Final Environmental Assessment

St. Rita Catholic Church Master Plan

Nānākuli, Oʻahu, Hawaiʻi

April 2016

Prepared for:

The Roman Catholic Church in Hawaiʻi
St. Rita Catholic Church

Prepared by:

Hawaiʻi Planning, LLC

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APPENDICES

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ACRONYMS

ADA	American with Disability Act
ALISH	Agricultural Lands of Importance to the State of Hawai‘i
AIS	Archaeological Inventory Survey
BMP	Best Management Practices
BWS	Board of Water Supply
CDP	Census Data Place
CWRM	Commission on Water Resource Management
CZM	Coastal Zone Management
DBEDT	Department of Business, Economic Development & Tourism
DHHL	Department of Hawaiian Home Land
DLNR	State Department of Land and Natural Resources
DOE	State of Hawai‘i Department of Education
DOH	State of Hawai‘i Department of Health
DOT	State of Hawai‘i Department of Transportation
DPP	Department of Planning & Permitting
EA	Environmental Assessment
FEMA	Federal Emergency Management Agency
FHAT	State of Hawai‘i Flood Hazard Assessment Tool
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
HAR	Hawai‘i Administrative Rules
HCM	Highway Capacity Manual
HECO	Hawaiian Electric Company
HRS	Hawai‘i Revised Statutes
IWS	Individual Wastewater System
LOS	Level of Service
LSB	University of Hawai‘i Land Study Bureau
LUC	State of Hawai‘i Land Use Commission
LUO	Land Use Ordinance
NAAQS	National Ambient Air Quality Standards
NPDES	National Pollutant Discharge Elimination System
ROH	Revised Ordinances of Honolulu
SCP	Wai‘anae Sustainable Communities Plan
SHPD	DLNR - State Historic Preservation Division
SMA	Special Management Area
TIAR	Traffic Impact Analysis Report
TMK	Tax Map Key
TMP	Traffic Management Plan
USGS	United States Department of the Interior, Geological Survey
WRCC	Western Regional Climate Center
WTE	Waste-to-Energy

1.0 INTRODUCTION AND PROJECT DESCRIPTION

The St. Rita Catholic Church is proposing to construct a new multi-purpose building to accommodate 300 people, renovate and extend the existing church to accommodate from the present occupancy load of 180 to 400, and construct a single-story office building approximately 2,200 square feet.

1.1 Purpose of the Environmental Assessment

The proposed redevelopment of St. Rita Catholic Church triggers the State environmental review under Chapter 343, Hawai‘i Revised Statutes (HRS) because the land is owned by the Department of Hawaiian Homelands (DHHL). DHHL lands are considered State lands. The use of State land is the trigger for this EA pursuant to Section 343-5(a)(1), Hawaii Revised Statutes (HRS) and Section 11-200-6(b)(1)(A) Hawaii Administrative Rules; that the EA requirement for an SMA Use Permit (major) is specified by Section 25-3.3(c)(1), Revised Ordinances of Honolulu. ~~the new meeting hall and the demolition and construction of a new church occur within the City and County of Honolulu's Special Management Area (SMA) and requires a SMA Use Permit – Major from the City Council. Therefore, this project is also subject to the State's environmental review process under Chapter 25 – SMA, Revised Ordinances of Honolulu (ROH), as amended.~~

Applicant and Approving Agency

Hawai'i Planning, LLC is serving as the "Agent" on behalf of the Roman Catholic Church in Hawai'i (Applicant) in the preparation of this environmental document. The project is an "Applicant Action" under the State's environmental review statutes.

This ~~Draft~~ Environmental Assessment (EA) was prepared pursuant to Chapter 343, Environmental Impact Statements, HRS, and Title 11, Chapter 200 – Environmental Impact Statement Rules. A Negative Declaration, also referred to as a Finding of No Significant Impact (FONSI), is anticipated for this project.

Pre-assessment consultation was conducted with various agencies and community organizations under the environmental review process. This process is elaborated later in Chapter 6 – Consulted Agencies and Organizations in this Draft EA. Copies of comment letters received from consulted parties and responses are included in Pre-Consultation Comments and Responses – Appendix A.

Project Summary

Project Name:	St. Rita Catholic Church Master Plan
Applicant:	Roman Catholic Church – State of Hawai'i St. Rita's Church 89-318 Farrington Highway Waiʻanae, Hawaiʻi 96792 Telephone: (808) 668-7833 Contact: Deacon Hal Levy
Authorized Agent:	Hawaiʻi Planning, LLC 1031 Nuʻuanu Avenue, #2306 Honolulu, Hawaiʻi 96817 Telephone: (808) 347-3999 Contact: Dennis Silva, Jr., AICP
Approving Agency:	Department of Hawaiian Home Lands (DHHL) State of Hawaiʻi
Property Owner:	Department of Hawaiian Homelands, State of Hawaiʻi
Project Location:	Nānākuli, City and County of Honolulu
Tax Map Keys:	8-9-005: 001 & 8-9-007: Por. 002 & Por. 004
Project Area:	37,876 square feet (church, parking, & new meeting hall) & 36,024 square feet (parking lot). Approximate Total of 1.7 acres.
Project Description:	The St. Rita Catholic Church is proposing to construct a new meeting hall to accommodate 300 people, demolish and construct a new church to accommodate from the present occupancy load of 180 to 400, and construct a single-story office building of approximately 2,200 square feet.

Existing Use:	Church with portable trailers, Quonset hut, and parking lot.
State Land Use District Classification:	Urban and portion of the parking lot Agricultural
Wai‘anae Sustainable Communities Plan:	Rural Community
Special Management Area:	The project area is within the Special Management Area.
City Zoning District:	R-5 – Residential (Church, facilities, and parking) and Country (part of parking lot)
DHHL Land Use Designation:	Community Use
Actions Requested:	Compliance with Chapter 343, HRS and compliance with Hawai‘i Administrative Rules Title 11, Chapter 200.
Anticipated Determination:	Finding of No Significant Impact (FONSI)

Applicant Background

A narrative history of St. Rita Catholic Church is described in this section. St. Rita was established and attached to Sacred Hearts as a mission church in June 1928. The Nānākuli Hawaiian Homestead was opening up homestead lots in the Nānāikapono area in 1931 and the new homesteaders petitioned the Hawaiian Homes Commission for lots of various churches including a Catholic church. To date, St. Rita in Nānākuli and Malia Puka o ka Lani in Keaukaha are the only two Roman Catholic churches on Hawaiian Homelands originally founded to serve Native Hawaiians and now also serve their greater neighborhood communities.

In 1955, with the help of Mr. Eyre Scott and others, the church building was expanded with two wings off either side of the original building and the twin bell towers were fashioned. The church building style was modeled after similar style churches built by the Sacred Hearts Fathers throughout the Hawaiian Islands (http://stritananakuli.org/history.html).

In 1998, with the existing facilities in dire need of repairs from termite damage along with population growth, St. Rita embarked on an ambitious plan to provide additional space and safer facilities. A two-phased development plan was implemented.

The City allowed the trailers to remain as long as St. Rita replaces them as soon as possible. The existing portables have been in use for the past two decades as a primary support for additional spaces to meet the growing church demand in the Nānākuli community.

1.2 Project Location and Vicinity

The improvements proposed for St. Rita Catholic Church would occur within properties owned by the Department of Hawaiian Homelands (DHHL) and leased by the church located in the Nānākuli community on the western end of the Island of O'ahu Tax Map Keys 8-9-005: 001 & 8-9-007: 004 (portion). The project site is situated along Farrington Highway, mauka and across the Nānākuli Beach Park. Figure 1 is a graphic showing the location of the project. Figure 2 – Tax Map Key illustrates the TMKs in which St. Rita Church is situated.

As illustrated in Figure 3 – Aerial Photograph and Figure 4 – Existing Site Plan, the primary vehicular thoroughfares in the immediate area of the project site are Farrington Highway, or Nānākuli Avenue and right-turn on Pua Avenue which runs roughly parallel to Farrington Highway, which is located about 450 feet mauka (east) of Farrington Highway. Figure 4 also illustrates existing church and associated facilities.

Nānākuli is located within the Waiʻanae Sustainable Communities Plan (SCP) region. St. Rita Catholic Church is located within the Rural Community SCP designation. Rural Community areas are defined by a line that generally follows the limits of the Community Growth Boundary, which consists of existing urban and suburban

development along the Farrington Highway corridor. Chapter 4 of this Draft EA will provide a more detailed discussion of the Project's compliance with the Wai'anae SCP.

Existing Surrounding Uses

Uses in the surrounding vicinity consist of predominantly of residential use to the west and north (mauka) of the church, Nānākuli Beach Park to the south (makai), and vacant land to the east of the parking lot of St. Rita Church. Figure 5 – Site Photographs illustrates the existing conditions of St. Rita Church and the surrounding vicinity.

1.3 Project Site and Existing Conditions

Property Information

The St. Rita Catholic Church site is comprised of three contiguous lots identified as Tax Map Keys (TMK) 8-9-005: 001 and 8-9-007: portion 002 & 004. Parcel 001 is 37,876 square feet and the portion of parcels 002 and 004 is 35,124 square feet. Together the project site totals 73,000 square feet (1.68 acres). The three parcels are owned by the Department of Hawaiian Homelands (DHHL). There is a lease agreement between DHHL and St. Rita Catholic Church.

Existing Conditions and Facilities

The project site has driveway connections providing vehicular access from: 1) Farrington Highway; and 2) Pua Avenue, via Nānākuli Avenue. The project site presently contains 103 parking stalls with 2 handicapped accessible stalls. The existing facilities on parcel 001 include: 1) Church (to be demolished and re-constructed with the front façade to resemble the existing appearance); 2) Rectory (to be demolished); 3) Four portables and restrooms (to be removed); and 5) Quonset hut (to be demolished).

The Church conducts masses on Saturday at 5:00 p.m. and Sunday at 7:00 a.m., 9:00 a.m., and 5:00 p.m. Table 1 – Summary of St. Rita Catholic Church Activities, lists the various activities held at the Church. The Miscellaneous Sessions consists of Bible

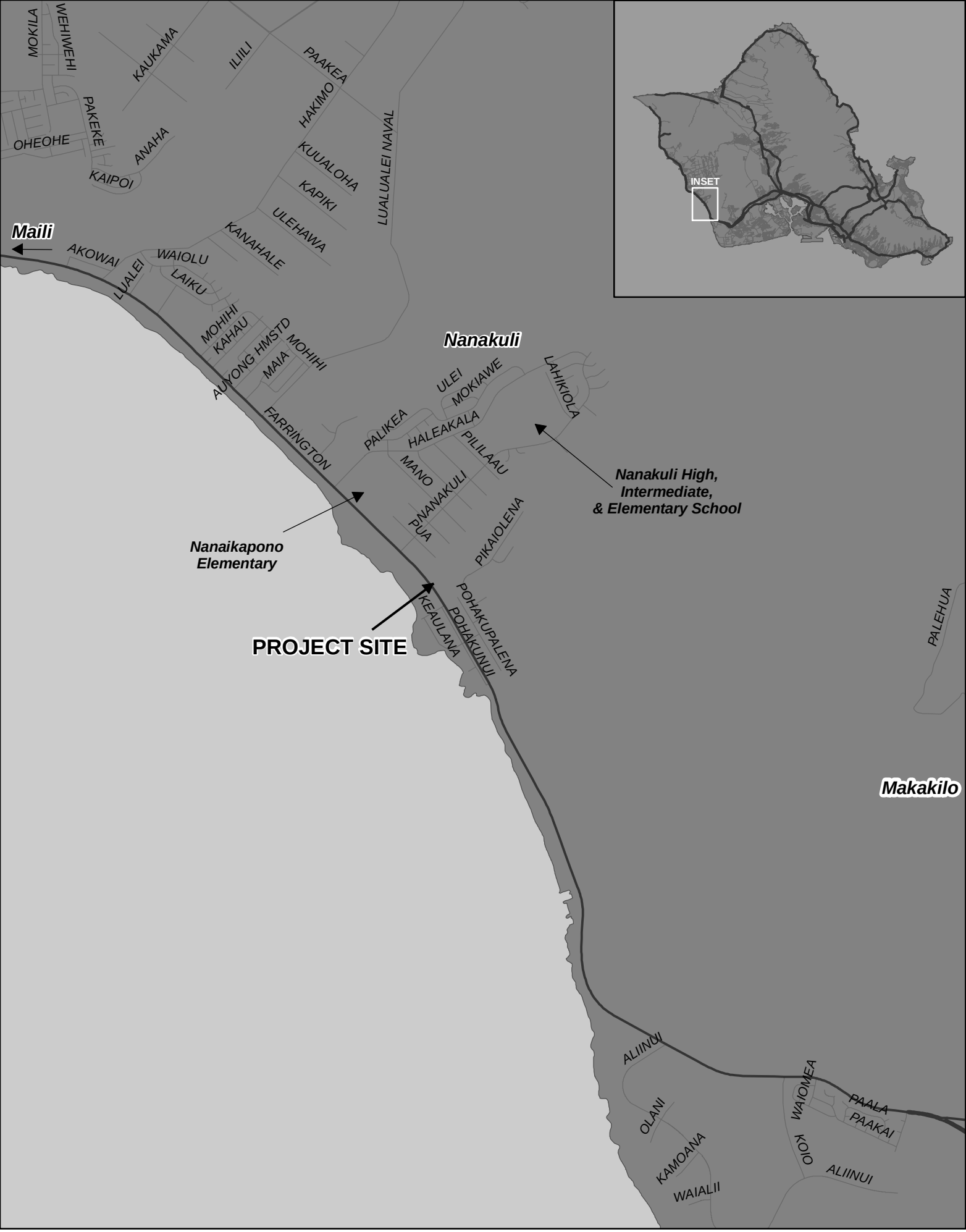
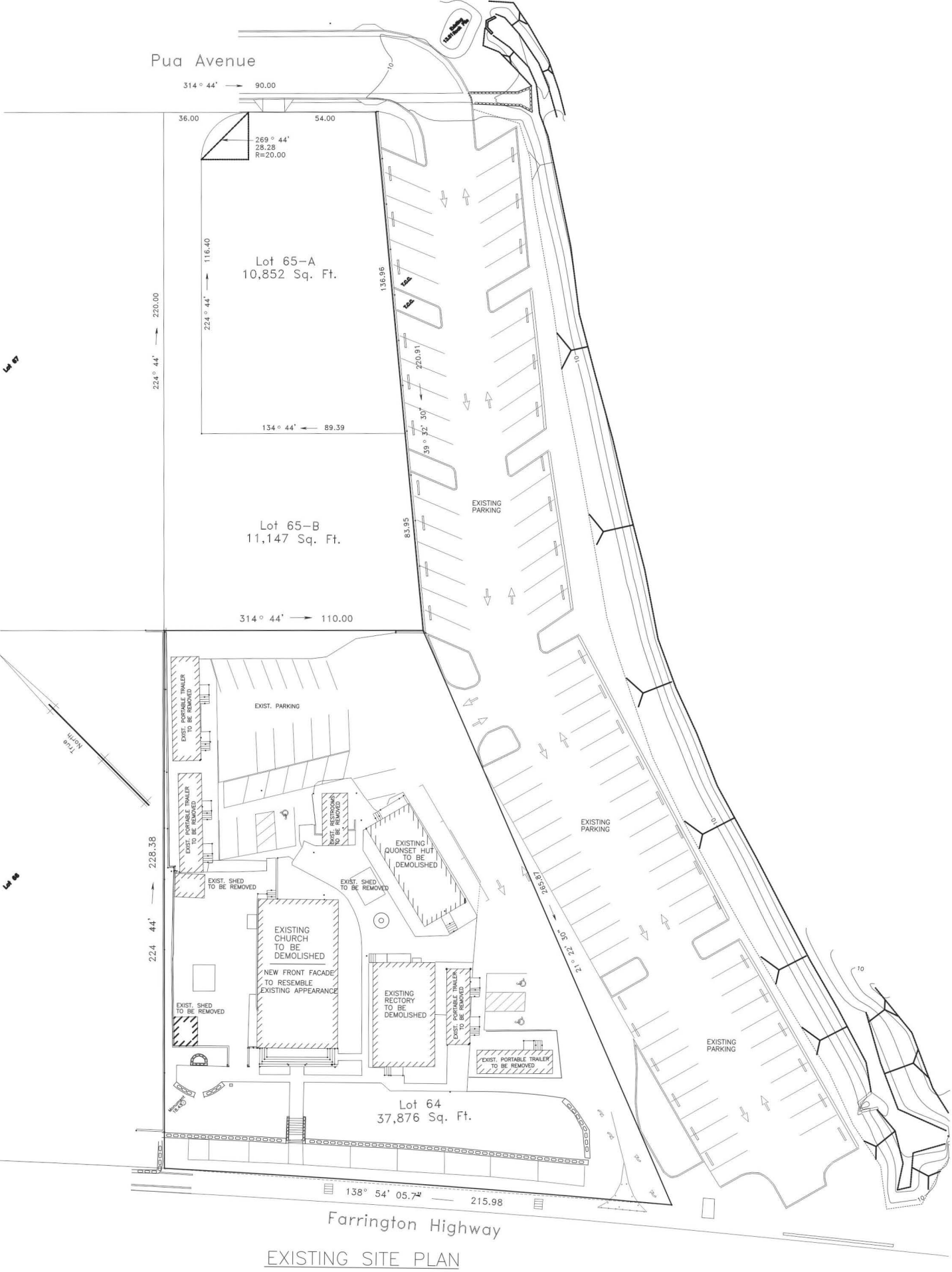


Figure 1: Location Map

Figure 2 - Tax Map Keys

Figure 2 - Aerial Photo



EXISTING SITE PLAN

Figure 4 - Existing Site Plan

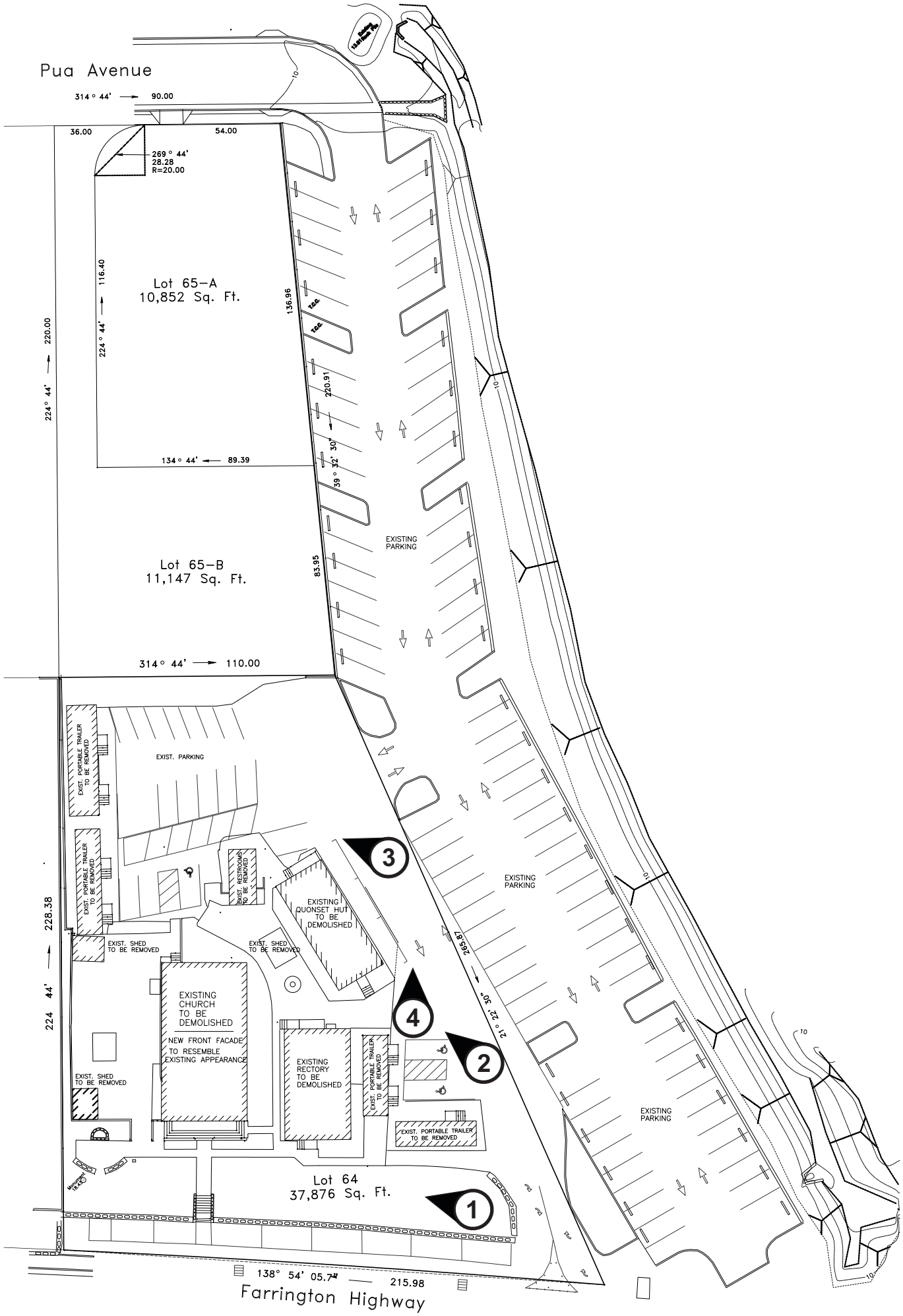


Figure 5 - Site Photographs

study, and other small-group gatherings. As shown in Table 1 the peak demand for the Church occur on Sunday Mass at 7:00 a.m. and 9:00 a.m.

Table 1 – Summary of St. Rita Church Activities

Description of Church Activities	Days of Activity (Weekday/Weekend)	Start Time of Activity	Approximate Average Number of Attendees
Mass – 5:00 p.m.	Weekend (Saturday)	5:00 p.m.	70-85
Mass – 7:00 a.m.	Weekend	7:00 a.m.	75-100
Mass – 9:00 a.m.	Weekend	9:00 a.m.	150-200
Mass – 5:00 p.m.	Weekend	5:00 p.m.	50-65
Food Pantry	Weekday	9am – 11am	10-20
Catholic Charities	Weekday	2 to 3 times per week; 4 hours	2-5
General Office	Weekday (Mon. – Tues. – Wed.)	9am-4pm	3
Miscellaneous Sessions	Weekday	7:00 p.m.	5 – 10
Religious Education	Sundays	10:45 a.m. to 12:00 pm	75
Prayer Meeting	Thursdays	7:30pm-9:00pm	10
Community Hot Meal Program	Last Thursday of each month	5:30 p.m. to 7:30 p.m.	100 – 150
Alcoholics Anonymous Meetings	Thursdays	7:00 p.m. to 9:00 p.m.	5 – 10
Bible Study	Tuesdays	7:00 p.m. to 9:00 p.m.	25
Source: St. Rita Catholic Church (2014)			

1.4 Project Need and Objectives

The St. Rita Catholic Church has not undergone any major renovations or improvements since 2002 which was the expansion of the parking lot (Phase I). In 2011, the restrooms were renovated and a septic tank system was installed to accommodate campus growth. Also in 2011, an architect was hired to complete the Church master plan. The Quonset hut was built in the 1930s and is in poor condition. St Ritas church is over 100 years old, originally used at Wheeler Army Airfield and moved

to its present location in 1934 to serve as the Parish Church. Therefore, the Church, and accessory structures have remained unchanged since their construction in the 1930s not counting the hall that was burned down in 1982.

1.4.1 Need for Project Improvements

St. Rita Catholic Church was established over 80 years ago in Nānākuli. It is centrally located along Farrington Highway fronting Nānākuli Beach Park. Its central location provides a convenience and familiarity to people living in the Waiʻanae Coast.

The church facilities are commonly utilized in areas of Education, Liturgy, Outreach Programs, and Community-Oriented activities. In Education and Liturgy, the facilities are used for Bible Study, youth ministry, socials and dances, and special presentations. The Outreach programs assist in counseling, services such as baby sitting during meetings and church mass services, and prayer groups to work with people in need. In addition, the State of Hawaiʻi Department of Education (DOE), American Legion, Elderly groups, and activities for better health care such as aerobic and dieting workshops frequently utilize the facilities. Coupled with the growth in population in this region in the last 60 years and the facility usage described above, there is ever-increasing demand for expansion of the St. Rita Catholic Church.

The existing Church accommodates 180 parishioners with some attendees seated outside. The expansion of the Church will accommodate 400 people. This will serve the immediate demand for more seating and future population growth in the Nānākuli and Waiʻanae communities. The demolition and construction will adjust the existing orientation of the altar, which will provide additional space and accessibility to and from the existing parking lot. The new altar will be situated on the west side of the Church facing east. The steeple/bell tower, which is the distinctive feature of St. Rita Church shall remain. Based on the International Building Code's occupancy load, an additional 2,500 sf (35' x 70') is required to accommodate an additional 220 people in the Church.

1.4.2 Project Objectives

As stated in the Welcome page of the St. Rita's website (www.stritananakuli.org), "As a fast growing rural parish with a large Hawaiian population we feel a special calling to stand together in truth and justice for the rights of the first people (kānaka maoli) of this land. As part of the universal Church, our outreach extends beyond our boundaries to the global community and we affirm the human dignity of all peoples." As the population continues to grow in this region of the island, there is greater demand for a new and larger meeting hall and a larger capacity church.

A new meeting hall building will address St. Rita's long-term project objective of supporting their parish by providing improved and expanded facilities, office and storage space. This new meeting hall will replace the existing Quonset hut and portables and will provide considerably more gathering space for special church events and fellowship following church services.

It is imperative that St. Rita address these needs in order to continue its mission as a religious institution providing education, liturgy, outreach programs and community oriented activities. In education and liturgy, the facilities are used for Bible study, youth ministry, socials and dances, and special presentations.

1.4.3 New Facilities

The existing church, portables, and Quonset Hut will be removed and demolished. Refer to Figure 4 – Existing Site Plan for facilities that will be demolished or removed. Refer to Figure 6 – Proposed Site Plan for new facilities on the St. Rita Church property. The façade of the existing church and bell tower will be designed into the construction of the new church facility. The Architectural Plans, Appendix B illustrates the proposed facilities as discussed in the following sub-sections.

New Church:

The enlargement of the church shall accommodate 400 people and will be 5,650 square feet in size. This will accommodate the immediate need for more seating and future population growth in the community.

The steeple, or bell tower, which is a unique feature of St. Rita Church, shall be integrated with the new church design.

New Meeting Hall:

The new Community Hall shall accommodate most of the services lost from the existing community hall that was destroyed by fire in 1987. The Community Hall shall be comprised of the following spaces: Large Meeting area, classrooms, warm-up kitchen, storage, and men's and women's restrooms. The new Meeting Hall will be 6,400 square feet in size. The new church and new meeting hall will not have simultaneous events. This mitigates the parking capacity issue for St. Rita Church. Figure 7 – Rendering illustrates the new meeting hall, new church, and new office building on project site.

New Office Building:

The new Office Building will be 2,200 square feet and will include the following spaces: Three (3) offices of 150 square feet each, a reception area of approximately 200 square feet, a waiting room, and men's and women's restrooms.

1.5.2 Landscape Improvements

Landscaping will be provided throughout the site. Grass and tropical plants will be utilized for aesthetics and to reduce or buffer sound generated to and from the property. Landscaping will also be provided to minimize heat and rain water run-offs on the property.

1.St. Rita Church Facade

2. View towards quonset hut looking mauka

3. View of existing parking and portable trailers

4. Mauka view of quonset hut and parking lot

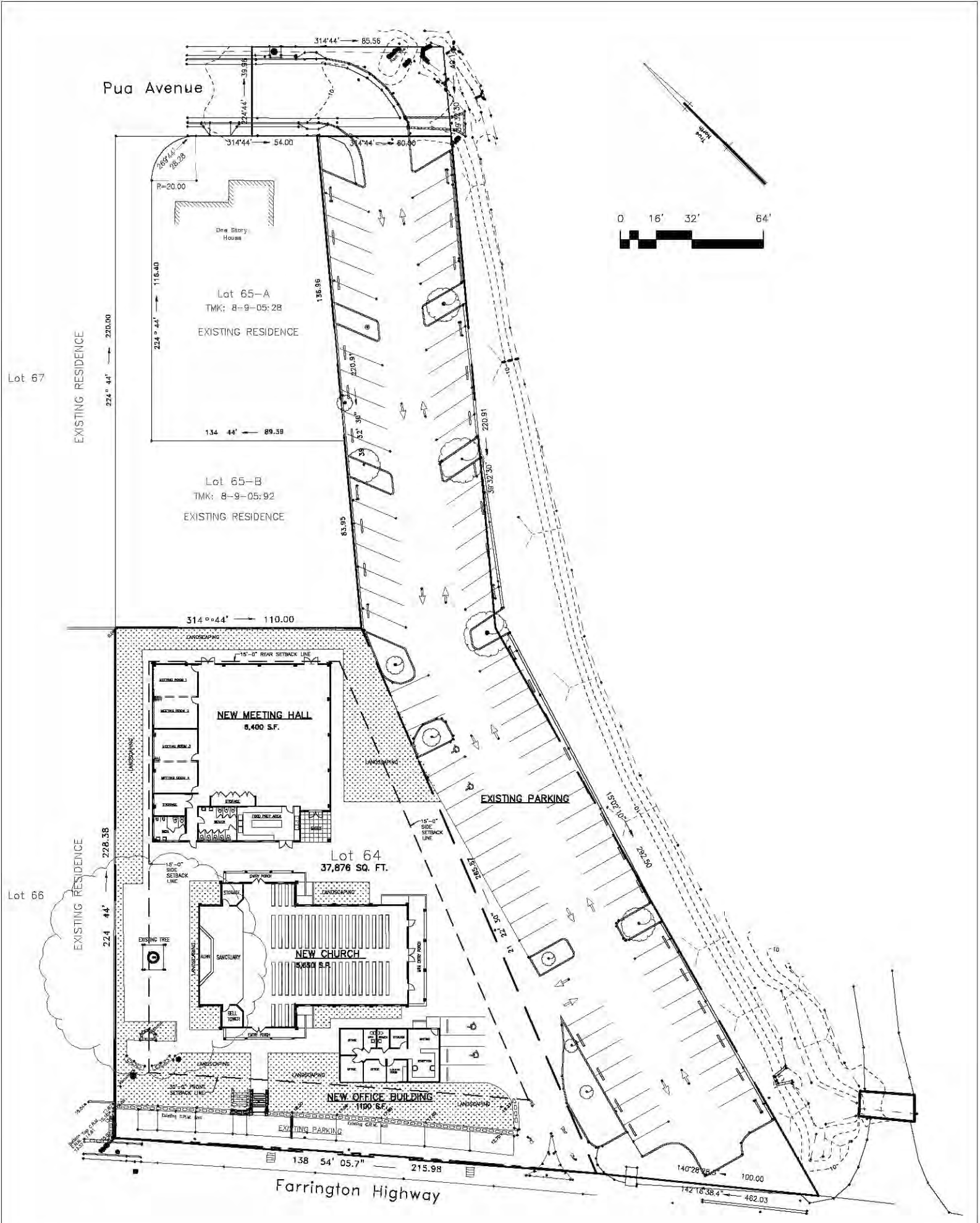


Figure 6 - Proposed Site Plan

Figure 7 - Rendering

1.6 Project Phasing and Estimated Costs

Table 2 lists the milestones, year completed or projected completion, and cost per phase of the St. Rita Church Master Plan.

Table 2 – Project Phasing and Estimated Costs

Milestone	Year Completed/Estimate	Cost
Parking Lot	2002	$450,000
Permitting and Environmental Assessment	2013-2015	$150,000
New Office Building	2016-2017	$270,000
New Multipurpose Building	2017-2018	$3,200,000
Church demolition and Reconstruction	2018-2020	$2,000,000
Total Estimated Costs		$6,070,000

Source: St. Rita Church

According to Table 2, the projected completion of the St. Rita Church Master Plan is 2020.

1.7 Listing of Permits and Approvals

A listing of required discretionary land use approvals and ministerial permits for this project is provided.

Table 3: Required Permits

State Agencies		
Permit or Approval	**Approval Agency**	**Status**
National Pollutant Discharge Elimination System (NPDES)	Department of Health	Application not yet submitted
American with Disability Act (ADA)	Disability and Communication Access Board	Application not yet submitted
City and County Agencies		
Permit or Approval	**Approving Agency**	**Status**
Environmental Assessment	~~Department of Planning & Permitting (DPP)~~ DHHL	Draft EA to be submitted
Special Management Area Use Permit (Major)	DPP	Application not yet submitted
~~Conditional Use Permit (Minor) – Joint Development & Meeting Facility~~	~~DPP~~	~~Application not yet submitted~~
Building Permits	DPP	Application not yet submitted
City and County Agencies		
Permit or Approval	**Approving Agency**	**Status**
Grading, Grubbing, Stockpiling, Trenching	DPP	Application not yet submitted
Street Usage Permit	Department of Transportation Services	Application not yet submitted

2.0 AFFECTED ENVIRONMENT

Climate

The State of Hawai‘i climate is relatively moderate throughout the island chain, although, some differences in conditions may occur from one location to another due to the mountainous topography associated with each island. Annual and daily variation in temperature depends to a large degree on elevation above sea level, distance inland, and exposure to the trade winds. On O‘ahu, the Ko‘olau and Wai‘anae mountain ranges are oriented almost perpendicular to the trade winds, which account for much of the variation in local climatology.

O’ahu’s temperatures have small seasonal variation such that the temperature range averages only seven (7) degrees between the warmest months (August and September) and the coolest months (January and February) and about 12 degrees between day and night. Annual rainfall averages about 23.8 inches per year. Monthly average rainfall varies from a low of generally less than 1 inch of rainfall during the summer (June to August), and less than four (4) inches during the winter periods (November to January) (Western Regional Climate Center - WRCC 2010).

Winds are predominantly “trade winds” from the east-northeast except for occasional periods when “Kona” storms generate strong winds from the south, or when the trade winds are weak and land breeze to sea breeze circulations develop. Wind speeds typically vary between 5 and 15 miles per hour providing relatively good ventilation much of the time. Lower velocities (less than 10 mph) occur frequently when the usual northeasterly trade winds tend to fall giving way to light, variable wind conditions through the winter and on into early spring.

2.1 Geology, Topography and Soils

The Island of O‘ahu is entirely volcanic in terms of geologic origin. Throughout time, the volcanic landscape of O‘ahu has been subject to the natural forces of erosion and

sedimentation, resulting in such physiographic features as beaches, reefs, coastal plains, saddles, dunes, uplands, cliffs, and valleys. The Island of O‘ahu is a volcanic doublet, formed of the Wai‘anae Range on the west and the younger Ko‘olau Range on the east. Both are the eroded remnants of great shield volcanoes that have lost much of their original shield outlines and are now long narrow ridges shaped largely by erosion.

2.1.1 Topography

The topography of the project site is generally flat to sloping in the center of the parking lot site, and sloping steeply on the perimeter of the site. The church portion of the property is elevated from Farrington Highway. See Figure 8 - Topography Map for slope conditions for the St. Rita Church project site.

2.1.2 Soils

The soil in the project area is composed of well-drained soils called Pulehu Clay Loam (PsA). This soil type occurs on alluvial fans, stream terraces, and in basins on the islands of O‘ahu and Kaua‘i. These soils are developed in alluvium washed from basic igneous rock and support a natural vegetation consisting of kiawe trees, koa haole, bristly foxtail, and swollen grass. The existing vegetation on the site relies on rainfall that amounts to 10 to 35 inches annually. Figure 9 - Soil Survey illustrates the soil type for the project site.

Land Study Bureau Classification. The University of Hawai‘i Land Study Bureau’s (LSB) Detailed Land Classification – Island of O‘ahu classifies land type for all lands other than those in the urban district, which are not considered to have the potential to produce crops. Land type classifications provide for an overall crop productivity rating, with and without irrigation, and for selected crop productivity ratings for seven crops. Overall LSB ratings range from A to E, with A representing the class of highest

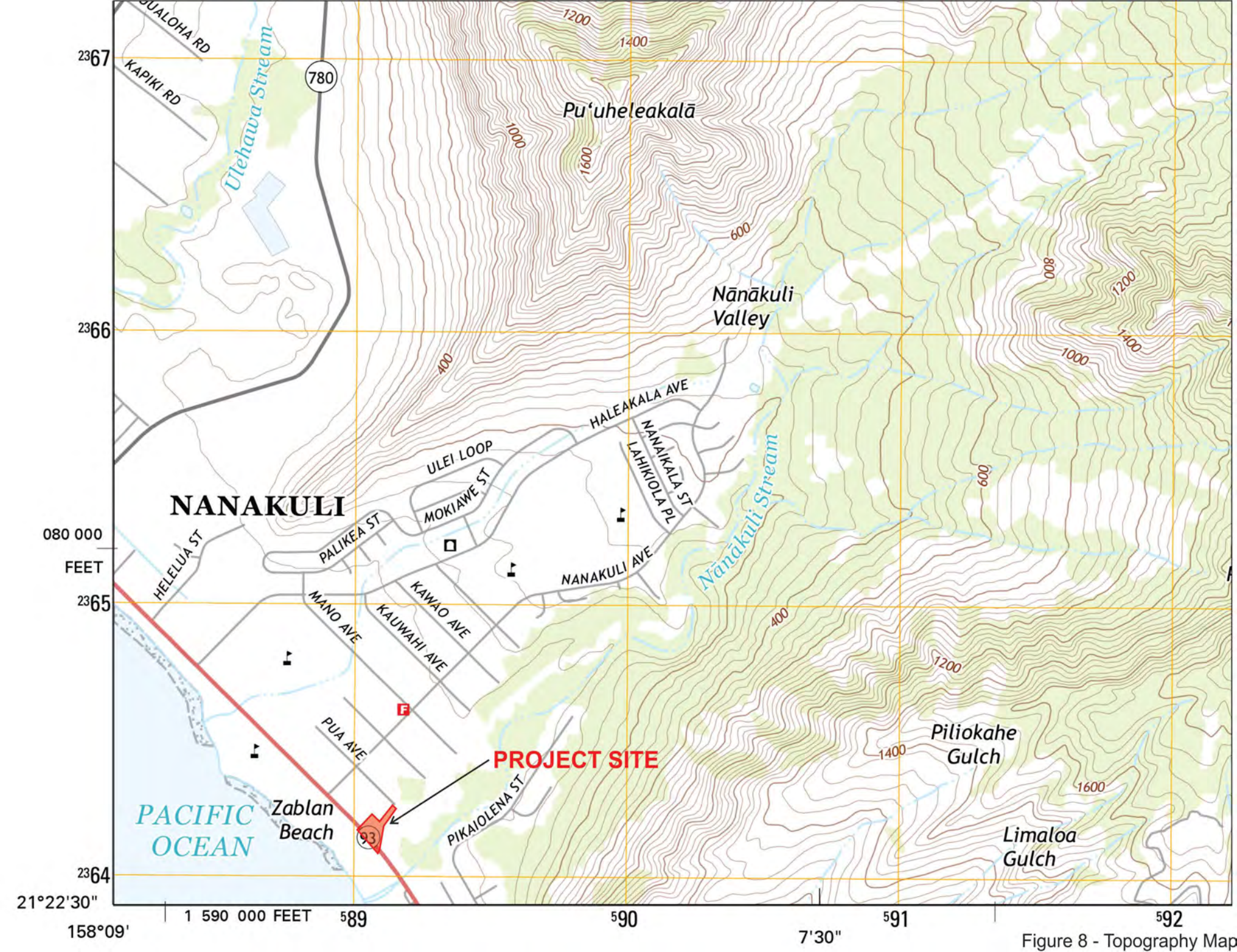


Figure 8 - Topography Map

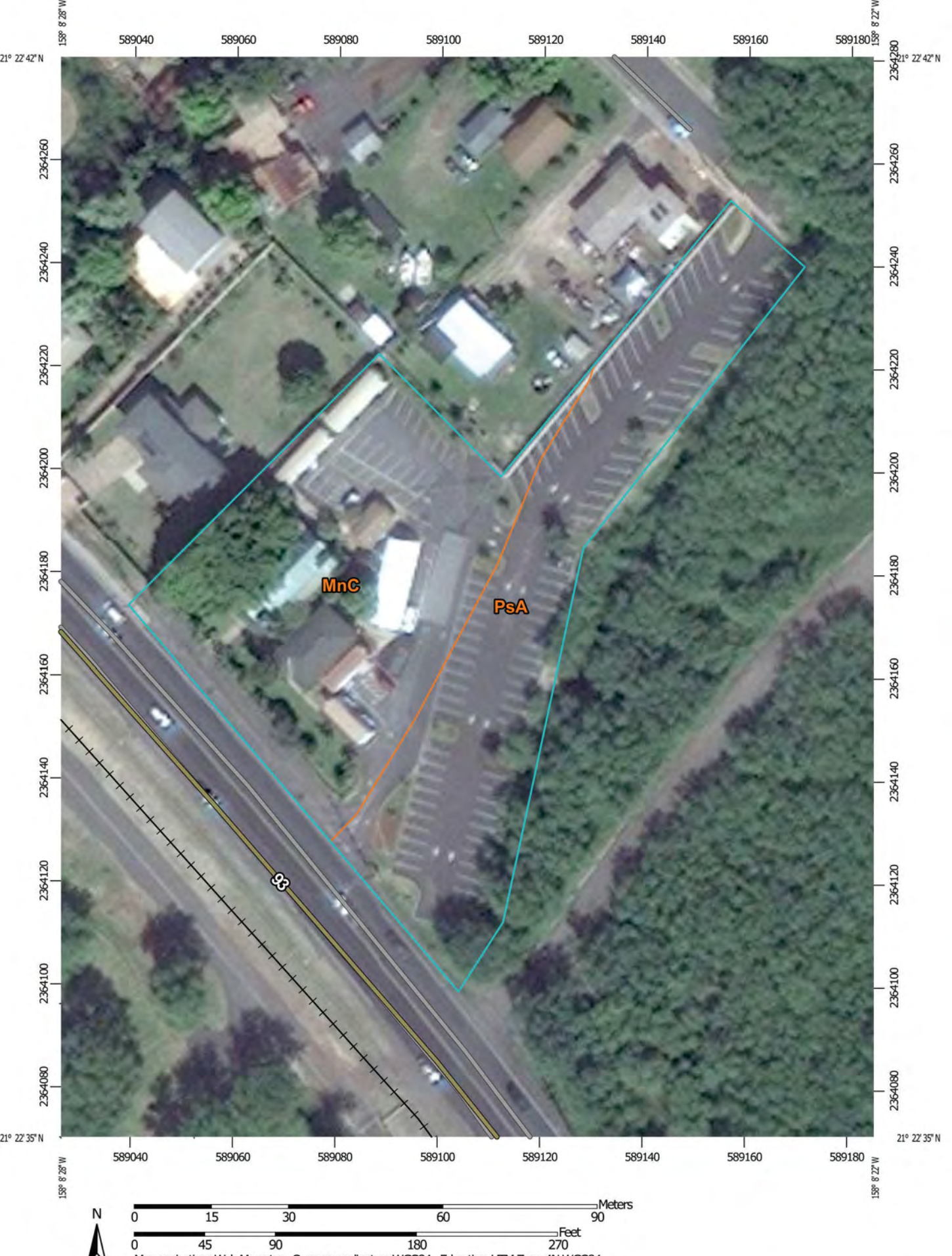


Figure 9 - Soil Survey

productivity, and E the lowest. The parking lot section of the project site is designated as E. The remaining parcel is undesignated.

Agricultural Lands of Importance to the State of Hawai'i. The State Department of Agriculture's Agricultural Lands of Importance to the State of Hawai'i (ALISH), established a classification system for identification of agriculturally important lands to the State of Hawai'i. Three classes of lands are established which are: 1) prime, 2) unique, and 3) other. Lands not included under this system are "unclassified." The project site along with the surrounding area is unclassified.

2.2 Natural Hazards

This section addresses natural hazards applicable to the project. Of the potential natural hazards, only earthquakes, hurricane, and tsunami flooding hazards are applicable. There are no other known potential urban-related hazards applicable to the project site such as airport clear zones, nuisances, or other hazardous waste issues associated with the project site.

2.2.1 Earthquake Hazards

Earthquakes in the State are mainly associated with volcanic eruptions resulting from the inflation or shrinkage of magma reservoirs beneath which shift segments of the volcano. Earthquakes may occur before or during an eruption or from the underground movement of magma toward the surface. However, earthquakes also occur due to the shifting of tectonic plates. Except for the Island of Hawai'i, the Hawaiian Islands are generally not situated in a high seismic area subject to numerous large earthquakes (Macdonald et al. 1983).

Volcanism is the source of energy for approximately 95 percent of the earthquakes on the Island of Hawai'i. The central region encompassing the islands of Maui and O'ahu are subject to seismicity generally related to tectonic activity on the seafloor near the

Hawaiian Islands. Tectonic activity capable of generating hazardous earthquakes is related to seafloor fractures and suspected faults around the islands. The northwestern region consisting of Kauaʻi and Niʻihau has experienced tremors from earthquakes originating farther south, but no known seismic activity has originated among these northern islands. The earthquake risk for these northwestern islands was evaluated as minimal (USGS 2002).

The largest seismic areas pertinent to Oʻahu are the Molokaʻi Seismic Zone and the Diamond Head Fault. The Diamond Head Fault passes through Koko Crater and extends along the seafloor northeast of Oʻahu. Several earthquakes of 4.0 to 5.0 magnitude have been detected along this fault. The Molokaʻi Fracture Zone is an extension of a transform fault from the East Pacific Rise that extends from Molokaʻi to the Gulf of California. This fracture is tectonic in origin and suspected to contribute to central region seismicity associated with an active seafloor. Because two known earthquakes (1871 and 1938) have occurred along the fracture, it is referred to as the Molokaʻi Seismic Zone (USGS 2002).

Most of the earthquakes that have occurred in the past have been volcanic earthquakes causing little or no damage to the other islands. Available historical data indicates that the number of major earthquakes occurring have generally been fewer and of lower magnitude than those on other islands such as Hawai'i. Strong earthquakes of magnitude 5 or higher, based on the Richter Scale can cause property damage and endanger lives. Exhibit 1 identifies the recent (since 1950) significant earthquakes occurring in the Hawaiian Islands (USGS 2002).

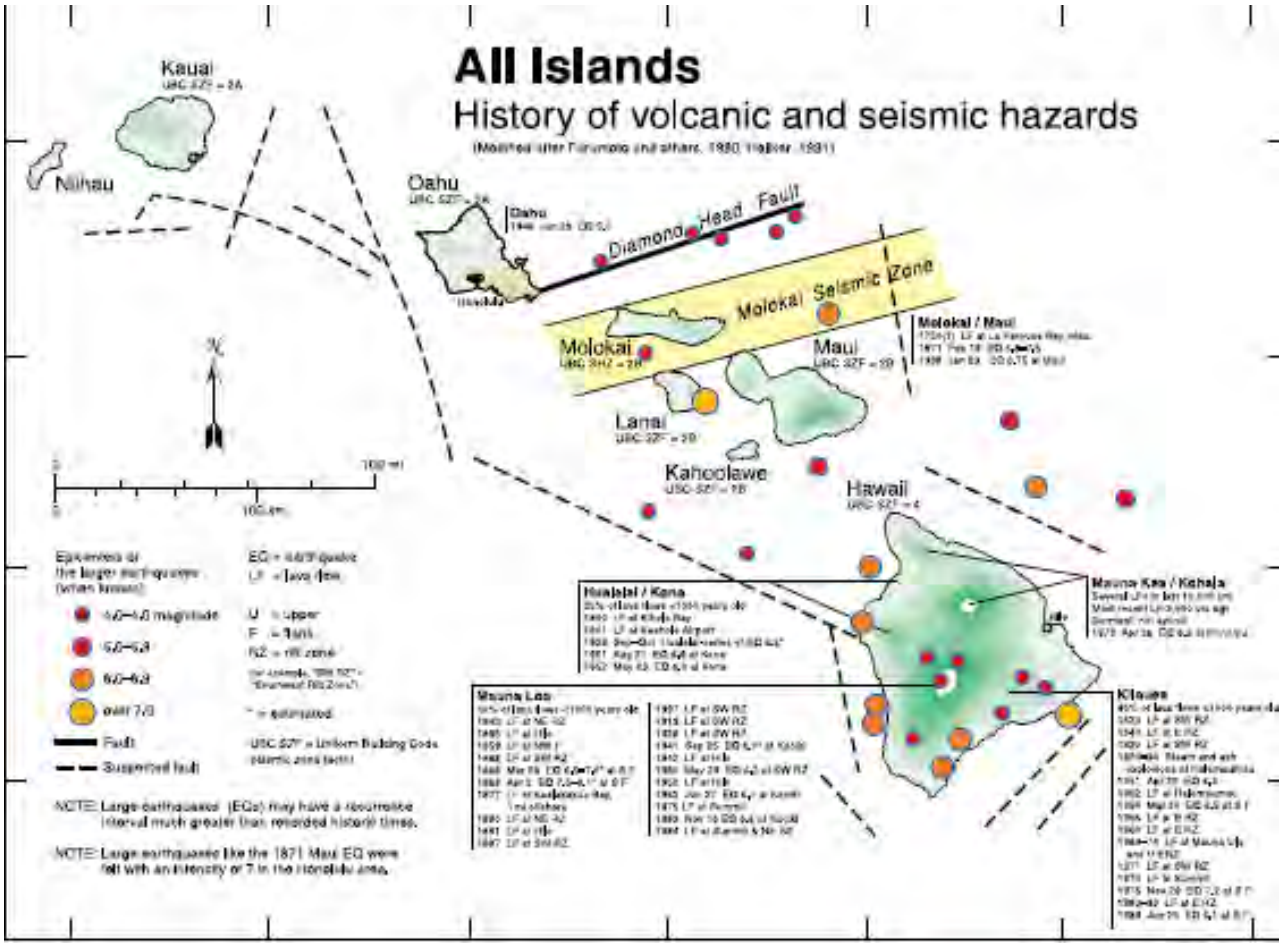


Exhibit 1 – History of Volcanic and Seismic Hazards (USGS 2002)

2.2.2 Hurricane Hazards

Hurricanes are one type of tropical cyclone affecting the State that also includes tropical storms and tropical depressions. Hurricanes are tropical storms with winds equal to or greater than 74 miles per hour. They have affected every island in the State of Hawai'i and can cause major damage and injury usually resulting from high winds, marine over-wash, heavy rains, and other intense small-scale winds and high waves.

Between 1970 and 1992, 105 tropical cyclones were identified in the central Pacific region resulting in an average of 4.5 storms per year. Not all of these storms directly passed thru the State, and actual hurricane strikes on the Hawaiian Islands are

relatively rare in the modern record. More commonly, near-misses that generate large swells and moderately high winds causing varying degrees of damage are the result of hurricanes passing close to the islands (USGS 2002). Exhibit 2 graphically shows the path of hurricanes passing the Hawaiian Islands.

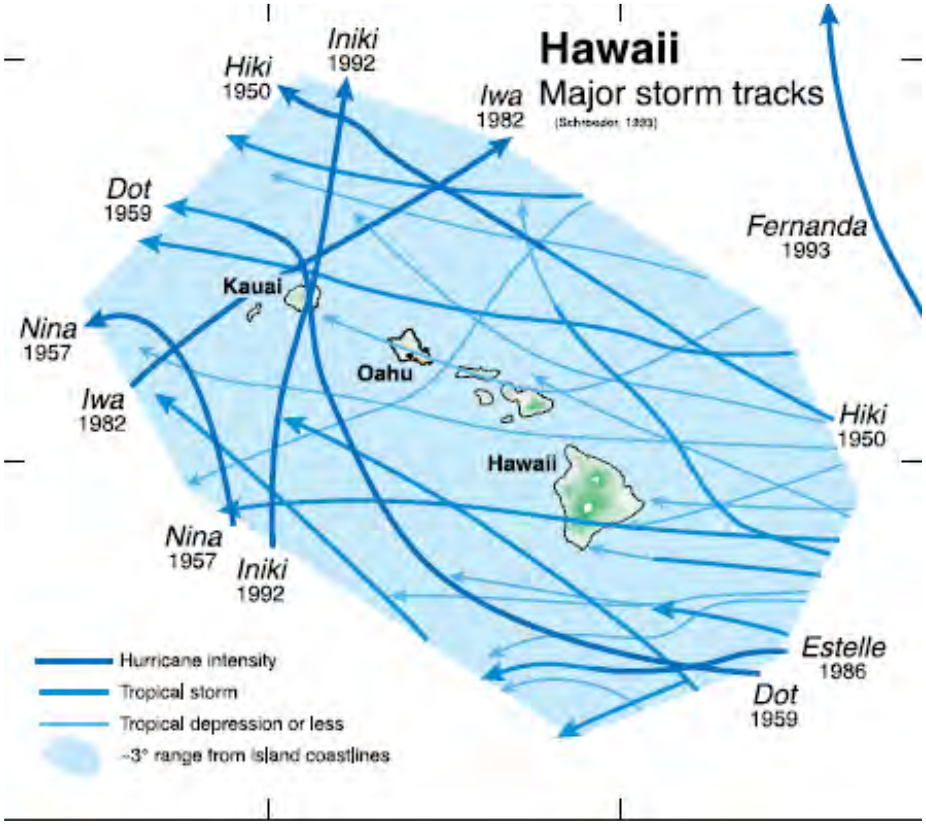


Exhibit 2 – Major Storm Tracks (USGS 2002)

2.2.3 Tsunami and Flood Hazards

Tsunamis are caused by a sudden movement of the seafloor that generates a series of waves which travel across the ocean until they reach a coastline. Seafloor movements may include faulting, landslides, or submarine volcanic eruptions. Landslides originating either under the sea or above sea level and then sliding into the water may also generate a tsunami. Tsunamis manifest themselves as either large breaking waves, often largest around headlands where they are concentrated by wave refraction, or as rapidly rising sea level like a flooding tide. The high degree of volcanism and

seismic instability in and around the Pacific Ocean has contributed to a history of tsunami occurrences.

The coastline of the Hawaiian Island is thus under the continuous threat of tsunami inundation because this region is one of the most geologically active regions on Earth. The geography of the shoreline often plays an important role in the form of the tsunami. Tsunami waves may be very large in an embayment, actually experiencing amplification in long funnel-shaped bays. Fringing and barrier reefs appear to have a mitigating influence on tsunamis by dispersing the wave energy (USGS 2002).

Floods caused by heavy rainfall and strong winds normally occur during the winter months with January typically being the most frequent flood period. Heavy rainfall can also be associated with the tropical storm and hurricane season between the months of June and October. Areas subject to recurrent rainstorm floods are generally the coastal plains and flood plains (USGS 2002).

Figure 10 graphically illustrates the flood zones associated with the project site. According to the State of Hawai‘i Flood Hazard Assessment Tool (FHAT), the St. Rita Church is located in flood zones X, AE, and D. Zone X is defined as areas determined to be outside the 0.2% annual chance floodplain. Zone AE is the 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard is the area subject to flooding by the 1% annual chance flood. Zone AE is within this Special Flood Hazard area and mandatory flood insurance purchase applies in these zones.

2.3 Hydrology

This section discusses the regional hydrology present in the project area which includes ground water and surface water resources.

2.3.1 Hydrogeological Resources

The State Department of Land and Natural Resources (DLNR), Commission on Water Resource Management (CWRM) has established ground water hydrologic units to provide a consistent basis for managing ground water aquifers. Under the State's Water Resource Protection Plan, an aquifer coding system classifies the island's aquifers to identify and describe these aquifers. This system is comprised of Aquifer Sectors, and then Aquifer Systems located within these sectors.

The Nānākuli area is within the Waiʻanae Aquifer Sector (303) which is further divided into four aquifer systems which are the Keaʻau, Mākaha, Waiʻanae, and Nānākuli. The project site is located within the Nānākuli Unit (30301) (CWRM 2008). The Waiʻanae Aquifer Sector has an estimated sustainable yield of 16 million gallons per day (mgd) and the Nānākuli Unit has a sustainable yield of 2 mgd (CWRM 2008).

2.3.2 Surface and Coastal Waters

The gentle slope throughout the valley accounts for the poorly defined surface drainage system. Two intermittent streams flow through Nānākuli Valley: Nānākuli Stream and Ulehawa Stream. The latter has been channelized near its outlet at the ocean.

Coastal waters from Ko ʻOlina throughout the Leeward Coast are considered Class "A" marine waters by the State of Hawaiʻi Department of Health. Class A marine waters are recognized with the objective that "their use for recreational purposes and aesthetic enjoyment be protected." This classification allows other uses that are compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation in and on these waters.

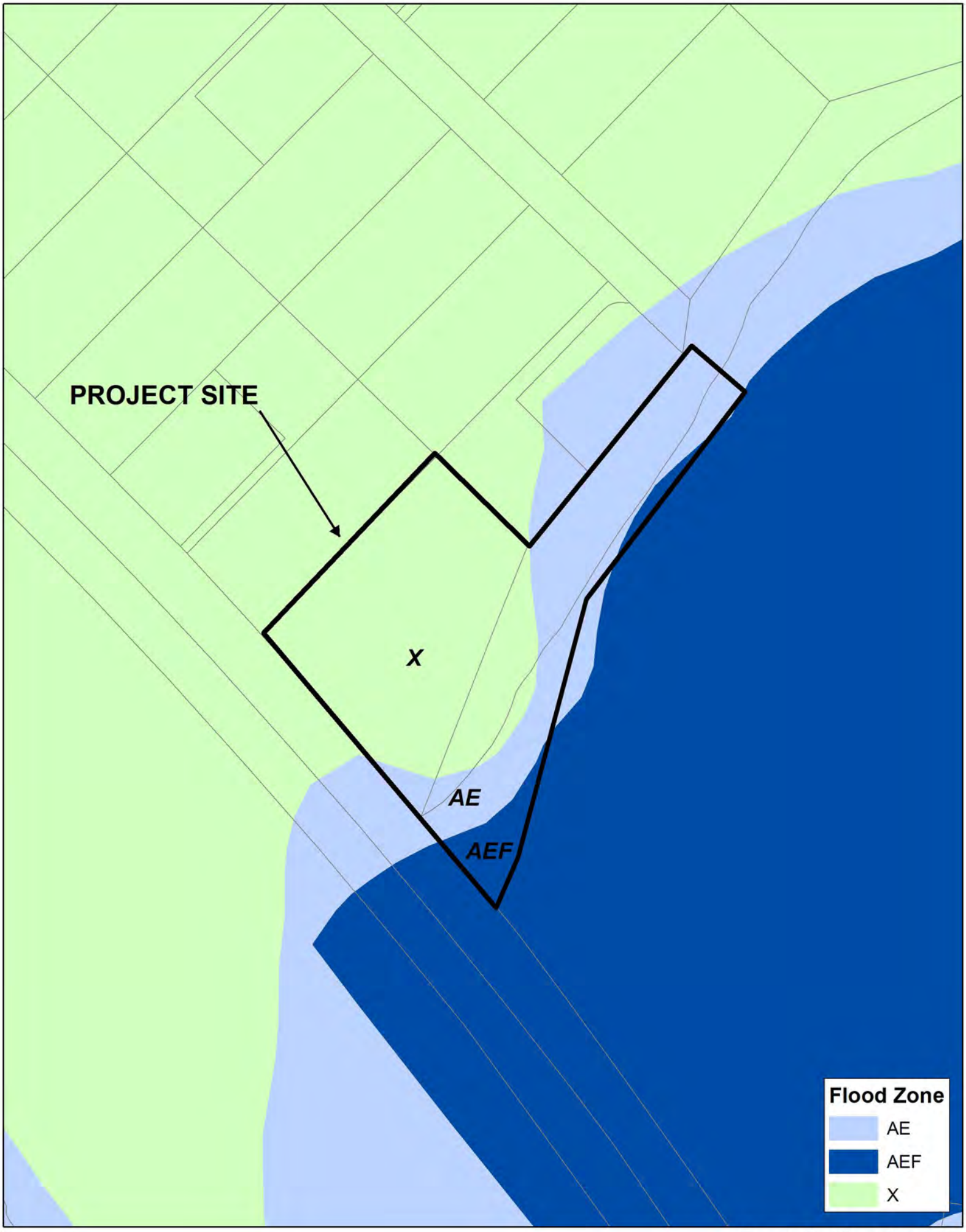


Figure 10 - Flood Zone Map

2.4 Botanical and Faunal Resources

2.4.1 Existing Botanical Resources

A Tree Assessment was completed for the St. Rita Church site (see Appendix C). The purpose of the Tree Assessment was to recommend mitigation measures regarding the existing Weeping Banyan (Ficus benjamina). The Tree Assessment, Appendix C, provided the following mitigation measures:

Recommended mitigation to retain the Weeping Banyan in it's present location while constructing the new church building and the surrounding support buildings and pavement.

1. Initial minor crown branch pruning along the east side of the tree to allow clear vertical construction of the west elevation of the new church building to be performed by a Certified Arborist. (Estimated cost: $2,500.00 to $3,000.00)

2. Enlarge planter opening by three (3) feet on all four sides and do not disturb or damage the exposed surface roots.

3. Prior to construction carefully expose and properly prune and remove exposed roots on the east side of the Weeping Banyan tree at a minimum of 15' away from the face of the tree trunk along the entire length of the building width. Root pruning to be performed by a Certified Arborist. (Estimated Cost cannot be determined.)

4. Provide a 48" deep root control barrier along the entire length of the new planter edge to prevent future roots from undermining the new church building.

2.4.2 Existing Avifauna and Faunal Resources

Avifauna found on the project site would include alien species common to urban environments, such as the Common Mynah (Acridotheres tristis), Red crested Cardinal (Paroaria coronata), Northern Cardinal (Cardinalis cardinalis), House Finch

(Carpodacus mexicanus), Java Sparrow (Padda oryzivora), Rock Pigeon (Columba livia), Spotted Dove (Streptopelia chenensis), Zebra Dove (Geopelia striata), Red-vented Bulbuls (Pycnonotus cafer), and Japanese White-eye (Zosterops japonicus).

2.5 Air Quality

National Ambient Air Quality Standards (NAAQS) have been established for seven major air pollutants: carbon monoxide (CO), nitrogen oxides (NOx), ozone (O3), particulate matter smaller than 10 microns (PM10), particulate matter smaller than 2.5 microns (PM2.5), sulfur oxides (SOx), and lead. Air pollutant levels are monitored by the State Department of Health (DOH) at a network of sampling stations statewide. The nearest DOH air quality monitoring station is located eight miles away at Barbers Point. Based on ambient air monitoring data, the U.S. Environmental Protection Agency has classified the island of O‘ahu and the entire State of Hawai‘i as being in attainment of the federal standards. There are occasional exceeding occurrences of the more stringent State standards for carbon monoxide near congested roadway intersections.

There are no major sources of air pollution or airborne emissions in the immediate project vicinity. The air quality in the area is considered good and the primary non-point source of emissions are vehicles traveling along Farrington Highway and other roadways.

2.6 Noise

Existing Conditions

The dominant noise sources at the project site are traffic along Farrington Highway and the school bus/fire access road, wind, and occasional distant aircraft flyovers. Noise level measurements along Farrington Highway were conducted in 2011 for the Hawai‘i Department of Transportation’s Farrington Highway Intersection Improvements Environmental Assessment (DOT 2011).

The land uses along Farrington Highway near the library site include residences, schools, and recreational areas, and fall within the Federal Highway Administration's (FHWA) land use Category B. These uses have a Noise Abatement Criteria (NAC) of 67 dBA. When predicted traffic noise levels (i.e., from the highway improvements) approach or exceed the NAC, a noise impact has occurred. The DOT's 2009 study showed that existing noise levels along Farrington Highway already approach or exceed the FHWA's NAC criteria.

Existing noise levels along Farrington Highway also appear to exceed State standards for residential areas. Noise is regulated by the Department of Health under HAR Chapter 11-42, "Vehicular Noise Control for Oʻahu," and Chapter 46, "Community Noise Control." The current allowable noise limits for residential, apartment, and community business properties on Oʻahu are listed in the following Table:

Table ~~3~~ 4 – Allowable Noise Limits

Zoning	Daytime: 7:00 a.m. to 10:00 p.m.	Nighttime: 10:00 p.m. to 7:00 a.m.
Residential	55dBA	45dBA
Apartment	60dBA	50dBA
Community Business	60dBA	60dBA

2.7 Visual Resources

Existing Conditions

The visual environment of the project area consists of wide, unobstructed views of the Waiʻanae Mountain range and views to the ocean across Farrington Highway. The project area is within the "Nānākuli Viewshed" identified by the City's Coastal View Study (1987). Farrington Highway, the coastal road through the region, provides "continuous" or "intermittent coastal views" in some areas. The coastal view study does not identify any significant stationary viewpoints along the Nānākuli coastline. From

Farrington Highway immediately fronting St. Rita Church, there are direct views of the ocean as the church is elevated from Farrington Highway.

2.8 Historic, Archaeological, and Cultural Resources

The Archaeological Assessment, Appendix D, discusses historic, archaeological and cultural resources related to the St. Rita Church project site.

2.8.1 Historic and Archaeological Resources

Settlement Patterns and Anticipated Finds

Settlement patterns in Nānākuli were likely similar to the rest of the Waiʻanae District (e.g., Cordy 2002). Initial settlement probably began with small groups of people living near the coast to take advantage of the abundant marine resources. The population then spread farther inland behind the coastal dunes and along the coastal trail which is roughly the route of today's Farrington Highway. Finally, the back valley areas were settled as people began to utilize more agriculturally productive zones. Archaeological evidence has shown that the upper valley currently hosts many house sites and dryland agricultural terraces. Early descriptions of Nānākuli depict a barren land with few houses and an area that lacks water and agricultural resources. However, the land may have appeared desolate from the coast because many of the people lived in the upper valley, and this was not visible from the shore.

Based on previous archaeological work nearby at the former Camp Andrews, anticipated finds include sinkholes and historic military remnants. Sinkholes may house human burials, traditional Hawaiian artifacts, and midden, and it is possible that these might be found during subsurface testing. The O.R.&L. railroad tracks are located across the highway from the project area, and the historic St. Rita's Church building still remains on the property. As the project area is mostly paved, however, it is not likely that other structural remnants or surface archaeological features will be found. It is possible that historic material may be encountered during subsurface testing. This may

take the form of concrete slabs, walls, or foundations; metal, wood, or glass building materials; or bottles, ceramics, and other such items typically recovered from historic-era sites in Hawai‘i.

2.8.2 Results of Fieldwork

Pedestrian survey and subsurface testing were conducted in the 1.81-acre (.73 ha) project area. No archaeological sites were found. Excavation of five test trenches did not yield any evidence of subsurface cultural material or features.

Pedestrian Survey

The surface survey included 100% of the 1.81-acre (.73 ha) parcel. The property is mostly paved on the east side, and structures or landscaped lawns occur within the unpaved areas on the west. The history of the structures on the St. Rita's Church property is discussed in the historic background section of this report. Some of the structures are more than 50 years old, and their treatment during construction should be determined in consultation with the architecture branch of SHPD. The O.R.&L. railroad tracks were observed across Farrington Highway from the subject property, well outside the project boundaries. No other surface archaeological remains were identified.

Subsurface Testing

A total of five trenches were excavated throughout the property to determine the presence or absence of subsurface cultural deposits or material (Table 3, see Figure 11 in Appendix D). Trenches were placed in unpaved areas and distributed so that stratigraphy could be seen in different areas of the parcel. Stratigrahy generally consisted of several layers of fill, sometimes above a natural sand layer.

TR 1 was excavated on the west side of the parcel in the grassy lawn fronting the large banyan tree (see Figure 11, Appendix D). The trench measured 5.2 m long and generally .65 m wide, although the width was as great as 1.6 m in caved-in areas. The trench was excavated to 170 cm below surface (cmbs) to a depth well below the

proposed construction. Excavation could not continue further because the trench kept caving in. Stratigraphy consisted of two layers of fill atop a culturally-sterile A-horizon, with a natural marine sand deposit below (Figure 12, Appendix D). The A-horizon consisted of a darkened sand layer, darker in some areas than others, although no charcoal fragments were observed. No cultural deposits or material were identified.
TR 2 was placed in an unpaved island within the parking lot, on the south side of the property (see Figure 11, Appendix D). The trench measured 3.4 m long and typically .67 m wide, but extended to 1.2 m where there were cave-ins. It was excavated to 180 cmbs, well below the depth proposed for construction. Excavation could not continue further because the trench kept caving in. Stratigraphy consisted entirely of fill (Figure 13, Appendix B). No cultural material or deposits were found.

TR 3 was located on the east side of the property, just outside the paved parking lot (see Figure 11, Appendix D). It measured 3.1 m long and 1.06 m wide. The trench was excavated to 205 cmbs, well below the depth of the proposed construction. Excavation could not continue further because the trench kept caving in. Stratigraphy consisted entirely of fill (Figure 14, Appendix D). No cultural deposits or material were identified.

TR 4 was placed on the northeast side of the parcel, just outside the paved parking lot (see Figure 11, Appendix D). The trench measured 3.05 m long, 0.8 m wide, and 165 cm deep, well below the depth proposed for construction. Excavation could not continue further because the trench kept caving in. Stratigraphy consisted of five layers of fill, a buried road pavement, and a basal deposit of natural marine sand (Figure 15, Appendix D). No cultural deposits or material were identified.

Summary of Findings

Pedestrian survey of TMK: (1) 8-9-005:001 did not yield any evidence of former use of the parcel. Much of the property is either paved or occupied by structures. Subsurface testing was conducted in five locations throughout the church grounds to determine the presence or absence of subsurface cultural material or deposits, and none were found.

Stratigraphy consists mostly of fill, with some areas of natural marine sand exposed. The entire property appears to have been disturbed to a depth of 40 cmbs and greater, possibly by the 1930s-era filling of the parcel mentioned in the literature (O'Hare et al. 2013). The three research questions developed at the onset of the project were all answered negatively, as no surface or subsurface archaeological remains were found. ~~Several of the church buildings may be considered historic structures, however, and their treatment should be determined in consultation with the SHPD architecture branch.~~ Prior to initiation of the project, the landowner or their representative will consult with the SHPD Architecture Branch regarding whether any of the buildings are significant historic properties and, if so, their appropriate treatment.

2.8.3 Description of Historic Properties and Significance

SUMMARY AND RECOMMENDATIONS

An archaeological inventory survey (AIS) ~~assessment~~ was conducted for TMK: (1) 8-9-005:001 in Nānākuli Ahupuaʻa, Waiʻanae District, on the Island of Oʻahu. Due to negative findings, the AIS results are presented as an archaeological assessment (AA). ~~This was done~~ The AIS was conducted in preparation for ground disturbance associated with church improvements, including demolishing some of the current structures and constructing new buildings. Excavations for the proposed construction are expected to reach a depth no greater than 3 feet (0.9 m). The archaeological assessment included pedestrian survey that covered 100% of the property, as well as test excavations consisting of five trenches.

No surface archaeological remains were found during pedestrian survey of the parcel. The entire property has been disturbed by development, including paving of the parking lot, construction of the current buildings, and landscaping of the lawns. Likewise, subsurface testing did not yield any evidence of subsurface cultural material or deposits. Stratigrahy generally consisted of several layers of fill, sometimes above a natural sand layer. Some of the structures are more than 50 years old, however, although the

Environmental Assessment for the church does not consider the buildings as historic properties. Prior to initiation of the project, the landowner or their representative will consult with ~~and their treatment during construction should be determined in consultation with~~ the Architecture Branch of SHPD regarding whether any of the buildings are significant historic properties and, if so, their appropriate treatment.

In sum, archaeological survey was conducted at TMK: (1) 8-9-005:001 in Nānākuli, and no archaeological remains were found. Construction associated with church improvements will have no effect on archaeological sites because no archaeological sites occur there. Archaeological monitoring is recommended because of the possibility of encountering sinkholes with archaeological material or human remains. Isolated human burial remains may be discovered during construction activities, even though no evidence of human burials was found during the survey. Should human burial remains be discovered during construction activities, work in the vicinity of the remains shall cease immediately, the area shall be secured, ~~should cease~~ and the SHPD and Honolulu Police Department (HPD) shall be notified. ~~should be contacted.~~

2.8.4 Cultural Resources

The Archaeological Assessment, Appendix D provides discussion of Nānākuli's historical and cultural background in addition to previous archaeological studies in the area. Refer to the Background section in the Archaeological Assessment report.

2.9 Infrastructure Facilities

2.9.1 Water and Fire System Facilities

Existing:

According to the Due Diligence Report - Infrastructure, Appendix D, domestic water is presently provided through the ¾"water meter (30 gpm capacity). When the water demand is known, the meter can be upgraded to meet the needs of the new development. The location of the existing onsite distribution water lines is not known. A

new water line will be provided under the development to distribute the domestic water to the various building components.

There is presently no fire protection waterline on the property. Water for domestic use is provided from the 8" PVC BWS main on Farrington Highway. Fire hydrant L139 is located on Farrington Highway at the west property corner. The fire hydrant on Farrington Highway will not provide adequate coverage for the proposed development.

2.9.2 Wastewater Facilities

Existing and Planned:

No municipal sanitary sewer system is available for the project to connect to. Disposal of sewage effluent will be onsite via an Individual Wastewater System (IWS) which includes a septic tank and leaching field. The Church, in anticipation of their future development plans had constructed two IWS on site; a 1,500 gallon Orenco septic tank and a 2,000 gallon Orenco septic tank. The 1,500 gallon system is connected to a 6' wide by 55' biodiffusers and the 2,500 gallon system is connected to 12' wide by 55' biodiffusers.

The 1,500 gallon system serves the present church but will ultimately be connected to the new Rectory and the new Administrative Offices. The 2,500 gallon system will serve the new multipurpose building. Refer to the Site Utility Plan enclosed in Appendix E – Due Diligence Report - Infrastructure.

2.9.3 Grading and Drainage

Existing:

In general, while the land will be graded to retain the existing sheet flow pattern, the City's new Water Quality Design Standards require measures to retain runoff on site, by employing bio-retention areas, grassed swales, permeability measures such as drywells, infiltrators, etc.

The land slopes to the southeast toward the parking area on the adjacent parcel. Runoff leaves the site in a general overland sheet flow pattern. A smaller portion of the runoff leaves the site as concentrated flow near the driveway entrance to Farrington Highway.

On Farrington Highway, a series of grated inlets and 24" diameter storm drain pipe intercept runoff from the highway and conveys the flow in the southwesterly direction, then at a manhole turns mauka into the parking area on the adjacent parcel to another manhole, which turns the system southeasterly again and outlets with a headwall in the parking area's fill slope. The manhole in the parking area has a grated inlet cover and it appears that when the parking area was constructed, filling a low area, the manhole was converted to an inlet and the system extended to the headwall. Ultimately, the storm runoff flows to the Nānākuli Stream, which crosses Farrington Highway and outlets into the ocean.

2.9.4 Solid Waste Facilities

The City Department of Environmental Services' Refuse Division provides municipal solid waste curbside collection for all single-family residences and a limited number of multi-family properties, non-residential customers, and City agencies on the island. Bulky items are collected on a monthly basis (every 4th Monday) and either recycled or delivered to the Waianae Collection Yard. Green waste is collected every other Thursday.

The Honolulu Program of Waste Energy Recovery (H-Power) energy recycling plant is a waste-to energy (WTE) facility operated by the City located in the Campbell Industrial Park in Kapolei. Approximately 90 percent of the volume and 70 to 75 percent of the weight of solid waste received at H-Power is diverted from the landfill, and converted into renewable electric energy. The ash and residue from H-Power are delivered to the Waimanalo Gulch Landfill.

The Waimanalo Gulch Landfill located in Kapolei is owned by the City and is a permitted landfill accepting solid waste on O'ahu. This landfill accepts: 1) non-combustible municipal solid waste; and 2) ash and residue from the H-Power facility. Construction and demolition waste are not permitted at either H-Power or the Waimanalo Gulch Sanitary Landfill, and is taken to the privately-owned PVT Nānākuli Construction and Demolition Material Landfill in Nānākuli (R.W. Beck, Inc., October 2008).

2.9.5 Transportation Facilities

A Traffic Impact Analysis Report (TIAR), Appendix F, was ~~completed~~ finalized on ~~September~~ ~~2014~~ February 2016. The purpose of this study is to analyze the traffic impacts resulting from the proposed St. Rita Catholic Church. The TIAR also included the development of a Traffic Management Plan (TMP), which assesses the traffic and parking operations of the proposed Church expansion. This report presents the findings and recommendations of the study. The scope of this study includes:

1. Evaluation of existing roadways and traffic conditions, during the Sunday peak hour of traffic.

2. Development of the trip generation and parking generation characteristics of the proposed project.

3. Analysis of the 2019 traffic conditions without the proposed project.

4. Identification and analysis of traffic impacts resulting from the development of the full build out of the proposed project.

5. Development of a Traffic Management Plan.

~~5~~ 6. Recommendation of improvements, as necessary, that would mitigate the traffic and parking impacts identified in this study.

The study areas for the TIAR are: 1) the intersection of Farrington Highway and Nānākuli Avenue, 2) the intersection of Nānākuli Avenue and Pua Avenue, 3) Farrington Highway and the St. Rita Church driveway; and 4) the St. Rita Church driveway and Pua Avenue.

Parking

The Land Use Ordinance (LUO) Table 21-6.1 – Off-Street Parking Requirements, states that the parking requirement for meeting facilities is 1 stall per 75 square feet of assembly area or 1 stall per 5 fixed seats, whichever is greater. The parking requirement for offices is 1 stall per 400 square feet.

Table 4 5 – Building Summary

Proposed Facility	Square Footage	Required Parking	Provided Parking
Community Hall	6,400	85 stalls	~~95~~ 93 stalls + 4 handicapped stalls = ~~99~~ **97 parking stalls**
New Church	5,650	80 stalls	
Office	2,200	6 stalls	
Total	**14,250**	**171 stalls**	

Although the table illustrates that St. Rita Church will be under-parked, the church and community hall will not be used simultaneously. The community hall will be utilized for post-services gatherings or other special events at different times from church services. Moreover, as stated in the ~~Draft~~ Final TIAR and TMP, ~~"Attendant-assisted parking in the aisles of the parking lot should accommodate another 30 spaces. The total of 129 parking spaces on-site would accommodate the proposed 400-seat church."~~ "The 97-stall parking capacity, provided on site, will exceed the ITE parking generation for a 400-seat church. However, the parking survey indicated that the 144-stall parking demand for St. Rita Catholic Church is expected to exceed the 97-stall parking capacity by about 47 parking spaces. The excess parking demand is expected to be accommodated by implementing attendant-assisted tandem parking operations on site."

Sunday Peak Hour Parking Generation

The ITE peak Sunday parking demand for a church with 400 seats is 80 parking spaces, or 0.20 space per seat. The Sunday parking generation rate of 0.36 space per seat was developed from the observed peak parking demand of 65 stalls and the existing 180-seat St. Rita Catholic Church. The observed parking generation rate of 0.36 space/seat was used to estimate the peak parking demand of 144 stalls for the proposed project.

Sunday Parking Impacts

The 97-stall on-site parking capacity would require an additional 47 spaces to accommodate the 400-seat church, for a total of 144 parking spaces. Attendant-assisted tandem parking will be required to accommodate the additional 47 spaces on the church property.

St. Rita Catholic Church has reported that off-site parking has not been needed in the past. However, if additional parking is needed for large events in the future, potential offsite parking sites may include: Nanakuli Beach Park, which is located across Farrington Highway; and Nanakuli Ranch property, which is located immediately to the south of the project site. St. Rita Catholic Church will provide shuttle bus services to/from off-site parking locations, as necessary.

Roadways

Farrington Highway is the primary arterial highway on the Leeward coast of O‘ahu. Farrington Highway is a four-lane highway, which is oriented generally in the north-south directions. Farrington Highway is signalized at Nānākuli Avenue. Farrington Highway has a posted speed of 35 miles per hour (mph).

Nānākuli Avenue is a two-way, two-lane roadway, which intersects Farrington Highway at a signalized four-legged intersection, opposite the Nānākuli Beach Park Driveway. A protected-permissive left-turn phase in provided on southbound Farrington Highway at Nānākuli Avenue. Exclusive left-turn lanes are not provided on Farrington Highway at Nānākuli Avenue.

Pua Avenue is a two-way, two-lane local street, which is stop-controlled at its four-legged intersection with Nānākuli Avenue. Pua Avenue runs roughly parallel to Farrington Highway, which is located about 450 feet mauka (east) of Farrington Highway.

Level of Service

The ~~Draft~~ TIAR defines Level of Service A to F from the Highway Capacity Manual (HCM): HCM defines Level of Service (LOS) as "a quality measure describing operational conditions within a traffic stream". Several factors may be included in determining LOS, such as: speed, travel time, freedom to maneuver, traffic interruptions, driver comfort, and convenience. LOS's "A", "B", and "C" are considered satisfactory Levels of Service. LOS "D" is generally considered a "desirable minimum" operating level of service. LOS "E" is an undesirable condition, and LOS "F" ~~is an unacceptable condition~~ are considered undesirable conditions. ~~Intersection LOS is primarily based upon delay. Worksheets for the capacity analysis, performed throughout this study, are compiled in the Appendix. The table below summarizes the LOS criteria."~~

Intersection LOS is primarily based upon average delay in seconds per vehicle (sec/veh). Worksheets for the capacity analysis, performed throughout this study, are compiled in the Appendix of the TIAR. Table ~~5~~ 6 summarizes the LOS criteria.

Table ~~5~~ 6 – Level of Service Criteria

Level of Service Criteria (HCM)		
LOS	**Signalized Intersections**	**Unsignalized Intersections**
	Control Delay (seconds/vehicles)	Control Delay (seconds/vehicles)
A	≤ 10	≤ 10
B	>10-20	>10-15
C	>20-35	>15 – 25
D	>35 – 55	>25 – 35
E	>55 – 80	>35 – 50
F	>80	>50

Source: Draft TIAR and TMP for St. Rita Catholic Church, September 8, 2014

Sunday Peak Hour Traffic Analysis With Project: The intersection of Farrington Highway and Nānākuli Avenue is expected to operate at LOS "B", during the Sunday peak hour of traffic with the proposed project. ~~The traffic movements at the intersection are expected to operate at satisfactory Levels of Service. The other intersections in the study area are expected to operate at LOS "B" or better.~~ The shared left-turn/through

movement on makai bound Nanakuli Avenue is expected to operate at LOS “D”. The ongoing DOT intersection improvements can be expected to improve the all traffic movements at the intersection to LOS “C” or better.

Parishioners and visitors leaving our parking lot to go towards Ko‘Olina are encouraged to exit through the mauka exit onto Pua Avenue and down Nānākuli Avenue to the traffic light before safely turning left onto Farrington Highway.

~~To mitigate parking and traffic flow impacts, the TIAR recommends the following:~~
~~1. Tandem parking operations should be implemented by St. Rita Catholic Church, as necessary, to avoid members having to park on the streets in the neighborhood. An additional 30 parking stalls, for a total of 129 parking stalls, are expected to be required on Sunday for the 400-seat church.~~

~~2. St. Rita Catholic Church should urge its members to avoid making left turns to and from Farrington Highway at its existing driveway.~~

~~3. St. Rita Catholic Church should make arrangements for off-site parking and shuttle service, during special events, when the parking demands exceed the on-site parking capacity.~~

Recommendations

The TIAR recommends the following:

1. Tandem parking operations should be implemented by St. Rita Catholic Church, as necessary, to avoid members having to park on the streets in the neighborhood. Up to forty-seven (47) tandem parking stalls would be required on Sunday for the proposed 400-seat church.

2. St. Rita Catholic Church should direct its members to not to make left turns to and from the existing right-turn-in/right-turn-out driveway on Farrington Highway. Motorists should be diverted to the Pua Avenue driveway.

3. St. Rita Catholic Church should direct its members not to park within the Farrington Highway right-of-way.

4. St. Rita Catholic Church should make arrangements for off-site parking and shuttle bus services, during large special events, if the parking demands are expected to exceed the on-site parking capacity.

5. St. Rita Catholic Church should provide secured bicycle racks on site to promote the use of the bicycle mode of transportation, as necessary.

Conclusions:

Based on the traffic analyses conducted, the TIAR concludes the following:
The proposed St. Rita Catholic Church is expected to generate its peak hour traffic between Sunday morning Masses, when ambient traffic conditions are significantly lower than the weekday peak hour traffic. The traffic generated by the proposed St. Rita Catholic Church expansion is expected to increase Sunday peak hour traffic on Farrington Highway by 3.5 percent, north of Nanakuli Avenue, and by 2.7 percent, south of the St. Rita Catholic Church Driveway. Therefore, the increase in Sunday peak hour traffic on Farrington Highway, resulting from the proposed project, is not expected significantly impact traffic operations beyond the study area.

The 97-stall parking capacity, provided on site, will exceed the ITE parking generation for a 400-seat church. However, the parking survey indicated that the 144-stall parking demand for St. Rita Catholic Church is expected to exceed the 97-stall parking capacity by about 47 parking spaces. The excess parking demand is expected to be accommodated by implementing attendant-assisted tandem parking operations on site.

The DOT-planned widening of Farrington Highway to include an exclusive left-turn lane at Nanakuli Avenue can be expected to improve traffic operations to satisfactory Levels of Service, during the Sunday peak hour of traffic with the proposed St. Rita Catholic Church expansion. Table 3 summarizes the capacity analysis at the intersections in the study area.

2.10 Public Facilities and Utilities

2.10.1 Educational Facilities

The St. Rita Catholic Church is in the vicinity of the recently constructed Nānāikapono Elementary School. It is also across Farrington Highway from the Kamehameha Schools Nānākuli Learning Center and the Ka Waihona O ka Na‘auao Public Charter School, which are utilizing the old Nānāikapono school campus. Other public schools in the area include Nānākuli Elementary, and Nānākuli High and Intermediate School.

2.10.2 Recreational Facilities

Nānākuli Beach Park

Located across of Farrington Highway from St. Rita Church, this beach park is 39.63 acres. In addition to beach and ocean activities, this park provides basketball, football, indoor recreation, picnicking, skateboarding, softball, tent camping, trailer camping, and volleyball activities. Park amenities include, accessible parking stalls, lifeguard towers, parking stalls, picnic tables, restrooms, shade trees, and showers.

2.10.3 Police, Fire Protection and Emergency Services

Police, fire and emergency services are provided through the City and County of Honolulu. The project is within Honolulu Police Department’s District 8, Kapolei/Wai‘anae, which services a large area from ‘Ewa and Kapolei up through the entire Leeward Coast. The nearest police substation is the Wai‘anae Substation, located about five miles away in Wai‘anae.

Nānākuli Fire Station Number 28 is located mauka of Farrington Highway on Nānākuli Avenue near Mano Street, less than a mile from the library site.

The City and County of Honolulu Department of Emergency Services provides emergency medical services on O‘ahu, including Nānākuli which has 24-hour service coverage.

2.10.4 Electrical and Communication Facilities

The St. Rita Church project site is served by Hawaiian Electric Company (HECO) and Hawaiian Tel for land-line communications.

3.0 ENVIRONMENTAL CONSEQUENCES

3.1 Geology, Topography and Soils

Construction of the proposed improvements would occur within the lot area of the existing facilities. No significant impacts to the present geology and topography associated with this site are expected from construction of the project. There are no unique or significant geological land formations present on the property that would be affected. No major cut or fill activities are anticipated that would significantly alter present geologic land forms.

Improvements would be constructed on land that has already been disturbed and graded as part of the Church's initial parking lot, driveways, and church. Therefore, minimal grading and only minor excavations for building foundations are anticipated because the existing topography of the site is already level. Therefore, this project should not have a significant long-term impact on the site's existing geology, topography, or soil conditions.

Short-Term Construction Effects

Construction of the project would inevitably involve temporary land-disturbing activities that cause minor short-term effects and nuisances. Construction activities would not have a significant impact on the environment, and standard construction best management practices are available to mitigate such effects which are discussed further.

Various mitigation measures will be incorporated into the project's design to minimize potential short-term erosion impacts during such construction activities. Such measures will be instituted following site-specific assessments, incorporating structural and non-structural Best Management Practices (BMPs), as deemed appropriate. Erosion control measures considered may include: use of temporary sprinklers in non-active construction areas; stationing water trucks nearby during construction to provide

sprinkling in active areas; use of temporary silt fencing, sand bags, or screens; or thorough watering of disturbed areas after construction activity has ceased for the day. However, the actual measures implemented will be developed during the final design of this project, and would comply with the City's erosion and sedimentation control regulations. Design plans will be submitted to pertinent City agencies for ministerial review and approval. If applicable, State Department of Health (DOH) National Pollutant Discharge Elimination System (NPDES) permits would be obtained.

The contractor will work with Church officials to determine an area to be used for staging. The contractor will also implement necessary measures such as temporary chain-link fences to protect materials and construction-related equipment from theft or vandalism. To ensure the safety of pedestrians near the site, construction areas would be clearly marked and temporary fences used to keep unauthorized persons out.

3.2 Natural Hazards

The project will not significantly increase the risk of human health or property due to exposure to natural hazards, and discussion of the project's effects and susceptibility to natural hazards is provided.

3.2.1 Earthquakes

Most of the earthquakes that have occurred in the State were volcanic earthquakes causing little or no damage to the Island of Oʻahu. Oʻahu is periodically subject to episodes of seismic activity of varying intensity due to its proximity to the Molokaʻi Seismic Zone and the Diamond Head Fault. However, earthquakes cannot be avoided or predicted with any degree of certainty, and an earthquake of sufficient magnitude (greater than 5 on the Richter Scale) may cause structural or other damage to the project improvements.

The proposed building improvements would be structurally designed and constructed in accordance with the City's building code. Therefore, the susceptibility of being damaged from an earthquake would be no different from other structures or buildings present in the surrounding Nānākuli community.

3.2.2 Hurricanes

The three major elements that make a hurricane hazardous are: 1) strong winds and gusts, 2) large waves and storm surge, and 3) heavy rainfall (FEMA 1993). Impacts from hurricanes can be severe and lead to beach erosion, large waves, high winds, and marine over-wash, despite the fact that the hurricane may have missed a particular island (USGS 2002). Study of the aftermath of Hurrican Iniki found that a significant threat related to hurricane overwash along the coastline in the Hawaiian Islands is due to water-level rise from wave forces rather than wind forces.

A hurricane of significant strength and high winds passing directly over or close to the Island of O'ahu could cause damage to the project improvements along with other existing uses in the surrounding area. One element of a hurricane that may cause damages to the project improvements are strong winds and gusts. The project site is also situated near the coastline making it susceptible to damage from wave forces from a hurricane of significant strength. Heavy rainfall from a hurricane should not seriously affect the project improvements because the site is not located within a flood area.

To minimize potential hurricane damages to the project, new buildings and structures would be designed and constructed in conformance to applicable building codes. Therefore, the risk of potential damage from high winds or over-wash should be minimized. Therefore, the property should be at no greater risk of damage than other residential buildings in the surrounding neighborhoods.

3.2.3 Tsunami and Flooding

The project site is not located within a designated flood area based upon the FIRM. Therefore, project improvements should not be subject to significant damage from potential flooding events that occur in the surrounding community.

To minimize potential damages from a tsunami or flooding, new buildings and structures would be designed and constructed in conformance to applicable building codes. Therefore, the risk of potential damage from these hazards should be minimized and of no greater risk of damage than other residential buildings in the surrounding Nānākuli community.

3.3 Hydrology

This section discusses the regional hydrology present in the project area which includes ground water and surface water resources.

3.3.1 Hydrogeological Resources

The State Department of Land and Natural Resources (DLNR), Commission on Water Resource Management (CWRM) has established ground water hydrologic units to provide a consistent basis for managing ground water aquifers. Under the State's Water Resource Protection Plan, an aquifer coding system classifies the island's aquifers to identify and describe these aquifers. This system is comprised of Aquifer Sectors, and then Aquifer Systems located within these sectors.

The Nānākuli area is within the Waianae Aquifer Sector (303) which is further divided into five aquifer systems which are the Keaau, Makaha, Waianae, Lualualei, and Nānākuli. The project site is located within the Nānākuli unit (30301) (CRWM 2015). The Waianae Aquifer Sector has an estimated sustainable yield of 16 million gallons per day (mgd) and the Nānākuli unit has a sustainable yield of 2 mgd (CWRM 2015).

3.3.2 Surface and Coastal Waters

There are no perennial or intermittent streams present in the immediate vicinity of the project site. Coastal waters in the Nānākuli area are designated as "Class A" based upon the State Department of Health's (DOH) Water Quality Standards Map for O'ahu. The objective of Class A water use is to protect recreational purposes and aesthetic enjoyment. Any other use is permitted as long as it is compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation use in these waters. Based upon the State DOH water quality standards (Chapter 11-54, HAR), these waters are not to act as receiving waters for any discharge which has not received the best degree of treatment or control compatible with the criteria established for that class.

3.4 Botanical and Faunal Resources

Impacts and Mitigation

The project site does not provide unique habitat in the area, and no significant impacts on any plant or animal species is anticipated. No candidate, proposed, or listed threatened or endangered species will be disturbed.

3.5 Air Quality

Construction Period

During construction, site clearing, grubbing and grading will generate dust in the immediate area which has the potential to impact the adjacent residential neighborhood. The construction contractor will employ fugitive dust emission control measures in compliance with provisions of the State DOH Rules and Regulations (Chapter 43, Section 10) and Hawai'i Administrative Rules (HAR) Chapter 11-60.1, "Air Pollution Control," Section 11-60.1-33 on Fugitive Dust.

During excavation, the contractor will sprinkle water, as necessary to control dust. In addition, the following measures will be implemented to minimize dust and air quality impacts:

- Use of dust screens around the construction site;
- Provide an adequate water source at the site prior to start-up of construction activities;
- Pave or revegetate work areas cleared of vegetation as soon as possible to reduce dust;
- Provide adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities;
- Control dust from debris being hauled away from the project site;
- Move construction equipment to and from the work sites during non-peak traffic periods, to the extent possible, in order to minimize disruption to area traffic.

Emissions from construction equipment, trucks and commuting construction workers will not significantly impact ambient air quality due to the relatively low level of vehicular activity in comparison to existing traffic conditions. Slow-moving construction vehicles, however, can disrupt peak traffic hour traffic, increasing congestion and increased vehicular emissions. This will be mitigated by transporting large construction equipment during off-peak traffic hours. Overall, air quality impacts during construction will be temporary in duration. The construction contractor will identify a primary point of contact (POC) to establish communication with the school administration as well as with the surrounding community.

Long-Term Impacts

The project will not have a long-term adverse impact on air quality. Vehicular emissions from traffic associated with the church and church-related uses will be negligible.

3.6 Noise

Short-Term Construction Impacts

Construction activities will generate noise that may have short-term impact on the adjacent residences to the north and northwest of St. Rita Church. Development will involve excavation, grading, construction of new buildings and infrastructure. Noise levels will be a function of the methods employed during each stage of construction. The noisiest period is expected to be during site preparation, where earth moving equipment will operate on-site. These noise impacts are unavoidable but will be temporary.

All construction activities will comply with the State of Hawai‘i Department of Health (DOH) Administrative Rules Chapter 11-46 on Community Noise Control. In residential zoned districts such as the project site, maximum permissible noise levels are 55 dBA in the daytime (7:00 a.m. to 10:00 p.m.) and 45 dBA nighttime (10:00 p.m. to 7:00 a.m.). In cases where construction noise exceeds, or is expected to exceed the maximum permissible noise levels at the property line, a permit will be obtained from the DOH to operate vehicles, construction equipment, power tools, etc. that emit noise levels in excess of “maximum permissible” levels.

The DOH currently regulates construction noise under a permit system. Under current procedures, noisy construction activities are restricted to hours between 7:00 a.m. and 6:00 p.m., Monday through Friday, excluding certain holidays, and 9:00 a.m. and 6:00 p.m. on Saturdays. Construction is not permitted on Sundays. The majority of construction work will be performed during the day to ensure minimal nighttime noise impacts on surrounding residences.

Operational Noise

The primary source of additional noise following the completion of the new library will be traffic entering and exiting the site during events listed in Table 1 – Summary of St. Rita Church Activities. The TIAR prepared for St. Rita Church provides more details of traffic flow during church services and other church-related activities.

3.7 Visual Resources

Impacts and Mitigation

Although St. Rita Church will be demolished and re-constructed; the same façade and historical architectural context will be designed into the new construction and the view from Farrington Highway will remain consistent to the current view. The new meeting hall will be constructed behind the church and will have no visual impact from Farrington Highway.

Exhibits 3, 4, and 5 illustrate the proposed development's elevations overlaid on existing site photographs. Exhibit 3 – North-Mauka Elevation illustrates the proposed St. Rita Church looking in the mauka direction. Exhibit 4 – South-Makai Elevation illustrates the proposed Meeting Hall looking in the makai direction. Exhibit 5 – South-North Elevation illustrates the new office building, new Church, and new meeting hall building looking toward Waiʻanae.

3.8 Historic, Archaeological, and Cultural Resources

The Archaeological Assessment, Appendix D generated the following three questions as part of their research and assessment of the project site:

Research Questions

Research questions will broadly address the identification of the above archaeological resources and may become more narrowly focused based on the kinds of resources that are found. Initial research questions are as follows:

1. Is there any evidence of pre-contact use of the property and what is the nature of that use? The project area is located in a coastal environment, a context favored for human burial in traditional Hawaiʻi. Burials have been found in sinkholes and other contexts in Nānākuli, thus it is possible that human remains will be encountered during the survey. Other evidence of traditional Hawaiian use of the study area might include isolated artifacts, midden deposits, and/or buried cultural layers.

2. Are there vestiges of historic use of the property? Remnants of historic-era land use would likely be related to historic use of the church or the nearby O.R.&L railway, and might include structural remnants, walls, and/or historic artifacts. WWII-era use of the area might be evident in military structures or military-related artifacts.

NEW CHURCH BUILDING
NORTH (MAUKA) ELEVATION

Exhibit 3: North-Mauka Elevation

NEW MEETING HALL BUILDING
SOUTH (MAKAI) ELEVATION

Exhibit 4: South-Makai Elevation

Exhibit 5: South-North Elevation

3. What time periods are represented by the archaeological remains on the properties? If fire pits or other datable archaeological features are encountered, radiocarbon dating may inform on the period of use for the area. Wood taxa identification should be performed prior to dating, and only material suitable for dating should be submitted for analysis. Historic occupation may be dated by material remains such as bottles or ceramics.

As stated previously in this EA, much of the property is either paved or occupied by structures. Subsurface testing was conducted in five locations throughout the church grounds to determine the presence or absence of subsurface cultural material or deposits, and none were found. Stratigraphy consists mostly of fill, with some areas of natural marine sand exposed. The entire property appears to have been disturbed to a depth of 40 cmbs and greater, possibly by the 1930s-era filling of the parcel mentioned in the literature (O'Hare et al. 2013). The three research questions developed at the onset of the project were all answered negatively, as no surface or subsurface archaeological remains were found. Several of the church buildings may be considered historic structures, however, and their treatment should be determined in consultation with the SHPD architecture branch.

3.9 Socio-Economic Factors

Existing Conditions

According to the 2012 U.S. Census, the Nānākuli Census Designated Place (CDP) had a total population of 12,666 persons, more than 40 percent of them Native Hawaiian. Average household size in the Nānākuli CDP was 4.76 persons, compared to the Honolulu County-wide average of 2.96 persons. There were also a much higher percentage of household members under 18 years of age; almost 64% in the Nānākuli CDP compared to about 35% in the County as a whole. Nānākuli CDP households also had a lower median income, $54,639 compared to a median income of $70,093 for the County.

Table ~~6~~ 7 – Demographic Information for Nānākuli Census Data Place (CDP), 2010

	Nānākuli CDP		Honolulu County	
	Number	**Percent**	**Number**	**Percent**
Population	12,666		953,207	
Race				
White	613	4.8	198,732	20.8
Black/African American	97	0.8	19,256	2.0
Amer Indian/Alaskan Native	29	0.2	2,438	0.3
Asian	1,159	9.2	418,410	43.9
Native Hawaiian/Other Pacific Islander	5,265	41.6	90,878	9.5
Other Race	59	0.5	10,457	1.1
	Nānākuli CDP		**Honolulu County**	
Two or more Races	5,444	43.0	213,036	22.3
Total Households				
Average Household size	4.76		2.96	
Median Household income	$54,639		$70,093	
Households with One or more People under 18 years of Age	1,691	63.6%	107,388	35.2%

Source: U.S. Census Bureau, American Fact Finder

Impacts and Mitigation

The proposed project will not directly or indirectly cause changes to the population or demographics. The St. Rita Church expansion is intended to serve the existing community. The CDP has a lower median income than the County as a whole, indicating that many families face economic challenges and may have limited access to computers or the Internet. The Leeward Coast has large numbers of homeless individuals, who will benefit from the community hot meal program that the Church provides. The census data also shows that the CDP has large numbers of children under 18.

3.9.1 Economic and Fiscal Factors

This section discusses the effects of the project on both the County and State's economic and fiscal factors. Construction of the proposed project will have different effects in relation to the City and State of Hawai'i's finances. The project would not generate any new permanent full-time jobs. Therefore, the primary economic and fiscal effects would be associated with short-term construction jobs that will generate a small minor positive economic impact.

The estimated construction cost for this project of $6,070,000 would create construction jobs during the duration of construction activities, as well as industries that support and service construction activities directly and indirectly. Three broad types of jobs are distinguished below:

- Direct jobs are immediately involved with construction of a project or with its operations.
- Indirect jobs are created as businesses directly involved with a project purchase goods and services in the local economy.
- Induced jobs are created as workers spend their income for goods and services.

Direct construction jobs would typically consist of on-site laborers, tradesmen, mechanical operators, supervisors, etc. These new jobs created would also generate additional personal income for construction workers that are the wages paid directly to them or operational employees associated with a development. Direct construction jobs created would also stimulate indirect and induced employment and spending of wages within other industries on the island such as retail, restaurants, material distributors, and other related businesses supporting the construction industry. These construction jobs would be filled by residents from the Island of O'ahu employed within the construction industry.

3.9.2 Social Factors

The proposed project will not directly or indirectly cause changes to the population or demographics. The proposed meeting hall and reconstructed church will be intended to serve the existing community. The Nānākuli CDP has a lower median income than the County as a whole, indicating that many families face economic challenges.

3.10 Infrastructure Facilities

3.10.1 Water and Fire System Facilities

Planned:

An onsite fire protection system will have to be provided for new building permits. According to Honolulu Fire Department letter dated November 3, 2014, 1) a fire department access road shall be provided to 150 feet of the exterior of any building or facility in accordance with NFPA 1, UFC, 2006 edition and 2) a water supply capable of delivering the required fire flow shall be provided to within 150 feet of any building.

The new onsite fire system will be connected to the BWS 8" main on Farrington Highway with an 8" Detector Check meter (fire only) and an 8" fire line through the parking area on the adjacent lot. The new fire hydrant will be located near the east property corner nearest to the new Community Hall (See Due Diligence Report - Infrastructure, Appendix D).

3.10.2 Wastewater Facilities

No municipal sanitary sewer system is available for the project to connect to. Disposal of sewage effluent will be onsite via an Individual Wastewater System (IWS) which includes a septic tank and leaching field. The Church, in anticipation of their future development plans had constructed two IWS on site; a 1,500 gallon Orenco septic tank and a 2,000 gallon Orenco septic tank. The 1,500-gallon system is connected to a 6' wide by 55' biodiffusers and the 2,500-gallon system is connected to 12' wide by 55' biodiffusers.

The 1,500 gallon system serves the present church but will ultimately be connected to the new Rectory and the new Administrative Offices. The 2,500-gallon system will serve the new multipurpose building.

3.10.3 Grading and Drainage

Planned:

A new onsite storm drain system will be extended through the new development to intercept storm runoff from building downspouts and area drains (See Due Diligence Report - Infrastructure, Appendix E). Permanent post construction water quality measures including use of an onsite retention system may be required.

3.10.4 Solid Waste Facilities

Short-Term Construction Impacts

With the redevelopment of St. Rita Catholic Church, there will be short-term impacts on solid waste facilities. Development will involve excavation, grading, construction of new buildings and infrastructure. All construction debris will be properly disposed of and recyclable and reusable materials will be carried out accordingly.

However, following the redevelopment of St. Rita Catholic Church, there will be no significant impact to solid waste facilities.

3.10.5 Transportation Facilities

Construction related traffic will result from the movement of slow-moving heavy construction vehicles and equipment. Additional traffic would occur from construction workers traveling to and from the job site.

However, any additional traffic delays are not expected to have a significant impact on traffic facilities or operations because construction workers generally arrive before the

weekday morning commuter peak hour and leave before the afternoon peak hour which starts around 4:15 p.m. Construction activities would also be temporary until work is completed. A Street Usage Permit would be obtained from the City if any temporary closure of a traffic lane is required during construction.

A traffic control plan will be developed during the project's design phase for implementation by the contractor after the ministerial review and approval by the City. If necessary, off-duty police would be hired to assist with traffic control. The Nānākuli-Māʻili Neighborhood Board and area residents are also planned to be notified of construction activities prior to initiation.

3.11 Public Facilities and Utilities

3.11.1 Educational Facilities

Project improvements planned are expected to have no long-term impact on educational facilities in the surrounding area. The project does not involve any new housing units that may generate new students attending schools in the area. Therefore, the project will not increase student enrollment or place additional demands on existing school faculty and administration.

3.11.2 Medical Facilities

Project improvements planned should have minimal long-term impact on medical facilities in the surrounding area. The project does not involve any new housing units that would generate new residents or visitors to the island that would place increased demand on medical service from nearby facilities.

3.11.3 Recreational Facilities

The TIAR and TMP (Appendix F) states that off-site parking for Church-related activities has not been needed in the past. However, if additional parking is needed for large

events in the future, potential offsite parking sites may include: Nanakuli Beach Park, which is located across Farrington Highway.

3.11.4 Police, Fire Protection, and Emergency Services

The project will not have a long-term impact on the need for fire, police or emergency services, or on facilities or operations. During construction, there may be temporary traffic congestion in the project vicinity.

An early consultation letter from the Honolulu Fire Department dated November 3, 2014 addressed the need for fire access roads and adequate water supply for fire-fighting. The St. Rita's Church project will comply with all fire-related design and building requirements. During the design process, civil drawings will be submitted to the Honolulu Fire Department of review and approval.

3.11.5 Electrical and Communication Facilities

The St. Rita Church Master plan has no impact on electrical and communication facilities.

3.12 Secondary and Cumulative Impacts

3.12.1 Secondary Effects

Secondary effects, also referred to as indirect effects, are effects cause by a project, but occur later in time or farther removed in distance than direct impacts, but are still reasonably foreseeable. Such effects may include impacts on environmental resources or public facilities that occur from a project's influence on land use. For example, a new housing development would have a secondary impact on the State's consumption of fossil fuels as a result of the increase in solid waste removal routes necessary to serve the new homes. Secondary impact assessments are concerned with impacts that are sufficiently "likely" to occur and not with the speculation of any impact that can be conceived of or imagined.

The proposed St. Rita Church Master Plan is expected to have secondary impacts on the resident population, land use patterns, public facilities, infrastructure, or the natural environment in the immediate area and surrounding Nānākuli community. The project involves a new meeting hall, reconstructed church, and office building. The new church building will be able to accommodate more parishioners, thus having secondary impacts toward traffic before and after church services. Refer to the TIAR, Appendix F for mitigation measures related to traffic impacts.

3.12.2 Cumulative Impacts

Cumulative impacts are typically defined as the effects on the environment which result from the incremental impact of a project when added to past, present, and reasonably foreseeable future actions within the study year. The estimation of future impacts is important for cumulative impact analysis. However, the focus must be on "reasonably foreseeable" actions that are those likely to occur or probable rather than those that are merely possible or subject to speculation. The prediction of reasonably foreseeable impacts thus requires judgment based on information obtained from reliable sources such as approved development or construction plans, entitlements, and similar documents.

The discussion of impacts presented within this EA has provided information to assist in addressing the applicable cumulative effects associated with the project and other reasonably foreseeable future actions being implemented. The St. Rita Church Master Plan should not have significant cumulative impacts on the surrounding environment. Most of the effects are confined to the project site, would not require off-site infrastructure improvements, and are short-term (construction effects).

Effects on Physical and Natural Environment

The St. Rita Church Master Plan would affect approximately 1.7 acres of DHHL leased land within the existing developed site. Improvements would have minimal affect on the various physical resources and natural environment such as soils, topography,

botanical, faunal, natural hazards, and hydrology as discussed in the respective sections of this EA.

Effects on Social and Economic Factors

The St. Rita Church Master Plan would have minimal, if any, effect on the resident population because it does not involve adding new housing units. It would not induce changes to the surrounding land use patterns, character of the community, or cause significant social impacts as discussed in this document. Therefore, this project should not have significant cumulative impacts on the social factors in the surrounding community.

Effects on Infrastructure and Public Facilities

The St. Rita Church Master Plan would have minimal effect on existing infrastructure facilities serving the site and immediate area along with public facilities. No off-site improvements would be required due to this project as discussed in various sections of this EA. No significant cumulative impacts are expected on existing school facilities, medical facilities, and police and fire protection services. The project improvements would not generate additional residents migrating to O‘ahu and would not create additional demands on these facilities or the activities and services provided.

4.0 CONFORMANCE WITH STATE AND COUNTY PLANS, POLICIES, AND CONTROLS

This chapter discusses the project's conformance with the State Land Use District regulations, State Environmental Policy (Chapter 344, HRS), and the regulations, policies, and goals set forth by the City's Waiʻanae Sustainable Communities Plan, Special Management Area (Chapter 205A, HRS), and Land Use Ordinance.

4.1 State Land Use District

Pursuant to Chapter 205, HRS, all lands in the State of Hawaiʻi are classified by the State Land Use Commission (LUC) into four major districts which are referred to as State Land Use Districts. These four land use districts are the Urban, Rural, Agriculture, and Conservation Districts.

The State LUC's Land Use District Boundary Map for Waiʻanae shows that the proposed St. Rita Catholic Church project site and surrounding areas are classified as being within the State's "Urban and Agriculture Districts (adjacent to project site)." Thus, under Chapter 205, HRS, Urban District lands on the Island of Oʻahu are regulated by the ordinances and regulations of the City and County of Honolulu.

No construction or development will be conducted the State Agricultural District, therefore, no State Special Use Permit is required for the St. Rita Catholic Church Master Plan. Figure 11 – State Land Use District illustrates the Urban and Agricultural district designation for the St. Rita Catholic Church site.

4.2 Chapter 344, HRS, State Environmental Policy

This section discusses the project's conformance and consistency with the pertinent goals, policies, and guidelines described in Chapter 344, HRS, State Environmental Policy.

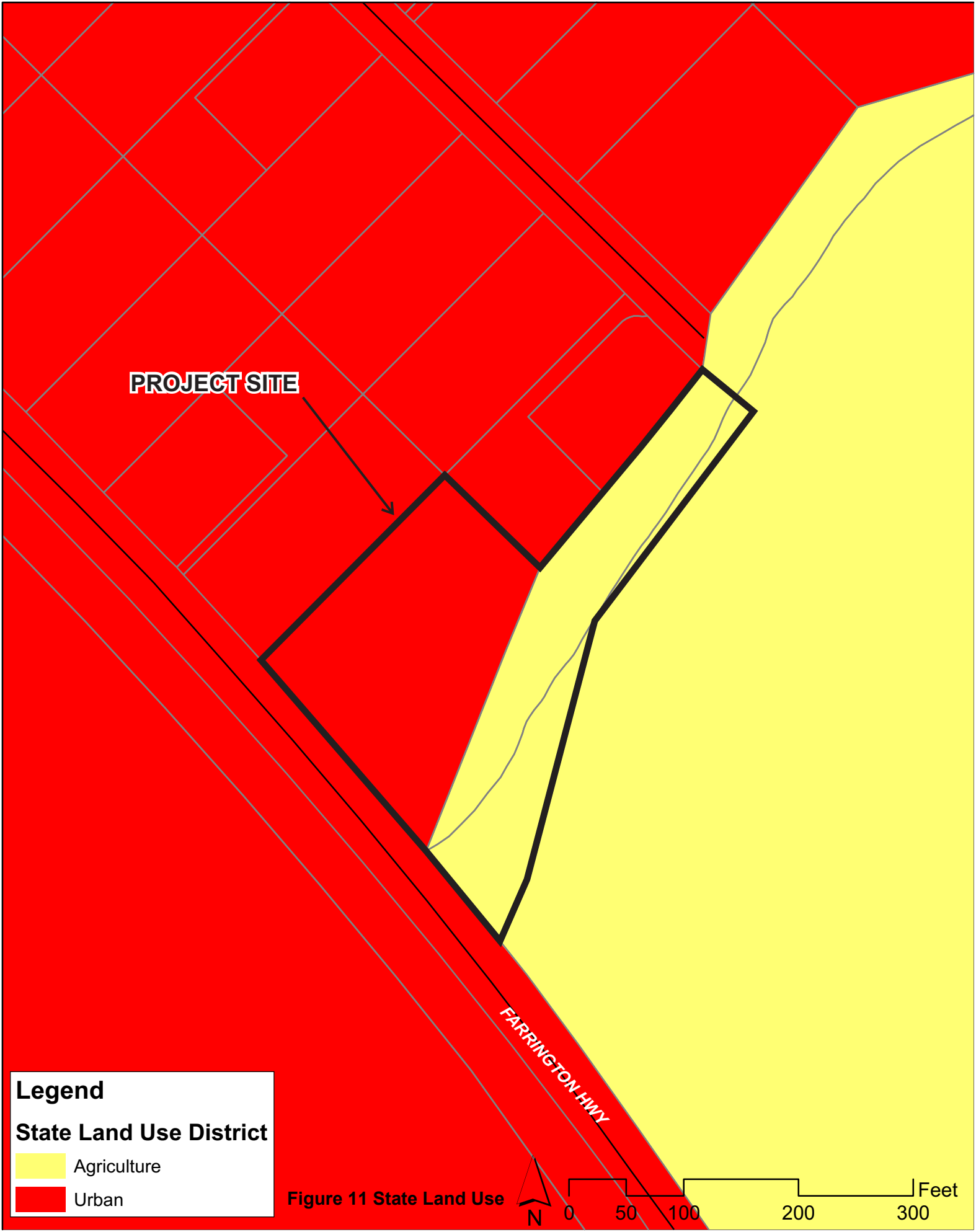


Figure 11 State Land Use

Section 344-3(2). Enhance the quality of life by:

A. *Setting population limits so that the interaction between the natural and manmade environments and the population is mutually beneficial.*
B. *Creating opportunities for the residents of Hawaii to improve their quality of life through diverse economic activities which are stable and in balance with the physical and social environments.*
C. *Establishing communities which provide a sense of identity, wise use of land, efficient transportation, and aesthetic and social satisfaction in harmony with the natural environment which is uniquely Hawaiian.*
D. *Establishing a commitment on the part of each person to protect and enhance Hawaii's environment and reduce the drain on nonrenewable resources.*

Discussion: The proposed project would be consistent with these environmental policies regarding the quality of life. The church improvements would have minimal, if any effect, on the existing or future resident population in Nānākuli and will not adversely impact the interaction between natural and man-made environments. Construction activities would create short-term job opportunities to improve the quality of life for residents employed in the construction industry and would generate indirect benefits to other businesses. Improvements would increase the church's sense of identity within Nānākuli and the island. The physical design of the new facilities would provide aesthetic balance with the natural environment, including the incorporation of sustainability concepts to reduce the use of non-renewable resources.

Section 344-4. Guidelines:

1. *Population.*

A. *Recognize population impact as a major factor in environmental degradation and adopt guidelines to alleviate this impact and minimize future degradation;*
B. *Recognize optimum population levels for counties and districts within the State, keeping in mind that these will change with technology and circumstance, and adopt guidelines to limit population to the levels determined.*

Discussion: The proposed project would not affect the existing or future resident population in Nānākuli or elsewhere in the State. Proposed improvements do not involve construction of any new homes or visitor units, and short-term construction jobs

are expected to be filled by Hawai'i residents. Therefore, resident population will not be affected by in-migration.

2. *Land, water, mineral, visual, air, and other natural resources*

A. *Encourage management practices which conserve and fully utilize all natural resources;*
B. *Promote irrigation and waste water management practices which conserve and fully utilize vital water resources;*
D. *Encourage management practices which conserve and protect watersheds and water sources, forest, and open space areas;*
G. *Promote the optimal use of solid wastes through programs of waste prevention, energy resource recovery, and recycling so that all our wastes become utilized.*

Discussion: The proposed project would be consistent with these guidelines because the improvements would not adversely impact natural resources. Buildings will be designed to incorporate sustainability concepts to reduce the use of non-renewable resources and conserve water, and best management practices will incorporate measures to protect the environment. Project improvements would not significantly impact natural resources such as watersheds, forest preserves, or unique ecological preserves. As part of the project's sustainable design, the church's operations will incorporate feasible measures to recycle waste, minimize energy use, and minimize waste generation.

3. *Flora and fauna*

A. *Protect endangered species of indigenous plants and animals and introduce new plants or animals only upon assurance of negligible ecological hazard.*
B. *Foster the planning of native as well as other trees, shrubs, and flowering plants compatible to the enhancement of our environment.*

Discussion: This project would not impact endangered plants or animals since none are known to be present on the project site or within the immediate surrounding area. Design plans would not introduce new plants or animals to the area that may contribute to an ecological hazard on flora or fauna in the region. Landscape improvements will incorporate the use of native plants and vegetation.

4. *Parks, recreation, and open space*

A. *Establish, preserve and maintain scenic, historic, cultural, park and recreation areas, including the shorelines, for public recreational, educational, and scientific uses.*
B. *Protect the shorelines of the State from encroachment of manmade improvements, structures, and activities.*
C. *Promote open space in view of its natural beauty not only as a natural resource but as an ennobling, living environment for its people.*

Discussion: The project will not adversely impact scenic or park and recreation areas, and will not encroach into shoreline areas as discussed in this document. Historic or cultural resources should not be adversely impacted by construction activities as mitigative measures will be implemented as prescribed under a burial treatment plan approved by the O'ahu Island Burial Council. Project improvements will actually increase the amount of open space and landscaping present on the church property.

5. *Economic Development.*

A. *Encourage industries in Hawaii which would be in harmony with our environment;*
B. *Establish visitor destination areas with planning controls which shall include but not be limited to the number of rooms;*

Discussion: St. Rita Catholic Church is a non-profit religious organization that provides community services for their parish along with social services that benefits the larger community. These operations are harmonious with the environment and community. Project improvements do not involve any new homes that would impact the Nānākuli community.

6. *Energy.*

A. *Encourage the efficient use of energy resources.*

Discussion: Buildings will be designed to incorporate sustainability concepts to reduce the use of non-renewable resources and efficient use of energy sources.

7. *Community life and housing.*

B. *Develop communities which provide a sense of identity and social satisfaction in harmony with the environment and provide internal opportunities for shopping, employment, education, and recreation;*

E. *Recognize community appearances as major economic and aesthetic assets of the counties and the State; encourage green belts, plantings, and landscape plans and designs in urban areas; and promote mountain-to-ocean vistas.*

Discussion: Project improvements will support Nānākuli's identity as a rural area and enhance the church's presence in the community. Improvements will be designed to be compatible with the church site and design characteristics along with the surrounding area. Additional open space and landscaping added will improve the aesthetic value of the church property.

9. *Education and culture.*

A. *Foster culture and the arts and promote their linkage to the enhancement of the environment.*

Discussion: The redeveloped St. Rita's Church with improved facilities will support cultural and arts activities occurring within the Nānākuli community.

10. Citizen participation.

B. Provide for expanding citizen participation in the decision making process so it continually embraces more citizens and more issues.

Discussion: The environmental review process undertaken for this project allows for public and government agency input during the review of the Draft EA. Public consultation efforts help provide decision-makers with a diverse array of information and comments to consider when evaluating this project.

4.3 Coastal Zone Management

Coastal Zone Management ("CZM") objectives and policies (Section 205A-2, HRS) ~~and the Special Management Area ("SMA") guidelines (Section 25-3.2 ROH)~~ have been developed to preserve, protect, and where possible, to restore the natural resources of the coastal zone of Hawai'i. All lands in the State of Hawai'i and the area extending seaward from the shoreline are classified as valuable coastal resources within the State's CZM area.

The following discusses the project's conformance with the objectives of the State's CZM program:

Recreational Resources

CZM Objective: *Provide coastal recreational opportunities accessible to the public.*

Discussion: The proposed improvements are limited to the mauka side of Farrington Highway, and will not affect existing fishing, surfing or other coastal recreational opportunities accessible to the public.

Historic Resources

CZM Objective: *Protect, preserve, and where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.*

Discussion: Although the Church will be demolished and reconstructed, the front façade design will remain consistent with the current design that has become a landmark for the Nānākuli community. During construction, findings of Hawaiian and/or American historical significance will be protected and preserved where relevant.

Scenic and Open Space Resources

CZM Objective: *Protect, preserve, and where desirable, restore and improve the quality of coastal scenic and open space resources.*

Discussion: The architectural plans and rendering protects and preserves coastal scenic and open space resources. The heights of the proposed structures will be designed in compliance with the development standards of the R-5 Residential district in the LUO.

Coastal Ecosystems

CZM Objective: *Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.*

Discussion: The Project will not adversely impact coastal ecosystems or water quality. Best management practices and erosion control measures will be employed during construction of the structures and during to minimize soil loss and control erosion and discharge from the site. The increase in impermeable surfaces will increase runoff but this will be absorbed by drainage structures and landscaped areas on site. There will not be an increase in runoff from the site or into the ocean.

Economic Uses

CZM Objective*: Provide public or private facilities and improvements important to the State's economy in suitable locations.*

Discussion: St. Rita Church expansion provides a facility open to the public in Nānākuli which is important to the social and spiritual fabric of a community.

Managing Development

CZM Objective: *Improve the development review process, communication, and public participation in the management of coastal resources and hazards.*

Discussion: The Project has no impact on this CZM objective.

Public Participation

CZM Objective: *Stimulate public awareness, education, and participation in coastal management.*

Discussion: The Project has no impact on this specific CZM objective. An early consultation notice was sent to a number of federal, State, and City and County agencies and community organizations. The Draft EA will be distributed to these agencies and groups, and the 30-day public review period allows for public participation and input regarding the proposed St. Rita Church expansion. Refer to Pre-Consultation Comments and Responses, Appendix A for agencies consulted during this process, comments received, and responses to agency and stakeholder comments. In addition, the Project was presented to the Nānākuli-Mā'ili Neighborhood Board to stimulate public awareness of the St. Rita Catholic Church master plan.

Beach Protection

CZM Objective: *Protect beaches for public use and recreation.*

Discussion: The Project will not impact public beaches in the area. The Church site is located mauka of Farrington Highway.

Marine Resources

CZM Objective: *Promote the protection, use, and development of marine and coastal resources to assure their sustainability.*

Discussion: The Project will not impact the protection or use of marine and coastal resources. During construction, best management practices will mitigate erosion and runoff to prevent impacts to coastal water quality and marine resources.

4.4 Historic Preservation

Hawaii Revised Statutes (HRS) Section 6E – Historic Preservation provides the following definitions that will be included in the discussion of St. Rita Church and historic preservation issues:

Section 6E-2 - Definitions

"Historic preservation" means the research, protection, restoration, rehabilitation, and interpretation of buildings, structures, objects, districts, areas, and sites, including underwater sites and burial sites, significant to the history, architecture, archaeology, or culture of this State, its communities, or the nation.

"Historic property" means any building, structure, object, district, area, or site, including heiau and underwater site, which is over fifty years old.

Discussion: St. Rita Church is a historic property based on the definition above, however, the architecture and design has no cultural significance to Hawai‘i. The existing structures do not coincide with the aforementioned definition of historic preservation. An Archaeological Assessment, Appendix D, was conducted for the subject property and there are no known burial sites, significant to the history, architecture, archaeology or culture of the State of Hawai‘i. The existing structures are severely termite damaged and may contain hazardous materials due to the time of construction. Therefore, the existing structures will be demolished and a new meeting hall (6,400 sf) and new church (5,650 sf) will be constructed on site. In consultation with the Historic Hawaii Foundation, the new church building will maintain the current façade which is well-known as the gateway to the Nānākuli community.

4.5 City and County of Honolulu General Plan

General Plan Objectives and Policies

The Project is in conformance with the following policies and guidelines of the City and County of Honolulu’s 1992 General Plan Objectives and Policies. The General Plan is a statement of the long-rang social, economic, environmental and design objectives for

the general welfare and prosperity of the people of Oʻahu. The Plan is also a statement of broad policies that facilitate the attainment of the Plan objectives. The General Plan addresses eleven subject areas, which include population; economic activity; the natural environment; housing; transportation and utilities; energy; physical development and urban design; public safety; health and education; culture and recreation; and government operations and fiscal management.

Chapter VII, Physical Development and Urban Design

Objective A: To coordinate changes in the physical environment of Oʻahu to ensure that all new developments are timely, well-designed, and appropriate for the areas in which they will be located.

Policy 8: Locate community facilities on sites that will be convenient to the people they are intended to serve.

Objective E: To create and maintain attractive, meaningful, and stimulating environments throughout Oʻahu.

Policy 3: Encourage distinctive community identities for both new and existing districts and neighborhoods.

Policy 5: Require new developments in stable, established communities and rural areas to be compatible with the existing communities and areas.

Policy 9: Design public structures to meet high aesthetic and functional standards and to complement the physical character of the communities they serve.

Discussion: The architectural plans and rendering reflect the character of the Nānākuli community. With the current condition of the existing St. Rita Church facilities, demolition and reconstruction will be much needed to serve the surrounding community. St. Rita Church has been a fixture of the Nānākuli community for decades and reconstruction will ensure many more years of serving the adjacent and surrounding communities.

Chapter X. Culture and Recreation

Objective B: To protect O'ahu's cultural, historic, architectural, and archaeological resources.

Policy 2: Identify, and to the extent possible, preserve and restore buildings, sites, and areas of social, cultural, historic, architectural, and archaeological significance.

Policy 6: Provide incentives for the restoration, preservation, and maintenance of social, cultural, historic, architectural, and archaeological resources.

Discussion: During the construction phase of the project, any archaeological or historical findings will be protected and preserved accordingly. Refer to the Archaeological Assessment in Appendix D for a detailed discussion on archaeological issues pertaining to the St. Rita Church site.

4.6 City and County of Honolulu Waianae Sustainable Communities Plan

The City and County of Honolulu's Development Plan (DP) program provides a relatively detailed framework for implementing General Plan objectives and policies for the growth and development of O'ahu at a regional level.

The project site is located in the Wai'anae Sustainable Communities Plan (SCP) area, encompassing the leeward coast of O'ahu from Nānākuli to Ka'ena Point, and enclosed by the leeward slopes of the Wai'anae Mountain Range. The Wai'anae SCP (March 2012) is one of eight community oriented plans on O'ahu intended to help guide public policy, investment, and decision-making over the next 25 years. The vision for the Wai'anae District is oriented toward maintaining and enhancing the region's ability to sustain its unique character, current population, growing families, rural lifestyle, and economic livelihood, all of which contribute to the regional vitality and future potential. Figure ~~11~~ 12 – Wai'anae Sustainable Communities Plan map illustrates St. Rita Church's SCP designation of Rural Residential.

Rural Residential

Most of the lands makai of the Community Growth Boundary are designated and colored “Rural Residential.” This general designation is intended to include single-family homes, town homes, small 2-story apartment buildings, and various relatively low density community support facilities that are permitted in residentially zoned areas, including schools and churches.

4.7 City Zoning Regulations

The City and County of Honolulu’s Land Use Ordinance (LUO) (Section 21, ROH) is its zoning ordinance, which regulates land use in a manner that will encourage orderly development in accordance with adopted land use policies.

As shown in Figure 6, the parcel that includes the church and parking lot is zoned R-5 Residential. A sliver of the parking lot is zoned Country. The intent of the City and County’s residential districts is to provide areas for urban residential development. The proposed church is permitted by conditional use permit-minor (meeting facility) in the R-5 Residential district. The R-5 residential district requires a minimum lot size of 5,000 square feet with building heights of 25 feet.

4.7.1 Consistency with District Objectives

The City and County of Honolulu LUO, Section 21-3.70 Residential districts – Purpose and intent states,

(a) The purpose of the residential district is to allow for a range of residential densities. The primary use shall be detached residences. Other types of dwellings may also be allowed, including zero lot line, cluster and common wall housing arrangements. Non-dwelling uses which support and complement residential neighborhood activities shall also be permitted.

Discussion: The proposed new Meeting Hall and reconstructed Church supports and complements a residential neighborhood. There will be traffic impacts from the Church, but there are mitigation measures previously discussed in this EA.

4.7.2 Consistency with Development Standards

The St. Rita Catholic Church Master Plan will be designed in compliance with the development standards for meeting facilities as prescribed in the LUO Section Sec. 21-5.450 Meeting facilities.

4.7.3 City Land Use Approvals Required

Conditional Use Permit (Minor) Requirement

Section 21-5.380 of the City's LUO states that a proposed project will be considered and treated as one zoning lot when it is developed on two or more zoning lots. A Conditional Use Permit (Minor) is required to undertake such a development if the owner(s) or lessees believe that the joint development of their property would result in a more efficient use of land. An application for a Conditional Use Permit (Minor) for this project will be submitted to the City DPP, and more information will be included in that application.

An Existing Use Permit, 2000/EU-12 for meeting facilities, was approved by DPP in September 2000. The purpose of the EU permit is to recognize the hardship imposed upon uses that were legally established, but may not comply with current zoning standards.

4.8 City Special Management Area

The project site is located within the City's Special Management Area (SMA), and Figure ~~12~~ 13 shows the site in relation to the established SMA area. Therefore, the proposed master plan improvements for this project will be subject to the requirements of Chapter 25, Revised Ordinances of Honolulu (ROH). A Special Management Area Use Permit (Major) will be required for the project. The proposed project's consistency with applicable SMA objectives and policies, as set forth in Chapter 205A-2, HRS and pertinent review guidelines as set forth in Section25-3.2, ROH, are discussed below.

Legend

- Community Growth Boundary
- Special Area Plan Boundary
- Rural Residential
- Medium Density Residential
- Resort
- Industrial
- Golf Course
- Agriculture
- Preservation
- Military
- Country Town
- Rural Community Commercial Center

Wai'anae Sustainable Communities Plan
Exhibit A-1

LAND USE MAP

Department of Planning and Permitting
City & County of Honolulu

Wai'anae Sustainable Communities Plan Boundary

Special Area Plan Boundary

PROJECT SITE

Mākaha

Wai'anae

Nānākuli

Mā'ili/Lualualei

N

0 1 2

Scale in Miles

Figure 12 - Wai'anae Sustainable Communities Plan

A. Objectives:

1. *Provide coastal recreational opportunities accessible to the public.*
2. *Protect, preserve, and where desirable, restore those natural and man-made historic and pre-historic resources in the coastal zone management area that are significant in Hawaiian and American history and culture.*
3. *Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.*
4. *Provide public or private facilities and improvements important to the State's economy in suitable locations.*
5. *Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.*
6. *Protect beaches for public use and recreation.*

B. Policies:

1. *Recreational Resources:*

   b. Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by;
   ii. Requiring replacement of coastal resources having significant recreational value, included but not limited to surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the State for recreation when replacement is not feasible or desirable;
   iii. Providing and managing adequate public access , consistent with conservation of natural resources, to and along shorelines with recreational value;
   iv. Adopting water quality standards and regulating point and nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;

Discussion: The project will not adversely affect coastal resources with significant recreational value because improvements would be constructed within the property located mauka of Farrington Highway. The project should not adversely impact water quality of shoreline areas in the vicinity. Drainage plans will be appropriately designed and reviewed by the City for approval.

2. *Historic Resources:*
   a. Identify and analyze significant archaeological resources;
   b. Maximize information retention through preservation of remains and artifacts or salvage operations; and

c. Support State goals for protection, restoration, interpretation, and display of historic resources.

Discussion: Section 2.8 – Historic, Archaeological and Cultural Resources provides discussion and summary of archaeological findings as concluded from the Archaeological Assessment, Appendix D. There are no significant archaeological findings as concluded from the Archaeological Assessment.

3. *Scenic and Open Space Resources:*
   a. Identify valued scenic resources in the coastal zone management area;
   b. Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;
   c. Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources.

Discussion: Valued scenic resources in the project area were identified and discussed in this document. The project will not have significant impacts on shoreline open space and scenic resources.

4. *Coastal Ecosystems:*
   c. Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;
   e. Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.

Discussion: The project will not adversely impact valuable coastal ecosystems. Best management practices will be implemented to minimize short-term construction related effects.

5. *Economic uses:*
   a. Concentrate coastal dependent development in appropriate areas;
   b. Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor industry facilities and energy

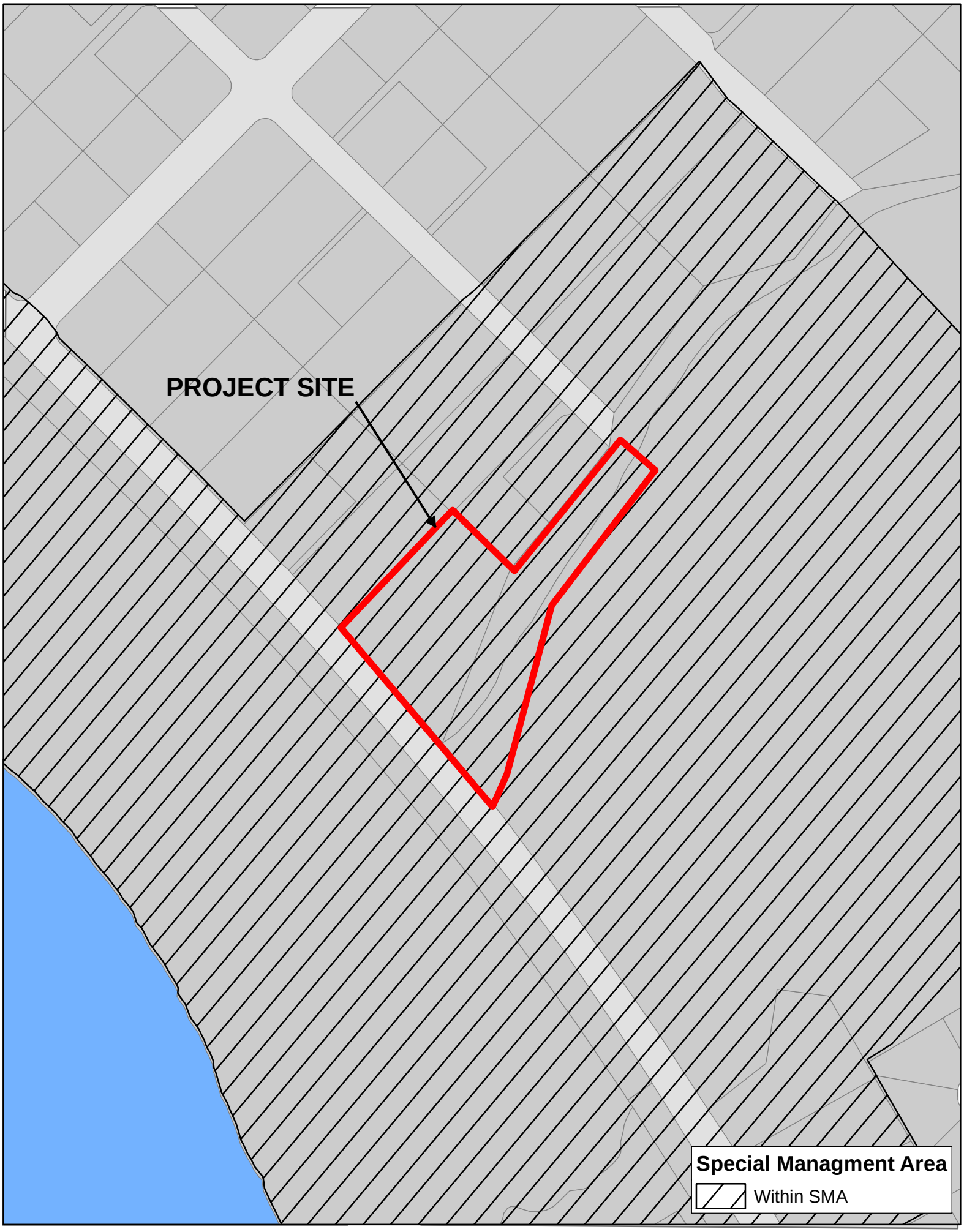


Figure 13 - Special Management Area

generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area;

Discussion: Project improvements will occur within property already used for church related activities in Nānākuli. Buildings and site improvements will be designed to minimize adverse social, visual, and environmental impacts as discussed in the document.

6. Coastal Hazards:

b. Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint source pollution hazards.
c. Ensure that developments comply with requirements of the Federal Flood Insurance Program.

Discussion: The project site is located within a tsunami evacuation area, and will be designed to meet applicable City building code requirements. The existing and proposed structures on the project site are not situated within a designated flood area.

7. Managing Development:

c. Communicate the potential short- and long-term impacts of proposed significant coastal developments early in their life-cycle and in terms understandable to the general public to facilitate public participation in the planning and review process.

Discussion: The EA addresses the short and long-term impacts of project improvements and its distribution during the public review process supports communication of information to the public.

8. Public participation:

a. Promote public involvement in coastal zone management processes;

Discussion: The processing of this environmental document allows for public participation to address comments and concerns associated with the project. The EA will also comply with this policy through its use in the submittal of a Special Management Area Use Permit for the proposed project. The processing of this

application will involve consultation with the Nānākuli-Mā'ili Neighborhood Board and a public hearing held by the City DPP, as well as the review and approval by the City Department of Planning and Permitting and City Council, to ensure the project's consistency with coastal management policies.

9. Beach Protection:

a. *Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;*

Discussion: The new meeting hall and redeveloped church are located inland from the shoreline setback line, and will not affect natural shoreline processes. Farrington Highway separates this project site from the beach.

C. Review Guidelines (Section 25-3.2, ROH)

a) All development in the special management area shall be subject to reasonable terms and conditions set by the council to ensure that:

1. Adequate access, by dedication or other means, to publicly owned or used beaches, recreation areas and natural reserves is provided to the extent consistent with sound conservation principles.

2. Adequate and properly located public recreation areas and wildlife preserves are reserved;

3. Provisions area made for solid and liquid waste treatment, disposition and management which will minimize adverse effects upon special management area resources; and

4. Alterations to existing land forms and vegetation; except crops, and construction of structures shall cause minimum adverse effect to water resources and recreational amenities and minimum danger of floods, landslides, erosion, siltation or failure in the event of earthquake.

Discussion: The applicant is open to reasonable terms and conditions to allow the project to be consistent with applicable SMA policies. Based upon the assessment results, no unique terms or conditions should be required for this project. The church site is open to the public and parish members for services and other activities conducted that will continue with this project. The site does not affect access to public beaches, recreation areas, or natural reserves which are currently provided by

surrounding roadways. The project would not negatively affect public recreation areas and wildlife preserves. No major alterations to existing land forms would occur with this project as the site is already developed. Project improvements would increase open space and landscaping over present conditions. Construction of the project is not expected to have an adverse effect on water resources along with scenic and recreational amenities as discussed in this document. Best management practices would be implemented by the contractor in compliance with permit conditions. Improvements will not create a potential for flooding, landslides, erosion, siltation, or structural failure in the event of an earthquake.

b) No development shall be approved unless the council has first found that:

1. *The development will not have any substantial, adverse environmental or ecological effect except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health and safety, or compelling public interest. Such adverse effect shall include, but not be limited to, the potential cumulative impact of individual developments, each one of which is taken in itself might not have a substantial adverse effect and the elimination of planning options;*
2. *The development is consistent with the objectives and policies set forth in Section 25-3.1 and area guidelines contained in HRS Section 205A-26;*
3. *The development is consistent with the county general plan, development plans and zoning. Such a finding of consistency does not preclude concurrent processing where a development plan amendment or zone change may also be required.*

Discussion: The project should not have any substantial adverse environmental or ecological impact based upon the assessment results addressed in this document. Necessary mitigation measures to minimize project related effects have been identified in various sections. This assessment also includes evaluating the potential cumulative impact from this project on the environment. The project would be consistent with the pertinent SMA objectives and policies as previously addressed. Proposed improvements would be consistent with the City's Sustainable Communities Plan for Wai'anae as discussed in a previous section.

c) The council shall seek to minimize, where reasonable:

1) Dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon;
2) Any development which would reduce the size of any beach or other area usable for public recreation;
3) Any development which would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the special management area and the mean high tide line where there is no beach;
4) Any development which would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast; and
5) Any development which would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.

Discussion: The project would not significantly impact the various factors identified under this review guideline, and no unique measures or conditions should be required. Project improvements would have no effect on several of these factors which include: 1) the dredging, filling, or altering of any bay, estuary, salt marsh, river mouth, slough, or lagoon; 2) reducing the size of any beach or area used for public recreation; 3) reducing access or imposing restrictions on public access to tidal and submerged lands, beaches, rivers and streams; and 4) fisheries and fishing grounds, wildlife habitats, and existing agricultural uses of land.

4.9 Department of Hawaiian Home Lands O‘ahu Island Plan

The Oahu Island Plan (OIP), completed in July 2014, was developed to determine land uses in order to meet beneficiary and Departmental needs over the next 20 years. The OIP identifies Land Use Designations taking into consideration: 1) the goals and objectives of the Department's General Plan; 2) the needs of comments of beneficiaries; and 3) priorities for homestead development. The OIP categorizes all of DHHL land holdings into ten different Land Use Designations. The lands licensed to St. Rita Church are designated for Community Use which are common areas for community uses, public facilities and amenities. The proposed project is consistent with DHHL's Land Use Designation.

5.0 ALTERNATIVES CONSIDERED

5.1 No Action Alternative

The current status of the existing St. Rita Church structure and associated trailers and structures are near or at a dilapidated condition. A no action alternative creates a safety hazard for present and future parishioners of St. Rita Church. Part of the Church's overall mission is to serve the adjacent and surrounding community; a no action alternative will not meet this mission of the Church.

5.2 Delayed Action Alternative

A delayed action alternative presents the same issues as stated in the previous section.

5.3 Project Design Alternatives

5.3.1 Rehabilitate Existing Buildings Alternative

This alternative was considered, but the existing Church building and associated trailers and structures are in such a state of disrepair that it is not a cost-effective approach. Moreover, safety for Church parishioners is of utmost importance and the demolition and reconstruction of these Church and facilities serves this ultimate purpose and mission.

5.3.2 New Facilities Alternative

Section 1.4.3 – New Facilities in this EA describes the construction of the new Church, new meeting hall, and new office building. This alternative serves the need of Church parishioners and the Nānākuli community and surrounding communities for the present and future residents.

6.0 CONSULTED AGENCIES AND ORGANIZATIONS

6.1 Pre-Assessment Consultation

Include Agencies and organizations consulted with during the pre-consultation phase

The following public agencies were sent pre-consultation letters for the preparation of this EA:

State of Hawaii

- Department of Business, Economic Development & Tourism (DBEDT)
- DBEDT, Office of Planning
- Department of Education
- Department of Hawaiian Homelands
- Department of Land & Natural Resources, Land Division*
- DLNR, State Historic Preservation Division
- Department of Health – Office of Environmental Quality Control*
- Department of Health – Environmental Health Administration*
- Department of Health – Wastewater Branch
- Office of Hawaiian Affairs
- Department of Transportation*

City & County of Honolulu

- Board of Water Supply
- Department of Community Services*
- Department of Design and Construction*
- Department of Emergency Management*
- Department of Environmental Services
- Department of Facility Maintenance*
- Department of Parks and Recreation*
- Department of Transportation Services*
- Department of Planning and Permitting
- Fire Department*
- Police Department

Private Organizations & Individuals

- Councilmember Kymberly Marcos Pine
- Representative Karen Awana
- Hawaiian Electric Company
- Historic Hawaii Foundation*
- Chairperson, Nānākuli-Ma'ili Neighborhood Board # 36

Those agencies with a (*) provided comments, which have been incorporated into this EA. Agency/stakeholder comment and response letters are provided in Appendix A.

6.2 Presentations to Organizations

6.2.1 Nānākuli-Mā'ili Neighborhood Board

The applicant's consultant, Hawai'i Planning LLC, presented the proposed St. Rita Church Master Plan to the Neighborhood Board on November 18, 2014. The Neighborhood Board unanimously supported the project by a vote of 9-0.

6.2.2 Department of Hawaiian Home Lands

The applicant met with the Department of Hawaiian Home Lands on April 30, 2015 to discuss the St. Rita Church master plan. On June 2, 2015, the Department conducted a beneficiary consultation meeting on the proposed renovations at St. Rita Church. The consultation was held in Nanakuli and 92 beneficiaries were in attendance. The applicant's consultant and leaders of the Church presented the proposed project and answered questions from the attendees. All comments were in favor of the proposed project. On August 17, 2015, the Planning Office presented the Beneficiary Consultation report for the June 2, 2015 meeting. Mike Kahikina, O'ahu Commissioner, commented on the support the Church received at the consultation meeting. By unanimous vote of the Commission, the Beneficiary Consultation report was accepted as the formal record of the Department's proceedings of the consultation with affected beneficiaries, pursuant to its Beneficiary Consultation Policy.

At the October 2015 Hawaiian Homes Commission meeting, the Planning Office presented an informational submittal on this Draft EA and explained the proposed project and why they anticipate a Finding of No Significant Impact.

~~and request a conditional approval letter. Appendix G – DHHL Conditional Approval Letter is enclosed for review and reference.~~

6.3 Draft Environmental Assessment Comments

The following agencies were provided copies of the Draft EA. Those marked with a (*) provided comments to the Draft EA. Appendix G contains all comment letters received and responses.

State of Hawaii

- Department of Education *
- Department of Hawaiian Home Lands
- Department of Land & Natural Resources – Land Division *
- Department of Health – Office of Environmental Quality Control
- Department of Health – Environmental Planning Office *
- Department of Health – Clean Water Branch*
- Disability and Communication Access Board
- Department of Transportation*

City & County of Honolulu

- Board of Water Supply *
- Department of Community Services *
- Department of Design and Construction*
- Department of Environmental Services
- Department of Facility Maintenance
- Department of Parks and Recreation *
- Department of Transportation Services *
- Department of Planning and Permitting *
- Fire Department *
- Police Department *

State Public and Regional Libraries

- McCully/ Mō'ili'ili Public Library
- Hawaii State Library – Hawaii Documents Center
- Kaʻimukï Regional Library

- Kāne'ohe Regional Library
- Pearl City Regional Library
- Hawai'i Kai Regional Library
- Hilo Regional Library
- Kahului Regional Library
- Līhu'e Regional Library

Private Organizations & Individuals

- Chair, Nānākuli-Māʻili Neighborhood Board, No. 36

7.0 FINDINGS AND ANTICIPATED DETERMINATION

7.1 Findings

To determine whether a proposed action may have a significant effect on the environment, the Approving Agency needs to consider every phase of the action, the expected primary and secondary consequences, cumulative effect, and the short- and long-term effects. The Approving Agency's review and evaluation of the proposed action's effect on the environment would result in a determination of whether: 1) the action would have a significant effect on the environment, and an Environmental Impact Statement Preparation Notice should be issued, or 2) the action would not have a significant effect warranting a Finding of No Significant Impact (FONSI).

This section discusses the project's relation to the 13 Significance Criteria established under the State Department of Health's Administrative Rules Title 11, Chapter 200.

1) Involve an irrevocable commitment to loss or destruction of any natural or cultural resource;

Discussion: Proposed improvements would not result in the irrevocable commitment to loss or destruction of any natural or cultural resource. Project improvements will involve a commitment of existing developed land already used by the church.

2) Curtails the range of beneficial uses of the environment;

Discussion: The project would not curtail the range of beneficial uses associated with this church property. The property is presently used for church related services and activities, and these activities will continue to occur along with being enhanced by project improvements.

3) Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;

Discussion: The improvements would not conflict with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS. A discussion of the project's consistency with applicable guidelines is provided in Chapter 4 of this document.

4) Substantially affects the economic welfare, social welfare and cultural practices of the community or state;

Discussion: The project will provide minor short-term economic benefits in the form of construction jobs and additional tax revenue to the State. It will also provide minor longer-term economic benefits supporting the mission and operations of the church. The church presently provides important social benefits to the Wai'anae community that would continue with the project. Such benefits include providing weekly meals for those in need, and conducting normal church activities such as services, bible studies, etc. Project improvements would support the church's ability to better meet the long-term needs and activities of their parish and the public. The project is not expected to significantly affect traditional native Hawaiian cultural practices or other traditional cultural practices occurring in the surrounding area.

5) Substantially affect public health;

Discussion: The project would not substantially affect public health as discussed in various sections of this document. Short-term construction-related effects would be mitigated by complying with pertinent State or City regulations and conditions of ministerial permits obtained. Best management practices will also be implemented as part of construction activities.

6) Involve substantial secondary impacts, such as population changes or effects on public facilities;

Discussion: The project should not have any substantial secondary impacts on the social environment, infrastructure facilities, and public facilities. Improvements do not

involve adding residential housing or visitor accommodation units that may generate population changes and increase demands on public facilities. The project should not contribute to in-migration of residents to the island.

7) Involves a substantial degradation of environmental quality;

Discussion: The project would not contribute to a substantial degradation to the quality of the surrounding environment. Improvements are limited to construction of a new Meeting Hall, new church, and new office building. Necessary upgrades to infrastructure will be coordinated with the City which includes continued connection to the municipal sewer system for wastewater treatment and disposal. Appropriate mitigative measures will be implemented to address impacts on the environment in coordination with appropriate government agencies. This includes implementing best management practices during construction to minimize erosion and other short-term impacts in compliance with ministerial permits and conditions.

8) Individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;

Discussion: This project involves the construction of a new Meeting Hall, new church, and office building as described in this EA. Impacts associated with these improvements were addressed, and are mainly associated with construction activities. Cumulative impacts from these improvements were considered and addressed in relation to other developments planned in the vicinity as discussed in Chapter 3. In evaluating environmental impacts, it was determined that the project should not contribute to a significant cumulative effect on the environment. This project does not involve the commitment for larger actions on the St. Rita Church property.

9) Substantially affect a rare, threatened, or endangered species, or its habitat;

Discussion: There are no known endangered, threatened, or rare botanical resources on the project site, or faunal and avifaunal species inhabiting the property that may be

affected by construction activities or operation of the improved church facilities. The property is already development with the existing church facilities and paved parking. Necessary control measures and best management practices would be implemented to minimize runoff and other potential short-term impacts associated with construction activity. Thus, the project is not expected to substantially affect rare, threatened, or endangered species or potential habitat for such species.

10) Detrimentally affect air or water quality or ambient noise levels;

Discussion: The project should not result in a detrimentally significant impact on air, water quality, or ambient noise levels. Impacts associated with these factors would be limited to short-term construction activities. However, such impacts are expected to be minor due to the small amount of excavation and type of construction activities planned. To further minimize impacts, construction activities would be subject to applicable State and City regulations and permit conditions.

11) Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;

Discussion: The project is not located in a flood plain. The site is within the City's updated tsunami evacuation area, however. Written procedures will be developed addressing evacuation procedures to further increase personal safety. The project site is not in an erosion-prone area, and structures will be designed in compliance with applicable City building codes and standards.

12) Substantially affect scenic vistas and view planes identified in county or state plans or studies;

Discussion: The proposed Meeting Hall and new Church should not affect scenic vistas or viewplanes as discussed in this document. New buildings will comply with the

City setback requirements and will be under the maximum building height limit allowed for this property.

13) Require substantial energy consumption.

Discussion: The project will not require substantial energy consumption or increased capacity of supporting electrical facilities. Design plans will be appropriately coordinated with HECO.

7.2 Anticipated Determination

A Finding of No Significant Impact (FONSI) determination should be warranted for the St. Rita Catholic Church Master Plan project based upon the information provided and assessment results conducted for the project. The results of the assessments conducted have determined that the proposed project should not have a significant impact on the surrounding environment. The findings supporting this determination are based upon the previous discussion of the project's impact on the environment in relation to the aforementioned 13 Significance Criteria.

8.0 REFERENCES

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Appendix A

Pre-Consultation Comment and Response Letters

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

LINDA ROSEN, M.D., M.P.H.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:
EPO 14-229

October 21, 2014

Dennis Silva, Jr., AICP
Hawaii Planning LLLC
Email: hawaiiplanning@gmail.com

Dear Mr. Silva:

SUBJECT: Pre-Assessment Consultation for EA for St. Rita Catholic Church

The Department of Health (DOH), Environmental Health Administration (EHA), Environmental Planning Office (EPO), acknowledges receipt of your letter to the Director dated October 14, 2014. Thank you for allowing us to review the letter and 3 enclosures detailing the proposed project. EPO recommends that you review the standard comments at: http://health.hawaii.gov/epo/home/landuse-planning-review-program/. You are required to adhere to all applicable standard comments.

We encourage you to examine and utilize the Hawaii Environmental Health Portal. The portal provides links to our e-Permitting Portal, Environmental Health Warehouse, Groundwater Contamination Viewer, Hawaii Emergency Response Exchange, Hawaii State and Local Emission Inventory System, Water Pollution Control Viewer, Water Quality Data, Warnings, Advisories and Postings. The Portal is continually updated. Please visit it regularly at: https://eha-cloud.doh.hawaii.gov

You may also wish to review the recently revised Water Quality Standards Maps that have been updated for all islands. The new Water Quality Standards Maps can be found at: http://health.hawaii.gov/cwb/site-map/clean-water-branch-home-page/water-quality-standards/.

The EPO suggests that you examine the new digital FEMA maps for Honolulu and Sea Level Rise projects available on the SOEST website: http://www.soest.hawaii.edu/coasts/sealevel
I find the Honolulu fly-through with 3 foot sea level rise (projected for 2100) very interesting.
We also suggest that you examine the many sources available on strategies to support the sustainable and healthy design of communities and buildings, including the:
2014 National Climate Change Report – Highlights for Hawaii:
http://ipcc-wg2.gov/AR5/images/uploads/WGIIAR5-Chap29_FGDall.pdf;
U.S. Health and Human Services: www.hhs.gov/about/sustainability;
U.S. Environmental Protection Agency's sustainability programs: www.epa.gov/sustainability;
U.S. Green Building Council's LEED program: www.usgbc.org/leed;
Smart Growth America: www.smartgrowthamerica.org;
International Well Building Standard: http://delosliving.com; and
Intergovernmental Panel on Climate Change (IPCC):
http://ipcc-wg2.gov/AR5/images/uploads/WGIIAR5-Chap29_FGDall.pdf
We request you share all of this information with others to increase community awareness on sustainable, innovative, inspirational, and healthy community design.

Please reply via email to laura.mcintyre@doh.hawaii.gov confirming receipt of this emailed letter.

Mahalo,

Laura Leialoha Phillips McIntyre, AICP
Program Manager, Environmental Planning Office

HAWAII
PLANNING LLC

February 19, 2015

Ms. Laura Leialoha Phillips McIntyre, AICP
Program Manager, Environmental Planning Office
Department of Health
State of Hawaii
P.O. Box 3378
Honolulu, HI 96801

Subject: Pre-Consultation - Draft Environmental Assessment
St. Rita Catholic Church – 89-318 Farrington Highway
Tax Map Keys: 8-9-005: 001 & 8-9-007: 004 (portion)
Nānākuli, O'ahu, Hawai'i

Dear Ms. Phillips-McIntyre,

Thank you for your letter dated October 21, 2014 regarding the above-referenced project. The information provided in the websites you reference will be implemented into the Draft EA where relevant.

A copy of the Draft EA will be provided to the Department of Health, Environmental Planning Office. We appreciate your participation in this process.

Sincerely,

Hawai'i Planning LLC

Dennis Silva, Jr., AICP
Principal

DEPARTMENT OF EMERGENCY MANAGEMENT
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET • HONOLULU, HAWAII 96813
PHONE: (808) 723-8960 • FAX: (808) 524-3439

KIRK CALDWELL
MAYOR

MELVIN N. KAKU
DIRECTOR

PETER J.S. HIRAI
DEPUTY DIRECTOR

October 22, 2014

Dennis Silva, Jr., AICP
Hawaii Planning, LLC.
American Savings Bank Tower
1001 Bishop Street, Suite 2755
Honolulu, Hawaii 96813

Dear Dennis:

In response to your letter dated October 14, 2014, requesting any comments for the proposed St. Rita Catholic Church expansion project located at 89-318 Farrington Highway. The City and County of Honolulu (City) Department of Emergency Management (DEM) would like to just comment that the project site is located within the tsunami evacuation zone.

Thank you for allowing us to participate in the planning process of this project. Should you have any questions please contact us at 723-8960.

Sincerely,

Melvin N. Kaku
Director

HAWAII
PLANNING LLC

February 19, 2015

Mr. Melvin N. Kaku
Director
Department of Emergency Management
City and County of Honolulu
650 S. King Street
Honolulu, HI 96813

Subject: Pre-Consultation - Draft Environmental Assessment
St. Rita Catholic Church – 89-318 Farrington Highway
Tax Map Keys: 8-9-005: 001 & 8-9-007: 004 (portion)
Nānākuli, O'ahu, Hawai'i

Dear Mr. Kaku,

Thank you for your letter dated October 22, 2014 regarding the above-referenced project. The Draft EA includes discussion of the St. Rita Church site located within the tsunami evacuation zone.

A copy of the Draft EA will be provided to the Department of Emergency Management. We appreciate your participation in this process.

Sincerely,

Hawai'i Planning LLC

Dennis Silva, Jr., AICP
Principal

American Savings Bank Tower • 1001 Bishop Street, Suite 2755 • Honolulu HI 96813 • (808)521-9418 Ext. 1005 • hawaiiplanningllc@gmail.com

DEPARTMENT OF PARKS & RECREATION

CITY AND COUNTY OF HONOLULU

1000 Uluohia Street, Suite 309, Kapolei, Hawaii 96707
Phone: (808) 768-3003 • Fax: (808) 768-3053
Website: www.honolulu.gov

KIRK CALDWELL
MAYOR

MICHELE K. NEKOTA
DIRECTOR

JEANNE C. ISHIKAWA
DEPUTY DIRECTOR

October 23, 2014

Mr. Dennis Silva, Jr., AICP
Hawaii Planning LLC
American Savings Bank Tower
1001 Bishop Street, Suite 2755
Honolulu, Hawaii 96813

Dear Mr. Silva:

SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment, St. Rita Catholic Church-89-318 Farrington Highway Tax Map Keys: 8-9-005:001 and 8-9-007: 004 (portion) Nanakuli, Oahu, Hawaii

Thank you for the opportunity to review and comment at the pre-assessment consultation stage of an environmental assessment for the proposed church expansion of St. Rita Catholic Church.

The Department of Parks and Recreation has no comment. As the proposed project will have no impact on any program or facility of the department, you may remove us as a consulted party to the balance of the EIS process.

Should you have any questions, please contact Mr. John Reid, Planner, at 768-3017.

Sincerely,

Michele K. Nekota
Director

MKN:jr
(584682)

HISTORIC HAWAI'I FOUNDATION
1974 ► 2014

October 27, 2014

Dennis Silva Jr, AICP
Hawai'i Planning LLC
American Savings Bank Tower
1001 Bishop Street, Suite 2755
Honolulu, HI 96813

RE: Pre-Assessment Consultation for Draft Environmental Assessment
St Rita Catholic Church, 80-318 Farrington Highway
Nānākuli, O'ahu, Hawai'i

Dear Mr. Silva,

Thank you for including Historic Hawai'i Foundation in the Pre-Assessment Consultation for the Draft Environmental Assessment for the proposed work at St Rita Catholic Church. Since 1974, Historic Hawai'i Foundation has served as the state-wide historic preservation non-profit organization, advocating and encouraging the preservation of Hawai'i's significant historic places.

Based on the correspondence dated October 14, 2014, the proposed project consists of renovating and extending the existing church, construction of a new multi-purpose room, and construction of new office building. Though not clear in the provided documents, it appears that demolition of some of the existing structures and portions of the existing church would also be included in the scope of work.

Historic Hawai'i Foundation strongly recommends that the Draft Environmental Assessment include an evaluation of the St Rita Church for historic significance and assess how the proposed alterations would affect its historic integrity. Measures to avoid, minimize and mitigate any adverse effects need to be addressed in the Environmental Assessment.

The website for St Rita's Church suggests that the building has the potential to be historically significant. To make a formal determination of historic significance and eligibility for designation on the Hawai'i or National Registers of Historic Places, the building should be evaluated by a qualified architectural historian or preservation architect (i.e. a preservation professional who meets the professional qualification standards per the Secretary of the Interior's Qualification Standards found at 36 CRF Part 61).

Please also note that, as a property owned by the Department of Hawaiian Homelands, any alterations or demolition would be subject to review by the State Historic Preservation Division under HRS Chapter 6E-08. Additionally, if there are any federal funds, permits, licenses or approvals involved in the project, it will also be subject to National Historic Preservation Act (NHPA) Section 106 Review and Consultation. Therefore, the Draft Environmental Assessment should identify if any of these conditions exist.

If you should have questions or concerns related to these comments please contact Megan Borthwick, Preservation Program Manager, at megan@historichawaii.org or by phone at (808) 523-2900. Historic Hawai'i Foundation would like to continue to participate in this consultation.

Sincerely,

Kiersten Faulkner

Kiersten Faulkner, AICP
Executive Director

680 Iwilei Road, Suite 690 / Honolulu, Hawai'i 96817 / Tel (808) 523-2900 / Fax (808)523-0800
Email preservation@historichawaii.org / Web www.historichawaii.org

HAWAII PLANNING LLC

February 19, 2015

Ms. Kiersten Faulkner, AICP
Executive Director
Historic Hawaii Foundation
680 Iwilei Road, Suite 690
Honolulu, HI 96817

Subject: Pre-Consultation - Draft Environmental Assessment
St. Rita Catholic Church – 89-318 Farrington Highway
Tax Map Keys: 8-9-005: 001 & 8-9-007: 004 (portion)
Nānākuli, O'ahu, Hawai'i

Dear Ms. Faulkner,

Thank you for your letter dated October 27, 2014 regarding the above-referenced project. We acknowledge your comments on the potential historic significance of the existing St. Rita Church structures. The plans are to demolish the existing structures and reconstruct a new meeting hall and new church due to the following reasons: The current structures are old and consist of unsafe conditions, such as potentially containing hazardous materials and severe termite damage.

The façade of St. Rita Church is well-known as the entrance to the Nānākuli community. Thus, the new church will maintain the familiar street frontage along Farrington Highway and consist of the same façade to address any historical significance issues.

The Draft EA will include discussion on the project's consistency and relevance to HRS Chapter 6E – Historic Preservation.

A copy of the Draft EA will be provided to the Historic Hawaii Foundation. We appreciate your participation in this process.

Sincerely,

Hawai'i Planning LLC

Dennis Silva, Jr., AICP
Principal

American Savings Bank Tower • 1001 Bishop Street, Suite 2755 • Honolulu HI 96813 • (808)521-9418 Ext. 1005 • hawaiiplanningllc@gmail.com

NEIL ABERCROMBIE
GOVERNOR

FORD N. FUCHIGAMI
INTERIM DIRECTOR

Deputy Directors
RANDY GRUNE
AUDREY HIDANO
ROSS M. HIGASHI
JADINE URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:
HWY-1982
HWY-PS 2.8344

October 30, 2014

Mr. Dennis Silva, Jr., AICP
Hawaii Planning LLC
American Savings Bank Tower
1001 Bishop Street, Suite 2755
Honolulu, Hawaii 96813

Dear Mr. Silva:

Subject: SMA/HRS 343 Environmental Assessment Pre-Consultation
St. Rita Catholic Church Expansion
State Route No. 93 - Farrington Highway ~ M.P. 4.4
Waianae District, Nanakuli, Oahu
TMK: (1) 8-9-005:001 & 8-9-007:004 (por)

Thank you for consulting with our department regarding the subject project. At this time, we have the following comments:

1. Farrington Highway is on the National Highway System (NHS) designated as an urban principal arterial under the jurisdiction of our department. As part of the NHS and the State Highway System our department is concerned with preserving the functional classification of this arterial highway.

2. The subject project proposes to expand the church by the construction of a new multi-purpose building to accommodate 300 people, extend the existing church to accommodate 220 additional people, and construct a new 900 sq. ft. office building. Vehicular access to the subject church is via Farrington Highway and Pua Avenue, where access to Farrington Highway is a right-in and right-out access.

3. This proposed expansion project will inherently produce added trips that will impact Farrington Highway. It is recommended the Applicant prepare a Traffic Impact Report (TIR) to assess and address the proposed project's impacts to the operations and safety of Farrington Highway. The TIR and Environmental Assessment should be submitted to our department for review.

4. The study area for the TIR shall at a minimum include Farrington Highway from Nanakuli Avenue to Pohakunui Avenue.

5. Access to Farrington Highway shall continue as a right-in and right-out access.

6. The TIR should assess all modes of transportation, and peak hour and special events/ functions periods.

7. The Applicant shall be responsible to provide transportation improvements to mitigate any transportation impacts caused by the subject church expansion project at their cost.

Again, the DOT appreciates the opportunity to provide comments. If you have any questions, please contact Ken Tatsuguchi, Engineering Program Manager, Highways Division, Planning Branch at 587-1830. Please reference file review number 2014-220 in all contacts and correspondence regarding these comments.

Very truly yours,

FORD N. FUCHIGAMI
Interim Director of Transportation

HAWAII
PLANNING LLC

February 19, 2015

Mr. Ford M. Fuchigami
Interim Director of Transportation
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, HI 96813

Subject: Pre-Consultation - Draft Environmental Assessment
St. Rita Catholic Church – 89-318 Farrington Highway
Tax Map Keys: 8-9-005: 001 & 8-9-007: 004 (portion)
Nānākuli, O'ahu, Hawai'i

Dear Mr. Fuchigami,

Thank you for your letter dated October 30, 2014 regarding the above-referenced project. The Draft EA includes discussion of the traffic impacts related to St. Rita Church expansion. The Draft EA also includes the Traffic Impact Analysis Report (TIAR) and Traffic Management Plan enclosed as an Appendix.

A copy of the Draft EA will be provided to the Department of Transportation. We appreciate your participation in this process.

Sincerely,

Hawai'i Planning LLC

Dennis Silva, Jr., AICP
Principal

DEPARTMENT OF COMMUNITY SERVICES
CITY AND COUNTY OF HONOLULU
715 SOUTH KING STREET, SUITE 311 ● HONOLULU, HAWAII 96813 ● AREA CODE 808 ● PHONE: 768-7762 ● FAX: 768-7792

KIRK CALDWELL
MAYOR

GARY K. NAKATA
ACTING DIRECTOR

October 29, 2014

Mr. Dennis Silva, Jr., AICP
Principal
Hawaii Planning LLC
American Savings Bank Tower
1001 Bishop Street, Suite 2755
Honolulu, Hawaii 96813

Dear Mr. Silva:

SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment
St. Rita Catholic Church, 89-318 Farrington Highway
Tax Map Keys: 8-9-005:001 and 8-9-007:004 (portion)
Nanakuli, Oahu, Hawaii

We have reviewed your letter dated October 14, 2014, and the enclosed documents regarding this Pre-Assessment Consultation for Draft Environmental Assessment for the St. Rita Catholic Church multi-purpose building project.

Our review of the documents indicates that the proposed project will have no adverse impacts on any Department of Community Services' activities or projects at this time.

Thank you for providing us with the opportunity to comment on this matter.

Sincerely,

Gary K. Nakata
Acting Director

GKN:sgk

HONOLULU FIRE DEPARTMENT

CITY AND COUNTY OF HONOLULU

636 South Street
Honolulu, Hawaii 96813-5007
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd

KIRK CALDWELL
MAYOR

MANUEL P. NEVES
FIRE CHIEF

LIONEL CAMARA JR.
DEPUTY FIRE CHIEF

November 3, 2014

Mr. Dennis Silva, Jr., AICP
Hawaii Planning LLC
American Savings Bank Tower
1001 Bishop Street, Suite 2755
Honolulu, Hawaii 96813

Dear Mr. Silva:

Subject: Preassessment Consultation for a Draft Environmental Assessment
St. Rita Catholic Church
89-318 Farrington Highway
Nanakuli, Oahu, Hawaii
Tax Map Keys: 8-9-005: 001 and 8-9-007: 004 (Portion)

In response to your letter dated October 14, 2014, regarding the above-mentioned subject, the Honolulu Fire Department (HFD) requires that the following be complied with:

1. Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 feet from fire department access roads as measured by an approved route around the exterior of the building or facility. (National Fire Protection Association [NFPA] 1, Uniform Fire Code [UFC]™, 2006 Edition, Section 18.2.3.2.2.)

   A fire department access road shall extend to within 50 ft of at least one exterior door that can be opened from the outside and that provides access to the interior of the building. (NFPA 1, UFC™, 2006 Edition, Section 18.2.3.2.1.)

2. A water supply approved by the county, capable of supplying the required fire flow for fire protection, shall be provided to all premises upon which facilities or buildings, or portions thereof, are hereafter

constructed, or moved into or within the county. When any portion of the facility or building is in excess of 150 feet from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the AHJ [Authority Having Jurisdiction]. (NFPA 1, UFC™, 2006 Edition, Section 18.3.1, as amended.)

3. The unobstructed width and unobstructed vertical clearance of a fire apparatus access road shall meet county requirements. (NFPA 1, UFC™, 2006 Edition, Section 18.2.3.4.1.1, as amended.)

4. Submit civil drawings to the HFD for review and approval.

Should you have questions, please contact Battalion Chief Terry Seelig of our Fire Prevention Bureau at 723-7151 or tseelig@honolulu.gov.

Sincerely,

SOCRATES D. BRATAKOS
Assistant Chief

SDB/SY:bh

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8305 • Fax: (808) 768-4730 • Internet: www.honolulu.gov

KIRK CALDWELL
MAYOR

MICHAEL D. FORMBY
DIRECTOR

MARK N. GARRITY, AICP
DEPUTY DIRECTOR

TP10/14-584786R

November 5, 2014

Mr. Dennis Silva, Jr., AICP
Principal
Hawaii Planning LLC
1001 Bishop Street, Suite 2755
Honolulu, Hawaii 96813

Dear Mr. Silva:

SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment (DEA), St. Rita Catholic Church, Nanakuli, Oahu, Hawaii

In response to your letter dated October 14, 2014, we have the following comments:

1. The DEA should discuss any traffic impacts the project may have on any surrounding City roadways, including short-term impacts during construction, and measures to mitigate these impacts applying complete streets principles.

2. Farrington Highway is under the jurisdiction of the Hawaii State Department of Transportation and should be consulted on impacts to their roadway.

3. The area Neighborhood Board, as well as the area residents, businesses, emergency personnel, Oahu Transit Services, Inc. (TheBus), etc., should be kept apprised of the details of the proposed project and the impacts, particularly during construction, the project may have on the adjoining local street area network.

4. Any construction materials and equipment should be transferred to and from the project site during off-peak traffic hours (8:30 a.m. to 3:30 p.m.) to minimize any possible disruption to traffic on the local streets.

Thank you for the opportunity to review this matter. Should you have any questions, please contact Renee Yamasaki of my staff at 768-8383.

Very truly yours,

Michael D. Formby
Director

February 19, 2015

Mr. Michael D. Formby
Director
Department of Transportation Service
City and County of Honolulu
650 S. King Street, 3rd Floor
Honolulu, HI 96813

Subject: Pre-Consultation - Draft Environmental Assessment
St. Rita Catholic Church – 89-318 Farrington Highway
Tax Map Keys: 8-9-005: 001 & 8-9-007: 004 (portion)
Nānākuli, O'ahu, Hawai'i

Dear Mr. Formby,

Thank you for your letter dated November 5, 2014 regarding the above-referenced project. The Draft EA includes discussion of the traffic impacts related to St. Rita Church expansion. The Draft EA Appendices section includes the Traffic Impact Analysis Report (TIAR) and Traffic Management Plan. St. Rita Church project consultants are working with the State Department of Transportation on impacts related to Farrington Highway.

Construction materials and equipment will be transferred to and from the project site during off-peak hours (8:30am to 3:30pm).

A copy of the Draft EA will be provided to the Department of Transportation Services. We appreciate your participation in this process.

Sincerely,

Hawai'i Planning LLC

Dennis Silva, Jr., AICP
Principal

American Savings Bank Tower • 1001 Bishop Street, Suite 2755 • Honolulu HI 96813 • (808)521-9418 Ext. 1005 • hawaiiplanningllc@gmail.com

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 7, 2014

Hawai`i Planning LLC
Attn: Dennis Silva, Jr., Principal
American Savings Bank Tower
1001 Bishop Street, Suite 2755
Honolulu, HI 96813

via email: hawaiiplanningllc@gmail.com

Dear Mr. Silva,

SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment, St. Rita Catholic Church – 89-318 Farrington Highway, Tax Map Keys: 8-9-005: 001 & 8-9-007: 004 (portion); Nanakuli, O`ahu, Hawai`i

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comments.

At this time, enclosed are comments from (1) Land Division – Oahu District; (2) Division of Forestry & Wildlife; (3) Commission on Water Resource Management; and (4) Engineering Division. No other comments were received as of our suspense date. Should you have any questions, please feel free to call Supervising Land Agent Steve Molmen at 587-0439. Thank you.

Sincerely,

Russell Y. Tsuji
Land Administrator

Enclosure(s)

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

October 20, 2014

MEMORANDUM

TO: **DLNR Agencies:**
___Div. of Aquatic Resources
___Div. of Boating & Ocean Recreation
_X_ Engineering Division
_X_ Div. of Forestry & Wildlife
___Div. of State Parks
_X_ Commission on Water Resource Management
_X_ Office of Conservation & Coastal Lands
_X_ Land Division – Oahu District
_X_ Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment, St. Rita Catholic Church – 89-318 Farrington Highway
LOCATION: 89-318 Farrington Highway, Tax Map Keys: 8-9-005: 001 & 8-9-007: 004 (portion), Nanakuli, O`ahu, Hawai`i
APPLICANT: St. Rita Catholic Church by its consultant, Hawai`i Planning LLC

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document.

Please submit any comments by November 6, 2014. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Attachments

( ) We have no objections.
(✓) We have no comments.
( ) Comments are attached.

Signed: T Chee
Print Name: Tiffany Chee
Date: 10/22/14

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

October 20, 2014

MEMORANDUM

2014 OCT 27 PM 3:01

TO: ~~TO:~~ From

DLNR Agencies:
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
X Div. of Forestry & Wildlife
__Div. of State Parks
X Commission on Water Resource Management
X Office of Conservation & Coastal Lands
X Land Division – Oahu District
X Historic Preservation

~~FROM:~~ To: Russell Y. Tsuji, Land Administrator

SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment, St. Rita Catholic Church – 89-318 Farrington Highway

LOCATION: 89-318 Farrington Highway, Tax Map Keys: 8-9-005: 001 & 8-9-007: 004 (portion), Nanakuli, O`ahu, Hawai`i

APPLICANT: St. Rita Catholic Church by its consultant, Hawai`i Planning LLC

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Please submit any comments by November 6, 2014. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Attachments

( ) We have no objections.
(✓) We have no comments.
( ) Comments are attached.

Signed: _____
Print Name: LISA HADOW
Date: 10-29-14

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RECEIVED
LAND DIVISION
2014 OCT 31 PM 2:39

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

October 20, 2014

MEMORANDUM

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
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X Office of Conservation & Coastal Lands
X Land Division – Oahu District
X Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment, St. Rita Catholic Church – 89-318 Farrington Highway
LOCATION: 89-318 Farrington Highway, Tax Map Keys: 8-9-005: 001 & 8-9-007: 004 (portion), Nanakuli, O`ahu, Hawai`i
APPLICANT: St. Rita Catholic Church by its consultant, Hawai`i Planning LLC

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Please submit any comments by November 6, 2014. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(x) Comments are attached.

Signed:
Print Name: WILLIAM M. TAM, Deputy Director
Date: October 29, 2014

FILE ID: RFD. 4077.3
DOC ID: 11836

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

October 29, 2014

REF: RFD.4077.3

TO: Russell Tsuji, Administrator
Land Division

FROM: William M. Tam, Deputy Director
Commission on Water Resource Management

SUBJECT: Pre-Assessment Consultation for Draft EA, St. Rita Catholic Church 89-318 Farrington Hwy, Nanakuli

FILE NO.:
TMK NO.: 8-9-005:001 & 8-9-007:004

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore, all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at http://www.hawaii.gov/dlnr/cwrm.

Our comments related to water resources are checked off below.

☐ 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.

☐ 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.

☐ 3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.

☒ 4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at http://www.usgbc.org/leed. A listing of fixtures certified by the EPA as having high water efficiency can be found at http://www.epa.gov/watersense/.

☒ 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at http://hawaii.gov/dbedt/czm/initiative/lid.php.

☒ 6. We recommend the use of alternative water sources, wherever practicable.

☒ 7. We recommend participating in the Hawaii Green Business Program, that assists and recognizes businesses that strive to operate in an environmentally and socially responsible manner. The program description can be found online at http://energy.hawaii.gov/green-business-program

☒ 8. We recommend adopting landscape irrigation conservation best management practices endorsed by the Landscape Industry Council of Hawaii. These practices can be found online at http://www.hawaiiscape.com/wp-content/uploads/2013/04/LICH_Irrigation_Conservation_BMPs.pdf

☐ 9. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

Permits required by CWRM:
Additional information and forms are available at http://hawaii.gov/dlnr/cwrm/info_permits.htm.

☐ 10. The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water. The Water Use Permit may be conditioned on the requirement to use dual line water supply systems for new industrial and commercial developments.

☐ 11. A Well Construction Permit(s) is (are) required before any well construction work begins.

☐ 12. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.

☒ 13. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.

☐ 14. Ground water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.

☐ 15. A Stream Channel Alteration Permit(s) is (are) required before any alteration(s) can be made to the bed and/or banks of a stream channel.

☐ 16. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is (are) constructed or altered.

☐ 17. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.

☒ 18. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.

☒ OTHER:
Our records show there is an existing unused well, Well No. 2308-001, at TMK 8-9-007-004. This well was drilled in 1949 and is currently not equipped with a pump. If the well has been abandoned, it should be properly sealed to avoid potential contamination of the underlying aquifer. An application for a permit to seal the well should be submitted and approved by the Commission prior to any sealing work. Section 3.1 of the Hawaii Well Construction and Pump Installation Standards provides that all wells must be properly abandoned and sealed whenever:

- The well has served its purpose;
- The use of the well has been permanently discontinued;
- The well is not being properly maintained;
- The physical condition of the well is causing a waste of ground water, or is impairing or threatens to impair the quality of the ground water resources; or
- The well is in such a state of disrepair that its continued use is impractical or it is a hazard to public health or safety.

If the well has not been abandoned, Hawai'i Administrative Rules (Title 13 Chapter 168 Subtitle 7) requires the submission of monthly water use reporting, including pumping, chloride concentrations, temperature, and (pump off) water level data. If the well has no usage for the time frame represented for that report, then well owners must report that "0" gallons was pumped. In order to stop reporting on a well, the well needs to be properly sealed and abandoned. Failure to submit the required monthly reports is a violation of the above-referenced administrative rule and may be subject to fines of up to $5,000 per day.

If there are future plans to withdraw water from the well, an application for a pump installation permit should be submitted and approved by the Commission prior to any pump installation permit.

If there are any questions, please contact W. Roy Hardy at 587-0225.

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RECEIVED
LAND DIVISION
2014 OCT 31 PM 2:39

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

October 20, 2014

MEMORANDUM

TO: ~~TO~~ FR

DLNR Agencies:
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
X Div. of Forestry & Wildlife
__Div. of State Parks
X Commission on Water Resource Management
X Office of Conservation & Coastal Lands
X Land Division – Oahu District
X Historic Preservation

FROM: ~~TO~~ Russell Y. Tsuji, Land Administrator
SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment, St. Rita Catholic Church – 89-318 Farrington Highway
LOCATION: 89-318 Farrington Highway, Tax Map Keys: 8-9-005: 001 & 8-9-007: 004 (portion), Nanakuli, O`ahu, Hawai`i
APPLICANT: St. Rita Catholic Church by its consultant, Hawai`i Planning LLC

'14 OCT 21 AM 9:27 ENGINEERING

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document.

Please submit any comments by November 6, 2014. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(✓) Comments are attached.

Signed: _____
Print Name: Carty S. Chang, Chief Engineer
Date: 10/30/14

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/ Russell Y. Tsuji
Ref.: Pre-Assessment Consultation for DEA for St. Rita Catholic Church, Nanakuli Oahu.068

COMMENTS

( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone ___.

(X) Please take note that the project site according to the Flood Insurance Rate Map (FIRM), is located in Zones AE and X. The National Flood Insurance Program regulates developments within Zone AE as indicated in bold letters below, but not Zone X.

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

(X) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

(X) Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Frank DeMarco at (808) 961-8042 of the County of Hawaii, Department of Public Works.

( ) Mr. Carolyn Cortez at (808) 270-7253 of the County of Maui, Department of Planning.

( ) Mr. Stanford Iwamoto at (808) 241-4846 of the County of Kauai, Department of Public Works.

( ) The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments: _____

_____

( ) Other: _____

_____

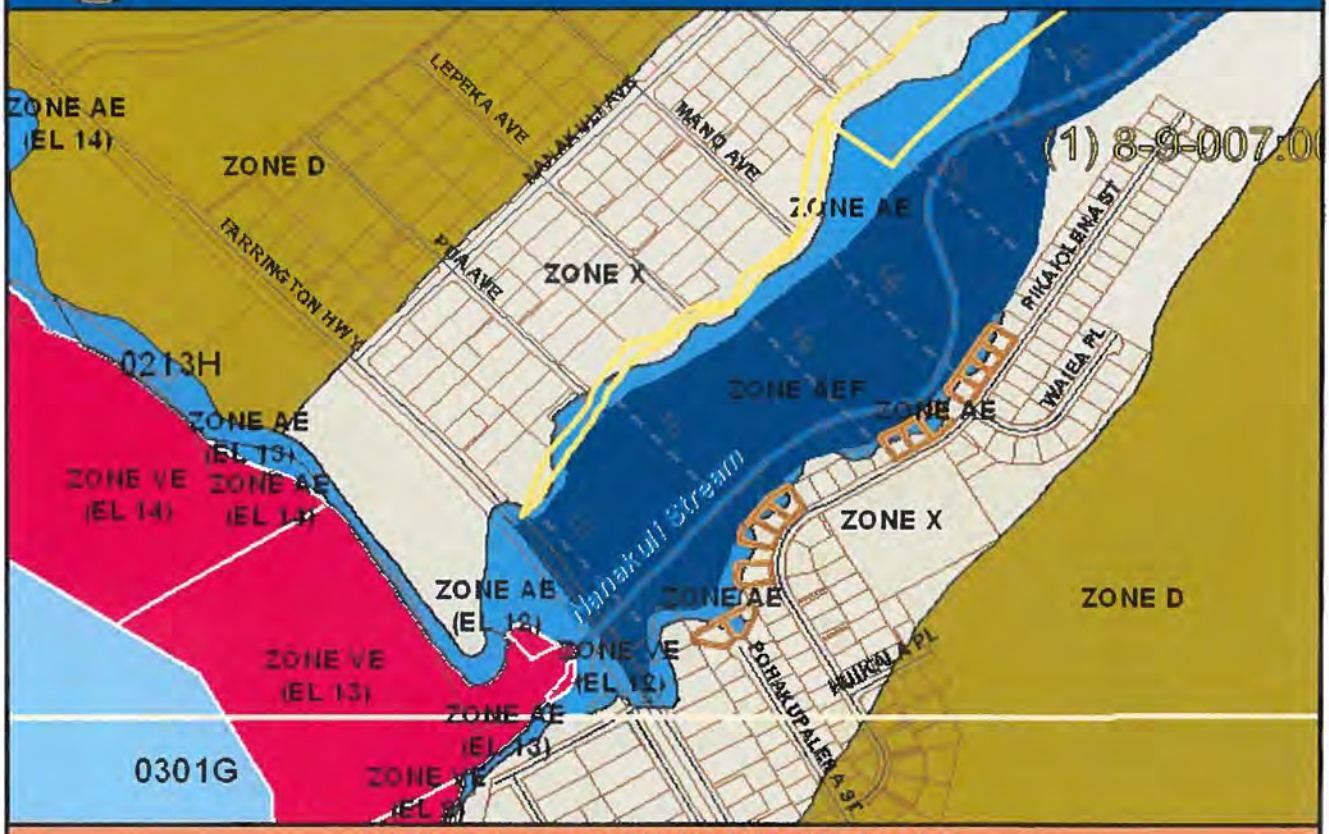
Should you have any questions, please call Mr. Dennis Imada of the Planning Branch at 587-0257.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: 10/30/14

State of Hawaii

FLOOD HAZARD ASSESSMENT REPORT



NATIONAL FLOOD INSURANCE PROGRAM

FLOOD ZONE DEFINITIONS

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD – The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water-surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones:

- **Zone A:** No BFE determined.
- **Zone AE:** BFE determined.
- **Zone AH:** Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
- **Zone AO:** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.
- **Zone V:** Coastal flood zone with velocity hazard (wave action); no BFE determined.
- **Zone VE:** Coastal flood zone with velocity hazard (wave action); BFE determined.
- **Zone AEF:** Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.

NON-SPECIAL FLOOD HAZARD AREA – An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

- **Zone XS (X shaded):** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- **Zone X:** Areas determined to be outside the 0.2% annual chance floodplain.

OTHER FLOOD AREAS

- **Zone D:** Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

PROPERTY INFORMATION

COUNTY:	HONOLULU
TMK NO:	(1) 8-9-007-004
PARCEL ADDRESS:	
FIRM INDEX DATE:	JANUARY 19, 2011
LETTER OF MAP CHANGE(S):	NONE
FEMA FIRM PANEL(S):	15003C0213H
PANEL EFFECTIVE DATE:	JANUARY 19, 2011

PARCEL DATA FROM:	APRIL 2014
IMAGERY DATA FROM:	MAY 2006

IMPORTANT PHONE NUMBERS

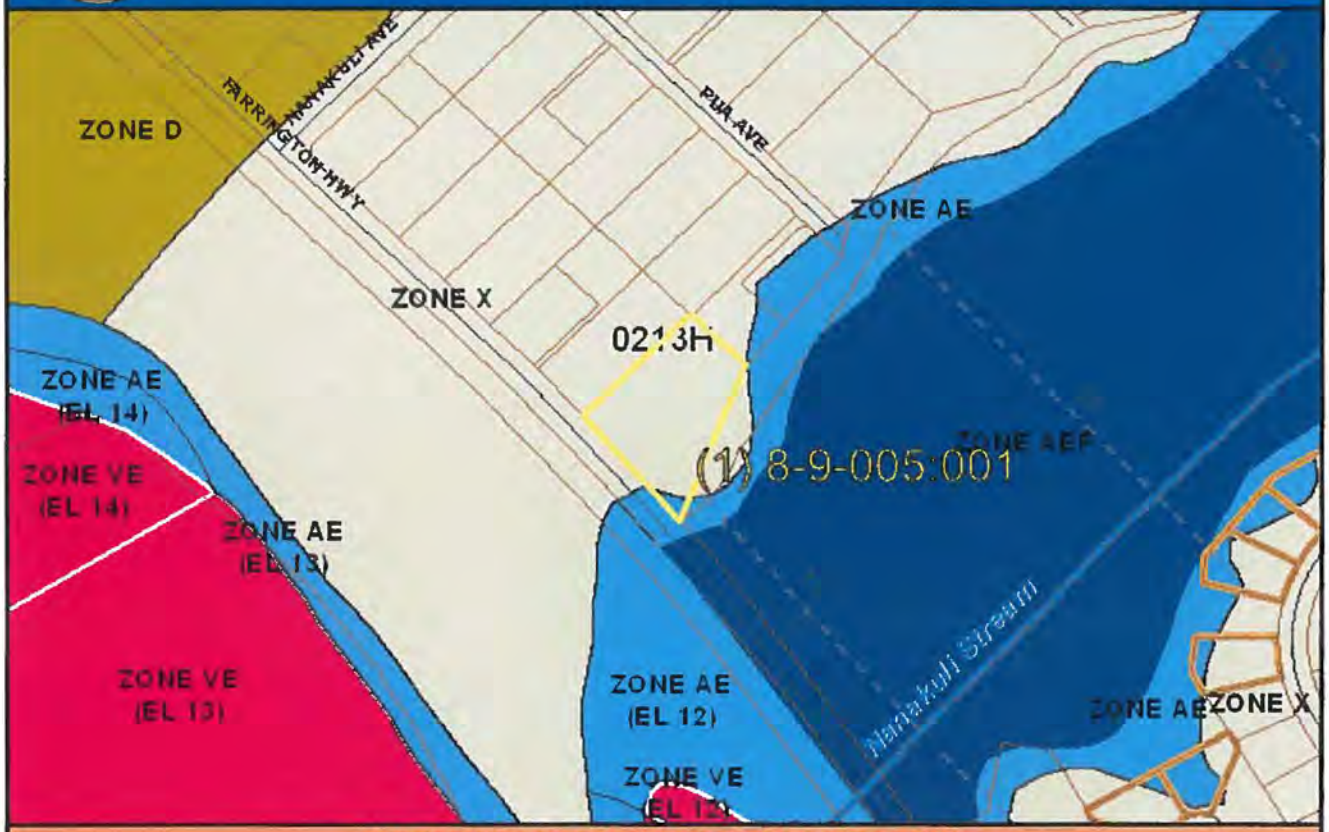
County NFIP Coordinator	
City and County of Honolulu	
Mario Siu-Li, CFM	(808) 768-8098
State NFIP Coordinator	
Carol Tyau-Beam, P.E., CFM	(808) 587-0267

Disclaimer: The Department of Land and Natural Resources (DLNR) assumes no responsibility arising from the use of the information contained in this report. Viewers/Users are responsible for verifying the accuracy of the information and agree to indemnify the DLNR from any liability, which may arise from its use.

If this map has been identified as 'PRELIMINARY' or 'UNOFFICIAL', please note that it is being provided for informational purposes and is not to be used for official/legal decisions, regulatory compliance, or flood insurance rating. Contact your county NFIP coordinator for flood zone determinations to be used for compliance with local floodplain management regulations.

State of Hawaii

FLOOD HAZARD ASSESSMENT REPORT



NATIONAL FLOOD INSURANCE PROGRAM

FLOOD ZONE DEFINITIONS

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD – The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water-surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones:

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- **Zone X:** Areas determined to be outside the 0.2% annual chance floodplain.

OTHER FLOOD AREAS

- **Zone D:** Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

PROPERTY INFORMATION

COUNTY:	HONOLULU
TMK NO:	(1) 8-9-005-001
PARCEL ADDRESS:	89-318 FARRINGTON HWY WAIANAE, HI 96792
FIRM INDEX DATE:	JANUARY 19, 2011
LETTER OF MAP CHANGE(S):	NONE
FEMA FIRM PANEL(S):	15003C0213H
PANEL EFFECTIVE DATE:	JANUARY 19, 2011

PARCEL DATA FROM:	APRIL 2014
IMAGERY DATA FROM:	MAY 2006

IMPORTANT PHONE NUMBERS

County NFIP Coordinator	
City and County of Honolulu	
Mario Siu-Li, CFM	(808) 768-8098
State NFIP Coordinator	
Carol Tyau-Beam, P.E., CFM	(808) 587-0267

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 768-4567
Web site: www.honolulu.gov

KIRK CALDWELL
MAYOR

ROBERT J. KRONING, P.E
DIRECTOR DESIGNATE

MARK YONAMINE, P.E
DEPUTY DIRECTOR

November 3, 2014

Hawaii Planning LLC
1001 Bishop Street, Suite 2755
American Savings Bank Tower
Honolulu, Hawaii 96813

Attn: Dennis Silva, Jr.

Dear Mr. Silva:

Subject: Pre-Assessment Consultation for Draft Environmental Assessment
St. Rita Catholic Church – 89-318 Farrington Highway
Tax Map Keys: 8-9-005: 001 & 8-9-007: 004 (portion)
Nanakuli, Oahu, Hawaii

The Department of Design and Construction does not have comments to offer on the pre-assessment consultation.

Thank you for the opportunity to review and comment. Should there be any questions, please contact me at 768-8480.

Sincerely,

for M. Yonamine

Robert J. Kroning, P.E.
Director Designate

RJK: cf (584649)

DEPARTMENT OF FACILITY MAINTENANCE

CITY AND COUNTY OF HONOLULU

1000 Ulu`ohia Street, Suite 215, Kapolei, Hawaii 96707
Phone: (808) 768-3343 • Fax: (808) 768-3381
Website: www.honolulu.gov

KIRK CALDWELL
MAYOR

ROSS S. SASAMURA, P.E.
DIRECTOR AND CHIEF ENGINEER

EDUARDO P. MANGLALLAN
DEPUTY DIRECTOR

IN REPLY REFER TO:
DRM 14-975

November 10, 2014

Mr. Dennis Silva, Jr., AICP
Principal
Hawaii Planning LLC
American Savings Bank Tower
1001 Bishop Street, Suite 2755
Honolulu, Hawaii 96813

Dear Mr. Silva:

SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment
St. Rita Catholic Church – 89-318 Farrington Highway
Tax Map Keys: 8-9-005:001 and 8-9-007:004 (portion)
Nanakuli, Oahu, Hawaii

Thank you for the opportunity to review your letter dated October 14, 2014, on the above subject.

We have no comments at this time.

If you have any questions, please call Mr. Dexter Akamine of the Division of Road Maintenance at 768-3697.

Sincerely,

Ross S. Sasamura, P.E.
Director and Chief Engineer

NEIL ABERCROMBIE
GOVERNOR

JESSICA E. WOOLEY
DIRECTOR

STATE OF HAWAI'I
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
Department of Health
235 South Beretania Street, Suite 702
Honolulu, Hawai'i 96813
Telephone (808) 586-4185
Facsimile (808) 586-4186
Email: oeqchawaii@doh.hawaii.gov

November 10, 2014

Mr. Dennis Silva, Jr., AICP
Hawai'i Planning, LLC
American Savings Bank Tower
1001 Bishop Street, Suite 2755
Honolulu, Hawai'i 96813

SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment
St. Rita Catholic Church – 89-318 Farrington Highway
Tax Map Keys: 8-9-005: 001 & 8-9-007: 004 (portion)
Nānākuli, O'ahu, Hawai'i

Dear Mr. Silva,

This letter responds to your October 14, 2014, letter to Ms. Jessica Wooley, Director of the Office of Environmental Quality Control, regarding early consultation for the subject project. A brief review of the letter, attached maps and site plan does not provide sufficient information to determine whether the proposed expansion triggers Chapter 343, Hawai'i Revised Statutes. Furthermore, the is no information about the environmental setting or regulatory clearances the project may require.

It is recommended that you consult HRS §343-5, to see whether the proposed action requires an environmental assessment (EA). Although the subject mentions consultation for a draft environmental assessment (DEA), the letter is not clear about what the trigger for an EA is.

If Chapter 343, HRS, applies, there is a need to identify the approving agency that will process the DEA and issue the Chapter 343, HRS, determination. The content requirements for an EA is listed in §11-200-10, Hawai'i Administrative Rules.

Feel free to contact me at (808) 586-4185 if you have further questions.

Sincerely,

Herman Tuiolosega
Senior Planner

April 28, 2015

Ms. Jessica Wooley
Director
State of Hawai'i
Department of Health
Office of Environmental Quality Control
235 S. Beretania Street, Suite 702
Honolulu, HI 96813

Subject: Pre-Consultation - Draft Environmental Assessment
St. Rita Catholic Church – 89-318 Farrington Highway
Tax Map Keys: 8-9-005: 001 & 8-9-007: 004 (portion)
Nānākuli, O'ahu, Hawai'i

Dear Ms. Wooley

Thank you for your letter dated November 10, 2014 regarding the above-referenced project. The Chapter 343, HRS statutory triggers for this project are: 1) use of State lands as the St. Rita Church leases from the Department of Hawaiian Homelands (DHHL); and 2) Special Management Area-Major Permit, which requires an EA.

A copy of the Draft EA will be provided to the Department of Health, Office of Environmental Quality Control. We appreciate your participation in this process.

Sincerely,

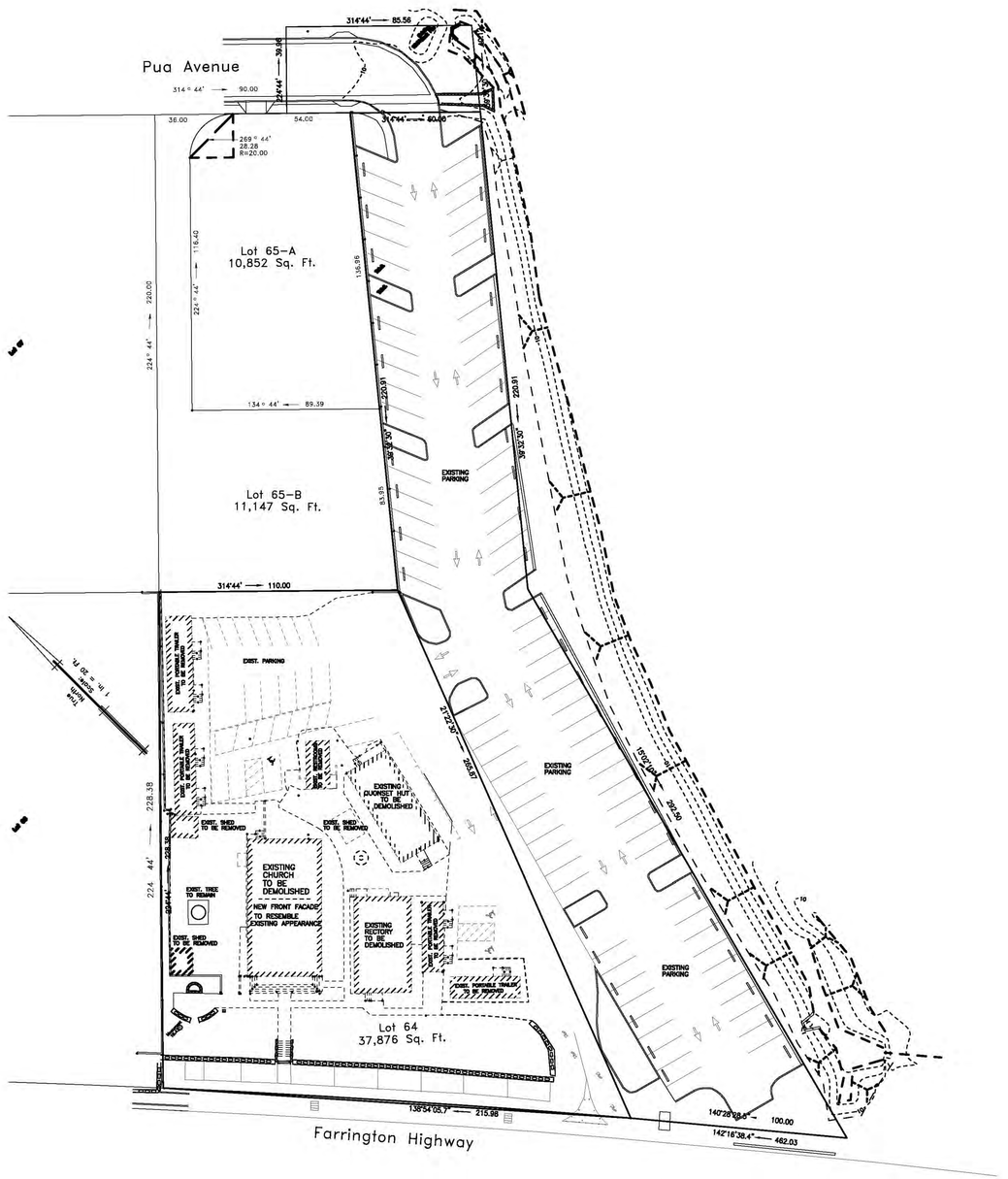
Hawai'i Planning LLC

Dennis Silva, Jr., AICP
Principal

American Savings Bank Tower • 1001 Bishop Street, Suite 2755 • Honolulu HI 96813 • (808)521-9418 Ext. 1005 • hawaiiplanningllc@gmail.com

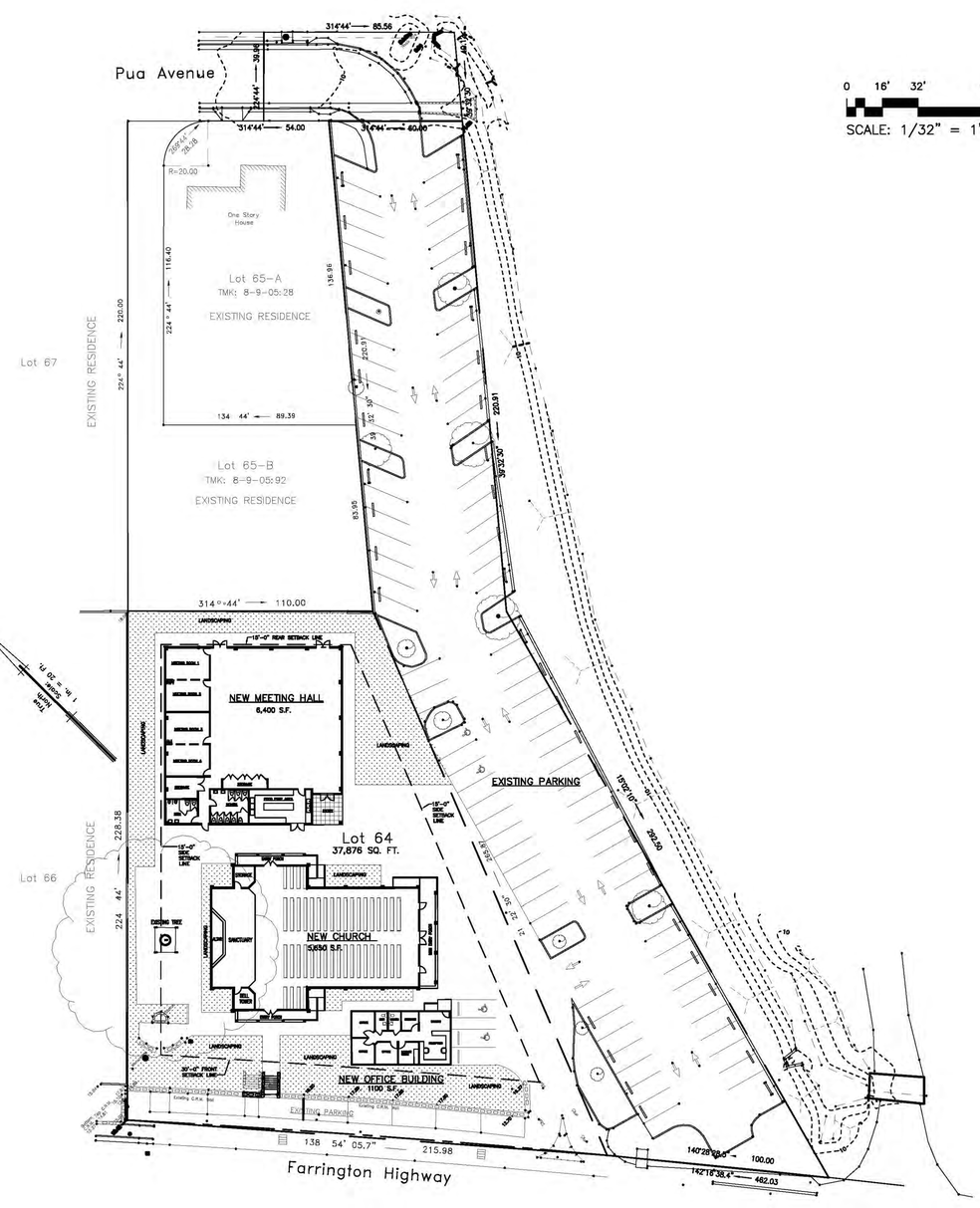
Appendix B

Architectural Plans



EXISTING SITE PLAN

SC: 1/32" = 1'-0"



PROPOSED SITE PLAN

SC: 1/32" = 1'-0"

0 16' 32' 64'

SCALE: 1/32" = 1'-0"

FRANCISCO ARCHITECT
FIDEL A. FRANCISCO,AIA
2379 Ulaa Place
Honolulu, Hawaii
Architecture
Planning
Interiors

FIDEL A. FRANCISCO
LICENSED PROFESSIONAL ARCHITECT
No. 8367
HAWAII, USA
EXP. 4-16

This work was prepared by me or under my supervision. Construction of this project will be under my observation.

REVISIONS	BY

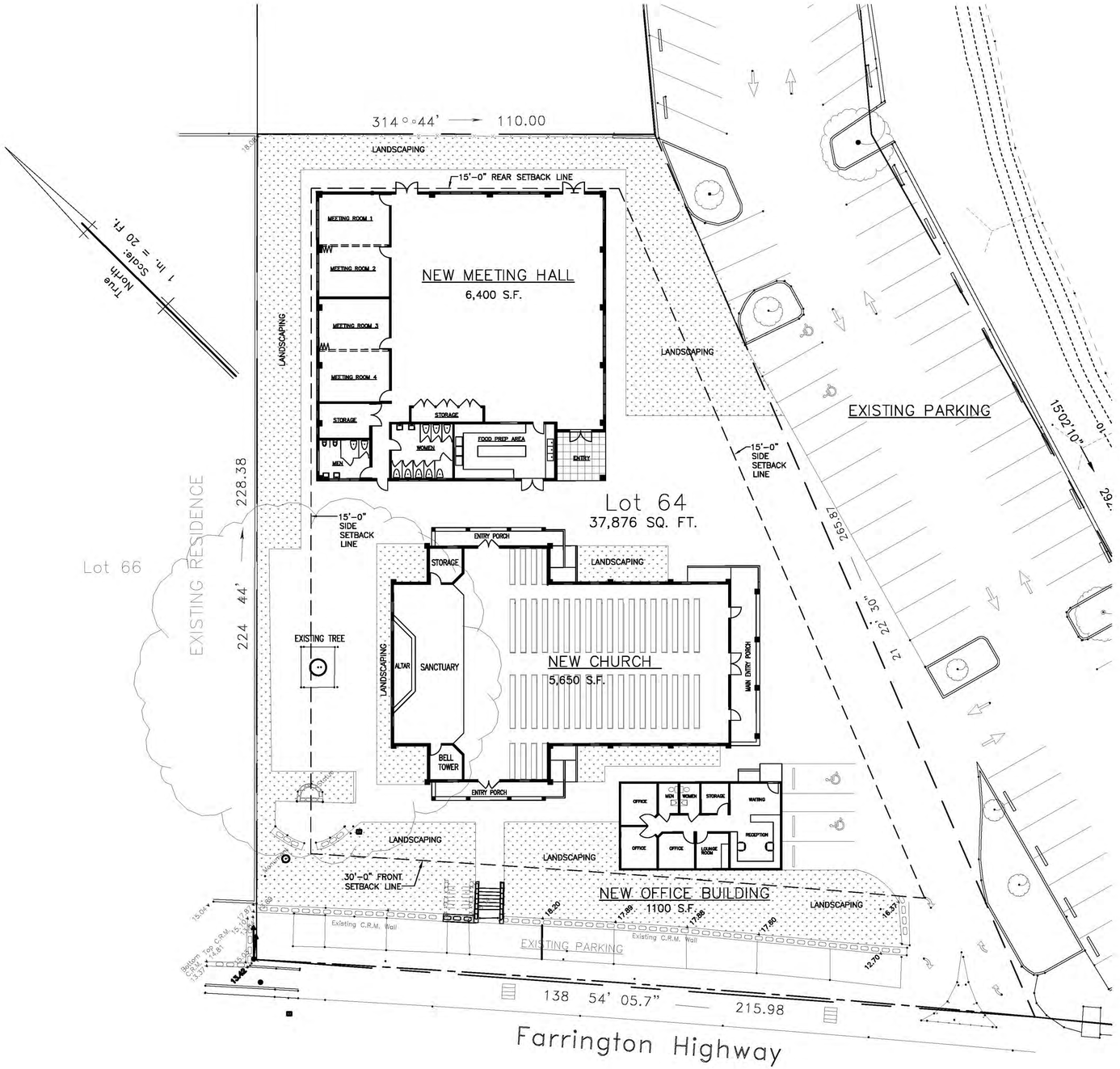
ST. RITA'S CATHOLIC CHURCH

89-318 FARRINGTON HIGHWAY
NANAKULI, HI 96792
TMK: 8-9-005:001

EXISTING SITE PLAN
PROPOSED SITE PLAN

DATE MAR 2015
SCALE AS NOTED
DRAWN BY
JOB NO.
SHEET A101
OF SHEETS

A-101 3-2015



NEW PROPOSED SITE PLAN

SC: 1/16" = 1'-0"

0 8' 16' 32'

SCALE: 1/16" = 1'-0"

FRANCISCO ARCHITECT

FIDEL A. FRANCISCO,AIA
2379 Lilac Rise
Honolulu, Hawaii

Architecture
Planning
Interiors

FIDEL A. FRANCISCO LICENSED PROFESSIONAL ARCHITECT No. 8367 HAWAII, USA

EXP. 4-16

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REVISIONS	BY

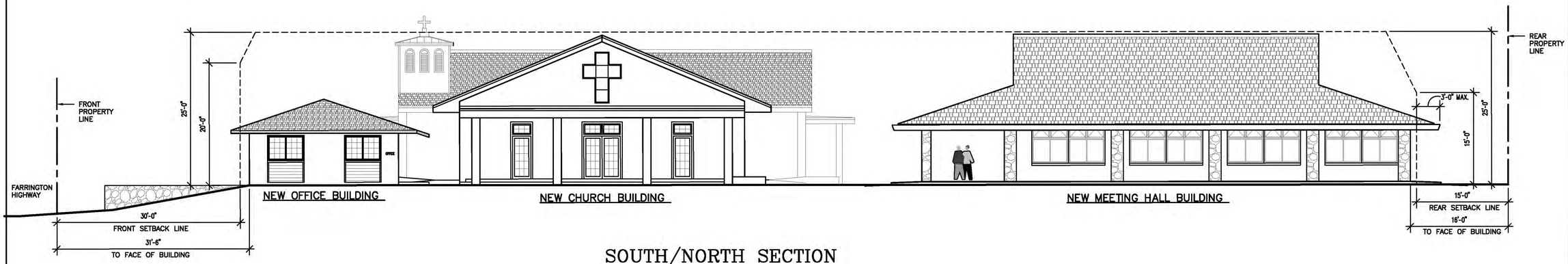
ST. RITA'S CATHOLIC CHURCH

89-318 FARRINGTON HIGHWAY
NANAKULI, HI 96792
TMK: 8-9-005:001

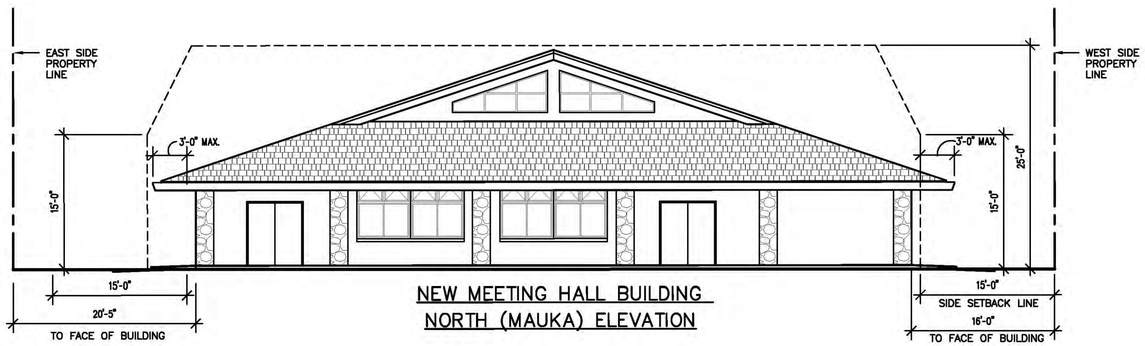
PROPOSED SITE PLAN

DATE MAR 2015
SCALE AS NOTED
DRAWN BY
JOB NO.
SHEET A102
OF SHEETS

A1.dwg 3-3-2014



SOUTH/NORTH SECTION



PROPOSED SITE SECTION/ELEVATION

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0 4' 8' 16'

SCALE: 1/8" = 1'-0"

FRANCISCO ARCHITECT
FIDEL A. FRANCISCO AIA
2379 Liloa Rise
Honolulu, Hawaii
Architecture
Planning
Interiors

FIDEL A. FRANCISCO
LICENSED PROFESSIONAL ARCHITECT
No. 8367
HAWAII, USA
EXP. 4-16

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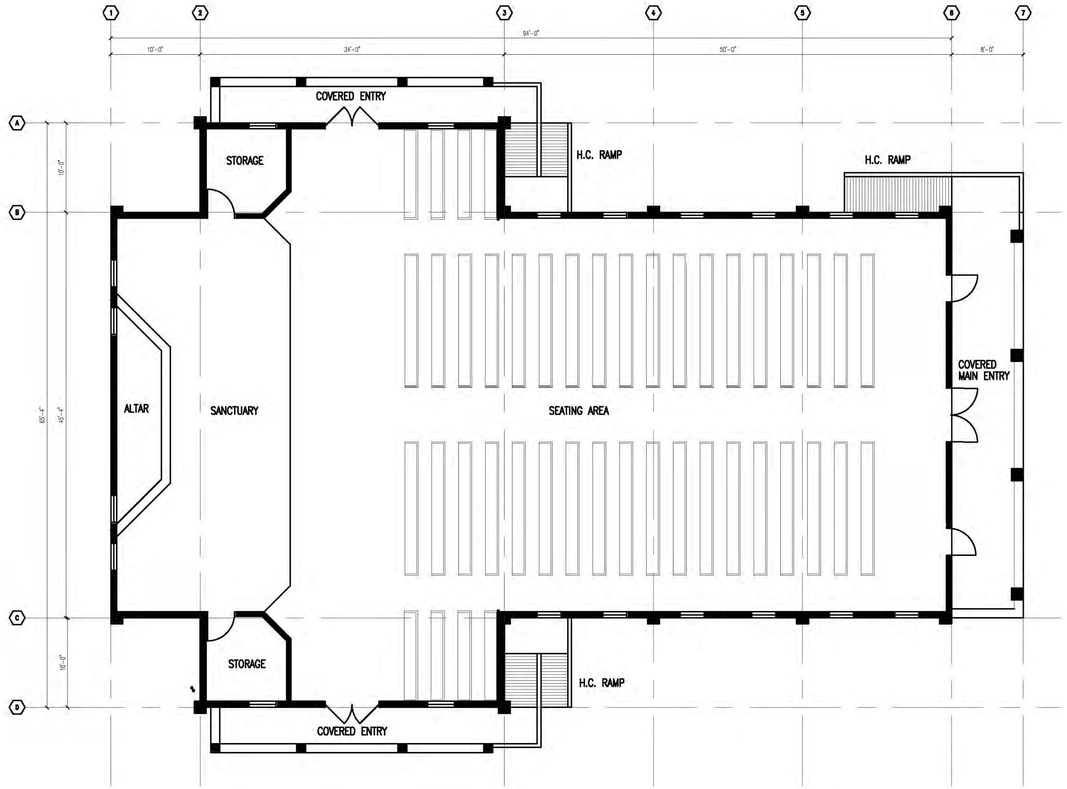
REVISIONS	BY

ST. RITA'S CATHOLIC CHURCH
89-318 FARRINGTON HIGHWAY
NANAKULI, HI 96792
TMK: 8-9-005:001

PROPOSED SITE SECTION

DATE MAR 2015
SCALE AS NOTED
DRAWN BY
JOB NO.
SHEET A103
OF SHEETS

A103 3-2015



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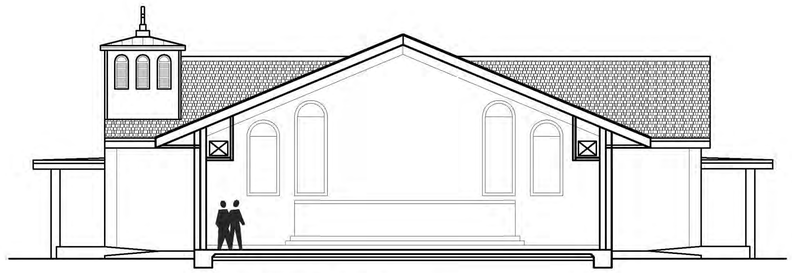
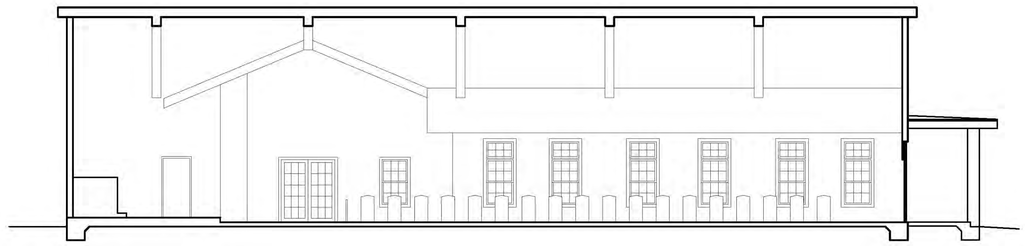


NEW CHURCH BUILDING
CROSS SECTION

0 4' 8' 16'

SCALE: 1/8" = 1'-0"



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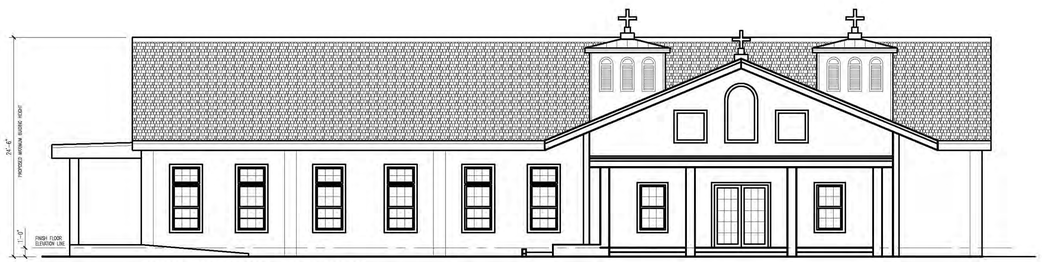
LONGITUDINAL SECTION



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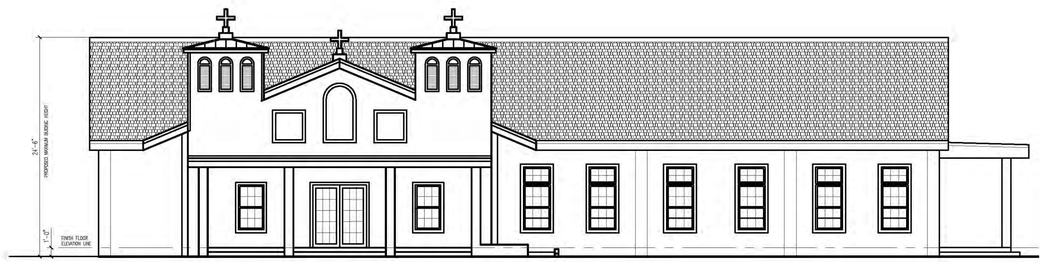
NORTH (MAUKA) ELEVATION



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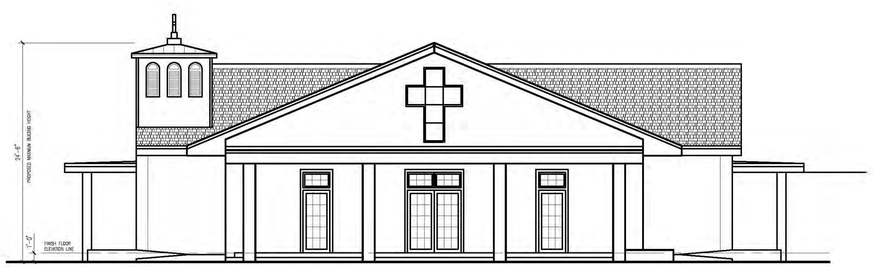
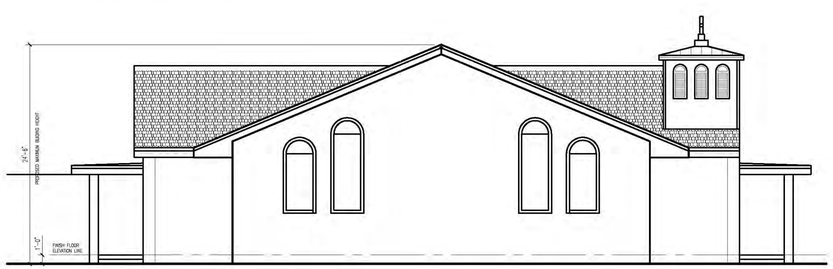
SOUTH (MAKAI) ELEVATION



NEW CHURCH BUILDING
EAST (DIAMOND HEAD) ELEVATION



NEW CHURCH BUILDING
WEST (MAKAHA) ELEVATION

PROPOSED DRAWINGS

SC: 1/8" = 1'-0"

FRANCISCO ARCHITECT
FIDEL A. FRANCISCO AIA
2378 Lilea Rise
Honolulu, Hawaii
Architecture
Planning
Interiors

FIDEL A. FRANCISCO
LICENSED PROFESSIONAL ARCHITECT
No. 8367
HAWAII, USA
EXP. 4-16

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REVISIONS	BY

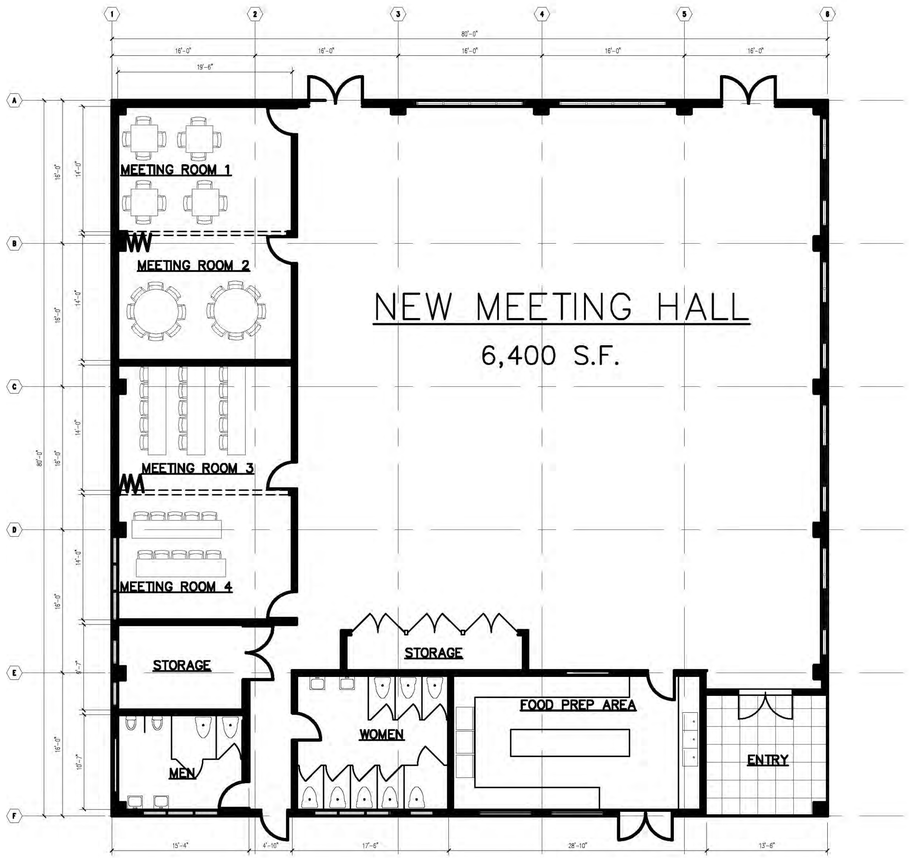
ST. RITA'S CATHOLIC CHURCH

89-318 FARRINGTON HIGHWAY
NANAKULI, HI 96792
TMK: 8-9-005:001

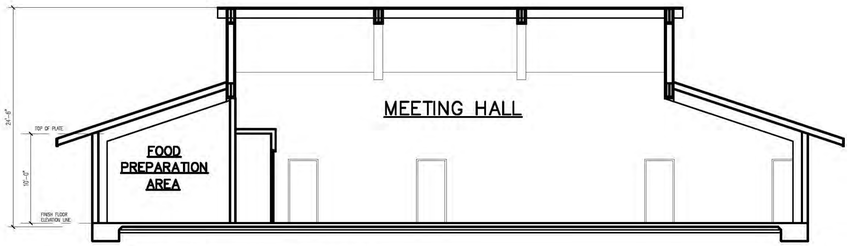
PRELIMINARY CHURCH PLAN

DATE MAR 2015
SCALE AS NOTED
DRAWN BY
JOB NO.
SHEET A201
OF SHEETS

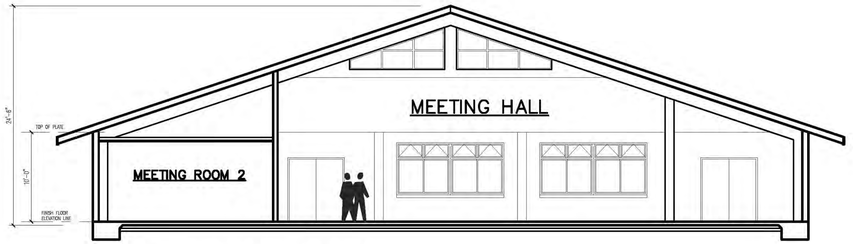
A201 3-2015



NEW MEETING HALL BUILDING – FLOOR PLAN



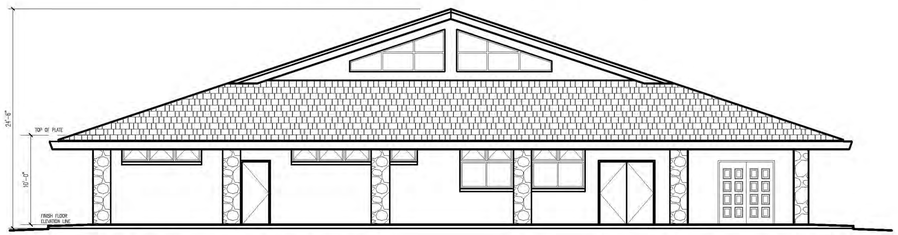
NEW MEETING HALL BUILDING
LONGITUDINAL SECTION



NEW MEETING HALL BUILDING
CROSS SECTION

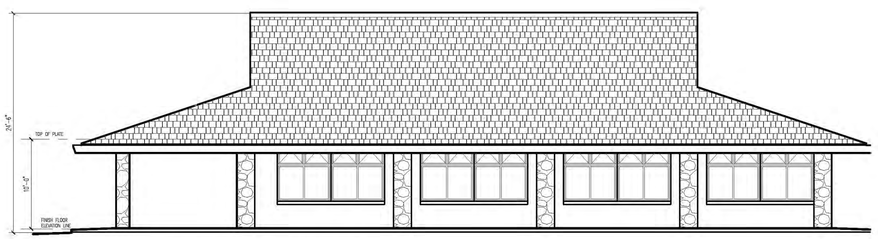
0 4' 8' 16'

SCALE: 1/8" = 1'-0"

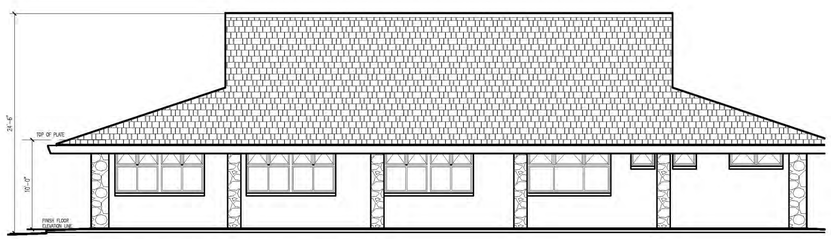


NEW MEETING HALL BUILDING
SOUTH (MAKAI) ELEVATION

NEW MEETING HALL BUILDING
NORTH (MAUKA) ELEVATION



NEW MEETING HALL BUILDING
EAST (DIAMOND HEAD) ELEVATION



NEW MEETING HALL BUILDING
WEST (MAKAHA) ELEVATION

PROPOSED DRAWINGS

SC: 1/8" = 1'-0"

FRANCISCO ARCHITECT
FIDEL A. FRANCISCO AIA
23-B Lilea Rise
Honolulu, Hawaii
Architecture
Planning
Interiors

FIDEL A. FRANCISCO
LICENSED PROFESSIONAL ARCHITECT
No. 8367
HAWAII, USA
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ST. RITA'S CATHOLIC CHURCH

89-318 FARRINGTON HIGHWAY
NANAKULI, HI 96792
TMK: 8-9-005:001

PRELIMINARY MULTI-PURPOSE BUILDING PLAN

DATE MAR 2015
SCALE AS NOTED
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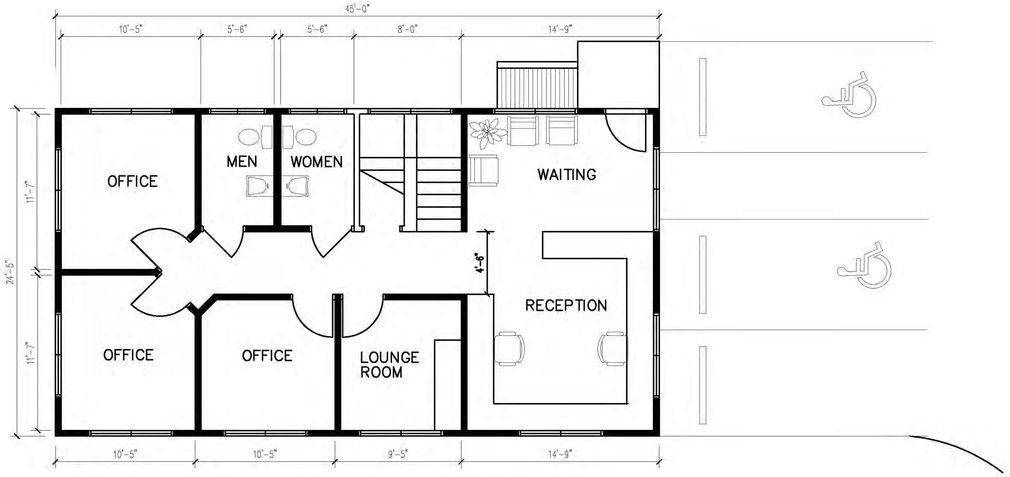
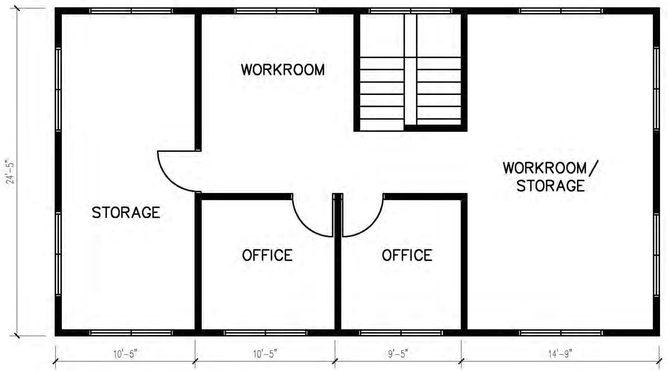
JOB NO.
SHEET A202
OF SHEETS

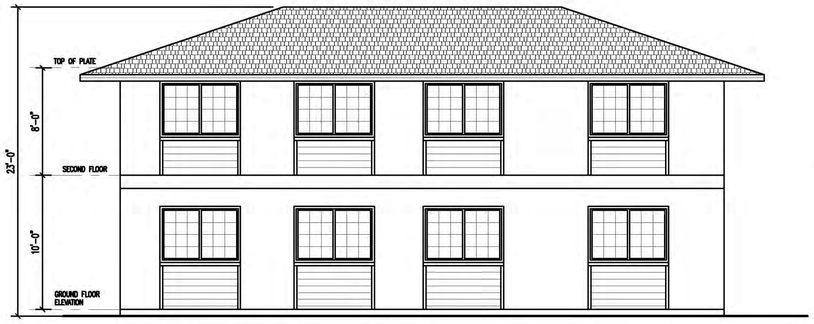
A202 3-2015



NEW OFFICE BUILDING – FLOOR PLAN



NEW OFFICE BUILDING – SECOND FLOOR PLAN



NEW OFFICE BUILDING
SOUTH (MAKAI) ELEVATION

NEW OFFICE BUILDING
WEST (MAKAHA) ELEVATION

NEW OFFICE BUILDING
NORTH (MAUKA) ELEVATION

NEW OFFICE BUILDING
EAST (DIAMOND HEAD) ELEVATION

PROPOSED DRAWINGS

SC: 3/16" = 1'-0"

0 5'4" 10'8" 21'4"

SCALE: 3/16" = 1'-0"

FRANCISCO ARCHITECT
FIDEL A. FRANCISCO AIA
2378 Liloa Rise
Honolulu, Hawaii
Architecture
Planning
Interiors

FIDEL A. FRANCISCO
LICENSED PROFESSIONAL ARCHITECT
No. 8367
HAWAII, USA
EXP. 4-16

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REVISIONS	BY

ST. RITA'S CATHOLIC CHURCH

89-318 FARRINGTON HIGHWAY
NANAKULI, HI 96792
TMK: 8-9-005:001

PRELIMINARY OFFICE BUILDING PLAN

DATE MAR 2015
SCALE AS NOTED
DRAWN BY
JOB NO.
SHEET A203
OF SHEETS

A203 11-2015

Appendix C

Tree Assessment

IRVIN HIGASHI **TREE ASSESSMENT REPORT**

ISA Certified Arborist (#WE-9185A) • 533 Ihe Street • Honolulu, Hawaii 96817
• Phone (808) 382-9949 • Fax (808) 735-0844 • Email: irvinhigashi@hawaiiantel.net

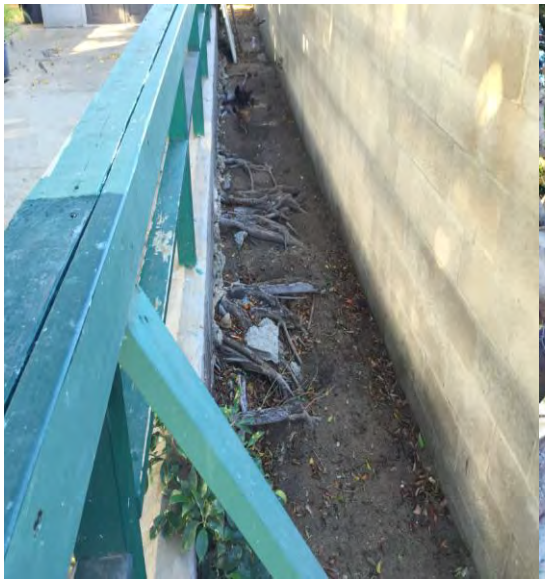
PROJECT: ST. RITA CATHOLIC CHURCH

DATE: March 23, 2015

The following Tree Assessment and recommended mitigation report was requested by Mr. Fidel Franscisco, Architect, regarding the existing Weeping Banyan (Ficus benjamina).

The tree is located at 89-318 Farrington Highway, Waianae, Hawaii 96792. The impacted Weeping Banyan tree is a large mature healthy specimen with a sixty inch trunk diameter, sixty-foot height and one-hundred foot crown spread. The tree is surrounded by concrete pavement with a ten foot square opening. The surface root encumbers the entire planter opening and is uplifting the pavement .

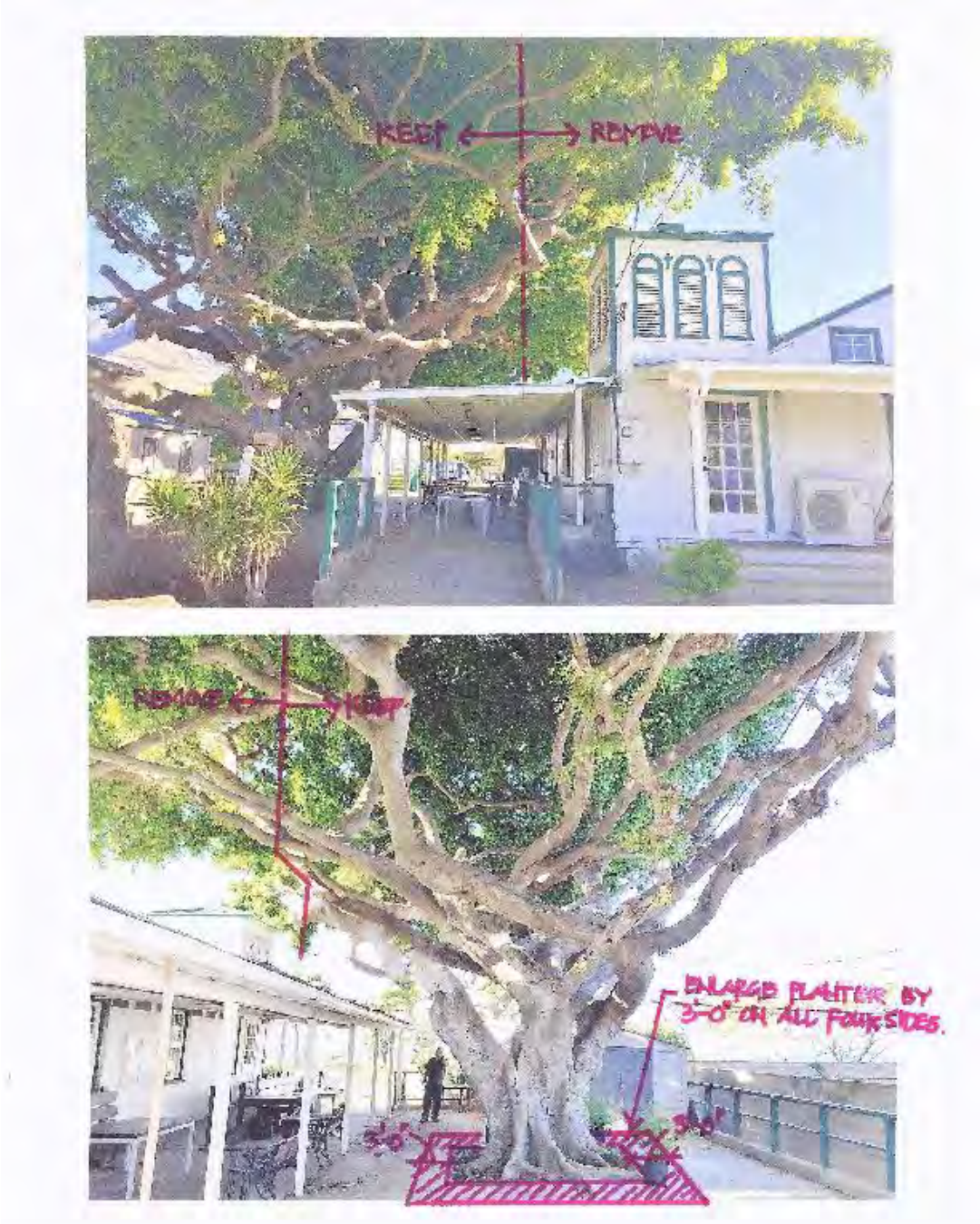
Exposed roots are visible along the bottom of the retaining wall along the west –side property line. The crown of the tree along the west property line has been pruned back as to not overhang onto the adjacent property.



Recommended mitigation to retain the Weeping Banyan in it's present location while constructing the new church building and the surrounding support buildings and pavement.

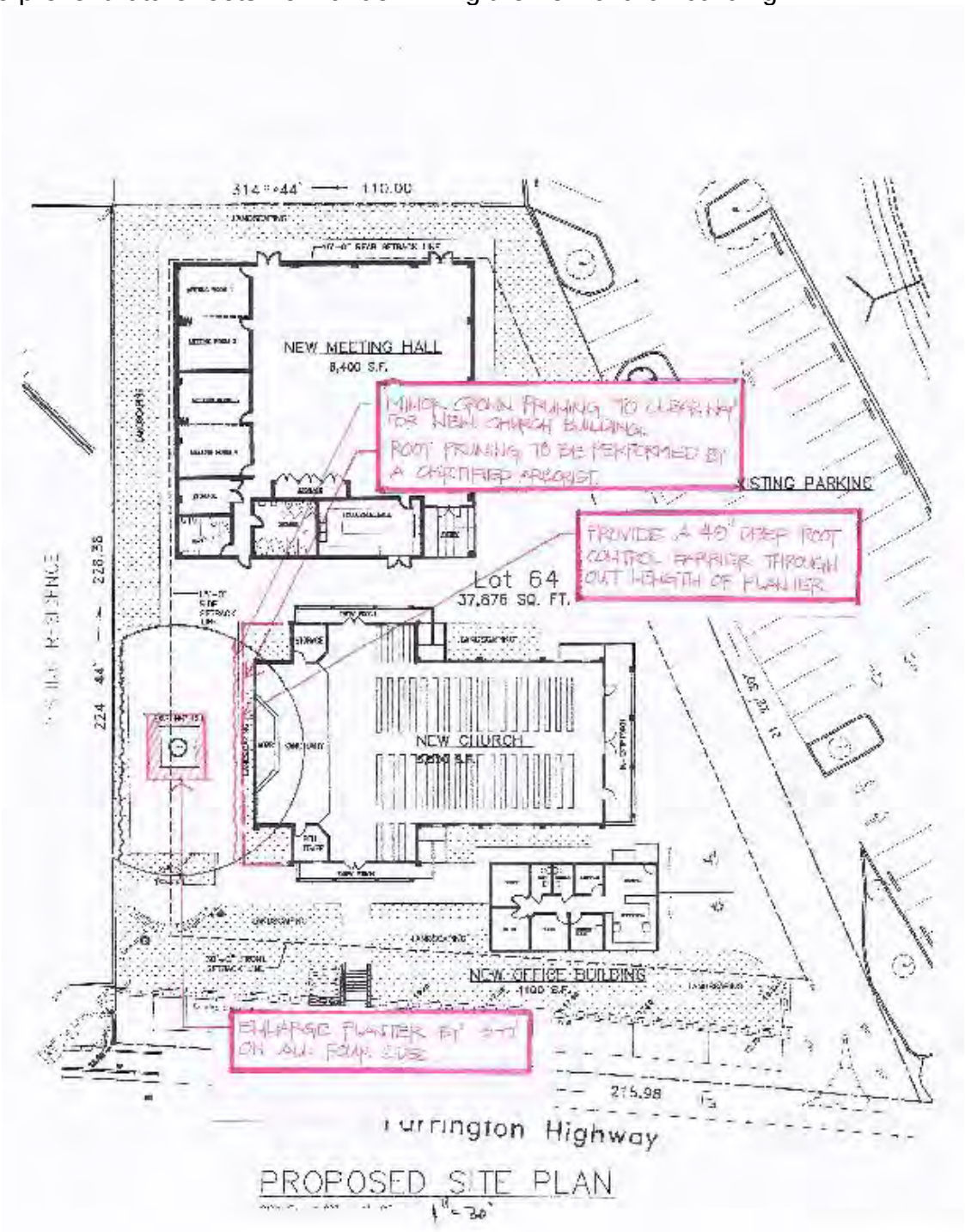
1. Initial minor crown branch pruning along the east side of the tree to allow clear vertical construction of the west elevation of the new church building to be performed by a Certified Arborist. (Estimated cost: $2,500.00 to $3,000.00)

2. Enlarge planter opening by three (3) feet on all four sides and do not disturb or damage the exposed surface roots.



3. Prior to construction carefully expose and properly prune and remove exposed roots on the east side of the Weeping Banyan tree at a minimum of 15' away from the face of the tree trunk along the entire length of the building width. Root pruning to be performed by a Certified Arborist. (Estimated Cost cannot be determined.)

4. Provide a 48" deep root control barrier along the entire length of the new planter edge to prevent future roots from undermining the new church building.

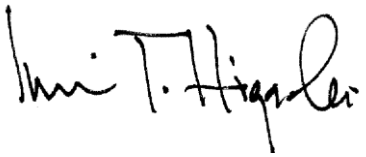


5. Set-up a temporary irrigation system and shall be maintained to provide water to the Weeping Banyan tree.

6. Monitor tree during construction for health reasons.
7. No stockpiling of any supplies, equipment or debris within the drip line of the tree.

If you have any questions, please contact me at 808-382-9949.

Respectfully submitted,



Irvin T. Higashi,
ISA Certified Arborist #WE-9185A
Landscape Architect

Appendix D

Archaeological Assessment

FINAL—Archaeological Assessment of the St. Rita's Church Grounds at TMK: (1) 8-9-005:001, Nānākuli Ahupua'a, Wai'anae District, Island of O'ahu, Hawai'i

Prepared For:
St. Rita's Catholic Church
89-318 Farrington Hwy.
Nānākuli, Hawai'i 96792

January 2016

Keala Pono Archaeological Consulting, LLC ● PO Box 1645, Kaneohe, HI 96744 ● Phone 808.381.2361

FINAL— Archaeological Assessment of the St. Rita's Church Grounds at TMK: (1) 8-9-005:001, Nānākuli Ahupua'a, Wai'anae District, Island of O'ahu, Hawai'i

Prepared For:

St. Rita's Catholic Church
89-318 Farrington Hwy.
Nānākuli, Hawai'i 96792

Prepared By:

Windy McElroy, PhD
Christine Hitt, BA
and
Dietrix Duhaylonsod, BA

January 2016

Keala Pono Archaeological Consulting, LLC ● PO Box 1645, Kaneohe, HI 96744 ● Phone 808.381.2361

MANAGEMENT SUMMARY

An archaeological inventory survey (AIS) was conducted for TMK: (1) 8-9-005:001 in Nānākuli Ahupua‘a, Wai‘anae District, on the island of O‘ahu. Due to negative findings, the AIS results are presented as an archaeological assessment (AA). The church is planning renovations and improvements, including removal and replacement of several buildings on the church grounds. The archaeological assessment included pedestrian survey that covered 100% of the property, as well as test excavations consisting of five trenches. No surface or subsurface archaeological remains were identified. Some of the church buildings are more than 50 years old, although the Environmental Assessment for the church does not consider the buildings as historic properties. Archaeological monitoring is recommended.

CONTENTS

FIGURES

TABLES

INTRODUCTION

At the request of St. Rita's Catholic Church, Keala Pono Archaeological Consulting conducted an archaeological inventory survey of TMK: (1) 8-9-005:001 in Nānākuli Ahupua'a, Wai'anae District, on the island of O'ahu. Due to negative findings, the AIS results are presented as an archaeological assessment (AA). The church is planning renovations and improvements, including removal and replacement of some of the buildings on the church grounds. The archaeological assessment was designed to identify any historic properties that may be located on the property in anticipation of the proposed construction.

This report is drafted to meet the requirements and standards of state historic preservation law, as specified in the Hawaii Revised Statutes (HRS), Chapter 6E, and in the Hawaii Administrative Rules (HAR) §13-284, *Rules Governing Procedures for Historic Preservation Review to Comment on Section 6E-42, HRS, Projects*; and HAR §13-276, *Rules Governing Standards for Archaeological Inventory Surveys and Reports*. The report begins with a description of the project area and a historical overview of land use and archaeology in the area. The next section delineates methods used in the fieldwork, followed by the results of the archaeological survey. Project results are summarized and recommendations are made in the final section. Hawaiian words, flora and fauna, and technical terms are defined in a glossary at the end of the document.

Project Location

The project area is located in Nānākuli in Wai'anae District on the leeward coast of O'ahu (Figures 1 and 2). The survey area totals 1.81 acres (.73 ha), covering TMK: (1) 8-9-005:001, owned by St. Rita's Catholic Church. The parcel lies at approximately 20 feet (6 m) in elevation and is roughly 150 feet (45 m) from the coast. It is bounded by other private parcels on the north and west, Nānākuli Stream on the east, and Farrington Highway on the south. Topography is relatively flat and there is a substantial drop down to the stream and the highway that mark the eastern and southern boundaries, respectively. The property is mostly paved, and several structures are currently standing on the western portion of the lot, utilized by the church. Much of the remainder of the parcel is a paved parking lot. Vegetation within the project area consists mainly of landscaped plants and grasses, including a large banyan tree on the west side of the property. A thick stand of *kiawe* trees lines the eastern boundary of the survey area, along the drop off to Nānākuli Stream.

Natural Environment

Nānākuli Valley is cut into the Wai'anae Mountain Range, a heavily eroded shield volcano. Erosion has removed most of the western slope and exposed the internal structure of the volcano. The caldera of the Wai'anae volcano was located just west of Kolekole Pass, and extended from the northern side of Mākaha Valley to the head of Nānākuli Valley (Macdonald et al. 1983).

Nānākuli Valley is 1.2 miles (1.9 km) wide at its mouth and extends 3.1 miles (5 km) inland, and is part of the Wai'anae District on the leeward side of O'ahu (Cordy 2002:77). It is situated between the *ahupua'a* of Lualualei on the northwest and Honouliuli on the southeast and encompasses a total area of 1,602 acres (648 ha) (Juvik and Juvik 1998:306). Cordy defines the *ahupua'a* boundaries further:

> The south border of Nānākuli is at Nānākuli Point on the shore. Back across the coastal trail (today's highway), the south ridge of the valley begins and rises to Pu'u Manawahua. The ridge then meets the main ridgeline of the Wai'anae mountains, which forms the back

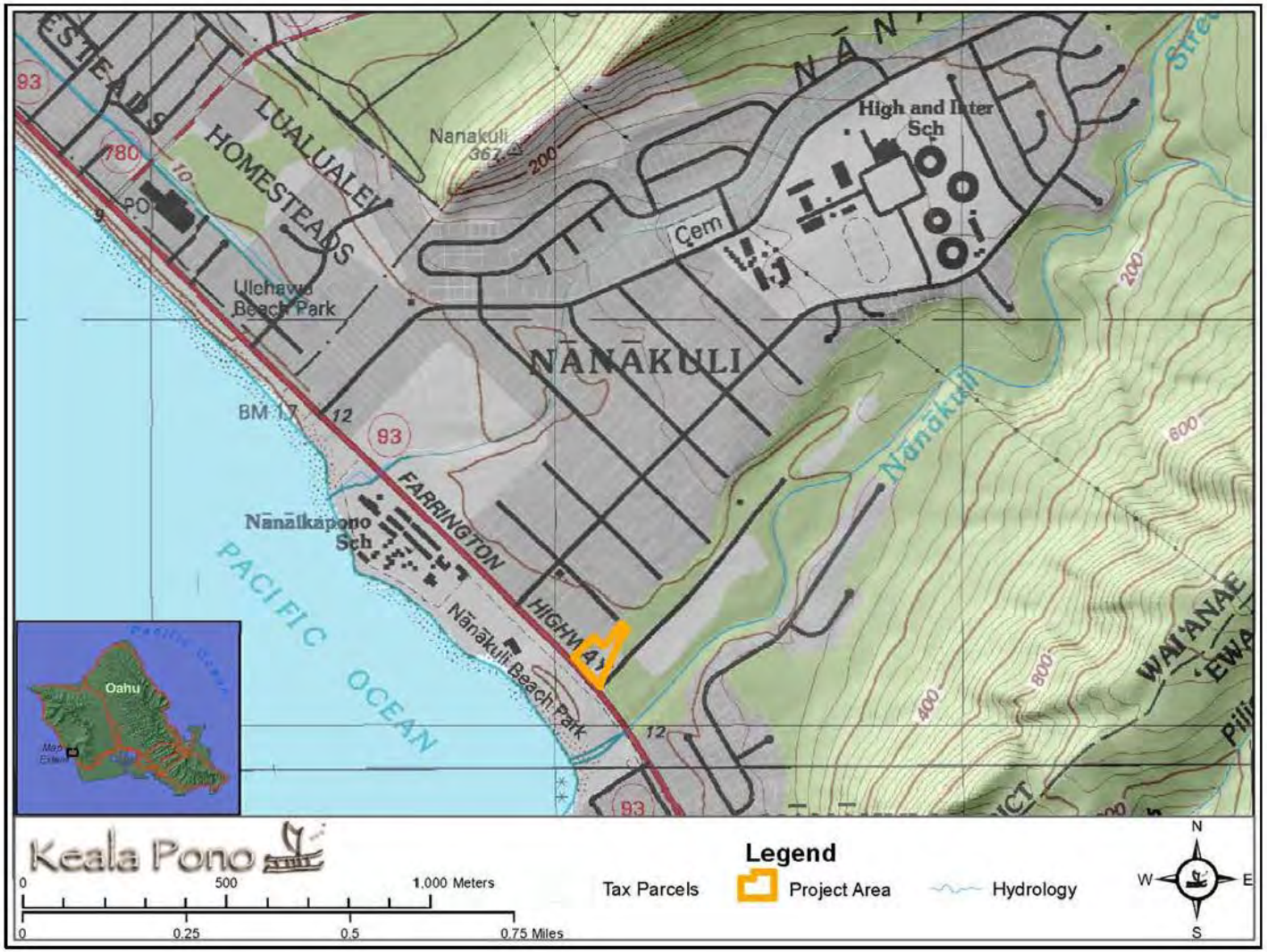


Figure 1. Project location on a 7.5 minute USGS Schofield Barracks quadrangle map (1998).

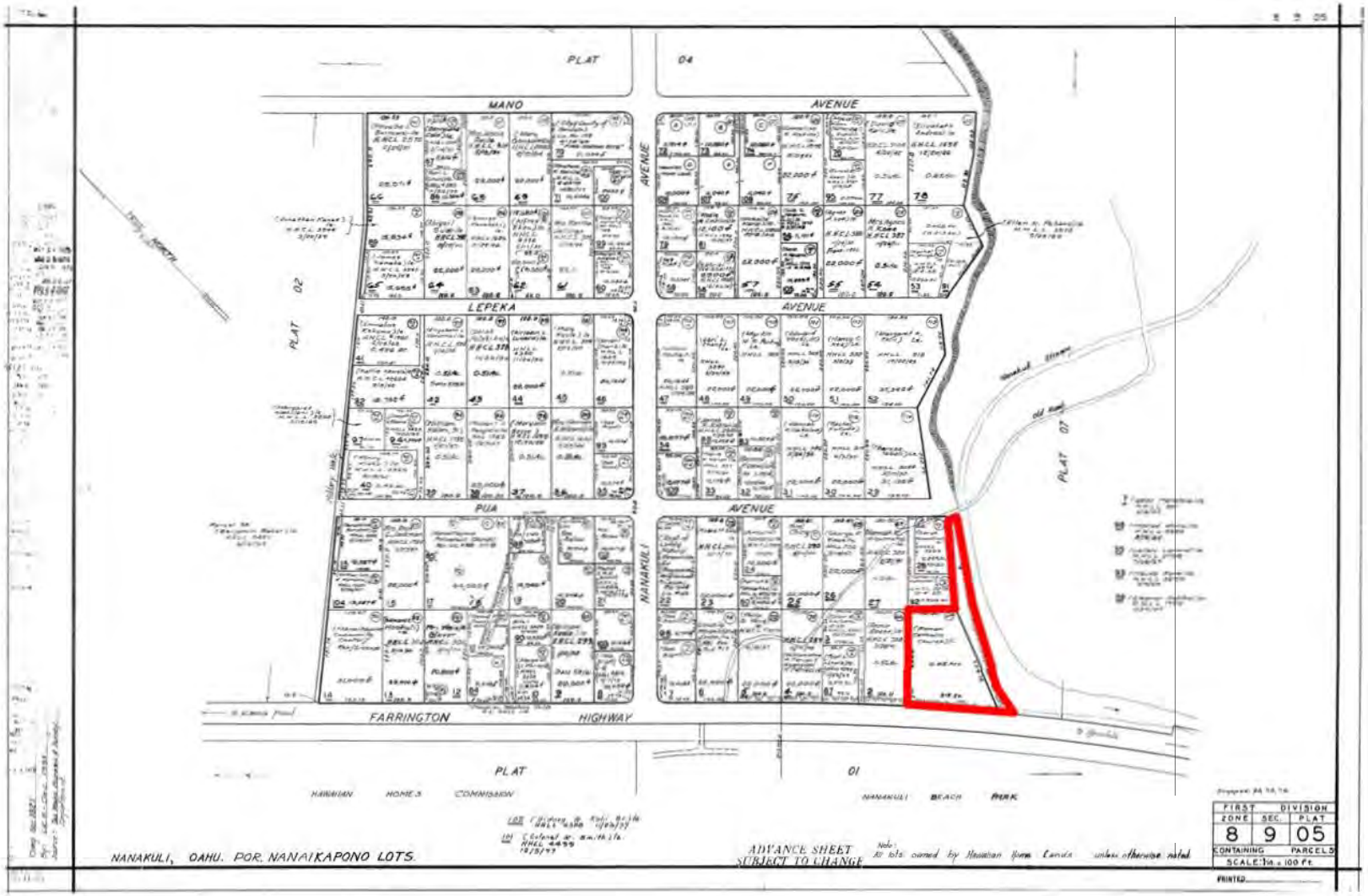


Figure 2. Project area (outlined in red) on TMK plat (1) 8-9:005.

> of the valley with Mauna Kapu and the light grey cliffs of Palikea at 3,098 feet. The north ridge then heads back toward the sea, forming the north side of the valley. The ridge dips in the back then rises to the high peak called Pu‘u Heleakalā. (Cordy 2002:79)

Similar to the other Wai‘anae valleys, there is a lower valley and an upper valley, which gradually increases in elevation. The valley’s many tributaries are located in the upper portion, all emerging from the ‘Ewa side, and merge in the lower valley. They are intermittent streams that appear to not have run full-time in the past, due to the lack of remains of irrigated fields (Cordy 2002:79). Nānākuli Stream is immediately east of the survey area.

Situated on the dry coastal plain, the project area receives low rainfall of only 20–30 inches (51–76 cm) per year, and the wind generally comes from the east, over the Ko‘olau and Wai‘anae mountain ranges (Juvik and Juvik 1998:50). Soils consist of Mamala stony silty clay loam, 0–12% slopes (MnC) on the west side of the project area, Pulehu clay loam, 03% (PsA) on the east side, and a small portion of Beaches (BS) on the south side (Foote et al. 1972) (Figure 3).

The Undertaking

Renovations and improvements are planned for the west side of the property. The existing church building will be renovated, with the façade left in place. Several buildings will be demolished and replaced with new structures. These include the Quonset hut currently used for the food pantry, as well as four trailers utilized as offices and classrooms. A new multipurpose structure will be built in this area. Excavations for the construction are not expected to exceed 3 feet (.9 m) in depth.

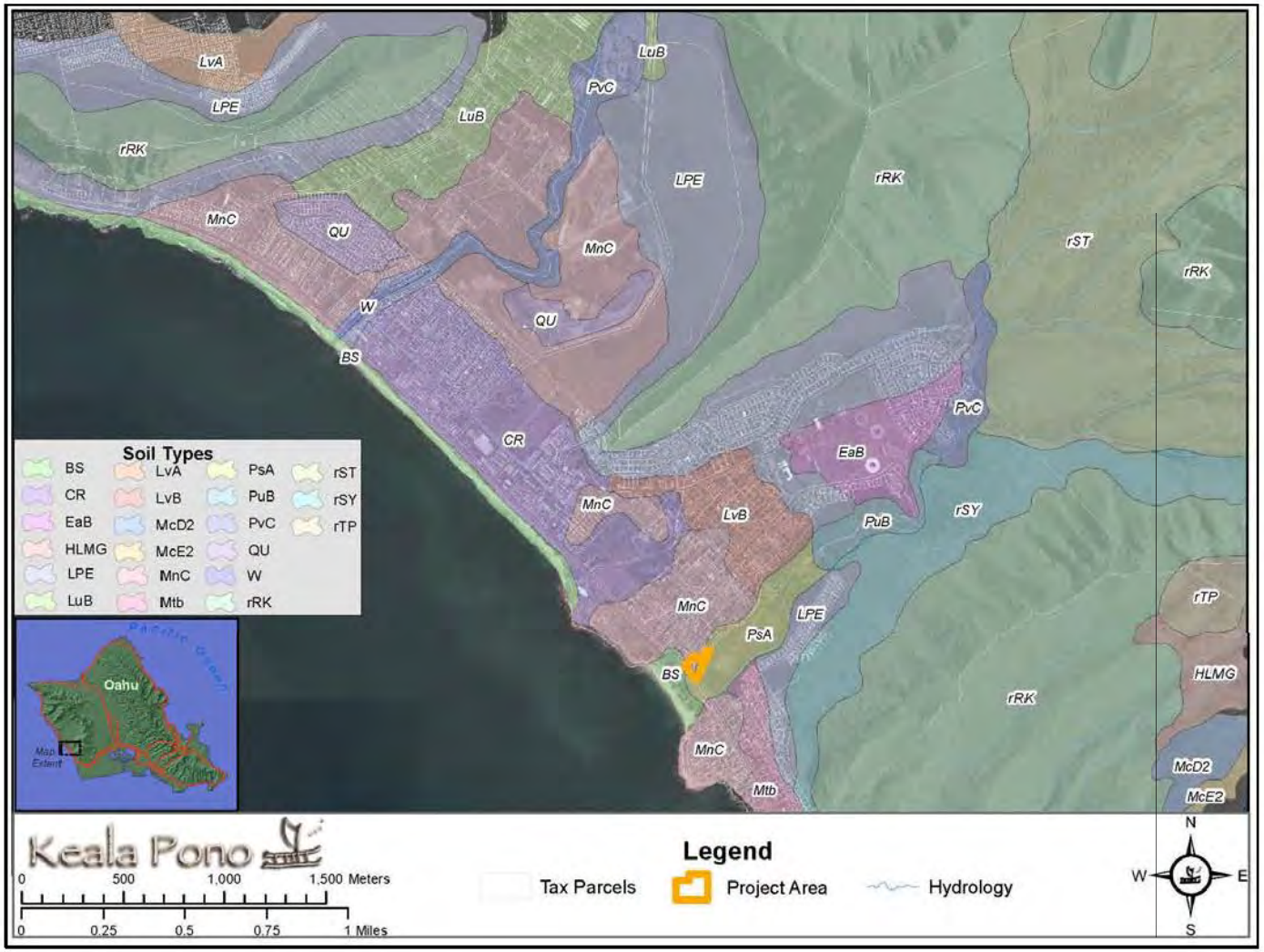


Figure 3. Soils in the vicinity of the project area.

BACKGROUND

This section of the report presents traditional and historic background information for Nānākuli, including place names, Hawaiian proverbs and *moʻolelo*, land use, Māhele land tenure data, and a summary of previous archaeological research.

Inoa ʻĀina Nānākuli: Place Names

Nānākuli literally means "look at knee" or "look deaf" (Pukui et al. 1974). There are several stories that attempt to explain the origin of the name.

One *moʻolelo* relates that Nānākuli is named in honor of the tattooed knee of Kaʻōpulupulu, a priest whose chief, Kahāhana, turned a deaf (*kuli*) ear to his advice (Pukui et al. 1974):

> Kahahana dug up bones from their burial places "to make arrows for rat-shooting and hooks for fishing. The bones of chiefs were bartered for skirts for chiefesses and handles for *kāhili*. Kaʻōpulupulu pleaded with him in vain to stop this disrespectful deed, but Kahahana turned a deaf ear to Ka-ʻōpulupulu's pleas. As a sign of protest, Ka-ʻōpulupulu, his followers, relatives and members of his household tattooed their knees to signify Kahahana's unwillingness to listen to advice. (Kamakau 1992:133)

Sterling and Summers (1978) share another story based on the "look deaf" translation, as told to noted historian and author Mary Kawena Pukui in 1945 by Simeona Nawaʻa:

> Simeona Nawaʻa came in to the Museum and sat down to talk to me. In the course of the conversation he told me these things:
>
> Nanakuli – It was Kanui, a native woman of Waiʻanae who told him why this place was so named. In the olden days, this place was sparsely inhabited because of the scarcity of water. The fishing was good but planting very poor. When it rained, some sweet potatoes would be put into the ground, but the crops were always poor and miserable.
>
> There were a few brackish pools from which they obtained their drinking water and it is only when they went to the upland of Waianae that they were able to get fresh water. They carried the water home in large calabashes hung on mamaka or carrying sticks and used their water very carefully after they got it home. They spent most of their time fishing and most of the fish they caught were dried as gifts for friends and relatives in the upland. Sometimes they carried dried and fresh fish to these people in the upland and in exchange received poi and other vegetable foods. And as often as not, it was the people of the upland who came with their products and went home with fish.
>
> Because of the great scarcity of water and vegetable food, they were ashamed to greet passing strangers. They remained out of sight as much as possible. Sometimes they met people before they were able to hide, so they just looked at the strangers with expressionless faces and acted as though they were stone deaf and did not hear the greeting. This was so that the strangers would not ask for water which they did not have in that locality.
>
> The strangers would go on to other places and mention the peculiar, deaf people who just stared and they would be told that the people were not deaf but ashamed of their inability to be hospitable. So the place they lived was called Nana, or look, and kuli, deaf—that is, Deaf mutes who just look (Nawaʻa 1956:2740 in Sterling and Summers 1978:61–62)

Another interpretation comes from an early 20th century resident of Nānākuli, Wm. Z.H. Olepau in 1933 as follows:

> There were two women who went up the hill of "PuuHakila" or PuuHela to dry their Kapas. While the kapas were being dried they left and went down the hill to the pool for some water. They heard dogs barking so they stood, looking around for the barking was deafening. (Sterling and Summers 1978:62)

Olepau then explains why Nānākuli may have been named for the knee:

> (1) Women used to go to the top of a hill to dry their kapa, and when they got there, they looked at their knees – nana kuli.
> (2) Royalists of the valley used to sit with their knees up and watch their knees – nana kuli.
>
> W.Z. Olepau, resident of Nanakuli, Mar. 20, 1933. (Sterling and Summers 1978:62)

Another explanation for the "looking at the knees" translation is related to an incident in the travels of the famous O'ahu chief Kūali'i. His attendants wished to relieve the king of his fatigue by pressing his knees (Thrum 1922:87).

While many stories attempt to interpret the meaning behind the place name Nānākuli, there are still others that refute that Nānākuli is the correct spelling, and thus the wrong meaning, for the *ahupua'a*. Fred Cachola and Lehua Kapaku are two Nānākuli residents who share their beliefs with regard to the spelling of the name. In an interview, Cachola explains how he heard about the meaning when he was a school principal at Nānāikapono Elementary, from longtime resident Mrs. Eli:

> So she said that the first principal of that school was Reverend Awai and that he knew that the tradition of that area, Nānākuli, had a Hawaiian hidden meaning which she told me was "Nānā-i-ka-ule." I was kind of smiling. And she said, "Yeah, because that's how in the old days this place was known for promiscuity. It got this name from ancient times. And it might have something to do with the mountain range." Look at your map. Look at your map. The one that you were showing me. Because you can see the *ule* over there. See? There it is. See the testicles over here, and the penis sticking out there. So it could be [in] reference to that... And, that's one interpretation of the name. And, it's very Hawaiian. To me, it's a very Hawaiian thing, very Hawaiian. (McGuire and Hammatt 2000:9)

In another interview, Lehua Kapaku, a resident of Nānākuli since 1960, shared a different story:

> The Māui legend names off the various places this side of O'ahu. Māui had so many brothers and he had two sisters. One was Lualualei and [the other was] his baby sister whom he treasured. The baby sister's name was Nānāku'ulei [which means] *look to my pretty lei.* To have the name "Lualualei" which is *sacred wreath*, and, then having a baby sister [whose name means] *looking deaf*, I just didn't agree. I wasn't satisfied with that. So, I accepted the Māui legend part where his baby sister was Nānāku'ulei… This is the only place in the whole State to have a derogatory name, *look deaf*. You look at any other place, they have nice names… Only Nānākuli. So, it may have been a misprint... (McGuire and Hammatt 2000:13)

A major landmark in Nānākuli is Pu'u Heleakalā, a hill located on the northwestern side of the valley. Not to be confused with the famous "Haleakalā" on Maui, Heleakalā translates to "snare by the sun," for the *pu'u* blocks the rays of the sun as it sets (Pukui et al. 1974:44). Pukui offers further insight into the name:

> Heleakala Hill
>
> A barren hill in Nanakuli, Waianae. Sometimes called Haleakala which Mrs. Pukui believes is probably wrong.
>
> Hele – snare
> a – belonging to
> kala – sun

> Heleakala meaning, where the sun is snared. This hill faces right into the setting sun and reference is made as to this place being 'where the sun's rays are broken.' (Pukui 1953 in Sterling and Summers 1978:62)

The *pu'u* is also described in the following historic account, originally printed in the Hawaiian language newspaper *Ka Nupepa Kuokoa*:

> ….It wasn't long when we arrived at Nānākuli and then to a place which bears a peculiar name, said to be the one on which the rays of the sun was broken. This is a barren hill as though plants hated all of its sides. I saw the cave in which Hina made tapa cloths on the slope of a hill facing a stream whose mouth was at a place with a peculiar name. (Kuokoa 1899 in Sterling and Summers 1978:62)

Other peaks include Pu'u Manawahua, Mauna Kapu, and Palikea toward the back of the valley. Pu'u Manawahua is 2,401 feet (732 m) high, and the name means "great grief hill" or "nausea hill" (Pukui et al. 1974:202). Mauna Kapu separates the Nānākuli and Honouliuli Forest Reserves and can be translated as "sacred mountain" (Pukui et al. 1974:148). Palikea rises 3,098 feet (944 m) high on the Lualualei side of Nānākuli. The name translates to "white cliff" (Pukui et al. 1974:177).

Nānākuli Beach Park is a recent name given by the City and County of Honolulu to the stretch of coastline including Pili o Kahe, Zablan Beach, and Kalaniana'ole Beach. On the south end of the park is Pili o Kahe, which translates to "clinging to Kahe" (Pukui et al. 1974:185). Next to Pili o Kahe is Zablan Beach, named for a family who is connected with the area (Clark 1977:84). On the north end of the park is Kalaniana'ole Beach, named after Prince Jonah Kūhiō Kalaniana'ole, who created the Hawaiian Homes Commission Act of 1920. The beach was given the name in 1940 at the request of the Nānākuli Homestead community.

Nānākuli *'Ōlelo No'eau* and *Mo'olelo*

'Ōlelo no'eau and *mo'olelo* offer insight into what life may have been like in Nānākuli in ancient Hawai'i. They also share topics of interest of the time that were meant to be passed down from one generation to the next.

'Ōlelo No'eau

Whereas no *'ōlelo no'eau* were found specifically for Nānākuli, the following sayings relating to the greater Wai'anae District paint a picture of the region in times past. They describe a mountain goddess, a coconut grove, and also politics and power of the land.

> He lokomaika'i ka manu o Kaiona.
> *Kind is the bird of Kaiona.*
> Said of one who helps a lost person find his way home. The goddess Kaiona, who lived the Wai'anae Mountains of O'ahu, was said to have pet birds who could guide anyone lost in the forest back to his companion.
> (Pukui 1983:85)

> Ka wahine hele lā o Kaiona, alualu wai li'ulā o ke kaha pua 'ōhai.
> *The woman, Kaiona, who travels in the sunshine pursuing the mirage of the place where the 'ōhai blossoms grow.*
> Kaiona was a goddess of Ka'ala and the Wai'anae Mountains. She was a kind person who helped anyone who lost his way in the mountains by sending a bird, a *'iwa*, to guide the lost one out of the forest. In modern times Princess Bernice Pauahi was compared to Kaiona in songs.
> (Pukui 1983:177)

> E nui ke aho, e ku'u keiki, a moe i ke kai, no ke kai la ho'i ka 'āina.
> *Take a deep breath, my son, and lay yourself in the sea, for then the land shall belong to the sea.*

Uttered by the priest Kaʻopulupulu at Waiʻanae. Weary with the cruelty and injustice of Kahāhana, chief of Oʻahu, Kaʻopulupulu walked with his son to Waiʻanae, where he told his son to throw himself into the sea. The boy obeyed, and there died. Kaʻopulupulu was later slain and taken to Waikīkī where he was laid on the sacrificial altar at Helumoa.
(Pukui 1983:44)

Ka malu niu o Pōkāʻī.
The coco-palm shade of Pōkāʻī.
Refers to Waiʻanae, on Oʻahu. At Pōkāʻī was the largest and best-known coconut grove on Oʻahu, famed in chants and songs.
(Pukui 1983:160)

Kapakahi ka lā ma Waiʻanae.
Lopsided is the sun at Waiʻanae.
Used to refer to anything lopsided, crooked, or not right. First uttered by Hiʻiaka in a rebuke to Lohiʻau and Wahineʻōmaʻo for talking when she had warned them not to.
(Pukui 1983:164)

Malolo kai e! Malolo kai!
Tide is not high! Tide is not high!
Said of a threatening disaster. Robbers once lived at a place in Waiʻanae now known as Malolo-kai. Their spies watched for travelers to kill and rob. When there were only a few that could be easily overcome, the spies cried, "Low tide!" which meant disaster for the travelers. But if there were too many to attack, the cry was "High tide!"
(Pukui 1983:232)

Ola Waiʻanae i ka makani Kaiaulu.
Waiʻanae is made comfortable by the Kaiaulu breeze.
Chanted by Hiʻiaka at Kaʻena, Oʻahu, after her return from Kauaʻi.
(Pukui 1983:272)

Moʻolelo

From the following *moʻolelo* about fishing, we can learn what the social and political life may have been like in pre-contact in Nānākuli.

In the time when Kahekili, ruler of Maui ruled Oahu, after the battle with Kahahana, his own nephew, there lived a man at Nanakuli, Waianae, island of Oahu. He was a man that never thought of nor kept any of the gods of old Hawaii. He was ungodly lazy, poor and simply lived on the charity of his host.

One night, he had a dream. A small stone image spoke to him saying, "Say! Say! Wake up you and come and get me. I am dying of cold where I am. Come and get me. There I am, placed by the small heap of rocks placed on the ridge." The man awoke with a start and found that it was a dream. He thought nothing of this thing, this worthless idea of a stone speaking and fell off to sleep again. After he had fallen asleep again, the stone image bestirred him. He awoke and went where the stone had instructed him. When he got there, he found the stone, carried it home, washed it clean and kept it.

The next night, the stone told that there are visitors at the shore, a school of fish and that he should fetch nets and a canoe. The man looked around and said that he couldn't get any fish because he lacked a canoe and nets. Therefore, he went to speak to the konohiki of the land, "I have been told that there are visitors to the shore. It will be well to get the nets and canoes ready to go to sea."

The konohiki of the land made ready with nets and canoes and set out to sea. On this trip, there were so much fish caught that a stench rose up on the shore. People went from Ewa, Waianae and Waialua to

> get some fish but the supply was inexhaustible. The fish kept coming to the same place for several days. When the fish came the keeper of the stone god took one fish and gave it to him because he was told to do so in a dream. Whenever fish was caught, one should be given to him. The keeper did so.
>
> He became a great favorite of the konohiki's and received property, fish nets, canoe and land, such wealth as he have never seen before. The konohiki continued caring for him and they shared their wealth together for a long time.
>
> One day some keepers of gods discovered the man had a stone and so some of them, from Ewa, came and carried it away. The spirit of that stone image went to his keeper to tell him where he had been taken, the land and the house in which it was placed. Then its keeper went and found it in the very place that the stone image described...
> (signed) D. Kalakaua
>
> (Kalakaua Ms.:241 in Sterling and Summers 1978:63)

The legendary hero Maui, a significant figure in Hawaiian *moʻolelo*, is associated with several places in Nānākuli, including a rock, a shelter, and a spring:

> Site 148. Large rock said to be named Maui, about 1.1 mile from Nanakuli station toward Puu o Hulu.
>
> Northeast of the road on the property of E.P. Fogarty is a rock said to be named after the Hawaiian hero, Maui who is said to have landed here when he first came to the Hawaiian islands from the south. This stone at the time was surrounded by water, and it was here that Maui reposed and sunned himself. In the bluff just northeast of the rock is a shelter in which he lived, and in the vicinity was a spring where he obtained water. The large rock is now split in half and adorned with many small, oddly-shaped rocks. It is said to be bad fortune to build one's house across a line drawn directly from the rock to the shore. J.J. Mathews is said to have collected detailed information in regard to this site. (McAllister 1933:110)

Power and Warfare in Waiʻanae

In the 1400s, the Māweke-Kumuhonua line unified Oʻahu's rule, Līhuʻe (also known as Waiʻanae Uka) was the royal center, and oral histories portray this time as peaceful and properous. Of the Māweke line, Laʻakona, who lived in ʻEwa and controlled Waiʻanae, reigned until Haka, an evil ruler, assumed power between 1520 and 1540. He was later captured and slain somewhere between the valleys of Mākaha and Waiʻanae (Cordy 2002:26).

In the 1600s and 1700s, population grew on Oʻahu and the island was ruled under Kalaʻimanuia (1600–1620), Kākuihihewa (1640–1660), Kūaliʻi (1720–1740), and Peleiōholani (1740–1779). Power declined and was built back up several times among these rulers, but by 1778 the Kingdom included Molokaʻi, Oʻahu, and portions of Kauaʻi (Cordy 2002:32).

In 1783 Maui invaded Oʻahu after Maui's ruler Kahekili tricked Oʻahu's chief Kahāhana into killing his high priest. The Oʻahu army was defeated and Kahāhana was caught and killed in 1785. In response, Kahāhana's supporters revolted, but with many losses in ʻEwa, they pulled back to the valleys of Waiʻanae where many more were killed. The Maui Kingdom ruled Oʻahu for ten years under Kahekili and his son Kalanikūpule until they were defeated by Kamehameha's Hawaiʻi Kingdom army in 1795.

Land Use and Subsistence

The Waiʻanae coast was one of three dry areas on the island of Oʻahu (Handy et al. 1972). Due to low rainfall and intermittent streams, there were not many options for agriculture. Sweet potato, or *ʻuala* (*Ipomoea batatas*), was the staple crop, planted throughout the dry slopes of the Waiʻanae region (Handy 1940:156). Throughout the district, a pattern of small coastal villages with farms in the upper valleys was likely the norm (Cordy 2002).

The seas fronting the district were prime fishing grounds, thus fishing and sweet potato cultivation were the main subsistence activities:

> Undoubtedly there were also small settlements subsisting mainly on sweet potato, in the valleys where constant streams were lacking (Nanakuli and Makua). Along this coast the fishing is excellent. In famine times, then, there was reef fishing, and the Wai‘anae Mountains had wild banana, *ti*, fern, and other roots that were edible...(Handy et al. 1972:275–276)

Handy (1940) describes a broken platform, pavings, and a house site in Nānākuli, indicating traditional habitation along the stream. Handy also talked with a rancher, however, who stated that “there are no terrace remains anywhere in Nanakuli valley, nor any available water for irrigation, except at the very head of the valley’s head, far up the mountains” (Handy 1940:83). The rancher also mentioned that at the top of the valley there are abandoned terraces, platforms, and orange trees that mark habitation sites.

We know much of Wai‘anae’s cultural history through John Papa ‘Ī‘ī’s series of articles in the Hawaiian newspaper *Ka Nupepa Kuokoa*. ‘Ī‘ī was born in 1800 and died in 1870, and his writing was translated by Mary Kawena Pukui in 1959 in a book titled *Fragments of Hawaiian History*. Below are entries that detail his experiences while visiting relatives in Nānākuli:

> Ii’s aunt on his father’s side, Kaneiakama, came from Waianae with her husband Paakonia. They visited the family’s houses to rest a while before continuing on to Honolulu to their landlord. These people, who were bracelet-makers and residents of that land of the foamy sea, were well known. They were of chiefly stock and were privileged to place their bundles with those of the chiefs. Their landlord, Pahoa, was in charge of Ka‘ahumanu’s extensive lands, granted her by her husband, Kamehemeha; and there were very few *ahupua‘a* in which she did not have a portion, for she was a great favorite of the king. Ka‘ahumanu was fond of Kaneiakama and admired her skill in composing chants. Because of this, perhaps, the land at Waianae was given to Kaneiakama and her husband. (I‘i 1993:26)
>
> There were three such journeys, one by way of Pohakea, one through Kolekole, and one by a route below Puu o Kapolei. On the first two trips they went to Pahoauka, where his aunt and uncle lived. (I‘i 1993:27)
>
> Ii was eight or nine years old when he was again seized by a desire to go to visit his aunt Kaneiakama, and he was given permission to do so. He had heard that his aunt was at Nanakuli, so he and his attendant departed by way of Puu o Kapolei to Waimanalo and on to Nanakuli. There he found his aunt and her husband who were in charge of the fishing.” (I‘i 1993:29)
>
> During his visit Ii observed how the children of Nanakuli produced a long quavering sound while chanting. This was performed while the children sat on the branches of the breadfruit trees. They sat apart from each other on branches from the base to the top, chanting. When the boy listened carefully to the long, drawn out sound, he could distinguish the words that they were chanting. He asked his aunt to let him join the children, and he quickly saw how the quavery sound was produced. He noted that one of the boys held up two fingers on his right hand and tapped his throat in order to make the quaver. Ii learned the chant at once. This is the chant that they were using:

Kau koli‘i ka la i luna o Maunaloa,	The sun sends a streak of light on Maunaloa,
E ke ao e lele koa,	The clouds go scurrying by,
Halulu i ka mauna	There is a rumble on the mountain top
Kikaha ke kuahiwi o Kona he la‘i,	That echoes from the mountain of Kona, the calm,
Ku papu Hilo i ka ua,	Hilo stands directly in the rain,
Paliloa Hamakua,	Hamakua’s cliffs are tall,
‘Ope‘ope Kohala i ka makani,	Kohala is buffeted by the wind,
Huki Kauiki pa i ka lani, etc.	Kauiki reaches and touches the sky, etc.

> This was memorized by all and was chanted in perfect unison, and the boy noticed how pleasing it was. Thus did Ii enjoy himself with the children of Nanakuli, and he continued to spend his spare time with them. (I‘i 1993:29)

Heiau

‘Ilihune Heiau was a noted religious structure in Nānākuli. Nothing of it remains today, however, as many *heiau* were used as cattle pens, and rocks were moved during the time of ranching. The scant information known for the *heiau* is as follows:

> Ahupuaa: Nanakuli
> “poor, destitute”
> Comments: Site 147. Approximate site of Ilihune heiau, Nanakuli, of which nothing remains. Thrum notes: A small walled heiau of pookanaka class; used about 1860 by Frank Manini as a cattle pen, for which natives prophesied his poverty and death.” (McAllister 1933:110)

> On the night of Po Kane there are some who hear a voice of a child calling e--------. This voice trails off and ends up at a place called a heiau by some – a cattle pen by others. (Mrs. Annie Soong, Nov. 1954 in Sterling and Summers 1978:62)

Archaeological research has found a small shrine in the upper valley, but it is hard to determine if there were others due to the disturbance of the ruins (Cordy 2002:84). Another *heiau* overlooking Nānākuli includes one from Honouliuli Ahupua‘a:

> Puu Kuua Heiau
> pu‘u ku‘ua. PEM: relinquished hill. Honouliuli Ahupua‘a
> “Site 137. Puu Kuua heiau, Palikea, Honouliuli. The heiau was located on the ridge overlooking Nanakuli, as well as Honouliuli, at the approximate height of 1800 feet. [This is far from Palikea as currently identified.] Most of the stones of the heiau were used for a cattle pen... That portion of the *heiau* which has not been cleared for pineapples has been planted in ironwoods.” Coordinates at 1800 ft. elevation. (McAllister 1933:108)

Nānākuli in the Historic Period

The historic period in Hawai‘i begins after Western contact in 1778. In the late 1700s to early 1800s, foreigners and locals provided written accounts of visits and descriptions of what life was like during this period. One of the earliest accounts of the area is from 1798 when George Vancouver sailed along the Wai‘anae coast and described what he saw:

> From these shores we were visited by some of the natives, in the most wretched canoes I had ever yet seen amongst the South-Sea islanders; they corresponded however with the appearance of the country, which from the commencement of the high land to the wet land of Opooroah, was composed of one barren rocky waste, nearly destitute of verdure, cultivation, or inhabitants, with little variation all the way to the west point of the island. Not far from the s.w. point is a small grove of shabby cocoanut trees, and along those shores are a few straggling fishermen’s huts. Nearly in the middle of the side of the island is the only village we had seen westward from Opooroah. In its neighborhood the bases of the mountains retire further from the sea-shore, and a narrow valley, presenting a fertile cultivated aspect, seemed to separate the wind distance through, the hills. The shore here forms a small sandy bay. On its southern side, between the two rocky precipices, in a grove of cocoanut trees is situated the village… The few inhabitants who visited us from the village, earnestly intreated our anchoring, and told us, that if we would stay until morning, their chief would be on board with a number of hogs, and a great quantity of vegetables. (Vancouver 1967:217)

In the early 1800s, John Papa ʻĪʻī visited his aunt in Nānākuli, describing in little detail that *ʻulu* trees were present and fishing was taking place. There were also reports in 1818 by Hunnewell and 1828 by Chamberlain that there were a number of villages in the area (Cordy 2002:80).

In the early 1800s, many chiefs in Waiʻanae had their people go to the mountains to gather sandalwood, an item in high demand for trade with foreigners (Cordy 2002:41). This new effort changed the traditional way of life, and may have contributed to population decline during this time. By the mid to late 1800s, much of the land was leased for ranching purposes.

In the *1880 Hawaiian Kingdom Statistical and Commercial Directory and Tourist's Guide*, a writer describes his visit to Nānākuli, observing that much of the land was being used for grazing:

> Leaving Waianae, a ride of about two miles brought me to the Lualualei Valley, another romantic place opening to the sea and surrounded in every other direction by high mountains. This valle is occupied as a grazing farm by Messrs. Dowsett & Galbraith, who lease some sixteen thousand acres from the Crown. Its dimensions do not differ materially from those of the Waianae Valley, except that it is broader—say, two miles in width by a length of six or seven miles. The hills which inclose [sic] it, however, are not so precipitous as thos at Waianae, and have, therefore, more grazing land on their lower slopes, a circumstance which adds greatly to the value of the property as a stock farm. Although only occupied for grazing purposes at present, there is nothing in the nature of the soil to prevent the cultivation of the sugar cane, Indian corn, etc. Arrangements for irrigation, however, will be a necessary preliminary to cultivation.
>
> From the Lualualei Valley to the Nanakuli Valley I had a rather dreary ride of three miles. The intervening country towards the sea is barren, with a little pasturage at the base of the mountains. The track, however, is in very good order, much better than I expected to find it, looking to the mountainous and rocky character of the country through which it passes. At Nanakuli and Hoaeae, close adjoining, the Messrs. Robinson have cattle ranches. The pasture here cannot be compared with that in the valleys I had just left behind, but inland among the mountain ranges it is much better. This, indeed, is a characteristic of the ranges throughout the island.
>
> During my journey along the western coast of this island, where the road is generally so much more fatiguing to the traveler than that of the windward side, I have often pulled up to give both horse and rider a spell, whilst I entered into a chat with some group of natives whom I have fallen in with, or those whose hamlets I have been passing at the time. More than once, too, I have passed the night at their houses. I have always found them very sociable and thoroughly hospitable....(Bowser 1881:493-494)

Handy's *The Hawaiian Planter*, published in 1940, gives further description of Nānākuli in the late 1800s, including an account from a rancher who had been living and working there for 50 years:

> On the south side of the stream, about a quarter of a mile inland from the main coastal road, there is a broken platform (Paepae) built of small rocks with apparently a small paved area below, close to the stream bed. Extending inland along the south bank of the stream bed for about 75 yards there is a rough stone facing from 1 to 2 feet high in general level along the top. This might be judged to be a terrace area were it not that the ground behind the stone facing is not level; however, that might be due to washing out when the stream was in flood. According to Ernest Rankin, a rancher in this and other valleys for years past and now living on a homestead on the ridge north and above this site, the stonework just described was not terracing for taro patches but was built by a man named Whitney 40 years ago when he located a house and cattle shelter at that point. Behind the terrace there are six large old monkeypod trees, indicating earlier habitation. On the north side of the stream at this point, there is a fairly recent habitation site, with several large trees, also papayas and traces of sugar cane plantings. Nearby are a tiny stone paving and the remains of an old Hawaiian house.

> According to Rankin there are no terrace remains anywhere in Nanakuli valley, nor any available water for irrigation, except at the very head of the valley's head, far up in the mountains. High in the small gulches at the valley's head there are some abandoned terraces, stone platforms, and orange trees marking the sites of ancient Hawaiian habitations. But as long ago as 1890 when Rankin first frequented the valley as a cowboy, there was not one Hawaiian living there. (Handy 1940:83)

Māhele Land Tenure and Historic Land Use

From 1848 through 1855, the Māhele divided and privatized the land across the islands, and the entire Waiʻanae District, aside from Mākaha, was designated as Crown Land. At this time the area was sparsely populated by Hawaiians. For example, only five Māhele land claims were made for all of Nānākuli (LCA 830, 833, 846, 7455, and 8153), and none were awarded (Table 1). The Nānākuli claims mention a *muliwai* and pond in addition to house lots and agricultural plots in *kula* lands and *wauke* plantations in the uplands. It is not clear exactly where the LCAs were located, although Berdy et al. (2002:10) surmise that they were situated in the upper valley where permanent habitation sites have been found. Only a small population of roughly 50 individuals lived in coastal Nānākuli during the mid-1800s (Cordy 1997). By 1881 there were just four Nānākuli residents listed in the Hawaiian Island Directory (Cordy 1997).

Table 1. Māhele Data for Nānākuli

LCA	Claimant	*ʻIli*	Awarded	Description
830	Mahiki		No	3 *ʻāpana*, 1 house lot, cairns, streams
833	Kahaanui	Kaape	No	4 *ʻāpana*, 1 house lot, cairns, streams
846	Awa		No	5 *ʻāpana*, 1 house lot, streams
7455	Kuluahi	Hapai	No	1 *ʻāpana*, 1 *kula*, 1 house lot, *wauke*, *muliwai*, pond
8153	Haulula	Kuamokahi	No	1 *ʻāpana*, 1 *kula*, 1 house lot, *wauke*, *ʻuala*

The Waianae Sugar Plantation was founded in 1878 by H.A. Wiedemann, and the leeward community grew substantially. During the 1890s the Oʻahu Railway and Land Co. (O.R.&L.) railroad was constructed to bring crops and animals from the Leeward Coast to Pearl Harbor. This railway would eventually run through all of the Waiʻanae District and around Kaʻena Point to Kahuku. Vestiges of the old rail line can still be seen along Farrington Highway.

After the overthrow of the monarchy in 1893, the Crown Lands were combined with the Government Lands. In 1898, when Hawaiʻi became a U.S. Territory, all lands combined were ceded to the United States. It was not until the passage of the 1920 Hawaiian Homes Commission Act that the ceded lands (roughly 188,000 acres) were set aside to benefit Native Hawaiians (Juvik and Juvik 1998:228). Following this, Native Hawaiian homesteading in Nānākuli ensued, with 241 lots for applicants to choose from. The establishment of the Nānākuli Hawaiian homestead community is described below:

> Among the areas designated as Hawaiian homesteads was a hot, stickery portion of Nānākuli. By 1929 this land had been divided into house lots and plans were underway to bring in homesteaders. From the beginning, there was criticism of the project. Frederick Ohrt, manager of the Water Board in Honolulu, said there wasn't enough water in Nānākuli to supply the homesteaders (McGrath et al. 1973:111).

In the early 1900s, a series of parcels were sold in nearby Lualualei, classified as pastoral lands because of the dearth of water. Roughly 40 families settled on the smaller lots, while families such as the Von Holts, McCandlesses, and Dowsetts laid claim to the large parcels there.

In March 1917, 31.36 acres within Nānākuli were set aside as a U.S. military reservation which was designated as Camp Andrews in 1941. A 1943 article in *Paradise of the Pacific* explains how Camp Andrews, an overnight

rest and recreation center, was the answer to relaxation for "fighting men" of the time and had cabins and picnic benches (Allen 1999).

> The answer to this problem was construction of a camp accessivble to railroad and highway transportaion. Camp Andrews resulted—a peaceful haven where there is no routine, no reveille, and where a thousand men and fifty officers can rest after returning from the bloody shambles of the Southwest Pacific.
>
> Camp Andrews... is located at Nanakuli on the south-western shore of Oahu, twenty-six miles from "Pearl." It had been established early in 1941 by the Hawaiian Detachment but in December of that year it was turned over to Commander Hickey. Dances and USO shows help provide fun for the men during their "away from it all" two days at Camp Andrews. (*Paradise of the Pacific* 1943)

Sugarcane production and military activity dominated the first half of the 20th century on the Leeward Coast. World War II was devastating for the Waianae Sugar Plantation as high paying defense jobs created a labor shortage. All sugarcane production in the Waiʻanae District was eliminated during the 1940s due to labor shortages, water shortages, military procurement of land, and other more productive agricultural regions taking over. The O.R.&L. railway was officially abandoned in 1946.

During World War II, concrete bunkers, pill-boxes and gun emplacements were built along the Leeward Coast. Many of these concrete features are still present today. At times as many as 20,000 troops were training in the Waiʻanae District. McGrath et al. write, "American troops caused more destruction on the Waianae coast than the Japanese" (1973:135–136).

Historic Maps

The earliest map found for Nānākuli is an 1854 Government Survey map (Figure 4). Few details are depicted, but the coastline and mountains can be seen, and two points on the mountains are labeled. "HALEMANU" is on the northwest, and "GREEN HILL" is on the southeast. The expanse to the east of Green Hill is labeled as "J. MEEK'S LAND." The coastal road is shown, and an old house is illustrated along the shore.

A 1912 Hawaii Territory survey map shows the Nānākuli region in more detail (Figure 5). Several places are named, such as Heleakalā and Manawahua Peaks. Two points half way up the valley are labeled "end of fence," indicating that a fenceline once stood there. Nānākuli Cemetery is shown adjacent to Haleakalā Avenue, and a "Tank, Pump, and Tunnel Site" are illustrated to the east. An electric transmission line crosses the valley, and the military reservation is shown near the coast. Also along the shoreline are the Government Road, O.R.&L railroad track, a park, and an area of standing water.

A 1925 Hawaii Territory survey map depicts the 1,101-acre Nānākuli Forest Reserve and surrounding area (Figure 6). Places labeled on the mountains surrounding Nānākuli include Heleakalā Peak, Palikea, Pōhākea, Maunakapu, and Manawahua. The coastal road and shoreline are illustrated, but no other details are shown in Nānākuli.

By 1930, Nānākuli is illustrated as a large community with many residences (Figure 7). A Hawaiian Homelands map shows the Nānākuli subdivision much as it stands today. A feature that appears to be a rock wall runs across the military reservation. Nānākuli Beach Park is depicted with a flooded area near the current highway. Just *makai* of the highway was an "Old Road" and the O.R.&L. railway.

A 1953 USGS map also depicts a modern Nānākuli community (Figure 8). Additions include water tanks at the coast and farther inland, as well as a pipeline and quarry *mauka* of the subdivision. A jeep trail extends the length of the valley into the forest reserve, and the Palikea Trail runs along the ridge.

Figure 4. Portion of an 1854 Hawaiian Government Survey map (Webster 1854).

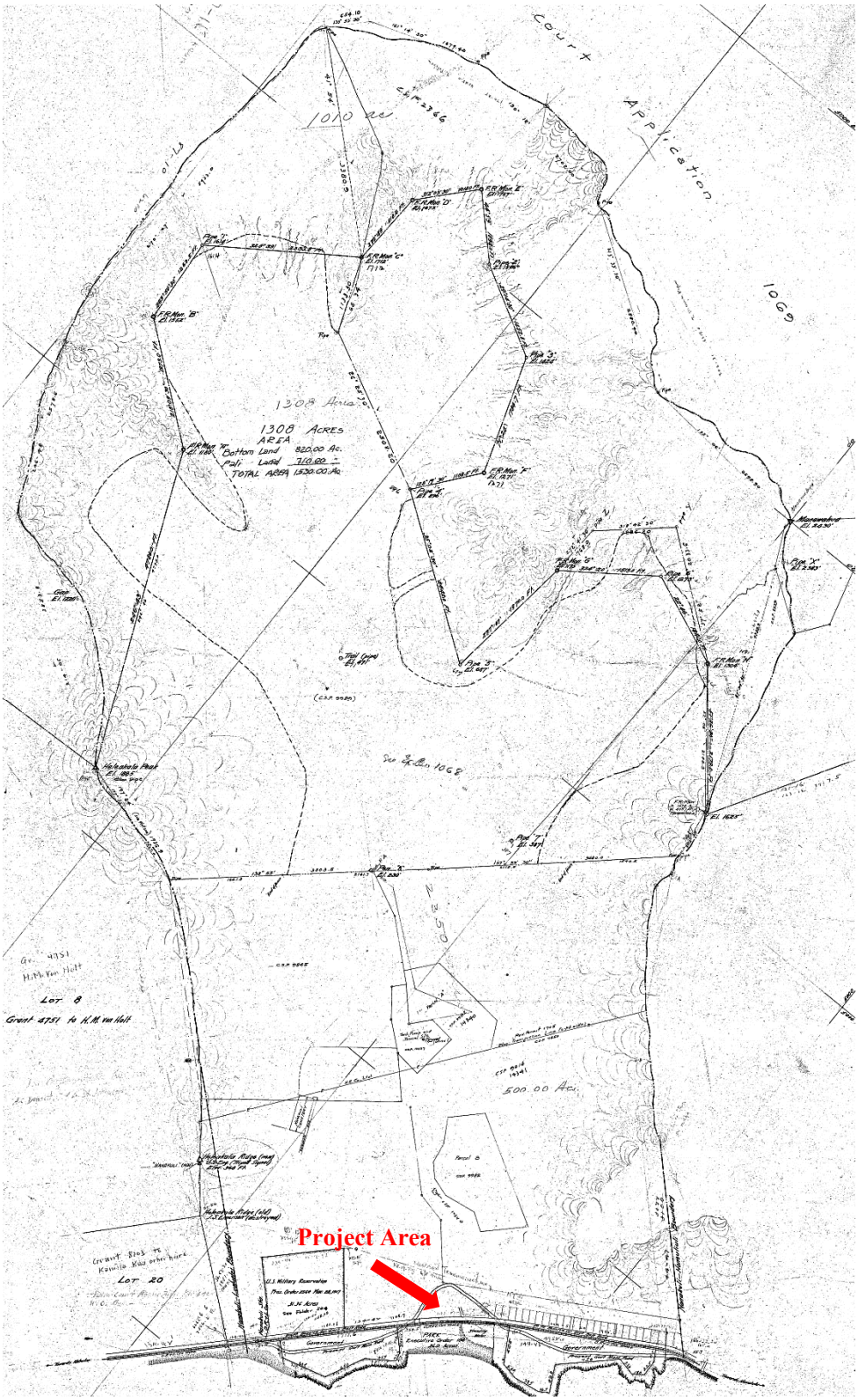


Figure 5. Portion of 1912 Hawai'i Territory Survey Map (Newton 1912).

Figure 6. Portion of a 1925 Hawaii Territory Survey map (Wall 1925).

Figure 7. Portion of a 1930 Hawaiian Homes Commission map (Evans 1930).

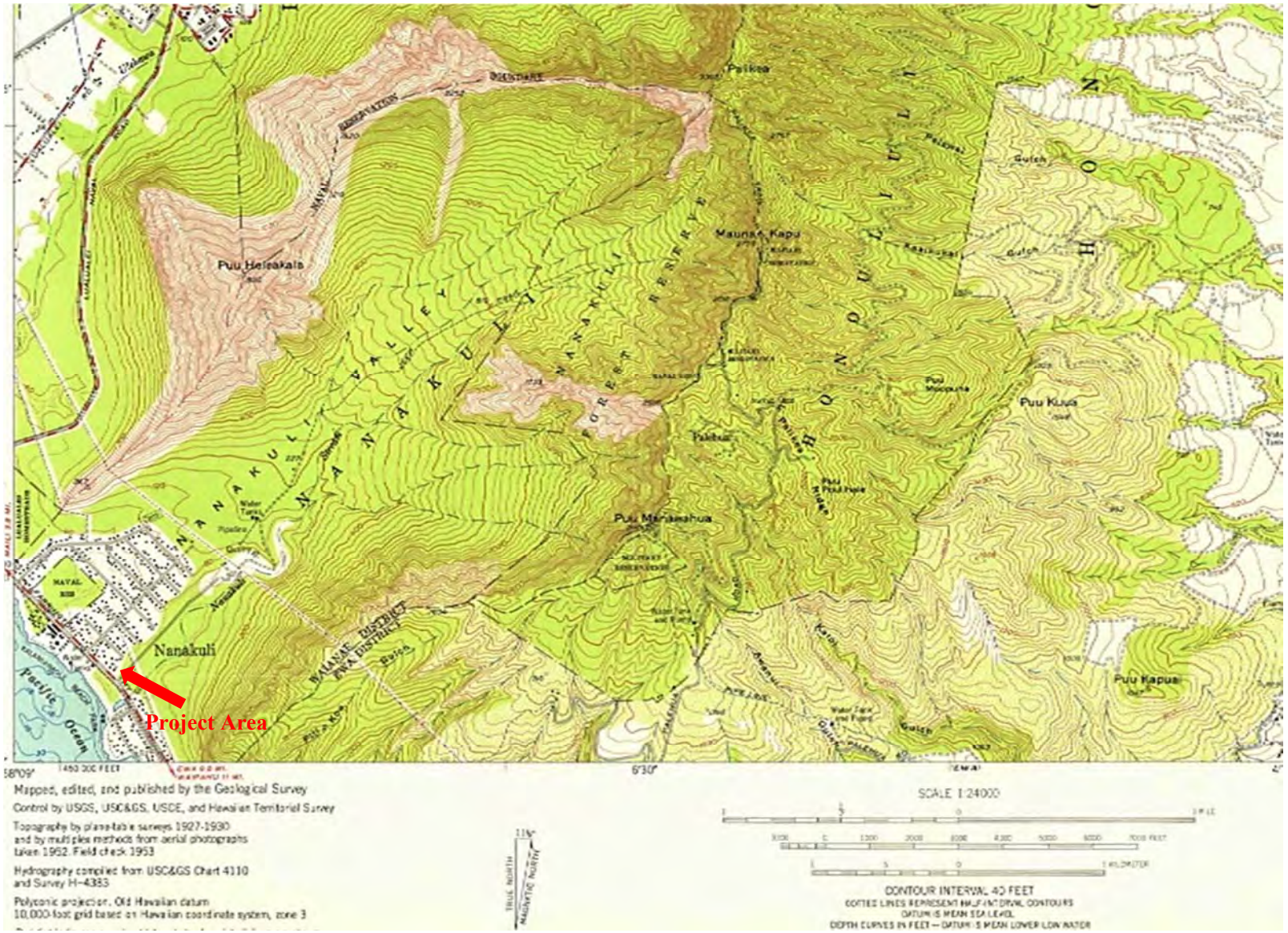


Figure 8. Portion of a 1953 USGS Schofield Barracks Quadrangle map (USGS 1953).

St. Rita's Church Structures

The St. Rita's main chapel has a long history. A 2012 article states that the structure is 114 years old (Wasowicz 2012), placing its construction at 1898. It was first used as a chapel at Schofield Barracks in Wahiawā before being moved to ʻEwa to serve the plantation village as the Immaculate Conception Church (Kim n.d.). The exact date of this first move is not known, but would have occurred before 1929, when a new chapel was constructed at the ʻEwa location (ICC n.d.). The chapel was finally transported to Nānākuli in 1934, where it was a mission church for Waiʻanae Sacred Hearts (O'Hare et al. 2013). The property was backfilled at this time to provide more area for parking (O'Hare et al. 2013). Also at this time, a Quonset hut and 1920s-era rectory were moved onto the property (O'Hare et al. 2013). Details of this early history are provided on the church website:

> Saint Rita Catholic Church in Nanakuli began as a mission church of Immaculate Conception parish in Ewa and was administered by the Sacred Hearts Fathers. Legend has it that in 1928, the OR&L train that ran from Honolulu to Haleiwa by way of Kaena Point stopped at the Nanakuli Depot water tank for a refill for its steam engine. (This is the beach site now known as "Depots" by the locals in Nanakuli.) On board that train was Bishop Stephen Alencastre, who was on his way to dedicate the new church at Sacred Hearts Church in Waianae. He was approached at the very back of the train by several native Hawaiians who asked the Bishop to put a Catholic Church in Nanakuli. Among the petitioners were Albert K. Akana and his wife Rita Pangelinan Akana. St. Rita was established and attached to Sacred Hearts as a mission church in June of 1928. (Kim n.d.)

In 1955 the chapel building was enlarged with a new wing on either side of the structure with twin bell towers (Kim n.d.). A devastating fire destroyed much of the church in 1987 (O'Hare et al. 2013). Affected buildings included the kitchen, parish hall, garage, thrift shop, and maintenance shed. A 2008 Environmental Assessment for a new parking lot listed four structures on the property: the 2,108 sq. ft. chapel, the 1,288 sq. ft. rectory, the 792 sq. ft. religious education Quonset hut, and a 220 sq. ft. restroom (Francisco Architect Imata and Associates 2000). The Environmental Assessment does not consider the church buildings as historic properties:

> Based upon research and information gathered, the proposed project site is not historical, archeological, or cultural site. A *Nanakuli Development Plan* report prepared by Wilson Okamoto & Associates, Inc. for the State of Hawaii Department of Hawaiian Home Lands in 1985 states that the area is not a historical site. The report also indicated that no archeological sites were identified during a reconnaissance survey conducted by the State. Furthermore, records at State Historic Preservation Division confirms that there are no known historic site at the proposed project locations. An archeological survey conducted in the area located only lithic scatter and modern trash dump, and the survey shows that the area has been heavily disturbed by land clearing in the past. (Francisco Architect Imata and Associates 2000:12, grammatical errors in the original)

It is unclear which State reconnaissance survey and archaeological survey are referred to, as no references are provided in the Environmental Assessment. In sum, every one of the buildings on the church property was moved from elsewhere, aside from the restroom facility. The church building itself moved twice and was modified from the original structure in 1955, and has had several more modifications since then. The rectory was also was moved from elsewhere to make way for the H-1 Freeway when it was under construction.

Previous Archaeology

Many archaeological projects have been carried out in Nānākuli (Table 2). The following paragraphs summarize the most relevant studies which lie in the vicinity of the project area. Their locations are illustrated in Figure 9.

The first archaeological work in Nānākuli was done by J.G. McAllister from 1929 to 1930, as part of an island-wide archaeological survey on Oʻahu. He identified one site, ʻIlihune Heiau, Site 147, near the mouth of the valley, of which he noted that nothing remained (see *Heiau* section).

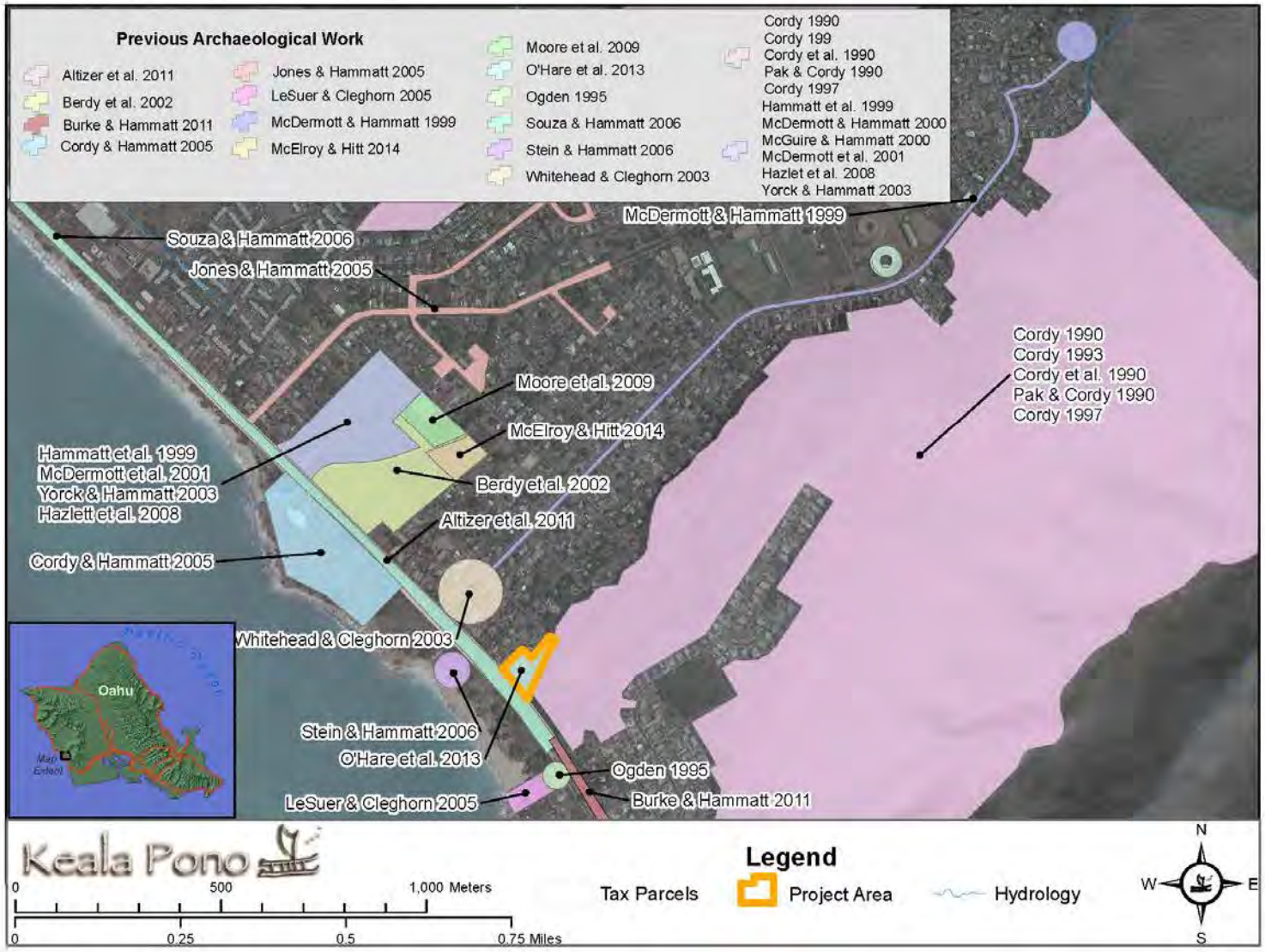


Figure 9. Previous archaeological studies in the vicinity of the project area.

Table 2. Previous Archaeology in Nānākuli

Author and Year	Location	TMK	Type of Study	Findings
McAllister 1933	Island-wide	Multiple	Survey	ʻIlihune Heiau, now destroyed.
Cordy 1990, Cordy et al. 1990, Pak & Cordy 1990, Cordy 1993	Nānākuli Ahupuaʻa	Multiple	Survey	Identified agricultural, habitation, and religious sites, mostly in the upper valley. Summarized in Cordy 1997.
Nakamura & Pantaleo 1994	Nānākuli & Lualualei Ahupua ʻa	Multiple	Reconnaissance Survey	Extensive surface disturbance noted; no cultural properties were identified.
Ogden Environmental and Energy Services Company 1995	MILCON-313, Naval Undersea Warfare Engineering Station (NUWES) Facility, Lualualei and Nānākuli	8-9-006:088	Subsurface Testing	No cultural properties were identified.
Cordy 1997	Nānākuli Ahupuaʻa	8-9	Inventory Survey	Recorded agricultural sites, scattered habitation sites, and possible religious structures in upper Nānākuli Valley. Few sites were located in the lower valley, although the beach region was not included.
McDermott & Hammatt 1999	Proposed Nānākuli 242 Reservoir Site, and Nānākuli Ave.	8-9-008:003	Inventory Survey	No cultural properties were identified.
Hammatt et al. 1999	Portion of former location of Camp Andrews	8-9-002:065	Assessment	Identified remains of Camp Andrews and numerous sinkholes which may provide additional information on traditional land use, flora and fauna.
McDermott & Hammatt 2000	Proposed Nānākuli IV Elementary Site	8-9-002:065, 023, por. 1	Inventory Survey with Subsurface Testing	Recorded sinkholes containing historic trash, traditional Hawaiian artifacts and midden, paleontological remains, and a human burial.
McGuire & Hammatt 2000	Proposed Nānākuli IV Elementary Site	8-9-002:065, 023, por. 1	Traditional Practices Assessment	Little documentation found for traditional cultural practices; historic land use includes ranching and military recreation. Describes the traditional practice of placing burials within sinkholes found on the subject property.
McDermott et al. 2001	Proposed Nānākuli IV Elementary Site	8-9-002:065, 023, por. 1	Inventory Survey with Subsurface Testing	Identified Site 50-80-07-5946, the remains of Camp Andrews and Site 50-80-07-5947, sinkholes with cultural deposits.
Berdy et al. 2002	Proposed Nanakuli Kokua Ohana Center	8-9-002:001	Inventory Survey with Subsurface Testing	Identified the two previously recorded sites above (5946 and 5947) and extended the boundaries of Site 5946.

Table 2. (cont.)

Author and Year	Location	TMK	Type of Study	Findings
Yorck & Hammatt 2003	Proposed Nānākuli IV Elementary Site	8-9-002:065	Monitoring	No cultural properties were identified.
Whitehead & Cleghorn 2003	Nānākuli Water System Improvements, Nānākuli Ave.	8-9-005	Monitoring	A possible cultural layer consisting of charcoal flecking and a single piece of marine shell was identified; it was not designated as a feature or site.
Cordy & Hammatt 2005	Ka Waihona O Ka Naʻauao Public Charter School	8-9-001:004	Monitoring	No cultural properties were identified.
Jones & Hammatt 2005	Dept. of Hawaiian Homelands Subdivision	Multiple	Monitoring	No cultural properties were identified.
LeSuer & Cleghorn 2005	Nānākuli Beach Park	8-9-006:001	Monitoring	No cultural properties were identified.
Ostroff & Desilets 2005	Farrington Highway	Multiple	Monitoring	Recorded five charcoal deposits, one of which may have been associated with Site 50-80-07-6671 in Lualualei.
Souza & Hammatt 2006	Farrington Highway	8-9-005:007, 8-7-006:013	Monitoring	No cultural properties were identified.
Stein & Hammatt 2006	Nānākuli Beach Park	8-9-001:002	Monitoring	No cultural properties were identified.
Hazlett et al. 2008	Proposed Nānākuli IV Elementary Site	8-9-002:065	Data Recovery	Excavated Sinkholes 1, 4, 9, & 12. Water within the sinkholes was found to be non-potable.
Yucha & Hammatt 2008	Nānākuli Beach Park	8-9-001:002	Monitoring	No cultural properties were identified.
Moore et al. 2009	Boys & Girls Club of Hawaii, Nanakuli Youth Education Town (YET)	8-9-002: 067	Monitoring	Two surface scatters encountered, consisting of basalt flakes, a coral abrader, and midden.
Altizer et al. 2011	Farrington Highway	Multiple	Archaeological Field Inspection and Literature Review	Identified three cultural resources: a section of O.R.&L. Railroad; an historic section of Farrington Highway; and previously recorded subsurface charcoal deposits.
Burke & Hammatt 2011	Farrington Highway	Multiple	Monitoring	No cultural properties were identified.

Table 2. (cont.)

Author and Year	Location	TMK	Type of Study	Findings
O'Hare et al. 2013	St. Rita's Church	8-9-005-001 por.	Archaeological Field Inspection and Literature Review	Recommended no further work.
McElroy & Hitt 2014	Hale Makana o Nānākuli	8-9-002:001	Monitoring	No cultural properties were identified.
McElroy et al. 2014	Proposed Nānākuli Library	8-9-002:065 por.	Archaeological Monitoring Plan	Assigned SIHP 50-80-07-7677 to the coral pillars of Camp Andrews and recommended them for preservation.

Extensive archaeological work has been carried out in undeveloped areas of Nānākuli Valley, just east and northeast of the current area of study (Cordy 1990, Cordy et al. 1990, Pak and Cordy 1990, Cordy 1993, Cordy 1997). These surveys are summarized in Cordy (1997). Archaeological resources recorded include agricultural areas, scattered habitation sites, and possible religious structures in upper Nānākuli Valley. The region up to the Forest Reserve boundary was surveyed, and most sites were located in the upper valley. Few sites were found in the lower valley, although the beach area was not surveyed.

A number of archaeological projects were completed at the former Camp Andrews site, located to the west of the current project area. In 1999 an archaeological assessment was conducted (Hammatt et al. 1999). The only remains found were a concrete bunker and two coral columns at the camp entrance, however an archaeological inventory survey was recommended. This began in 2000 with identification and subsurface testing of additional sinkhole features (McDermott and Hammatt 2000). Although 17 sinkholes were recorded, only the two largest were excavated. They contained historic trash, traditional Hawaiian artifacts and midden, paleontological remains, and a human burial. A traditional practices assessment was also conducted (McGuire and Hammatt 2000). Little information was found for the pre-contact period, and ranching and military recreation were among the historic-era land uses for the parcel.

Additional archaeological inventory survey work was completed in 2001 where traditional artifacts and midden, extinct avifauna, and small amounts of human bone were recovered from the sinkholes (McDermott et al. 2001). Also documented were additional features of Camp Andrews, including road remnants, trash piles, and concrete foundations. Two State Inventory of Historic Places (SIHP) site numbers were designated: 50-80-07-5946 for the historic remnants of Camp Andrews, and 50-80-07-5947 for the sinkhole features. Archaeological monitoring was later conducted for the Nānākuli IV Elementary School (Yorck and Hammatt 2003) and the Boys & Girls Club of Hawai‘i Youth Education Town (Moore et al. 2009), both located in the area that was surveyed. The only findings consisted of a few traditional artifacts (basalt flakes and a coral abrader) and midden, all found on the surface (Moore et al. 2009).

Sinkholes 1, 4, 9, and 12 were excavated and extensive laboratory analyses were conducted (Hazlett et al. 2008). The water within the sinkholes was found to be non-potable and the sinkholes were therefore not used as wells. The data gathered added little new information, and no further work was recommended. A later archaeological inventory survey identified portions of the two sites mentioned above (SIHP 50-80-07-5046 and -5947) (Berdy 2002). The boundaries were extended for Site 5046, the remains of Camp Andrews. They now include a concrete pad and fence line in the *makai* portion of TMK: (1) 8-9-002:001. Several sinkholes were also identified. The most recent work (McElroy et al. 2014), an archaeological monitoring plan for the proposed Nānākuli Library, assigned a separate site number for the coral pillars at the entrance of the former Camp Andrews (SIHP 50-80-07-7677) and recommended them for preservation.

Four archaeological monitoring projects were conducted along Farrington Highway. In 2005, five charcoal deposits were found during monitoring, but none were given site numbers (Ostroff and Desilets 2005). A year later, archaeological monitoring conducted for fiber optic installation along much of the same route produced no cultural material or deposits (Souza and Hammatt 2006). A literature review and field inspection were completed for a portion of the same highway corridor (Altizer et al. 2011). Three cultural resources were identified, including a portion of the old O.R.&L. railroad track (Site 50-80-12-9714); a historic section of Farrington Highway (Site 50-80-7-6824); and the subsurface deposits previously recorded by Ostroff and Desilets (2005). In 2011 archaeological monitoring on Farrington Highway to the south of the project area produced no findings (Burke and Hammatt 2011).

An archaeological field inspection and literature review was conducted for the subject property (O'Hare et al. 2013). No surface archaeological features were identified, and research indicated that "the area was not a focus for pre-Contact or early historic habitation or agriculture" (O'Hare et al. 2013:40). No further work was recommended, although it was noted that consultation with the SHPD architecture branch should take place if the historic church structures are to be modified.

Other work in the vicinity of the project area did not produce any significant finds (see Table 2). These include an archaeological survey and assessment (McDermott and Hammatt 1999), monitoring (Whitehead and Cleghorn 2003, Cordy and Hammatt 2005, LeSuer and Cleghorn 2005, McElroy and Hitt 2014), and subsurface testing (Ogden 1995).

Settlement Patterns and Anticipated Finds

Settlement patterns in Nānākuli were likely similar to the rest of the Wai'anae District (e.g., Cordy 2002). Initial settlement probably began with small groups of people living near the coast to take advantage of the abundant marine resources. The population then spread farther inland behind the coastal dunes and along the coastal trail which is roughly the route of today's Farrington Highway. Finally, the back valley areas were settled as people began to utilize more agriculturally productive zones. Archaeological evidence has shown that the upper valley currently hosts many house sites and dryland agricultural terraces. Early descriptions of Nānākuli depict a barren land with few houses and an area that lacks water and agricultural resources. However, the land may have appeared desolate from the coast because many of the people lived in the upper valley, and this was not visible from the shore.

Based on previous archaeological work nearby at the former Camp Andrews, anticipated finds include sinkholes and historic military remnants. Sinkholes may house human burials, traditional Hawaiian artifacts, and midden, and it is possible that these might be found during subsurface testing. The O.R.&L. railroad tracks are located across the highway from the project area, and the historic St. Rita's Church building still remains on the property. As the project area is mostly paved, however, it is not likely that other structural remnants or surface archaeological features will be found. It is possible that historic material may be encountered during subsurface testing. This may take the form of concrete slabs, walls, or foundations; metal, wood, or glass building materials; or bottles, ceramics, and other such items typically recovered from historic-era sites in Hawai'i.

Research Questions

Research questions will broadly address the identification of the above archaeological resources and may become more narrowly focused based on the kinds of resources that are found. Initial research questions are as follows:

1. Is there any evidence of pre-contact use of the property and what is the nature of that use? The project area is located in a coastal environment, a context favored for human burial in traditional Hawai'i. Burials have been found in sinkholes and other contexts in Nānākuli, thus it is possible that human remains will be encountered during the survey. Other evidence of traditional Hawaiian use of the study area might include isolated artifacts, midden deposits, and/or buried cultural layers.
2. Are there vestiges of historic use of the property? Remnants of historic-era land use would likely be related to historic use of the church or the nearby O.R.&L railway, and might include structural remnants, walls, and/or historic artifacts. WWII-era use of the area might be evident in military structures or military-related artifacts.
3. What time periods are represented by the archaeological remains on the properties? If fire pits or other datable archaeological features are encountered, radiocarbon

dating may inform on the period of use for the area. Wood taxa identification should be performed prior to dating, and only material suitable for dating should be submitted for analysis. Historic occupation may be dated by material remains such as bottles or ceramics.

Once these basic questions are answered, additional research questions may be developed in consultation with SHPD, tailored to the specific kinds of archaeological resources that were identified.

METHODS

Pedestrian survey and subsurface testing were conducted on December 15, 2014 by Windy McElroy, PhD and Dietrix Duhaylonsod, BA. McElroy served as Principal Investigator, overseeing all aspects of the project. The survey was completed in one day.

For the pedestrian survey, the ground surface was visually inspected for surface archaeological remains, with transects walked between the existing structures and in the parking lot. Of the 1.81-acre (.73 ha) survey area, 100% was covered on foot. Vegetation was mostly light to non-existent and did not hinder the survey. Because of the high visibility, the spacing between archaeologists was wide, with archaeologists spread approximately 10 m apart in the parking lot, with closer spacing between the buildings. Archaeological sites and their boundaries were identified visually, with any feature possibly made or used by humans and more than 50 years old considered a site, although none were found aside from the historic buildings.

Test trenches (TR) were excavated in five locations throughout the survey area. A backhoe was used for digging of the trenches (Figure 10). Vertical provenience was measured from the surface, and trenches were excavated to a depth well below the estimated 3 ft. (.9 m) depth proposed for construction. Profiles were drawn and photographed, and sediments were described using Munsell soil color charts and a sediment texture flowchart (Thien 1979). Trench locations were recorded with a 3 m-accurate Garmin GPSmap 62st, and all trenches were backfilled after excavation.

The scale in all field photographs is marked in 10 cm increments. The north arrow on all maps points to magnetic north. Throughout this report rock sizes follow the conventions outlined in *Field Book for Describing and Sampling Soils*: Gravel <7 cm; Cobble 7–25 cm; Stone 25–60 cm; Boulder >60 cm (Schoeneberger et al. 2002:2–35). No material was collected, and no laboratory analyses were conducted.

Figure 10. Excavation of TR 2 with backhoe. Orientation is to the west.

RESULTS

Pedestrian survey and subsurface testing were conducted in the 1.81-acre (.73 ha) project area. No archaeological sites were found. Excavation of five test trenches did not yield any evidence of subsurface cultural material or features.

Pedestrian Survey

The surface survey included 100% of the 1.81-acre (.73 ha) parcel. The property is mostly paved on the east side, and structures or landscaped lawns occur within the unpaved areas on the west. The history of the structures on the St. Rita's Church property is discussed in the historic background section of this report. Some of the structures are more than 50 years old, although the Environmental Assessment for the church does not consider the buildings as historic properties. Their treatment during construction may be determined in consultation with the architecture branch of SHPD. The O.R.&L. railroad tracks were observed across Farrington Highway from the subject property, well outside the project boundaries. No other surface archaeological remains were identified.

Subsurface Testing

A total of five trenches were excavated throughout the property to determine the presence or absence of subsurface cultural deposits or material (Table 3, see Figure 11). Trenches were placed in unpaved areas and distributed so that stratigraphy could be seen in different areas of the parcel. Stratigrahy generally consisted of several layers of fill, sometimes above a natural sand layer.

TR 1 was excavated on the west side of the parcel in the grassy lawn fronting the large banyan tree (see Figure 11). The trench measured 5.2 m long and generally .65 m wide, although the width was as great as 1.6 m in caved-in areas. The trench was excavated to 170 cm below surface (cmbs) to a depth well below the proposed construction. Excavation could not continue further because the trench kept caving in. Stratigraphy consisted of two layers of fill atop a culturally-sterile A-horizon, with a natural marine sand deposit below (Figure 12). The A-horizon consisted of a darkened sand layer, darker in some areas than others, although no charcoal fragments were observed. No cultural deposits or material were identified.

TR 2 was placed in an unpaved island within the parking lot, on the south side of the property (see Figure 11). The trench measured 3.4 m long and typically .67 m wide, but extended to 1.2 m where there were cave-ins. It was excavated to 180 cmbs, well below the depth proposed for construction. Excavation could not continue further because the trench kept caving in. Stratigraphy consisted entirely of fill (Figure 13). No cultural material or deposits were found.

TR 3 was located on the east side of the property, just outside the paved parking lot (see Figure 11). It measured 3.1 m long and 1.06 m wide. The trench was excavated to 205 cmbs, well below the depth of the proposed construction. Excavation could not continue further because the trench kept caving in. Stratigraphy consisted entirely of fill (Figure 14). No cultural deposits or material were identified.

TR 4 was placed on the northeast side of the parcel, just outside the paved parking lot (see Figure 11). The trench measured 3.05 m long, .8 m wide, and 165 cm deep, well below the depth proposed for construction. Excavation could not continue further because the trench kept caving in. Stratigraphy consisted of five layers of fill, a buried road pavement, and a basal deposit of natural marine sand (Figure 15). No cultural deposits or material were identified.

Figure 11. Location of Trenches 1–5.

Table 3. Sediment Descriptions

Location	Layer	Depth (cmbs)	Color	Description	Interpretation
TR 1	I	0–16	10YR 3/3	Sandy clay loam; 60% roots; 2% basalt gravel; sprinkler line at 12 cmbs; smooth, very abrupt boundary.	Fill
	II	16–40	10YR 6/3 mottled	Medium sand; 40% roots; smooth, very abrupt boundary.	Fill
	III	40–50	10YR 4/4–10YR 2/1	Medium sand; 20% roots; smooth, very abrupt boundary.	A Horizon
	IV	50–170+	10YR 8/3	Medium sand; base of excavation.	Natural
TR 2	I	0–19	2.5YR 3/4	Clay loam; 10% roots; 10% basalt gravel; modern debris; smooth, very abrupt boundary.	Fill
	II	19–36	10YR 4/1	Medium sand; 5% roots; 90% basalt gravel; modern debris; smooth, very abrupt boundary.	Gravel Base Course
	III	36–83	10YR 5/3	Medium sand; 2% roots; 50% basalt gravel; modern debris; smooth, very abrupt boundary.	Fill
	IV	83–180+	10YR 4/3 mottled	Medium sand; 10% basalt gravel; base of excavation.	Fill
TR 3	I	0–75	10YR 4/3	Sandy clay loam; 1% roots; 60% basalt gravel; modern debris; smooth, very abrupt boundary.	Fill
	II	75–110	5YR 4/3	Silt loam; 60% basalt gravel; modern debris; smooth, very abrupt boundary.	Fill
	III	110–205+	10YR 2/2	Silt loam; 60% basalt gravel; base of excavation.	Fill
TR 4	I	0–10	7.5YR 8/1	Sandy clay loam; 25% roots; 50% basalt gravel; modern debris; smooth, very abrupt boundary.	Fill
	II	10–55	7.5YR 5/2	Silt loam; 5% roots; 70% basalt gravel; modern debris; smooth, very abrupt boundary.	Fill
	III	55–60	2.5YR 2.5/4	Silt loam; 70% basalt gravel; modern debris; smooth, very abrupt boundary.	Fill
	IV	60–80	5YR 2.5/2	Silt loam; 70% basalt gravel; modern debris; smooth, very abrupt boundary.	Fill
	V	80–94	N/A	Asphalt, smooth, very abrupt boundary.	Former Paved Road
	VI	94–140	5YR 2.5/2	Silt loam; 70% basalt gravel; modern debris; smooth, very abrupt boundary.	Fill
	VI	140–165+	7.5 YR 7/4	Sandy clay; base of excavation.	Natural
TR 5	I	0–28	10R 3/4	Sandy clay loam; 50% roots; 50% basalt gravel; modern debris; smooth, very abrupt boundary.	Fill
	II	28–60	7.5YR 4/2	Silt loam; 10% basalt gravel; modern debris; smooth, very abrupt boundary.	Fill
	III	60–80	10YR 6/6, mottled	Medium sand; smooth, very abrupt boundary.	Disturbed Sand
	IV	80–175+	10YR 8/3	Medium sand; base of excavation.	Natural

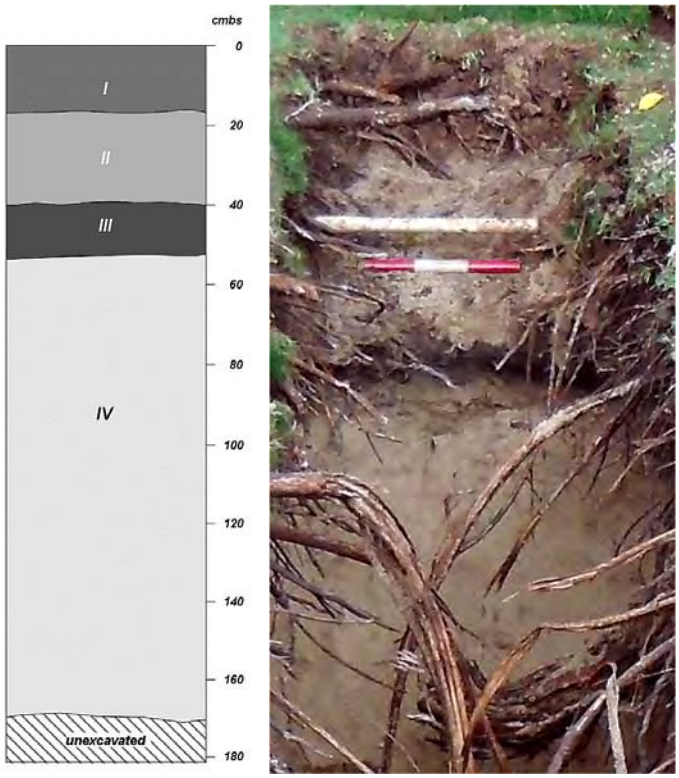


Figure 12. TR 1 northwest face profile drawing (left) and photo (right).

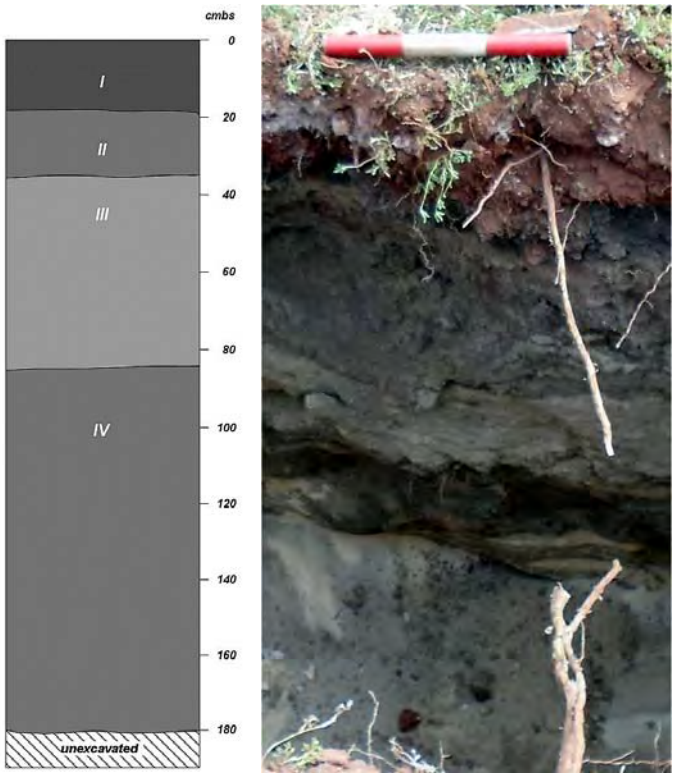


Figure 13. TR 2 east face profile drawing (left) and photo (right).

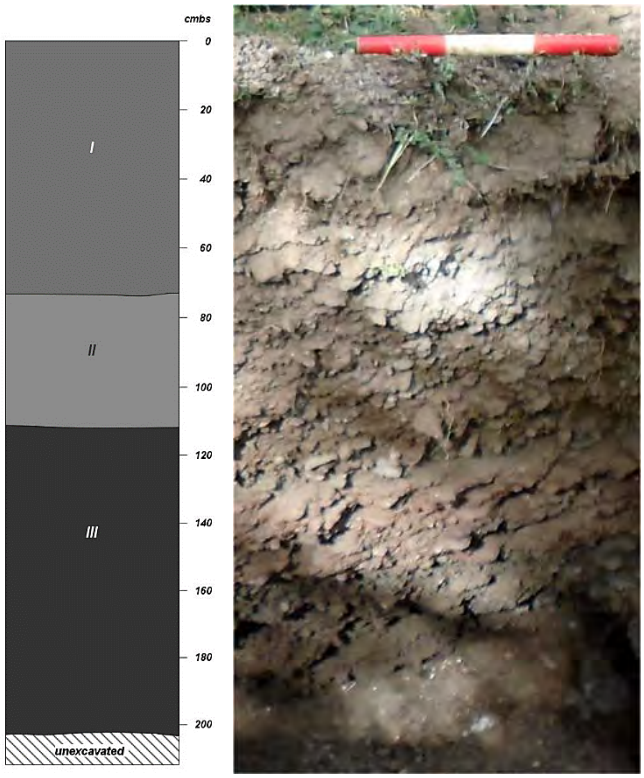


Figure 14. TR 3 west face profile drawing (left) and photo (right).

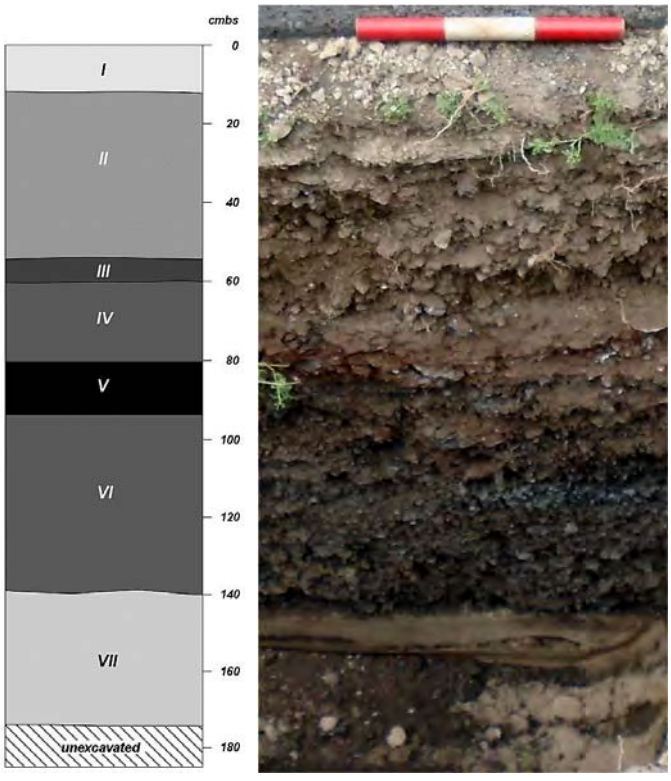


Figure 15. TR 4 northwest face profile drawing (left) and photo (right).

TR 5 was placed on the northwest side of the property, just outside the paved parking lot (see Figure 11). The trench measured 2.7 m long and .8 m wide. It was excavated to 175 cmbs, well below the depth of the proposed construction. Excavation could not continue further because the trench kept caving in. Stratigraphy consisted of two layers of fill and a basal layer of natural marine sand which was disturbed in the upper 20 cm (Figure 16). A linear darkened smear occurred within the second layer of fill at 45 cmbs. The sediment was darkened in this area, but no charcoal fragments, fire cracked rock, or other remnants indicative of a fire feature were identified. No cultural material or deposits were found in the trench.

Summary of Findings

Pedestrian survey of TMK: (1) 8-9-005:001 did not yield any evidence of former use of the parcel. Much of the property is either paved or occupied by structures. Subsurface testing was conducted in five locations throughout the church grounds to determine the presence or absence of subsurface cultural material or deposits, and none were found. Stratigraphy consists mostly of fill, with some areas of natural marine sand exposed. The entire property appears to have been disturbed to a depth of 40 cmbs and greater, possibly by the 1930s-era filling of the parcel mentioned in the literature (O'Hare et al. 2013). The three research questions developed at the onset of the project were all answered negatively, as no surface or subsurface archaeological remains were found. Prior to initiation of the project, the landowner or their representative will consult with the SHPD Architecture Branch regarding whether any of the buildings are significant historic properties and, if so, their appropriate treatment.

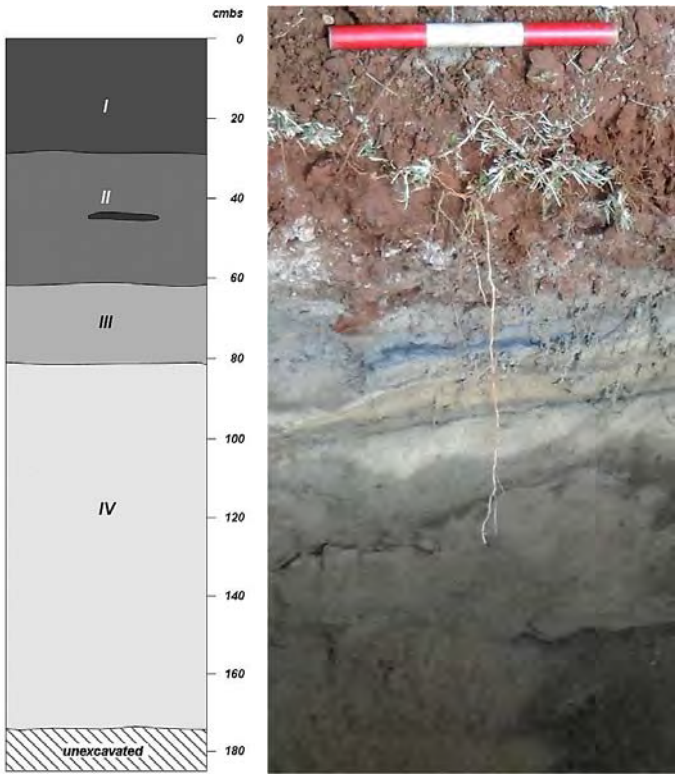


Figure 16. TR 5 northeast face profile drawing (left) and photo (right).

SUMMARY AND RECOMMENDATIONS

An archaeological inventory survey (AIS) was conducted for TMK: (1) 8-9-005:001 in Nānākuli Ahupua‘a, Wai‘anae District, on the Island of O‘ahu. Due to negative findings, the AIS results are presented as an archaeological assessment (AA). The AIS was conducted in preparation for ground disturbance associated with church improvements, including demolishing some of the current structures and constructing new buildings. Excavations for the proposed construction are expected to reach a depth no greater than 3 feet (.9 m). The archaeological assessment included pedestrian survey that covered 100% of the property, as well as test excavations consisting of five trenches.

No surface archaeological remains were found during pedestrian survey of the parcel. The entire property has been disturbed by development, including paving of the parking lot, construction of the current buildings, and landscaping of the lawns. Likewise, subsurface testing did not yield any evidence of subsurface cultural material or deposits. Stratigrahy generally consisted of several layers of fill, sometimes above a natural sand layer. Some of the structures are more than 50 years old, although the Environmental Assessment for the church does not consider the buildings as historic properties. Prior to initiation of the project, the landowner or their representative will consult with the SHPD Architecture Branch regarding whether any of the buildings are significant historic properties and, if so, their appropriate treatment.

In sum, archaeological survey was conducted at TMK: (1) 8-9-005:001 in Nānākuli, and no archaeological remains were found. Construction associated with church improvements will have no effect on archaeological sites because no archaeological sites occur there. Archaeological monitoring is recommended because of the possibility of encountering sinkholes with archaeological material or human remains. Isolated human burial remains may be discovered during construction activities, even though no evidence of human burials was found during the survey. Should human burials or displaced human remains be discovered during construction activities, work in the vicinity of the remains shall cease immediately, the area shall be secured, and the SHPD and Honolulu Police Department (HPD) shall be notified.

GLOSSARY

ahupua‘a Traditional Hawaiian land division usually extending from the uplands to the sea.

‘āina Land.

‘āpana Piece, slice, section, part, land segment, lot, district.

heiau Place of worship and ritual in traditional Hawai‘i.

‘ili Land division, next in importance to *ahupua‘a* and usually a subdivision of an *ahupua‘a*.

inoa Name, title, or namesake.

kiawe The algaroba tree, *Prosopis* sp., a legume from tropical America, first planted in 1828 in Hawai‘i.

koa haole The small tree *Leucaena glauca*, historically-introduced to Hawai‘i.

kula Plain, field, open country, pasture, land with no water rights.

kuleana Right, title, property, portion, responsibility, jurisdiction, authority, interest, claim, ownership.

Māhele The 1848 division of land.

makai Toward the sea.

mauka Inland, upland, toward the mountain.

mele Song, chant, or poem.

midden A heap or stratum of refuse normally found on the site of an ancient settlement. In Hawai‘i, the term generally refers to food remains, whether or not they appear as a heap or stratum.

moku District, island.

mo‘olelo A story, myth, history, tradition, legend, or record.

muliwai River mouth, estuary, or pool near the mouth of a stream, enlarged by ocean water left there at high tide.

‘ōlelo no‘eau Proverb, wise saying, traditional saying.

oli Chant.

‘opihi Limpets, four types of which are endemic to Hawai‘i: *Cellana exarata (‘opihi makaiauli*), *C. sandwicensis (‘opihi alinalina*), *C. talcosa (‘opihi ko‘ele*), and *C.*

melanostoma (no Hawaiian name). *ʻOpihi* are a prized food in Hawaiʻi and considered a rare treat today.

pre-contact Prior to A.D. 1778 and the first written records of the Hawaiian Islands made by Captain James Cook and his crew.

puʻu Hill, mound, peak.

ʻuala The sweet potato, or *Ipomoea batatas*, a Polynesian introduction.

ʻulu The Polynesian-introduced tree *Artocarpus altilis*, or breadfruit.

wauke The paper mulberry, or *Broussonetia papyrifera*, which was made into tapa cloth in traditional Hawaiʻi.

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Appendix E

Due Diligence Report - Infrastructure

Due Diligence Report

for

SAINT RITA'S CHURCH

Nanakuli, Oahu, Hawaii

Tax Map Key: 8-9-005: 001
Area = 0.8695 Acres

Owner:
ROMAN CATHOLIC CHURCH

Prepared By:
imata & associates, inc.
The Century Center
1750 Kalakaua Avenue, Suite 115
Honolulu, Hawaii 96826
Phone: (808) 946-6588 Fax: (808) 955-5873
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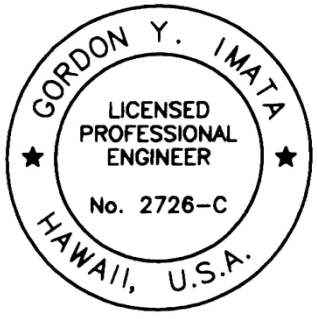
October 3, 2014



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.

INTRODUCTION:

St. Rita's Church is located over several contiguous parcels on Hawaiian Home Lands, Nanakuli Residential Lots 64, 65-A and 65-B, First Series. Tax Map Key: 8-9-005: 001, 028 and 092. Several building and site improvements have been constructed over the years particularly on tax map key parcel 001 fronting Farrington Highway, where the church and administrative offices are located. The Hawaiian Homes Land to the southeast (Honolulu side) has been developed as a paved parking area for church use. The parking area extends northwesterly along DHHL Lots 64, 65-B and 65-A to Pua Avenue. This Due Diligence Report is generally limited to an evaluation of parcel 001 as the proposed development area.

EXISTING CONDITIONS:

A large portion of the existing site is comprised of hard surface components, either buildings, pavement area or other hardscape. The buildings on site include the Church, a quonset hut, a restroom storage building, a one story structure, two (2) sheds, and three (3) portable buildings. Other areas on site include concrete walkways, ac paved parking areas and a courtyard.

PROPOSED DEVELOPMENT

The proposed development will raze the site, removing all of the existing buildings, concrete walkways and ac parking areas. A new Church, Community Hall and Office building will be constructed with new concrete pavement for circulation between the main building elements.

GRADING AND DRAINAGE

In general, while the land will be graded to retain the existing sheet flow pattern, the City's new Water Quality Design Standards require measures to retain runoff on site, by employing bio-retention areas, grassed swales, permeability measures such as drywells, infiltrators, etc.

The land slopes to the southeast toward the parking area on the adjacent parcel. Runoff leaves the site in a general overland sheet flow pattern. A smaller portion of the runoff leaves the site as concentrated flow near the driveway entrance to Farrington Highway.

On Farrington Highway, a series of grated inlets and 24" diameter storm drain pipe intercept runoff from the highway and conveys the flow in the southwesterly direction, then at a manhole turns mauka into the parking area on the adjacent parcel to another manhole, which turns the system southeasterly again and outlets with a headwall in the parking area's fill slope. The manhole in the parking area has a grated inlet cover and it

appears that when the parking area was constructed, filling a low area, the manhole was converted to an inlet and the system extended to the headwall.
Ultimately, the storm runoff flows to the Nanakuli Stream, which crosses Farrington Highway and outlets into the ocean.

A new onsite storm drain system will be extended through the new development to intercept storm runoff from building downspouts and area drains. (See Schematic Grading and Drainage Plan). Permanent post construction water quality measures including use of an onsite retention system may be required.

SANITARY SEWER SYSTEM

No municipal sanitary sewer system is available for the project to connect to. Disposal of sewage effluent will be onsite via an Individual Wastewater System (IWS) which includes a septic tank and leaching field. The Church, in anticipation of their future development plans had constructed two IWS on site; a 1,500 gallon Orenco septic tank and a 2,000 gallon Orenco septic tank. The 1,500 gallon system is connected to a 6' wide by 55' biodiffusers and the 2,500 gallon system is connected to 12' wide by 55' biodiffusers.

The 1,500 gallon system serves the present church but will ultimately be connected to the new Rectory and the new Administrative Offices. The 2,500 gallon system will serve the new multipurpose building.

DOMESTIC WATER AND FIRE SYSTEM

PID: 9262071280
M/N: 13033458 ¾" (Domestic)

Domestic water is presently provided through the ¾"water meter (30 gpm capacity). When the water demand is known, the meter can be upgraded to meet the needs of the new development. The location of the existing onsite distribution water lines is not known. A new water line will be provided under the development to distribute the domestic water to the various building components.

There is presently no fire protection waterline on the property. Water for domestic use is provided from the 8" PVC BWS main on Farrington Highway. Fire hydrant L139 is located on Farrington Highway at the west property corner. The fire hydrant on Farrington Highway will not provide adequate coverage for the proposed development.

An onsite fire protection system will have to be provided for new building permits. According to Honolulu Fire Department letter dated November 3, 2014, 1) a fire

department access road shall be provided to 150 feet of the exterior of any building or facility in accordance with NFPA 1, UFC, 2006 edition and 2) a water supply capable of delivering the required fire flow shall be provided to within 150 feet of any building.

The new onsite fire system will be connected to the BWS 8" main on Farrington Highway with an 8" Detector Check meter (fire only) and an 8" fire line through the parking area on the adjacent lot. The new fire hydrant will be located near the east property corner nearest to the new Community Hall. (See Preliminary Site Utility Plan)

GAS

No municipal gas system is available in the vicinity of the project. Any gas required for use on the site would have to be with an onsite fuel tank.

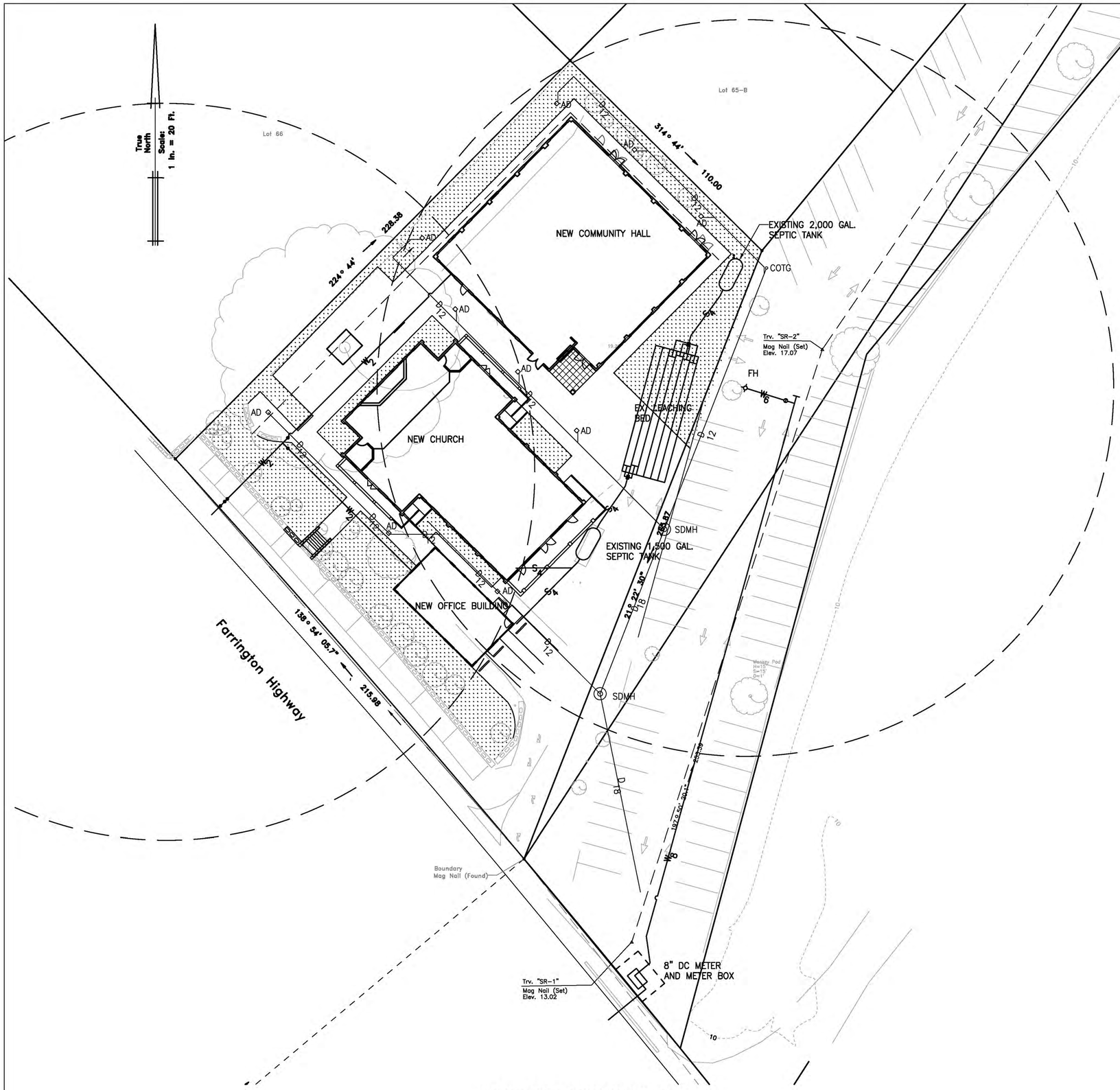
FEMA FLOOD DESIGNATION

The site is predominately in FEMA FIRM Zone X. However, the southernmost corner of the parcel is within the Zone AE Flood Fringe with flood elevation 15. Existing ground elevations are between 12.5 and 15.0. It appears that no structures are proposed to be constructed in the Flood Fringe area. (See FIRM Community Map No. 15003C0213H dated January 19, 2011.)

ACCESSIBLE ROUTES

The opportunity to provide a barrier free facility can best be addressed during the design of the project. Design professionals will generally incorporate accommodations for the handicapped in a new facility since it is much more cost effective than retrofitting in the future.

Accessible routes to Farrington Highway should be incorporated to public transportation services.



ONSITE FIRE PROTECTION PLAN

SCALE: 1" – 20'-0"

FRANCISCO ARCHITECT

FIDEL A. FRANCISCO,AIA
2379 Liloa Rise
Honolulu, Hawaii

Architecture
Planning
Interiors

REVISIONS	BY

ST. RITA'S CATHOLIC CHURCH

89-318 FARRINGTON HIGHWAY
NANAKULI, HI 96792
TMK: 8-9-005:001

DATE	JULY 2014
SCALE	AS NOTED
DRAWN BY	GYI
JOB NO.	XXXXX
SHEET	
OF	SHEETS

True North

Scale: 1 in. = 20 Ft.

NEW COMMUNITY HALL
FIN. FLR. ELEV. = 19.50

NEW CHURCH
FIN. FLR. ELEV. = 19.50

NEW OFFICE BUILDING
FIN. FLR. ELEV. = 19.50

EXISTING 2,000 GAL. SEPTIC TANK

EXISTING 1,500 GAL. SEPTIC TANK

EX. LEACHING BED

COTG

SDMH

Trv. "SR-2"
Mag Nail (Set)
Elev. 17.07

Trv. "SR-1"
Mag Nail (Set)
Elev. 13.02

19.00 HP

19.50

AD

W 8"

W 6"

D 12

D 18

SITE GRADING AND DRAINAGE PLAN

SCALE: 1" – 20'–0"

FRANCISCO ARCHITECT

FIDEL A. FRANCISCO,AIA
2379 Liloa Rise
Honolulu, Hawaii

Architecture
Planning
Interiors

REVISIONS	BY

ST. RITA'S CATHOLIC CHURCH

89–318 FARRINGTON HIGHWAY
NANAKULI, HI 96792
TMK: 8–9–005: 001

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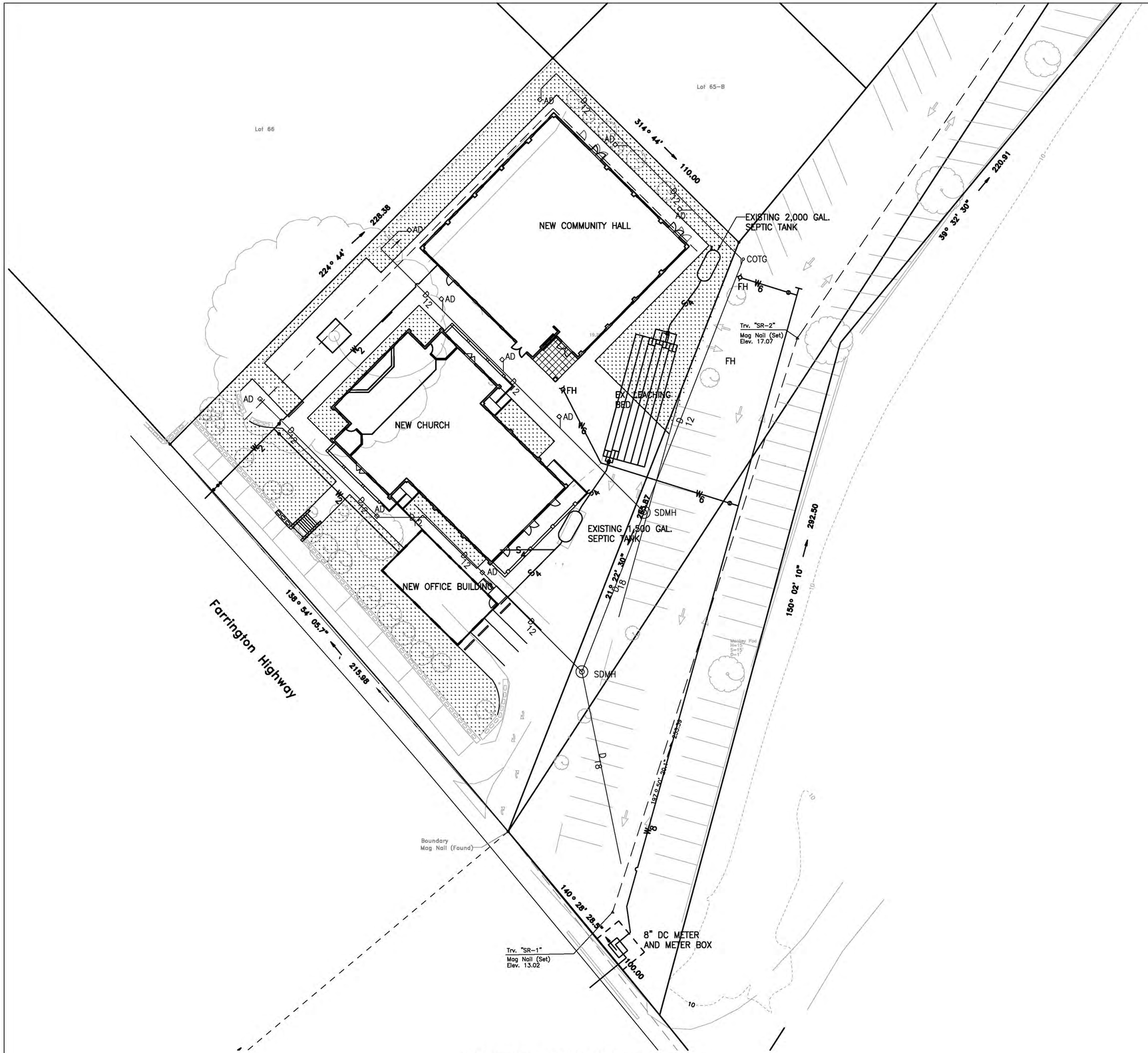

ONSITE FIRE PROTECTION PLAN

SCALE: 1" – 20'-0"

FRANCISCO ARCHITECT

FIDEL A. FRANCISCO,AIA
2379 Liloa Rise
Honolulu, Hawaii

Architecture
Planning
Interiors

REVISIONS	BY

ST. RITA'S CATHOLIC CHURCH

89-318 FARRINGTON HIGHWAY
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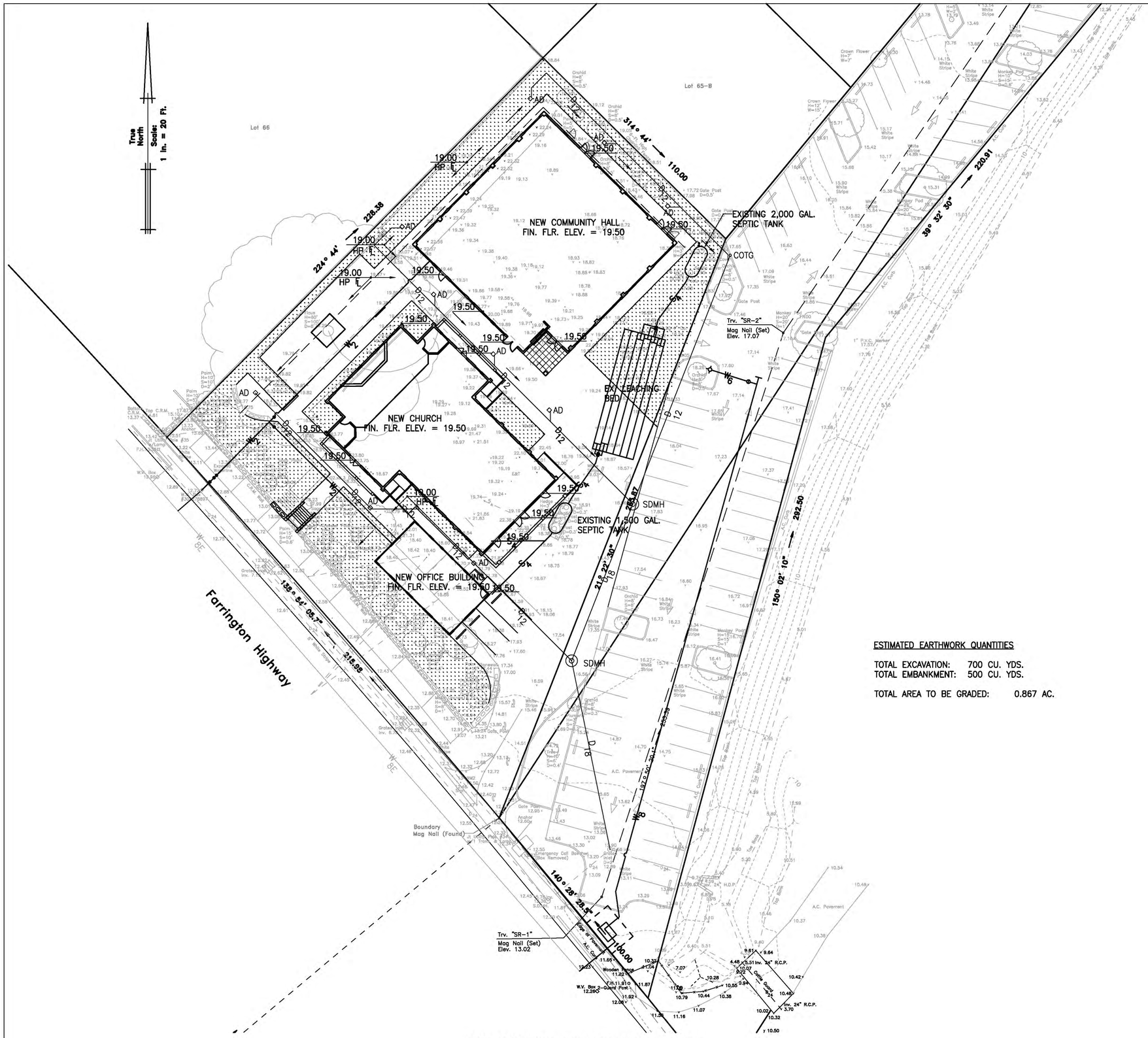

SITE GRADING AND DRAINAGE PLAN

SCALE: 1" – 20'-0"

ESTIMATED EARTHWORK QUANTITIES

TOTAL EXCAVATION: 700 CU. YDS.
TOTAL EMBANKMENT: 500 CU. YDS.

TOTAL AREA TO BE GRADED: 0.867 AC.

FRANCISCO ARCHITECT
FIDEL A. FRANCISCO,AIA
2379 Lilioa Rise
Honolulu, Hawaii
Architecture
Planning
Interiors

REVISIONS	BY

ST. RITA'S CATHOLIC CHURCH

89-318 FARRINGTON HIGHWAY
NANAKULI, HI 96792
TMK: 8-9-005:001

DATE JULY 2014
SCALE AS NOTED
DRAWN BY GYI
JOB NO. XXXXX
SHEET
OF SHEETS

Appendix F

Traffic Impact Analysis Report

TRAFFIC IMPACT ANALYSIS REPORT

AND

TRAFFIC MANAGEMENT PLAN

FOR THE PROPOSED

ST. RITA CATHOLIC CHURCH EXPANSION

NANAKULI, OAHU, HAWAII

TAX MAP KEYS: 8-9-005:001 & 8-9-007: PORTION 002 & PORTION 004

PREPARED FOR

ST. RITA CATHOLIC CHURCH

FEBRUARY 22, 2016

PREPARED BY

TMC

THE TRAFFIC MANAGEMENT CONSULTANT

TRAFFIC IMPACT ANALYSIS REPORT

AND

TRAFFIC MANAGEMENT PLAN

FOR THE PROPOSED

ST. RITA CATHOLIC CHURCH EXPANSION

NANAKULI, OAHU, HAWAII

TAX MAP KEYS: 8-9-005:001 & 8-9-007: PORTION 002 & PORTION 004

PREPARED FOR

ST. RITA CATHOLIC CHURCH

FEBRUARY 22, 2016

PREPARED BY

THE TRAFFIC MANAGEMENT CONSULTANT
RANDALL S. OKANEKU, P.E., PRINCIPAL * 1188 BISHOP STREET, SUITE 1907 * HONOLULU, HI 96813

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AND

TRAFFIC MANAGEMENT PLAN

FOR THE PROPOSED

ST. RITA CATHOLIC CHURCH EXPANSION

NANAKULI, OAHU, HAWAII

TAX MAP KEYS: 8-9-005:001 & 8-9-007: PORTION 002 & PORTION 004

I. Introduction

A. Project Description

St. Rita Catholic Church is proposing to expand its existing facility in Nanakuli, Oahu, Hawaii. The church expansion will include an office building, a community hall (multi-purpose building), and the reconstruction of the existing church. St. Rita Catholic Church is located at 89-318 Farrington Highway. The project site fronts the mauka (east) side of Farrington Highway and the makai (west) side of Pua Avenue. The project site is identified as Tax Map Keys: 8-9-005:001 and 8-9-007: Portion 002 and Portion 004. Figure 1 depicts the location and vicinity map.

The proposed development plan includes: the reconstruction of the existing church from a seating capacity of 180 seats to 400 seats; a community hall with 6,400 square feet of gross floor area (SFGFA), and an office building with 1,200 SFGFA. About 113 parking stalls exist on the project site, including eight (8) parking stalls, fronting Farrington Highway, which are located entirely within the church property. The construction of the proposed community hall and office building will remove about 16 stalls, resulting in about 97 stalls remaining on site. Site access will continue to be provided by two existing driveways: a right-turn-in/right-turn-out only driveway on Farrington Highway, about 800 feet south of Nanakuli Avenue; and a driveway at the south end of Pua Avenue. The makai entry to the main parking lot will be located about 100 feet from Farrington Highway. Full build out of the proposed development plan is expected by the Year 2019.

Figure 1. Location and Vicinity Map

Sunday Masses are held from 7:00 AM to 8:30 AM and from 9:00 AM to 10:30 AM. The community hall is expected to be used for Mass, while the new church is being constructed. Activities in both the new church and the community hall are not expected to occur simultaneously on Sundays. The weekday activities include: a food pantry, which feeds the homeless about three times a week; and counseling services, which are provided by Catholic Charities about two to three times a week. St. Rita Catholic Church does not have any plans to operate a daycare center. The project site is depicted on Figure 2.

B. Purpose and Scope of the Study

The purpose of this study is to analyze the traffic impacts resulting from the proposed St. Rita Catholic Church. This Traffic Impact Analysis Report (TIAR) also includes the development of a Traffic Management Plan (TMP), which assesses the traffic and parking operations of the proposed Church expansion. This report presents the findings and recommendations of the study, the scope which includes:

1. Evaluation of existing roadways and traffic conditions, during the Sunday peak hour of traffic.

2. Development of the trip generation and parking generation characteristics of the proposed project.

3. Analysis of the Year 2019 traffic conditions without the proposed project.

4. Identification and analysis of traffic impacts resulting from the development of the full build out of the proposed project.

5. Development of a Traffic Management Plan.

6. Recommendation of improvements, as necessary, that would mitigate the traffic and parking impacts identified in this study.

C. Methodologies

1. Capacity Analysis Methodology

The highway capacity analysis, performed for this study, is based upon procedures presented in the Highway Capacity Manual (HCM), published by the Transportation Research Board, 2010. HCM defines the Level of Service (LOS) as "a quality measure describing operational conditions within a traffic stream". Several factors may be included in determining LOS, such as: speed, travel time, freedom to maneuver, traffic interruptions, driver comfort, and convenience. LOS's "A", "B", and "C" are considered satisfactory Levels of Service. LOS "D" is generally considered a "desirable minimum" operating Level of Service. LOS's "E" and LOS "F" are considered undesirable conditions.

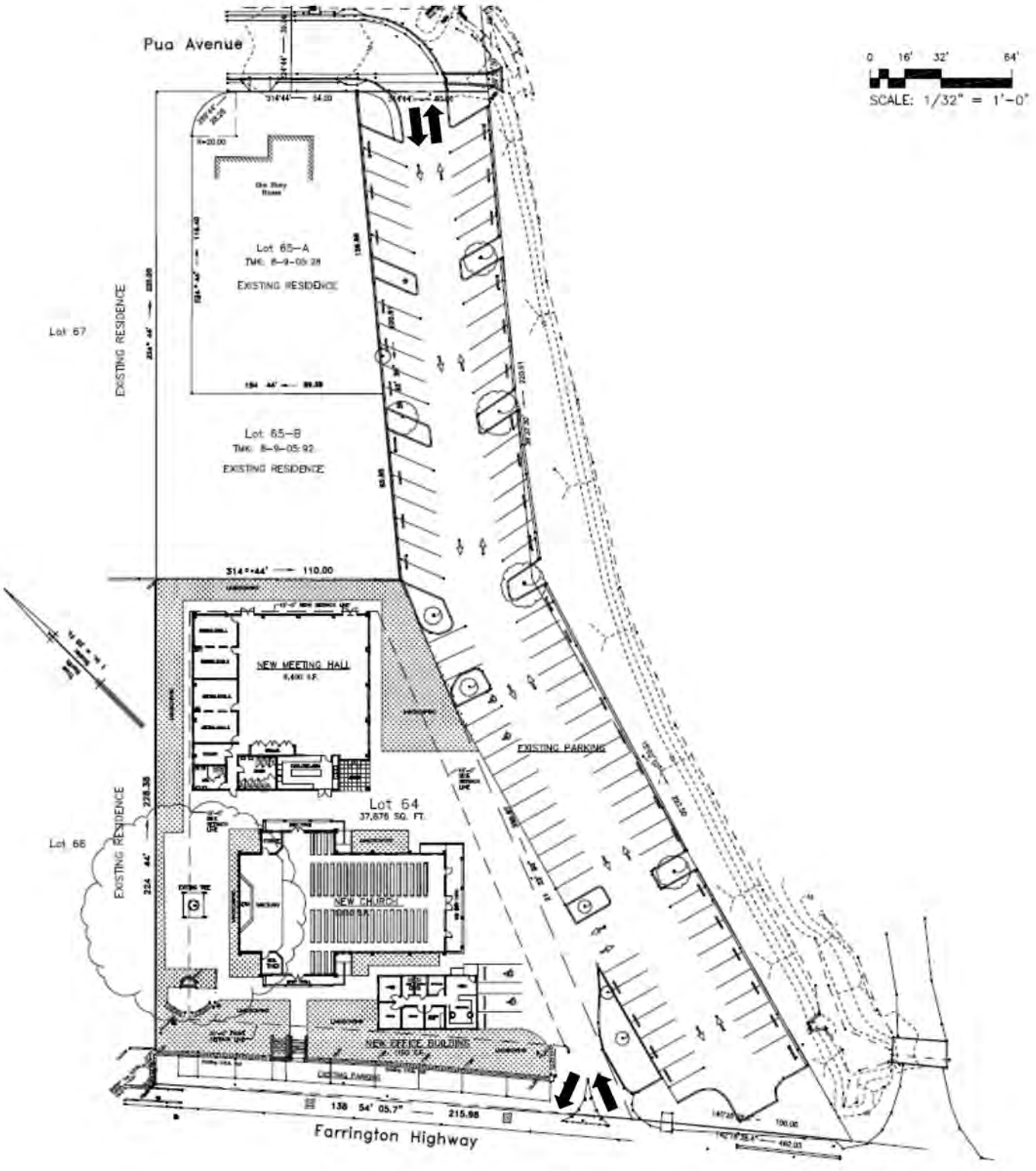

Figure 2. Conceptual Site Plan

Intersection LOS is primarily based upon average delay in seconds per vehicle (sec/veh). Worksheets for the capacity analysis, performed throughout this study, are compiled in the Appendix. Table 1 summarizes the LOS criteria.

Table 1. Level of Service Criteria (HCM)

LOS	Signalized Intersections	Unsignalized Intersections
	Control Delay (sec/veh)	Control Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 – 20	> 10 – 15
C	> 20 – 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50

2. Trip Generation Methodology

The trip generation methodology is based upon generally accepted techniques developed by the Institute of Transportation Engineers (ITE) and published in Trip Generation, 8th Edition. ITE trip rates are developed for a church by correlating the vehicle trip generation data with the seating capacity of a church, i.e., the vehicle trips per hour (vph) per seat.

The Sunday peak hour trip generation rates for the proposed Church were developed from the existing trip rates, which were observed at the St. Rita Catholic Church Sunday Mass.

3. Parking Generation Methodology

The parking generation methodology is based upon generally accepted techniques developed by ITE and published in Parking Generation, 4th Edition. ITE parking generation rates are developed by correlating the peak number of occupied parking stall data with various activity/land use characteristics, such as seating capacity.

The Sunday peak parking generation rate for the proposed Church expansion was developed from the existing peak parking generation rate, which was observed at the St. Rita Catholic Church during the Sunday Mass.

II. Existing Conditions

A. Roadways

Farrington Highway is the primary arterial highway on the Leeward coast of Oahu. Farrington Highway is a four-lane highway, which is oriented generally in the north-south

directions. Farrington Highway is signalized at Nanakuli Avenue. A protected-permissive left-turn phase is provided on southbound Farrington Highway at Nanakuli Avenue. Exclusive left-turn lanes are not provided on Farrington Highway at Nanakuli Avenue. Farrington Highway has a posted speed of 35 miles per hour (mph). Farrington Highway provides curbs, gutters, and sidewalks on the mauka side of the Highway from Nanakuli Avenue to the project site.

Nanakuli Avenue is a two-way, two-lane roadway, which intersects Farrington Highway at a signalized four-legged intersection, opposite the Nanakuli Beach Park Driveway. Curbs, gutters, and sidewalks are provided on both sides of Nanakuli Avenue.

Pua Avenue is a two-way, two-lane local street, which is stop-controlled at its four-legged intersection with Nanakuli Avenue. Pua Avenue runs roughly parallel to Farrington Highway, and is located about 450 feet mauka (east) of Farrington Highway. Curbs, gutters, and sidewalks are provided on both sides of Pua Avenue.

B. Public Transit

TheBus stops are located in both directions on Farrington Highway at Nanakuli Avenue and at Laumania Avenue.

C. Existing Peak Hour Traffic Volumes and Operating Conditions

1. Field Investigation and Data Collection

Turning movement traffic count surveys and pedestrian traffic surveys were conducted at the intersections of Farrington Highway at Nanakuli Avenue, and Nanakuli Avenue at Pua Avenue on Sunday, July 13, 2014, from 8:00 AM to 10:00 AM. A turning movement traffic count survey also was conducted at the existing St. Rita Catholic Church Driveway on Farrington Highway, during the same time period. A spot traffic count survey was conducted at the existing St. Rita Catholic Church driveway on Pua Avenue, during the peak hour of traffic from 8:15 AM to 9:15 AM. A parking survey was conducted at the St. Rita Catholic Church on Sunday, July 27, 2014 from 7:30 AM to 9:30 AM. The traffic and parking survey data are presented in the Appendix.

2. Existing Sunday Peak Hour Traffic

The St. Rita Catholic Church Sunday Masses were held at 7:00 AM and 9:00 AM. The peak hour of generator was expected to occur between the departing trips from the early Mass and the arriving trips for the second Mass. Accordingly, the existing Sunday peak hour generator for the St. Rita Catholic Church occurred between 8:15 AM and 9:15 AM, which was selected as the Sunday peak hour of traffic for this analysis.

Farrington Highway carried about 1,900 vehicles per hour (vph), total for both directions, during the Sunday peak hour of traffic. The peak direction of traffic on Farrington Highway was in the southbound direction, with a 61/39-percent split. Nanakuli Avenue carried about 300 vph, total for both directions. The south leg of Pua Avenue carried 60 vph. St. Rita Catholic Church generated a total of 108 vph, entering and exiting the site, during the Sunday peak hour of generator.

The intersection of Farrington Highway and Nanakuli Avenue operated at LOS "B", during the existing Sunday peak hour of traffic. The shared left-turn/through movement on makai bound Nanakuli Avenue operated at LOS "C". The other traffic movements at the intersection operated at LOS "B" or better.

Pua Avenue operated at LOS "B" and LOS "A" at Nanakuli Avenue in the northbound and southbound directions, respectively. The St. Rita Driveway on Farrington Highway operated at LOS "B". Figure 3 depicts the existing Sunday peak hour traffic.

3. Parking Data Collection

The parking survey began at 7:30 AM with 54 parked vehicles at the St. Rita Catholic Church. The vehicles entering and exiting the site were surveyed at one minute increments to monitor the parking occupancy. The peak parking demand of 65 vehicles occurred at the end of the survey period, including 5 vehicles parked along Farrington Highway.

III. Future Traffic Conditions

A. Future Highway Improvements

The State Department of Transportation (DOT) has begun preliminary work to widen Farrington Highway from the existing four-lane highway to add a new auxiliary lane to accommodate vehicles making left-turns at Nanakuli Avenue. The Draft Farrington Highway Intersections Improvements at Nanakuli Avenue and Haleakala Avenue, dated July 2009, was prepared by PB Americas, Inc. for DOT. The Farrington Highway intersection improvements also will include a shared pedestrian/ bicycle path on the makai side of Farrington Highway. The DOT-planned improvements are not taken into account in this traffic impact analysis.

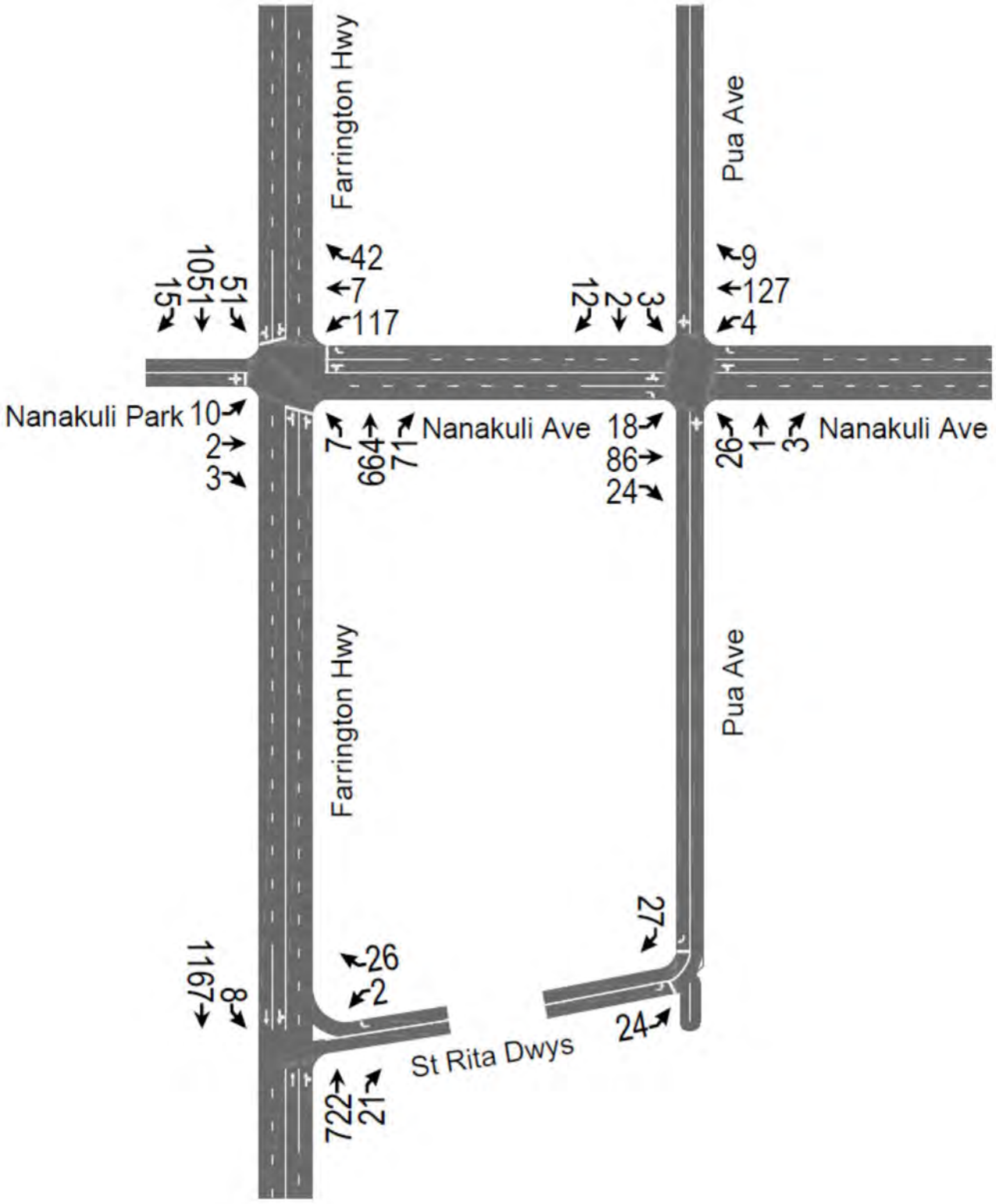

Figure 3. Existing Sunday Peak Hour Traffic

B. External Traffic

The PB traffic study for the Farrington Highway improvements used a background growth in traffic of 1.1 percent per year, based upon the OMPO travel demand forecasting model. A growth factor of 1.055 was uniformly applied to the existing (2014) Sunday peak hour traffic demands to estimate the Year 2019 Sunday peak hour traffic demands without the proposed project.

C. Sunday Peak Hour Traffic Analysis Without Project

The intersection of Farrington Highway and Nanakuli Avenue is expected to continue to operate at LOS "B", during the Sunday peak hour of traffic without the proposed project. The shared left-turn/through movement on makai bound Nanakuli Avenue is expected to operate at LOS "C", while the other traffic movements are expected to operate at LOS "B" or better.

Pua Avenue is expected to operate at LOS "B" and LOS "A" at Nanakuli Avenue in the northbound and southbound directions, respectively. The St. Rita Driveway on Farrington Highway is expected to operate at LOS "B". Figure 4 depicts the Sunday peak hour traffic without the proposed project.

IV. Traffic Impact Analysis

A. Project-Generated Traffic

1. Trip Generation Characteristics

The observed trip generation for St. Rita Catholic Church compared very closely with the ITE trip rates for a church. The proposed project is expected to generate a net increase of 132 vph, during the Sunday peak hour of traffic. Table 2 compares the trip generation characteristics, which include the ITE rates for a church (ITE Code 560) in vehicles per hour per seat (vphps) and the resulting ITE trip generation, the existing trip generation, and the trip generation with the proposed expansion.

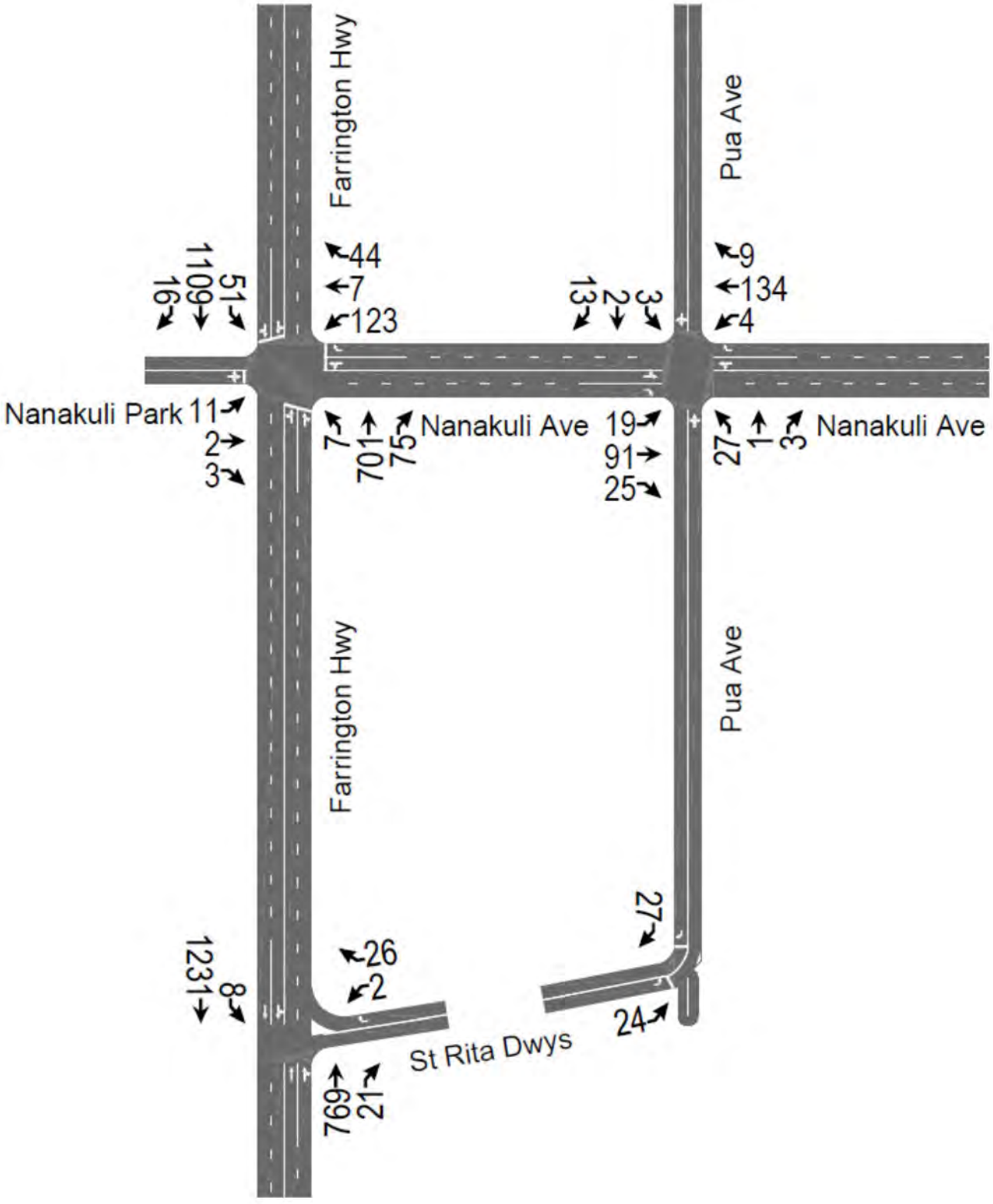

Figure 4. Sunday Peak Hour Traffic Without Project

Table 2. Sunday Trip Generation Characteristics							
Scenario	**Seats**	**Trips (vph)**			**Trip Rates (vphps)**		
		Enter	**Exit**	**Total**	**Enter**	**Exit**	**Total**
ITE (560)	**180**	56	54	110	0.31	0.30	0.61
Existing	**180**	56	52	108	0.31	0.29	0.60
Proposed	**400**	124	116	240	0.31	0.29	0.60
Net Increase	**220**	**68**	**64**	**132**	**N/A**	**N/A**	**N/A**

2. Trip Distribution

The trip distribution is based upon the existing traffic patterns. The existing left-turn volumes at the church access driveway on Farrington Highway were reassigned to the Pua Avenue driveway. The Sunday peak hour site-generated traffic assignment for the proposed project is depicted on Figure 5.

B. Sunday Peak Hour Traffic Analysis With Project

The intersection of Farrington Highway and Nanakuli Avenue is expected to operate at LOS "B", during the Sunday peak hour of traffic with the proposed project. The shared left-turn/through movement on makai bound Nanakuli Avenue is expected to operate at LOS "D". The ongoing DOT intersection improvements can be expected to improve the all traffic movements at the intersection to LOS "C" or better.

The other intersections in the study area are expected to operate at LOS "B" or better. Figure 6 depicts the Sunday peak hour traffic with the proposed project.

V. Traffic Management Plan

A. Sunday Peak Hour Parking Generation

The ITE peak Sunday parking demand for a church with 400 seats is 80 parking spaces, or 0.20 space per seat. The Sunday parking generation rate of 0.36 space per seat was developed from the observed peak parking demand of 65 stalls and the existing 180-seat St. Rita Catholic Church. The observed parking generation rate of 0.36 space/seat was used to estimate the peak parking demand of 144 stalls for the proposed project.

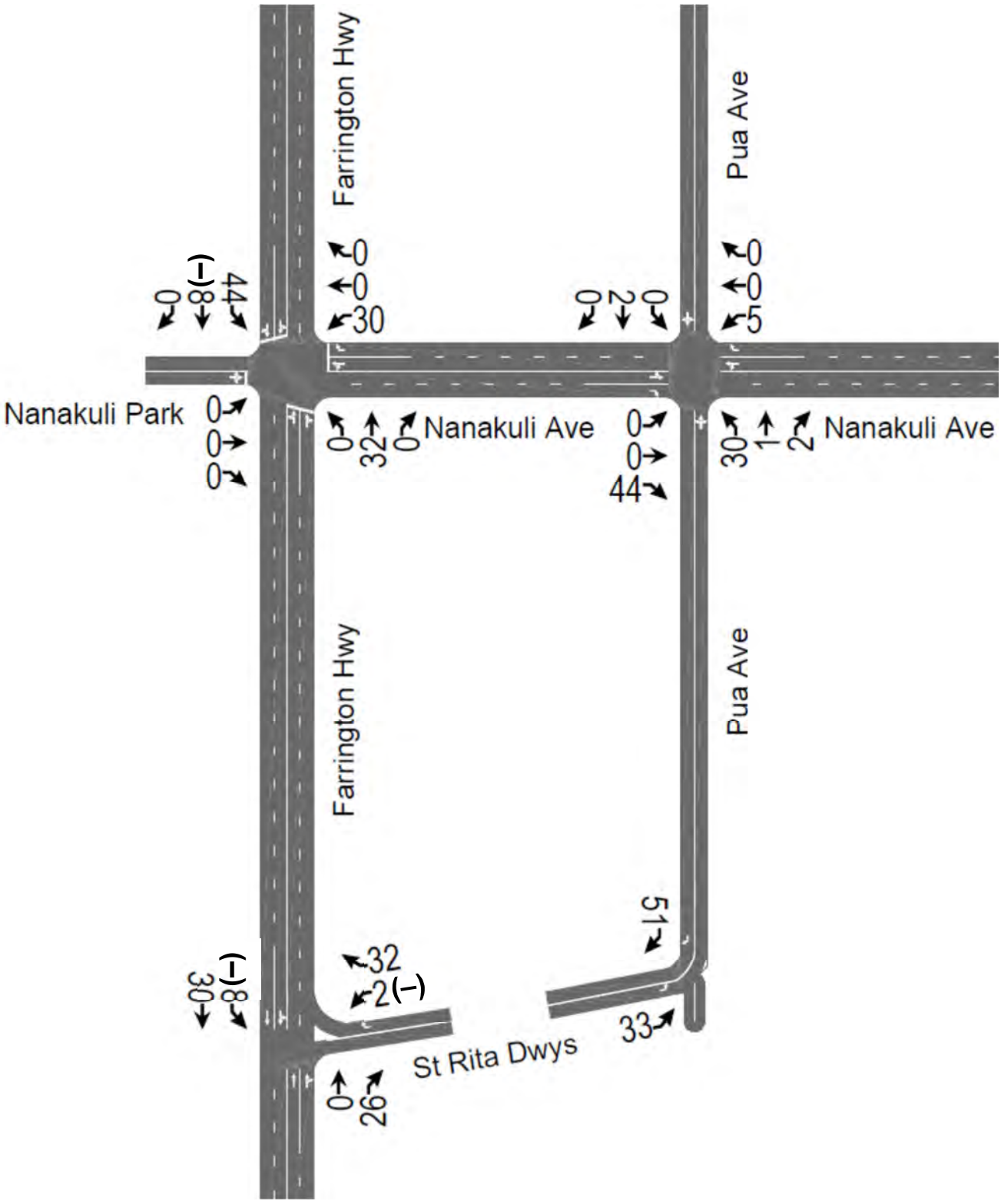

Figure 5. Sunday Peak Hour Site-Generated Traffic Assignment

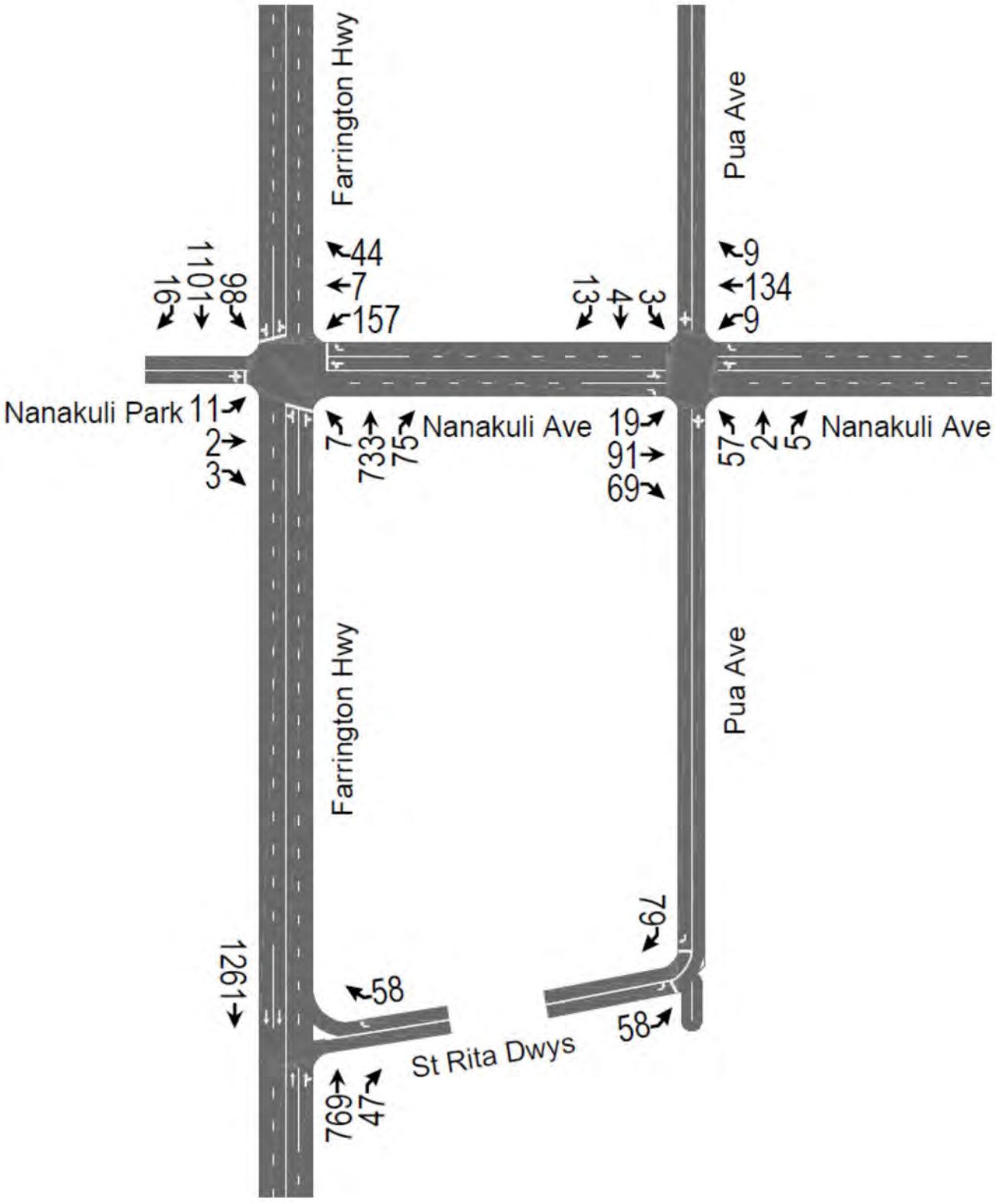

Figure 6. Sunday Peak Hour Traffic With Project

B. Sunday Parking Impacts

The 97-stall on-site parking capacity would require an additional 47 spaces to accommodate the 400-seat church, for a total of 144 parking spaces. Attendant-assisted tandem parking will be required to accommodate the additional 47 spaces on the church property.

St. Rita Catholic Church has reported that off-site parking has not been needed in the past. However, if additional parking is needed for large events in the future, potential off-site parking sites may include: Nanakuli Beach Park, which is located across Farrington Highway; and Nanakuli Ranch property, which is located immediately to the south of the project site. St. Rita Catholic Church will provide shuttle bus services to/from off-site parking locations, as necessary.

VI. Recommendations and Conclusions

A. Recommendations

1. Tandem parking operations should be implemented by St. Rita Catholic Church, as necessary, to avoid members having to park on the streets in the neighborhood. Up to forty-seven (47) tandem parking stalls would be required on Sunday for the proposed 400-seat church.

2. St. Rita Catholic Church should direct its members to not to make left turns to and from the existing right-turn-in/right-turn-out driveway on Farrington Highway. Motorists should be diverted to the Pua Avenue driveway.

3. St. Rita Catholic Church should direct its members not to park within the Farrington Highway right-of-way.

4. St. Rita Catholic Church should make arrangements for off-site parking and shuttle bus services, during large special events, if the parking demands are expected to exceed the on-site parking capacity.

5. St. Rita Catholic Church should provide secured bicycle racks on site to promote the use of the bicycle mode of transportation, as necessary.

B. Conclusions

The proposed St. Rita Catholic Church is expected to generate its peak hour traffic between Sunday morning Masses, when ambient traffic conditions are significantly lower than the weekday peak hour traffic. The traffic generated by the proposed St. Rita Catholic Church expansion is expected to increase Sunday peak hour traffic on Farrington Highway by 3.5 percent, north of Nanakuli Avenue, and by 2.7 percent, south of the St. Rita Catholic Church Driveway. Therefore, the increase in Sunday peak hour traffic on Farrington

Highway, resulting from the proposed project, is not expected significantly impact traffic operations beyond the study area.

The 97-stall parking capacity, provided on site, will exceed the ITE parking generation for a 400-seat church. However, the parking survey indicated that the 144-stall parking demand for St. Rita Catholic Church is expected to exceed the 97-stall parking capacity by about 47 parking spaces. The excess parking demand is expected to be accommodated by implementing attendant-assisted tandem parking operations on site.

The DOT-planned widening of Farrington Highway to include an exclusive left-turn lane at Nanakuli Avenue can be expected to improve traffic operations to satisfactory Levels of Service, during the Sunday peak hour of traffic with the proposed St. Rita Catholic Church expansion. Table 3 summarizes the capacity analysis at the intersections in the study area.

Table 3. Summary of Capacity Analysis

Scenario	Intersection	MOE	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
Existing Sunday Peak Hour Traffic	Farrington Hwy and Nanakuli Ave	LOS	B			C		A	A			B			B
		v/c	0.05			0.56		0.12	0.46			0.64			0.64 (max)
		Delay	17.6			28.4		5.1	8.2			10.5			11.0
	Nanakuli Ave and Pua Ave	LOS	A	A	-	A	A	-	B			A			A
		v/c	0.02	-	-	0.00	-	-	0.05			0.02			N/A
		Delay	7.6	0.0	-	7.5	0.0	-	10.5			9.5			2.0
	Farrington Hwy and St Rita Dwy	LOS	N/A	N/A	N/A	B	N/A	B	N/A	-	-	A	A	N/A	A
		v/c	N/A	N/A	N/A	0.05	N/A	0.05	N/A	-	-	0.01	-	N/A	N/A
		Delay	N/A	N/A	N/A	10.8	N/A	10.8	N/A	-	-	9.3	0.2	N/A	0.3
Sunday Peak Hour Traffic Without Project	Farrington Hwy and Nanakuli Ave	LOS	B			C		A	A			B			B
		v/c	0.05			0.59		0.12	0.48			0.66			0.66 (max)
		Delay	19.3			31.3		5.6	8.4			11.0			11.6
	Nanakuli Ave and Pua Ave	LOS	A	A	-	A	A	-	B			A			A
		v/c	0.02	-	-	0	-	-	0.05			0.03			N/A
		Delay	7.6	0.0	-	7.5	0.0	-	10.7			9.5			2.1
	Farrington Hwy and St Rita Dwy	LOS	N/A	N/A	N/A		B		N/A	-	-	A	A	N/A	A
		v/c	N/A	N/A	N/A		0.05		N/A	-	-	0.01	-	N/A	N/A
		Delay	N/A	N/A	N/A		11.0		N/A	-	-	9.6	0.2	N/A	0.3
Sunday Peak Hour Traffic With Project	Farrington Hwy and Nanakuli Ave	LOS	C			D		A	A			B			B
		v/c	0.05			0.72		0.12	0.48			0.75			0.75 (max)
		Delay	23.4			43.1		5.7	9.2			14.7			15.2
	Nanakuli Ave and Pua Ave	LOS	A	A	-	A	A	-	B			A			A
		v/c	0.02	-	-	0.01	-	-	0.12			0.03			N/A
		Delay	7.6	0.0	-	7.6	0.0	-	11.6			9.9			2.8
	Farrington Hwy and St Rita Dwy	LOS	N/A	N/A	N/A	N/A	N/A	B	N/A	-	-	A	-	N/A	A
		v/c	N/A	N/A	N/A	N/A	N/A	0.11	N/A	-	-	-	-	N/A	N/A
		Delay	N/A	N/A	N/A	N/A	N/A	11.9	N/A	-	-	0.0	-	N/A	0.3
	Farrington Hwy and Nanakuli Ave W/Improvements	LOS	B			C		A	C	B		C	B		B
		v/c	0.05			0.68		0.10	0.66	0.66		0.40	0.59		0.68 (max)
		Delay	18.4			34.7		0.4	34.9	18.8		35.0	12.1		17.6

Legend

MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay (seconds/vehicle)
v/c - Volume-to-Capacity Ratio
max. - maximum

EBL - Eastbound Left-Turn Movement
EBT - Eastbound Through Movement
EBR - East Bound Right-Turn Movement
WBL - Westbound Left-Turn Movement
WBT - Westbound Through Movement
WBR - Westbound Right-turn Movement

NBL - Northbound Left-Turn Movement
NBT - Northbound Through Movement
NBR - Northbound Right-Turn Movement
SBL - Southbound Left-Turn Movement
SBT - Southbound Through Movement
SBR - Southbound Right-Turn Movement

TRAFFIC IMPACT ANALYSIS REPORT

AND

TRAFFIC MANAGEMENT PLAN

FOR THE PROPOSED

ST. RITA CATHOLIC CHURCH EXPANSION

NANAKULI, OAHU, HAWAII

TAX MAP KEYS: 8-9-005:001 & 8-9-007: PORTION 002 & PORTION 004

APPENDIX A

TRAFFIC COUNT DATA

The Traffic Management Consultant
1188 Bishop Street, Suite 1907

Honolulu, Hawaii, United States 96813
808-536-0223 tmchawaii@aol.com

Count Name: Farrington Hwy
Nanakuli Ave
Site Code: St Rita Church
Start Date: 07/13/2014

Turning Movement Data

Start Time	Nanakuli Park Eastbound					Nanakuli Ave Westbound					Farrington Hwy Northbound					Farrington Hwy Southbound					Int. Total
	Left-Turn	Thru	Right-Turn	Peds	App. Total	Left-Turn	Thru	Right-Turn	Peds	App. Total	Left-Turn	Thru	Right-Turn	Peds	App. Total	Left-Turn	Thru	Right-Turn	Peds	App. Total	
8:00 AM	3	0	1	1	4	28	1	7	3	36	2	136	10	0	148	9	232	1	1	242	430
8:15 AM	1	0	0	0	1	34	1	8	1	43	0	156	23	0	179	16	270	2	0	288	511
8:30 AM	1	0	1	1	2	42	3	12	2	57	2	195	16	0	213	13	264	3	2	280	552
8:45 AM	4	2	1	0	7	21	1	11	1	33	3	156	17	0	176	13	276	5	2	294	510
Hourly Total	9	2	3	2	14	125	6	38	7	169	7	643	66	0	716	51	1042	11	5	1104	2003
9:00 AM	4	0	1	0	5	20	2	11	0	33	2	157	15	0	174	9	241	5	3	255	467
9:15 AM	2	3	0	0	5	32	1	6	1	39	1	180	21	0	202	8	344	1	2	353	599
9:30 AM	2	1	3	0	6	33	1	12	2	46	1	166	16	0	183	6	301	1	1	308	543
9:45 AM	1	1	7	0	9	28	1	11	0	40	1	165	17	0	183	11	283	5	1	299	531
Hourly Total	9	5	11	0	25	113	5	40	3	158	5	668	69	0	742	34	1169	12	7	1215	2140
Grand Total	18	7	14	2	39	238	11	78	10	327	12	1311	135	0	1458	85	2211	23	12	2319	4143
Approach %	46.2	17.9	35.9	-	-	72.8	3.4	23.9	-	-	0.8	89.9	9.3	-	-	3.7	95.3	1.0	-	-	-
Total %	0.4	0.2	0.3	-	0.9	5.7	0.3	1.9	-	7.9	0.3	31.6	3.3	-	35.2	2.1	53.4	0.6	-	56.0	-
Lights	18	7	14	-	39	237	11	77	-	325	11	1284	133	-	1428	82	2183	23	-	2288	4080
% Lights	100.0	100.0	100.0	-	100.0	99.6	100.0	98.7	-	99.4	91.7	97.9	98.5	-	97.9	96.5	98.7	100.0	-	98.7	98.5
Mediums	0	0	0	-	0	1	0	1	-	2	1	21	2	-	24	3	27	0	-	30	56
% Mediums	0.0	0.0	0.0	-	0.0	0.4	0.0	1.3	-	0.6	8.3	1.6	1.5	-	1.6	3.5	1.2	0.0	-	1.3	1.4
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	6	0	-	6	0	1	0	-	1	7
% Articulated Trucks	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.5	0.0	-	0.4	0.0	0.0	0.0	-	0.0	0.2
Pedestrians	-	-	-	2	-	-	-	-	10	-	-	-	-	0	-	-	-	-	12	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

The Traffic Management Consultant
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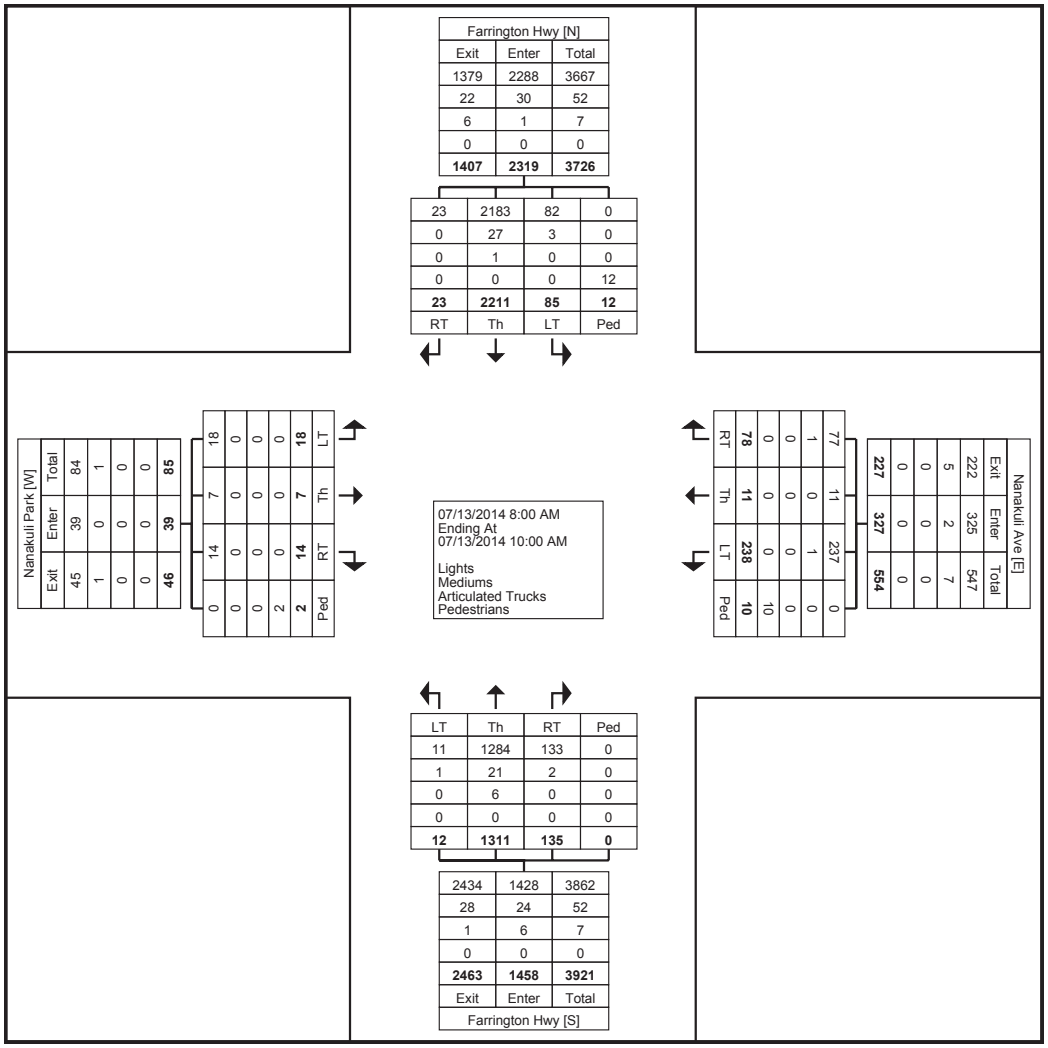
808-536-0223 tmchawaii@aol.com

Count Name: Farrington Hwy
Nanakuli Ave
Site Code: St Rita Church
Start Date: 07/13/2014



Turning Movement Data Plot

The Traffic Management Consultant
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Honolulu, Hawaii, United States 96813
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Count Name: Farrington Hwy
Nanakuli Ave
Site Code: St Rita Church
Start Date: 07/13/2014

Turning Movement Peak Hour Data (8:15 AM)

Start Time	Nanakuli Park Eastbound					Nanakuli Ave Westbound					Farrington Hwy Northbound					Farrington Hwy Southbound					
	Left-Turn	Thru	Right-Turn	Peds	App. Total	Left-Turn	Thru	Right-Turn	Peds	App. Total	Left-Turn	Thru	Right-Turn	Peds	App. Total	Left-Turn	Thru	Right-Turn	Peds	App. Total	Int. Total
8:15 AM	1	0	0	0	1	34	1	8	1	43	0	156	23	0	179	16	270	2	0	288	511
8:30 AM	1	0	1	1	2	42	3	12	2	57	2	195	16	0	213	13	264	3	2	280	552
8:45 AM	4	2	1	0	7	21	1	11	1	33	3	156	17	0	176	13	276	5	2	294	510
9:00 AM	4	0	1	0	5	20	2	11	0	33	2	157	15	0	174	9	241	5	3	255	467
Total	10	2	3	1	15	117	7	42	4	166	7	664	71	0	742	51	1051	15	7	1117	2040
Approach %	66.7	13.3	20.0	-	-	70.5	4.2	25.3	-	-	0.9	89.5	9.6	-	-	4.6	94.1	1.3	-	-	-
Total %	0.5	0.1	0.1	-	0.7	5.7	0.3	2.1	-	8.1	0.3	32.5	3.5	-	36.4	2.5	51.5	0.7	-	54.8	-
PHF	0.625	0.250	0.750	-	0.536	0.696	0.583	0.875	-	0.728	0.583	0.851	0.772	-	0.871	0.797	0.952	0.750	-	0.950	0.924
Lights	10	2	3	-	15	117	7	41	-	165	6	648	70	-	724	50	1041	15	-	1106	2010
% Lights	100.0	100.0	100.0	-	100.0	100.0	100.0	97.6	-	99.4	85.7	97.6	98.6	-	97.6	98.0	99.0	100.0	-	99.0	98.5
Mediums	0	0	0	-	0	0	0	1	-	1	1	13	1	-	15	1	10	0	-	11	27
% Mediums	0.0	0.0	0.0	-	0.0	0.0	0.0	2.4	-	0.6	14.3	2.0	1.4	-	2.0	2.0	1.0	0.0	-	1.0	1.3
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	3	0	-	3	0	0	0	-	0	3
% Articulated Trucks	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.5	0.0	-	0.4	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	1	-	-	-	-	4	-	-	-	-	0	-	-	-	-	7	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-

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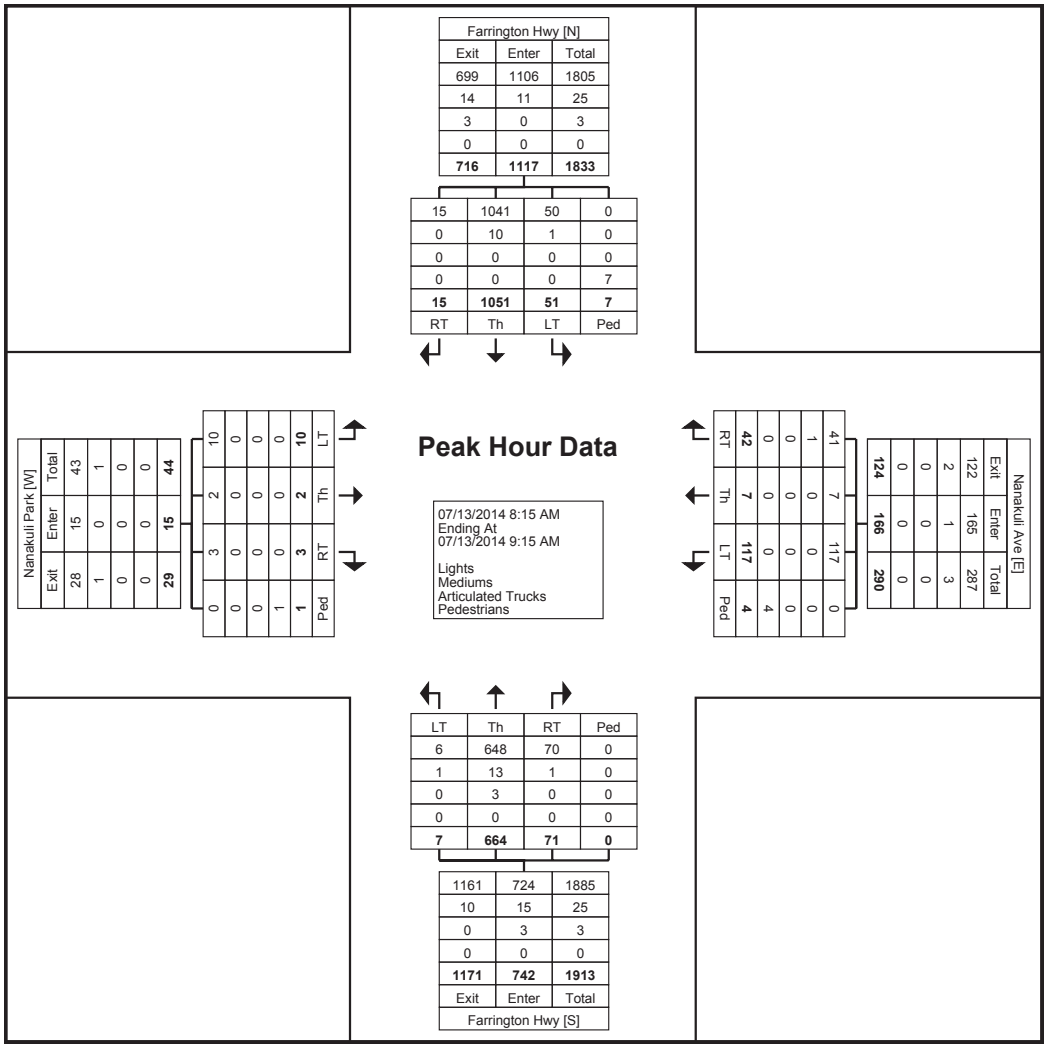

Turning Movement Peak Hour Data Plot (8:15 AM)

The Traffic Management Consultant
1188 Bishop Street, Suite 1907

Honolulu, Hawaii, United States 96813
808-536-0223 tmchawaii@aol.com

Count Name: Nanakuli Ave Pua Ave
Site Code:
Start Date: 07/13/2014

Turning Movement Data

Start Time	Nanakuli Ave Eastbound					Nanakuli Ave Westbound					Pua Ave Northbound					Pua Ave Southbound					Int. Total
	Left-Turn	Thru	Right-Turn	Peds	App. Total	Left-Turn	Thru	Right-Turn	Peds	App. Total	Left-Turn	Thru	Right-Turn	Peds	App. Total	Left-Turn	Thru	Right-Turn	Peds	App. Total	
8:00 AM	4	14	2	0	20	1	35	1	0	37	3	0	0	0	3	0	0	1	0	1	61
8:15 AM	8	21	6	0	35	1	37	3	0	41	9	0	1	0	10	0	0	2	1	2	88
8:30 AM	3	25	3	1	31	1	40	6	0	47	11	0	1	0	12	1	0	2	0	3	93
8:45 AM	4	22	11	0	37	2	24	0	0	26	3	1	0	1	4	2	2	5	1	9	76
Hourly Total	19	82	22	1	123	5	136	10	0	151	26	1	2	1	29	3	2	10	2	15	318
9:00 AM	3	18	4	0	25	0	26	0	0	26	3	0	1	0	4	0	0	3	3	3	58
9:15 AM	4	22	3	0	29	2	35	4	0	41	3	0	2	0	5	0	0	1	1	1	76
9:30 AM	4	17	1	1	22	1	37	2	0	40	2	0	2	4	4	4	0	8	4	12	78
9:45 AM	2	24	0	3	26	2	33	1	0	36	1	0	1	8	2	0	0	7	2	7	71
Hourly Total	13	81	8	4	102	5	131	7	0	143	9	0	6	12	15	4	0	19	10	23	283
Grand Total	32	163	30	5	225	10	267	17	0	294	35	1	8	13	44	7	2	29	12	38	601
Approach %	14.2	72.4	13.3	-	-	3.4	90.8	5.8	-	-	79.5	2.3	18.2	-	-	18.4	5.3	76.3	-	-	-
Total %	5.3	27.1	5.0	-	37.4	1.7	44.4	2.8	-	48.9	5.8	0.2	1.3	-	7.3	1.2	0.3	4.8	-	6.3	-
Lights	31	160	30	-	221	10	266	17	-	293	35	1	8	-	44	7	2	28	-	37	595
% Lights	96.9	98.2	100.0	-	98.2	100.0	99.6	100.0	-	99.7	100.0	100.0	100.0	-	100.0	100.0	100.0	96.6	-	97.4	99.0
Mediums	1	3	0	-	4	0	1	0	-	1	0	0	0	-	0	0	0	1	-	1	6
% Mediums	3.1	1.8	0.0	-	1.8	0.0	0.4	0.0	-	0.3	0.0	0.0	0.0	-	0.0	0.0	0.0	3.4	-	2.6	1.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	5	-	-	-	-	0	-	-	-	-	13	-	-	-	-	12	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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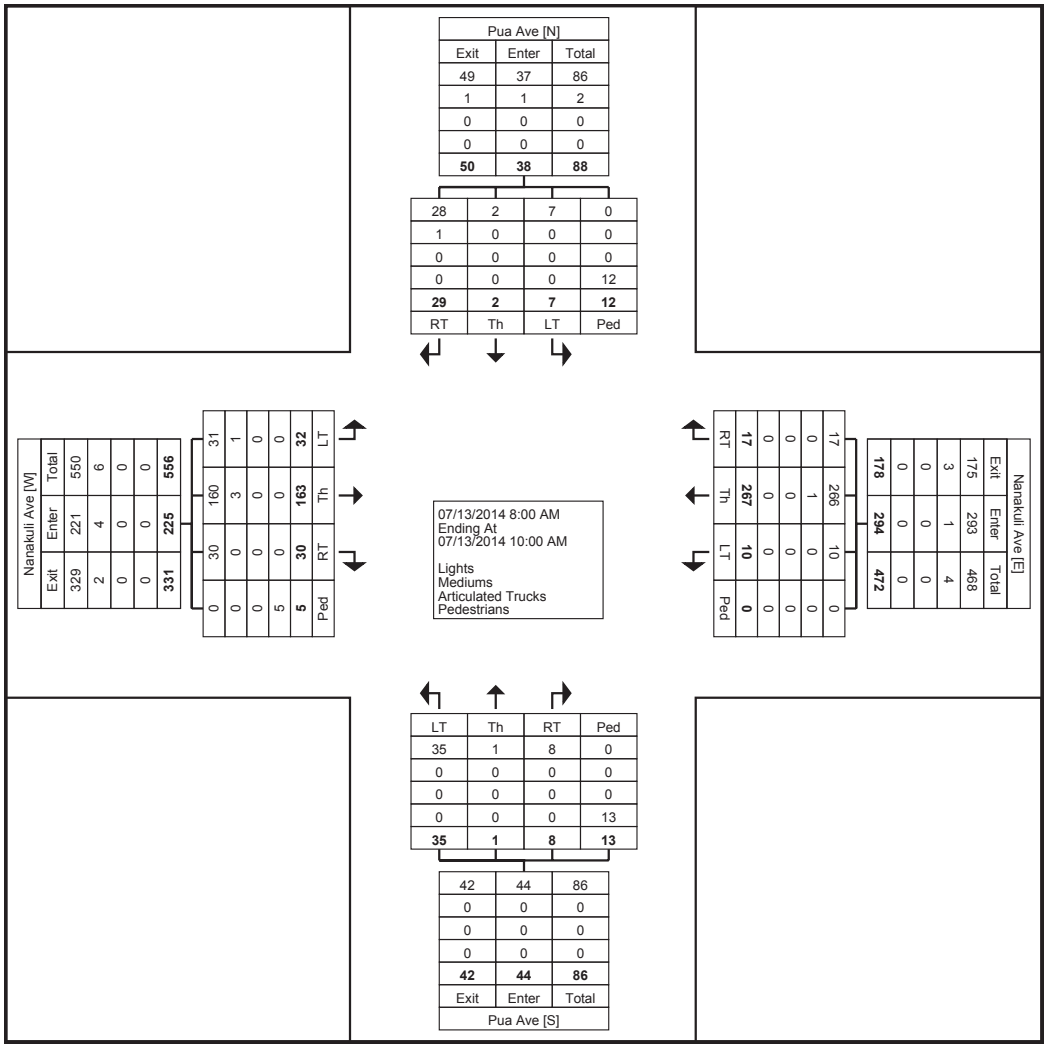
Count Name: Nanakuli Ave Pua Ave
Site Code:
Start Date: 07/13/2014



Turning Movement Data Plot

The Traffic Management Consultant
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Honolulu, Hawaii, United States 96813
808-536-0223 tmchawaii@aol.com

Count Name: Nanakuli Ave Pua Ave
Site Code:
Start Date: 07/13/2014

Turning Movement Peak Hour Data (8:15 AM)

Start Time	Nanakuli Ave Eastbound					Nanakuli Ave Westbound					Pua Ave Northbound					Pua Ave Southbound					
	Left-Turn	Thru	Right-Turn	Peds	App. Total	Left-Turn	Thru	Right-Turn	Peds	App. Total	Left-Turn	Thru	Right-Turn	Peds	App. Total	Left-Turn	Thru	Right-Turn	Peds	App. Total	Int. Total
8:15 AM	8	21	6	0	35	1	37	3	0	41	9	0	1	0	10	0	0	2	1	2	88
8:30 AM	3	25	3	1	31	1	40	6	0	47	11	0	1	0	12	1	0	2	0	3	93
8:45 AM	4	22	11	0	37	2	24	0	0	26	3	1	0	1	4	2	2	5	1	9	76
9:00 AM	3	18	4	0	25	0	26	0	0	26	3	0	1	0	4	0	0	3	3	3	58
Total	18	86	24	1	128	4	127	9	0	140	26	1	3	1	30	3	2	12	5	17	315
Approach %	14.1	67.2	18.8	-	-	2.9	90.7	6.4	-	-	86.7	3.3	10.0	-	-	17.6	11.8	70.6	-	-	-
Total %	5.7	27.3	7.6	-	40.6	1.3	40.3	2.9	-	44.4	8.3	0.3	1.0	-	9.5	1.0	0.6	3.8	-	5.4	-
PHF	0.563	0.860	0.545	-	0.865	0.500	0.794	0.375	-	0.745	0.591	0.250	0.750	-	0.625	0.375	0.250	0.600	-	0.472	0.847
Lights	18	84	24	-	126	4	127	9	-	140	26	1	3	-	30	3	2	11	-	16	312
% Lights	100.0	97.7	100.0	-	98.4	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	91.7	-	94.1	99.0
Mediums	0	2	0	-	2	0	0	0	-	0	0	0	0	-	0	0	0	1	-	1	3
% Mediums	0.0	2.3	0.0	-	1.6	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	8.3	-	5.9	1.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	1	-	-	-	-	0	-	-	-	-	1	-	-	-	-	5	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-

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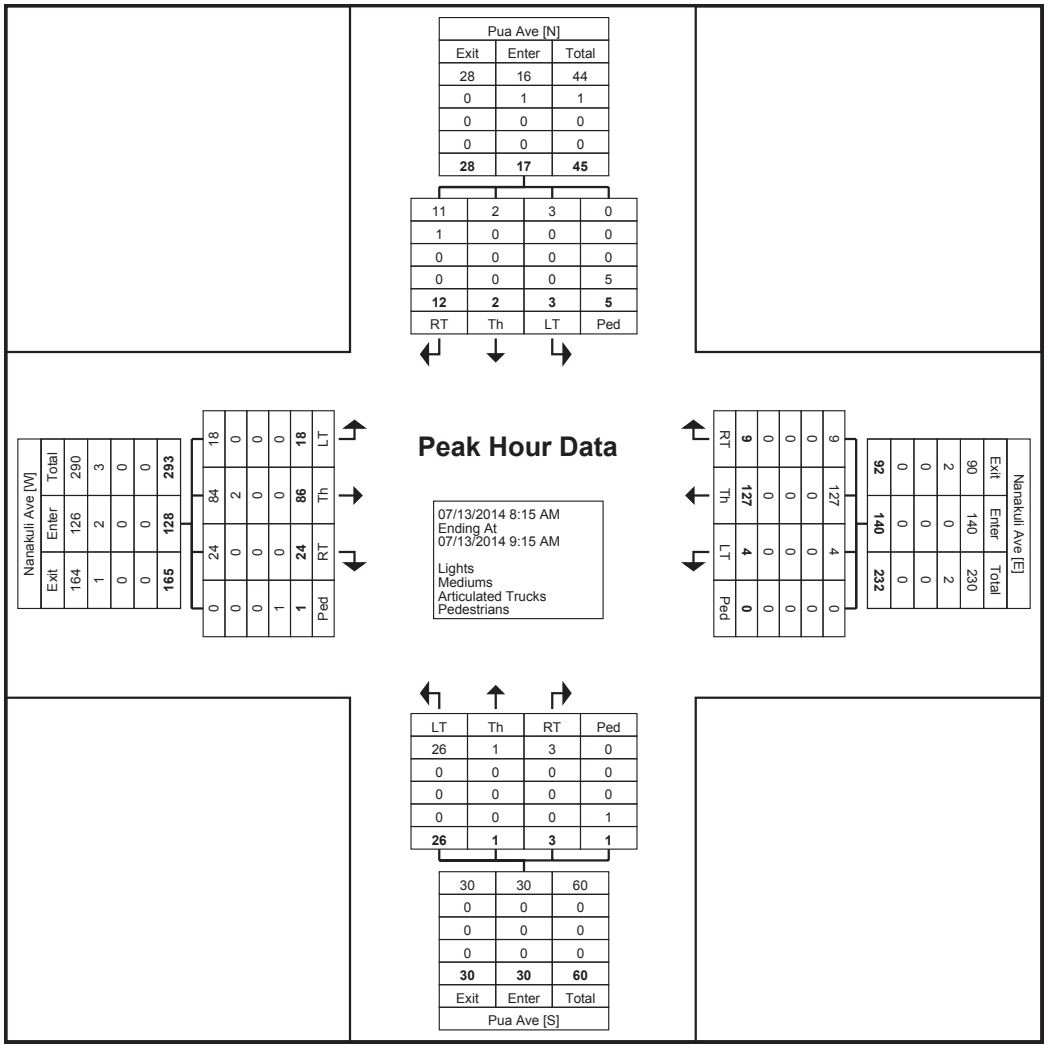
Count Name: Nanakuli Ave Pua Ave
Site Code:
Start Date: 07/13/2014



Turning Movement Peak Hour Data Plot (8:15 AM)

The Traffic Management Consultant
1188 Bishop Street, Suite 1907

Honolulu, Hawaii, United States 96813
808-536-0223 tmchawaii@aol.com

Count Name: Farrington Hwy St Rita Dwy
Site Code:
Start Date: 07/13/2014

Turning Movement Data

Start Time	St Rita Dwy Westbound			Farrington Hwy Northbound			Farrington Hwy Southbound			
	Left-Turn	Right-Turn	App. Total	Thru	Right-Turn	App. Total	Left-Turn	Thru	App. Total	Int. Total
8:00 AM	0	1	1	155	0	155	0	260	260	416
8:15 AM	0	12	12	168	0	168	1	304	305	485
8:30 AM	1	12	13	205	8	213	1	308	309	535
8:45 AM	0	2	2	182	10	192	1	286	287	481
Hourly Total	1	27	28	710	18	728	3	1158	1161	1917
9:00 AM	1	0	1	174	3	177	5	269	274	452
9:15 AM	0	1	1	198	1	199	2	365	367	567
9:30 AM	0	0	0	177	1	178	0	346	346	524
9:45 AM	0	0	0	184	1	185	0	318	318	503
Hourly Total	1	1	2	733	6	739	7	1298	1305	2046
Grand Total	2	28	30	1443	24	1467	10	2456	2466	3963
Approach %	6.7	93.3	-	98.4	1.6	-	0.4	99.6	-	-
Total %	0.1	0.7	0.8	36.4	0.6	37.0	0.3	62.0	62.2	-
Lights	2	28	30	1409	24	1433	10	2425	2435	3898
% Lights	100.0	100.0	100.0	97.6	100.0	97.7	100.0	98.7	98.7	98.4
Mediums	0	0	0	28	0	28	0	31	31	59
% Mediums	0.0	0.0	0.0	1.9	0.0	1.9	0.0	1.3	1.3	1.5
Articulated Trucks	0	0	0	6	0	6	0	0	0	6
% Articulated Trucks	0.0	0.0	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.2

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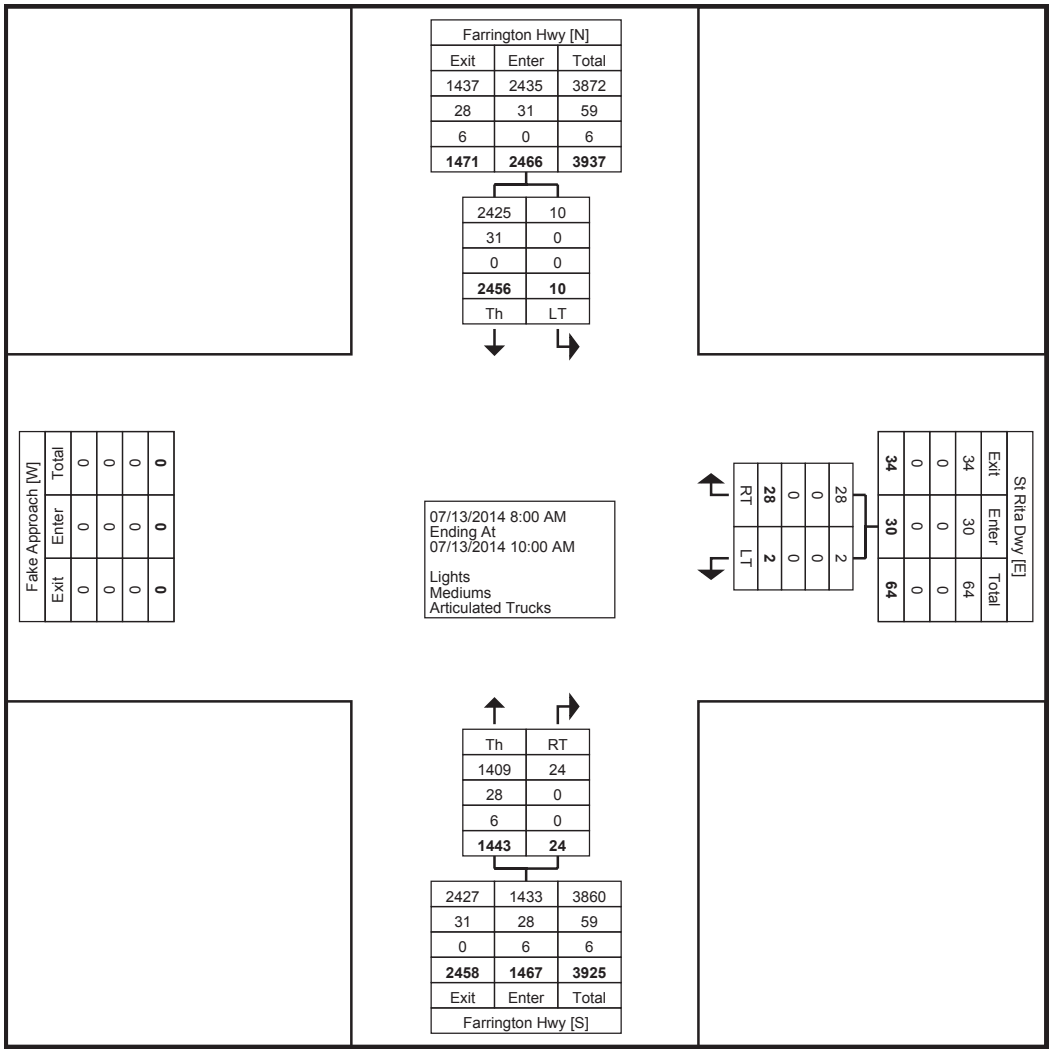
Count Name: Farrington Hwy St Rita Dwy
Site Code:
Start Date: 07/13/2014



Turning Movement Data Plot

The Traffic Management Consultant
1188 Bishop Street, Suite 1907

Honolulu, Hawaii, United States 96813
808-536-0223 tmchawaii@aol.com

Count Name: Farrington Hwy St Rita Dwy
Site Code:
Start Date: 07/13/2014

Turning Movement Peak Hour Data (8:15 AM)

Start Time	St Rita Dwy Westbound			Farrington Hwy Northbound			Farrington Hwy Southbound			
	Left-Turn	Right-Turn	App. Total	Thru	Right-Turn	App. Total	Left-Turn	Thru	App. Total	Int. Total
8:15 AM	0	12	12	168	0	168	1	304	305	485
8:30 AM	1	12	13	205	8	213	1	308	309	535
8:45 AM	0	2	2	182	10	192	1	286	287	481
9:00 AM	1	0	1	174	3	177	5	269	274	452
Total	2	26	28	729	21	750	8	1167	1175	1953
Approach %	7.1	92.9	-	97.2	2.8	-	0.7	99.3	-	-
Total %	0.1	1.3	1.4	37.3	1.1	38.4	0.4	59.8	60.2	-
PHF	0.500	0.542	0.538	0.889	0.525	0.880	0.400	0.947	0.951	0.913
Lights	2	26	28	710	21	731	8	1155	1163	1922
% Lights	100.0	100.0	100.0	97.4	100.0	97.5	100.0	99.0	99.0	98.4
Mediums	0	0	0	16	0	16	0	12	12	28
% Mediums	0.0	0.0	0.0	2.2	0.0	2.1	0.0	1.0	1.0	1.4
Articulated Trucks	0	0	0	3	0	3	0	0	0	3
% Articulated Trucks	0.0	0.0	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.2

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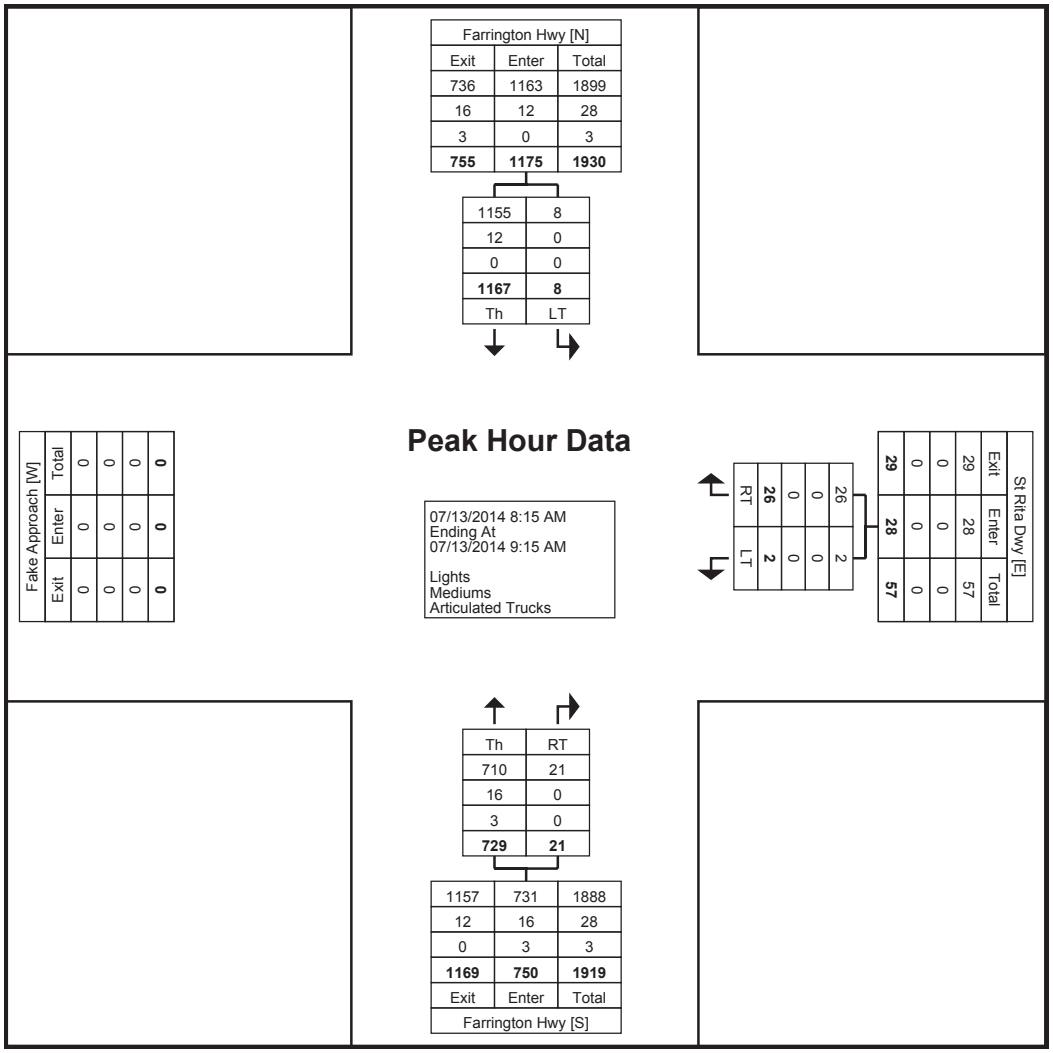
Count Name: Farrington Hwy St Rita Dwy
Site Code:
Start Date: 07/13/2014



Turning Movement Peak Hour Data Plot (8:15 AM)

Sunday Peak Hour Traffic

Vehicles

Date	7/13/14	Pua Avenue Driveway	
From	To	Enter	Exit
8:15 AM	8:30 AM	7	9
8:30 AM	8:45 AM	3	10
8:45 AM	9:00 AM	15	3
9:00 AM	9:15 AM	2	2
Peak Hour Total		27	24

Study Name: St Rita Catholic Church Nanakuli
Start Date: 7/27/2014 Start Time 7:30 AM
Parking Survey

Time Period		St Rita Farrington Dwy			St Rita Pua Dwy			Occupied
From	To	Enter	Exit	Total	Enter	Exit	Total	Stalls
							Before 7:30 AM	54
7:30 AM	7:31 AM	0	1	1	0	0	0	53
7:31 AM	7:32 AM	0	0	0	0	0	0	53
7:32 AM	7:33 AM	0	0	0	0	0	0	53
7:33 AM	7:34 AM	0	0	0	0	0	0	53
7:34 AM	7:35 AM	0	0	0	0	0	0	53
7:35 AM	7:36 AM	0	0	0	0	0	0	53
7:36 AM	7:37 AM	0	0	0	0	0	0	53
7:37 AM	7:38 AM	0	0	0	0	0	0	53
7:38 AM	7:39 AM	0	0	0	0	0	0	53
7:39 AM	7:40 AM	0	0	0	0	0	0	53
7:40 AM	7:41 AM	0	0	0	0	0	0	53
7:41 AM	7:42 AM	0	0	0	0	0	0	53
7:42 AM	7:43 AM	0	0	0	0	0	0	53
7:43 AM	7:44 AM	0	0	0	0	0	0	53
7:44 AM	7:45 AM	0	0	0	0	0	0	53
7:45 AM	7:46 AM	0	0	0	0	0	0	53
7:46 AM	7:47 AM	0	0	0	0	0	0	53
7:47 AM	7:48 AM	0	0	0	0	0	0	53
7:48 AM	7:49 AM	0	0	0	0	0	0	53
7:49 AM	7:50 AM	0	0	0	0	0	0	53
7:50 AM	7:51 AM	0	0	0	0	0	0	53
7:51 AM	7:52 AM	0	0	0	0	0	0	53
7:52 AM	7:53 AM	0	0	0	0	0	0	53
7:53 AM	7:54 AM	0	0	0	0	0	0	53
7:54 AM	7:55 AM	0	1	1	0	0	0	52
7:55 AM	7:56 AM	0	1	1	0	0	0	51
7:56 AM	7:57 AM	0	0	0	0	0	0	51
7:57 AM	7:58 AM	0	0	0	0	0	0	51
7:58 AM	7:59 AM	0	0	0	0	0	0	51
7:59 AM	8:00 AM	0	0	0	0	0	0	51
8:00 AM	8:01 AM	0	0	0	0	0	0	51
8:01 AM	8:02 AM	0	0	0	0	0	0	51
8:02 AM	8:03 AM	0	0	0	1	0	1	52
8:03 AM	8:04 AM	0	0	0	0	0	0	52
8:04 AM	8:05 AM	0	0	0	0	0	0	52
8:05 AM	8:06 AM	0	0	0	0	0	0	52
8:06 AM	8:07 AM	0	1	1	0	0	0	51
8:07 AM	8:08 AM	0	1	1	0	0	0	50
8:08 AM	8:09 AM	1	0	1	0	0	0	51
8:09 AM	8:10 AM	0	2	2	2	0	2	51
8:10 AM	8:11 AM	0	3	3	0	1	1	47
8:11 AM	8:12 AM	0	6	6	0	6	6	35
8:12 AM	8:13 AM	0	2	2	0	3	3	30
8:13 AM	8:14 AM	0	1	1	0	0	0	29
8:14 AM	8:15 AM	0	0	0	1	2	3	28

Time Period		St Rita Farrington Dwy			St Rita Pua Dwy			Occupied
From	To	Enter	Exit	Total	Enter	Exit	Total	Stalls
8:15 AM	8:16 AM	0	1	1	0	3	3	24
8:16 AM	8:17 AM	0	1	1	0	3	3	20
8:17 AM	8:18 AM	0	0	0	0	1	1	19
8:18 AM	8:19 AM	0	0	0	0	1	1	18
8:19 AM	8:20 AM	0	0	0	0	0	0	18
8:20 AM	8:21 AM	0	1	1	2	1	3	18
8:21 AM	8:22 AM	1	0	1	0	2	2	17
8:22 AM	8:23 AM	0	1	1	0	1	1	15
8:23 AM	8:24 AM	0	0	0	0	0	0	15
8:24 AM	8:25 AM	0	0	0	0	0	0	15
8:25 AM	8:26 AM	0	0	0	0	0	0	15
8:26 AM	8:27 AM	0	1	1	1	0	1	15
8:27 AM	8:28 AM	0	0	0	0	0	0	15
8:28 AM	8:29 AM	0	0	0	0	0	0	15
8:29 AM	8:30 AM	0	0	0	0	0	0	15
8:30 AM	8:31 AM	0	0	0	0	0	0	15
8:31 AM	8:32 AM	0	0	0	0	0	0	15
8:32 AM	8:33 AM	0	0	0	0	0	0	15
8:33 AM	8:34 AM	0	0	0	0	0	0	15
8:34 AM	8:35 AM	0	0	0	0	0	0	15
8:35 AM	8:36 AM	1	0	1	0	0	0	16
8:36 AM	8:37 AM	0	0	0	1	0	1	17
8:37 AM	8:38 AM	0	0	0	1	0	1	18
8:38 AM	8:39 AM	1	0	1	0	0	0	19
8:39 AM	8:40 AM	0	0	0	0	0	0	19
8:40 AM	8:41 AM	0	0	0	1	0	1	20
8:41 AM	8:42 AM	0	1	1	1	0	1	20
8:42 AM	8:43 AM	0	0	0	1	0	1	21
8:43 AM	8:44 AM	0	0	0	0	0	0	21
8:44 AM	8:45 AM	0	0	0	0	0	0	21
8:45 AM	8:46 AM	1	0	1	1	0	1	23
8:46 AM	8:47 AM	1	0	1	1	0	1	25
8:47 AM	8:48 AM	0	0	0	1	0	1	26
8:48 AM	8:49 AM	1	0	1	1	0	1	28
8:49 AM	8:50 AM	2	0	2	0	0	0	30
8:50 AM	8:51 AM	0	0	0	2	0	2	32
8:51 AM	8:52 AM	1	0	1	1	0	1	34
8:52 AM	8:53 AM	2	1	3	2	0	2	37
8:53 AM	8:54 AM	0	0	0	0	0	0	37
8:54 AM	8:55 AM	0	0	0	0	0	0	37
8:55 AM	8:56 AM	2	0	2	0	0	0	39
8:56 AM	8:57 AM	0	0	0	0	0	0	39
8:57 AM	8:58 AM	2	0	2	2	0	2	43
8:58 AM	8:59 AM	0	0	0	0	0	0	43
8:59 AM	9:00 AM	3	0	3	0	0	0	46
9:00 AM	9:01 AM	0	0	0	0	0	0	46
9:01 AM	9:02 AM	3	0	3	0	0	0	49
9:02 AM	9:03 AM	0	0	0	2	0	2	51
9:03 AM	9:04 AM	0	0	0	0	0	0	51
9:04 AM	9:05 AM	0	0	0	1	0	1	52

Time Period		St Rita Farrington Dwy			St Rita Pua Dwy			Occupied
From	To	Enter	Exit	Total	Enter	Exit	Total	Stalls
9:05 AM	9:06 AM	0	0	0	1	0	1	53
9:06 AM	9:07 AM	1	0	1	0	0	0	54
9:07 AM	9:08 AM	0	0	0	0	0	0	54
9:08 AM	9:09 AM	0	0	0	0	0	0	54
9:09 AM	9:10 AM	0	0	0	1	0	1	55
9:10 AM	9:11 AM	0	0	0	1	0	1	56
9:11 AM	9:12 AM	0	0	0	0	0	0	56
9:12 AM	9:13 AM	0	0	0	1	0	1	57
9:13 AM	9:14 AM	0	0	0	0	0	0	57
9:14 AM	9:15 AM	0	0	0	0	0	0	57
9:15 AM	9:16 AM	0	0	0	0	0	0	57
9:16 AM	9:17 AM	0	0	0	1	0	1	58
9:17 AM	9:18 AM	0	0	0	0	0	0	58
9:18 AM	9:19 AM	1	0	1	0	0	0	59
9:19 AM	9:20 AM	0	0	0	0	0	0	59
9:20 AM	9:21 AM	0	0	0	0	0	0	59
9:21 AM	9:22 AM	0	0	0	0	0	0	59
9:22 AM	9:23 AM	0	0	0	1	0	1	60
9:23 AM	9:24 AM	0	0	0	0	0	0	60
9:24 AM	9:25 AM	0	0	0	0	0	0	60
9:25 AM	9:26 AM	0	0	0	0	0	0	60
9:26 AM	9:27 AM	0	0	0	0	0	0	60
9:27 AM	9:28 AM	0	0	0	0	0	0	60
9:28 AM	9:29 AM	0	0	0	0	0	0	60
9:29 AM	9:30 AM	0	0	0	0	0	0	60

TRAFFIC IMPACT ANALYSIS REPORT

AND

TRAFFIC MANAGEMENT PLAN

FOR THE PROPOSED

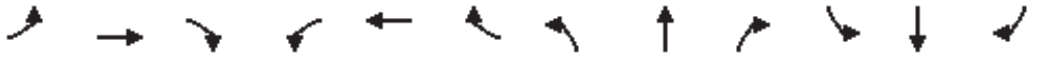
ST. RITA CATHOLIC CHURCH EXPANSION

NANAKULI, OAHU, HAWAII

TAX MAP KEYS: 8-9-005:001 & 8-9-007: PORTION 002 & PORTION 004

APPENDIX B

CAPACITY ANALYSIS WORKSHEETS

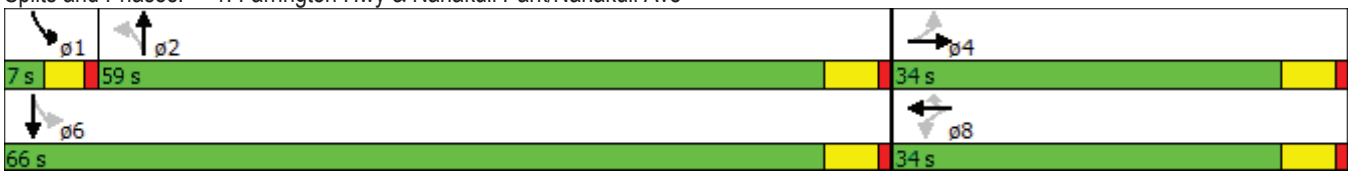


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	2	3	117	7	42	7	664	71	51	1051	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1721	0	0	1754	1531	0	3375	0	0	3439	0
Flt Permitted		0.826			0.729			0.944			0.878	
Satd. Flow (perm)	0	1458	0	0	1339	1496	0	3186	0	0	3025	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4				65		15			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		110			490			815			345	
Travel Time (s)		3.0			13.4			22.2			9.4	
Confl. Peds. (#/hr)	7					7	1		4	4		1
Peak Hour Factor	1.00	0.92	0.75	0.70	0.58	0.88	0.88	0.85	1.00	0.98	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	14%	2%	1%	2%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	179	48	0	860	0	0	1118	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	15.0	15.0		3.0	15.0	
Minimum Split (s)	12.0	12.0		24.0	24.0	24.0	29.0	29.0		7.0	29.0	
Total Split (s)	34.0	34.0		34.0	34.0	34.0	59.0	59.0		7.0	66.0	
Total Split (%)	34.0%	34.0%		34.0%	34.0%	34.0%	59.0%	59.0%		7.0%	66.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0			5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None	None	Min	Min		None	Min	
Act Effct Green (s)		14.0			14.0	14.0		33.9			33.9	
Actuated g/C Ratio		0.24			0.24	0.24		0.58			0.58	
v/c Ratio		0.05			0.56	0.12		0.46			0.64	
Control Delay		17.6			28.4	5.1		8.2			10.5	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		17.6			28.4	5.1		8.2			10.5	
LOS		B			C	A		A			B	
Approach Delay		17.6			23.4			8.2			10.5	
Approach LOS		B			C			A			B	
Queue Length 50th (ft)		3			49	0		72			111	
Queue Length 95th (ft)		19			82	17		141			234	
Internal Link Dist (ft)		30			410			735			265	
Turn Bay Length (ft)												
Base Capacity (vph)		761			697	810		2870			2841	
Starvation Cap Reductn		0			0	0		0			0	
Spillback Cap Reductn		0			0	0		0			0	
Storage Cap Reductn		0			0	0		0			0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.02			0.26	0.06		0.30			0.39	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 58.4			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 11.0		Intersection LOS: B	
Intersection Capacity Utilization 74.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Farrington Hwy & Nanakuli Park/Nanakuli Ave



Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	18	86	24	4	127	9	26	1	3	3	2	12
Conflicting Peds, #/hr	5	0	3	3	0	5	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	2	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	21	101	28	5	149	11	31	1	4	4	2	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	161	0	0	130	0	0	245	329	71	260	338	86
Stage 1	-	-	-	-	-	-	159	159	-	165	165	-
Stage 2	-	-	-	-	-	-	86	170	-	95	173	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1430	-	-	1468	-	-	694	593	983	677	586	962
Stage 1	-	-	-	-	-	-	833	770	-	826	766	-
Stage 2	-	-	-	-	-	-	918	762	-	907	760	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1424	-	-	1462	-	-	668	580	978	660	573	957
Mov Cap-2 Maneuver	-	-	-	-	-	-	668	580	-	660	573	-
Stage 1	-	-	-	-	-	-	819	757	-	812	762	-
Stage 2	-	-	-	-	-	-	894	758	-	884	747	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	0.2	10.5	9.5
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	686	1424	-	-	1462	-	-	826
HCM Lane V/C Ratio	0.051	0.015	-	-	0.003	-	-	0.024
HCM Control Delay (s)	10.5	7.6	0	-	7.5	0	-	9.5
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	2	26	722	21	8	1167
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	3	0	0	1
Mvmt Flow	2	29	793	23	9	1282

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1452	397	0	-	793	0
Stage 1	793	-	-	-	-	-
Stage 2	659	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	124	608	-	0	837	-
Stage 1	411	-	-	0	-	-
Stage 2	482	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	119	608	-	-	837	-
Mov Cap-2 Maneuver	119	-	-	-	-	-
Stage 1	411	-	-	-	-	-
Stage 2	464	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0.3
HCM LOS	B		

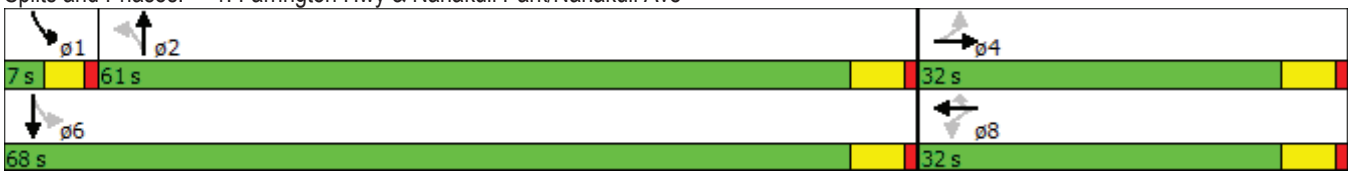
Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	655	837	-
HCM Lane V/C Ratio	-	0.047	0.011	-
HCM Control Delay (s)	-	10.8	9.3	0.2
HCM Lane LOS	-	B	A	A
HCM 95th %tile Q(veh)	-	0.1	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	2	3	123	7	44	7	701	75	51	1109	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1723	0	0	1754	1531	0	3375	0	0	3439	0
Flt Permitted		0.818			0.727			0.944			0.876	
Satd. Flow (perm)	0	1447	0	0	1335	1496	0	3186	0	0	3019	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4				65		15			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		110			490			815			345	
Travel Time (s)		3.0			13.4			22.2			9.4	
Confl. Peds. (#/hr)	7					7	1		4	4		1
Peak Hour Factor	1.00	0.92	0.75	0.70	0.58	0.88	0.88	0.85	1.00	0.98	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	14%	2%	1%	2%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	0	0	188	50	0	908	0	0	1177	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	15.0	15.0		3.0	15.0	
Minimum Split (s)	12.0	12.0		24.0	24.0	24.0	29.0	29.0		7.0	29.0	
Total Split (s)	32.0	32.0		32.0	32.0	32.0	61.0	61.0		7.0	68.0	
Total Split (%)	32.0%	32.0%		32.0%	32.0%	32.0%	61.0%	61.0%		7.0%	68.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0			5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	Min	Min		None	Min	
Act Effct Green (s)		14.7			14.7	14.7		36.4			36.4	
Actuated g/C Ratio		0.24			0.24	0.24		0.59			0.59	
v/c Ratio		0.05			0.59	0.12		0.48			0.66	
Control Delay		19.3			31.3	5.6		8.4			11.0	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		19.3			31.3	5.6		8.4			11.0	
LOS		B			C	A		A			B	
Approach Delay		19.3			25.9			8.4			11.0	
Approach LOS		B			C			A			B	
Queue Length 50th (ft)		3			57	0		81			125	
Queue Length 95th (ft)		21			92	19		158			265	
Internal Link Dist (ft)		30			410			735			265	
Turn Bay Length (ft)												
Base Capacity (vph)		675			621	731		2816			2788	
Starvation Cap Reductn		0			0	0		0			0	
Spillback Cap Reductn		0			0	0		0			0	
Storage Cap Reductn		0			0	0		0			0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.03			0.30	0.07		0.32			0.42	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 61.8			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 11.6		Intersection LOS: B	
Intersection Capacity Utilization 77.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Farrington Hwy & Nanakuli Park/Nanakuli Ave



Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	19	91	25	4	134	9	27	1	3	3	2	13
Conflicting Peds, #/hr	5	0	3	3	0	5	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	2	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	107	29	5	158	11	32	1	4	4	2	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	169	0	0	137	0	0	257	346	74	273	355	90
Stage 1	-	-	-	-	-	-	167	167	-	173	173	-
Stage 2	-	-	-	-	-	-	90	179	-	100	182	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1421	-	-	1459	-	-	681	580	979	663	574	956
Stage 1	-	-	-	-	-	-	824	764	-	818	760	-
Stage 2	-	-	-	-	-	-	913	755	-	901	753	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1415	-	-	1453	-	-	654	567	974	646	561	951
Mov Cap-2 Maneuver	-	-	-	-	-	-	654	567	-	646	561	-
Stage 1	-	-	-	-	-	-	809	750	-	803	756	-
Stage 2	-	-	-	-	-	-	888	751	-	877	740	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	0.2	10.7	9.5
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	672	1415	-	-	1453	-	-	823
HCM Lane V/C Ratio	0.054	0.016	-	-	0.003	-	-	0.026
HCM Control Delay (s)	10.7	7.6	0	-	7.5	0	-	9.5
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	2	26	769	21	8	1231
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	3	0	0	1
Mvmt Flow	2	29	845	23	9	1353

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1539	423	0	-	845	0
Stage 1	845	-	-	-	-	-
Stage 2	694	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	108	585	-	0	800	-
Stage 1	387	-	-	0	-	-
Stage 2	462	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	103	585	-	-	800	-
Mov Cap-2 Maneuver	103	-	-	-	-	-
Stage 1	387	-	-	-	-	-
Stage 2	441	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	0.3
HCM LOS	B		

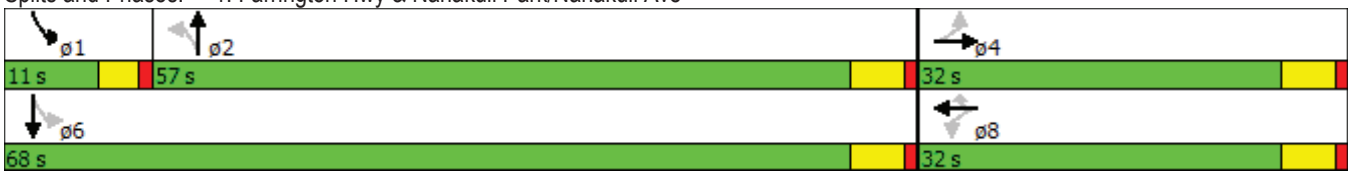
Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	630	800	-
HCM Lane V/C Ratio	-	0.049	0.011	-
HCM Control Delay (s)	-	11	9.6	0.2
HCM Lane LOS	-	B	A	A
HCM 95th %tile Q(veh)	-	0.2	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	2	3	157	7	44	7	733	75	98	1101	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1723	0	0	1754	1531	0	3375	0	0	3431	0
Flt Permitted		0.818			0.725			0.944			0.762	
Satd. Flow (perm)	0	1448	0	0	1332	1496	0	3186	0	0	2625	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4				65		13			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		110			490			815			345	
Travel Time (s)		3.0			13.4			22.2			9.4	
Confl. Peds. (#/hr)	7					7	1		4	4		1
Peak Hour Factor	1.00	0.92	0.75	0.70	0.58	0.88	0.88	0.85	1.00	0.98	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	14%	2%	1%	2%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	0	0	236	50	0	945	0	0	1217	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	15.0	15.0		7.0	15.0	
Minimum Split (s)	12.0	12.0		24.0	24.0	24.0	29.0	29.0		11.0	29.0	
Total Split (s)	32.0	32.0		32.0	32.0	32.0	57.0	57.0		11.0	68.0	
Total Split (%)	32.0%	32.0%		32.0%	32.0%	32.0%	57.0%	57.0%		11.0%	68.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0			0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0			5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None	None	Min	Min		None	Min	
Act Effct Green (s)		19.4			19.4	19.4		48.2			48.2	
Actuated g/C Ratio		0.25			0.25	0.25		0.61			0.61	
v/c Ratio		0.05			0.72	0.12		0.48			0.75	
Control Delay		23.4			43.1	5.7		9.2			14.7	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		23.4			43.1	5.7		9.2			14.7	
LOS		C			D	A		A			B	
Approach Delay		23.4			36.6			9.2			14.7	
Approach LOS		C			D			A			B	
Queue Length 50th (ft)		5			109	0		117			201	
Queue Length 95th (ft)		23			126	20		177			342	
Internal Link Dist (ft)		30			410			735			265	
Turn Bay Length (ft)												
Base Capacity (vph)		541			495	597		2370			2111	
Starvation Cap Reductn		0			0	0		0			0	
Spillback Cap Reductn		0			0	0		0			0	
Storage Cap Reductn		0			0	0		0			0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio		0.03			0.48	0.08		0.40			0.58	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 78.4			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 15.2		Intersection LOS: B	
Intersection Capacity Utilization 81.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Farrington Hwy & Nanakuli Park/Nanakuli Ave



Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	19	91	69	9	134	9	57	2	5	3	4	13
Conflicting Peds, #/hr	5	0	3	3	0	5	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	2	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	107	81	11	158	11	67	2	6	4	5	15

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	169	0	0	189	0	0	296	383	100	285	419	90
Stage 1	-	-	-	-	-	-	193	193	-	185	185	-
Stage 2	-	-	-	-	-	-	103	190	-	100	234	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1421	-	-	1397	-	-	639	553	943	650	528	956
Stage 1	-	-	-	-	-	-	796	745	-	805	751	-
Stage 2	-	-	-	-	-	-	897	747	-	901	715	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1415	-	-	1391	-	-	608	537	938	627	513	951
Mov Cap-2 Maneuver	-	-	-	-	-	-	608	537	-	627	513	-
Stage 1	-	-	-	-	-	-	781	731	-	790	744	-
Stage 2	-	-	-	-	-	-	865	740	-	873	702	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.5	11.6	9.9
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	623	1415	-	-	1391	-	-	762
HCM Lane V/C Ratio	0.121	0.016	-	-	0.008	-	-	0.031
HCM Control Delay (s)	11.6	7.6	0	-	7.6	0	-	9.9
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	58	769	47	0	1261
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	3	0	0	1
Mvmt Flow	0	64	845	52	0	1386

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1538	423	0	-	845	0
Stage 1	845	-	-	-	-	-
Stage 2	693	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	109	585	-	0	800	-
Stage 1	387	-	-	0	-	-
Stage 2	463	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	109	585	-	-	800	-
Mov Cap-2 Maneuver	109	-	-	-	-	-
Stage 1	387	-	-	-	-	-
Stage 2	463	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0
HCM LOS	B		

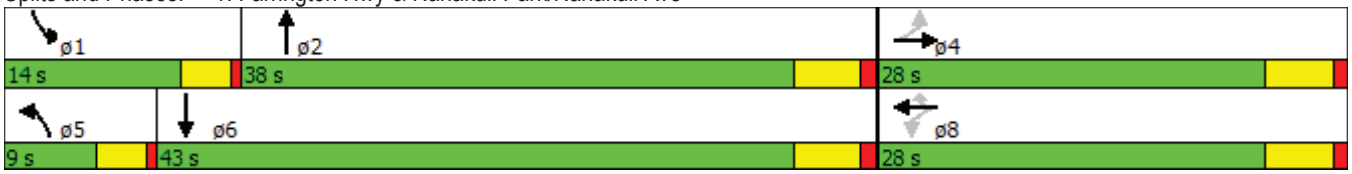
Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	585	800	-
HCM Lane V/C Ratio	-	0.109	-	-
HCM Control Delay (s)	-	11.9	0	-
HCM Lane LOS	-	B	A	-
HCM 95th %tile Q(veh)	-	0.4	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	2	3	157	7	44	7	733	75	98	1101	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	200		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1723	0	0	1754	1531	1531	3379	0	1711	3448	0
Flt Permitted		0.811			0.725		0.950			0.950		
Satd. Flow (perm)	0	1436	0	0	1332	1499	1530	3379	0	1709	3448	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4				123		14			2	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		110			490			815			345	
Travel Time (s)		3.0			13.4			22.2			9.4	
Confl. Peds. (#/hr)	7					7	1		4	4		1
Peak Hour Factor	1.00	0.92	0.75	0.70	0.58	0.88	0.88	0.85	1.00	0.98	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	14%	2%	1%	2%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	0	0	236	50	8	937	0	100	1117	0
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	4.0	15.0		7.0	15.0	
Minimum Split (s)	12.0	12.0		24.0	24.0	24.0	9.0	33.0		11.0	33.0	
Total Split (s)	28.0	28.0		28.0	28.0	28.0	9.0	38.0		14.0	43.0	
Total Split (%)	35.0%	35.0%		35.0%	35.0%	35.0%	11.3%	47.5%		17.5%	53.8%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	0.5	1.0		0.5	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	3.5	5.0		3.5	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		16.5			16.5	16.5	6.0	26.7		9.4	34.7	
Actuated g/C Ratio		0.26			0.26	0.26	0.09	0.42		0.15	0.55	
v/c Ratio		0.05			0.68	0.10	0.06	0.66		0.40	0.59	
Control Delay		18.4			34.7	0.4	34.9	18.8		35.0	12.1	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		18.4			34.7	0.4	34.9	18.8		35.0	12.1	
LOS		B			C	A	C	B		C	B	
Approach Delay		18.4			28.7			18.9			14.0	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		4			88	0	3	158		38	128	
Queue Length 95th (ft)		19			101	0	17	235		94	286	
Internal Link Dist (ft)		30			410			735			265	
Turn Bay Length (ft)							100			200		
Base Capacity (vph)		571			527	668	145	1926		309	2301	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.03			0.45	0.07	0.06	0.49		0.32	0.49	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 63.6			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 17.6		Intersection LOS: B	
Intersection Capacity Utilization 58.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Farrington Hwy & Nanakuli Park/Nanakuli Ave



Appendix G

Draft EA Comment and Response Letters

POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET · HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 · INTERNET: www.honolulupd.org

KIRK CALDWELL
MAYOR

LOUIS M. KEALOHA
CHIEF

MARIE A. McCAULEY
CARY OKIMOTO
DEPUTY CHIEFS

OUR REFERENCE MT-DK

December 2, 2015

Mr. Dennis Silva, Jr., AICP, Principal
Hawaii Planning LLC
1031 Nuuanu Avenue, No. 2306
Honolulu, Hawaii 96817

Dear Mr. Silva:

This is in response to your letter dated November 19, 2015, requesting comments on a Draft Environmental Assessment for the St. Rita Catholic Church Master Plan project in Nanakuli.

Based on the information provided, this project should have no significant impact on the services or operations of the Honolulu Police Department.

If there are any questions, please call Major Kurt Kendro of District 8 (Kapolei-Waianae) at 723-8403.

Thank you for the opportunity to review this project.

Sincerely,

LOUIS M. KEALOHA
Chief of Police

By
MARK TSUYEMURA
Management Analyst VI
Office of the Chief

Serving and Protecting With Aloha

DAVID Y. IGE
GOVERNOR OF HAWAII

VIRGINIA PRESSLER, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
EMD/CWB

12013PCTM.15

December 3, 2015

Mr. Dennis Silva, Jr., AICP
Principal
Hawaii Planning, LLC
1031 Nuuanu Avenue, #2306
Honolulu, Hawaii 96817

Dear Mr. Silva:

SUBJECT: Comments on the Draft Environmental Assessment (DEA) for St. Rita Catholic Church Master Plan TMKs (1) 8-9-005:001, (1) 8-9-007:002 and (1) 8-9-005:004 Waianae, Island of Oahu, Hawaii

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of your Draft Environmental Assessment, dated November 2015, requesting comments on your project. The DOH-CWB has reviewed the subject document and offers these comments. Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at:
http://health.hawaii.gov/epo/files/2013/05/Clean-Water-Branch-Std-Comments.pdf

1. Any project and its potential impacts to State waters must meet the following criteria:

   a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.

   b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.

   c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).

2. You may be required to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55).

For NPDES general permit coverage, a Notice of Intent (NOI) form must be submitted at least 30 calendar days before the commencement of the discharge. An application for a NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. To request NPDES permit coverage, you must submit the applicable form ("CWB Individual NPDES Form" or "CWB NOI Form") through the e-Permitting Portal and the hard copy certification statement with the respective filing fee ($1,000 for an individual NPDES permit or $500 for a Notice of General Permit Coverage). Please open the e-Permitting Portal website located at: https://eha-cloud.doh.hawaii.gov/epermit/. You will be asked to do a one-time registration to obtain your login and password. After you register, click on the Application Finder tool and locate the appropriate form. Follow the instructions to complete and submit the form.

3. If your project involves work in, over, or under waters of the United States, it is highly recommended that you contact the Army Corp of Engineers, Regulatory Branch (Tel: 835-4303) regarding their permitting requirements.

   Pursuant to Federal Water Pollution Control Act [commonly known as the "Clean Water Act" (CWA)], Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may **result** in any discharge into the navigable waters..." (emphasis added). The term "discharge" is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40 of the Code of Federal Regulations, Section 122.2; and Hawaii Administrative Rules (HAR), Chapter 11-54.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of $25,000 per day per violation.

5. It is the State's position that all projects must reduce, reuse, and recycle to protect, restore, and sustain water quality and beneficial uses of State waters. Project planning should:

   a. Treat storm water as a resource to be protected by integrating it into project planning and permitting. Storm water has long been recognized as a source of irrigation that will not deplete potable water resources. What is often overlooked is that storm water recharges ground water supplies and feeds streams and estuaries; to ensure that these water cycles are not disrupted, storm water cannot be relegated as a waste product of impervious surfaces. Any project planning must recognize storm water as an asset that sustains and protects

natural ecosystems and traditional beneficial uses of State waters, like community beautification, beach going, swimming, and fishing. The approaches necessary to do so, including low impact development methods or ecological bio-engineering of drainage ways must be identified in the planning stages to allow designers opportunity to include those approaches up front, prior to seeking zoning, construction, or building permits.

b. Clearly articulate the State's position on water quality and the beneficial uses of State waters. The plan should include statements regarding the implementation of methods to conserve natural resources (e.g. minimizing potable water for irrigation, gray water re-use options, energy conservation through smart design) and improve water quality.

c. Consider storm water Best Management Practice (BMP) approaches that minimize the use of potable water for irrigation through storm water storage and reuse, percolate storm water to recharge groundwater to revitalize natural hydrology, and treat storm water which is to be discharged.

d. Consider the use of green building practices, such as pervious pavement and landscaping with native vegetation, to improve water quality by reducing excessive runoff and the need for excessive fertilization, respectively.

e. Identify opportunities for retrofitting or bio-engineering existing storm water infrastructure to restore ecological function while maintaining, or even enhancing, hydraulic capacity. Particular consideration should be given to areas prone to flooding, or where the infrastructure is aged and will need to be rehabilitated.

If you have any questions, please visit our website at:http://health.hawaii.gov/cwb/, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,

ALEC WONG, P.E., CHIEF
Clean Water Branch

CTM:bk

c: EPO # 15-297 [via e-mail only]
Ms. Julie-Ann Cachola, DHHL [via e-mail julie-ann.cachola@hawaii.gov only]

March 29, 2016

Mr. Alec Wong, P.E., Chief
State of Hawaii
Department of Health
Clean Water Branch
P.O. Box 3378
Honolulu, HI 96801

Dear Mr. Wong:

SUBJECT: St. Rita Catholic Church Master Plan Draft Environmental Assessment,
Located at 89-318 Farrington Highway, Nanakuli, Oahu;
Tax Map Keys: (1) 8-9-005: 001 & 8-9-007: Por. 002 & Por. 004

Thank you for your letter dated December 3, 2015 providing comments as part of the Draft EA for the St. Rita Catholic Church Master Plan. We offer the following responses to your comments:

The project will comply with the criteria identified and the Final EA addresses probable impacts on State waters. National Pollutant Discharge Elimination System (NPDES) general permit coverage will be obtained for the project construction activities. Separate Notice of Intent forms will be submitted for each type of discharge at least 30 days prior to the start of the discharge activity.

No discharges of construction-related storm water or wastewater will occur within Class I or Class AA waters. Therefore, an individual NPDES permit would not be required.

Project construction activities and operational activities conducted at St. Rita Catholic Church will comply with the State's water quality standards.

Thank you for your comments. Your comments will be included in the Final EA.

Sincerely,

Hawaii Planning, LLC

Dennis Silva, Jr., AICP
Principal

1031 Nuuanu Avenue, #2306, Honolulu, HI 96817

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 768-4567
Web site: www.honolulu.gov

KIRK CALDWELL
MAYOR

ROBERT J. KRONING, P.E.
DIRECTOR

MARK YONAMINE, P.E.
DEPUTY DIRECTOR

December 3, 2015

Hawaii Planning LLC
1031 Nuuanu Avenue, No. 2306
Honolulu, Hawaii 96817

Attn: Dennis Silva, Jr., AICP

Dear Mr. Silva:

Subject: St. Rita Church Master Plan
TMKs: (1) 8-9-005:001, (1) 8-9-007:002 & 004 (por.)
Draft Environmental Assessment (EA)

The Department of Design and Construction does not have comments to offer on the draft.

Thank you for the opportunity to review and comment. Should there be any questions, please contact me at 768-8480.

Sincerely,

Robert J. Kroning, P.E.
Director

RJK: cf (632949)

DAVID Y. IGE
GOVERNOR

KATHRYN S. MATAYOSHI
SUPERINTENDENT

STATE OF HAWAI`I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI`I 96804

OFFICE OF SCHOOL FACILITIES AND SUPPORT SERVICES

December 4, 2015

Mr. Dennis Silva, Jr., AICP
Hawaii Planning, LLC
1031 Nuuanu Avenue, #2306
Honolulu, Hawaii 96817

Re: Draft Environmental Assessment (DEA) for the Proposed St. Rita Church Master Plan
Nanakuli, Oahu, Hawaii TMKs (1) 8-9-005:001, (1) 8-9-007:002 & 004 (por.)

Dear Mr. Silva:

The Department of Education (DOE) has reviewed the Draft Environmental Assessment (DEA) for the proposed St. Rita Church Master Plan.

The DOE has no comment to offer regarding this project.

We appreciate the opportunity to provide comments. If you have any questions, please call Heidi Meeker of the Facilities Development Branch at (808)377-8301.

Respectfully,

Kenneth G. Masden II
Public Works Manager
Planning Section

KGM:jmb

DEPARTMENT OF PARKS & RECREATION

CITY AND COUNTY OF HONOLULU

1000 Uluohia Street, Suite 309, Kapolei, Hawaii 96707
Phone: (808) 768-3003 • Fax: (808) 768-3053
Website: www.honolulu.gov

KIRK CALDWELL
MAYOR

MICHELE K. NEKOTA
DIRECTOR

JEANNE C. ISHIKAWA
DEPUTY DIRECTOR

December 11, 2015

Mr. Dennis Silva, Jr., AICP
Hawaii Planning LLC
1031 Nuuanu Avenue, #2306
Honolulu, Hawaii 96817

Dear Mr. Silva:

Subject: Draft Environmental Assessment
St. Rita Church Master Plan
TMKs: (1) 8-9-005:001, (1) 8-9-007:002 & 004 (por.)

Thank you for the opportunity to review the Draft Environmental Assessment for the proposed St. Rita Church Master Plan improvements.

The Department of Parks and Recreation has no comment. As the proposed project will have no impact on any of our programs or facilities, you may remove us as a consulted party to the balance of the EIS process.

Should you have any questions, please contact Mr. John Reid, Planner at 768-3017.

Sincerely,

Michele K. Nekota
Director

MKN:jr
(633439)

HONOLULU FIRE DEPARTMENT

CITY AND COUNTY OF HONOLULU

636 South Street
Honolulu, Hawaii 96813-5007
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd

KIRK CALDWELL
MAYOR

MANUEL P. NEVES
FIRE CHIEF

LIONEL CAMARA JR.
DEPUTY FIRE CHIEF

December 14, 2015

Mr. Dennis Silva, Jr., AICP
Principal
Hawaii Planning LLC
1031 Nuuanu Avenue, Suite 2306
Honolulu, Hawaii 96817

Dear Mr. Silva:

Subject: Draft Environmental Assessment
St. Rita Church Master Plan
Tax Map Keys: 8-9-005: 001 and 8-9-007: 002 and 004 (Portion)

In response to your letter dated November 19, 2015, regarding the above-mentioned subject, the Honolulu Fire Department (HFD) requires that the following be complied with:

1. Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 feet from fire department access roads as measured by an approved route around the exterior of the building or facility. (National Fire Protection Association [NFPA] 1, Uniform Fire Code [UFC]™, 2012 Edition, Section 18.2.3.2.2.)

   A fire department access road shall extend to within 50 feet of at least one exterior door that can be opened from the outside and provides access to the interior of the building. (NFPA 1, UFC™, 2012 Edition, Section 18.2.3.2.1.)

2. A water supply approved by the county, capable of supplying the required fire flow for fire protection, shall be provided to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed, or moved into or within the county. When any portion of the facility or building is in excess of 150 feet from a water supply on a

fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the AHJ [Authority Having Jurisdiction]. (NFPA 1, UFC™, 2012 Edition, Section 18.3.1, as amended.)

3. The unobstructed width and unobstructed vertical clearance of a fire apparatus access road shall meet county requirements. (NFPA 1, UFC™, 2012 Edition, Section 18.2.3.4.1.1 and 18.2.3.4.1.2, as amended.)

4. Submit civil drawings to the HFD for review and approval.

Should you have questions, please contact Battalion Chief Terry Seelig of our Fire Prevention Bureau at 723-7151 or tseelig@honolulu.gov.

Sincerely,

Socrates D. Bratakos

SOCRATES D. BRATAKOS
Assistant Chief

SDB/SY:bh

March 29, 2016

Mr. Socrates D. Bratakos
Assistant Chief
Honolulu Fire Department
City and County of Honolulu
636 South Street
Honolulu, HI 96813

Dear Mr. Bratakos:

SUBJECT: St. Rita Catholic Church Master Plan Draft Environmental Assessment,
Located at 89-318 Farrington Highway, Nanakuli, Oahu;
Tax Map Keys: (1) 8-9-005: 001 & 8-9-007: Por. 002 & Por. 004

Thank you for your letter dated December 14, 2015 providing comments as part of the Draft EA for the St. Rita Catholic Church Master Plan. We offer the following responses to your comments:

The project will comply with the fire department access road requirements as stipulated in your comment letter.

The Final EA, Appendix E – Due Diligence Report, Infrastructure, provides an on-site Fire Protection Plan in compliance with comment # 2 of your letter.

During the construction plan and building permit phase of this project, construction drawings will be submitted to HFD for review and approval.

Thank you for your comments. Your comments will be included in the Final EA.

Sincerely,

Hawaii Planning, LLC

Dennis Silva, Jr., AICP
Principal

DAVID Y. IGE
GOVERNOR OF HAWAII

VIRGINIA PRESSLER, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:
EPO 15-297

December 16, 2015

Mr. Dennis Silva, Jr., AICP
Hawaii Planning, LLC
1031 Nuuanu Avenue, #2306
Honolulu, Hawaii 96817

Dear Mr. Silva:

SUBJECT: Draft Environmental Assessment (DEA) for St. Rita Catholic Church Master Plan
TMK: (1) 8-9-005:001, (1) 8-9-007:002 (por) and (1) 8-9-007:004 (por)

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your DEA to our office via the OEQC link:
http://oeqc.doh.hawaii.gov/Shared%20Documents/EA_and_EIS_Online_Library/Oahu/2010s/2015-11-23-OA-5E-DEA-St._Rita_Catholic_Church_Master_Plan.pdf

EPO strongly recommends that you review the standard comments and available strategies to support sustainable and healthy design provided at: http://health.hawaii.gov/epo/landuse. Projects are required to adhere to all applicable standard comments. EPO has recently prepared draft Environmental Health Management Maps for each county. They are online: http://health.hawaii.gov/epo/egis

We suggest you review the requirements for the National Pollutant Discharge Elimination System (NPDES) permit. We recommend contacting the Clean Water Branch at (808) 586-4309 or cleanwaterbranch@doh.hawaii.gov after relevant information is reviewed at:

1. http://health.hawaii.gov/cwb
2. http://health.hawaii.gov/cwb/site-map/clean-water-branch-home-page/standard-npdes-permit-conditions
3. http://health.hawaii.gov/cwb/site-map/clean-water-branch-home-page/forms

EPO encourages you to examine and utilize the Hawaii Environmental Health Portal. The portal provides links to our e-Permitting Portal, Environmental Health Warehouse, Groundwater Contamination Viewer, Hawaii Emergency Response Exchange, Hawaii State and Local Emission Inventory System, Water Pollution Control Viewer, Water Quality Data, Warnings, Advisories and Postings. The Portal is continually updated. Please visit it regularly at: https://eha-cloud.doh.hawaii.gov

You may also wish to review the draft Office of Environmental Quality Control (OEQC) viewer at: http://eha-web.doh.hawaii.gov/oeqc-viewer This viewer geographically shows where previous Hawaii Environmental Policy Act (HEPA) {Hawaii Revised Statutes, Chapter 343} documents have been prepared.

In order to better protect public health and the environment, the U.S. Environmental Protection Agency (EPA) has developed a new environmental justice (EJ) mapping and screening tool called EJSCREEN. It is based on nationally consistent data and combines environmental and demographic indicators in maps and reports. EPO encourages you to explore, launch and utilize this powerful tool in planning your project. The EPA EJSCREEN tool is available at: http://www2.epa.gov/ejscreen

We request that you utilize all of this information on your proposed project to increase sustainable, innovative, inspirational, transparent and healthy design.

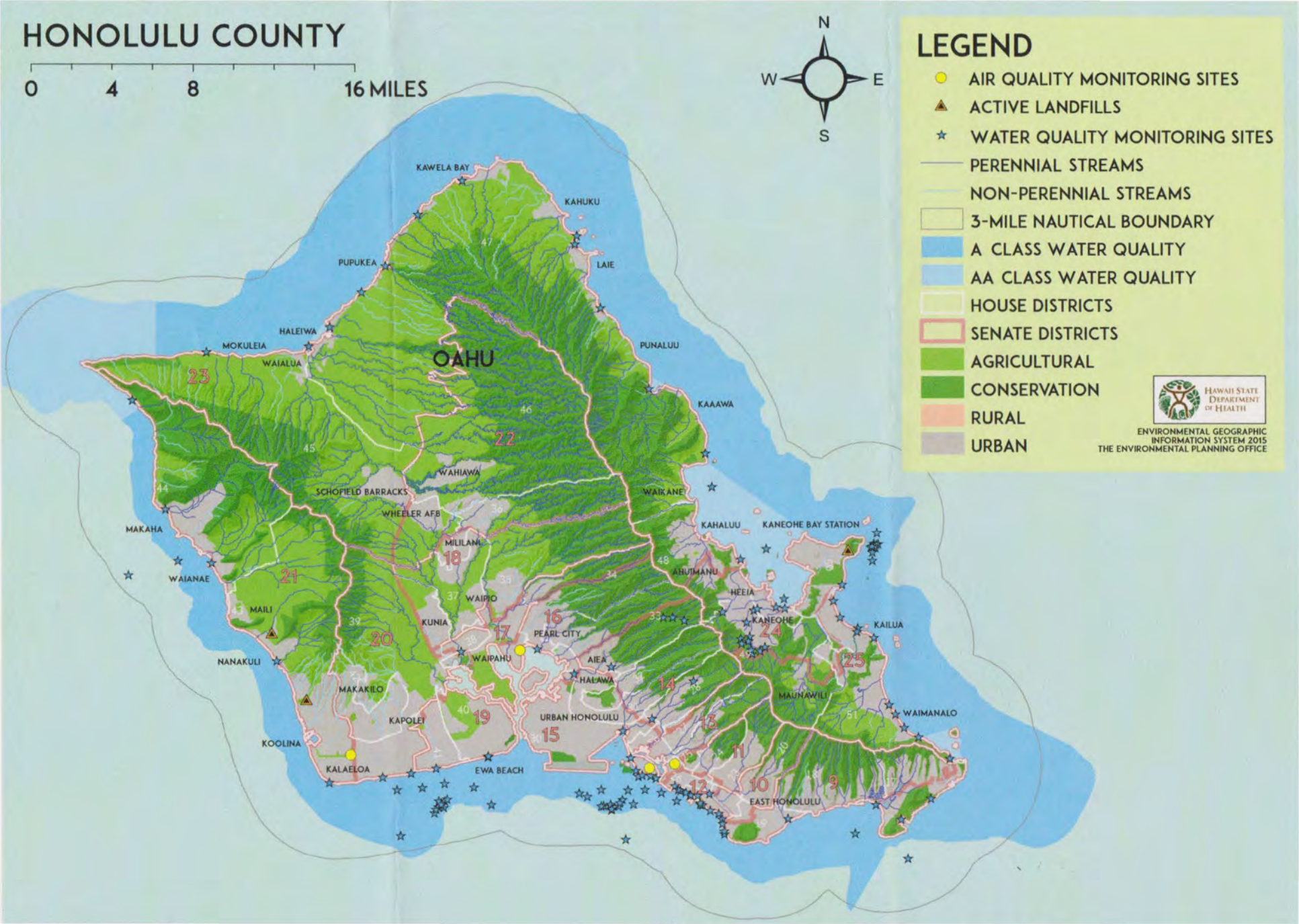
Mahalo nui loa,

Laura Leialoha Phillips McIntyre, AICP
Program Manager, Environmental Planning Office

LM:nn

Attachment 1: EPO Draft Environmental Health Management Map
Attachment 2: OEQC Viewer Map
Attachment 3: U.S. EPA EJSCREEN (3 page report)

c: Deacon Hal Levy, St. Rita's Church
Julie-Ann Cachola, Department of Hawaiian Home Lands {via email}
DOH: CWB {via email only)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ACTIVE LANDFILLS
WATER QUALITY MONITORING SITES
PERENNIAL STREAMS
NON-PERENNIAL STREAMS
3-MILE NAUTICAL BOUNDARY
A CLASS WATER QUALITY
AA CLASS WATER QUALITY
HOUSE DISTRICTS
SENATE DISTRICTS
AGRICULTURAL
CONSERVATION
RURAL
URBAN
HAWAII STATE DEPARTMENT OF HEALTH
ENVIRONMENTAL GEOGRAPHIC INFORMATION SYSTEM 2015
THE ENVIRONMENTAL PLANNING OFFICE
OAHU
KAWELA BAY
KAHUKU
PUPUKEA
LAIE
HALEIWA
MOKULEIA
WAIALUA
PUNALUU
KAAAWA
WAHIAWA
SCHOFIELD BARRACKS
WHEELER AFB
WAIKANE
KAHALUU
KANEOHE BAY STATION
MILILANI
MAKAHA
WAIANAE
AHUIMANU
HEEIA
WAIPIO
MAILI
KUNIA
KANEOHE
KAILUA
PEARL CITY
NANAKULI
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0 sites found

Results | Filter

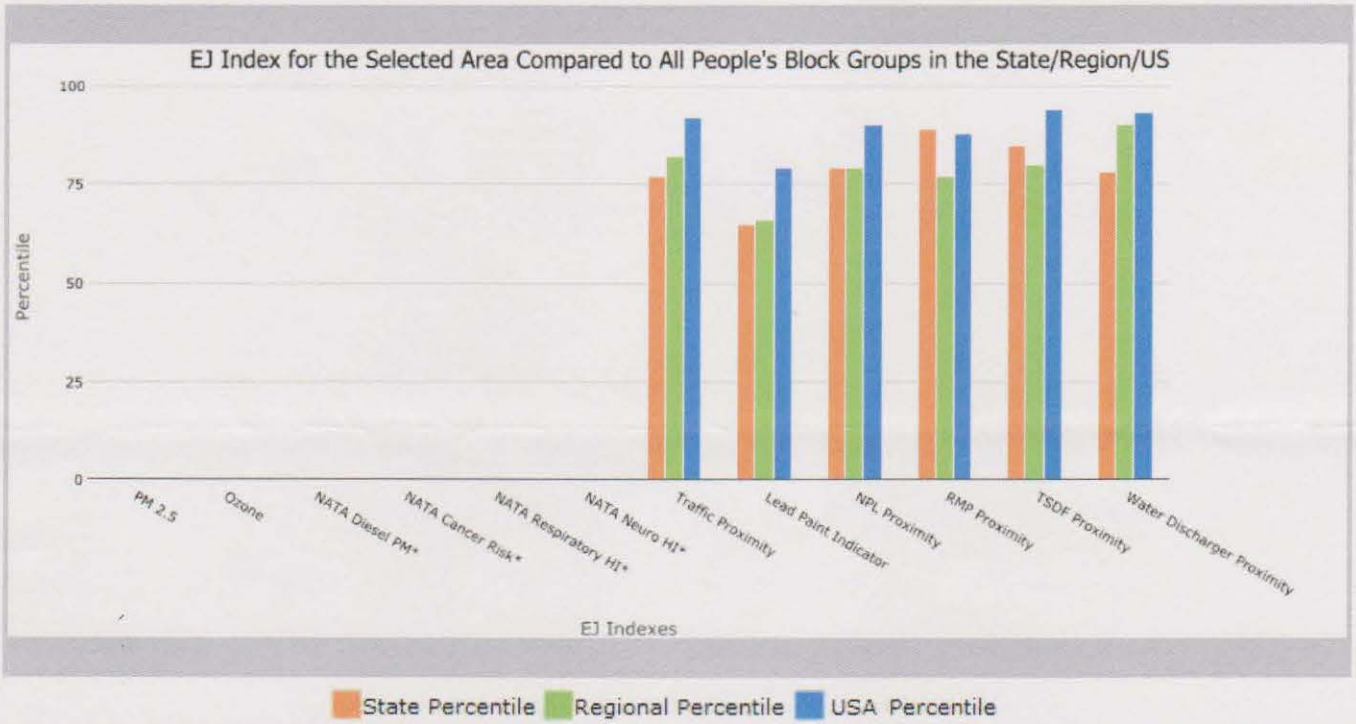
Show sites with no location

EJSCREEN Report

for 1 mile Ring Centered at 21.377471,-158.140762, HAWAII, EPA Region 9

Approximate Population: 6580

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	N/A	N/A	N/A
EJ Index for Ozone	N/A	N/A	N/A
EJ Index for NATA Diesel PM*	N/A	N/A	N/A
EJ Index for NATA Air Toxics Cancer Risk*	N/A	N/A	N/A
EJ Index for NATA Respiratory Hazard Index*	N/A	N/A	N/A
EJ Index for NATA Neurological Hazard Index*	N/A	N/A	N/A
EJ Index for Traffic Proximity and Volume	77	82	92
EJ Index for Lead Paint Indicator	65	66	79
EJ Index for Proximity to NPL sites	79	79	90
EJ Index for Proximity to RMP sites	89	77	88
EJ Index for Proximity to TSDFs	85	80	94
EJ Index for Proximity to Major Direct Dischargers	78	90	93



This report shows environmental, demographic, and EJ indicator values. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

EJSCREEN Report

for 1 mile Ring Centered at 21.377471,-158.140762, HAWAII, EPA Region 9

Approximate Population: 6580

December 16, 2015

Digitized Point

1:1,128

0 0.0075 0.015 0.03 mi

0 0.015 0.03 0.06 km

EJSCREEN Report

for 1 mile Ring Centered at 21.377471,-158.140762, HAWAII, EPA Region 9

Approximate Population: 6580

Selected Variables	Raw Data	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m^3)	N/A	N/A	N/A	9.95	N/A	9.78	N/A
Ozone (ppb)	N/A	N/A	N/A	49.7	N/A	46.1	N/A
NATA Diesel PM (µg/m^3)*	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NATA Cancer Risk (lifetime risk per million)*	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NATA Respiratory Hazard Index*	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NATA Neurological Hazard Index*	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Traffic Proximity and Volume (daily traffic count/distance to road)	180	280	70	190	71	110	85
Lead Paint Indicator (% Pre-1960 Housing)	0.068	0.17	39	0.25	39	0.3	29
NPL Proximity (site count/km distance)	0.083	0.092	69	0.11	64	0.096	69
RMP Proximity (facility count/km distance)	0.27	0.18	84	0.41	65	0.31	72
TSDF Proximity (facility count/km distance)	0.098	0.092	70	0.12	66	0.054	87
Water Discharger Proximity (facility count/km distance)	0.31	0.33	64	0.19	86	0.25	80
Demographic Indicators							
Demographic Index	67%	51%	90	46%	78	35%	87
Minority Population	97%	77%	92	57%	92	36%	95
Low Income Population	37%	25%	78	35%	57	34%	60
Linguistically Isolated Population	0%	6%	25	9%	20	5%	45
Population With Less Than High School Education	15%	10%	79	18%	54	14%	63
Population Under 5 years of age	11%	6%	86	7%	83	7%	85
Population over 64 years of age	8%	14%	21	12%	38	13%	28

* The National-scale Air Toxics Assessment (NATA) environmental indicators and EJ indexes, which include cancer risk, respiratory hazard, neurodevelopment hazard, and diesel particulate matter will be added into EJSCREEN during the first full public update after the soon-to-be-released 2011 dataset is made available. The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: http://www.epa.gov/ttn/atw/natamain/index.html.

For additional information, see: www.epa.gov/environmentaljustice

March 30, 2016

Ms. Laura Leialoha Phillips-McIntyre, AICP
State of Hawaii
Department of Health
Environmental Planning Office
P.O. Box 3378
Honolulu, HI 96801

Dear Ms. Phillips-McIntyre:

SUBJECT: St. Rita Catholic Church Master Plan Draft Environmental Assessment, Located at 89-318 Farrington Highway, Nanakuli, Oahu; Tax Map Keys: (1) 8-9-005: 001 & 8-9-007: Por. 002 & Por. 004

Thank you for your letter dated December 16, 2015 providing comments as part of the Draft EA for the St. Rita Catholic Church Master Plan. We offer the following responses to your comments:

The National Pollutant Discharge Elimination System (NPDES) general permit coverage will be obtained for the project construction activities and the applicant will consult with DOH – Clean Water Branch in the processing of the NPDES general permit.

Thank you for your comments. Your comments will be included in the Final EA.

Sincerely,

Hawaii Planning, LLC

Dennis Silva, Jr., AICP
Principal

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 22, 2015

Hawaii Planning, LLC
Attention: Mr. Dennis Silva, Jr., AICP, Principal via email: hawaiiplanningllc@gmail.com
1031 Nuuanu Avenue, #2306
Honolulu, Hawaii 96817

Dear Mr. Silva:

SUBJECT: St. Rita Church Master Plan, Draft Environmental Assessment (EA)

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comments.

At this time, enclosed are comments from the (a) Division of Forestry & Wildlife, (b) Land Division – Oahu District, and (c) Engineering Division on the subject matter. Should you have any questions, please feel free to call Lydia Morikawa at 587-0410. Thank you.

Sincerely,

Russell Y. Tsuji
Land Administrator

Enclosure(s)
cc: Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 24, 2015

MEMORANDUM

TO: **DLNR Agencies:**
___Div. of Aquatic Resources
___Div. of Boating & Ocean Recreation
_X_ Engineering Division
_X_ Div. of Forestry & Wildlife
___Div. of State Parks
_X_ Commission on Water Resource Management
_X_ Office of Conservation & Coastal Lands
_X_ Land Division – Oahu District
_X_ Historic Preservation

FROM: for Russell Y. Tsuji, Land Administrator
SUBJECT: St. Rita Church Master Plan, Draft Environmental Assessment (EA)
LOCATION: TMKs: (1) 8-9-005:001, (1) 8-9-007:002 & 004 (por.)
APPLICANT: Roman Catholic Church in Hawai`i by its agent Hawaii Planning LLC

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document which can be found here:

1. Go to: https://sp01.ld.dlnr.hawaii.gov/LD
2. Login: Username: LD\Visitor Password: 0pa$$word0 (first and last characters are zeros)
3. Click on: Requests for Comments
4. Click on the subject file "St. Rita Church Master Plan, Draft Environmental Assessment (EA)" then click on "Files" and "Download a copy". (Any issues accessing the document should be directed to Linda Kawakami at (808) 587-0371 or Linda.Kawakami@hawaii.gov)

Please submit any comments by December 21, 2015. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Attachments

( ) We have no objections.
(✓) We have no comments.
( ) Comments are attached.

Signed: _____
Print Name: David Smith, Acting Administrator
Date: 11/25/15

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 24, 2015

MEMORANDUM

TO: **DLNR Agencies:**
___Div. of Aquatic Resources
___Div. of Boating & Ocean Recreation
_X_ Engineering Division
_X_ Div. of Forestry & Wildlife
___Div. of State Parks
_X_ Commission on Water Resource Management
_X_ Office of Conservation & Coastal Lands
_X_ Land Division – Oahu District
_X_ Historic Preservation

FROM: for Russell Y. Tsuji, Land Administrator
SUBJECT: St. Rita Church Master Plan, Draft Environmental Assessment (EA)
LOCATION: TMKs: (1) 8-9-005:001, (1) 8-9-007:002 & 004 (por.)
APPLICANT: Roman Catholic Church in Hawai`i by its agent Hawaii Planning LLC

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document which can be found here:

1. Go to: https://sp01.ld.dlnr.hawaii.gov/LD
2. Login: Username: LD\Visitor Password: 0pa$$word0 (first and last characters are zeros)
3. Click on: Requests for Comments
4. Click on the subject file "St. Rita Church Master Plan, Draft Environmental Assessment (EA)" then click on "Files" and "Download a copy". (Any issues accessing the document should be directed to Linda Kawakami at (808) 587-0371 or Linda.Kawakami@hawaii.gov)

Please submit any comments by December 21, 2015. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Attachments

( ) We have no objections.
(✓) We have no comments.
( ) Comments are attached.

Signed: _____
Print Name: Timothy Chee
Date: November 30, '15

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 24, 2015

MEMORANDUM

TO: PR;

DLNR Agencies:
___Div. of Aquatic Resources
___Div. of Boating & Ocean Recreation
X Engineering Division
X Div. of Forestry & Wildlife
___Div. of State Parks
X Commission on Water Resource Management
X Office of Conservation & Coastal Lands
X Land Division – Oahu District
X Historic Preservation

FROM: for Russell Y. Tsuji, Land Administrator
SUBJECT: St. Rita Church Master Plan, Draft Environmental Assessment (EA)
LOCATION: TMKs: (1) 8-9-005:001, (1) 8-9-007:002 & 004 (por.)
APPLICANT: Roman Catholic Church in Hawai`i by its agent Hawaii Planning LLC

'15 NOV 25 AM 10:32 ENGINEERING

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document which can be found here:

1. Go to: https://sp01.ld.dlnr.hawaii.gov/LD
2. Login: Username: LD\Visitor Password: 0pa$$word0 (first and last characters are zeros)
3. Click on: Requests for Comments
4. Click on the subject file "St. Rita Church Master Plan, Draft Environmental Assessment (EA)" then click on "Files" and "Download a copy". (Any issues accessing the document should be directed to Linda Kawakami at (808) 587-0371 or Linda.Kawakami@hawaii.gov)

Please submit any comments by December 21, 2015. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(✓) Comments are attached.

Signed: _____
Print Name: Carty S. Chang, Chief Engineer
Date: 12/4/15

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/Russell Tsuji
Ref.: St. Rita Church Master Plan, Draft Environmental Assessment (EA), Nanakuli, HI Oahu.082

COMMENTS

( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone ___.

(X) Please take note that the western portion of the project site according to the Flood Insurance Rate Map (FIRM) is located in Zones AE and AEF. The National Flood Insurance Program regulates developments within these zones as indicated in bold letters below.

The remainder of the project site according to the Flood Insurance Rate Map (FIRM), is located in Zone X and Zone D. The National Flood Insurance Program (NFIP) does not regulate developments within Zone X. Also, Zone D is an area where flood hazards are undetermined.

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

(X) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

(X) Mr. Mario Siu Li at (808) 768-8098 or Ms. Ardis Shaw-Kim at (808) 768-8296 of the City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Carter Romero (Acting) at (808) 961-8943 of the County of Hawaii, Department of Public Works

( ) Ms. Carolyn Cortez at (808) 270-7253 of the County of Maui, Department of Planning.

( ) Mr. Stanford Iwamoto at (808) 241-4896 of the County of Kauai, Department of Public Works.

.

( ) The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments: _____

_____

( ) Other: _____

_____

Should you have any questions, please call Mr. Rodney Shiraishi of the Planning Branch at 587-0258.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: 12/14/15

Flood Hazard Assessment Report

www.hawaiinfip.org

StRita 189005001

Property Information

COUNTY:	HONOLULU
TMK NO:	(1) 8-9-005:001
WATERSHED:	NANAKULI
PARCEL ADDRESS:	89-318 FARRINGTON HWY WAIANAE, HI 96792

Notes:

Flood Hazard Information

FIRM INDEX DATE:	JANUARY 19, 2011
LETTER OF MAP CHANGE(S):	NONE
FEMA FIRM PANEL:	15003C0213H
PANEL EFFECTIVE DATE:	JANUARY 19, 2011

THIS PROPERTY IS WITHIN A TSUNAMI EVACUTION ZONE: YES
FOR MORE INFO, VISIT: http://www.scd.hawaii.gov/

THIS PROPERTY IS WITHIN A DAM EVACUATION ZONE: NO
FOR MORE INFO, VISIT: http://dlnreng.hawaii.gov/dam/

0 100 200 ft

Disclaimer: The Hawaii Department of Land and Natural Resources (DLNR) assumes no responsibility arising from the use, accuracy, completeness, and timeliness of any information contained in this report. Viewers/Users are responsible for verifying the accuracy of the information and agree to indemnify the DLNR, its officers, and employees from any liability which may arise from its use of its data or information.

If this map has been identified as 'PRELIMINARY', please note that it is being provided for informational purposes and is not to be used for flood insurance rating. Contact your county floodplain manager for flood zone determinations to be used for compliance with local floodplain management regulations.

FLOOD HAZARD ASSESSMENT TOOL LAYER LEGEND
(Note: legend does not correspond with NFHL)

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD - The 1% annual chance flood (100-year), also know as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. SFHAs include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones:

	Zone A: No BFE determined.
	Zone AE: BFE determined.
	Zone AH: Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
	Zone AO: Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.
	Zone V: Coastal flood zone with velocity hazard (wave action); no BFE determined.
	Zone VE: Coastal flood zone with velocity hazard (wave action); BFE determined.
	Zone AEF: Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.

NON-SPECIAL FLOOD HAZARD AREA - An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

	Zone XS (X shaded): Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
	Zone X: Areas determined to be outside the 0.2% annual chance floodplain.

OTHER FLOOD AREAS

	Zone D: Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase apply, but coverage is available in participating communities.

Flood Hazard Assessment Report

www.hawaiinfip.org

StRita 189007002

Property Information

COUNTY:	HONOLULU
TMK NO:	(1) 8-9-007:002
WATERSHED:	MAKAIWA; NANAKULI
PARCEL ADDRESS:	89-1159 NANAKULI AVE WAIANAE, HI 96792

Notes:

Flood Hazard Information

FIRM INDEX DATE:	JANUARY 19, 2011
LETTER OF MAP CHANGE(S):	NONE
FEMA FIRM PANEL - EFFECTIVE DATE:	15003C0213H - JANUARY 19, 2011 15003C0301G - JANUARY 19, 2011

THIS PROPERTY IS WITHIN A TSUNAMI EVACUTION ZONE: YES
FOR MORE INFO, VISIT: http://www.scd.hawaii.gov/

THIS PROPERTY IS WITHIN A DAM EVACUATION ZONE: NO
FOR MORE INFO, VISIT: http://dlnreng.hawaii.gov/dam/

0 0.30 0.60 mi

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FLOOD HAZARD ASSESSMENT TOOL LAYER LEGEND
(Note: legend does not correspond with NFHL)

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD - The 1% annual chance flood (100-year), also know as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. SFHAs include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones:

	Zone A: No BFE determined.
	Zone AE: BFE determined.
	Zone AH: Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
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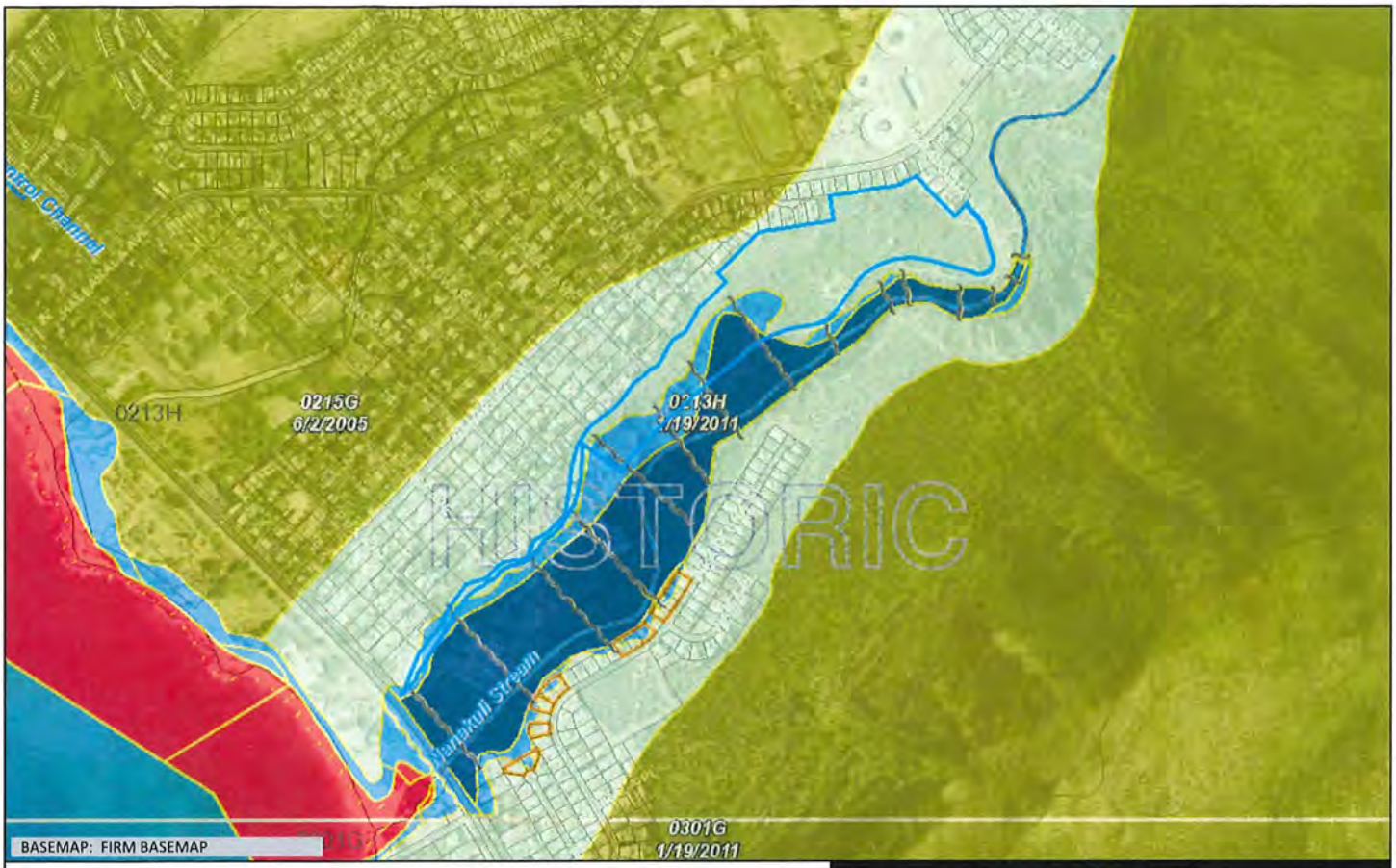
	Zone AEF: Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.

NON-SPECIAL FLOOD HAZARD AREA - An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

	Zone XS (X shaded): Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
	Zone X: Areas determined to be outside the 0.2% annual chance floodplain.

OTHER FLOOD AREAS

	Zone D: Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase apply, but coverage is available in participating communities.



Flood Hazard Assessment Report

www.hawaiinfip.org

StRita 189007004

Property Information

COUNTY:	HONOLULU
TMK NO:	(1) 8-9-007:004
WATERSHED:	NANAKULI
PARCEL ADDRESS:	UNKNOWN ADDRESS WAIANAE, HI 96792

Notes:

Flood Hazard Information

FIRM INDEX DATE:	JANUARY 19, 2011
LETTER OF MAP CHANGE(S):	NONE
FEMA FIRM PANEL:	15003C0213H
PANEL EFFECTIVE DATE:	JANUARY 19, 2011

THIS PROPERTY IS WITHIN A TSUNAMI EVACUTION ZONE: YES
FOR MORE INFO, VISIT: http://www.scd.hawaii.gov/

THIS PROPERTY IS WITHIN A DAM EVACUATION ZONE: NO
FOR MORE INFO, VISIT: http://dlnreng.hawaii.gov/dam/

0 600 1,200 ft

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FLOOD HAZARD ASSESSMENT TOOL LAYER LEGEND
(Note: legend does not correspond with NFHL)

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD - The 1% annual chance flood (100-year), also know as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. SFHAs include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones:

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	Zone AE: BFE determined.
	Zone AH: Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
	Zone AO: Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.
	Zone V: Coastal flood zone with velocity hazard (wave action); no BFE determined.
	Zone VE: Coastal flood zone with velocity hazard (wave action); BFE determined.
	Zone AEF: Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.

NON-SPECIAL FLOOD HAZARD AREA - An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

	Zone XS (X shaded): Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
	Zone X: Areas determined to be outside the 0.2% annual chance floodplain.

OTHER FLOOD AREAS

	Zone D: Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase apply, but coverage is available in participating communities.

March 30, 2016

Mr. Russell Y. Tsuji
State of Hawaii
Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, HI 96809

Dear Mr. Tsuji:

SUBJECT: St. Rita Catholic Church Master Plan Draft Environmental Assessment, Located at 89-318 Farrington Highway, Nanakuli, Oahu; Tax Map Keys: (1) 8-9-005: 001 & 8-9-007: Por. 002 & Por. 004

Thank you for your letter dated December 22, 2015 providing comments as part of the Draft EA for the St. Rita Catholic Church Master Plan. We offer the following response to your comment:

No development will occur on the AE and AEF flood zones. All development will occur in Flood Zone X.

Thank you for your comments. Your comments will be included in the Final EA.

Sincerely,

Hawaii Planning, LLC

Dennis Silva, Jr., AICP
Principal

DAVID Y. IGE
GOVERNOR

FORD N. FUCHIGAMI
DIRECTOR

DEPUTY DIRECTORS
JADE T. BUTAY
ROSS M. HIGASHI
EDWIN H. SNIFFEN
DARRELL T. YOUNG

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:
DIR 1441
HWY-PS 2.1460

December 23, 2015

Mr. Dennis Silva, Jr.
Hawaii Planning, LLC
1031 Nuuanu Avenue, #2306
Honolulu, Hawaii 96817

Dear Mr. Silva:

Subject: Special Management Area, Draft Environmental Assessment
St. Rita Church Master Plan
Nanakuli, Oahu
TMK: (1) 8-9-005:001; 8-9-007:002, 004 (por.)

The St. Rita Catholic Church (Church) proposes to replace existing structures of the existing church with a new meeting hall (300 person capacity), new church (400 person capacity), and a single-story office building (approximately 2,200 square feet). The Church is located on land leased from the State Department of Hawaiian Homelands with a right-turn in and out access to Farrington Highway, State Route 93, and a two-way access to Pua Avenue.

The bulk of Church activity is represented as consisting of religious services that occur on the weekend with much more modest community-related activities during the week. A draft Traffic Impact Analysis Report (TIAR) dated September 2014, accompanied the Draft Environmental Assessment (DEA). The TIAR indicated that trip generation for the religious services were derived from actual experience onsite and were determined to be consistent with 8th Edition Institute of Transportation Engineers trip generation rates for churches.

We have the following comments:

1. If St. Rita Catholic Church operates according to the representations of the TIAR, it is not anticipated to have a significant impact to State highways.

2. The Church should ensure that there is no vehicular backup onto Farrington Highway.

3. Parking on State highways is prohibited.

4. The Church shall inform church goers, employees, and visitors that left-turns at the Farrington Highway access are not allowed and advised of the proper means to enter the Church property.

5. Although non-religious activities during the week were presented in the DEA, these non-religious activities, at the levels indicated in the DEA, are not anticipated to have a significant impact to State highways.

6. The TIAR shall have had a title page that included the preparer of the report along with the preparer's professional engineer seal.

If there are any questions, please contact Nami Wong, Systems Planning Engineer, Highways Division, Planning Branch, at (808) 587-6336. Please reference file review number PS 2015-208 in all contacts and correspondence regarding these comments.

Sincerely,

FORD N. FUCHIGAMI
Director of Transportation

c: State of Hawaii, Department of Hawaiian Homelands

March 25, 2016

Mr. Ford N. Fuchigami
Director of Transportation
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, HI 96813

SUBJECT: St. Rita Catholic Church Master Plan Draft Environmental Assessment,
Located at 89-318 Farrington Highway, Nanakuli, Oahu;
Tax Map Keys: (1) 8-9-005: 001 & 8-9-007: Por. 002 & Por. 004

Thank you for your letter dated December 23, 2015 regarding the above-referenced project. We offer the following responses to your comments:

1. St. Rita Catholic Church will operate in accordance with the Final TIAR, dated February 2016. The TIAR will be enclosed as Appendix F in the Final EA.

2. The Church will ensure that no vehicular backup onto Farrington Highway will occur.

3. The parking spaces along Farrington Highway are on DHHL land and will be used for Church purposes only.

4. The Church will inform church goers that left turns at the Farrington Highway access are not allowed. Access will be from Nanakuli Avenue to Pua Avenue and entrance to St. Rita Church via the Pua Avenue ingress and egress.

5. We acknowledge comment # 5.

6. The Final TIAR dated February 2016 includes the preparer's Professional Engineer seal.

Thank you for your comments. Your comments will be included in the Final EA.

Sincerely,

Hawaii Planning, LLC

Dennis Silva, Jr., AICP
Principal

1031 Nuuanu Avenue, #2306, Honolulu, HI 96817

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8305 • Fax: (808) 768-4730 • Internet: www.honolulu.gov

KIRK CALDWELL
MAYOR

MICHAEL D. FORMBY
DIRECTOR

MARK N. GARRITY, AICP
DEPUTY DIRECTOR

TP11/15-633107R

December 23, 2015

Mr. Dennis Silva, Jr., AICP
Principal
Hawaii Planning LLC
1031 Nuuanu Avenue, Number 2306
Honolulu, Hawaii 96817

Dear Mr. Silva:

SUBJECT: St. Rita Church Master Plan; TMKs: (1) 8-9-005:001, (1) 8-9-007:002 & 004 (por.); Draft Environmental Assessment

This responds to your correspondence dated November 19, 2015, requesting our review of the subject project. Based on our review, we have the following comments to offer:

1. The design of site facilities should be based on the City's Complete Streets Ordinance and principles that highlight pedestrian and bicycle accommodations.

2. The project should have bike racks to accommodate bicycle parking.

3. On page 31, the "Pedestrian Survey" heading does not relate to the context of the paragraph.

4. On page 37 under Parking, there is a discussion regarding attendant assisted parking to accommodate an additional 30 parking spaces for a total of 129 parking spaces. However, in the Traffic Impact Analysis Report, there is discussion on tandem parking spaces which provides an additional 30 parking spaces for a total of 133 parking spaces. There should be clarification on the discrepancy.

5. As part of the Traffic Management Plan (TMP), we concur that there should be parking attendants to provide assistance in finding parking spaces and to assist with the tandem parking.

6. There should be further discussion in the TMP, regarding the use of off-site parking and shuttle service during special events. Recommend any existing sites which can be used to accommodate these events.

7. There should be consultation with the Hawaii State Department of Transportation regarding the potential widening of Farrington Highway to provide exclusive left-turn lanes in both directions at Nanakuli Avenue.

8. Any construction materials and equipment should be transferred to and from the project site during off-peak traffic hours (8:30 a.m. to 3:30 p.m.) to minimize any possible disruption to traffic on Farrington Highway.

9. The area Neighborhood Board, as well as the area residents (especially residents on Pua Avenue), businesses, emergency personnel (fire, ambulance and police), should be kept apprised of the details of the proposed project and the impacts, particularly during construction, the project may have on the adjoining local street area network.

Thank you for the opportunity to review this matter. Should you have any further questions, please contact Virginia Sosh of my staff at 768-5461.

Very truly yours,

Michael D. Formby
Director

March 25, 2016

Mr. Michael D. Formby
Director
Department of Transportation Services
City and County of Honolulu
650 S. King Street, 3rd Floor
Honolulu, HI 96813

SUBJECT: St. Rita Catholic Church Master Plan Draft Environmental Assessment,
Located at 89-318 Farrington Highway, Nanakuli, Oahu;
Tax Map Keys: (1) 8-9-005: 001 & 8-9-007: Por. 002 & Por. 004

Thank you for your letter dated December 23, 2015 regarding the above-referenced project. We offer the following responses to your comments:

1. The Final EA Section 2.9.5 Transportation Facilities, Recommendations subsection #5 states the implementation of bicycle racks on-site to promote bicycle use as a mode of transportation.
2. See aforementioned response # 1.
3. Refer to the Final TIAR, page 6 "Field Investigation and Data Collection." The Final TIAR will be enclosed as Appendix F in the Final EA.
4. Section 2.9.5 Transportation Facilities, subsection "Sunday Parking Impacts" clarifies the attended assisted parking issue in relation to total parking stalls and tandem parking spaces.
5. See aforementioned response # 4.
6. Refer to Final EA Section 2.9.5 Transportation Facilities, "Recommendations" subsection #4 which includes discussion on shuttle service to address overflow parking.
7. Refer to Final EA Section 2.9.5 Transportation Facilities, "Conclusions" subsection last paragraph which addresses the Farrington Highway widening.
8. We concur that the construction materials and equipment transfer will be conducted during off-peak traffic hours (8:30am to 3:30pm).
9. During the construction of the St. Rita Catholic Church and associated structures, residents, businesses, and emergency personnel will be kept apprised of the project.

Thank you for your comments. Your comments will be included in the Final EA.

Sincerely,

Hawaii Planning, LLC

Dennis Silva, Jr., AICP
Principal

1031 Nuuanu Avenue, #2306, Honolulu, HI 96817

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843

December 28, 2015

Mr. Dennis Silva, Jr., AICP
Hawaii Planning, LLC
1031 Nuuanu Avenue, #2306
Honolulu, Hawaii 96817

Dear Mr. Silva:

Subject: Your Letter Dated November 19, 2015 Requesting Comments on the Draft Environmental Assessment for St. Rita Church in Waianae, Tax Map Key: 8-9-005: 001, 8-9-007: 002 & 004

Thank you for the opportunity to comment on the proposed project.

The existing water system is adequate to accommodate the proposed Church redevelopment. However, please be advised that this information is based upon current data, and therefore, the Board of Water Supply reserves the right to change any position or information stated herein up until the final approval of the building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission and daily storage.

The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

If you have any questions, please contact Robert Chun, Project Review Branch of our Water Resources Division at 748-5443.

Very truly yours,

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

March 25, 2016

Mr. Ernest Y.W. Lau, P.E.
Manager and Chief Engineer
Board of Water Supply
City and County of Honolulu
630 S. Beretania Street
Honolulu, HI 96843

SUBJECT: St. Rita Catholic Church Master Plan Draft Environmental Assessment,
Located at 89-318 Farrington Highway, Nanakuli, Oahu;
Tax Map Keys: (1) 8-9-005: 001 & 8-9-007: Por. 002 & Por. 004

Thank you for your letter dated December 28, 2015 regarding the above-referenced project. We offer the following responses to your comments:

We acknowledge that the water system adequacy will be verified during the building permit phase of this project.

The Church acknowledges the requirement of the Water System Facilities Charges for resource development, transmission and storage.

Refer to the revised fire hydrant system layout for St. Rita Church in Appendix E: Due Diligence Report – Infrastructure, which complies with HFD's on-site fire protection requirements. Appendix E: Due Diligence Report will be enclosed in the Final EA.

Thank you for your comments. Your comments will be included in the Final EA.

Sincerely,

Hawaii Planning, LLC

Dennis Silva, Jr., AICP
Principal

DEPARTMENT OF COMMUNITY SERVICES
CITY AND COUNTY OF HONOLULU
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KIRK CALDWELL
MAYOR

GARY K. NAKATA
DIRECTOR

BARBARA YAMASHITA
DEPUTY DIRECTOR

January 15, 2016

Mr. Dennis Silva Jr., AICP
Hawaii Planning LLC
1031 Nuuanu Avenue, #2306
Honolulu, Hawaii 96817

Dear Mr. Silva:

SUBJECT: St. Rita Church Master Plan
Tax Map Key: (1) 8-9-005:001 and (1) 8-9-007:002(por.)
Draft Environmental Assessment

We have reviewed your letter dated November19, 2015, and the enclosed draft Environmental Assessment.

Our review of the documents provided indicates the proposed project will have no adverse impacts on any Department of Community Services' activities or projects at this time.

Thank you for providing us with the opportunity to comment on this matter.

Sincerely,

Gary K. Nakata
Director

GKN:jc

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
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KIRK CALDWELL
MAYOR

GEORGE I. ATTA, FAICP
DIRECTOR

ARTHUR D. CHALLACOMBE
DEPUTY DIRECTOR

2015/ELOG-2461(ST)

March 1, 2016

Mr. Dennis Silva, Jr. AICP
Hawaii Planning LLC
1031 Nuuanu Avenue, Unit 2306
Honolulu, Hawaii 96817

Dear Mr. Silva:

SUBJECT: Draft Environmental Assessment
St. Rita Catholic Church Master Plan
89-318 Farrington Highway - Nanakuli
Tax Map Key 8-9-5: 1; 8-9-7: 2, 4

Our comments on the Draft Environmental Assessment (EA) for the above Project are as follows:

1. Section 1.1 Purpose of the Environmental Assessment: The Final EA should clarify that the use of state land is a "trigger" for the preparation of an EA pursuant to Section 343-5(a)(1), Hawaii Revised Statutes (HRS) and Section 11-200-6(b)(1)(A) Hawaii Administrative Rules; that the EA requirement for an SMA Use Permit (major) is specified by Section 25-3.3(c)(1), Revised Ordinances of Honolulu.

   Project Summary: The Final EA should indicate that portions of the project site (parking lot) are in the State Land Use Agricultural District

2. Section 2.9.3 Grading and Drainage: Existing drainage patterns and improvements should be shown on an exhibit(s) with an appropriate scale (i.e., the Grading and Drainage Plan in Appendix E is too small). The Final EA should provide estimates of the amount of earthwork that is anticipated (i.e., cubic yards excavation, fill, etc.).

3. Section 2.10.2 Recreational Facilities: The Final EA should include a discussion of the recreational amenities which are located in the vicinity of the Project site (i.e., Kalanianaole Beach, Nanakuli Beach Park, Pilokahe Beach, located makai of Farrington Highway).

4. Section 3.7 Visual Resources: This section should be expanded to include a visual impact evaluation of the new construction as viewed toward and along this coastal highway (i.e., Exhibits which simulate the completed facilities on photos from various locations.).

4. Section 4.1 State Land Use District: The Final EA should disclose that portions of the project area are located with the Agricultural District pursuant to Chapter 205, HRS; and that the church (meeting facility) use is not a permitted use pursuant to Section 205-4.5, HRS; that such a use would generally require obtaining an Special Use Permit (SUP) pursuant to Section 205-6, HRS.

5. Section 4.7.3 City Land Use Approvals Required: This section should disclose that this church (meeting facility) was previously granted an Existing Use Permit No. 2000/EU-12 on September 13, 2000. The proposed demolition of the existing structures and its replacement with new larger facilities, require that a new Conditional Use Permit minor is obtained from the Department of Planning and Permitting.

If you have any questions, please contact Steve Tagawa of our staff at 768-8024.

Very truly yours,

for George I. Atta, FAICP
Director

cc: DHHL (Julie-Ann Cachola)
OEQC

March 30, 2016

Mr. George I. Atta, FAICP
Director
Department of Planning and Permitting
City and County of Honolulu
650 S. King Street, 7th Floor
Honolulu, HI 96813

Dear Mr. Atta:

SUBJECT: St. Rita Catholic Church Master Plan Draft Environmental Assessment, Located at 89-318 Farrington Highway, Nanakuli, Oahu; Tax Map Keys: (1) 8-9-005: 001 & 8-9-007: Por. 002 & Por. 004

Thank you for your letter dated March 1, 2016 regarding the above-referenced project. We offer the following responses to your comments:

1. Section 1.1 Purpose of the Environmental Assessment is revised accordingly stating the "trigger" of the EA.
2. Section 2.9.3 Grading and Drainage includes the anticipated estimates of earthwork. The Final EA will also include a Grading and Drainage Plan in 24" x 36" size for legibility.
3. Section 2.10.2 Recreational Facilities includes a discussion of Nanakuli Beach Park which is located makai and across of St. Rita Catholic Church.
4. Section 3.7 Visual Resources includes discussion of the superimposed elevations on the site photos. The photo simulations will include views from makai, mauka, and a view looking towards Waianae.
5. Section 4.1 State Land Use District discloses that part of the parking lot is within the State Agricultural District. All redevelopment will occur within the Urban land use district and will therefore not require a State Special Use Permit.
6. Section 4.7.3 City Land Use Approvals Required includes a statement that 2000/EU-12 was approved by DPP on September 13, 2000.

Thank you for your comments. Your comments will be included in the Final EA.

Sincerely,

Hawaii Planning, LLC

Dennis Silva, Jr., AICP
Principal

1031 Nuuanu Avenue, #2306, Honolulu, HI 96817