

# ***Draft Environmental Assessment Report***

Wireless Facilities Inc.  
Nextel Hickam Air Force Base (HAFB) Cell Site  
Adjacent to Building 1847  
Tax Map Key No.: (1) 1-1-002: Parcel 002  
Hickam Air Force Base  
Honolulu, Oahu, Hawai'i

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Project No. 17006-006383.00

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For the benefit of business and people

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## List of Acronyms

AGL	Above Ground Level
AMSL	Above Mean Sea Level
APE	Area of Potential Effects
BGS	Below Ground Surface
BWS	Board of Water Supply
CDUA	Conservation District Use Application
DA	Department of the Army
DLNR	Department of Land and Natural Resources
DOFAW	Department of Forestry and Wildlife
DOH	Department of Health
DPP	Department of Planning and Permitting
EA	Environmental Assessment
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
HAFB	Hickam Air Force Base
HECO	Hawaiian Electric Company
HEER	Hazard Evaluation and Emergency Response
HHF	Historic Hawaii Foundation
NMV	National Map Viewer
NEPA	National Environmental Policy Act
NPA	National Programmatic Agreement
NPI	Nextel Partners, Inc.
OCEA	Office of Conservation and Environmental Affairs
OHA	Office of Hawaiian Affairs
SHPD	State Historic Preservation Division
SHPO	State Historic Preservation Officer
TMK	Tax Map Key
UIC	Underground Injection Control
US	United States
USA	United States of America
USACE	United State Army Corps of Engineers
USAF	United States Air Force
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank
WFI	Wireless Facilities, Inc.



## Executive Summary

Mr. Mark Bullard of Wireless Facilities, Inc. (WFI) retained Bureau Veritas North America, Inc. (Bureau Veritas) to conduct an Environmental Assessment (EA) in accordance with the State of Hawaii, Department of Land and Natural Resources (DLNR), Office of Conservation and Environmental Affairs Conservation District Use Application (CDUA) requirements for the proposed Nextel Hickam Air Force Base (HAFB) Cell Site, located adjacent to Building 1847 (Tax Map Key [TMK] No. [1] 1-1-2: Parcel 2), HAFB, Honolulu, Oahu, Hawaii (the “subject property”).

For purposes of this assessment, the term “subject property” is specifically defined as the lease land area that encompasses the “proposed action,” as defined in Section 3.3 of this report. The “subject parcel” is defined as the entire parcel of land, as identified by a county tax assessor, on which the subject property lies. This assessment was requested in association with leasing an area within the subject parcel where the proposed action will affect the subject property. The subject parcel is bordered to the east and south by Honolulu International Airport and to the west and north by residential and commercial portions of HAFB.

The subject parcel, currently owned by the United States of America (USA), is an irregular-shaped, 626.2089-acre complex developed with portions of HAFB military installation. According to its official website (<http://www2.hickam.af.mil/>), HAFB is home of the 15th Airlift Wing, with 140 tenant and associate units, including Pacific Air Force Headquarters and the Hawaii Air National Guard. The 15th Airlift Wing currently flies worldwide missions in support of the Pacific Command and Commander, and Pacific Air Forces. As part of Command Headquarters, HAFB hosts C-17 troop and cargo transport planes for the 535th Airlift Squadron. The HAFB military installation is also improved with numerous military housing, recreational, airport, and associated support facilities.

The subject property (proposed Nextel HAFB Cell Site [WFI ID# HI 196P]) is located in the central eastern sector of the subject parcel and comprises an approximately 600 square foot (20-foot by 30-foot) grassy lease area at the western edge of a HAFB track and field facility, approximately 100 feet south of HAFB Building 1847. The subject property is currently improved with one of the track and field metal light poles and an adjoining wooden storage shed. Metal bleacher seats, overlooking the track and field facility, border the eastern edge of the metal light pole and proposed project site (subject property).

According to WFI, the proposed action involves removing the existing light pole, replacing it with a new 90-foot high light pole, and mounting up to three panel antennas on a three-sectored antenna boom array at the top of the pole. The existing floodlight-platform will be relocated on the new pole, and the existing wooden storage shed will also be relocated adjacent to the light pole. The maximum finished height of the light pole and antenna tips will be approximately 90 feet above ground level (AGL). An associated equipment shelter, containing an emergency generator system, will be installed on a concrete slab at grade by the base of the light pole and secured within a chain-link fence enclosure (Lat/Long: 21° 19' 57.2" N and 157° 56' 16" W [NAD83]).

The agencies contacted by Bureau Veritas to complete this EA are listed as follows:

- DLNR-Division of Forestry and Wildlife (DOFAW), Oahu Branch Office
- United States (US) Department of the Interior-US Fish and Wildlife Service (USFWS)
- DLNR-State Historic Preservation Division (SHPD)



- Office of Hawaiian Affairs (OHA)
- Historic Hawaii Foundation (HHF)
- Native Hawaiian Group “Hui Malama”
- U.S. Army Corps of Engineers (USACE), Honolulu District Office
- City and County of Honolulu, Department of Planning and Permitting (DPP)

Additionally, maps from the following agencies were reviewed:

- Federal Emergency Management Agency (FEMA)
- Department of Interior, National Wetlands Inventory Maps
- U.S. Geological Survey (USGS)

None of the inquiries made or documents reviewed during this EA indicated direct evidence of significant negative environmental conditions with respect to the proposed action at the subject property.

Therefore, it is anticipated that the DLNR-Office of Conservation and Environmental Affairs (OCEA) will make a Finding of No Significant Impact (FONSI) determination for the proposed Nextel HAFB Cell Site, located adjacent to Building 1847, HAFB, Honolulu, Oahu, Hawaii.



## **1.0 INTRODUCTION**

Mr. Mark Bullard of Wireless Facilities, Inc. (WFI) retained Bureau Veritas North America, Inc. (Bureau Veritas) to conduct an Environmental Assessment (EA) in accordance with the State of Hawaii, Department of Land and Natural Resources (DLNR)-Office of Conservation and Environmental Affairs (OCEA's) Conservation District Use Application (CDUA) requirements for the proposed Nextel Hickam Air Force Base (HAFB) Cell Site, located adjacent to Building 1847 (Tax Map Key [TMK] No. [1] 1-1-2: Parcel 2), HAFB, Honolulu, Oahu, Hawaii (the "subject property").

This EA was conducted to comply with Chapter 343, HRS, as amended, and Hawaii Administrative Rules Title 11, State of Hawaii Department of Health, Chapter 200, Environmental Impact Rules. It is expected that the outcome of this EA will be a Finding of No Significant Impact (FONSI) for the Nextel HAFB Cell Site.

For purposes of this assessment, the term "subject property" is specifically defined as the lease land area that encompasses the "proposed action," as defined in Section 3.3 of this report. The "subject parcel" is defined as the entire parcel of land, as identified by a county tax assessor, on which the subject property lies. This assessment was requested in association with leasing an area within the subject parcel where the proposed action will affect the subject property.

## **2.0 SUBJECT PROPERTY/PARCEL DESCRIPTION**

### **2.1 SUBJECT PARCEL/PROPERTY LOCATION**

The subject parcel encompasses an irregular-shaped, 626.2089-acre portion of HAFB in Honolulu, Oahu, Hawaii in a mixed military residential, recreational, and airport setting (Figures 1 and 2, *Figures Tab*). The parcel is bordered to the east and south by Honolulu International Airport, and to the west and north by residential and commercial portions of HAFB.

The subject parcel is further described by the City and County of Honolulu Real Property Tax Assessment Office as the land lying in TMK Number: (1) 1-1-2: Parcel 2. According to the City and County of Honolulu Department of Planning, the county zoning designation for the subject parcel is "*F-1, Military and Federal Preservation*" and the State Land Use Ordinance designation is "*Urban District*."

The subject property is located in the central eastern sector of the subject parcel, and borders a set of bleacher seats at the western edge of an existing track and football field facility, approximately 100 feet south of HAFB Bldg. 1847 (Lat/Long: 21° 19' 57.2" N, 157° 56' 16" W [NAD83]). The athletic facility is bordered to the north by Kuntz Avenue, to the south by Moffet Street, to the east by Luke Drive, and to the west by an asphalt-paved parking lot.

### **2.2 CURRENT USE OF SUBJECT PARCEL/PROPERTY**

The subject parcel, currently owned by the United States of America (USA), is developed with portions of HAFB military installation. According to its official website (<http://www2.hickam.af.mil/>), HAFB is home of the 15th Airlift Wing, with 140 tenant and associate units, including Pacific Air Force Headquarters and the Hawaii Air National Guard. The 15th Airlift Wing currently flies worldwide missions in support of the Pacific Command and Commander, and Pacific Air Forces. As part of Command Headquarters, HAFB hosts C-17 troop and cargo transport planes for the 535th Airlift Squadron. The HAFB military installation is also improved with numerous military housing, recreational, airport, and associated support facilities.



The subject property (proposed NPI HAFB Cell Site [WFI ID #HI 196P]) comprises an approximately 600 square-foot (20- by 30-foot) grassy lease area bordering the western edge of the track and field facility, approximately 100 feet south of HAFB Building 1847, a small utility building. The proposed project site encompasses an existing light pole and adjoining wooden storage shed. Metal bleachers that overlook the track and field facility border the subject property (proposed project site) to the immediate east.

Based on observations made during the site visit and field inspection, as well as an interview with Lt. Kyle Slick, USAF NEPA Specialist, the following information was ascertained:

- The Hawaiian Electric Company (HECO) provides electricity to HAFB
- The City and County of Honolulu Board of Water Supply (BWS) provides water to HAFB
- Sewer services are provided by the United States Navy sewer system
- Evidence of discharge sources was not observed at the subject property
- Heating and cooling sources were not observed on the subject property
- Wastewater is not generated at the site and storm water at the subject property infiltrates the ground.

The planned short-term use for the subject property is continued operation as a recreational track and field facility.

### **3.0 PROPOSED ACTION**

#### **3.1 TECHNICAL CHARACTERISTICS**

According to WFI, the proposed action involves removing the existing light pole, replacing it with a new 90-foot high light pole, and mounting up to three panel antennas on a three-sectored antenna boom array at the top of the pole. The existing floodlight-platform will be relocated on the new pole, and the existing wooden storage shed will also be relocated adjacent to the light pole. The maximum finished height of the light pole and antenna tips will be approximately 90 feet above ground level (AGL). An associated equipment shelter, containing an emergency generator system, will be installed on a concrete slab at grade by the base of the light pole and secured within a chain-link fence enclosure (Lat/Long: 21° 19' 57.2" N and 157° 56' 16" W [NAD83]).

Construction activities that will disturb the ground surface in the vicinity of the proposed project site include: (1) removing the existing light pole; (2) excavating to install a new foundation for the monopole; (3) constructing a new foundation for the equipment shelter; and (4) installing electrical and telecommunications conduits from the equipment shelter to the light standard.

#### **3.2 SOCIO-ECONOMIC CHARACTERISTICS**

The proposed cell site is anticipated to have no growth impact on the regional population since no public facilities are being installed. The proposed project is to provide better telecommunications service for those in the surrounding area, thereby benefiting the community at large.

#### **3.3 ENVIRONMENTAL CHARACTERISTICS**

The proposed cell site is located in an area with existing power. Clearing, grading, and excavation activities required for the proposed project are limited to the immediate vicinity of the subject property. No significant impact to the land is anticipated since previous development was undergone in the area to produce the track and field facility, and the monopole will be replacing an existing light pole.



### **3.4 SCHEDULE AND FUNDING**

The project is anticipated to proceed following a FONSI determination by the approving agency, DLNR-OCEA. Currently, the project is expected to commence in September of 2007. The project should take approximately eight weeks to complete, with the exception of unforeseen delays. Nextel Partners, Inc. (NPI) will provide all funding for this project.

### **4.0 ALTERNATIVES TO PROPOSED SITE**

In determining a suitable location for construction of a telecommunications antenna site, several search criteria must be met. Various topographic features in the area must be evaluated, including but not limited to: elevation, terrain, and building obstruction. In addition, the antenna tower(s) can only be located in areas that are appropriately zoned by the local jurisdiction.

The purpose of the Nextel HAFB Cell Site is to relay signals to a receiving antenna (i.e., personal cell phones) located horizontally outward at some distance. Therefore, the site selection is based on its ability to meet this purpose.

Alternative locations were considered before choosing the HAFB location. The T-Mobile tower at 515 Main Street was examined; however, it contains so many antennas that installing more would not be beneficial. The Mokulele Fire House with the City and County of Honolulu was then considered, but that prospect was denied. When the Air Force was approached, the proposal was approved and NPI was directed to the subject property.

### **5.0 AFFECTED ENVIRONMENT**

#### **5.1 PHYSICAL SETTING**

##### **5.1.1 Physiography**

The subject parcel/property lies in the Pearl Harbor Plain physiographic region, along the central southern coastal plain of the island of Oahu. The approximate latitude and longitude of the subject property are 21° 19' 57.2" °N and 157° 56' 16" °W [NAD83], respectively. According to the US Geological Survey (USGS), Pearl Harbor, Hawaii, 7.5 minute topographic quadrangle map, the elevation at the subject property is approximately 10 feet above mean sea level (amsl). The general topography of the subject property is graded flat and level, while the surrounding region slopes down gently to the south-southwest, towards the Pacific Ocean shoreline by Hickam Harbor.

##### **5.1.2 Geology**

According to the Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai (Foote, D.E. et al., 1972), the soil underlying the eastern portion of the subject parcel consists of Fill Land soil. This type of soil consists of areas filled with material from dredging, excavation from adjacent uplands, garbage, and bagasse and slurry from sugar mills on the islands of Maui, Kauai, and Oahu. This type of land is used primarily for urban development.



## **Impacts and Mitigation Measures**

The proposed construction activities will require minor grubbing and grading, excavation for the new light pole, and trenching for power and telecommunication services; however, the impacts are expected to be minimal since the project site encompasses a small, developed area.

### **5.1.3 Hydrology**

According to the *Aquifer Identification and Classification for the Island of Oahu Technical Report No. 179*, published by the Water Resources Research Center at the University of Hawaii, the aquifers below the subject property is part of the Moanalua aquifer system within the Honolulu aquifer sector.

The upper Moanalua aquifer is described as an unconfined, basal aquifer of the sedimentary type that occurs in nonvolcanic lithology. This aquifer has a potential for use, however, not as a fresh drinking water source or ecologically important water source. It has a low salinity of 250 – 1,000 milligrams of chloride per liter of water (mg/L Cl<sup>-</sup>). It is identified as replaceable, with a high vulnerability to contamination.

The lower Moanalua aquifer is described as a confined, basal aquifer of the flank type that occurs in horizontally extensive lavas. This aquifer is listed as a currently used fresh drinking water source. It is identified as irreplaceable with a low vulnerability to contamination.

However, the subject property is located below the State of Hawaii-Department of Health (DOH) defined Underground Injection Control (UIC) line. Areas above the UIC line denote potential underground drinking water aquifers. Areas below the UIC line generally denote aquifers that are unsuitable for drinking water purposes. Consequently, the aquifers below the subject property are considered non-drinking water aquifers.

The depth to first groundwater beneath the subject parcel is estimated to range from approximately 5 to 10 feet below ground surface (bgs). The regional groundwater flow direction is generally inferred to follow surface topography and flow in a southerly direction towards the Pacific Ocean. However, topography is not always a reliable basis for predicting groundwater flow direction since the local gradient and flow direction under the subject parcel may be influenced naturally by zones of higher or lower permeability, tidal changes, or nearby pumping or recharge, and may deviate from the regional trend.

## **Impacts and Mitigation Measures**

There may be contact with groundwater during the proposed construction activities; however, since the groundwater is not used for drinking water, there will not be a significant impact to the area.

### **5.1.4 Wetlands**

The subject property was inspected for the presence of sensitive ecological areas by noting environmental indicators (e.g., wetlands vegetation, floodplains) located on or immediately adjoining the subject property.

No sensitive ecological areas were observed on the subject parcel. The 1999 Pearl Harbor, Hawaii, USGS 7.5-Minute Topographic Map, which includes the subject and adjoining properties, does not depict creeks or delineated wetlands located on the subject parcel/property or adjoining properties.



The United States Fish and Wildlife Service (USFWS) National Wetland Map of the area was reviewed at the website, [www.fws.gov/](http://www.fws.gov/). According to the website, there are no designated wetlands on the subject property or immediate surrounding areas.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel Number 150003C0335F (revised September 30, 2004), viewed at the website <http://www.msc.fema.gov>, the area has not been studied because based on the topography and location, the potential for flooding is low. Therefore, the area is not located in the 100-year flood plain.

### **Impacts and Mitigation Measures**

The proposed action will not have a significant impact on wetlands, flooding, or flood hazards.

#### **5.1.5 Flora and Fauna**

The subject parcel includes an existing track and field facility. Previous grubbing and grading activities removed most native vegetation in the area of the proposed cell site. The subject property includes an existing shed, light pole, and manicured grass.

### **Impacts and Mitigation Measures**

The proposed action will not have a significant impact on flora and fauna.

#### **5.1.6 Hazardous Substances**

The subject property was assessed for signs of storage, use, or disposal of hazardous materials. The assessment consisted of noting evidence (e.g., drums, unusual vegetation patterns, staining) indicating that hazardous materials are currently or were previously located on the subject property.

The historical research conducted for this assessment did not reveal evidence of hazardous materials/waste on the subject parcel/property. Review of the DOH Hazard Evaluation and Emergency Response (HEER) database indicated there are 88 SITELIST sites and 110 reported releases on HAFB. However, there were no SITELIST sites or reported releases at HAFB Bldgs 1847, 1849, 1852, 1854, and 1891, which are the nearest buildings to the proposed project site. In addition, there are no underground storage tanks (USTs) registered for the subject parcel with the State of Hawaii DOH, Solid and Hazardous Waste Branch, UST Division.

The subject property was assessed for signs of storage, use, or disposal of hazardous materials. A flammable storage cabinet was observed on the northern side of Building 1847, and a second flammable storage cabinet was observed on the southern side of Building 1849, approximately 100 feet to the north of the subject property (proposed Nextel HAFB Cell Site). Access was not provided to either flammable cabinet at the time of Bureau Veritas' inspection. However, due to their distance, the contents of the flammable storage cabinets have a low potential to impact the subject property (proposed project site).

### **Impacts and Mitigation Measures**

Current and former use of hazardous materials will not have a significant impact on the subject property.



### **5.1.7 Noise**

The subject property is located in an urban setting and is surrounded by grassy lawns, a track and field facility, and asphalt parking lots. There may be a minimal increase in noise levels on the subject site due to an emergency backup diesel-powered generator, which will run only in the event of a power outage and for short test periods as a regular maintenance activity.

#### **Impacts and Mitigation Measures**

During construction and installation activities, noise levels might increase slightly. However, subsequent to construction activities, the proposed action will not have a significant impact on noise levels since the generator will run only during a power outage and for short periods as a regular maintenance activity.

### **5.1.8 View and Visual Impacts**

The proposed action replaces an existing light pole with a monopole and will, therefore, pose no changes to the existing view. In addition, the subject property is bordered by a track and field facility, a dormitory, and various other buildings, so the addition of the monopole will not create a visual impact.

#### **Impacts and Mitigation Measures**

The proposed action will not have a significant impact on the view in the area.

### **5.1.9 Utilities**

Water service is provided to HAFB by the BWS and sewer service is provided by the United States Navy sewer system. Electricity is provided directly to the subject property by HECO. Wastewater is not generated at the site and storm water at the subject property infiltrates the unpaved ground.

#### **Impacts and Mitigation Measures**

Conduits containing electrical and telecommunications wires will be installed underground from the light standard to the equipment shelter. Since a light pole with a power supply is being replaced, the installation of the monopole will not have a significant impact to the surrounding area.

## **5.2 ARCHEOLOGICAL, HISTORIC, AND CULTURAL RESOURCES**

### **5.2.1 Wilderness Area (47 CFR § 1.1307 [A] [1])**

Bureau Veritas contacted the USFWS, Honolulu Office and the DLNR-DOFAW, Oahu District Office regarding the presence of officially designated wilderness areas on the subject property.

The USFWS provided the following comment on the proposed project in a response letter dated December 6, 2006:

- *“To assist you with this project we reviewed the information you provided as well as pertinent information in our files, and data compiled by the Hawaii Biodiversity and Mapping Program .... The project site is not located within or immediately adjacent to any federally proposed or designated critical habitat, National Wildlife Refuge, or wildlife preserve.”*



The DOFAW provided the following comment on the proposed project in a response letter dated March 1, 2007:

- *“DOFAW does not have any management areas near your proposed project... Thank you for allowing us to review your project.”*

Bureau Veritas also reviewed (<http://www.wilderness.net>), the National Wilderness Preservation System website for information on whether the proposed project site is located within an officially designated wilderness area. According to this website, four federal agencies (the National Park Service, Forest Service, Fish and Wildlife Service, and Bureau of Land Management) manage a total of 662 designated wilderness areas in the United States. Two of these Wilderness areas are located in the state of Hawaii, including Hawaii Volcanoes National Park on the island of Hawaii, and Haleakala National Park on the island of Maui. Neither area encompasses the subject parcel/property.

Based on the inquiries and responses noted in this Section, the proposed action is not located in an officially designated wilderness area.

### **5.2.2 Wildlife Preserve (47 CFR § 1.1307 [A] [2])**

Bureau Veritas contacted the USFWS, Honolulu Office and the DLNR-DOFAW, Oahu District Office regarding the presence of officially designated wildlife preserves on the subject parcel.

The USFWS provided the following comment on the proposed project in a response letter dated December 6, 2006:

- *“To assist you with this project we reviewed the information you provided as well as pertinent information in our files, and data compiled by the Hawaii Biodiversity and Mapping Program .... The project site is not located within or immediately adjacent to any federally proposed or designated critical habitat, National Wildlife Refuge, or wildlife preserve.”*

The DOFAW provided the following comment on the proposed project in a response letter dated March 1, 2007:

- *“DOFAW does not have any management areas near your proposed project... Thank you for allowing us to review your project.”*

Bureau Veritas reviewed the United States Fish and Wildlife Service website at the internet address (<http://www.fws.gov/refuges/refugeLocatorMaps/Hawaii.html>) for information on whether the proposed project site is located within a designated wildlife preserve. According to this website, there are a total of nine wildlife preserves located within the Hawaiian Islands, including:

1. Hakalau Forest National Wildlife Refuge
2. Hanalei National Wildlife Refuge
3. Huleia National Wildlife Refuge
4. James Campbell National Wildlife Refuge
5. Kakahaia National Wildlife Refuge
6. Kilauea Point National Wildlife Refuge
7. Kealia Pond National Wildlife Refuge
8. Oahu Forest National Wildlife Refuge
9. Pearl Harbor National Wildlife Refuge



None of the nine listed wildlife preserves identified encompasses the subject parcel/property.

Based on the inquiries, responses, and evaluations noted in this Section, the proposed action will not affect listed or proposed threatened or endangered species and is not located in a designated or proposed critical habitat. Copies of correspondence from the USFWS, Honolulu Office and DLNR-DOFAW, Oahu District Office can be found in Appendix C, Section 1.

### **5.2.3 Listed or Proposed Threatened or Endangered Species and Designated or Proposed Critical Habitats (47 CFR § 1.1307 [A] [3])**

Bureau Veritas reviewed the USFWS, Honolulu Branch Pacific Islands Endangered Species Index at their website (<http://www.fws.gov/pacificislands/wesa/endspindex.html>) to assess the potential for designated or proposed critical habitats and proposed endangered, endangered, or threatened species to be affected by the proposed action.

Bureau Veritas also contacted the USFWS, Honolulu Office and DLNR-DOFAW, Oahu Office regarding the presence of listed or proposed threatened or endangered species and designated or proposed critical habitats on the subject property.

The USFWS provided the following comment on the proposed project in a response letter dated December 6, 2006:

- *“To assist you with this project we reviewed the information you provided as well as pertinent information in our files, and data compiled by the Hawaii Biodiversity and Mapping Program. Our data indicate that no federally listed species (threatened, endangered, proposed, or candidate species) are likely to be present in the project area .... The proposed antenna tower height would extend above the mean height of the surrounding vegetation, and therefore could create a potential collision hazard for birds. However, the species at greatest risk, Hawaiian seabirds, have not been observed traversing this urban area in many decades, and therefore, it is reasonable to anticipate that federally listed species would not be impacted by this cell tower project. To minimize any risk of light attraction and collision to all night flying seabirds, we recommend that all project lighting should be directed downward and be shaded to prevent light from escaping horizontally, and should be of as low wattage as possible.”*

The lights from the existing pole will be relocated onto the monopole and will be pointed down toward the track; therefore, the lights on the monopole will offer no hazards to the seabirds mentioned in the letter. Additionally, existing light poles surround the track, so the monopole and its relocated lights will introduce no new hazards to the birds

The DLNR-DOFAW provided the following comment on the proposed project in a response letter dated March 1, 2007:

- *“DOFAW does not have any management areas near your proposed project but will comment on the impacts your project will have on seabird’s attraction to lights. We recommend that your project design include fully shielded, low profile outdoor lighting to reduce the impacts to endangered seabird’s attraction to lights (see attached brochure). In addition, all guy-wires shall be covered with fluorescent foam wraps and “bird diverters.” If lighting cannot reduce the impacts to seabirds, the project may need to proceed through a Habitat Conservation Plan for that seabird species.”*



The lights on the existing pole will be relocated onto the monopole and will be pointed down toward the track; therefore, the lights will offer no hazards to seabirds. In addition, the monopole will not be equipped with guy-wires, so there will be no hazards to seabirds from guy-wires.

Based upon the inquiries, responses, and evaluations noted in this Section, the proposed action will not affect listed or proposed threatened or endangered species and is not located in a designated or proposed critical habitat. Copies of correspondence from the USFWS, Honolulu Office and DLNR-DOFAW, Oahu District Office can be found in Appendix C, Section 1.

#### **5.2.4 Historic Places (47 CFR § 1.1307 [A] [4])**

In accordance with the *Nationwide Programmatic Agreement (NPA) for Review of Effects on Historic Properties for Certain Undertakings Approved by the FCC*, which was adopted by the FCC on March 7, 2005, Bureau Veritas, together with the United State Air Force (USAF), submitted portions of the New Tower Submission Packet (FCC Form 620) to the State of Hawaii, DLNR-State Historic Preservation Division (SHPD) for review by the State Historic Preservation Officer (SHPO) on January 3, 2007.

Consultation with the SHPO was initiated for their review of potential impacts to districts, sites, buildings, structures or objects, significant in Hawaiian and American history, architecture, archeology, engineering or culture, that are listed, or are eligible for listing, in the National and/or State Register of Historic Places, which may be impacted by the proposed action's area of potential effect (APE) for direct or visual effects. The APE for direct effects is defined by the NPA as *"the area of potential ground disturbance and any property, or any portion thereof, that will be physically altered or destroyed"* by the proposed action. The APE for visual effects is defined by the NPA as *"the geographic area in which the (proposed action) has the potential to introduce visual elements that diminish or alter the setting, including the landscape, where the setting is a character-defining feature of a Historic Property that makes it eligible for listing in the National Register."* In the case of the subject property, the APE for visual effects is ½ mile from the proposed action.

In a response letter (Log No: 2007.0178/Doc No: 0701BF14) dated January 24, 2007, the SHPO indicated that no historic properties or architectural concerns will be affected by this project. A copy of correspondence from the SHPO is presented in Appendix C, Section 2.

Bureau Veritas contacted the DLNR-SHPD, Office of Hawaiian Affairs (OHA), City and County of Honolulu Department of Planning and Permitting (DPP), Historic Hawaii Foundation (HHF), and the native Hawaiian group "Hui Malama," regarding districts, sites, buildings, structures, or objects significant in Hawaiian history, architecture, archeology, engineering, or culture that are listed, or are eligible for listing, in the National Register of Historic Places and may be located on the subject parcel/property. Responses from these agencies are listed as follows:

- The SHPO provided the following comment on the proposed project in a response letter dated January 24, 2007, *"The proposed project is located outside all historic districts and the Hickam Field National Historic Landmark. There are no known sites within the proposed project site; however, if any remains, artifacts, historic sites or features are discovered during construction all work must cease immediately and the appropriate authorities must be contacted. The State Historic Preservation Division concurs with the Air Force finding of no historic properties affected."* A copy of correspondence from the SHPO is located in Appendix C, Section 2.



- In a response letter dated December 12, 2006, the OHA provided the following comment on Bureau Veritas' notification, *"According to the provided documents (Attachment 2), an Archaeological Assessment of the proposed undertaking has been completed by your consultant. This work, which included assessment of the potential effects to traditional cultural resources, concluded that no historic properties will be affected by the proposed undertaking. We have no additional project-specific comments at this time."* A copy of correspondence from the OHA is located in Appendix C, Section 2.
- In a response letter dated January 25, 2007, the City and County of Honolulu Department of Planning and Permitting (DPP) provided the following comment on the proposed project, *"We have no knowledge that the site involves any significant historical or cultural resources. We recommend that you contact the State of Hawaii, Department of Land and Natural Resources (DLNR), Historic Preservation Division (SHPD), for information concerning potential impacts to historical and/or cultural resources."* A copy of correspondence from the DPP is presented in Appendix C, Section 5.
- In a response letter dated November 8, 2006, the HHF stated, *"While Nextel's preliminary site plan and drawings indicate that the proposed cell tower is located in an industrial area, HFF would like this to be confirmed and approved by the Base Historic Preservation Officer."* Bureau Veritas later contacted the Environmental Planning Office on HAFB and conducted a Section 106 NHPA Review together. The outcome of this review was that all agencies contacted concurred that the proposed cell site would have no historical or archaeological impact, as indicated throughout this Section. A copy of correspondence from the HHF is presented in Appendix C, Section 5.
- As of the date of this report, Bureau Veritas has not received responses from Hui Malama. However, this group typically does not respond to such inquiries.

Based on these inquiries and clearance from the SHPO dated January 24, 2007, the proposed project will not affect historic places. However, state and federal law requires that if cultural resources are found during construction activities, work needs to cease and the SHPD must be notified. Therefore, should historic resources, including human skeletal remains, be identified during construction activities associated with the proposed action, all work needs to cease in the immediate vicinity of the find until additional consultation with the SHPD is conducted and appropriate evaluation of the resources has been completed.

### **5.2.5 Hawaiian Religious Sites (47 CFR § 1.1307 [A] [5])**

Bureau Veritas contacted DLNR-SHPD, OHA, Hui Malama, and HHF regarding known native Hawaiian religious sites on the subject property.

- The SHPO provided the following comment on the proposed project in a response letter dated January 24, 2007, *"The proposed project is located outside all historic districts and the Hickam Field National Historic Landmark. There are no known sites within the proposed project site; however, if any remains, artifacts, historic sites or features are discovered during construction all work must cease immediately and the appropriate authorities must be contacted. The State Historic Preservation Division concurs with the Air Force finding of no historic properties affected."* A copy of correspondence from the SHPO is located in Appendix C, Section 2.



- In a response letter dated December 12, 2006, the OHA Oahu District Office provided the following comment on Bureau Veritas' notification, *"According to the provided documents (Attachment 2), an Archaeological Assessment of the proposed undertaking has been completed by your consultant. This work, which included assessment of the potential effects to traditional cultural resources, concluded that no historic properties will be affected by the proposed undertaking. We have no additional project-specific comments at this time."* A copy of correspondence from the OHA is located in Appendix C, Section 2.
- In a response letter dated November 8, 2006, the HHF stated, *"While Nextel's preliminary site plan and drawings indicate that the proposed cell tower is located in an industrial area, HFF would like this to be confirmed and approved by the Base Historic Preservation Officer."* Bureau Veritas later contacted the Environmental Planning Office on Hickam Air Force Base and conducted a Section 106 NHPA Review together. The outcome of this review was that all agencies contacted concurred that the proposed cell site would have no historical or archaeological impact, as indicated throughout this Section. A copy of correspondence from the HHF is presented in Appendix C, Section 2.
- A legal notice describing the proposed action was published in the Honolulu Star Bulletin daily newspaper on November 10, 2006. As of the date of this report, Bureau Veritas has received no responses to the published notice. Documentation of the public notice is presented in Appendix C, Section 4.

Based on the inquiries and responses from the native Hawaiian organizations and related agencies noted in this Section, the proposed action will not affect native Hawaiian religious sites. However, state and federal law requires that if cultural resources are found during construction activities, work needs to cease and the SHPD must be notified. Therefore, should historic resources, including human skeletal remains, be identified during construction activities associated with the proposed action, all work needs to cease in the immediate vicinity of the find until additional consultation with the SHPD is conducted and appropriate evaluation of the resources has been completed.

#### **5.2.6 Surface Features (47 CFR § 1.1307 [A] [7])**

Bureau Veritas reviewed client-supplied materials regarding the proposed action at the subject parcel/property and the potential for the proposed action to significantly change the surface features (e.g., wetland fill, deforestation or water diversion). According to the construction drawings and design information provided to Bureau Veritas, the proposed action will not involve a significant disturbance to the ground surface.

Bureau Veritas reviewed the following sources for information regarding wetlands in the vicinity of subject parcel/property, including (1) available wetlands delineation maps published by the National Wetlands Inventory at the website <http://www.fws.gov/nwi/>, as cited in the 1987 Final Version of the Corps of Engineers Wetlands Delineation Manual; (2) the USGS National Map Viewer (NMV) online database at (<http://nmviewogc.cr.usgs.gov/viewer.htm>), and (3) the 1999 USGS 7.5-Minute Series, Pearl Harbor, Hawaii Topographic Quadrangle Map, which includes the subject and adjoining properties.

Based on these sources, no water bodies, creeks or delineated wetlands were depicted on or near the subject parcel/property or adjoining properties. Bureau Veritas also did not observe evidence (e.g., hydrophytic vegetation, standing water, or other hydrologic indicators) that would indicate the presence of wetlands on the subject property/parcel at the time of the site inspection.



Bureau Veritas also contacted the United States Army Corps of Engineers (USACE) - Honolulu District Office regarding wetland permitting for the subject property/parcel. According to Mr. George Young of the USACE - Honolulu District Office, a Department of the Army (DA) permit is not required for the proposed project at the subject property/parcel. A copy of the correspondence from the USACE is presented in Appendix C, Section 7.

Based on the inquiries and responses noted in this Section, the proposed action does not appear to involve significant changes in surface features at the subject parcel/property.

### **5.2.7 National Scenic Trails**

Bureau Veritas reviewed the *National Trails System Map and Guide* (2004) regarding the presence of National Scenic Trails on the subject property/parcel. According to the map, the subject parcel is not located within one mile of a National Scenic Trail.

## **6.0 COMMUNITY CONSULTATION**

Since the project is located on a military base, all consultation must proceed through the Air Force and the community need not be contacted. Also, a legal notice was placed in the Honolulu Star Bulletin newspaper, but no community response was received.

## **7.0 PERMITS, VARIANCES, AND APPROVALS**

All requirements to construct this site will come directly from the US government. No local or state permits are required. Responses from agencies contacted concerning permits for this site are listed below.

- In a response letter dated May 29, 2007, the USACE provided the following comment on the proposed project, *“Your letter, site plan, site photographs, and other available information indicate that the project area consists entirely of uplands. Based on this understanding, I have determined that the project would not involve any activity in areas subject to the regulatory authority of the Corps; therefore, a DA permit will not be required.”*
- In a response letter dated January 25, 2007, the City and County of Honolulu Department of Planning and Permitting provided the following comment on the proposed project, *“The site of the proposed facility (including the monopole) is zoned F-1 military and federal preservation district and within the Special Management Area (SMA). F-1 military and federal preservation lands are not subject to City and County zoning regulations (Land Use Ordinance) and Chapter 25, Revised Ordinances of Honolulu relating to SMA.”*

## **8.0 FINDINGS**

We have prepared this Draft EA for the proposed Nextel HAFB Cell Site (subject property) in conformance with the State of Hawaii DLNR-OCEA's CDUA requirements. The findings presented in this Section are based on Bureau Veritas' understanding of the subject property location and the proposed action at the subject property, as such action is described in Section 2.0. Should modifications to the location of the subject property or proposed action be made in the future, then additional inquiries may be prudent.



According to the DOH Rules (I 1-200-12), an applicant or agency must determine whether an action may have significant impact on the environment, including all phases of the project, its expected consequences both primary and secondary, its cumulative impact with other projects, and its short- and long-term effects. In making the determination, the Rules establish “Significant Criteria” to be used as a basis for identifying whether significant environmental impact will occur. According to the Rules, an action shall be determined to have significant impact on the environment if it meets any one of the following criteria:

**(1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resources;**

The proposed project site is located in HAFB. This area was extensively altered during previous development of the base and available photographs of the site show obvious disturbances and clearings. In addition, according to the SHPO, no archaeological or historical sites are known to exist within the immediate area of the proposed project site.

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

The proposed action will utilize the existing features of the track and field facility and will, therefore, not reduce the environment’s beneficial uses.

**(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;**

The proposed project is consistent with the Environmental Policies established in Chapter 344, HRS, and the National Environmental Policy Act.

**(4) Substantially affects the economic or social welfare of the community or state;**

The proposed project will benefit the community at large by providing better telecommunications coverage and service to customers within and passing through the general surrounding area.

**(5) Substantially affects public health;**

Impacts to public health may be affected by air and noise during construction; however, these will be insignificant or not detectable. The water quality impact will not have an effect on public health since the groundwater in the area is not used for consumption.

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

The proposed project is anticipated to have no growth impact to the regional population. In addition, the proposed monopole will be replacing an existing light pole; therefore, it will have no effects on public facilities.

**(7) Involves a substantial degradation of environmental quality;**

The proposed project is located in an area with existing power. The proposed activities will be limited to the immediate area of the proposed cell site; therefore, the proposed action will not involve substantial degradation of environmental quality.



**(8) Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions;**

The proposed action is designed to maintain the given space and benefit the community at large. No views will be obstructed or be visually incompatible with the surrounding area since the monopole will replace an existing light pole at a track and field facility.

**(9) Substantially affects a rare, threatened or endangered species or habitat;**

According to USFWS determinations, the subject property does not lie within or immediately adjacent to any proposed or designated critical habitat, wetland, or coral reef. Moreover, USFWS has responded that federally listed endangered, threatened, or proposed species are not known to inhabit the proposed project site.

**(10) Detrimentially affects air or water quality or ambient noise levels;**

The proposed project is not anticipated to detrimentally affect air or water quality or ambient noise levels of the area.

**(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, freshwater, or coastal waters;**

According to the Federal Emergency Management Agency Flood Insurance Rate Map Panel Number 150003C0335F (revised September 30, 2004), which was viewed at the website <http://www.msc.fema.gov>, the area has not been studied because, based on the topography and location, the potential for flooding is low. Therefore, the area is not be located in the 100-year flood plain.

In addition, the United States Army Corp of Engineers has determined that there are no waters of the United States at the proposed project site and, therefore, a Department of the Army (DA) permit will not be required for this project.

Based on the above criteria, there are no environmentally sensitive areas associated within the proposed project.

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

The proposed subject site is located among bleachers and other existing light poles. Therefore, scenic views and view planes will not be significantly impacted.

**(13) Requires substantial energy consumption.**

Construction of the proposed cell site will not require substantial energy consumption relative to other similar projects.



None of the inquiries made or documents reviewed during this EA indicated direct evidence of significant negative environmental conditions with respect to the proposed action at the subject property.

This report prepared by: \_\_\_\_\_

Christine Yott  
Staff Consultant  
Health, Safety, and Environmental Services

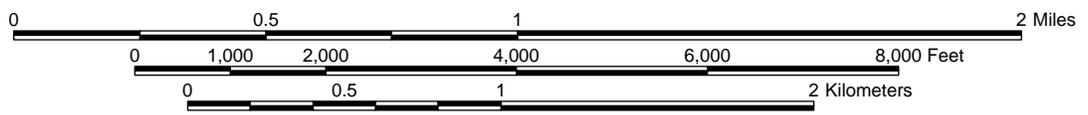
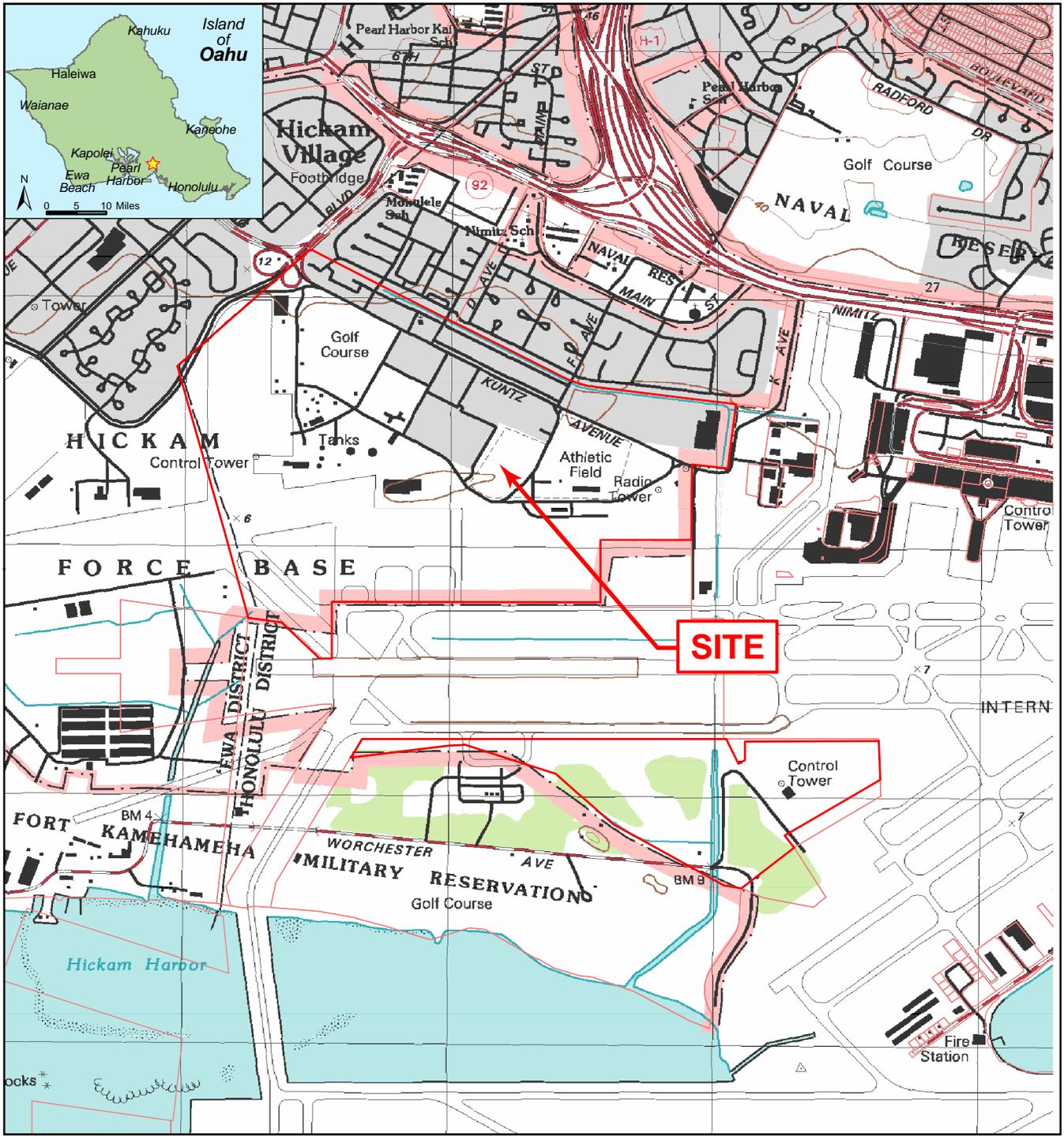
This report reviewed by: \_\_\_\_\_

Daniel P. Ford, R.G.  
Vice President  
Health, Safety, and Environmental Services

June 11, 2007  
Project No. 17006-006383.00



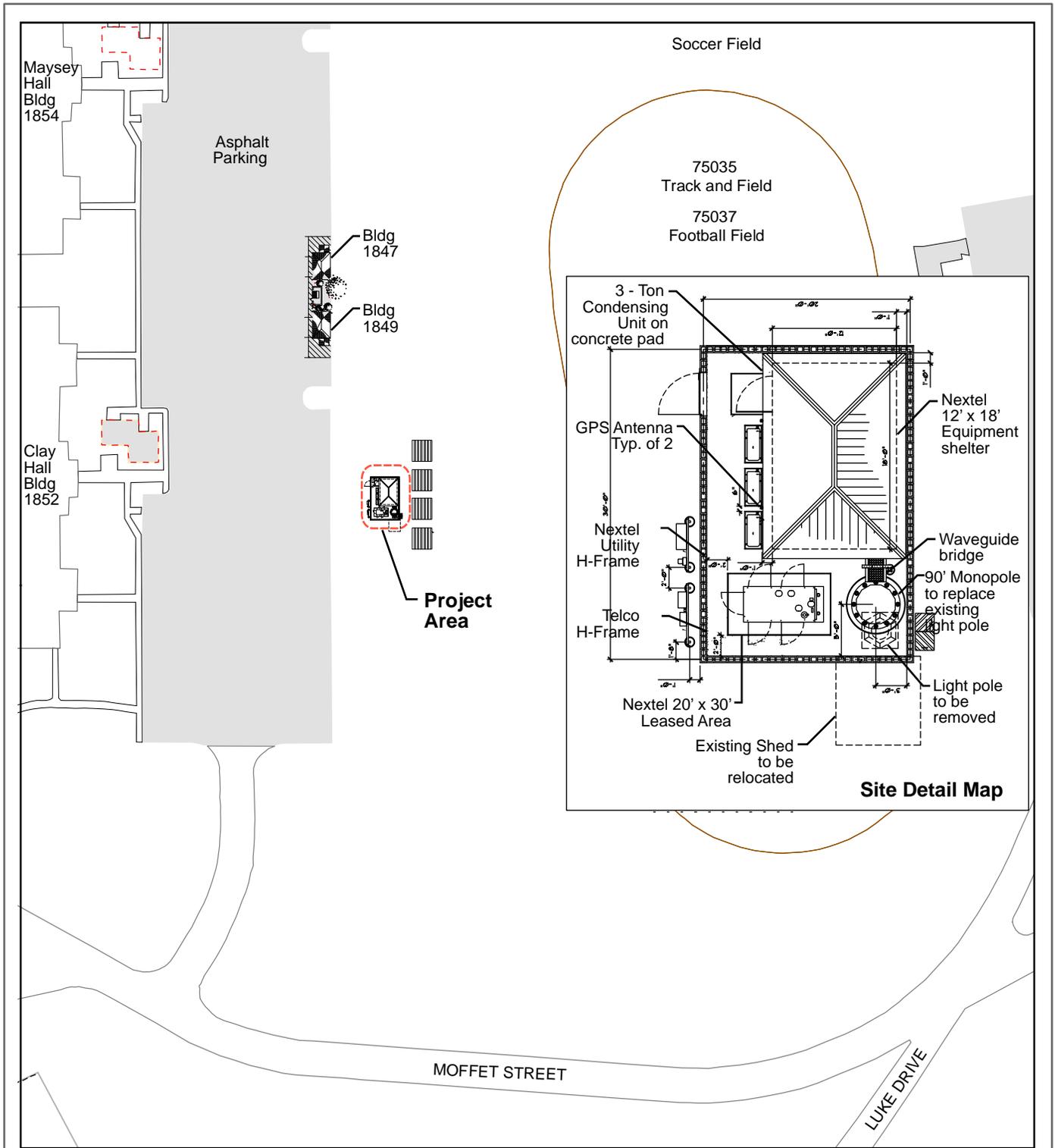
## FIGURES



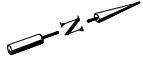
1:24,000

Portion of 7.5-minute Series (Topographic) Maps  
 USGS, Pearl Harbor Quadrangle 1999, Honolulu County, Hawaii

 <b>BUREAU VERITAS</b>	Project No.: 17006-006383.00	Title: <b>Site Location Map</b>	<b>FIGURE</b>  <b>1</b>
	Date: 07/20/2006	Location: Nextel Valkenburgh Cell Site (#HI 196P) HAFB Bldg. 1847 / TMK: (1) 1-1-02: Parcel 2 Hickam Air Force Base (HAFB), Honolulu, Oahu, Hawaii 96853	
	Revised By: RC	Client: Nextel Partners Inc. (NPI) / Wireless Facilities Inc. (WFI)	
	Checked By: VK		



 <b>BUREAU VERITAS</b>	Project No.: 17006-006383.00	Title: <b>Site Map</b>	<b>FIGURE</b>  <b>2</b>
	Date: 07/24/2006	Location: Nextel Valkenburgh Cell Site (#HI 196P) HAFB Bldg. 1847 / TMK: (1) 1-1-02: Parcel 2 Hickam Air Force Base (HAFB), Honolulu, Oahu, Hawaii 96853	
	Revised By: RC	Client: Nextel Partners Inc. (NPI) / Wireless Facilities Inc. (WFI)	
	Checked By: VK		



TRUE NORTH ARROW SHOWN ON THIS DRAWING IS APPROXIMATE ONLY AND MUST BE VERIFIED BY CONTRACTOR

**NOTE:**

- SITE PLAN INFORMATION WAS OBTAINED FROM FIELD MEASUREMENTS TAKEN BY TRK ENGINEERING LTD. ON FEBRUARY 15, 2006. THIS DRAWING DOES NOT REPRESENT A SURVEY.



NEXTEL PARTNERS, INC.  
3375 Koapaka Street, #D155  
Honolulu, Hawaii 96819



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WEB: www.trkeng.com

PROJECT NO: 0658-006

DRAWN BY: RJW

CHECKED BY: RFP

CAD FILE: 0658-006.LE01

**SUBMITTALS**

ISSUED FOR REVIEW

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT NAMED IS STRICTLY PROHIBITED.

A/E SEAL

SITE

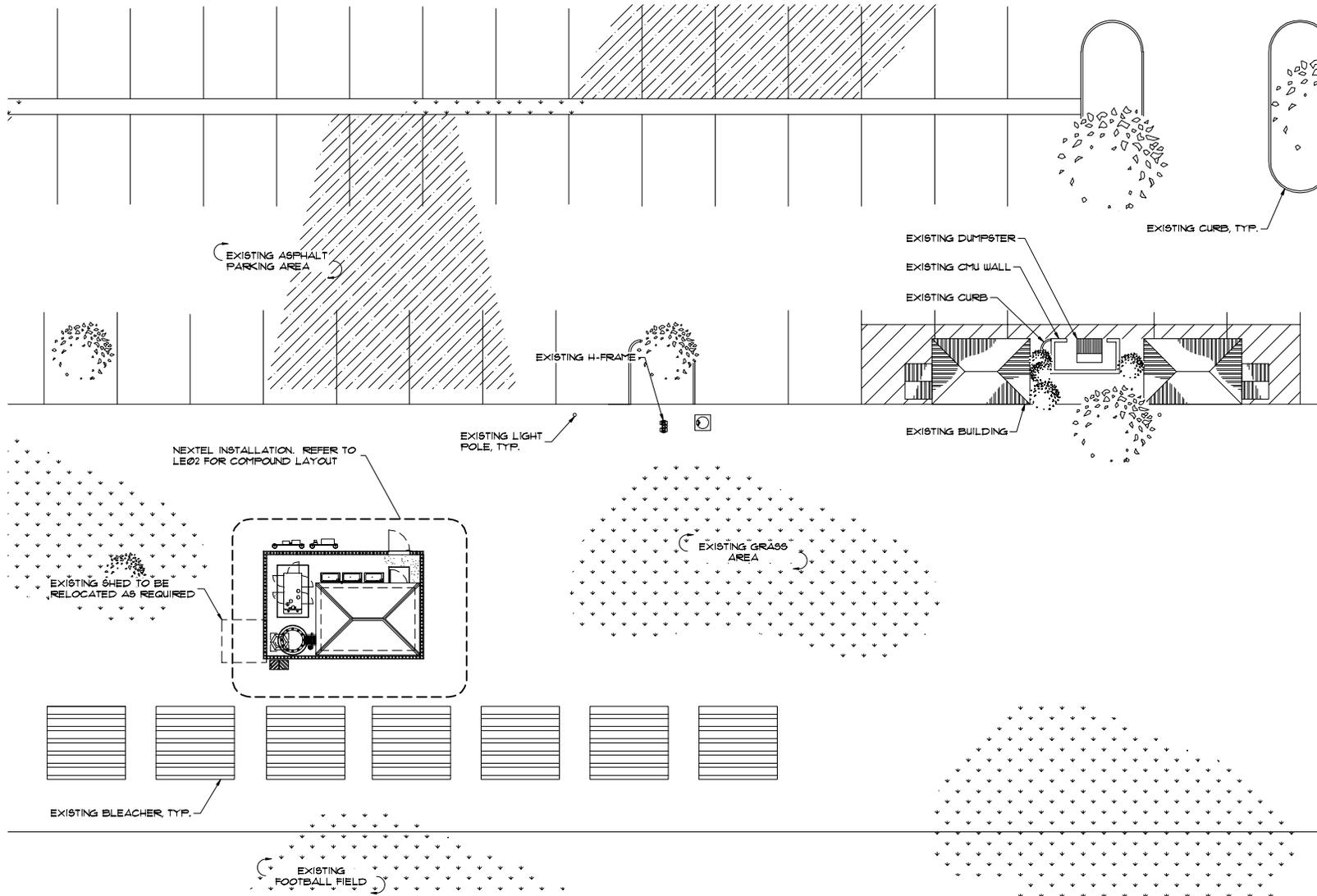
HICKAM AFB  
T.B.D.  
TMK\* T.B.D.

SHEET TITLE

SITE PLAN

SHEET NUMBER

**LE01**



**SITE PLAN**

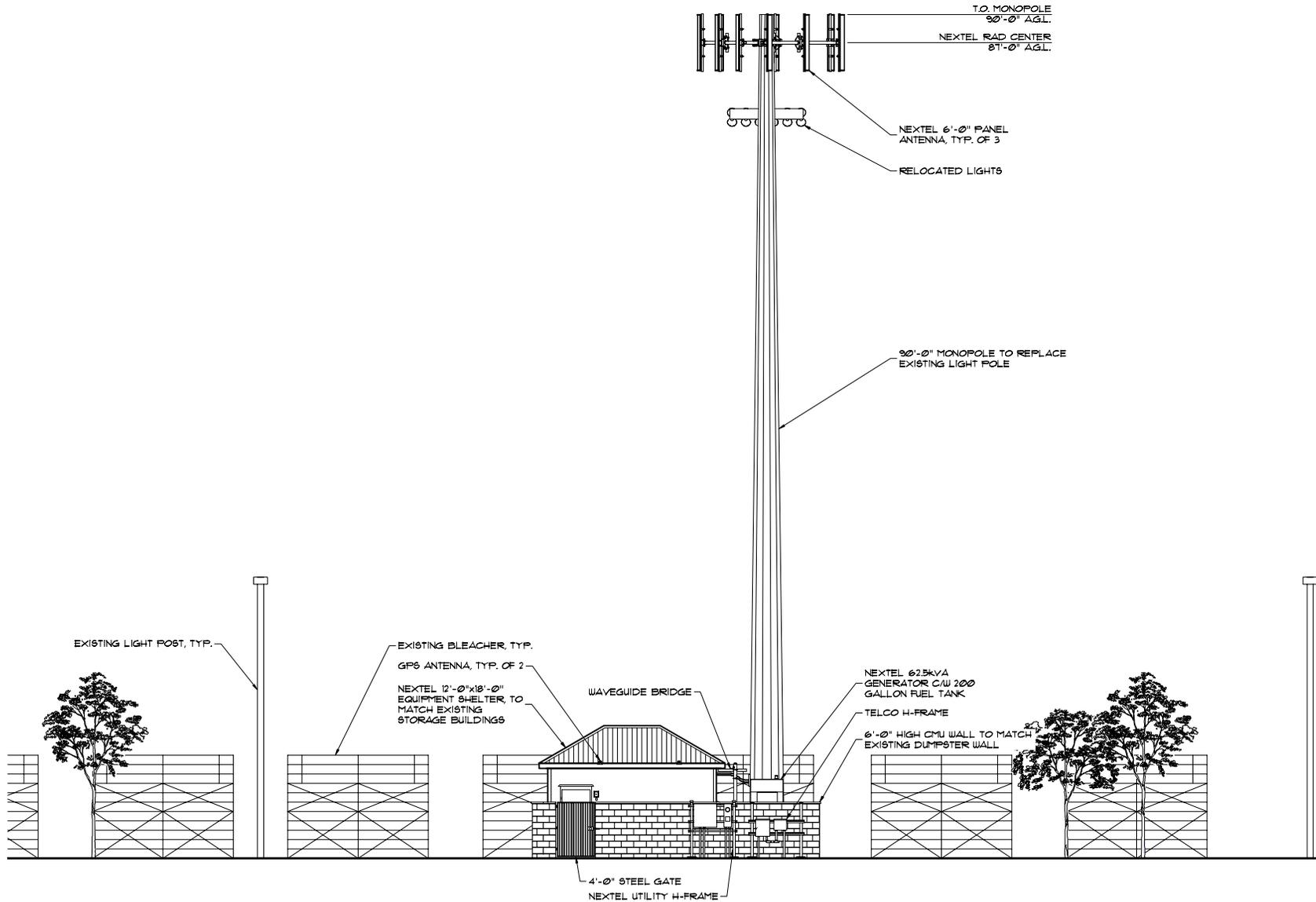
1" = 30' - 0"





**NOTE:**

1. ELEVATION IS DIAGRAMMATIC ONLY.
2. PROVIDE OBSTRUCTION LIGHTING IN ACCORDANCE WITH FAA REQUIREMENTS.



1 WEST ELEVATION  
 1/16"=1'-0"  
 0 4 8 20



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PROJECT NO: 0658-006

DRAWN BY: RJW

CHECKED BY: RFP

CAD FILE: 0658-006LE03

SUBMITTALS

ISSUED FOR REVIEW

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A/E SEAL

SITE

HICKAM AFB  
 T.B.D.  
 TMK# T.B.D.

SHEET TITLE

WEST ELEVATION

SHEET NUMBER

LE03



## PHOTOGRAPHS



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	Overview of proposed Nextel Valkenburgh cell site at light pole by shed, looking S	<b>Photo 1</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of proposed NPI Valkenburgh cell site at light pole to left of shed, looking SE	<b>Photo 2</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of NPI Valkenburgh cell site area encompassing existing light pole and shed to right (W) of track field bleacher seats, looking S	<b>Photo 3</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of light pole & storage shed occupying proposed cell site location, looking E/SE	<b>Photo 4</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of contents of storage shed adjacent to light pole at proposed project site	<b>Photo 5</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of electrical wiring under manhole adjacent to light pole at project site	<b>Photo 6</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of vacant field on S-adjacent land, beyond which is HAFB runway, looking S	<b>Photo 7</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of track and field facility on E-adjointing land, looking E/NE	<b>Photo 8</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of vacant lawn on N-adjacent land, with HAFB Bldgs. 1847 & 1849, and asphalt-paved parking lot, and Maysey Hall Dormitory located beyond, looking N/NW	<b>Photo 9</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of vacant lawn on W-adjacent land, beyond which is asphalt-paved parking lot and Clay Hall Dormitory, looking W/NW	<b>Photo 10</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of flammable storage cabinet in HAFB Bldg. 1849 to N of project site, looking NE	<b>Photo 11</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of flammable storage cabinet in HAFB Bldg. 1847 to N of project site, looking S	<b>Photo 12</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of dumpster between HAFB Bldgs. 1847 & 1849, to N of project site, looking E	<b>Photo 13</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of sewage lift station to N of the proposed NPI Valkenburgh cell site, looking S	<b>Photo 14</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



**APPENDIX A**

**LIST OF SOURCES/REFERENCES**



## LIST OF SOURCES/REFERENCES

### CONTACTS:

Agency and division/source: City & County of Honolulu, Dept. of Planning & Permitting  
Name/title of representative: Mr. Henry Eng, Director  
Location of Agency: Honolulu, Oahu, Hawaii  
Agency Telephone Number: (808) 523-4432

Agency and division/source: U.S. Fish & Wildlife Service (USFWS)  
Name/title of representative: Mr. Patrick Leonard, Ph.D., Field Supervisor  
Location of agency: Honolulu, Oahu, Hawaii  
Agency telephone number: (808) 792-9400

Agency and division/source: Honolulu Star Bulletin / Legal Notices Department  
Name/title of representative: Ms. Elizabeth Briscoe, Staff  
Location of Agency: Honolulu, Oahu, Hawaii  
Agency Telephone Number: (808) 529-4825 Phone; (808) 529-4829 Fax

Agency and division/source: DLNR – State Historic Preservation Office (SHPO)  
Name/title of representative: Ms. Melanie Chinen, Administrator  
Location of agency: Honolulu, Oahu, Hawaii  
Agency telephone number: (808) 682-8015

Agency and division/source: Office of Hawaiian Affairs (OHA); Hawaiian Rights Div.  
Name/title of representative: Mr. Clyde W. Namu’o, Administrator  
Location of Agency: Honolulu, Oahu, Hawaii  
Agency Telephone Number: (808) 594-1888

Agency and division/source: U.S. Army Corp of Engineers – Honolulu District  
Name/title of representative: Mr. George Young, Director / Ms. Paulette Choy, Staff  
Location of Agency: Honolulu, Oahu, Hawaii  
Agency Telephone Number: (808) 438-1091

Agency and division/source: Historic Hawaii Foundation (HHF)  
Name/title of representative: Ms. Kiersten Faulkner, Director  
Location of Agency: Honolulu, Oahu, Hawaii  
Agency Telephone Number: (808) 523-2900

Agency and division/source: Hui Malama  
Name/title of representative: Mr. Charles K. Maxwell, Sr. – Po’o (President)  
Location of Agency: PO Box 365 Ho’olehua, HI 96729  
Agency Telephone Number: 808-553-5738



## LIST OF SOURCES/REFERENCES (Continued)

Agency and division/source: DLNR – Department of Forestry & Wildlife (DOFAW)  
Name/title of representative: Mr. Patrick Costales, Oahu Branch Manager  
Location of agency: Honolulu, Oahu, Hawaii  
Agency telephone number: (808) 973-9787

Agency and division/source: Office of Hawaiian Affairs (OHA); Hawaiian Rights Div.  
Name/title of representative: Mr. Clyde W. Namu'o, Administrator  
Location of Agency: Honolulu, Oahu, Hawaii  
Agency Telephone Number: (808) 594-1888

### REFERENCES:

Name of publication: Environmental Baseline Survey (EBS) Report of the Proposed Nextel Valkenburgh Cell Site (#HI 196P), Located by HAFB Building 1847 (Tax Map Key [TMK] No.: [1] 1-1-002: Parcel 002), Hickam Air Force Base (HAFB), Honolulu, Oahu, Hawaii 96853  
Author of publication: Clayton Group Services, Inc.  
Date of publication: September 27, 2006

Name of publication: U.S.G.S. 7.5-Minute Series Pearl Harbor, Hawaii  
Author of publication: United States Geological Survey (USGS)  
Date of publication: 1999

Name of publication: United States Department of Agriculture – Natural Resources Conservation Service Soil Survey of the State of Hawaii  
Author of publication: <http://www.ctahr.hawaii.edu/soilsurvey/soils.htm>

Name of publication: Map Panel Number 150003C0335F  
Author of publication: Federal Emergency Management Agency  
Date of publication: September 30, 2004

Name of publication: United States Fish and Wildlife Service  
Author of publication: <http://www.fws.gov/refuges/refugeLocatorMaps/Hawaii.html>

Name of publication: Tower Construction Notification System (TCNS) online website (<http://wireless2.fcc.gov/TribalHistoricNotification/login-notifier.htm>)  
Author of publication: Federal Communications Commission (FCC)  
Date of publication: 2005

Name of publication: National Programmatic Agreement  
Author of publication: FCC



## LIST OF SOURCES/REFERENCES (Continued)

Date of publication: September 2004 / March 7, 2005

Name of publication: National Map Viewer – Wetland information  
Author of publication: <http://nationalmap.usgs.gov>

Name of publication: National Scenic Trails Map and Guide  
Author of publication: BLM, Federal Highway Administration, USFS, National Park Service  
Date of publication: Revised June 2004



## **APPENDIX B**

### **REGULATORY AGENCY FCC NEPA 106 RESPONSE LETTERS AND CORRESPONDENCE**



## **SECTION 1**

**United States Department of the Interior  
United States Fish & Wildlife Service (USFWS)  
Pacific Islands Fish and Wildlife Office**

**State of Hawaii  
Department of Land and Natural Resources (DLNR)  
Department of Forestry and Wildlife (DOFAW)**



# United States Department of the Interior



RECEIVED

12-9-06

## FISH AND WILDLIFE SERVICE

Pacific Islands Fish and Wildlife Office  
300 Ala Moana Boulevard, Room 3-122, Box 50088  
Honolulu, Hawaii 96850

In Reply Refer To:  
1-2-2007-TA-0057

DEC 06 2006

Ms. Lori Ford, Senior Geologist  
Clayton Group Services, Inc.  
970 North Kalaheo Avenue, Suite C-316  
Honolulu, Hawaii 96734

Subject: Nextel Valkenburgh Cell Site (#HI-196P), Hickam Air Force Base, Oahu, Hawaii

Dear Ms. Ford:

This letter is in response to your request for information concerning the proposed telecommunications antenna site at the Valkenburgh Cell Site (#HI 196P) located at the Middle Light Post adjacent to Building 1847, at Hickam Air Force Base, Oahu, (TMK [1] 1-1-002: Parcel 002). The proposed action involves removing an existing light pole, replacing it with a new light pole, and mounting up to three panel antennas on a three-sectored antenna boom array at the top of the pole, with a maximum finished height of approximately 90 feet above ground level. An existing floodlight-platform will be relocated on the new pole, and an existing wooden storage shed will also be relocated adjacent to the light pole. An associated equipment shelter, containing an emergency generator system, will be installed on a concrete slab at grade by the base of the light pole and secured within a chain-link fence enclosure. Your letter, dated November 03, 2006, was received in this office on November 06, 2006.

We understand that Clayton Group Services, Inc. has been retained as a non-Federal representative to conduct a site evaluation on behalf of Nextel for the Federal Communication Commission (FCC) licensees, applicants, tower companies, and their representatives. Pursuant to this responsibility you have requested our assistance to help you determine if: 1) the proposed site is located within a wildlife preserve or refuge; 2) whether there are any federally listed species or designated critical habitat that occur within the proposed project site; and 3) whether the project would affect any federally listed species or critical habitat.

Communications facilities can present a potential hazard for birds protected under the Endangered Species Act of 1973 or the Migratory Bird Treaty Act [16 U.S.C. 703-712]. Many bird species are known to strike objects, such as antennas or guy-wires that protrude above the surrounding vegetation height. In Hawaii there are several species of federally listed seabirds that are attracted to lights and are known to collide with buildings, light poles, wires, and other tall objects. Under section 7 of Endangered Species Act of 1973 [16 U.S.C. 1531-1544], as amended, it is the Federal agency's (or non-federal designee) responsibility to make the

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IN AMERICA 

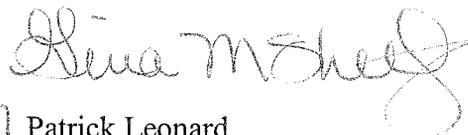
determination of whether or not the proposed project “may affect” federally listed species or designated critical habitat. If the FCC (or designee) determines that a “may affect” situation exists with respect to one or multiple projects, then the FCC must either initiate formal consultation or seek written concurrence from the U.S. Fish and Wildlife Service (Service) that the proposed action is “not likely to adversely affect” federally listed species. A “may affect, not likely to adversely affect” determination is appropriate when effects to federally listed species are expected to be discountable (i.e., unlikely to occur), insignificant (minimal in size), or completely beneficial. This conclusion requires written concurrence from the Service as well. Projects which are determined to have “no effect” to federally listed species and/or critical habitat do not require additional coordination or consultation with the Service.

### Project Assessment

To assist you with this project we reviewed the information you provided as well as pertinent information in our files, and data compiled by the Hawaii Biodiversity and Mapping Program. Our data indicate that no federally listed species (threatened, endangered, proposed, or candidate species) are likely to be present in the project area. Additionally, the project site is not located within or immediately adjacent to any federally proposed or designated critical habitat, National Wildlife Refuge, or wildlife preserve. The proposed antenna tower height would extend above the mean height of the surrounding vegetation, and therefore could create a potential collision hazard for birds. However, the species at greatest risk, Hawaiian seabirds, have not been observed traversing this urban area in many decades, and therefore, it is reasonable to anticipate that federally listed species would not be impacted by this cell tower project. To minimize any risk of light attraction and collision to all night flying seabirds, we recommend that all project lighting should be directed downward and be shaded to prevent light from escaping horizontally, and should be of as low wattage as possible.

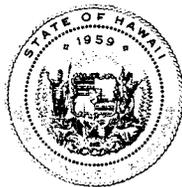
If the proposed project plans change, or portions of the project were not evaluated, it is our recommendation that the changes be submitted for our review. We appreciate your efforts to conserve endangered species. If you have any questions regarding this letter, please contact Patrice Ashfield (phone 808/792-9400; fax: 808/792-9581).

Sincerely,



 Patrick Leonard  
Field Supervisor

LINDA LINGLE  
GOVERNOR OF HAWAII



PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

ROBERT K. MASUDA  
DEPUTY DIRECTOR FOR LAND

DEPUTY DIRECTOR FOR  
THE COMMISSION ON  
WATER RESOURCE MANAGEMENT

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3-2-07

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

DIVISION OF FORESTRY AND WILDLIFE

1151 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813

March 1, 2007

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
COMMISSION ON WATER RESOURCE  
MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAPOLAHE ISLAND RECREATIVE  
COMMISSION  
LAND MANAGEMENT  
STATE PARKS

Ms. Christine Yott  
Staff Consultant  
Bureau Veritas North America, Inc.  
970 North Kalaheo Avenue, Suite C-316  
Kailua, Hawaii 96734

Dear Ms. Yott:

Subject: Species List and Impact Determination Request for the Proposed Nextel Valkenburgh  
Cell Site (#H1 196P), HAFB, Honolulu, Hawaii.

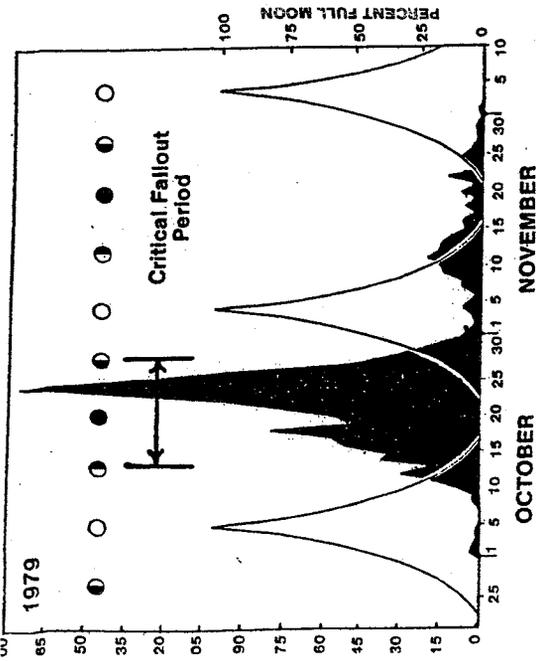
Your request to Peter Young, Chairperson DLNR was referred to the Division of Forestry and Wildlife Office. We appreciate the opportunity to comment on your subject request. DOFAW does not have any management areas near your proposed project but will comment on the impacts your project will have on seabird's attraction to lights. We recommend that your project design include fully shielded, low profile outdoor lighting to reduce the impacts to endangered seabird's attraction to lights (see attached brochure). In addition, all guy-wires shall be covered with fluorescent foam wraps and "bird diverters." If lighting cannot reduce the impacts to seabirds, the project may need to proceed through a Habitat Conservation Plan for that seabird species. Please call Bill Standley of my staff at 587-4171 for questions regarding our review. Thank you for allowing us to review your project.

Sincerely yours,

Paul J. Conry  
Administrator

C: Bill Standley, DOFAW Administration

Attachment



**Figure 4.** Relationship of shearwater "fallout" to the moon phases. The critical period of fallout occurs during the week before and after the new moon (darkest nights). Dowsing lights that are not absolutely necessary during that period could substantially reduce the annual shearwater fallout problem.

**What To Do If Shearwaters Fall In Your Area**

1. Collect birds as soon as possible to avoid losses to dogs and cats. They are generally docile birds and are easily handled. Take them to the nearest "shearwater aid station" located at county fire stations and at a few private business locations around the island. If birds must be held overnight, keep them in ventilated cardboard box with a secure lid.
2. Do not release birds by tossing them into the air. They may have unseen internal injuries and could become more badly injured.

TECHNICAL ASSISTANCE IS AVAILABLE  
FOR ADDITIONAL INFORMATION, CONTACT:

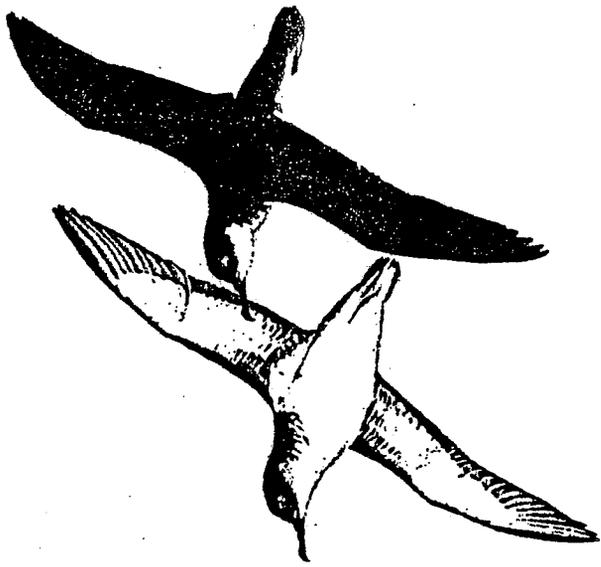
State of Hawaii  
Department of Land and Natural Resources  
Division of Forestry and Wildlife  
P.O. Box 1671  
Lihue, Hawaii 96766  
245-4433

U.S. Dept. of the Interior  
Fish and Wildlife Service  
P.O. Box 87  
Kilauea, Hawaii 96754  
828-1413

The Nature Conservancy  
of Hawaii  
1026 Nuuanu Avenue, Suite 201  
Honolulu, Hawaii 96813  
537-4508



DEPARTMENT OF  
LAND AND NATURAL RESOURCES



# THE NEWELL'S SHEARWATER LIGHT ATTRACTION PROBLEM

A GUIDE FOR ARCHITECTS,  
PLANNERS, AND RESORT MANAGERS

## INTRODUCTION:

The future of a native Hawaiian seabird, the Newell's Shearwater, is threatened by the growth of new urban developments. Every year on Kauai, nearly 1,500 Newell's Shearwaters are attracted to bright urban lights, fly into unseen objects and fall stunned to the ground. Fortunately, 90% of them are recovered and successfully returned to the wild through the "SOS" (save our shearwater) program, which involves the cooperation of the general public.

This brochure is designed to describe the bird, its problems with lights and specifically what architects planners, resort managers and the general public can do to reduce or avoid the light attraction problem.

## THE BIRD

The Newell's Shearwater once nested on all of the major Hawaiian Islands, but the mongoose, introduced to Hawaii, Maui, Molokai and Oahu in the late 1800's is believed to have caused the extinction of shearwaters on those islands. Kauai is the last stronghold for this unique native Hawaiian seabird.

Newell's Shearwaters nest during the spring and summer months in the interior mountains of Kauai. They dig a long burrow in the ground beneath dense vegetation and lay a single egg each year. The eggs hatch during July and August, and the nestlings are reared within the burrow. The adult birds abandon the nestlings a week or two before they are old enough to fly. The nestlings become hungry, and leave the nesting grounds by themselves shortly after nightfall. They head for the open ocean, and must depend upon their instincts to find food. They do not return to their nest, but fly south towards the equator where they will remain all winter on the open seas until the following spring.

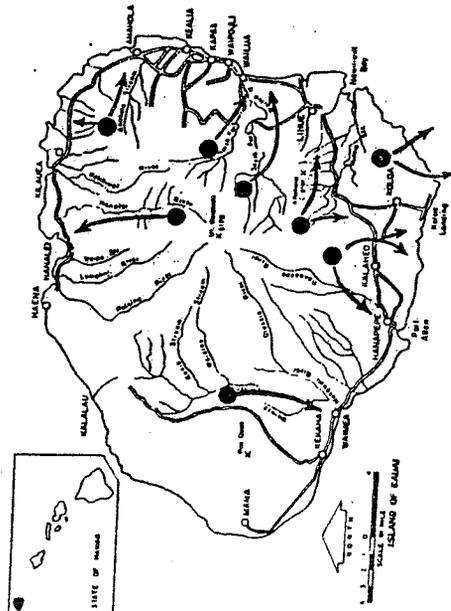


Figure 1. Map showing known nesting areas of the Newell's Shearwater.

## THE THREATS:

**PREDATORS:** Dogs, cats, rats and feral pigs are known to kill some shearwaters and their young on the nesting grounds each year. The accidental establishment of a new predator to Kauai such as the mongoose, could cause the rapid extinction of this bird. Mongoose sightings on Kauai should be reported to wildlife officials promptly.

**LIGHT ATTRACTION:** Young shearwaters leaving their nests for the first time, do so only after dark. They are inexperienced and have a natural attraction to bright lights. Flying near urban areas, they become temporarily blinded by the lights and fly into unseen objects such as utility wires, trees, buildings and automobiles. Oftentimes they are just confused and exhausted. Most often they are only stunned and fall to the ground, but about 10 percent of them die each year. The problem is growing because of the increased number of urban lights associated with new resort and residential developments. The greatest "fallout" problem occurs near coastal towns, particularly near river mouths.

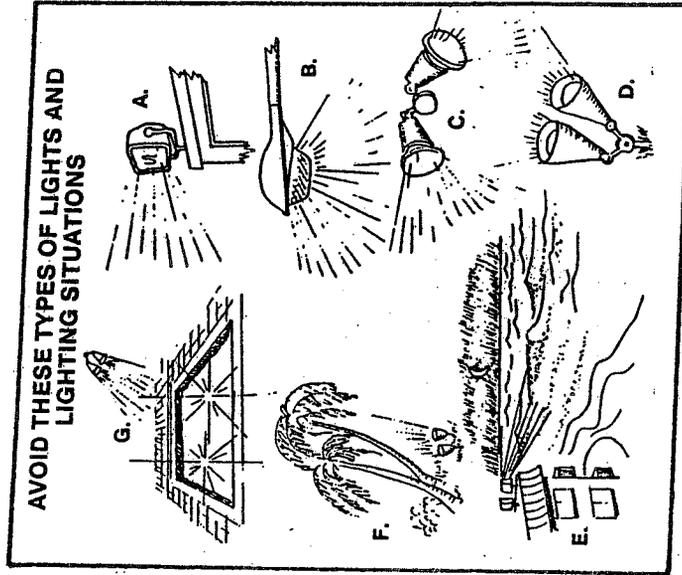


Figure 2. Avoid these types of lights: A. Unshielded high intensity floodlights on tall structures, B. Street lights without shields, C. Unshielded spotlights, D. Spotlights aimed upwards. Avoid using these types of lighting situations during peak fall-out periods (new moon) during October and November: E. Floodlights on surf, F. Spotlights aimed up at vegetation, G. Sootlights.

## WHAT CAN WE DO TO HELP ?

### Architects and Planners

- Be aware of the light attraction problem during the planning stages of new development.
- Make every effort to avoid lighting situations where light glare projects upwards or laterally (see figure 2). Avoid large high-intensity floodlights located on building tops or poles whenever possible.
- Use shielded lights, cut-off luminaires, or indirect lighting whenever possible. (see figure 3).
- Avoid locating bright lights near utility wires or other objects that could be difficult for birds to see at night.

### Hotel, Resort and Condominium Managers

- When converting to new exterior light fixtures, consider installing shielded lights, cut-off luminaires or indirect lighting.
- Consider installing shields on exterior lights that are known to attract shearwaters. Some light manufacturers offer ready made shields. In some cases inexpensive shields can be fabricated.
- Avoid using unnecessary lighting during the critical shearwater fall-out period: (October and November each year). **Note:** The heaviest fall-out occurs on and around the new moon, generally for only 10 to 12 days. (See figure 4). Dowsing unnecessary floodlights that light up the surf or shine upward upon buildings or trees for that short period, could significantly reduce shearwater fall-out.

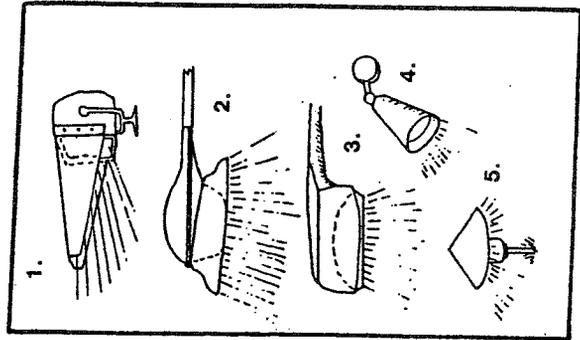


Figure 3. Use these types of lights whenever possible: 1. Shielded floodlights, 2. Shielded streetlights, 3. Cut-off luminaire, 4. Shielded spotlights aimed downwards, 5. Indirect.



## **SECTION 2**

**State of Hawaii  
Department of Land and Natural Resources (DLNR)  
State Historic Preservation Office (SHPO)**

**State of Hawaii  
Office of Hawaiian Affairs (OHA)**

**Historic Hawaii Foundation**

**Oahu SHPD Historic Sites List**

F11

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GOVERNOR OF HAWAII

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2-9-07



PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA  
DEPUTY DIRECTOR - LAND

DEAN NAKANO  
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

January 24, 2007

Ronnie D. Lanier  
Chief, Environmental Flight  
15 CES Environmental Planning Office  
US Air Force, 15 Airlift Wing  
75 H Street  
Hickam AFB, Hawaii 96853

LOG NO: 2007.0178  
DOC NO: 0701BF14  
Architecture

Dear Mr. Lanier:

**SUBJECT: Section 106 (NHPA) Review**  
**RE: Nextel Hickam Air Force Base (HAFB) Cell Site**  
**Hickam Force Base (AFB), Honolulu District, Island of Oahu**  
**TMK: 1-1-002:002**

---

This is in response to your letter dated January 3, 2007 which we received on January 12, 2007.

**Proposed Project**

The proposed project involves removing existing light pole, replacing it with a new 90-foot high light pole, and mounting up three panel antennas on the top of the pole. The existing floodlights from the light pole will be relocated to the new pole. An associated equipment shelter will be installed on a concrete slab at grade by the base of the pole and secured within a chain-link fence enclosure.

**Historic Properties**

The proposed project is located outside all historic districts and the Hickam Field National Historic Landmark.

Ronnie D. Lanier  
Chief, Environmental Flight  
Page 2

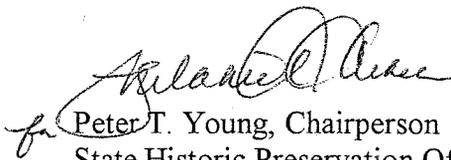
**Archaeology**

There are no known sites within the proposed project site; however, if any remains, artifacts, historic sites or features are discovered during construction all work must cease immediately and the appropriate authorities must be contacted.

**Findings**

The State Historic Preservation Division concurs with the Air Force finding of no historic properties affected. Should you have any questions regarding architectural concerns please call Bryan Flower at our Oahu office at (808) 692-8028.

Sincerely,

  
for Peter T. Young, Chairperson  
State Historic Preservation Officer

BTF:jen

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06/215



**STATE OF HAWAII**  
**OFFICE OF HAWAIIAN AFFAIRS**  
711 KAPI'OLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813

HRD06/2814

December 12, 2006

Lori Ford  
Clayton Group Services, Inc.  
970 North Kalaheo Avenue, Suite C-316  
Kailua, HI 96734

**RE: Historic Sites and Impact Determination Request for Proposed Nextel Valkenburgh Cell Site (#HI 196P), Hickam Air Force Base, Honolulu, O'ahu, TMK: 1-1-002:002.**

Dear Lori Ford,

The Office of Hawaiian Affairs (OHA) is in receipt of your November 14, 2006, request for comments on the above-referenced project, which would include removing an existing light pole and replacing it with a 90-foot light pole, with up to three panel antennas mounted on a 3-sectored antenna boom array. OHA offers the following comments:

According to the provided documents (Attachment 2), an Archaeological Assessment of the proposed undertaking has been completed by your consultant. This work, which included assessment of the potential effects to traditional cultural resources, concluded that no historic properties will be affected by the proposed undertaking. We have no additional project-specific comments at this time.

OHA requests your assurances, however, that if this project goes forward, should iwi kūpuna or Native Hawaiian cultural or traditional deposits be found during ground disturbance, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Thank you for the opportunity to comment. If you have further questions or concerns, please contact Jesse Yorck, Policy Advocate – Native Rights, at (808) 594-0239 or [jessey@oha.org](mailto:jessey@oha.org).

Sincerely,

A handwritten signature in black ink, appearing to read "Clyde W. Nāmu'o".

Clyde W. Nāmu'o  
Administrator

# HISTORIC HAWAII FOUNDATION

November 8, 2006

Lori Ford  
Senior Geologist  
Clayton Group Services, Inc.  
970 N. Kalaheo Ave., Suite C-316  
Kailua, HI 96734

**RE: Proposed Nextel Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, O'ahu**

Dear Ms. Ford:

Thank you for referring the above-referenced project to Historic Hawai'i Foundation for consultation under Section 106 of the National Historic Preservation Act.

Hickam Air Force Base is the site of several architecturally and archeologically significant historic resources, including National Register structures and districts. HAFB is subject to an Integrated Cultural Resources Management Plan (ICRMP) for placement and design of all new structures, including cell towers. While Nextel's preliminary site plan and drawings indicate that the proposed cell tower is located in an industrial area, HHF would like this to be confirmed and approved by the Base Historic Preservation Officer. If the historic preservation officer concurs that the proposal is consistent with the ICRMP, I have no objections to the project.

Please let me know if you need any additional information.

Very truly yours,



Kiersten Faulkner, AICP  
Executive Director

cc: Ron D. Lanier, Chief, Environmental Flight, 15<sup>th</sup> Civil Engineer Squadron  
Gary O'Donnell, 15 CES Environmental Planning Office



National and State Register of Historic Places

<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-01-241	Kupopolo Heiau	6-1-05:16	9/5/78	6/4/73
80-01-249	Pu'u o Mahuka Heiau	5-9-05:68	1/29/81	12/29/62 1966 NHL
80-01-257	Kalou Fishpond	5-8-01:15,55	1/30/81	

**National and State Register of Historic Places**

<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-02-1038	Kahuku Habitation Area	5-6-03:10		9/11/72
80-02-2501	80-02-2501	5-7-02:03		8/14/73
80-02-2899	Kawela Bay Archaeological Area	5-7-03: Various, 5-7-06: Various		11/14/85 E
80-02-2911	Kahuku Point Archaeological Area	5-7-01:33 (portion)		11/14/85 E
80-02-2912	Punaho'olapa Marsh	5-6-03:40 (portion) 5-7-01:33 (portion)		11/14/85 E
80-02-9745	'Opana Radar Site	5-7-02:02	6/2/90	9/19/91 4/19/94NHL
80-02-9816	Kahuku Plantation Supervisor's House	5-6-10:158	7/25/98	9/19/91 4/19/94NHL

**National and State Register of Historic Places**

<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-03-181	Ukanipo Heiau	8-1-01:19		8/13/82
80-03-1183	Ka'ena Complex	6-9-02:06,09 1-01:06,16	8- 6/9/88	
80-03-2887	Kea'au Talus Sites	8-3-01:12	9/14/85	5/4/87

**National and State Register of Historic Places**

<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-04-218	Kukaniloko Birthing Place Boundary Revision	7-1-01:04	4/16/94	4/11/73 2/9/95
80-04-226	Pohaku Lanai	6-6-07:07	11/26/86	
80-04-1334	Waialua Courthouse	6-6-09:23	2/20/79	
80-04-1337	Kawailoa Ryusenji Temple (demolished)	6-1-05:01		11/21/78
80-04-1348	Waialua School (Hale'iwa Elementary School)	6-6-13:12 (portion)	5/3/80	8/11/80
80-04-9834	Kealii O Ka Malu Church	6-6-08:17	8/26/00	

**National and State Register of Historic Places**

<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-05-9746	William L. & Mary T. Hopper Residence	7-5-27:10	6/2/90	

**National and State Register of Historic Places**

<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-06-293	Hanawao Heiau	5-2-02:01	1/29/81	
80-06-301	Huilua Fishpond	5-2-05:21	2/20/79	12/29/62 1966 NHL
80-06-313	Moli'i Fishpond	4-9-03:01,02, 12,13,14,15, 16,18		12/5/72
80-06-528	Kualoa Ahupuaa Historical District	4-9-04:01, 4-9-05:01, portion of 4-9-06:01		10/16/74
80-06-1003	80-06-1003	5-1-05:01	1/29/81	
80-06-1078	Waikane Taro Flats	4-8-06:01; 4-8-14:04,06		4/11/73 Revised 2/4/85
80-06-1101	Small Heiau	4-9-04, 4-9-05		3/14/73
80-06-9803	The Coral House	4-9-08:12	7/19/97	
80-06-9815	Waikane Store	4-8-03:01 (portion)	7/25/98	

National and State Register of Historic Places

<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-07-1181	Wai'anae District	8-5-02: 19, 22, 24, 25		1/21/74
80-07-9993	Wai'anae Plantation Manager's House	8-5-03:11	2/20/79	

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<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-08-149	Nioiula Heiau	8-8-01:01	7/18/78	
80-08-1179	Wet Taro System	8-5-06:01	11/26/86	
80-08-1385	Wheeler Field Wheeler AFB	7-7, Various		5/28/87
80-08-9708	Waiialua Agricultural Company Engine Number 6	9-1-17:49		8/19/74
80-08-9756	Kamaunu Residence	8-9-06:39	7/17/92	
80-08-9761	Railway Rolling Stock	9-1-17:49	9/28/92	
80-08-9807	Schofield Barracks Historic	7-7, Various	9/27/97	7/31/98
80-08-9808	Schofield Barracks Stockade	7-7, Various	9/27/97	8/24/98

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<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-09-107	Keaiwa Heiau	9-9-11:01, 02, 03, 04, 05, 06	2/20/79	11/9/72
80-09-1345	Wakamiya Inari Shrine	9-4-10:41, 98	8/31/79	1/8/80
80-09-1375	Tsoong Nyee Society Cook House	9-4-10:04 (portion)	11/26/86	
80-09-9777	Kipapa School Building B	9-5-21:02 (portion)	10/31/94	
80-09-9786	Honolulu Plantation Company Aiea Sugar Mill - DEMOLISHED	9-9-05:10, 25	9/9/1995, Removed 8/29/98	1/11/96
80-09-9802	Honolulu Plantation Manager's Residence	9-8-30:50	7/19/97	

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<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-10-93	Pohaku ka Luahine	1-1-13:01		7/23/73
80-10-319	Kahalu'u Fishpond (Kahouna Fishpond)	4-7-11:01		3/14/73
80-10-327	He'eia Fishpond	4-6-05:01		1/17/73
80-10-329	Leleahina Heiau	4-6-14:05		3/20/73
80-10-344	Kanohuluiwi Pond	4-5-57:01,09		4/25/80 E
80-10-354	Kawa'ewa'e Heiau	4-5-33:01		8/21/72
80-10-1153	Kapapa Island Complex	4-4-08:04	1/29/81	8/21/72
80-10-1165	Kahalu'u Taro Loi	4-7-51:04		3/14/73
80-10-1360	Kane'ohe Ranch Building	4-5-35:03	6/27/83	6/5/87
80-10-1383	Edric Cook Residence	4-3-25:35	8/15/87	
80-10-1386	Kane'ohe Naval Air Station	4-4-08:01 4-4-Various		5/28/1987 9/7/87 NHL
80-10-2914	Luluku Discontiguous Archaeological District (17 sites)	4-5-41:Various		3/4/86 E
80-10-9747	Gerald A. Dolan Residence	4-4-06:09,15	6/2/90	

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<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-11-359	Pahukini Heiau	4-2-15:03		9/11/72
80-11-371	Ulu Po Heiau	4-2-13:31	9/21/81	11/9/72
80-11-1002	Mokapu Peninsula Fishpond Complex (Nu'upia Ponds)	4-4-08:01, 4-4-10:01		8/8/84 E
80-11-1017	80-11-1017	4-4-08:01	7/25/81	11/15/72
80-11-1362	Kawailoa Training School for Girls (Girls' Industrial School, five bldgs. also in Quad 15) a. Hilltop Cottage, b. Manoa Cottage, c. Gymnasium, d. Hookipa Cottage, e. Maluhia Cottage	4-2-06:02	11/5/84	
80-11-2029	Archaeological Site 7, Kawainui Marsh	4-2-Various		7/13/79 E
80-11-9748	Mark Robinson Beach House	4-3-18:45	6/29/90	
80-11-9760	Boettcher Residence	4-3-16:04	9/28/92	
80-11-9763	McCorriston Beach House	4-3-06:58	6/28/93	

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<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-12-2722	Beach Midden Site	9-1-74:36	7/25/81	
80-12-2873	One'ula Archaeological District (Also in Quad 13)	9-1-12: Various		9/29/86 E
80-12-2888	Barbers Point Harbor Archaeological District Boundary Revision	9-1 Various		6/10/77 E 12/28/79 E
80-12-9714	Oahu Railway & Land Company Right-of-Way	8-9 & 9-1		12/1/75
80-12-9786	`Ewa Plantation Villages	9-1-17: por. of 01,02,46,69, all of 38, 9-1-95:01- 164, 9-1-96:01- 127, 9-1-97:01- 104, 9-1-101:01- 75	2/24/96	

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<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-13-143	'Oki'okiolepe Pond	9-1-01:01		3/14/73
80-13-1356	U.S.S. Bowfin	9-9-03:31	7/30/82	11/16/82 1/14/86 NHL
80-13-1376	Hickam Air Force Base	9-9 Various		9/16/85 NHL
80-13-1382	ARTILLERY DIST. OF HON.: Battery Hasebrouck Battery Hawkins Battery Hawkins Annex Battery Jackson Battery Selfridge Battery Randolph	9-9-01:13 9-9-01:13 9-9-01:13 9-9-01:13 9-9-01:13 2-6-05:01		6/5/84
80-13-1384	CINCPAC FLT Headquarters, Commander in Chief, Pacific Fleet, Pearl Harbor, Makalapa	9-9-02:04 (portion)		5/28/1987 9/7/87 NHL
80-13-2873	One'ula Archaeological District (Also in Quad 12)	9-1-12: Various		9/28/86 E
80-13-9817	U.S.S. Missouri	9-9-03		5/14/71
80-13-9992	Pearl Harbor Naval Base	9-1-Variou, 9-4-Variou, 9-6-Variou, 9-7-Variou, 9-8-Variou, 9-9-Variou		1/29/64 1966 NHL
	Moanalua Valley	1-1-01:Various		3/29/74 E
	Fort Kamehameha Housing	9-9-01:13,14		1/24/84 E

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<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-14-409	Kaniakapupu	2-2-54:01	6/13/86	10/15/86
80-14-1161	Nu'uuanu Petroglyph Complex	2-2-21:07, 2-2-20:14	2/20/79	3/14/73
80-14-1300	Puowaina - Hill of Sacrifice (Punchbowl National Cemetery of the Pacific)	2-2-05: 01,02,19,33		1/11/76
80-14-1321	HAWAII CAPITAL HISTORIC DISTRICT Includes the following 20 sites:	2-1-16:01 2-1-17: 01,02,09 2-1-18: 01,02,04 2-1-24:All 2-1-26:01,03 2-1-32:17 2-1-32:22-24 2-1-33:07		12/1/78
80-14-1307	State Capitol/Grounds	2-1-24:All		6/19/73
80-14-1307	YMCA	2-1-17:01,02		12/1/78
80-14-1307	YWCA	2-1-17:09		12/1/78
80-14-1307	Hawaiian Electric Company	2-1-16:01		12/1/78
80-14-1307	Territorial Office Building	2-1-25:03		12/1/78
80-14-1307	Hawaii State Library	2-1-25:01		12/1/78
80-14-1307	Honolulu Hale/Grounds	2-1-33:07		12/1/78
80-14-1307	Mission Memorial Building	2-1-33:07		12/1/78
80-14-1307	The Kamehameha Statue	2-1-25:03		12/1/78
80-14-1307	State Tax Office	2-1-26:22		12/1/78
80-14-9907	Washington Place/Grounds	2-1-18:01		6/18/73
80-14-9908	Ali'iolani Hale	2-1-25:03		2/2/72
80-14-9912	'Iolani Palace/Grounds (includes Old Archives Building and Old Mausoleum)	2-1-25:02		12/29/62 NHL
80-14-9912	'Iolani Palace Bandstand	2-1-25:02		12/1/78
	HAWAII CAPITAL HISTORIC DISTRICT (continued)			

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<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-14-9918	'Iolani Barracks	2-1-25:02		12/1/78
80-14-9952	U.S. Post Office, Custom House and Court House (Federal)	2-1-25:04		1/27/75
80-14-9970	Kapuaiwa Building	2-1-25:03		7/2/73
80-14-9991	Kawaiaha'o Church and Grounds (includes Lunalilo's Tomb and Adobe Schoolhouse)	2-1-32:17		12/29/62 NHL
80-14-9991	Mission Houses	2-1-32:02		12/29/62 NHL
80-14-1325	Alfred Hocking House	2-4-27:65	8/24/84	11/15/84
80-14-1326	John T. Waterhouse House	1-8-06:07	8/14/78	
80-14-1332	The Hawai'i Theatre	2-1-03:14	3/3/78	11/14/78
80-14-1338	U.S. Coast Guard Diamond Head Lighthouse	3-1-42:03		10/31/80
80-14-1339	Linekona School	2-4-02:20	12/17/79	5/28/80
80-14-1346	FIRE STATIONS OF OAHU Thematic Group:			
	Central Fire Station	2-1-9:26	7/19/80	12/2/80
	Kaimuki Fire Station	3-2-36:07 (portion)	7/19/80	12/2/80
	Kalihi Fire Station	1-3-05:22 (portion)	7/19/80	12/2/80
	Makiki Fire Station	2-4-29:29 (portion)	7/19/80	12/2/80
	Old Kakaako Fire Station	2-1-31:18	7/19/80	12/2/80
80-14-1302	Palama Fire Station	1-5-05:14	7/19/80	4/21/76 12/2/80
	Waiialua Fire Station	6-6-13:03 (portion)	7/19/80	12/2/80

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80-14-1347	John Guild Residence	2-8-16:28	2/28/80	8/1/80
80-14-1349	Ernest Shelton Van Tassel House (Nutridge)	2-5-19:04	9/21/81	12/16/81
80-14-1350	Fort Ruger Historical District	3-1-42:09,20	11/19/82	7/14/83
80-14-1352	UNIVERSITY OF HAWAII: Hawaii Hall, George Hall, Dean Hall, Gartley Hall, Crawford Hall, Varney Circle, Founders Gate, Andrews Amphitheater, Wist Hall, Pineapple Research Center	2-8-15:01          2-8-23:03	3/19/84          8/24/84	
80-14-1353	Bishop Museum Complex	1-6-	9/10/80	7/26/82
80-14-1354	Lihwai (George R. Carter House)  Boundary Increase	2-2-50: 12,36,42,43  2-2-50:57	9/29/80  11/26/86	7/26/82  6/5/87
80-14-1357	Joseph W. Podmore Building (Bon Bon Cafe)	2-1-16:04	11/19/82	3/24/83
80-14-1358	Dr. Archibald Sinclair Residence	2-9-15:23	6/27/83	10/13/83
80-14-1359	Grace Cooke Residence	2-9-05:56	6/27/83	10/24/83
80-14-1361	George D. Oakley Residence	2-8-19:46		11/15/84

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<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-14-1363	C. W. Dickey House	3-1-33:18	8/24/84	11/1/84
80-14-1366	Clarence Cooke Residence	1-9-05:04	9/14/85	8/20/86
80-14-1367	Edgar & Lucy Henriques House	1-9-09:16	8/24/84	11/1/84
80-14-1368	Charles Montague Cooke, Jr., Residence	2-9-19:35	11/5/84	10/31/85
	Boundary Revision, Add	2-9-19:43	9/9/95	8/30/00
80-14-1369	R. N. Linn Residence	2-8-19:36	9/14/85	8/20/86
80-14-1370	Eyman-Judson Residence	2-9-39:01	11/12/85	8/20/86
80-14-1371	James L. Coke Residence	2-2-51:10	11/12/85	8/20/86
80-14-1373	Honolulu English Tudor / French Norman Cottages, Thematic Group (17 sites):	Various		
	3023 Kalakaua Avenue	3-1-33:51	6/13/86	6/5/87
	3023A Kalakaua Avenue	3-1-33:13	6/13/86	6/5/87
	3023B Kalakaua Avenue	3-1-33:08	6/13/86	6/5/87
	3027 Kalakaua Avenue	3-1-33:50	6/13/86	6/5/87
	3033 Kalakaua Avenue	3-1-33:14	6/13/86	6/5/87
	3033B Kalakaua Avenue	3-1-33:07	6/13/86	6/5/87
	2311 Ferdinand Avenue	2-9-08:16	6/13/86	6/5/87
	3581 Woodlawn Drive	2-9-48:07	6/13/86	6/5/87
	2826 Coconut Avenue	3-1-33:46	6/13/86	6/5/87
	4354 Kahala Avenue	3-5-13:08	6/13/86	6/5/87
	4584 Kahala Avenue	3-5-04:12	6/13/86	6/5/87
	4850 Kahala Avenue	3-5-07:01	6/13/86	6/5/87
	3029 Felix Street	3-3-53:25	6/13/86	6/5/87
	2958 Pali Highway	1-8-11:07	6/13/86	6/5/87
	4109 Black Point Road	3-5-01:26	6/13/86	6/5/87
	3050 Kiele Avenue	3-1-33:28	11/26/86	11/26/86
	2830 Coconut Avenue	3-1-33:45	11/26/86	11/26/86

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80-14-1374	Austin Jones Residence	2-9-02:13	6/13/86	
80-14-1377	Sacred Heart Church	2-8-12:68	6/17/87	2/6/01
80-14-1378	Robert M. Purvis Residence	2-2-50:02	6/17/87	
80-14-1379	Emerald Building	2-1-10:41	6/17/87	
80-14-1380	OR&L Office & Document Storage Building and Station	1-5-07:02	8/17/87	2/12/79 E
80-14-1387	Frederick G. Krauss Residence	2-9-12:29, 70	6/9/88	
80-14-1388	C&C OF HONOLULU ART DECO PARKS Thematic Group:	Various	6/9/88	
	Ala Moana Park	2-3-37:01	6/9/88	
	Ala Wai Park Clubhouse	2-7-36:05	6/9/88	
	Haleiwa Beach Park	6-2-01:02	6/9/88	
	Kawananakoa Playground	2-2-09:11 (por) 2-2-09:12	6/9/88	
	Mother Waldron Playground	2-1-51:05	6/9/88	
80-14-1389	Foster Botanic Garden	1-7-07:01, 02; 1-7-08:01,02	6/9/88	5/13/93
80-14-9700	Falls of Clyde	2-1-01:60		7/2/73
80-14-9701	War Memorial Natatorium	3-1-31:03	5/3/80	8/11/80
80-14-9709	Fort Shafter, Palm Circle, 100 Area	1-1-08:05		10/26/84
80-14-9710	Kaka'ako Pumping Station	2-1-15:43, 44	8/17/77	10/4/78

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80-14-9713	Georges de S. Canavarro House	1-8-26:05	1/7/80	5/28/80
80-14-9716	J. P. Mendonca Residence	2-5-04:09	3/15/86	10/7/86
80-14-9717	TANTALUS RESIDENCES Thematic Group:			
	Vincent and Eleanor Fullard-Leo Residence	2-5-16:24	6/9/88	
	James A. Wilder Residence	2-5-17:11	6/9/88	
80-14-9717	TANTALUS RESIDENCES Thematic Group: (continued)			
80-14-9718	Thomas Alexander Burningham Residence	2-2-34:40, 41	9/30/88	10/13/93
80-14-9719	Makiki Christian Church	2-3-11:02	9/30/88	
80-14-9739	Yee/Kobayashi Store	2-1-49:08	8/30/89	
80-14-9740	Saint Peter's Church	2-1-18:02	8/30/89	
80-14-9741	Robert Lynden Residence	3-5-13:04	8/30/89	
80-14-9742	Riley Allen Residence	2-2-29:14	8/30/89	
80-14-9743	George P. Castle Mountain Residence	2-2-31:17	8/30/89	
80-14-9744	John & Kate Kelly Residence	3-1-41:10	8/30/89	8/27/91
80-14-9749	Church of the Crossroads	2-8-06:17	6/28/91	11/20/92

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80-14-9750	A.T. Cooke and P.E. Spalding Residence	2-5-08:02	6/28/91	
80-14-9751	H. Allen Cook Residence	2-9-17:18	6/28/91	
80-14-9752	Waioli Tea Room	2-9-31:01	6/28/91	10/30/98
80-14-9753	Castle Memorial Hall	2-8-15:01	6/28/91	
80-14-9754	Richard M. Botley Residence	3-1-34:12	6/28/91	
80-14-9755	Mrs. Josephine Ketchum Residence	3-1-33:35	6/28/91	
80-14-9757	Ala Wai Canal	2-6-Various	7/17/92	10/28/85 E
80-14-9758	Kapiolani Park	3-1-30:01, 02, 03, 04; 3-1-31:03, 04, 05, 06, 07; 3-1-43:All except 04, 05, 11, 12	7/17/92	
80-14-9759	Roosevelt High School	2-4-32:02	7/17/92	
80-14-9762	Hawaiian Canoe Malia	None	6/28/93	12/17/93
80-14-9764	Ada Gartley Residence	2-9-02:14	6/28/93	
80-14-9765	Mabel Smyth Memorial Building	2-1-35:01	6/28/93	2/3/94
80-14-9766	Board of Agriculture and Forestry Building	2-4-05:18	6/28/93	
80-14-9767	Thomas Victor King Residence	2-2-46:56	6/28/93	

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80-14-9768	Farrington High School	1-6-21:05 (portion)	6/28/93	
80-14-9769	August C. Spoehler Residence	2-9-16:25	6/28/93	
80-14-9770	Eric Fennel Residence	2-9-08:23	9/1/93	
80-14-9771	Joseph Pratt Residence	2-2-30:33	9/1/93	

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80-14-9772	John and Eleanor Freitas	2-5-04:07	9/1/93	
80-14-9773	Egholm Residence	3-1-33:20	8/29/94	
80-14-9774	Central Intermediate School	2-1-09:01	10/29/94	2/11/04
80-14-9775	Moir Residence	2-2-49:25	10/29/94	
80-14-9776	Lee Residence	3-2-19:29	10/29/94	
80-14-9778	Ewart Residence	1-8-05:31,32	5/20/95	
80-14-9779	Gilbert Residence	2-9-06:09	5/20/95	
80-14-9780	Stokes Residence	2-9-09:15	5/20/95	
80-14-9781	Sayers Residence	2-9-06:21	5/20/95	
80-14-9782	Guard Residence (Armstrong Manor)	2-9-12:14	5/20/95	
80-14-9783	Shields/Moore Residence	2-9-14:31	5/20/95	
80-14-9784	Wright Residence	2-9-32:27 (por)	5/20/95	
80-14-9785	MacIntyre Residence	2-9-03:02	5/20/95	
80-14-9787	Austin Residence	2-9-32:28	9/9/95	
80-14-9788	Lyle Residence	2-9-05:19	9/9/95	
80-14-9789	Dyer Residence	2-8-19:29	9/9/95	

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80-14-9790	Jean Charlot Residence	3-5-08:29	6/1/96	11/30/00
80-14-9791	Ripley Homestead	1-8-03:02, 03, 04, 05	6/1/96	
80-14-9792	Butler Residence	2-8-19:13	9/3/96	
80-14-9793	Day Residence	2-9-15:39	9/3/96	
80-14-9794	Pond Residence	2-8-19:19	9/3/96	
80-14-9795	Coxhead Residence	2-9-16:13	11/2/96	
80-14-9796	Kaimuki Reservoir, Kaimuki Scout Bowl	3-2-35:12 (portion)	11/2/96	
80-14-9797	Machado Residence	2-2-07:01, 02, 03, 37	11/2/96	
80-14-9798	Kay Residence	1-8-29:01	3/8/97	
80-14-9799	Scott Residence	2-9-32:40	3/8/97	
80-14-9800	Johnny Noble Residence	2-9-14:43	3/8/97	
80-14-9801	Houvener Residence	2-5-04:16	3/8/97	
80-14-9804	Bayer Residence	3-6-03:12	7/19/97	
80-14-9805	Schieber Residence	2-9-07:09	7/19/97	
80-14-9806	Cockburn Residence	2-9-08:29	9/27/97	

**National and State Register of Historic Places**

<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-14-9809	Manoa Chinese Cemetery	2-9-43-01	9/27/97	
80-14-9810	Paris Residence	2-5-09:15	9/27/97	
80-14-9811	C.W. Case Deering Residence	2-5-16:30	4/25/98	
80-14-9812	Erickson/Meyer/Furer Residence	2-9-08:36	4/25/98	
80-14-9813	Peterson Residence	2-9-32:12	4/25/98	
80-14-9814	Jones/Lewis Residence	2-9-01:25	4/25/98	
80-14-9818	Yanagihara Residence	3-2-17:10	8/29/98	
80-14-9819	The Martin House	3-1-15:53	8/29/98	
80-14-9820	Bush Residence	2-9-32:24	8/29/98	
80-14-9821	Good Residence	2-9-08:21(1)	8/29/98	
80-14-9822	Hatch Residence	2-9-34:06	4/24/99	
80-14-9823	Bicknell Residence	2-9-06:12	8/21/99	
80-14-9824	East-West Center Complex	2-8-23:05	8/21/99	
80-14-9825	Tennent Art Foundation Gallery	2-2-03:75, 76	8/21/99	
80-14-9826	May/Spalding Residence	2-9-06:08	8/21/99	
80-14-9827	3029 Oahu Avenue	2-9-32:53	12/4/99	

**National and State Register of Historic Places**

<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-14-9828	3033 Oahu Avenue	2-9-32:19	12/4/99	
80-14-9829	Irwin Memorial Park	2-1-13:07	12/4/99	
80-14-9830	Hawaii Shingon Mission	2-3-18:04	8/26/00	4/26/02
80-14-9831	Crutchfield Residence	3-3-26:09	8/26/00	
80-14-9832	Bryan Residence	2-9-16:15	8/26/00	
80-14-9833	Hale Hani Court	3-3-32:19	8/26/00	
80-14-9834	Biggs Residence	3-2-16:05	8/25/01	
80-14-9835	Residence at 1519 Oliver Street	2-8-13:82	8/25/01	
80-14-9836	Greenwell House	2-5-01:05	8/25/01	
80-14-9837	Yodor House	2-4-23:08, 69	6/29/02	
80-14-9838	Haumalu/Gerbode Estate	3-1-36:09	6/29/02	
80-14-9839	COLLEGE HILLS TRACT THEMATIC NOMINATION:	Various	8/24/02	
	Yoder Residence	2-9-06:22	8/24/02	
	Arthur Andrews Residence	2-9-06:11	8/24/02	
	Snyder Residence	2-9-11:10	8/24/02	
	Perry Residence	2-9-11:15	8/24/02	
	Reed Residence	2-9-01:10	8/24/02	
	Miller Residence	2-9-07:08	8/24/02	
	Morris Residence	2-9-06:20	8/24/02	
	Winant Residence	2-9-07:21	8/24/02	
	Potter Residence	2-8-22:20	8/24/02	

**National and State Register of Historic Places**

<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
	COLLEGE HILLS TRACT: (continued)			
	Pell Residence	2-9-05:35	8/24/02	
	Ida Macdonald Residence	2-9-06:23	8/24/02	
	Marques Residence	2-9-06:14	8/24/02	
	Frank C. Atherton House	2-9-02:12	8/24/02	
	Hottel Residence	2-9-01:41	8/24/02	
	Hitchcock House	2-9-05:24	8/24/02	
	Abel Residence	2-8-20:12	8/24/02	
	Thompson House	2-8-20:11	8/24/02	
	Bredhoff House	2-9-12:24	8/24/02	
	Steere Residence	2-9-07:06	8/24/02	
	Glazier Residence	2-8-20:14	8/24/02	
80-14-9900	Dillingham Transportation	2-1-14:03		9/7/79
80-14-9901	Moana Hotel	2-6-01:12		8/7/72
80-14-9903	Kamehameha V Post Office	2-1-02:12	2/20/79	5/5/72
80-14-9904	Queen Emma's Summer Home (Hanaiakamalama)	2-2-34:27	8/11/78	8/7/72
80-14-9905	Merchant Street Historic District	1-7-02:35, 36; 2-1-02:12, 2-1-02:12, 19, 20, 24, 32, 33, 34, 35		6/28/73
80-14-9906	Our Lady of Peace Cathedral	2-1-10:14	7/25/81	8/7/72
80-14-9909	Royal Mausoleum	2-2-21:12	1/29/81	8/7/72
80-14-9911	Punahou School Campus	2-8-18:01		8/7/72
80-14-9917	Royal Brewery	2-1-31:21		11/29/72

**National and State Register of Historic Places**

<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-14-9925	Alexander & Baldwin Building	2-1-13:01	6/2/79	9/7/79
80-14-9926	McKinley High School	2-3-09:01 (portion)	5/3/80	8/11/80
80-14-9929	Aloha Tower	2-1-01:13	1/29/81	5/13/76
80-14-9938	C. Brewer Building	2-1-13:03	11/19/79	4/2/80
80-14-9964	U.S. Immigration Office	2-1-15:18, 19		8/14/73
80-14-9983	H. Alexander Walker Residence	1-8-08:01	7/30/82	4/24/73
80-14-9986	Chinatown Historical District	1-7-02, 03, 04		1/17/73
80-14-9989	Honolulu Academy of Arts	2-4-14:21		3/25/72
80-14-9990	Thomas Square	2-4-01:01		4/25/72
80-14-9994	Jones, Isabella Residence	2-2-44:24	4/16/94	
	Brass Foundry	2-1-49:54		1/24/79 E
	Hawaii Building	2-1-03:12		1/11/80 E
	Hotel Street Sidewalk Features	1-7-03:Various 2-1-03:10,11, 12, 13, 14		1/11/80 E
	J. Campbell Building	2-1-02:01 lots 5, 7, 11, 12		1/11/80 E
	McCorrison Building	2-1-10:20		1/11/80 E

**National and State Register of Historic Places**

<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
	Portland Building	2-1-10:13		1/24/79 E
	Tong Fat Company, Ltd.	1-5-07:03		1/11/80 E
	Kalakaua Avenue Bridge	2-6-Various		10/28/85 E
	Advertiser Building	2-1-47:04		1/24/79 E
80-14-9891	Chaffee House	2-9-005:022	8/2/03	
80-14-9842	Richards/Goodale Residence	2-2-045:004, 005	8/2/03	
80-14-9843	Davis Residence	2-9-006:024	8/2/03	
80-14-9844	Lukens Residence	2-2-047:012	8/2/03	
80-14-9845	Alice K. Rodenhurst Residence	3-2-047:036	8/2/03	
80-14-9846	Lanikai Monument	4-3-009:001	8/2/03	
80-14-9847	Moanalua Community Church	1-1-010:034	8/2/03	
80-14-9848	Kyoto Gardens of Honolulu Memorial Park	2-2-020:001	11/22/03	2/11/04
80-14-9849	Hugh G. Peterson, Jr. Residence	2-5-008:004	11/22/03	
80-14-9850	Cooke-Spalding Residence	2-5-008:001	11/22/03	
80-14-1346	Kakaako Fire Station	2-1-31:18	2/8/04	
80-14-9851	Kaumakapili Church	1-7-31:49	9/18/04	

**National and State Register of Historic Places**

<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
80-15-02	Makani'olu Shelter	3-8-04:01	9/2/78	
80-15-372	Kukuipilau Heiau	4-2-06:02	9/14/84	11/16/84
80-15-382	Pohakunui Heiau	4-1-27:22	9/5/78	
80-15-489 & 490	Koa (Rabbit Island)	4-1-14:09	1/29/81	
80-15-511	Bellows Field Archaeological Area	4-1-15:01, 15		8/14/73
80-15-516	Waimanalo Taro Terraces	4-1-10:01	6/17/87	
80-15-1031	Heiau	4-1-08:05	1/29/81	
80-15-1037	Pahonu Turtle Pond	4-1-02:07	9/2/78	
80-15-1355	U.S. Coast Guard Makapuu Point Lighthouse	3-9-11:01		12/7/77
80-15-1362	Kawailoa Training School for Girls (See Quad 11)	4-2-06:02	11/5/84	
80-15-4042	Waimanalo Ditch System	Portion of: 4-1-08, 4-1-10, 4-1-11, 4-1-13, 4-2-09, 4-2-10, 4-2-		9/18/81 E

**National and State Register of Historic Places  
(Recent Additions/Changes)**

<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAII REGISTER</b>	<b>NATIONAL REGISTER</b>
<b>HAWAII ISLAND</b>				
10-37-23, 661	Holualoa 4 Archaeological District	7-7-004	8/2/03	6/8/05
10-06-7523	Waimea Elementary School	6-5-07:03	3/29/03	
10-35-7455	Thomas Guard House	2-3-15:20	3/29/03	
10-06-7456	Wai`au`ia Ranch (Anna Ranch)	(3) 6-5-006, 003	7/30/05	
10-06-7457	Kawabata Family Home (Waimea Paniolo House)	(3) 6-5-001:145	7/30/05	
<b>KAUAI</b>				
30-02-9396	Kauai Belt Road	Multiple		2/11/04
30-03-9396	Kauai Belt Road	Multiple		2/11/04
30-08-9397	Pu`u`opae Bridge	4-4-002	9/18/04	5/25/05
<b>MAUI</b>				
50-10-1540	Kula Sanitorium	2-2-004:034	11/22/03	
50-04-1541	Nanihoa Drive Overpass Bridge	(2) 3-4	7/30/05	

**National and State Register of Historic Places  
(Recent Additions/Changes)**

<b>SITE NUMBER</b>	<b>SITE NAME</b>	<b>TAX MAP KEY</b>	<b>HAWAI'I REGISTER</b>	<b>NATIONAL REGISTER</b>
<b>O`AHU</b>				
80-14-9891	Chaffee House	2-9-005:022	8/2/03	
80-14-9842	Richards/Goodale Residence	2-2-045:004 & 005	8/2/03	
80-14-9843	Davis Residence	2-9-006:024	8/2/03	
80-14-9844	Lukens Residence	2-2-047:012	8/2/03	
80-14-9845	Alice K. Rodenhurst Residence	3-2-047:036	8/2/03	
80-14-9846	Lanikai Monument	4-3-009:001	8/2/03	
80-14-9847	Moanalua Community Church	1-1-010:034	8/2/03	
80-14-9848	Kyoto Gardens of Honolulu Memorial Park	2-2-020:001	11/22/03	2/11/04
80-14-9849	Hugh G. Peterson, Jr. Residence	2-5-008:004	11/22/03	
80-14-9850	Cooke-Spalding Residence	2-5-008:001	11/22/03	
80-14-1346	Kaka`ako Fire Station	2-1-31:18	2/8/04	
80-14-9774	Central Intermediate School	2-1-09:01	10/29/94	2/11/04
80-14-9851	Kaumakapili Church	1-7-31:49	9/18/04	
80-14-9852	Thrum House	2-8-20-40	6/25/05	
80-14-9853	Albert R. "Sunny" Cunha House	(1) 3-3-007:012	7/30/05	



## **SECTION 3**

### **Archaeological Survey Report**

*T. S. Dye & Colleagues, Archaeologists, Inc.*

*735 Bishop St., Suite 315, Honolulu, Hawai'i 96813*

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Archaeological Assessment for the Proposed Nextel  
Valkenburgh Cell Site No. HI 196P, Located Near  
Building 1847, Hickam Air Force Base, O'ahu Island,  
TMK:(1)1-1-002:002 por.\*

Thomas S. Dye, Ph.D.      Elaine H. R. Jourdane

November 13, 2006

**Applicant:** Clayton Group Services.

**Applicant's Consultant:** T. S. Dye & Colleagues, Archaeologists, Inc.

**Location:** Near Building 1847, Hickam Air Force Base, O'ahu Island.

**Tax map key:** (1)1-1-002:002 por.

**Request:** Proposed Nextel Valkenburgh Cell Site No. HI 196P.

**Direct Effect:** No historic properties in area of potential effect (APE) for direct effects.

**Visual Effect:** No historic properties in area of potential effect for visual effects.

## 1 Introduction

At the request of Clayton Group Services, T. S. Dye & Colleagues, Archaeologists, Inc. conducted an archaeological assessment of a parcel at Hickam Air Force Base (AFB), O'ahu for the proposed Nextel Valkenburgh Cell Site No. HI 196P. The primary focus of the project was on the discovery and appropriate treatment of historic properties within the area of potential effect. The goals of the archaeological investigation were to determine whether the installation of an antenna pole and construction of an equipment facility will have direct or visual effects on historic properties.

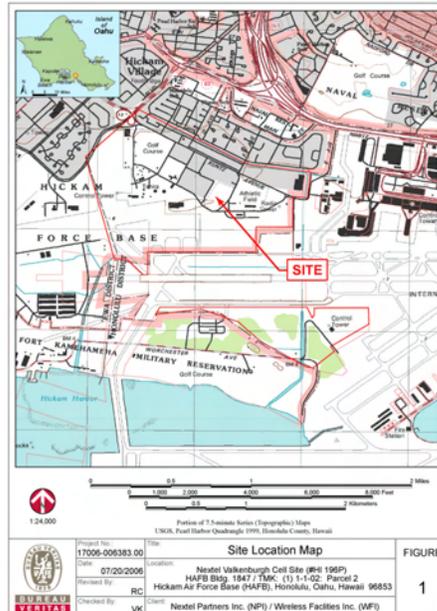
### 1.1 Project Area

Nextel Wireless proposes to remove an existing light pole and replace it with a new 90 ft. high antenna pole. Three, 6 ft. high panel antennas will be mounted at the top of the pole and the existing light platform will be re-installed below the antennas. The 20 × 30 ft.,

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\*Prepared for Clayton Group Services, Inc.

600 ft.<sup>2</sup> lease parcel is located in the central eastern portion of the 626.2089 ac. parcel owned by the United States of America and identified as TMK:(1)1-1-002:002 (figs. 1 and 2).



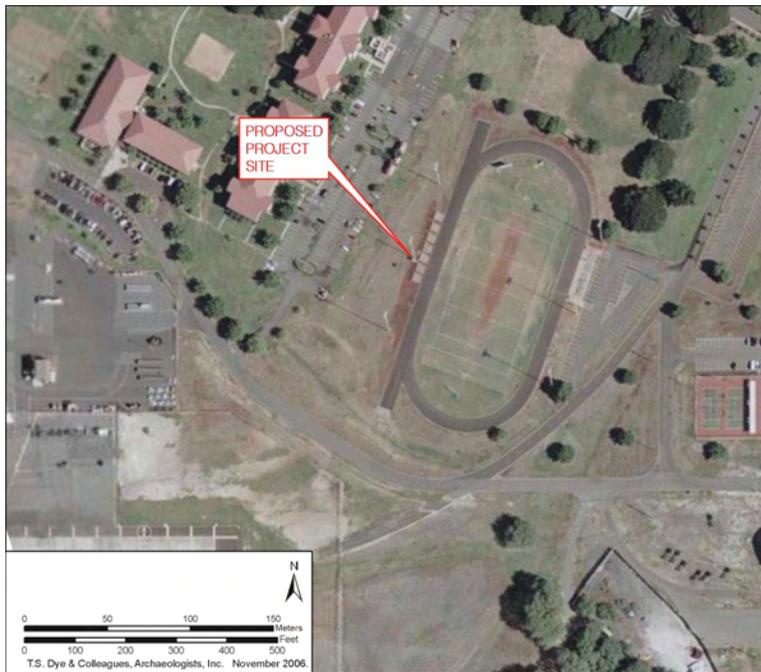
**Figure 1.** Nextel Valkenburgh project location on a portion of the USGS 1999 Pearl Harbor Quadrangle.

A 12 × 18 ft. equipment shelter and associated equipment will be installed on a concrete slab at grade by the base of the light pole and the entire facility will be enclosed with a concrete masonry wall. The maximum finished height of the facility will be ca. 90 ft. above ground surface. Ground disturbance is expected for the installation of the antenna pole, equipment cabinets and utility conduits (fig. 3).

According to the FCC Nationwide Programmatic Agreement (NPA), the area of potential effect (APE) for direct effects on historic properties includes the area of potential ground disturbance during the installation of the tower, equipment shelter and utilities. The APE for visual effects on historic properties for a tower 200 ft. or less is the area within ca. 0.5 mi. of the tower.

## 1.2 Background Research

This archaeological assessment includes the review of historic documents, maps and archaeological reports on file at the State Historic Preservation Division library, the Hawaii State Library and the State Bureau of Conveyances. No field inspection of the proposed site was conducted by T. S. Dye & Colleagues, Archaeologists, Inc.



**Figure 2.** Aerial photograph showing Nextel Valkenburgh project location, adapted from Google Earth.

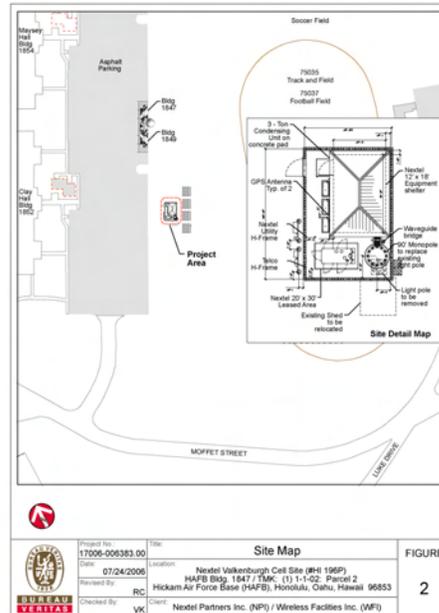
### 1.2.1 Natural Setting

Hickam AFB is centrally located along the south coast of O‘ahu and encompasses the eastern shoreline of Māmalā Bay and the Pearl Harbor entrance on the west and Ke‘ēhi lagoon on the east. From east to west, it measures some 6.4 km, and from north to south, 4.8 km. Hickam AFB straddles the southern end of the boundary between Hālawā and Moanalua *ahupua‘a* of the ‘Ewa and Kona districts respectively. It has consequently been referred to as the Hālawā-Moanalua plain in the archaeological literature [54:5]. The Hālawā-Moanalua plain includes all of Hickam AFB as well as Honolulu International Airport to the east.

*ahupua‘a*

The Nextel project site lies at an elevation of ca. 10 ft. above sea level within Hickam AFB. The soils underlying the area are classified as Fill land, which consists of areas filled with material dredged from the ocean or hauled from nearby areas [27]. The project site receives an average rainfall between 20 and 30 in. annually [28].

The Nextel project site is located approximately 100 ft. south of building 1847, adjacent to the bleachers overlooking the existing track and football field facility. The project site is surrounded by asphalt parking lots, grassy lawns, recreational facilities, and buildings.



**Figure 3.** Proposed Nextel Hickam Valkenburgh site plan, courtesy of Clayton Group Services.

### 1.2.2 Traditional and Historic Land Use

The early cultural histories of Hālawā and Moanalua *ahupuaʻa* are richly documented by Anderson and Bouthillier [1]. Legends dating to at least the late pre-contact period are presented in detail, as are the observations of travelers and explorers of the eighteenth and early nineteenth centuries. These accounts testify to the ecological and cultural importance of these *ahupuaʻa*, and especially of Pearl Harbor and its fertile system of streams and uplands. The fishponds and small coastal settlements that appear on early historic maps give the best clues to traditional Hawaiian use of this area [45]. Marine resources, principally the fishponds and the fringing reef, were a primary focus of traditional Hawaiian land-use on the plain.

Four ponds were once located on the Hālawā-Moanalua plain. From east to west, the ponds include Kaʻihikapu, Lelepaua, Waiaho, and Keoki. The largest two, Kaʻihikapu and Lelepaua, are known to have been used traditionally as fishponds. It is not known whether the smaller ponds to the west were ever used in this manner. By 1930, the small western ponds had been completely filled.

**Early Historic Settlements** Although the Moanalua side of the plain was composed predominantly of fishponds and marshlands, the Hālawā side contained a number of small settlements which were either abandoned as land passed to federal ownership, or

evolved into small workmen's towns such as Watertown. These early settlements include Halekahi, Holokahiki, and an unnamed settlement between them [1:21, fig. 4]. No accounts that describe these settlements have been located, although it can be assumed that residents harvested marine resources as part of their subsistence. They may also have tended a fishpond once located off Bishop Point [52]. There were also historically recorded settlements on the Moanalua side of the plain. These include Poi Village and Kumumau. Residents of these settlements probably tended nearby Lelepaua and Ka'ihikapu fishponds [20:4].

**Late Historic Settlements and Industries** In addition to the traditional Hawaiian component of the Hālawā-Moanalua plain are several poorly documented late historic settlements associated with various agricultural, industrial, and military operations. Chief among these was Watertown, established in 1908. Watertown functioned predominantly as a housing settlement for workers dredging Pearl Harbor. Workers on the project were of varied ethnicity including Russian, Hawaiian, and Japanese. By the 1930s, with the patronage of nearby Fort Kamehameha military personnel, Watertown became notorious for its gambling and night life. This lasted until 1935 when construction of airfields began for Hickam AFB. No definite archaeological remains of Watertown have been previously recovered.

Another settlement on the Hālawā-Moanalua plain was Pu'uloa Camp. This was also a workers' housing area and supported the sugar cane plantations adjacent and to the north. No evidence of Pu'uloa Camp has been found to date, although this might be due to the fact that little archaeological work has been done in its vicinity. Historic aerial photographs show that the remains of Pu'uloa Camp's infrastructure were still visible in January of 1937 (fig. 4). Vestiges of cane field roads are visible in several locations, as is the former road to Fort Kamehameha. By 1937, almost all of the structures and infrastructure associated with Pu'uloa Camp had been destroyed and the new Hickam Field road system laid out.

Another settlement complex, Fort Kamehameha, was established on the western coast of the plain in the early 1900s. This involved construction of a series of coastal defense batteries and military housing to protect the entrance to the new Pearl Harbor naval facility. The residential and defensive structures are still largely intact today. This military complex was constructed on the sites of the former Holokahiki settlement and Queen Emma's residence.

Prior to construction of the Fort Kamehameha housing and batteries, a country retreat for Queen Emma was located on this coastal strip. It is thought to have been somewhere in the southwest corner of the present Fort Kamehameha [1:A-56]. As discussed in more detail below, the Fort Kamehameha area is also a traditional Hawaiian burial ground.

Salt works were located on the peripheries of two of the former fishponds. One salt works was located at the northwest end of Ka'ihikapu fishpond in its surrounding wetlands. The other, in operation as late as 1888, was located about 800 ft. from Lelepaua fishpond. The nature of the salt industry and dates of operation of the salt works have not been reported by previous investigators. These operations and their remains were either buried or obliterated during military and civilian airstrip construction in the middle part of the twentieth century.



**Figure 4.** Aerial photograph of Hickam Field under construction, January 1937. Note the remains of Pu'uloa Camp in the upper left corner.

**Human Burial Areas** Human remains have been found in a fairly localized coastal segment of the Hālawā- Moanalua plain. The area known today as Fort Kamehameha is the focal point for traditional Hawaiian burials at Hickam AFB. Isolated remains from the southern portion of Fort Kamehameha [53] have also been reported.

### 1.2.3 Recent Land History

Based on information gathered by Clayton Group Services and T. S. Dye & Colleagues, Archaeologists, Inc. the recent land history records trace ownership of the proposed project site to the United States of America since 1938. Since then, parcel size changed from 1,176.40 ac. to the current size of 626.2089 ac. while ownership remained the same.

### 1.2.4 Previous Archaeology

Archaeological work on the Hālawā-Moanalua plain before 1993 is reviewed in detail by Anderson and Bouthillier (1996). Archaeological investigations between 1994 and 1998 are summarized by Tomonari-Tuggle and Dye [54]. The following account draws on these authors but also includes reviews of many of the original works.

The history of concerted archaeological investigation on the plain dates back only to the mid 1980s. Before this, a number of investigators including Cobb [11], Stokes [52], and McAllister [41] had recorded sites on the Hālawā-Moanalua plain as part of broader survey projects focused primarily on large-scale architectural features such as *heiau*, stone walls, and fishponds. Cobb [11] noted that Lelepaua fishpond had been mostly filled

and another unnamed fishpond was partially filled. Ka'ihikapu and Waiaho fishponds were as yet unfilled. Stokes [52] learned from local informants that a walled fish trap was once in operation at Bishop Point on the east bank of Pearl Harbor entrance. It had been abandoned before the memory of the native informants and the stones were reportedly used to construct a pier near Bishop Point. McAllister [41] describes Ka'ihikapu fishpond, Lelepaua fishpond, Waiaho fishpond, Ke'oki fishpond, and Papiolua fishpond located opposite Waipi'o peninsula.

No further archaeological work was done on the Hālawa-Moanalua plain until 1986 when archaeological testing projects began at Fort Kamehameha [30–35]. Initial work on a proposed water main replacement in the northwestern part of the fort recovered gley. The gley was interpreted as a fishpond sediment, possibly Waiaho fishpond, and returned a <sup>14</sup>C date of cal AD 1340–1650 [34]. A few traditional Hawaiian artifacts were also recovered, including a possible shell fishhook and polished basalt beads or sinkers. Historic-era material, including metal, nails, ceramics, glass, shell buttons, and bottles was also unearthened. These materials came from only a few of the 67 0.25 m<sup>2</sup> test trenches, which was interpreted as indicating an absence of extensive prehistoric or historic occupation of the Fort Kamehameha area [34]. Four subsequent projects in the eastern part of Fort Kamehameha [30–33], during which 60 test trenches and auger holes were excavated, seemed to support this conclusion. No pre-contact deposits were recorded except for gley interpreted as evidence of historic fishponds [30]. Work on a proposed apron addition [33] produced only metal, glass and ceramic artifacts dating to the 1920s and 1930s. The other two projects produced no traditional Hawaiian or historic period deposits [31; 32].

In 1988, work on the water main project recommenced with monitoring of an 875 m trench through the northwestern part of Fort Kamehameha [35]. Again, no traditional Hawaiian or early historic remains were found. Gley corresponding to the gley observed in 1986 was discovered. Another sample of the deposit was dated and returned a date range of cal AD 1385–1655. The deposit was again interpreted as evidence of Waiaho fishpond. However, historic maps [19; 45] place Waiaho fishpond well to the northeast of the gley. Interpretation of the gley as fishpond sediments has been contradicted by the results of subsequent archaeological investigations [21; 37].

Also in 1986, Watanabe conducted survey and testing in the eastern inland part of Fort Kamehameha [55]. The work produced a number of historic military structures as well as sediments indicative of a ponded marsh environment. Fishpond sediments were not found. In 1988, human remains were inadvertently discovered under Quarters #14 in the Fort Kamehameha housing area [53]. Four individuals were eventually unearthened. In 1991, investigations in the northwestern part of Fort Kamehameha produced another burial, an adze preform, and a polished adze [51]. Also that year, survey and testing were conducted for the MIDPAC T-1 Network project [56]. Eight auger samples returned no evidence of cultural deposition, including fishpond sediments. Later monitoring of trenches for the fiber-optic cable running from the inland northeastern part of Fort Kamehameha to the northwestern part of Hickam AFB produced no cultural materials or fishpond sediments [37].

Testing and monitoring at the waste water treatment plant located in the northwest corner of Fort Kamehameha [21–24] between 1992 and 1994 yielded 87 individual sets of human remains, numerous pit features, and traditional Hawaiian cultural materials including charcoal, animal bone, and thermally altered rock. Material associated with the

thermally altered rock returned an age range of cal AD 1200–1550. Historic material was also abundant and included bottles, metal, and ceramics dating to the late nineteenth and early twentieth centuries. Early historic artifacts dating to the 1800s were also recovered. These findings confirm that the northwest part of Fort Kamehameha contains buried cultural deposits from the traditional Hawaiian and historic periods. Human remains in the former dune sands are numerous and indicate the importance of the area for traditional Hawaiian burials.

Archaeological work in the late 1990s included monitoring projects [9; 17; 26; 39], as well as several paleoenvironmental coring projects [4–6]. These projects expanded the areal coverage of archaeological investigations at Hickam AFB, and provide a more general picture of the distribution of historic remains than can be discerned from the previous investigations which were focused on the Fort Kamehameha area.

Recent monitoring projects have discovered few traditional Hawaiian cultural deposits in areas outside Fort Kamehameha, although historic-era deposits have been uncovered. Monitoring of Manuwai Canal dredging produced no cultural remains or deposits [9] in excavations that were largely confined to recent deposits within the canal. Removal of four underground storage tanks yielded no cultural deposits [26]. More extensive monitoring projects by [39], [17], and Desilets [18] likewise turned up little evidence of cultural deposition except for possible Lelepaua fishpond sediments at underground storage tank (UST) site 1818B. Subsequent work has shown that the northern portion of the pond has been destroyed [2]. In 2001, Roberts monitored utility upgrade excavations along Signer Avenue and residences along Julian Avenue that resulted in the exposure of no subsurface features [47].

Recent paleoenvironmental investigations at Hickam AFB [4–6] extracted sediment cores from areas suspected to be on or near fishponds. The TRACON and Vault-X cores were suspected to be near the southwestern boundary of Ka'ihikapu fishpond [4; 6]. No evidence of fishpond sediments was recovered, however. Marsh sediments consistent with the natural landscape shown on 1930s maps, however, are present. Cores from the vicinity of Lelepaua fishpond also returned no evidence of fishpond sediments [5].

The few potentially significant finds have been in the southern part of Hickam AFB. Desilets [16] discovered three pit features associated with a culturally modified paleosol, which has been designated site 50–80–13–6406. The pits contained substantial amounts of thermally altered coral and limestone, charcoal, and very small amounts of vertebrate and marine invertebrate remains. Charcoal from two of the features yielded  $^{14}\text{C}$  dates of AD 1478–1664 and AD 1306–1452 on identified, short-lived taxa. The latter date is the earliest yet reported from Hickam AFB.

Another find of traditional Hawaiian materials was in the western part of Hickam AFB, in the motor pool and aircraft parking apron areas. This was designated State site number 50–80–13–6692 [12; 14]. Although these areas are in the vicinity of historic Watertown, historic remains were not found. Instead, excavation produced intact traditional Hawaiian deposits containing earth oven features, post molds, shellfish, fish bone, fire-cracked rock, volcanic glass flakes, and one shell adze fragment. One piece of ferrous metal was recovered from the cultural layer. In many cases the features were intrusive to other features indicating an area of multiple utilization. One dated feature returned a  $^{14}\text{C}$  date range of AD 1720–1820. Given the date and presence of one metal fragment it is possible this was a traditional Hawaiian settlement occupied before and after European contact.

In 2003, McElroy [42] monitored trench excavations for communication lines near buildings 920, 922, and 935 near Worthington Avenue. Historic artifacts representing a secondary deposit associated with the historic settlement of Watertown were discovered.

#### 1.2.5 Hickam Air Force Base National Register Sites

There are no historic properties listed on the National Register of Historic Places within the area of potential effect for the undertaking.

The coastal batteries at Fort Kamehameha are listed on the National Register of Historic Places as part of the Artillery District of Honolulu (State site 50-80-13-1382). The batteries are considered excellent examples of the types of fortifications built in the early twentieth century as part of the coastal defense program.

A portion of Hickam AFB is listed on the National Register of Historic Places as the Hickam Field National Historic Landmark (State site 50-80-13-1376). Hickam Field is significant due to its association with the bombing raid of the field by the Japanese on December 7, 1941.

Hickam Historic District and Fort Kamehameha Historic District are eligible for the National Register of Historic Places. The Hickam Historic District is significant due to its historical association with the bombing of O'ahu by the Japanese on December 7, 1941. It is also significant as an example of architectural/base planning which combined architectural and landscaping design and social organization.

Fort Kamehameha is significant for its participation in the defense of Pearl Harbor during the December 7, 1941 attack. It is also the location of the coastal batteries, listed on the National Register. It is also significant for its regional architectural style, the plantation house of Hawai'i, which shows how the Army adapted to tropical living.

The boundaries of the historic districts that are listed and/or eligible for the National Register lie 1-2 mi. from the proposed Nextel site.

## 2 Results

No field inspection was conducted of the project site by T. S. Dye & Colleagues, Archaeologists, Inc. However, a field inspection was conducted by Clayton Group Services and the information and photographs of the project site were reviewed. The results of the inspection show that the project site is located within a fully-developed parcel containing an existing light pole and equipment shed at the athletic field facility. The proposed Nextel antenna pole will replace the existing light pole and the equipment cabinet will be installed at ground level on a concrete slab at grade adjacent to the antenna pole.

No surface historic properties are located within the proposed project site and no historic properties were documented during the construction and installation of the existing light poles and athletic field facility (fig. 5).

## 3 Discussion and Conclusions

A review of the archaeological literature, historic maps, and information provided by Clayton Group Services shows that the project site has been previously modified and



**Figure 5.** Proposed Nextel Valkenburgh project location adjacent to existing equipment shed and athletic field bleachers, looking southeast. Courtesy of Clayton Group Services.

developed with an athletic field, an asphalt paved parking lot, and surrounding buildings. No surface historic properties exist within the area of potential effect for the proposed Nextel cellular site and no subsurface deposits are likely to be found because of past land alteration. According to a 2006 archaeological probability map for Hickam AFB, the proposed Nextel project site lies in an area of low probability for encountering archaeological resources (Valerie Curtis, pers. comm.). Therefore, construction of the proposed Nextel Hickam Valkenburgh cell site will have no direct effect on historic properties.

The proposed Nextel Hickam Valkenburgh cell site does not lie within 0.5 mi of any of the historic districts of Hickam AFB. Therefore, the undertaking will have no visual effect on historic properties.

## Glossary

Entries for Hawaiian words are excerpted or paraphrased, where possible, from the *Hawaiian Dictionary* [46], or from Lucas [38].

**ahupua'a** Traditional Hawaiian land division usually extending from the uplands to the sea.

**gley** A soil horizon in which the material is bluish gray or blue-gray, more or less sticky, compact, and often structureless. It is developed under the influence of excessive moisture.

**heiau** Traditional Hawaiian place of worship.

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## **SECTION 4**

**Honolulu Star Bulletin Newspaper  
Public Legal Notice**





## **SECTION 5**

**City & County of Honolulu  
Department of Planning and Permitting (DPP)**

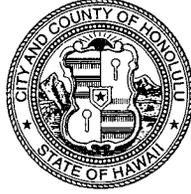
RECEIVED

1-26-07

DEPARTMENT OF PLANNING AND PERMITTING  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET, 7<sup>TH</sup> FLOOR • HONOLULU, HAWAII 96813  
TELEPHONE: (808) 523-4432 • FAX: (808) 527-6743  
DEPT. INTERNET: [www.honolulu.gov](http://www.honolulu.gov) • INTERNET: [www.honolulu.gov](http://www.honolulu.gov)

MUFI HANNEMANN  
MAYOR



HENRY ENG, FAICP  
DIRECTOR

DAVID K. TANOUE  
DEPUTY DIRECTOR

2006/ELOG-2785(LW)

January 25, 2007

Ms. Lori Ford, Senior Geologist  
Clayton Group Services, Inc.  
970 North Kalaheo Avenue, Suite C-316  
Kailua, Hawaii 96734

Dear Ms. Ford:

Subject: Nextel Valkenburgh Cell Site  
Middle Light Post adjacent to Building 1847  
Hickam Air Force Base – Pearl Harbor  
Tax Map Key 1-1-2: 2

This responds to your request for comments pertaining to potential impacts on historic properties or cultural resources of a proposed utility installation, which include replacement of the existing light pole with a new 90-foot high monopole, three (3) panel antennas, and equipment shelter at the above-referenced location.

We have no knowledge that the site involves any significant historical or cultural resources. We recommend that you contact the State of Hawaii, Department of Land and Natural Resources (DLNR), Historic Preservation Division (SHPD), for information concerning potential impacts to historical and/or cultural resources.

The site of the proposed facility (including the monopole) is zoned F-1 military and federal preservation district and within the Special Management Area (SMA). F-1 military and federal preservation lands are not subject to City and County zoning regulations (Land Use Ordinance) and Chapter 25, Revised Ordinances of Honolulu relating to SMA.

If you have any questions, please contact Lin Wong of our staff at 523-4485.

Very truly yours,

  
Henry Eng, FAICP, Director  
Department of Planning and Permitting

HE:pl

Doc. 511355



## **SECTION 6**

### **Tower Construction Notification System (TCNS)**

**TCNS Site Registration Confirmation  
Notice of Organizations Sent TCNS Data  
Tribal Correspondence  
FCC Clearance**



towernotifyinfo@fcc.gov  
07/31/2006 04:57 PM

To: Doug Oringer/USA/VERITAS@VERITAS  
cc  
bcc  
Subject: Proposed Tower Structure Info - Email ID #1226792

Dear Douglas A Oringer Mr,

Thank you for submitting a notification regarding your proposed structure via the Tower Construction Notification Application. Note that the FCC has assigned a unique Notification ID number for this proposed structure. You will need to reference this Notification ID number when you update your project's Status with us. Below are the details you provided for the tower you have proposed to construct:

Notification Received: 07/31/2006

Notification ID: 18564  
Tower Owner Individual or Entity Name: Nextel  
Consultant Name: Douglas A Oringer Mr  
Street Address: 970 N. Kalaheo Avenue  
Suite C-316  
City: Kailua, Oahu  
State: HAWAII  
Zip Code: 96734  
Phone: 808-531-6708  
Email: doug.oringer@us.bureauveritas.com

Structure Type: BPOLE - Building with Pole  
Latitude: 21 deg 19 min 57.2 sec N  
Longitude: 157 deg 56 min 16 sec W  
Location Description: Hickam Air Force Base, Bldg 1847  
City: Honolulu  
State: HAWAII  
County: HONOLULU  
Ground Elevation: 22.9 meters  
Support Structure: 27.4 meters above ground level  
Overall Structure: 27.4 meters above ground level  
Overall Height AMSL: 50.3 meters above mean sea level



towernotifyinfo@fcc.gov  
08/03/2006 09:01 PM

To Doug Oringer/USA/VERITAS@VERITAS  
cc kim.pristello@fcc.gov, diane.dupert@fcc.gov  
bcc  
Subject NOTICE OF ORGANIZATION(S) WHICH WERE SENT  
PROPOSED TOWER CONSTRUCTION NOTIFICATION  
INFORMATION - Email ID #1230760

Dear Sir or Madam:

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this electronic mail message is to inform you that the following authorized persons were sent the information you provided through TCNS, which relates to your proposed antenna structure. The information was forwarded by the FCC to authorized TCNS users by electronic mail and/or regular mail (letter).

Persons who have received the information that you provided include leaders or their designees of federally-recognized American Indian Tribes, including Alaska Native Villages (collectively "Tribes"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribes and in making further contacts, the City and State of the Seat of Government for each Tribe and NHO, as well as the designated contact person, is included in the listing below. We note that Tribes may have Section 106 cultural interests in ancestral homelands or other locations that are far removed from their current Seat of Government. Pursuant to the Commission's rules as set forth in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), all Tribes and NHOs listed below must be afforded a reasonable opportunity to respond to this notification, consistent with the procedures set forth below, unless the proposed construction falls within an exclusion designated by the Tribe or NHO. (NPA, Section IV.F.4).

The information you provided was forwarded to the following Tribes and NHOs who have set their geographic preferences on TCNS. If the information you provided relates to a proposed antenna structure in the State of Alaska, the following list also includes Tribes located in the State of Alaska that have not specified their geographic preferences. For these Tribes and NHOs, if the Tribe or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribe or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event such a Tribe or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribe or NHO, you must seek guidance from the Commission (NPA, Section IV.G). These procedures are further set forth in the FCC's Declaratory Ruling released on October 6, 2005 (FCC 05-176).

1. TCNS Representative Jesse Yorck - Office of Hawaiian Affairs - Honolulu, HI - electronic mail and regular mail

The information you provided was also forwarded to the additional Tribes and NHOs listed below. These Tribes and NHOs have NOT set their geographic

preferences on TCNS, and therefore they are currently receiving tower notifications for the entire United States. For these Tribes and NHOs, you are required to use reasonable and good faith efforts to determine if the Tribe or NHO may attach religious and cultural significance to historic properties that may be affected by its proposed undertaking. Such efforts may include, but are not limited to, seeking information from the relevant SHPO or THPO, Indian Tribes, state agencies, the U.S. Bureau of Indian Affairs, or, where applicable, any federal agency with land holdings within the state (NPA, Section IV.B). If after such reasonable and good faith efforts, you determine that a Tribe or NHO may attach religious and cultural significance to historic properties in the area and the Tribe or NHO does not respond to TCNS notification within a reasonable time, you should make a reasonable effort to follow up, and must seek guidance from the Commission in the event of continued non-response or in the event of a procedural or substantive disagreement. If you determine that the Tribe or NHO is unlikely to attach religious and cultural significance to historic properties within the area, you do not need to take further action unless the Tribe or NHO indicates an interest in the proposed construction or other evidence of potential interest comes to your attention.

None

The information you provided was also forwarded to the following SHPOs in the State in which you propose to construct and neighboring States. The information was provided to these SHPOs as a courtesy for their information and planning. You need make no effort at this time to follow up with any SHPO that does not respond to this notification. Prior to construction, you must provide the SHPO of the State in which you propose to construct (or the Tribal Historic Preservation Officer, if the project will be located on certain Tribal lands), with a Submission Packet pursuant to Section VII.A of the NPA.

2. SHPO Peter T Young - Department of Land & Natural Resources - Kapolei, HI - regular mail

3. Administrator Melanie Chinen - State Historic Preservation Office - Kapolei, HI - regular mail

"Exclusions" above set forth language provided by the Tribe, NHO, or SHPO. These exclusions may indicate types of tower notifications that the Tribe, NHO, or SHPO does not wish to review. TCNS automatically forwards all notifications to all Tribes, NHOs, and SHPOs that have an expressed interest in the geographic area of a proposal, as well as Tribes and NHOs that have not limited their geographic areas of interest. However, if a proposal falls within a designated exclusion, you need not expect any response and need not pursue any additional process with that Tribe, NHO, or SHPO. Exclusions may also set forth policies or procedures of a particular Tribe, NHO, or SHPO (for example, types of information that a Tribe routinely requests, or a policy that no response within 30 days indicates no interest in participating in pre-construction review).

If you are proposing to construct a facility in the State of Alaska, you should contact Commission staff for guidance regarding your obligations in the event that Tribes do not respond to this notification within a reasonable time.

Please be advised that the FCC cannot guarantee that the contact(s) listed above opened and reviewed an electronic or regular mail notification. The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 07/31/2006  
Notification ID: 18564  
Tower Owner Individual or Entity Name: Nextel  
Consultant Name: Douglas A Oringer Mr  
Street Address: 970 N. Kalaheo Avenue  
Suite C-316  
City: Kailua, Oahu  
State: HAWAII  
Zip Code: 96734  
Phone: 808-531-6708  
Email: doug.oringer@us.bureauveritas.com

Structure Type: BPOLE - Building with Pole  
Latitude: 21 deg 19 min 57.2 sec N  
Longitude: 157 deg 56 min 16.0 sec W  
Location Description: Hickam Air Force Base, Bldg 1847  
City: Honolulu  
State: HAWAII  
County: HONOLULU  
Ground Elevation: 22.9 meters  
Support Structure: 27.4 meters above ground level  
Overall Structure: 27.4 meters above ground level  
Overall Height AMSL: 50.3 meters above mean sea level

If you have any questions or comments regarding this notice, please contact the FCC using the electronic mail form located on the FCC's website at:

<http://wireless.fcc.gov/outreach/notification/contact-fcc.html>.

You may also call the FCC Support Center at (877) 480-3201 (TTY 717-338-2824). Hours are from 8 a.m. to 7:00 p.m. Eastern Time, Monday through Friday (except Federal holidays). To provide quality service and ensure security, all telephone calls are recorded.

Thank you,  
Federal Communications Commission



November 3, 2006

Mr. Charles K. Maxwell, Sr., Po'o  
Hui Malama I Na Kupuna O Hawai'i Nei  
157 Alea Place  
Makawao, Maui, Hawaii 96768

Clayton Project No. #17006-006383.00

Subject: 106 Historic Sites and Impact Determination Request for the Proposed Nextel  
Valkenburgh Cell Site (#HI 196P), HAFB, Honolulu, Hawaii

Dear Mr. Maxwell:

Clayton Group Services, Inc. (Clayton), a Bureau Veritas Company, has been retained by Wireless Facilities, Inc. (WFI) to conduct a site evaluation on behalf of Nextel for the Federal Communications Commission (FCC) for the proposed Nextel Valkenburgh Cell Site (#HI 196P) located at the Middle Light Post adjacent to Bldg. 1847 (Tax Map Key [TMK:] [1] 1-1-002: Parcel 002), HAFB, Honolulu, Hawaii.

Pursuant to FCC rules regarding review under Section 106 of the National Historic Preservation Act (NHPA), we are contacting you for information with regards to any potential impacts to historic properties, religious, or cultural resources that the proposed wireless telecommunications facility may have.

Per FCC requirements, Clayton is also contacting other applicable agencies and Native Hawaiian organizations, and has posted a Legal Notice in the local newspaper (Honolulu Advertiser) as a public notification effort. A formal submission and application for zoning approval of the proposed project is being handled by other professionals under separate project tasks.

### **Project Description**

The subject parcel, (Tax Map Key [TMK:] [1] 1-1-002: Parcel 002), is currently owned by the United States of America, and encompasses a 626.2089-acre portion of Hickam Air Force Base (HAFB) in a mixed military residential, recreational, and airport setting. According to its official website (<http://www2.hickam.af.mil/>), HAFB is home of the 15th Airlift Wing, with 140 tenant and associate units including Pacific Air Force Headquarters and the Hawaii Air National Guard. The 15th Airlift Wing currently flies worldwide missions in support of the Pacific Command and commander, and Pacific Air Forces. As part of Command Headquarters, HAFB hosts C-17 troop and cargo transport planes for the 535th Airlift Squadron. The HAFB military installation is also improved with numerous military housing, recreational, airport and associated support facilities.



Mr. Charles K. Maxwell, Po'o  
Hui Malama I Na Kupuna O Hawaii'i Nei  
Makawao, Maui, Hawaii

Page 2  
Clayton Project No. #17006-006383.00  
November 3, 2006

The subject property, identified as the proposed Nextel Valkenburgh Cell Site (#HI 196P), comprises an approximately 600 square-foot (20-ft by 30-ft) grassy lease area bordering the western edge of the track and field facility in the central eastern sector of the subject parcel. The proposed project site encompasses an existing light pole and adjoining wooden storage shed. Metal bleachers that overlook the track and field facility border the subject property (proposed project site) to the immediate east. Grassy lawns bordered the subject property on the south, north, and west sides, and HAFB Track and Field on the east side.

According to Nextel, the proposed action involves removing an existing light pole, replacing it with a new 90-foot high light pole, and mounting up to three panel antennas on a three-sectored antenna boom array at the top of the pole. An existing floodlight-platform will be relocated on the new pole, and an existing wooden storage shed will also be relocated adjacent to the light pole. The maximum finished height of the light pole and antenna tips will be approximately 90 feet above ground level (AGL). An associated equipment shelter, containing an emergency generator system, will be installed on a concrete slab at grade by the base of the light pole and secured within a chain-link fence enclosure (Lat/Long: 21° 19' 57.2" N and 157° 56' 16" W [NAD83]).

Construction activities will disturb the ground surface for installation of the light pole, equipment shelter, and chain-link fence enclosure.

### **Recent History**

The historical research conducted for this assessment has established the use of the subject parcel/property since 1938. The earliest available tax records for the subject property were from 1960, which listed the United States of America as the owner of the parcel.

According to an aerial photograph from 1951-54, the land was barren east of the runway, and it remained that way until at least 1969. A 1992 aerial photograph showed the HAFB track and field facility, which borders the subject property to the east, and adjoining areas to the north, west, and south as vacant land. A 2000 aerial photograph showed the subject property and adjoining areas similar to Clayton's July 2006 site visit.

### **Information Request**

As noted, we are requesting information on any Native Hawaiian cultural, religious, and/or burial sites; historic places, artifacts, and/or other related concerns at the proposed project site; and whether or not any of these issues will be impacted by the proposed wireless telecom project.

Per FCC NEPA/NHPA 106 review process guidelines, please provide *written* documentation of your findings within 30 days, either to the address shown below, via fax at 808.537.4084, or by email at [lori.ford@us.bureauveritas.com](mailto:lori.ford@us.bureauveritas.com).



Mr. Charles K. Maxwell, Po'o  
Hui Malama I Na Kupuna O Hawai'i Nei  
Makawao, Maui, Hawaii

Page 3  
Clayton Project No. #17006-006383.00  
November 3, 2006

If you have any questions or concern, please feel free to contact me at 808.531.6708. We greatly appreciate your time and assistance in this matter. Mahalo nui loa!

Regards,

Lori Ford  
Senior Geologist  
Clayton Group Services, Inc.

/cy

Attachment: Nextel Valkenburgh Cell Site (#HI 196P) Figures, Construction Drawings and Site Photos



## **ATTACHMENT**

# **Figures, Construction Drawings, and Photographs For the Proposed Nextel Valkenburgh Cell Site (HI 196P)**

Clayton Group Services, Inc.

*A Bureau Veritas Company*

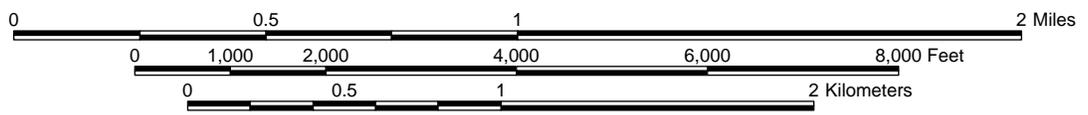
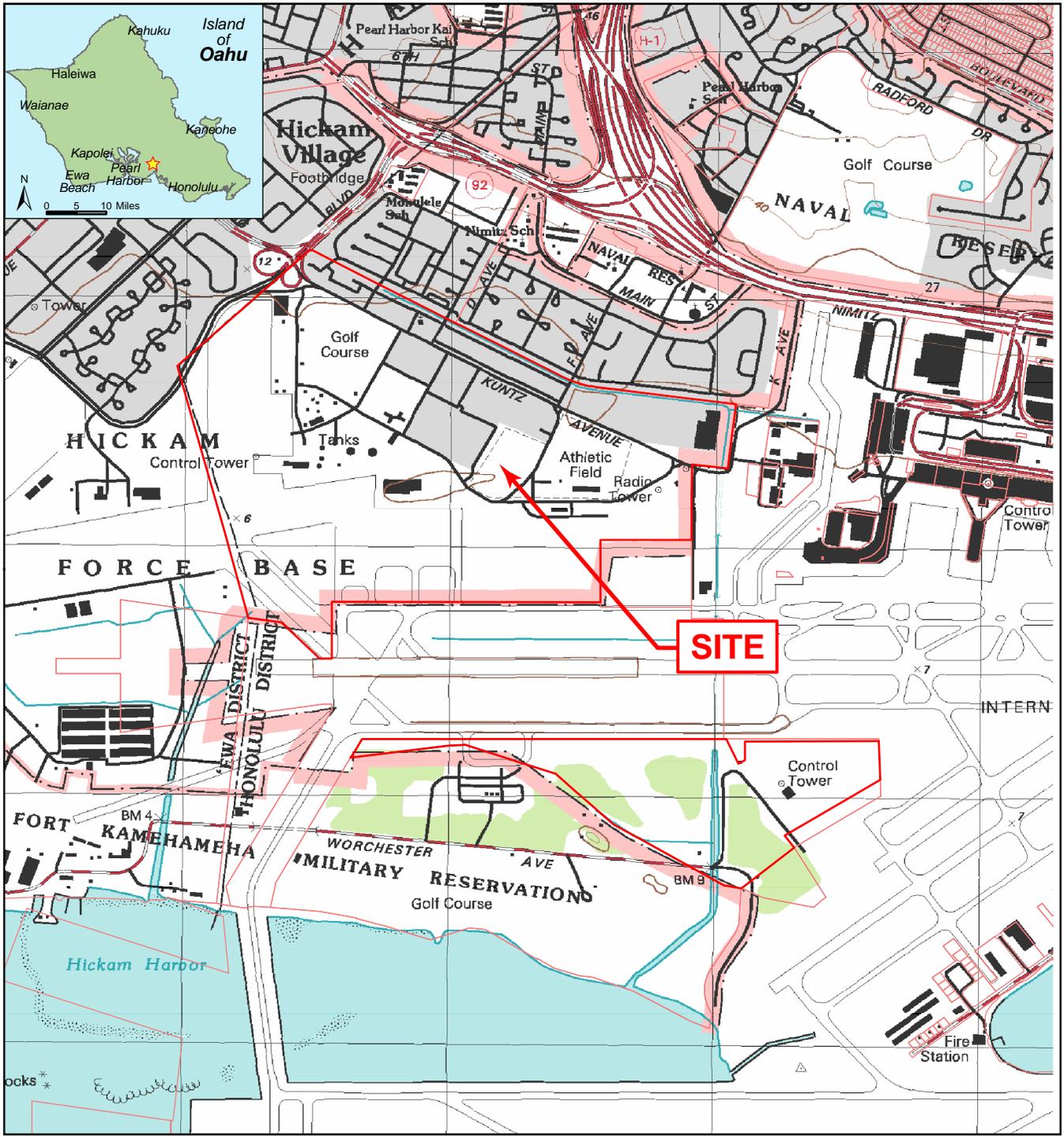
970 North Kalaheo Avenue Suite C-316

Kailua, HI 96734

Main: (808) 531.6708

Fax: (808) 537.4084

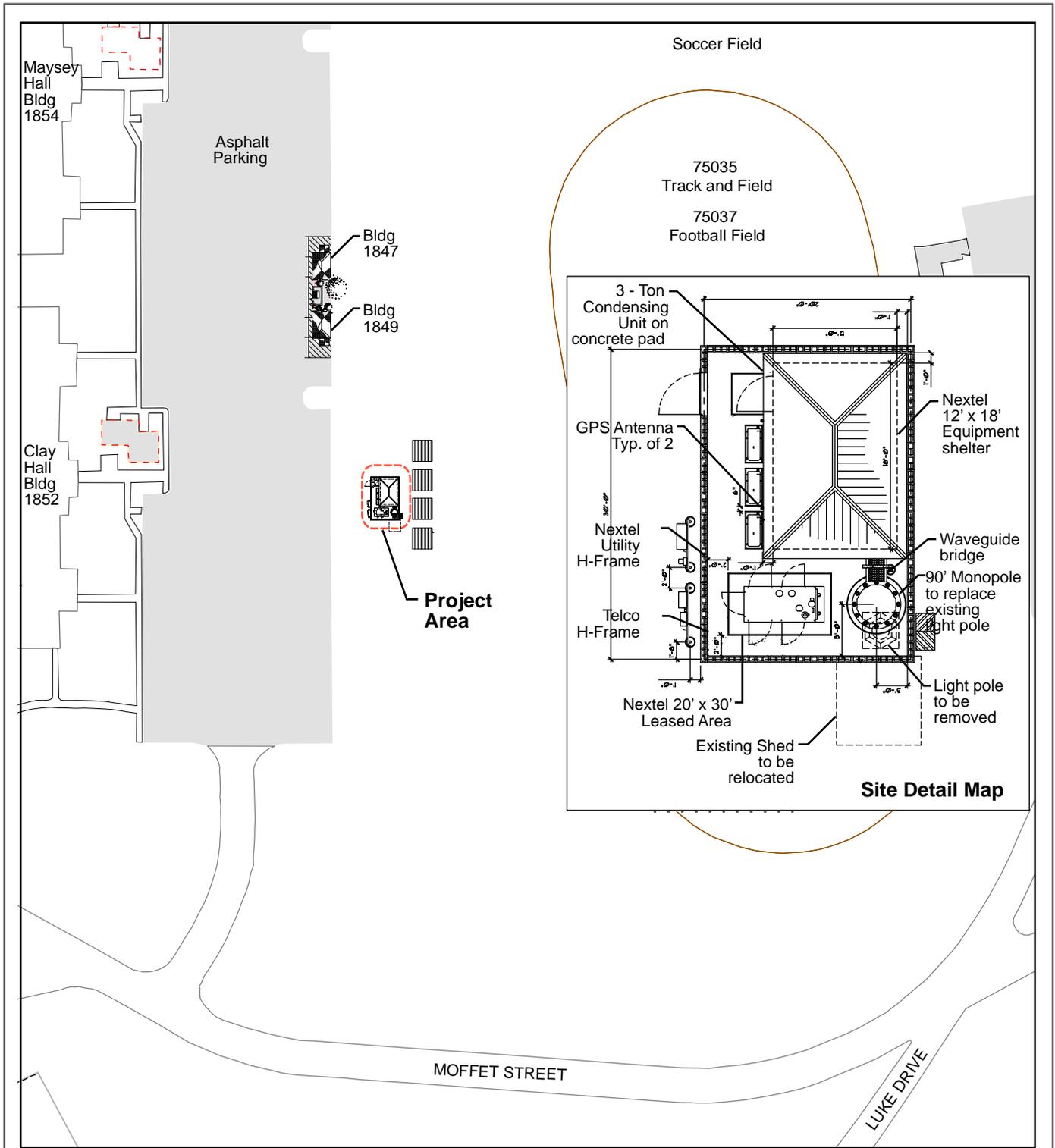
[www.us.bureauveritas.com](http://www.us.bureauveritas.com)



1:24,000

Portion of 7.5-minute Series (Topographic) Maps  
 USGS, Pearl Harbor Quadrangle 1999, Honolulu County, Hawaii

 <b>BUREAU VERITAS</b>	Project No.: 17006-006383.00	Title: <b>Site Location Map</b>	<b>FIGURE</b>  <b>1</b>
	Date: 07/20/2006	Location: Nextel Valkenburgh Cell Site (#HI 196P) HAFB Bldg. 1847 / TMK: (1) 1-1-02: Parcel 2 Hickam Air Force Base (HAFB), Honolulu, Oahu, Hawaii 96853	
	Revised By: RC	Client: Nextel Partners Inc. (NPI) / Wireless Facilities Inc. (WFI)	
	Checked By: VK		



 <b>BUREAU VERITAS</b>	Project No.: 17006-006383.00	Title: <b>Site Map</b>	<b>FIGURE</b>  <b>2</b>
	Date: 07/24/2006	Location: Nextel Valkenburgh Cell Site (#HI 196P) HAFB Bldg. 1847 / TMK: (1) 1-1-02: Parcel 2 Hickam Air Force Base (HAFB), Honolulu, Oahu, Hawaii 96853	
	Revised By: RC	Client: Nextel Partners Inc. (NPI) / Wireless Facilities Inc. (WFI)	
	Checked By: VK		



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	Overview of proposed Nextel Valkenburgh cell site at light pole by shed, looking S	<b>Photo 1</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



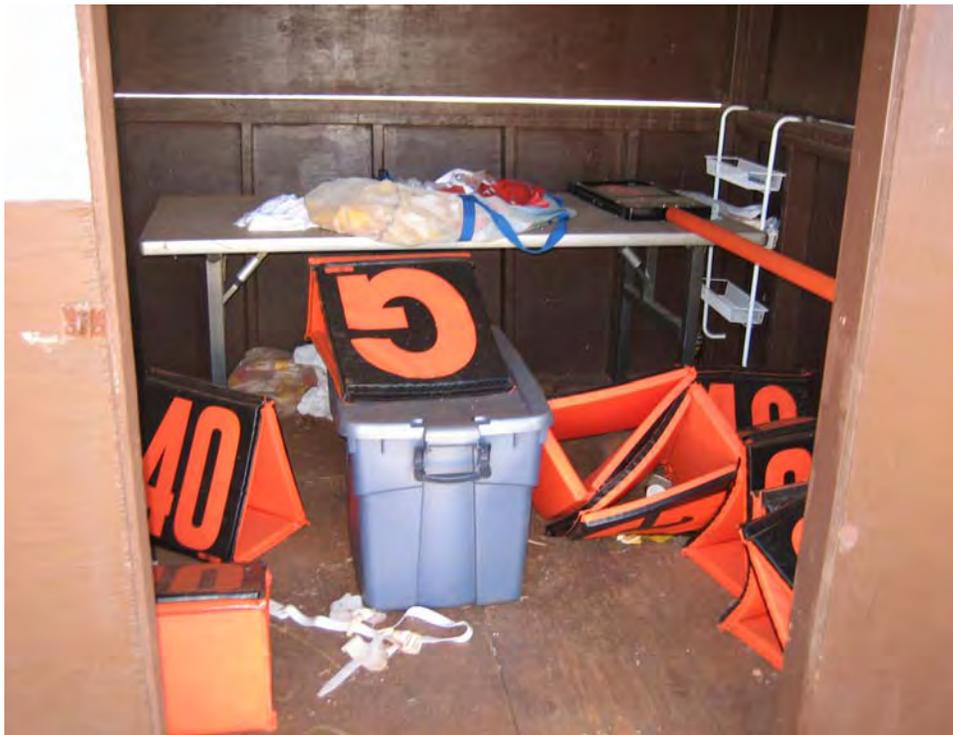
<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of proposed NPI Valkenburgh cell site at light pole to left of shed, looking SE	<b>Photo 2</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of NPI Valkenburgh cell site area encompassing existing light pole and shed to right (W) of track field bleacher seats, looking S	<b>Photo 3</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of light pole & storage shed occupying proposed cell site location, looking E/SE	<b>Photo 4</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of contents of storage shed adjacent to light pole at proposed project site	<b>Photo 5</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of electrical wiring under manhole adjacent to light pole at project site	<b>Photo 6</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of vacant field on S-adjacent land, beyond which is HAFB runway, looking S	<b>Photo 7</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of track and field facility on E-adjointing land, looking E/NE	<b>Photo 8</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of vacant lawn on N-adjacent land, with HAFB Bldgs. 1847 & 1849, and asphalt-paved parking lot, and Maysey Hall Dormitory located beyond, looking N/NW	<b>Photo 9</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of vacant lawn on W-adjacent land, beyond which is asphalt-paved parking lot and Clay Hall Dormitory, looking W/NW	<b>Photo 10</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of flammable storage cabinet in HAFB Bldg. 1849 to N of project site, looking NE	<b>Photo 11</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of flammable storage cabinet in HAFB Bldg. 1847 to N of project site, looking S	<b>Photo 12</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of dumpster between HAFB Bldgs. 1847 & 1849, to N of project site, looking E	<b>Photo 13</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



<b>Clayton Project Number</b> #17006-006383.00	<b>Description</b>	View of sewage lift station to N of the proposed NPI Valkenburgh cell site, looking S	<b>Photo 14</b>
	<b>Site Name</b>	NPI Valkenburgh Cell Site (#HI196P), Hickam Air Force Base, Honolulu, Oahu, Hawaii	<b>Photo Date</b>
	<b>Client</b>	Nextel Partners, Inc. (NPI) / Wireless Facilities, Inc. (WFI)	7/24/06



## **SECTION 7**

**U.S. Army Corp of Engineers (USACE) Clearance**



RECEIVED

5-31-07

DEPARTMENT OF THE ARMY  
U. S. ARMY ENGINEER DISTRICT, HONOLULU  
FT. SHAFTER, HAWAII 96858-5440

REPLY TO  
ATTENTION OF

May 29, 2007

Regulatory Branch

File No. POH-2006-181-33

Christine Yott  
Bureau Veritas  
970 North Kalaheo Avenue, Suite C-316  
Kailua, Hawaii 96734

Dear Ms. Yott:

This responds to your request (letter dated November 3, 2006) for determination of Department of the Army (DA) permit requirements for development of the Proposed Nextel Valkenburgh Cell Site (#HI 196P) located at the Middle Light Post adjacent to Building 1847 (TMK 1-1-1-002: 002), HAFB, Oahu, Hawaii. We have reviewed the project information you provided with respect to the Corps' authority to issue Department of the Army (DA) permits pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344).

All work or structures in or affecting the course, condition, location or capacity of navigable waters, including tidal wetlands, require DA authorization pursuant to Section 10. In addition, activities involving the discharge of dredged or fill material into waters of the United States, including adjacent wetlands, require a DA permit pursuant to Section 404.

Your letter, site plan, site photographs, and other available information indicate that the project area consists entirely of uplands. Based on this understanding, I have determined that the project would not involve any activity in areas subject to the regulatory authority of the Corps; therefore, a DA permit will not be required.

Should you have questions concerning this determination, please contact Mr. Peter Galloway via e-mail ([peter.c.galloway@usace.army.mil](mailto:peter.c.galloway@usace.army.mil)); by telephone at (808) 438-8416; or by fax at (808) 438-4060. Written inquiries should cite the file number above and be sent to: Regulatory Branch (CEPOH-EC-R/P. Galloway); U.S. Army Engineer District, Honolulu; Building 230; Fort Shafter, Hawaii 96858-5440.

Sincerely,

George P. Young, P.E.  
Chief, Regulatory Branch



## **SECTION 8**

**New Tower ("NT") Submission Packet  
FCC FORM 620**

## **New Tower (“NT”) Submission Packet**

### **FCC FORM 620**

#### **Introduction**

The **NT Submission Packet** is to be completed by or on behalf of Applicants to construct new antenna support structures by or for the use of licensees of the Federal Communications Commission (“FCC”). **The Packet (including Form 620 and attachments) is to be submitted to the State Historic Preservation Office (“SHPO”) or to the Tribal Historic Preservation Office (“THPO”), as appropriate, before any construction or other installation activities on the site begin. Failure to provide the Submission Packet and complete the review process under Section 106 of the National Historic Preservation Act (“NHPA”)<sup>1</sup> prior to beginning construction may violate Section 110(k) of the NHPA and the Commission’s rules.**

The instructions below should be read in conjunction with, and not as a substitute for, the “Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission,” dated September 2004, (“Nationwide Agreement”) and the relevant rules of the FCC (47 C.F.R. §§ 1.1301-1.1319) and the Advisory Council on Historic Preservation (“ACHP”) (36 C.F.R. Part 800).<sup>2</sup>

#### **Exclusions and Scope of Use**

**The NT Submission Packet should not be submitted for undertakings that are excluded from Section 106 Review.** The categories of new tower construction that are excluded from historic preservation review under Section 106 of the NHPA are described in Section III of the Nationwide Agreement.

Where an undertaking is to be completed but no submission will be made to a SHPO or THPO due to the applicability of one or more exclusions, the Applicant should retain in its files documentation of the basis for each exclusion should a question arise as to the Applicant’s compliance with Section 106.

---

<sup>1</sup> 16 U.S.C. § 470f.

<sup>2</sup> Section II.A.9. of the Nationwide Agreement defines a “historic property” as: “Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian Organization that meet the National Register criteria.”

**NT SUBMISSION PACKET – FCC FORM 620**

Approved by OMB  
3060-1039  
Estimated Time Per Response:  
.5 to 10 hours

**The NT Submission Packet is to be used only for the construction of new antenna support structures.** Antenna collocations that are subject to Section 106 review should be submitted using the Collocation (“CO”) Submission Packet (FCC Form 621).

**General Instructions: NT Submission Packet**

Fill out the answers to Questions 1-5 on Form 620 and provide the requested attachments. Attachments should be numbered and provided in the order described below.

For ease of processing, provide the Applicant’s Name, Applicant’s Project Name, and Applicant’s Project Number in the lower right hand corner of each page of Form 620 and attachments.<sup>3</sup>

**1. Applicant Information**

Full Legal Name of Applicant: Nextel

Name and Title of Contact Person:  
Mr. Mark Bullard / Wireless Facilities Inc.

Address of Contact Person (including Zip Code):  
WIRELESS FACILITIES INC.  
146 Hekili Street, Suite 104  
Kailua, Hawaii 96734

Phone: 808.262.2517 Fax: N/A

E-mail address: [Mark.Bullard@wfinet.com](mailto:Mark.Bullard@wfinet.com)

**2. Applicant's Consultant Information**

Full Legal Name of Applicant's Section 106 Consulting Firm:  
Bureau Veritas North America, Inc. (Bureau Veritas)

Name of Principal Investigator: Christine Yott

<sup>3</sup> Some attachments may contain photos or maps on which this information can not be provided.

Applicant’s Name: Nextel  
Project Name: Nextel Hickam Airforce Base Cell Site  
Project Number: Bureau Veritas ID #17006-006383.00

**NT SUBMISSION PACKET – FCC FORM 620**

Approved by OMB  
3060-1039  
Estimated Time Per Response:  
.5 to 10 hours

Title of Principal Investigator: Staff Consultant

Investigator's Address: 970 N. Kalaheo Avenue, Suite C-316

City: Kailua State Hawaii Zip Code 96734

Phone: 808.531.6708 Fax: 808.537.4084

E-mail Address: [Christine.Yott@us.bureauveritas.com](mailto:Christine.Yott@us.bureauveritas.com)

Does the Principal Investigator satisfy the Secretary of the Interior's Professional Qualification Standards?<sup>4</sup> **NO**

Areas in which the Principal Investigator meets the Secretary of the Interior's Professional Qualification Standards: **N/A**

Other "Secretary of the Interior qualified" staff who worked on the Submission Packet (provide name(s) as well as the area(s) in which they are qualified):

Bureau Veritas subcontracted the services of Mr. Thomas S. Dye, Ph.D. and Ms. Elaine Jourdane, "Department of the Interior Qualified Archaeologists" with T.S. Dye & Colleagues, Archaeologists, Inc. to determine the Areas of Potential Effect (APE) for direct and visual effects, as well as identify and assess effects to properties identified within the APE. A copy of Mr. Dye's resume and qualifications, and a copy of the Archaeological Report documenting the findings of the survey, is attached.

**3. Site Information**

a. Street Address of Site: Building 1847

City or Township: Honolulu, Oahu

County / Parish: City and County of Honolulu State: HI Zip Code: 96853

b. Nearest Cross Roads: Moffet Street / Kamakahi Road

<sup>4</sup> The Professional Qualification Standards are available on the cultural resources webpage of the National Park Service, Department of the Interior: <[http://www.cr.nps.gov/local-law/arch\\_stnds\\_9.htm](http://www.cr.nps.gov/local-law/arch_stnds_9.htm)>. The Nationwide Agreement requires use of Secretary-qualified professionals for identification and evaluation of historic properties within the APE for direct effects, and for assessment of effects. The Nationwide Agreement encourages, but does not require, use of Secretary-qualified professionals to identify historic properties within the APE for indirect effects. See Nationwide Agreement, §§ VI.D.1.d, VI.D.1.e, VI.D.2.b, VI.E.5.

Applicant's Name: Nextel  
Project Name: Nextel Hickam Airforce Base Cell Site  
Project Number: Bureau Veritas ID #17006-006383.00

NT SUBMISSION PACKET – FCC FORM 620

Approved by OMB  
3060-1039  
Estimated Time Per Response:  
.5 to 10 hours

c. NAD 83 Latitude/Longitude coordinates (to tenth of a second):

N 21° 19' 57.20"; W 157° 56' 16.00"

d. Proposed tower height above ground level:<sup>5</sup> 90 feet; 27.43 meters

e. Tower type:

guyed lattice tower  self-supporting lattice  **monopole**

other (briefly describe tower) \_\_\_\_\_

4. **Project Status:**<sup>6</sup>

a.  **Construction not yet commenced;**

b.  Construction commenced on [date] \_\_\_\_\_; or,

c.  Construction commenced on [date] \_\_\_\_\_ and was completed on [date] \_\_\_\_\_.

5. **Applicant's Determination of Effect:**

a. **Direct Effects** (check one):

i.  **No Historic Properties in Area of Potential Effects ("APE") for direct effects;**

ii.  "No effect" on Historic Properties in APE for direct effects;

iii.  "No adverse effect" on Historic Properties in APE for direct effects;

iv.  "Adverse effect" on one or more Historic Properties in APE for direct effects.

b. **Visual Effects** (check one):

i.  **No Historic Properties in Area of Potential Effects ("APE") for visual effects;**

ii.  "No effect" on Historic Properties in APE for visual effects;

iii.  "No adverse effect" on Historic Properties in APE for visual effects;

<sup>5</sup> Include top-mounted attachments such as lightning rods.

<sup>6</sup> Failure to provide the Submission Packet and complete the review process under Section 106 of the NHPA prior to beginning construction may violate Section 110(k) of the NHPA and the Commission's rules. See Section X of the Nationwide Agreement.

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- iv. [ ] “Adverse effect” on one or more Historic Properties in APE for visual effects.

**Certification and Signature**

I certify that all representations on this FCC Form 620 and the accompanying attachments are true, correct, and complete.

**Bureau Veritas North America, Inc. (Bureau Veritas)**



\_\_\_\_\_  
Signature

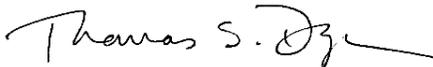
06/01/07

\_\_\_\_\_  
Date

Christine Yott  
\_\_\_\_\_  
Printed Name

Staff Consultant  
\_\_\_\_\_  
Title

**T.S. Dye & Colleagues, Archaeologists, Inc.**



\_\_\_\_\_  
Signature

06/01/07

\_\_\_\_\_  
Date

Thomas S. Dye, Ph.D.  
\_\_\_\_\_  
Printed Name

Senior Archaeologist / President  
\_\_\_\_\_  
Title

WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, Section 1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, Section 312(a)(1) AND/ OR FORFEITURE (U.S. Code, Title 47, Section 503).

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## Attachments

**Provide the following attachments in this order and numbered as follows:**

### **Attachment 1.      Résumés / Vitae.**

Provide a current copy of the résumé or curriculum vitae for the Principal Investigator and any researcher or other person who contributed to, reviewed, or provided significant input into the research, analysis, writing or conclusions presented in the Submission Packet for this proposed facility.

### **Attachment 2.      Additional Site Information**

Describe any additional structures, access roads, utility lines, fences, easements, or other construction planned for the site in conjunction with the proposed facility.

### **Attachment 3.      Tribal and NHO Involvement**

At an early stage in the planning process, the Nationwide Agreement requires the Applicant to gather information from appropriate Indian Tribes or Native Hawaiian Organizations (“NHOs”) to assist in the identification of historic properties of religious and cultural significance to them. Describe measures taken to identify Indian tribes and NHOs that may attach religious and cultural significance to historic properties that may be affected by the undertaking within the Areas of Potential Effects (“APE”) **for direct and visual effects**. If such Indian tribes or NHOs were identified, list them and provide a summary of contacts by either the FCC, the Applicant, or the Applicant’s representative. Provide copies of relevant documents, including correspondence. If no such Indian tribes or NHOs were identified, please explain.

### **Attachment 4.      Local Government**

- a. Has any local government agency been contacted and invited to become a consulting party pursuant to Section V.A. of the Nationwide Agreement? If so, list the local government agencies contacted. Provide a summary of contacts and copies of any relevant documents (e.g., correspondence or notices).
- b. If a local government agency will be contacted but has not been to date, explain why and when such contact will take place.

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**Attachment 5. Public Involvement**

Describe measures taken to obtain public involvement in this project (e.g., notices, letters, or public meetings). Provide copies of relevant documentation.

**Attachment 6. Additional Consulting Parties**

List additional consulting parties that were invited to participate by the Applicant, or independently requested to participate. Provide any relevant correspondence or other documents.

**Attachment 7. Areas of Potential Effects**

- a. Describe the APE for direct effects and explain how this APE was determined.
- b. Describe the APE for visual effects and explain how this APE was determined.

**Attachment 8. Historic Properties Identified in the APE for Visual Effects**

- a. Provide the name and address (including U.S. Postal Service ZIP Code) of each property in the APE for visual effects that is listed in the National Register, has been formally determined eligible for listing by the Keeper of the National Register, or is identified as considered eligible for listing in the records of the SHPO/THPO, pursuant to Section VI.D.1.a. of the Nationwide Agreement.<sup>7</sup>
- b. Provide the name and address (including U.S. Postal Service ZIP Code) of each Historic Property in the APE for visual effects, not listed in Attachment 8a, identified through the comments of Indian Tribes, NHOs, local governments, or members of the public. Identify each individual or group whose comments led to the inclusion of a Historic Property in this attachment. For each such property, describe how it satisfies the criteria of eligibility (36 C.F.R. Part 63).

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<sup>7</sup> Section VI.D.1.a. of the Nationwide Agreement requires the Applicant to review publicly available records to identify within the APE for visual effects: i) properties listed in the National Register; ii) properties formally determined eligible for listing by the Keeper of the National Register; iii) properties that the SHPO/THPO certifies are in the process of being nominated to the National Register; iv) properties previously determined eligible as part of a consensus determination of eligibility between the SHPO/THPO and a Federal Agency or local government representing the Department of Housing and Urban Development (HUD); and, v) properties listed in the SHPO/THPO Inventory that the SHPO/THPO has previously evaluated and found to meet the National Register criteria, and that are identified accordingly in the SHPO/THPO Inventory.

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- c. For any properties listed on Attachment 8a that the Applicant considers no longer eligible for inclusion in the National Register, explain the basis for this recommendation.

**Attachment 9. Historic Properties Identified in the APE for Direct Effects**

- a. List all properties identified in Attachment 8a or 8b that are within the APE for direct effects.
- b. Provide the name and address (including U.S. Postal Service ZIP Code) of each property in the APE for direct effects, not listed in Attachment 9a, that the Applicant considers to be eligible for listing in the National Register as a result of the Applicant’s research. For each such property, describe how it satisfies the criteria of eligibility (36 C.F.R. Part 63). For each property that was specifically considered and determined not to be eligible, describe why it does not satisfy the criteria of eligibility.
- c. Describe the techniques and the methodology, including any field survey, used to identify historic properties within the APE for direct effects.<sup>8</sup> If no archeological field survey was performed, provide a report substantiating that: i) the depth of previous disturbance exceeds the proposed construction depth (excluding footings and other anchoring mechanisms) by at least 2 feet; or, ii) geomorphological evidence indicates that cultural resource-bearing soils do not occur within the project area or may occur but at depths that exceed 2 feet below the proposed construction depth.<sup>9</sup>

**Attachment 10. Effects on Identified Properties**

For each property identified as a Historic Property in Attachments 8 and 9:

- a. Indicate whether the Applicant believes the proposed undertaking would have a) no effect; b) no adverse effect; or, c) an adverse effect. Explain how each such assessment was made. Provide supporting documentation where necessary.
- b. Provide copies of any correspondence and summaries of any oral communications with the SHPO/THPO.

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<sup>8</sup> Pursuant to Section VI.D.2.a. of the Nationwide Agreement, Applicants shall make a reasonable and good faith effort to identify above ground and archeological historic properties, including buildings, structures, and historic districts, that lie within the APE for direct effects. Such reasonable and good faith efforts may include a field survey where appropriate.

<sup>9</sup> Under Section VI.D.2.d. of the Nationwide Agreement, an archeological field survey is required even if one of these conditions applies, if an Indian tribe or NHO provides evidence that supports a high probability of the presence of intact archeological Historic Properties within the APE for direct effects.

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- c. Describe any alternatives that have been considered that might avoid, minimize, or mitigate any adverse effects. Explain the Applicant's conclusion regarding the feasibility of each alternative.

### Attachment 11. Photographs

Except in cases where no Historic Properties were identified within the Areas of Potential Effects, submit photographs as described below. Photographs should be in color, marked so as to identify the project, keyed to the relevant map (see Item 12 below) or text, and dated; the focal length of the lens should be noted. The source of any photograph included but not taken by the Applicant or its consultant (including copies of historic images) should be identified on the photograph.

- a. Photographs taken from the tower site showing views from the proposed location in all directions. The direction (e.g., north, south, etc.) should be indicated on each photograph, and, as a group, the photographs should present a complete (360 degree) view of the area around the proposed tower.
- b. Photographs of all listed and eligible properties within the Areas of Potential Effects.
- c. If any listed or eligible properties are visible from the proposed tower site, photographs looking at the tower site from each historic property. The approximate distance in feet (meters) between the site and the historic property should be included.
- d. Aerial photos of the APE for visual effects, if available.

### Attachment 12. Maps

Include one or more 7.5-minute quad USGS topographical maps that:

- a. Identify the Areas of Potential Effects for both direct and visual effects. If a map is copied from the original, include a key with name of quad and date.
- b. Show the location of the proposed tower site and any new access roads or other easements including excavations.
- c. Show the locations of each property listed in Attachments 8 and 9.
- d. Include keys for any symbols, colors, or other identifiers.

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**Attribution and Bibliographic Standards.** All reports included in the Submission Packet should be footnoted and contain a bibliography of the sources consulted.

- a. Footnotes may be in a form generally accepted in the preparer's profession so long as they identify the author, title, publisher, date of publication, and pages referenced for published materials. For archival materials/documents/letters, the citation should include author, date, title or description and the name of the archive or other agency holding the document.
- b. A bibliography should be appended to each report listing the sources of information consulted in the preparation of the report. The bibliography may be in a form generally accepted in the preparer's profession.

### FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT AND THE PAPERWORK REDUCTION ACT

The FCC is authorized under the Communications Act of 1934, as amended, to collect the personal information we request in this form. We will use the information provided in the application to determine whether approving this application is in the public interest. If we believe there may be a violation or potential violation of a FCC statute, regulation, rule or order, your application may be referred to the Federal, state or local agency responsible for investigating, prosecuting, enforcing or implementing the statute, rule, regulation or order. In certain cases, the information in your application may be disclosed to the Department of Justice or a court or adjudicative body when (a) the FCC; (b) any employee of the FCC; or (c) the United States Government is a party to a proceeding before the body or has an interest in the proceeding. In addition, all information provided in this form will be available for public inspection.

If you owe a past due debt to the federal government, any information you provide may also be disclosed to the Department of Treasury Financial Management Service, other federal agencies and/or your employer to offset your salary, IRS tax refund or other payments to collect that debt. The FCC may also provide this information to these agencies through the matching of computer records when authorized.

If you do not provide the information requested on this form, the application may be returned without action having been taken upon it or its processing may be delayed while a request is made to provide the missing information. Your response is required to obtain the requested authorization.

We have estimated that each response to this collection of information will take an average of .50 to 10 hours. Our estimate includes the time to read the instructions, look through existing records, gather and maintain the required data, and actually complete and review the form or response. If you have any comments on this estimate, or on how we can improve the collection and reduce the burden it causes you, please write the Federal Communications Commission, AMD-PERF, Paperwork Reduction Project (3060-1039), Washington, DC 20554. We will also accept your comments via the Internet if you send them to [Judith-B.Herman@fcc.gov](mailto:Judith-B.Herman@fcc.gov). Please **DO NOT SEND COMPLETED APPLICATIONS TO THIS ADDRESS**. Remember - you are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number of if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-1039.

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