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Office of the Vice Chancellor
For Physical, Environmental and Long Range Planning

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OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Director:

Subject: Draft Environmental Assessment for Proposed Verizon Wireless HON Warrior/Network Cell Site, at University of Hawai'i at Manoa – Moore Hall, 1890 East-West Road Honolulu, Hawaii 96822 - Oahu

The Office of Physical, Environmental and Long Range Planning, University of Hawaii at Manoa has reviewed the Draft Environmental Assessment for the subject project, and anticipates a Finding of No Significant Impact. Please publish notice in the next available OEQC Environmental Notice.

We have enclosed a completed OEQC Publication Form and one (1) copy of the document in pdf format on a CD; and one (1) hardcopy of the Draft EA. Please call contact Stephen Meder at 808-956-8018 or smeder@hawaii.edu if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen Meder".

Stephen Meder

Assistant Vice Chancellor for
Physical, Environmental & Long Range Planning

(808) 956-8018
smeder@hawaii.edu
2525 Correa Road, HIG 235
Honolulu, HI 96822

**OEQC Publication Form
The Environmental Notice**

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Instructions to Applicant or Agency:

1. Fill out this Publication Form and email to: oeqc@doh.hawaii.gov
2. Send one (1) pdf and one (1) hardcopy of the EA / EIS to OEQC

Name of Project: HON Warrior
Applicable Law:
Type of Document: Final Draft of Environmental Assessment Report
Island: Oahu
District: Honolulu
TMK: (1) 2-8-023:003
Permits Required: Minor Conditional Use Permit, Height Waiver, and Building Permit
Name of Applicant or Proposing Agency: Verizon Wireless
c/o Cascadia PM
Address 1130 N. Nimitz Highway, Suite A-200
City, State, Zip Honolulu, Hawaii 96817
Contact and Phone Steven Sung, 808-536-7406
Approving Agency: University of Hawaii at Manoa
Address 2525 Correa Road, HIG 235
City, State, Zip Honolulu, HI 96822
Contact and Phone Stephen Meder, 808-956-8018
Consultant: Bureau of Veritas North America, Inc.
Address 970 N. Kalaheo Avenue, Suite C-316
City, State, Zip Kailua, Hawaii 96734
Contact and Phone Erin Brown – 531-6708

Project Summary: Summary of the direct, indirect, secondary, and cumulative impacts of the proposed action (less than 200 words).

The Proposed Action is not expected to have significant adverse effects on the environment. The Proposed Action involves installing one (1) GPS antenna and twelve (12) panel antennas to be mounted on the exterior walls of the central, upper rooftop (elevator shaft/penthouse) of Moore Hall. Associated equipment cabinets are to be installed on the southeastern corner of the elevator penthouse. There will be no impact to the ground surface since installation/construction is confined to the rooftop of Moore Hall. In addition, the subject parcel/property has undergone previous clearing and development for the University of Hawaii at Manoa campus. Specific environmental resources with the potential for environmental consequences include natural physical and biological resources, noise, view and visual impacts, utilities, cultural resources, socioeconomic, environmental justice, air quality, public access, traffic impacts, land use, access to the area, and health and safety.

The Proposed Action is not expected to impact views and visual impacts, and will not impact natural physical and biological resources, cultural resources, public access, traffic impacts, land use, access to the area or health and safety. The proposed Action is expected to have positive impacts on socioeconomic and environmental justice.

Noise levels are anticipated to slightly increase during construction. The emergency generator will increase noise levels during power outages and maintenance activities; however, it will be minimal and occur infrequently.

Air quality may decrease during construction due to a slight increase in particulate matter in the form of dust. However, due to the restricted access and protective measures, public health will not likely be

affected. Subsequent to construction, air quality levels are not expected to deviate from current baseline conditions since the cell site will not be equipped with devices that produce emissions.

Draft Environmental Assessment Report

Proposed Verizon Wireless
HON Warrior/Network Cell Site
(VZW Project ID #2008264086)
University of Hawaii at Manoa – Moore Hall
1890 East-West Road
(TMK No.: [1]2-8-023: Parcel 003)
Honolulu, Oahu, Hawaii 96822

November 1, 2010
Project No. 17010-010051.01

Prepared for:

VERIZON WIRELESS
C/O CADES SCHUTTE, LLP
1000 Bishop Street, Suite 1200
Honolulu, Hawaii 96813



For the benefit of business and people

Prepared by:

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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
CAA	Clean Air Act
CO	Carbon Monoxide
DA	Department of Army
dBa	Decibel, A-weighted
DLNR	State of Hawaii, Department of Land and Natural Resources
DOFAW	Division of Forestry and Wildlife
DOH	State of Hawaii, Department of Health
DPP	City and County of Honolulu, Department of Planning and Permitting
EA	Environmental Assessment
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
GP	City and County of Honolulu General Plan
HAR	Hawaii Administrative Rules
HEER	Hazard Evaluation and Emergency Response
HECO	Hawaiian Electric Company, Inc.
HHF	Historic Hawaii Foundation
HRS	Hawaii Revised Statutes
HSPA	Hawaii State Planning Act
H ₂ S	Hydrogen Sulfide
kW	Kilowatts
LUO	Land Use Ordinance
mg/L	Milligrams per liter
NAAQS	National Ambient Air Quality Standards
NCRP	National Council on Radiation Protection and Measurements
NEPA	National Environmental Policy Act
NHO	Native Hawaiian Organization
NMV	National Map Viewer
NO ₂	Nitrogen Dioxide
NPA	National Programmatic Agreement
O ₃	Ozone
OEQC	Office of Environmental Quality Control
OHA	Office of Hawaiian Affairs
Pb	Lead
PM ₁₀	Particulate Matter, 10 micrometers in diameter and larger than 2.5 micrometers in diameter
PM _{2.5}	Particulate Matter, 2.5 micrometers in diameter and smaller
PRU	Plan Review Use
PUCDSCP	Primary Urban Center Development and Sustainable Communities Plan
RF	Radio Frequency
SHPD	State Historic Preservation Division
SHPO	State Historic Preservation Officer
SO ₂	Sulfur Dioxide
TMK	Tax Map Key
UHM	University of Hawaii at Manoa



List of Acronyms

UIC	Underground Injection Control
US	United States
USC	United States Code
USCB	United States Census Bureau
USACE	United State Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VZW	Verizon Wireless
YMCA	Young Men's Christian Association



**Executive Summary for VZW HON Warrior/Network Cell Site Draft EA
Located at University of Hawaii at Manoa – Moore Hall, 1890 East-West Road, Honolulu, Oahu,
Hawaii**

Purpose and Need

This Draft Environmental Assessment (EA) for the proposed Verizon Wireless (VZW) HON Warrior/Network Cell Site, to be located at the University of Hawaii at Manoa – Moore Hall, 1890 East-West Road (Portion of Tax Map Key [TMK] No. [1] 2-8-023: Parcel 003), Honolulu, Oahu, Hawaii, has been prepared in accordance with the National Environmental Policy Act (NEPA) (42 United States Code [USC] 4321-4347), and the State of Hawaii, Department of Health (DOH) - Office of Environmental Quality Control (OEQC) requirements. NEPA consists of a set of standards which projects must meet in order to ensure that all environmental information is made available to interested parties before construction begins. This Draft EA is issued for a 30-day public and agency review and comment period. Comments made during this period will be included in the Final EA. These comments, in addition to the EA analyses, will be considered in decision-making regarding the cell site proposed.

Proposed Action

According to VZW, the proposed action includes the following:

- The proposed VZW equipment location is an approximately 240 square-foot (12- by 20-foot) lease area located on the southeastern corner of the elevator penthouse. A platform will be constructed on this lease area for the installation of VZW telecommunications equipment.
- The proposed VZW antenna site will include a total of nine panel-type antennas at three sectors (three antennas per sector) and associated cables mounted on the south, west, and east exterior walls of the central, upper rooftop of Moore Hall.

Construction activities will have no impact to the ground surface.

Environmental Consequences

The Proposed Action is not expected to have significant adverse effects on the environment. The Proposed Action involves installing up to 12 panel-type antennas and associated cables mounted on the exterior walls of the central, upper rooftop (elevator shaft/penthouse) of Moore Hall. Associated equipment cabinets are to be installed on the southeastern corner of the elevator penthouse. There will be no impact to the ground surface since installation/construction is confined to the rooftop of Moore Hall. In addition, the subject parcel /property has undergone previous clearing and development for the University of Hawaii at Manoa campus. Specific environmental resources with the potential for environmental consequences include natural physical and biological resources, noise, view and visual impacts, utilities, cultural resources, socioeconomics, environmental justice, air quality, public access, traffic impacts, land use, access to the area, and health and safety.

The Proposed Action is not expected to impact views and visual impacts, and will not impact natural physical and biological resources, cultural resources, public access, traffic impacts, land use, access to the area or health and safety. The Proposed Action is expected to have positive impacts on socioeconomics and environmental justice.

Noise levels are anticipated to slightly increase during construction. The emergency generator will increase noise levels during power outages and maintenance activities; however, it will be minimal and occur infrequently.

Air quality may decrease during construction due to a slight increase in airborne particulate matter in the form of dust. However, due to the restricted access, public health will not likely be affected. Subsequent to construction, air quality levels are not expected to deviate from current baseline conditions since the cell site will not be equipped with devices that produce emissions.



1.0 INTRODUCTION

This Draft Environmental Assessment (EA) for the proposed Verizon Wireless (VZW) HON Warrior/Network Cell Site, to be located at the University of Hawaii at Manoa – Moore Hall, 1890 East-West Road (Portion of Tax Map Key [TMK] Number: [1] 2-8-023: Parcel 003), Honolulu, Oahu, Hawaii 96822 (the “subject property”), has been prepared in accordance with the National Environmental Policy Act (NEPA) (42 United States Code [USC] 4321-4347), and the State of Hawaii, Department of Health (DOH) - Office of Environmental Quality Control (OEQC) requirements. NEPA consists of a set of standards which projects must meet in order to ensure that all environmental information is made available to interested parties before construction begins.

The proposed cell site will be constructed for the purpose of benefiting the community at large with better cellular phone reception. This EA was prepared and is being submitted in order to satisfy NEPA requirements.

This EA was conducted to comply with Title 47 of the Code of Federal Regulations, Subsection 1.1307(a)(1) through (a)(8) and (b); Chapter 344, Hawaii Revised Statutes (HRS); and Hawaii Administrative Rules (HAR) Title 11, State of Hawaii DOH, 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 Proposed VZW HON Warrior 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 3.1 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, currently owned by the State of Hawaii, is located at the University of Hawaii at Manoa - Moore Hall, at 1890 East-West Road, Honolulu, Oahu, Hawaii (zip code 96822). It consists of an irregular-shaped parcel of land which measures approximately 103 acres in area, located on the southern portion of the island of Oahu, Hawaii.

The subject parcel is further described as the parcel of land designated as TMK Number: (1) 2-8-023: Parcel 003. According to the City and County of Honolulu Planning and Permitting Department, the subject parcel is currently zoned “*R-5 Residential District*,” and the State Land Use designation is “*Urban District*.”

The subject property, identified as the proposed HON Warrior/Network Cell Site (VZW Project ID #2008264086), is located on the central, upper rooftop of Moore Hall (Lat/Long: 21° 18' 03.4" N, 157° 48' 54.1" W [NAD83]). It comprises: (1) an approximately 240 square-foot (12- by 20-foot) lease area located on the southeastern corner of the rooftop (proposed VZW equipment location); (2) up to a total of 12 panel-type antennas at three sectors and associated cables mounted on the exterior walls of the rooftop (proposed VZW antenna site); and (3) new power and Telco connections from the University of Hawaii. Site location and vicinity maps are included behind the *Figures* tab.



2.2 CURRENT USE OF SUBJECT PARCEL/PROPERTY

The subject parcel, currently owned by the State of Hawaii and operated as the University of Hawaii at Manoa, consists of approximately 103 acres in Manoa Valley, located on the southern side of the island of Oahu, Hawaii. The University consists of multiple buildings with various uses, including educational classrooms, laboratories, faculty offices, food services, health services, financial services, and specialty stores. The subject parcel includes Moore Hall, which is a five-story classroom and office building constructed between 1968 and 1970.

The subject property, identified as the proposed HON Warrior/Network Cell Site (VZW Project ID #2008264086), comprises: (1) the proposed VZW equipment location, which currently consists of the southeastern corner of the central, upper rooftop; and (2) the proposed VZW antenna sites, which currently consist of the exterior walls of the central, upper rooftop.

3.0 PROPOSED ACTION

3.1 TECHNICAL CHARACTERISTICS

According to VZW, the proposed action involves mounting up to 12, 8-foot panel antennas on the existing elevator shaft and installing equipment cabinets on the rooftop (12- by 20-foot lease area) of the six-story building. The finished height of the antenna tips will be at approximately 87 feet above ground level (agl).

Construction activities will have no impact to the ground surface.

3.2 ENVIRONMENTAL CHARACTERISTICS

The proposed cell site is located in an area where the environment has been previously altered for the development of the University of Hawaii at Manoa campus. Construction activities for the proposed project will have no impact to the ground surface.

3.3 SCHEDULE

The project is anticipated to proceed following a FONSI determination by the approving agency, the University of Hawaii. The estimated starting date of the project is 2011/2012. The project should take no longer than approximately four weeks to complete, with the exception of unforeseen delays.

3.4 IDENTIFICATION OF ALTERNATIVES

In determining a suitable location for construction of a telecommunications antenna site, several search criterias 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 VZW Warrior/Network 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.

The proposed Warrior site was chosen primarily because the radio frequency engineer indicated that it would best cover the objective area. Visually, the site is located on developed land, the University of Hawaii at Manoa campus. The surrounding area consists of commercial and residential properties.



One project alternative was to place the cell site at Punahou School, located at 1930 Kekela Drive, Honolulu, Oahu, Hawaii. The site was disregarded because it did not best meet the radio frequency objectives.

A second alternative was to place the cell site at the University Young Men's Christian Association (YMCA), located at 1810 University Avenue, Honolulu, Oahu, Hawaii. The site was disregarded because it also did not best meet the radio frequency objectives.

4.0 PERMITS

Various federal, state, and local government agencies were contacted for information on permits required for the Proposed Action to move forward. Responses from agencies contacted concerning permits for this site are listed below.

- In a response letter dated June 7, 2010, the United States Army Corp of Engineers (USACE) provided the following comment on the proposed project, *"We have reviewed your proposal pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404). We have determined that a DA permit is not required for your proposed work as described in your letter and drawings...Because there are no navigable, or other, waters of the U.S. at the project site, a Section 10 and/or 404 permit is not required."* A copy of the correspondence from the USACE is presented in Appendix E, Section 3.
- In a letter dated June 4, 2010, the City and County of Honolulu, Department of Planning and Permitting (DPP) commented that for zoning purposes, the proposed action is classified as a *"utility installation, Type B"* by the Land Use Ordinance (LUO), and the subject lot is not in the Special Management Area. Projects on the University of Hawaii campus are subject to Plan Review Use (PRU) Permit No. 2009/PRU-3. In addition, projects intended primarily for usage by the UHM requires a Minor Modification to the PRU. However, projects intended for the general public requires a New Conditional Use Minor Permit. A copy of the correspondence from the DPP is presented in Appendix D, Section 1.

5.0 COMMUNITY CONSULTATION

Bureau Veritas submitted information regarding the Proposed Action to the Honolulu Star Bulletin and requested that a Legal Notice be posted to provide notification of the proposed project to the general public. A Legal Notice describing the Proposed Action was published in the Honolulu Star Bulletin daily newspaper on May 8, 2010. As of the date of this report, Bureau Veritas has not received any responses to the published notice. Documentation of the public notice is presented in Appendix B, Section 1.

6.0 AFFECTED ENVIRONMENT

6.1 NATURAL RESOURCES – PHYSICAL RESOURCES

Discussions of physical resources of the natural environment include descriptions of earth and water resources, as well as hazardous materials. Components of the earth include topography, geology, and soil. Topography describes the earth's surface features, including terrain and land forms. Geology studies the solid matter from which the earth is made and includes the history and processes that helped to shape it. Soil is the segment of the earth's surface comprised of particulates that were formed from a parent material, resulting from various environmental conditions that caused the breakdown of that material. Water resources include surface water and groundwater.



6.1.1 Earth Resources

6.1.1.1 Baseline Conditions

The subject property is located in the Honolulu Plain physiographic region on the southeastern portion of the island of Oahu, Hawaii. The approximate latitude and longitude of the subject property are 21° 18' 03.4" North and 157° 48' 54.1" West, respectively.

According to the U.S. Geological Survey (USGS), Honolulu, Hawaii, 7.5-minute topographic quadrangle map, Moore Hall at the University of Hawaii at Manoa is located on a fairly flat and level portion of Manoa Valley, at an elevation of approximately 100 feet above mean sea level. The general topographic gradient of the region slopes down gradually from the northeast to the south/southwest, from the flanks of the Ko'olau range enclosing Manoa Valley, down toward the Pacific Ocean at the Ala Wai Canal and Waikiki.

According to the *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai* (Foote, D.E. et al., 1972), the soil type found in the area of the subject parcel/property is listed as Makiki stony clay loam on 0 to 3 percent slopes (mapping unit *MIA*).

In a representative profile, the surface layer is dark-brown clay loam about 20 inches thick. The subsoil, about 10 inches thick, is dark-brown clay loam that has sub-angular blocky structure. It contains cinders and rock fragments. The subsoil is underlain by a similar material, about 24 inches thick, that is massive. Below this are volcanic cinders. The soil is neutral to slightly acid. Permeability is moderately rapid, runoff is slow, and the erosion hazard is not more than slight.

6.1.1.2 Proposed Action Impacts and Mitigation

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 earth resources (e.g., wetland fill, deforestation, or water diversion). According to the design information provided to Bureau Veritas, the Proposed Action will not involve any disturbance to the ground surface. Since there will be no impacts to this resource, no mitigation measures are necessary.

6.1.2 Water Resources

6.1.2.1 Baseline Conditions

Bureau Veritas reviewed the *Aquifer Identification and Classification for Oahu: Groundwater Protection Strategy for Hawaii, Technical Report No. 179*, published by the Water Resources Research Center at the University of Hawaii, for information on groundwater conditions below the subject property. The report indicates that regional groundwater in the vicinity of the subject parcel/property is derived from the Palolo Aquifer System within the Honolulu Aquifer Sector.

The upper aquifer is an unconfined basal aquifer of the sedimentary type, found in nonvolcanic lithology. This aquifer is listed as a replaceable water supply of moderate salinity (1,000-5,000 milligrams/liter Chloride) with a potential for use. This aquifer is not considered to be ecologically important, and it is highly vulnerable to contamination.

The lower aquifer is a confined basal aquifer of the flank type, occurring in horizontally extensive lavas. Its status is described as an irreplaceable fresh drinking water supply that is currently in use. This aquifer has a low vulnerability to contamination.



The depth to first groundwater in the vicinity of the subject property is anticipated to be approximately 80 to 90 feet below ground surface (bgs). Based on the regional topography of the area, groundwater is anticipated to follow surface topography and drain in a southwesterly direction toward the Pacific Ocean at the Ala Wai Canal and Waikiki. However, the local gradient and flow direction under the property may be influenced naturally by zones of higher or lower permeability, or by nearby pumping or recharge, and may deviate from the regional trend.

6.1.2.2 Proposed Action Impacts and Mitigation

The subject property is located above the State of Hawaii Department of Health (DOH) defined Underground Injection Control (UIC) line. Areas above the UIC line denote potential underground drinking water sources. Areas below the UIC line generally denote groundwater that is unsuitable for drinking water purposes. Consequently, the groundwater below the subject property is considered a potential drinking water source.

Due to the depth of the groundwater, as well as construction activities will have no impact to the ground surface, there will be no contact with groundwater during the proposed construction activities. In addition, there are no surface waters in the vicinity of the subject property. Therefore, mitigation measures are not necessary.

6.1.3 Hazardous Substances

6.1.3.1 Baseline Conditions

Bureau Veritas performed a database review of the DOH, Hazard Evaluation and Emergency Response (HEER) Office records regarding environmental concerns or violations at the subject property. The subject property was not listed in the HEER database.

6.1.3.2 Proposed Action Impacts and Mitigation

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. Potentially hazardous materials are currently not used or stored onsite.

The historical research conducted for this assessment did not reveal evidence of hazardous materials/waste on the subject parcel/property. Also, the Proposed Action will not involve the use or creation of hazardous substances during the construction or the operation phases. Since no impacts are anticipated, no mitigation measures are necessary.

6.2 NATURAL RESOURCES – BIOLOGICAL RESOURCES

Biological resources of the natural environment include wild plants and animals, both native and alien, which may be affected by the Proposed Action. These species live in an ecological community, or specific habitat, and interact with each other within that community. Ecological communities may include wetlands, oceans, shorelines, mountains, etc. Many laws, including the NEPA, were passed to protect these ecological communities from potentially harmful development.



6.2.1 Wetlands

6.2.1.1 Baseline Conditions

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.

According to the United States Fish and Wildlife Service (USFWS) National Wetland Inventory Map website (www.nwi.fws.gov), the subject parcel/property is not located in or near a designated wetland.

The Federal Emergency Management Agency Flood Insurance Rate Map (FEMA/FIRM) was reviewed to determine if the subject property is located in a flood hazard area. According to FEMA/FIRM Map No.15003C0370F (revised September 30, 2004), the subject parcel/property is located in Flood Zone X, which denotes areas determined to be outside both the 500-year and 100-year flood plains.

Bureau Veritas reviewed the following sources for information regarding wetlands in the vicinity of subject 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 United States Geological Survey (USGS) National Map Viewer (NMV) online database at <http://nmviewogc.cr.usgs.gov/viewer.htm>; and (3) the 1998 USGS 7.5-Minute Series, Honolulu, Oahu, 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 the subject 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 at the time of the site inspection.

Bureau Veritas also contacted the 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 E, Section 3.

6.2.1.2 Proposed Action Impacts and Mitigation

According to the baseline conditions described in the previous section, the subject property is not located in a designated Wetland; therefore, the Proposed Action will have no effects on wetlands. No mitigation measures are necessary since there will no impact to this resource.

6.2.2 Wilderness Area (47 CFR § 1.1307 [A] [1])

6.2.2.1 Baseline Conditions

The subject property, identified as the VZW HON Warrior / Network Cell Site, is located on the central, upper rooftop of Moore Hall at the University of Hawaii at Manoa campus.

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 756 designated wilderness areas in the US. 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.

6.2.2.2 Proposed Action Impacts and Mitigation

According to the baseline conditions, the project is not located in a wilderness area. Therefore, there will be no impacts and no mitigation measures are necessary.

6.2.3 Wildlife Preserve (47 CFR § 1.1307 [A] [2])

6.2.3.1 Baseline Conditions

Bureau Veritas reviewed the website <http://www.fws.gov/refuges/refugeLocatorMaps/Hawaii.html>, maintained by USFWS, 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.

6.2.3.2 Proposed Action Impacts and Mitigation

According to the baseline conditions, the project is not located in a wildlife refuge. Therefore, there will be no impacts and no mitigation measures related to this resource.

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

6.2.4.1 Baseline Conditions

Bureau Veritas contacted the USFWS, Honolulu Office and State of Hawaii, Department of Land and Natural Resources-Division of Forestry and Wildlife (DLNR-DOFAW), regarding the presence of listed or proposed threatened or endangered species and designated or proposed critical habitats on the subject property.

- The USFWS, Honolulu Office indicated in a response letter dated May 26, 2010 that, *“To the best of our knowledge, no federally proposed or designated critical habitat, wilderness areas, wildlife preserves, National Wildlife Refuges occur within the proposed project footprint.”* However, *“according to our files, the federally endangered Hawaiian hoary bat (Lasiurus cinereus semotus) can be found in the project vicinity.”*



Bureau Veritas replied to USFWS' response by seeking concurrence that the proposed project will not likely adversely affect the Hawaiian hoary bat. In a follow-up response letter dated October 14, 2010, the USFWS stated that *"because Hawaiian hoary bats are unlikely to strike the proposed structures and because no woody vegetation will be impacted as a result of the proposed project, we concur that the proposed project is not likely to adversely affect the Hawaiian hoary bat."*

Given the urban location of the project, and Moore Hall has been in existence for approximately 40 years, we do not anticipate impacts to any listed species or critical habitat. Copies of the correspondence from the USFWS are presented in Appendix E, Section 1.

- Bureau Veritas contacted the State of Hawaii, DLNR- DOFAW for comment on the proposed VZW HON Warrior / Network Cell Site. As of the date of this report, Bureau Veritas has not received a response from the State of Hawaii, DLNR) - DOFAW. However, it is anticipated that DNLR – DOFAW would concur with USFWS' response. A copy of the correspondence to DOFAW is presented in Appendix E, Section 2.

6.2.4.2 Proposed Action Impacts and Mitigation

According to the baseline conditions, the project will not affect listed or proposed threatened or endangered species and is not located in a designated or proposed critical habitat. Therefore, there will be no impacts and no mitigation measures are necessary.

6.3 NOISE

Noise is generally regarded as unwelcome sound that can distract from normal activities. The negative impacts of noise on the environment are collectively known as noise pollution. Noise pollution is usually generated from cars, aircrafts, humans, animals, and industrial sites. Areas with an excess of noise pollution are generally caused by poor planning. NEPA regulations indicate that projects should be analyzed for potential noise pollution so that good planning and mitigation takes place before they are implemented.

Depending on the level and duration of the noise pollution, it may have a harmful effect on human health. Minor levels of noise pollution can cause agitation or annoyance while significant levels may cause hearing loss. The DOH, under Title 11, Chapter 46 of the HAR, sets the maximum permissible sounds level for a Class A zone, which includes "residential, conservation, preservation, public space, open space or similar type" zones at 55 A-weighted decibels (dBa) for daytime (7 a.m. to 10 p.m.) and 45 dBa for nighttime (10 p.m. to 7 a.m.). This standard does not apply to emergency generators. If noise is to be emitted above the permissible sounds level, then a permit must be obtained prior to the related activities.

6.3.1 Baseline Conditions

Activities that may produce noise include traffic from cars on the nearby roads, overhead aircraft activities, and human activities.

6.3.2 Proposed Action Impacts and Mitigation

Equipment cabinets will be installed on the rooftop of Moore Hall, which includes a cabinet generator. The site is bordered by East-West Road to the east, and Maile Way to the north. There are no residential units within the immediate vicinity of the subject property. Any noise from the generator will be minimal and occur infrequently. Emergency generators are exempt from the maximum permissible sounds levels under Title 11, Chapter 46 of the HAR.



During construction and installation activities, noise levels might increase slightly. If the noise levels are to be above the standards stipulated in Title 11, Chapter 46 of the HAR, then a permit will be acquired. 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 during maintenance activities.

6.4 VIEW AND VISUAL IMPACTS

6.4.1 Baseline Conditions

The Proposed Action is to take place within the University on the rooftop of Moore Hall. The Moore Hall building is bordered by Maile Way, beyond which is the St. John Plant Science Laboratory to the north; East-West Road, beyond which is the Center for Korean Studies to the east; Henke Hall to the south; and Paradise Palms Café, beyond which is Hamilton Library to the west. Photographs of the subject site are included behind the *Photos* tab.

6.4.2 Proposed Action Impacts and Mitigation

The Proposed Action involves the installation of panel antennas on the exterior walls of the central, upper rooftop of Moore Hall. Existing telecommunications equipment is located on the rooftop of Moore Hall. Since the roof already has an urban appearance, and the view angle from the ground limits views to the upper, central portion of the rooftop (elevator shaft), the view will not be adversely impacted. Therefore, the Proposed Action will not have a significant adverse visual impact and no mitigation measures are necessary.

6.5 UTILITIES

6.5.1 Baseline Conditions

Moore Hall will continue to be used as a classroom and office building, with county water and sewer services provided. Storm water at the subject property infiltrates into the unpaved portions of the ground surface, and flows to the north and west into associated storm drains. Electricity is provided via underground conduits at the subject property.

6.5.2 Proposed Action Impacts and Mitigation

No effects to water, sewer, and storm water are anticipated from the Proposed Action. Effects to electrical utilities from the Proposed Action are expected to be insignificant.

6.6 CULTURAL RESOURCES

Cultural resources include 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 Effects (APE) for direct or visual effects.

The APE for direct effects is defined by the Nationwide Programmatic Agreement (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 0.5 mile from the Proposed Action.

6.6.1 Baseline Conditions

The DLNR- State Historic Preservation Division (SHPD) maintains an inventory of all known historic properties in the State of Hawaii, which is the state’s official list of cultural resources. Bureau Veritas reviewed a list of historic districts and sites for the island of Oahu at <http://www.hawaii.gov/dlnr/hpd/oahuquad.htm>. Based on the review of the website list of historic sites on the island of Oahu, the subject parcel/property and surrounding properties are not listed on the Hawaii Register of Historic Sites or National Register of Historic Places. A copy of the Oahu DLNR-SHPD Historic Sites List is provided in Appendix C, Section 1.

6.6.2 Proposed Action Impacts and Mitigation

Bureau Veritas contacted the DLNR-SHPD, Office of Hawaiian Affairs (OHA), 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 as follows:

- In a response letter (Log No: 2010.3228/Doc No: 1009RS22), dated September 22, 2010, the SHPD Administrator stated that, *“SHPD concurs that the project will have no adverse effect on both the East West Center and other identified properties.”* A copy of the correspondence from the SHPO is presented in Appendix C, Section 1.
- In a response letter dated August 25, 2010, the OHA Administrator concurred that this project will have no adverse effect on historic properties. A copy of the correspondence from OHA is presented in Appendix C, Section 2.
- In a letter from the DPP dated June 4, 2010, the DPP stated that they have no knowledge of historical or cultural resources at the site. However, for zoning purposes, the proposed action is classified as a *“utility installation, Type B”* by the Land Use Ordinance (LUO), and is not in the Special Management Area. In addition, projects on the University of Hawaii at Manoa (UHM) campus are subject to Plan Review Use (PRU) Permit No. 2009/PRU-3. The DPP states, *“Relative to on-site utility installations, if a project is intended primarily for the usage of the UHM, then a Minor Modification to the PRU is required. However, if it is intended for the general public, a new Conditional Use Permit (Minor) is required.”* A copy of the correspondence from the DPP is presented in Appendix D, Section 1.
- As of the date of this report, Bureau Veritas has not received a response from the Historic Hawaii Foundation (HHF). However, this group typically does not respond to such inquiries. A copy of the correspondence sent to HHF is located in Appendix C, Section 2.
- As of the date of this report, Bureau Veritas has not received a response from the Native Hawaiian Organization *“Hui Malama I Na Kupuna O Hawai’i Nei”*. However, this group typically does not respond to such inquiries. A copy of correspondence sent to this organization is presented in Appendix C, Section 2.

Based on these inquiries and clearance from the SHPO, dated September 22, 2010, the proposed project will not affect any historic places. However, in the case that cultural resources are found during construction activities, effects will be mitigated by ceasing work and notifying the DLNR-SHPD. Therefore, should historic resources, including human skeletal remains, be identified during construction



activities associated with the Proposed Action, all work will cease in the immediate vicinity of the find until additional consultation with the DLNR-SHPD is conducted and appropriate evaluation of the resources has been completed.

6.7 SOCIOECONOMICS

Socioeconomics describes the link between economic activity and social life, where one has an effect on the other. Many things can affect socioeconomic activities such as new technology, a change in the environment, and development. Effects of economics on social life can include redistribution of wealth and an alteration in quality of life.

6.7.1 Baseline Conditions

According to the United States Census Bureau (USCB) website, the zip code area of Honolulu (96822) had a population of 43,921 during the 2000 census. Approximately 5,087 of homes were owner-occupied, the average income was \$63,661, and 10.4 percent of individuals were living below the poverty line.

6.7.2 Proposed Action Impacts and Mitigation

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. Under the Proposed Action, people in the Honolulu area will be able to communicate better with others when using their VZW phones. Therefore, no mitigation is necessary.

6.8 ENVIRONMENTAL JUSTICE

Environmental justice is a movement that defines the environment as “where people live and work.” The movement seeks to balance the burden that is borne by minorities, women, the poor, and those who are generally discriminated against by redistributing these burdens (such as industrial developments that pollute the area) out of a select group of neighborhoods and making various goods more accessible.

6.8.1 Baseline Conditions

The USCB website has estimated percentages of people with various backgrounds residing in Honolulu from the 2000 census. According to the website, in 2000 the population of Honolulu was approximately 80.7 percent minority (non-Caucasian) and 6.8 percent of families and 10.4 percent of individuals were living below the poverty line.

6.8.2 Proposed Action Impacts and Mitigation

The Proposed Action would provide no environmental burden to minorities, women, or the poor. The Proposed Action will, in fact, have a positive impact on environmental justice because all people with VZW cellular telephones will benefit from increased reliance in the Honolulu area and no mitigation measures are necessary.

6.9 AIR QUALITY

The US Congress passed the Clean Air Act (CAA) in 1963 to reduce air pollution and regulate emissions. Several amendments have been passed since its inception that stipulates specific emission regulations according to industry. The CAA mainly focuses on the following points: cleaning commonly found air pollutants, regulating automobile emissions, regulating interstate and international air pollution, cleaning the air in national parks, reducing acid rain and toxic pollutants, protecting the ozone layer, enforcing



permits, and providing a pathway for public participation. Various states, including Hawaii, have since developed their own set of air quality standards that must, at a minimum, match those of the CAA.

6.9.1 Baseline Conditions

The DOH, Clean Air Branch has several air monitoring stations set up on Oahu. These stations monitor for levels of carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), ozone (O₃), and particulate matter (PM₁₀ and PM_{2.5}), as stipulated in the National Ambient Air Quality Standards (NAAQS) set by the EPA. The State of Hawaii has stricter standards for carbon monoxide and nitrogen dioxide than are set by the NAAQS, and also requires levels of hydrogen sulfide (H₂S) to be regulated. According to the “Annual Summary 2006 Hawaii Air Quality Data”, none of the monitoring stations reported concentrations above Hawaii standards for any of the materials monitored. The Hawaii standards for these substances are listed in the table below.

Pollutant	CO	NO ₂	SO ₂	Pb	O ₃	PM ₁₀	PM _{2.5}	H ₂ S
Averaging Time	1-hour 8-hour	Annual	3-hour 24-hour Annual	Quarterly	8-hour	24-hour Annual	24-hour Annual	1-hour
Standard (µg/m³)	10,000 5,000	70	1,300 365 80	1.5	150	150 50	35 15	35

Source: DOH, Clean Air Branch Website

6.9.2 Proposed Action Impacts and Mitigation

The cell site will not be equipped with any devices that would release emissions once construction is complete, except in rare instances during a power outage or routine maintenance. During construction, it is anticipated that there will be an insignificant increase in the amount of airborne particulate matter in the form of dust; however, if airborne particulate matter increases significantly, then workers will adhere to applicable regulations to reduce dust resulting from normal construction activities. Any emissions would be minimal and for a limited duration. Therefore, no mitigation measures are necessary.

6.10 PUBLIC ACCESS

Hawaii is known for its beautiful shoreline and mountain areas. These resources are important to both the Hawaiian culture and the tourism industry, so it is important to maintain easy public access to these areas.

6.10.1 Baseline Conditions

The project site is located at the University of Hawaii at Manoa at Moore Hall. It does not include any public access to shoreline and mountain areas.

6.10.2 Proposed Action Impacts and Mitigation

Since the project site is located in a university-type setting, the Proposed Action will not affect public access to the shoreline or to mountain areas. Therefore, no mitigation measures are necessary.

6.11 TRAFFIC IMPACTS

Since the proposed cell site will not be used as a regular public or private gathering area, and traffic to and from the site will only be for small, routine maintenance operations, Bureau Veritas believes that



traffic will not be affected by the project and a traffic impact survey is, therefore, not necessary. The Proposed Action will not affect traffic and does not require a traffic impact survey.

6.12 LAND USE

Land use pertains to the human modification of the natural environment, including deforestation, soil degradation, water usage, etc. Human-created land use divides land according to zones, land ownership, parcels, etc. The human division of land use is targeted towards a goal for the region and to promote smart growth of a particular area.

6.12.1 Baseline Conditions

The subject parcel is described as the parcel of land designated as TMK Number: (1) 2-8-023: Parcel 003. According to the City and County of Honolulu Planning and Permitting Department, the subject parcel is currently zoned "*R-5 Residential District*," and the State Land Use designation is "*Urban District*." The subject property (proposed HON Warrior/Network Cell Site) is located on the central, upper rooftop of Moore Hall at the University of Hawaii at Manoa.

6.12.2 Proposed Action Impacts and Mitigation

According to the DPP, the county zoning designation for the subject parcel is "*R-5 Residential District*," and the State Land Use designation is "*Urban District*." The subject property is located on the rooftop of Moore Hall at the University of Hawaii at Manoa, and the Proposed Action functions will be limited to the subject property. According to the DPP in a letter dated June 4, 2010, the proposed action is classified as a "*utility installation, Type B*" by the Land Use Ordinance (LUO), and the subject lot is not in the Special Management Area. Projects on the University of Hawaii campus are subject to Plan Review Use (PRU) Permit No. 2009/PRU-3. In addition, projects intended primarily for usage by the UHM requires a Minor Modification to the PRU. However, projects intended for the general public requires a New Conditional Use Minor Permit. Therefore, no further mitigation is necessary.

6.13 ACCESS TO THE AREA

6.13.1 Baseline Conditions

Access to the project site is provided by elevator and/or stairway to the rooftop. Access to the rooftop is limited to maintenance personnel.

6.13.2 Proposed Action Impacts and Mitigation

The operation phase of the Proposed Action will not have an effect on access to the area because the project site is located on the rooftop of a building (Moore Hall). Therefore, no mitigation is necessary.

6.14 HEALTH AND SAFETY

The National Council on Radiation Protection and Measurements (NCRP) has established limits for human exposure to radio frequency (RF). The maximum permissible level for RF exposure is 580 microwatts per square centimeter over a 30-minute period. Federal Communications Commission (FCC) guidelines for RF exposure limits are identical to that of the NCRP guidelines.



6.14.1 Baseline Conditions

The project site is located on the rooftop of the building (Moore Hall) with health and safety concerns related to fall injuries. Health and safety concerns are associated with height issues such as fall injuries from the rooftop of the building.

6.14.2 Proposed Action Impacts and Mitigation

The levels of RF typically found near cellular base station transmitters are significantly lower than the exposure limit established by the FCC and NCRP. Calculations for a worst-case scenario show that to be exposed at levels near the limit, a person would have to remain in the main transmitting beam, at the height of the antenna and within a few feet of the antenna. The finished height of the antenna tips will be at approximately 87 feet agl; therefore, it is unlikely that a person will be exposed to RF levels in excess of the guidelines.

The Proposed Action is expected to increase safety in the project area because better cellular coverage in the area will allow emergencies to be reported immediately, thereby increasing public safety. In addition, access to the rooftop is limited to maintenance personnel; therefore, height issues such as fall injuries would be minimized. Therefore, no mitigation is necessary.

7.0 COMPLIANCE WITH PLANS AND PROGRAMS

7.1 HAWAII STATE PLANNING ACT

The Hawaii State Planning Act (HSPA) was created to guide for future long-range development of the state, to provide for wise use of Hawaii's resources, and to improve coordination among different agencies and levels of government in the planning process. The goals of the HSPA are to, "*create a strong, viable economy; a desired physical environment; and physical, social, and economic well-being for the people of Hawaii.*"

7.1.1 Population

The HSPA provides for objectives in planning population growth so that it is "*consistent with the achievement of physical, economic, and social objectives.*" The Proposed Action is for a telecommunications site that neither provides a facility for populations to gather nor presents a significant environmental effect that would deter people from living in the area; therefore, the Proposed Action is not expected to impact population.

7.1.2 Economy – In General

Objectives for general economic matters in the HSPA include increasing and diversifying employment and the economic base of the state, especially on neighbor islands. While the VZW Warrior / Network Cell Site will not directly increase employment or economic bases, it will allow for better business communications during the planning and operation phases of achieving these objectives.

7.1.3 Economy – Agriculture

Hawaii's objectives for the agriculturally-related economy include developing diversified agriculture while maintaining the sugar and pineapple industries. The Proposed Action is located in a residential-zoned area; and the subject parcel/subject property is the University of Hawaii at Manoa campus. Therefore, it will not affect agriculturally-related economic goals.



7.1.4 Economy – Visitor Industry

The HSP plans for the continued growth of the visitor industry as part of Hawaii’s economy. While the Proposed Action will not affect the growth of the visitor industry either adversely or beneficially, it will provide for better telecommunications for those visitors in the Honolulu area.

7.1.5 Economy – Federal Expenditures

The Proposed Action does not involve federal expenditures; therefore, it will not affect the objectives set forth in this section of the HSPA.

7.1.6 Economy – Potential Growth Activities

Objectives for potential growth activities discussed in the HSPA pertain to achieving the increase and diversification of Hawaii’s economic base. One of the policies for achieving this objective is to “*increase research and development of businesses and services in the telecommunications and information industries.*” The development of the Proposed VZW HON Warrior / Network Cell Site helps to carry out this policy and achieve the objective for potential growth activities by expanding the cellular coverage in the area.

7.1.7 Economy – Information Industry

The objective for the information industry is to position “*Hawaii as the leading dealer in information businesses and services in the Pacific Rim.*” To help achieve this goal, one of the listed policies is to “*encourage the continued development and expansion of telecommunications infrastructure serving Hawaii to accommodate future growth in the information industry.*” The Proposed Action is to develop a telecommunications site, which will help Hawaii attain its objective for the information industry.

7.1.8 Physical Environment – Land-Based, Shoreline, and Marine Resources

The objectives for land based shoreline and marine resources are for “*prudent use of Hawaii’s land-based, shoreline, and marine resources; and effective protection of Hawaii’s unique and fragile environmental resources.*” The subject parcel lies in the southeastern portion of the Honolulu Plain physiographic division. Moore Hall at the University of Hawaii at Manoa is located on a fairly flat and level portion of Manoa Valley, at an elevation of approximately 100 feet above mean sea level. Therefore, it will not affect the objectives set forth in this section of the HSPA.

7.1.9 Physical Environment – Scenic, Natural Beauty, and Historic Resources

The objective for scenic, natural beauty and historic resources is for “*enhancement of Hawaii’s scenic assets, natural beauty, and multi-cultural/historical resources.*” The Proposed Action will comply with this objective because:

- It will be constructed on an existing building at the University of Hawaii; therefore, it will not be disturbing native vegetation or scenic views;
- It will not alter any existing waterways;
- It will not cause a significant increase in noise, water, or air pollution;
- It will have no impact on trees in the area;



- The antennas will be painted to match the existing building color;
- There will be no impact to the ground surface; therefore, there will be no disturbance to any surface or subsurface historic resources; and
- According to the USFWS, it will not affect listed or proposed threatened or endangered species and is not located in a designated or proposed critical habitat.

7.1.10 Physical Environment – Land, Air, and Water Quality

The State of Hawaii is striving to maintain and improve good land, air, and water quality within the physical environment while developing a greater public awareness of these resources. According to the analyses and conclusions discussed in Sections 6.1, and 6.9, the Proposed Action is not expected to significantly impact these aspects of the physical environment because air quality will only be impacted temporarily during the construction phase and there will be no contact with groundwater.

7.1.11 Facility Systems – In General

Arrangements for facility systems developments in the HSPA includes, *“Planning for the State’s facility systems in general shall be directed towards achievement of the objective of water, transportation, waste disposal, and energy and telecommunication systems that support statewide social, economic, and physical objectives.”* Later sections in the HSPA discuss each topic in more detail.

7.1.12 Facility Systems – Solid and Liquid Wastes

Objectives for solid and liquid waste facility systems outlined in the HSPA include maintaining public health and sanitation standards and providing for sufficient sewer facilities. The Proposed Action is not expected to produce solid wastes during the construction phase; therefore, impacts will be minimal and the project will be in compliance with the HSPA’s objectives.

7.1.13 Facility Systems – Water

The HSPA provides an objective for water facility systems to adequately accommodate water resource needs of the State. The Proposed Action will not consume or affect the distribution of water; therefore, it is in compliance with the outlined objective.

7.1.14 Facility Systems – Transportation

According to the HSPA, the State should strive to achieve current and future transportation needs for both people and goods. The Proposed Action will not affect transportation objectives described in the HSPA.

7.1.15 Facility Systems – Energy

Under the HSPA, Hawaii should strive towards dependable energy facility systems, increasing energy self-sufficiency, providing energy security, and reducing greenhouse gas emissions. The Proposed Action will not impede the first three objectives and is in compliance with the fourth objective because no emissions will be released from the cell site.

7.1.16 Facility Systems – Telecommunications

According to the HSPA, *“Planning for the State’s telecommunications facility systems shall be directed towards the achievement of dependable, efficient, and economical statewide telecommunications*



systems capable of supporting the needs of the people.” The Proposed Action is for a telecommunications site that is intended to increase communication for those in the Honolulu area with VZW telephones; therefore, the Proposed Action is in compliance with the HSPA telecommunications facility systems objective.

7.1.17 Socio-Cultural Advancement – Housing

The objectives for housing outlined in the HSPA include “*greater opportunities for people to secure reasonably priced, safe, sanitary homes; orderly development of residential areas sensitive to community needs; and development and provision of affordable rental housing by the State.*” The Proposed Action will not provide new housing or take away existing housing; therefore, it will not affect the housing objectives for the State of Hawaii.

7.1.18 Socio-Cultural Advancement – Health

Objectives for health outlined in the HSPA include fulfilling basic individual health needs and maintaining a healthy environment. According to the various descriptions in Section 6.0, the Proposed Action will not significantly impact the environment or create a health risk for the people of Hawaii; therefore, health objectives will not be hindered by the Proposed Action.

7.1.19 Socio-Cultural Advancement – Education

Objectives for education outlined in the HSPA are that “*education shall be directed towards achievement of educational opportunities to fulfill the needs, responsibilities, and aspirations of the people of Hawaii.*” The Proposed Action is for a telecommunications site to be located at the University of Hawaii at Manoa campus. It will not adversely affect objectives associated with education.

7.1.20 Socio-Cultural Advancement – Social Services

The objective outlined for social services is to “*improve public and private social services to enable citizens to become more self-reliant.*” The Proposed Action will allow for people in the Honolulu area with VZW cellular telephones to communicate better with others, thereby increasing self-reliance. Therefore, the Proposed Action helps achieve the objective for social services advancement.

7.1.21 Socio-Cultural Advancement – Leisure

The objective outlined for advancement- leisure is to “*allocate an adequate provision of resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations.*” The Proposed Action is located at the University of Hawaii at Manoa campus; therefore, it will not affect any objectives associated with leisure.

7.1.22 Socio-Cultural Advancement – Individual Rights and Personal Well-Being

The objective outlined in the HSPA is for “*increased opportunities and protection of individual rights, to enable individuals to fulfill their socio-economic needs.*” The Proposed Action is expected to help individuals fulfill their socio-economics needs and aspirations by providing more reliable cellular phone service in the Honolulu area. More details on how this will be achieved are described in Section 6.7.

7.1.23 Socio-Cultural Advancement – Culture

The objective outlined for Advancement – Culture is to “*enhance cultural identities, traditions, values, customs, and arts of Hawaii’s people.*” Based on information provided in Section 6.6, no cultural resources will be affected by the Proposed Action.



7.1.24 Socio-Cultural Advancement – Public Safety

Objectives in this section of the HSPA are targeted towards maintaining public safety and increasing awareness of public safety concerns among citizens. The Proposed Action is expected to increase public safety in the area through enhanced cellular communications. Potential impacts to public safety are further described in Section 6.14.

7.1.25 Socio-Cultural Advancement – Government

Objectives outlined for government are for “*efficient, effective and responsive government services at all levels of the State; and fiscal integrity, responsibility and efficiency in the State and County Governments.*” The Proposed Action is not related to government activities; therefore, it will not affect any objectives associated with the government.

7.2 CITY AND COUNTY OF HONOLULU GENERAL PLAN

The Proposed Action was evaluated to confirm that it is in compliance with the General Plan (GP), as amended in October 2006. According to the document, the GP was established to set “*forth the long-range aspirations of Oahu’s residents and the strategies of actions to achieve them.*” The following subsections analyze the Proposed Action’s compliance with the GP’s goals, policies, and standards.

7.2.1 Population

The population objectives and policies for the City and County of Honolulu are divided into three areas:

- To control population growth to the extent possible to avoid social, economic, and environmental disruptions.
- To plan for future population growth.
- To maintain a pattern of population distribution that will allow people to live and work in harmony.

The proposed HON Warrior / Network cell site will comply with these objectives because it will not affect the first two objective areas and will enhance the third objective area by providing better telecommunications coverage and service for the community at-large in their personal lives and in business.

7.2.2 Economic Activity

The objectives of economic activity is to provide, encourage, and promote economic opportunities for the people, such as employment opportunities, viability of major industries, diversification of the economic base, and the location of jobs are supported. The Proposed Action does not inhibit these economic opportunities.

7.2.3 Natural Environment

The GP strives to protect and enhance the natural attributes by increasing public awareness and appreciation, and by mitigating against the degradation of these assets. The Proposed Action will not affect the policies to protect and enhance the natural environment.



7.2.4 Housing

The objectives and policies for housing seek to provide a choice of living environments, affordable housing, and a reduction of inflationary speculation. The Proposed Action will not affect the objectives and policy for housing.

7.2.5 Transportation and Utilities

An efficient transportation system is essential to the life and economic productivity of a community. The cost of building and maintaining the system is a major public investment. Coordinated planning of accessibility and circulation requirements and the transportation system is important in the management of urban growth. The transportation objectives and policies address the need for a balanced system for the pedestrian, bikeway, public transportation, and the automobile. Population growth results in increased demands for water, sewerage, and solid waste disposal services provided by the government as well as the communication, electricity, and gas systems provided by the private sector. The Proposed Action will not affect transportation objectives, and will enhance the utilities objectives by enhancing telecommunications coverage and service.

7.2.6 Energy

Policies for energy development, utilization, and conservation with an emphasis on reduction of outside energy dependence are discussed in the GP. The Proposed Action will not affect these objectives.

7.2.7 Physical Development and Urban Design

The objectives and policies in physical development and urban design deal with coordination of public facilities and land development, compatibility of land uses, and specification of certain land uses at particular locations. The Proposed Action will not affect the objectives of physical development and urban design.

7.2.8 Public Safety

One aspect of public safety deals with the prevention and control of crime and maintenance of public order. The other aspect of public safety deals with the protection of people and property from natural disasters and other emergencies, traffic and fire hazards, and other unsafe conditions. The Proposed Action will improve communication with police and other emergency personnel by increasing telecommunications coverage.

7.2.9 Health and Education

According to the GP, the City's health concerns are concentrated on the accessibility of health care facilities through planning and land use controls, and the protection of environmental health through health codes and other regulations that mitigate against disease and pollution. Education concerns concentrate on educational opportunities, development of employable skills, efficient use of facilities, appropriate location, and the promotion of Honolulu as a center for higher education in the Pacific. The Proposed Action will not affect the health and education objectives of the GP.

7.2.10 Culture and Recreation

According to the GP, preservation and enhancement of Hawaii's multi-ethnic culture will be achieved through policies directed toward the people, and cultural, historic, archaeological sites, buildings, and



artifacts. The Proposed Action will be in compliance with these policies. Additionally, according to SHPD, no historic properties will be adversely affected by the Proposed Action.

Objectives and policies encouraging visual and performing arts and the provision of a wide range of recreational facilities and services are addressed in the GP. The Proposed Action will not affect recreation objectives.

7.2.11 Government Operations and Fiscal Management

According to the GP, the above ten areas of concern will stretch the resources of the City and County of Honolulu. Increased efficiency, effectiveness, responsiveness, and fiscal integrity will be crucial for the City to carry out with its functions. The Proposed Action will not affect government operations and fiscal management.

7.3 PRIMARY URBAN CENTER DEVELOPMENT AND SUSTAINABLE COMMUNITIES PLAN (PUCDSCP)

The GP also sets forth the intention of implementing the PUCDSCP. The purpose of the PUCDSCP is to take the broad statements in the GP and apply them to goals within the individual community. The PUCDSCP will help the community to manage growth and ensure that the courses of action addressed in the GP are appropriately applied to the individual community.

It is believed that since the Proposed Action is in compliance with the GP, that it is also in compliance with plans for the Primary Urban Center (extending from Kahala to Pearl City) communities.

8.0 FINDINGS

We have prepared this Draft EA for the proposed VZW HON Warrior / Network Cell Site (subject property) in conformance with the NEPA and DLNR-OEQC 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 3.0. 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 impacts 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 on the rooftop of Moore Hall at the University of Hawaii at Manoa campus. There will be no impact to the ground surface during construction activities. This area was extensively altered during previous development, and available photographs of the site show obvious disturbances and clearings. In addition, according to the SHPO, no historic properties will be adversely affected by the proposed project.



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

The proposed cell site will be located on the rooftop of Moore Hall at the University of Hawaii at Manoa campus; therefore, the proposed cell site will not reduce the beneficial uses of the environment.

(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 not expected to have a significant impact on the surrounding natural environment, historical areas or the existing community. Additionally, it will have no negative economic or social impacts on the area. Therefore, it is consistent with the Environmental Policies established in Chapter 344, HRS, and the NEPA.

(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 will not be disturbed. The proposed project will improve telecommunications coverage and service for emergency personnel.

(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. The proposed action will be on the rooftop of Moore Hall at the University of Hawaii at Manoa campus and will, therefore, have no effect on public facilities.

(7) Involves a substantial degradation of environmental quality;

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 antennas will blend in with the existing building color, and existing antennas and other equipment are located on the building rooftop. The Proposed Action will not have any cumulative effect to the environment.



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

According to USFWS determinations, the Proposed Action will not affect listed, proposed threatened or endangered species and is not within or immediately adjacent to any proposed or designated critical habitat, wetland, or coral reef.

(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;

The Federal Emergency Management Agency Flood Insurance Rate Map (FEMA/FIRM) was reviewed to determine if the subject property was located in a flood hazard area. According to FEMA/FIRM Map No. 15003C0370F (revised September 30, 2004), the subject parcel/property is located in Flood Zone X, which denotes areas determined to be outside both the 500-year and 100-year flood plains.

In addition, the USACE has determined that there are no waters of the US at the proposed project site and, therefore, a Department of the Army 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 project site is located on the rooftop of Moore Hall at the University of Hawaii at Manoa in which scenic views were previously altered. Therefore, scenic views and view planes will not be significantly impacted by the Proposed Action.

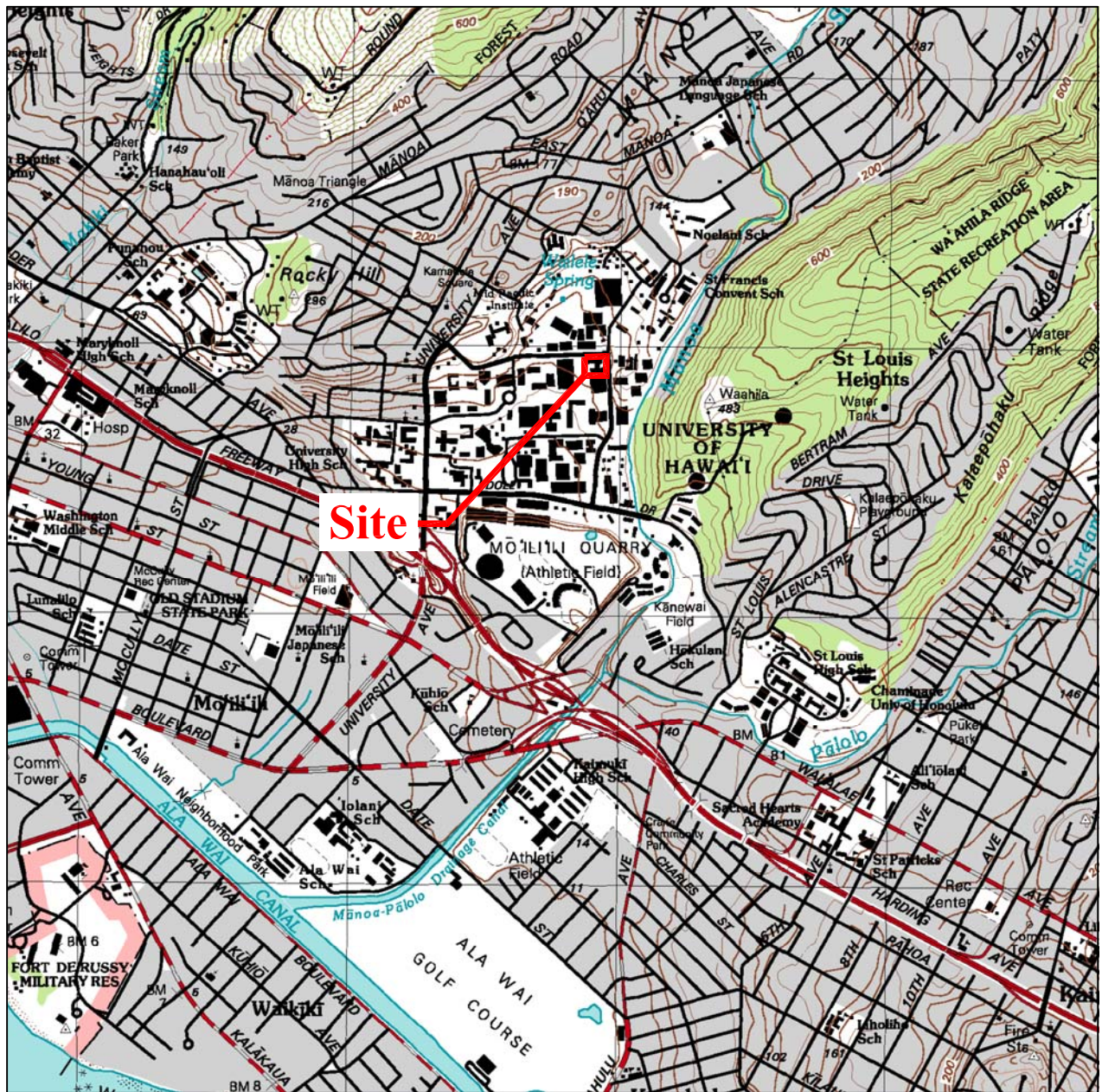
(13) Requires substantial energy consumption.

The construction and operation phases of the proposed project will not require substantial energy consumption relative to other similar projects.

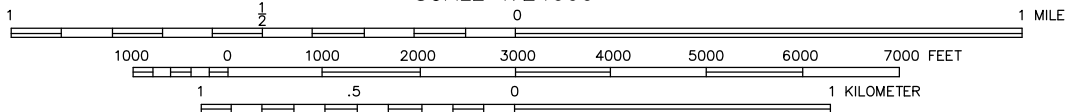
None of the inquiries made or documents reviewed during this EA indicated direct evidence of significant negative environmental conditions with respect to the Proposed Action at the subject property.




FIGURES

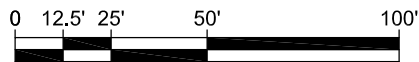
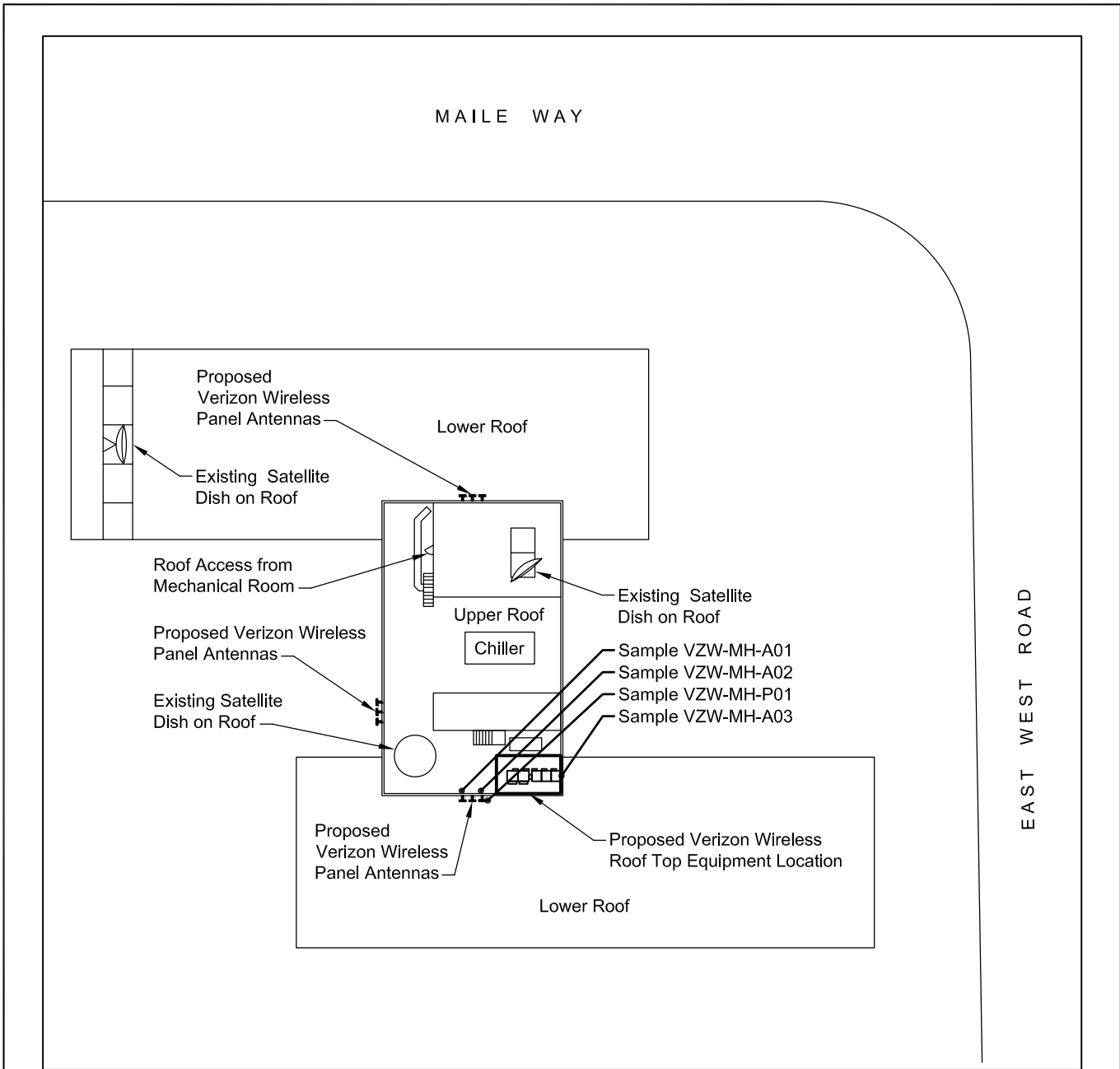



SCALE 1: 24000



Portion of 7.5-minute Series (Topographic) Maps
 United States Department of Interior
 United States Geological Survey
 Honolulu Quadrangle, City & County of Honolulu, Hawaii
 1998

 BUREAU VERITAS	Project No.: 17010-010051.00	Title: Site Location Map	FIGURE 1
	Date: 04/13/10	Location: VZW HON Warrior Cell Site University of Hawaii at Manoa - Moore Hall 1890 East-West Road (TMK: [1] 2-8-023: Parcel 003) Honolulu, Oahu, Hawaii	
	Revised By: DG	Client: Cades Schutte, LLP / Verizon Wireless (VZW)	
	Checked By: LF		



 BUREAU VERITAS	Project No.:	17010-010051.00	Title:	Site Vicinity Map	FIGURE 2
	Date:	07/20/10	Location:	VZW HON Warrior Cell Site University of Hawaii at Manoa - Moore Hall 1890 East-West Road (TMK: [1] 2-8-023: Parcel 003) Honolulu, Oahu, Hawaii	
	Revised By:	DG	Client:	Cades Schutte, LLP / Verizon Wireless (VZW)	
	Checked By:	TS			



PHOTOGRAPHS



View northeast of Moore Hall

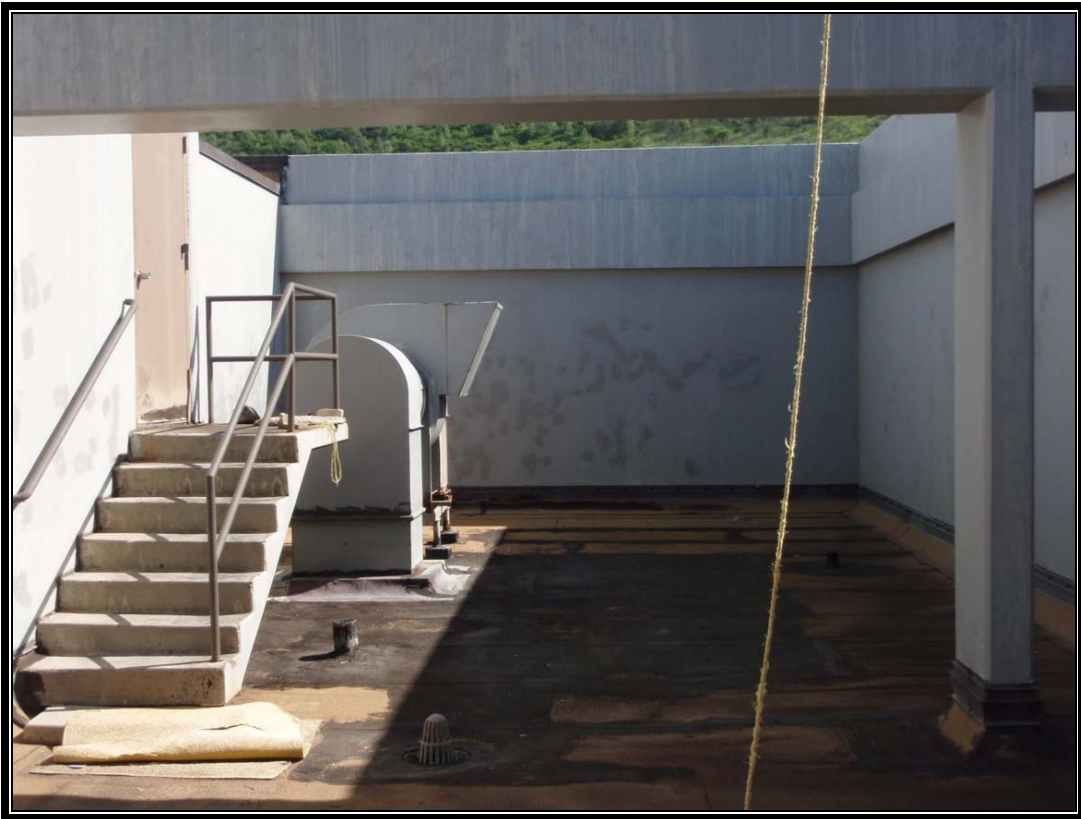


View northwest of Moore Hall

Verizon Wireless Hon-Warriors
Moore Hall, UH Manoa
TMK (1) 2-8-023: 003



View north of roof access

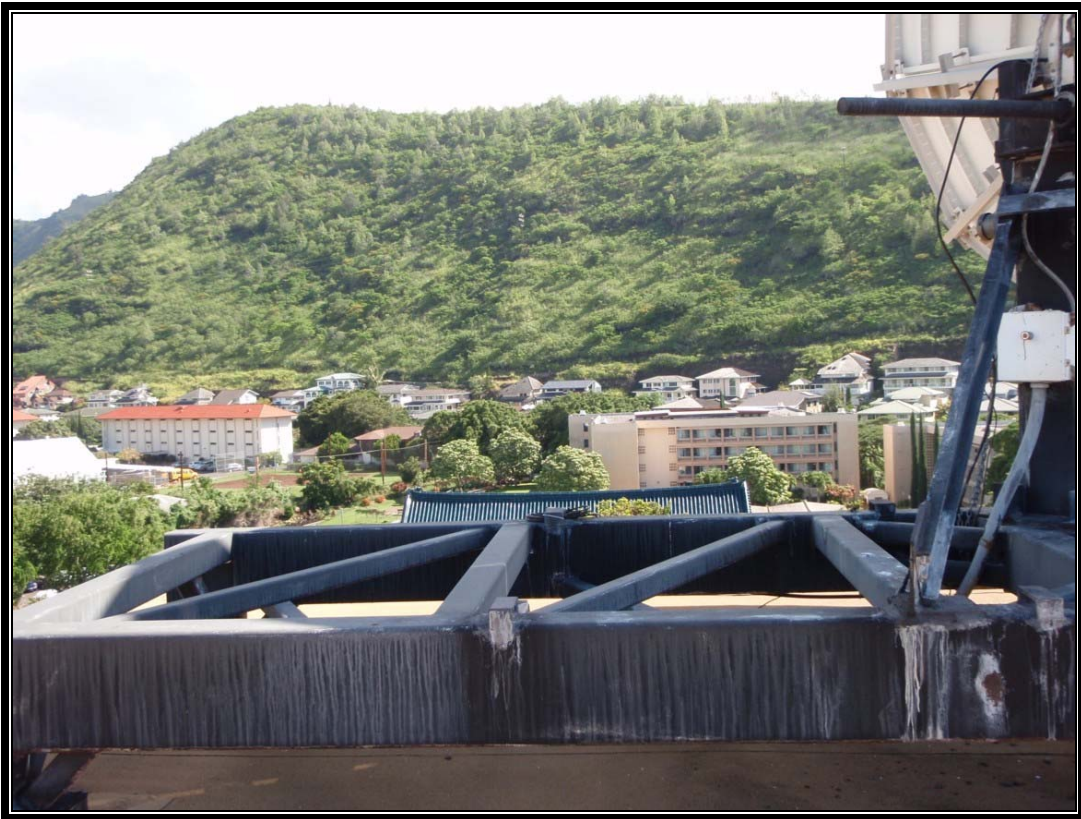


View east of proposed outdoor equipment area

Verizon Wireless Hon-Warriors
Moore Hall, UH Manoa
TMK (1) 2-8-023: 003



View north of Manoa Valley



View east of Manoa Campus

Verizon Wireless Hon-Warriors
Moore Hall, UH Manoa
TMK (1) 2-8-023: 003



View south of roof area and Diamond Head



View west of UH campus and Honolulu

Verizon Wireless Hon-Warriors
Moore Hall, UH Manoa
TMK (1) 2-8-023: 003



APPENDIX A

LIST OF SOURCES/REFERENCES



LIST OF SOURCES/REFERENCES

CONTACTS:

Agency and division/source: City and County of Honolulu, Department of Planning & Permitting
Name/title of representative: Mr. David Tanoue, Director
Location of Agency: Honolulu, Oahu, Hawaii
Agency Telephone Number: (808) 768-8000

Agency and division/source: DLNR – Division of Forestry & Wildlife (DOFAW)
Name/title of representative: Ms. Laura H. Thielen, Chairperson
Location of agency: Honolulu, Oahu, Hawaii
Agency telephone number: (808) 587-0166

Agency and division/source: DLNR – State Historic Preservation Division (SHPD)
Name/title of representative: Ms. Laura H. Thielen, Chairperson
Ms. Nancy McMahon, Deputy SHPO/State Archaeologist
Location of agency: Honolulu, Oahu, Hawaii
Kapolei, Oahu, Hawaii
Agency telephone number: (808) 587-0166
Agency telephone number: (808) 692-8015

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

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

Agency and division/source: Office of Hawaiian Affairs (OHA); Hawaiian Rights Division
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
Location of Agency: Honolulu, Oahu, Hawaii
Agency Telephone Number: (808) 438-1091



LIST OF SOURCES/REFERENCES (Continued)

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

REFERENCES:

Name of publication: *Phase I Environmental Site Assessment of the Proposed Verizon Wireless (VZW) HON Warrior/Network Cell Site (VZW Project ID #2008264086), 1890 East-West Road (Portion of Tax Map Key Number: [1] 2-8-023: Parcel 003) Honolulu, Oahu, Hawaii 96822*
Author of publication: Bureau Veritas North America, Inc.
Date of publication: August 17, 2010

Name of publication: U.S.G.S. 7.5-Minute Series Honolulu, Oahu, Hawaii Quadrangle Map
Author of publication: United States Geological Survey (USGS)
Date of publication: 1998

Name of publication: Federal Emergency Management Agency (FEMA)
Author of publication: <http://www.msc.fema.gov>

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

Name of publication: The State of Hawai'i, DLNR - SHPD
Author of publication: <http://www.state.hi.us/dlnr/hpd/hpregistr.htm>
<http://www.Hawai'i.gov/dlnr/hpd/oahuquad.htm>

Name of publication: *Aquifer Identification and Classification for Oahu: Groundwater Protection Strategy for Hawaii. Technical Report No. 179*
Author of publication: Mink, J.F. and L.S. Lau
Date of publication: February 1990

Name of publication: *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai*
Author of publication: Foote, Donald E. et al. US Department of Agriculture, Soil Conservation Service, in cooperation with the University of Hawaii Agricultural Experiment Station
Date of publication: August 1972



LIST OF SOURCES/REFERENCES (Continued)

Name of publication: Hazard Evaluation & Emergency Response (HEER) Office Database
Author of publication: State of Hawaii, Department of Health, HEER Office
Date of publication: 2008

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
Date of publication: September 2004 / March 7, 2005

Name of publication: National Wetlands Inventory
Author of publication: <http://www.fws.gov/nwi>

Name of publication: National Wilderness Preservation System
Author of publication: <http://www.wilderness.net>

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

Name of publication: Chapter 205A, Hawaii Revised Statutes (HRS)
Author of publication: State of Hawaii
Date of publication: January 31, 2006

Name of publication: Chapter 226, HRS (Hawaii State Planning Act)
Author of publication: State of Hawaii
Date of publication: 2005

Name of publication: City and County of Honolulu General Plan
Author of publication: City and County of Honolulu, Department of Planning and Permitting
Date of publication: Amended October 2006



LIST OF SOURCES/REFERENCES (Continued)

Name of publication: Information on Human Exposure to Radiofrequency Fields From Cellular and PCS Radio Transmitters
Author of publication: Federal Communications Commission Office of Engineering & Technology
Date of publication: January 1998

Name of publication: Chapter 344 HRS (State Environmental Policy)
Author of publication: State of Hawaii, Department of Health
Date of publication: 1993

Name of publication: Chapter 200, Hawaii Administrative Rules (HAR)
Author of publication: State of Hawaii, Department of Health
Date of publication: 1996

Name of publication: Chapter 11-46, HAR
Author of publication: State of Hawaii, Department of Health
Date of publication: 1996

Name of publication: Annual Summary of the 2007 Hawaii Air Quality Data
Author of publication: State of Hawaii, Department of Health, Clean Air Branch
Date of publication: October 2008



APPENDIX B

COMMUNITY CONSULTATION CORRESPONDENCE



SECTION 1

**Honolulu Star Bulletin Newspaper
Public Legal Notice**

IN THE MATTER OF
PUBLIC NOTICE TO NEWSPAPER
AND/OR RESIDENTS

}
}
}
}
}
}

AFFIDAVIT OF PUBLICATION

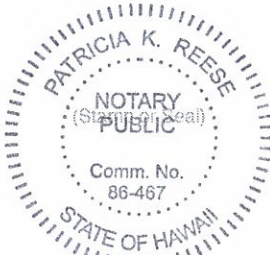
STATE OF HAWAII }
} SS.
City and County of Honolulu }

Doc. Date: MAY 10 2010 # **Pages:** 1

Notary Name: Patricia K. Reese First Judicial **Circuit**

Doc. Description: Affidavit of Publication

Patricia K. Reese MAY 10 2010
Notary Signature Date



PUBLIC NOTICE TO NEWSPAPER AND/OR RESIDENTS

Pursuant to FCC rules under Section 106 of the National Historic Preservation Act (NHPA), Verizon Wireless (VZW) is providing notice of the following proposed wireless telecommunications facility: VZW is proposing to construct the HON Warrior Cell Site (VZW Project ID #2008264086), located at the University of Hawaii at Manoa - Moore Hall, 1890 East West Road (TMK No.: [1] 2-8-023: Parcel 003), Honolulu, Oahu, Hawaii 96822 (Lat/Long: 21° 18' 3.4" N 157° 48' 54.1" W). According to Verizon, the proposed action involves mounting up to 12, 8-foot panel antennas on the existing elevator shaft and installing equipment cabinets on the rooftop (12- by 20-foot lease area) of the six-story building. The finished height of the antenna tips will be at approximately 87 feet above ground level (agl). Construction activities will have a minor impact to the ground surface. Interested parties who wish to submit comments and/or concerns regarding the potential for this project to impact historic structures and cultural resources may contact Lori Ford by mail at 970 N. Kalaheo Avenue, Suite C-316, Kailua, Oahu, Hawaii 96734 or by telephone at (808) 531-6708. (SB191579 5/8/10)

Rose Mae Rosales being duly sworn, deposes and says that she is a clerk, duly authorized to execute this affidavit of MidWeek Printing, Inc. publisher of MidWeek and the Honolulu Star-Bulletin, that said newspapers are newspapers of general circulation in the State of Hawaii, and that the attached notice is true notice as was published in the aforementioned newspapers as follows:

Honolulu Star-Bulletin 1 times on:
05/08/2010

Midweek Wed. 0 times on:

Midweek Fri. 0 times on:

_____ times on:

And that affiant is not a party to or in any way interested in the above entitled matter.

Rose Mae Rosales
Rose Mae Rosales

Subscribed to and sworn before me this 10th day
of May A.D. 20 10

Patricia K. Reese
Patricia K. Reese, Notary Public of the First Judicial Circuit, State of Hawaii

My commission expires: October 07, 2010



Ad # 0000191579

LN: _____



APPENDIX C

CULTURAL IMPACTS AGENCY AND ORGANIZATION CORRESPONDENCE



SECTION 1

**State of Hawaii
Department of Land and Natural Resources (DLNR)
State Historic Preservation Division (SHPD)**

AND

Oahu DLNR-SHPD Historic Sites List

LINDA LINGLE
GOVERNOR OF HAWAII



RECEIVED
9-24-10

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

KEN C. KAWAHARA
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

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

DATE: September 22, 2010

LOG: 2010.3228

DOC: 1009RS22

TO: Lori Ford
Senior Project Manager
Bureau Veritas North America, Inc.
970 North Kalaheo Avenue, Unit C-316
Kailua, HI 96734

SUBJECT: **National Historic Preservation Act (NHPA) Section 106 Review / Historic Sites and Impact Determination Request for the Proposed Verizon Wireless (VZW) HON Warrior Cell Site (VZW ID #2008264086).**
Permit # (None) Project No. 17010-010051.0
Building Owner: University of Hawaii
Location: Moore Hall, University of Hawaii at Manoa (1890 East West Road)
Tax Map Key: (1) 2-8-023:003

This letter is in response to your communication dated September 9, 2010, received by our office on September 19, 2010, re the proposed installation of a cell phone repeater system atop the roof of Moore Hall at the University of Hawaii at Manoa. Up to twelve, eight foot telecommunications panel antennas would be located on the mauka, Ewa, and Diamond Head sides of the elevator shaft with supporting equipment hidden within the current air conditioning complex enclosure. The panels would be painted to match the existing wall surfaces. The area of potential effect would be rooftop of Moore Hall.

As required by federal law, an analysis was undertaken to identify any sites placed on the Hawaii (HRHP) or National (NRHP) Registers of Historic Places within one half mile of the proposed location.

- The University of Hawaii Historic District (HRHP) includes Andrew's Amphitheater; Varney Circle; Pineapple Research Center; Founder's Gate; and Crawford, Dean, George, Hawaii, Gartley, and Wist Halls. The District is located mostly between University Avenue and Varney Circle.
- The East West Center (HRHP) includes Jefferson Hall, Kennedy Theater, and Hale Manoa. The property is located on East West Road.
- The John Guild House (HRHP and NRHP). This property is located at 2001 Vancouver Drive.
- Grace Cook House. (HRHP and NRHP). This property is located at 2365 Oahu Avenue.
- 2022 University Avenue. (HRHP).
- Castle Memorial Hall (HRHP). This property is located at 1776 University Avenue.

The submitted *Historic Properties Assessment Report for the Proposed VZW HON Warrior Cell Site* (T.S. Dye & Colleagues, Archaeologists, Inc., no date) notes that due to foliage and other buildings, the proposed cell site would not be visible from any of the above historic properties except for the East West Center (EWC). The Report notes that the proposed Moore Hall elevator shaft repeater location is only partially visible from EWC and already serves as a satellite reception facility.

Based upon the information presented, **SHPD concurs that the project will have no adverse effect on both the East West Center and other identified historic properties.**

Any questions should be addressed to Ross W. Stephenson, SHPD Historian, at (808) 692-8028 (office), (808) 497-2233 (cell) or ross.w.stephenson@hawaii.gov.

Mahalo for the opportunity to comment.


Pua Aju
Administrator

In the event that historic resources, including human skeletal remains, lava tubes, and lava blisters/bubbles are identified during construction activities, all work should cease in the immediate vicinity of the find, the find should be protected from additional disturbance, and the State Historic Preservation Division should be contacted immediately at (808) 692-8015.

National and State Register of Historic Places

SITE NUMBER	CROSS LIST NUMBER	SITE NAME	TAX MAP KEY	HAWAII REGISTER	NATIONAL REGISTER
80-01-0241		Kupopolo Heiau	6-1-005:016	9/5/1978	6/4/1973
80-01-0249		Pu'u o Mahuka Heiau	5-9-005:068	1/29/1981	12/29/62 1966
80-01-0257		Kalou Fishpond	5-8-001:015,055	1/30/1981	
80-02-1038		Kahuku Habitation Area	5-6-003:010		9/11/1972
80-02-2501		Burial Platform	5-7-002:003		8/14/1973
80-02-9745		Opana Radar Site	5-7-002:002	6/2/1990	9/19/91
80-02-9816		Kahuku Plantation Supervisor's House	5-6-010:158	7/25/1998	9/19/91 4/19/94NHL
80-03-0181		Ukanipo Heiau	8-1-001:019		8/13/1982
80-03-1183		Ka'ena Complex	6-9-002:006,009 8-1-001:006,016	6/9/1988	
80-03-2887		Kea'au Talus Sites	8-3-001:012	9/14/1985	5/4/1987
80-04-0218		Kukaniloko Birthing Place	7-1-001:004	4/16/94	4/11/73
80-04-0226		Pohaku Lanai	6-6-007:007	11/26/1986	
80-04-1334		Waialua Courthouse	6-6-009:023	2/20/1979	
80-04-1337		Kawailoa Ryusenji Temple (demolished)	6-1-005:001		11/21/1978
80-04-1348		Waialua School (Hale'iwa	6-6-013:012	5/3/1980	8/11/1980
80-04-9050		Kealii O Ka Malu Church	6-6-008:017	8/26/2000	
80-05-9746		William L. & Mary T. Hopper	7-5-027:010	6/2/1990	
80-06-0293		Hanawao Heiau	5-2-002:001	1/29/1981	
80-06-0301		Huilua Fishpond	5-2-005:021	2/20/1979	12/29/62 1966
80-06-0313		Moli'i Fishpond	4-9-003:001,002,		12/5/1972
80-06-0528		Kualoa Ahupuaa Historical District	4-9-004:001, 4-9-005:001, portion of 4-9-006:001		10/16/1974
80-06-1003		Burial Cave, Ka'a'awa	5-1-005:001	1/29/1981	
80-06-1078		Waikane Taro Flats	4-8-006:001		4/11/73
80-06-1101		Small Heiau	4-9-004, 4		3/14/1973
80-06-9803		Elma Schadt House (a.k.a. "The Coral House")	4-9-008:012	7/19/1997	
80-06-9815		Waikane Store	4-8-003:001	7/25/1998	
80-07-1181		Wai'anae District	8-5-002:		1/21/1974
80-07-9993		Wai'anae Plantation	8-5-003:011	2/20/1979	
80-08-0149		Nioiula Heiau	8-8-001:001	7/18/1978	
80-08-1179		Wet Taro System	8-5-006:001	11/26/1986	
80-08-1385		Wheeler Field Wheeler AFB	7-7, Various		5/28/1987
80-08-9708		Waialua Agricultural Company	9-1-017:049		8/19/1974
80-08-9756		Kamaunu Residence	8-9-006:039	7/17/1992	
80-08-9761		Railway Rolling Stock	9-1-017:049	9/28/1992	
80-08-9807		Schofield Barracks Historic District	7-7, Various	9/27/1997	7/31/1998
80-08-9808		Schofield Barracks Stockade	7-7, Various	9/27/1997	8/24/1998
80-09-0107		Keaiwa Heiau	9-9-011:001,002,	2/20/1979	11/9/1972

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80-09-1345		Wakamiya Inari Shrine	9-4-010:041,098	8/31/1979	1/8/1980
80-09-1375		Tsoong Nyee Society Cook House	9-4-010:004	11/26/1986	
80-09-9777		Kipapa School Building B	9-5-021:002	10/31/1994	
80-09-9802		Honolulu Plantation Manager's Residence	9-8-030:050	7/19/1997	
80-10-0093		Pohaku ka Luahine	1-1-013:001		7/23/1973
80-10-0319		Kahalu'u Fishpond	4-7-011:001	6/30/2007	3/14/1973
80-10-0327		He'eia Fishpond	4-6-005:001		1/17/1973
80-10-0329		Leleahina Heiau	4-6-014:005		3/20/1973
80-10-0354		Kawa'ewa'e Heiau	4-5-033:001		8/21/1972
80-10-1153		Kapapa Island Complex	4-4-008:004	1/29/1981	8/21/1972
80-10-1165		Kahalu'u Taro Loi	4-7-051:004		3/14/1973
80-10-1360		Kane'ohe Ranch Building	4-5-035:003	6/27/1983	6/5/1987
80-10-1383		Edric Cook Residence	4-3-025:035	8/15/1987	
80-10-1386		Kane'ohe Naval Air Station	4-4-008:001		5/28/1987
80-10-9747		Gerald A. Dolan Residence	4-4-006:009,015	6/2/1990	
80-11-0359		Pahukini Heiau	4-2-015:003		9/11/1972
80-11-0371		Ulu Po Heiau	4-2-013:031	9/21/1981	11/9/1972
80-11-1017		Mokapu Burial Area	4-4-008:001	7/25/1981	11/15/1972
80-11-1362		KAWAIILOA TRAINING SCHOOL FOR GIRLS:	4-2-006:002	11/5/1984	
80-11-1362		Gymnasium			
80-11-1362		Hilltop Cottage			
80-11-1362		Hookipa Cottage			
80-11-1362		Maluhia Cottage			
80-11-1362		Manoa Cottage			
80-11-9009		2 Aalapapa Pl. (a.k.a. "Hilltop House", "Puuhonua", or "Bird Lady's House")	4-3-008:087	6/24/2006	
80-11-9037		Miles and Kathy Anderson	4-3-004:064	6/30/2007	
80-11-9748		Mark Robinson Beach House	4-3-018:045	6/29/1990	
80-11-9760		Charles and Mae Boettcher Residence	4-3-016:004	9/28/1992	4/26/2002
80-11-9763		Robert McCorriston Beach House	4-3-006:058	6/28/1993	
80-12-2722		Beach Midden Site	9-1-074:036	7/25/1981	
80-12-9714		Oahu Railway & Land	8-9 & 9-1		12/1/1975
80-12-9786		`Ewa Plantation Villages	9-1-017: por. of	2/24/1996	
80-13-0143		'Oki'okiolepe Pond	9-1-001:001		3/14/1973
80-13-1356		U.S.S. Bowfin	9-9-003:031	7/30/1982	11/16/82
80-13-1376		HICKAM AIR FORCE BASE	9-9 Various		9/16/85 NHL
80-13-1382		ARTILLERY DISTRICT OF HONOLULU:			6/5/1984
80-13-1382		Battery Hasebrouck	9-9-001:013		

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80-13-1382		Battery Hawkins	9-9-001:013		
80-13-1382		Battery Hawkins Annex	9-9-001:013		
80-13-1382		Battery Jackson	9-9-001:013		
80-13-1382		Battery Randolph	2-6-005:001		
80-13-1382		Battery Selfridge	9-9-001:013		
80-13-1384		CINCPAC FLT Headquarters, Commander in Chief, Pacific Fleet, Pearl Harbor. Makalana Crater	9-9-002:004 (portion)		5/28/1987 9/7/87 NHL
80-13-9817		U.S.S. Missouri Battleship	9-9-03	6/24/2006	5/14/1971
80-13-9992		Pearl Harbor Naval Base	9-1-Various	9-	1/29/64
80-14-0409		Kaniakapupu	2-2-054:001	6/13/1986	10/15/1986
80-14-1161		Nu'uanu Petroglyph Complex	2-2-021:007	2/20/1979	3/14/1973
80-14-1300		Punchbowl Crater and National Memorial Cemetery of the Pacific	2-2-005:001, 002	1/13/1975	1/11/1976
80-14-1302	80-14-1346	Palama Fire Station	1-5-005:014	7/19/1980	4/21/76
80-14-1307	80-14-1321	Hawaii State Library	2-1-25:01		12/1/1978
80-14-1307		Hawaiian Electric Company	2-1-16:01		12/1/1978
80-14-1307	80-14-1321	The Kamehameha Statue	2-1-25:03		12/1/1978
80-14-1307	80-14-1321	Mission Memorial Building	2-1-33:07		12/1/1978
80-14-1307	80-14-1321	State Capitol/Grounds	2-1-24:All		6/19/1973
80-14-1307	80-14-1321	State Tax Office	2-1-26:22		12/1/1978
80-14-1307	80-14-1321	Territorial Office Building	2-1-25:03		12/1/1978
80-14-1307	80-14-1321	YMCA	2-1-17:01,02		12/1/1978
80-14-1307	80-14-1321	YWCA	2-1-17:09		12/1/1978
80-14-1307	80-14-1321	Honolulu Hale/Grounds	2-1-33:07		12/1/1978
80-14-1321		HAWAII CAPITAL DISTRICT:			12/1/1978
80-14-1321		Aliiolani Hale	2-1-025:003		
80-14-1321		Old Federal Building	2-1-025:004		
80-14-1321	80-14-1307	Hawaii State Library	2-1-025:001		
80-14-1321		Hawaiian Electric Company	2-1-016:001		
80-14-1321	80-14-1307	Honolulu Hale	2-1-033:007		
80-14-1321	80-14-1307	Honolulu Hale Annex	2-1-033:010		
80-14-1321		Iolani Barracks	2-1-025:002		
80-14-1321		Iolani Palace/Grounds	2-1-025:002		
80-14-1321		Iolani Palace Bandstand	2-1-025:002		
80-14-1321	80-14-1307	Kamehameha Statue	2-1-025:003		
80-14-1321		Kapuawaiwa Building	2-1-025:003		
80-14-1321		Kawaiahao Church	2-1-032:017		
80-14-1321		Mission Houses	2-1-032:002		
80-14-1321		Queen Emma Square	2-1-018:004		
80-14-1321		St. Andrews Cathedral	1-1-018:002		
80-14-1321	80-14-1307	State Capitol/Grounds	2-1-024:001 and		

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80-14-1321	80-14-1307	State Tax Office	2-1-026:022		
80-14-1321	80-14-1307	Territorial Office Building	2-1-025:003		
80-14-1321		Washington Place	2-1-018:001		
80-14-1321	80-14-1307	YMCA	2-1-017:001 and		
80-14-1321	80-14-1307	YWCA	2-1-017:009		
80-14-1325		Alfred Hocking House (a.k.a. Rose Chang Lee House)	2-4-027:065	8/24/1984	11/15/1984
80-14-1326		John T. Waterhouse House	1-8-006:007	8/14/1978	
80-14-1332		The Hawai'i Theatre	2-1-003:014	3/3/1978	11/14/1978
80-14-1338		U.S. Coast Guard Diamond	3-1-042:003		10/31/1980
80-14-1339		Linekona School	2-4-002:020	12/17/1979	5/28/1980
80-14-1346		FIRE STATIONS OF OAHU:	2-1-009:026/3-2-036:007		
80-14-1346		Central Fire Station	2-1-009:026	7/19/1980	12/2/1980
80-14-1346		Kaimuki Fire Station	3-2-036:007	7/19/1980	12/2/1980
80-14-1346		Kalihi Fire Station	1-3-005:022	7/19/1980	12/2/1980
80-14-1346		Makiki Fire Station	2-4-029:029	7/19/1980	12/2/1980
80-14-1346		Old Kakaako Fire Station	2-1-031:018	7/19/1980	12/2/1980
80-14-1346	80-14-1302	Palama Fire Station	1-5-005:014	7/19/1980	4/21/76
80-14-1346		Waialua Fire Station	6-6-013:003	7/19/1980	12/2/1980
80-14-1346		Kakaako Fire Station	2-1-031:018	2/8/2004	
80-14-1347		John Guild Residence	2-8-916:928	2/28/1980	8/1/1980
80-14-1349		Ernest Shelton Van Tassel	2-5-919:904	9/21/1981	12/16/1981
80-14-1350		FORT RUGER HISTORIC DISTRICT	3-1-042:009,020	11/19/1982	7/14/1983
80-14-1352		UNIVERSITY OF HAWAII:	2-8-015:001	3/19/1984	
80-14-1352		Andrews Amphitheater			
80-14-1352		Crawford Hall			
80-14-1352		Dean Hall			
80-14-1352		Founders Gate			
80-14-1352		George Hall			
80-14-1352		Gartley Hall			
80-14-1352		Hawaii Hall			
80-14-1352		Pineapple Research Center	2-8-023:003	8/24/1984	
80-14-1352		Varney Circle			
80-14-1352		Wist Hall			
80-14-1353		Bishop Museum Complex	1-6-024:001	9/10/1980	7/26/1982
80-14-1354		Lihikai (George R. Carter House)	2-2-050:	9/29/1980	7/26/1982
80-14-1357		Joseph W. Podmore Building	2-1-016:004	11/19/1982	3/24/1983
80-14-1358		Dr. Archibald Sinclair Residence	2-9-015:023	6/27/1983	10/13/1983
80-14-1359		Grace Cooke Residence	2-9-005:056	6/27/1983	10/24/1983

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80-14-1361		George D. Oakley Residence	2-8-019:046		11/15/1984
80-14-1363		C. W. Dickey House	3-1-033:018	8/24/1984	11/1/1984
80-14-1366		Clarence Cooke Residence	1-9-005:004	9/14/1985	8/20/1986
80-14-1367		Edgar & Lucy Henriques House	1-9-009:016	8/24/1984	11/1/1984
80-14-1368		Charles Montague Cooke, Jr., Residence	2-9-019:035	11/5/1984	10/31/1985
80-14-1369		R. N. Linn Residence	2-8-019:036	9/14/1985	8/20/1986
80-14-1370		Eyman-Judson Residence	2-9-039:001	11/12/1985	8/20/1986
80-14-1371		James L. Coke Residence	2-2-051:010	11/12/1985	8/20/1986
80-14-1373		ENGLISH TUDOR / FRENCH NORMAN COTTAGES:	Various		
80-14-1373		3023 Kalakaua Avenue	3-1-033:051	6/13/1986	6/5/1987
80-14-1373		3023A Kalakaua Avenue	3-1-033:013	6/13/1986	6/5/1987
80-14-1373		3023B Kalakaua Avenue	3-1-033:008	6/13/1986	6/5/1987
80-14-1373		3027 Kalakaua Avenue	3-1-033:050	6/13/1986	6/5/1987
80-14-1373		3033 Kalakaua Avenue	3-1-033:014	6/13/1986	6/5/1987
80-14-1373		3033B Kalakaua Avenue	3-1-033:007	6/13/1986	6/5/1987
80-14-1373		2311 Ferdinand Avenue	2-9-008:016	6/13/1986	6/5/1987
80-14-1373		3581 Woodlawn Drive	2-9-048:007	6/13/1986	6/5/1987
80-14-1373		2826 Coconut Avenue	3-1-033:046	6/13/1986	6/5/1987
80-14-1373		4354 Kahala Avenue	3-5-013:008	6/13/1986	6/5/1987
80-14-1373		4584 Kahala Avenue	3-5-004:012	6/13/1986	6/5/1987
80-14-1373		4850 Kahala Avenue	3-5-007:001	6/13/1986	6/5/1987
80-14-1373		3029 Felix Street	3-3-053:025	6/13/1986	6/5/1987
80-14-1373		2958 Pali Highway	1-8-011:007	6/13/1986	6/5/1987
80-14-1373		4109 Black Point Road	3-5-001:026	6/13/1986	6/5/1987
80-14-1373		3050 Kiele Avenue	3-1-033:028	11/26/1986	11/26/1986
80-14-1373		2830 Coconut Avenue	3-1-033:045	11/26/1986	11/26/1986
80-14-1374		Austin Jones Residence	2-9-002:013	6/13/1986	
80-14-1377		Sacred Heart Church	2-8-012:068	6/17/1987	2/6/2001
80-14-1378		Robert M. Purvis Residence	2-2-050:002	6/17/1987	
80-14-1379		Emerald Building	2-1-010:041	6/17/1987	
80-14-1380		OR&L Office & Document Storage	1-5-007:002	8/17/1987	
80-14-1387		Frederick G. Krauss Residence	2-9-012:029, 070	6/9/1988	
80-14-1388		C&C OF HONOLULU ART DECO PARKS:	Various	6/9/1988	
80-14-1388		Ala Moana Park	2-3-037:001	6/9/1988	
80-14-1388		Ala Wai Park Clubhouse	2-7-036:005	6/9/1988	
80-14-1388		Haleiwa Beach Park	6-2-001:002	6/9/1988	
80-14-1388		Kawanakoa Playground	2-2-009:011	6/9/1988	
80-14-1388		Mother Waldron Playground	2-1-051:005	6/9/1988	

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80-14-1389		Foster Botanic Garden	1-7-007:001,002,	6/9/1988	5/13/1993
80-14-9000		William H. Hoogs Residence	2-9-008:024	6/24/2006	
80-14-9003		Yukihide and Aki Kohatsu Residence (a.k.a. "Taira Residence")	2-8-011:029	4/22/2006	
80-14-9004		Allan R. Johnson Residence	2-9-008:058	4/22/2006	
80-14-9005		Elizabeth W. Leong Residence	2-5-023:045	8/26/2006	
80-14-9006		Flora Lidgate Residence	2-9-010:001	12/10/2005	
80-14-9007		Alex G. and Jessie T. Horn Residence	2-9-008:005	12/10/2005	
80-14-9008		Lemon Wond Holt Residence	3-3-016:066	9/24/2005	5/24/2006
80-14-9010		Marshall and Ruth Goodsill Residence	3-2-061:007	8/26/2006	
80-14-9011		Hibiscus Place	3-1-034:046	8/18/2007	
80-14-9012		Edward B. Loomis Residence	2-9-008:039	4/22/2006	
80-14-9013		Mary Lyman Residence	1-8-033:066	9/24/2005	
80-14-9015		Earl and Lillian McGhee Residence	2-9-014:037	6/24/2006	
80-14-9016		Frank and Kathryn Plum Residence	3-1-033:017	8/18/2007	
80-14-9017		Joseph and Jean Skorpen Residence	3-3-027:008	9/24/2005	
80-14-9018		Antonio Victorino Soares and Arcenia Fernandes Soares Residence	3-3-008:030	12/10/2005	
80-14-9019		Tantalus Drive-Round Top Road	2-4 & 2-5 various	3/3/2007	
80-14-9021		Willard and Mary Jane Wax Residence	2-9-010:021	6/24/2006	
80-14-9022		Owen and Ellen Williams	3-3-045:029	8/26/2006	
80-14-9023		2022 University Ave.	2-8-022:037	6/24/2006	
80-14-9024		Central Union Church	2-8-011:002	4/22/2006	
80-14-9025		Samuel and Laura Walker Residence	2-2-004:026	8/18/2007	
80-14-9026		Stuart and Elisabeth Thompkins	1-8-005:014	8/18/2007	
80-14-9028		Ernest R. Cameron House, American Association of University Women Residence	2-4-025-002	8/23/2008	
80-14-9029		3162 Huelani Dr. (a.k.a. "Huelani Home")	2-9-034:014	8/18/2007	
80-14-9030		George Miller House (a.k.a. Carlson House)	3-2-055:030	9/24/2005	
80-14-9031		John and Ruth Steffee Residence	2-5-001:043	8/18/2007	
80-14-9032		Donald Hayselden Residence	2-9-008:046	8/18/2007	
80-14-9033		May and George Jennings Residence	1-8-033:007	8/18/2007	
80-14-9035		Leong-Yap Residence	3-2-017:044	6/30/2007	

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80-14-9036		Theodore and Rose Vierra	2-9-008:049	6/30/2007	
80-14-9038		Stanley Ball Residence	2-9-006:029	8/18/2007	
80-14-9039		Mervin and Marian Williams Residence	2-5-001:021	9/24/2005	
80-14-9042		Uluhaimalama (a.k.a. The Royal Flower Garden of Queen Liliuokalani)	2-2-014:005 thru 006	12/13/2008	
80-14-9045		Howard and Betty Liljestrand Residence	2-5-011:008	11/3/2007	
80-14-9046		Kin and Lau Shee Lum Residence	3-2-051:025	11/3/2007	
80-14-9047		James and Asta Hughes Residence	2-9-016:026	11/3/2007	
80-14-9048		Louis and Marjorie Stephens Residence	2-2-045:040	11/3/2007	
80-14-9049		D. Worthington / H. Hewitt Residence	2-2-015:004	4/25/2009	
80-14-9700		Falls of Clyde	2-1-001:060		7/2/1973
80-14-9701		War Memorial Natatorium	3-1-031:003	5/3/1980	8/11/1980
80-14-9709		Fort Shafter, Palm Circle,	1-1-008:005		10/26/1984
80-14-9710		Kaka'ako Pumping Station	2-1-015:043,044	8/17/1977	10/4/1978
80-14-9713		Georges de S. Canavarro House	1-8-026:005	1/7/1980	5/28/1980
80-14-9716		J. P. Mendonca Residence	2-5-004:009	3/15/1986	10/7/1986
80-14-9717		TANTALUS RESIDENCES:			
80-14-9717		Vincent and Eleanor Fullard-Leo Residence	2-5-016:024	6/9/1988	
80-14-9717		James A. Wilder Residence	2-5-017:006,018	6/9/1988	
80-14-9718		Thomas Alexander Burningham Residence	2-2-034:040,041	9/30/1988	10/13/1993
80-14-9719		Makiki Christian Church	2-3-011:002	9/30/1988	
80-14-9739		Yee/Kobayashi Store	2-1-049:008	8/30/1989	
80-14-9740		Saint Peter's Church	2-1-018:002	8/30/1989	
80-14-9741		Lyndon Roberts Residence	3-5-013:004	8/30/1989	
80-14-9742		Riley Allen Residence	2-2-029:014	8/30/1989	
80-14-9743		George P. Castle Mountain Residence	2-2-031:017	8/30/1989	
80-14-9744		John & Kate Kelly Residence	3-1-041:010	8/30/1989	8/27/1991
80-14-9749		Church of the Crossroads	2-8-006:017	6/28/1991	11/20/1992
80-14-9750		A.T. Cooke and P.E. Spalding Residence	2-5-008:002	6/28/1991	
80-14-9751		H. Allen Cook Residence	2-9-017:018	6/28/1991	
80-14-9752		Waioli Tea Room	2-9-031:001	6/28/1991	10/30/1998
80-14-9753		Castle Memorial Hall	2-8-015:001	6/28/1991	

National and State Register of Historic Places

SITE NUMBER	CROSS LIST NUMBER	SITE NAME	TAX MAP KEY	HAWAII REGISTER	NATIONAL REGISTER
80-14-9754		Richard M. Botley Residence	3-1-034:012	6/28/1991	
80-14-9755		Mrs. Josephine Ketchum Residence	3-1-033:035	6/28/1991	
80-14-9757		Ala Wai Canal	2-6-Various	7/17/1992	10/28/85 E
80-14-9758		Kapiolani Park	3-1-030:001, 002,	7/17/1992	
80-14-9759		Roosevelt High School	2-4-32:02	7/17/1992	
80-14-9762		Hawaiian Canoe Malia	None	6/28/1993	12/17/1993
80-14-9764		Ada Gartley Residence	2-9-002:014	6/28/1993	
80-14-9765		Mabel Smyth Memorial Building	2-1-035:001	6/28/1993	2/3/1994
80-14-9766		Board of Agriculture and Forestry Building	2-4-005:018	6/28/1993	
80-14-9767		Thomas Victor King Residence	2-2-046:056	6/28/1993	
80-14-9768		Farrington High School	1-6-021:005	6/28/1993	
80-14-9769		August C. Spoehler Residence	2-9-016:025	6/28/1993	
80-14-9770		Eric Fennel Residence	2-9-008:023	9/1/1993	
80-14-9771		Joseph Pratt Residence	2-2-030:033	9/1/1993	
80-14-9772		John and Eleanor Freitas Residence	2-5-004:007	9/1/1993	
80-14-9773		Adolph Egholm Residence	3-1-033:020	8/29/1994	
80-14-9774		Central Intermediate School	2-1-009:001	10/29/1994	2/11/2004
80-14-9775		W. W. Goodale Moir Residence	2-2-049:025	10/29/1994	
80-14-9776		Frank and Juliette Lee Residence	3-2-019:029	10/29/1994	
80-14-9778		George Robert Ewart Residence	1-8-005:031,032	5/20/1995	
80-14-9779		Jean Vaughan Gilbert Residence	2-9-006:009	5/20/1995	
80-14-9780		John Francis Gray Stokes Residence (a.k.a. Young Residence)	2-9-009:015	5/20/1995	
80-14-9781		Ephraim V. and Rose Sayers Residence	2-9-006:021	5/20/1995	
80-14-9782		Juliet Montague Guard Residence	2-9-012:014	5/20/1995	
80-14-9783		Shields/Moore Residence	2-9-014:031	5/20/1995	
80-14-9784		George Fred Wright Residence	2-9-032:027	5/20/1995	
80-14-9785		Malcolm and Janet MacIntyre Residence	2-9-003:002	5/20/1995	
80-14-9787		Herbert Austin Residence	2-9-032:028	9/9/1995	
80-14-9788		James A. Lyle Residence (a.k.a. Kenneth and Mae Seto Residence)	2-9-005:019	9/9/1995	
80-14-9789		Clarence H. Dyer Residence (a.k.a. Doak and Majorie Cox Residence)	2-8-019:029	9/9/1995	
80-14-9790		Jean Charlot Residence	3-5-008:029	6/1/1996	11/30/2000
80-14-9791		Clinton Briggs Ripley Homestead	1-8-003:002,	6/1/1996	
80-14-9792		Louis Butler Residence (a.k.a. Alice Hoogs Residence and Elisabeth	2-8-019:013	9/3/1996	

National and State Register of Historic Places

SITE NUMBER	CROSS LIST NUMBER	SITE NAME	TAX MAP KEY	HAWAII REGISTER	NATIONAL REGISTER
80-14-9793		Kenneth and Frances Day Residence (a.k.a. Richard Gosling Residence and Joseph Feraro Residence)	2-9-015:039	9/3/1996	
80-14-9794		Percy Pond Residence (a.k.a. William Clark Residence and Duncan Dempster Residence)	2-8-019:019	9/3/1996	
80-14-9795		Albert E. Coxhead Residence	2-9-016:013	11/2/1996	
80-14-9796		Kaimuki Reservoir, Kaimuki Scout Bowl	3-2-035:012 (por.)	11/2/1996	
80-14-9797		James and Virginia Machado Residences ("a.k.a. Machado Homestead" and "The Fair Ladies")	2-2-007:001,002,003,037	11/2/1996	
80-14-9798		Harold T. Kay Residence	1-8-029:001	3/8/1997	
80-14-9799		Paul Merle Scott Residence	2-9-032:040	3/8/1997	
80-14-9800		Johnny Noble Residence	2-9-014:043	3/8/1997	
80-14-9801		Houvener Residence	2-5-004:016	3/8/1997	
80-14-9804		Carl and Francis Bayer Residence	3-6-003:012	7/19/1997	
80-14-9805		William Schieber Residence	2-9-007:009	7/19/1997	
80-14-9806		James Cockburn Residence	2-9-008:029	9/27/1997	
80-14-9809		Manoa Chinese Cemetery	2-9-043:001	9/27/1997	
80-14-9810		Irvine Paris Residence	2-5-009:015	9/27/1997	
80-14-9811	80-14-9717	C.W. Case Deering Residence	2-5-016:030	4/25/1998	
80-14-9812		Charlotte Erickson Meyer/William C. Furer Residence	2-9-008:036	4/25/1998	
80-14-9813		Francis and Janetta Peterson Residence	2-9-032:012	4/25/1998	
80-14-9814		Alice Jones/Abraham Lewis Residence	2-9-001:025	4/25/1998	
80-14-9818		George Yanagihara Residence	3-2-017:010	8/29/1998	
80-14-9819		Charles Martin House	3-1-015:053	8/29/1998	
80-14-9820		Leroy Bush Residence	2-9-032:024	8/29/1998	
80-14-9821		Cornelia W. Good Residence	2-9-008:021(1)	8/29/1998	
80-14-9822		Alfa Hatch Residence	2-9-034:006	4/24/1999	
80-14-9823		Dr. Henry Bicknell Residence	2-09-006:012	8/21/1999	
80-14-9824		East-West Center Complex	2-8-023:005	8/21/1999	
80-14-9825		Tennent Art Foundation Gallery	2-2-003:075&076	8/21/1999	
80-14-9826		May/Spalding Residence	2-9-006:008	8/21/1999	
80-14-9827		3029 Oahu Avenue	2-9-032:053	12/4/1999	
80-14-9828		3033 Oahu Avenue	2-9-032:019	12/4/1999	
80-14-9829		Irwin Memorial Park	2-1-013:007	12/4/1999	
80-14-9830		Hawaii Shingon Mission	2-3-018:004	8/26/2000	4/26/2002
80-14-9831		C. L. Crutchfield Residence	3-3-026:009	8/26/2000	

National and State Register of Historic Places

SITE NUMBER	CROSS LIST NUMBER	SITE NAME	TAX MAP KEY	HAWAII REGISTER	NATIONAL REGISTER
80-14-9832		Edwin H. Bryan Residence	2-9-016:015	8/26/2000	
80-14-9833		Hale Hani Court	3-3-032:019	8/26/2000	
80-14-9834		Virgil Biggs Residence	3-2-016:005	8/25/2001	
80-14-9835		Residence at 1519 Oliver Street	2-8-013:082	8/25/2001	
80-14-9836		Arthur and Beatrice Greenwell House	2-5-001:005	8/25/2001	
80-14-9837		Mildred M. Yodor House	2-4-023:008, 069	6/29/2002	
80-14-9838		Haumalu (a.k.a. Martha and Frank Gerbode Residence)	3-1-036:009	6/29/2002	
80-14-9839		COLLEGE HILLS TRACT:		8/24/2002	
80-14-9839		Mildred Yoder Residence	2-9-006:022	8/24/2002	
80-14-9839		Arthur L. Andrews Residence	2-9-006:011	8/24/2002	
80-14-9839		Walter and Emma Snyder Residence	2-9-011:010	8/24/2002	
80-14-9839		Antonio Perry Residence	2-9-011:015	8/24/2002	

National and State Register of Historic Places

SITE NUMBER	CROSS LIST NUMBER	SITE NAME	TAX MAP KEY	HAWAII REGISTER	NATIONAL REGISTER
80-14-9839		Charles and Vena Reed Residence	2-9-001:010	8/24/2002	
80-14-9839		Leo and Marguerite Miller Residence	2-9-007:008	8/24/2002	
80-14-9839		Ray Morris Residence	2-9-006:020	8/24/2002	
80-14-9839		George and Emily Winant Residence	2-9-007:021	8/24/2002	
80-14-9839		Mark Potter Residence	2-8-022:020	8/24/2002	
80-14-9839		Jane Pell Residence	2-9-005:035	8/24/2002	
80-14-9839		Ida Macdonald Residence	2-9-006:023	8/24/2002	
80-14-9839		J. D. and Laura Marques Residence	2-9-006:014	8/24/2002	
80-14-9839		Frank C. Atherton House	2-9-002:012	8/24/2002	
80-14-9839		Charles and Emma Hottel/Ebert and Sybil Botts Residence	2-9-001:041	8/24/2002	
80-14-9839		Charles H. Hitchcock House	2-9-005:024	8/24/2002	
80-14-9839		Mary Abel Residence	2-8-020:012	8/24/2002	
80-14-9839		Carrie A. Thompson House	2-8-020:011	8/24/2002	
80-14-9839		Henry and Henrietta Bredhoff House	2-9-012:024	8/24/2002	
80-14-9839		Freddie Steere Residence	2-9-007:006	8/24/2002	
80-14-9839		Glazier Residence	2-8-020:014	8/24/2002	
80-14-9840		Heinrich Kreye Residence	2-9-014:004	10/26/2002	
80-14-9842		Catherine H. Richards/William and Emma Goodale Residence	2-2-045:004 & 005	8/2/2003	
80-14-9843		John A. Davis Residence	2-9-006:024	8/2/2003	
80-14-9844		Robert L. Lukens Residence	2-2-047:012	8/2/2003	
80-14-9845		Alice K. Rodenhurst Residence	3-2-047:036	8/2/2003	
80-14-9846		Lanikai Monument	4-3-009:001	8/2/2003	
80-14-9847		Moanalua Community Church	1-1-010:034	8/2/2003	
80-14-9848		Kyoto Gardens of Honolulu	2-2-020:001	11/22/2003	2/11/2004
80-14-9849		Hugh G. Peterson, Jr. Residence	2-5-008:004	11/22/2003	
80-14-9850		Anna Rice Cooke/Alice and Philip Spalding Residence	2-5-008:001	11/22/2003	
80-14-9851		Kaumakapili Church	1-7-031:049	9/18/2004	
80-14-9852		David and Martha Thrum House	2-8-020:040	6/25/2005	
80-14-9853		Albert R. "Sunny" Cuhna House	3-3-007:012	7/30/2005	
80-14-9891		William Ninde Chaffee House	2-9-005:002	8/2/2003	
80-14-9900		Dillingham Transportation Building	2-1-014:003		9/7/1979
80-14-9901		Moana Hotel	2-6-001:012		8/7/1972

National and State Register of Historic Places

SITE NUMBER	CROSS LIST NUMBER	SITE NAME	TAX MAP KEY	HAWAII REGISTER	NATIONAL REGISTER
80-14-9903		Kamehameha V Post Office	2-1-002:012	2/20/1979	5/5/1972
80-14-9904		Queen Emma's Summer Home	2-2-034:027	8/11/1978	8/7/1972
80-14-9905		Merchant Street Historic			6/28/1973
80-14-9905		Bishop Bank	2-1-002:019		
80-14-9905		Friend Building	2-1-002:032		
80-14-9905		Judd Building	2-1-013:004		
80-14-9905		Melchers Building	2-1-020:020		
80-14-9905		Old Police Station (Walter Murray Gibson Building.)	2-1-002:057		
80-14-9905		Royal Saloon	2-1-002:035		
80-14-9905		Stagenwald Building	2-1-013:005		
80-14-9905		T. R. Foster Building	1-7-002:035		
80-14-9905		Waterhouse Warehouse Bldg.	2-1-002:035		
80-14-9905		Yokohama Specie Bank	2-1-002:033		
80-14-9906		Our Lady of Peace Cathedral	2-1-010:014	7/25/1981	8/7/1972
80-14-9907	80-14-1321	Washington Place/Grounds	2-1-018:001		0/18/1975 3/29/07 NHL
80-14-9908		Ali'iolani Hale	2-1-025:003		2/2/1972
80-14-9909		Royal Mausoleum	2-2-021:012	1/29/1981	8/7/1972
80-14-9911		Punahou School Campus	2-8-018:001		8/7/1972
80-14-9912		Iolani Palace/Grounds (includes	2-1-025:002		12/29/62 NHL
80-14-9912		Iolani Palace Bandstand	2-1-025:002		12/1/1978
80-14-9915		St. Andrews Cathedral	2-1-018:002		7/2/1973
80-14-9917		Royal Brewery	2-1-031:021		11/29/1972
80-14-9918	80-14-1321	Iolani Barracks	2-1-025:002		12/1/1978
80-14-9925		Alexander & Baldwin Building	2-1-013:001	6/2/1979	9/7/1979
80-14-9926		McKinley High School	2-3-009:001	5/3/1980	8/11/1980
80-14-9929		Aloha Tower	2-1-001:013	1/29/1981	5/13/1976
80-14-9938		C. Brewer Building	2-1-013:003	11/19/1979	4/2/1980
80-14-9952		Old U.S. Post Office, Custom House and Court House	2-1-025:004		1/27/1975
80-14-9964		U.S. Immigration Office	2-1-015:018, 019		8/14/1973
80-14-9970	80-14-1321	Kapuaiwa Building	2-1-025:003		7/2/1973
80-14-9983		H. Alexander Walker Residence	1-8-008:001	7/30/1982	4/24/1973
80-14-9986		Chinatown Historical District	1-7-002,003,004		1/17/1973
80-14-9989		Honolulu Academy of Arts	2-4-014:021		3/25/1972
80-14-9990		Thomas Square	2-4-001:001		4/25/1972
80-14-9991	80-14-1321	Kawaiaha'o Church and	2-1-032:017		12/29/62 NHL
80-14-9991	80-14-1321	Mission Houses	2-1-032:002		12/29/62 NHL
80-14-9994		Jones, Isabella Residence	2-2-044:024	4/16/1994	
80-15-0002		Makani'olu Shelter	3-8-004:001	9/2/1978	
80-15-0372		Kukuipilau Heiau	4-2-006:002	9/14/1984	11/16/1984

National and State Register of Historic Places

SITE NUMBER	CROSS LIST NUMBER	SITE NAME	TAX MAP KEY	HAWAII REGISTER	NATIONAL REGISTER
80-15-0382		Pohakunui Heiau	4-1-027:022	9/5/1978	
80-15-0489 &		Koa (Rabbit Island)	4-1-014:009	1/29/1981	
80-15-0511		Bellows Field Archaeological	4-1-015:001,015		8/14/1973
80-15-0516		Waimanalo Taro Terraces	4-1-010:001	6/17/1987	
80-15-1031		Pueo Heiau	4-1-008:005	1/29/1981	
80-15-1037		Pahonu Turtle Pond	4-1-002:007	9/2/1978	
80-15-1355		U.S. Coast Guard Makapuu	3-9-011:001		12/7/1977
80-15-1362		Kawailoa Training School for Girls	4-2-006:002	11/5/1984	

RECENT ADDITIONS TO THE HAWAII REGISTER OF HISTORIC PLACES (TO 8/18/2010)

8/23/2008	Kapaia Swinging (Pedestrian) Bridge Kapaia (Lihue Vicinity), Kauai	No. 30-11-9077
4/25/2009	Weuweu_kawai-iki Fishpond (Coco Palms) Wailua, Kauai	No. 30-03-9052
	Withington Cottage and Harry R. Hewitt Residence 158 and 164 Poloke Place (Tantalus) Honolulu, HI 96822	No. 80-14-9049
8/2/2009	Harold Castle Beach Residence 55 Kailuana Place Kailua, HI 96734	No. 80-11-9067
	Clarence Cooke Guest Beach House 1548 Mokulua Drive Kailua, HI 96734	No. 80-11-9064
	Sam and Mary Cooke Residence 2829 Manoa Road Honolulu, HI 96822	No. 80-14-9066
	Edward Greaney Residence 3115 Noela Street Honolulu, HI 96815	No. 80-14-9063
	Hakalau Plantation Manager's Residence 29-2301 Old Mamalahoa Highway Hakalau, HI 96710	No. 10-16-9070
	Fred Harrison Rental Property 3050 Kalakaua Avenue Honolulu, HI 96815	No. 80-14-9065
	Walter Henderson Residence 82 Halaulani Place Hilo, HI 96720	No. 10-35-9069
	W. H. Hill Residence 91 Hulaulani Place Hilo, HI 96720	No. 35-10-9069
	Honolulu Star Bulletin Building 121/125 Merchant Street	No. 80-14-9061

Honolulu, HI 96813

Honouliuli Internment Camp
Waipahu, HI

No. 80-08-9068

Levi Lyman Residence
40 Halaulani Place
Hilo, HI 96720

No. 10-35-9069

Patrick McGuinness Residence
30 Halaulani Place
Hilo, HI 96720

No. 10-35-9069

Edward Moses Residence
105 Halaulani Place
Hilo, HI 96720

No. 10-35-9069

James Parker Residence
72 Halaulani Place
Hilo, HI 96720

No. 10-35-9069

Puakea Ranch
56-2864 Akoni Pule Highway
Hawi, HI 96719

No. 10-02-9071

Hermann Rohrig Residence
2146 Kamehameha Avenue
Honolulu, HI 96822

No. 80-14-9062

Ed Sheehan Residence
239 Kulamanu Place
Honolulu, HI 96816

No. 80-14-9060

Herbert Tuslow Residence
52 Halaulani Place
Hilo, HI 96720

No. 10-35-9069

1/9/2010	Hawaiian Trail and Mountain Club 41-023 Puuone Street Waimanalo, HI 96795	No. 80-15-9072
	Helene Morgan Residence 3040 Diamond Head Road Honolulu, HI 96813	No. 80-14-9073
	Thomas Petrie Residence 1916 Manoa Road Honolulu, HI 96822	No. 80-14-9071
	Tom/Yee Court 3405. 3409B Wela and 3554 Trousseau Street Honolulu, HI 968116	No. 80-14-9070
4/24/2010	Charles Cooke Residence 2869 Manoa Road Honolulu, HI 96822	No. 80-14-9081
	James R. Judd Residence 2490 Makiki Heights Drive Honolulu, HI 96822	No. 80-14-9079
	Alvin Melim Residence 3038 Oahu Avenue Honolulu, HI 96822	No. 80-14-9082
	Old Laupahoehoe Jodo Mission 36-1006 Laupahoehoe Point Road Laupahoehoe, HI 94044	No. 10-16-9078
	Alfred Sturgis Residence 118 Poloke Place Honolulu, HI 96822	No. 80-14-9080
6/26/2010	Paul and Catherine Withington Residence 3150 Huelani Place Honolulu, HI 96822	No. 80-14-9084

	Watson and Louise Ballentyne Residence 2838 Oahu Avenue Honolulu, HI 96822	No. 80-14-9085
	Leong and Mildred (Chang) Young Residence 847 Paahana Street Honolulu, HI 96816	No. 80-14-9086
8/14/2010	Tahitienne Apartments 2999 Kalakaua Avenue Honolulu, HI 96815	No. 80-14-9087
	Kin and Lau Shee Lum Residence 840 15 th Avenue Honolulu, HI 96816	No. 80-14-9088
	Henry Ho Court 1252, 1252A, 1256, 1256A Ekaha Avenue Honolulu, HI 96816	No. 80-14-9089
	Hamakua Steel Bridges State Highway 19 (Mamalahoa Highway) Hakalau, Kapue, Kolekole, Paheehee, Umauma Streams Hamakua, Hawaii	No. 10-16-9090 and No. 10-26-9090
	Haiku Fruit and Packing Company Manager's Residence 1061 Kokomo Road Haiku, HI 96708	No. 50-06-9091



SECTION 2

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

AND

Historic Hawaii Foundation (HHF)

AND

Hui Malama

PHONE (808) 594-1888



FAX (808) 594-1865

RECEIVED
9-23-10

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

HRD10/5090

August 25, 2010

Lori Ford, Senior Project Manager
Bureau Vistas North America, Inc.
970 N. Kalaheo Avenue, Suite C-316
Kailua, Hawai'i 96734

RE: National Historic Preservation Act Consultation
Proposed Verizon Wireless University of Hawai'i Cell Site
Honolulu, Island of O'ahu
Tax Map Key: (1) 2-8-023:003

Aloha e Lori Ford,

The Office of Hawaiian Affairs (OHA) is in receipt of your June 22, 2010 letter initiating consultation pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR) for a cellular wireless telecommunications project (undertaking) proposed by Verizon Wireless.

It is our understanding this proposed undertaking involves installing up to twelve (12) 8-foot panel antennas on the existing elevator shaft of Moore Hall, which is situated on the campus of the University of Hawai'i at Mānoa. Equipment cabinets will also be installed on the rooftop of Moore Hall. OHA believes that this proposed undertaking will have "no adverse effect" on historic properties eligible for listing on the National Register of Historic Places, as none are identified within the area of potential effect.

Thank you for initiating consultation at this early stage and providing an opportunity to comment on this proposed undertaking. Should you have any questions, please contact Keola Lindsey at 594-0244 or keolal@oha.org.

'O wau iho nō me ka 'oia'i'o,

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

Clyde W. Nāmu'o
Chief Executive Officer



May 7, 2010

Ms. Kiersten Faulkner, Executive Director
Historic Hawaii Foundation (HHF)
680 Iwilei Road, Suite #690
Honolulu, Oahu, Hawaii 96817

Project No. 17010-010051.02

Subject: Historic Sites and Impact Determination Request for the Proposed Verizon Wireless (VZW) HON Warrior Cell Site, Located at University of Hawaii at Manoa – Moore Hall, 1890 East West Road (Portion of Tax Map Key [TMK] No.: (1) 2-8-023: Parcel 003), Honolulu, Oahu, Hawaii 96822

Dear Ms. Faulkner:

Bureau Veritas North America, Inc. (Bureau Veritas) has been retained by Verizon Wireless (VZW) to conduct a site evaluation for the Federal Communications Commission (FCC) of the above-referenced proposed cellular wireless telecommunications project.

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 at the site.

Per FCC requirements, Bureau Veritas is also contacting other applicable agencies and native Hawaiian organizations, and will be running a Legal Notice in the local newspaper 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, currently owned by the State of Hawaii, consists of the University of Hawaii at Manoa campus. It is roughly bounded by University Avenue, Maile Way, Dole Street, and East West Road

The subject parcel is further described as Tax Map Key (TMK) Number: (1) 2-8-023: Parcel 003. According to the City and County of Honolulu Planning and Zoning Department, the subject parcel/property is currently zoned "*R-5 Residential*" and the State Land Use designation is "*Urban District*."

The subject property, identified as the VZW HON Warrior Cell Site, is located on the rooftop/elevator shaft of the subject building (Moore Hall). (Lat/Long: 21° 18' 03.4" N, 157° 48' 54.1"W).

According to VZW, the proposed action involves mounting up to 12, 8-foot panel antennas on the existing elevator shaft and installing equipment cabinets on the rooftop (12- by 20-foot lease area) of the six-story building. The finished height of the antenna tips will be at approximately 87 feet above ground level (agl).

Bureau Veritas North America, Inc.

970 N. Kalaheo Avenue, Suite C-316

Kailua, Oahu, HI 96734

Main: (808) 531-6708

Fax: (808) 537-4084

www.us.bureauveritas.com



Ms. Kiersten Faulkner
Executive Director
HHF

Page 2
Project No. 17010-010051.02
May 7, 2010

Construction activities will have no impact to the ground surface. Figures showing the location and design of the proposed cell site, as well as recent photographs of the site, are included as attachments.

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 telecommunications project.

Per FCC NEPA/NHPA 106 Process guidelines, please provide *written* documentation of your findings within 30 days, either to the address shown on the first page, via fax at 808.537.4084, or by email to lori.ford@us.bureauveritas.com.

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

Regards,

Lori Ford
Senior Project Manager
Bureau Veritas North America, Inc.

/llf

Attachments: 1) VZW HON Warrior Cell Site Figures
2) VZW HON Warrior Cell Site Photographs



May 7, 2010

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

Project No. 17010-010051.02

Subject: Historic Sites and Impact Determination Request for the Proposed Verizon Wireless (VZW) HON Warrior Cell Site, Located at University of Hawaii at Manoa – Moore Hall, 1890 East West Road (Portion of Tax Map Key [TMK] No.: (1) 2-8-023: Parcel 003), Honolulu, Oahu, Hawaii 96822

Dear Mr. Maxwell:

Bureau Veritas North America, Inc. (Bureau Veritas) has been retained by Verizon Wireless (VZW) to conduct a site evaluation for the Federal Communications Commission (FCC) of the above-referenced proposed cellular wireless telecommunications project.

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 at the site.

Per FCC requirements, Bureau Veritas is also contacting other applicable agencies and native Hawaiian organizations, and will be running a Legal Notice in the local newspaper 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, currently owned by the State of Hawaii, consists of the University of Hawaii at Manoa campus. It is roughly bounded by University Avenue, Maile Way, Dole Street, and East West Road

The subject parcel is further described as Tax Map Key (TMK) Number: (1) 2-8-023: Parcel 003. According to the City and County of Honolulu Planning and Zoning Department, the subject parcel/property is currently zoned "*R-5 Residential*" and the State Land Use designation is "*Urban District*."

The subject property, identified as the VZW HON Warrior Cell Site, is located on the rooftop/elevator shaft of the subject building (Moore Hall). (Lat/Long: 21° 18' 03.4" N, 157° 48' 54.1"W).

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Bureau Veritas North America, Inc.

970 N. Kalaheo Avenue, Suite C-316

Kailua, Oahu, HI 96734

Main: (808) 531-6708

Fax: (808) 537-4084

www.us.bureauveritas.com



Mr. Charles K. Maxwell, Sr., Po'o
Hui Malama

Page 2
Project No. 17010-010051.02
May 7, 2010

Construction activities will have no impact to the ground surface. Figures showing the location and design of the proposed cell site, as well as recent photographs of the site, are included as attachments.

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 telecommunications project.

Per FCC NEPA/NHPA 106 Process guidelines, please provide *written* documentation of your findings within 30 days, either to the address shown on the first page, via fax at 808.537.4084, or by email to lori.ford@us.bureauveritas.com.

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

Regards,

Lori Ford
Senior Project Manager
Bureau Veritas North America, Inc.

/l/f

Attachments: 1) VZW HON Warrior Cell Site Figures
2) VZW HON Warrior Cell Site Photographs



APPENDIX D

REGULATORY AGENCY CORRESPONDENCE FOR PERMITTING



SECTION 1

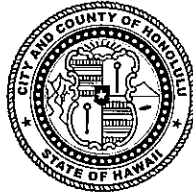
**City and County of Honolulu
Department of Planning and Permitting**

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
TELEPHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honolulu.gov • CITY WEB SITE: www.honoluludpp.org

RECEIVED
6-7-10

MUFI HANNEMANN
MAYOR



DAVID K. TANOUÉ
DIRECTOR
ROBERT M. SUMITOMO
DEPUTY DIRECTOR

2010/ELOG-946 (BLB)

June 4, 2010

Ms. Lori Ford, Senior Project Manager
Bureau Veritas North America, Inc.
970 North Kalaheo Avenue, Suite C-316
Kailua, Hawaii 96734

Dear Ms. Ford:

Subject: Zoning Information Request
Verizon Wireless HON Warrior Cell
1890 East West Road – Manoa
Tax Map Key 2-8-23: 3

This responds to your inquiry, received May 10, 2010, concerning a cellular communications facility (twelve 8-foot panel antennas) for Verizon Wireless on the above site, which is in the R-5 Residential District.

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

For zoning purposes, the proposed use is considered a "utility installation, Type B," by the Land Use Ordinance. The site is not in the Special Management Area. Further, projects on the University of Hawaii at Manoa (UHM) campus are subject to Plan Review Use (PRU) Permit No. 2009/PRU-3. Relative to on-site utility installations, if a project is intended primarily for the usage of the UHM, then a Minor Modification to the PRU is required. However, if it is intended for the general public, a new Conditional Use Permit (Minor) is required.

Please contact Blake La Benz of our staff at 768-8016 if you have any questions concerning this response.

Very truly yours,


David K. Tanoue, Director
Department of Planning and Permitting

DKT:cs



APPENDIX E

NATURAL RESOURCES IMPACTS REGULATORY AGENCY CORRESPONDENCE



SECTION 1

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



United States Department of the Interior

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

RECEIVED
5-28-10



In Reply Refer To:
2010-TA-0300

MAY 26 2010

Ms. Lori Ford
Bureau Veritas North America, Inc.
970 North Kalaheo Avenue, Suite C-316
Kailua, Hawaii 96734

Subject: Proposed Verizon Wireless Warrior Cell Site, University of Hawaii at Manoa, on the Island of Oahu [TMK (1) 2-8-023-003]

Dear Ms. Ford:

We are in receipt of your letter dated May 7, 2010, in which you requested information regarding proposed project site at University of Hawaii at Manoa – Moore Hall, on the island of Oahu, including information on the presence of proposed or listed threatened or endangered species; proposed or designated critical habitat, wilderness areas, wildlife preserves, or National Wildlife Refuges. We received your letter on May 10, 2010. The proposed action includes the mounting of up to 12, eight-foot panel antennas on an existing elevator shaft and installing equipment cabinets on the roof top. The finished height of the antennas will be approximately 87 feet.

You requested our assistance in evaluating potential effects from the proposed project to listed species and critical habitat. According to information in our files, the federally endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) can be found in the project vicinity. To the best of our knowledge, no federally proposed or designated critical habitat, wilderness areas, wildlife preserves, National Wildlife Refuges occur within the proposed project footprint.

We appreciate your efforts to conserve endangered species. If you have questions, please contact Aaron Nadig, Fish and Wildlife Biologist, Consultation and Technical Assistance Program (phone: 808-792-9400; fax: 808-792-9581).

Sincerely,

for Loyel Mehrhoff
Field Supervisor



RECEIVED
10-15-10



United States Department of the Interior

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:
2010-I-0496

OCT 14 2010

Ms. Lori Ford
Bureau Veritas North America, Inc.
970 North Kalaheo Ave., Suite C-316
Kailua, Hawaii 96734

Subject: Informal Consultation for the Proposed Verizon Wireless HON Warrior Cell Site,
University of Hawaii at Manoa – Moore Hall, Oahu

Dear Ms. Ford:

Thank you for your September 13, 2010, letter, which we received on September 16, 2010, requesting our concurrence with your determination that the proposed mounting of twelve, eight-foot tall panel antennas on the existing elevator shaft of Moore Hall in addition to installation of equipment cabinets on the roof top will not adversely affect the federally endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), pursuant to section 7 of the Endangered Species Act of 1973 [16 U.S.C. 1531-1544], as amended. Moore Hall is located on the University of Hawaii at Manoa, within an area of high-density development in Honolulu on the island of Oahu [TMK (1) 2-8-023-003]. We understand that the Federal Communications Commission has designated the licensees, applicants, tower companies and their representatives as non-Federal representatives for informal section 7 consultations with the U.S. Fish and Wildlife Service and you are consulting with us pursuant to this designation.

The Hawaiian hoary bat is known to strike objects that protrude above the surrounding vegetation. Your letter indicates the eight-foot tall panel antennas and equipment cabinets will not protrude above the height of existing structural portions of the building. The panel antennas will be mounted against the outer surfaces of the existing elevator shaft. In addition, your letter indicates the antennas will be located at or below the height of trees and other buildings in the project vicinity. The proposed structures are likely to be visible to Hawaiian hoary bats using both eyesight and echo-location because they are solid structures. The location and visibility of project structures reduces the likelihood Hawaiian hoary bats will strike them. Because the panel antennas will be shorter than the surrounding urban and landscape features, the antennas are constructed of panels which are likely to be visible to bats, and Hawaiian hoary bats are thought to occur infrequently in the project vicinity, Hawaiian hoary bats are not likely to strike and be harmed by the proposed project structures.

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IN AMERICA 

Hawaiian hoary bats can be harmed when roost sites in woody vegetation are disturbed. No woody vegetation will be disturbed as a result of the proposed project. Because Hawaiian hoary bats are unlikely to strike the proposed structures and because no woody vegetation will be impacted as a result of the proposed project, we concur that the proposed project is not likely to adversely affect the Hawaiian hoary bat.

If you have any questions or concerns regarding this consultation, please contact Aaron Nadig, Fish and Wildlife Biologist, Consultation and Habitat Conservation Planning Program (phone: 808-792-9400; fax: 808-792-9581).

Sincerely,

Christa Russel

for Loyal Mehrhoff
Field Supervisor



SECTION 2

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



May 7, 2010

Mr. David Smith, Oahu Branch Manager
Department of Land & Natural Resources (DLNR)
Division of Forestry & Wildlife (DOFAW)
2135 Makiki Heights Drive
Honolulu, Oahu, Hawaii 96822

Project No. 17010-010051.02

Subject: Species List and Impact Determination Request for the Proposed Verizon Wireless (VZW) HON Warrior Cell Site, Located at University of Hawaii at Manoa - Moore Hall, 1890 East West Road (Portion of Tax Map Key [TMK] No.: (1) 2-8-023: Parcel 003), Honolulu, Oahu, Hawaii 96822

Dear Mr. Smith:

Bureau Veritas North America, Inc. (Bureau Veritas) has been retained by Verizon Wireless (VZW) to conduct a site evaluation for the Federal Communications Commission (FCC) of the above-referenced proposed cellular wireless telecommunications project.

Pursuant to FCC rules regarding review under the National Environmental Policy Act (NEPA), and 47 CFR § 1.1307 (A) (3), Bureau Veritas requests your opinion as to (1) whether the proposed site is located within a wilderness area, wildlife preserve or a National Wildlife Refuge; and (2) whether there are any (proposed or listed) threatened or endangered species; or (proposed or designated) critical habitat within the proposed project site.

If there are (proposed or listed) threatened or endangered species; or (proposed or designated) critical habitat within the proposed project sites, we request your assistance in determining whether the project will affect any proposed or listed species and/or proposed or designated critical habitat(s). A site location map (Figure 1), site plan (Figure 2), and site photographs are attached for your review and records.

Bureau Veritas is also contacting the United States Fish & Wildlife Service (USFWS) in Honolulu for a determination regarding this project and reviewed the National Wilderness Preservation System website (<http://www.wilderness.net>) and USFWS website (<http://refuges.fws.gov/>) for information on the proximity of this site to conservation areas of concern.

Based on our review of available data and maps provided by these websites, as well as our site visit and inspection, the proposed wireless telecommunications cell site does not appear to be located within a designated wilderness area or wildlife preserve.

Project Description

The subject parcel, currently owned by the State of Hawaii, consists of the University of Hawaii at Manoa campus. It is roughly bounded by University Avenue, Maile Way, Dole Street, and East West Road

Bureau Veritas North America, Inc.

970 N. Kalaheo Avenue, Suite C-316

Kailua, Oahu, HI 96734

Main: (808) 531-6708

Fax: (808) 537-4084

www.us.bureauveritas.com



Mr. David Smith
Oahu Branch Manager
DLNR-DOFAW

Page 2
Project No. 17010-010051.02
May 7, 2010

The subject parcel is further described as Tax Map Key (TMK) Number: (1) 2-8-023: Parcel 003. According to the City and County of Honolulu Planning and Zoning Department, the subject parcel/property is currently zoned "R-5 Residential" and the State Land Use designation is "Urban District."

The subject property, identified as the VZW HON Warrior Cell Site, is located on the rooftop/elevator shaft of the subject building (Moore Hall). (Lat/Long: 21° 18' 03.4" N, 157° 48' 54.1"W).

According to VZW, the proposed action involves mounting up to 12, 8-foot panel antennas on the existing elevator shaft and installing equipment cabinets on the rooftop (12- by 20-foot lease area) of the six-story building. The finished height of the antenna tips will be at approximately 87 feet above ground level (agl).

Construction activities will have no impact to the ground surface. Figures showing the location and design of the proposed cell site, as well as recent photographs of the site, are included as attachments.

Information Request

As noted, we are contacting you to request your assistance in determining (1) whether the proposed site is located within a wilderness area, wildlife preserve or a National Wildlife Refuge; and (2) whether there are any (proposed or listed) threatened or endangered species; or (proposed or designated) critical habitat within the proposed project site(s).

Per FCC NEPA review process guidelines, please provide *written* documentation of your findings within 30 days, either to the address shown on the first page, via fax at 808.537.4084, or by email to lori.ford@us.bureauveritas.com.

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

Regards,

Lori Ford
Senior Project Manager
Bureau Veritas North America, Inc.

/llf

Attachments: 1) VZW HON Warrior Cell Site Figures
2) VZW HON Warrior Cell Site Photographs



May 7, 2010

Ms. Laura H. Thielen, Chairperson
Department of Land & Natural Resources (DLNR)
Division of Forestry & Wildlife (DOFAW)
1151 Punchbowl Street, Room 130
Honolulu, Oahu, Hawaii 96813

Project No. 17010-010051.02

Subject: Species List and Impact Determination Request for the Proposed Verizon Wireless (VZW) HON Warrior Cell Site, Located at University of Hawaii at Manoa - Moore Hall, 1890 East West Road (Portion of Tax Map Key [TMK] No.: (1) 2-8-023: Parcel 003), Honolulu, Oahu, Hawaii 96822

Dear Ms. Thielen:

Bureau Veritas North America, Inc. (Bureau Veritas) has been retained by Verizon Wireless (VZW) to conduct a site evaluation for the Federal Communications Commission (FCC) of the above-referenced proposed cellular wireless telecommunications project.

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Based on our review of available data and maps provided by these websites, as well as our site visit and inspection, the proposed wireless telecommunications cell site does not appear to be located within a designated wilderness area or wildlife preserve.

Project Description

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Bureau Veritas North America, Inc.

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Kailua, Oahu, HI 96734

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Ms. Laura H. Thielen, Chairperson
Department of Land & Natural Resources (DLNR)
Division of Forestry & Wildlife (DOFAW)

Page 2
Project No. 17010-010051.02
May 7, 2010

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

Regards,

Lori Ford
Senior Project Manager
Bureau Veritas North America, Inc.

/l/f

Attachments: 1) VZW HON Warrior Cell Site Figures
2) VZW HON Warrior Cell Site Photographs



SECTION 3

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



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

RECEIVED
6-09-10

REPLY TO
ATTENTION OF:

June 7, 2010

Regulatory Branch

POH-2010-00140

Lori Ford
Bureau Veritas North America, Inc.
970 N. Kalaheo Avenue, Suite C-316
Kailua, Hawaii 96734

Dear Ms. Ford:

We have received your letter requesting a determination as to whether or not a Department of the Army (DA) permit is required for your proposed Verizon Wireless (VZW) HON Warrior Cell site located on the rooftop of Moore Hall on the University of Hawaii at Manoa Campus in Honolulu, Oahu, Hawaii. We have reviewed your proposal pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404). We have determined that a DA permit is not required for your proposed work as described in your letter and drawings.

Section 10 requires that a DA permit be obtained for certain structures or work in or affecting navigable waters of the United States (U.S.), prior to conducting the work (33 U.S.C. 403). Section 404 requires that a DA permit be obtained for the discharge of dredged and/or fill material into waters of the U.S., including wetlands and navigable waters of the U.S, prior to conducting the work (33 U.S.C. 1344). Because there are no navigable, or other, waters of the U.S. at the project site, a Section 10 and/or 404 permit is not required.

Thank you for giving us the opportunity to review this proposal and for your cooperation with our regulatory program. Please be advised you can provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at <http://per2.nwp.usace.army.mil/survey.html>.

Should you have any questions, please contact Robert Deroche of my staff at (808) 438-2039, by facsimile at (808) 438-4060, or by Email at robert.d.deroche2@usace.army.mil. Please refer to File No. POH-2010-00140 in all future communications with this office regarding this or other projects at this location.

Sincerely,

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