

**VIRGIN ISLANDS WATER AND POWER AUTHORITY  
COASTAL CONSISTENCY DETERMINATION REQUEST  
FEEDER 9A, CHARLOTTE AMALIE  
UNDERGROUND ELECTRICAL PROJECT, ST. THOMAS, U.S. VIRGIN ISLANDS**

**INTRODUCTION**

The Virgin Islands Water and Power Authority (VIWAPA) has been working to relocate transmission and distribution underground throughout the islands so that power can be restored quickly after the occurrence of major storm events. Underground transmission lines provide improved protection from storm damage, reliability and reduce outage frequency caused by overhead obstructions and faults.

VIWAPA is proposing to install of underground ducts with manholes, pad-mount transformers, and other underground devices to replace existing overhead distribution within Charlotte Amalie on Feeder 9A. The underground ducts will replace overhead distribution lines along Airport Road (Route 302), throughout Crown Bay (Route 304) with branches to the Container Port and Tropical Shipping and along Harwood Highway/Kronprindsens Gade (Route 308) to the Market and Guttets Gade. The project will be done in 3 phases and a portion of the project includes installation into existing conduits (Phase 1), but will include installation of new duct banks, transformers, sectionalizing cabinets, electric handholes, communications handholes, and electrical manholes.

This will provide underground power infrastructure to businesses, government agencies and residences, including underground service to GERS as well as the VIPA's Seaplane Terminal. VIWAPA has been working at relocating transmission and distribution feeders in areas of essential services underground so that these critical services can be restored immediately after the occurrence of major storm events. Underground lines ensure that critical facilities can continue to provide essential services.

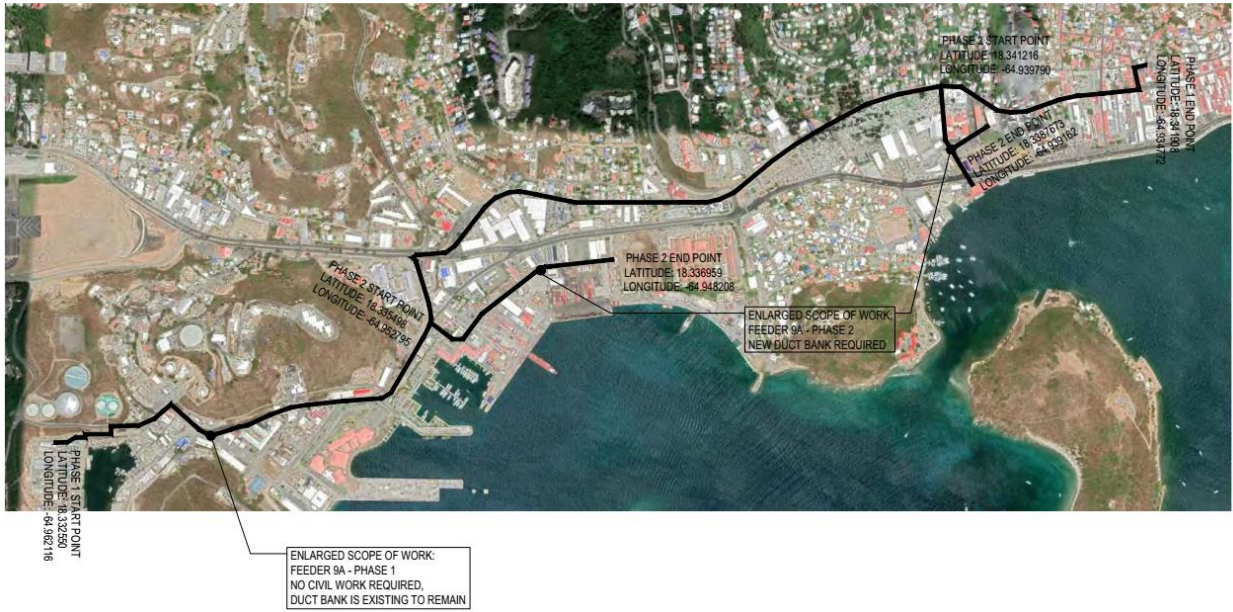
Duct banks have been previously installed throughout the Phase 1 route and no civil work is required. Phase 1 extends from the Randolph E. Harley Plant to Guttets Gade. Phase 2 and 3 will both include duct installation as well as the other components. Phase 2 will extend from intersection of Athniel C. "Addie" Ottley Dr and Crown Bay Road along Crown Bay Road to its terminus at Cancryn Field and from Kronprindsens Gade along Gasværks Gade to the Seaplane Facility and Edward Wilmoth Blyden IV Marine Terminal. Phase 3 will extend from Nellike Gade to Store Stræde along Torvet Stræde which becomes Wimmelskafts Gade and then cross onto Government Hill and follow Kongens Gade to the Department of Education.

**PROJECT LOCATION**

The proposed underground project spans from the Randolph E. Harley Facility to the Department of Education on the eastern side of the town of Charlotte Amalie. The project extends from Latitude 18.333360° and Longitude -64.962317° (Randolf E. Harley) to Latitude 18.341908° and Longitude -64.934772° (V.I Department of Education ) to Latitude 18.336959° and Longitude -64.948208° (Cancryn) and Latitude 18.3387673° and Longitude -64.939162° (Blyden Terminal).



ENLARGED PROJECT  
LOCATION MAP:  
FEEDER 9A - PHASE 1 & 2



ENLARGED PROJECT  
LOCATION MAP:  
FEEDER 9A - PHASE 3



Figure 1. Location of the proposed Feeder 9A Phase 1, 2 and 3 Underground Electrical project on the island of St. Thomas, U.S. Virgin Islands.



Figure 2. The relationship between the proposed Feeder 9A Underground Electrical project and CZM first tier jurisdiction. The first-tier areas are shown in color on the map. A portion of the project which services the port facilities is within Coastal Zone Management Jurisdiction.

## PROJECT DESCRIPTION

VIWAPA is proposing to install underground ducts with manholes, pad-mount transformers, and other underground devices to replace existing overhead distribution lines on the roadways to downtown Charlotte Amalie through the town, up Government Hill to the Department of Education. The lines will service GERS, stores, and businesses downtown, Government House and numerous government offices. Phase one will utilize existing underground conduits which span from the power facility to Guttets Gade.

As part of Phase 2, a duct bank with 4 – 3” PVC conduits with associated manholes, handholes, transformers and sectionalization cabinets will be placed along Crown Bay Road to Cancryn as part of Phase I and a duct bank with 2 – 6” and 1 – 4” conduits will be placed from Kronprindsens Gade along Gasværks Gade to the Blyden Terminal. Portions of the route are over filled land and are within the first tier of CZM. A duct bank with 6 – 6” conduits (a new Feeder 9A Cable) and 1-6” spare will be installed on Strand Gade from Wimmelskafts Gade to Curacoa. The duct will also extend along Wimmelskafts Gade to Guttets Gade.

In Phase 3 a duct and associated infrastructure will be installed along Nellike Gade to Store Stræde along Torvet Stræde which becomes Wimmelskafts Gade and then cross onto Government Hill and follow Kongens Gade to the Department of Education.

The proposed project would begin as soon as all approvals are final and will be constructed in 3 phases. Phase 1 will take approximately 9-12 months to complete, phase 2 will take approximately 6 months to complete, and phase 3 will take approximately 12 months to complete.

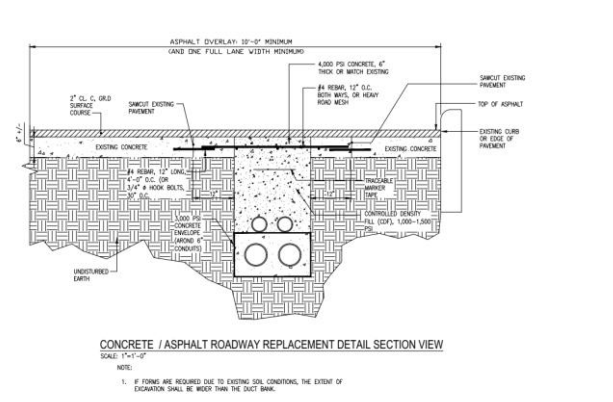
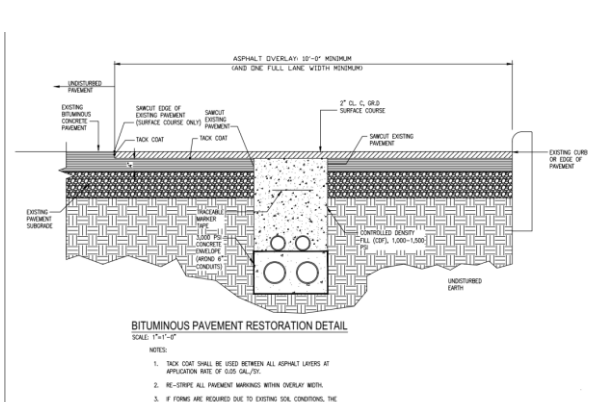
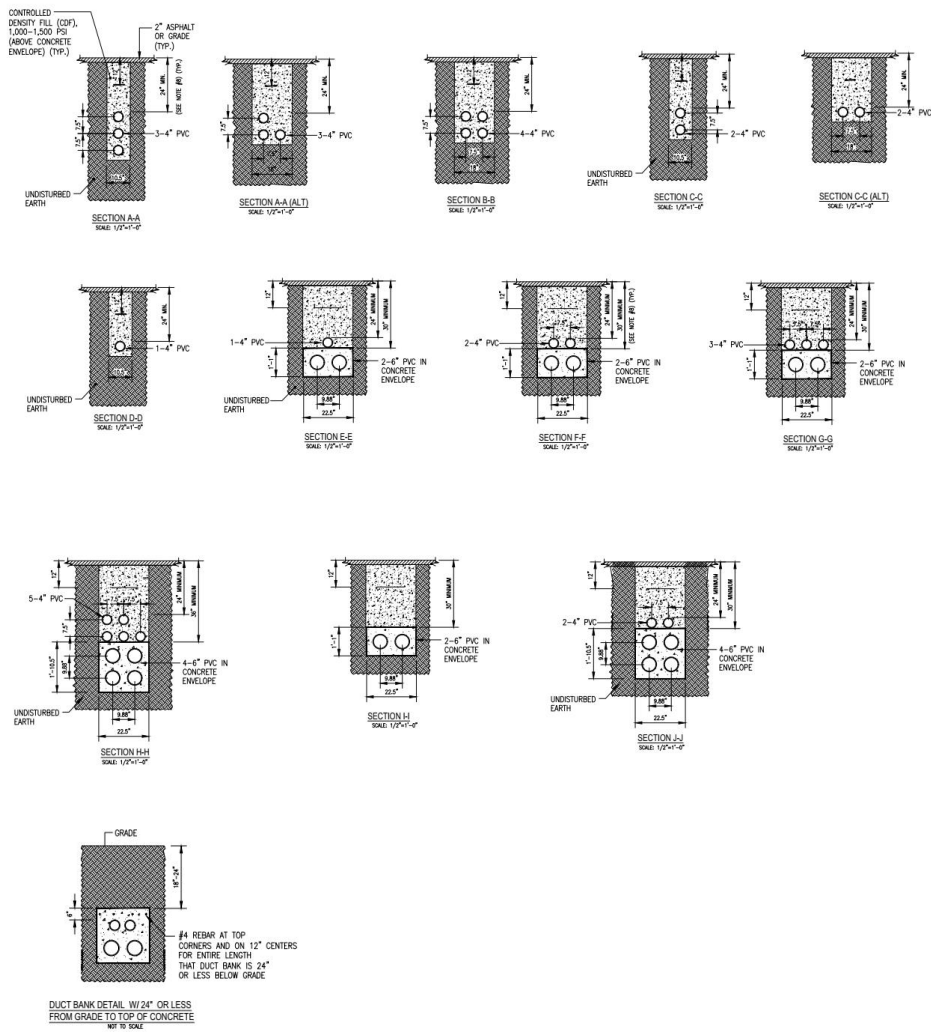


Figure 3. The duct banks that will be installed along the proposed 9A Underground Electrical project route and roadway repair details.

## **ENVIRONMENTAL IMPACTS**

### **Climate/Weather**

Once complete, the buried Feeder 9A will not be affected by climate or weather. During construction, of Phases 2 and 3, rainfall will affect trenching and line burial activities. Strictly enforced sedimentation and erosion control measures will be implemented to ensure rainfall will not impact the drainage ways along the routes during installation. Stock piles will not be left overnight and all excess soil will be removed offsite.

### **Landform Geology, Soils and Historic Land Use**

The electrical utility lines are being buried under the existing roadways as part of Phase 2 and 3. The ducts have been previously installed along Phase 1. The electrical ducts will be buried to a minimum depth of 30" below final grade, or roadway. Minor earthwork will occur within developed areas to provide service to existing meters and pedestals and to place ground mounted transformers and Sectionalizing Cabinets.

The western portion of Phase 2 is entirely within Urban Land (UbD) soils. Urban Land is that which has been significantly reworked by man, in this case filled (Figure 4). The eastern portion of Phase 2 is within Urban land (UbD) at its northern extent (land which has been graded) and the southern portion is in Urban land-Cinnamon Bay complex, 0 to 12 percent slopes. The soil is 80% Urban land with inclusions of Cinnamon Bay, Sandy Point and Solitude Soils. Restrictive layers are not listed for these soils (Custom Soils Reports, USGS, NRCS).

Most of Phase 3 is within Urban Land (UbD) as the result of alterations of the area since historic times. The route will cross through Fredriksdal-Susannaberg complex, 40 to 60 percent slopes, extremely stony as it crosses over Government Hill above going back into Urban Land. Fredriksdal-Susannaberg complex is well drained and has restrictive features 10 to 20 inches to lithic bedrock; 10 to 20 inches to paralithic bedrock. Bedrock is usually found anywhere from 12 inches to 60 inches below the surface and may have an impact on installation of the ducts.

All of Phase 2, both the section near Crown Bay and that which ties in the Blyden terminal are below 10ft of elevation. Phase 3 spans from 12ft in elevation to 68ft as it crosses over Government Hill.





Figure 4. The composition of soils along the Feeder 9A Phase 2 (Western Portion) Underground Electrical project.

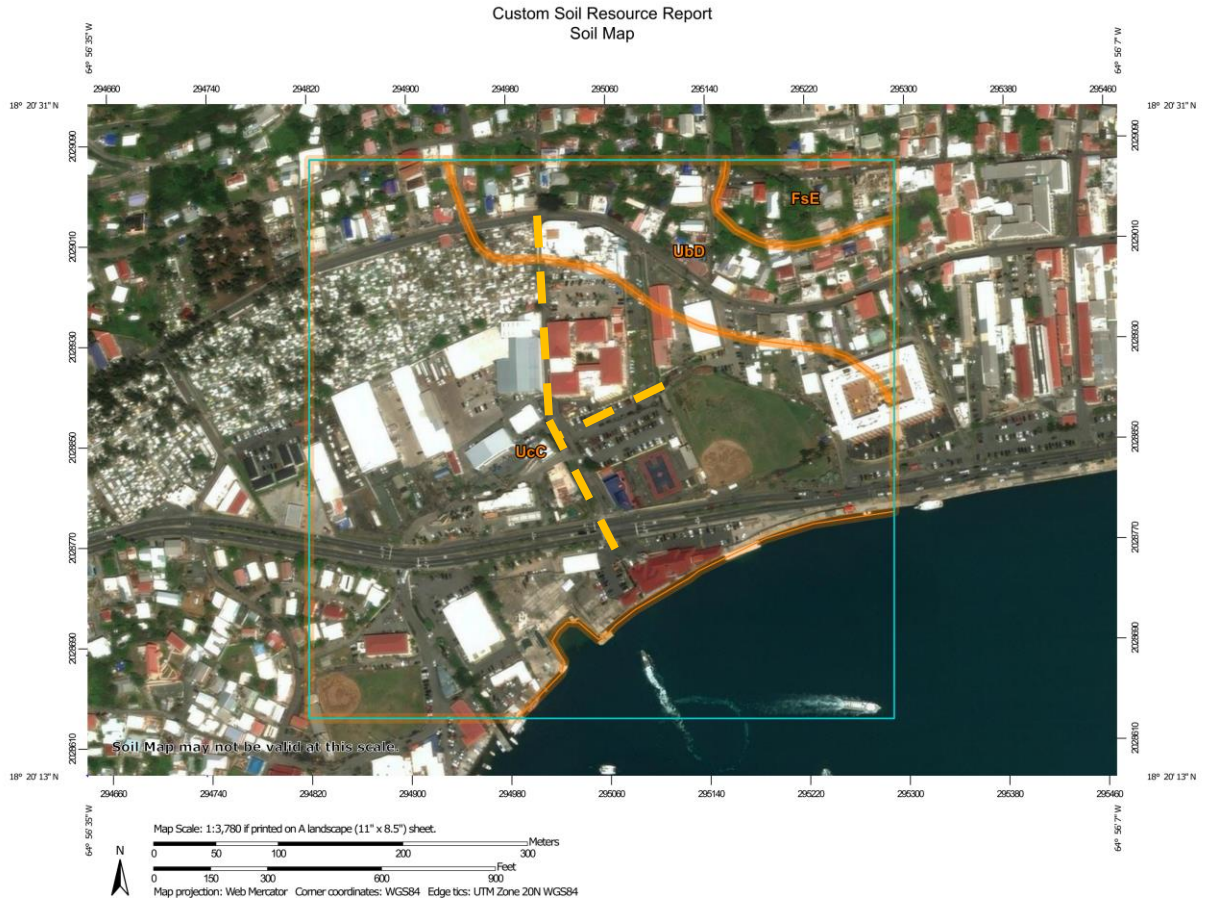


Figure 5. The composition of soils along the Feeder 9A Phase 2 (Eastern Portion) Underground Electrical project.

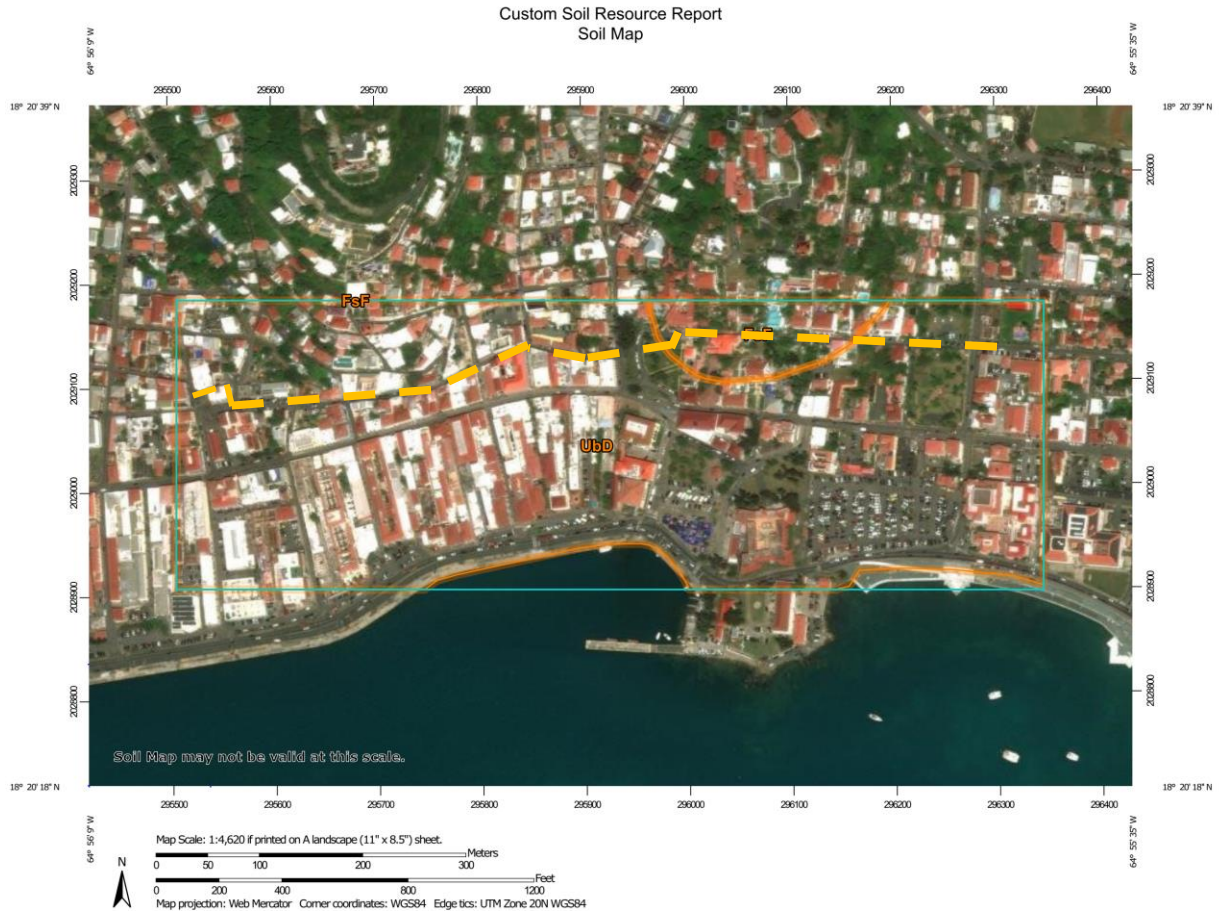


Figure 5. The composition of soils along the Feeder 9A Phase 3.

### Drainage, Flooding and Erosion Control

Strictly enforced measures to control sedimentation and erosion will be implemented during all phases of the installation to ensure that rainfall will not result in sediment laden runoff. In addition, any materials will not be stockpiled overnight. Stockpiles will not be placed in or near drainage ways. There are culverts and drainage ways under the roadway and roadway drainage. The ducts will be places so as not to impact these features.

The proposed project will have no impact on existing drainage patterns once complete since the ducts will be installed under existing pavement and in developed areas. The western portion of Phase 2 is within FEMA Flood Zone AO where 100-year flooding is expected to be 2'. The northern end of the eastern portion of Phase 2 is also within Zone AO. The southern end as it nears the shoreline is within Zone VE elevation 7 where coastal flooding with velocity (wave action) is expected to be 7ft. This will not have an impact on the buried ducts. All of Phase 3 is within in Zone X where the 100-year coastal flooding is not expected. All areas which in the areas where flooding is expected will be required to obtain Flood Hazard Permits from DPNR.



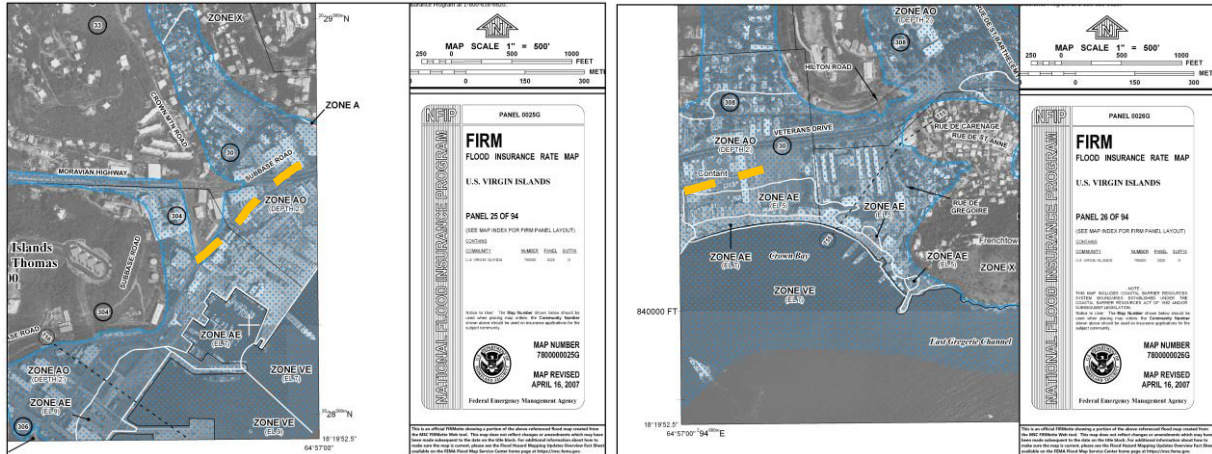


Figure 6. FEMA FIRM map western portion of proposed Feeder 9A Phase 2 (FEMA FIRM Maps 25 and 26 of 94).

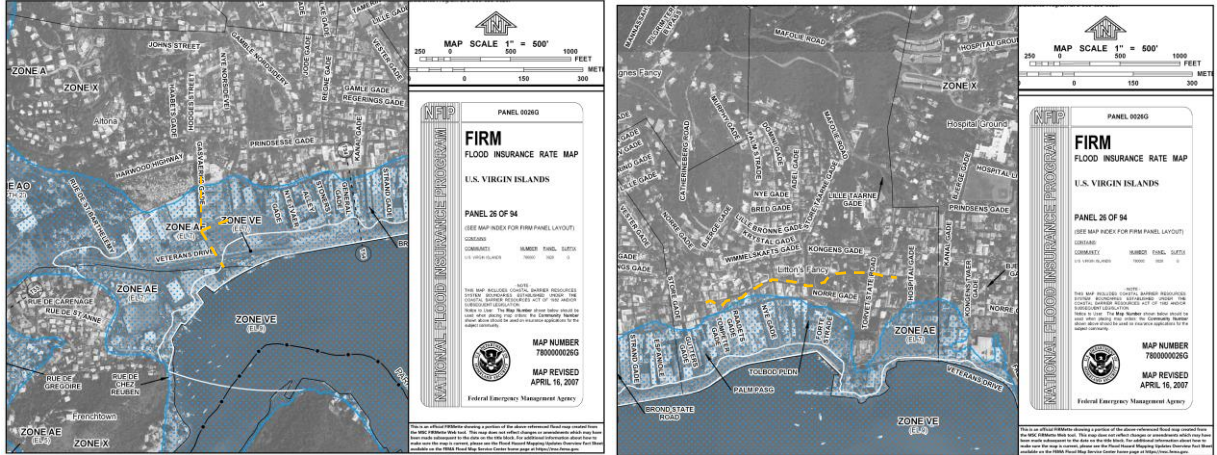


Figure 7. FEMA FIRM map eastern portion of proposed Feeder 9A Phase 2, (FEMA FIRM Map 26 of 94).

**Drainage Patterns**

The conduits will be buried under the existing roadway so there will be no changes to the existing drainage patterns. Pad mounted equipment and Sectionalization Cabinets will not be put in areas of drainage.

**Coastal Floodplain**

The proposed project will have no impact on existing drainage patterns once complete since the ducts will be installed under existing pavement and in developed areas. Phase 2 is in FEMA Flood Zone AO where 100-year flooding is expect to be 2ft and near Blyden Terminal is in Zone VE elevation 7ft where coastal flooding with velocity (wave action) is expected to be 7ft. The Phase 3 project is within FEMA Flood Zone X where 100-year flooding is not expected.

The conduits will be buried and should not be impacted by flooding.

**Fresh Water Resources**

The proposed project will have no impact on freshwater resources as it involves the burial of electrical lines in previously disturbed areas. No freshwater ponds or streams occur within the proposed project footprint and groundwater resources within the area are deeper than 80 inches; meaning below the depth of the proposed project.

**Oceanography**

The project location is inland from the coast and the closest point to the sea is the connection to the Blyden Terminal. The ducts should not be affected by sea storm events.

**Marine Resources**

The property is located entirely inland and will have no direct impact on the marine environment.

**Terrestrial Resources**

The proposed project will occur within existing roadways in completely developed areas. No natural terrestrial resources or any native flora or fauna will be impacted during the installation of the buried conduits.

**Wetlands**

The project will have no impact on wetlands, as there are no wetlands in, or adjacent to, the proposed project routes. The proposed project route is in an existing paved roadway and paved roadways which branch from the roadway. The ground mounted equipment will be placed in areas which have already been altered from their natural state.



February 21, 2023

**Wetlands**

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)  
This page was produced by the NWI mapper

Figure 6. The relationship between the proposed Feeder 5A Underground Electrical project and wetlands.

**Rare and Endangered Species**

The Virgin Islands Tree Boa (*Chilabothrus granti*) is the only endangered, or threatened species which is listed as possibility occurring within the proposed project route according to the U.S. Fish and Wildlife Service (USFWS) Information, Planning and Conservation System (iPAC) project tool. The project is entirely within the roadway and unforested areas therefore will have no impact on the Tree Boa. No Tree Boas were noted during the field surveys.

**Air Quality**

All of St. Thomas is designated Class II by the Environmental Protection Agency, in compliance with National Ambient Air Quality Standards. In Class II air quality regions, the following air pollutants are regulated: open burning, visible air contaminants, particulate matter emissions, volatile petroleum products, sulfur compounds, and internal combustion engine exhaust (Virgin Islands Code Rules and Regulations). Trenchers will be used during project construction and will create combustion engine exhaust during use. Upon completion, air quality will return to pre-construction conditions.

## **IMPACT ON MAN'S ENVIRONMENT**

### **Land and Water Use Plans**

The burial of electrical lines is in accordance with the laws and regulations of the U.S. Virgin Islands.

### **Visual Impacts**

The relocation of the overhead electrical lines underground will be a visual improvement of St. Thomas's landscape by placing the unsightly lines underground especially in the historic downtown Charlotte Amalie.

### **Social Impacts and Economic Impacts**

Providing more reliable and resilient power to critical infrastructure on St. Thomas will benefit government offices, port facilities, residents, and businesses on the islands. Being able to maintain, or quickly restore, power to the port facilities, ferry terminal and government offices will be a positive social and economic impact.

### **Historical and Archaeological Resources**

The proposed project involves the installation of underground electrical utility lines in existing roadways, which are located on lands that have been altered by cutting or filling. The proposed project will occur only within previously altered areas and an Archeological Scope of Work Analysis will be conducted to minimize impact on historical or cultural resources. Project activities stop if historic remains or resources are encountered, and SHPO will be contacted to determine the best course of action.

### **Waste Disposal and Accidental Spills**

Equipment will be kept in good operational condition during the proposed project work and will not be fueled on site. Any excess excavated material and debris will be collected, taken off-site and properly disposed of.

If any hazardous materials are encountered or created, they will be taken back to the yard with the proper paperwork. No hazardous materials will be stored overnight.

## **COASTAL CONSISTENCY**

The proposed Feeder 9A Underground Electrical project has a negligible potential of impacting environmental resources, and ambient water quality during construction. The successful bidder will be required to prepare, and submit, a site-specific Erosion and Sediment Control Plan, for review and approval. Finally, VIWAPA Personnel and the Underground Electrical Project Management Team will provide periodic onsite inspections to ensure conformance to erosion and sediment control measures. The proposed project will occur only within previously altered areas and archeological monitoring will be conducted to minimize impact on historical or cultural resources. Project activities stop if historic remains or resources are encountered, and SHPO will be contacted to determine the best course of action.

The Coastal Zone Management Act of 1972 requires that federal actions, within and outside the coastal zone, which have reasonably foreseeable effects on any coastal use (land or water), or natural resource



of the coastal zone be consistent with the enforceable policies of a state's federally approved coastal management program. The Feeder 9A Underground Electrical Project, as proposed, will be undertaken in a manner consistent to the maximum extent practicable with the enforceable policies of the U.S. Virgin Islands' CZM Program. This federal consistency determination demonstrates the Feeder 5A Highway Underground Electrical project's compliance with the U.S. Virgin Islands' CZM Program.

The following policies are set forth in the U.S. Virgin Islands Code Title 12, Conservation Chapter 21, Virgin Islands Coastal Zone Management [V.I. Code tit. 12, § 903(b)]. The proposed Feeder 9A Underground Electrical project meets each of the basic goals of the USVI for its coastal zone. Additional details are as follows:

**USVI Code Title Twelve Conservation, Chapter 21 § 903 (b)**

**(1) Protect, maintain, preserve and, where feasible, enhance and restore, the overall quality of the environment in the coastal zone, the natural and man-made resources therein, and the scenic and historic resources of the coastal zone for the benefit of residents of and visitors of the United States Virgin Islands.**

- The proposed Feeder 9A Underground Electrical project is designed to be within existing roadways and previously disturbed areas. The project will not impact any natural resources and will improve the visual landscape along Feeder 9A by removing overhead electrical lines and poles.

**(2) Promote economic development and growth in the coastal zone and consider the need for development of greater than territorial concern by managing: (1) the impacts of human activity and (2) the use and development of renewable and nonrenewable resources so as to maintain and enhance the long-term productivity of the coastal environment.**

- This proposed project promotes the economic development and growth in the coastal zone by providing more reliable, resilient electrical transmission to critical island infrastructure and Water Island. The improved resilience of electrical power on the island of St. Thomas and Water Island is beneficial for routine service provision and in the event of future catastrophic weather events.

**(3) Assure priority for coastal-dependent development over other development in the coastal zone by reserving areas suitable for commercial uses including hotels and related facilities, industrial uses including port and marine facilities, and recreation uses.**

- The proposed project involves the burial of electrical utility lines outside the coastal area and is therefore consistent with this policy.

**(4) Assure the orderly, balanced utilization and conservation of the resources of the coastal zone, taking into account the social and economic needs of the residents of the United States Virgin Islands.**

- The burial of the electrical lines will only occur in areas that have been previously altered and will improve the electrical power resilience both for routine service provision and in the event of future catastrophic weather events. The proposed project will also service critical island

infrastructure and, therefore, will meet and protect the economic and social needs of residents of the island of St. Thomas and Water Island.

**5) Preserve, protect and maintain the trust lands and other submerged and filled lands of the United States Virgin Islands so as to promote the general welfare of the people of the United States Virgin Islands.**

- The proposed project routes extend onto lands which have been previously filled. The burial of powerlines in filled lands will not negatively impact filled line. The burial of lines will benefit the people of the USVI.

**(6) Preserve what has been a tradition and protect what has become a right of the public by insuring that the public, individually and collectively, has and shall continue to have the right to use and enjoy the shorelines and to maximize public access to and along the shorelines consistent with constitutionally-protected rights of private property owners.**

- The proposed project will in no way affect public access to, or use of, the shoreline. The project is located inland.

**(7) Promote and provide affordable and diverse public recreational opportunities in the coastal zone for all residents of the United States Virgin Islands through acquisition, development and restoration of areas consistent with sound resource conservation principles.**

- The proposed project will not affect public recreational opportunities in the coastal zone.

**(8) Conserve ecologically significant resource areas for their contribution to marine productivity and value as wildlife habitats, and preserve the function and integrity of reefs, marine meadows, salt ponds, mangroves, and other significant natural areas.**

- The proposed project is designed so that it impacts only previously disturbed areas. The project will have no impact on natural resources and will utilize best management practices (BMPs) to minimize areas of disturbance, thereby protecting adjacent habitats.

**(9) Maintain or increase coastal water quality through control of erosion, sedimentation, runoff, siltation and sewage discharge.**

- The proposed project will have no long-term change on sedimentation or erosion and will not result in the creation of wastewater. The project will implement sedimentation and erosion control BMPs to prevent loss of sediment from the project site.

The proposed Feeder 9A Underground Electrical project, as designed, will maintain coastal water quality through control of erosion, sedimentation, runoff, and siltation and therefore is consistent with the policy set forth in the USVI Code Title 12, Conservation Chapter 21, Virgin Islands Coastal Zone Management [V.I. Code tit. 12, § 903 (b)].

The proposed Feeder 9A Underground Electrical project, as designed, protects, maintains, preserves, and enhances the overall quality of the environment in the coastal zone, the natural and man-made

resources therein, and the scenic and historic resources of the coastal zone for the benefit of residents of and visitors of the USVI. It is therefore consistent with the policy V.I. Code tit. 12, § 903 (b).