WEST, FL 33040

CLIENT
BergerABAM, Inc.
470 SOUTH ANDREWS AVENUE, SUITE 206
POMPANO BEACH, FL 33069

ENGINEER
CUMMINS CEDERBERG
COASTAL & MARINE ENGINEERING
7550 RED ROAD, SUITE 217
SOUTH MIAMI, FLORIDA 33143
TEL: +1 305 741-6155 FAX: +1 305-974-1969
WWW.CUMMINSCEDERBERG.COM
COA # 29062

ISSUE	DATE	SUBMISSION / REVISION

CC PROJECT NO.	61000
DRAWN	JDR
CHECKED	GC
SCALE	AS SHOWN

SHEET TITLE
MARINE RESOURCES BASE MAP

FIG-7.0

J:\Projects\61000_USCG_Sector_Key_West\Drawings\Working\(2019-03-06)_61000_ Coast Guard.dwg

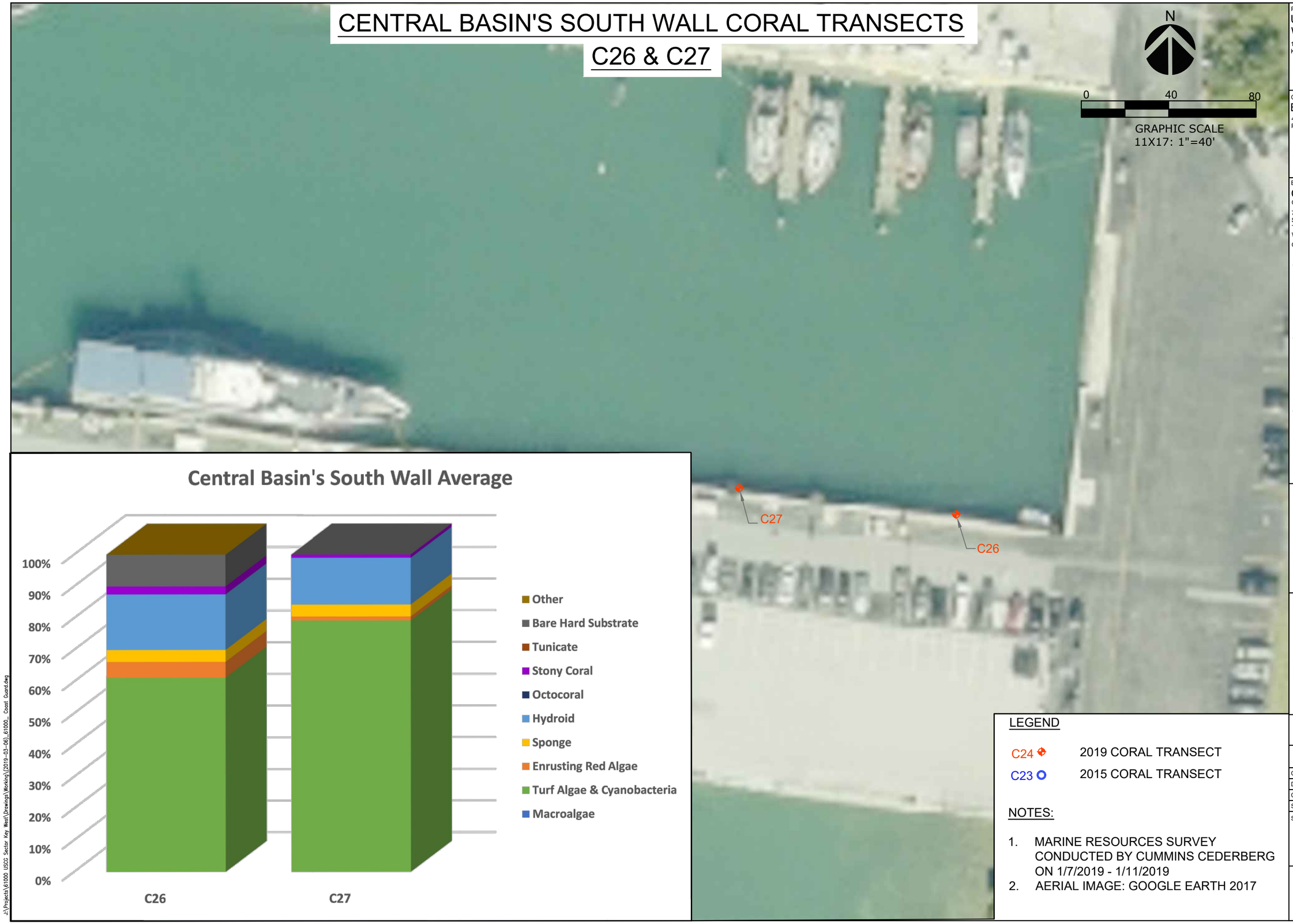
CENTRAL BASIN'S SOUTH WALL CORAL TRANSECTS

C26 & C27

N

0 40 80

GRAPHIC SCALE
11X17: 1"=40'



LEGEND

C24 2019 CORAL TRANSECT

C23 2015 CORAL TRANSECT

NOTES:

1. MARINE RESOURCES SURVEY CONDUCTED BY CUMMINS CEDERBERG ON 1/7/2019 - 1/11/2019
2. AERIAL IMAGE: GOOGLE EARTH 2017

PROJECT
U.S.C.G. SECTOR KEY WEST
100 TRUMBO ROAD
KEY WEST, FL 33040

CLIENT
BergerABAM, Inc.
470 SOUTH ANDREWS AVENUE, SUITE 206
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COA # 29062

ISSUE	DATE	SUBMISSION / REVISION

CC PROJECT NO.	61000
DRAWN	JDR
CHECKED	GC
SCALE	AS SHOWN

SHEET TITLE
MARINE RESOURCES BASE MAP

FIG-8.0

J:\Projects\61000 USCG Sector Key West\Drawings\Working\(2019--03--06)_61000_ Coast Guard.dwg

APPENDIX B

SEAGRASS TRANSECT PHOTOS

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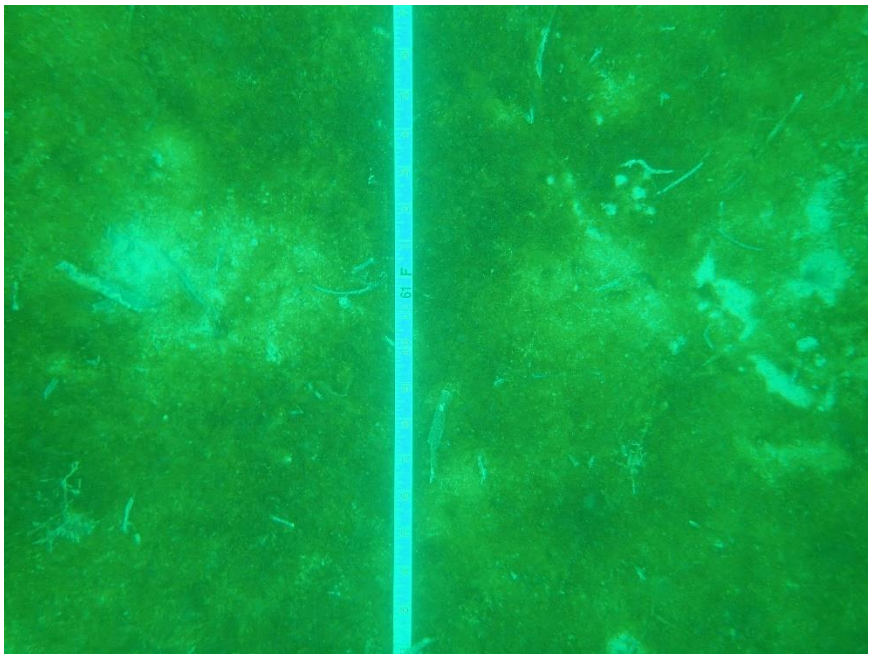
Appendix B-1. Photo of Cummins Cederberg diver navigating via compass during seagrass transects.

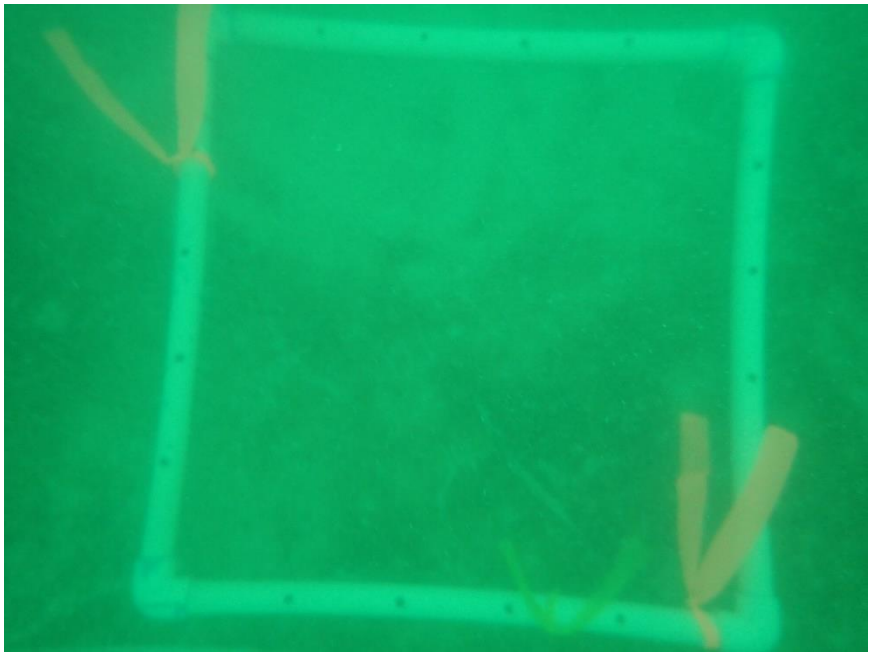
Appendix B-2. Example of cyanobacteria layer on the basin floor with loose seagrass (*T. testudinum*) blades.

Appendix B-3. Burrowed hole along a seagrass transect.

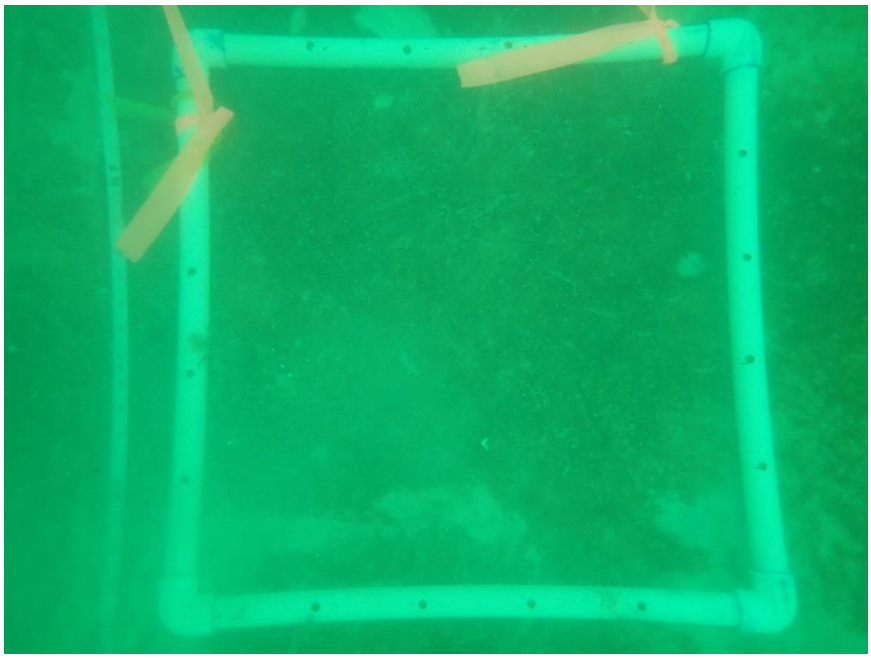


Appendix B-4. Example of submerged substrate in Transect B8 in the North Basin.

Appendix B-5. Man-made debris along the base of the seawall at the start of a seagrass transect.

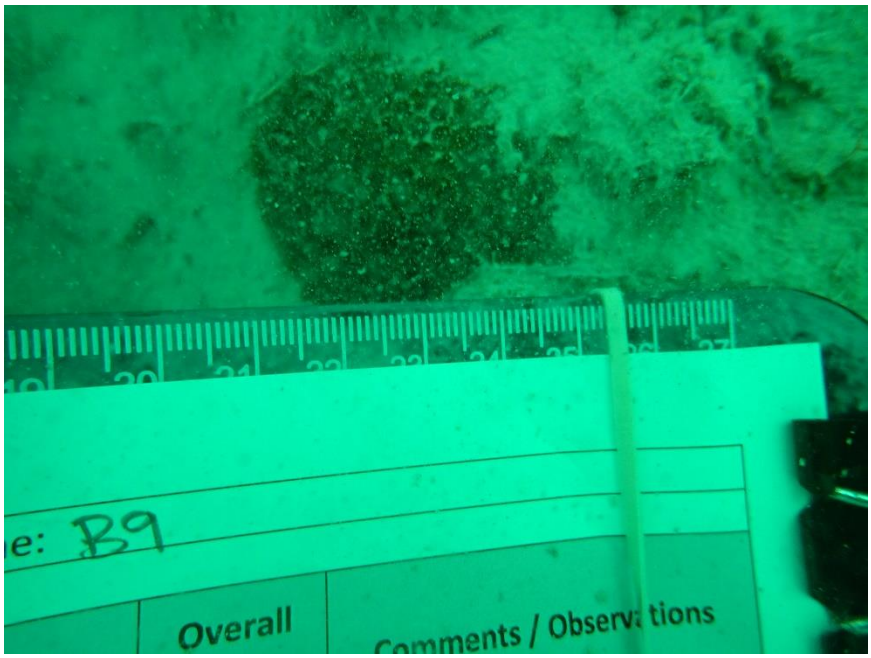


Appendix B-6. Quadrat placed at 17 ft. from the start of Transect B7.

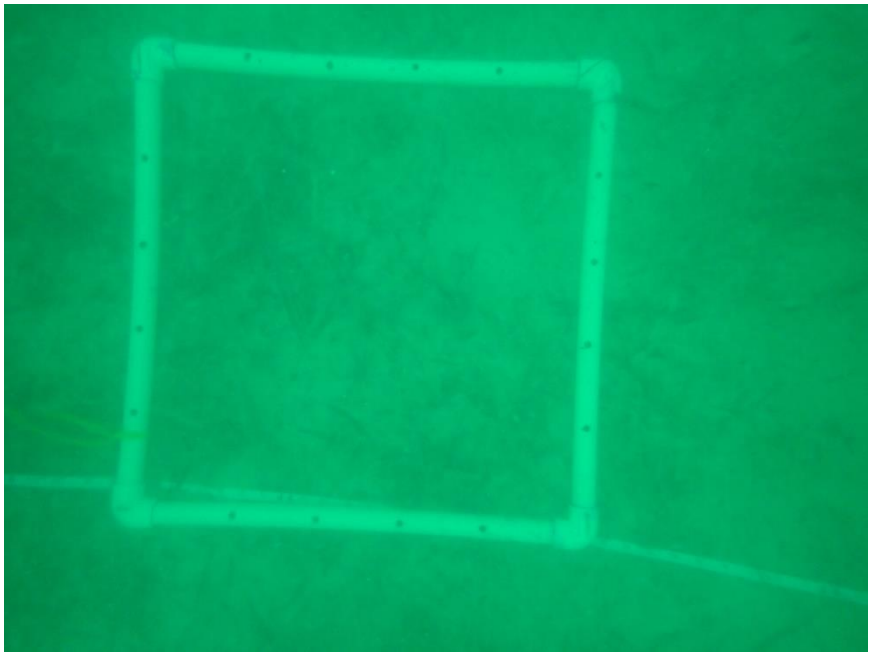


Appendix B-7. Quadrat placed at 93 ft. from the start of Transect B7.

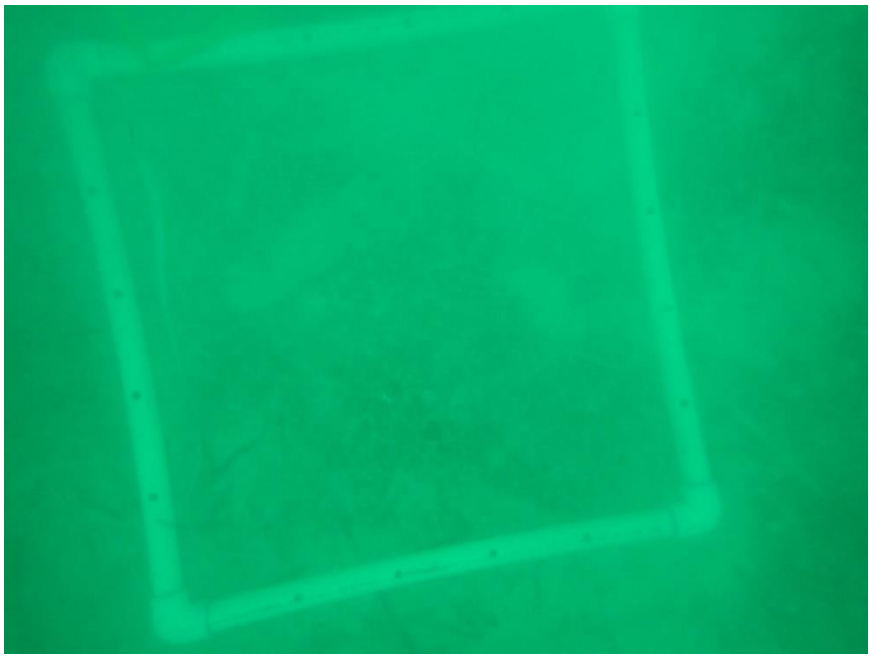
Appendix B-8. Accumulation of various loose seagrass blades at the start of Transect B7 along the seawall in the North Basin.



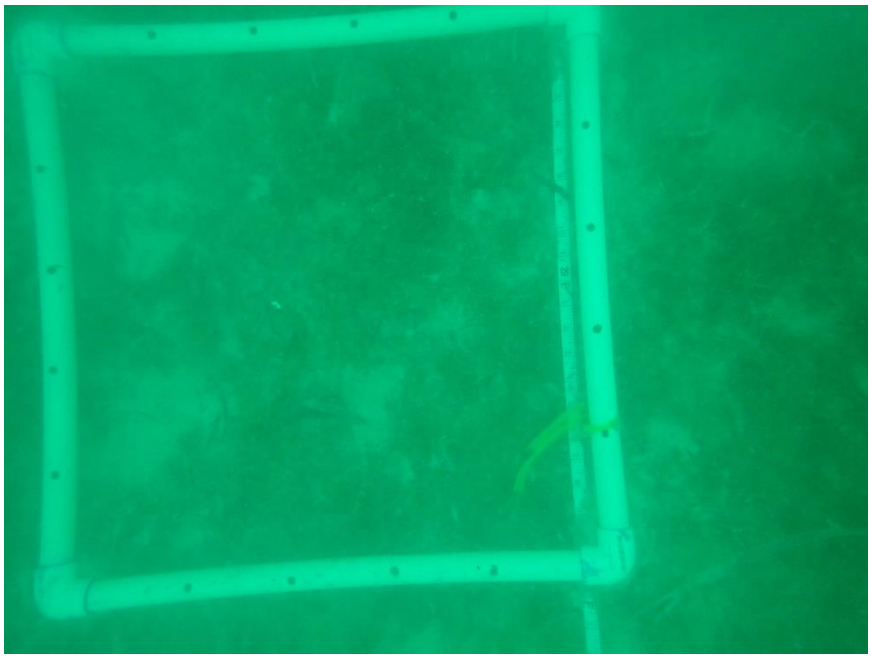
Appendix B-9. Small colony of *Siderastrea radians* on the toe wall at the beginning of Transect B9.



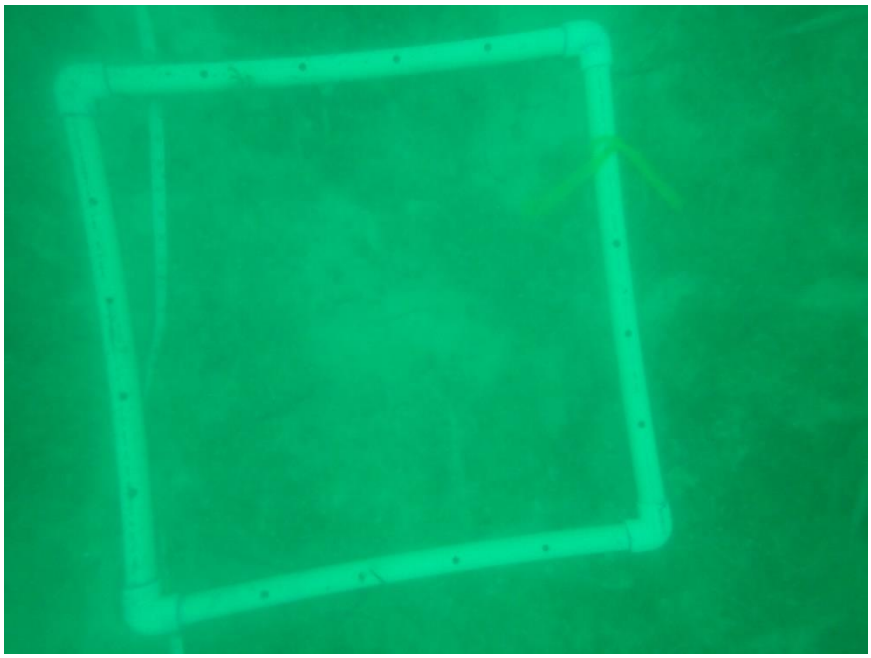
Appendix B-10. Quadrat placed at 8 ft. from the start of Transect B9.



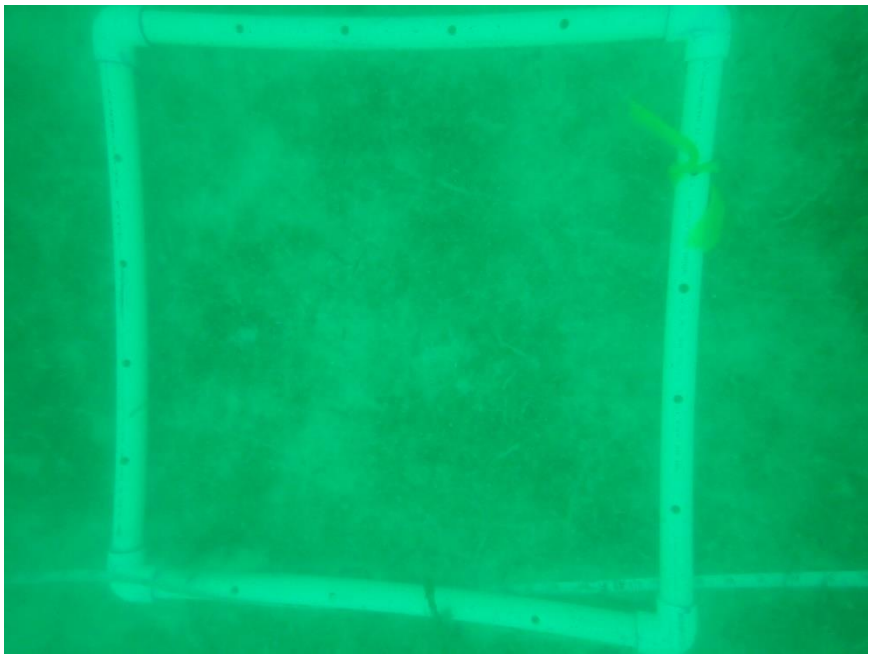
Appendix B-11. Quadrat placed at 20 ft. from the start of Transect B9.



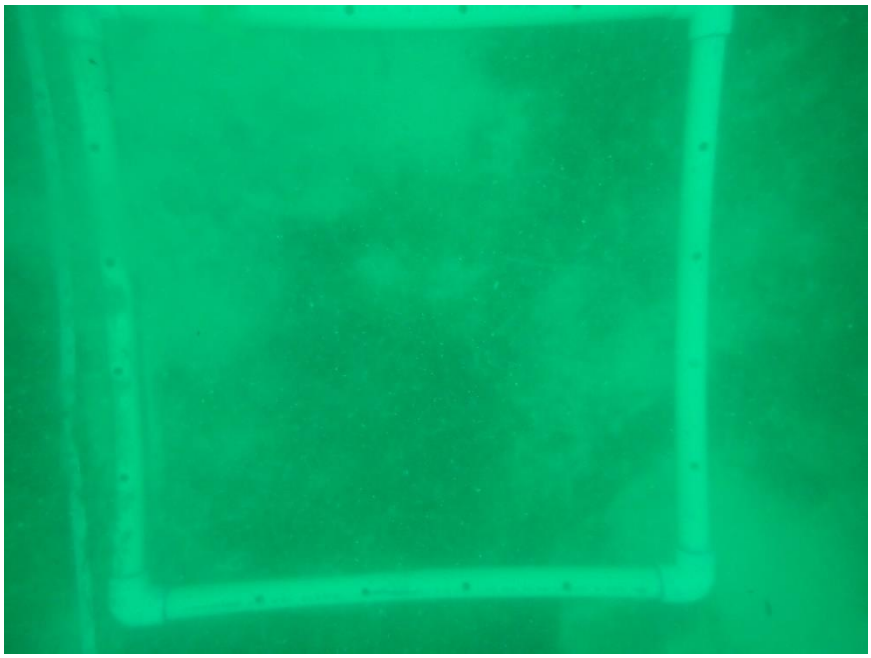
Appendix B-12. Quadrat placed at 29 ft. from the start of Transect B9.



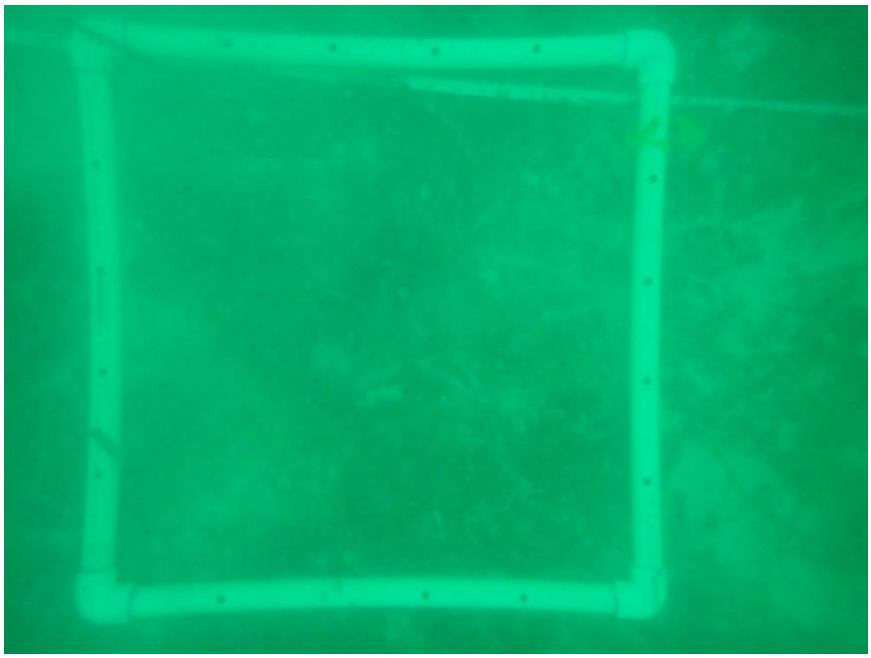
Appendix B-13. Quadrat placed at 37 ft. from the start of Transect B9.



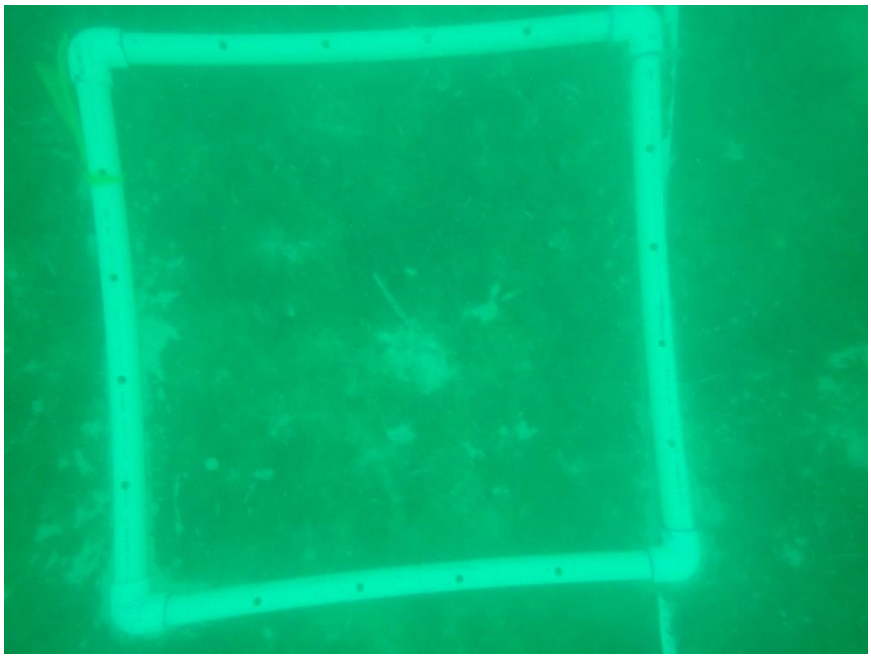
Appendix B-14. Quadrat placed at 42 ft. from the start of Transect B9.



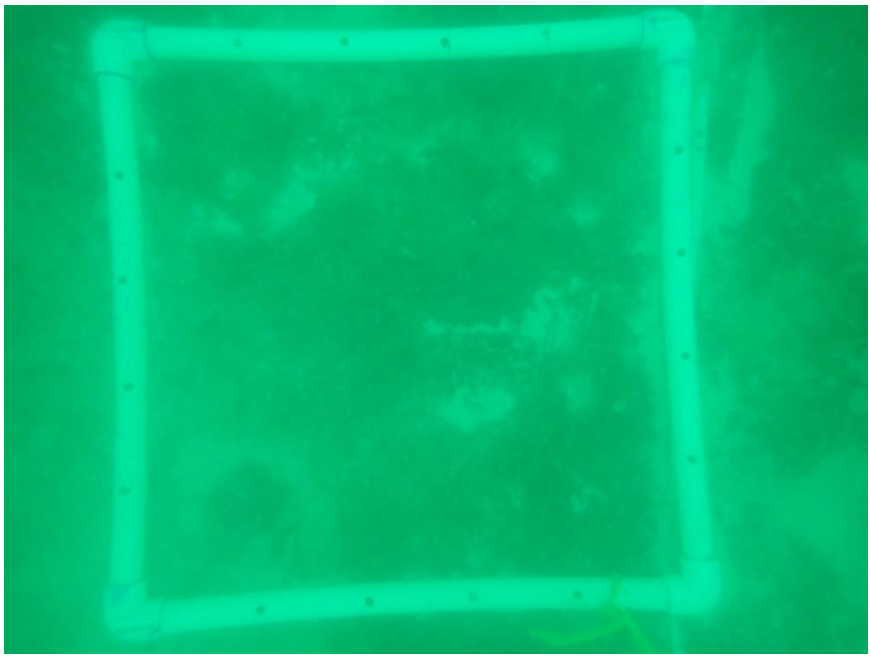
Appendix B-15. Quadrat placed at 50 ft. from the start of Transect B9.



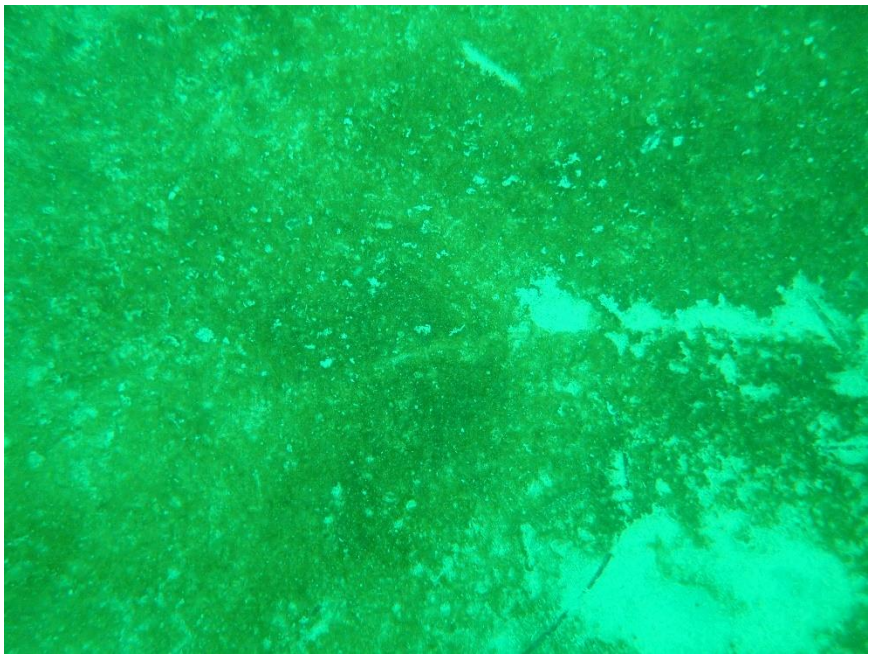
Appendix B-16. Quadrat placed at 56 ft. from the start of Transect B9.



Appendix B-17. Quadrat placed at 76 ft. from the start of Transect B9.

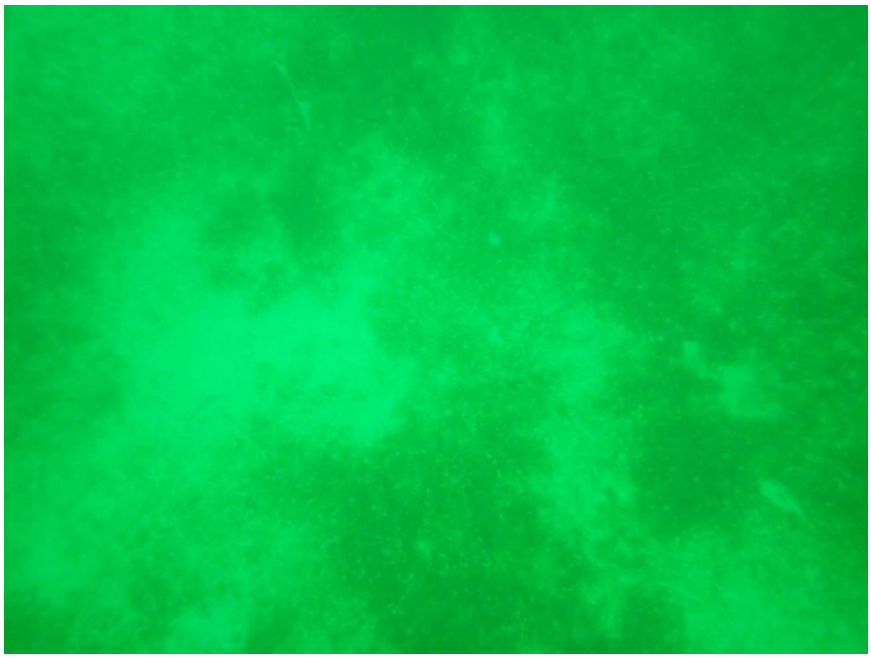


Appendix B-18. Quadrat placed at 97 ft. from the start of Transect B9.

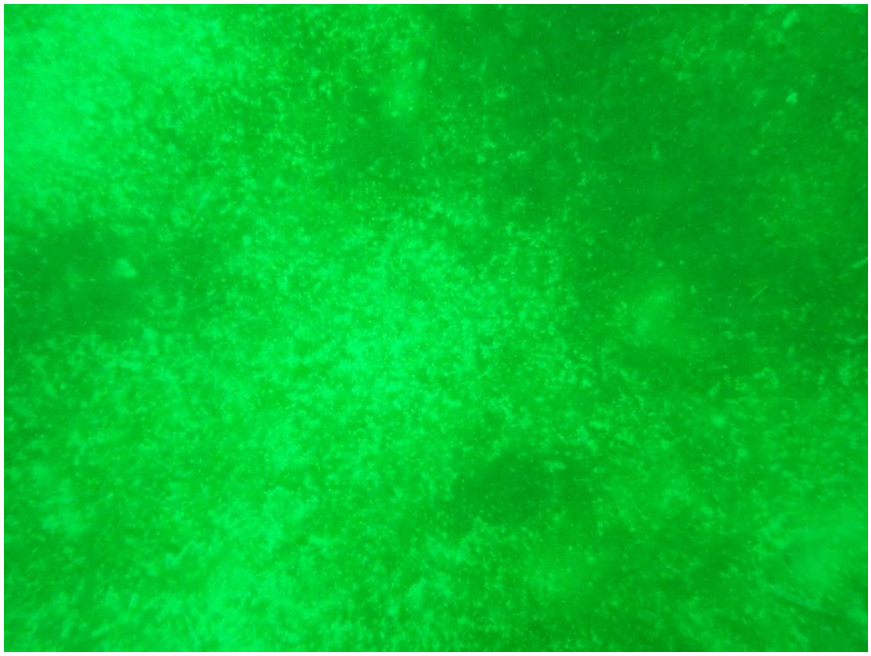


Appendix B-19. Layer of cyanobacteria on the submerged substrate in Transect B9, consistent throughout the North Basin.

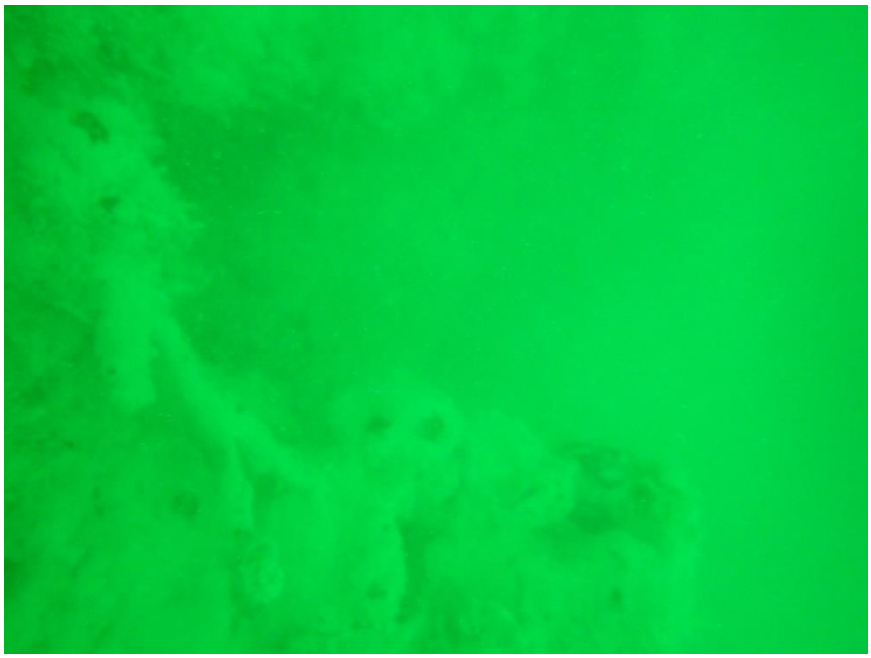
Appendix B-20. View of limited visibility mid-water column while following the marker buoy line down during Transect B21 in the Central Basin.



Appendix B-21. Patchy cyanobacteria layer documented during Transect B21 in the Central Basin.



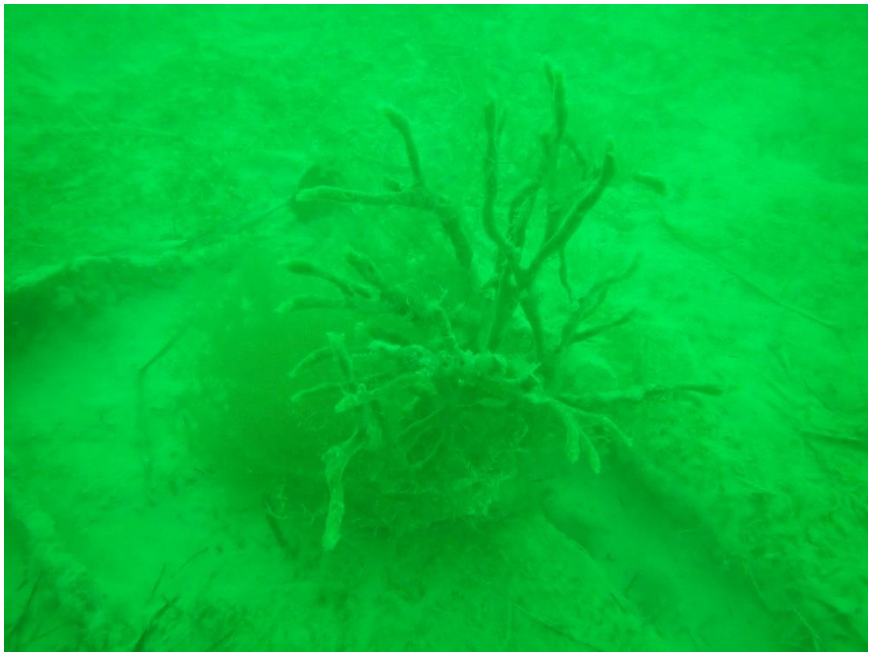
Appendix B-22. Patchy cyanobacteria layer documented during Transect B23 in the Central Basin.



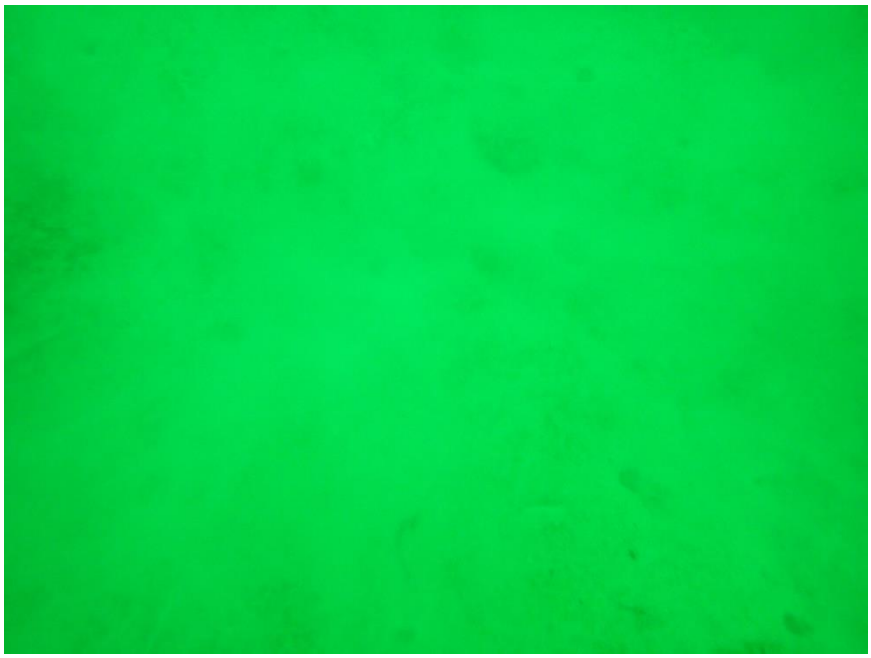
Appendix B-23. Silt-covered sponge at the beginning of Transect B23 along the seawall in the Central Basin.

Appendix B-24. Abandoned crab trap at the beginning of Transect B23 along the seawall in the Central Basin.

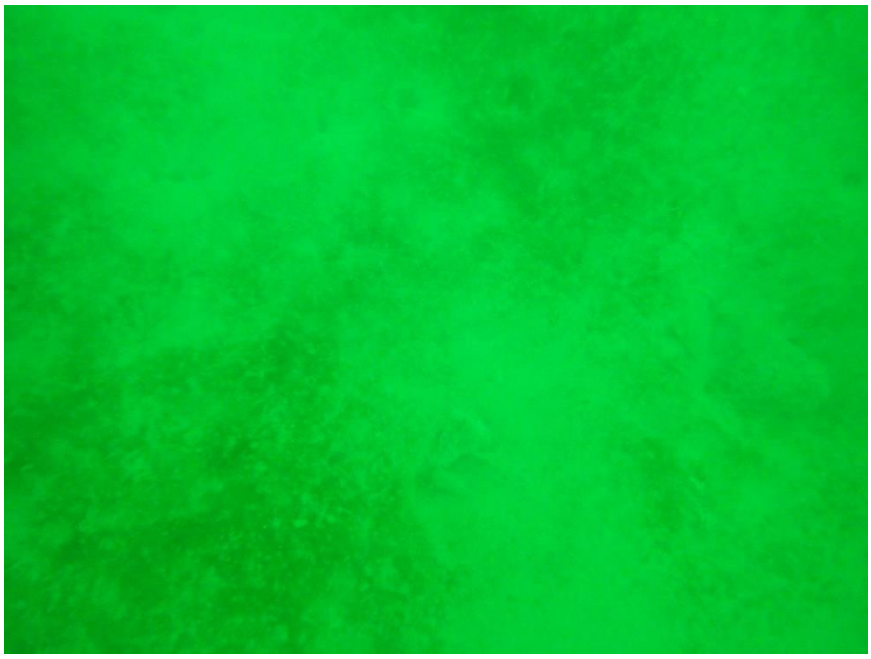
Appendix B-25. Submerged substrate in Transect B13 in the Central Basin.



Appendix B-26. Sponge along Transect B13 in the Central Basin.

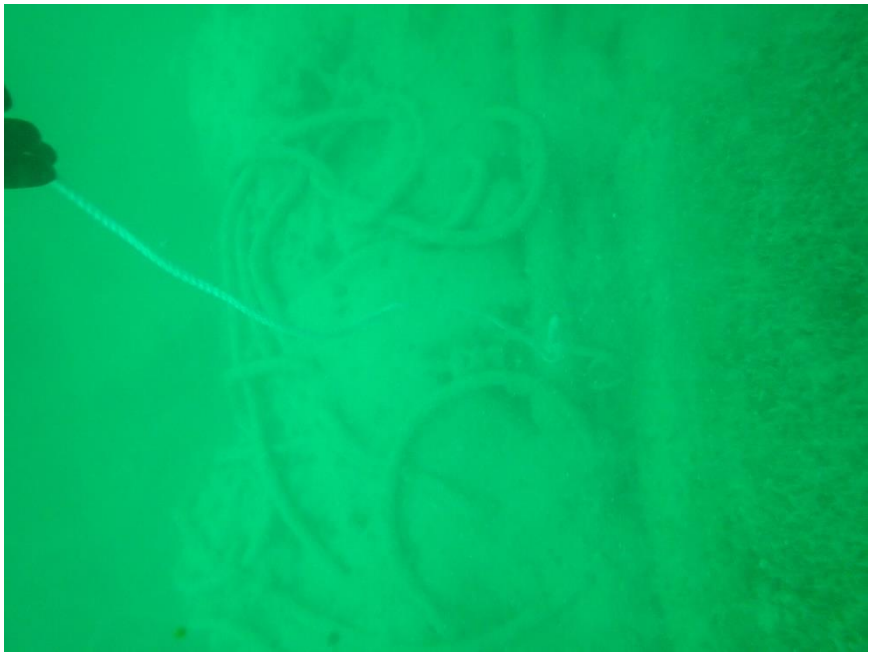


Appendix B-27. Bare substrate along Transect B16 in the Central Basin.



Appendix B-28. Sparse cyanobacteria patches and detritus along Transect B16 in the Central Basin.

Appendix B-29. Sheepshead (*Archosargus probatocephalis*) spotted at the beginning of Transect B16 in the Central Basin.



Appendix B-30. Rope debris at the beginning of Transect B16 in the Central Basin.

Appendix B-31. USCG Cutter, Charles David Jr., that was present along the N2 wall, at Berth 7, in the Central Basin during surveying. Transects B18 and B19 were not conducted under the vessel.

APPENDIX C

CORAL QUADRAT PHOTOS

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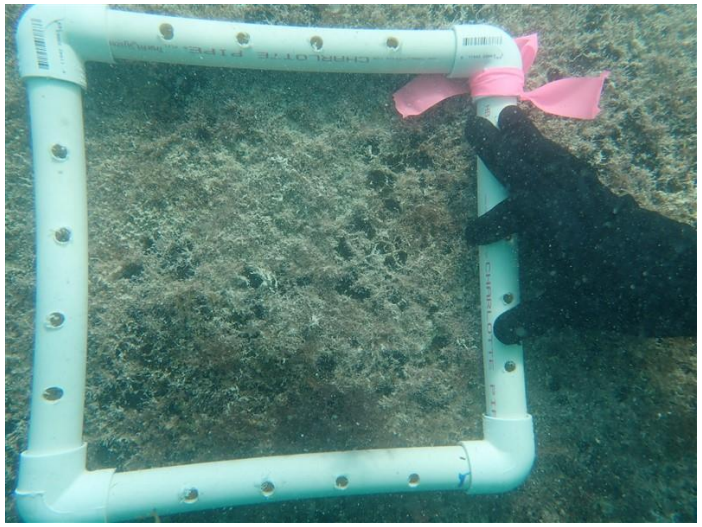
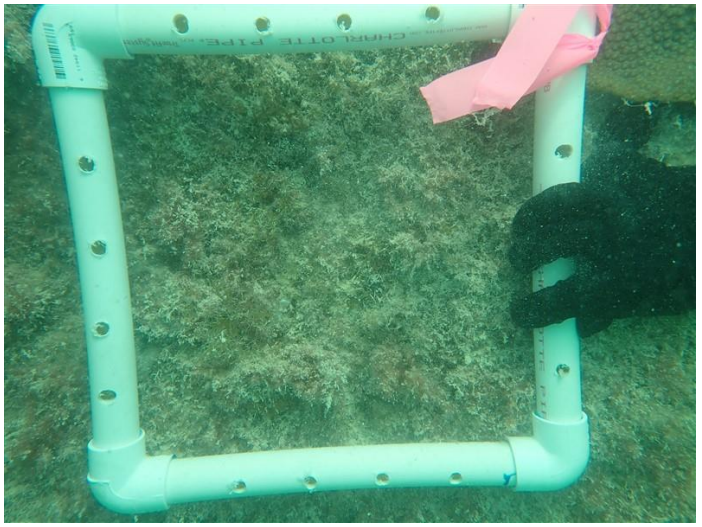
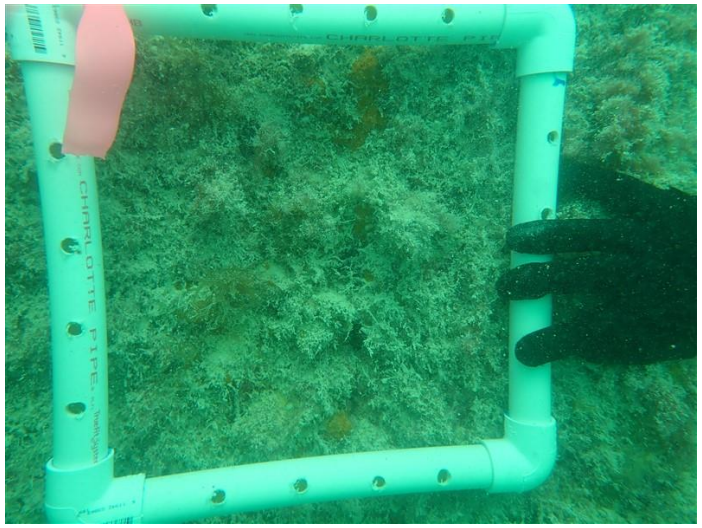
Coastal & Marine Engineering



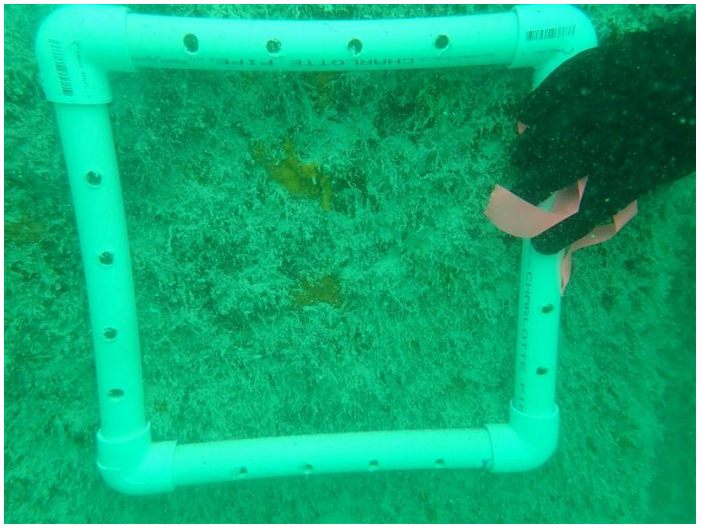
Appendix C-1a. North Basin North Wall Transect C1 at 5 ft.



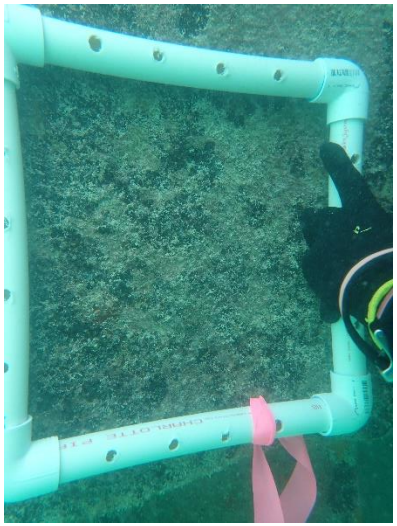
Appendix C-1b. North Basin North Wall Transect C1 at 10 ft.



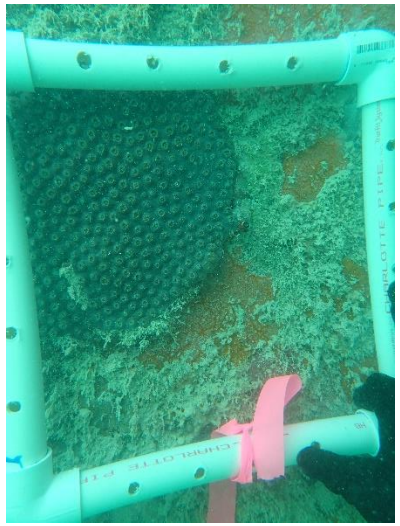
Appendix C-1c. North Basin North Wall Transect C1 at 15 ft.



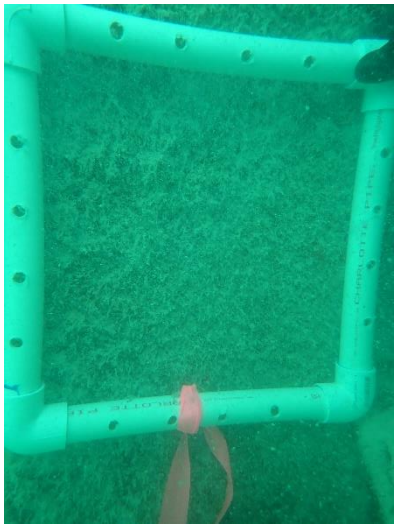
Appendix C-1d. North Basin North Wall Transect C1 at 20 ft.



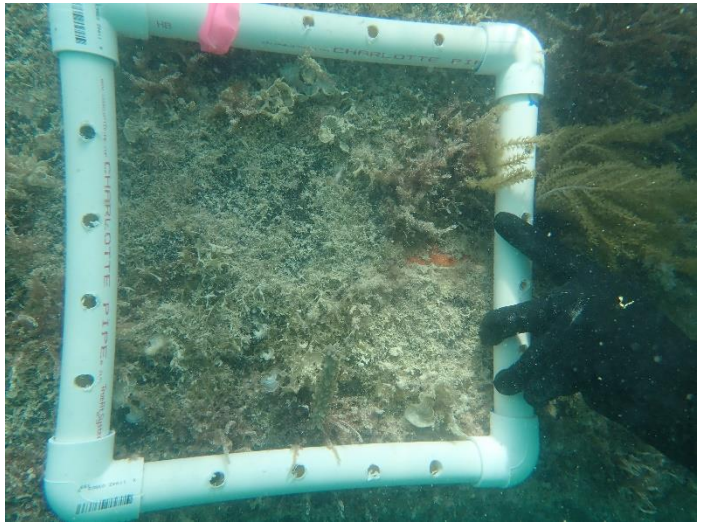
Appendix C-2a. North Basin North Wall Transect C2 at 5 ft.



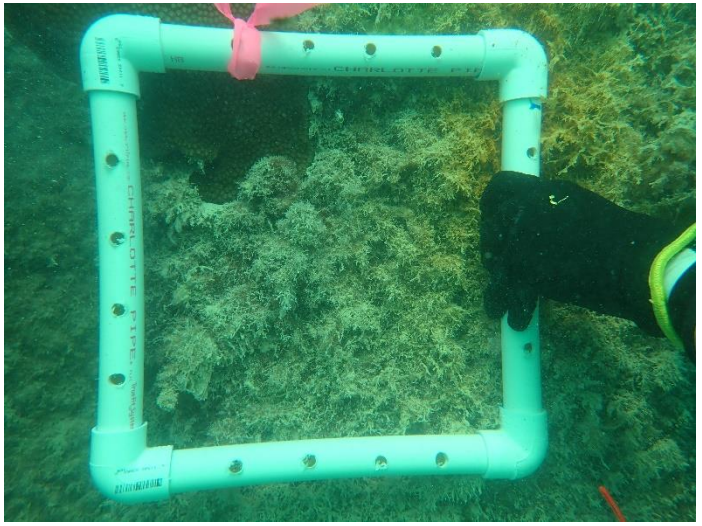
Appendix C-2b. North Basin North Wall Transect C2 at 10 ft.



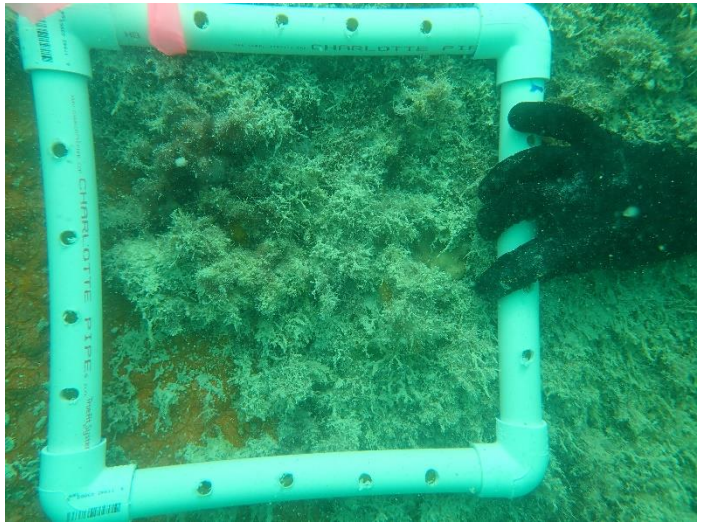
Appendix C-2c. North Basin North Wall Transect C2 at 15 ft.



Appendix C-3a. North Basin North Wall Transect C3 at 5 ft.

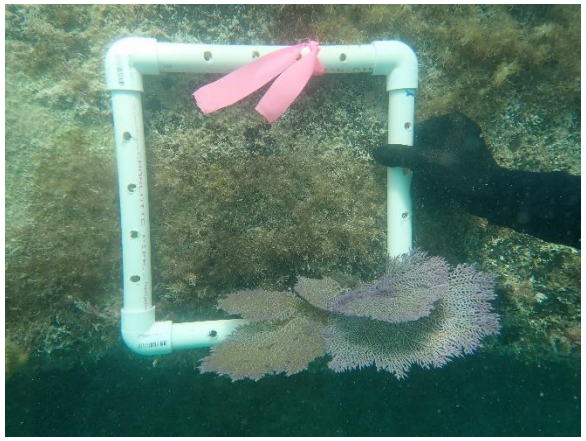


Appendix C-3b. North Basin North Wall Transect C3 at 10 ft.

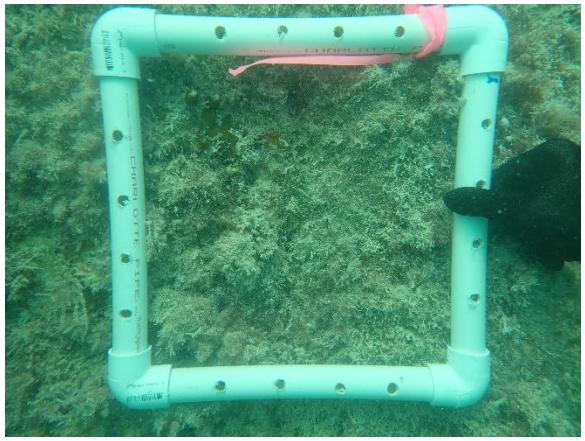


Appendix C-3c. North Basin North Wall Transect C3 at 15 ft.

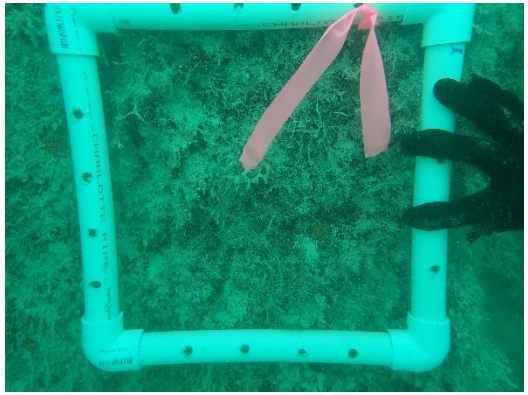
Appendix C-3d. North Basin North Wall Transect C3 at 20 ft.



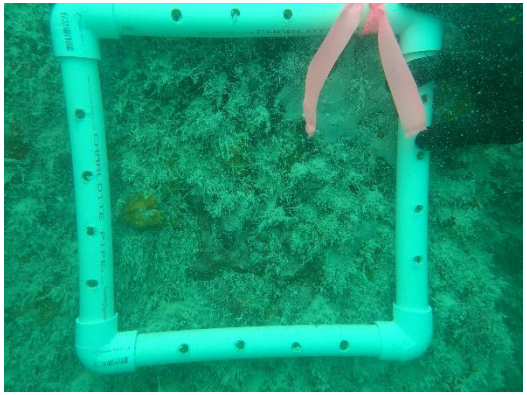
Appendix C-4a. North Basin North Wall Transect C4 at 5 ft.



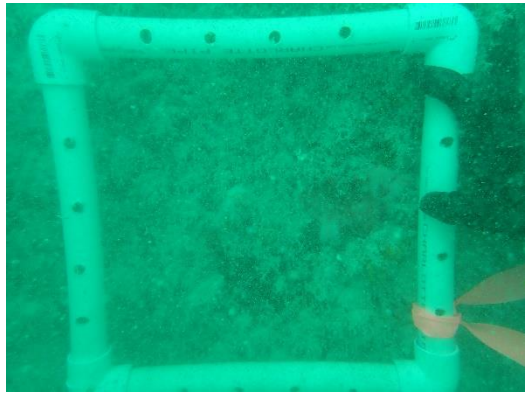
Appendix C-4b. North Basin North Wall Transect C4 at 10 ft.



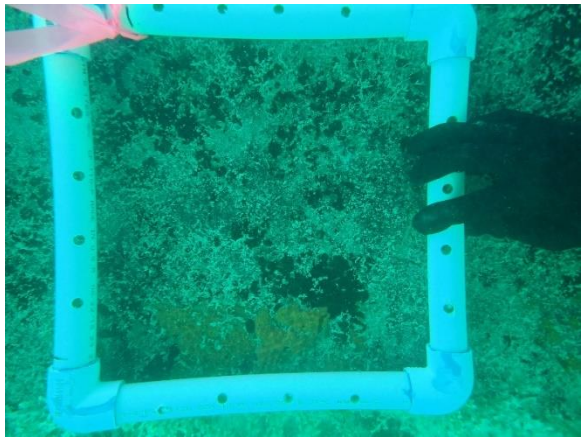
Appendix C-4c. North Basin North Wall Transect C4 at 15 ft.



Appendix C-4d. North Basin North Wall Transect C4 at 20 ft.

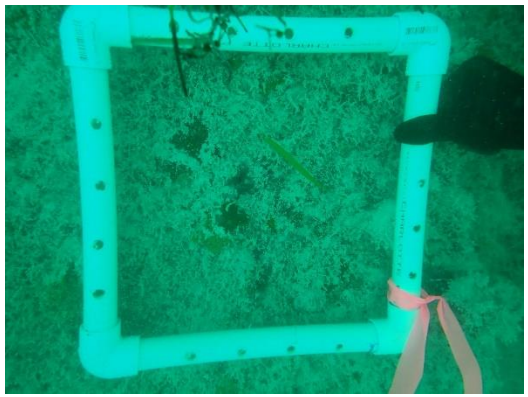


Appendix C-4e. North Basin North Wall Transect C4 at 25 ft.

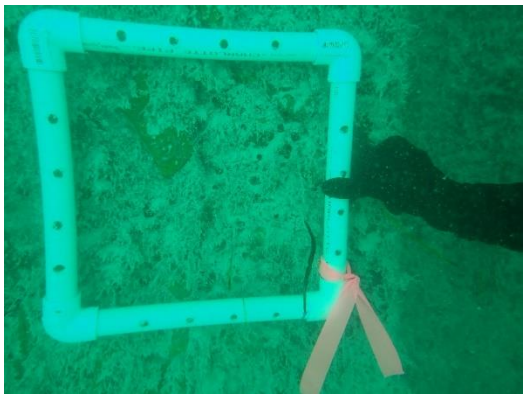


Appendix C-5a. North Basin North Wall Transect C5 at 5 ft.

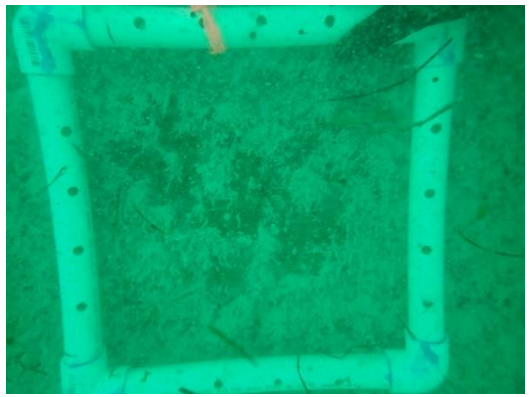
Appendix C-5b. North Basin North Wall Transect C5 at 10 ft.



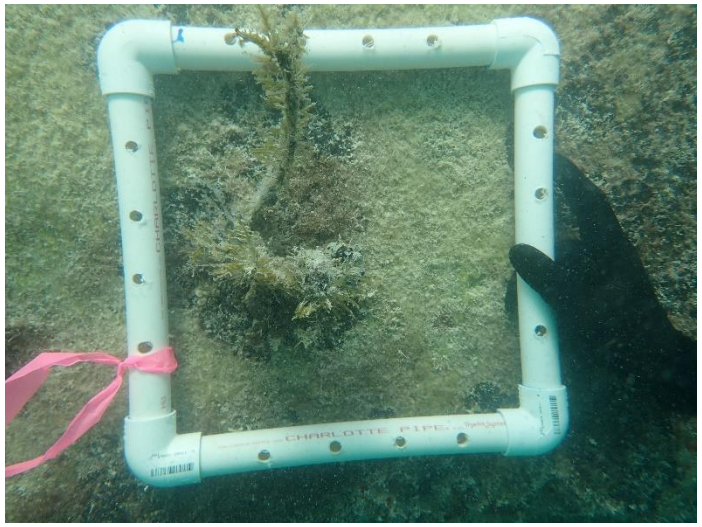
Appendix C-5c. North Basin North Wall Transect C5 at 15 ft.



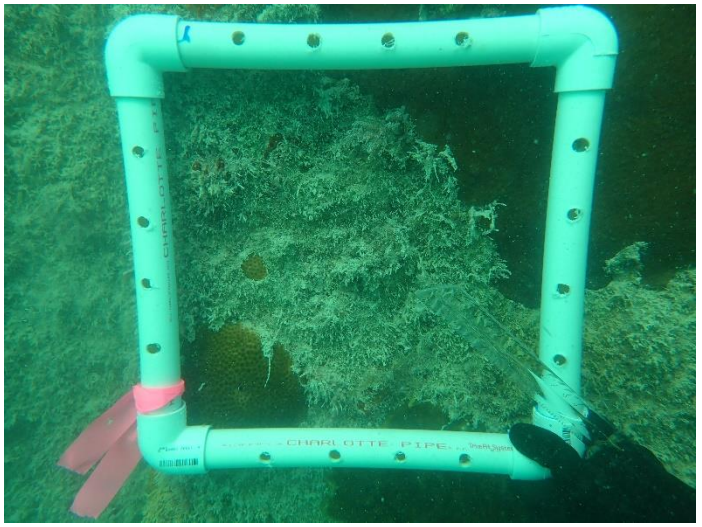
Appendix C-5d. North Basin North Wall Transect C5 at 20 ft.



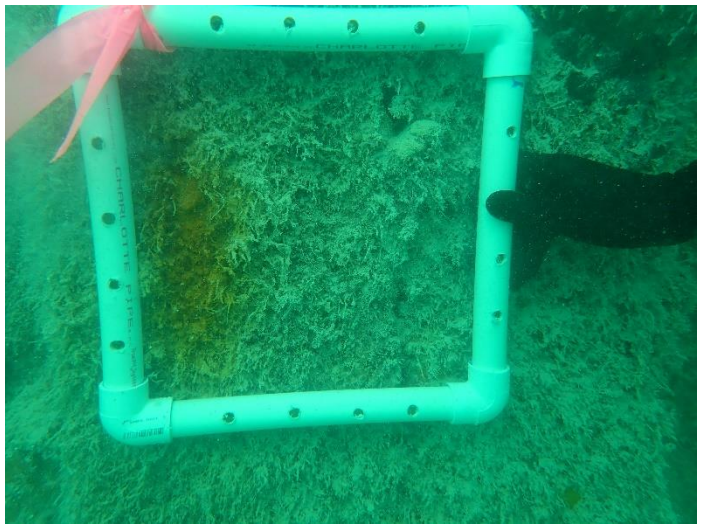
Appendix C-5e. North Basin North Wall Transect C5 at 25 ft.



Appendix C-6a. North Basin North Wall Transect C6 at 5 ft.

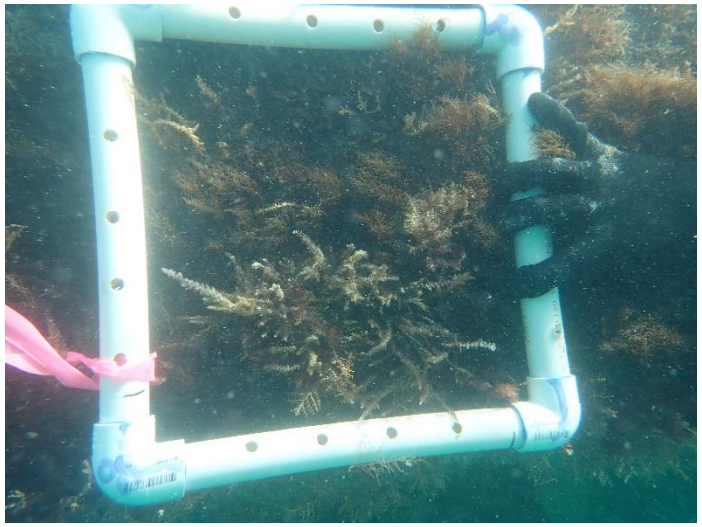


Appendix C-6b. North Basin North Wall Transect C6 at 10 ft.

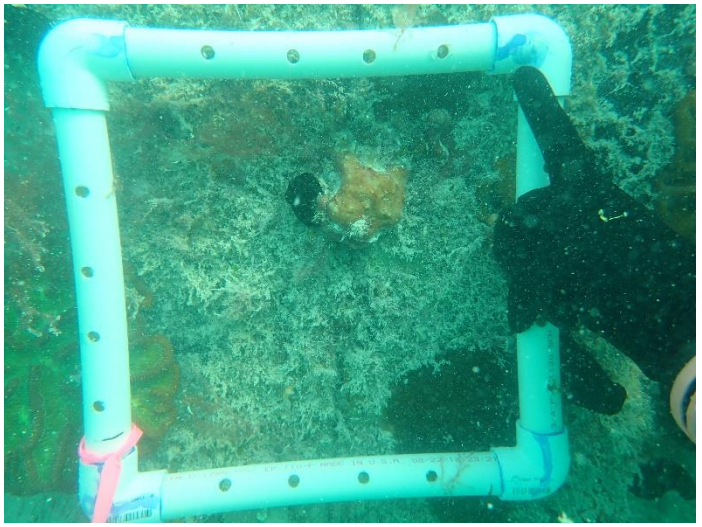


Appendix C-6c. North Basin North Wall Transect C6 at 15 ft.

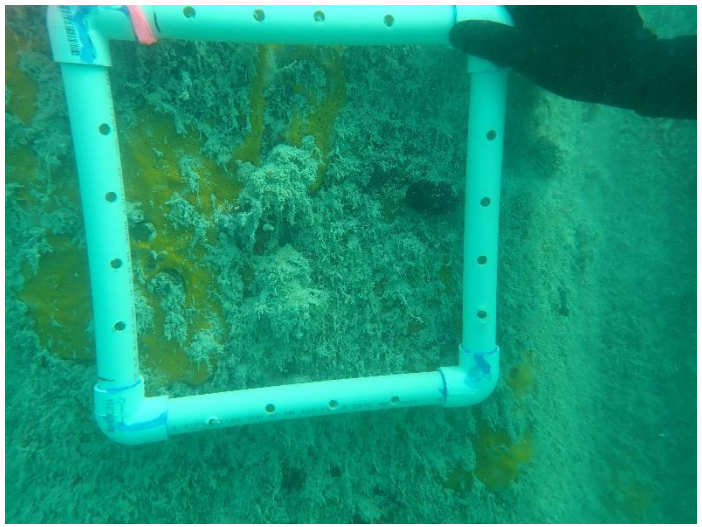
Appendix C-6d. North Basin North Wall Transect C6 at 20 ft.



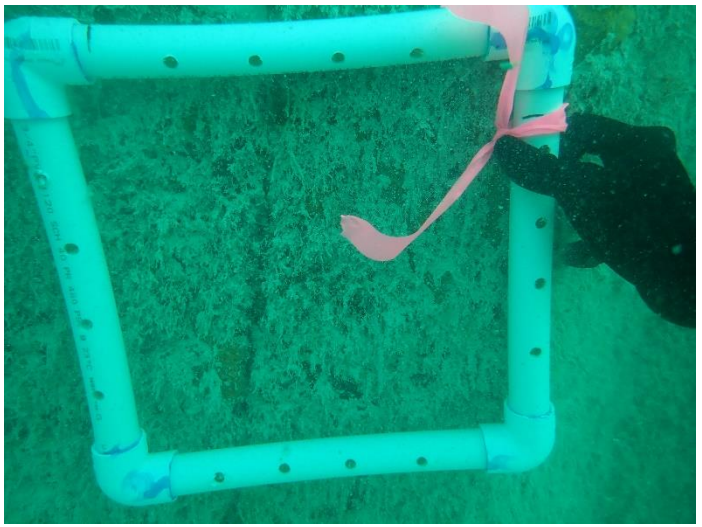
Appendix C-7a. North Basin East Wall Transect C7 at 5 ft.



Appendix C-7b. North Basin East Wall Transect C7 at 10 ft.



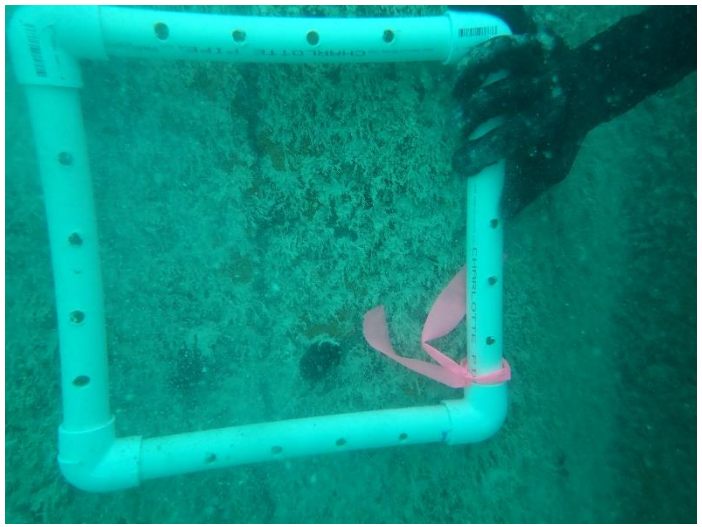
Appendix C-7c. North Basin East Wall Transect C7 at 15 ft.



Appendix C-7d. North Basin East Wall Transect C7 at 20 ft.

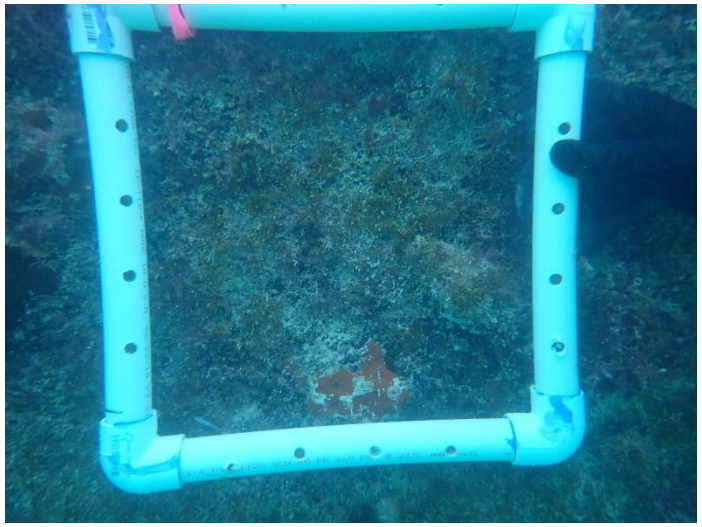
Appendix C-8a. North Basin East Wall Transect C8 at 5 ft.

Appendix C-8b. North Basin East Wall Transect C8 at 10 ft.

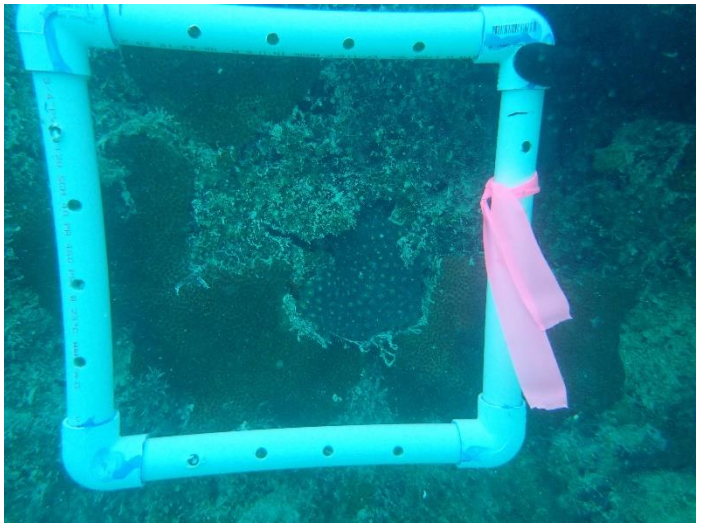


Appendix C-8c. North Basin East Wall Transect C8 at 15 ft.

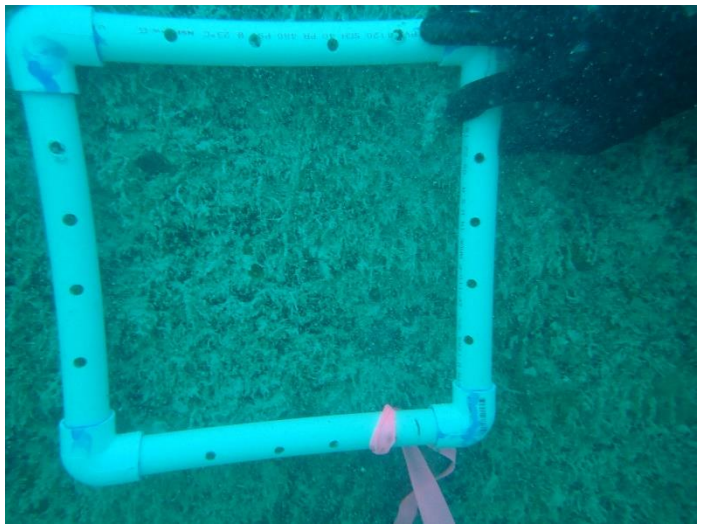
Appendix C-8d. North Basin East Wall Transect C8 at 20 ft.



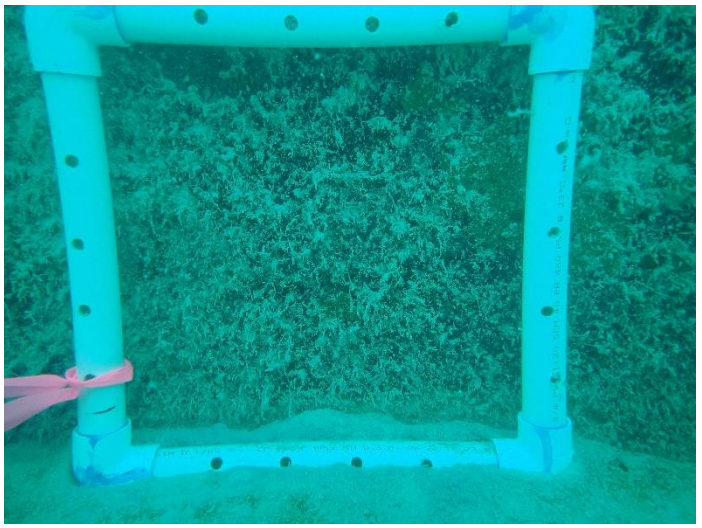
Appendix C-9a. North Basin South Wall Transect C9 at 5 ft.



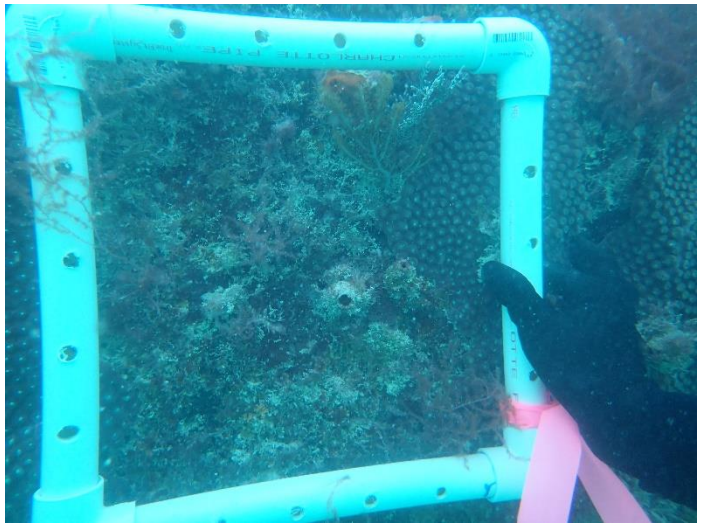
Appendix C-9b. North Basin South Wall Transect C9 at 10 ft.



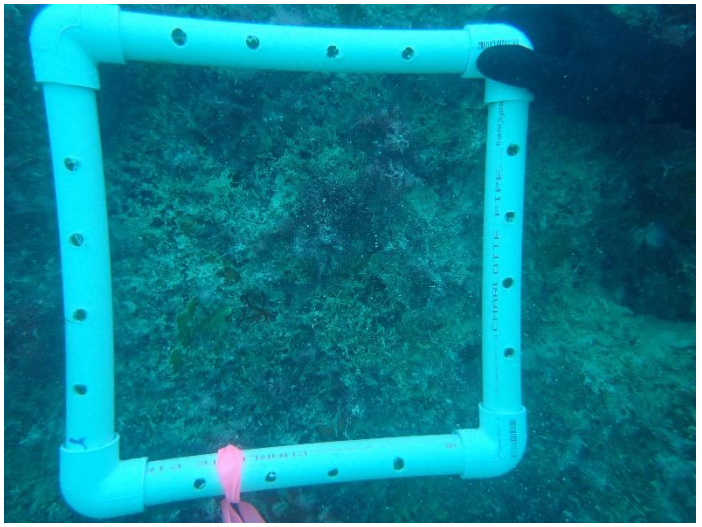
Appendix C-9c. North Basin South Wall Transect C9 at 15 ft.



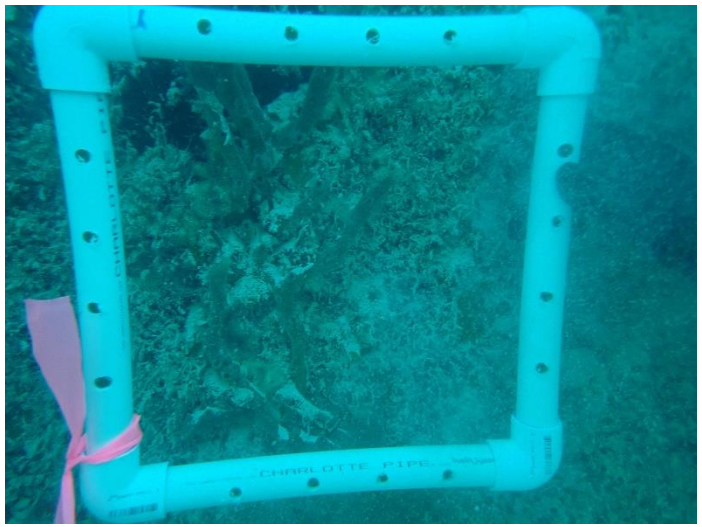
Appendix C-9d. North Basin South Wall Transect C9 at 20 ft.



Appendix C-10a. North Basin South Wall Transect C10 at 5 ft.

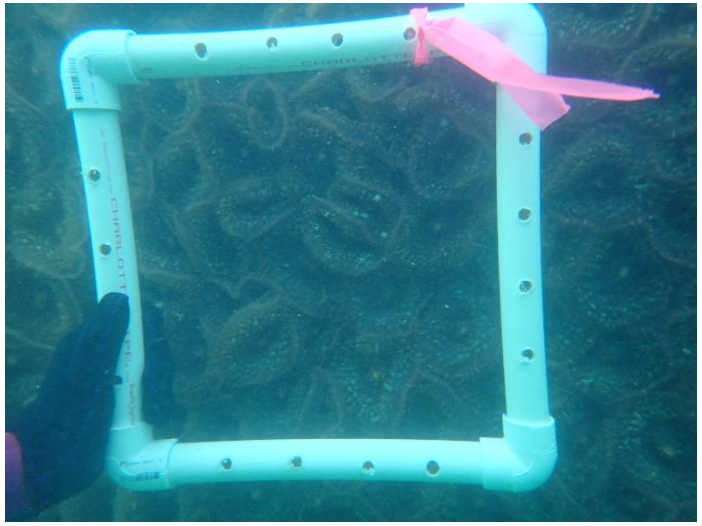


Appendix C-10b. North Basin South Wall Transect C10 at 10 ft.



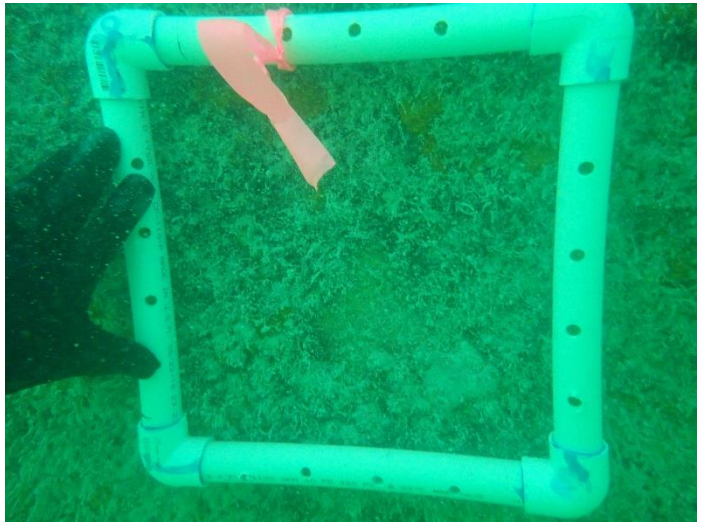
Appendix C-10c. North Basin South Wall Transect C10 at 15 ft.

Appendix C-10d. North Basin South Wall Transect C10 at 20 ft.

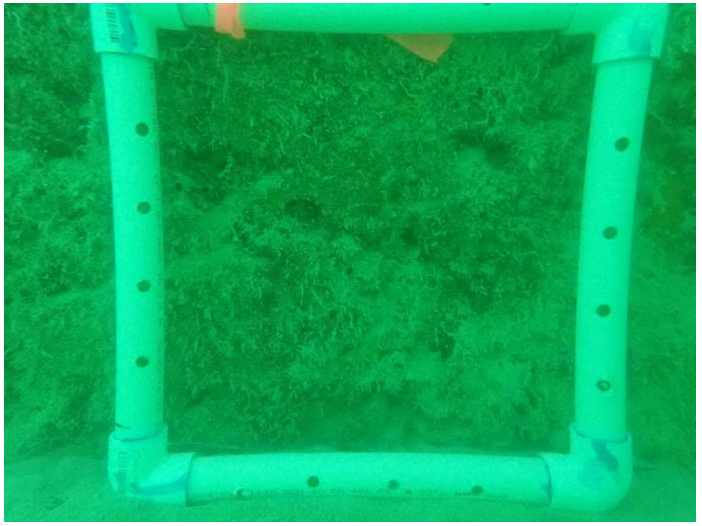


Appendix C-11a. North Basin South Wall Transect C11 at 5 ft.

Appendix C-11b. North Basin South Wall Transect C11 at 10 ft.



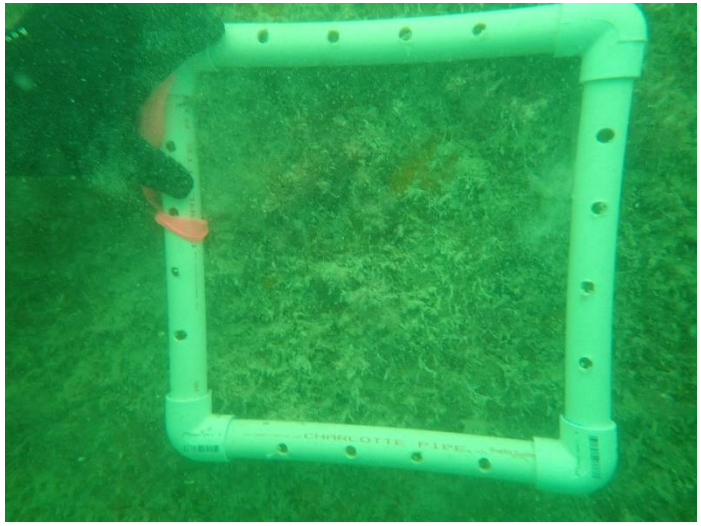
Appendix C-11c. North Basin South Wall Transect C11 at 15 ft.



Appendix C-11d. North Basin South Wall Transect C11 at 20 ft.

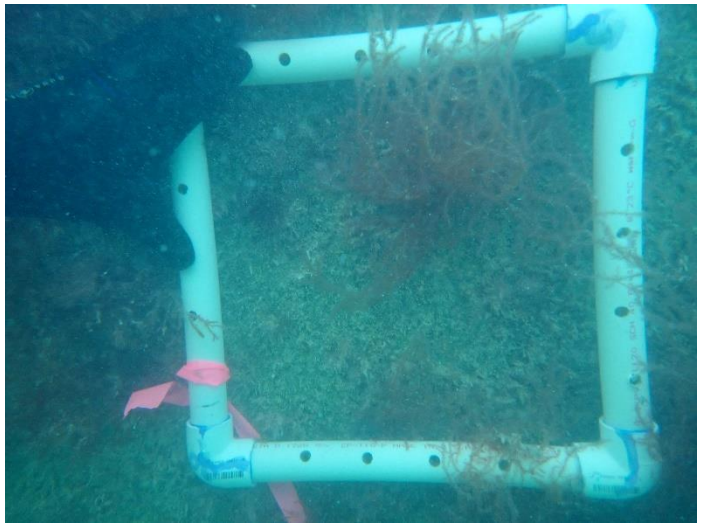
Appendix C-12a. North Basin South Wall Transect C12 at 5 ft.

Appendix C-12b. North Basin South Wall Transect C12 at 10 ft.

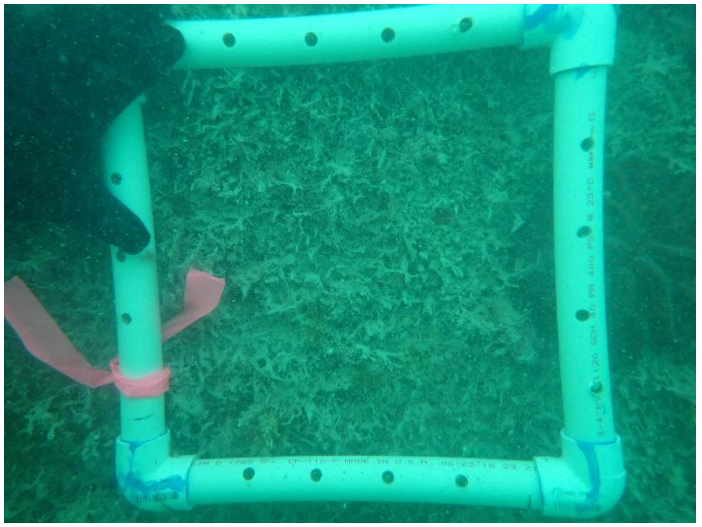


Appendix C-12c. North Basin South Wall Transect C12 at 15 ft.

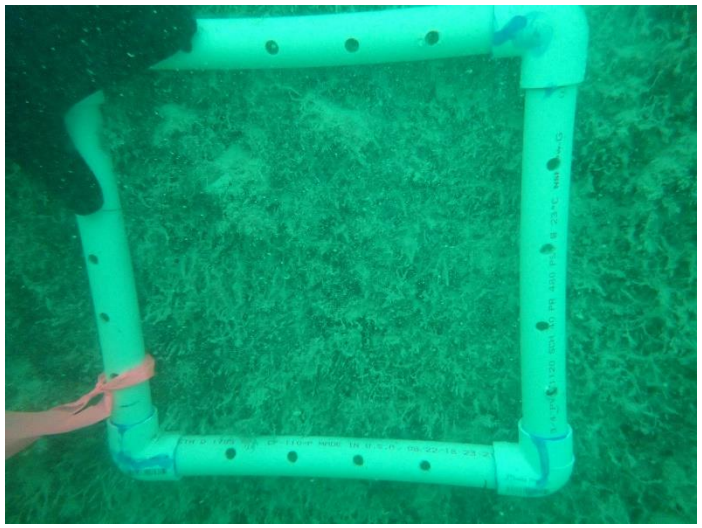
Appendix C-12d. North Basin South Wall Transect C12 at 20 ft.



Appendix C-13a. North Basin South Wall Transect C13 at 5 ft.

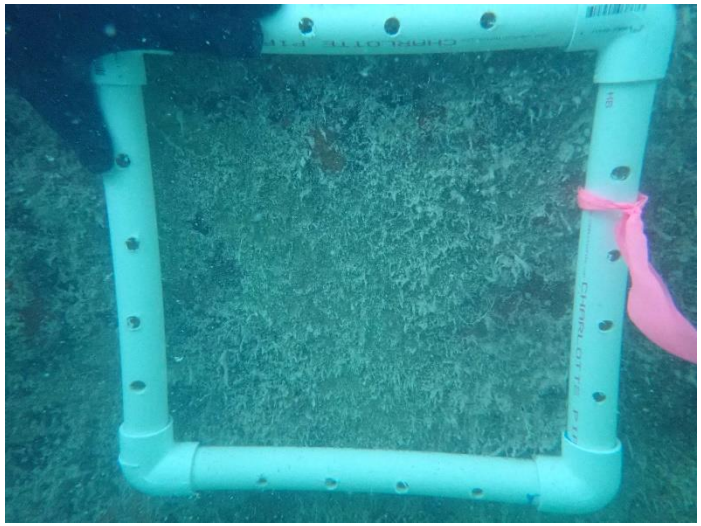


Appendix C-13b. North Basin South Wall Transect C13 at 10 ft.

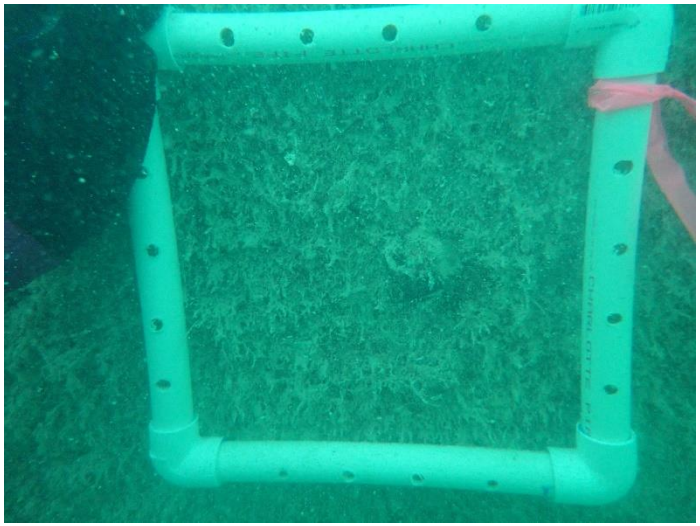


Appendix C-13c. North Basin South Wall Transect C13 at 15 ft.

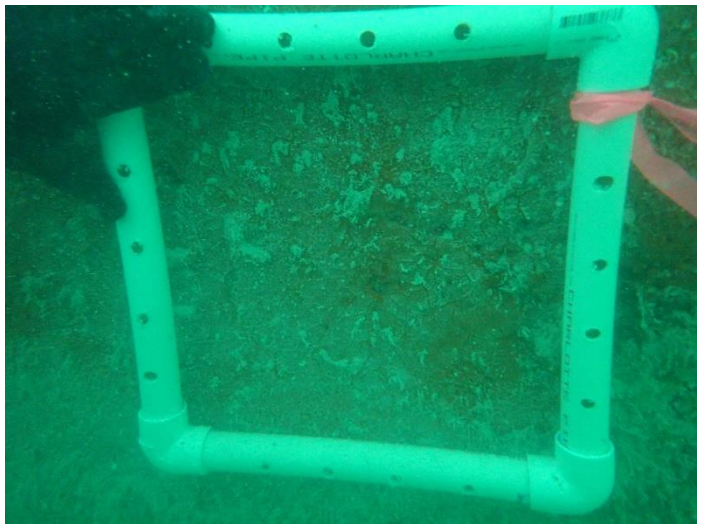
Appendix C-13d. North Basin South Wall Transect C13 at 20 ft.



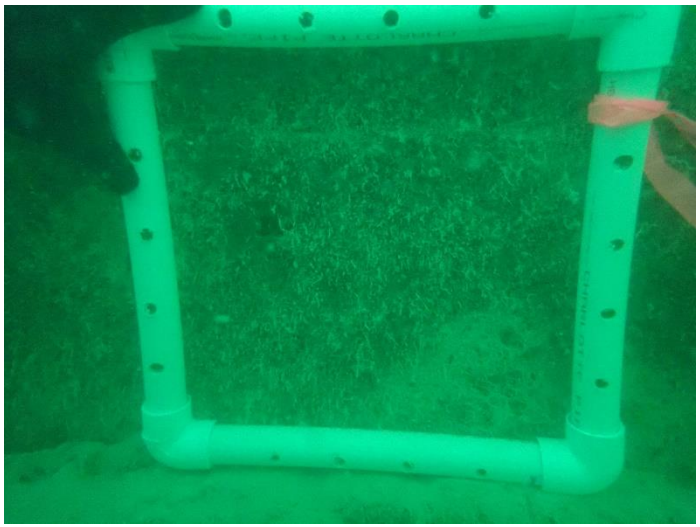
Appendix C-14a. North Basin South Wall Transect C14 at 5 ft.



Appendix C-14b. North Basin South Wall Transect C14 at 10 ft.

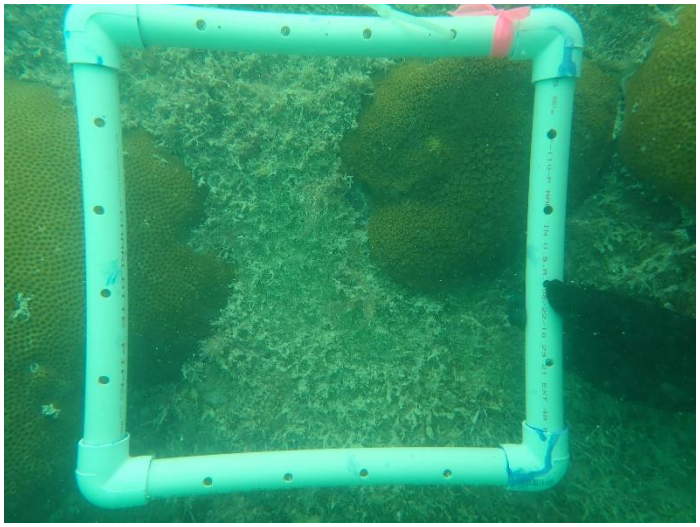


Appendix C-14c. North Basin South Wall Transect C14 at 15 ft.

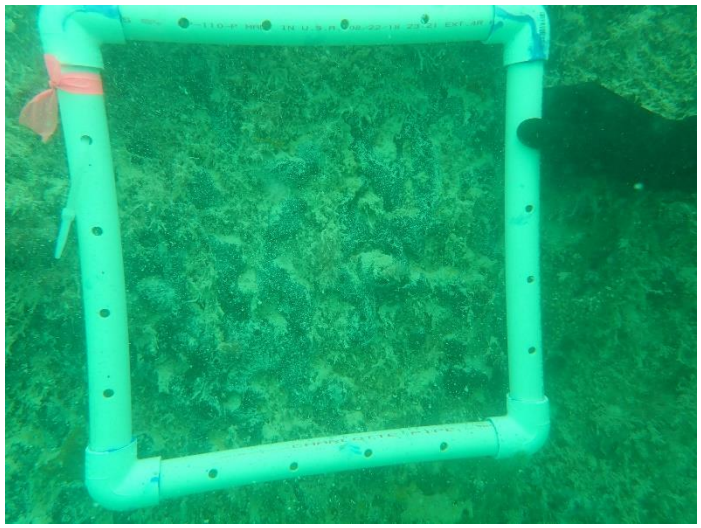


Appendix C-14d. North Basin South Wall Transect C14 at 20 ft.

Appendix C-15a. North Basin South Wall Transect C15 at 5 ft.

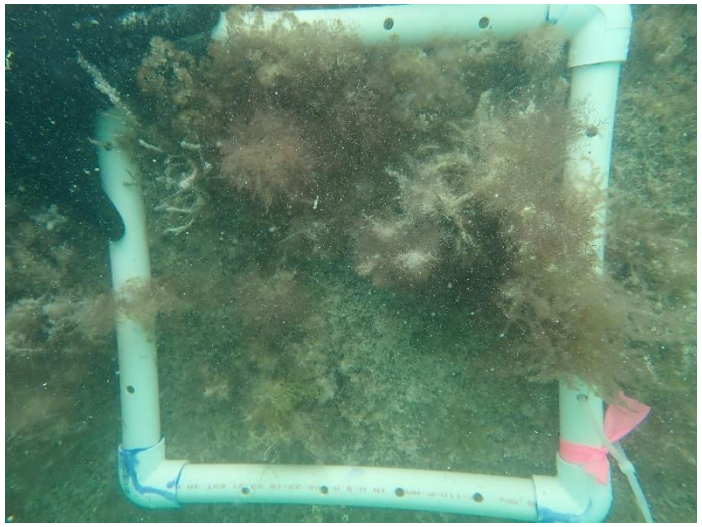


Appendix C-15b. North Basin South Wall Transect C15 at 10 ft.

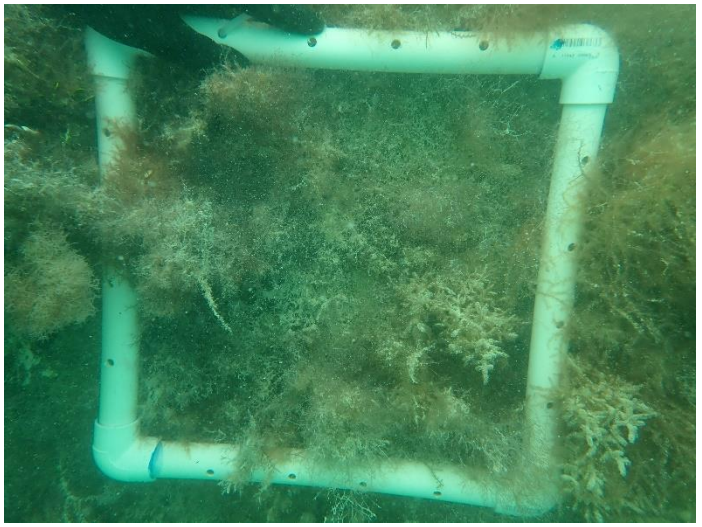


Appendix C-15c. North Basin South Wall Transect C15 at 15 ft.

Appendix C-15d. North Basin South Wall Transect C15 at 20 ft.

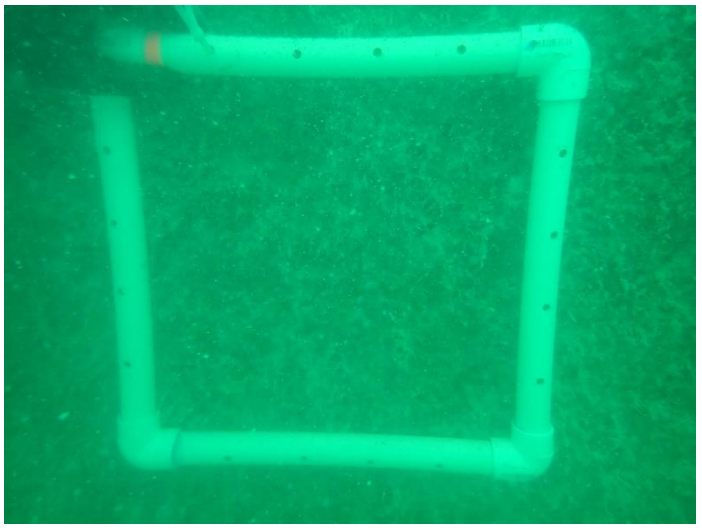


Appendix C-16a. North Basin South Wall Transect C16 at 5 ft.

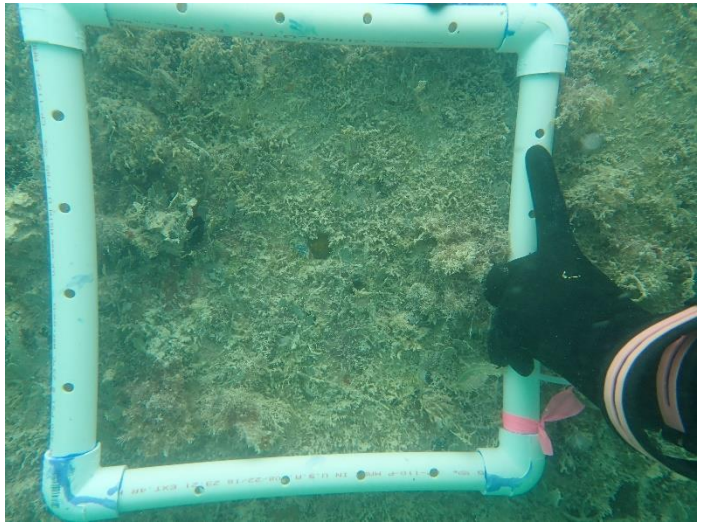


Appendix C-16b. North Basin South Wall Transect C16 at 10 ft.

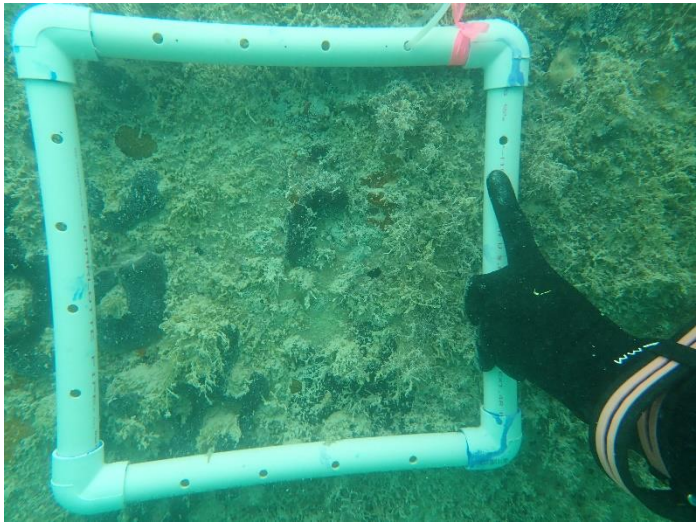
Appendix C-16c. North Basin South Wall Transect C16 at 15 ft.



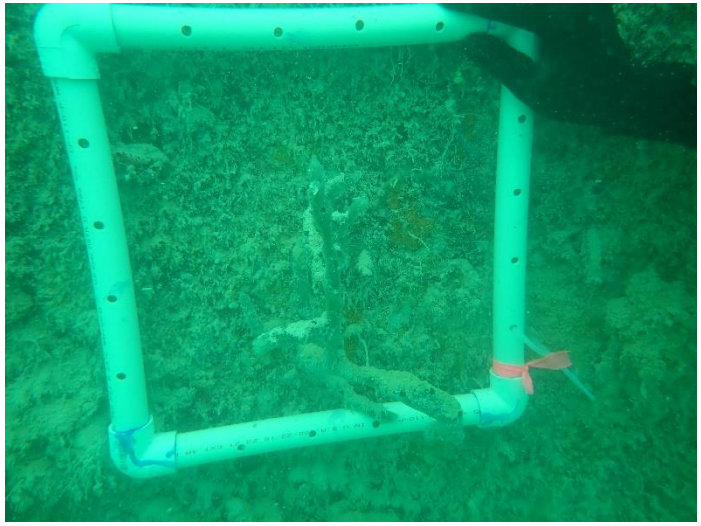
Appendix C-16d. North Basin South Wall Transect C16 at 20 ft.



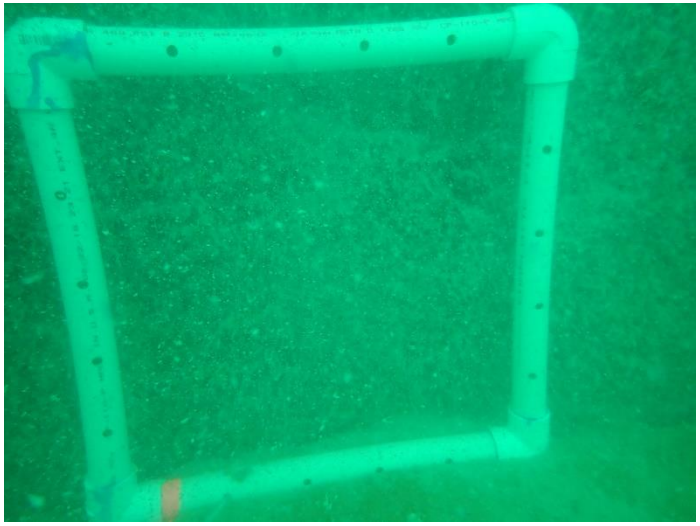
Appendix C-17a. North Basin South Wall Transect C17 at 5 ft.



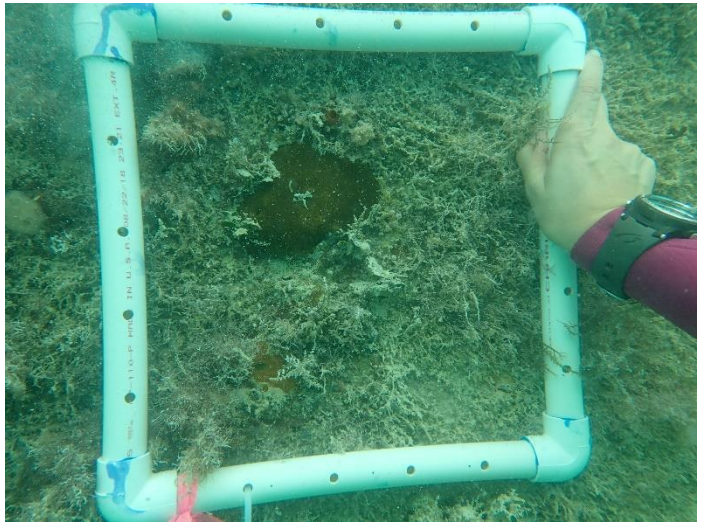
Appendix C-17b. North Basin South Wall Transect C17 at 10 ft.



Appendix C-17c. North Basin South Wall Transect C17 at 15 ft.

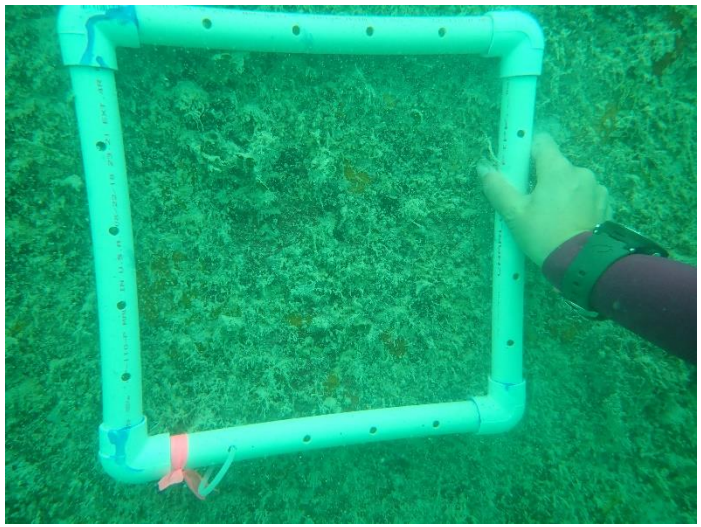


Appendix C-17d. North Basin South Wall Transect C17 at 20 ft.

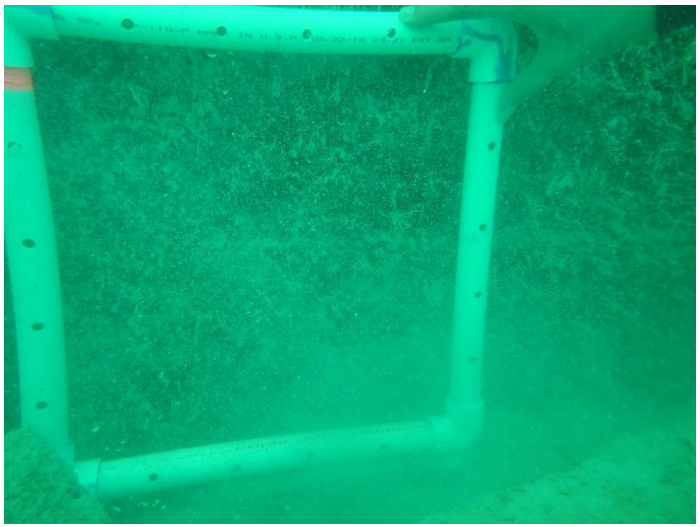


Appendix C-18a. North Basin South Wall Transect C18 at 5 ft.

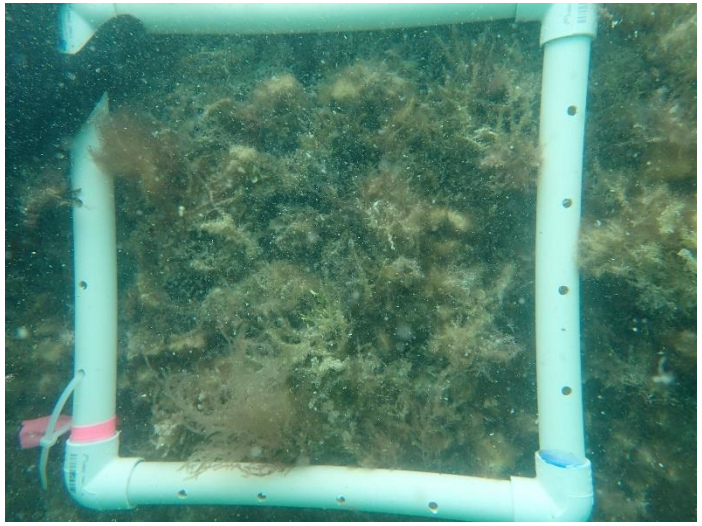
Appendix C-18b. North Basin South Wall Transect C18 at 10 ft.



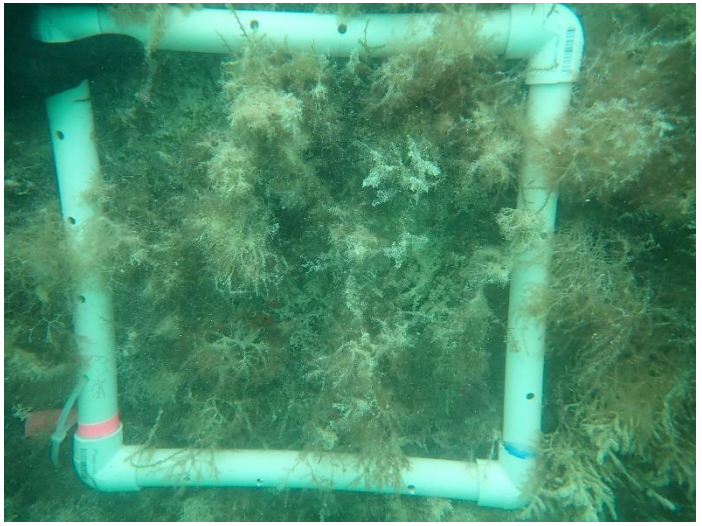
Appendix C-18c. North Basin South Wall Transect C18 at 15 ft.



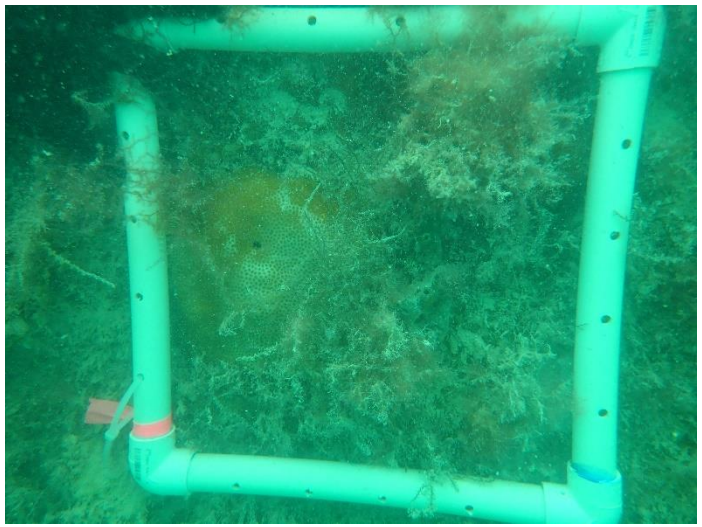
Appendix C-18d. North Basin South Wall Transect C18 at 20 ft.



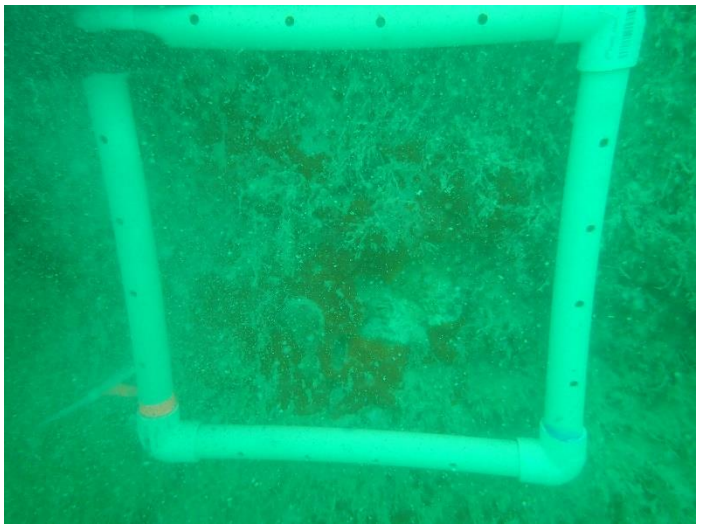
Appendix C-19a. North Basin South Wall Transect C19 at 5 ft.



Appendix C-19b. North Basin South Wall Transect C19 at 10 ft.

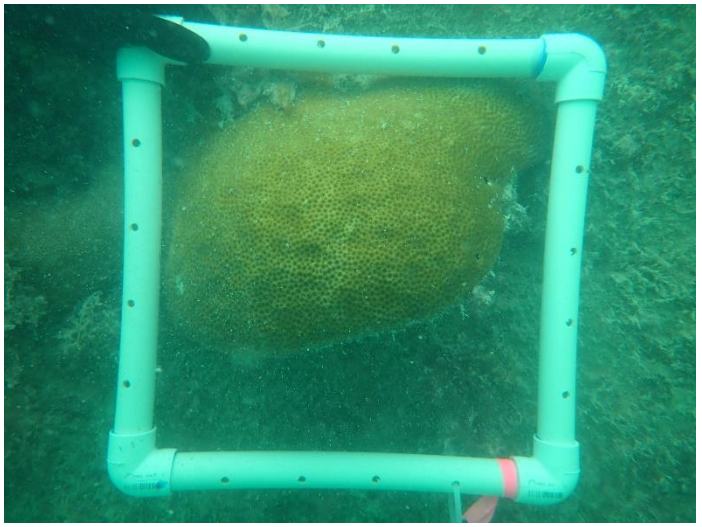


Appendix C-19c. North Basin South Wall Transect C19 at 15 ft.

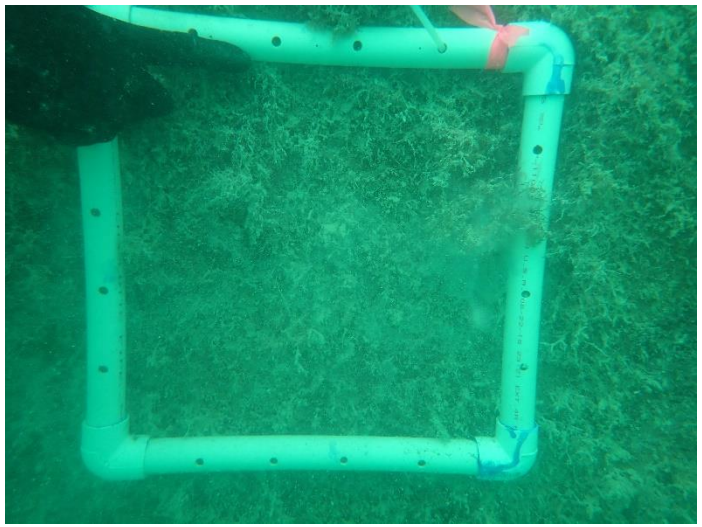


Appendix C-19d. North Basin South Wall Transect C19 at 20 ft.

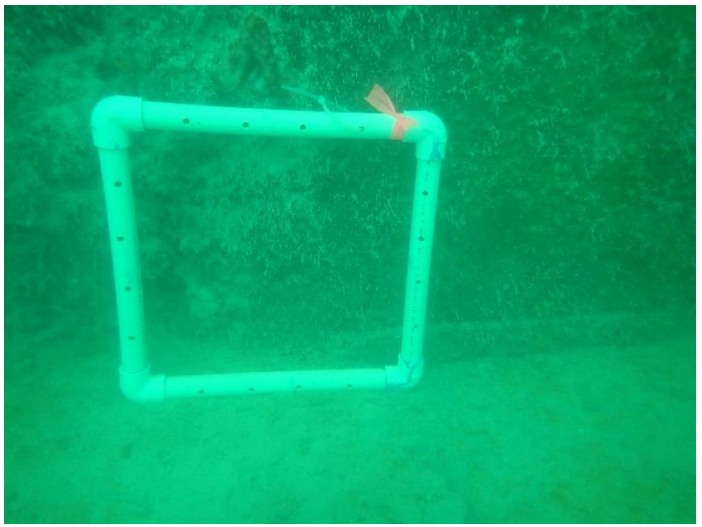
Appendix C-20a. North Basin South Wall Transect C20 at 5 ft.



Appendix C-20b. North Basin South Wall Transect C20 at 10 ft.



Appendix C-20c. North Basin South Wall Transect C20 at 15 ft.



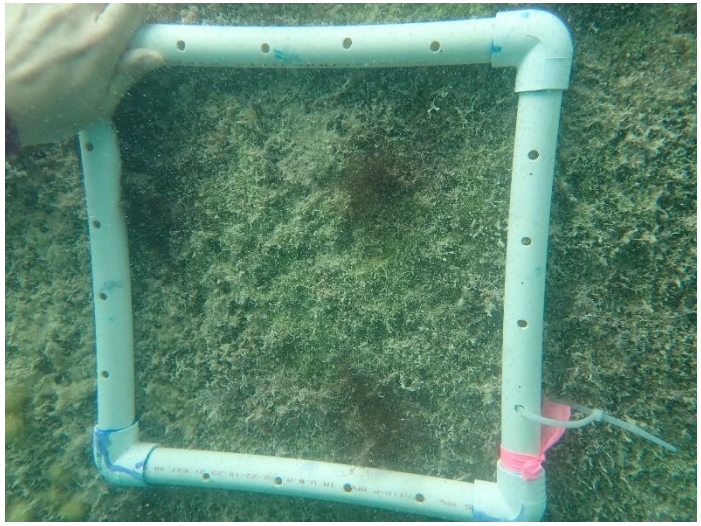
Appendix C-20d. North Basin South Wall Transect C20 at 20 ft.

Appendix C-21a. North Basin South Wall Transect C21 at 5 ft.

Appendix C-21b. North Basin South Wall Transect C21 at 10 ft.

Appendix C-21c. North Basin South Wall Transect C21 at 15 ft.

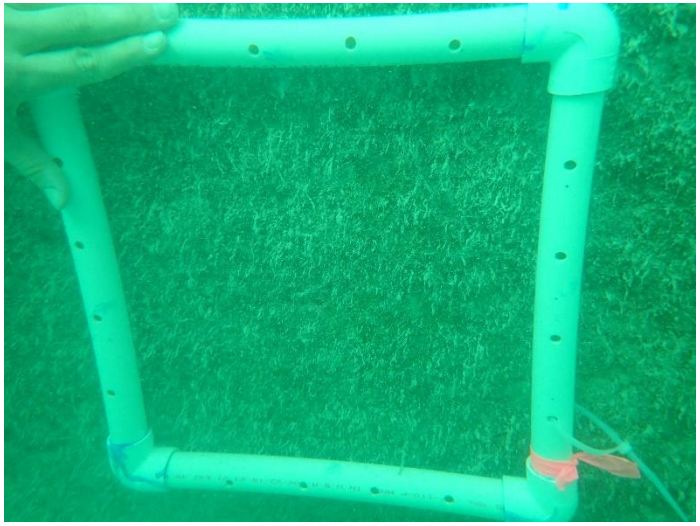
Appendix C-21d. North Basin South Wall Transect C21 at 20 ft.



Appendix C-22a. North Basin South Wall Transect C22 at 5 ft.

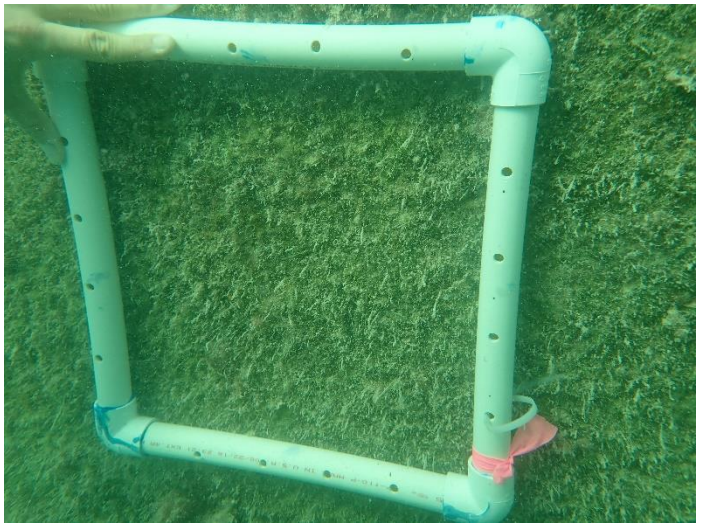
Appendix C-22b. North Basin South Wall Transect C22 at 10 ft.

Appendix C-22c. North Basin South Wall Transect C22 at 15 ft.

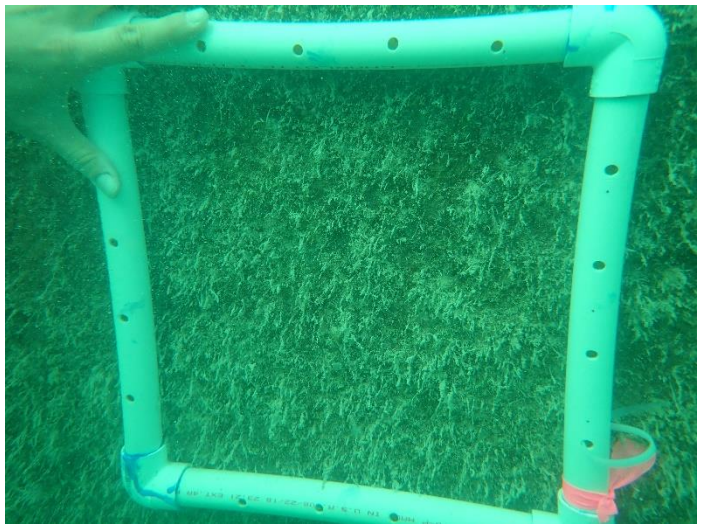


Appendix C-22d. North Basin South Wall Transect C22 at 20 ft.

Appendix C-23a. North Basin South Wall Transect C23 at 5 ft.

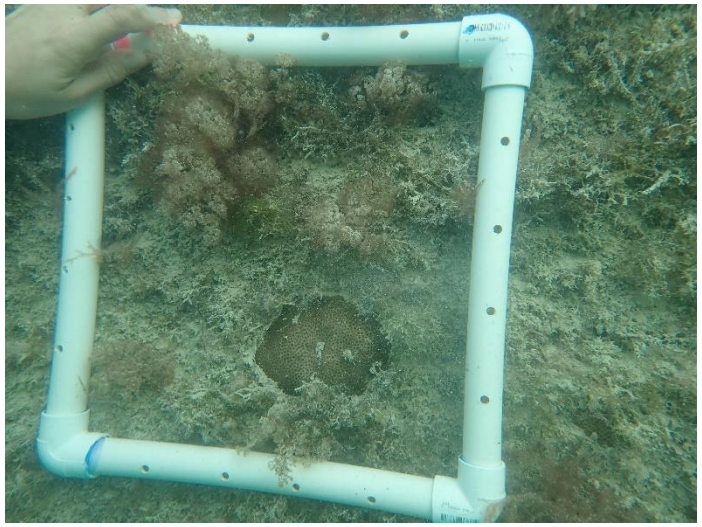


Appendix C-23b. North Basin South Wall Transect C23 at 10 ft.



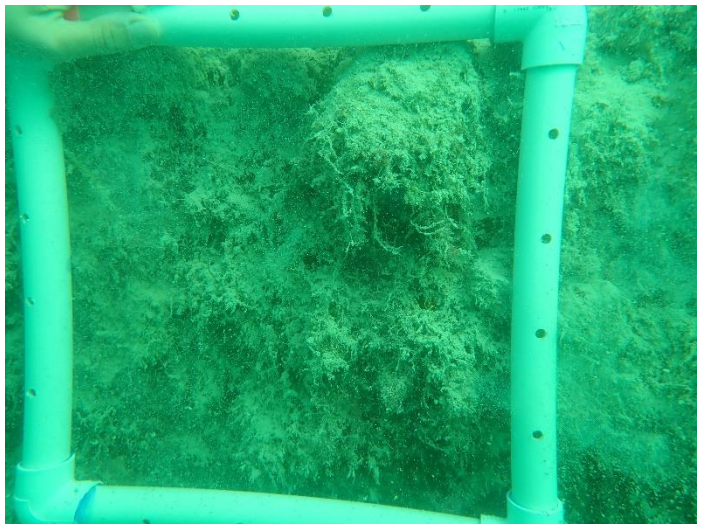
Appendix C-23c. North Basin South Wall Transect C23 at 15 ft.

Appendix C-23d. North Basin South Wall Transect C23 at 20 ft.

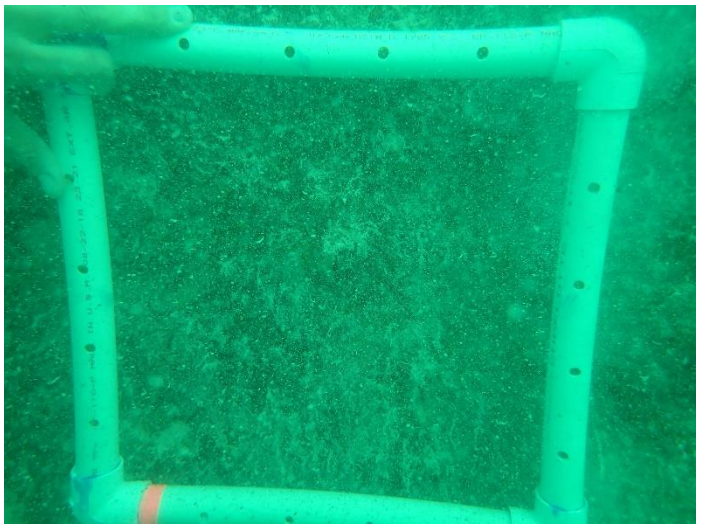


Appendix C-24a. North Basin South Wall Transect C24 at 5 ft.

Appendix C-24b. North Basin South Wall Transect C24 at 10 ft.



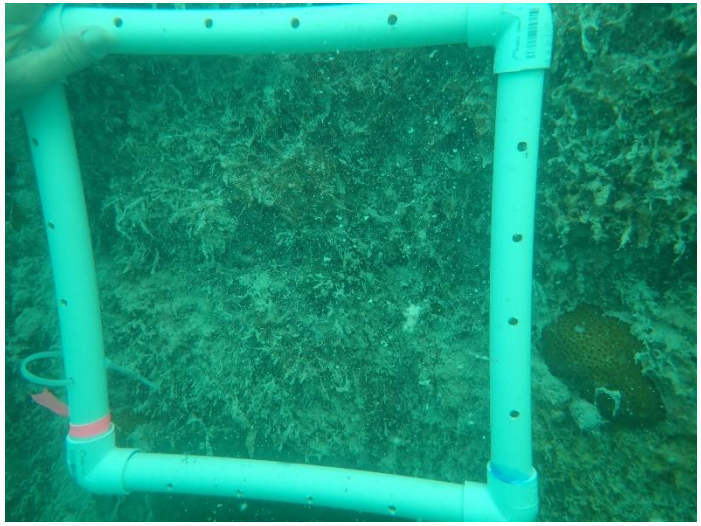
Appendix C-24c. North Basin South Wall Transect C24 at 15 ft.



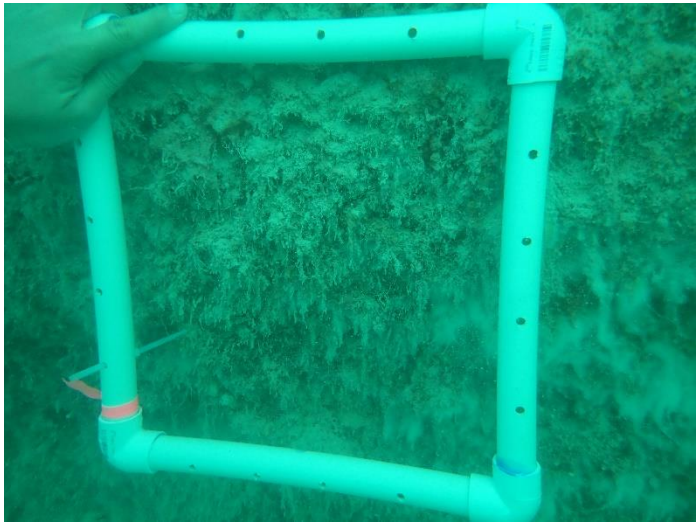
Appendix C-24d. North Basin South Wall Transect C24 at 20 ft.

Appendix C-25a. North Basin South Wall Transect C25 at 5 ft.

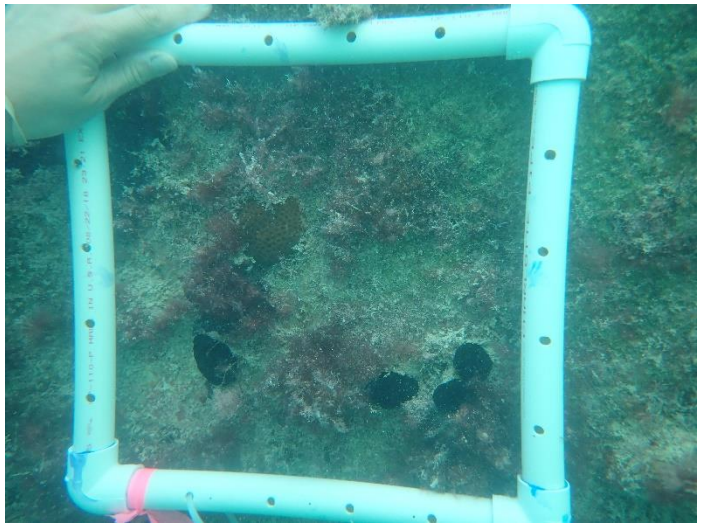
Appendix C-25b. North Basin South Wall Transect C25 at 10 ft.



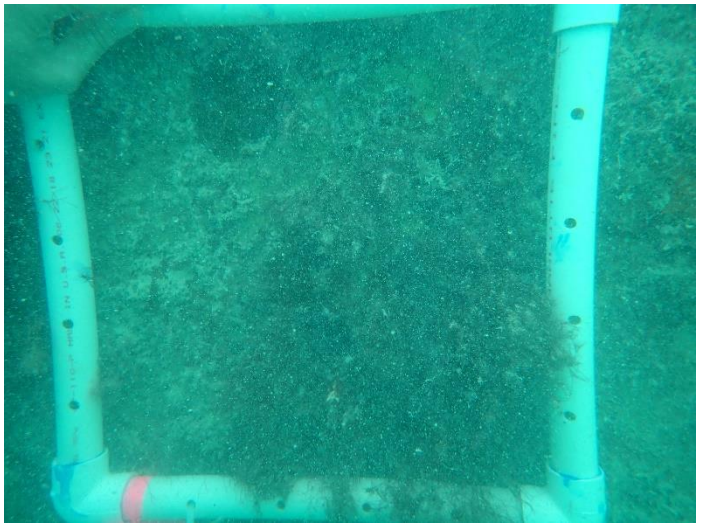
Appendix C-25c. North Basin South Wall Transect C25 at 15 ft.



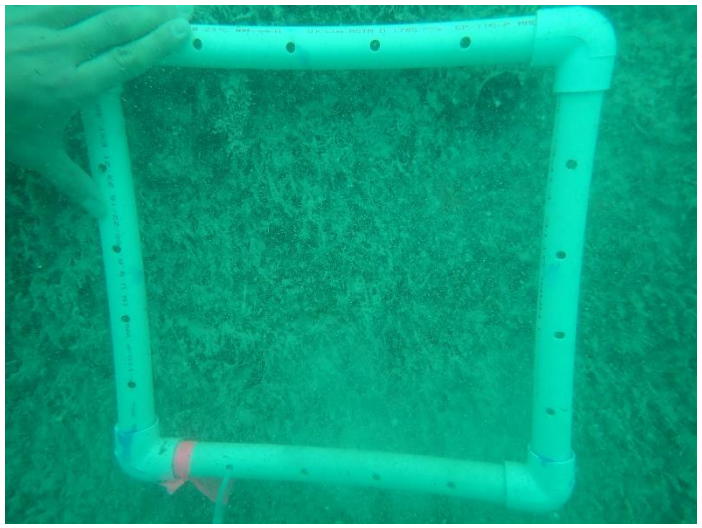
Appendix C-25d. North Basin South Wall Transect C25 at 20 ft.



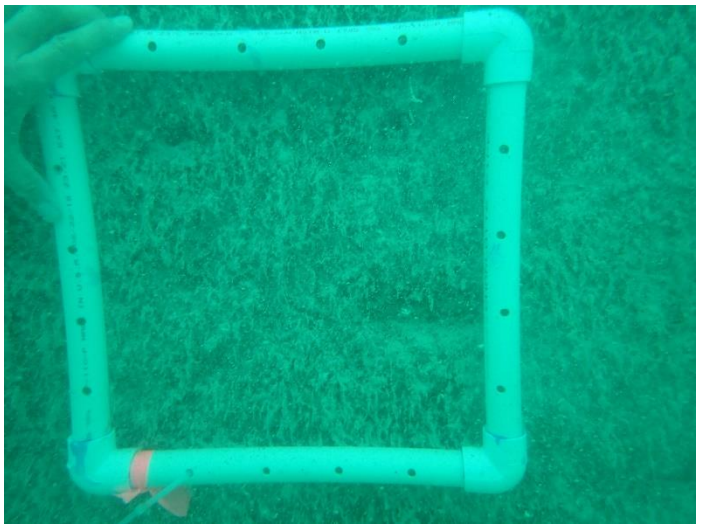
Appendix C-26a. North Basin South Wall Transect C26 at 5 ft.



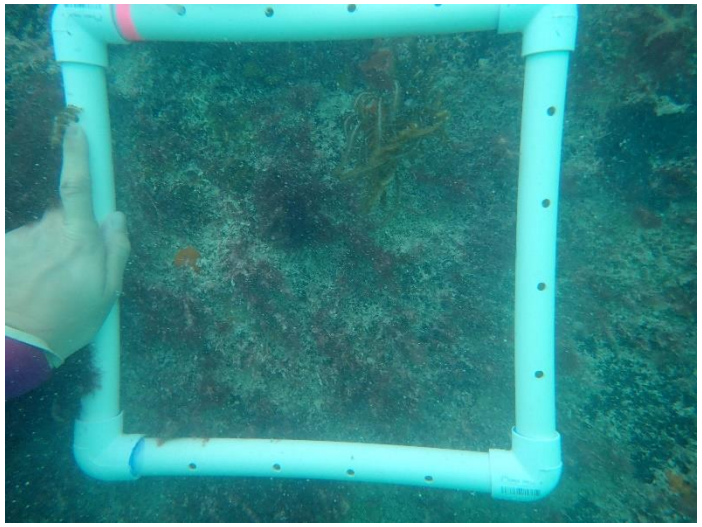
Appendix C-26b. North Basin South Wall Transect C26 at 10 ft.



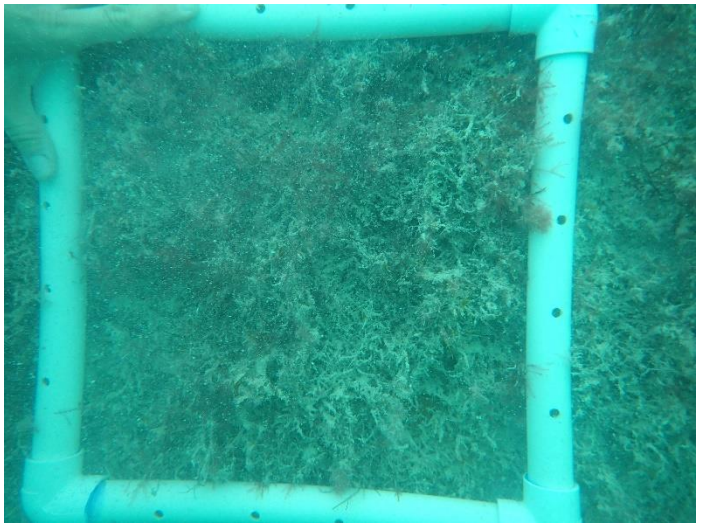
Appendix C-26c. North Basin South Wall Transect C26 at 15 ft.



Appendix C-26d. North Basin South Wall Transect C26 at 20 ft.

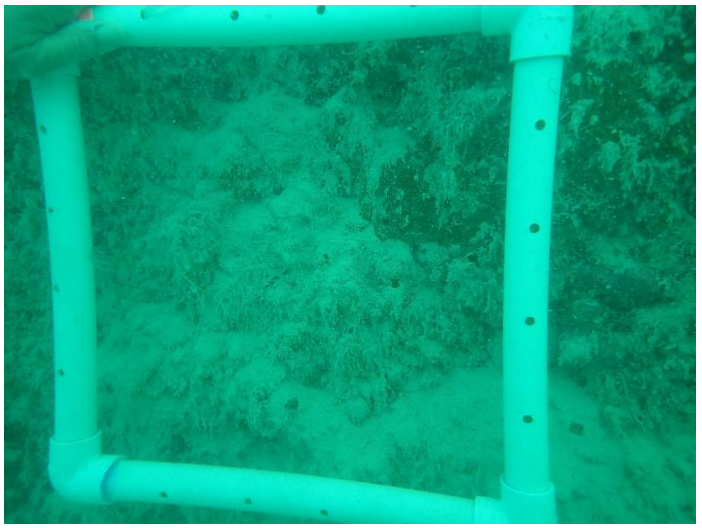


Appendix C-27a. North Basin South Wall Transect C27 at 5 ft.

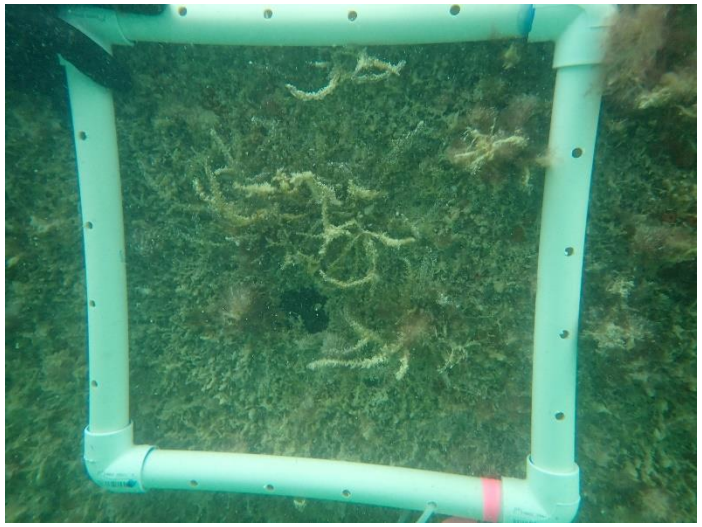


Appendix C-27b. North Basin South Wall Transect C27 at 10 ft.

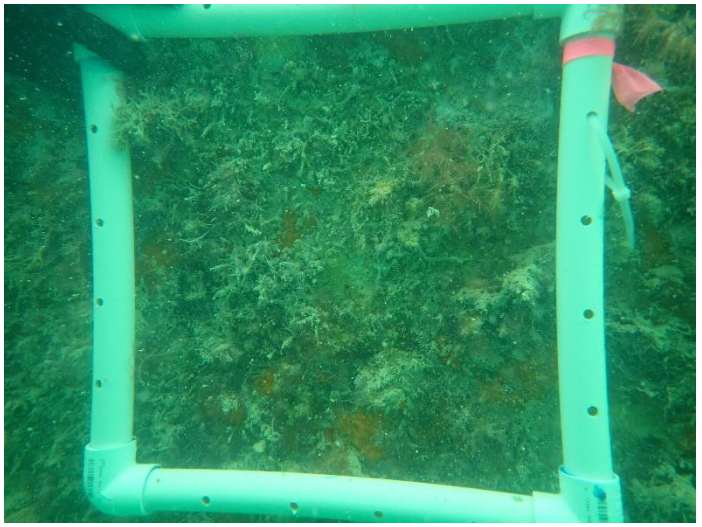
Appendix C-27c. North Basin South Wall Transect C27 at 15 ft.



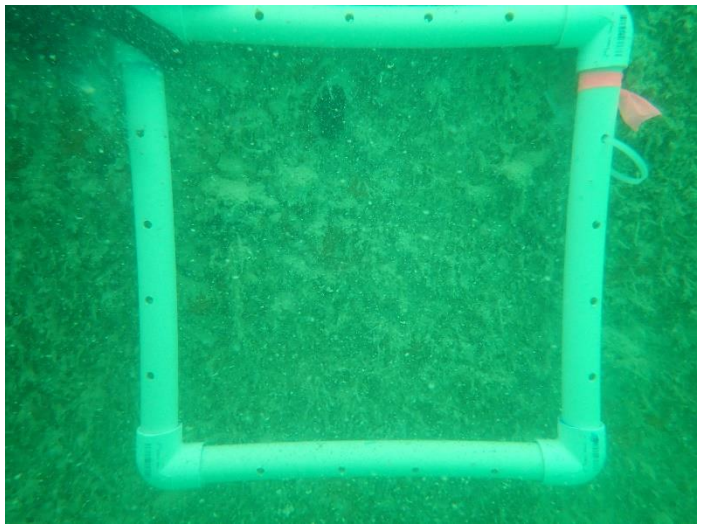
Appendix C-27d. North Basin South Wall Transect C27 at 20 ft.



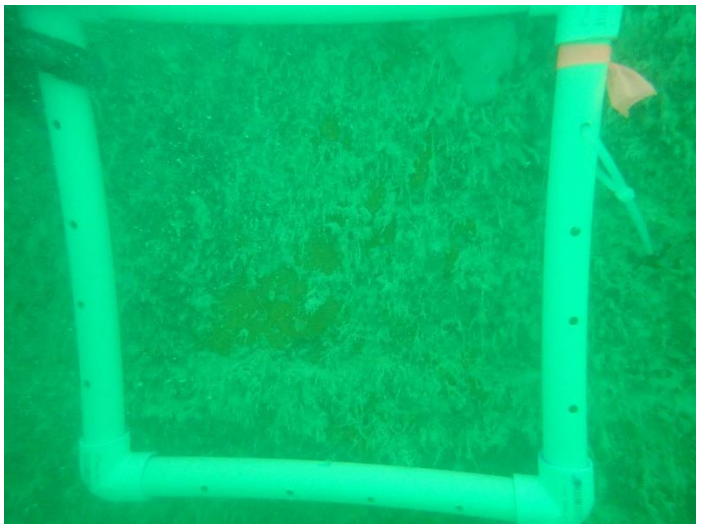
Appendix C-28a. North Basin South Wall Transect C28 at 5 ft.



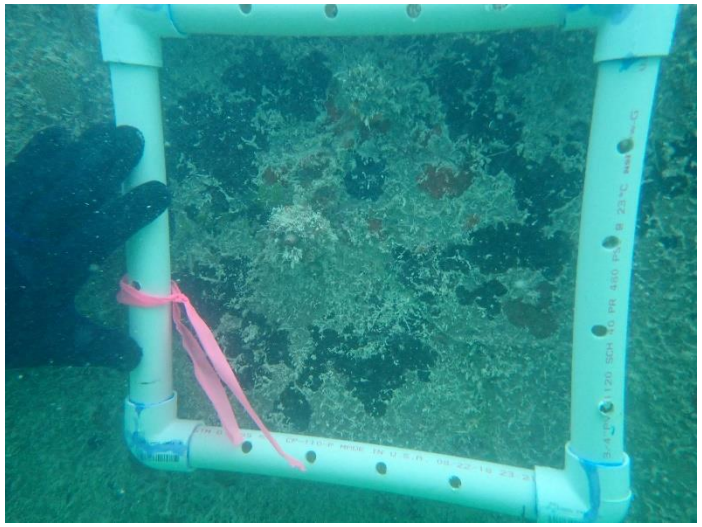
Appendix C-28b. North Basin South Wall Transect C28 at 10 ft.



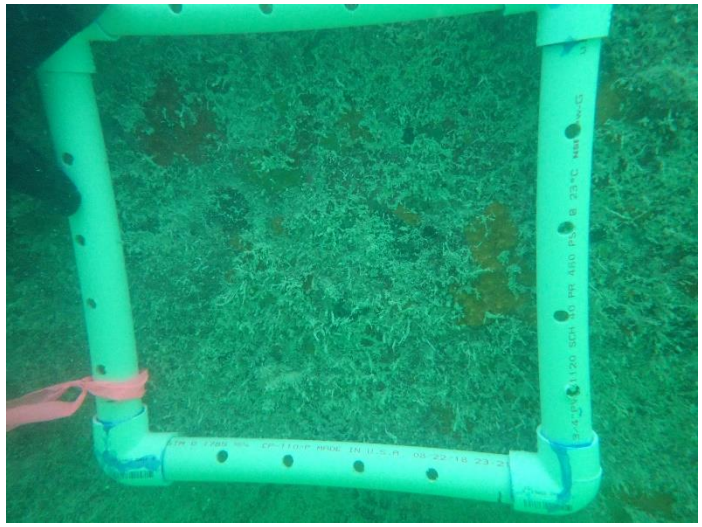
Appendix C-28c. North Basin South Wall Transect C28 at 15 ft.



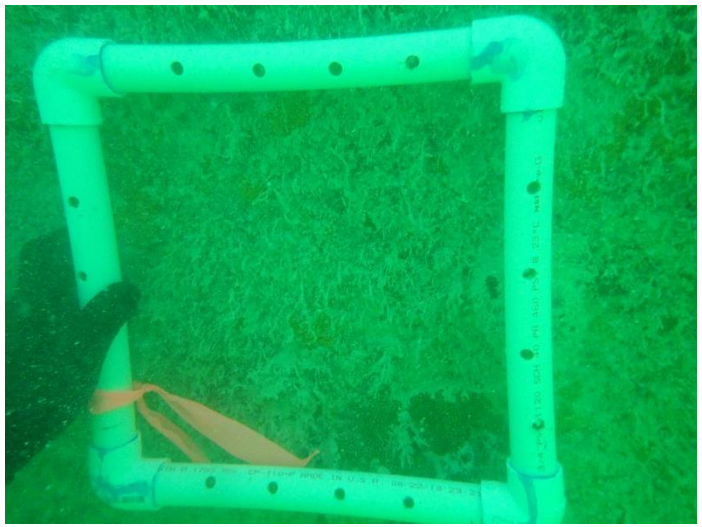
Appendix C-28d. North Basin South Wall Transect C28 at 20 ft.



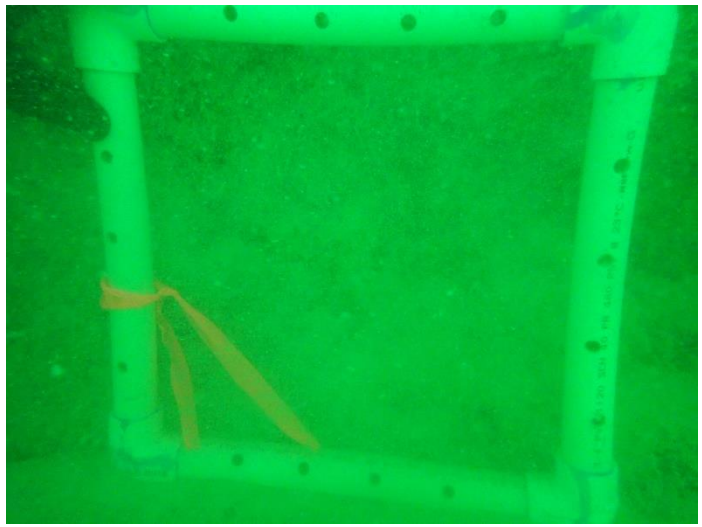
Appendix C-29a. North Basin South Wall Transect C29 at 5 ft.



Appendix C-29b. North Basin South Wall Transect C29 at 10 ft.



Appendix C-29c. North Basin South Wall Transect C29 at 15 ft.



Appendix C-29d. North Basin South Wall Transect C29 at 20 ft.

APPENDIX D

STRUCTURE PHOTOS

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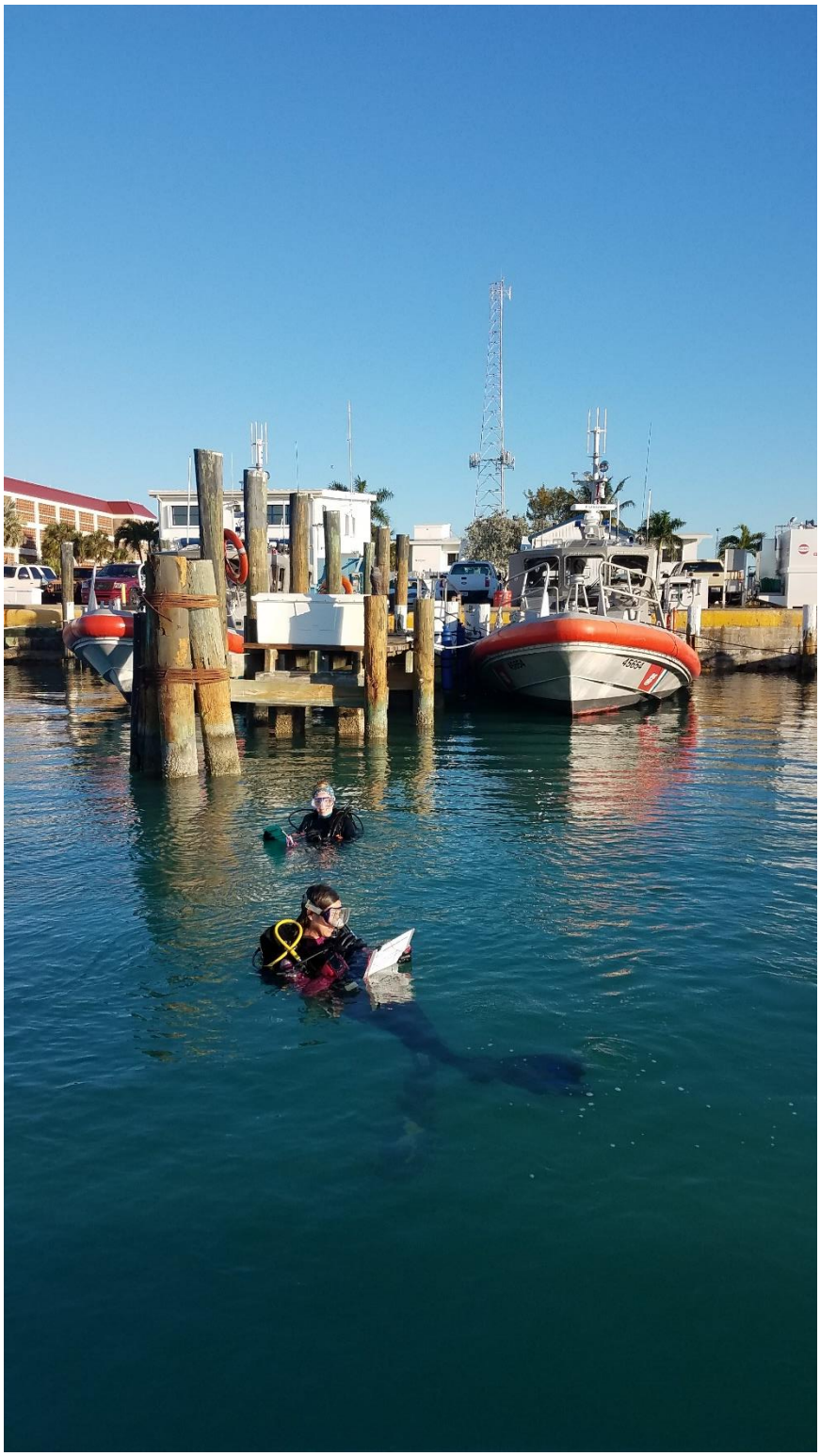
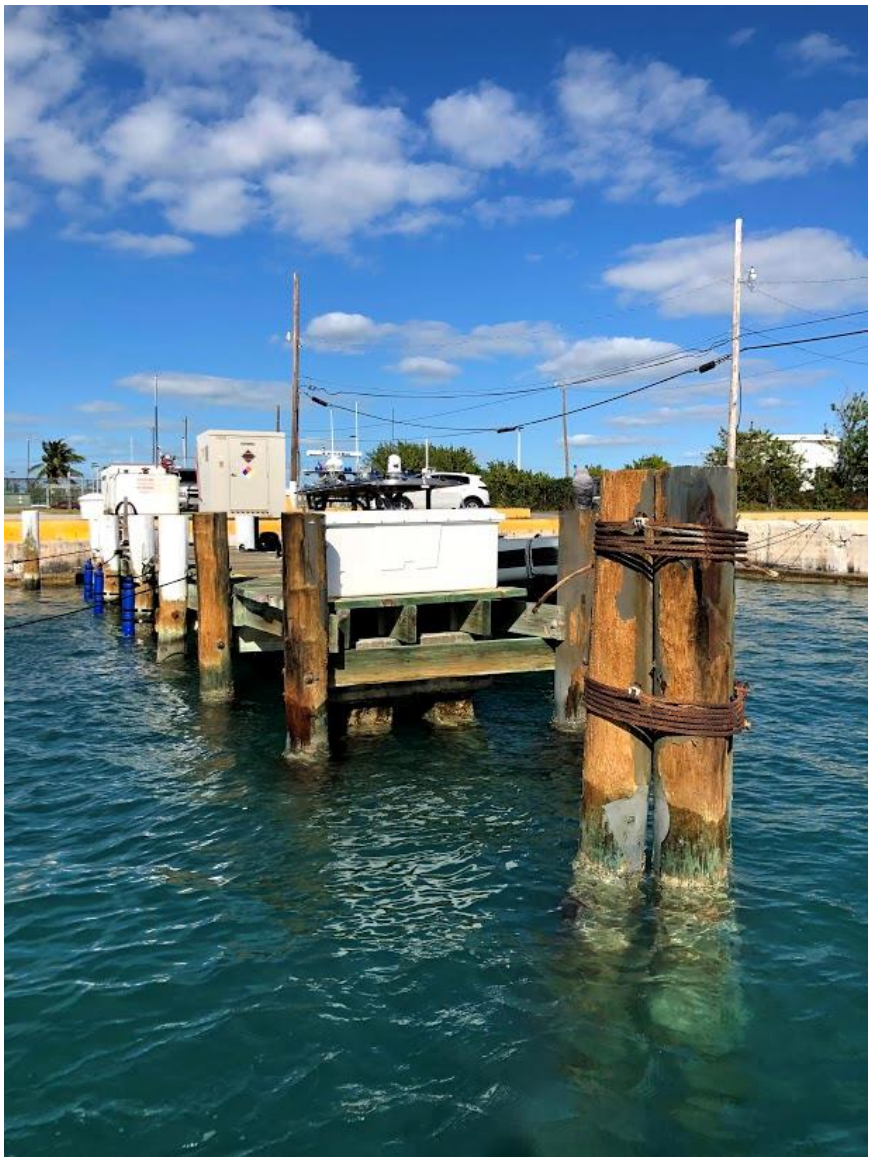
Appendix D-1. Travel Lift Pier A (right) and Travel Lift Dock B (left).

Appendix D-2. Travel Lift Pier B Dolphin Piles (4 sets).

Appendix D-3. Travel Lift Pier A Dolphin Piles (3 sets).



Appendix D-4. Cummins Cederberg divers in the water getting ready to survey Dock C and associated Dolphin Piling.



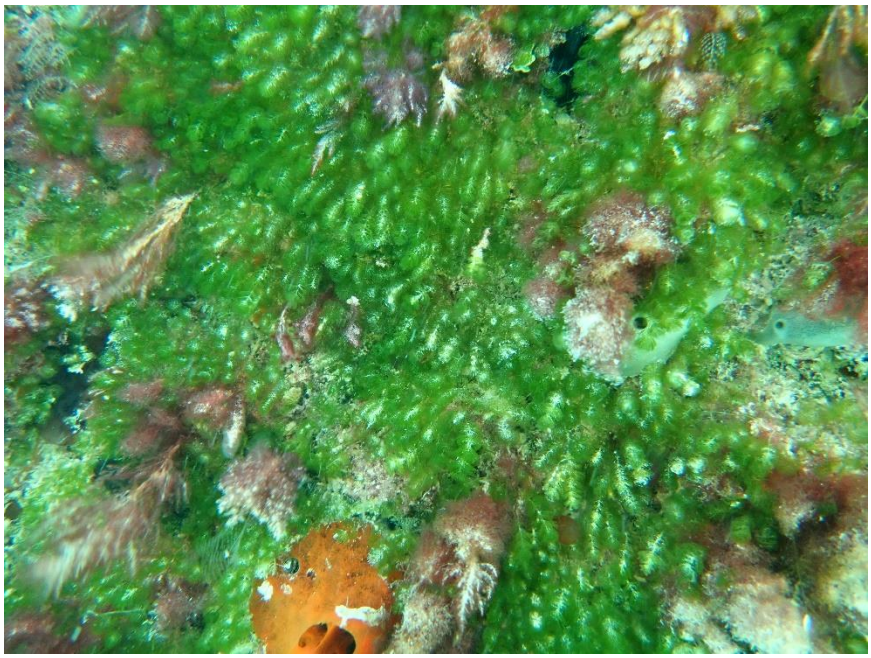
Appendix D-5. Photo of Dock A and associated Dolphin Piling.

Appendix D-6. Photo of Dock B and associated Dolphin Piling.

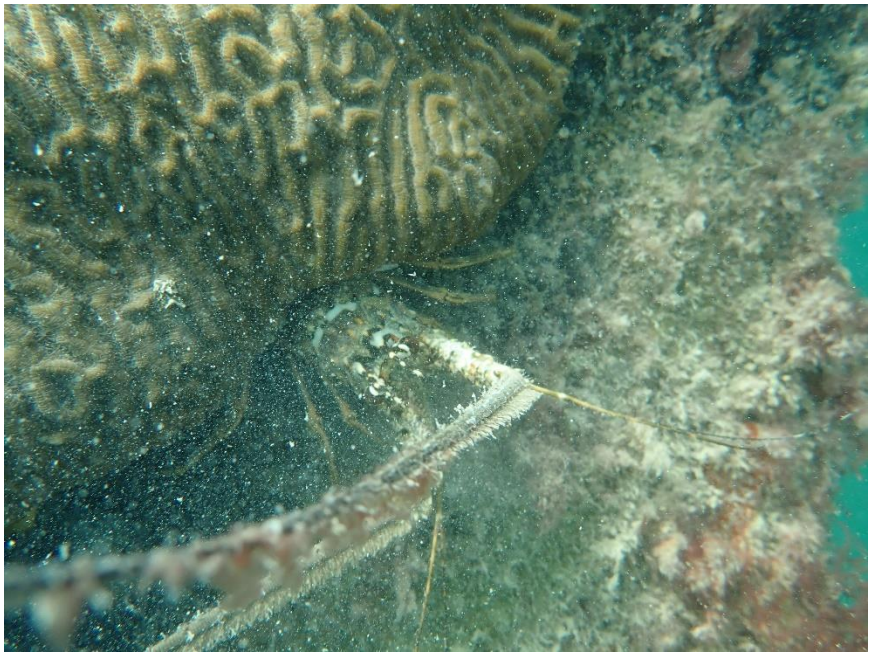
Appendix D-7. Photo of Marginal Dock D and associated Dolphin Piling (far left). Decking for Marginal Dock D was destroyed during Hurricane Irma and only piling structures remain.

Appendix D-8. Example of barnacles present on all of the docking structures and associated pilings.

Appendix D-9. A corallimorph, *Ricordea florida*, observed growing on Travel Lift Pier A Dolphin Piles.



Appendix D-10. *Caulerpa verticillata* observed growing on Travel Lift Pier A.

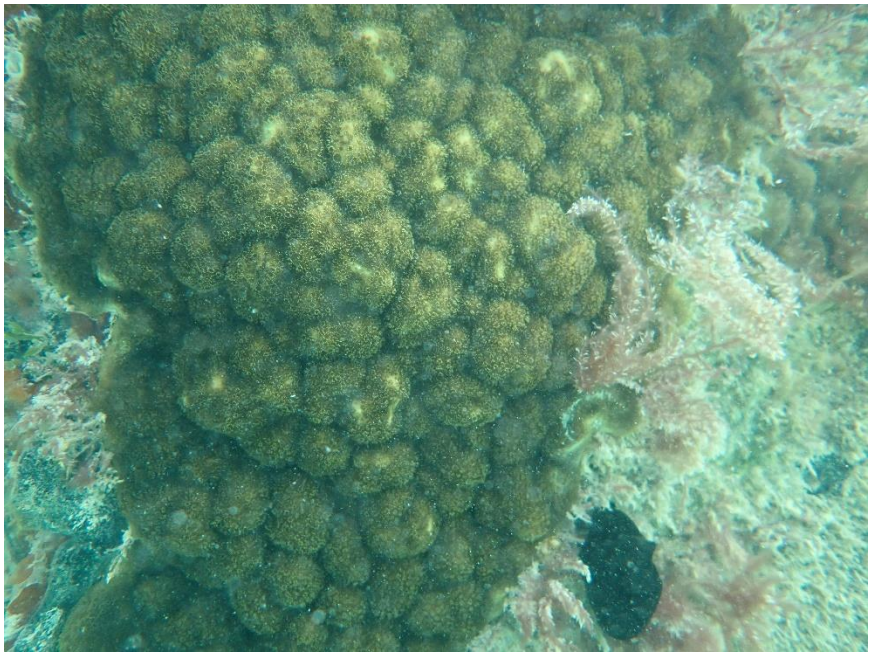


Appendix D-11. Spiny lobster, *Panulirus argus*, observed under a colony of knobby brain coral, *Pseudodiploria clivosa*, on Travel Lift Pier A.

Appendix D-12. Example of bulb tunicates, *Clavelina* spp., observed growing in many of the structure surveys.

Appendix D-13. Example of green feather alga, *Caulerpa sertularioides*, observed growing in many of the structure surveys.

Appendix D-14. Example of large leaf watercress alga, *Halimeda discoidea*, observed growing in many of the structure surveys.



Appendix D-15. Colony of mustard hill coral, *Porites astreoides*, observed growing on Travel Lift Pier A.

Appendix D-16. Large colony (> 30 cm) of *P. clivosa* observed growing on Travel Lift Pier A.

Appendix D-17. Example of large black tunicates, *Ascidia nigra*, observed growing in many of the structure surveys.

Appendix D-18. Colony of great star coral, *Montastraea cavernosa*, observed growing on Travel Lift Pier B.

Appendix D-19. Colonies of diffuse ivory bush coral, *Oculina diffusa*, observed growing on Travel Lift Pier B Dolphin Piles.

Appendix D-20. School of gray snapper, *Lutjanus griseus*, observed during the Travel Lift B Dolphin Pile survey.

Appendix D-21. Colony of *Siderastrea* spp. observed growing on Dock A.

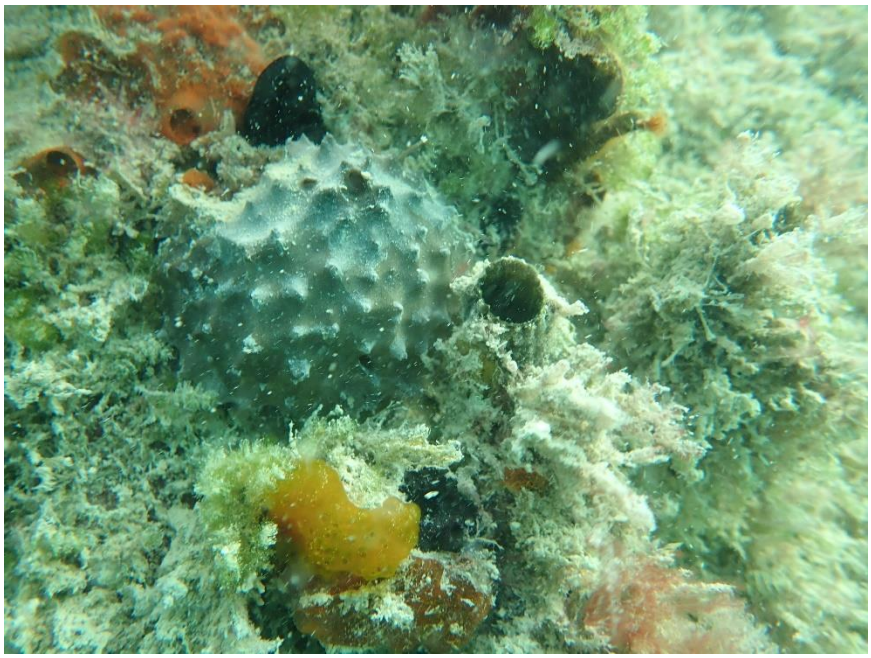
Appendix D-22. Colony of massive starlet coral, *Siderastrea siderea*, observed growing on Dock A.

Appendix D-23. Example of white scroll alga, *Padina sanctae-crucis*, observed growing in many of the structure surveys.

Appendix D-24. Example of pink baby macro algae, *Heterosiphonia gibbesii*, observed growing in many of the structure surveys.

Appendix D-25. Colony of grooved brain coral, *Diploria labyrinthiformis*, observed growing on Dock A.

Appendix D-26. A sea plume, *Antillogorgia* spp., observed growing on Dock A Dolphin Piles.



Appendix D-27. Example of a sinker sponge, *Ircinia felix*, observed growing in many of the structure surveys.

Appendix D-28. Colonies of *M. cavernosa* (upper) and *S. siderea* (lower) observed growing on Dock B.

Appendix D-29. Common sea fan, *Gorgonia ventalina*, observed growing on Dock B.

Appendix D-30. Colony of elliptical star coral, *Dichocoenia stokesi*, observed growing on Dock C.

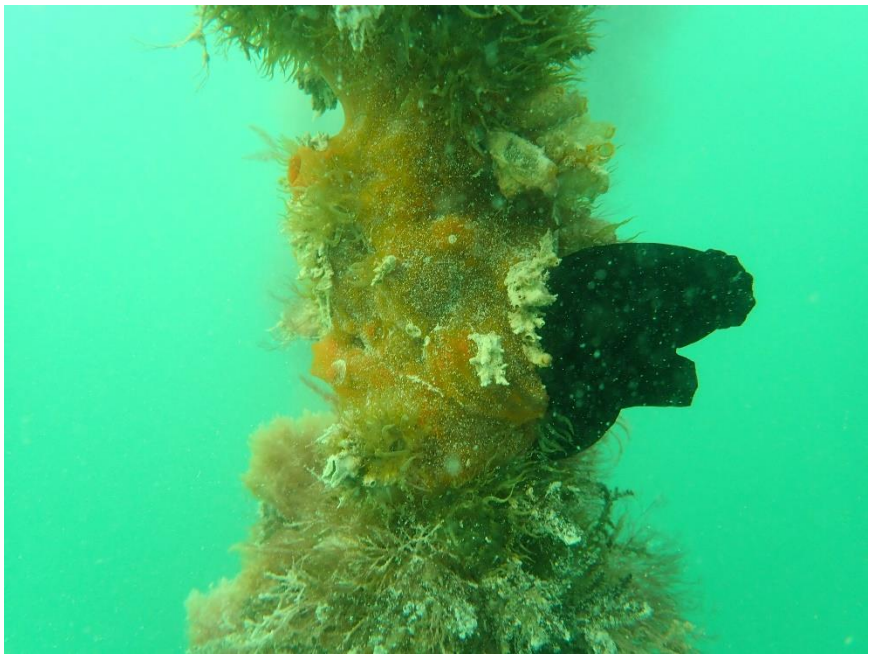
Appendix D-31. Colony of blushing star coral, *Stephanocoenia intersepta*, observed growing on Dock C.

Appendix D-32. Example of Y-branched algae, *Dictyota* spp., observed growing in many of the structure surveys.

Appendix D-33. Photo of yellowtail snapper, *Ocyurus chrysurus*, observed at Dock C.

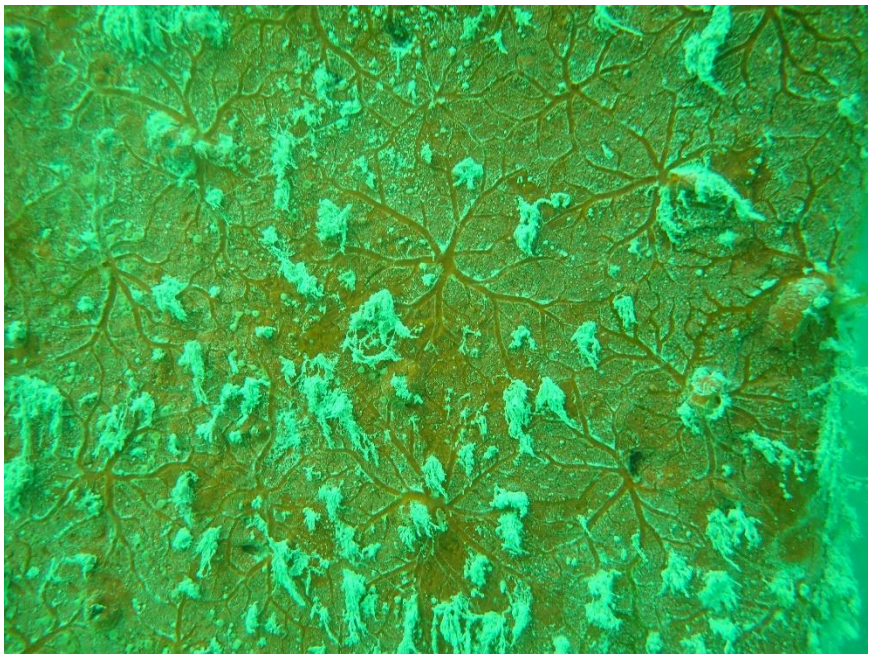
Appendix D-34. Hidden cup coral, *Phyllangia americana americana*, observed growing on Dock C.

Appendix D-35. Photo of sheepshead fish, *Archosargus probatocephalus*, observed at Dock C Dolphin Piles.



Appendix D-36. A large black tunicate, *Phallusia nigra*, and macroalgae overgrowth observed on Dock C Dolphin Piling.

Appendix D-37. Man-made debris observed on the marina basin bottom underneath Marginal Dock D.

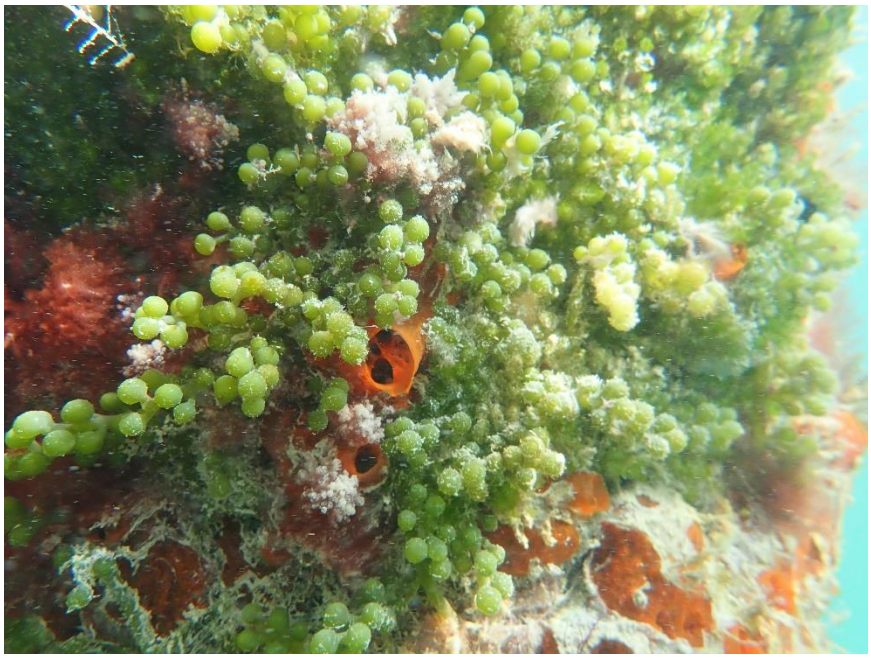


Appendix D-38. Example of orange-veined encrusting sponge, *Clathria curacaoensis*, observed growing in many of the structure surveys.

Appendix D-39. Christmas tree hydroid, *Pennaria disticha*, observed growing on Marginal Dock D.

Appendix D-40. A submerged ladder as man-made debris observed on the marina basin bottom underneath Marginal Dock D.

Appendix D-41. Example of rope sponge, *Aplysina* spp., observed growing in many of the structure surveys.

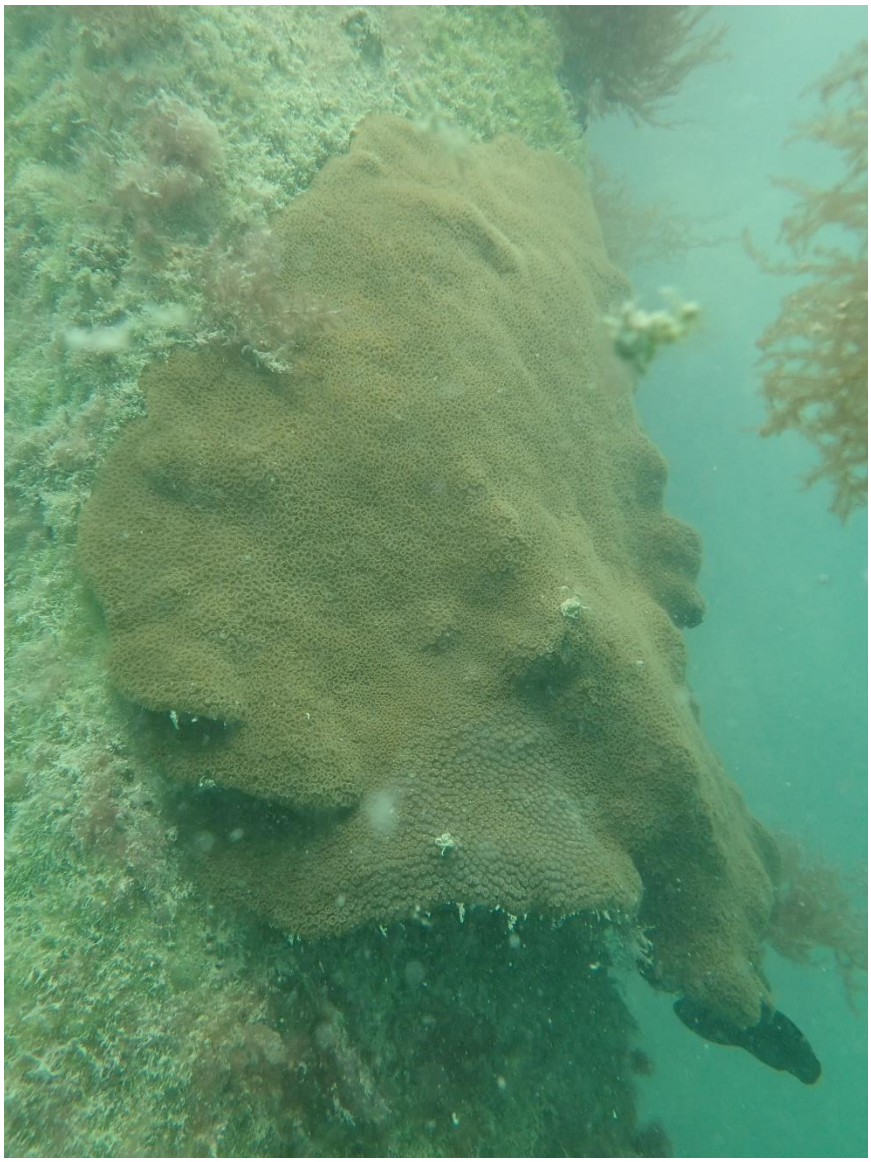


Appendix D-42. Example of green grape alga, *Caulerpa racemosa*, observed growing in many of the structure surveys.

Appendix D-43. A cluster of flat tree oysters, *Isognomon alatus*, observed growing on Marginal Dock D.

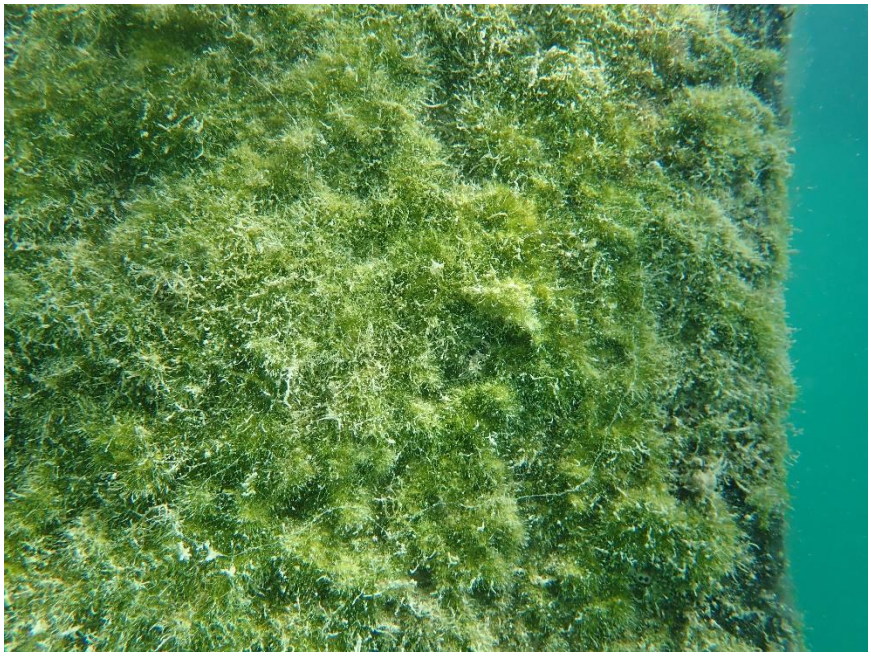
Appendix D-44. *P. disticha* and orange lumpy encrusting sponge, *Ulosa ruetzleri*, observed growing in many of the structure surveys.

Appendix D-45. A corkscrew anemone, *Bartholomea annulata*, observed growing on Marginal Dock D.



Appendix D-46. A large colony (> 30 cm) of Federally listed (threatened) mountainous star coral, *Orbicella faveolata*, observed growing on Marginal Dock D.

Appendix D-47. Button tunicates, *Distaplia corolla*, observed growing on Marginal Dock D.



Appendix D-48. Example of turf algae covering the pilings seen in the majority of the structure surveys.

Appendix D-49. Juvenile coral colony (likely *C. natans*) with parrotfish (family: *Scaridae*) predation marks observed on Marginal Dock D.

Appendix D-50. Small colony of boulder brain coral, *Colpophyllia natans*, observed growing on Marginal Dock D.

Appendix D-51. Small recruits (< 5 cm) of *Pseudodiploria* spp., observed growing on Marginal Dock D.

Appendix D-52 A colony of golfball coral, *Favia fragum*, observed growing on Marginal Dock D.

Appendix D-53. A small *C. natans* colony with its tentacles extended observed growing on Marginal Dock D Dolphin Piles.

APPENDIX E

SUPPLEMENTAL WALL PHOTOS

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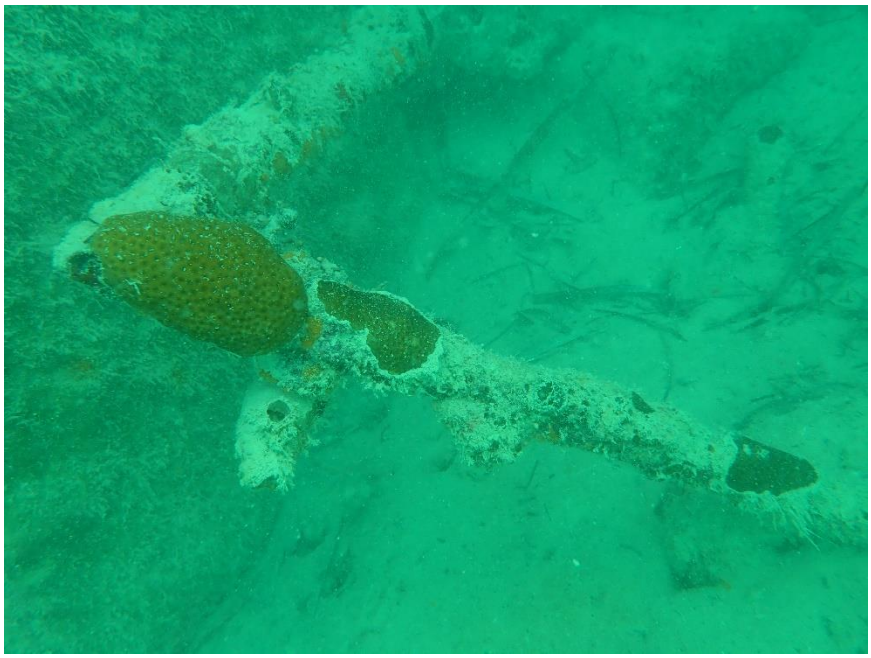
Appendix E-1. Example of floating buoy tied to the uplands used to mark the start location of coral transects.

Appendix E-2. Small *Sideratrea* spp. often found growing on the seawall footer or debris at the bottom of coral transects.



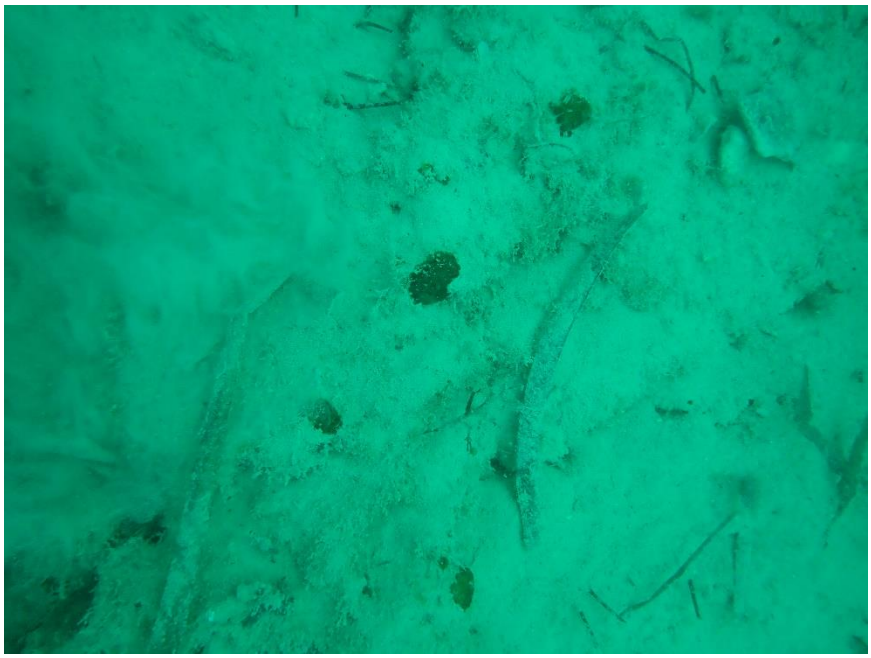
Appendix E-3. Massive starlet coral colonies, *Siderastrea siderea*, observed growing on debris at the base of the seawall in Transect C2.

Appendix E-4. A chain observed at the bottom of the seawall on Transect C4.

Appendix E-5. Boulder brain coral (*Colpophyllia natans*) massive starlet coral colonies (*Siderastrea siderea*), and great star coral (*Montastraea cavernosa*) colonies observed growing alongside Transect C6.

Appendix E-6. A large colony of knobby brain coral, *Pseudodiploria clivosa*, and a small colony of lesser starlet coral (lower right), *Siderastrea radians*, observed growing alongside Transect C6.

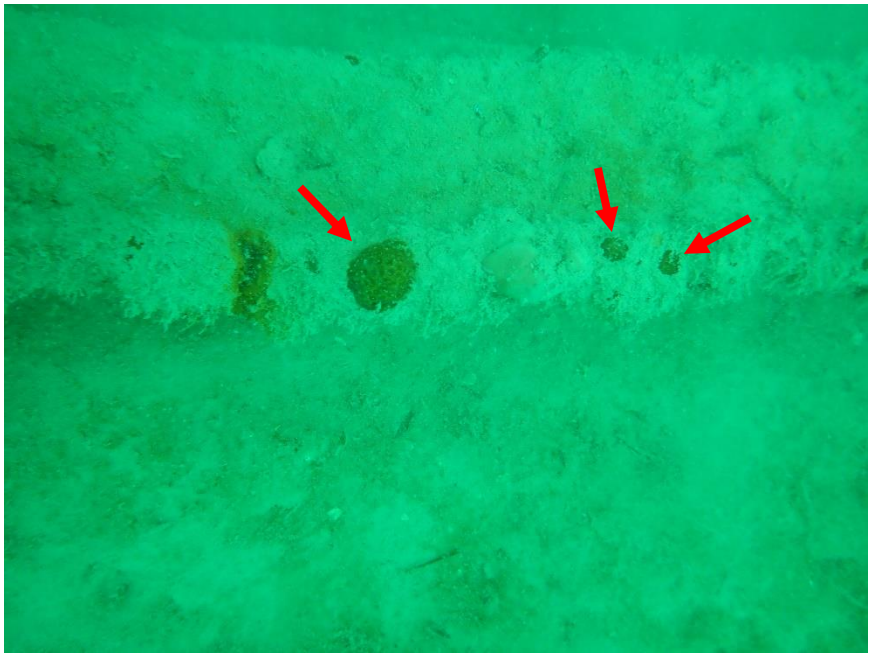
Appendix E-7. *Siderastrea* spp. observed growing at the base of Transect C7.



Appendix E-8. Small colonies (<5 cm) of *Siderastrea* spp. observed growing at the base of Transect C7.

Appendix E-9. A colony elliptical star coral, *Dichocoenia stokesi*, observed alongside Transect C15.

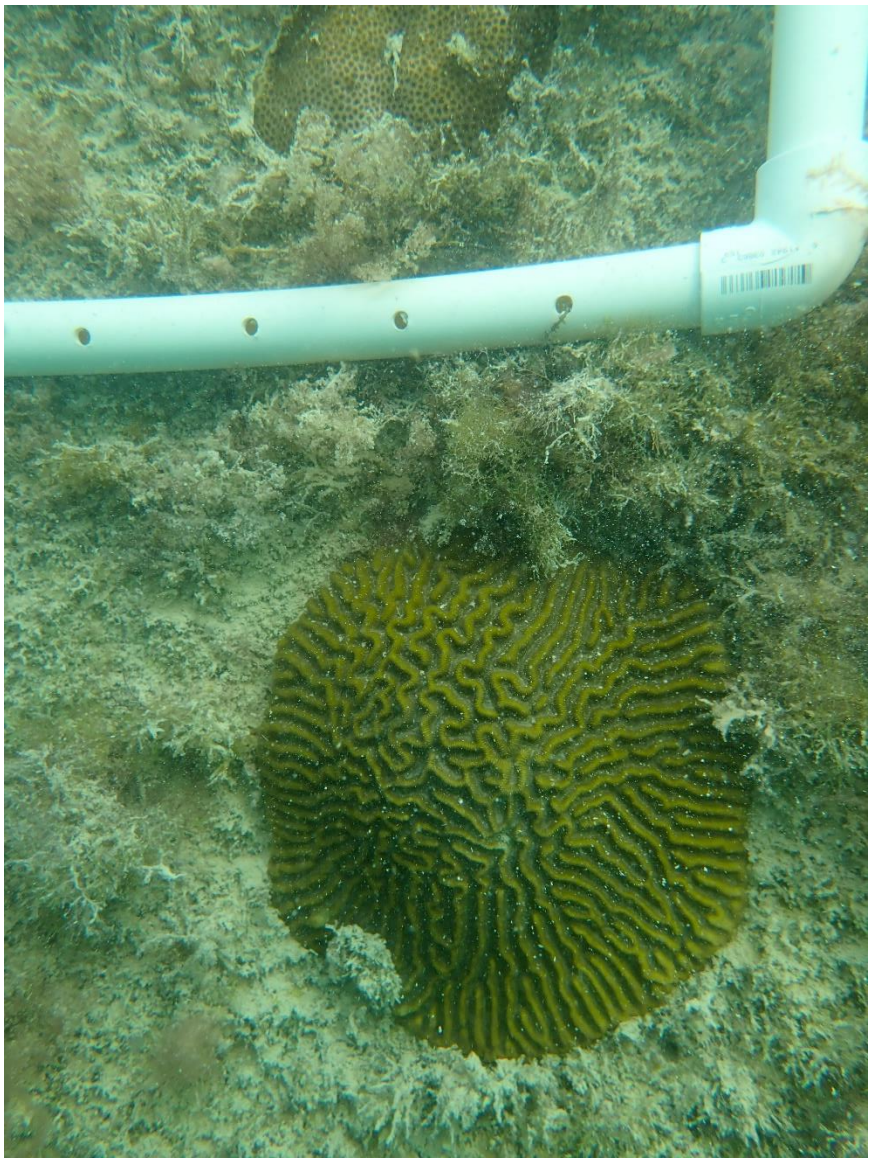
Appendix E-10. Cummins Cederberg diver measuring the maximum diamter of the smooth star coral colony, *Solenastrea bournoni*, observed in Transect C15 at the 10-ft. depth.



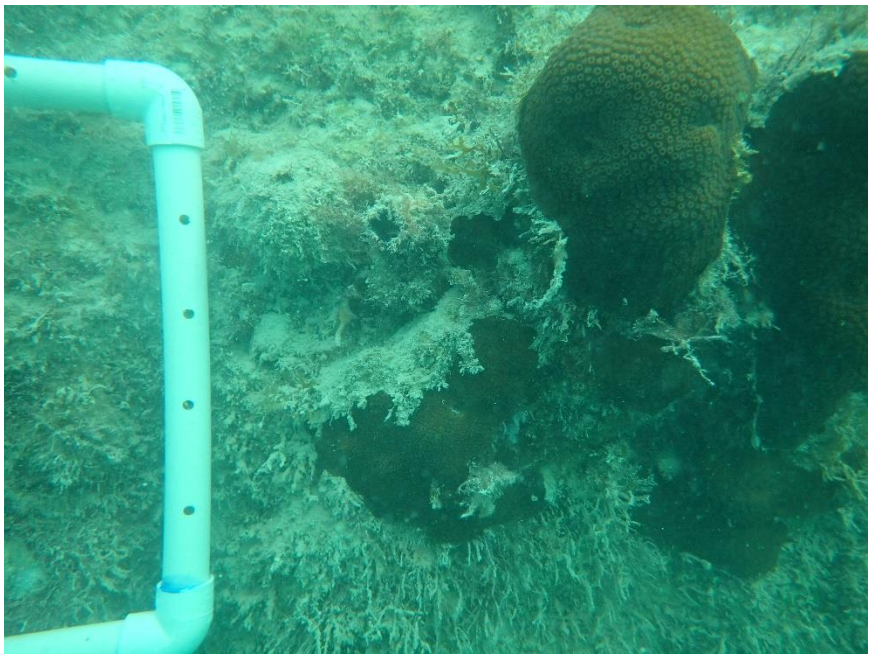
Appendix E-11. Small colonies (<5 cm) of *Siderastrea* spp. observed growing at the base of Transect C18.

Appendix E-12. A lionfish, *Pterois volitans*, observed during Transect C20.

Appendix E-13. Two small colonies of *Siderastrea radians* observed growing on the footer during Transect C21.

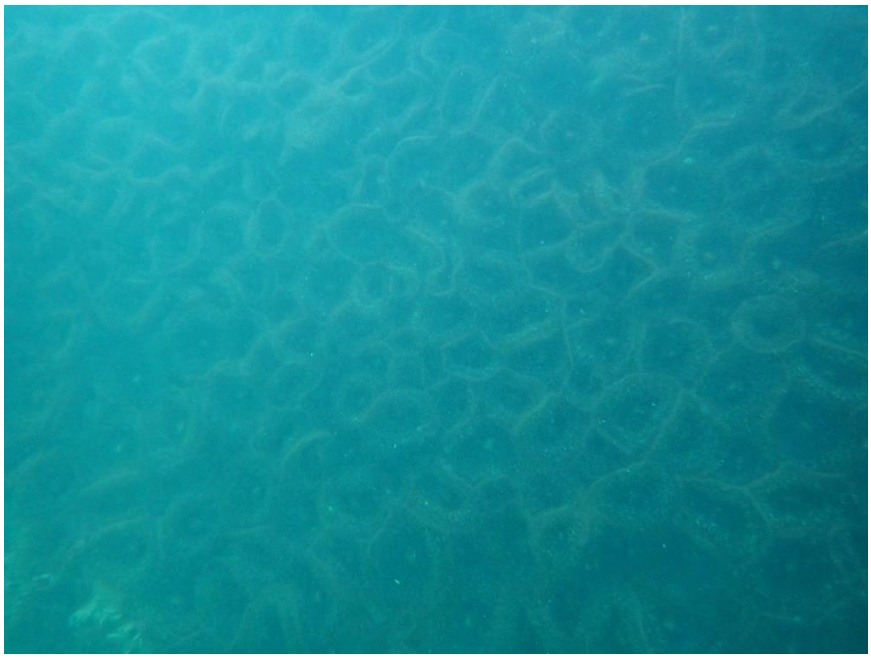


Appendix E-14. Colony of *P. strigosa* just outside of the 5-ft. depth quadrat in Transect C24.



Appendix E-15. Various colonies of corals observed growing alongside Transect C25.

Appendix E-16. A coral encrusting sponge, *Cliona caribbaea*, observed overgrowing a colony of *Siderastrea* spp. alongside Transect C25.



Appendix E-17. Wall of hundreds of warty corallimorphs, *Rhodactis osculifera*, observed in Transect C11.

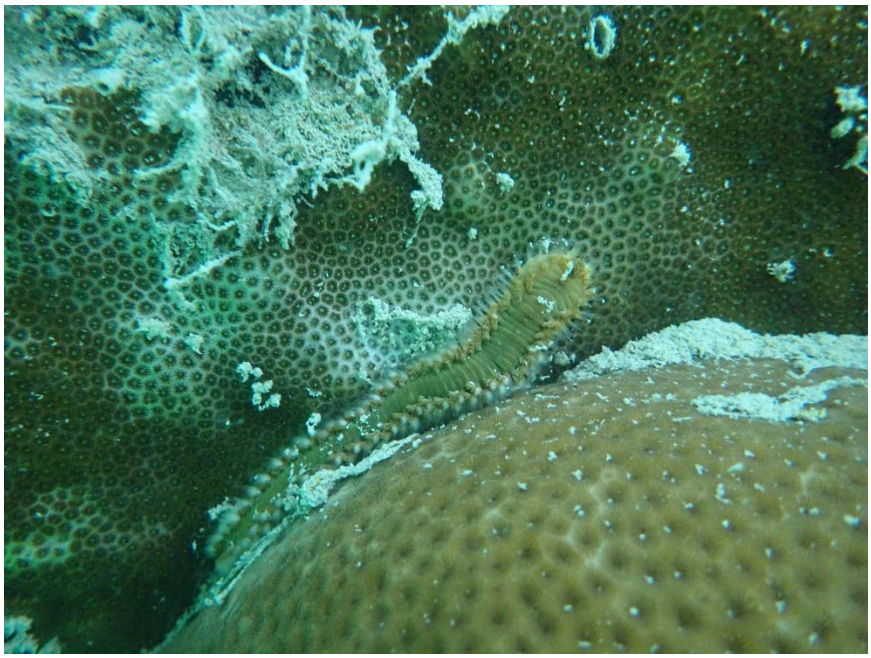
Appendix E-18. Close-up of *Rhodactis osculifera* observed in Transect C11.

Appendix E-19. A large colony of fluorescing *C. natans* observed in the Central Basin on the N1 Wall.

Appendix E-20. A colony of spiny flower coral, *Mussa angulosa*, observed in the Central Basin on the N1 Wall.

Appendix E-21. A colony of ten-ray star coral, *Madracis decactis*, observed in the Central Basin on the N1 Wall.

Appendix E-22. A juvenile colony of *C. natans*, observed in the Central Basin on the N1 Wall.



Appendix E-23. A beared fireworm, *Hermodice carunculata*, observed on coral (*Stephanocoenia intercepta* and *S. siderea*) alongside Transect C29.

10.4 Appendix D: Agency Correspondence

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U.S. Department of Homeland Security

United States Coast Guard

Commanding Officer
United States Coast Guard
Facilities Design and Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: (757) 852-3400
Fax: (757) 852-3495

11000
December 7, 2020

Mr. Timothy Parsons, Ph.D.
Director, Florida Division of Historical Resources
State Historic Preservation Officer
500 S. Bronough Street
R.A. Gray Building, Room 305
Tallahassee, FL 32399-0250

Greetings Dr. Parsons:

The U.S. Coast Guard (USCG) announces the availability of a draft Environmental Assessment (EA) that analyzes and evaluates potential environmental impacts associated with the repair and replacement of facilities at Sector and Station Key West that were damaged during Hurricane Irma in September 2017 (the Proposed Action). The Proposed Action is needed to provide Sector Key West and Station Key West with facilities and infrastructure that will allow them to adequately execute their mission requirements and increase the resiliency of Sector and Station facilities so that they can remain operational during future weather events and return to full operation after an event is over.

The USCG's Proposed Action under the National Environmental Policy Act equates to the Proposed Undertaking under Section 106 of the National Historic Preservation Act. The Proposed Undertaking includes demolishing and rebuilding the Sector Engineering/Electronics Support Detachment building to meet resiliency thresholds; demolishing and rebuilding the Station building, pier, docks, and boat house; and rebuilding the electrical distribution system serving Sector Key West to include transformer and electrical distribution to the waterfront, shore facilities, and on-site energy generation and storage. Enclosure (1) shows the demolition and site plans.

USCG Key West Trumbo Point (now Sector Key West) was first established circa 1908 and contains resources that may have been associated with the Flagler Railroad. The railroad, built by Henry Flagler in 1912 and extending from Miami to Key West, may have terminated at Pier D1. However, any evidence of the railroad is no longer extant. The Florida Master Site File lists USCG Key West Trumbo Point as a resource group with seven contributing resources and six non-contributing resources. Of the contributing resources, Pier D1, Pier D2, Pier D3 (including the bulkheads and the pier steps at the head of the basin between Pier D1 and Pier D2), Building 101, and Building 48 are within the footprint of the Proposed Undertaking. Buildings 105 and 108 are also within the footprint of the Proposed Undertaking but are listed as non-contributing resources.

Several surveys of the USCG Key West Trumbo Point resource group have been conducted in the past, with the most recent survey occurring in 2009 in support of the USCG's *Environmental Assessment for the Homeporting of Six Fast Response Cutters at United States Coast Guard Sector Key West*. In a letter dated 16 June 2009, the Deputy Florida State Historic Preservation Officer stated that because "the design and construction of the contributing resources within the resource group are typical of their style and have numerous alterations to the structures and

site…" the resource group and its individual contributing and non-contributing resources are not considered eligible for listing in the National Register of Historic Places. Copies of this letter and the Florida Master Site File for USCG Key West Trumbo Point are provided as Enclosure (2).

Furthermore, the USCG has considered the effects of the Proposed Undertaking on historic properties when developing the draft EA. The draft EA is available online for your review at https://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-Engineering-Logistics-CG-4-/Program-Offices/Environmental-Management/Environmental-Planning-and-Historic-Preservation/. The analysis specific to historic resources in contained in Section 3.2, Resource Areas Dismissed from Further Analysis.

In accordance with the requirements of Section 106 of the National Historic Preservation Act of 1966 (54 United States Code Section 306108) and its implementing regulations (36 Code of Federal Regulations Part 800), the USCG has concluded that there will be no effects on historic properties as a result of implementation of the Proposed Undertaking and requests concurrence with this finding within 30 days of receipt of this letter. If you have any questions, please reach out to Ms. Lesley Dobbins-Noble by phone at (757) 852-3410 or by e-mail at lesley.c.dobbinsnoble@uscg.mil.

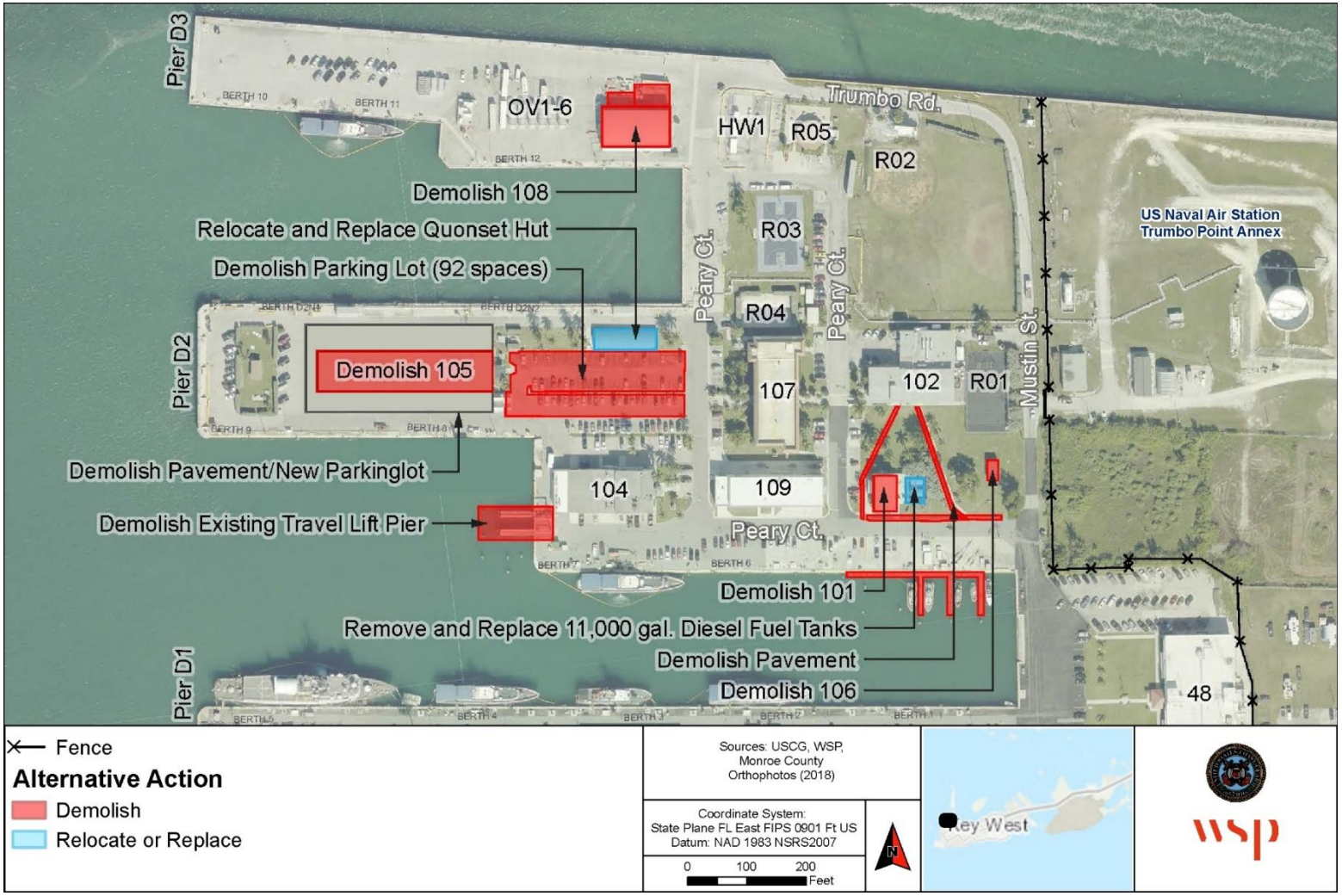
Sincerely,

Digitally signed by
BARRESI.JOHN.F.JRII.1187016629
Date: 2020.12.07 16:51:11 -05'00'

J. F. BARRESI
Captain
U. S. Coast Guard

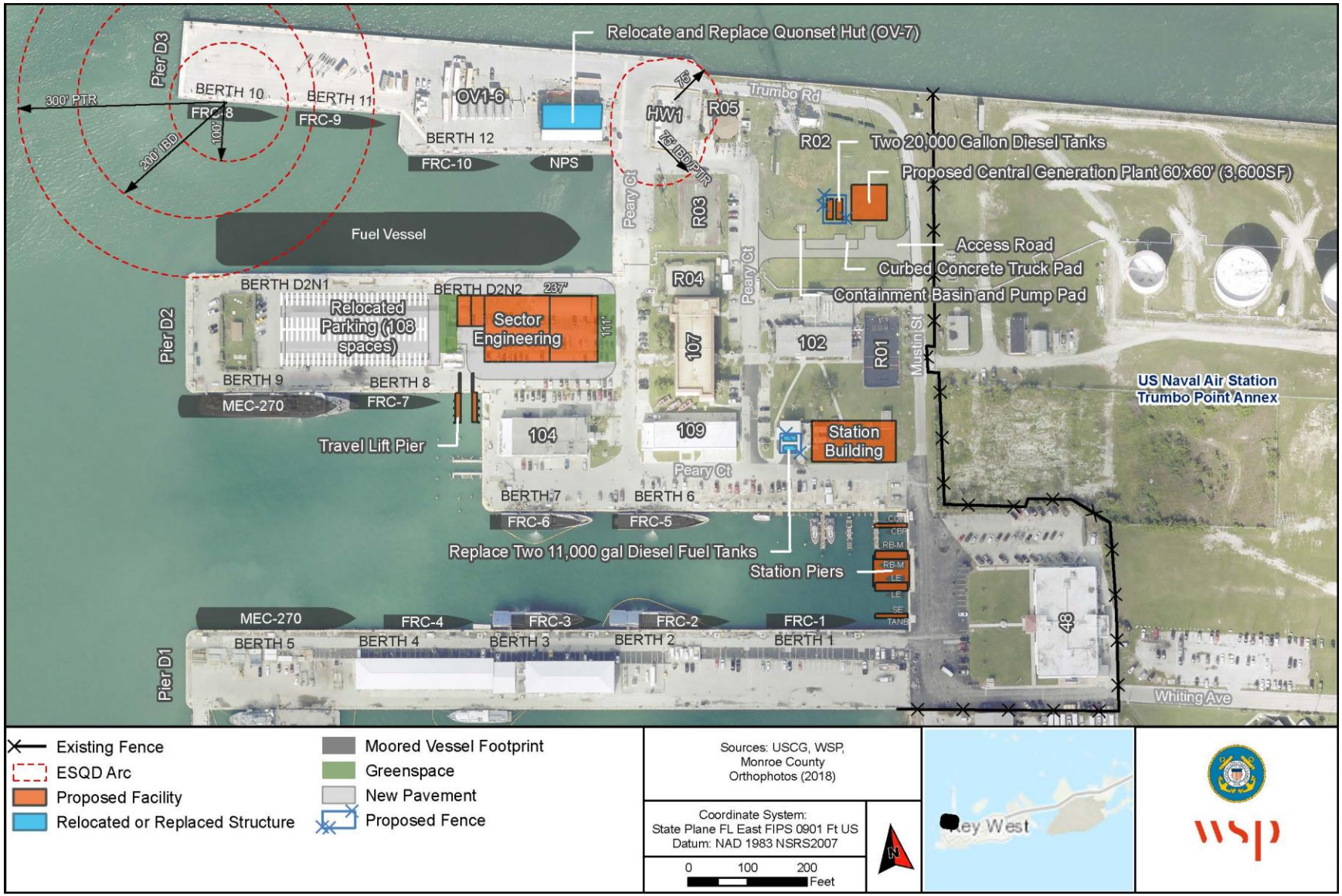
Enclosures: (1) Site Plans
(2) 2009 Florida Deputy SHPO Letter and Master Site File

Figure 1. Demolition Plan



Enclosure 1

Figure 2. Site Plan



Enclosure 1

FLORIDA DEPARTMENT OF STATE
Kurt S. Browning
Secretary of State
DIVISION OF HISTORICAL RESOURCES

Mr. Andrew Bobick
Chief, Environmental Branch
United States Coast Guard
Civil Engineering Unit Miami
15608 S.W. 117th Avenue
Miami, Florida 33131-1630

June 16, 2009

RE: DHR Project File Number: 2009-3060 (2008-5971)
Documentation of Resources at the USCG Sector Key West at Trumbo Point
Key West, Monroe County

Dear Mr. Bobick:

This office has received and reviewed the Florida Master Site File (FMSF) *Resource Group* form and the five FMSF *Historical Structure* forms for USCG Sector Key West and found then to be complete and sufficient.

The five individual resources include Pier D1/Building 467 (8MO3560), Pier D2 (8MO1927), Pier D3/Building 465 (8MO1928), Building 48 (8MO1929), and Building 101 (8MO1930). The resource group, USCG Key West Trumbo Point Resource Group (8MO1926), consist of the above referenced properties and two previous recorded properties, a bulkhead, B-460 (8MO3558) and quay wall B-464 (8MO 3559)

Based on the information provided and a review of our records, it is the opinion of this office that the building/structures and the resource group do not appear to meet the criteria for listing in the *National Register*.

The materials will be forwarded to the Florida Master Site File Office and State Archives. Your cooperation in helping to document Florida's historic properties is appreciated.

If you have any questions concerning our comments, please contact Scott Edwards, Historic Preservationist, by electronic mail *sedwards@dos.state.fl.us*, or at 850-245-6333 or 800-847-7278.

Sincerely,

Laura A. Kammerer

Laura A. Kammerer
Deputy State Historic Preservation Officer
For Review and Compliance

500 S. Bronough Street • Tallahassee, FL 32399-0250 • http://www.flheritage.com

☐ Director's Office (850) 245-6300 • FAX: 245-6436
☐ Archaeological Research (850) 245-6444 • FAX: 245-6452
☑ Historic Preservation (850) 245-6333 • FAX: 245-6437

Enclosure 2

T10#8

Page 1

☑ Original
☐ Update

RESOURCE GROUP FORM
FLORIDA MASTER SITE FILE
Version 4.0 1/07

Site #8 MO1926
Recorder# 40, 44, 84, 86, 97
Field Date 4 / 2 /09
Form Date 4 / 6 /09

NOTE: Use this form to document districts, landscapes and building complexes as described in the box below. Cultural resources contributing to the Resource Group should also be documented individually at the Site File. **Do not use this form for National Register multiple property submissions** (MPSs). National Register MPSs are treated as Site File manuscripts and are associated to the individual resources included under the MPS cover using the Site File manuscript number.

Check ONE box that best describes the Resource Group:

- ☐ **Historic district** (NR category "district"): buildings and NR structures only: NO archaeological sites
- ☐ **Archaeological district** (NR category "district"): archaeological sites only: NO buildings or NR structures
- ☐ **Mixed district** (NR category "district"): includes more than one type of cultural resource (example: archaeological sites and buildings)
- ☑ **FMSF building complex** (NR category usually "building(s)"): multiple buildings in close spatial and functional association
- ☐ **Designed historic landscape** (NR category usually "district" or "site"): can include multiple resources (see *National Register Bulletin #18*, page 2 for more detailed definition and examples: e.g. parks, golf courses, campuses, resorts, etc.)
- ☐ **Rural historic landscape** (NR category usually "district" or "site"): can include multiple resources and resources not formally designed (see *National Register Bulletin #30, Guidelines for Evaluating and Documenting Rural Historic Landscapes* for more detailed definition and examples: e.g. farmsteads, fish camps, lumber camps, traditional ceremonial sites, etc.)
- ☐ **Linear resource** (NR category usually "structure"): Linear resources are a special type of rural historic landscape and can include canals, railways, roads, etc.

Resource Group Name USCG Key West Trumbo Point Multiple Listing [DHR only] _____
Project Name Historic Documentation of USCG Key West Trumbo Point Annex, Monroe County FMSF Survey # _____
National Register Category (please check one): ☐ building(s) ☐ structure ☑ district ☐ site ☐ object
Linear Resource Type (if applicable): ☐ canal ☐ railway ☐ road ☐ other (describe): _____
Ownership: ☐ private-profit ☐ private-nonprofit ☐ private-individual ☐ private-nonspecific ☐ city ☐ county ☐ state ☑ federal ☐ Native American ☐ foreign ☐ unknown

LOCATION & MAPPING

Address (if applicable, include N,S,E,W; #; St., Ave., etc.) 100 Trumbo Road
City/Town (within 3 miles) Key West In Current City Limits? ☐ yes ☐ no ☑ unknown
County or Counties (do not abbreviate) Monroe
Name of Public Tract (e.g., park) _____
1) Township 67S Range 25E Section 30 ¼ section: ☐ NW ☐ SW ☐ SE ☐ NE ☑ Irregular-name: _____
2) Township _____ Range _____ Section _____ ¼ section: ☐ NW ☐ SW ☐ SE ☐ NE ☐ Irregular-name: _____
3) Township _____ Range _____ Section _____ ¼ section: ☐ NW ☐ SW ☐ SE ☐ NE ☐ Irregular-name: _____
4) Township _____ Range _____ Section _____ ¼ section: ☐ NW ☐ SW ☐ SE ☐ NE ☐ Irregular-name: _____
USGS 7.5' Map Name(s) & Date(s) (boundaries must be plotted on attached photocopy of map; label with map name and publication date)
Key West, Fla. 1971
Plat, Aerial, or Other Map (map's name, originating office with location) _____
Landgrant _____
Verbal Description of Boundaries (description does not replace required map)
The resource group is located within tax parcel 3267 25 0000 1750000000 and includes all land currently owned by USCG Key West Sector.

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date ___/___/_____ ☐ Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐ yes ☐ no ☐ insufficient info Date ___/___/_____ Init._____ KEEPER – Determined eligible: ☐ yes ☐ no Date ___/___/_____ NR Criteria for Evaluation: ☐ a ☐ b ☐ c ☐ d (see *National Register Bulletin 15*, p. 2)	

RESOURCE GROUP FORM

Site #8 MO1926

HISTORY & DESCRIPTION

Construction date: Exactly_____(year) Approximately_____(year) Earlier than 1950 (year) Later than 1908 (year)
Architect/Designer(last name first): unknown Builder(last name first): unknown
Total number of individual resources included in this Resource Group: # of contributing 7 # of non-contributing 6
Time period(s) of significance (for prehistoric districts, use archaeological phase name and approximate dates; for historical districts, use date range(s), e.g. *1895-1925)*
1908-1912; 1950
Narrative Description (*National Register Bulletin 16A* pp. 33-34; fit a summary into 3 lines or attach supplementary sheets if needed)
see attached

RESEARCH METHODS (check all that apply)

- ☑ FMSF record search (sites/surveys)
- ☐ FL State Archives/photo collection
- ☑ property appraiser / tax records
- ☑ cultural resource survey
- ☐ library research
- ☐ city directory
- ☐ newspaper files
- ☐ historic photos
- ☐ building permits
- ☑ occupant/owner interview
- ☐ neighbor interview
- ☐ interior inspection
- ☐ Sanborn maps
- ☐ plat maps
- ☑ Public Lands Survey (DEP)
- ☐ HABS/HAER record search
- ☑ other methods (specify) on-site archives

Bibliographic References (use Continuation Sheet, give FMSF Manuscript # if relevant)
Monroe County Property Appraiser; 2009 Glidwell, MKC Jeff, Personal Communication with Marielle Lumang, April 2.

OPINION OF RESOURCE SIGNIFICANCE

Potentially eligible individually for National Register of Historic Places? ☐yes ☑no ☐insufficient information
Potentially eligible as contributor to a National Register district? ☐yes ☑no ☐insufficient information
Explanation of Evaluation (required, see *National Register Bulletin 16A* p. 48-49. Attach longer statement, if needed, on separate sheet.)
see attached

Area(s) of Historical Significance (see *National Register Bulletin 15*, p. 8 for categories: e.g. "architecture", "ethnic heritage", "community planning & development", etc.)
Maritime History, Military

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field & analysis notes, photos, plans, other important documents that are permanently accessible: For each separately maintained collection, describe (1) document type(s),* (2) maintaining organization,* (3) file or accession nos., and (4) descriptive information.
all maps, photos, and field notes on file at ACI; P08047A USCG USCG Sector Key West

RECORDER INFORMATION

Recorder Name Lumang, Marielle
Recorder Contact Information (Address / Phone / Fax / Email) 8110 Blaikie Ct, Suite A, Sarasota, Florida 34243/941-379-6206/ ACIFlorida@comcast.net
Recorder Affiliation Archaeological Consultants, Inc.

Required Attachments

1. **PHOTOCOPY OF USGS 7.5' MAP WITH DISTRICT BOUNDARY CLEARLY MARKED**
2. **LARGE SCALE STREET, PLAT OR PARCEL MAP WITH RESOURCES MAPPED & LABELED**
3. **TABULATION OF ALL INLCUDED RESOURCES** (name, FMSF #, contributing? Y/N, resource category, street address or township-range-section if no address)
4. **PHOTOS OF GENERAL STREETSCAPE OR VIEWS (Optional: aerial photos, views of typical resources)** Photos may be archival B&W prints OR digital image files. If submitting digital image files, they must be included on disk or CD AND in hard copy format (plain paper is acceptable). Digital images must be at least 1600 x 1200 pixels, 24-bit color, jpeg or tiff.

CONTINUATION SHEET

8MO1926: US Coast Guard Trumbo Point Resource Group, at 100 Trumbo Road, was first established ca. 1908. It is located at the Key West Bight, south of Fleming Key and consists of 13 resources, seven of which are contributing and six are non-contributing.

Key West was first used as a port in 1824 when the schooner *Florida* sailed into the Port of Key West and established a permanent station. The crew of *Florida* worked for the Key West Collector of Customs in pursuing pirates, preventing smuggling, rescuing the distressed at sea, and collecting maritime tariffs. Trumbo Point would eventually be used by the US Navy before its acquisition by the US Coast Guard (referred to as USCG).

Development of Key West would be dramatically altered when entrepreneur Henry Flagler completed a railroad from Miami to Key West in 1912. Research and informant interviews suggest that the railroad terminated on Pier D-1 (BAI 1997; Glidwell 2009).

The USCG was first organized in 1790 as the Revenue Cutter Service, as armed maritime law enforcement. The name was later changed to Coast Guard in 1915 and their duties expanded. As the USCG pertains to Florida, in 1939, the Lighthouse Service, an organization which first formed during the late 1700s to aid with navigation, merged with the Coast Guard and created the Captain of the Port Key West. The Coast Guard offices were originally located at the water front of Mallory Square, located 0.65 southwest of Trumbo Point along the northwest shore of Key West. In 1977, the Coast Guard moved to its current location at Trumbo Point (USCG n.d.).

In 1995, the USCG Trumbo Point was included in the *Architectural Inventory of the US Naval Air Station Key West* by the US Army Corps of Engineers. The survey noted three resources included in this resource group: Pier D-1 (8MO3560), B-460 (8MO3358), and B-464 (8MO3559). Although these resources were thought to be associated with the Flagler Railroad, they were not considered eligible for listing in the NRHP because "there [were] no other associated features or buildings identified as part of the Flagler Railroad within the immediate vicinity" (USACE 1995).

Since the 1995 survey, Pier D-1 (8MO3560) has been altered with the replacement of piers, bulkhead, paving, as well as the demolition of the two buildings it once supported: B-27 (8MO3556) and B-28 (8MO3557).

The other contributing resources recorded in this resource group include Pier D-2 (8MO1927) and Pier D-3 (8MO1928), Building B-48 (8MO1929), and Building B-101. The non-contributing resources: B-102, B-104, B-105, B-107, B-108, and B-109 included in the resource group were constructed after ca. 1959 and are not considered historic.

Although documentation is limited, the US Coast Guard Trumbo Point contains resources that may have been associated with the Flagler Railroad. However, no evidence of the railroad remains. Furthermore, the design and construction of the contributing resources within the resource group are typical of their style and have numerous alterations to the structures and site, most as recently as 2006 following the damage caused by Hurricane Wilma. Therefore, 8MO1925 is not considered potentially eligible for listing in the NRHP.

CONTINUATION SHEET

Contributing

FMSF	Site Name	Resource Category
8MO3560	Pier D-1 (B-467)	Structure
8MO1927	Pier D-2	Structure
8MO1928	Pier D-3 (B-465)	Structure
8MO1929	B-48	Building
8MO3558	B-460	Structure
8MO3559	B-464	Structure
n/a	B-101	Building

Non-contributing

Site Name	Resource Category
B-102	Building
B-104	Building
B-105	Building
B-107	Building
B-108	Building
B-109	Building

References

Brockington and Associates, Inc. (BAI)
1997 *Archaeological Survey of Key West Naval Air Station, Monroe County, Florida.* On file at USCG Trumbo Point.

Glidwell, Jeff MTC
2009 Personal Communication with Marielle Lumang, April 2.

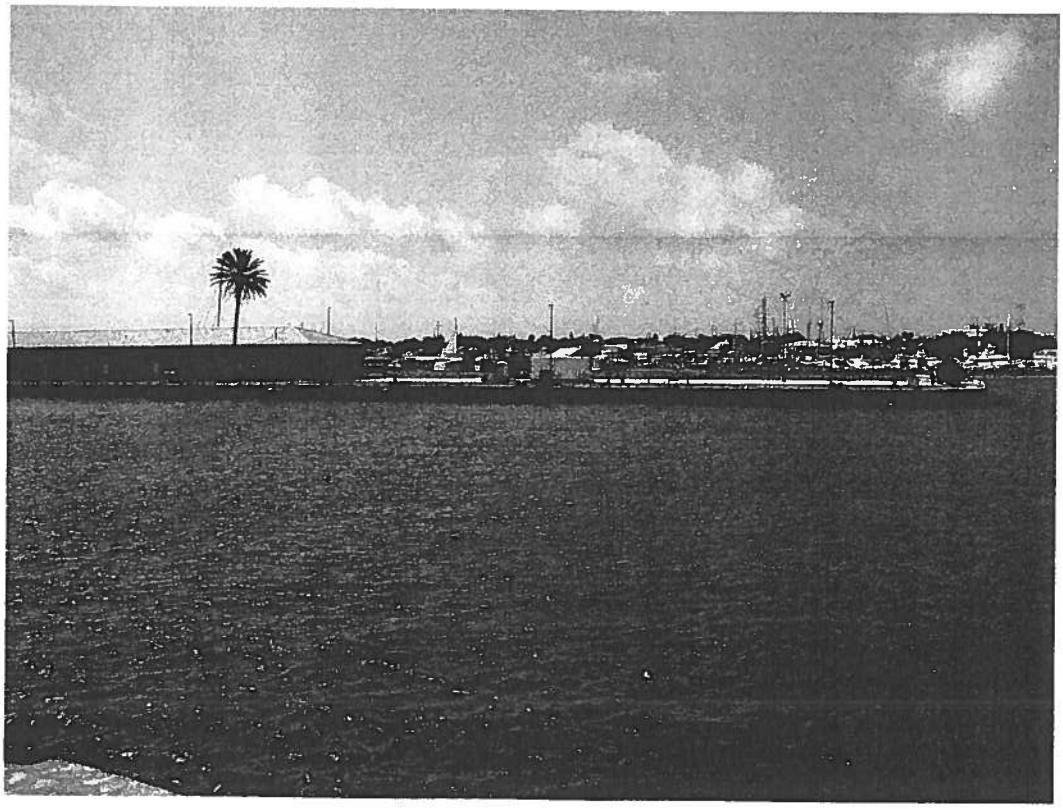
US Army Corp of Engineers (USACE)
1995 *Architectural Inventory of the US Naval Air Station Key West.* On file at FMSF.

US Coast Guard (USCG)
n.d. *United States Coast Guard: Sector Key West History.* <http://uscg.mil/d7/sect KeyWest>. Accessed April 2009.

RESOURCE GROUP FORM

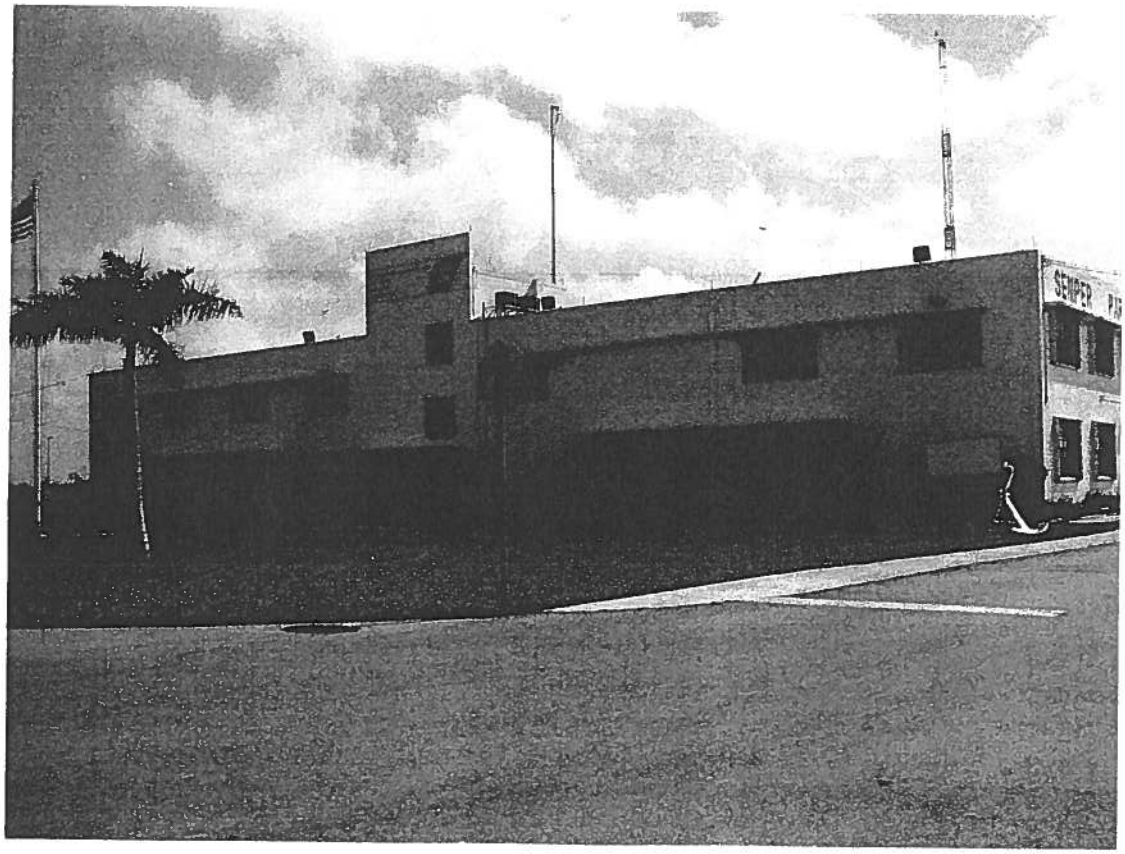
Site #8 MO1926

PHOTOGRAPHS



RESOURCE GROUP FORM

PHOTOGRAPHS



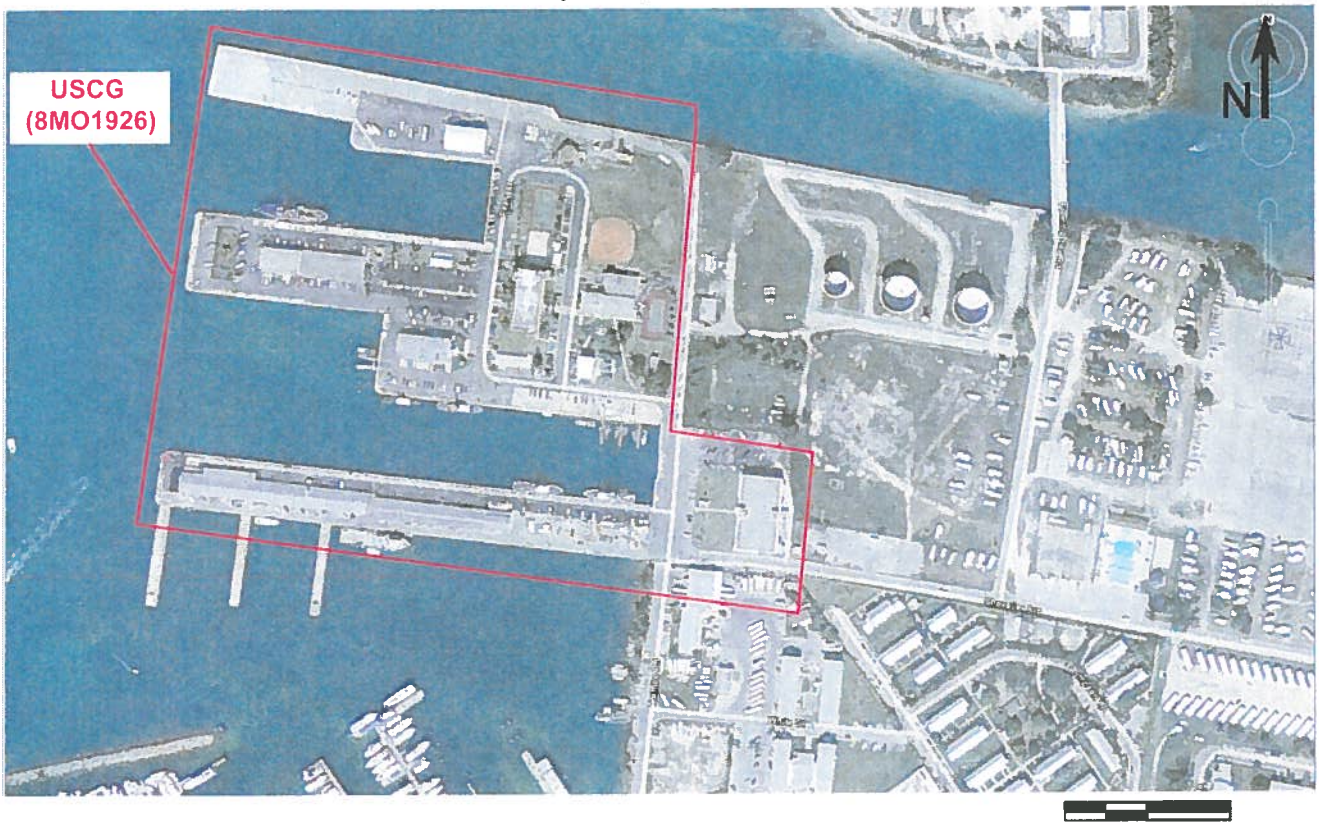
RESOURCE GROUP FORM

Site #8_MO1926_

PHOTOGRAPH

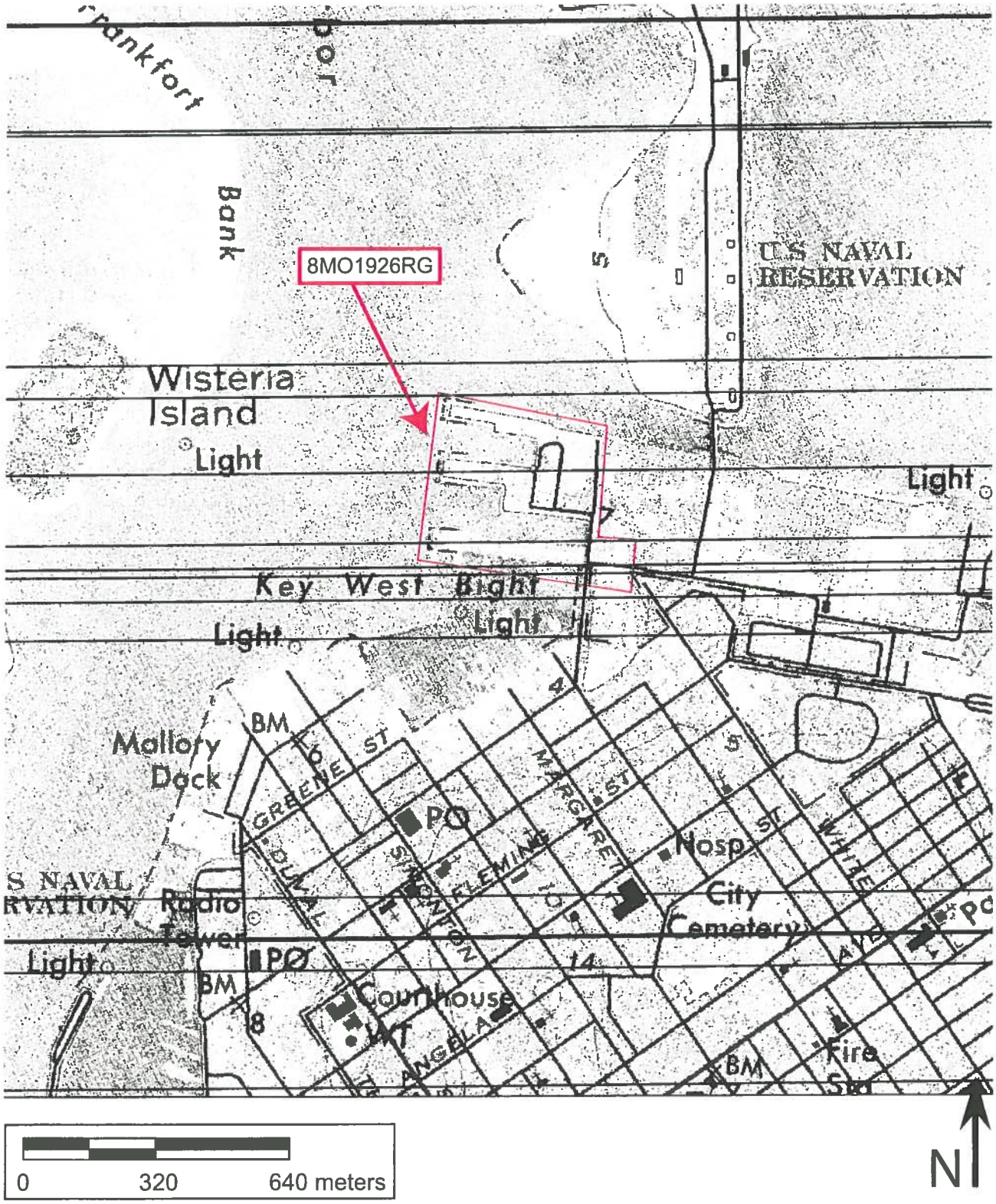
GOOGLE EARTH MAP

Key West, Florida



USGS MAP

Township 67 South, Range 25 East, Section 30
Key West 1971



☐ Original
☑ Update

HISTORICAL STRUCTURE FORM
FLORIDA MASTER SITE FILE
Version 4.0 1/07

Site #8 MO3560
Field Date 4 / 2 / 2009
Form Date 4 / 6 / 2009
Recorder # 45

Shaded Fields represent the minimum acceptable level of documentation.
Consult the *Guide to Historical Structure Forms* for detailed instructions.

Site Name(s) (address if none) USCG Key West, Trumbo Point Annex - Pier D1 (B-467) Multiple Listing (DHR only) _____
Survey Project Name Historic Documentation of USCG Key West Trumbo Point Annex, Monroe County Survey # (DHR only) _____
National Register Category (please check one) ☐ building ☑ structure ☐ district ☐ site ☐ object
Ownership: ☐private-profit ☐private-nonprofit ☐private-individual ☐private-nonspecific ☐city ☐county ☐state ☑federal ☐Native American ☐foreign ☐unknown

LOCATION & MAPPING

Address (include N,S,E,W; #; St., Ave., etc.) 100 Trumbo Road
Cross Streets (nearest / between) _____
USGS 7.5' Map Name & Date Key West 1971 Plat or Other Map _____
City / Town (within 3 miles) Key West In City Limits? ☐yes ☐no ☑unknown County Monroe
Township 67S Range 25E Section 30 ¼ section: ☐NW ☐SW ☐SE ☐NE ☑Irregular-name: _____
Tax Parcel # 3267 25 0000 1750000000 Landgrant _____
Subdivision Name _____ Block _____ Lot _____
UTM: Zone ☐16 ☑17 Easting 418877 0 Northing 2717004 0
Other Coordinates: X: _____ Y: _____ Coordinate System & Datum _____
Name of Public Tract (e.g., park) _____

HISTORY

Construction Year: 1908-1912 ☑approximately ☐year listed or earlier ☐year listed or later
Original Use* pier From (year): original To (year): _____
Current Use* pier From (year): _____ To (year): current
Other Use* _____ From (year): _____ To (year): _____
Moves: ☐yes ☑no ☐unknown Dates _____ Original address (if moved) _____
Alterations: ☑yes ☐no ☐unknown Dates 1950s; 1986; 2006 Nature* removal of RR tracks; replaced electrical system; replaced piers and bulkhead
Additions: ☐yes ☑no ☐unknown Dates _____ Nature* _____
Architect (last name first): unknown Builder (last name first): unknown
Ownership History (especially original owner, dates, profession, etc.) Florida East Coast Railway (original - unknown); US Naval Air Station (unknown - 1977); US Coast Guard Station (1977 - current)
Is the Resource Affected by a Local Preservation Ordinance? ☐yes ☐no ☑unknown Describe _____

DESCRIPTION

Style* other: pier Exterior Plan* irregular Number of Stories n/a
Exterior Fabric(s)* poured concrete; cast concrete; steel frame; asphalt
Roof Type(s)* n/a Roof Material(s)* n/a
Roof secondary strucs. (dormers etc.)* _____
Windows (types, materials, etc.)* n/a
Distinguishing Architectural Features (exterior or interior ornaments) see attached
Ancillary Features / Outbuildings (record outbuildings, major landscape features; use continuation sheet if needed.) n/a

* Consult *Guide to Historical Structure Forms* for preferred descriptions (coded fields at the Site File).

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date ___/___/___ ☐ Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date ___/___/___ Init.___ KEEPER – Determined eligible: ☐yes ☐no Date ___/___/___ NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

HISTORICAL STRUCTURE FORM

Site #8 MO3560

DESCRIPTION (continued)

Chimney: No.____ Material(s)* _____
Structural System(s)* poured concrete; cast concrete; steel frame
Foundation: Type(s)* piers Material(s)* cast concrete
Main Entrance (stylistic details) _____
Porch Descriptions (types, locations, roof types, etc.) _____

Condition (overall resource condition): ☐excellent ☑good ☐fair ☐deteriorated ☐ruinous
Narrative Description of Resource see attached

Archaeological Remains _____ ☐ Check if Archaeological Form Completed

* Consult *Guide to Historical Structure Forms* for preferred descriptions (coded fields at the Site File).

RESEARCH METHODS (check all that apply)

☑ FMSF record search (sites/surveys)	☐ library research	☐ building permits	☐ Sanborn maps
☐ FL State Archives/photo collection	☐ city directory	☑ occupant/owner interview	☐ plat maps
☐ property appraiser / tax records	☐ newspaper files	☐ neighbor interview	☑ Public Lands Survey (DEP)
☑ cultural resource survey	☐ historic photos	☐ interior inspection	☐ HABS/HAER record search

☑ other methods (describe) on-site archives

Bibliographic References (give FMSF manuscript # if relevant, use continuation sheet if needed) Monroe County Property Appraiser; 2009 Glidwell, MKC Jeff, Personal Communication with Marielle Lumang, April 2. FMSF Manuscript #6771.

OPINION OF RESOURCE SIGNIFICANCE

Appears to meet the criteria for National Register listing individually? ☐yes ☑no ☐insufficient information
Appears to meet the criteria for National Register listing as part of a district? ☐yes ☑no ☐insufficient information
Explanation of Evaluation (**required**, whether significant or not; use separate sheet if needed) see attached

Area(s) of Historical Significance (see *National Register Bulletin 15*, p. 8 for categories: e.g. "architecture", "ethnic heritage", "community planning & development", etc.)
Maritime History, Military

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field & analysis notes, photos, plans, other important documents that are permanently accessible:
For each separately maintained collection, describe (1) document type(s),* (2) maintaining organization,* (3) file or accession nos., and (4) descriptive information.
all maps, photos, and field notes on file at ACI; P08047A USCG USCG Sector Key West

RECORDER INFORMATION

Recorder Name Lumang, Marielle
Recorder Contact Information (address / phone / fax / e-mail) 8110 Blaikie Ct, Suite A, Sarasota, Florida 34243/941-379-6206/ ACIFlorida@comcast.net
Recorder Affiliation Archaeological Consultants, Inc.

Use a *Supplement for Site Forms* or other continuation sheet for descriptions that do not fit in the spaces provided.

Required Attachments

❶ USGS 7.5' MAP WITH STRUCTURE LOCATION PINPOINTED IN RED
❷ LARGE SCALE STREET, PLAT OR PARCEL MAP (available from most property appraiser web sites)
❸ PHOTO OF MAIN FACADE, ARCHIVAL B&W PRINT OR DIGITAL IMAGE FILE
If submitting an image file, it must be included on disk or CD AND in hard copy format (plain paper is acceptable).
Digital image must be at least 1600 x 1200 pixels, 24-bit color, jpeg or tiff.

CONTINUATION SHEET

8MO3560: Pier D-1, B-467 of the US Coast Guard Trumbo Point, was constructed ca. 1908-1912. The poured and cast concrete pier is approximately 1,220 feet long and 135 feet wide. The pier is paved with asphalt and once supported Building 27, 8MO3556, and Building 28, 8MO3557 (at the time of survey, both of these buildings have been demolished). The pier has undergone repairs over the years, as recently as 2006 after Hurricane Wilma with the replacement of several support piers and bulkhead; and the replacement of three short concrete docking piers at the western portion of the pier. The pier now supports two non-historic buildings (ca. 2009).

Though documentation is limited, research suggests this may have been the terminal point of the Flagler railroad which operated between 1912 and 1935. However, the railroad tracks were dismantled at an unknown date (BAI 1997; Glidwell 2009). This pier was later acquired by the Navy, and by the Coast Guard in 1977.

This pier was originally recorded during the *Architectural Inventory of the US Naval Air Station Key West* (USACE 1995) in which this resource was determined not eligible for listing in the NRHP by the SHPO. In addition, the design and construction of this pier is typical of the style and lacks historical significance. This pier may have once been associated with the Flagler railroad; however, documentation of this resource is limited and any evidence of the railroad is no longer extant. Therefore, ACI concurs with the previous determination that 8MO3560 is not considered potentially eligible for listing in the NRHP.

References

Brockington and Associates, Inc. (BAI)
1997 *Archaeological Survey of Key West Naval Air Station, Monroe County, Florida.* On file at USCG Trumbo Point.

Glidwell, Jeff MTC
2009 Personal Communication with Marielle Lumang, April 2.

US Army Corp of Engineers (USACE)
1995 *Architectural Inventory of the US Naval Air Station Key West.* On file at FMSF.

HISTORICAL STRUCTURE FORM

Site #8 MO3560

PHOTOGRAPH

GOOGLE EARTH MAP

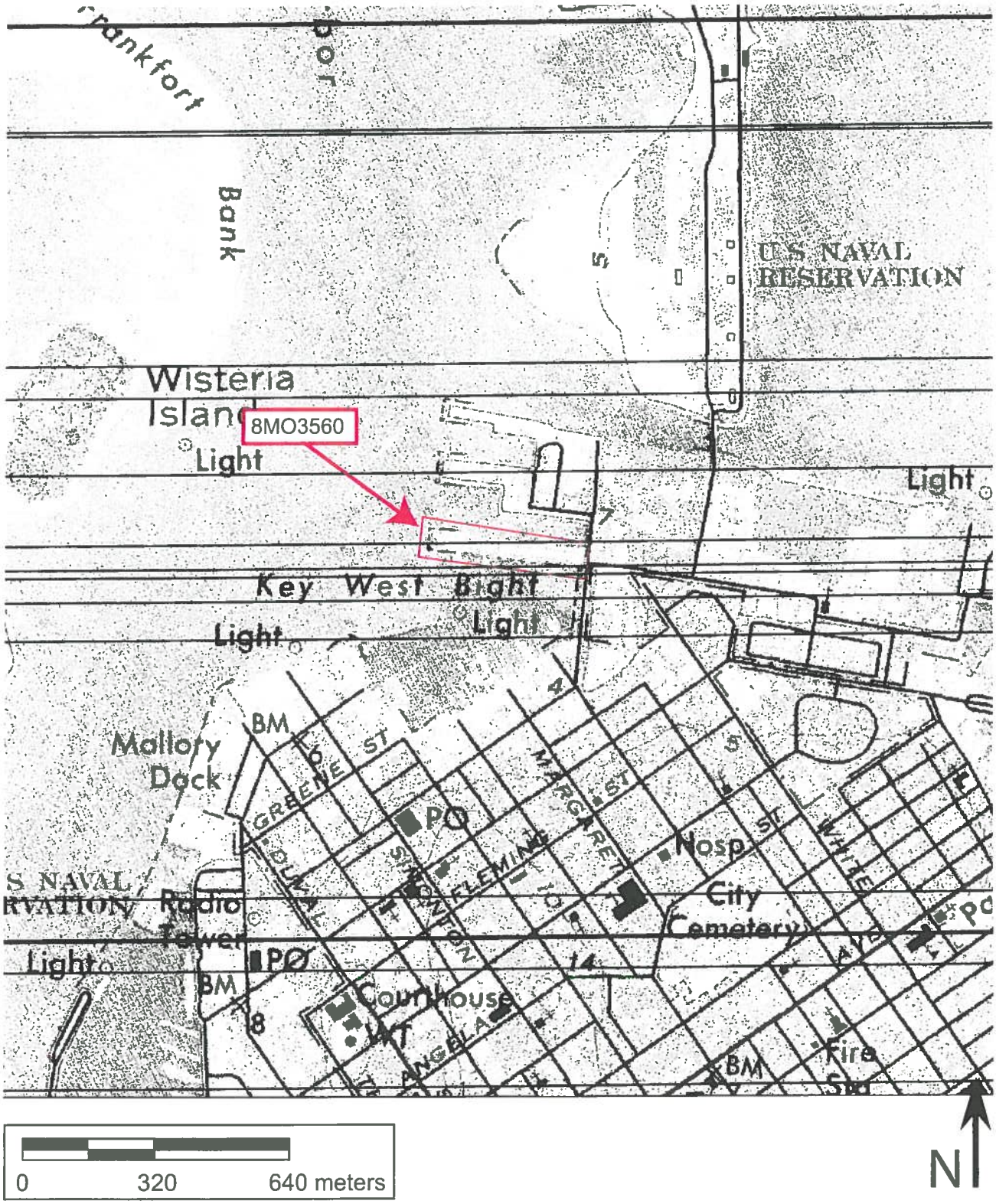
Key West, Florida

HISTORICAL STRUCTURE FORM

Site #8 MO3560

USGS MAP

Township 67 South, Range 25 East, Section 30
Key West 1971



Page 1

☑ Original
☐ Update

HISTORICAL STRUCTURE FORM
FLORIDA MASTER SITE FILE
Version 4.0 1/07

Site #8 MO1927
Field Date 4 / 2 / 2009
Form Date 4 / 6 / 2009
Recorder # 47

Shaded Fields represent the minimum acceptable level of documentation.
Consult the *Guide to Historical Structure Forms* for detailed instructions.

Site Name(s) (address if none) USCG Key West, Trumbo Point Annex - Pier D2 Multiple Listing (DHR only) _____
Survey Project Name Historic Documentation of USCG Key West Trumbo Point Annex, Monroe County Survey # (DHR only) _____
National Register Category (please check one) ☐ building ☑ structure ☐ district ☐ site ☐ object
Ownership: ☐private-profit ☐private-nonprofit ☐private-individual ☐private-nonspecific ☐city ☐county ☐state ☑federal ☐Native American ☐foreign ☐unknown

LOCATION & MAPPING

Address (include N,S,E,W; #, St., Ave., etc.) 100 Trumbo Road
Cross Streets (nearest / between) _____
USGS 7.5' Map Name & Date Key West 1971 Plat or Other Map _____
City / Town (within 3 miles) Key West In City Limits? ☐yes ☐no ☑unknown County Monroe
Township 67S Range 25E Section 30 ¼ section: ☐NW ☐SW ☐SE ☐NE ☑Irregular-name: _____
Tax Parcel # 3267 25 0000 1750000000 Landgrant _____
Subdivision Name _____ Block _____ Lot _____
UTM: Zone ☐16 ☑17 Easting 418877 __ __0 Northing 2717184 __ __0
Other Coordinates: X: _____ Y: _____ Coordinate System & Datum _____
Name of Public Tract (e.g., park) _____

HISTORY

Construction Year: 1908-1912 ☑approximately ☐year listed or earlier ☐year listed or later
Original Use* pier From (year): original To (year): _____
Current Use* pier From (year): _____ To (year): current
Other Use* _____ From (year): _____ To (year): _____
Moves: ☐yes ☑no ☐unknown Dates _____ Original address (if moved) _____
Alterations: ☑yes ☐no ☐unknown Dates see attached Nature* see attached
Additions: ☐yes ☑no ☐unknown Dates _____ Nature* _____
Architect (last name first): unknown Builder (last name first): unknown
Ownership History (especially original owner, dates, profession, etc.) Florida East Coast Railway (original - unknown); US Naval Air Station (unknown - 1977); US Coast Guard Station (1977 - current)
Is the Resource Affected by a Local Preservation Ordinance? ☐yes ☐no ☑unknown Describe _____

DESCRIPTION

Style* other: pier Exterior Plan* irregular Number of Stories n/a
Exterior Fabric(s)* poured concrete; cast concrete; steel frame; asphalt
Roof Type(s)* n/a Roof Material(s)* n/a
Roof secondary strucs. (dormers etc.)* _____
Windows (types, materials, etc.)* n/a

Distinguishing Architectural Features (exterior or interior ornaments) ca. 1920 ferry terminal cast concrete at western terminus

Ancillary Features / Outbuildings (record outbuildings, major landscape features; use continuation sheet if needed.) _____

* Consult *Guide to Historical Structure Forms* for preferred descriptions (coded fields at the Site File).

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date ___/___/_____ ☐ Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date ___/___/_____ Init._____ KEEPER – Determined eligible: ☐yes ☐no Date ___/___/_____ NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

HISTORICAL STRUCTURE FORM

Site #8 MO1927

DESCRIPTION (continued)

Chimney: No.____ Material(s)* _____
Structural System(s)* poured concrete; cast concrete; steel frame
Foundation: Type(s)* piers Material(s)* cast concrete
Main Entrance (stylistic details) _____
Porch Descriptions (types, locations, roof types, etc.) _____

Condition (overall resource condition): ☐excellent ☑good ☐fair ☐deteriorated ☐ruinous
Narrative Description of Resource see attached

Archaeological Remains _____ ☐ Check if Archaeological Form Completed

* Consult *Guide to Historical Structure Forms* for preferred descriptions (coded fields at the Site File).

RESEARCH METHODS (check all that apply)

☑ FMSF record search (sites/surveys)	☐ library research	☐ building permits	☐ Sanborn maps
☐ FL State Archives/photo collection	☐ city directory	☑ occupant/owner interview	☐ plat maps
☐ property appraiser / tax records	☐ newspaper files	☐ neighbor interview	☑ Public Lands Survey (DEP)
☑ cultural resource survey	☐ historic photos	☐ interior inspection	☐ HABS/HAER record search

☑ other methods (describe) on-site archives

Bibliographic References (give FMSF manuscript # if relevant, use continuation sheet if needed) Monroe County Property Appraiser; 2009
Glidwell, MKC Jeff, Personal Communication with Marielle Lumang, April 2.

OPINION OF RESOURCE SIGNIFICANCE

Appears to meet the criteria for National Register listing individually? ☐yes ☑no ☐insufficient information
Appears to meet the criteria for National Register listing as part of a district? ☐yes ☑no ☐insufficient information
Explanation of Evaluation (required, whether significant or not; use separate sheet if needed) see attached

Area(s) of Historical Significance (see *National Register Bulletin 15*, p. 8 for categories: e.g. "architecture", "ethnic heritage", "community planning & development", etc.)
Maritime History, Military

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field & analysis notes, photos, plans, other important documents that are permanently accessible:
For each separately maintained collection, describe (1) document type(s),* (2) maintaining organization,* (3) file or accession nos., and (4) descriptive information.
all maps, photos, and field notes on file at ACI; P08047A USCG USCG Sector Key West

RECORDER INFORMATION

Recorder Name Lumang, Marielle
Recorder Contact Information (address / phone / fax / e-mail) 8110 Blaikie Ct, Suite A, Sarasota, Florida 34243/941-379-6206/ ACIFlorida@comcast.net
Recorder Affiliation Archaeological Consultants, Inc.

Use a *Supplement for Site Forms* or other continuation sheet for descriptions that do not fit in the spaces provided.

Required Attachments

❶ USGS 7.5' MAP WITH STRUCTURE LOCATION PINPOINTED IN RED
❷ LARGE SCALE STREET, PLAT OR PARCEL MAP (available from most property appraiser web sites)
❸ PHOTO OF MAIN FACADE, ARCHIVAL B&W PRINT OR DIGITAL IMAGE FILE
If submitting an image file, it must be included on disk or CD AND in hard copy format (plain paper is acceptable).
Digital image must be at least 1600 x 1200 pixels, 24-bit color, jpeg or tiff.

CONTINUATION SHEET

8MO1927: Pier D-2, of the US Coast Guard Trumbo Point, was constructed ca. 1908-1912. The pier measures approximately 1,220 feet long and 135 feet wide and is constructed of poured and cast concrete and steel frame. The top of the pier is paved with asphalt and supports Building 105. Three small boat moorings are located on the south side of the eastern portion of the pier. The pier has undergone numerous repairs and alterations including the replacement of poles, electrical system, and lift stations in 1982; the replacement of the small boat moorings and lift ramps in 1989; the replacement paving ca. 2001; and the replacement piers and bulkhead in 2006 as a result of damage done by Hurricane Wilma.

The western terminus of the pier contains a cast concrete set of steps that spans the width of the pier. Available research is limited but suggests that this set of steps was once used as part of the ferry terminal when the Flagler railroad was in operation, ca. 1912 to 1935 (BAI 1997; Glidwell 2009; Unknown 1994).

Overall, the design and construction of this pier lacks distinction. In addition, the pier lacks substantial evidence that it may have once been associated with the Flagler railroad. Therefore, 8MO1927 is not considered potentially eligible for listing in the NRHP.

Brockington and Associates, Inc. (BAI)
1997 *Archaeological Survey of Key West Naval Air Station, Monroe County, Florida.* On file at USCG Trumbo Point.

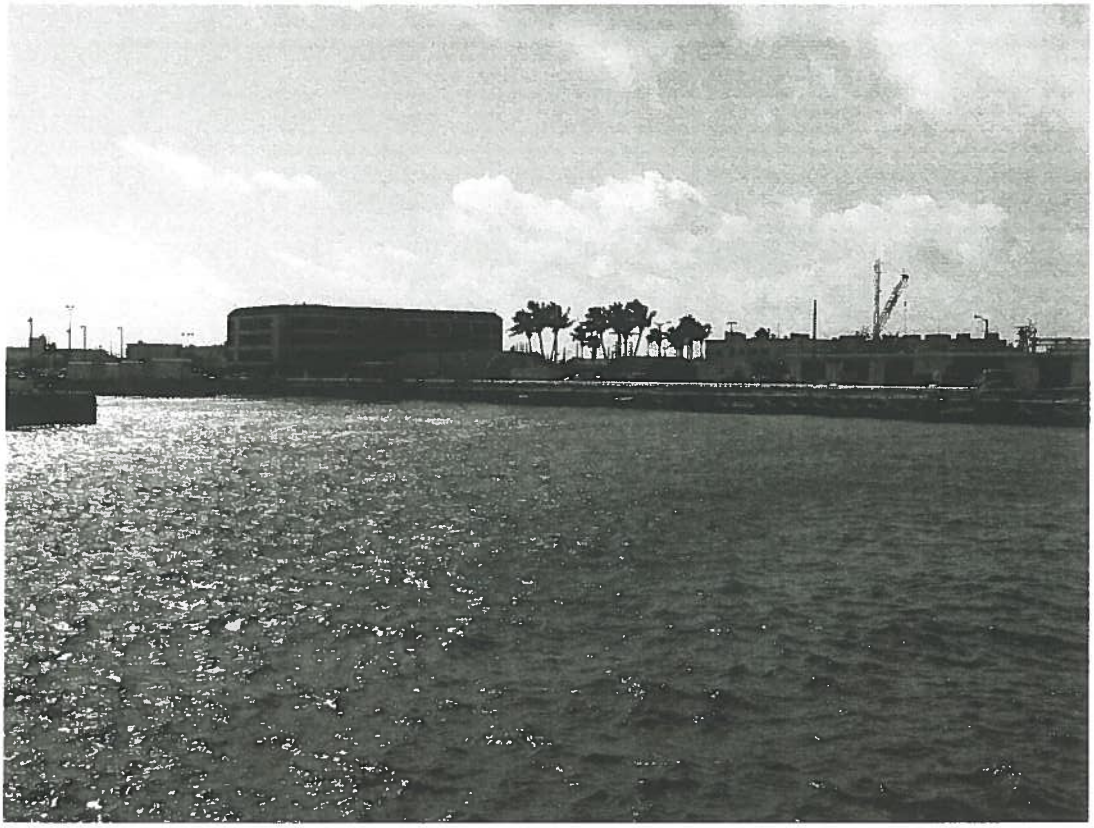
Glidwell, Jeff MTC
2009 Personal Communication with Marielle Lumang, April 2.

Unknown
1995 US Coast Guard Master Plan. On file at USCG Sec Key West.

HISTORICAL STRUCTURE FORM

Site #8_MO1927_

PHOTOGRAPH



GOOGLE EARTH MAP

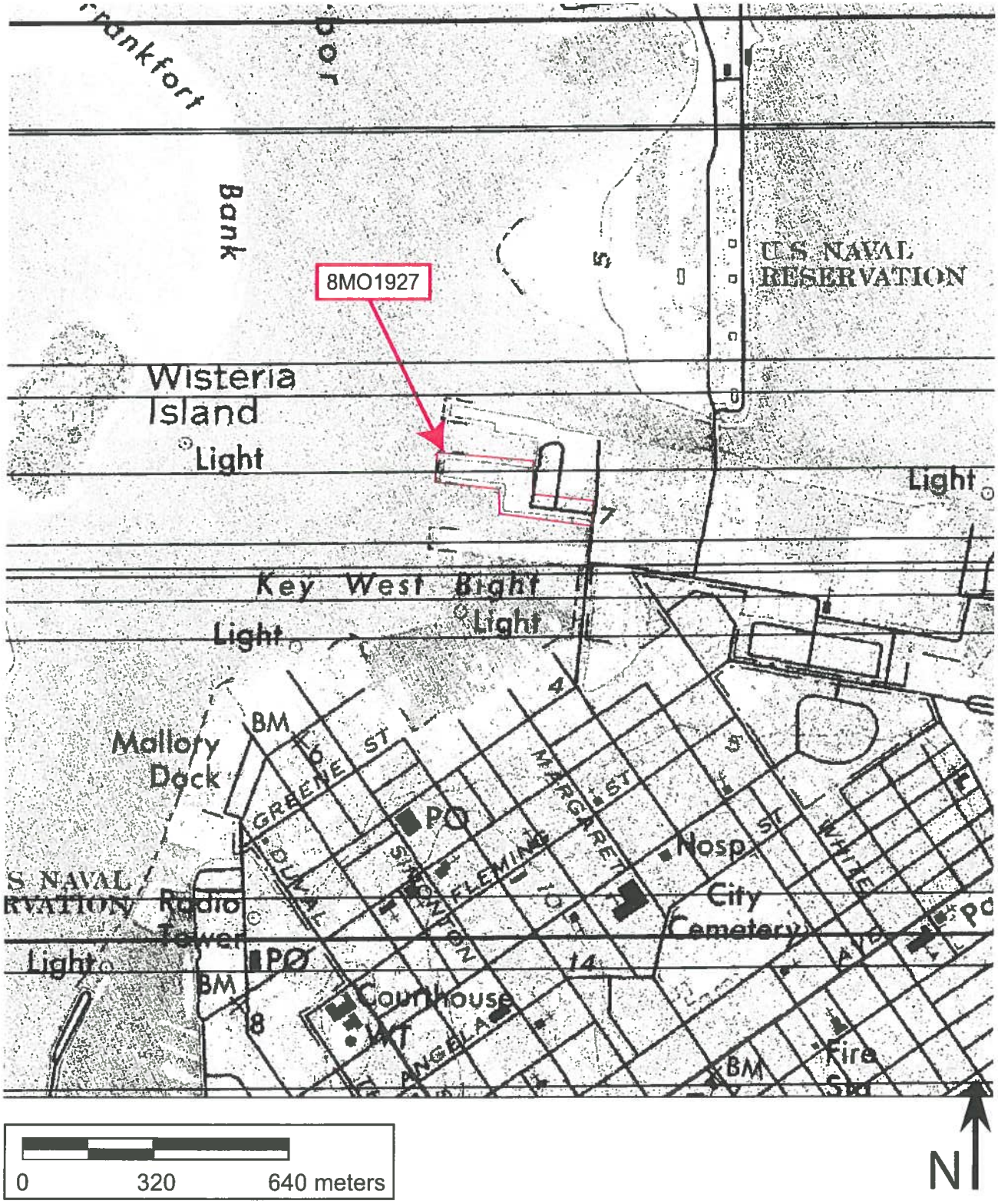
Key West, Florida

HISTORICAL STRUCTURE FORM

Site #8 MO1927

USGS MAP

Township 67 South, Range 25 East, Section 30
Key West 1971



☑ Original
☐ Update

HISTORICAL STRUCTURE FORM
FLORIDA MASTER SITE FILE
Version 4.0 1/07

Site #8 MO1928
Field Date 4 / 2 / 2009
Form Date 4 / 6 / 2009
Recorder # 50

Shaded Fields represent the minimum acceptable level of documentation.
Consult the *Guide to Historical Structure Forms* for detailed instructions.

Site Name(s) (address if none) USCG Key West, Trumbo Point Annex - Pier D3 (B-465) Multiple Listing (DHR only) _____
Survey Project Name Historic Documentation of USCG Key West Trumbo Point Annex, Monroe County Survey # (DHR only) _____
National Register Category (please check one) ☐ building ☑ structure ☐ district ☐ site ☐ object
Ownership: ☐private-profit ☐private-nonprofit ☐private-individual ☐private-nonspecific ☐city ☐county ☐state ☑federal ☐Native American ☐foreign ☐unknown

LOCATION & MAPPING

Address (include N,S,E,W, #, St., Ave., etc.) 100 Trumbo Road
Cross Streets (nearest / between) _____
USGS 7.5' Map Name & Date Key West 1971 Plat or Other Map _____
City / Town (within 3 miles) Key West In City Limits? ☐yes ☐no ☑unknown County Monroe
Township 67S Range 25E Section 30 ¼ section: ☐NW ☐SW ☐SE ☐NE ☑Irregular-name: _____
Tax Parcel # 3267 25 0000 1750000000 Landgrant _____
Subdivision Name _____ Block _____ Lot _____
UTM: Zone ☐16 ☑17 Easting 418897 __ __0 Northing 2717184 __ __0
Other Coordinates: X: _____ Y: _____ Coordinate System & Datum _____
Name of Public Tract (e.g., park) _____

HISTORY

Construction Year: 1912 ☑approximately ☐year listed or earlier ☐year listed or later
Original Use* pier From (year): original To (year): _____
Current Use* pier From (year): _____ To (year): current
Other Use* _____ From (year): _____ To (year): _____
Moves: ☐yes ☑no ☐unknown Dates _____ Original address (if moved) _____
Alterations: ☑yes ☐no ☐unknown Dates see attached Nature* see attached
Additions: ☐yes ☑no ☐unknown Dates _____ Nature* _____
Architect (last name first): unknown Builder (last name first): unknown
Ownership History (especially original owner, dates, profession, etc.) US Naval Air Station (unknown - 1977); US Coast Guard Station (1977 - current)
Is the Resource Affected by a Local Preservation Ordinance? ☐yes ☐no ☑unknown Describe _____

DESCRIPTION

Style* other: pier Exterior Plan* irregular Number of Stories n/a
Exterior Fabric(s)* poured concrete; cast concrete; steel frame; asphalt
Roof Type(s)* n/a Roof Material(s)* n/a
Roof secondary strucs. (dormers etc.)* _____
Windows (types, materials, etc.)* n/a

Distinguishing Architectural Features (exterior or interior ornaments) see attached

Ancillary Features / Outbuildings (record outbuildings, major landscape features; use continuation sheet if needed.) _____

* Consult *Guide to Historical Structure Forms* for preferred descriptions (coded fields at the Site File).

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date ___/___/_____ ☐ Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date ___/___/_____ Init._____ KEEPER – Determined eligible: ☐yes ☐no Date ___/___/_____ NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

HISTORICAL STRUCTURE FORM

Site #8 MO1928

DESCRIPTION (continued)

Chimney: No.____ Material(s) * _____
Structural System(s) * poured concrete; cast concrete; steel frame
Foundation: Type(s) * piers Material(s) * cast concrete
Main Entrance (stylistic details) _____
Porch Descriptions (types, locations, roof types, etc.) _____

Condition (overall resource condition): ☐excellent ☑good ☐fair ☐deteriorated ☐ruinous
Narrative Description of Resource see attached

Archaeological Remains _____ ☐ Check if Archaeological Form Completed

* Consult *Guide to Historical Structure Forms* for preferred descriptions (coded fields at the Site File).

RESEARCH METHODS (check all that apply)

☑ FMSF record search (sites/surveys)	☐ library research	☐ building permits	☐ Sanborn maps
☐ FL State Archives/photo collection	☐ city directory	☑ occupant/owner interview	☐ plat maps
☐ property appraiser / tax records	☐ newspaper files	☐ neighbor interview	☑ Public Lands Survey (DEP)
☑ cultural resource survey	☐ historic photos	☐ interior inspection	☐ HABS/HAER record search

☑ other methods (describe) on-site archives

Bibliographic References (give FMSF manuscript # if relevant, use continuation sheet if needed) Monroe County Property Appraiser; 2009 Glidwell, MKC Jeff, Personal Communication with Marielle Lumang, April 2.

OPINION OF RESOURCE SIGNIFICANCE

Appears to meet the criteria for National Register listing individually? ☐yes ☑no ☐insufficient information
Appears to meet the criteria for National Register listing as part of a district? ☐yes ☑no ☐insufficient information
Explanation of Evaluation (required, whether significant or not; use separate sheet if needed) see attached

Area(s) of Historical Significance (see *National Register Bulletin 15*, p. 8 for categories: e.g. "architecture", "ethnic heritage", "community planning & development", etc.)
Maritime History, Military

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field & analysis notes, photos, plans, other important documents that are permanently accessible: For each separately maintained collection, describe (1) document type(s),* (2) maintaining organization,* (3) file or accession nos., and (4) descriptive information.
all maps, photos, and field notes on file at ACI; P08047A USCG USCG Sector Key West

RECORDER INFORMATION

Recorder Name Lumang, Marielle
Recorder Contact Information (address / phone / fax / e-mail) 8110 Blaikie Ct, Suite A, Sarasota, Florida 34243/941-379-6206/ ACIFlorida@comcast.net
Recorder Affiliation Archaeological Consultants, Inc.

Use a *Supplement for Site Forms* or other continuation sheet for descriptions that do not fit in the spaces provided.

Required Attachments

❶ USGS 7.5' MAP WITH STRUCTURE LOCATION PINPOINTED IN RED
❷ LARGE SCALE STREET, PLAT OR PARCEL MAP (available from most property appraiser web sites)
❸ PHOTO OF MAIN FACADE, ARCHIVAL B&W PRINT OR DIGITAL IMAGE FILE
If submitting an image file, it must be included on disk or CD AND in hard copy format (plain paper is acceptable).
Digital image must be at least 1600 x 1200 pixels, 24-bit color, jpeg or tiff.

CONTINUATION SHEET

8MO1928: Pier D-3, of the US Coast Guard Trumbo Point, was constructed ca. 1912. The pier measures approximately 755 feet long and 135 feet wide and is constructed of poured and cast concrete and steel frame. The top of the pier is paved with asphalt and supports Building 108. Adjacent to this resource to the east is B-460, 8MO3558. The pier has undergone numerous repairs and alterations including the replacement of poles and electrical system in 1982; and the replacement of the majority of its piers and bulkhead in 2006 as a result of damage done by Hurricane Wilma.

The design and construction of this pier lacks distinction and has undergone numerous alterations and repairs. Therefore, 8MO1928 is not considered potentially eligible for listing in the NRHP.

HISTORICAL STRUCTURE FORM

Site #8_MO1928_

PHOTOGRAPH

GOOGLE EARTH MAP

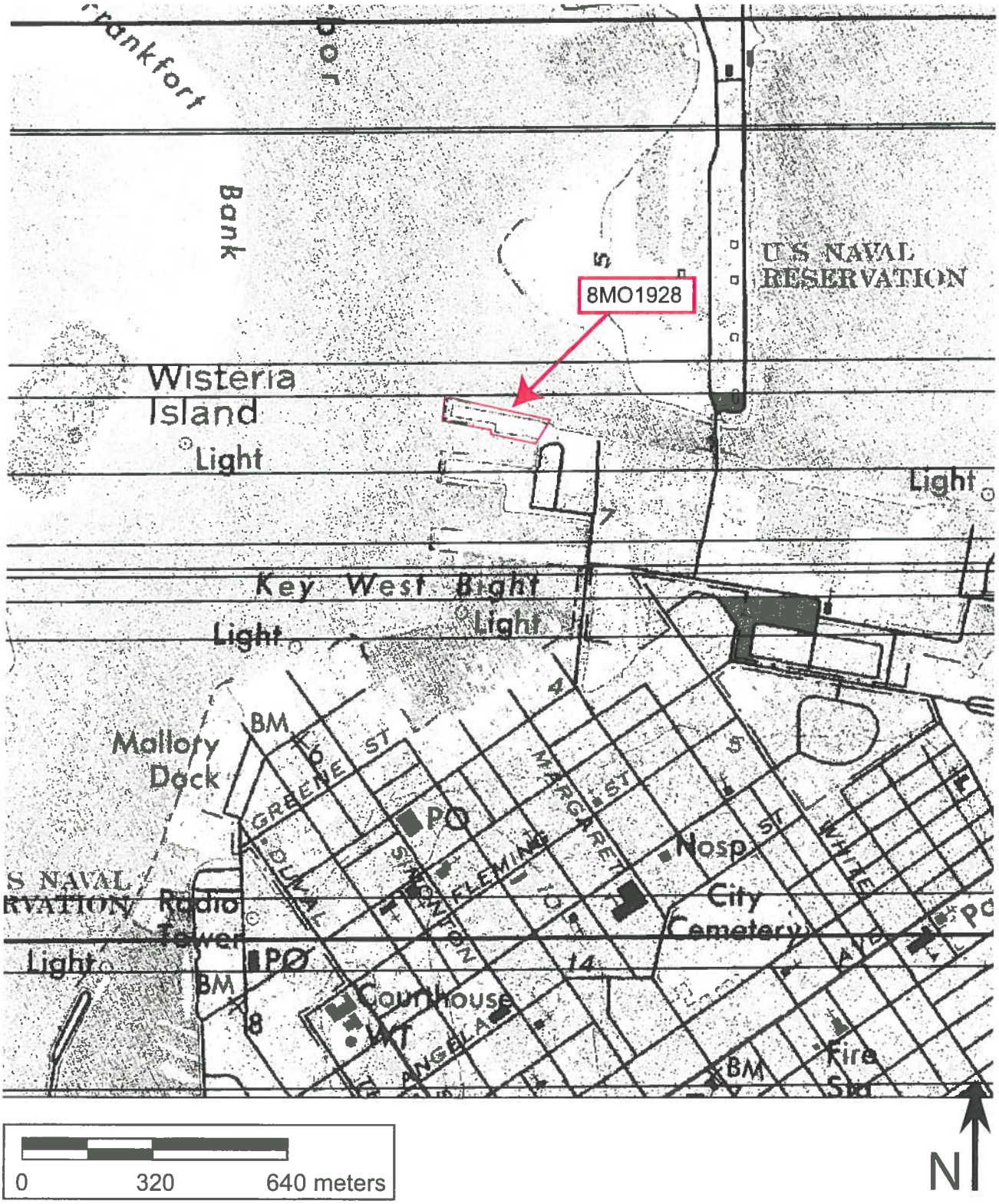
Key West, Florida

HISTORICAL STRUCTURE FORM

Site #8 MO1928

USGS MAP

Township 67 South, Range 25 East, Section 30
Key West 1971



Page 1

☑ Original
☐ Update

HISTORICAL STRUCTURE FORM
FLORIDA MASTER SITE FILE
Version 4.0 1/07

Site #8 MO1929
Field Date 4 / 2 / 2009
Form Date 4 / 6 / 2009
Recorder # 85

Shaded Fields represent the minimum acceptable level of documentation.
Consult the *Guide to Historical Structure Forms* for detailed instructions.

Site Name(s) (address if none) USCG Key West, Trumbo Point Annex - B-48 Multiple Listing (DHR only) _____
Survey Project Name Historic Documentation of USCG Key West Trumbo Point Annex, Monroe County Survey # (DHR only) _____
National Register Category (please check one) ☑ building ☐ structure ☐ district ☐ site ☐ object
Ownership: ☐private-profit ☐private-nonprofit ☐private-individual ☐private-nonspecific ☐city ☐county ☐state ☑federal ☐Native American ☐foreign ☐unknown

LOCATION & MAPPING

Address (include N,S,E,W, #, St., Ave., etc.) 100 Trumbo Road
Cross Streets (nearest / between) _____
USGS 7.5' Map Name & Date Key West 1971 Plat or Other Map _____
City / Town (within 3 miles) Key West In City Limits? ☐yes ☐no ☑unknown County Monroe
Township 67S Range 25E Section 30 ¼ section: ☐NW ☐SW ☐SE ☐NE ☑Irregular-name: _____
Tax Parcel # 3267 25 0000 1750000000 Landgrant _____
Subdivision Name _____ Block _____ Lot _____
UTM: Zone ☐16 ☐17 Easting 419224 __ __0 Northing 2716979 __ __0
Other Coordinates: X: _____ Y: _____ Coordinate System & Datum _____
Name of Public Tract (e.g., park) _____

HISTORY

Construction Year: 1950 ☑approximately ☐year listed or earlier ☐year listed or later
Original Use* torpedo refitting station From (year): original To (year): unknown
Current Use* group multipurpose building From (year): unknown To (year): current
Other Use* confidential library; film & chemical processing From (year): 1960s To (year): unknown
Moves: ☐yes ☑no ☐unknown Dates _____ Original address (if moved) _____
Alterations: ☑yes ☐no ☐unknown Dates see attached Nature* see attached
Additions: ☑yes ☐no ☐unknown Dates see attaached Nature* see attached
Architect (last name first): unknown Builder (last name first): unknown
Ownership History (especially original owner, dates, profession, etc.) US Naval Air Station (unknown - 1977); US Coast Guard Station (1977 - current)
Is the Resource Affected by a Local Preservation Ordinance? ☐yes ☐no ☑unknown Describe _____

DESCRIPTION

Style* Masonry Vernacular Exterior Plan: irregular Number of Stories n/a
Exterior Fabric(s) * concrete block; stucco
Roof Type(s) * flat Roof Material(s) * built-up
Roof secondary strucs. (dormers etc.) * parapet; utilities penthouse
Windows (types, materials, etc.) * 1/1 SHS, vinyl, independent and paired; jalousie, metal, independent
Distinguishing Architectural Features (exterior or interior ornaments) hurricane shutters; louvered openings; garage style doors; canopies over windows and doors
Ancillary Features / Outbuildings (record outbuildings, major landscape features; use continuation sheet if needed.) _____

* Consult *Guide to Historical Structure Forms* for preferred descriptions (coded fields at the Site File).

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date ___/___/_____ ☐ Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date ___/___/_____ Init._____ KEEPER – Determined eligible: ☐yes ☐no Date ___/___/_____ NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

HISTORICAL STRUCTURE FORM

Site #8 MO1929

DESCRIPTION (continued)

Chimney: No. 0 Material(s) *

Structural System(s) * concrete block

Foundation: Type(s) * slab Material(s) * poured concrete

Main Entrance (stylistic details) double doors, metal, swing

Porch Descriptions (types, locations, roof types, etc.)

Condition (overall resource condition): ☐excellent ☑good ☐fair ☐deteriorated ☐ruinous

Narrative Description of Resource see attached

Archaeological Remains ☐ Check if Archaeological Form Completed

* Consult *Guide to Historical Structure Forms* for preferred descriptions (coded fields at the Site File).

RESEARCH METHODS (check all that apply)

☑ FMSF record search (sites/surveys)	☐ library research	☐ building permits	☐ Sanborn maps
☐ FL State Archives/photo collection	☐ city directory	☑ occupant/owner interview	☐ plat maps
☐ property appraiser / tax records	☐ newspaper files	☐ neighbor interview	☑ Public Lands Survey (DEP)
☑ cultural resource survey	☐ historic photos	☐ interior inspection	☐ HABS/HAER record search

☑ other methods (describe) on-site archives

Bibliographic References (give FMSF manuscript # if relevant, use continuation sheet if needed) Monroe County Property Appraiser; 2009 Glidwell, MKC Jeff, Personal Communication with Marielle Lumang, April 2.

OPINION OF RESOURCE SIGNIFICANCE

Appears to meet the criteria for National Register listing individually? ☐yes ☑no ☐insufficient information

Appears to meet the criteria for National Register listing as part of a district? ☐yes ☑no ☐insufficient information

Explanation of Evaluation (**required**, whether significant or not; use separate sheet if needed) see attached

Area(s) of Historical Significance (see *National Register Bulletin 15*, p. 8 for categories: e.g. "architecture", "ethnic heritage", "community planning & development", etc.)
Maritime History, Military

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field & analysis notes, photos, plans, other important documents that are permanently accessible: For each separately maintained collection, describe (1) document type(s),* (2) maintaining organization,* (3) file or accession nos., and (4) descriptive information.
all maps, photos, and field notes on file at ACI; P08047A USCG USCG Sector Key West

RECORDER INFORMATION

Recorder Name Lumang, Marielle

Recorder Contact Information (address / phone / fax / e-mail) 8110 Blaikie Ct, Suite A, Sarasota, Florida 34243/941-379-6206/ ACIFlorida@comcast.net

Recorder Affiliation Archaeological Consultants, Inc.

Use a *Supplement for Site Forms* or other continuation sheet for descriptions that do not fit in the spaces provided.

Required Attachments

❶ **USGS 7.5' MAP WITH STRUCTURE LOCATION PINPOINTED IN RED**

❷ **LARGE SCALE STREET, PLAT OR PARCEL MAP** (available from most property appraiser web sites)

❸ **PHOTO OF MAIN FACADE, ARCHIVAL B&W PRINT OR DIGITAL IMAGE FILE**

If submitting an image file, it must be included on disk or CD AND in hard copy format (plain paper is acceptable). Digital image must be at least 1600 x 1200 pixels, 24-bit color, jpeg or tiff.

CONTINUATION SHEET

8MO1929: Building 48, the Group Multipurpose Building of the US Coast Guard Trumbo Point, was constructed ca. 1950. The two-story building is supported by a poured concrete slab foundation with stucco-covered concrete block walls (ca. 1985) that are topped by a flat roof with a parapet. The roof also contains a ca. 1973 penthouse used for utilities. The main entrance is located on the west elevation and consists of a pair of metal doors. The replacement windows (ca. 1973, 2000, and 2006) are one-over-one single hung sash windows and are covered with ca. 2000 hurricane shutters. An addition was constructed on the north elevation ca. 1985.

According to informant information, this building was originally used as a torpedo refitting area (Glidwell 2009). During the 1960s, the building was used as a confidential library housing documents regarding the Lockheed U-2 'Dragon Lady'. By 1962, the building also housed a film and chemical processing unit to process data recovered from U-2 missions. By the 1970s, the building was converted for use as officer quarters, barracks, and a training gym.

This building lacks architectural distinction, and although the U-2 program may have once contributed to the defense mission of the US Navy, the extent of alterations to this building and its present use no longer conveys this function. Therefore, 8MO1929 is not considered potentially eligible for the NRHP.

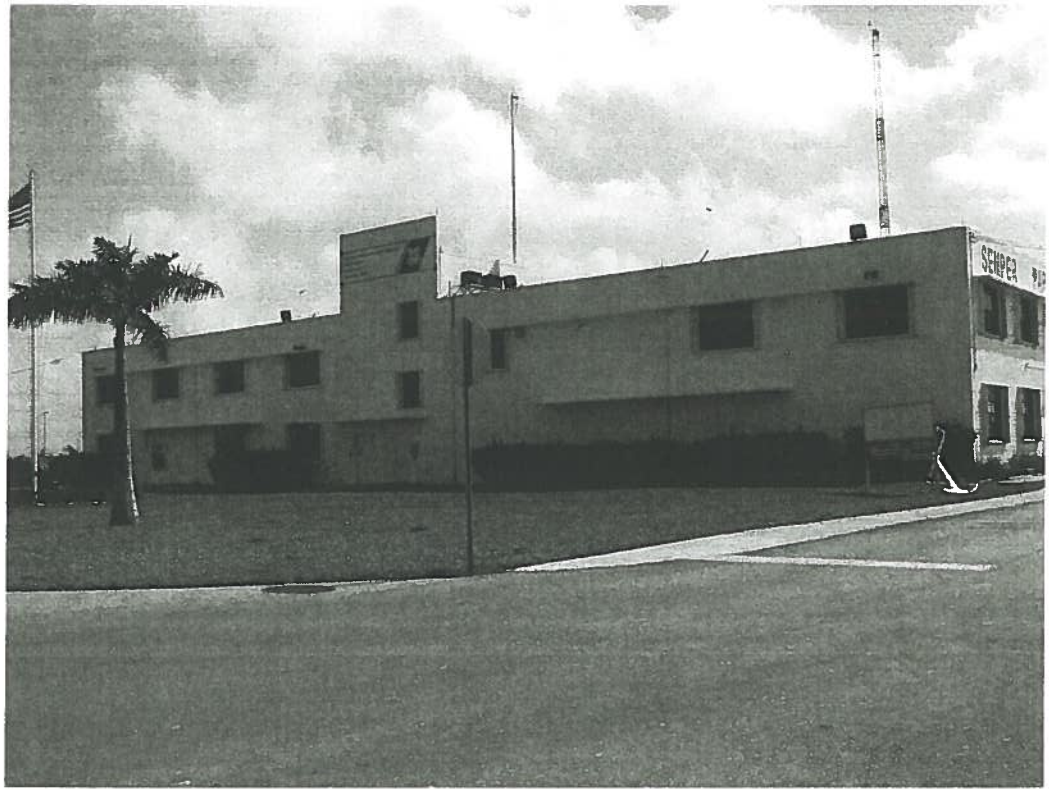
References

Glidwell, Jeff MTC
2009 Personal Communication with Marielle Lumang, April 2.

HISTORICAL STRUCTURE FORM

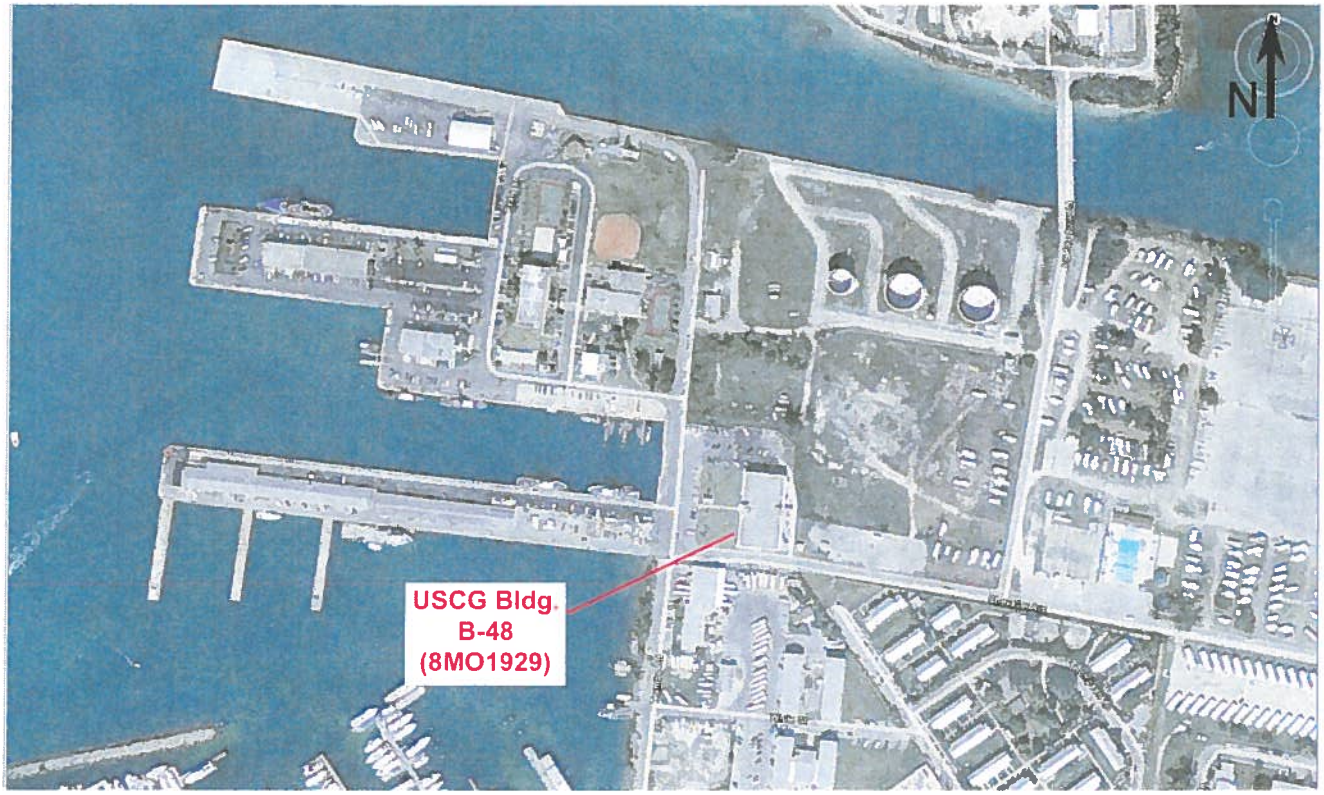
Site #8_MO1929_

PHOTOGRAPH



GOOGLE EARTH MAP

Key West, Florida

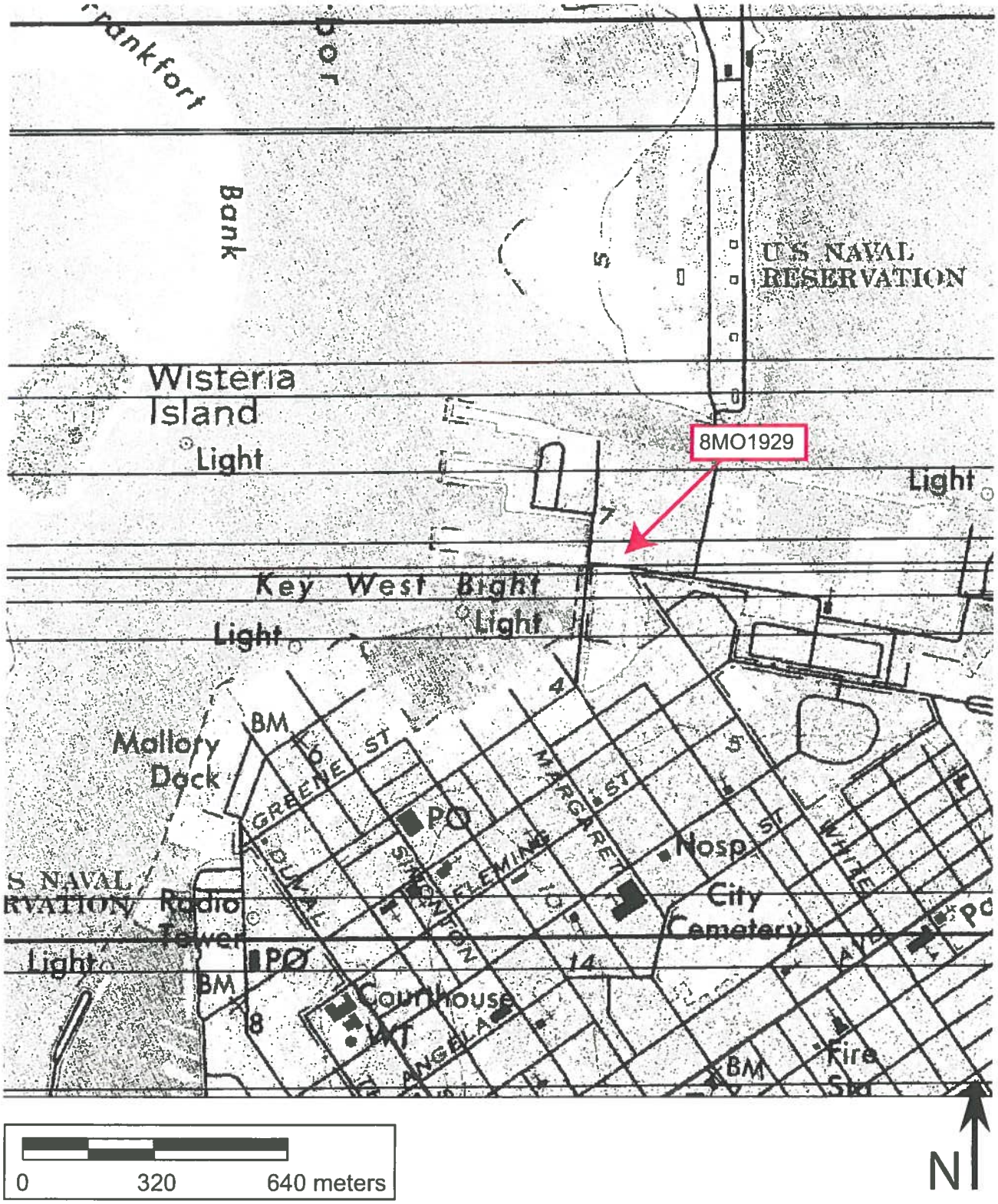


HISTORICAL STRUCTURE FORM

Site #8_MO1929

USGS MAP

Township 67 South, Range 25 East, Section 30
Key West 1971



Ent D (FMSF only) / /

Survey Log Sheet

Florida Master Site File
Version 4.1 1/07

Survey # (FMSF only)

Consult *Guide to the Survey Log Sheet* for detailed instructions.

Identification and Bibliographic Information

Survey Project (name and project phase) USCG Key West Trumbo Point, Monroe County, FMSF

Report Title (exactly as on title page) N/A

Report Author(s) (as on title page– individual or corporate; last names first) N/A

Publication Date (year) _____ **Total Number of Pages in Report** (count text, figures, tables, not site forms) _____

Publication Information (Give series and no. in series, publisher and city. For article or chapter, cite page numbers. Use the style of *American Antiquity*.)

Supervisor(s) of Fieldwork (whether or not the same as author[s]; last name first) Deming, Joan

Affiliation of Fieldworkers (organization, city) Archaeological Consultants, Inc.; Sarasota

Key Words/Phrases (Don't use the county, or common words like *archaeology, structure, survey, architecture*. Limit each word or phrase to 25 characters.) Coast Guard Station, Key West Trumbo Point

Survey Sponsors (corporation, government unit, or person who is directly paying for fieldwork)

Name Arcadis U.S., Inc.

Address/Phone 630 Plaza Drive, Suite 100, Highlands Ranch, CO 80129 / 720-344-3500

Recorder of *Log Sheet* Lumang, Marielle **Date *Log Sheet* Completed** 4 / 14 /09

Is this survey or project a continuation of a previous project? ❑ No ❑ Yes: Previous survey #(s) (FMSF only)

Mapping

Counties (List each one in which field survey was done - do not abbreviate; use supplement sheet if necessary) Monroe

USGS 1:24,000 Map(s) : Map Name/Date of Latest Revision (use supplement sheet if necessary): Key West 1971

Description of Survey Area

Dates for Fieldwork: Start 04/02/ 09 End 04/02/ 09 **Total Area Surveyed** (fill in one) _____ hectares _____ acres

Number of Distinct Tracts or Areas Surveyed _____

If Corridor (fill in one for each): **Width** _____ meters _____ feet **Length** _____ kilometers _____ miles

Survey Log Sheet

Survey # _____

Research and Field Methods

Types of Survey (check all that apply): ☐ archaeological ☐ architectural ☐ historical/archival ☐ underwater ☑ other: No survey

Preliminary Methods (✓ Check as many as apply to the project as a whole.)

- ☐ Florida Archives (Gray Building)
- ☐ Florida Photo Archives (Gray Building)
- ☑ Site File property search
- ☑ Site File survey search
- ☐ library research- *local public*
- ☐ library-special collection - *nonlocal*
- ☑ Public Lands Survey (maps at DEP)
- ☐ local informant(s)
- ☐ local property or tax records
- ☐ newspaper files
- ☐ literature search
- ☐ Sanborn Insurance maps
- ☐ other historic maps
- ☐ soils maps or data
- ☐ windshield survey
- ☐ aerial photography
- ☐ other (describe) _____

Archaeological Methods (✓ Check as many as apply to the project as a whole.)

☑ Check here if **NO** archaeological methods were used.

- ☐ surface collection, controlled
- ☐ surface collection, uncontrolled
- ☐ shovel test-1/4"screen
- ☐ shovel test-1/8" screen
- ☐ shovel test 1/16"screen
- ☐ shovel test-unscreened
- ☐ other screen shovel test (size: ____)
- ☐ water screen (finest size: ____)
- ☐ posthole tests
- ☐ auger (size: ____)
- ☐ coring
- ☐ test excavation (at least 1x2 M)
- ☐ block excavation (at least 2x2 M)
- ☐ soil resistivity
- ☐ magnetometer
- ☐ side scan sonar
- ☐ unknown
- ☐ other (describe): _____

Historical/Architectural Methods (✓ Check as many as apply to the project as a whole.)

☐ Check here if **NO** historical/architectural methods were used.

- ☐ building permits
- ☐ commercial permits
- ☐ interior documentation
- ☑ other (describe): interview with Coast Guard personnel
- ☐ demolition permits
- ☑ exposed ground inspected
- ☐ local property records
- ☐ neighbor interview
- ☑ occupant interview
- ☐ occupation permits
- ☐ subdivision maps
- ☑ tax records
- ☐ unknown

Scope/Intensity/Procedures background research, photographs taken, historic structure forms completed

Survey Results (cultural resources recorded)

Site Significance Evaluated? ☑ Yes ☐ No If *Yes*, circle NR-eligible/significant site numbers below.

Site Counts: Previously Recorded Sites 3 **Newly Recorded Sites** 4

Previously Recorded Site #'s with Site File Update Forms (List site #'s without "8." Attach supplementary pages if necessary) MO3560

Newly Recorded Site #'s (Are you sure all are originals and not updates? Identify methods used to check for updates, i.e., researched Site File records. List site #'s without "8." Attach supplementary pages if necessary.) MO1926, MO1927, MO1928, MO1929

Site Form Used: ☑ Site File Paper Form ☐ SmartForm II Electronic Recording Form

REQUIRED: ATTACH PLOT OF SURVEY AREA ON PHOTOCOPIES OF USGS 1:24,000 MAP(S)

DO NOT USE SITE FILE USE ONLY DO NOT USE

BAR Related

- ☐ 872
- ☐ 1A32 # _____
- ☐ CARL
- ☐ UW

BHP Related

- ☐ State Historic Preservation Grant
- ☐ Compliance Review: CRAT # _____

Historic documentation of USCG Key West Station. Township 67 South, Range 25 East, Section 30, Monroe County (Google Earth; 2009 The Florida Department of Environmental Protection, Key West).

From: Edwards, Scott <Scott.Edwards@DOS.MyFlorida.com>
Sent: Thursday, January 7, 2021 4:15 PM
To: Dobbins-Noble, Lesley C CIV <Lesley.C.DobbinsNoble@uscg.mil>
Subject: [Non-DoD Source] SHPO Review of the Draft Environmental Assessment for the Repair and Replacement of Facilities at Sector and Station Key West

Please see the attached letter from the Florida State Historic Preservation Office.

-Scott

Scott Edwards

Historic Preservationist and Florida Historic Golf Trail Coordinator | Bureau of Historic Preservation | Division of Historical Resources | Florida Department of State | 500 South Bronough Street | Tallahassee, Florida 32399 | [redacted] | www.flheritage.com and www.floridahistoricgolftrail.com

FLORIDA DEPARTMENT of STATE

RON DESANTIS
Governor

LAUREL M. LEE
Secretary of State

Captain John F. Barresi
United States Coast Guard
5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431

January 7, 2021

Re: DHR Project No.: 2020-7502
11000 - *Draft Environmental Assessment for the Repair and Replacement of Facilities at Sector and Station Key West,* Monroe County

Dear Captain Barresi:

This office reviewed the referenced project for possible impact to historic properties listed, or eligible for listing, in the *National Register of Historic Places.* The review was conducted in accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended and *36 CFR Part 800: Protection of Historic Properties*.

Under the Proposed Action, the USCG would rebuild facilities damaged during Hurricane Irma by (1) demolishing and rebuilding the Sector Engineering/Electronics Support Detachment (ESD) Building (Building 105) at Sector Key West to meet resilience thresholds, (2) rebuilding waterfront and shore facilities for Station Key West, including demolishing existing facilities and constructing a new Station building, grounds work, pier, docks, and boat house, and (3) rebuilding the electrical distribution system serving Sector Key West to include a transformer and electrical distribution to the waterfront, shore facilities, and on-site energy generation and storage.

Based on past building evaluations and the information provided, this office concurs with your finding that the proposed undertakings will have no effect on the historic properties.

If you have any questions concerning our comments, please contact Scott Edwards, Historic Preservationist, by electronic mail *scott.edwards@dos.myflorida.com*, or at 850.245.6333 or 800.847.7278.

Sincerely,

Jason Aldridge
For

Timothy A. Parsons, Ph.D.
Director, Division of Historical Resources
and State Historic Preservation Officer

U.S. Department of Homeland Security

United States Coast Guard

Commanding Officer
United States Coast Guard
Facilities Design and Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: (757) 852-3400
Fax: (757) 852-3495

11000
December 7, 2020

Ms. Kae Craig
Florida Department of Environmental Protection
Office of Intergovernmental Programs
Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, FL 32399-3000

Greetings Ms. Craig:

The U.S. Coast Guard (USCG) announces the availability of a draft Environmental Assessment (EA) that analyzes and evaluates potential environmental impacts associated with the repair and replacement of facilities at Sector and Station Key West that were damaged during Hurricane Irma in September 2017 (the Proposed Action). The Proposed Action is needed to provide Sector Key West and Station Key West with facilities and infrastructure that will allow them to adequately execute their mission requirements and increase the resiliency of Sector and Station facilities so that they can remain operational during future weather events and return to full operation after an event is over.

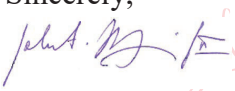
In accordance with the Coastal Zone Management Act (16 United States Code Section 1456(c) and 15 Code of Federal Regulations Part 930 Subpart C), the USCG has prepared a federal consistency determination for the Proposed Action, which includes demolishing and rebuilding the Sector Engineering/Electronics Support Detachment building to meet resiliency thresholds; demolishing and rebuilding the Station building, pier, docks, and boat house; and rebuilding the electrical distribution system serving Sector Key West to include transformer and electrical distribution to the waterfront, shore facilities, and on-site energy generation and storage.

The USCG reviewed the Florida Coast Management Program (FCMP) in advance of preparation of the federal consistency determination contained in Enclosure (1). Based on the analysis, the USCG has determined that the Proposed Action will be consistent to the maximum extent practicable with the enforceable policies of the FCMP.

The draft EA is available online at https://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-Engineering-Logistics-CG-4-/Program-Offices/Environmental-Management/Environmental-Planning-and-Historic-Preservation/ and contains detailed information and analyses of the Proposed Action's potential environmental impacts.

We request that you provide your concurrence with our findings within 60 days of receipt of this letter. If you have any questions, please reach out to Ms. Lesley Dobbins-Noble by phone at (757) 852-3410 or by e-mail at lesley.c.dobbinsnoble@uscg.mil.

Sincerely,



J. F. BARRESI
Captain
U. S. Coast Guard

Enclosure: (1) Coastal Zone Management Act Consistency Determination

Copy: Mr. Chris Stahl, Florida Department of Environmental Protection

10.2 Appendix B: Coastal Zone Management Act Consistency Determination

Enclosure 1

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Introduction

This document provides the State of Florida with the U.S. Coast Guard's (USCG) Consistency Determination under Coastal Zone Management Act (CZMA) of 1972, as amended, and 15 Code of Federal Regulations (CFR) part 930, subpart c, for the proposed Hurricane Execution Plan at Sector Key West, Florida. The information in this Consistency Determination is provided pursuant to 15 CFR part 930.39.

Regulatory Background

The CZMA, codified in 16 U.S. Code (U.S.C.) section 1451 et seq., established a comprehensive regulatory scheme for effective management, beneficial use, protection, and development of the coastal zone and its natural resources. The CZMA encourages coastal states and provides a mechanism for them to develop, obtain federal approval for, and implement a broad-based coastal management program.

CZMA section 307 provides that federal agency activities shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved state management programs. Section 307 applies to federal agency activity in a state's coastal zone and to federal agency activity outside the coastal zone, if the activity affects a land or water use in or natural resources of the coastal zone. Federal agency activities include those performed by a federal agency, approved by a federal agency, or for which a federal agency provides financial assistance. Federal agency activities must be demonstrated to be consistent with the enforceable policies of the state's coastal management program, unless full consistency is otherwise prohibited by federal law (per 15 CFR part 930.32, "consistent to the maximum extent practicable"). Pursuant to 16 U.S.C. 1453, the term "coastal zone" specifically excludes "lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents." Therefore, the coastal zone excludes Sector Key West, but includes adjacent lands (including all submerged lands) and waters within Florida's coastal zone.

The State of Florida developed the Florida Coastal Management Program (FCMP), which was approved by the National Oceanic and Atmospheric Administration (NOAA) in 1981. The FCMP consists of a network of 24 Florida statutes, administered by multiple state agencies and water management districts. The FCMP includes enforceable policies that ensure the wise use and protection of the state's water, cultural, historic, and biological resources; minimize the state's vulnerability to coastal hazards; ensure compliance with the state's growth management laws; protect the state transportation system; and protect the state's proprietary interest as the owner of sovereignty submerged lands.

Description of the Proposed Federal Agency Action

Sector Key West is a unified command consisting of six Fast Response Cutters, three Small Boat Stations, an Aids to Navigation Team (ANT), and three staff departments. The Sector Commander performs the duties of Search and Rescue Mission Coordinator; Captain of the Port; Federal Maritime Security Coordinator; Federal On-Scene Coordinator; and Officer in Charge, Marine Inspection. Sector Key West's area of responsibility includes 55,000 square miles bordering the territorial seas of Cuba and the Bahamas (Figure 1).

Figure 1. Regional Map

In September of 2017, Sector and Station Key West, a Small Boat Station unit of and collocated on Sector Key West, suffered extensive damage from Hurricane Irma. The USCG proposes to rebuild facilities damaged during Hurricane Irma by (1) demolishing and rebuilding the Sector Engineering/Electronics Support Detachment (ESD) Building (Building 105) at Sector Key West to meet resilience thresholds, (2) rebuilding waterfront and shore facilities for Station Key West, including demolishing existing facilities; and constructing a new Station building, grounds work, pier, docks and boat house, and (3) rebuilding the electrical distribution system serving Sector Key West to include transformer and electrical distribution to the waterfront, shore facilities, and on-site energy generation and storage. To accomplish the necessary repairs the USCG is considering three alternatives, as described below.

Alternative 1—Preferred Alternative

Sector Engineering Facility – Under the Preferred Alternative, the USCG would demolish the existing Sector Engineering/ESD Facility (Building 105) and build a new 36,073 gross square-foot (GSF) facility in the location of the parking lot immediately east of its current location on Pier D2. The parking lot would be moved to the current location of Building 105 once it is demolished. The new facility would include Sector Engineering administrative and maintenance spaces, ESD administrative and operational spaces, and two boat maintenance bays that could accommodate USCG's 45-foot Response Boat – Medium (45 RB-M). The existing travel lift pier would be demolished and reconstructed along the southern quay wall of Pier D2 at the east end of Berth 8 to provide direct access to the boat maintenance bays of the Sector Engineering Facility without crossing any of the base roads. Additionally, Building 108 on Pier D3 would be demolished, and storage Building 5 (Quonset Hut OV 7) would be demolished and rebuilt in that location. Materials currently stored in Building 108 would be stored in the new Sector Engineering Facility. Figure 2 includes the demolition plan under the Preferred Alternative, and Figure 3 shows the site plan for the Preferred Alternative.

Figure 2. Demolition Plans

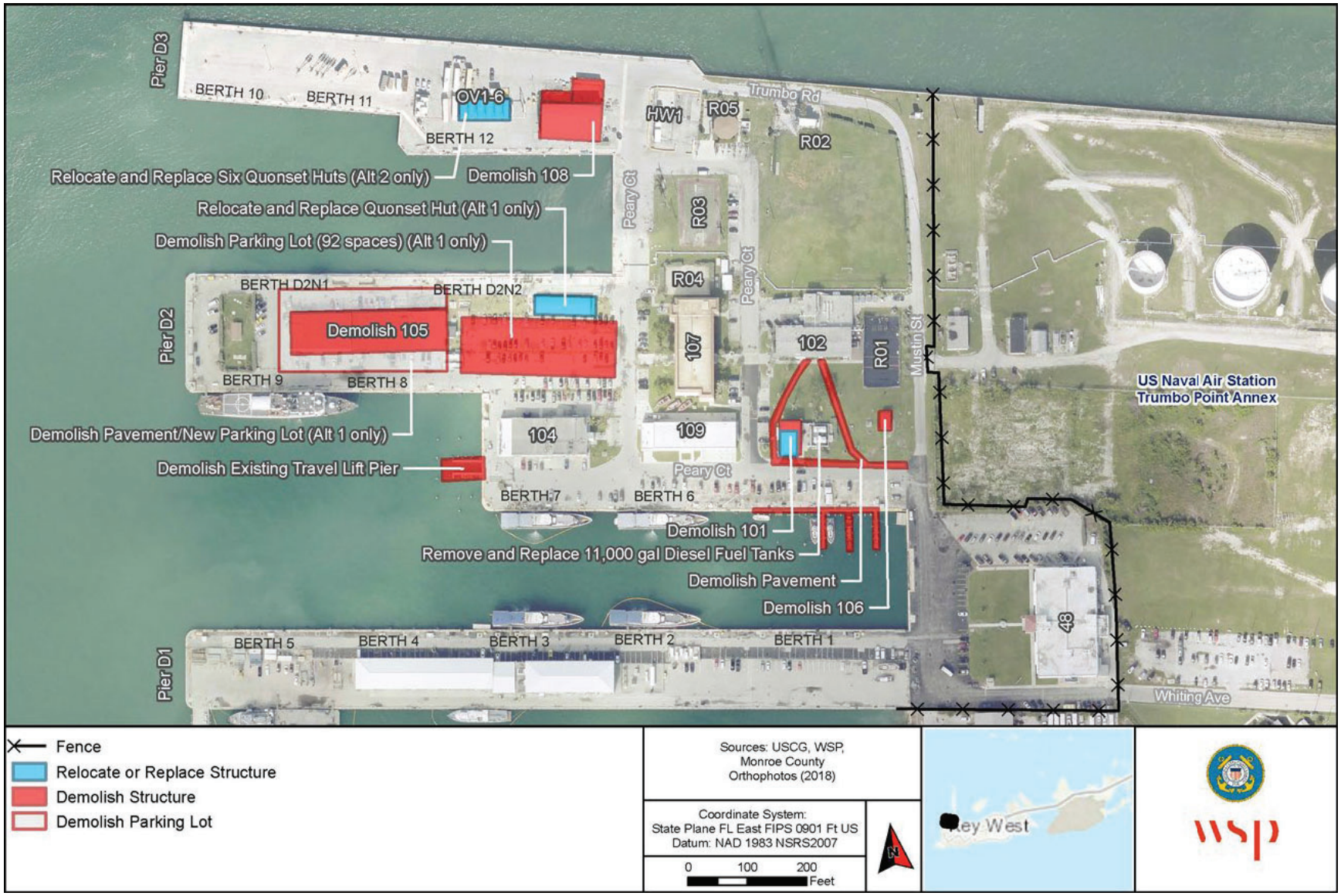
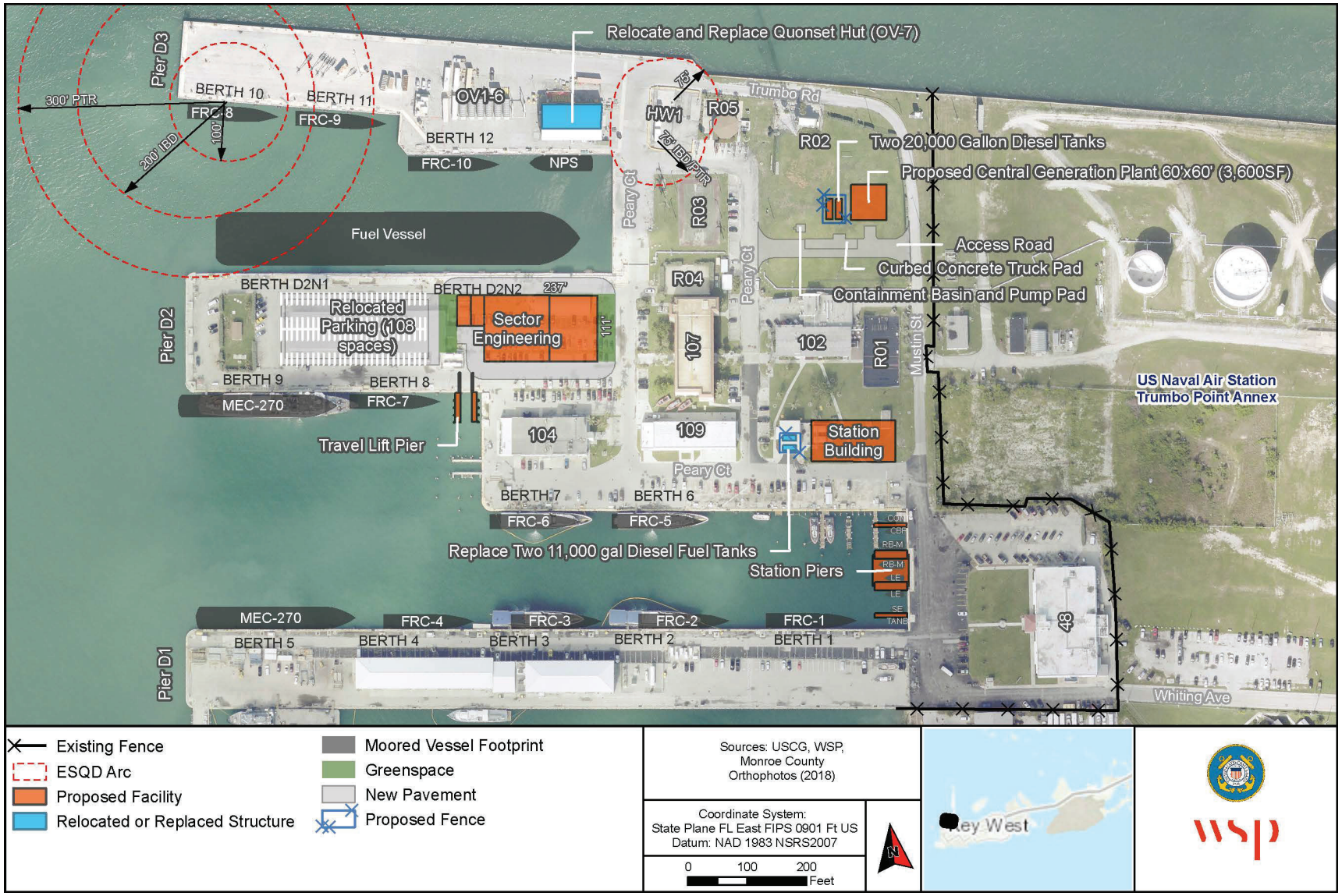


Figure 3. Preferred Alternative Site Plan



Station and ANT Facility – Currently, the Station operates out of Building 101, and the ANT operates out of Building 105. Under the Preferred Alternative, the USCG would demolish Building 101 and Building 106 and construct a new three-story, 23,486 GSF Station and ANT Facility adjacent and to the east of the current Building 101 location. The new building would include facility support space, Station administrative and operational spaces, an armory, and berthing and marine maintenance space. In addition, it would provide ANT administrative and operational spaces and marine maintenance space. Because the existing building is in a floodplain, the first floor would house shop spaces only. The second floor would accommodate all administrative functions, the armory, the command and control center, recreation space, and the central dining area. The third floor would house berthing spaces. Temporary storage of spare parts currently housed in Building 106 would be provided. Permanent storage would be provided in the new Station and ANT Facility. Existing utilities and services would be relocated to the new building and connected to existing nearby utility lines. Additional supporting improvements would include paving, walks, curbs and gutters, and storm drainage. The two 11,600-gallon diesel fuel storage tanks currently located to the east of Building 101 would be temporarily relocated during construction and eventually replaced with two new 11,000-gallon diesel fuel storage tanks located in the footprint of the existing Building 101. New underground fuel lines would be installed from the new location of the tanks to the pier. Similar to the existing underground fuel lines, the new fuel lines would be double piped with a sump monitor for detecting leaks between them.

The USCG would also construct new Station piers with two covered moorings along the bulkhead between Piers D1 and D2 in an east-west orientation. With this orientation, no wave attenuation structure would be required to protect the vessels moored at the piers. Temporary mooring and utilities for Station, Customs and Border Patrol, and contingency vessels would be provided in the existing basin/wharf through leased slips at an adjacent commercial facility, via temporary floating piers, or by using two of the three existing piers while demolition and construction activities are ongoing. The pier closest to the new pier location would be demolished to accommodate the new construction; the remaining two piers would be demolished after construction is complete. Portable wharf utilities such as the existing gas tank, oil waste tank, and diesel fuel pump would be relocated to service the new piers. The Station piers would accommodate mooring of Station Key West vessels and provide two covered moorings. If the Sector Engineering Facility were constructed first, swing space would be provided for the ANT prior to the construction of the new Station and ANT Facility.

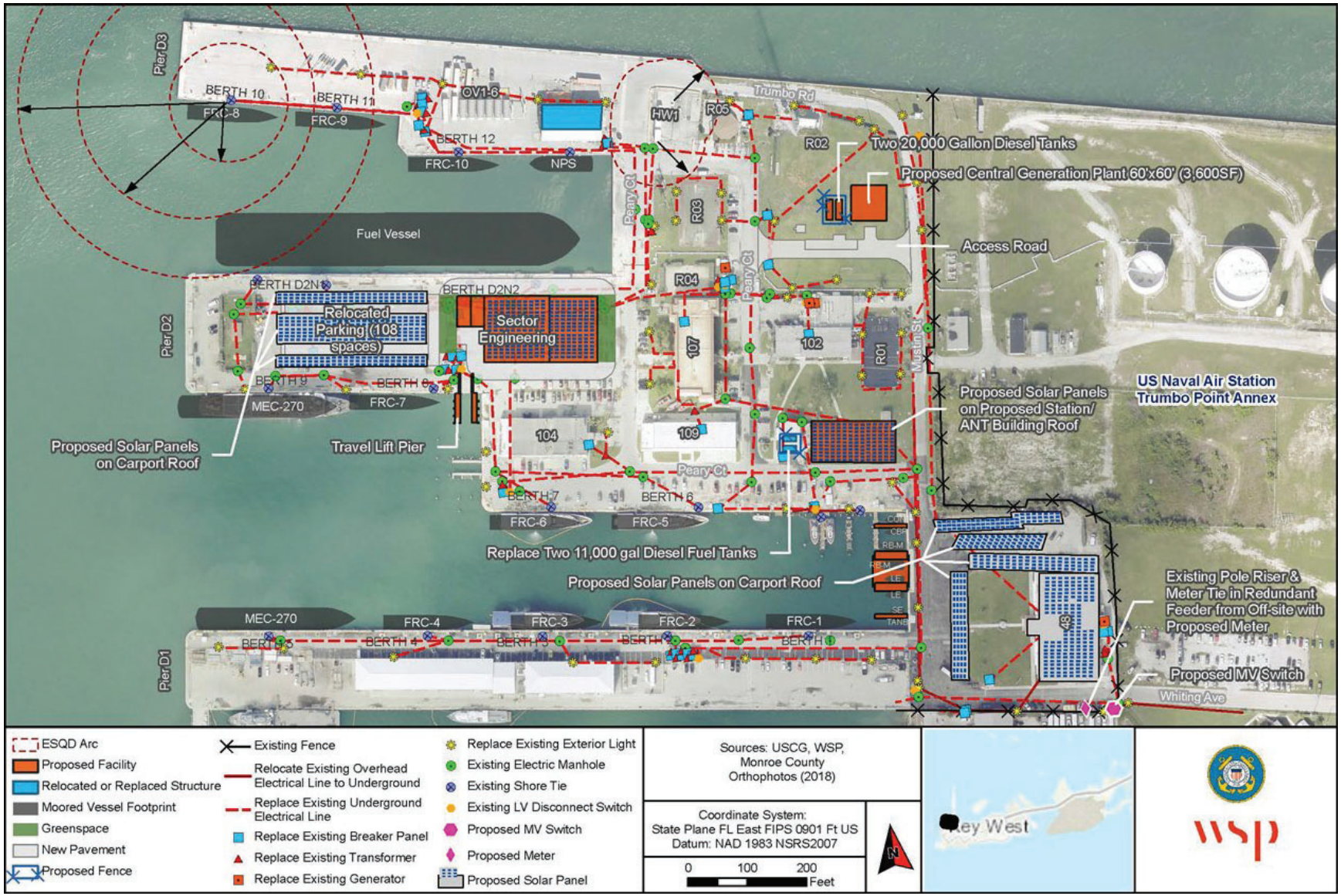
Electrical – Under the Preferred Alternative, the USCG would rebuild the electrical distribution system serving Sector Key West with a new complete and usable infrastructure that meets current mission requirements. It would replace electrical lines, including conductors and conduits; encase all primary distribution conduits in concrete; demolish and replace existing electrical distribution equipment, including distribution transformers throughout the base, and raise all exterior electrical distribution equipment to 3 feet above the 100-year flood elevation; replace and install substations; install proposed medium voltage, fast response switchgear throughout the base on elevated platforms; replace overhead branch circuit conductors with proposed subterranean conductors in conduit and concrete encased; replace emergency generators; install standardized equipment to simplify operations and maintenance, repair, and replacement; replace hurricane-damaged light poles with concrete poles; replace hurricane-damaged existing exterior pole-mounted area lights, floodlights, and sports light fixture heads with LED equivalents; and incorporate sustainable systems in all existing and proposed buildings.

A new 3,600 square-foot (SF) central generation plant would be constructed in the northeast portion of the base. The plant would include four parallel 1,000 kilowatt (kW) (with a 900-kW prime power rating), medium-voltage diesel or jet propellant-5 (JP-5) generators (with black start capabilities) that provide N+2

(i.e., two backup components in conjunction with building level emergency generators evaluated for repair, upgrade, or replacement) to all critical facilities, and N+1 (i.e., one backup component) for the entire base. The generators would be able to carry the maximum demand load used by Sector Key West over a one-year period at 125 percent (1.8 megawatt), as required by the National Electrical Code, for a period of 10 days. Two 1-megawatt generators were selected for their 900-kW prime rating because of the run time required. In addition, an all in one battery energy storage system (with 30–45 minutes battery storage capacity) would be installed to store energy for short outages and to filter the incoming power.

The fuel for the diesel or JP-5 generators would be supplied from a proposed fuel line connecting the generators to two new 20,000-gallon fuel tanks located adjacent to the generator plant. The 40,000 gallons of dedicated central generation storage would meet the 10-day independent operation requirement. Additionally, a photovoltaic system (PV) would be constructed on the roofs of the proposed buildings and Building 48 and on top of carports throughout the parking areas. Figure 4 shows the electrical site plan for the Preferred Alternative.

Figure 4. Preferred Alternative Electrical Site Plan



Alternative 2—Sector Engineering Facility

Under Alternative 2, the Sector Engineering Facility would be demolished and reconstructed on the east end of Pier D3, where Buildings 108 and Quonset Huts OV 1 through 6 are currently located. Figure 2 includes the demolition plan under Alternative 2 and Figure 5 provides the site plan. The location would be outside the explosive safety quantity distance for the loading/unloading and storage of munitions. Utilities (water, sewer, stormwater, natural gas, electric, and telecommunications) for the new facility would be connected to existing nearby utility lines. The new travel lift pier would be relocated to Pier D3 to provide direct access to the boat maintenance bays in the southwest corner of the Sector Engineering Facility without crossing any of the base roads. Building 108 would be demolished, and the six Quonset Huts would be relocated just to the west of their current location. No additional parking would be provided because there would be no loss of parking spaces. Personnel would either use existing parking near the new building or use the parking lot north of Building 104 and walk to the new facility. Once demolished, the footprint of Building 105 would be turned into green space.

Alternative 3—Station Piers

Alternative 3 presents one additional site where the Station piers could be located (Figure 6). Under Alternative 3, the construction and location of the new Station and ANT Facility would be the same as described under the Preferred Alternative; however, the Station piers would be reconstructed in their existing footprint. Temporary mooring and utilities for Station, Customs and Border Patrol, and contingency vessels would be provided while demolition and construction activities are ongoing. Temporary mooring would either be provided in the existing basin/wharf, through leased slips at an adjacent commercial facility, or via temporary floating piers. Portable wharf utilities (e.g., the existing gas tank, oil waste tank, and diesel fuel pump) would be relocated as necessary to service the new piers. The piers would be oriented in a north-south direction, perpendicular to the direction of incoming waves. To avoid potential damage from waves, a wave attenuation structure would be constructed immediately west of the piers.

Figure 5. Alternative 2—Sector Engineering Facility Site Plan

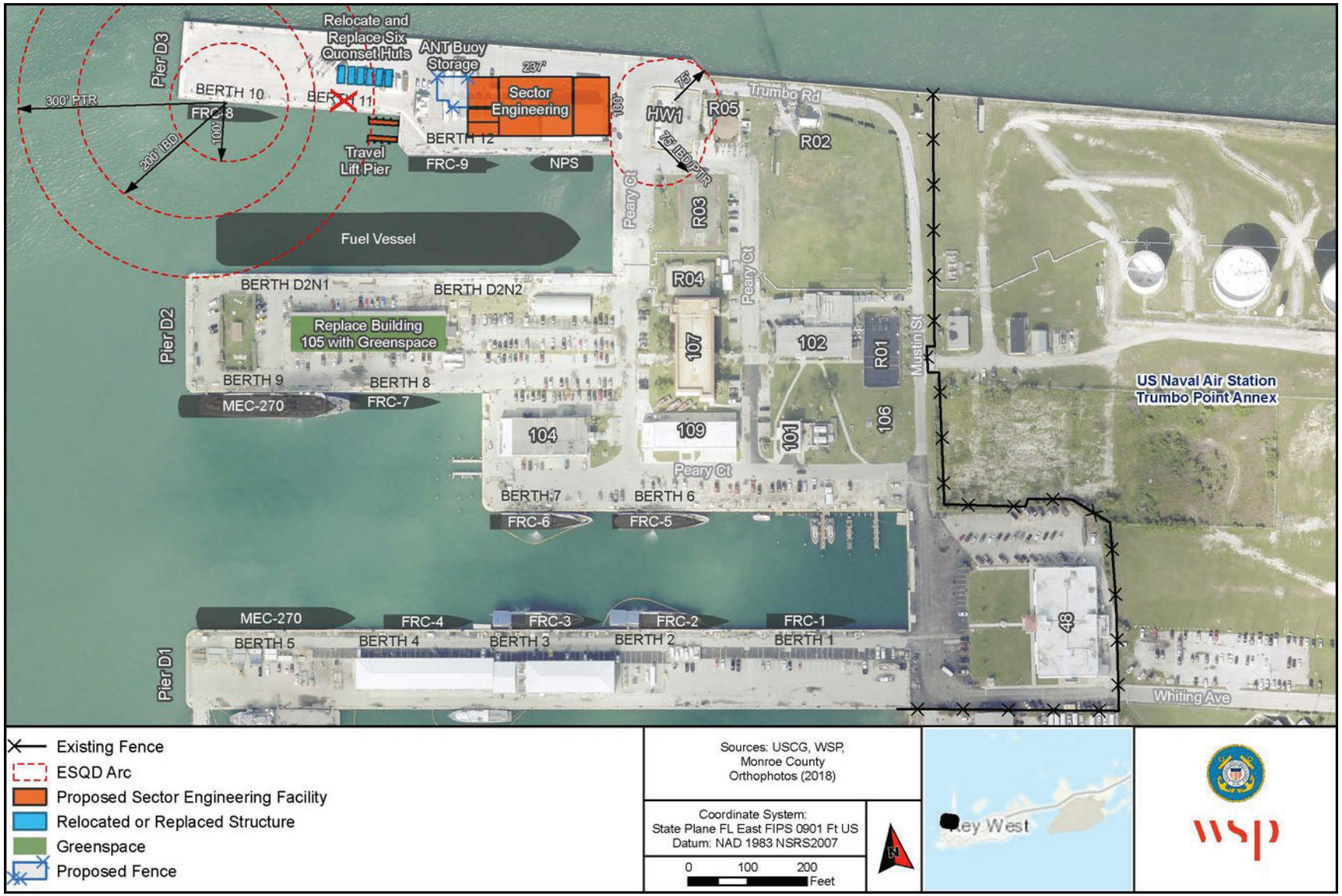
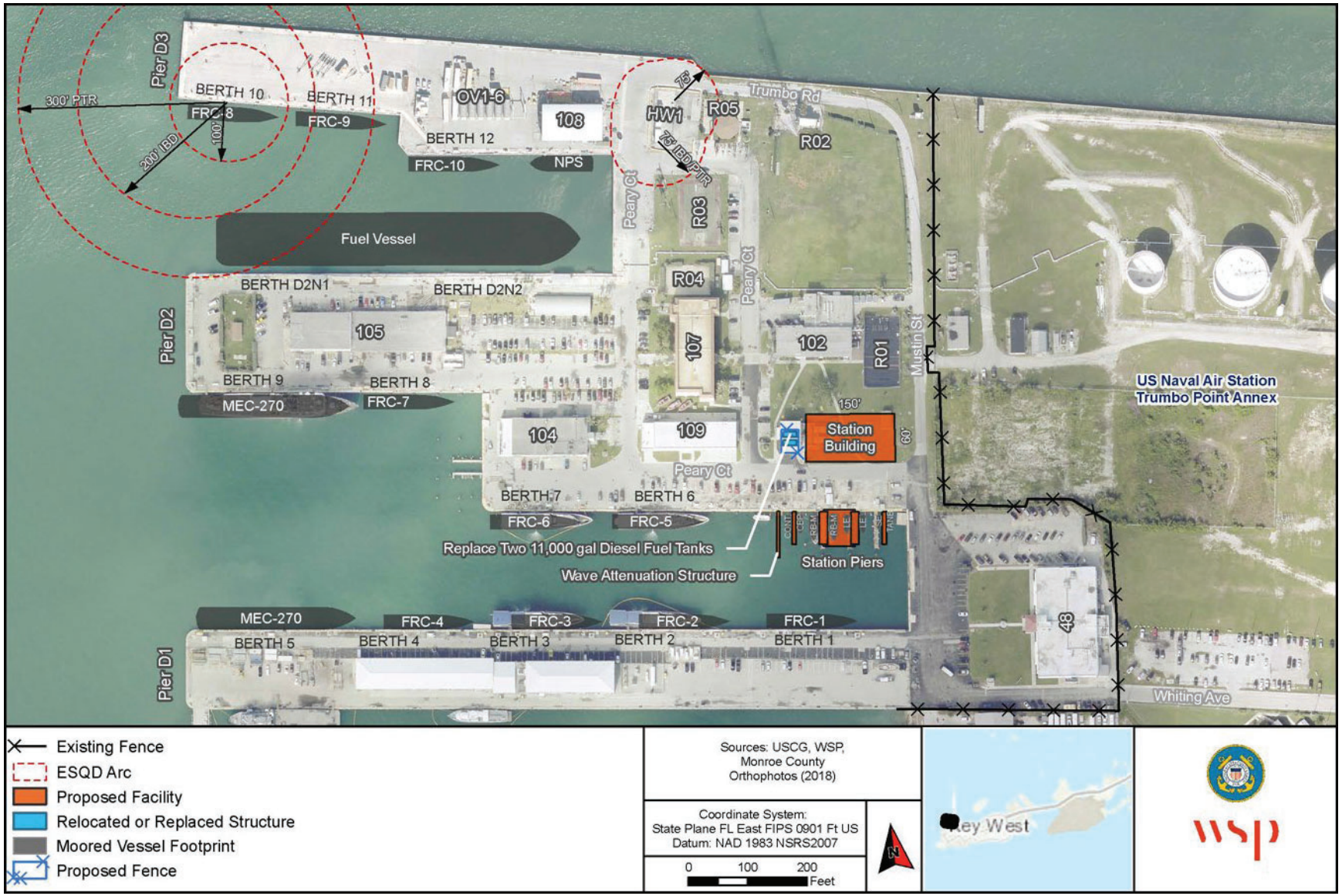


Figure 6. Alternative 3—Station and ANT Facility Site Plan



Federal Consistency Review

Pursuant to the CZMA, the USCG has reviewed FCMP and identified enforceable policies that may be applicable to the Proposed Action. The following section evaluates the Proposed Action in the context of applicable FCMP policies and makes a determination as to what degree the Proposed Action would be consistent with each enforceable policy. FCMP policies that are not applicable to the Proposed Action are discussed in Table 1. The analysis below applies to the three alternatives under consideration, as described above.

Table 1. Florida Coastal Management Program Enforceable Policies Not Applicable to the Proposed Action

Florida Statue	Legal Scope	Consistency Evaluation
Chapter 163, Part II *Growth Policy; County and Municipal Planning; Land Development Regulation*	Requires local governments to prepare, adopt, and implement comprehensive plans that encourage the most appropriate use of land and natural resources in a manner consistent with the public interest.	The Proposed Action would not affect local (municipal or county) government's ability to develop or implement comprehensive plans.
Chapter 186 *State and Regional Planning*	Provides a framework for state-wide planning at all levels of government the orderly social, economic, and physical growth of the state. Provides direction for the delivery of governmental services, a means for defining and achieving the specific goals of the state, and a method for evaluating the accomplishment of those goals	The Proposed Action would not affect Florida state- or regional-level planning requirements and would not affect the delivery of governmental services or the ability to accomplish state goals.
Chapter 252 *Emergency Management*	Provides for planning and implementation of the state's response to, efforts to recover from, and mitigation of natural and man- made disasters.	The Proposed Action would not have an impact on the ability of the state to respond to or recover from natural or man-made disasters and would not affect evacuation or emergency mitigation procedures.
Chapter 259 *Land Acquisitions for Conservation or Recreation*	Authorizes acquisition of natural areas for the purposes of protecting environmental resources, promoting restoration, and providing lands for natural resource-based recreation.	The Proposed Action would occur entirely on Sector Key West property and would not interfere with the state's ability to acquire land for conservation or recreation.
Chapter 260 *Florida Greenways and Trails Act*	Authorizes acquisition of land, planning, and management of a statewide system of greenways and trails for recreational and conservation purposes.	The Proposed Action would not have an impact on the acquisition of land, planning or management of the statewide greenways and trails system.

Florida Statue	Legal Scope	Consistency Evaluation
Chapter 267 *Historical Resources*	Addresses management and preservation of the state's archaeological and historical resources.	The Proposed Action would not affect the management or preservation of the archaeological resources of the State of Florida, as there are no known archaeological resources within the Area of Potential Effect. Per a 2009 letter from Division of Historical Resources, Florida Department of State, there are also no known historic resources listed on or eligible for listing on the National Register. Furthermore, the buildings are contained within a developed, industrial site and lack architectural character that would set them apart as unique. Therefore, there would be no impacts on historical resources as a result of implementing the Proposed Action. However, the USCG will consult with the Division of Historical Resources about the buildings to be demolished so the Florida Master Site File can be updated.
Chapter 288 *Commercial Development and Capital Improvements*	Provides a framework for promoting and developing the general business, trade, and tourism components of the state economy.	The Proposed Action would not have an impact on commercial development or capital improvements, including tourism.
Chapter 334 *Transportation Administration*	Addresses the state's policy concerning transportation administration and establishes state, county, and municipal transportation planning and development responsibilities.	The Proposed Action would not have an impact on the state's transportation administration policies or affect the state's transportation system.
Chapter 339 *Transportation Finance and Planning*	Addresses the finance and planning needs of the state's transportation system.	The Proposed Action would not have an impact on the finance and planning needs of the state's transportation system.

Florida Statue	Legal Scope	Consistency Evaluation
Chapter 375 *Outdoor Recreation and Conservation Lands*	Develops comprehensive multipurpose outdoor recreation plan to document recreational supply and demand, describe current recreational opportunities, estimate need for additional recreational opportunities, and propose means to meet the identified needs.	The Proposed Action would not impact the state's development or evaluation of multipurpose outdoor recreation plans.
Chapter 377 *Energy Resources*	Addresses regulation, planning, and development of energy resources of the state and authorizes the Florida Department of Environmental Protection to regulate all activities related to exploration, drilling, and production of oil, gas, and other petroleum products.	The Proposed Action would not have an impact on the development of Florida's energy resources or the state's ability to regulate these activities.
Chapter 388 *Mosquito Control*	Addresses mosquito control efforts in the state.	The Proposed Action would not affect mosquito control efforts of the State of Florida.
Chapter 553 *Building Construction Standards*	Provides a mechanism for the adoption, amendment, interpretation, application, and enforcement of a Florida Building Code including provisions for issuance of permits.	Federal entities are not required to obtain local building permits or to comply with local codes. Construction under the Proposed Action would comply with strict USCG and other federal building guidelines that address resiliency, structural integrity, fire safety, and other considerations. These federal requirements parallel and many times exceed local code requirements.
Chapter 597 *Aquaculture*	Establishes public policy concerning the cultivation of aquatic organisms in the state.	The Proposed Action would not affect aquaculture.

Florida Coastal Management Program Enforceable Policies Applicable to the Proposed Action

Chapter 161 – Beach and Shore Preservation

This statute authorizes the Bureau of Beaches and Coastal Systems within Florida Department of Environmental Protection to regulate construction, reconstruction, and other physical activities related to the beaches and shores of the state. It provides protections for coastal areas used or likely to be used by sea turtles and regulates activities that would jeopardize the stability of beaches and dune systems, endanger adjacent properties, or interfere with public beach access. It specifically prohibits removal of vegetative cover that binds sand on or adjacent to the state's shores.

The Proposed Action would not involve construction on or development of previously undeveloped coastal lands. All construction activities would occur on Sector Key West property within the existing developed footprint. The project area does not contain beaches or dunes. Four species of sea turtles that occur in the Gulf of Mexico could be occasionally present in the project area. However, the project area does not contain nesting habitat or optimal foraging habitat for any sea turtle species. The USCG would coordinate for all applicable permits as required by law. All coastal construction activities would be conducted in a manner consistent with Chapter 161 and all applicable permit conditions and requirements.

The USCG has determined that the Proposed Action would be fully consistent with Florida's Beach and Shore Preservation policy.

Chapter 253 – State Lands

The statute addresses the state's administration of public lands and property of the state and provides direction regarding the acquisition, disposal, and management of state lands. The statute declares that all submerged lands are to be maintained in natural condition for the propagation of fish and wildlife and for public recreation. Where multiple uses are permitted, ecosystem integrity, recreational benefits and wildlife values must be conserved protected.

Construction associated with the Proposed Action would occur on Sector Key West property, except in-water work, which would occur on state lands because all submerged lands are owned by the State of Florida. The USCG would coordinate for all applicable permits as required by law. All in-water work would be conducted in a manner consistent with Chapter 253 and all applicable permit conditions and regulatory requirements. In-water work would be limited to previously developed submerged lands (marina basins). Impacts to water quality and marine habitats and fauna resulting from in-water work would be minimized by the use of appropriate best management practices (BMPs). The Proposed Action would not permanently impair fish and marine wildlife habitat values or diminish ecosystem integrity.

The USCG has determined that the Proposed Action would be consistent to the maximum extent practicable with Florida's State Lands policy.

Chapter 258 – State Parks and Preserves

This statute addresses administration and management of state parks and preserves. It establishes policy that restrict or prohibit activities that could jeopardize natural values of state parks and preserves.

The project area is not located within a state park, aquatic preserve, or recreation area. However, it is located within the Florida Keys National Marine Sanctuary (FKNMS). Administered by NOAA, FKNMS was created and exists under federal law. However, because approximately 60 percent of the protected area falls in state waters, the sanctuary is also effective in these state waters under consent of the State of Florida. This creates a unique partnership whereby the sanctuary is administered by NOAA and jointly managed by NOAA and the State of Florida under a co-trustee agreement.

Under this agreement, NOAA's primary management partner is the Florida Department of Environmental Protection. The Florida Fish and Wildlife Conservation Commission enforces sanctuary regulations in partnership with sanctuary managers and the NOAA Office of Law Enforcement.

Two primary pieces of legislation govern FKNMS:

- National Marine Sanctuaries Act, which authorizes the Secretary of the Department of Commerce to designate and protect areas of the marine environment with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archeological, educational, or esthetic qualities as national marine sanctuaries; and
- Florida Keys National Marine Sanctuary and Protection Act, which designated FKNMS to be managed as a national marine sanctuary under the National Marine Sanctuary Act.

The Proposed Action would not permanently diminish the biological, aesthetic, or scientific values of FKNMS. The USCG would coordinate for all applicable permits as required by law. Construction associated with the Proposed Action would be conducted in a manner consistent with Chapter 258 and all applicable permit conditions and regulatory requirements.

The USCG has determined that the Proposed Action would be consistent to the maximum extent practicable with Florida's State Parks and Preserves policy.

Chapter 373 – Water Resources

This statute addresses sustainable water management; the conservation of surface and ground waters for full beneficial use; the preservation of natural resources, fish, and wildlife; protecting public land; and promoting the health and general welfare of Floridians. The state's policy manages and conserves water and related natural resources by determining whether activities will unreasonably consume water; degrade water quality; or adversely affect environmental values (such as protected species habitat, recreational pursuits, and marine productivity).

The Proposed Action would not unreasonably consume water, permanently degrade water quality, or permanently adversely affect environmental values. Potable water consumption at Sector Key West would not be expected to increase as a result of the Proposed Action. Impacts to water quality and marine habitats and fauna resulting from in-water work would be minimized by the use of appropriate BMPs. The USCG would coordinate for all applicable permits as required by law. The Proposed Action would be conducted in a manner consistent with Chapter 373 and all applicable permit conditions and regulatory requirements.

The USCG has determined that the Proposed Action would be consistent to the maximum extent practicable with Florida's Water Resources policy.

Chapter 376 – Pollution Discharge Prevention and Removal

This statute provides a framework for the protection of the state's coastline from spills, discharges, and releases of pollutants. The discharge of pollutants into or upon any coastal waters, estuaries, tidal flats, beaches, and lands adjoining the seacoast of the state is prohibited.

The statute:

- provides for hazards and threats of danger and damages resulting from any pollutant discharge to be evaluated;
- requires the prompt containment and removal of pollution; provides penalties for violations; and
- ensures the prompt payment of reasonable damages from a discharge.

The Proposed Action would include transport, storage, and handling of fuels and other hazardous material and hazardous waste. During construction, temporary secondary containment equipment would be used where practicable to ensure accidental releases of hazardous material and hazardous waste are prevented or limited in scope. Portable catch basins, containment berms, and other similar equipment would be used for refueling equipment where feasible. Spill kits would be kept on-site to provide easily accessible cleanup materials should a spill occur. Hazardous material and hazardous waste used or generated during proposed activities would be handled according to applicable law and regulations. Sector Key West has a Spill Prevention, Control, and Countermeasures Plan (USCG 2017), which would need to be updated to address the installation of two new 20,000-gallon fuel storage tanks. The USCG would also be required to prepare a Facility Response Plan as a result of installing the two 20,000-gallon fuel tanks and submit it to the appropriate USEPA Regional Administrator for review. A Facility Response Plan is a plan for responding, to the maximum extent practicable, to a worst-case discharge and to a substantial threat of such a discharge of oil.

Additionally, the USCG would coordinate for all applicable permits as required by law. The Proposed Action would be conducted in a manner consistent with Chapter 376 and all applicable permit conditions and regulatory requirements.

The USCG has determined that the Proposed Action would be fully consistent with Florida's Pollutant Discharge Prevention and Removal policy.

Chapter 379 – Fish and Wildlife Conservation

This statute establishes a framework for the management and protection of the state of Florida's wide diversity of fish and wildlife resources. It is the policy of the state to conserve and wisely manage these resources. Particular attention is given to those species defined as being endangered or threatened.

This statute contains specific provisions for the conservation and management of marine fisheries resources. Additionally, this statute supports and promotes hunting, fishing and the taking of game opportunities in the state. This statute also contains provisions for the management of lands important to the conservation of fish and wildlife.

The project area does not contain high quality habitat for most terrestrial wildlife species, although birds and small mammals that are tolerant of urban environments and frequent disturbance could be present on occasion. Marine habitats in the project area are largely limited to the marina basins that do not provide high quality habitat for many marine fauna because of the silty muck substrate material, persistent turbidity in the water column, and regular disturbance by vessel traffic. However, the marina's seawalls, docking structures, and pilings provide hard structure that provides habitat for fish and serves as a substrate for encrusting organisms and other marine invertebrates.

Seventeen federally endangered and threatened species are known to occur or could occur in the project area. The project area also supports numerous species that are managed by NOAA National Marine Fisheries Service and regional Fishery Management Councils including the Gulf of Mexico, South Atlantic, and Mid-Atlantic councils. The project area is located within designated essential fish habitat for reef fish, shrimp, spiny lobster, coastal migratory pelagics, and various life stages of several highly migratory species. The project area does not contain submerged aquatic vegetation.

Demolition and construction activities under the Proposed Action, particularly removal and installation of pilings for the travel lift and Station Piers, would result in temporary adverse impacts to marine fauna in the marina from underwater noise, turbidity, and sedimentation. Fish and other motile organisms would likely leave the area during demolition and construction. Sessile organisms including corals and other encrusting species would suffer mortality. However, these species would likely recolonize disturbed areas and colonize new underwater surfaces upon in the months or years following completion of construction. Therefore, any adverse impacts to marine fauna would be temporary and would not alter ecosystem dynamics in the project area.

In accordance with Section 7 of the Endangered Species Act, the USCG would consult with USFWS and NOAA National Marine Fisheries Service prior to implementation of the Proposed Action to ensure that adverse impacts to endangered or threatened species are avoided, minimized, or mitigated. The USCG would also consult with NOAA National Marine Fisheries Service pursuant to the Magnuson-Stevens Fishery Conservation and Management Act to ensure that adverse impacts to federally managed fisheries and essential fish habitat are avoided, minimized, or mitigated. The Proposed Action would not affect hunting or fishing opportunities in the state and would not involve land acquisition. The Proposed Action would be conducted in a manner consistent with Chapter 379 and all applicable permit conditions and regulatory requirements.

The USCG has determined that the Proposed Action would be consistent to the maximum extent practicable with Florida's Fish and Wildlife Conservation policy.

Chapter 380 – Land and Water Management

This statute establishes land and water management policies to protect natural resources and the environment and to guide and coordinate local decisions relating to growth and development. Chapter 380 also establishes the Areas of Critical State Concern designation, the Florida Communities Trust, as well as the Florida Coastal Management Act.

The Proposed Action would not affect Florida's ability to manage land and water resources. All development under the Proposed Action would occur within the existing developed footprint of Sector Key West. The project area is located within the Florida Keys Area of Critical State Concern and demolition and construction under the Proposed Action would result in temporary adverse impacts to water quality. However, these impacts would be minimized by the use of appropriate BMPs. The USCG would coordinate for all applicable permits as required by law. The Proposed Action would be conducted in a manner consistent with Chapter 380 and all applicable permit conditions and regulatory requirements.

The USCG has determined that the Proposed Action would be consistent to the maximum extent practicable with Florida's Land and Water Management policy.

Chapter 381 – Public Health, General Provisions

This statute establishes public policy concerning the state's public health system and includes provisions for water and sewer treatment and disposal systems.

The Proposed Action does not involve construction of an on-site sewage treatment and disposal system. The Proposed Action would involve constructing short lines to connect new buildings to existing public water and sanitary lines on Sector Key West. The Proposed Action would be conducted in a manner consistent with Chapter 381 and would not result in increased usage of public water and sewer systems or otherwise affect Florida's public health system.

The USCG has determined that the Proposed Action would be fully consistent with Florida's Public Health policy.

Chapter 403 – Environmental Control

This statute establishes public policy concerning environmental control in the state. Those policies most relevant to the Proposed Action include air and water pollution, pollution prevention, and ecosystem management.

The Proposed Action would slightly increase emissions of criteria pollutants associated with construction activities. The region is currently in attainment for all criteria pollutants. The Proposed Action is not expected to result in a substantial increase in mobile source emissions over the long term. Contributions from construction emissions would not jeopardize Monroe County's attainment status.

The Proposed Action would utilize a variety of BMPs for pollution prevention and spill response, as described above under Chapter 376 – Pollution Discharge Prevention and Removal. Similarly, the Proposed Action would incorporate measures to avoid, minimize, or mitigate impacts to the ecosystem, including endangered and threatened species, as described above under Chapter 379 – Fish and Wildlife Conservation.

The USCG would coordinate for all applicable permits as required by law. The Proposed Action would be conducted in a manner consistent with Chapter 403 and all applicable permit conditions and regulatory requirements.

The USCG has determined that the Proposed Action would be consistent to the maximum extent practicable with Florida's Environmental Control policy.

Chapter 582 – Soil and Water Conservation

This statute provides for the control and prevention of soil erosion. It is Florida's policy to preserve natural resources; control and prevent soil erosion; prevent floodwater and sediment damages; and further the conservation, development, and use of soil and water resources, and the disposal of water.

The construction activities associated with the Proposed Action would expose and disturb soils, leading to increased potential for soil erosion and sedimentation. Once asphalt has been laid to surface parking areas there would no longer be potential for soil erosion and runoff is expected to be minimal. Impervious surfaces and structures comprise 81.5 percent of the project area. The Proposed Action would result in a slight increase in impervious cover from the generator plant and the new station building. Given this small change within a highly developed area, stormwater runoff is not expected to increase substantially as a result of the Proposed Action. The USCG would coordinate for all applicable permits as required by law. The Proposed Action would be conducted in a manner consistent with Chapter 582 and all applicable permit conditions and regulatory requirements.

The USCG has determined that the Proposed Action would be consistent to the maximum extent practicable with Florida's Environmental Control policy.

Conclusion

As required under the CZMA, the USCG has reviewed the Proposed Action for consistency with the enforceable policies and regulations of the FCMP and determined that the Proposed Action under all three alternatives under consideration would be consistent, to the maximum extent practicable, with the plans and policies of the FCMP.

From:	Stahl, Chris
To:	Dobbins-Noble, Lesley C CIV
Cc:	State Clearinghouse
Subject:	[Non-DoD Source] State Clearance Letter for FL202012099101C - Draft Environmental Assessment (EA) that Analyzes and Evaluates Potential Environmental Impacts Associated with the Repair and Replacement of Facilities at Sector and Station Key West, Monro...
Date:	Tuesday, February 2, 2021 1:33:47 PM

February 2, 2021

Lesley Dobbins-Noble
U.S. Coast Guard
Facilities Design And Construction Center
5505 Robin Hood Road, Suite K
Norfolk, Virginia 23513

RE: U.S. Coast Guard - Draft Environmental Assessment (EA) that Analyzes and Evaluates Potential Environmental Impacts Associated with the Repair and Replacement of Facilities at Sector and Station Key West, Monroe County, Florida.
SAI # FL202012099101C

Dear Lesley:

Florida State Clearinghouse staff has reviewed the proposal under the following authorities: Presidential Executive Order 12372; § 403.061(42), Florida Statutes; the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended; and the National Environmental Policy Act, 42 U.S.C. §§ 4321-4347, as amended.

The project will require an Environmental Resource Permit (ERP) from the South Florida Water Management District (SFWMD) in accordance with Rule 62-330.054, Florida Administrative Code (FAC). Please contact Barbara Conmy, at [redacted], or bconmy@sfwmd.gov, or Dustin Wood, at [redacted], or duwood@sfwmd.gov, at the SFWMD West Palm Beach office, for questions regarding the ERP review process, or email erpreapp@sfwmd.gov to schedule a pre-application meeting with staff.

Based on the information submitted and minimal project impacts, the state has no objections to the proposed project and, therefore, it is consistent with the Florida Coastal Management Program (FCMP). Thank you for the opportunity to review the proposed project. If you have any questions or need further assistance, please don't hesitate to contact me at [redacted].

Sincerely,

Chris Stahl

Chris Stahl, Coordinator
Florida State Clearinghouse
Florida Department of Environmental Protection
3800 Commonwealth Blvd., M.S. 47
Tallahassee, FL 32399-2400
ph. [redacted]
State.Clearinghouse@floridadep.gov

U.S. Department of Homeland Security

United States Coast Guard

Commanding Officer
United States Coast Guard
Facilities Design and Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: (757) 852-3400
Fax: (757) 852-3495

11000
December 7, 2020

Ms. Joanne Delaney
Resource Protection and Permit Coordinator
Florida Keys National Marine Sanctuary
Nancy Foster Florida Keys Environmental Complex
33 East Quay Road
Key West, FL 33040

Greetings Ms. Delaney:

The U.S. Coast Guard (USCG) announces the availability of a draft Environmental Assessment (EA) that analyzes and evaluates potential environmental impacts associated with the repair and replacement of facilities at Sector and Station Key West that were damaged during Hurricane Irma in September 2017 (the Proposed Action). The Proposed Action is needed to provide Sector Key West and Station Key West with facilities and infrastructure that will allow them to adequately execute their mission requirements and increase the resiliency of Sector and Station facilities so that they can remain operational during future weather events and return to full operation after an event is over.

Enclosure (1) contains a description of the Proposed Action that has been identified as the preferred alternative in the draft EA; a summary of potential impacts on sanctuary resources; and the USCG's preliminary determination of effects under the National Environmental Policy Act. The USCG has preliminarily determined that the Proposed Action may have the potential to injure Florida Keys National Marine Sanctuary resources. As such, the information contained in Enclosure (1) along with the draft EA are being provided to satisfy the statutory requirement to submit a sanctuary resource statement for interagency consultation pursuant to the National Marine Sanctuaries Act (16 United States Code Section 1434(d)).

The USCG has initiated coordination and consultation with various other federal and state agencies to ensure compliance with all applicable laws and regulations including the Endangered Species Act, Magnuson-Stevens Fishery Conservation and Management Act, Clean Water Act, and Coastal Zone Management Act. Best management practices or requirements in addition to those identified in the draft EA may be required as a result of consultation and permitting, further reducing potential impacts on sanctuary resources.

The draft EA is available online at https://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-Engineering-Logistics-CG-4-/Program-Offices/Environmental-Management/Environmental-Planning-and-Historic-Preservation/ and contains detailed information and analyses of the Proposed Action's potential environmental impacts.

We request that you provide your concurrence with our findings within 45 days of receipt of this letter. If you have any questions, please reach out to Ms. Lesley Dobbins-Noble by phone at (757) 852-3410 or by e-mail at lesley.c.dobbinsnoble@uscg.mil.

Sincerely,

Digitally signed by
BARRESI.JOHN.F.JRII.1187016629
Date: 2020.12.07 16:49:51 -05'00'

J. F. BARRESI
Captain
U. S. Coast Guard

Enclosure: (1) Proposed Action and Summary of Potential Impacts on Sanctuary Resources

Proposed Action and Summary of Potential Impacts on Sanctuary Resources

Hurricane Execution Plan at Section/Station Key West Florida

Description of the Proposed Federal Agency Action

Sector Key West is a unified command consisting of six Fast Response Cutters, three small boat stations, an Aids to Navigation Team (ANT), and three staff departments. The Sector Commander performs the duties of Search and Rescue Mission Coordinator; Captain of the Port; Federal Maritime Security Coordinator; Federal On-Scene Coordinator; and Officer in Charge, Marine Inspection. Sector Key West's area of responsibility includes 55,000 square miles bordering the territorial seas of Cuba and the Bahamas (Figure 1).

In September of 2017, Sector and Station Key West, a Small Boat Station unit of and collocated on Sector Key West, suffered extensive damage from Hurricane Irma. The USCG proposes to rebuild facilities damaged during Hurricane Irma by (1) demolishing and rebuilding the Sector Engineering/Electronics Support Detachment (ESD) Building (Building 105) at Sector Key West to meet resiliency thresholds, (2) rebuilding waterfront and shore facilities for Station Key West, including demolishing existing facilities; and constructing a new Station building, grounds work, pier, docks and boat house, and (3) rebuilding the electrical distribution system serving Sector Key West to include transformer and electrical distribution to the waterfront, shore facilities, and on-site energy generation and storage.

Sector Engineering Facility – The USCG would demolish the existing Sector Engineering/ESD Facility (Building 105) and build a new 36,073-gross-square-foot (GSF) facility in the location of the parking lot immediately east of its current location on Pier D2. The parking lot would be moved to the current location of Building 105 once it is demolished. The new facility would include Sector Engineering administrative and maintenance spaces, ESD administrative and operational spaces, and two boat maintenance bays that could accommodate USCG's 45-foot Response Boat – Medium (45 RB-M). Utilities (water, sewer, stormwater, natural gas, electric, and telecommunications) for the new facility would be connected to existing nearby utility lines. The existing travel lift pier would be demolished and reconstructed along the southern quay wall of Pier D2 at the east end of Berth 8 to provide direct access to the boat maintenance bays of the Sector Engineering Facility without crossing any base roads. Building 108 on Pier D3 would be demolished, and storage Building 5 (Quonset Hut OV 7) would be demolished and rebuilt in that location. Materials currently stored in Building 108 would be stored in the new Sector Engineering Facility. Figures 2 and 3 include the demolition and site plans, respectively.

Station and ANT Facility – Currently, the Station operates out of Building 101, and the ANT operates out of Building 105. Under the Preferred Alternative, the USCG would demolish Building 101 and Building 106 and construct a new three-story, 23,486-GSF Station and ANT Facility adjacent and east of the current Building 101 location (see Figures 2 and 3). The new building would include facility support space, Station administrative and operational spaces, an armory, and berthing and marine maintenance space. In addition, it would provide ANT

administrative and operational spaces and marine maintenance space. Because the existing building is in a floodplain, the first floor would house shop spaces only.

Figure 1. Regional Map

Figure 2. Demolition Plan

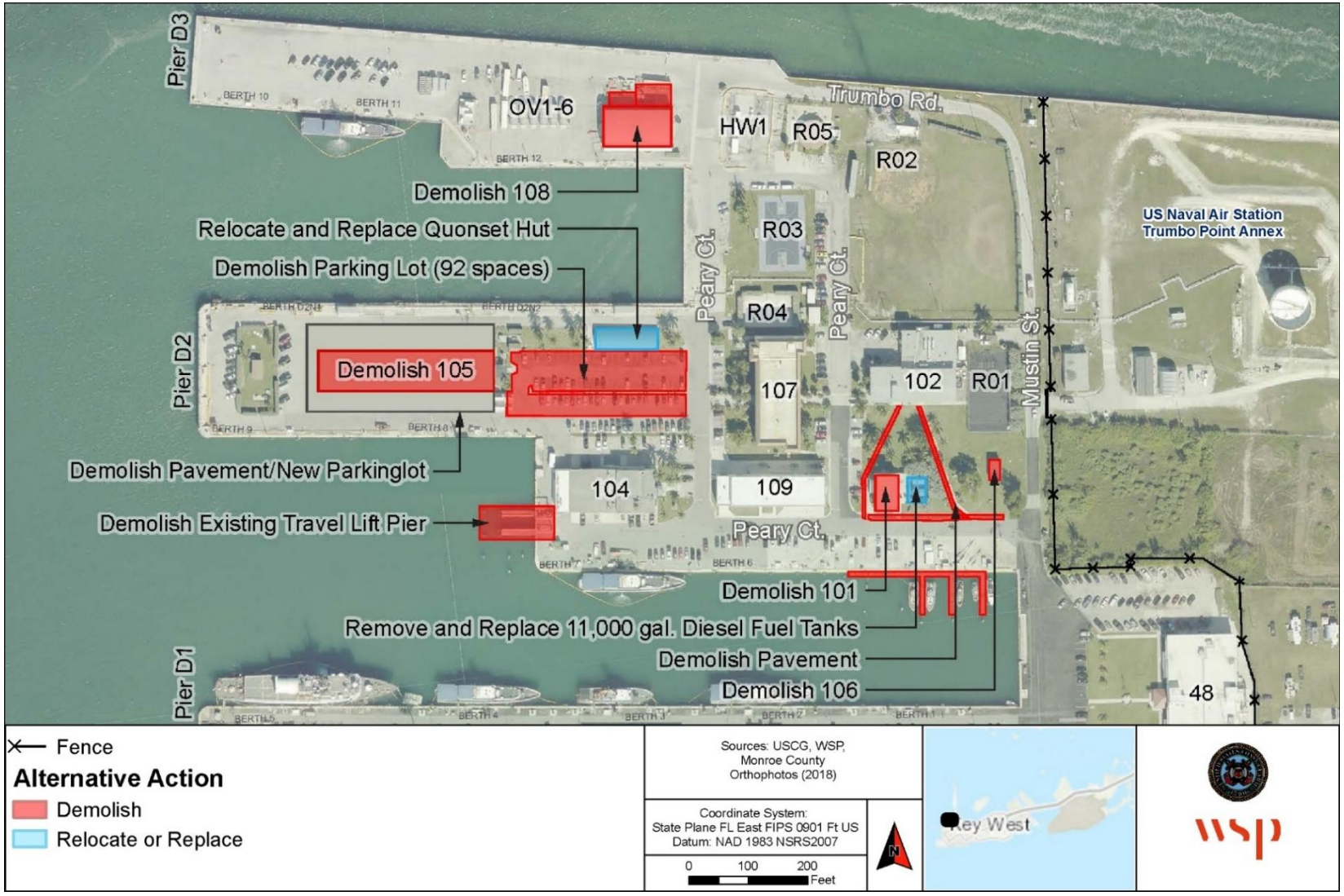
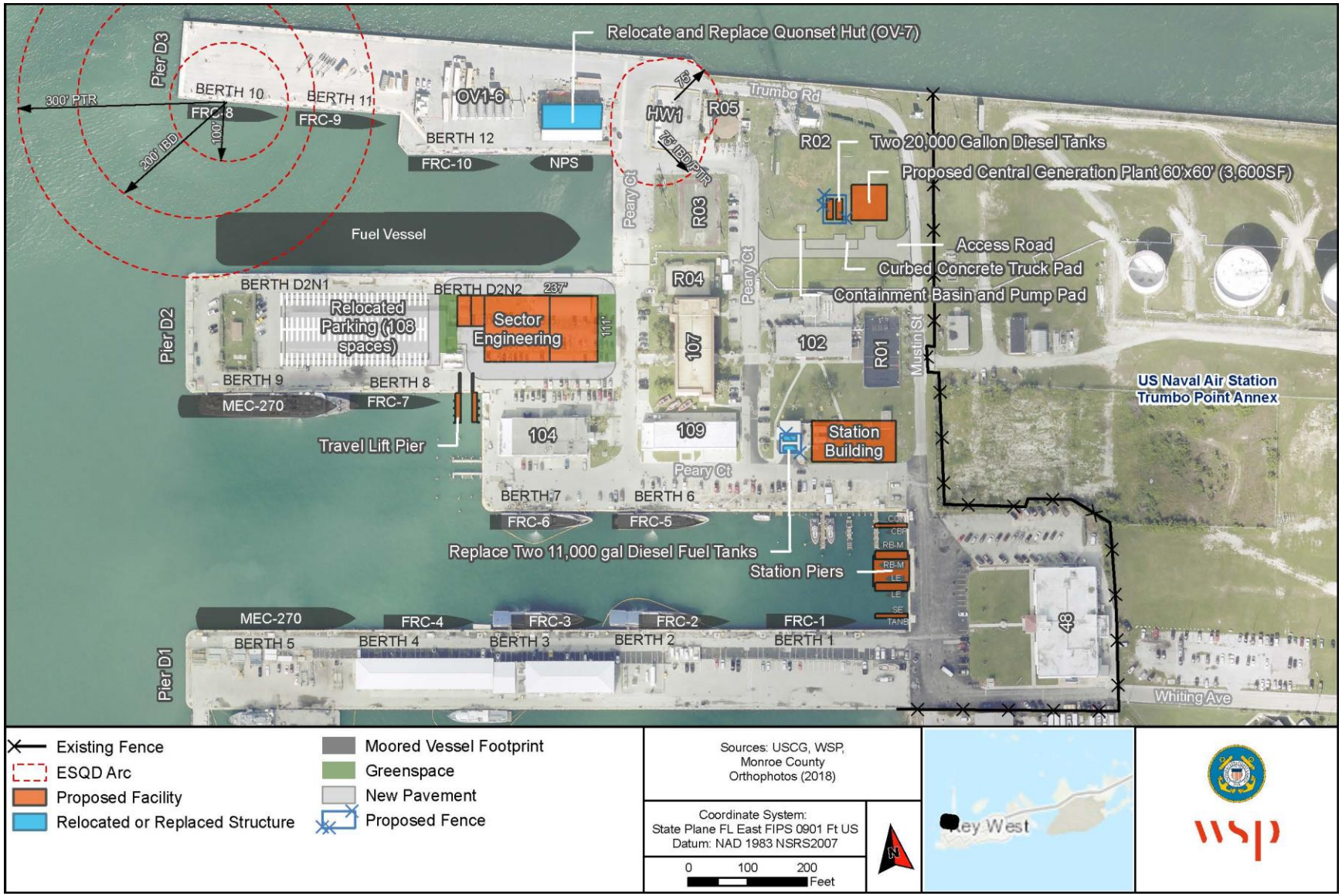


Figure 3. Site Plan



The second floor would accommodate all administrative functions, the armory, the command and control center, recreation space, and the central dining area. The third floor would house berthing spaces. Temporary storage of spare parts currently housed in Building 106 would be provided. Permanent storage would be provided in the new Station and ANT Facility. Existing utilities and services would be relocated to the new building and connected to existing nearby utility lines. Additional supporting improvements would include paving, walks, curbs and gutters, and storm drainage. The two 11,600-gallon diesel fuel storage tanks located to the east of Building 101 would be temporarily relocated during construction and eventually replaced with two new 11,000-gallon diesel fuel storage tanks located in the footprint of the existing Building 101. New underground fuel lines would be installed from the new location of the tanks to the pier. Like the existing underground fuel lines, the new fuel lines would be double piped with a sump monitor for detecting leaks between them.

The USCG would also construct new Station piers with two covered moorings along the bulkhead between Piers D1 and D2 in an east-west orientation. With this orientation, no wave attenuation structure would be required to protect the vessels moored at the piers. Temporary mooring and utilities for Station, Customs and Border Patrol, and contingency vessels would be provided in the existing basin/wharf through leased slips at an adjacent commercial facility, via temporary floating piers, or by using two of the three existing piers while demolition and construction activities are ongoing. The pier closest to the new pier location would be demolished to accommodate the new construction; the remaining two piers would be demolished after construction is complete. Portable wharf utilities such as the existing gas tank, oil waste tank, and diesel fuel pump would be relocated to service the new piers. The Station piers would accommodate mooring of Station Key West vessels and provide two covered moorings. If the Sector Engineering Facility is constructed first, swing space would be provided for the ANT prior to the construction of the new Station and ANT Facility.

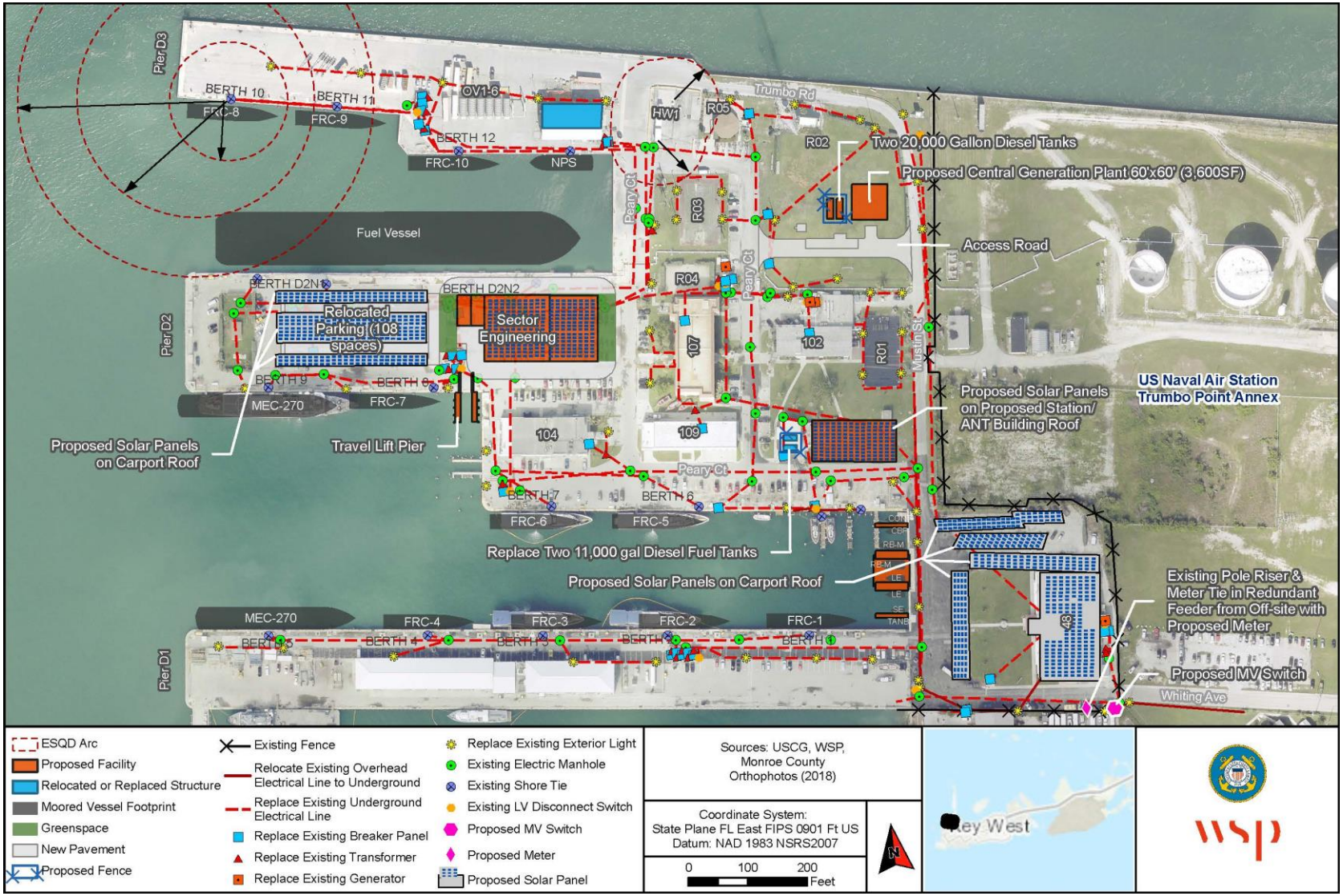
Electrical – the USCG would rebuild the electrical distribution system serving Sector Key West with a new complete and usable infrastructure that meets current mission requirements. It would replace electrical lines, including conductors and conduits; encase all primary distribution conduits in concrete; demolish and replace existing electrical distribution equipment, including distribution transformers throughout the base, and raise all exterior electrical distribution equipment to 3 feet above the 100-year flood elevation; replace and install substations; install proposed medium voltage, fast response switchgear throughout the base on elevated platforms; replace overhead branch circuit conductors with proposed subterranean conductors in conduit and concrete encased; replace emergency generators; install standardized equipment to simplify operations and maintenance, repair, and replacement; replace hurricane-damaged light poles with concrete poles; replace hurricane-damaged existing exterior pole-mounted area lights, floodlights, and sports light fixture heads with LED equivalents; and incorporate sustainable systems in all existing and proposed buildings.

A new 3,600-SF central generation plant would be constructed in the northeast portion of the base. The plant would include four parallel 1,000 kilowatt (kW) (with a 900-kW prime power rating), medium-voltage diesel or jet propellant-5 (JP-5) generators (with black start capabilities) that provide N+2 (i.e., two backup components in conjunction with building level emergency

generators evaluated for repair, upgrade, or replacement) to all critical facilities, and N+1 (i.e., one backup component) for the entire base. The generators would be able to carry the maximum demand load used by Sector Key West over a one-year period at 125 percent (1.8 megawatt), as required by the National Electrical Code, for a period of 10 days. Two 1-megawatt generators were selected for their 900-kW prime rating because of the run time required. In addition, an all-in-one battery energy storage system (with 30–45 minutes battery storage capacity) would be installed to store energy for short outages and to filter the incoming power.

The fuel for the diesel or JP-5 generators would be supplied from a proposed fuel line connecting the generators to two new 20,000-gallon fuel tanks located adjacent to the generator plant. The 40,000 gallons of dedicated central generation fuel storage would meet the 10-day independent operation requirement. Additionally, a photovoltaic system (PV) would be constructed on the roofs of the proposed buildings and Building 48 and on top of carports throughout the parking areas. Figure 4 shows the electrical site plan.

Figure 4. Electrical Site Plan



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Potential Impacts on Sanctuary Resources

The Proposed Action would involve in-water work that could impact sanctuary resources. An analysis of impacts to environmental resources, including best management practices (BMPs) that would be implemented to avoid, minimize, or mitigate adverse impacts, can be found in the EA for this project. A summary of impacts by resource area is provided in Table 1 along with the USCG's preliminary determination of impacts under NEPA and other applicable regulatory requirements. Sections of the EA that pertain directly to impacts on sanctuary resources include Section 3.5, *Geology and Soils*; Section 3.6, *Water Resources*; Section 3.7, *Coastal Zone*; and Section 3.8, *Biological Resources*. Section 3.2, *Resource Areas Dismissed from Further Analysis*, includes information about sanctuary resources that are not expected to be impacted by the Proposed Action, such as cultural resources and visual and aesthetic resources, and provides justification for their dismissal from full analysis.

Table 1. Potential Impacts of the Proposed Action on Sanctuary Resources

Resource	Potential Impacts
Geology and Soils—Marine Sediments	Sediment disturbance for pile removal and installation of the travel pier and new Station piers would directly affect less than 1 acre of marine sediment. Sediment plumes are expected to settle out of the water column within a few hours. Continued use of vessels would generate propeller wash, which would disturb sediment. BMPs for pile removal and placement would be followed to reduce large sediment disturbance and avoid returning sediment to waterways. Overall, direct, adverse impacts are anticipated to be minimal in the short- and long-term because future vessel operations in the pier basins would not change from current conditions. NEPA: no significant impact.
Water Resources—Surface Water	On-land construction activities: Removal of petroleum-contaminated soils would require dewatering and discharging treated water on-site. Proposed BMPs would limit water runoff and reduce short-term impacts on local water quality. Increase in impervious area would be negligible. For the installation of two 20,000-gallon fuel tanks for the central generation plant, the USCG would be required to prepare a Facility Response Plan (FRP), which would assist the USCG in identifying potential oil spill threats and having the necessary response resources in place to minimize the severity of a discharge impact. Therefore, impacts on water resources as a result of implementing the proposed on-land construction activities would be minor.

	Station Piers: In-water removal and installation of piers would result in localized sediment movement and have short-term minimal impacts. Impacts would be temporary and not change the composition of the local substrate. Clean Water Act: measurable impacts on water quality, but pollutant concentrations would be below applicable standards, regulations, and guidelines, and within existing conditions or designated uses. NEPA: no significant impact.
Water Resources—Floodplains	Although all construction activities would occur within the defined flood zones of Sector Key West, new facilities would be constructed above the Federal Emergency Management Agency (FEMA)-defined 100-year base flood elevation. Executive Order 11988: no impact. NEPA: no significant impact.
Coastal Zone	USCG has prepared a Coastal Consistency Determination for the Proposed Action. Alternative 1—Preferred Alternative would be consistent, to the maximum extent practicable, with the plans and policies of the Florida Coastal Management Program. Coastal Zone Management Act: consistent to the maximum extent practicable, with federally approved enforceable plans and policies. NEPA: no significant impact.
Biological Resources— Marine Submerged Aquatic Vegetation (SAV)	Sediment disturbances from in-water work could affect SAV habitats outside the project area if sediments are transported. However, any potential increase in sedimentation in nearby SAV habitats would be minimal and would not result in loss of SAV because of the temporary nature of the impacts. Additionally, the USCG would implement BMPs during in-water work that would minimize the potential for adverse impacts. NEPA: no significant impact.
Biological Resources—Marine Fauna	Underwater noise, turbidity, and sedimentation would result in adverse impacts on marine fauna in the marina basins during demolition and

	construction activities for the travel lift and Station piers. BMPs designed to minimize turbidity and other potential water quality impacts associated with removal and installation of pilings would minimize impacts on marine fauna. Additionally, an FRP would help the USCG identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on marine habitat and fauna. NEPA: no significant impact.
Biological Resources—Essential Fish Habitat (EFH)	Underwater noise, particularly from the removal and installation of pilings for the travel lift and Station piers, turbidity, and sedimentation could have adverse impacts on EFH during construction. BMPs designed to minimize turbidity and other potential water quality impacts associated with the removal and installation of pilings would minimize impacts on EFH. Additionally, an FRP would help the USCG identify potential oil spill threats and have the necessary response resources in place to minimize the severity of a discharge impact on marine habitat and EFH. Magnuson-Stevens Fishery Conservation and Management Act: minimal effects to EFH and no effect to Habitat Areas of Particular Concern. NEPA: no significant impact.
Biological Resources— Protected Species	Marine: Underwater noise, turbidity, and sedimentation could result in adverse effects on marine protected species. Demolition of the travel lift and Station piers could have adverse impacts (i.e., take) on the federally threatened mountainous star coral, which has been documented on the support pilings for these structures. Implementing mitigation measures to relocate colonies of the threatened coral greater than 10 centimeters in diameter to suitable habitat outside the project area would minimize potential impacts. Nineteen additional coral species could also be adversely affected by in-water demolition and construction work. Implementing BMPs during in-water work would minimize adverse impacts, but these impacts would not be avoidable. However, affected species are expected to recolonize disturbed areas and potentially colonize new underwater surfaces following construction. Therefore, no protected corals are expected to be eliminated from the project area. An FRP would help the USCG identify potential oil spill threats and have the necessary response resources in place to minimize the

	severity of a discharge impact on marine habitat and protected species. Terrestrial: Noise during demolition and construction activities could affect one terrestrial species—roseate tern. However, this species is tolerant of urban environments. Therefore, any adverse impacts would likely be limited to temporary displacement of individual birds. The PV system would be limited to building and carport rooftops; a much smaller array than that of a utility-scale PV facility; therefore, adverse impacts on roseate tern associated with glare from the PV system would be extremely unlikely to occur. NEPA: no significant impact.
Biological Resources—Migratory Birds	The majority of Sector Key West is developed land with undeveloped areas being sparsely landscaped with ornamental species. It is unlikely the ornamental trees or mowed grass provide valuable habitat. While some migratory birds may occasionally be found in the area and may temporarily avoid the area during demolition and construction, they are expected to readily return once construction is completed. The PV panels proposed for the buildings and carports at Sector Key West are on such a small scale they are unlikely to affect any birds in the area. Due to limited habitat on Sector Key West and the temporary nature of demolition and construction activities, any impacts on migratory birds would be minimal and temporary. One migratory bird species that could occur in the project area, roseate tern, is listed as federally threatened under the Endangered Species Act. Therefore, this species is analyzed under *Protected Species*. NEPA: no significant impact.
Cultural Resources	The Florida Master Site File lists USCG Key West Trumbo Point as a resource group with seven contributing resources and six non-contributing resources. For resources associated with the current Proposed Action, Pier D1, Pier D2, Pier D3 (including the bulkheads and the pier steps at the head of the basin between Pier D1 and Pier D2), Building 101, and Building 48 (PV panels are proposed for the roof) are listed as contributing resources, while Building 105 and Building 108 are listed as non-contributing resources. In a letter dated June 16, 2009, the Division of Historical Resources, Florida Department of State, stated that because “the design and construction of the contributing resources within the resource group

	are typical of their style and have numerous alterations to the structures and site…" the resource group and its individual contributing and non-contributing resources are not considered potentially eligible for listing in the National Register of Historic Places (Florida Department of State 2009). Furthermore, all the buildings are contained within a developed, industrial site and lack architectural character that would set them apart as unique. Therefore, there would be no impacts on historical resources as a result of implementing the Proposed Action. However, the USCG will consult with the Division of Historical Resources, Department of State, about the buildings to be demolished so the Florida Master Site File can be updated. NEPA: no impact.
Visual and Aesthetic Resources	The local visual and aesthetic resources of Sector Key West are dominated by the presence of USCG and Navy waterfront and military facilities, buildings, and vessels. The Proposed Action would replace existing facilities on Sector Key West and would not introduce any new elements that would differ from the existing facilities or alter the nature of the visual or aesthetic resources of the working waterfront environment. NEPA: no impact.

On Thu, Dec 10, 2020 at 8:36 AM Joanne Delaney - NOAA Affiliate <joanne.delaney@noaa.gov> wrote:

> Good morning, Ms. Dobbins-Noble,
> Thank you for your message to NOAA FKNMS and consultation request under Section 304(d) of the NMSA. My colleague, Stephen Werndli, and I will review this consultation request and respond as soon as possible.
>
> Thank you for your continued coordination with NOAA FKNMS on critical U.S. Coast Guard activities in the sanctuary.
>
> Sincerely,
> Joanne
>
> ---
> Joanne Delaney
> Resource Protection and Permit Coordinator
>
> CPC, Inc. *in support of*
> NOAA Office of National Marine Sanctuaries
> Florida Keys National Marine Sanctuary
> joanne.delaney@noaa.gov
> [redacted]
> floridakeys.noaa.gov
>
> On Wed, Dec 9, 2020 at 2:34 PM Dobbins-Noble, Lesley C CIV <Lesley.C.DobbinsNoble@uscg.mil> wrote:
>
> > Ms. Delaney,
> >
> > A paper copy of this package is being mailed to your office, but I wanted to send it to you electronically in case you are teleworking and unable to retrieve your hard copy mail. This contains information to satisfy the consultation requirements under the National Marine Sanctuaries Act for work in the Florida Keys National Marine Sanctuary (waterfront work at U.S. Coast Guard Station/Sector Key West). Please feel free to contact me with any questions about the document or the Coast Guard's proposed work.
> >
> > Best,
> >
> > Lesley
> >
> > **Lesley Dobbins-Noble**
> > _____
> > Environmental Protection Specialist
> > U.S. Coast Guard Facilities Design and Construction Center
> > 5505 Robin Hood Road, Suite K
> > Norfolk, VA 23513
> > [redacted]
> > **Telework days: Tuesdays, Thursdays, and Fridays**

From: Joanne Delaney - NOAA Affiliate <joanne.delaney@noaa.gov>
Sent: Friday, December 18, 2020 1:33 PM
To: Dobbins-Noble, Lesley C CIV <Lesley.C.DobbinsNoble@uscg.mil>
Cc: Stephen Werndli <Stephen.Werndli@noaa.gov>; Sarah Fangman <Sarah.Fangman@noaa.gov>; Hogan, Jessica M CIV <Jessica.M.Hogan@uscg.mil>
Subject: [Non-DoD Source] Re: National Marine Sanctuaries Act consultation for proposed U.S. Coast Guard work in Key West

Dear Ms. Dobbins-Noble,
Thank you for your email dated December 8, 2020 and consultation request under Section 304(d) of the National Marine Sanctuaries Act (NMSA) for proposed waterfront repairs at U.S. Coast Guard Station/Sector Key West. We have reviewed your letter, description of the proposed action identified as the Preferred Alternative in the draft EA, summary of potential impacts to sanctuary resources, and preliminary determination of effects under NEPA. NOAA FKNMS agrees that the Preferred Alternative is necessary to support the continued, critical resource protection and human safety functions provided by USCG Sector Key West while minimizing effects on the natural environment.

Upon review of the proposed work, FKNMS has determined that the activities would be prohibited by sanctuary regulations related to alteration of the seabed (15 CFR 922.163(a)(3)) and disturbance or injury to corals (15 CFR 922.163(a)(2)). As such, issuance of a general permit (15 CFR 922.166) or authorization (15 CFR 922.163(c) and 15 CFR 922.49) would be necessary. FKNMS would apply specific terms and conditions to any permit or authorization issued to minimize impacts to sanctuary resources during construction. These may include actions such as rescuing or relocating coral colonies out of the direct impact area, as suggested in the draft EA. In order to determine what avoidance, minimization, and mitigation measures are necessary for this project, we are seeking additional details about the proposed, in-water work and coral resources present at the site. A request for additional information and comments based on our review of the draft EA are attached.

FKNMS expects that issuance of any such permit or authorization with conditions for avoidance, minimization, and mitigation of impacts to sanctuary resources, as applicable, would effectively meet the goals and purposes of a Section 304(d) NMSA consultation and we expect to document that finding as part of the final permit.

Thank you for your coordination with NOAA FKNMS on this important project. We look forward to learning more about what is proposed and how impacts to sanctuary resources can be minimized.

Sincerely,
Joanne

Joanne Delaney
Resource Protection and Permit Coordinator

CPC, Inc. *in support of*
NOAA Office of National Marine Sanctuaries
Florida Keys National Marine Sanctuary
joanne.delaney@noaa.gov
[redacted]
floridakeys.noaa.gov

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

Florida Keys National Marine Sanctuary
33 East Quay Road
Key West, Florida 33040

Request for Additional Information and Review Comments
Hurricane Execution Plan at Sector/Station Key West, Florida Draft Environmental Assessment
December 18, 2020

Section 2.1.1 Alternative 1 – Preferred Alternative, Sector Engineering Facility and Station and ANT Facility

1. Please provide construction or engineered drawings for the proposed travel lift demolition and reconstruction near Berth 8 so FKNMS is better able to determine direct impacts to sanctuary resources from this activity. For example, when rebuilding the travel lift in the new location, will any contact with the seawall occur below mean high water, or will the only below-water impacts consist of piling installation in the seafloor? (page 2-1)
2. Please provide construction or engineered drawings for the proposed station piers demolition and reconstruction along the bulkhead between Piers D1 and D2 so FKNMS is better able to determine direct impacts to sanctuary resources from this activity. For example, when rebuilding the station piers in the new location, will any contact with the seawall occur below mean high water, or will the only below-water impacts consist of piling installation in the seafloor? (page 2-5)
3. In consideration of the responses to questions #1 and 2 above, is any other work, modification, or repair planned for the station's seawalls? If yes, please explain location, scope, and methods for the proposed work.

Section 3.8.1 Affected Environment, Protected Species

4. Loggerhead sea turtles should be added to Table 3-7, Federally Listed Species in the Project Area, as a species that could potentially occur in the project area. (page 3-24)

Section 3.8.2 Environmental Consequences, Protected Species

5. Please refer to questions #16-18, below, related to the Field Observation Report. The number of stony coral species present is likely overstated. (page 3-27)
6. Based on their ESA status, FKNMS would require that any colonies of *Orbicella faveolata* coral be removed from the project area, regardless of size, if it is expected to be impacted. (page 3-27)
7. FKNMS recommends that any rescued corals be transferred to the FKNMS coral nursery or coral nursery partners, or be relocated to natural reefs. FKNMS does not support the relocation of corals to artificial structures. Please see comment #11, below, for additional details. (page 3-27)

Section 5.0 Summary of Mitigation Measures and best Management Practices

8. Section 3.8.2 Environmental Consequences, Marine Fauna (page 3-25), discusses the use of nylon cushion blocks to reduce underwater noise if impact hammers are used during pile driving. This practice should be added to the BMPs in Section 5.0.
9. Section 3.8.2 Environmental Consequences, Marine Fauna (page 3-25), discusses the use of "soft starts" to allow mobile fauna an opportunity to vacate the area prior to construction. This practice should be added to the BMPs in Section 5.0.
10. FKNMS recommends that diver "sweeps" of each basin occur prior to turbidity curtain placement and construction to ensure the basins are cleared of mobile listed species and any other significant mobile fauna. This practice should be added to the BMPs in Section 5.0.
11. The scleractinian coral relocation guidelines should be revised to include removal/rescue of all colonies in the direct impact area regardless of size. The guidelines should further be revised to note that corals would be placed in coral "rescue" nurseries managed by FKNMS, placed in coral restoration partner nurseries to support propagation efforts, transferred to permitted research institutions, and/or transplanted to nearby, natural habitats. FKNMS will be able to provide guidance and recommendations on the disposition of all corals once additional project information is known and the specific impacts are better delineated.
12. Table 3-7, Federally Listed Species in the Project Area, notes that the West Indian manatee may be present near the project area. As such, adherence to the Standard Manatee Conditions for In Water Work, should be added to the BMPs in Section 5.0.

The following comments and questions are specific to Section 10.3 Appendix C: U.S. Coast Guard Section Key West, Field Observation Report. The page numbers are those listed at the top of the Field Observation Report.

Section III. Methodology, B. Seawall Surveys

13. If the response to Question #3 above includes repairs to the station seawalls, please additionally provide the approximate total seawall area (m^2) in the project area. Based on that figure, please provide the estimated percent of seawall area that was surveyed using transects and quadrats, and please explain how this figure was derived. (page 5)

Section III. Methodology, C. Structure Surveys

14. Please confirm that 100% of all surfaces slated for demolition were surveyed versus a subset, which is what was done with the station seawalls. (page 7)

Section IV. Results, A. Seagrass Surveys

15. Here and elsewhere in the Field Observation Report there are observances of submerged debris. FKNMS would require that all debris be removed from the seafloor of the sanctuary during the course of the project. (page 8)

Section IV. Results, B. Seawall Surveys

16. This section of the report states that one (1) federally listed species of coral (*O. faveolata*) plus eleven (11) other stony coral species were observed during seawall surveys. However, the tables provided only list 11 total species of stony coral, including *O. faveolata,* and this is with the assumption that observations of *Siderastrea* spp. represent two species (*S. siderea* and *S. radians*). The tables provided in this section list the observed stony coral species as: *O. faveolata, M. cavernosa, P. furcata, Siderastrea spp.* (again, here assumed by FKNMS to include both *S. siderea* and *S. radians), P. astreoides, C. natans, S. intersepta, S. bournoni, F. fragum,* and *A. solitaria*. Please clarify, and see also question #18, below. (page 8)

Section IV. Results, C. Structure Surveys

17. This section states that a total of thirteen (13) stony coral species were observed during structure surveys. Please see questions about how this number of species was derived in question #18, below. (page 14)

Section V. Conclusions, B. Corals

18. This section states that a total of eighteen (18) stony coral species were observed across all surveys. Please provide clarification on this number, because combining tables from seawall surveys plus structure surveys results in only 15 or 16 total stony coral species. The combined list of species is: *O. faveolata, M. cavernosa, P. furcata, P. astreoides, C. natans, S. intersepta, S. bournoni, F. fragum, A. solitaria, D. stokesi, D. labyrinthiformis, O. diffusa, P. americana, Pseudodiploria spp.,* and *Siderastrea spp*.

    a. In species counts under Structure Surveys, where *Pseudodiploria* species is observed, it appears it has been counted as one species only. Please confirm.

    b. In species counts under Seawall Surveys, it appears *Siderastrea* species has been counted as two species (*S. siderea* and *S. radians*). However, in species counts under Structure Surveys, it appears it has only been counted as one species. Please explain. (page 28)

From:	Joanne Delaney - NOAA Affiliate
To:	Dobbins-Noble, Lesley C CIV
Cc:	Stephen Werndli; Sarah Fangman; Hogan, Jessica M CIV
Subject:	Re: [Non-DoD Source] Re: National Marine Sanctuaries Act consultation for proposed U.S. Coast Guard work in Key West
Date:	Thursday, January 28, 2021 5:14:38 PM

Good afternoon, Lesley,
Thank you for your excellent recap of our conversation earlier today. You've captured all key points and we agree that it would be appropriate to circle back about this project once more is known about what, if any, in water work will occur.

We appreciate CG's commitment to continue working with FKNMS on this important project.

I look forward to additional information once it becomes available.

Sincerely,
Joanne

Joanne Delaney
Resource Protection and Permit Coordinator

CPC, Inc. *in support of*
NOAA Office of National Marine Sanctuaries
Florida Keys National Marine Sanctuary
joanne.delaney@noaa.gov
([redacted]
floridakeys.noaa.gov

On Thu, Jan 28, 2021 at 5:09 PM Dobbins-Noble, Lesley C CIV <Lesley.C.DobbinsNoble@uscg.mil> wrote:

> Joanne,
>
> Thank you very much for speaking with me on the phone this morning about the Coast Guard's (CG's) proposed work at Station Key West. I wanted to take this opportunity to recap our discussion for future reference.
>
> In your additional information request, which I have attached here for convenience, you asked for the CG to do several things, which I will generalize in this recap:
>
> 1) Make edits to certain sections of the EA to correct incorrect, missing, or outdated information;

2) Make edits to the Field Observation Report to correct incorrect or missing information; and

3) Provide construction/engineering drawings of the proposed in-water work.

I indicated that all requested changes to the EA would be made to address the noted deficiencies. With regard to the edits to the Field Observation Report, which had already been finalized by our prime contractor's subcontractor, CG will seek to have that document revised to address the needed changes.

The most difficult issue for CG to resolve at this time is the request to provide construction/engineering drawings for the proposed in-water work. Our office executes all construction projects through the federal design-build process. As such, the contractor who is ultimately awarded the contract is allowed some liberty in design as long as the project meets the CG's stated needs and specifications. At this time, we are still in the solicitation phase for the contract and an award is not anticipated until much later this year – with design following shortly thereafter. Since the CG is required to obtain a sanctuary permit for the in-water construction due to the presence of corals and/or alteration of the seabed due to pile driving, and that permit must be based on definitive site plans, it is necessary for the CG to wait to apply for the permit until such a time that we have the project design firmed up.

Waiting to apply for the permit will also allow CG to further understand the extent of the in-water work that will actually be executed. As mentioned on our call, we have structured our contract solicitation so that some of the in-water work is optional. We may not have sufficient project funding to award all options. It doesn't make sense from a resourcing perspective (at FKNMFS or at CG) to undertake permitting by speculating on site design possibilities, especially considering that some of the planned work may ultimately not be funded.

CG is aware of the requirement to "rescue" all existing stony corals located on structures that will be impacted by the work we ultimately propose to perform. We plan to work collaboratively with the sanctuary and sanctuary-approved CG coral relocation subject matter experts to develop and execute a plan to do so once we have gotten further along in the permitting process.

Please advise if I misunderstood anything that we discussed today. Thank you for your time and explanations!

Best,

Lesley

Lesley Dobbins-Noble

_____

Environmental Protection Specialist

U.S. Coast Guard Facilities Design and Construction Center

5505 Robin Hood Road, Suite K

Norfolk, VA 23513

[redacted]

[redacted]

Telework days: Tuesdays, Thursdays, and Fridays

U.S. Department of Homeland Security

United States Coast Guard

Commanding Officer
United States Coast Guard
Facilities Design and Construction Center

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Phone: (757) 852-3400
Fax: (757) 852-3495

11000
December 7, 2020

Mr. David Dale
Fish Biologist
National Oceanic and Atmospheric Administration Fisheries
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

Greetings Mr. Dale:

The U.S. Coast Guard (USCG) announces the availability of a draft Environmental Assessment (EA) that analyzes and evaluates potential environmental impacts associated with the repair and replacement of facilities at Sector and Station Key West that were damaged during Hurricane Irma in September 2017 (the Proposed Action). The Proposed Action is needed to provide Sector Key West and Station Key West with facilities and infrastructure that will allow them to adequately execute their mission requirements and increase the resiliency of Sector and Station facilities so that they can remain operational during future weather events and return to full operation after an event is over.

The Proposed Action includes demolishing and rebuilding the Sector Engineering/Electronics Support Detachment building to meet resiliency thresholds; demolishing and rebuilding the Station building, pier, docks, and boat house; and rebuilding the electrical distribution system serving Sector Key West to include transformer and electrical distribution to the waterfront, shore facilities, and on-site energy generation and storage.

In accordance with section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act and its implementing regulations at 50 Code of Federal Regulations Part 600.920, the USCG has prepared an essential fish habitat assessment for the Proposed Action. The assessment, which is provided as Enclosure (1), is based on information retrieved from the National Oceanic and Atmospheric Administration's online essential fish habitat mapper. Based on the analysis in the assessment, the USCG has determined that the Proposed Action will have short-term adverse impacts on essential fish habitat, but those adverse impacts would cease once construction is complete.

The draft EA is available online at https://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-Engineering-Logistics-CG-4-/Program-Offices/Environmental-Management/Environmental-Planning-and-Historic-Preservation/ and contains detailed information and analyses of the Proposed Action's potential environmental impacts.

We request that you provide your concurrence with our findings within 60 days of receipt of this letter. If you have any questions, please reach out to Ms. Lesley Dobbins-Noble by phone at (757) 852-3410 or by e-mail at lesley.c.dobbinsnoble@uscg.mil.

Sincerely,

Digitally signed by
BARRESI.JOHN.F.JRII.1187016629
Date: 2020.12.07 16:49:00 -05'00'

J. F. BARRESI
Captain
U. S. Coast Guard

Enclosure: (1) Essential Fish Habitat Assessment, Hurricane Execution Plan at Sector/Station Key West, Florida

Essential Fish Habitat Assessment

Hurricane Execution Plan at Sector/Station Key West, Florida

Regulatory Background

The Magnuson-Stevens Act, which was first passed in 1976, is the primary law governing marine fisheries management in federal waters of the United States. In general, the Magnuson-Stevens Act seeks to foster long-term biological and economic sustainability of the nation's marine fisheries within 200 nautical miles of the nation's coasts (NOAA 2020). The Magnuson-Stevens Act also includes provisions for the protection of EFH, which is defined as, "waters and substrates necessary for fish to spawn, breed, feed, or grow to maturity." Any federal agency that takes an action that could adversely affect EFH by reducing the quantity or quality of habitat must work with the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA NMFS) to identify impacts and steps for conserving the habitat and reducing the impact of the action (NOAA 2020).

Description of the Proposed Federal Agency Action

Sector Key West is a unified command consisting of six Fast Response Cutters, three small boat stations, an Aids to Navigation Team (ANT), and three staff departments. The Sector Commander performs the duties of Search and Rescue Mission Coordinator; Captain of the Port; Federal Maritime Security Coordinator; Federal On-Scene Coordinator; and Officer in Charge, Marine Inspection. Sector Key West's area of responsibility includes 55,000 square miles bordering the territorial seas of Cuba and the Bahamas (Figure 1).

In September of 2017, Sector and Station Key West, a Small Boat Station unit of and collocated on Sector Key West, suffered extensive damage from Hurricane Irma. The USCG proposes to rebuild facilities damaged during Hurricane Irma by (1) demolishing and rebuilding the Sector Engineering/Electronics Support Detachment (ESD) Building (Building 105) at Sector Key West to meet resilience thresholds, (2) rebuilding waterfront and shore facilities for Station Key West, including demolishing existing facilities; and constructing a new Station building, grounds work, pier, docks and boat house, and (3) rebuilding the electrical distribution system serving Sector Key West to include transformer and electrical distribution to the waterfront, shore facilities, and on-site energy generation and storage.

Sector Engineering Facility – The USCG would demolish the existing Sector Engineering/ESD Facility (Building 105) and build a new 36,073-gross-square-foot (GSF) facility in the location of the parking lot immediately east of its current location on Pier D2. The parking lot would be moved to the current location of Building 105 once it is demolished. The new facility would include Sector Engineering administrative and maintenance spaces, ESD administrative and operational spaces, and two boat maintenance bays that could accommodate USCG's 45-foot Response Boat – Medium (45 RB-M). Utilities (water, sewer, stormwater, natural gas, electric, and telecommunications) for the new facility would be connected to existing nearby utility lines. The existing travel lift pier would be demolished and reconstructed along the southern quay wall of Pier D2 at the east end of Berth 8 to provide direct access to the boat maintenance bays of the Sector Engineering Facility without crossing any base roads. Building 108 on Pier D3 would be

Figure 1. Regional Map

demolished, and storage Building 5 (Quonset Hut OV 7) would be demolished and rebuilt in that location. Materials currently stored in Building 108 would be stored in the new Sector Engineering Facility. Figures 2 and 3 include the demolition and site plans, respectively.

Station and ANT Facility – Currently, the Station operates out of Building 101, and the ANT operates out of Building 105. Under the Preferred Alternative, the USCG would demolish Building 101 and Building 106 and construct a new three-story, 23,486-GSF Station and ANT Facility adjacent and east of the current Building 101 location (see Figures 2 and 3). The new building would include facility support space, Station administrative and operational spaces, an armory, and berthing and marine maintenance space. In addition, it would provide ANT administrative and operational spaces and marine maintenance space. Because the existing building is in a floodplain, the first floor would house shop spaces only. The second floor would accommodate all administrative functions, the armory, the command and control center, recreation space, and the central dining area. The third floor would house berthing spaces. Temporary storage of spare parts currently housed in Building 106 would be provided. Permanent storage would be provided in the new Station and ANT Facility. Existing utilities and services would be relocated to the new building and connected to existing nearby utility lines. Additional supporting improvements would include paving, walks, curbs and gutters, and storm drainage. The two 11,600-gallon diesel fuel storage tanks located to the east of Building 101 would be temporarily relocated during construction and eventually replaced with two new 11,000-gallon diesel fuel storage tanks located in the footprint of the existing Building 101. New underground fuel lines would be installed from the new location of the tanks to the pier. Like the existing underground fuel lines, the new fuel lines would be double piped with a sump monitor for detecting leaks between them.

The USCG would also construct new Station piers with two covered moorings along the bulkhead between Piers D1 and D2 in an east-west orientation. With this orientation, no wave attenuation structure would be required to protect the vessels moored at the piers. Temporary mooring and utilities for Station, Customs and Border Patrol, and contingency vessels would be provided in the existing basin/wharf through leased slips at an adjacent commercial facility, via temporary floating piers, or by using two of the three existing piers while demolition and construction activities are ongoing. The pier closest to the new pier location would be demolished to accommodate the new construction; the remaining two piers would be demolished after construction is complete. Portable wharf utilities such as the existing gas tank, oil waste tank, and diesel fuel pump would be relocated to service the new piers. The Station piers would accommodate mooring of Station Key West vessels and provide two covered moorings. If the Sector Engineering Facility is constructed first, swing space would be provided for the ANT prior to the construction of the new Station and ANT Facility.

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Figure 2. Demolition Plan

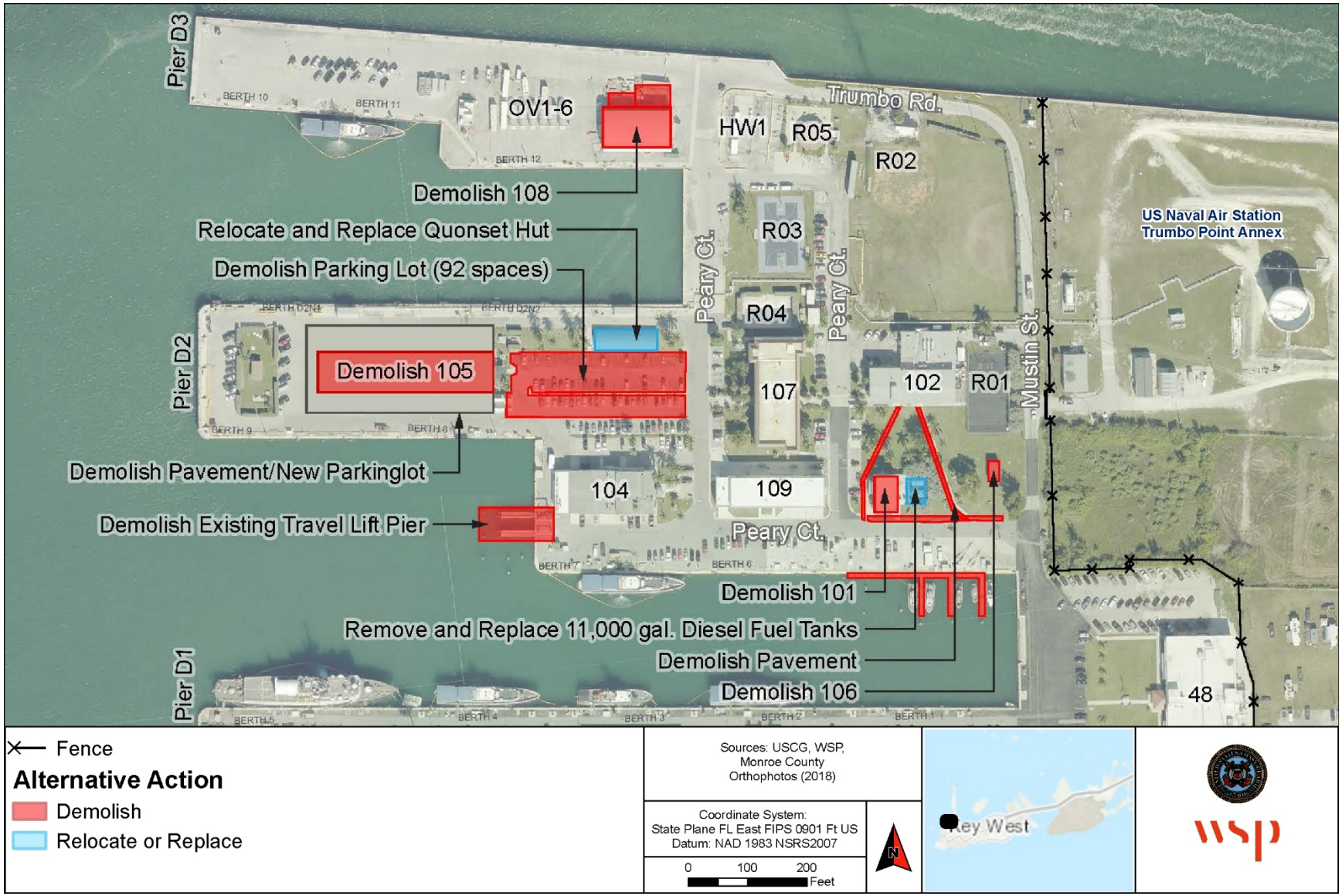
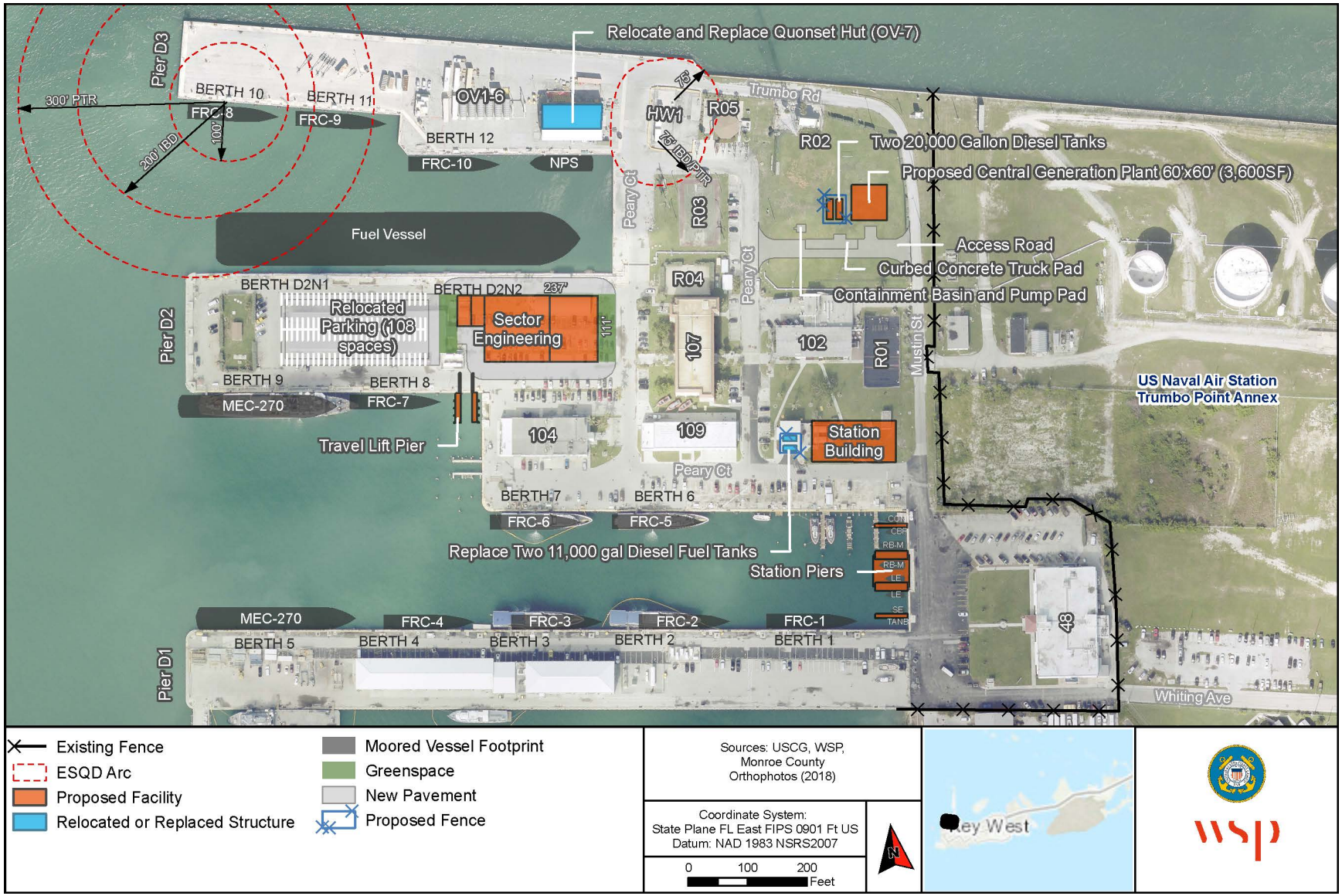


Figure 3. Site Plan



Electrical – The USCG would rebuild the electrical distribution system serving Sector Key West with a new complete and usable infrastructure that meets current mission requirements. It would replace electrical lines, including conductors and conduits; encase all primary distribution conduits in concrete; demolish and replace existing electrical distribution equipment, including distribution transformers throughout the base, and raise all exterior electrical distribution equipment to 3 feet above the 100-year flood elevation; replace and install substations; install proposed medium voltage, fast response switchgear throughout the base on elevated platforms; replace overhead branch circuit conductors with proposed subterranean conductors in conduit and concrete encased; replace emergency generators; install standardized equipment to simplify operations and maintenance, repair, and replacement; replace hurricane-damaged light poles with concrete poles; replace hurricane-damaged existing exterior pole-mounted area lights, floodlights, and sports light fixture heads with LED equivalents; and incorporate sustainable systems in all existing and proposed buildings.

A new 3,600-square-foot (SF) central generation plant would be constructed in the northeast portion of the base. The plant would include four parallel 1,000 kilowatt (kW) (with a 900-kW prime power rating), medium voltage diesel or jet propellant-5 (JP-5) generators (with black start capabilities) that provide N+2 (i.e., two backup components in conjunction with building level emergency generators evaluated for repair, upgrade, or replacement) to all critical facilities, and N+1 (i.e., one backup component) for the entire base. The generators would be able to carry the maximum demand load used by Sector Key West over a one year period at 125 percent (1.8 megawatt), as required by the National Electrical Code, for a period of 10 days. Two 1-megawatt generators were selected for their 900-kW prime rating because of the run time required. In addition, an all-in-one battery energy storage system (with 30–45 minutes battery storage capacity) would be installed to store energy for short outages and to filter the incoming power.

The fuel for the diesel or JP-5 generators would be supplied from a proposed fuel line connecting the generators to two new 20,000-gallon fuel tanks located adjacent to the generator plant. The 40,000 gallons of dedicated central generation fuel storage would meet the 10-day independent operation requirement. Additionally, a photovoltaic system (PV) would be constructed on the roofs of the proposed buildings and Building 48 and on top of carports throughout the parking areas. Figure 4 shows the electrical site plan.

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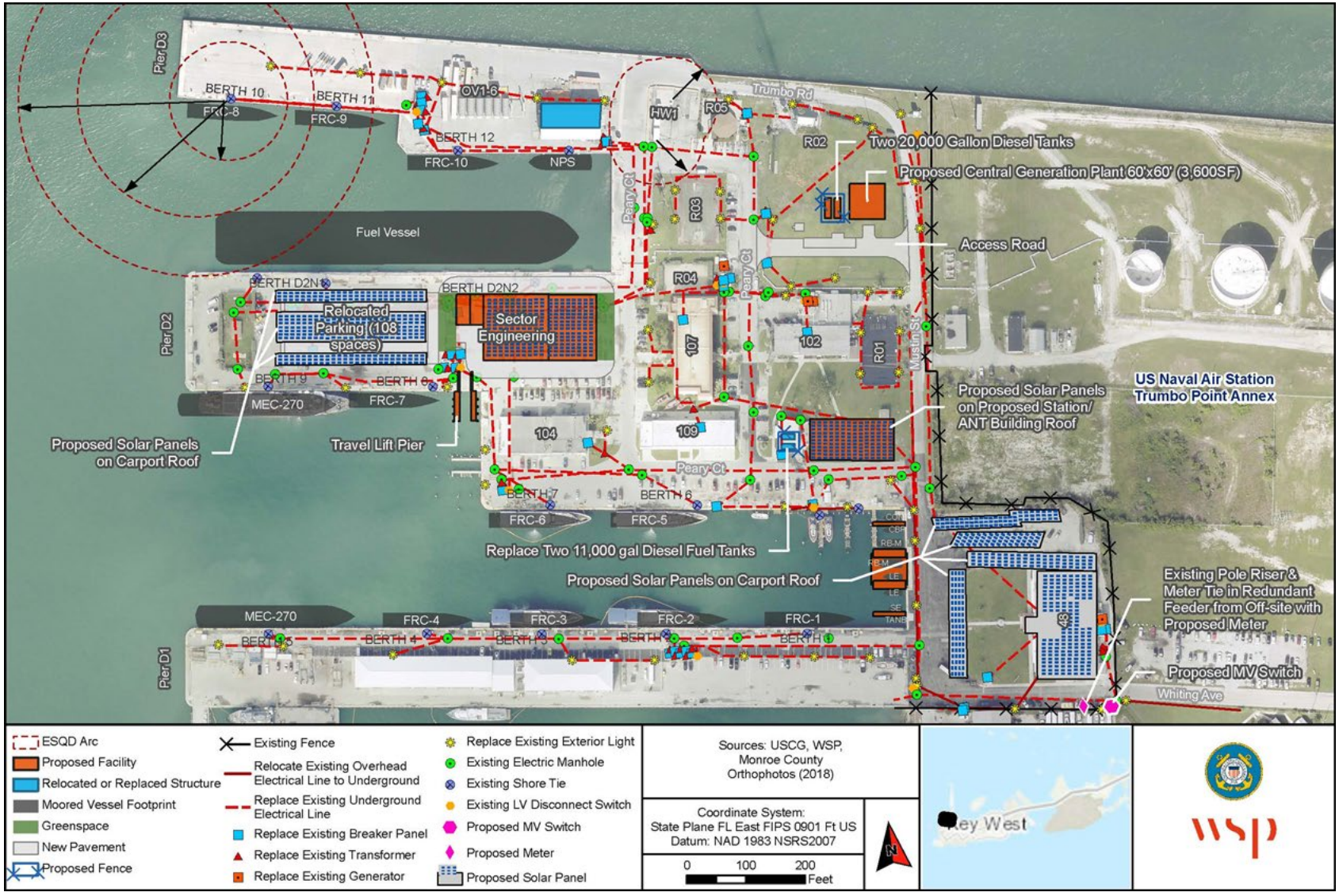
Figure 4. Electrical Plan



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EFH in the project area

The project area supports species that are managed by NOAA NMFS and regional Fishery Management Councils including the Gulf of Mexico, South Atlantic, and Mid-Atlantic councils. The project area contains EFH for reef fish, shrimp, spiny lobster, coastal migratory pelagics, and various life stages of several highly migratory species (Table 1). Although the project area contains EFH for all of the species listed in Table 1, the marina basins do not provide high quality habitat for most species because of the silty muck substrate material, persistent turbidity in the water column, and regular disturbance by vessel traffic. Therefore, most of these species would only potentially be present on occasion, with the most common species being reef fish. The project area is located in the Florida Keys National Marine Sanctuary, portions of which have been designated as EFH Habitat Areas of Particular Concern (HAPC) for coral, coral reefs, and live/hard bottom. However, the project area is not included in this designation (GMFMC 2005). EFH for each species or group is defined in Fishery Management Plans and subsequent amendments developed by the regional Fishery Management Councils.

Table 1. EFH for Federally Managed Species in the Vicinity of the Project Area

Species	Life Stages in the Action Area			
	Eggs	**Larvae/ Neonate**	**Juvenile**	**Adult**
Reef Fish				
Gray triggerfish (*Balistes capriscus*)	X	X	X	X
Greater amberjack (*Seriola dumerili*)	X	X	X	X
Lesser amberjack (*Seriola fasciata*)	X	X	X	X
Almaco jack (*Seriola zonata*)	X	X	X	X
Banded rudderfish (*Seriola zonata*)	X	X	X	X
Hogfish (*Lachnolaimus maximus*)	X	X	X	X
Queen snapper (*Etelis oculatus*)	X	X	X	X
Mutton snapper (*Lutjanus analis*)	X	X	X	X
Schoolmaster (*Lutjanus apodus*)	X	X	X	X
Blackfin snapper (*Lutjanus buccanella*)	X	X	X	X
Red snapper (*Lutjanus campechanus*)	X	X	X	X
Cubera snapper (*Lutjanus cyanopterus*)	X	X	X	X
Gray (mangrove) snapper (*Lutjanus griseus*)	X	X	X	X

Species	Life Stages in the Action Area			
	Eggs	**Larvae/ Neonate**	**Juvenile**	**Adult**
Dog snapper (*Lutjanus jocu*)	X	X	X	X
Mahogany snapper (*Lutjanus mahogoni*)	X	X	X	X
Lane snapper (*Lutjanus synagris*)	X	X	X	X
Silk snapper (*Lutjanus vivanus*)	X	X	X	X
Yellowtail snapper (*Ocyurus chrysurus*)	X	X	X	X
Wenchman (*Pristipomoides aquilonaris*)	X	X	X	X
Vermilion snapper (*Rhomboplites aurorubens*)	X	X	X	X
Goldface tilefish (*Caulolatilus chrysops*)	X	X	X	X
Blackline tilefish (*Caulolatilus cyanops*)	X	X	X	X
Anchor tilefish (*Caulolatilus intermedius*)	X	X	X	X
Blueline tilefish (*Caulolatilus microps*)	X	X	X	X
Golden tilefish (*Lopholatilus chamaeleonticeps*)	X	X	X	X
Dwarf sand perch (*Diplectrum bivittatum*)	X	X	X	X
Sand perch (*Diplectrum formosum*)	X	X	X	X
Rock hind (*Epinephelus adscensionis*)	X	X	X	X
Speckled hind (*Epinephelus drummondhayi*)	X	X	X	X
Yellowedge grouper (*Epinephelus flavolimbatus*)	X	X	X	X
Red hind (*Epinephelus guttatus*)	X	X	X	X
Goliath grouper (*Epinephelus itajara*)	X	X	X	X
Red grouper (*Epinephelus morio*)	X	X	X	X
Misty grouper (*Epinephelus mystacinus*)	X	X	X	X
Warsaw grouper (*Epinephelus nigritus*)	X	X	X	X
Snowy grouper (*Epinephelus niveatus*)	X	X	X	X

Species	Life Stages in the Action Area			
	Eggs	**Larvae/ Neonate**	**Juvenile**	**Adult**
Nassau grouper (*Epinephelus striatus*)	X	X	X	X
Marbled grouper (*Epinephelus inermis*)	X	X	X	X
Black grouper (*Mycteroperca bonaci*)	X	X	X	X
Yellowmouth grouper (*Mycteroperca interstitialis*)	X	X	X	X
Gag (*Mycteroperca microlepis*)	X	X	X	X
Scamp (*Mycteroperca phenax*)	X	X	X	X
Yellowfin grouper (*Mycteroperca venenosa*)	X	X	X	X
Shrimp				
Brown shrimp (*Penaeus aztecus*)	X	X	X	X
White shrimp (*Penaeus setiferus*)	X	X	X	X
Pink shrimp (*Penaeus duorarum*)	X	X	X	X
Royal red shrimp (*Pleoticus robustus*)	X	X	X	X
Spiny Lobster				
Spiny lobster (*Panulirus argus*)	X	X	X	X
Slipper lobster (*Scyllarides nodifer*)	X	X	X	X
Coastal Migratory Pelagics				
Spanish mackerel (*Scomberomorus maculatus*)	X	X	X	X
King mackerel (*Scomberomorus cavalla*)	X	X	X	X
Highly Migratory Species				
Bull shark (*Carcharhinus leucas*)			X	X
Spinner shark (*Carcharhinus brevipinna*)		X		
Nurse shark (*Ginglymostoma cirratum*)			X	X
Lemon shark (*Negaprion brevirostris*)		X		
Great hammerhead shark	X	X	X	X

Species	Life Stages in the Action Area			
	Eggs	Larvae/ Neonate	Juvenile	Adult
(*Sphyrna mokarran*)				
Scalloped hammerhead shark (*Sphyrna lewini*)			X	X
Tiger shark (*Galeocerdo cuvier*)		X	X	X
Blacktip shark - Gulf of Mexico Stock (*Carcharhinus limbatus*)		X	X	X
Blacknose shark - Gulf of Mexico Stock (*Carcharhinus acronotus*)			X	X
Bonnethead shark - Gulf of Mexico Stock (*Sphyrna tiburo*)		X	X	X

Source: NOAA 2019

The proposed project would involve in-water work that could affect EFH. Proposed in-water work would include demolishing and reconstructing the existing travel lift pier along the southern quay wall of Pier D2 at the east end of Berth 8 and constructing new Station Piers with two covered moorings along the bulkhead between Piers D1 and D2 (Figures 2 and 3). Impacts on federally managed species and EFH associated with in-water work could include underwater noise, habitat modification, turbidity, and sedimentation.

Noise Impacts

Pile driving associated with pier construction would result in underwater noise that could federally managed species and EFH in the vicinity of the project area. Underwater noise would be greatest at the source (pile), with sound levels rapidly attenuating as distance from the source increases. The intensity of underwater noise would depend on the type of piles and driving hammer used. For example, noise produced by a vibratory hammer is approximately 10 to 20 decibels quieter than pile driving with an impact hammer (Buehler et. al. 2015; Oestman et. al. 2009). The pile and hammer types to be used for project construction have not yet been determined. If an impact hammer were used for project construction, nylon cushion blocks would be used mitigate the potential effects of underwater noise on marine fauna. Nylon cushion blocks can reduce underwater noise by about 5 decibels (Oestman et. al. 2009). Additionally, a soft start would be used to give fish and other mobile marine fauna an opportunity to vacate the area before underwater sound levels reached their peak. Underwater noise would result in temporary disturbances. However, mobile species would likely avoid the area during construction. Therefore, federally managed species and EFH are not likely to be adversely impacted by the proposed project over the long term.

Water Quality Impacts

Land based construction activities associated with the proposed project would result in a slight increase in impervious cover in the project area. While the increase in impervious area would

create new localized stormwater runoff, it would likely not result in a large increase of total runoff from Sector Key West. The existing grass covered areas contribute less runoff then pavement areas, but they have a highly compacted subsurface and are not very permeable. Additionally, the proposed Station and ANT Facility and the central generation plant would represent 3 percent (27,086 square-feet) of Sector Key West's total area (871,200 square-feet) so runoff would be negligible. On-land construction BMPs (e.g., flow diversion structures, erosion and sediment control measures, and spill containment walls) would ensure that excavated debris and other construction related material (e.g., oils, paints, solvents, etc.) does not enter surrounding waterways.

While the Proposed Action would significantly increase the amount of oils stored on Sector Key West, the two 20,000-gallon fuel tanks for the central generation plant and the two 11,000-gallon replacement tanks for the existing 11,600-gallon diesel fuel tanks associated with Station Key West would be new double-walled tanks with proper spill prevention mechanisms. As required by provisions set forth in 40 CFR 112, Sector Key West has a Spill Prevention, Control, and Countermeasures (SPCC) Plan (USCG 2017) that establishes procedures, methods, equipment, and other requirements to prevent the discharge of oil from the facility into or upon the surrounding navigable waters or adjoining shorelines, or that may affect natural resources, and to contain such discharges should they occur. With the installation of two new 20,000-gallon fuel storage tanks to power the new central generation plant, Sector Key West would update the SPCC Plan.

Additionally, Sector Key West would prepare a Facility Response Plan (FRP) and submit it to the U.S. Environmental Protection Agency (USEPA) for review. Installing the two fuel tanks for the central generation plant would increase the total amount of oil/fuel storage at Sector Key West to more than 42,000 gallons. Under the FRP Rule, USEPA requires facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters to prepare an FRP and submit it to the appropriate USEPA Regional Administrator for review. According to the rule, one of the definitions for a facility that may cause "substantial harm" is a facility that "has a total oil storage capacity greater than or equal to 42,000 gallons and it transfers oil over water to/from vessels" (USEPA 2002), which would apply to Sector Key West. An FRP is a plan for responding, to the maximum extent practicable, to a worst-case discharge and to a substantial threat of such a discharge of oil. The plan also includes responding to small and medium discharges as appropriate. The FRP requirement would help USCG develop a response organization and ensure the availability of response resources (i.e., response equipment, trained personnel) needed to respond to an oil discharge and demonstrate that the USCG response resources are available in a timely manner, thereby minimizing a discharge's impact and severity on marine habitat and EFH. The FRP would allow USCG to improve discharge prevention measures through the early identification of risks at Sector Key West above and beyond its current SPCC Plan and would aid local and regional response authorities to better understand the potential hazards and response capabilities in their area. Pursuant to the Magnuson-Stevens Act, the Proposed Action would have minimal effects on EFH and no effect on Habitat Areas of Particular Concern.

In-water construction activities would temporarily increase turbidity as a result of the removal and installation of piles. This would adversely affect water quality in the marina basins and could temporarily increase turbidity levels in adjacent waters if disturbed sediments are transported outside the construction area. There would also be potential for contaminants to enter the water

during construction as a result of increased vessel traffic, the disturbance of contaminated sediments, or runoff from on-land construction practices associated with the proposed action. The risk of moving contaminated sediments from one in-water location to another is likely very low as the local substrate is likely homogenous throughout the docking bay.

Impacts related to in-water construction activities would be limited and short in duration. Implementing specific piling removal BMPs (e.g., removing pilings slowly, vibrating the piling to break the friction bond between piling and sediment, excavation of sediment from around the base of the piling prior to removal, etc.) would ensure turbidity levels returned to baseline conditions upon completion of demolishment. During installation, turbidity levels would be highest around the piling and would likely decrease close to background levels within a few hundred feet of the pile being driven.

Overall, water quality impacts would primarily consist of increased turbidity and sedimentation during in-water work which could result in temporary adverse impacts to federally managed species and EFH. Mobile species would likely avoid the area during construction. Therefore, these species are not likely to be adversely impacted by in-water work that would occur under the proposed project.

Habitat Modification

As noted above, the marina basins are highly developed and do not provide high quality habitat for many marine fauna. Demolition and reconstruction of the travel lift and Station Piers would not result in substantial modification of habitat because habitat in the project area is already heavily altered from natural conditions and because of the small footprint of disturbance areas compared to the area of designated EFH in the region. There would be no net loss of hard structure that may provide habitat for various life stages of federally managed species.

Vessel Traffic

The marina basins experience high levels of vessel traffic year-round, resulting in frequent disturbances to marine fauna and habitats in the project area. The proposed project is not expected to result in an increase in the volume of vessel traffic in the project area.

Conclusion

Underwater noise, particularly from removal and installation of pilings for the travel lift and Station Piers, turbidity, and sedimentation would result in adverse impacts to EFH during construction. However, impacts would be temporary and conditions would be expected to return to baseline shortly after construction is complete. Impacts to EFH would not affect any managed species at the population level because of the small footprint of disturbance areas compared to the area of designated EFH in the region and because the marina basins do not provide high quality habitat for most species.

Therefore, the USCG has concluded that the proposed project would have short-term adverse impacts on EFH, but these adverse impacts would cease once construction is complete. The USCG requests NOAA's concurrence with this determination.

References

Buehler, D.; Oestman, R.; Reyff, J.; Pommerenck, K.; and Mitchell, B. 2015. Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish. Prepared for California Department of Transportation. November 2015

Oestman, R.; Buehler, D.; Reyff, J.; Rodkin, R. 2009. Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish. Report by ICF International. Prepared for California Department of Transportation (Caltrans). February 2009.

National Oceanic and Atmospheric Administration (NOAA)

2019 Essential Fish Habitat Mapper. Available at: https://www.habitat.noaa.gov/application/efhmapper/index.html.

2020 Magnuson-Stevens Act. Available at: https://www.fisheries.noaa.gov/topic/laws-policies#magnuson-stevens-act.

USCG (U.S. Coast Guard). 2017. Spill Prevention, Control and Countermeasures Plan (SPCC) United States Coast Guard Sector Key West, Key West Florida. September 2017.

USEPA. 2002. Facility Response Planning. Compliance Assistance Guide. Oil Program Center. Available at https://www.epa.gov/sites/production/files/2014-04/documents/frpguide.pdf. Accessed April 3, 2020.

From:	Dobbins-Noble, Lesley C CIV
To:	Pace Wilber - NOAA Federal
Cc:	David Dale - NOAA Federal
Subject:	RE: [Non-DoD Source] Re: checking on status of U.S. Coast Guard consultation for Station Key West replacement of facilities
Date:	Thursday, February 18, 2021 12:33:00 PM

Pace,

You are correct that we have withdrawn our request for ESA consultation from the Protected Resources Division. Since this project is to be executed using the federal design-build process and, at this time, we have not yet awarded the contract, we have no firm design to coordinate with regulators. Furthermore, since some of the waterfront components of the project are options that may not be awarded due to project budget limitations, it impossible to speculate now what the actual project will look like down the road. What was presented in the initial consultation package included all possible components of the project, but the affordable reality may not be so robust. As such, we propose to defer the consultation until we have more definitive plans and can develop an appropriate coral relocation plan to address those plans.

We look forward to working collaboratively with FKNMS and Protected Resources to develop that relocation plan in the future and will be sure to include the agreed-upon plan with any future consultation requests under Magnuson-Stevens.

Best,
Lesley

From: Pace Wilber - NOAA Federal <pace.wilber@noaa.gov>
Sent: Thursday, February 18, 2021 9:54 AM
To: Dobbins-Noble, Lesley C CIV <Lesley.C.DobbinsNoble@uscg.mil>
Cc: David Dale - NOAA Federal <david.dale@noaa.gov>
Subject: [Non-DoD Source] Re: checking on status of U.S. Coast Guard consultation for Station Key West replacement of facilities

Hi Lesley. Sorry for the delay in getting back to you. While the EFH Assessment, dated December 7, 2020, makes little mention of corals (which the SAFMC designates a HAPC), the EA on the USCG website, dated November 2020, notes a good number of corals occur on the pilings and quay walls, including corals protected under the ESA. My understanding is the USCG has withdrawn its request to our Protected Resources Division for ESA consultation because a plan for relocating the corals has not yet been developed and is not expected to be ready for several months. This relocation plan is also essential for the EFH consultation. Can you verify the status of the coral relocation plan? Thanks, Pace

> ---------- Forwarded message ---------

From: **Dobbins-Noble, Lesley C CIV** <Lesley.C.DobbinsNoble@uscg.mil>
Date: Tue, Feb 16, 2021 at 1:27 PM
Subject: checking on status of U.S. Coast Guard consultation for Station Key West replacement of facilities
To: david.dale@noaa.gov <david.dale@noaa.gov>

Mr. Dale,

I am checking in because I hadn't heard from you on the status of the Magnuson-Stevens review of the subject project (see attached for reference). Please let me know if you have any concerns. We are trying to finalize our NEPA so that we can move forward with the contract award and project design. In order to do that, our leadership requires us to understand our standing on all regulatory processes.

Best,
Lesley

Lesley Dobbins-Noble

Environmental Protection Specialist
U.S. Coast Guard Facilities Design and Construction Center
5505 Robin Hood Road, Suite K
Norfolk, VA 23513
Office: (757) 852-3410
Cell (telework): [redacted]
Telework days: Tuesdays, Thursdays, and Fridays

From: Dobbins-Noble, Lesley C CIV
Sent: Wednesday, December 9, 2020 2:37 PM
To: david.dale@noaa.gov
Subject: Magnuson-Stevens consultation for proposed U.S. Coast Guard work in Key West

Mr. Dale,

A paper copy of this package is being mailed to your office, but I wanted to send it to you electronically in case you are teleworking and unable to retrieve your hard copy mail. This contains information to satisfy the consultation requirements under the Magnuson-Stevens Fishery Conservation and Management for work at U.S. Coast Guard Station/Sector Key West. Please feel free to contact me with any questions about the document or the Coast Guard's proposed work.

Best,

Lesley

Lesley Dobbins-Noble

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David Dale
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Office: 727-551-5736
Main: 727-824-5317
Mobile: [redacted] <-- Best option during Safer-At-Home order
https://www.fisheries.noaa.gov/

--
Pace Wilber, Ph.D.
HCD Atlantic Branch Supervisor
NOAA Fisheries Service
331 Ft Johnson Road
Charleston, SC 29412

843-460-9926 <----Office Number
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Pace.Wilber@noaa.gov

U.S. Department of Homeland Security

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11000
December 7, 2020

Ms. Roxanna Hinzman
Field Supervisor
U.S. Fish and Wildlife Service
South Florida Ecological Services Field Office
1339 20th Street
Vero Beach, FL 32960-3559

Greetings Ms. Hinzman:

The U.S. Coast Guard (USCG) announces the availability of a draft Environmental Assessment (EA) that analyzes and evaluates potential environmental impacts associated with the repair and replacement of facilities at Sector and Station Key West that were damaged during Hurricane Irma in September 2017 (the Proposed Action). The Proposed Action is needed to provide Sector Key West and Station Key West with facilities and infrastructure that will allow them to adequately execute their mission requirements and increase the resiliency of Sector and Station facilities so that they can remain operational during future weather events and return to full operation after an event is over.

Enclosure (1) contains a description of the Proposed Action that has been identified as the preferred alternative in the draft EA; a list of federally listed threatened and endangered species in the vicinity of the project area; and the USCG's preliminary assessment of potential effects to those listed species. Enclosures (2) and (3) contain the U.S. Fish and Wildlife Service's Information for Planning and Consultation (IPaC) report for the project site and a field observation report for marine resources at the project site, respectively. Pursuant to Section 7 of the Endangered Species Act and its implementing regulations, specifically 50 Code of Federal Regulations Part 402.13, the USCG seeks concurrence on the following findings for listed species which have been documented within the vicinity of the project site (reference Table 1 in Enclosure (1) for supporting details):

No effect:

Florida panther (*Puma concolor coryi*)
Key Largo woodrat (*Neotoma floridana smalli*)
puma (*Puma concolor*)
silver rice rat (*Oryzomys palustris natator*)
Bachman's warbler (*Vermivora bachmanii*)
ivory-billed woodpecker (*Campephilus principalis*)
wood stork (*Mycteria americana*)
American alligator (*Alligator mississippiensis*)
American crocodile (*Crocodylus acutus*)
hawksbill sea turtle (*Eretmochelys imbricata*)
leatherback sea turtle (*Dermochelys coriacea*)
loggerhead sea turtle (*Caretta caretta*)
Gulf sturgeon (*Acipenser oxyrinchus desotoi*)

Stock Island tree snail (*Orthalicus reses*)
Bartram's hairstreak butterfly (*Strymon acis bartrami*)
Florida leafwing butterfly (*Anaea troglodyta floridalis*)
Miami blue butterfly (*Cyclargus thomasi*)
Big Pine partridge pea (*Chamaecrista lineata keyensis*)
Blodgett's silverbush (*Argythamnia blodgettii*)
Cape Sable thoroughwort (*Chromolaena frustrata*)
Everglades bully (*Sideroxylon reclinatum austrofloridense*)
Florida pineland crabgrass (*Digitaria pauciflora*)
Florida prairie-clover (*Dalea carthagenensis*)
Florida semaphore cactus (*Consolea corallicola*)
Garber's spurge (*Chamaesyce garberi*)
Key tree cactus (*Pilosocereus robinii*)
sand flax (*Linum arenicola*)
wedge spurge (*Chamaesyce deltoidea serphyllum*)

May affect, not likely to adversely affect:

West Indian manatee (*Trichechus manatus*)
roseate tern (*Sterna dougallii dougallii*)

The draft EA is available online at https://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-Engineering-Logistics-CG-4-/Program-Offices/Environmental-Management/Environmental-Planning-and-Historic-Preservation/ and contains detailed information and analyses of the Proposed Action's potential environmental impacts.

We request that you provide your concurrence with our findings within 60 days of receipt of this letter. If you have any questions, please reach out to Ms. Lesley Dobbins-Noble by phone at (757) 852-3410 or by e-mail at lesley.c.dobbinsnoble@uscg.mil.

Sincerely,

Digitally signed by
BARRESI.JOHN.F.JRII.1187016629
Date: 2020.12.07 16:47:07 -05'00'

J. F. BARRESI
Captain
U. S. Coast Guard

Enclosures: (1) Description of the Proposed Action and Preliminary Assessment of Impacts to Listed Species
(2) IPaC Resource List
(3) Field Observation Report for the Marine Resource Survey of the North and Central Marina Basins at the U.S. Coast Guard Sector Key West, Key West, Monroe County, Florida

Description of the Proposed Action and Preliminary Assessment of Impacts to Listed Species

Hurricane Execution Plan at Sector/Station Key West, Florida

Description of the Proposed Federal Agency Action

Sector Key West is a unified command consisting of six Fast Response Cutters, three small boat stations, an Aids to Navigation Team (ANT), and three staff departments. The Sector Commander performs the duties of Search and Rescue Mission Coordinator; Captain of the Port; Federal Maritime Security Coordinator; Federal On-Scene Coordinator; and Officer in Charge, Marine Inspection. Sector Key West's area of responsibility includes 55,000 square miles bordering the territorial seas of Cuba and the Bahamas (Figure 1).

In September of 2017, Sector and Station Key West, a Small Boat Station unit of and collocated on Sector Key West, suffered extensive damage from Hurricane Irma. The USCG proposes to rebuild facilities damaged during Hurricane Irma by (1) demolishing and rebuilding the Sector Engineering/Electronics Support Detachment (ESD) Building (Building 105) at Sector Key West to meet resilience thresholds, (2) rebuilding waterfront and shore facilities for Station Key West, including demolishing existing facilities; and constructing a new Station building, grounds work, pier, docks and boat house, and (3) rebuilding the electrical distribution system serving Sector Key West to include transformer and electrical distribution to the waterfront, shore facilities, and on-site energy generation and storage.

Figure 1. Regional Map

Sector Engineering Facility – The USCG would demolish the existing Sector Engineering/ESD Facility (Building 105) and build a new 36,073-gross-square-foot (GSF) facility in the location of the parking lot immediately east of its current location on Pier D2. The parking lot would be moved to the current location of Building 105 once it is demolished. The new facility would include Sector Engineering administrative and maintenance spaces, ESD administrative and operational spaces, and two boat maintenance bays that could accommodate USCG's 45-foot Response Boat – Medium (45 RB-M). Utilities (water, sewer, stormwater, natural gas, electric, and telecommunications) for the new facility would be connected to existing nearby utility lines. The existing travel lift pier would be demolished and reconstructed along the southern quay wall of Pier D2 at the east end of Berth 8 to provide direct access to the boat maintenance bays of the Sector Engineering Facility without crossing any base roads. Building 108 on Pier D3 would be demolished, and storage Building 5 (Quonset Hut OV 7) would be demolished and rebuilt in that location. Materials currently stored in Building 108 would be stored in the new Sector Engineering Facility. Figures 2 and 3 include the demolition and site plans, respectively.

Station and ANT Facility – Currently, the Station operates out of Building 101, and the ANT operates out of Building 105. Under the Preferred Alternative, the USCG would demolish Building 101 and Building 106 and construct a new three-story, 23,486-GSF Station and ANT Facility adjacent and east of the current Building 101 location (see Figures 2 and 3). The new building would include facility support space, Station administrative and operational spaces, an armory, and berthing and marine maintenance space. In addition, it would provide ANT administrative and operational spaces and marine maintenance space. Because the existing building is in a floodplain, the first floor would house shop spaces only. The second floor would accommodate all administrative functions, the armory, the command and control center, recreation space, and the central dining area. The third floor would house berthing spaces. Temporary storage of spare parts currently housed in Building 106 would be provided. Permanent storage would be provided in the new Station and ANT Facility. Existing utilities and services would be relocated to the new building and connected to existing nearby utility lines. Additional supporting improvements would include paving, walks, curbs and gutters, and storm drainage. The two 11,600-gallon diesel fuel storage tanks located to the east of Building 101 would be temporarily relocated during construction and eventually replaced with two new 11,000-gallon diesel fuel storage tanks located in the footprint of the existing Building 101. New underground fuel lines would be installed from the new location of the tanks to the pier. Like the existing underground fuel lines, the new fuel lines would be double piped with a sump monitor for detecting leaks between them.

The USCG would also construct new Station piers with two covered moorings along the bulkhead between Piers D1 and D2 in an east-west orientation. With this orientation, no wave attenuation structure would be required to protect the vessels moored at the piers. Temporary mooring and utilities for Station, Customs and Border Patrol, and contingency vessels would be provided in the existing basin/wharf through leased slips at an adjacent commercial facility, via temporary floating piers, or by using two of the three existing piers while demolition and construction activities are ongoing. The pier closest to the new pier location would be demolished to accommodate the new construction; the remaining two piers would be demolished after construction is complete. Portable wharf utilities such as the existing gas tank, oil waste tank, and diesel fuel pump would be relocated to service the new piers. The Station piers would accommodate mooring of Station Key West vessels and provide two covered moorings. If the

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Figure 2. Demolition Plan

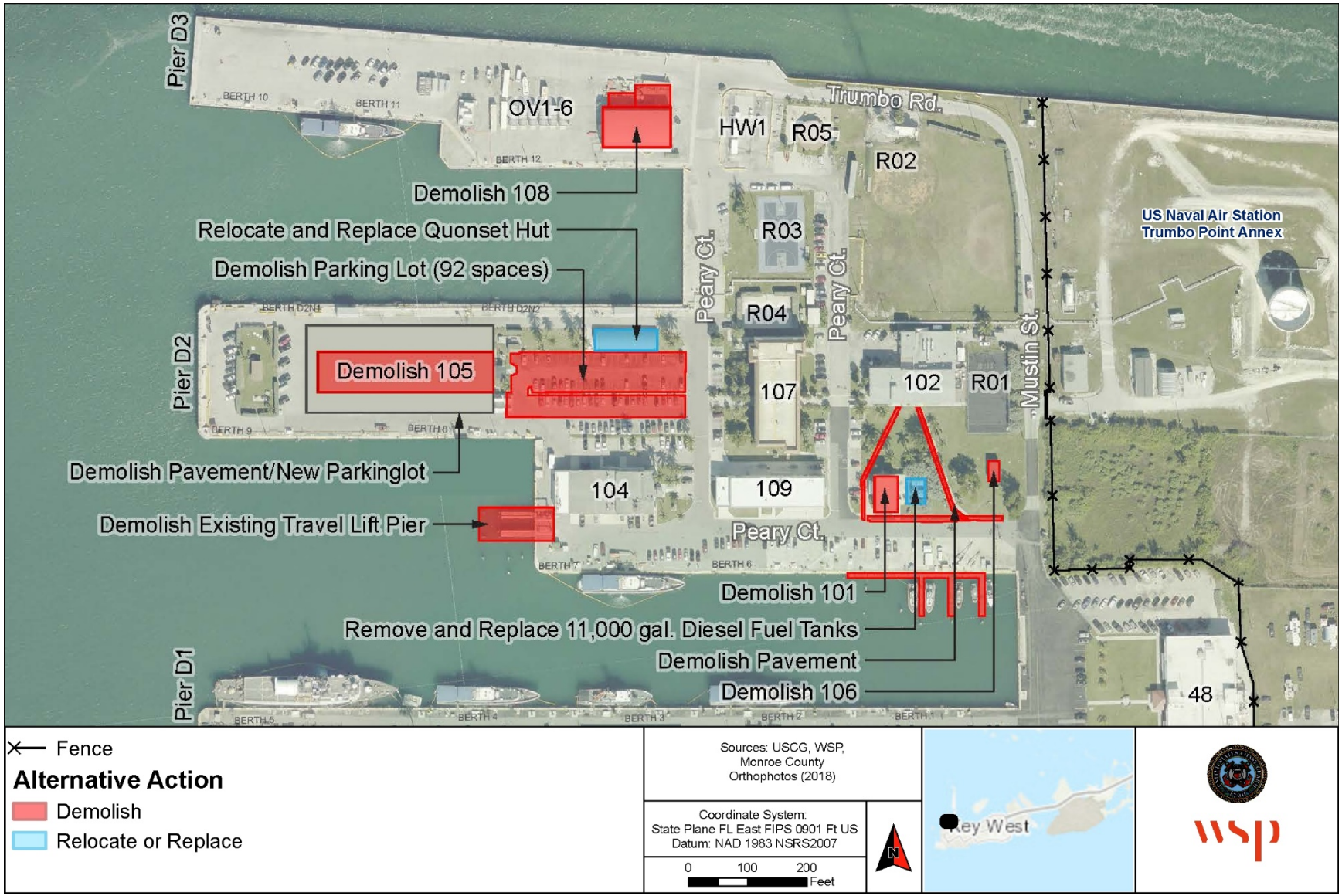
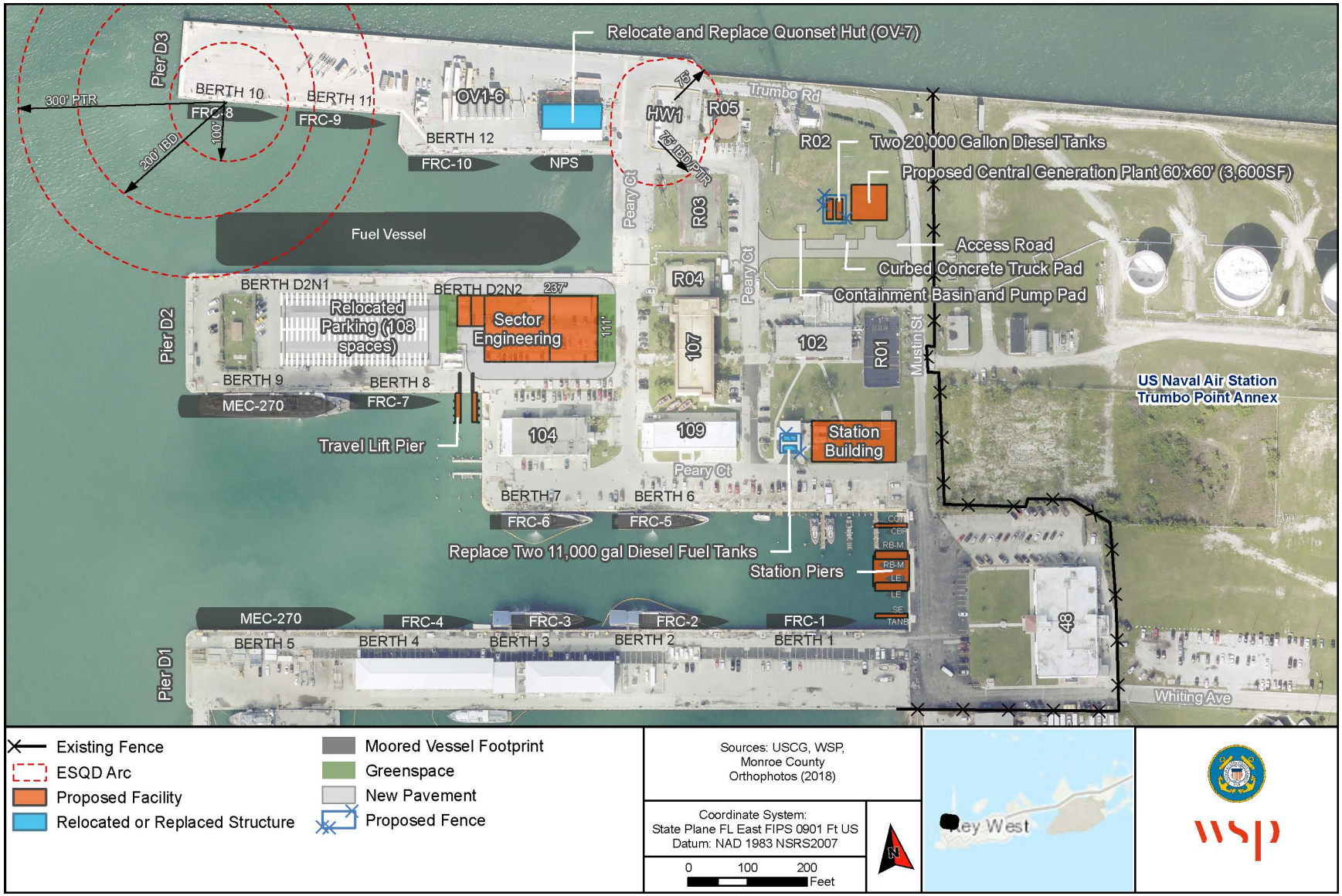


Figure 3. Site Plan



Sector Engineering Facility is constructed first, swing space would be provided for the ANT prior to the construction of the new Station and ANT Facility.

Electrical – The USCG would rebuild the electrical distribution system serving Sector Key West with a new complete and usable infrastructure that meets current mission requirements. It would replace electrical lines, including conductors and conduits; encase all primary distribution conduits in concrete; demolish and replace existing electrical distribution equipment, including distribution transformers throughout the base, and raise all exterior electrical distribution equipment to 3 feet above the 100-year flood elevation; replace and install substations; install proposed medium voltage, fast response switchgear throughout the base on elevated platforms; replace overhead branch circuit conductors with proposed subterranean conductors in conduit and concrete encased; replace emergency generators; install standardized equipment to simplify operations and maintenance, repair, and replacement; replace hurricane-damaged light poles with concrete poles; replace hurricane-damaged existing exterior pole-mounted area lights, floodlights, and sports light fixture heads with LED equivalents; and incorporate sustainable systems in all existing and proposed buildings.

A new 3,600-square-foot (SF) central generation plant would be constructed in the northeast portion of the base. The plant would include four parallel 1,000 kilowatt (kW) (with a 900-kW prime power rating), medium voltage diesel or jet propellant-5 (JP-5) generators (with black start capabilities) that provide N+2 (i.e., two backup components in conjunction with building level emergency generators evaluated for repair, upgrade, or replacement) to all critical facilities, and N+1 (i.e., one backup component) for the entire base. The generators would be able to carry the maximum demand load used by Sector Key West over a one year period at 125 percent (1.8 megawatt), as required by the National Electrical Code, for a period of 10 days. Two 1-megawatt generators were selected for their 900-kW prime rating because of the run time required. In addition, an all-in-one battery energy storage system (with 30–45 minutes battery storage capacity) would be installed to store energy for short outages and to filter the incoming power.

The fuel for the diesel or JP-5 generators would be supplied from a proposed fuel line connecting the generators to two new 20,000-gallon fuel tanks located adjacent to the generator plant. The 40,000 gallons of dedicated central generation fuel storage would meet the 10-day independent operation requirement. Additionally, a photovoltaic system (PV) would be constructed on the roofs of the proposed buildings and Building 48 and on top of carports throughout the parking areas. Figure 4 shows the electrical site plan.

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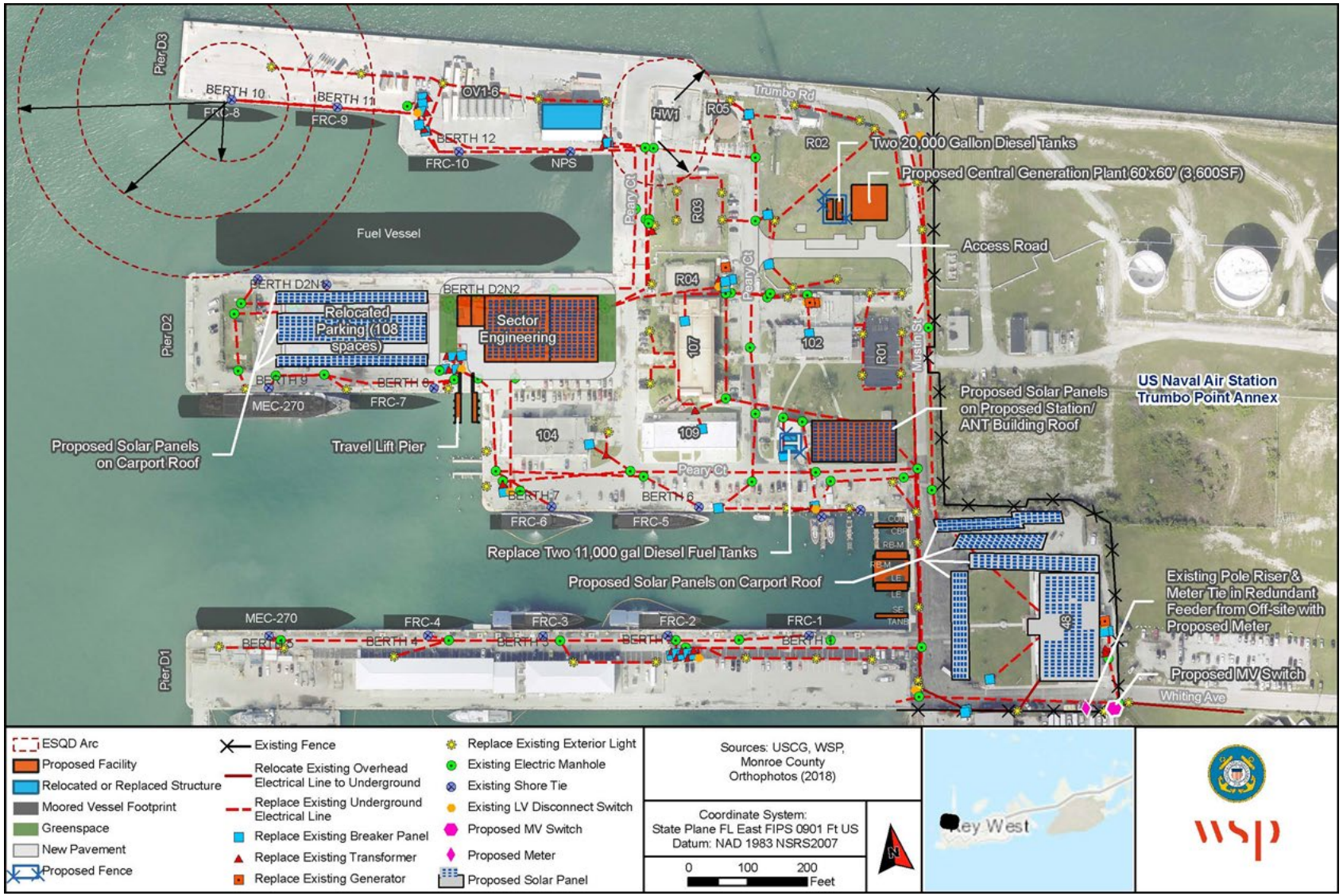
Figure 4. Electrical Plan



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Federally Listed Endangered and Threatened Species

The proposed project would involve terrestrial and in-water demolition and construction work that could affect species listed as endangered or threatened under the ESA. Table 1 shows federally listed species under U.S. Fish and Wildlife Service (USFWS) jurisdiction that may occur in the vicinity of the project area and provides a preliminary determination of impacts on each species. Likelihood of species occurrence in the action area was based on information obtained from the U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) online system (Enclosure 2) and diving surveys conducted in the action area in 2019 (Chiello et al. 2019; Appendix C in Enclosure 1). Additional discussion of impacts of the proposed project on endangered and threatened species is provided below.

Table 1. Federally Listed Species in the Vicinity of the Project Area

Species	Status	Occurrence in Project Area	Preliminary Impact Determination
Mammals			
Florida Panther (*Puma concolor coryi*)	Endangered	The project area does not contain suitable habitat for this species.	*No effect*
Key Largo Woodrat (*Neotoma floridana smalli*)	Endangered	The project area does not contain suitable habitat for this species. Distribution of this species is restricted to the northern portion of Key Largo (USFWS 1999).	*No effect*
Puma (*Puma concolor*)	Threatened (Similarity of Appearance)	The project area does not contain suitable habitat for this species. Extant populations of this species are limited to Boca Chica, Saddlebunch, Sugarloaf, and Big Pine Keys (USFWS 1999).	*No effect*
Silver Rice Rat (*Oryzomys palustris natator*)	Endangered	The project area does not contain suitable habitat for this species.	*No effect*

West Indian Manatee (*Trichechus manatus*)	Threatened	The project area does not contain suitable habitat for this species. This species is not currently believed to occur on Key West (USFWS 1999).	*May affect, not likely to adversely affect*
Birds			
Bachman's Warbler (*Vermivora bachmanii*)	Endangered	The project area does not contain suitable habitat for this species. Bachman's warbler is extremely rare, and possibly extinct (USFWS 2015).	*No effect*
Ivory-billed Woodpecker (*Campephilus principalis*)	Endangered	The project area does not contain suitable habitat for this species. This species is believed to be extirpated in the United States and Cuba (USFWS 1999).	*No effect*
Roseate Tern (*Sterna dougallii dougallii*)	Threatened	This species is tolerant of urban environments and has been observed nesting among least terns at Truman Annex in Key West, near the project area.	*May affect, not likely to adversely affect*
Wood Stork (*Mycteria americana*)	Threatened	The project area does not contain suitable habitat for this species.	*No effect*
Reptiles			
American Alligator (*Alligator mississippiensis*)	Threatened (Similarity of Appearance)	The project area does not contain suitable habitat for this species.	*No effect*

American Crocodile (*Crocodylus acutus*)	Threatened	The project area does not contain suitable habitat for this species.	*No effect*
Hawksbill Sea Turtle (*Eretmochelys imbricata*)	Endangered	Terrestrial portions of the project area do not contain suitable habitat for this species.	*No effect*
Leatherback Sea Turtle (*Dermochelys coriacea*)	Endangered	Terrestrial portions of the project area do not contain suitable habitat for this species.	*No effect*
Loggerhead Sea Turtle (*Caretta caretta*)	Threatened	Terrestrial portions of the project area do not contain suitable habitat for this species.	*No effect*
Fishes			
Gulf Sturgeon (*Acipenser oxyrinchus desotoi*)	Threatened	The project area does not contain freshwater habitat.	*No effect*
Snails			
Stock Island Tree Snail (*Orthalicus reses*)	Threatened	The project area does not contain suitable habitat for this species.	*No effect*
Insects			
Bartram's Hairstreak Butterfly (*Strymon acis bartrami*)	Endangered	The project area does not contain suitable habitat (host plants) for this species.	*No effect*
Florida Leafwing Butterfly (*Anaea troglodyta floridalis*)	Endangered	The project area does not contain suitable habitat (host plants) for this species.	*No effect*
Miami Blue Butterfly (*Cyclargus thomasi*)	Endangered	The project area does not contain suitable habitat (host plants) for this species.	*No effect*
Plants			
Big Pine Partridge Pea (*Chamaecrista lineata keyensis*)	Endangered	The project area does not contain suitable habitat for this species.	*No effect*

Blodgett's Silverbush (*Argythamnia blodgettii*)	Threatened	The project area does not contain suitable habitat for this species.	*No effect*
Cape Sable Thoroughwort (*Chromolaena frustrata*)	Endangered	The project area does not contain suitable habitat for this species.	*No effect*
Everglades Bully (*Sideroxylon reclinatum austrofloridense*)	Threatened	The project area does not contain suitable habitat for this species.	*No effect*
Florida Pineland Crabgrass (*Digitaria pauciflora*)	Threatened	The project area does not contain suitable habitat for this species.	*No effect*
Florida Prairie-clover (*Dalea carthagenensis floridana*)	Endangered	The project area does not contain suitable habitat for this species.	*No effect*
Florida Semaphore Cactus (*Consolea corallicola*)	Endangered	The project area does not contain suitable habitat for this species.	*No effect*
Garber's Spurge (*Chamaesyce garberi*)	Threatened	The project area does not contain suitable habitat for this species.	*No effect*
Key Tree Cactus (*Pilosocereus robinii*)	Endangered	The project area does not contain suitable habitat for this species.	*No effect*
Sand Flax (*Linum arenicola*)	Endangered	The project area does not contain suitable habitat for this species.	*No effect*
Wedge Spurge (*Chamaesyce deltoidea serpyllum*)	Endangered	The project area does not contain suitable habitat for this species.	*No effect*

Impacts on Federally-listed Species

The proposed action would not affect most federally-listed species that could occur in the project area because of the lack of suitable habitat or other conditions that create an unsuitable environment for many species (Table 1). The proposed action could affect two listed species: roseate tern and West Indian manatee.

Roseate Tern

Roseate tern is tolerant of urban environments has been observed nesting among least terns at Truman Annex in Key West, near the project area. Noise during demolition and construction activities could affect this species. However, potential adverse impacts would likely be limited to temporary displacement of individual birds. Therefore, the proposed action is not likely to adversely affect this species.

West Indian Manatee

Pile driving associated with pier construction would result in underwater noise that could affect manatees, if present in the project area. Since the details of pile type, driving hammer type, and any noise mitigation methods for the project have not been fully established, it was assumed that the same types of piles to be removed would be used for the replacement structures. To be conservative, it was assumed that piles would be installed with an impact hammer, as this type of hammer is typically used to proof vibratory hammer-driven piles. A vibratory pile driver is the likely means by which the existing piles would be removed, which is estimated to be 10 to 20 dB quieter than pile driving with an impact hammer (Buehler et. al. 2015; Oestman et. al. 2009).

Distances to disturbance and injury thresholds for from pile driving for the new station piers, station bulkhead walkway piers, and travel lift pier were determined using NOAA Fisheries Greater Atlantic Regional Fisheries Office acoustics tool's Simplified Attenuation Formula which estimates the ensonification area of pile driving projects in rivers and nearshore waters. This formula assumes a constant sound attenuation rate depending on the type of pile. Attenuation rates in the acoustics tool spreadsheet were estimated using measurements reported in "Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish" (Buehler et. al. 2015; Oestman et. al. 2009). Table 2 presents the pile driving noise levels produced and the distances to disturbance and injury for manatees established by NOAA (NOAA 2018, 2019) from these proxy projects.

The sound levels in Table 2 are an estimate and will likely vary depending on the geometry and boundaries of the surrounding underwater and benthic environment (i.e. shallow/deep water, shoaled portions of channels, obstacles in the waterway). As the distance from the source increases, underwater sound levels produced by pile driving dissipate rapidly, attenuating approximately 5 dB every 10 meters for steel pipe piles (Buehler et. al. 2015; Oestman et. al. 2009). To mitigate the potential effects of underwater noise caused by pile driving, nylon cushion blocks may be utilized during the impact hammering of piles which can reduce noise impacts by about 5 dB (Oestman et. al. 2009). Pile installation would begin with a reduced blow energy soft start to minimize initial effects and give any potentially affected species time to vacate the area before the higher energies are used.

Table 2. Disturbance and Injury Thresholds and Distances from Proposed Pile Driving

Type of Pile	**18" Concrete**	**12" Steel Pipe**	**12-14" Timber**
Hammer Type	**Impact**	**Impact**	**Cushioned Impact**
Estimated Peak Noise Level (dBPeak)	185	**192**	180
Estimated Pressure Level (dBRMS)	166	**177**	170
Estimated Single Strike Sound Exposure Level (dBsSEL)	155	**167**	160
Distance (m) to Manatee TTS SEL (weighted) (175 dB SEL)	NA	NA	NA
Distance (m) to Manatee TTS peak SPL (220 dB SPL)	NA	NA	NA
Distance (m) to Manatee PTS SEL (weighted) (190 dB SEL)	NA	NA	NA
Distance (m) to Manatee PTS peak SPL (226 dB SPL)	NA	NA	NA

The 12” steel pipe pile produces the greatest underwater noise levels of the three pile types. This pile type produces a Peak Noise Level (dBPeak) of 192 dB. a Pressure Level (dBRMS) of 177 dB, and a Single Strike Sound Exposure Level (dBsSEL) of 167dB at a distance of 10 meters from the pile. Impact hammer driving a 12” steel pipe pile does not produce underwater noise levels that exceed the temporary or permanent hearing damage noise thresholds to manatees. Use of a soft start would manatees that may be present in the vicinity of the project area prior to construction the opportunity to vacate the area and minimize the potential exposure risk. Because of the relatively small portion of the project area that would be affected, it is unlikely that pile installation would result in significant behavioral effects on manatees.

Other potential sources of impacts on manatees would include temporary increases in turbidity during removal and installation of piles and vessel traffic in the project area. Temporary increases in turbidity would not likely adversely affect manatees because they are tolerant of high turbidity conditions. The marina basins experience high levels of vessel traffic year-round which causes frequent disturbances to marine fauna and habitats in the project area. The proposed project is not expected to result in an increase in the volume of vessel traffic in the project area. Therefore, no new adverse impacts to manatees as a result of vessel traffic are anticipated.

References

Chiello, G., Jones, E., and R. Delp. 2019. Field Observation Report for the Marine Resource Survey of the North and Central Marina Basins at the U.S. Coast Guard Sector Key West, Key West, Monroe County, Florida. Cummins Cederberg Coastal & Marine Engineering.

Buehler, D.; Oestman, R.; Reyff, J.; Pommerenck, K.; and Mitchell, B. 2015. Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish. Prepared for California Department of Transportation. November 2015

Oestman, R.; Buehler, D.; Reyff, J.; Rodkin, R. 2009. Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish. Report by ICF International. Prepared for California Department of Transportation (Caltrans). February 2009.

National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA NMFS)

2018 Revisions to: Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0): Underwater Thresholds for Onset of Permanent and Temporary Threshold Shifts. U.S. Dept. of Commerce, NOAA. NOAA Technical Memorandum NMFS-OPR-59, 167 pp.

2019 GARFO Acoustics Tool: Analyzing the effects of pile driving on ESA-listed species in the Greater Atlantic Region, was accessed at: https://www.fisheries.noaa.gov/webdam/download/97049475

U.S. Fish and Wildlife Service (USFWS)

1999 South Florida Multi-Species Recovery Plan. U.S. Fish and Wildlife Service, Southeast Region, Atlanta, Georgia. 2172 pp.

2015 Bachman's Warbler (*Vermivora bachmanii*) 5-Year Review: Summary and Evaluation. U.S. Fish and Wildlife Service, Southeast Region, Ecological Services, Charleston, South Carolina. 8 pp.

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Monroe County, Florida

Local office

South Florida Ecological Services Field Office

(772) 562-3909
(772) 562-4288

1339 20th Street
Vero Beach, FL 32960-3559

http://fws.gov/verobeach

Enclosure 2

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

Florida Panther Puma (=Felis) concolor coryi — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/1763

Key Largo Woodrat Neotoma floridana smalli — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/3921

Puma (=mountain Lion) Puma (=Felis) concolor (all subsp. except coryi) — SAT
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/6049

Silver Rice Rat Oryzomys palustris natator — Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/6988

Birds

NAME	STATUS

Bachman's Warbler (=wood) Vermivora bachmanii — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/3232

Ivory-billed Woodpecker Campephilus principalis — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8230

Roseate Tern Sterna dougallii dougallii — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/2083

Wood Stork Mycteria americana — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8477

Reptiles

NAME	STATUS

American Alligator Alligator mississippiensis — SAT
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/776

American Crocodile Crocodylus acutus — Threatened
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/6604

Hawksbill Sea Turtle Eretmochelys imbricata — Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/3656

Leatherback Sea Turtle Dermochelys coriacea — Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/1493

Loggerhead Sea Turtle Caretta caretta — Threatened
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/1110

Fishes

NAME	STATUS
Atlantic Sturgeon (gulf Subspecies) Acipenser oxyrinchus (=oxyrhynchus) desotoi There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/651	Threatened

Snails

NAME	STATUS
Stock Island Tree Snail Orthalicus reses (not incl. nesodryas) No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/466	Threatened

Insects

NAME	STATUS
Bartram's Hairstreak Butterfly Strymon acis bartrami There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/4837	Endangered

Florida Leafwing Butterfly Anaea troglodyta floridalis — Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/6652

Miami Blue Butterfly Cyclargus (=Hemiargus) thomasi bethunebakeri — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/3797

Flowering Plants

NAME	STATUS

Big Pine Partridge Pea Chamaecrista lineata keyensis — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8416

Blodgett's Silverbush Argythamnia blodgettii — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/6823

Cape Sable Thoroughwort Chromolaena frustrata — Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/4733

Everglades Bully Sideroxylon reclinatum ssp. austrofloridense — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4735

Florida Pineland Crabgrass Digitaria pauciflora — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/3728

Florida Prairie-clover Dalea carthagenensis floridana — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/2300

Florida Semaphore Cactus Consolea corallicola — Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/4356

Garber's Spurge Chamaesyce garberi — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8229

Key Tree Cactus Pilosocereus robinii — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/2520

Sand Flax Linum arenicola — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4313

Wedge Spurge Chamaesyce deltoidea serpyllum — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/949

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on

this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
American Kestrel Falco sparverius paulus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 1 to Aug 31
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Black Skimmer Rynchops niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Black-whiskered Vireo Vireo altiloquus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Aug 15

Common Ground-dove Columbina passerina exigua — Breeds Feb 1 to Dec 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Least Tern Sterna antillarum — Breeds Apr 20 to Sep 10
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Lesser Yellowlegs Tringa flavipes — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9679

Magnificent Frigatebird Fregata magnificens — Breeds Oct 1 to Apr 30
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Mangrove Cuckoo Coccyzus minor — Breeds Apr 20 to Aug 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Prairie Warbler Dendroica discolor — Breeds May 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Prothonotary Warbler Protonotaria citrea — Breeds Apr 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Reddish Egret Egretta rufescens — Breeds Mar 1 to Sep 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/7617

Ruddy Turnstone Arenaria interpres morinella — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Semipalmated Sandpiper Calidris pusilla — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Short-billed Dowitcher Limnodromus griseus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480

Short-tailed Hawk Buteo brachyurus — Breeds Mar 1 to Jun 30
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8742

Smooth-billed Ani Crotophaga ani — Breeds Jan 1 to Dec 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/1754

Whimbrel Numenius phaeopus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9483

White-crowned Pigeon Patagioenas leucocephala — Breeds May 1 to Sep 30
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/4047

Willet Tringa semipalmata — Breeds Apr 20 to Aug 5
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wilson's Plover Charadrius wilsonia — Breeds Apr 1 to Aug 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow Warbler Dendroica petechia gundlachi — Breeds May 20 to Aug 10
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

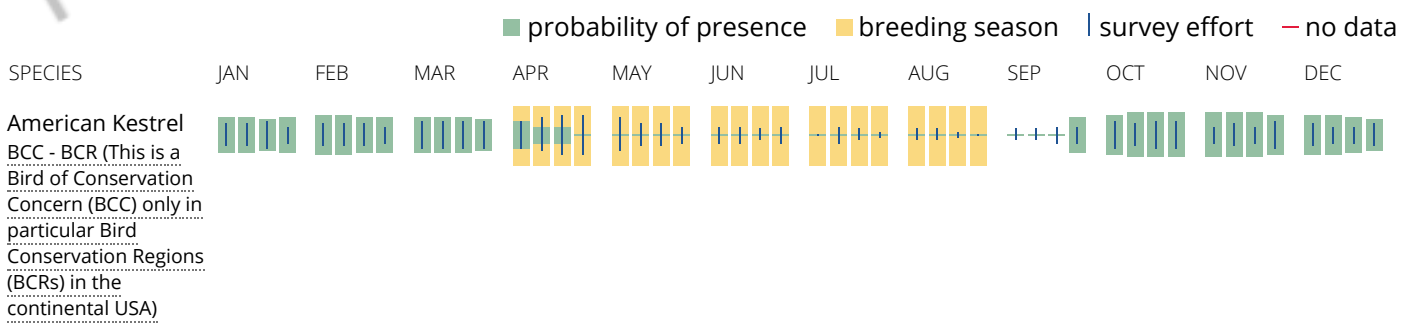
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

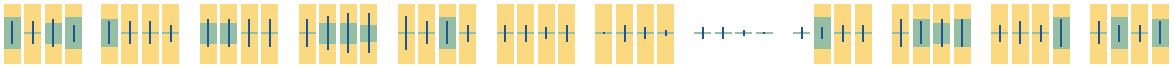
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

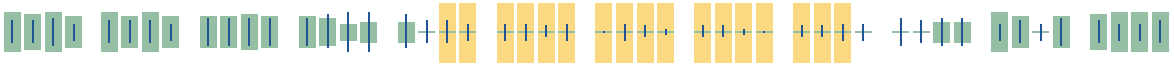
Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



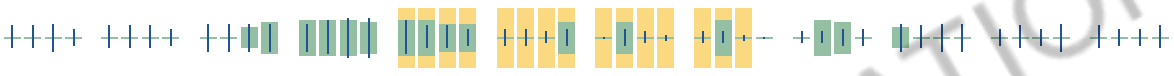
Bald Eagle
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



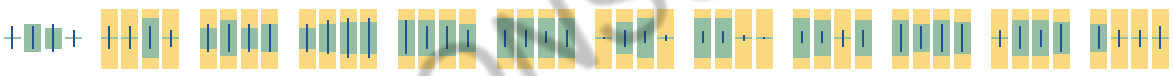
Black Skimmer
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



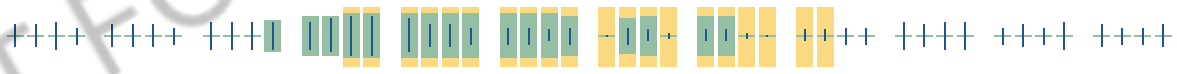
Black-whiskered Vireo
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Common Ground-dove
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Least Tern
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Lesser Yellowlegs
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Magnificent Frigatebird
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Mangrove Cuckoo
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Prairie Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Prothonotary Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Reddish Egret
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Ruddy Turnstone
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Semipalmated Sandpiper
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Short-billed Dowitcher
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Short-tailed Hawk
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Smooth-billed Ani
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Whimbrel
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

White-crowned Pigeon
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Willet
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Wilson's Plover
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Yellow Warbler
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to

occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

ESTUARINE AND MARINE DEEPWATER

- E1UBL
- E1UBLx

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

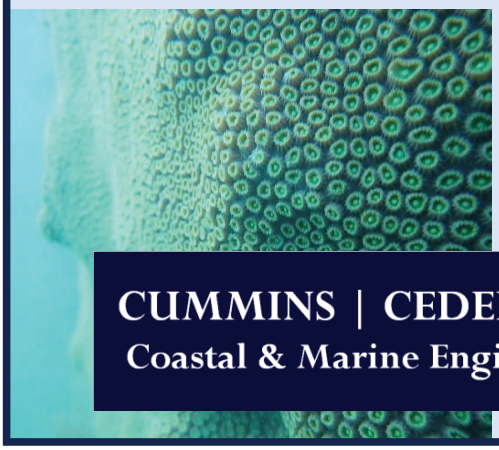
PREPARED FOR:

U.S. COAST GUARD
SECTOR KEY WEST

FIELD OBSERVATION REPORT

JUNE 2019

FIELD OBSERVATION REPORT FOR THE MARINE RESOURCE SURVEY OF THE NORTH AND CENTRAL MARINA BASINS AT THE U.S. COAST GUARD SECTOR KEY WEST, KEY WEST, MONROE COUNTY, FLORIDA



BIOLOGISTS:

Ms. Gina Chiello, Senior Project Manager/Marine Scientist, Cummins Cederberg, Inc.

Ms. Elizabeth Jones, Project Manager/Marine Scientist, Cummins Cederberg, Inc.

Ms. Rebecah Delp, Project Manager/Marine Scientist, Cummins Cederberg, Inc.

CUMMINS | CEDERBERG
Coastal & Marine Engineering

Enclosure 3

U.S. Department of Homeland Security

United States Coast Guard

Commanding Officer
United States Coast Guard
Facilities Design and Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: (757) 852-3400
Fax: (757) 852-3495

11000
December 7, 2020

Mr. David Bernhart
Assistant Regional Administrator, Protected Resources Division
National Oceanic and Atmospheric Administration Fisheries
S263 13th Avenue South
St. Petersburg, FL 33701

Greetings Mr. Bernhart:

The U.S. Coast Guard (USCG) announces the availability of a draft Environmental Assessment (EA) that analyzes and evaluates potential environmental impacts associated with the repair and replacement of facilities at Sector and Station Key West that were damaged during Hurricane Irma in September 2017 (the Proposed Action). The Proposed Action is needed to provide Sector Key West and Station Key West with facilities and infrastructure that will allow them to adequately execute their mission requirements and increase the resiliency of Sector and Station facilities so that they can remain operational during future weather events and return to full operation after an event is over.

Enclosure (1) contains a description of the Proposed Action that has been identified as the preferred alternative in the draft EA; a list of federally listed threatened and endangered species in the vicinity of the project area; and the USCG's preliminary assessment of potential effects to those listed species. Enclosures (2) and (3) contain the National Marine Fisheries Service Endangered Species Act Section 7 Checklist and a field observation report for marine resources at the project site, respectively. Pursuant to Section 7 of the Endangered Species Act and its implementing regulations, specifically 50 Code of Federal Regulations Part 402.13, the USCG seeks concurrence on the following findings for listed species which have been documented within the vicinity of the project site (reference Table 1 in Enclosure (1) for supporting details):

No effect:

giant manta ray (*Manta birostris*)
largetooth sawfish (*Pristis pristis*)
oceanic whitetip shark (*Carcharhinus longimanus*)
Johnson's seagrass (*Halophila johnsonii*)

May affect, not likely to adversely affect:

green sea turtle (*Chelonia mydas*)
hawksbill sea turtle (*Erytmochelys imbricata*)
Kemp's ridley sea turtle (*Lepidochelys kempii*)
leatherback sea turtle (*Dermochelys coriacea*)
Gulf sturgeon (*Acipenser oxyrinchus desotoi*)
Nassau grouper (*Epinephelus striatus*)
scalloped hammerhead (*Sphyrna lewini*)
smalltooth sawfish (*Pristis pectinata*)

boulder star coral (*Orbicella franksi*)
elkhorn coral (*Acropora palmata*)
lobed star coral (*Orbicella annularis*)
pillar coral (*Dendrogyra cylindrus*)
rough cactus coral (*Mycetophyllia ferox*)
staghorn coral (*Acropora cervicornis*)

May affect, likely to adversely affect:

mountainous star coral (*Orbicella faveolata*)

The draft EA is available online at https://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-Engineering-Logistics-CG-4-/Program-Offices/Environmental-Management/Environmental-Planning-and-Historic-Preservation/ and contains detailed information and analyses of the Proposed Action's potential environmental impacts.

We request that you provide your concurrence with our findings within 60 days of receipt of this letter. If you have any questions, please reach out to Ms. Lesley Dobbins-Noble by phone at (757) 852-3410 or by e-mail at lesley.c.dobbinsnoble@uscg.mil.

Sincerely,

Digitally signed by BARRESI.JOHN.F.JRII.1187016629
Date: 2020.12.07 16:48:04 -05'00'

J. F. BARRESI
Captain
U. S. Coast Guard

Enclosures:
(1) Description of the Proposed Action and Preliminary Assessment of Impacts to Listed Species
(2) National Marine Fisheries Service Endangered Species Act Section 7 Checklist
(3) Field Observation Report for the Marine Resource Survey of the North and Central Marina Basins at the U.S. Coast Guard Sector Key West, Key West, Monroe County, Florida

Description of the Proposed Action and Preliminary Assessment of Impacts to Listed Species

Hurricane Execution Plan at Sector/Station Key West, Florida

Description of the Proposed Federal Agency Action

Sector Key West is a unified command consisting of six Fast Response Cutters, three small boat stations, an Aids to Navigation Team (ANT), and three staff departments. The Sector Commander performs the duties of Search and Rescue Mission Coordinator; Captain of the Port; Federal Maritime Security Coordinator; Federal On-Scene Coordinator; and Officer in Charge, Marine Inspection. Sector Key West's area of responsibility includes 55,000 square miles bordering the territorial seas of Cuba and the Bahamas (Figure 1).

In September of 2017, Sector and Station Key West, a Small Boat Station unit of and collocated on Sector Key West, suffered extensive damage from Hurricane Irma. The USCG proposes to rebuild facilities damaged during Hurricane Irma by (1) demolishing and rebuilding the Sector Engineering/Electronics Support Detachment (ESD) Building (Building 105) at Sector Key West to meet resilience thresholds, (2) rebuilding waterfront and shore facilities for Station Key West, including demolishing existing facilities; and constructing a new Station building, grounds work, pier, docks and boat house, and (3) rebuilding the electrical distribution system serving Sector Key West to include transformer and electrical distribution to the waterfront, shore facilities, and on-site energy generation and storage.

Figure 1. Regional Map

Sector Engineering Facility – The USCG would demolish the existing Sector Engineering/ESD Facility (Building 105) and build a new 36,073-gross-square-foot (GSF) facility in the location of the parking lot immediately east of its current location on Pier D2. The parking lot would be moved to the current location of Building 105 once it is demolished. The new facility would include Sector Engineering administrative and maintenance spaces, ESD administrative and operational spaces, and two boat maintenance bays that could accommodate USCG's 45-foot Response Boat – Medium (45 RB-M). Utilities (water, sewer, stormwater, natural gas, electric, and telecommunications) for the new facility would be connected to existing nearby utility lines. The existing travel lift pier would be demolished and reconstructed along the southern quay wall of Pier D2 at the east end of Berth 8 to provide direct access to the boat maintenance bays of the Sector Engineering Facility without crossing any base roads. Building 108 on Pier D3 would be demolished, and storage Building 5 (Quonset Hut OV 7) would be demolished and rebuilt in that location. Materials currently stored in Building 108 would be stored in the new Sector Engineering Facility. Figures 2 and 3 include the demolition and site plans, respectively.

Station and ANT Facility – Currently, the Station operates out of Building 101, and the ANT operates out of Building 105. Under the Preferred Alternative, the USCG would demolish Building 101 and Building 106 and construct a new three-story, 23,486-GSF Station and ANT Facility adjacent and east of the current Building 101 location (see Figures 2 and 3). The new building would include facility support space, Station administrative and operational spaces, an armory, and berthing and marine maintenance space. In addition, it would provide ANT administrative and operational spaces and marine maintenance space. Because the existing building is in a floodplain, the first floor would house shop spaces only. The second floor would accommodate all administrative functions, the armory, the command and control center, recreation space, and the central dining area. The third floor would house berthing spaces. Temporary storage of spare parts currently housed in Building 106 would be provided. Permanent storage would be provided in the new Station and ANT Facility. Existing utilities and services would be relocated to the new building and connected to existing nearby utility lines. Additional supporting improvements would include paving, walks, curbs and gutters, and storm drainage. The two 11,600-gallon diesel fuel storage tanks located to the east of Building 101 would be temporarily relocated during construction and eventually replaced with two new 11,000-gallon diesel fuel storage tanks located in the footprint of the existing Building 101. New underground fuel lines would be installed from the new location of the tanks to the pier. Like the existing underground fuel lines, the new fuel lines would be double piped with a sump monitor for detecting leaks between them.

The USCG would also construct new Station piers with two covered moorings along the bulkhead between Piers D1 and D2 in an east-west orientation. With this orientation, no wave attenuation structure would be required to protect the vessels moored at the piers. Temporary mooring and utilities for Station, Customs and Border Patrol, and contingency vessels would be provided in the existing basin/wharf through leased slips at an adjacent commercial facility, via temporary floating piers, or by using two of the three existing piers while demolition and construction activities are ongoing. The pier closest to the new pier location would be demolished to accommodate the new construction; the remaining two piers would be demolished after construction is complete. Portable wharf utilities such as the existing gas tank, oil waste tank, and diesel fuel pump would be relocated to service the new piers. The Station piers would accommodate mooring of Station Key West vessels and provide two covered moorings. If the

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Figure 2. Demolition Plan

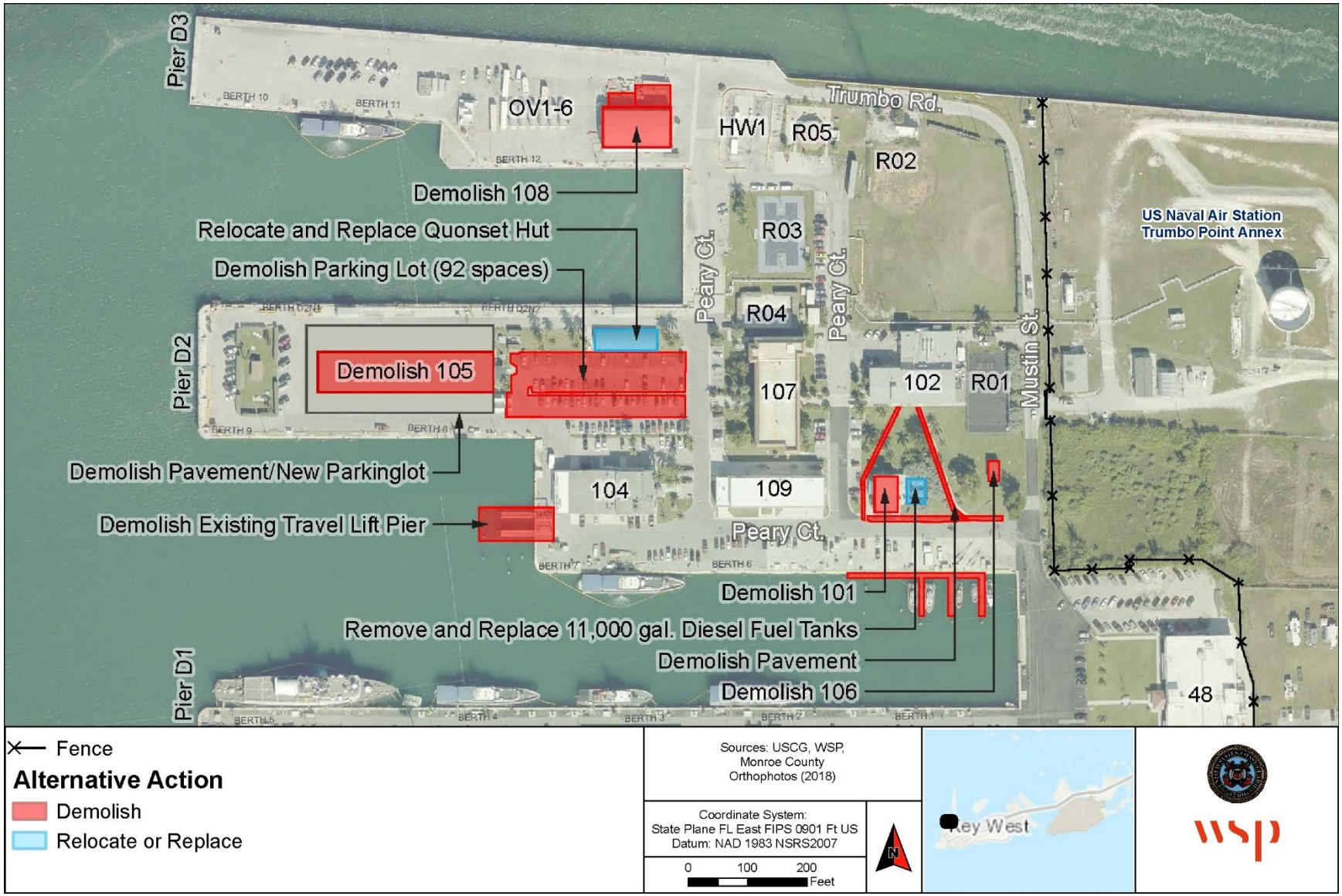
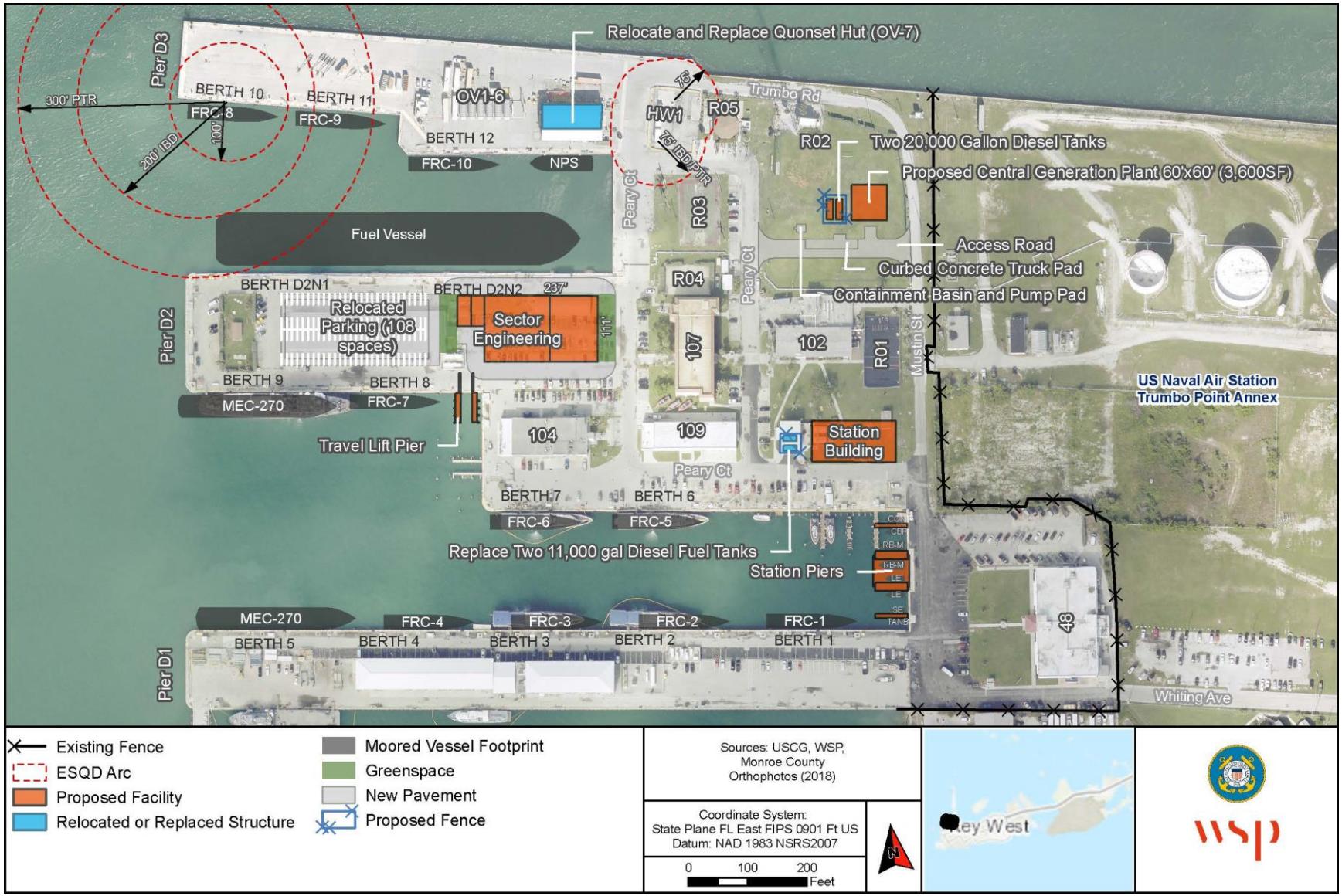


Figure 3. Site Plan



Sector Engineering Facility is constructed first, swing space would be provided for the ANT prior to the construction of the new Station and ANT Facility.

Electrical – The USCG would rebuild the electrical distribution system serving Sector Key West with a new complete and usable infrastructure that meets current mission requirements. It would replace electrical lines, including conductors and conduits; encase all primary distribution conduits in concrete; demolish and replace existing electrical distribution equipment, including distribution transformers throughout the base, and raise all exterior electrical distribution equipment to 3 feet above the 100-year flood elevation; replace and install substations; install proposed medium voltage, fast response switchgear throughout the base on elevated platforms; replace overhead branch circuit conductors with proposed subterranean conductors in conduit and concrete encased; replace emergency generators; install standardized equipment to simplify operations and maintenance, repair, and replacement; replace hurricane-damaged light poles with concrete poles; replace hurricane-damaged existing exterior pole-mounted area lights, floodlights, and sports light fixture heads with LED equivalents; and incorporate sustainable systems in all existing and proposed buildings.

A new 3,600-square-foot (SF) central generation plant would be constructed in the northeast portion of the base. The plant would include four parallel 1,000 kilowatt (kW) (with a 900-kW prime power rating), medium voltage diesel or jet propellant-5 (JP-5) generators (with black start capabilities) that provide N+2 (i.e., two backup components in conjunction with building level emergency generators evaluated for repair, upgrade, or replacement) to all critical facilities, and N+1 (i.e., one backup component) for the entire base. The generators would be able to carry the maximum demand load used by Sector Key West over a one year period at 125 percent (1.8 megawatt), as required by the National Electrical Code, for a period of 10 days. Two 1-megawatt generators were selected for their 900-kW prime rating because of the run time required. In addition, an all-in-one battery energy storage system (with 30–45 minutes battery storage capacity) would be installed to store energy for short outages and to filter the incoming power.

The fuel for the diesel or JP-5 generators would be supplied from a proposed fuel line connecting the generators to two new 20,000-gallon fuel tanks located adjacent to the generator plant. The 40,000 gallons of dedicated central generation fuel storage would meet the 10-day independent operation requirement. Additionally, a photovoltaic system (PV) would be constructed on the roofs of the proposed buildings and Building 48 and on top of carports throughout the parking areas. Figure 4 shows the electrical site plan.

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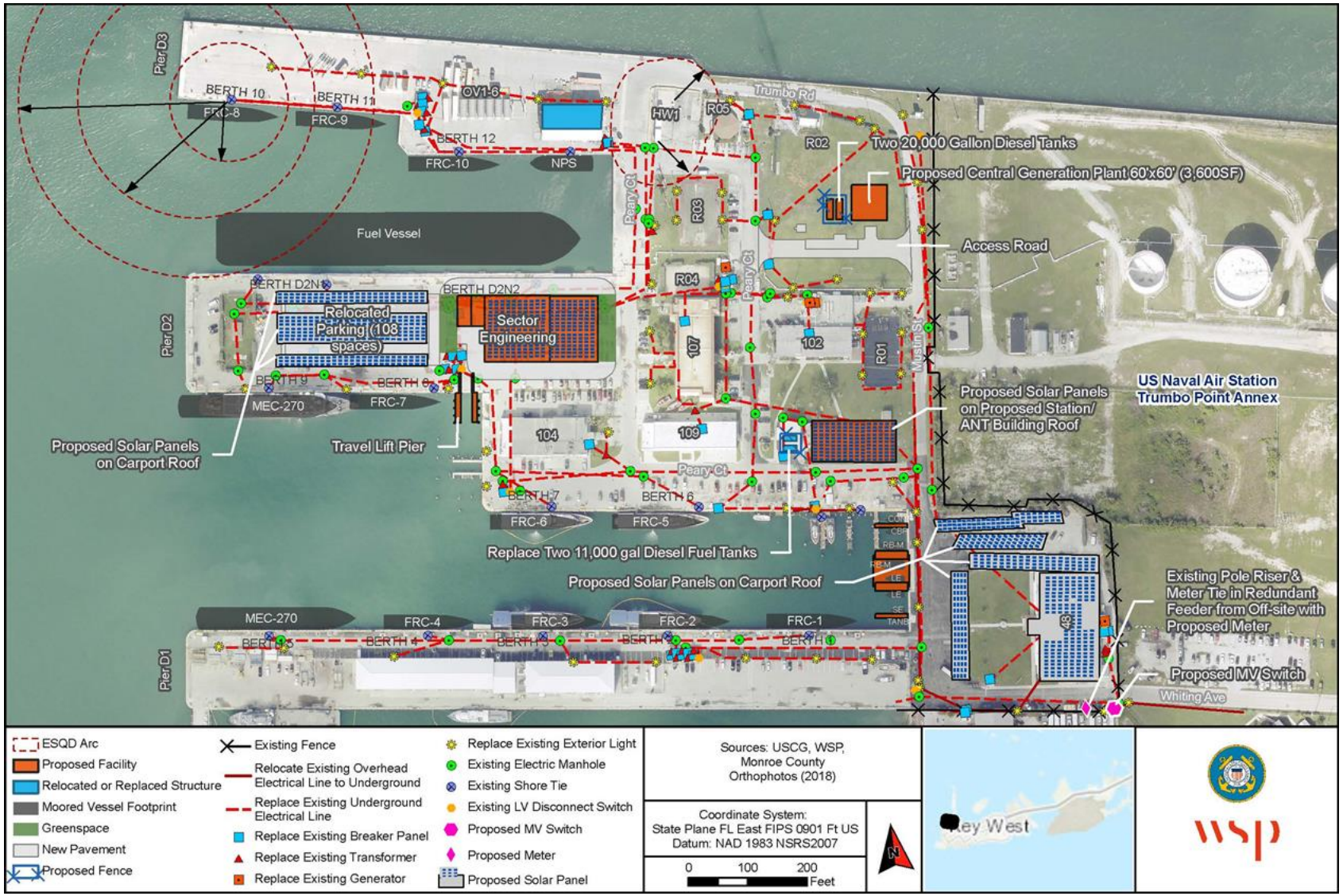
Figure 4. Electrical Plan



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Federally Listed Endangered and Threatened Species

The proposed project would involve in-water work that could affect species listed as endangered or threatened under the ESA. Proposed in-water work would include demolishing and reconstructing the existing travel lift pier along the southern quay wall of Pier D2 at the east end of Berth 8 and constructing new Station Piers with two covered moorings along the bulkhead between Piers D1 and D2 (Figures 2 and 3). Impacts on endangered and threatened species associated with in-water work could include underwater noise, habitat modification, turbidity, and sedimentation.

Table 1 shows federally-listed species (under NOAA jurisdiction) that may occur in the vicinity of the project area and provides a preliminary determination of impacts on each species. Likelihood of species occurrence in the action area was based on information obtained from NOAA Fisheries' species directory, the U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) online system, and diving surveys conducted in the action area in 2019 (Chiello et al. 2019). Additional discussion of impacts of the proposed project on endangered and threatened species is provided below.

Table 1. Federally Listed Species in the Vicinity of the Project Area

Species	Status	Occurrence in Project Area	Preliminary Impact Determination
Sea Turtles			
Green Sea Turtle (*Chelonia mydas*)	Threatened	This species is present throughout the Gulf of Mexico and could be occasionally present in the vicinity of the project area.	*May affect, not likely to adversely affect*
Hawksbill Sea Turtle (*Eretmochelys imbricata*)	Endangered	Same as above	*May affect, not likely to adversely affect*
Kemp's Ridley Sea Turtle (*Lepidochelys kempii*)	Endangered	Same as above	*May affect, not likely to adversely affect*
Leatherback Sea Turtle (*Dermochelys coriacea*)	Endangered	Same as above	*May affect, not likely to adversely affect*

Species	Status	Occurrence in Project Area	Preliminary Impact Determination
Fishes			
Gulf Sturgeon (*Acipenser oxyrinchus desotoi*)	Threatened	The range of Gulf sturgeon includes the entire Gulf of Mexico, including the Florida Keys. Adult sturgeon could be present near the project area on occasion, but no spawning habitat is located nearby.	*May affect, not likely to adversely affect*
Giant Manta Ray (*Manta birostris*)	Threatened	This migratory species spends most of its time offshore and is not likely to occur within the vicinity of the project area.	*No effect*
Largetooth Sawfish (*Pristis pristis*)	Endangered	The project area is within the historic range of this species, but the species has not been documented in more than 50 years and is not likely to be present.	*No effect*
Nassau Grouper (*Epinephelus striatus*)	Threatened	This species is associated with coral reef habitats and could be present in the vicinity of the project area on occasion.	*May affect, not likely to adversely affect*
Oceanic Whitetip Shark (*Carcharhinus longimanus*)	Threatened	This is an offshore pelagic species that would not be present in the vicinity of the project area.	*No effect*
Scalloped Hammerhead Shark (*Sphyrna lewini*)	Threatened	This species forages in soft-bottom habitat and may be present in the vicinity of the project area.	*May affect, not likely to adversely affect*

Species	Status	Occurrence in Project Area	Preliminary Impact Determination
Smalltooth Sawfish (*Pristis pectinata*)	Endangered	Same as above	*May affect, not likely to adversely affect*
Corals			
Boulder Star Coral (*Orbicella franksi*)	Threatened	This species has not been documented in the project area, but suitable habitat is present.	*May affect, not likely to adversely affect*
Elkhorn Coral (*Acropora palmata*)	Threatened	Same as above	*May affect, not likely to adversely affect*
Lobed Star Coral (*Orbicella annularis*)	Threatened	Same as above	*May affect, not likely to adversely affect*
Mountainous Star Coral (*Orbicella faveolata*)	Threatened	This species has been documented in the project area.	*May affect, likely to adversely affect*
Pillar Coral (*Dendrogyra cylindrus*)	Threatened	This species has not been documented in the project area, but suitable habitat is present.	*May affect, not likely to adversely affect*
Rough Cactus Coral (*Mycetophyllia ferox*)	Threatened	Same as above	*May affect, not likely to adversely affect*
Staghorn Coral (*Acropora cervicornis*)	Threatened	Same as above	*May affect, not likely to adversely affect*
Plants			
Johnson's Seagrass (*Halophila johnsonii*)	Threatened	The marina basins within the project area do not contain suitable habitat for seagrasses.	*No effect*

In addition to the species identified in Table 1, numerous marine mammals protected under the Marine Mammal Protection Act (MMPA) may be present in the project area. Marine mammals that are most likely to occur in the vicinity of the project area include West Indian (Florida) manatee (*Trichechus manatus latirostris*), Atlantic bottlenose dolphin (*Tursiops truncatus*), and common dolphin (*Delphinus delphis*). Although many species of whales occur in the Gulf of Mexico, most are migratory offshore species that would not likely be present near the project area. West Indian Manatee is also listed as federally threatened under ESA, but this species is under the jurisdiction of U.S. Fish and Wildlife Service.

Noise Impacts

Pile driving associated with pier construction would result in underwater noise that could affect marine fauna including sea turtles, sturgeon, and marine mammals that may be present in the vicinity of the project area. Since the details of pile type, driving hammer type, and any noise

mitigation methods for the project have not been fully established, it was assumed that the same types of piles to be removed would be used for the replacement structures. To be conservative, it was assumed that piles would be installed with an impact hammer, as this type of hammer is typically used to proof vibratory hammer-driven piles. A vibratory pile driver is the likely means by which the existing piles would be removed, which is estimated to be 10 to 20 dB quieter than pile driving with an impact hammer (Buehler et. al. 2015; Oestman et. al. 2009).

Distances to disturbance and injury thresholds for sturgeon, sea turtles and marine mammals (manatees) from pile driving the new station piers, station bulkhead walkway piers, and travel lift pier were determined using NOAA Fisheries Greater Atlantic Regional Fisheries Office acoustics tool's Simplified Attenuation Formula which estimates the ensonification area of pile driving projects in rivers and nearshore waters. This formula assumes a constant sound attenuation rate depending on the type of pile. Attenuation rates in the acoustics tool spreadsheet were estimated using measurements reported in "Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish" (Buehler et. al. 2015; Oestman et. al. 2009). Table 2 presents the pile driving noise levels produced and the distances to disturbance and injury for sturgeon, sea turtles, and marine mammals (manatees) established by NOAA (NOAA 2018, 2019) from these proxy projects.

The sound levels in Table 2 are an estimate and will likely vary depending on the geometry and boundaries of the surrounding underwater and benthic environment (i.e. shallow/deep water, shoaled portions of channels, obstacles in the waterway). As the distance from the source increases, underwater sound levels produced by pile driving dissipate rapidly, attenuating approximately 5 dB every 10 meters for steel pipe piles (Buehler et. al. 2015; Oestman et. al. 2009). To mitigate the potential effects of underwater noise caused by pile driving, nylon cushion blocks may be utilized during the impact hammering of piles which can reduce noise impacts by about 5 dB (Oestman et. al. 2009). Pile installation would begin with a reduced blow energy soft start to minimize initial effects and give any potentially affected species time to vacate the area before the higher energies are used.

Table 2. Disturbance and Injury Thresholds and Distances from Proposed Pile Driving

Type of Pile	**18" Concrete**	**12" Steel Pipe**	**12-14" Timber**
Hammer Type	**Impact**	**Impact**	**Cushioned Impact**
Estimated Peak Noise Level (dBPeak)	185	**192**	180
Estimated Pressure Level (dBRMS)	166	**177**	170
Estimated Single Strike Sound Exposure Level (dBsSEL)	155	**167**	160
Distance (m) to Sturgeon 206dBPeak (injury)	NA	NA	NA
Distance (m) to Sturgeon 150 dBsSEL (surrogate for 187 dBcSEL injury)	20	**44**	30
Distance (m) to Sturgeon Behavioral Disturbance Threshold (150 dBRMS)	42	**64**	50

Type of Pile	18" Concrete	12" Steel Pipe	12-14" Timber
Hammer Type	**Impact**	**Impact**	**Cushioned Impact**
Distance (m) to Sea Turtle TTS (SEL weighted) 189 dBRMS	NA	NA	NA
Distance (m) to Sea Turtle TTS (Peak SPL) 226 dBPeak	NA	NA	NA
Distance (m) to Sea Turtle PTS (SEL weighted) 204 dBSEL	NA	NA	NA
Distance (m) to Sea Turtle PTS (Peak SPL) 232 dBPeak	NA	NA	NA
Distance (m) to Sea Turtle Behavioral Threshold 175 dBRMS	NA	**14**	NA
Distance (m) to Manatee TTS SEL (weighted) (175 dB SEL)	NA	NA	NA
Distance (m) to Manatee TTS peak SPL (220 dB SPL)	NA	NA	NA
Distance (m) to Manatee PTS SEL (weighted) (190 dB SEL)	NA	NA	NA
Distance (m) to Manatee PTS peak SPL (226 dB SPL)	NA	NA	NA

The 12” steel pipe pile produces the greatest underwater noise levels of the three pile types. This pile type produces a Peak Noise Level (dBPeak) of 192 dB. a Pressure Level (dBRMS) of 177 dB, and a Single Strike Sound Exposure Level (dBsSEL) of 167dB at a distance of 10 meters from the pile. Noise transmission loss calculated by NOAA National Marine Fisheries Service’s (NOAA NMFS) acoustics tool spreadsheet results in the single-strike SEL (sSEL) fish injury threshold of 150 dB (surrogate for a cumulative SEL fish injury threshold of 187 dB) occurring at a distance of 44 meters (144 feet) from the pile. Consequently only a small area would be exposed to noise levels at or above the 150 dB sSEL injury threshold for fish. The estimated peak sound levels are below the 206 dB peak sound level for underwater noise thresholds used by NOAA NMFS (2019) that may result in injury to sturgeon. The 150 dB disturbance threshold for sturgeon would extend approximately 64 meters (210 feet) from the pile affecting a relatively small area within the project area. Should sturgeon enter into the 150 dB area of influence it is likely that they would move away from the noise source. This possible modification of normal movement patterns of some individuals is expected to be insignificant because underwater noise would be limited in duration, affect only a small area within the project area, and would not pose a barrier to migration or the availability of other more suitable habitat. Use of a soft start would give fish an opportunity to vacate the area before sound levels rise further and reduce the potential exposure risk. Thus, interference with feeding, reproduction, migration or other activities necessary for survival is not expected.

Impact hammer driving a 12” steel pipe pile does not produce underwater noise levels that exceed the temporary or permanent hearing damage noise thresholds to sea turtles. The 166 dB disturbance threshold for sea turtles would extend 14 meters (46 feet) from the pile, affecting a

small portion of the project area. Impact hammer driving a 12" steel pipe pile does not produce underwater noise levels that exceed the temporary or permanent hearing damage noise thresholds to manatees. Use of a soft start would give sea turtles and marine mammals the opportunity to vacate the area and minimize the potential exposure risk. Because of the relatively small portion of the project area that would be affected, it is unlikely that pile installation would result in significant behavioral effects to protected marine species in the area.

Mobile species including fish, sea turtles, and marine mammals would likely avoid the area during construction. Therefore, these species are not likely to be adversely impacted by in-water work that would occur under the Proposed Action alternative. Noise associated with in-water construction would not affect corals.

Water Quality Impacts

Land based construction activities associated with the proposed project would result in a slight increase in impervious cover in the project area. While the increase in impervious area would create new localized stormwater runoff, it would likely not result in a large increase of total runoff from Sector Key West. The existing grass covered areas contribute less runoff then pavement areas, but they have a highly compacted subsurface and are not very permeable. Additionally, the proposed Station and ANT Facility and central generation plant facilities would represent 3 percent (27,086 square-feet) of Sector Key West's total area (871,200 square-feet) so runoff would be negligible.

Since Sector Key West is located within the Florida Keys National Marine Sanctuary (FKNMS), careful measures would be taken in order to prevent detrimental effects to the surrounding water quality. On-land construction BMPs (e.g., flow diversion structures, erosion and sediment control measures, and spill containment walls) would ensure that excavated debris and other construction related material (e.g., oils, paints, solvents, etc.) does not enter surrounding waterways.

While the Proposed Action would increase the amount of oils stored on Sector Key West, the two 20,000-gallon fuel tanks for the central generation plant and the two 11,000-gallon replacement tanks for the existing 11,600-gallon diesel fuel tanks associated with Station Key West would be new double-walled tanks with proper spill prevention mechanisms. As required by provisions set forth in 40 CFR 112, Sector Key West has a Spill Prevention, Control, and Countermeasures (SPCC) Plan (USCG 2017) that establishes procedures, methods, equipment, and other requirements to prevent the discharge of oil from the facility into or upon the surrounding navigable waters or adjoining shorelines, or that may affect natural resources, and to contain such discharges should they occur. With the installation of two new 20,000-gallon fuel storage tanks to power the new central generation plant, Sector Key West would update the SPCC Plan.

Additionally, Sector Key West would prepare a Facility Response Plan (FRP) and submit it to the U.S. Environmental Protection Agency (USEPA) for review. Installing the two fuel tanks for the central generation plant would increase the total amount of oil/fuel storage at Sector Key West to more than 42,000 gallons. Under the FRP Rule, USEPA requires facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters to prepare an FRP and submit it to the appropriate USEPA Regional Administrator for review. According to the rule, one of the definitions for a facility that may

cause “substantial harm” is a facility that “has a total oil storage capacity greater than or equal to 42,000 gallons and it transfers oil over water to/from vessels” (USEPA 2002), which would apply to Sector Key West. An FRP is a plan for responding, to the maximum extent practicable, to a worst-case discharge and to a substantial threat of such a discharge of oil. The plan also includes responding to small and medium discharges as appropriate. The FRP requirement would help USCG develop a response organization and ensure the availability of response resources (i.e., response equipment, trained personnel) needed to respond to an oil discharge and demonstrate that the USCG response resources are available in a timely manner, thereby minimizing a discharge’s impact and severity on marine habitat and species. The FRP would allow USCG to improve discharge prevention measures through the early identification of risks at Sector Key West above and beyond its current SPCC Plan and would aid local and regional response authorities to better understand the potential hazards and response capabilities in their area.

Increased turbidity and sedimentation during in-water work could result in adverse impacts to federally listed species. Mobile species including sea turtles, fish, and marine mammals would likely avoid the area during construction. Therefore, these species are not likely to be adversely impacted by in-water work that would occur under the Proposed Action alternative.

In-water work would result in adverse impacts to protected corals because these species are sessile and would not be able to avoid impacts. Only one protected coral, mountainous star coral, has been documented within the marina basins. However, the project area provides suitable habitat for several other species that could be present in the action area, as shown in Table 1. Implementing BMPs during in-water work would minimize adverse impacts. Any impacted species would likely recolonize disturbed areas and potentially colonize new underwater surfaces following construction. Therefore, no federally listed corals would be expected to be eliminated from the project area.

Habitat Modification

As noted above, the marina basins are highly developed and do not provide high quality habitat for many marine fauna. However, the marina’s seawalls, docking structures, and pilings provide hard structure that serves as a substrate for encrusting organisms and other marine invertebrates. No critical habitats have been designated in the vicinity of the project area.

Demolition of the travel lift and Station Piers would result in adverse impacts to the federally threatened mountainous star coral, which has been documented on the support pilings for these structures. The project area also provides suitable habitat for several other federally listed species that could be present in the action area, as shown in Table 1. Implementing BMPs during in-water work would minimize adverse impacts, but impacts would not be avoidable. Any impacted species would be expected to recolonize disturbed areas and potentially colonize new underwater surfaces following construction. Therefore, no protected corals would be expected to be eliminated from the project area.

The proposed project would not result in substantial habitat modification for other federally listed species.

Vessel Traffic

The marina basins experience high levels of vessel traffic year-round which causes frequent disturbances to marine fauna and habitats in the project area. The proposed project is not expected to result in an increase in the volume of vessel traffic in the project area.

Measures to Avoid, Minimize, or Mitigate Impacts

Mitigation measures that would be implemented to avoid, minimize, or mitigate impacts on protected species could include:

- Prior to in-water construction work, conduct additional species surveys and relocate scleractinian corals larger than 10 centimeters to approved artificial reefs in consultation with NMFS.
- Incorporate NMFS "Sea Turtle and Smalltooth Sawfish Construction Conditions" into the project plans and specifications as described below.
    - Instructing all personnel associated with the project of the potential presence of these species and the need to avoid collisions with them.
    - Advising all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act.
    - Using siltation barriers (if used) made of material in which a sea turtle or smalltooth sawfish cannot become entangled that are properly secured and regularly monitored to avoid protected species entrapment.
    - Operating vessels associated with the construction project at "no wake/idle" speeds at all times while in the construction area.
    - Implementing all appropriate precautions if a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, including ceasing the operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment would cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-foot radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.
    - Reporting any collision with and/or injury to a sea turtle or smalltooth sawfish immediately to NMFS's Protected Resources Division and the local authorized sea turtle stranding/rescue organization.

References

Chiello, G., Jones, E., and R. Delp. 2019. Field Observation Report for the Marine Resource Survey of the North and Central Marina Basins at the U.S. Coast Guard Sector Key West, Key West, Monroe County, Florida. Cummins Cederberg Coastal & Marine Engineering.

Buehler, D.; Oestman, R.; Reyff, J.; Pommerenck, K.; and Mitchell, B. 2015. Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish. Prepared for California Department of Transportation. November 2015

Oestman, R.; Buehler, D.; Reyff, J.; Rodkin, R. 2009. Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish. Report by ICF International. Prepared for California Department of Transportation (Caltrans). February 2009.

National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA NMFS)

2018 Revisions to: Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (Version 2.0): Underwater Thresholds for Onset of Permanent and Temporary Threshold Shifts. U.S. Dept. of Commerce, NOAA. NOAA Technical Memorandum NMFS-OPR-59, 167 pp.

2019 GARFO Acoustics Tool: Analyzing the effects of pile driving on ESA-listed species in the Greater Atlantic Region, was accessed at: https://www.fisheries.noaa.gov/webdam/download/97049475

NMFS Endangered Species Act Section 7 Checklist

For common, minor coastal construction projects

Updated 09/15/2015

A) Project Identification

Lead Action Agency:	U.S. Coast Guard
Agency Contact: (Phone, Email)	(757) 852-3410; Lesley.C.DobbinsNoble@uscg.mil
Applicant Name/ Contact: (Phone, Email)	Lesley Dobbins-Noble
Project Name & ID #:	Hurricane Execution Plan at Sector/Station Key West, Florida

Are any aspects of the proposed project being authorized under a separate consultation? (SAJ general permits, GRBO, SARBO, NWP, Programmatic consultation, etc.)

Concurrent ESA Section 7 consultation with U.S. Fish and Wildlife Service

B) Project Location and Site Description

1. Address, including county and state, and description of property (public, residential, commercial, industrial, etc.):

2. a) Latitude & Longitude:

i. Required to be submitted in Decimal Degrees and Datum (e.g., 27.71622 , -80.25174 [NAD83])

ii. Online conversion: http://transition.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html

24.564941, -81.798166

3. Waterbody:

i. Name of the body of water on which the project is located (St. Johns River, Tampa Bay, Suwannee River, etc.)

ii. If riverine or estuarine, approximate navigable distance from marine environment (e.g., Atlantic, Gulf of Mexico)

Key West Bight, Gulf of Mexico

C) Project Site Resource Description

1. Existing Structures: (Describe current structures in project area)
   - i. Marina, riprap, dock, etc.
   - ii. Number of slips. size (area of overwater structure), linear or square footage, location, orientation, etc.

i. Existing waterfront and shore facilities include a marina basin consisting of 3 large finger piers, two travel lift piers, and three small station piers connected by a gangway.

ii. Two of the finger piers have an area of approximately 160,000 sq ft and the other has an area of approximately 280,000 sq ft. The finger piers and travel lift pier are arranged in an east-west orientation while the station piers are oriented north-south. The travel lift piers have a total overwater surface area of 900 square feet. The total overwater area of the station piers including the gangway is 2,040 square feet. Sector/Station Key West also includes buildings, roads, parking lots, and utilities infrastructure.

2. Existing Conditions: (Describe the project area)
   - i. Substrate type, water quality, depth, etc.
   - ii. List any alterations to substrate type, water quality, depth, etc, resulting from the proposed action (qualitative and quantitative)

i. Substrates in the marina basins consist of a thick silty muck material that is easily disturbed, resulting in high turbidity conditions with minimal light penetration beyond 5 to 10 feet of depth. Water quality in the Keys, including waters in the vicinity of the project area, has improved steadily since monitoring began in 1995. Dissolved oxygen concentrations have increased while turbidity and nitrogen concentrations have decreased. The marina basins average approximately 30 feet in depth.

ii. In-water removal and installation of piers would result in localized sediment movement and have short-term minimal impacts. Impacts would be temporary and not change the composition of the local substrate. Proposed BMPs would limit water runoff and reduce short-term impacts on local water quality. Increase in impervious area would be negligible. For the installation of two 20,000-gallon fuel tanks for the central generation plant, the USCG would be required to prepare a Facility Response Plan (FRP), which would assist the USCG in identifying potential oil spill threats and having the necessary response resources in place to minimize the severity of a discharge impact. Therefore, impacts on water resources as a result of implementing the proposed on-land construction activities would be minor.

The proposed action would not change the depth of the marina basins.

3. Seagrasses & Other Marine Vegetation
    i. If a benthic survey was conducted provide date of survey and a copy of the report
    ii. Species area of coverage estimates and density of species coverage (percentage) estimates
    iii. Location relative to proposed structures. Provide detailed sketch of action area and location of marine vegetation
    iv. List any impacts to seagrasses or other marine vegetation resulting from proposed action (square feet)

i. Benthic surveys, including SAV surveys, were conducted in the north and central marina basins in January 2019. These surveys were designed to cover the potential locations for in-water work proposed under the action.

ii. No seagrasses were observed growing within the survey area.

iii. No seagrasses were observed growing within the survey area.

iv. There would be no adverse impacts on marine SAV in the project area because marine habitats are largely limited to the marina basins that do not provide suitable habitat for SAV.

4. Mangroves
    i. Species (red, black, or white)
    ii. Area (square and linear feet). Provide detailed sketch of the action area and location of mangroves.
    iii. List any impacts to mangroves resulting from the proposed action (square and linear feet)

The project area does not contain mangroves.

5. Corals
    i. If a benthic survey was conducted provide date of survey and a copy of the report
    ii. Species Present
    iii. Area of coverage and density estimates (percentage, include estimates for each species)
    iv. Location relative to proposed structures. Provide detailed sketch of action area and location of corals.
    v. List any impacts to corals resulting from proposed action (number and size of colonies and/or fragments)

i. Benthic surveys were completed in January 2019.

ii. One federally threatened coral, mountainous star coral (Orbicella faveolata), was documented during field surveys. Seventeen additional species of stony corals and two species of soft corals were documented during field surveys.

iii. Along all surveyed walls and at all depths, the average stony coral coverage was 7%. A detailed breakdown of coverage by species and location can be found in the attached field observation report.

iv. Mountainous star coral was documented at multiple locations in the project area including the north wall of the north marina basin and on the travel lift and Station pier pilings. Other corals were found on hard structures throughout the project area including the marina basin walls, travel lift pier, docks, and pilings.

v. Corals in the project area, especially on the travel lift and station pier pilings, would suffer mortality because the pilings would be removed. Demolition of the travel lift and station piers would have adverse impacts on the federally threatened mountainous star coral. However, prior to in-water construction work, conduct additional species surveys and relocate scleractinian corals larger than 10 centimeters to approved artificial reefs in consultation with NOAA NMFS, minimizing impacts on corals.

D) Project Description and Construction Methods

☐ Yes, the applicant has agreed to follow the Mangroves and Seagrass Dock Construction Guidelines (Found here)

☐ Yes, the applicant has agreed to follow NMFS Johnson's Seagrass Dock Construction Guidelines (Found here)

☒ Yes, the applicant has agreed to follow the NMFS Sea Turtle and Smalltooth Sawfish Construction Conditions (Found here)

1. Project: (Please describe)

In September of 2017, Sector and Station Key West, a Small Boat Station unit of and collocated on Sector Key West, suffered extensive damage from Hurricane Irma. The USCG proposes to rebuild facilities damaged during Hurricane Irma by (1) demolishing and rebuilding the Sector Engineering/Electronics Support Detachment (ESD) Building (Building 105) at Sector Key West to meet resilience thresholds, (2) rebuilding waterfront and shore facilities for Station Key West, including demolishing existing facilities; and constructing a new Station building, grounds work, pier, docks and boat house, and (3) rebuilding the electrical distribution system serving Sector Key West to include transformer and electrical distribution to the waterfront, shore facilities, and on-site energy generation and storage.

Sector Engineering Facility – The USCG would demolish the existing Sector Engineering/ESD Facility (Building 105) and build a new 36,073-gross-square-foot (GSF) facility in the location of the parking lot immediately east of its current location on Pier D2. The parking lot would be moved to the current location of Building 105 once it is demolished. The new facility would include Sector Engineering

administrative and maintenance spaces, ESD administrative and operational spaces, and two boat maintenance bays that could accommodate USCG's 45-foot Response Boat – Medium (45 RB-M). Utilities (water, sewer, stormwater, natural gas, electric, and telecommunications) for the new facility would be connected to existing nearby utility lines. The existing travel lift pier would be demolished and reconstructed along the southern quay wall of Pier D2 at the east end of Berth 8 to provide direct access to the boat maintenance bays of the Sector Engineering Facility without crossing any base roads. Building 108 on Pier D3 would be demolished, and storage Building 5 (Quonset Hut OV 7) would be demolished and rebuilt in that location. Materials currently stored in Building 108 would be stored in the new Sector Engineering Facility.

Station and Aids-to-Navigation (ANT) Facility - Currently, the Station operates out of Building 101, and the ANT operates out of Building 105. Under the Preferred Alternative, the USCG would demolish Building 101 and Building 106 and construct a new three-story, 23,486-GSF Station and ANT Facility adjacent and east of the current Building 101 location (see Figures 2 and 3). The new building would include facility support space, Station administrative and operational spaces, an armory, and berthing and marine maintenance space. In addition, it would provide ANT administrative and operational spaces and marine maintenance space. Because the existing building is in a floodplain, the first floor would house shop spaces only. The second floor would accommodate all administrative functions, the armory, the command and control center, recreation space, and the central dining area. The third floor would house berthing spaces. Temporary storage of spare parts currently housed in Building 106 would be provided. Permanent storage would be provided in the new Station and ANT Facility. Existing utilities and services would be relocated to the new building and connected to existing nearby utility lines. Additional supporting improvements would include paving, walks, curbs and gutters, and storm drainage. The two 11,600-gallon diesel fuel storage tanks located to the east of Building 101 would be temporarily relocated during construction and eventually replaced with two new 11,000-gallon diesel fuel storage tanks located in the footprint of the existing Building 101. New underground fuel lines would be installed from the new location of the tanks to the pier. Like the existing underground fuel lines, the new fuel lines would be double piped with a sump monitor for detecting leaks between them.

The USCG would also construct new Station piers with two covered moorings along the bulkhead between Piers D1 and D2 in an east-west orientation. With this orientation, no wave attenuation structure would be required to protect the vessels moored at the piers. Temporary mooring and utilities for Station, Customs and Border Patrol, and contingency vessels would be provided in the existing basin/wharf through leased slips at an adjacent commercial facility, via temporary floating piers, or by using two of the three existing piers while demolition and construction activities are ongoing. The pier closest to the new pier location would be demolished to accommodate the new construction; the remaining two piers would be demolished after construction is complete. Portable wharf utilities such as the existing gas tank, oil waste tank, and diesel fuel pump would be relocated to service the new piers. TThe Station piers would accommodate mooring of Station Key West vessels and provide two covered moorings. If the Sector Engineering Facility is constructed first, swing space would to be provided for the ANT prior to the construction of the new Station/ANT Facility.

Electrical – TThe USCG would rebuild the electrical distribution system serving Sector Key West with a new complete and usable infrastructure that meets current mission requirements. It would replace electrical lines, including conductors and conduits; encase all primary distribution conduits in concrete; demolish and replace existing electrical distribution equipment, including distribution transformers throughout the base, and raise all exterior electrical distribution equipment to 3 feet above the 100-year flood elevation; replace and install substations; install proposed medium voltage, fast response switchgear throughout the base on elevated platforms; replace overhead branch circuit conductors with proposed subterranean conductors in conduit and concrete encased; replace emergency generators; install standardized equipment to simplify operations and maintenance, repair, and replacement; replace hurricane-damaged light poles with concrete poles; replace hurricane-damaged existing exterior pole-mounted area lights, floodlights, and sports light fixture heads with LED equivalents; and incorporate sustainable systems in all existing and proposed buildings.

A new 3,600-square-foot (SF) central generation plant would be constructed in the northeast portion of the base. The plant would include four parallel 1,000 kilowatt (kW) (with a 900-kW prime power rating), medium voltage diesel or jet propellant-5 (JP-5) generators (with black start capabilities) that provide N+2 (i.e., two backup components in conjunction with building level emergency generators evaluated for repair, upgrade, or replacement) to all critical facilities, and N+1 (i.e., one backup component) for the entire base. The generators would be able to carry the maximum demand load used by Sector Key West over a one year period at 125 percent (1.8 megawatt), as required by the National Electrical Code, for a period of 10 days. Two 1-megawatt generators were selected for their 900-kW prime rating because of the run time required. In addition, an all-in-one battery energy storage system (with 30–45 minutes battery storage capacity) would be installed to store energy for short outages and to filter the incoming power.
The fuel for the diesel or JP-5 generators would be supplied from a proposed fuel line connecting the generators to two new 20,000-gallon fuel tanks located adjacent to the generator plant. The 40,000 gallons of dedicated central generation fuel storage would meet the 10-day independent operation requirement. Additionally, a photovoltaic system (PV) would be constructed on the roofs of the proposed buildings and Building 48 and on top of carports throughout the parking areas.

2. In Water Structures:

i. Type of structure(s) (e.g. boat basin, riprap, seawall)
ii. Square and/or linear feet of structure(s)
iii. Number of new vessels/slips, if any
iv. Is this structure new, removal, or replacement?

The proposed action does not include demolition or construction of any in-water structures.

3. Overwater Structures:

i. Will the structure have grated decking?
ii. Proposed spacing between boards (0.5-inch, 0.75-inch, none, etc.)
iii. Height above mean high water (MHW) elevation
iv. Directional orientation of main axis of dock
v. Overwater area (calculate square footage)
vi. Is this structure new, removal or replacement?

The existing travel lift piers would be demolished and reconstructed. The USCG would also construct four new station piers with two covered moorings. The station piers would be connected by a pile-supported gangway.

i. Has not been determined at this time

ii. Has not been determined at this time

iii. The deck surface of the travel lift piers would be approximately 3.0 feet above MHW. The deck surface of the station piers would be approximately 3.5 feet above MHW.

iv. The travel lift pier would be reconstructed in a north-south orientation. The new station piers would be constructed in an east-west orientation and the gangway would be perpendicular to the piers.

v. The overwater area of the travel lift piers would be 900 square feet. The overawater area of the travel lift piers, including the gangway, would be 2,940 square feet.

vi. The new travel lift piers would replace the existing piers which would be demolished. The new station piers would replace existing piers but would be relocated along the bulkhead between Piers D1 and D2 with a connecting gangway.

4. If the proposed structure is a fishing pier please answer the following:

i. Is the fishing pier public or private?
ii. How many people are expected to fish from the pier each day?
iii. What is the applicant's plan to address hook-and-line captures at the fishing pier?
iv. Will there be any educational signs posted?

The proposed action does not include a fishing pier.

5. Methods: (For pile installation, please see Pile Installation section below)

i. Step-by-step construction methodology
ii. Demolition/ removal of existing structures and debris
iii. Location of work (barge, upland or both)

i. The details of pile type, driving hammer type, and exact construction methodology for the proposed action have not been fully established. It is assumed that the same types of piles to be removed would be used for the replacement structures. It is also assumed that piles would be installed with an impact hammer.

ii. A vibratory pile driver is the likely means by which the existing piles would be removed.

iii. It is anticipated that work would be conducted from both land and barges.

6. Pile Installation (Use additional rows for each combination of pile size and material**)**

Pile Material	Installation Method	Number of Piles	Pile Size (inches)	Max. number of piles to be driven per day	Average number of strikes per pile
	Impact Hammer	138	TBD	TBD	

Will piles be driven in a confined space (150' to nearest sound reflecting object)?

Yes (●)

No ( )

Will noise abatement be used?

Yes (●)

No ( )

Noise abatement details:

To mitigate the potential effects of underwater noise caused by pile driving, nylon cushion blocks may be utilized during the impact hammering of piles which can reduce noise impacts by about 5 dB. Pile installation would begin with a reduced blow energy soft start to minimize initial effects and give any potentially affected species time to vacate the area before the higher energies are used.

Pile Installation details/notes:

The type of piles to be used (material), size, and number of piles to be driven per day have not been determined at this time. It is estimated that each pile would require between 1,500 and 6,000 hammer strikes.

7. Dredging

Dredge Type: (Hopper, clamshell, etc.)

Implementation of the proposed action would not require dredging.

Area (sq. ft.) to be dredged:

Depth of cut:

Volume of material to be dredged: (cubic yards)

Sediment testing: (Has the material to be dredged been tested? Is there any contamination?)

Spoil disposal plans: (location of disposal area, sediment type at disposal area, etc.)

8. Artificial Reefs

Please refer to the artificial reef program websites for the particular state in which the project will occur:
Alabama; Florida; additional Florida guidance; Mississippi; Louisiana; South Carolina; North Carolina; Texas

i. Reef site selection (process details)
ii. Materials to be used
iii. Deployment Method
iv. Deployment schedule

The proposed action does not include placement of artificial reefs.

9. Construction Schedule

i. Number of days/weeks/months of in-water work
ii. Daylight construction only?
iii. Seasonal restrictions?

i. In-water work would take one month or less.

ii. Yes

iii. None currently proposed.

10. Conservation/ Protective Measures

How is conservation, or other protective measures, being incorporated into this project, if at all?

Conservation measures would include noise abatement measures, as described in section 6 above; NMFS Sea Turtle and Smalltooth Sawfish Construction Conditions; and relocating scleractinian corals larger than 10 centimeters to approved artificial reefs in consultation with NMFS, prior to construction.

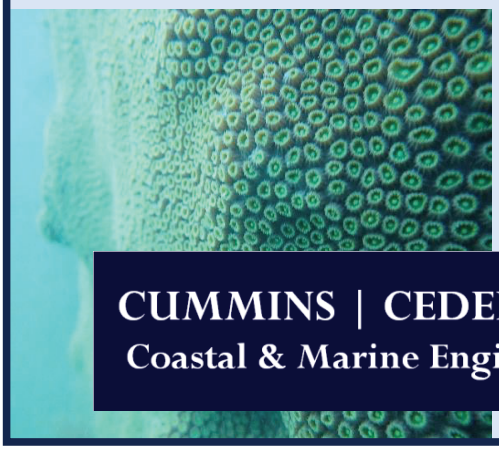
PREPARED FOR:

U.S. COAST GUARD
SECTOR KEY WEST

FIELD OBSERVATION REPORT

JUNE 2019

FIELD OBSERVATION REPORT FOR THE MARINE RESOURCE SURVEY OF THE NORTH AND CENTRAL MARINA BASINS AT THE U.S. COAST GUARD SECTOR KEY WEST, KEY WEST, MONROE COUNTY, FLORIDA



BIOLOGISTS:

Ms. Gina Chiello, Senior Project Manager/Marine Scientist, Cummins Cederberg, Inc.

Ms. Elizabeth Jones, Project Manager/Marine Scientist, Cummins Cederberg, Inc.

Ms. Rebecah Delp, Project Manager/Marine Scientist, Cummins Cederberg, Inc.

CUMMINS | CEDERBERG
Coastal & Marine Engineering

Enclosure 3

From:	Audra Livergood - NOAA Federal
To:	Dobbins-Noble, Lesley C CIV
Subject:	[Non-DoD Source] Request for Additional Information (RAI) for proposed work at STA Key West
Date:	Wednesday, January 27, 2021 12:19:10 PM

Good afternoon Lesley,

NMFS Protected Resources Division (PRD) has reviewed the incoming request for ESA Section 7 consultation package provided by the U.S. Coast Guard. At this time, we do not have enough information to initiate ESA Section 7 consultation. Please provide the following information (via email) at your earliest convenience:

Demolition and Removal of Existing Overwater Structures:

For overwater structures that will be demolished and removed, where will the debris be placed/disposed?

In the Section 7 checklist, it states in-water work would take 1 month or less. Does this estimate include demolition and removal of existing structures? If not, please provide an estimate that takes into account demolition/removal of existing overwater structures.

Overwater Structures:

In the Section 7 checklist, it states the new travel lift piers would replace the existing piers. Will the new travel lift piers be constructed in the same footprint as the existing piers?

Vessel Slips:

Will any new vessel slips be added as a result of the project? If so, how many new vessel slips will be added?

Pile Information:

We cannot initiate consultation until we have more specific information on the pile material, pile size(s), and the maximum # of piles to be driven per day for each pile type. Please fill out the Pile Table in the Section 7 checklist (to the best of your ability), and please re-submit the Section 7 checklist (via email). We understand these details have not been fully established; however, we cannot do a noise analysis for ESA-listed species without having this information.

ESA-listed Corals:

Please note that NMFS PRD will require relocation of all ESA-listed coral species (that have the potential to be adversely affected by the project), regardless of size. We are working with FKNMS staff to determine an appropriate relocation plan for ESA-listed corals.

We look forward to receiving your response to this RAI in **45 days.** If a response is not received in 45 days, we will assume the consultation is no longer active. We will then close out the consultation request. Please note this 45-day period has been established as a national policy.

If you have any questions or would like to discuss anything, please feel free to reach out.

Thank you,

Audra

--

Audra Banks
ESA Section 7 Biologist, Protected Resources Division, S.E. Region
NOAA Fisheries | U.S. Department of Commerce
Mobile: [redacted]
www.fisheries.noaa.gov

From: Dobbins-Noble, Lesley C CIV
To: "Audra Livergood - NOAA Federal"
Subject: RE: [Non-DoD Source] Re: Request for Additional Information (RAI) for proposed work at STA Key West
Date: Tuesday, February 16, 2021 4:25:00 PM

Audra,

Thank you for speaking to me regarding the ESA consultation for this project as it relates to the Coast Guard's (CG's) proposed rehabilitation of facilities at Station Key West.

Here are the high points of the discussion this afternoon:

1) You touched base with Joanne Delaney of FKNMS and you share similar concerns regarding your abilities to assess impacts for the CG project without additional design details.
2) CG is unable to determine those design details at this point as we have yet to award the design-build contract for the work. Furthermore, CG is not able to determine at this time just how much of the in-water work will be awarded until bids come in.
3) When CG has more design information, It would be beneficial to do some "pre-application" discussion with you or one of your colleagues to help us better ensure that we are providing all of the information needed for you to evaluate our project's potential impacts on protected species.
4) Relocation of ESA-listed corals (which CG does have on pilings on our waterfront structures based on the findings of the 2020 benthic survey) requires an incidental take statement under the ESA. While there is a programmatic biological opinion in place to cover that take, CG is not a party to the opinion but FKNMS is and they may be amenable to serving as the "proponent" for the relocation if CG is able to work collaboratively on the effort (providing necessary funding, addition surveys if needed, etc.). Details would need to be worked out later.
5) The CG would still need to be the "proponent" on the consultation for non-coral species, including threatened and endangered fishes, turtles, etc. Specific design information such as pile size and number, material (steel, timber, concrete, etc.), manner of installation (vibratory vs. impact driver), and sound attenuation BMPs (soft starts, bubble curtains, cushion blocks, etc.) would need to be evaluated to determine the potential for impacts to different protected species as each has different hearing capabilities and will respond to sound differently. Based on the findings of that analysis, an incidental take statement may be necessary if mitigations can't adequately reduce impacts to a point of "not likely to adversely affect."
6) The CG should withdraw the current request for consultation since it can't provide the needed construction details at this time and then resubmit information when the project details are more clear and the crucial questions regarding construction can be answered.

As such, please withdraw our project from consideration at this time. We will reinitiate consultation when we are better prepared to provide answers that will allow for an informed assessment of impacts.

Best,
Lesley

Lesley Dobbins-Noble

_____
Environmental Protection Specialist
U.S. Coast Guard Facilities Design and Construction Center
5505 Robin Hood Road, Suite K
Norfolk, VA 23513
Office: (757) 852-3410
Cell (telework): [redacted]
Telework days: Tuesdays, Thursdays, and Fridays

From: Audra Livergood - NOAA Federal <audra.livergood@noaa.gov>
Sent: Tuesday, February 16, 2021 10:50 AM
To: Dobbins-Noble, Lesley C CIV <Lesley.C.DobbinsNoble@uscg.mil>
Subject: Re: [Non-DoD Source] Re: Request for Additional Information (RAI) for proposed work at STA Key West

Good morning Lesley,

Thanks for your messages. I have a meeting from 11am-12pm this morning. I will give you a call this afternoon.

Kind regards,
Audra

On Tue, Feb 16, 2021 at 10:38 AM Dobbins-Noble, Lesley C CIV <Lesley.C.DobbinsNoble@uscg.mil> wrote:

> Hi Audra,
>
> I left you a voicemail message earlier today. I wanted to let you know that I am out of my meeting early and able to talk now if you have time. I can be reached at [redacted].
>
> Best,
> Lesley
>
> **Lesley Dobbins-Noble**

Environmental Protection Specialist
U.S. Coast Guard Facilities Design and Construction Center
5505 Robin Hood Road, Suite K
Norfolk, VA 23513
Office: (757) 852-3410
Cell (telework): [redacted]
Telework days: Tuesdays, Thursdays, and Fridays

From: Audra Livergood - NOAA Federal <audra.livergood@noaa.gov>
Sent: Friday, February 12, 2021 2:09 PM
To: Dobbins-Noble, Lesley C CIV <Lesley.C.DobbinsNoble@uscg.mil>
Subject: [Non-DoD Source] Re: Request for Additional Information (RAI) for proposed work at STA Key West

Good afternoon Lesley,

I hope you are well. I just tried to reach you by phone at ([redacted] I left a message, but I wasn't sure if it would reach you (since I didn't hear your name on the recording) so I thought I would follow up with an email just in case. I have been in touch with Joanne Delaney from the Florida Keys National Marine Sanctuary about this project. At your earliest convenience, can you please give me a call? My # is ([redacted]

Thank you,
Audra

--
Audra Banks
ESA Section 7 Biologist, Protected Resources Division, S.E. Region
NOAA Fisheries | U.S. Department of Commerce
Mobile: ([redacted]
www.fisheries.noaa.gov

U.S. Department of Homeland Security

United States Coast Guard

Commanding Officer
United States Coast Guard
Facilities Design and Construction Center

5505 Robin Hood Road, Suite K
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Fax: (757) 852-3495

11000
December 7, 2020

Mr. Ted Walden
Coordinator, Spill Prevention, Control, and Countermeasures/
Facility Response Plans
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Greetings Mr. Walden:

The U.S. Coast Guard (USCG) announces the availability of a draft Environmental Assessment (EA) that analyzes and evaluates potential environmental impacts associated with the repair and replacement of facilities at Sector and Station Key West that were damaged during Hurricane Irma in September 2017 (the Proposed Action). The Proposed Action is needed to provide Sector Key West and Station Key West with facilities and infrastructure that will allow them to adequately execute their mission requirements and increase the resiliency of Sector and Station facilities so that they can remain operational during future weather events and return to full operation after an event is over.

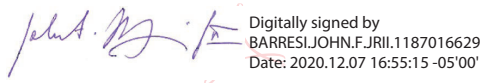
The Proposed Action includes demolishing and rebuilding the Sector Engineering/Electronics Support Detachment building to meet resiliency thresholds; demolishing and rebuilding the Station building, pier, docks, and boat house; and rebuilding the electrical distribution system serving Sector Key West to include transformer and electrical distribution to the waterfront, shore facilities, and on-site energy generation and storage.

As detailed in the draft EA, the Proposed Action includes the installation of two new 20,000-gallon fuel tanks for the central generation plant. The combined 40,000 gallons of new fuel storage would increase the total amount of oil/fuel storage at Sector Key West to more than 42,000 gallons. Under the Facility Response Plan rule, Sector Key West would meet the definition of a facility that could reasonably be expected to cause “substantial harm” to the environment. As such, in addition to updating the existing Spill Prevention, Control, and Countermeasures Plan, the USCG will prepare a Facility Response Plan and submit it to your office for review and approval.

The draft EA is available online for your review at https://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-Engineering-Logistics-CG-4-/Program-Offices/Environmental-Management/Environmental-Planning-and-Historic-Preservation/. Please provide any comments you may have on the EA by 10 January 2021 to Ms. Lesley Dobbins-Noble, USCG Facilities Design and Construction Center, 5505 Robin Hood Road, Suite K, Norfolk, VA 23513 or via electronic mail to lesley.c.dobbinsnoble@uscg.mil.

If you have any questions, please reach out to Ms. Dobbins-Noble at the email above or by phone at (757) 852-3410.

Sincerely,



J. F. BARRESI
Captain
U. S. Coast Guard

U.S. Department of Homeland Security

United States Coast Guard

Commanding Officer
United States Coast Guard
Facilities Design and Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
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11000
December 7, 2020

Mr. Thomas Reinert, Ph.D.
Regional Director, South Region
Florida Fish and Wildlife Conservation Commission
8535 Northlake Boulevard
West Palm Beach, FL 33412

Greetings Dr. Reinert:

The U.S. Coast Guard (USCG) announces the availability of a draft Environmental Assessment (EA) that analyzes and evaluates potential environmental impacts associated with the repair and replacement of facilities at Sector and Station Key West that were damaged during Hurricane Irma in September 2017 (the Proposed Action). The Proposed Action is needed to provide Sector Key West and Station Key West with facilities and infrastructure that will allow them to adequately execute their mission requirements and increase the resiliency of Sector and Station facilities so that they can remain operational during future weather events and return to full operation after an event is over.

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If you have any questions, please reach out to Ms. Dobbins-Noble at the email above or by phone at (757) 852-3410.

Sincerely,

Digitally signed by
BARRESI.JOHN.F.JRII.1187016629
Date: 2020.12.07 16:55:46 -05'00'

J. F. BARRESI
Captain
U. S. Coast Guard

U.S. Department of Homeland Security

United States Coast Guard

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11000
December 7, 2020

Mr. Marcus Davila
Director of Community Services
City of Key West
625 Palm Avenue
Key West, FL 33040

Greetings Mr. Davila:

The U.S. Coast Guard (USCG) announces the availability of a draft Environmental Assessment (EA) that analyzes and evaluates potential environmental impacts associated with the repair and replacement of facilities at Sector and Station Key West that were damaged during Hurricane Irma in September 2017 (the Proposed Action). The Proposed Action is needed to provide Sector Key West and Station Key West with facilities and infrastructure that will allow them to adequately execute their mission requirements and increase the resiliency of Sector and Station facilities so that they can remain operational during future weather events and return to full operation after an event is over.

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If you have any questions, please reach out to Ms. Dobbins-Noble at the email above or by phone at (757) 852-3410.

Sincerely,

Digitally signed by
BARRESI.JOHN.F.JRII.1187016629
Date: 2020.12.07 16:56:41 -05'00'

J. F. BARRESI
Captain
U. S. Coast Guard

U.S. Department of Homeland Security

United States Coast Guard

Commanding Officer
United States Coast Guard
Facilities Design and Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
Phone: (757) 852-3400
Fax: (757) 852-3495

11000
December 7, 2020

The Honorable Teri Johnston
Mayor, City of Key West
21300 White Street
Key West, FL 33040

Dear Mayor Johnston:

The U.S. Coast Guard (USCG) announces the availability of a draft Environmental Assessment (EA) that analyzes and evaluates potential environmental impacts associated with the repair and replacement of facilities at Sector and Station Key West that were damaged during Hurricane Irma in September 2017 (the Proposed Action). The Proposed Action is needed to provide Sector Key West and Station Key West with facilities and infrastructure that will allow them to adequately execute their mission requirements and increase the resiliency of Sector and Station facilities so that they can remain operational during future weather events and return to full operation after an event is over.

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If you have any questions, please reach out to Ms. Dobbins-Noble at the email above or by phone at (757) 852-3410.

Sincerely,

Digitally signed by
BARRESI.JOHN.F.JRII.1187016629
Date: 2020.12.07 16:57:23 -05'00'

J. F. BARRESI
Captain
U. S. Coast Guard

U.S. Department of Homeland Security

United States Coast Guard

Commanding Officer
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5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
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11000
December 7, 2020

Mr. Doug Bradshaw
Director of Port and Marina Services
City of Key West
201 William Street
Key West, FL 33040

Greetings Mr. Bradshaw:

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If you have any questions, please reach out to Ms. Dobbins-Noble at the email above or by phone at (757) 852-3410.

Sincerely,

Digitally signed by
BARRESI.JOHN.F.JRII.1187016629
Date: 2020.12.07 16:57:56 -05'00'

J. F. BARRESI
Captain
U. S. Coast Guard

U.S. Department of Homeland Security

United States Coast Guard

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5505 Robin Hood Road, Suite K
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11000
December 7, 2020

Mr. Warren Harper
Airfield Manager, Naval Air Station Key West
Air Operations Department
P.O. Box 9031
Key West, FL 33040-9031

Greetings Mr. Harper:

The U.S. Coast Guard (USCG) announces the availability of a draft Environmental Assessment (EA) that analyzes and evaluates potential environmental impacts associated with the repair and replacement of facilities at Sector and Station Key West that were damaged during Hurricane Irma in September 2017 (the Proposed Action). The Proposed Action is needed to provide Sector Key West and Station Key West with facilities and infrastructure that will allow them to adequately execute their mission requirements and increase the resiliency of Sector and Station facilities so that they can remain operational during future weather events and return to full operation after an event is over.

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If you have any questions, please reach out to Ms. Dobbins-Noble at the email above or by phone at (757) 852-3410.

Sincerely,

Digitally signed by
BARRESI.JOHN.F.JRII.1187016629
Date: 2020.12.07 16:58:25 -05'00'

J. F. BARRESI
Captain
U. S. Coast Guard

U.S. Department of Homeland Security

United States Coast Guard

Commanding Officer
United States Coast Guard
Facilities Design and Construction Center

5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
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11000
December 7, 2020

Mr. Armando Vilaboy
Regional Representative
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406

Greetings Mr. Vilaboy:

The U.S. Coast Guard (USCG) announces the availability of a draft Environmental Assessment (EA) that analyzes and evaluates potential environmental impacts associated with the repair and replacement of facilities at Sector and Station Key West that were damaged during Hurricane Irma in September 2017 (the Proposed Action). The Proposed Action is needed to provide Sector Key West and Station Key West with facilities and infrastructure that will allow them to adequately execute their mission requirements and increase the resiliency of Sector and Station facilities so that they can remain operational during future weather events and return to full operation after an event is over.

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If you have any questions, please reach out to Ms. Dobbins-Noble at the email above or by phone at (757) 852-3410.

Sincerely,

Digitally signed by
BARRESI.JOHN.F.JRII.1187016629
Date: 2020.12.07 16:59:03 -05'00'

J. F. BARRESI
Captain
U. S. Coast Guard

U.S. Department of Homeland Security

United States Coast Guard

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United States Coast Guard
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5505 Robin Hood Road, Suite K
Norfolk, VA 23513-2431
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Fax: (757) 852-3495

11000
December 7, 2020

Mr. Shawn Zinszer
Chief, Regulatory Division
U.S. Army Corps of Engineers, Jacksonville District
701 San Marco Boulevard
Jacksonville, FL 32207

Greetings Mr. Zinszer:

The U.S. Coast Guard (USCG) announces the availability of a draft Environmental Assessment (EA) that analyzes and evaluates potential environmental impacts associated with the repair and replacement of facilities at Sector and Station Key West that were damaged during Hurricane Irma in September 2017 (the Proposed Action). The Proposed Action is needed to provide Sector Key West and Station Key West with facilities and infrastructure that will allow them to adequately execute their mission requirements and increase the resiliency of Sector and Station facilities so that they can remain operational during future weather events and return to full operation after an event is over.

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If you have any questions, please reach out to Ms. Dobbins-Noble at the email above or by phone at (757) 852-3410.

Sincerely,

Digitally signed by
BARRESI.JOHN.F.JRII.1187016629
Date: 2020.12.07 16:59:37 -05'00'

J. F. BARRESI
Captain
U. S. Coast Guard