FEDERAL CONSISTENCY DETERMINATION REQUEST

FORMER CHARLES H. EMMANUEL SCHOOL SITE
No. 3 Upper Bethlehem/VICORP Land, St. Croix, U.S. Virgin Islands

USVI DEPARTMENT OF HUMAN SERVICES
HEAD START & EARLY HEAD START PROGRAM
ST. CROIX, US VIRGIN ISLANDS

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INTRODUCTION

The Virgin Islands Department of Human Services is proposing to demolish former Charles H. Emmanuel Elementary School located at No. 3 Upper Bethlehem/VICORP Land, St. Croix, U.S. Virgin Islands in order to build a new Head Start facility. The existing school was severely damaged by Hurricane Maria on September 20, 2017. The storm produced strong destructive winds, power outages, down power lines, structure and property damage and fallen trees. The storm system also deposited heavy rainfall amounts throughout the U.S. Virgin Islands.

The existing buildings were originally constructed in 1980 prior major hurricane damage in the late 80’s from Hurricane Hugo to more recently, Hurricane Maria in 2017. Since the time of Hurricane Hugo in 1989, the Virgin Islands has adopted, first the Uniform Building Code for structures, and more recently, the International Building Code. Besides the existing poor condition of the buildings on site. Caused by damages from past hurricanes, their old construction cannot meet the structural requirements of the 2018 International Building Code. Furthermore, the existing structure cannot accommodate the program requirements for a functional facility.

PROJECT LOCATION

The project comprises 4.971 acres track of land identified as Parcel No. 3 Estate Upper Bethlehem/VICORP Land, where former Charles H. Emmanuel Elementary School was located. This is St. Croix, U.S. Virgin Islands. Property ID# is 206400020200.

The property is limited: to the North by an undeveloped property with no ID in the MapGeo Property ID Maps; to the South by 21 Upper Bethlehem, undeveloped property with ID # 206400020500; to the East by road 707 and across the road, by 5 Upper Beth Housing PRJ with ID# 206400020400; and to the West by 2 Vicorp Land undeveloped property with ID# 208100010200. This track of land is owned by the Government of the Virgin Islands. Project GPS coordinates are: latitude 17.727176 / longitude -64.786381.
Figure 1: USVI GIS online MapGeo Property ID

Figure 2: Site Location – USGS Long Point Quadrangle - Topo Map
SITE DESCRIPTION

GENERAL

The site is completely developed and occupied by six (6) buildings, a playground, two basketball courts and paved parking areas.

Two (2) of the buildings are one-story buildings and four (4) are two-story buildings with the following dimensions:

1 Building: 30’ x 275’
1 Building: 30’ x 220’
1 Building: 35’ x 130’
1 Building: 90’ x 85’
1 Buildings: 30’ x 230’

They are all constructed of 8” concrete masonry unit (CMU) walls with reinforced concrete roofs. Total 1st floor area is 47,000 square feet.
Figure 3: Existing Conditions Survey of Site
Photo 3: View of Existing Buildings Condition

Photo 4: View of Existing Building
Photo 5: View of Existing Buildings and Playground
ENVIRONMENTAL IMPACTS

CLIMATE / WEATHER

Sedimentation and erosion controls will be implemented to ensure rainfall will not impact the adjacent properties and streets during construction. This will include silt fencing, gravel entrances, at the entry gate, and check dams. The new facility’s structure is designed to be resistant as required by updated design criteria for hurricanes and other seismic activity. The structure will consist of poured concrete walls and roofs. The entire project is designed to resist up to 180 m/h wind forces which is equivalent to a Category 5 hurricane and higher.

TOPOGRAPHY AND DRAINAGE PATTERNS

The existing ground surface elevations on the property varies from 96 feet to 101 feet at the existing road elevation to the east to the site’s western boundary with an existing grade varying from 84 feet to 95 feet in elevation. Roughly, the property drains naturally from the South East corner to the North West corner and discharges onto adjacent property through a sheet flow condition. There is no public storm sewer system available at the project site.
SOILS

According to the USDA online Soil Survey, soils within the project area are classified as Arawak gravelly loam, 2 to 5 percent slopes, very stony (ArB), and Glynn gravelly loam, 2 to 5 percent slopes (GyB).

The Arawak series consists of shallow, well drained, slowly permeable soils on summits and side slopes of limestone hills and mountains. They formed in material weathered from soft limestone bedrock. The Glynn series consists of very deep, well drained, moderately slowly permeable soils on alluvial fans and terraces. They formed in alluvial sediments weathered from volcanic residuum.

According to the USDA – Natural Resources Conservation Service, while none of these soils are considered as hydric, Glynn (GyB) soils might include Aquent (AqA) inclusions when found in depressions.

![Figure 4: USDA Soil Survey Map](image)

A Soils Investigation Report was prepared to identify the appropriate foundation for the structure. The existing soils are appropriate for the location of the new structure. The foundations are designed for 3,000 PSF bearing pressure.
FLOOD ZONES AND EROSION CONTROL

According to FEMA FIRM Panel 0080 of the US Virgin Islands Advisory Base Flood Elevation Maps, the project area is not within any flood area. The existing road elevation to the east of the site varies from 96 feet to 101 feet in elevation. The site’s western boundary is at a lower elevation with existing grade varying from 84 feet to 95 feet in elevation. Proposed grading plan considers for the buildings Finished Floor Elevations (FFE) varying from 97.50 feet to 92.5 feet as detailed in the project description section of this document.

An open retention pond area and pervious pavement in parking areas are proposed to mitigate runoff increase due to reduction in pervious areas. The location and details of the open pond are to be incorporated during final design. Outfall of proposed open pond will include a weir to allow for sheet flow to adjacent property, following current conditions.

Measures to control sedimentation and erosion will be implemented during all phases of the proposed project to ensure that rainfall will not adversely impact the area during construction. Storm water runoff from the road, will be manage as part of the site storm sewer system design proving conveyance to allow for sheet flow, following the existing drainage path and discharge point to adjacent property.

Figure 12. FEMA Flood Advisory Map
COASTAL FLOODPLAIN, OCEANOGRAPHY AND MARINE RESOURCES

The project is located approximately 4 miles (21,120 feet) inland away from the southern coastal waters of St. Croix. No impacts are anticipated to the marine environment or from sea storm events. All on-site drainage will be directed to a proposed open retention pond for percolation prior to overflowing by means of a sheet-flow pattern onto the adjacent property consistent with its original path. In this way, most sediment will be mitigated without creating any single point pollution onto the adjacent properties.

COASTAL BARRIERS

According to the USFWS IPaC (Information for Planning and Consultation) webtool, there are no coastal barriers at this location.

FRESH WATER RESOURCES

The closest freshwater resource is an unnamed creek approximately 500 meters (1,641 feet) to the West of the property.

TERRESTRIAL RESOURCES

The project area comprises a complete developed track of land, which vegetation is basically limited to that planted as part of the school landscape and opportunistic species that have wildly grown at the site since it was abandoned after Hurricane Maria.
WETLANDS

According to the National Wetlands Inventory Maps, published by the US Fish and Wildlife Service, the project area is not affected by Wetlands.

RARE AND ENDANGERED SPECIES

According to IPaC there are no endangered species, natural wildlife refuge lands or fish hatcheries at this location. There are no migratory birds of special concern expected to occur at this location.

AIR QUALITY

All of the U.S. Virgin Islands 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).
It is expected that excavation equipment will be used during project construction and will create combustion engine exhaust during on site use. Air quality will return to pre-construction conditions upon the completion of the construction process.

An emergency stand-by generator that meets EPA clean air standards is proposed for this project. All permit applications will be filled for this equipment at the appropriate time prior to installation.

**PROPOSED PROJECT DESCRIPTION**

The proposed project comprises the demolition of the existing facilities and the construction of 8 buildings. The rea and finished floor elevation for the buildings are as follow:

<table>
<thead>
<tr>
<th>Building</th>
<th>Area (Square Feet)</th>
<th>Proposed Finished Floor Elevation (FFE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5,010</td>
<td>97.5</td>
</tr>
<tr>
<td>B</td>
<td>9,885</td>
<td>97.5</td>
</tr>
<tr>
<td>C</td>
<td>4,737</td>
<td>97.5</td>
</tr>
<tr>
<td>D1</td>
<td>11,362</td>
<td>94.5</td>
</tr>
<tr>
<td>D2</td>
<td>11,362</td>
<td>94.5</td>
</tr>
<tr>
<td>E</td>
<td>15,058</td>
<td>92.5</td>
</tr>
<tr>
<td>F</td>
<td>5,266</td>
<td>92.5</td>
</tr>
<tr>
<td>G</td>
<td>7,412</td>
<td>94.5</td>
</tr>
</tbody>
</table>

The site will have a main parking located to the southern part of the property with 90 parking spots and 5 handicap spots. There will be two additional parking areas, one along the eastern limit of the property with 21 parking spaces and one along the northern limit with 19 additional parking spaces for a total of 130 regular and 5 handicap parking spots. The site plan also provides with 6 parking spaces for school buses, a maintenance parking for school buses, service area, a 4,000 gallons cistern tank, a septic tank and a drop-off area along the eastern side. The area will have an electric power generator.

The new facility’s structure is designed to be resistant as required by updated design criteria for hurricanes and other seismic activity. The structure will consist of poured concrete walls and roofs. The entire project is designed to resist up to 180 mph wind forces per current code requirements which is equivalent to a Category 5 hurricane and higher.
Figure 7: Proposed Master Site Plan
IMPACT ON MAN’S ENVIRONMENT

VISUAL IMPACTS

The proposed Head Start Facility will be a visual improvement over the existing severely damaged and abandoned facility it is replacing.

The proposed Head Start Facility will be a visual improvement over the existing severely damaged and abandoned facility it is replacing. The new design considered the V.I. Architecture and includes sloped concrete roofs and walls, impact resistant windows and doors for resisting hurricane and seismic forces. The buildings will be insulated per the new building code standards at the roof and walls. The metal roofs will provide long lasting weather protection. The high efficiency plumbing, HVAC and light fixtures will provide savings in water and electricity consumption. The interior finishes will include recycled and low VOC materials. Thus, the buildings will be less burden to environment meanwhile providing better setting for its occupants.

Figure 8: Aerial View Rendering
LAND AND WATER USE PLANS

The project area is comprised of one parcel:

1. Parcel 3 Estate Upper Bethlehem/VICORP Land

The project parcel is zoned Public (P) which complies with current Coastal Land and Water Use Plan and meets all use requirements for the zoning district as set forth in Title 29 of the Virgin Islands Code.

HISTORICAL AND ARCHAEOLOGICAL RESOURCES

The proposed project is located on a previously developed lot that is not within any historical zones. There is also no documentation in regards to historical ruins found at or near the site. Only areas within the property boundaries will be disturbed by the construction activities. Standard procedures will be used if any items of Archeological relevance are observed during the excavation activities on the site.

WASTE DISPOSAL AND ACCIDENTAL SPILLS

The Virgin Islands Waste Management Authority has specific guidelines and criteria for accepting construction debris. Demolition waste will be disposed of in accordance with all governing laws and regulations. Any excess excavated material will be collected, taken off-site and properly disposed of.

An assessment was conducted by GEC Corp. and all Asbestos and Lead testing results will be submitted to DPNR.

An abatement plan will be submitted to the Virgin Islands Waste Management Authority (VIWMA) prior to the commencement of demolition work.

The handling and disposal of any hazardous materials, such as the used oil from the motor pool area, and the fuel from existing generator fuel storage will be done in strict accordance with all governing laws and regulations. The equipment will be kept in good operational condition during the proposed project timeline and refueling on site will be kept to a minimum.

EROSION AND SEDIMENTATION CONTROL PLANS

Sedimentation and erosion controls will be implemented to ensure rainfall will not impact the adjacent properties and streets during construction. This will include silt fencing, gravel entrances, at the entry gate, and check dams.
GRADING AND STORMWATER MANAGEMENT

Proposed site will be improved by means of earthwork, that includes deposit of fill material and grading activities. Pre and post drainage condition will be evaluated and an internal storm sewer system will be designed. Internal drainage system will be connected to an open detention area which will be included as part of final design. Preliminarily, this open detention area will be located, along the western boundary green area, stabilized with rock with an outfall that will allow storm water sheet flow into the lowest point of the site. In the project area there is no public storm sewer system available to connect the project.

To reduce runoff due to reduction in pervious areas, parking areas will be designed with pervious concrete to mitigate the increase of runoff, this pavement will have a superficial area of approximately 35,000 square feet or 13.55%

UTILITIES

ELECTRIC POWER

The project site has a high voltage connection to Virgin Islands Water and Power Authority (WAPA) system, that is actually out of service. Also, existing site has an electric emergency generator that is not in service. The project required electrical load has been determined in 750kva. An electrical emergency generator with a capacity of 600 kw is being proposed to meet this load.

A consultation with WAPA will be conducted, to determine requirements to connect the project to the existing electrical system.

WATER

The project site has a two (2) inch diameter meter connection to WAPA system, that is actually out of service. Connection to the existing WAPA potable water system, reusing the existing two (2) inch water meter is being proposed.

A consultation with Virgin Islands Water and Power Authority (WAPA) will be conducted, to determine requirements to connect the project to the existing potable water system.

A potable water cistern with a capacity of five thousand (5,000) gallons with a pumping and filtering system is also proposed to supply the water demand to the various structures for emergency needs.
WASTE WATER - SEWAGE

Project site has a connection to the exiting public sanitary sewer system. The proposed project considers reconnect the project to the existing gravity sewer system located on the existing Public Road. The sewer water discharge has been determined 4,000 gallons per day.

A consultation with Virgin Islands Waste Management Authority (VIWMA) will be conducted, to determine requirements to connect the project to existing gravity sewer system.

FEDERAL CONSISTENCY DETERMINATION

The proposed project consists on two main phases: Demolition of the existing structures and facilities and construction of the new Head Start facilities. The project site is approximately 4 miles inland from coastal waters.

It is expected that both, the demolition of the existing buildings and the new construction might have the potential of impacting environmental resources, air and water quality during both demolition and construction activities. Preventive and mitigation measures, such as sedimentation and erosion control plans, will be implemented to minimize the risks for these potential environmental impacts to occur.

The proposed project occurs only within previously disturbed areas and excavation of historical or cultural resources is not anticipated. Project activities will 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 resources of the Coastal Zone be consistent with the enforceable policies of a state's federally approved Coastal Management Program. The proposed Head Start Facility at No. 3 Upper Bethlehem/VICORP Land is designed to fall within existing roadways and previously disturbed areas. The project will not impact any natural resources and will improve the visual landscape in the Upper Bethlehem area. As proposed, it 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 Head Start Facility project’s compliance with the U.S. Virgin Islands’ CZM Program.
The project meets each of the basic goals of the USVI for its coastal zone as set forth in the Virgin Islands Code Title 12, Conservation Chapter 21, Virgin Islands Coastal Zone Management [V.I. Code tit. 12, § 903(b)]. 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 Head Start Facility at No. 3 Upper Bethlehem/VICORP Land 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 in the Upper Bethlehem Area.

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 a necessary public service on the island through the development of a facility that meets the early childhood needs of the children and their parents within the greater community.

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 does not impact coastal dependent development within the coastal zone area.

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 proposed Head Start Facility at No. 3 Upper Bethlehem/VICORP Land 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 in the Upper Bethlehem area. The proposed project will provide critical public services and therefore will meet the economic and social needs of the residents of the Upper Bethlehem area and the community of St. Croix on a whole.

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 will not impact trust lands or other submerged or filled lands of the U.S. Virgin Islands.
6. Preserve what has been a tradition and protect what has become a right of the public by ensuring 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 well 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. The project will serve a public need of child care and development within the served area.

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 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.

The proposed Head Start Facility at No. 3 Upper Bethlehem/VICORP Land 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 in the Upper Bethlehem area. It will maintain coastal water quality through control of erosion, sedimentation, runoff, and siltation. As designed, it 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 to the USVI. It is therefore consistent with the policy set forth in the Virgin Islands Code Title 12, Conservation Chapter 21, Virgin Islands Coastal Zone Management [V.I. Code tit. 12, § 903 (b)].

END COASTAL CONSISTENCY DETERMINATION REQUEST