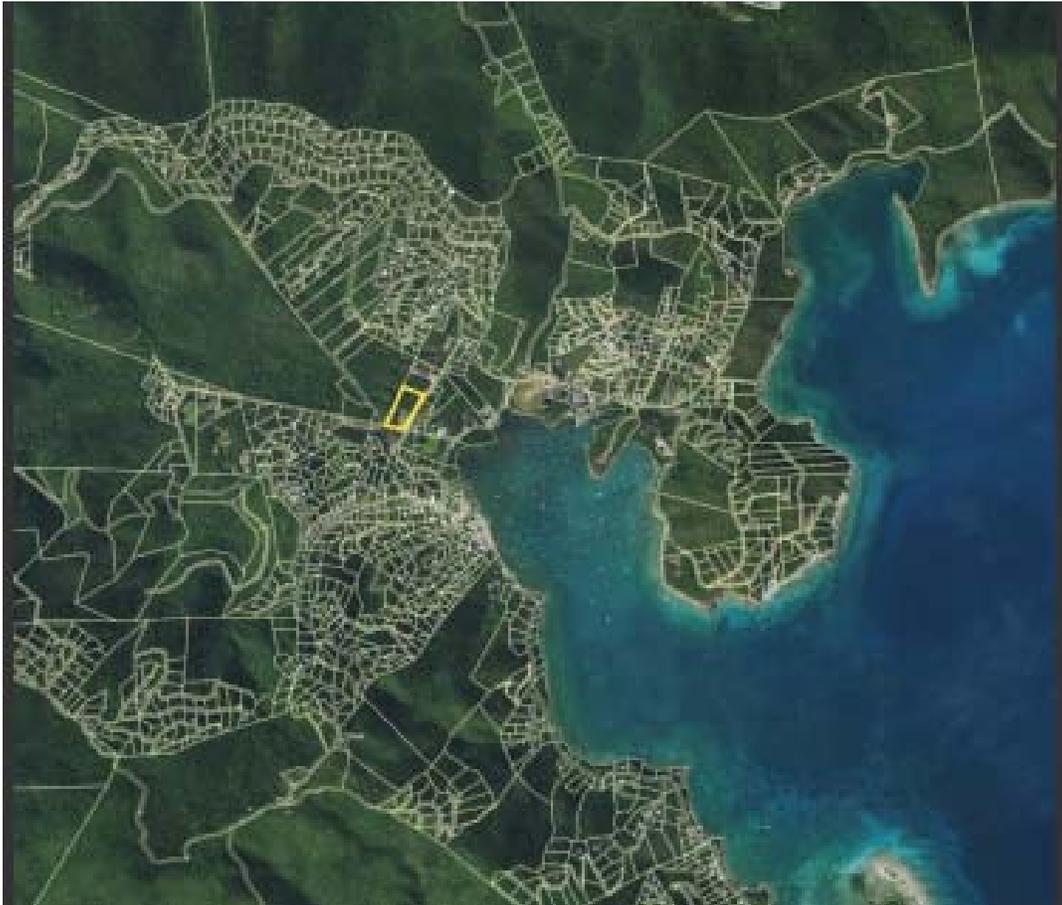


Major CZM Permit - Land Development Permit Application

for

St. Therese Chapel- Diocese of St. Thomas

Parcel 6R-2C Estate Carolina, St. John, Virgin Islands



July 6, 2021
Prepared By:

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II OTHER REQUIRED SUBMITTALS

- a. Approved Road and Driveway Permit (site entry is from deeded ROW)
- b. Permit Application Form (Form L&WD-2)
- c. Zoning Requirements Table (Form L&WD-3)
- d. Major Project Summary Data (L&WD-4)
- e. Proof of Legal Interest Letter (Form L&WD-5)
- f. Income Tax Clearance Letter (Form L&WD-6)
- g. Corporate Application Form (Form L&WD-7)
- h. Certificate of Corporate Good Standing
- i. Copy of the Deed/Lease/Purchase Agreement/Easement Rights
- j. Property tax clearance letter (from the Department of Finance)
- k. Application Fee(s)
- l. A certified list of all property owners within a 150 foot radius of the property boundaries, including current mailing addresses as exist at the assessor's office.
- m. Letter from the Historic Preservation Officer - SHPO approving the Phase IB Archeological Resource Survey Proposal.
- n. Qualifications and background of designers, engineers, and other professionals involved with the project
- o. Market Study, analysis and feasibility of the project (non-profit, no market study)
- p. NFIP Flood Zone Designation (Form L&WD-8)

I ENVIRONMENTAL ASSESSMENT REPORT

1.00 NAME AND ADDRESS OF APPLICANTS

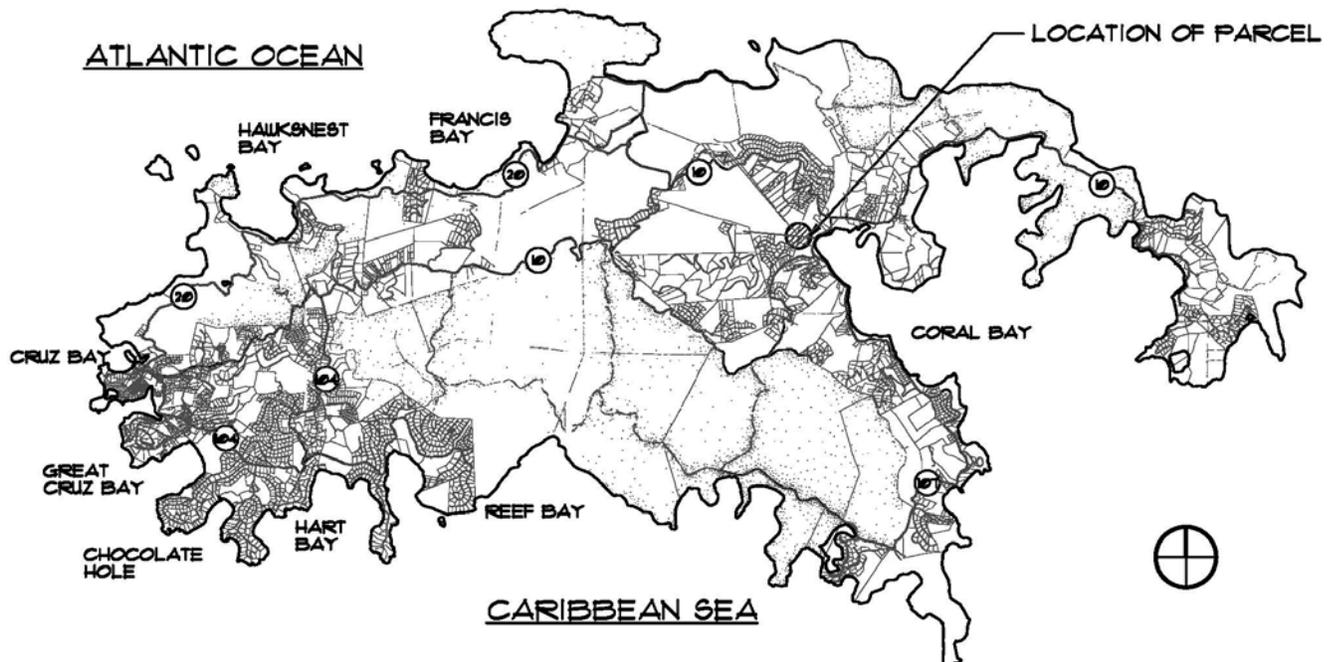
Diocese of St. Thomas, USVI
c/o Our Lady of Mt. Carmel Church, St. John
P.O. Box 301825
St. Thomas, VI 00803

2.00 LOCATION OF PROJECT

The proposed project is located at:
Parcel 6R-2C Estate Carolina
Coral Bay Quarter
St. John, VI 00830

2.01 LOCATION REVIEW MAP

See the Cover sheet and Sheet A0.0 for more information.



2.02 VICINITY MAP

See the Cover sheet and Sheet A0.0 for more information.

3.00 ABSTRACT

The Diocese of St. Thomas proposes to build a Chapel, Community Center, Catholic Charities Center, and Residence on Parcel 6R-2C Estate Carolina on an undeveloped parcel of land. The Chapel and parking area are intended to appeal to the community of Coral Bay as well as visitors to the island. The Community Center will be available to host town meetings, before and after school children's programming, exercise classes, and serve as a banquet hall for church functions. The Catholic Charities Center will have a full commercial kitchen to serve the community on a daily basis. The building also has 8 rooms for displaced individuals needing temporary shelter. The residence will house 2-3 nuns year round. The project shall be highly storm resistant, low maintenance, and shall incorporate technologies to reduce energy use (net neutral goal).

4.00 STATEMENT OF OBJECTIVES SOUGHT BY THE PROPOSED PROJECT

The objective of the project is to build high quality, safe, and efficient community hub for residents of St. John and specifically the Coral Bay Community. It is also the intent of the project to minimize the social and environmental impact by carefully designing a project that responds to archaeological and ecological site conditions.

5.00 DESCRIPTION OF PROPOSED PROJECT

The proposed project shall be a grouping of four structures and 46 parking spaces on permeable pavers. The 2.837 acre parcel is zoned B-2; Secondary Business allowing a maximum of three-stories. While more are allowed, the maximum building height for this project is 2 stories. The construction shall be concrete walls and concrete floors for durability as well as storm and fire resistance. The siting of the buildings is intended to have an appealing view from the street while avoiding historically significant artifacts.

5.01 SUMMARY OF PROJECT

a. Purpose of project.

The purpose of this project is to build a community hub to provide a variety of services to the Coral Bay Community and St. John.

b. Critical areas and possible trouble spots.

After the findings of Archeological Study required by the State Historical Preservation Office, we resited the structures to avoid historically significant areas. Additionally, the flood plains are a concern due to the relative flatness of the land as well as the flood zone designation. Care shall be taken to preserve undisturbed areas and to protect neighboring properties.

c. Proposed method of land clearing.

All land clearing shall be coordinated with proposed plans and shall follow all DPNR

guidelines. Preliminary clearing shall be by hand and, after review, equipment shall excavate the foundation. Care will be taken to protect existing trees.

d. Provisions to preserve topsoil and limit site disturbance.

All top soil shall be stock piled and protected by geo-textile fabric for later use. Site disturbance shall be kept at a minimum as well as required by compliance to the 1995 Virgin Island Environmental Protection Handbook and the recommendations of the Cooperative Extension Services.

e. Erosion and sedimentation control devices to be implemented.

All measures outlined by the 1995 Virgin Island Environmental Protection Handbook, of the Cooperative Extension Services shall be followed, as well as those outlined in the Environmental Guidelines. A silt fence is shown encompassing the site on the downhill side, See A0.0 Site Plan.

f. Schedule for earth changing activities and implementation of erosion and sediment control measures.

The construction will commence after approval of the CZM and Building permits, and any other required permit approvals. It is anticipated that the construction shall take approximately twenty four (24) months. All recommended erosion control measures shall be installed prior to the beginning of work and shall be maintained until work is complete.

g. Maintenance of erosion and sediment control devices.

The maintenance of all erosion and sediment control measures shall fully comply with Virgin Island Environmental Protection Handbook 1995 and the Cooperative Extension Services. The drawings indicate that the mitigation measures (silt fences and berms) shall be inspected weekly and addressed as needed.

h. Method of stormwater management.

Given the size of the property and the mitigation measures that encompass the site, very little stormwater shall accumulate or leave the property. With the use of permeable pavers, almost all storm water will flow back into the ground. All rainwater that lands on building roofs shall be collected directed into cisterns. Overflow from cisterns shall be dissipated to avoid erosion.

i. Maintenance of the stormwater facilities.

The maintenance of the stormwater facilities shall fully comply with 1995 Virgin Island Environmental Protection Handbook and the Cooperative Extension Services.

j. Method of sewage disposal.

All sewage treatment shall be handled by aerated treatment units (ATUs), aka mini-treatment septic systems, a proven and accepted method of sensitive wastewater management for many years, this system is also accepted by the EPA, U.S. Coast

Guard, and Virgin Island's DPNR. Two (5) 750gpd three-tank ATU systems are located in two separate locations with (3) units serving the Chapel and Community Center and (2) units serving Catholic Charities Center and Residence. They will be easily accessible for inspections and maintenance. Outflow greywater shall be used for subsurface irrigation.

5.02 **SITE PLANS, EXHIBITS, & DRAWINGS**

See Drawings Index located on the submitted Cover Sheet:

Cover Sheet

A0.0	Proposed Site Plan
A0.1	Site Section and Site Details
AA1.0	Chapel Foundation Plan
AA1.1	Chapel Main Level Floor Plan
AA1.2	Chapel Loft Floor Plan
AA1.3	Chapel Roof Plan
AA2.0	Chapel Elevations
AA2.1	Chapel Elevations
AA2.2	Chapel Sections
AA2.3	Chapel Sections
AA2.4	Chapel Sections
AB1.0	Community Center Foundation Plan
AB1.1	Community Center Floor Plan
AB1.2	Community Center Roof Plan
AB2.1	Community Center Elevations
AB2.2	Community Center Elevations
AC1.0	Catholic Charities Foundation & First Floor Plans
AC1.1	Catholic Charities Second Floor & Roof Plans
AC2.0	Catholic Charities Elevations
AD1.0	Residence Foundation & First Floor Plans
AD2.0	Residence Elevations

5.03 **PROJECT WORK PLAN**

a. **Identification of subprojects and activities:**

1. **Site Preparation** - Prior to any and all earth work, the perimeter of the buildings shall be located by the surveyor and sediment control devices will be installed. At the same time the property shall be hand cleared of weeds and overgrowth that may make visibility difficult.
2. **Demolition of existing** – Currently there is a temporary deck structure on site. This will be moved to a new location and demolished when the Chapel is complete.
3. **Septic area** - Excavate work area, form footings and slabs, place concrete.
4. **Foundation and Cistern Level** - Excavate work area, backfill lower work, form footings and slabs, place concrete.
5. **Lower Level** - Excavate work area, backfill lower work, form footings and

- slabs, place concrete.
6. **Second Level** - Form slabs, place concrete.
 7. **Roof Level** – Frame and sheath. Place metal roofing.
 8. **Doors and Windows** - Install exterior doors and windows
 9. **Exterior Finishes** - Plaster exterior surfaces and install exterior materials including roof membrane.
 10. **Interior Finishes and Fixtures** - Plaster interior surfaces and install interior materials, install interior doors.
 11. **Cabinetry and Appliances** - Install cabinetry, electrical fixtures, and plumbing fixtures.
 12. **Close Permits** - Apply and inspect for final inspections and CO.
 13. **Furniture** - Install furniture.
- b. **Phasing of subprojects and activities:**
- a. **Site Preparation** - Expected task duration 1 week.
 - b. **Demolition of existing** - Expected task duration 1 week.
 - c. **Septic area** - Expected task duration 3 weeks.
 - d. **Foundation and Cistern Level** - Expected task duration 8 weeks.
 - e. **Lower Level** - Expected task duration 9 weeks.
 - f. **Second Level** - Expected task duration 8 weeks.
 - g. **Third Level** - Expected task duration 8 weeks.
 - h. **Roof Level** - Expected task duration 3 weeks.
 - i. **Doors and Windows** - Expected task duration 3 weeks.
 - j. **Exterior Finishes** - Expected task duration 6 weeks.
 - k. **Interior Finishes and Fixtures** - Expected task duration 8 weeks.
 - l. **Cabinetry and Appliances** - Expected task duration 4 weeks.
 - m. **Close Permits** - Expected task duration 2 week.
 - n. **Furniture** - Expected task duration 4 weeks.

6.00 SETTING AND PROBABLE PROJECT IMPACTS ON THE NATURAL ENVIRONMENT

The information contained herein speaks of the existing site conditions, the relationship of the proposed project to the site, the potential effects on the natural and man-made environments, and mitigation plans to be instituted to reduce and/or prevent impacts to those environments.

6.01 CLIMATE AND WEATHER

Prevailing Winds

The Virgin Islands lie in the "Easterlies" or "Trade Winds" which traverse the southern part of the "Bermuda High" pressure area, thus the predominant winds are usually from the east north-east and east (IRF, 1977). These trade winds vary seasonally and are broadly divided into 4 seasonal modes: 1) December to February; 2) March to May; 3) June to August; and 4) September to November. Below are the characteristics of these modes as taken from Marine Environments of the Virgin

Islands Technical Supplement No. 1 (IRF, 1977).

December - February

During the winter the trade winds reach a maximum and blow with great regularity from the east north-east. Wind speeds range from eleven to twenty-one knots about sixty percent of the time in January. This is a period when the Bermuda High is intensified with only nominal compensation pressure changes in the Equatorial Trough. The trade winds during this period are interrupted by "Northerners" or "Christmas Winds" which blow more than twenty knots from a northerly direction in gust from one to three days. Such outbreaks average about thirty each year. They are created by strengthening of high pressure cells over the North American continent which, in turn, allows weak cold fronts to move southeastward over the entire Caribbean region. These storms are accompanied by intermittent rains and by clouds and low visibility for mariners.

March - May

During the spring, the trade winds are reduced in speed and blow mainly from the east. Winds exceed twenty knots only thirteen percent of the time in April. The change in speed and direction is the result of a decrease of the Equatorial Trough.

June - August

Trade winds reach a secondary maximum during this period and blow predominantly from the east to east south-east. Speeds exceed twenty knots twenty-three percent of the time during July. The trend for increasing winds results from the strengthening of the Bermuda High and a concurrent lowering of the pressure in the Equatorial Trough. Trade winds during this period are interrupted by occasional hurricanes.

September - November

During the fall, winds blow mainly from the east or southeast and speeds reach an annual minimum. Only seven percent of the winds exceed twenty knots in October. The low speeds result from a decrease in the Equatorial Trough. During this period, especially during late August through mid-October, the normal trade wind regime is often broken down by easterly waves, tropical storms and hurricanes.

Storm and Hurricanes

There are numerous disturbances during the year, especially squalls and thunderstorms. These occur most frequently during the summer, lasting only a few hours and causing no pronounced change in the trade winds.

A tropical cyclone whose winds exceed 74 miles per hour is termed a hurricane in the northern hemisphere, and significantly affects the area. These hurricanes occur most frequently between August and mid-October (Figure 6.01.2) with their peak activity occurring in September. The annual probability of a cyclone is one in sixteen years (Bowden, 1974). Hurricanes passing within a 125 statute mile circle centering on

Charlotte Amalie, U.S., Virgin Islands (18.3 N, 64.9 W) from 1886 through 1990 are listed in Figure 6.01.3. The tracks of these hurricanes are depicted in Figure 6.01.4 through 6.01.8. (Storm Surge Group, 1992). Since 1990, the Virgin Islands have been impacted by a number of hurricanes with Irma and Maria in 2017 being the most severe.

Climate

The average annual rainfall on St. Thomas and St. John is approximately 45 inches, ranging from 35 inches toward the eastern end of the islands to more than 55 inches at the higher elevation to the west. It can be assumed that rain fall on the island would range between 35 and 45 inches annually. The rainfall usually occurs in brief, intense showers of less than a few tenths of an inch (Jordan, 1975). February and March are the driest months, and September is the wettest, with nearly half the annual rainfall occurring between August and November (Jordan, 1975).

Annual temperatures average 79 degrees Fahrenheit (F), with the winter low averaging 76 degrees F and the summer high reaching an average of 84 degrees F. Occasionally, maximum daily temperatures will exceed 90 degrees F and minimum temperatures will drop below 70 degrees F (Jordan, 1975).

6.02 LANDFORMS, GEOLOGY, SOILS, AND HISTORIC USE

Landforms

The island of St. John is a steep island that has weathered to its current shape, similar the surrounding islands of the area. The hill sides are typically rocky with thin soils and in the flat areas along the shore, where runoff has collected, rich soil support thick plant life. The north shore of the island is bordered with cliffs with the exception of the small sandy north shore beach of this proposed project. The south shore is more accessible, being composed of a cobble stone beach, and relatively gentle slopes.

Geology of St. John the Surrounding Cays

The Virgin Islands are near the northeastern corner of the present Caribbean Plate, a relatively small trapezoidal-shaped plate which is moving eastward relative to the North and South American continents carried on the American plate. The arc of the Lesser Antilles is an active volcanic arc above a subduction zone in which the Atlantic oceanic crust of the American Plate is carried downward under the Caribbean Plate. The closest volcano to the Virgin Islands which is still active is Saba, about 160 km to the east. St. Thomas and St. John, are composed of stratified volcanic and volcanoclastic rocks with minor limestone of the Early Cretaceous (Albain) to possible the late Cretaceous age (Donnelly 1966). These rocks are granite composition, some of which may be as young as Tertiary (Kesler and Sutter, 1979). The oldest rocks on St. John are submarine lavas (keratophyre and spilite), beds of volcanic debris and chert and associated intrusive rocks of the Water Island Formation. Fossils in cherts of the Water Island Formation indicate that the unit is of

Early Cretaceous (Albain) age. The Water Island Formation is overlain by andesitic volcanic and volcanoclastic rocks of the Louisenhoj Formation which underlies the island of St. Thomas to the east and much of the northwestern portion of St. John. Donnelly (1966) suggested that the Louisenhoj Formation was deposited unconformably on the Water Island Formation after a period of emergence, tilting and erosion, on the slopes and environs of a subaerial volcanic island located roughly between St. Thomas and St. John, an area now occupied by Pillsbury sound. The youngest layered deposits on St. Thomas are volcanoclastic rocks of the Tutu Formation. Fossils contained in the Tutu Formation suggest that those deposits are of the Early Cretaceous (Albain) age (Donnelly et al. 1971). It appears that all of the volcanoclastic rocks of St. Thomas were deposited in a relatively short period of time spanning 10 to 15 million years approximately 100 million years ago (D. Rankin, 1988).

St. John is characterized by an irregular coastline, numerous bays, steep slopes, and small drainage areas. For the most part the topography is very mountainous, and coastal plains are almost completely absent.

Geology of Estate Carolina

St. John is located east of St. Thomas and comprises an area of roughly 19.61 square miles. The property is located within Estate Carolina, a fertile basin on the eastern part of St. John in Coral Bay. The maximum elevation of the 600 feet. The subject parcel is located at 22 to 14 feet and has an average slope of 1.8%.

Soils

Soils maps illustrate that the property is comprised of CnC soils; Cinnamon Bay Loam (0%-5% slope).

Historic Use

See attached Phase 1 Cultural Resources Survey and Testing.

6.03 DRAINAGE, FLOODING AND EROSION CONTROL

a. Drainage information.

The project site naturally drains from south west to north east towards the Coral Bay marsh land.

b. Alterations to drainage pattern.

The project shall not affect existing natural drainage patterns around the perimeter of the site while runoff on all proposed surfaces shall be collected and directed to cisterns for future use.

c. The relationship of the project to the coastal floodplain.

The project site is located 844 feet away from the nearest shore and 19 feet above sea level. The site is listed as Flood Zone type A. As shown on drawing A0.0, The flood

zoon elevations are 23.56' on the western part of the parcel and 18.928 on the eastern part of the parcel. Each building is sited to that the habitable area is above the flood zone plane.

d. Peak stormwater flow calculations.

The project site 2.837 acres and stormwater impact is not expected to change based on the use of permeable pavers low site impact. Peak stormwater flow calculations were prepared given the size of the property and the limited excavation area.

e. Existing Stormwater disposal structures.

There are no existing storm water disposal structures. The proposed project intends to collect all water landing on the building roof areas to be kept in multiple cisterns with fresh water used within the buildings for day to day activities. Any greywater from the septic tanks will be used for landscaping irrigation.

f. Stormwater control facilities.

There are no existing storm water control facilities. All disturbed areas will be stabilized with the use of erosion control practices as set forth in the 1995 Virgin Islands Environmental Protection Handbook. A drainage system of curbs, guttering, and catchment cisterns is integral to the design. The greywater cisterns will be regularly inspected and maintained with greywater will be used to re-vegetate and maintain existing vegetation.

g. Schedule of maintenance of stormwater control features.

All catch basins and catchment cisterns will be inspected and cleaned every 12 months and immediately after large storm events. The oil/water separator will be inspected twice monthly, and if oil is present it will be removed with appropriate absorbent material.

h. Method of land clearing.

No tree of over 5 inches in diameter at breast height shall be removed without prior review and all preliminary clearing shall be done by hand. A majority of the site has been previously cleared so no large trees are expected to be impacted by this project.

i. Provision to preserve topsoil and limit site disturbance.

Prior to any and all earth work, erosion control devices and practices will be installed and utilized as set forth in the 1995 Virgin Islands Environmental Protection Handbook. Such practices will include but not be limited to erosion control matting, mulching and planting to prevent erosion of soils disturbed on the site as a result of construction. These will be routinely and regularly inspected and maintained in proper working order. If at any time these devices become worn or damaged or cease to function properly they will be immediately repaired or replaced before construction will continue.

Earth disturbance will be limited to that required to prepare the building site. All disturbed areas will be stabilized with the use of erosion control practices. All excavated soil shall be stockpiled, surrounded with silt fences, and be covered with an appropriate erosion control blanket or matting.

j. Potential critical areas and trouble spots.

No major grading of the site will occur. The natural existing flow of water will not be disturbed.

k. Erosion and sediment control devices to be implemented.

Erosion control devices and practices will be installed and utilized as set forth in the 1995 Virgin Islands Environmental Protection Handbook. Such practices will include but not be limited to: erosion control matting, mulching and planting to prevent erosion of soils disturbed on the site as a result of construction, properly sited and installed silt fencing to intercept and filter overland flow; the use of silt fences to intercept and filter overland flow; and the use of porous materials and infiltration practices to reduce storm water volumes and velocities.

l. Maintenance of erosion and sediment control devices.

The erosion and sediment control devices will be routinely and regularly inspected and maintained in proper working order. If at any time these devices become worn or damaged or cease to function properly they will be immediately repaired or replaced.

m. Impact on terrestrial and shoreline erosion.

The site is 844 feet from the closest shoreline with a number of existing buildings and roads in between. The proposed project shall have no impact on terrestrial and shoreline erosion.

6.04 FRESHWATER RESOURCES

There are no existing freshwater resources on the site. The proposed freshwater shall be collected from the roof and stored in multiple cisterns below the buildings.

6.05 OCEANOGRAPHY

a. Seabed alteration.

The site is 844 feet from the closest shoreline at an average elevation of 18 feet with a number of existing buildings and roads in between. The project shall have no direct impact on the seabed and nothing is proposed that would affect the seabed.

b. Tides and currents.

The site is 844 feet from the closest shoreline at an average elevation of 18 feet with a number of existing buildings and roads in between. The tides and currents shall have no direct impact on the project and nothing is proposed that would affect tides or currents.

c. Wave and wind impacts.

The site is 844 feet from the closest shoreline at an elevation of 130 feet an average elevation of 18 feet with a number of existing buildings and roads in between. The wave and wind shall have no direct impact on the project and nothing is proposed that would affect waves and wind.

d. Marine water quality.

The site is 844feet from the closest shoreline at an average elevation of 18 feet with a number of existing buildings and roads in between. The marine water quality shall have no direct impact on the project and nothing is proposed that would affect marine water quality.

6.06 MARINE RESOURCES AND HABITAT ASSESSMENT

The site is 844 feet from the closest shoreline at an average elevation of 18 feet with a number of existing buildings and roads in between. The marine water quality shall have no direct impact on the project and nothing is proposed that would affect marine water quality.

6.07 TERRESTRIAL RESOURCES

The property has been partially cleared and excavated. All trees over 5” diameter will be preserved.

6.08 WETLANDS

The U.S. Army Corps of Engineers defines wetlands as "those areas that are periodically inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for the in saturated soft conditions. Wetlands generally include swamps, bogs, marshes and similar areas." (U.S. Army Corps of Engineers, 1986). There are no wetlands on, or adjoining to, the property.

6.09 RARE AND ENDANGERED SPECIES

There is no evidence of rare and endangered species on the property. As a result development of this project shall not displace any rare or endangered or threaten species from its natural niche or habitat.

6.10 AIR QUALITY

All of St. John is designated Class II by the Environmental Protection Agency in compliance with the National Ambient Air Quality Standards. In class 11 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).

During the excavation some dust and exhaust fumes from heavy machinery will be

created. This is unavoidable but is intended to be limited by designing the project to follow the slope of the site. To further limit dust the site shall be wetted as needed during work. However, this disturbance will only last until the construction activity is complete. Once the construction is completed air quality on site will quickly return to normal.

7.00 IMPACT OF THE PROPOSED PROJECT ON THE HUMAN ENVIRONMENT

The impact of the proposed project on the human environment shall be minimal except for those people for which they will serve; mainly residence and visitors of Coral Bay. The subject property and the adjoining parcels are undeveloped and typically zoned B-2.

7.01 LAND AND WATER USE PLANS

The property is zoned B-2; Business - secondary. This zoning allows a maximum of three stories. The proposed project creates (2) 2-story structured and (2) 1-story structures. The Chapel has occupancy of 168 individuals. The Community Center has a maximum occupancy of 260 individuals. Both buildings are not expected to be at full occupancy simultaneously. The project is in keeping with the current zoning laws an. Furthermore the project is in keeping with the goals of CZM to create high quality projects with low environmental impact.

7.02 VISUAL IMPACT

The project is sited so the Chapel entry greets visitors as they drive up the road and enter the site. All parking is behind the building to allow for landscaping give the site a more curb appeal.

7.03 IMPACT ON PUBLIC SERVICES AND UTILITIES

a. Water.

As with most structures in St. John and all development in Coral Bay and in many parts of the Virgin Islands, water for the proposed project shall be collected from roof, delivered to cisterns, and filtered for use throughout the project. Pursuant to the guidelines for cistern capacity, the minimum size must be 39,750 gallons. The project proposes five (5) cisterns for a total capacity of 77,691 gallons. In addition the parking area greywater cistern has an additional capacity of 10,057 gallons.

b. Sewage Treatment and Disposal.

As with most structures in St. John and all development in Coral Bay and in many parts of the Virgin Islands wastewater shall be treated on site with wastewater treatment systems and greywater recycled for irrigation.

The FAST system has been selected because of its low maintenance requirements and its excellent performance. It bears the seal of the National Sanitation Foundation as an International Standard 40, Class 1 Certified Unit, and meets or exceeds all

Environmental Protection Agency requirements. Its effluent is clear and odorless, qualified for discharge above or below surface. The greywater effluent shall be discharged just below surface for use in supporting landscape vegetation on the rocky terrain typical of the site.

c. Solid waste disposal.

Solid waste and trash are deposited into an onsite dumpster and removed by a private company as required.

d. Roads, traffic, and parking.

As with most structures in St. John and in many parts of the Virgin Islands, access to the public roads is by a ROW running along the south side of the property. The proposed driveway is a one directional "C" shaped drive with two intersections to the ROW. See Site Plan on A0.0 for more information. No new access to the road is proposed and no Driveway Permit is required.

During construction there will be additional traffic on and around the site. All parking and machinery of construction vehicles will be on site 6R-2C Estate Carolina to mitigate potential impacts. Once the project is complete the parking area shall have a total of eight (46) parking spaces including (6) handicapped parking spaces.

e. Electricity.

As with all existing structures on St. John and in many parts of the Virgin Islands, WAPA shall provide primary electrical utility. In addition the project shall include solar panels and a back-up generator (located on the plans), of sizes yet to be determined, that shall service a battery system sized to provide full capacity to the project during outages.

f. Schools.

The project will have no impact on the school population. Before and after school programs are planned for school aged children as part of the Community Center Programming.

g. Fire and police protection.

As with all existing structures on St. John and in many parts of the Virgin Islands, the Coral Bay Fire Service and the Cruz Bay Police Command shall provide fire and police protection. To reduce that need the proposed buildings are construction with 2 hour rated walls and slabs between to reduce fire risks and shall include security systems to reduce crime.

h. Health.

As with all existing homes on St. John and in many parts of the Virgin Islands, illnesses and health emergencies would be addressed by the clinic in Cruz Bay and/or the clinic on Centerline Road.

7.04 SOCIAL IMPACTS

The Chapel, Community Center, and Catholic Charities buildings will have positive social impacts for all of Coral Bay and St. John at large. The campus will provide much needed resources for the community,

7.05 ECONOMIC IMPACT

The Chapel weekly attendants will have a positive impact the Coral Bay business owners; catering and restaurant owners in particular. In addition, during construction the project shall provide numerous jobs to various trade and businesses.

7.06 IMPACT ON HISTORICAL AND ARCHAEOLOGICAL RESOURCES

A two- part Phase 1 study has been prepared by CocoSol International Inc. for this site as a result of the proposed project. Please see attached reports. If any additional historical or archeological resources are discovered on the property, work shall stop and be reported to DPNR.

7.07 RECREATIONAL USE

St. John is an island based upon recreational use with access to the VI and federal land and water resources. This project shall allow more people to enjoy recreational areas. Picnic and play areas are included on the site.

7.08 WASTE DISPOSAL

There will be no hazardous waste handled during the construction of the project or after construction. Used oil from generators will be collected and stored in appropriate containers and legally disposed of through a commercial contractor on St. John in accordance with Environmental Protection Agency guidelines. Storage batteries which are spent will be collected and recycled by a local battery sales operation.

7.09 ACCIDENTAL SPILLS

As with all construction projects, during the construction of homes it is possible that fuel or oil leaks could occur with the operation of heavy machinery. If such leaks occur the leak shall be immediately contained and the oil, or fuel, collected and disposed of properly. All fuel tanks when stored will be covered, will have a 110% spill catchment basin, and will have a detailed fuel spill contingency plan. If fuel is spilled it will be collected and disposed of in a proper manner in accordance with Environmental Protection Agency guidelines. The completed project is designed to have a back-up generator which will use diesel fuel. The fuel tanks are intended to be doubled walled and shall include a catchment basin.

7.10 POTENTIAL ADVERSE EFFECTS WHICH CANNOT BE AVOIDED

As with all construction, it is unavoidable that a limited amount of existing vegetation

will be lost through the construction of roads and homes. The completed site, however, will be landscaped to stabilize soil, soften the visual impact, and to improve the aesthetic appeal of the property.

The potential for sedimentation and erosion will exist during construction but the risk shall be mitigated as described. The applicant will abate this potential impact to the environment through the implementation of both temporary, during construction, and permanent sedimentation and erosion control plans. Through the use of plantings and stabilization measures, stormwater facilities, and stormwater catchment systems the potential impacts are greatly reduced and, in fact, will improve on the current conditions of the undeveloped site.

8.00 MITIGATION PLANS

In the development of any site where earthwork is executed or soil is disturbed, the potential for sedimentation and erosion can exist. Because the proposed structures are on a relatively flat site, the entire site can be monitored and mitigation measures inspected and quickly repaired, as needed. In order to protect water quality and prevent erosion of soils into the water, all measures recommended by the 1995 Virgin Island Environmental Protection Handbook, the Extension Cooperative Services, and VI Marine Advisors, Inc. shall be fully implemented. No measures beyond what has already been proposed and designed shall be needed.

9.00 ALTERNATIVES TO PROPOSED ACTION

Pursuant to the VI Building Code there are, of course, a large number of different ways the site could be developed as allowed by zoning however none that would better meet the owner's goals or better fit within the site and context of the neighborhood. Additionally all other options that satisfy the project objective would have a similar, if not greater, environmental and human impacts.

NO BUILD ALTERNATIVE

The site would remain in its present state. The human environment would not be impacted at all however no new construction would reduce property values, reduce valuable charitable resources for the community, and no new dwellings or jobs would be created. A potential for responsible and sensitive development would be lost.

CONCLUSION

The conclusion reached was that the proposed project design met all the goals of the property owners as well as was the most complementary to the existing site and the neighborhood context.

10.00 RELATIONSHIP BETWEEN SHORT AND LONG TERM USES OF MAN'S ENVIRONMENT

The proposed project brings with it a low intensity land conversion, and is in keeping with the character of Coral Bay. It is our belief that the proposed project is the best short and long term use for the property, human impact, and environment.

11.00 REFERENCES

LITERATURE CITED

Bowden, M. J. et. al., 1969. Climate, water balance and climatic change in the north-west Virgin Islands. Caribbean Research Institute, CVI, St. Thomas, Virgin Islands.

Donnelly, T. 1966. Geology of St. Thomas and St. John, U.S. Virgin Islands. In: Hess, H. (ed.)

Caribbean geological investigations. Geol. Soc. Amer. Mem. 98:85-176.

Donnelly, T., et al., 1971. Chemical evolution of the igneous rocks of the Eastern West Indies. In: Donnelly, T. (ed.) Caribbean geophysical, tectonic and petrologic studies. Geol. Soc. Amer. Mem. 130:181-224.

Hays, W. W., 1984. Evaluation of the earthquake-shaking hazard in Puerto Rico and the Virgin Islands. Paper present at the earthquake hazards in the Virgin Islands Region Workshop, St. Thomas, April 9-10, 1984.

Island Resources Foundation, 1977. Marine environments of the Virgin Islands. Technical Supplement No. 1, 1976. Prepared for the Virgin Islands Planning Office.

U.S. Department of Agriculture Soil Conservation Service, 1970. Soil Survey Virgin Islands of the United States. U.S. Government Printing Office, Wash., D. C.

LIST OF PERSONS CONSULTED

The professional and expert resources consulted for the preparation of the permit application for land, pier and, boat ramp permit include, but are not limited to, the following:

- a. James Sturgess, Construction Advisor; Majestic Construction, Inc., St. John.
- b. St. John Police Department, Consultant; St. John.
- c. Virgin Island Fire Services, Consultant; St. John and St. Thomas.

LIST OF TEXTS CONSULTED

The written references used in preparation of the land, pier, and boat ramp permit application include, but are not limited to, the following:

- a. Virgin Island Environmental Protection Handbook, 1995.

- b. A Natural History Atlas to the Cays of the U.S. Virgin islands, Arthur E. Dammann and David W. Nellis, 1992.

II OTHER REQUIRED SUBMITTALS

Please find the following submittals attached as requested:

- a. A road and driveway permit is not needed as the driveway intersections a private ROW.
- b. Permit Application Form (Form L&WD-2) is attached.
- c. The Zoning Requirements Table (Form L&WD-3) is attached.
- d. The Major Project Summary Data (L&WD-4) is attached.
- e. The Proof of Legal Interest Letter (Form L&WD-5) is attached.
- f. The Income Tax Clearance Letter (Form L&WD-6) is attached.
- g. The Corporate Application Form (Form L&WD-7) is attached.
- h. A certificate of Corporate Good Standing is attached.
- i. A copy of the deed is attached.
- j. The Property tax clearance letter, from The Department of Finance, is attached.
- k. The Application Fee(s) has been paid and a copy of check is attached.
- l. A certified list of all property owners within a 150 foot radius of the property boundaries is attached.
- m. The letter from the Historic Preservation Officer - SHPO approving the Phase I Archeological Resource Survey for this site has been approved.
- n. A list of qualifications and background of designers, engineers, and other professionals involved with the project is as follows:
 - Michael Milne, Architect, Barefoot Design Group, LLC; V.I. Registered Architect, 621-A
- o. The market study, analysis, or feasibility of the project is not for a non-profit organization.
- p. NFIP Flood Zone Designation (Form L&WD-8) is attached.