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LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 14, 2019

Ref: 19OD-008

Keith Kawaoka, Acting Director
Office of Environmental Quality Control
Department of Health, State of Hawai'i
235 S. Beretania Street, Room 702
Honolulu, Hawai'i 96813

Dear Mr. Kawaoka:

Subject: Draft Environmental Assessment for the Proposed Verizon Wireless Facility, Honolulu, Oahu; TMK (1) 3-1-042:034

With this letter, the Department of Land and Natural Resources hereby transmits the draft environmental assessment and anticipated finding of no significant impact ("DEA-AFONSI") for the proposed Verizon Wireless facility installation situated at (1) 3-1-042:034, in the Diamondhead district on the island of Oahu for the publication in the next available edition of the Environmental Notice.

We are submitting the electronic version of the OEQC Publication Form and a PDF formatted electronic copy of the DEA-AFONSI through the online submission platform.

If there are any questions, please contact Barry Cheung at (808) 587-0430.

Sincerely,

Suzanne D. Case
Chairperson

Enclosures

c: Verizon Wireless

20-152

APPLICANT
PUBLICATION FORM

Project Name:	Verizon HON Kupikipikio
Project Short Name:	HON Kupikipikio
HRS §343-5 Trigger(s):	An environmental assessment shall be required for actions that propose the use of state or county lands.
Island(s):	Oahu
Judicial District(s):	City and County of Honolulu
TMK(s):	(1) 3-1-042:034
Permit(s)/Approval(s):	Conditional Use Permit No. 2014/CUP-57, Approved 9/26/14 Special District Permit No. 2014/SDD-48, Approved 9/26/14 Special Management Area Permit No. 2014/SMA-40, Approved 9/26/14 Zoning Waiver No. 2014/W-45 Building Permit submitted 9/29/14, but requires DLNR approval of Environmental Assessment
Approving Agency:	The Department of Land and Natural Resources (DLNR)
Contact Name, Email, Telephone, Address	Barry Cheung Barry.w.cheung@hawaii.gov, 808.587.0430 1151 Punchbowl Street, Room 220, Honolulu, Hawai'i 96813
Applicant:	Verizon Wireless c/o Synergy, Robyn Kahalelehua
Contact Name, Email, Telephone, Address	rkahalelehua@synergy.cc, 916.640.6324 1923 NE 134th Place, Portland, Oregon 97230
Consultant:	Synergy, Robyn Kahalelehua
Contact Name, Email, Telephone, Address	rkahalelehua@synergy.cc, 916.640.6324 1923 NE 134th Place, Portland, Oregon 97230

Status (select one)	**Submittal Requirements**
_X_ DEA-AFNSI	Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEA, and 4) a searchable PDF of the DEA; a 30-day comment period follows from the date of publication in the Notice.
____ FEA-FONSI	Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; no comment period follows from publication in the Notice.
____ FEA-EISPN	Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; a 30-day comment period follows from the date of publication in the Notice.
____ Act 172-12 EISPN ("Direct to EIS")	Submit 1) the approving agency notice of determination letter on agency letterhead and 2) this completed OEQC publication form as a Word file; no EA is required and a 30-day comment period follows from the date of publication in the Notice.
____ DEIS	Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEIS, 4) a searchable PDF of the DEIS, and 5) a searchable PDF of the distribution list; a 45-day comment period follows from the date of publication in the Notice.
____ FEIS	Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEIS, 4) a searchable PDF of the FEIS, and 5) a searchable PDF of the distribution list; no comment period follows from publication in the Notice.
___ FEIS Acceptance Determination	The approving agency simultaneously transmits to both the OEQC and the applicant a letter of its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS; no comment period ensues upon publication in the Notice.
____ FEIS Statutory Acceptance	The approving agency simultaneously transmits to both the OEQC and the applicant a notice that it did not make a timely determination on the acceptance or nonacceptance of the applicant's FEIS

	under Section 343-5(c), HRS, and therefore the applicant's FEIS is deemed accepted as a matter of law.
____ Supplemental EIS Determination	The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is or is not required; no EA is required and no comment period ensues upon publication in the Notice.
____ Withdrawal	Identify the specific document(s) to withdraw and explain in the project summary section.
____ Other	Contact the OEQC if your action is not one of the above items.

Project Summary

Verizon Wireless is proposing to place a new telecommunications facility which will provide wireless service for the Diamondhead and Honolulu areas of Oahu. Verizon's project consists of installing a new 65' stealth monopalm with accompanying equipment and structures. The monopalm, cabinets, and generator will be enclosed within a chain link security fence which will always remain locked. Landscaping will be installed around the perimeter of the new fence. Electrical power and telephone service are provided by new overhead lines via an existing overhead route. The compound area will be approximately 25'x25' (625 sf). While the monopole will be visible from several vantage points in the neighborhood, Verizon will camouflage the monopole as a palm tree to mitigate visual impact.

Verizon is proposing this new facility because of the increased demand for Verizon service by the residents located near the Special Education Center of Hawaii property. Verizon will be providing a service which will contribute to the safety and general welfare of the surrounding neighborhood.

Draft Environmental Assessment

Proposed Verizon Wireless
HON Kupikipikio Cell Site
708 Palekaua Street
(Portion of TMK Number: [1] 3-1-042: Parcel 034)
Honolulu, Hawaii 96816
N 21° 15’ 44.48” / W 157° 47’ 42.59”
Raw Land- New Build, 65-foot Stealth Structure/Palm Tree
Communications Tower Site

Applicant:
Verizon Wireless

Approving Agency:
State of Hawaii Department of Land and Natural Resources

September 24, 2019
Project Number 17015-015032.00

Prepared for:

VERIZON WIRELESS
1000 Bishop Street, Suite 1200
Honolulu, Hawaii 96813

Move Forward with Confidence

Prepared by:

BUREAU VERITAS NORTH AMERICA, INC.
Health, Safety, and Environmental Services
1940 East Deere Avenue, Suite 210
Santa Ana, CA 92705
www.us.bureauveritas.com

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- *State of Hawaii Department of Health Indoor and Radiological Health Branch*
- *City and County of Honolulu Department of Planning and Permitting*
- *Waialae-Kahala Neighborhood Board*
- *Other Related Documents*

D *Local Zoning and Planning Documents*

- *Hawaii State Plan 226-6 and 226-10.5*
- *City and County Property Information*
- *General Plan*
- *City and County of Honolulu Primary Urban Development Plan*
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1.0 INTRODUCTION

Verizon Wireless is proposing to install a cellular communications facility at the Oahu Special Schools Association (OSSA) Special Education Center of Hawaii, located at 708 Palekaua Street (Portion of TMK: [1] 3-1-042: Parcel 034), Honolulu, on the island of Oahu, Hawaii. Prior to installation of the facility, Verizon Wireless is required to conduct an Environmental Assessment (EA) for the site and ensure project compliance with the environmental laws of the State of Hawaii.

Procedural requirements for the preparation of the EA, including contents and significance criteria, are defined by Hawaii Administrative Rules, Department of Health, Chapter 200.1, Title 11, Environmental Impact Statement Rules, Subchapter 7, section §11-200.1-13 and Subchapter 9, section §11-200.1-18.

1.1 PURPOSE AND NEED

This project was initiated by the need for improvements to the limited coverage in addition to increased customer demand. To fulfill the licensing agreements with Federal Communication Commission (FCC) and better service the public, Verizon Wireless commenced a study to determine the optimum location for a communications site.

This Draft Environmental Assessment (DEA) has been prepared to identify the existing and potential impacts of the installation of an antenna installation at the OSSA Special Education Center of Hawaii on the natural and human environment. This DEA has been prepared in accordance with the provisions of Chapter 343, HRS and Title 11, Chapter 200.1 of the State Department of Health's Administrative Rules, as a proposed action involves the use of state land. See Figure 1, Figure 2, and Site Drawings for Vicinity and Building Location. (Appendix A)

1.2 IDENTIFICATION OF APPLICANT

Verizon Wireless is a wireless telecommunications service provider proposing to implement this project.

1.3 IDENTIFICATION OF APPROVING AGENCY

The Department of Land and Natural Resources (DLNR) is the designated approving agency, because it is the landowner and the designated approving body for this DEA.

1.4 IDENTIFICATION OF AGENCIES AND ORGANIZATIONS CONSULTED IN MAKING THE ASSESSMENT

Listed below are the agencies and organizations consulted in the preparation of the DEA.

<u>Federal Government</u>

- U.S. Department of Interior U.S. Fish and Wildlife Service

State of Hawaii

- Department of Land and Natural Resources
    - Division of Forestry and Wildlife
    - Historic Preservation Division
- Indoor and Radiological Health Branch

City and County of Honolulu

- Department of Planning and Permitting

Other

- Waialae-Kahala Neighborhood Board No. 3
- Outdoor Circle

Letters and responses are included in Appendix C.

1.5 SUMMARY OF IMPACTS AND MITIGATION MEASURES

1.5.1 Short Term Impacts

Traffic and Parking: Minor traffic impacts will occur as a result of construction-related traffic and the operation of construction equipment which may, on occasion, impede traffic in the immediate vicinity of the OSSA facility.

Noise: Construction activities will result in noise levels during the one-month installation period.

Air Quality: During construction, fugitive dust generation and on-site emission from construction and installation activities may affect air quality in the immediate vicinity of the project. However, these impacts are anticipated to be minor, due to the short construction period and small size of the project footprint.

To mitigate potential short-term impacts associated with construction activities, the installation of the equipment should be coordinated with the OSSA to minimize disruption of staff and students.

1.5.2 Long Term Impacts

Traffic and Parking: The proposed project will not result in any loss of parking spaces. Neither will it result in an increase in parking demand. The antenna facility will be unmanned and monitored from an offsite location. It will be visited once a month by a maintenance engineer whose normal length of stay on the site will be one hour. The project will not result in an increase in traffic volumes, because it will be unmanned.

Noise: The installation of equipment will not result in any increase in noise levels in the long term at the OSSA campus.

Visual Resources: The installation of 12 panel antennas mounted on the Stealth Structure/Palm Tree, equipment cabinets and emergency generator at ground level within a chain-link fence with green slats enclosure is anticipated to have limited impact on ground-level views in the vicinity of the site.

Electromagnetic Radiation (EMF): Access to the proposed equipment storage area will be restricted from public access with a chain-link fence with green slats. The height of the proposed antenna monopalm is 65 feet, and only contractors and Verizon Wireless personnel will have access to the equipment. These personnel will be aware of the facility and knowledgeable of the potential for exposure and can exercise control over their exposure.

Socio-Economic: Wireless technology provides high-quality, safe, and secure communication services to the community. To be effective, the necessary infrastructure must be built, so that the convenience, mobility, and connectivity of wireless communication devices are easily and readily available to all residents. In addition to improving public safety, Verizon Wireless is helping to build communications infrastructure that will support economic growth. Efficient and reliable communication is an essential requirement for people in any community. This installation is a part of a cellular telecommunications system that will help fulfill this need. The proposed project should have no targeted adverse impacts to minorities or low-income families.

1.6 SUMMARY OF ALTERNATIVES CONSIDERED

The initial search yielded three potential locations for the antenna site:

1. The Arc Center located at 3989 Diamond Head Road
2. Department of Education Training Center located at 475 22nd Avenue
3. OSSA Special Education Center of Hawaii located at 708 Palekaua Street (Portion of TMK: [1] 3-1-042: Parcel 034)

Only OSSA Special Education Center of Hawaii provided the required radio frequency engineering and alignment with existing Verizon Wireless cellular communication sites needed for optimal service. Because of this, the OSSA Special Education Center of Hawaii was found to be the most suitable site for Verizon Wireless' antenna facility.

1.7 ANTICIPATED DETERMINATION

This DEA demonstrates that the proposed action is not anticipated to impose adverse environmental impacts at the project site or any other area; therefore, an EIS is not warranted. A Finding of No Significant Impact (FONSI) is anticipated for this project.

2.0 PROJECT DESCRIPTION

2.1 PURPOSE AND NEED FOR THE PROJECT

The OSSA and Verizon Wireless have discussed the feasibility of having a cellular communication facility on the Special Education Center of Hawaii's premises. Any request for issuance of a separate non-exclusive easement to Verizon Wireless will not be placed on the State of Hawaii Board of Land and Natural Resources' agenda until this EA is completed.

According to the engineering design plans prepared for the project by Verizon Wireless, and site information package prepared by Verizon Wireless, the cellular communication facility will consist of several components, including:

- Lease Area - Verizon Wireless proposes to lease an approximately 25-foot by 25-foot area located at the southerly corner of the OSSA Special Education Center of Hawaii to install a stealth structure/palm tree, communication equipment, and an emergency generator. The installation, which will operate 24 hours a day, 7 days a week, is unmanned and requires only monthly maintenance by the carrier's personnel.

- Equipment Enclosure - The equipment enclosure will consist of a six-foot high chain-link fence with green slats.

- Equipment cabinets - Three telecommunications equipment cabinets will be installed within the enclosure and mounted on steel I-beams.

- Electrical and Telecommunications Utilities - Electrical and telecommunication utilities conduit will extend from the site, a new utility H-frame, northwest to an existing source.

- Monopole and Antenna - A 65-foot stealth structure/palm tree will be installed within the lease area. Twelve panel antennas, 12 Remote Radio Heads (RRH) and three surge protectors will be installed on the stealth structure/palm tree.

2.2 COST OF DEVELOPMENT AND CONSTRUCTION SCHEDULE

The cost to construct the facility is estimated to be approximately $250,000, and it is anticipated that construction will require less than 30 days. It is scheduled to start upon receipt of all zoning and building permit approvals. Scheduling of construction will be closely coordinated with the OSSA to minimize potential noise and traffic impact concerns in and around the site.

2.3 LOCATION, OWNERSHIP, AND SURROUNDING LAND USE

The proposed communication facility site is a portion of a landscaped park/garden on the campus of OSSA Special Education Center of Hawaii. The site is situated in the

southerly portion of the campus and is surrounded by a swimming pool (approximately 10 feet to the north and; the campus park/garden, beyond which is the Hawaii Department of Defense to the east and south, and the Arc Center in Hawaii, to the west.

The site is owned by the Department of Land and Natural Resources. In April 1973, the State of Hawaii Board of Land and Natural Resources (Board) authorized a 65-year lease to Variety Club School and Special Education Center of Hawaii for the operation and management of school facilities for disabled children. After the lease was signed, the two schools formed Oahu Special Schools Association (OSSA) and requested the Board consent to the assignment of the lease to OSSA. OSSA has been the lessee since 1982, and the Variety Club School and Special Education Center of Hawaii are authorized sublessees and operate their programs on the premises separately. The proposed cellular communication facility would be located on the premises of Special Education Center of Hawaii.

3.0 DESCRIPTION OF THE AFFECTED ENVIRONMENT, ANTICIPATED IMPACTS, AND MITIGATIVE MEASURES

3.1 CLIMATE

A. Existing Conditions

Average daily minimum and maximum temperatures range from the high 70s (degrees Fahrenheit) to the low 90s, depending on the time of day and the season. Average daily temperatures vary by about 6.5 degrees between winter and summer seasons, and 15 to 20 degrees between day and night.

Precipitation is seasonal, with most rainfall occurring between the months of October and March. The adjusted median annual rainfall for this location is approximately 1.5 inches.

B. Anticipated Impacts and Mitigative Measures

The proposed project will have no effect on climate conditions.

3.2 TOPOGRAPHY

A. Existing Conditions

The site is located on a relatively flat portion of a land parcel that slopes gradually from approximately 50 feet above mean sea level (amsl) at the north end to approximately 80 feet amsl at the south end. The elevation of the proposed project site is approximately 71 feet above mean sea level. The proposed project will not require alteration to existing grade, except for the electrical and telecommunications conduit extending from the site northwest to an existing source.

B. Anticipated Impacts and Mitigative Measures

The proposed project will have no effect on topographic conditions.

3.3 GEOLOGY AND SOIL

A. Existing Conditions

Geology: Oahu has four major geomorphic provinces: (1) Koolau Range; (2) Waianae Range; (3) Schofield Plateau; and (4) Coastal Plain. The Koolau Range forms the eastern part of the island. Puu Konahuanui, the highest point, is approximately 3,105 feet high. The range is approximately 37 miles long and is deeply eroded by streams. In places, it has high sea cliffs along its shore. The range consists entirely of thin, narrow, basaltic lava flows piled one upon the other like shingles, with minor amounts of volcanic ash and numerous dikes.

Soils: According to the U.S. Soil Conservation Service, the soils on the property are comprised of Mamala cobbly silty clay loam (MnC), with 0 to 12 percent slopes.

B. Anticipated Impacts and Mitigative Measures

Geology: Construction and operation of the facility will not impact or adversely affect any volcanic bedrock.

Soil: The proposed project will have no effect on soil.

3.4 SURFACE WATER AND DRAINAGE

A. Existing Conditions

The proposed project is designated as Zone X, defined as "areas determined to be outside the 500-year floodplain" by the National Flood Insurance Program, Flood Insurance Rate Map (FIRM). The storm water from the site infiltrates the unpaved ground and flows via sheet flow south-southeast toward the Pacific Ocean.

B. Anticipated Impacts and Mitigative Measures

The proposed project is not anticipated to have any impacts on existing drainage patterns or volumes. The entire area within the fenced compound will be finished with ¾-inch aggregate, and a 4-foot and 4-inch by 8-foot concrete pad with emergency generator, and a 17- foot by 10-foot concrete pad with equipment cabinets will be installed at the site. Storm water runoff will flow down the sides of the pad and infiltrate the ground.

3.5 FLORA AND FAUNA

A. Existing Conditions

The vegetation and wildlife on the project site are entirely urban in character. The U.S. Fish and Wildlife Service stated in a response letter, dated July 8, 2015, "Our data indicate there are no proposed or federally listed species and no proposed or designated critical habitat within the immediate vicinity of the proposed project." The State of Hawaii Department of Land and Natural Resources, Division of Forestry & Wildlife (DOFAW) stated in a response letter, dated July 22, 2015, "Given the height of the proposed tower, lack of guy wires, lack of planned vegetation removal and location in a suburban setting, there are no expected impacts to threatened or endangered species as a result of this project." However, a later response letter from the State of Hawaii Department of Land and Natural Resources, DOFAW, dated February 22, 2019, indicated the following:

> "The State Endangered White Tern (Gygis alba) is known to nest in the proposed project vicinity. If tree trimming or removal is planned, DOFAW strongly recommends surveying for the presence of White Terns prior to any action that could disturb the trees. White Tern pairs lay their single egg in a branch fork with no nest. The eggs and chicks can be easily dislodged by construction equipment that nudges the trees. If a nest is discovered, please notify DOFAW staff for assistance.
>
> We note that artificial lighting can adversely impact seabirds that may pass through the area at night by causing disorientation. This disorientation can result in collision with manmade artifacts or grounding of birds. For nighttime lighting that might be required, including the light pole, DOFAW recommends that all lights be fully shielded to minimize impacts. Nighttime work that requires outdoor lighting should be avoided during the seabird fledging season from September 15 through December 15. This is the period when young seabirds take their maiden voyage to the open sea.
>
> The State listed Hawaiian Hoary Bat or 'Ope'ape'a (Lasiurus cinereus semotus) has the potential to occur in the vicinity of the project area and may roost in nearby trees. If any site clearing is required this should be timed to avoid disturbance during the bat birthing and pup rearing season (June 1 through September 15). If this cannot be avoided, woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed without consulting DOFAW. Barbed wire should be avoided for any construction because bat mortalities have been documented as a result of becoming ensnared by barbed wire during flight."

B. Anticipated Impacts and Mitigative Measures

Impacts to flora and fauna are not expected, as the mitigative measures recommended by the DOFAW in its letter, dated February 22, 2019, will be

implemented as part of the construction plan. Neither construction activity nor operation of the proposed antenna facility is expected to result in disturbance or removal of existing vegetation and wildlife in the vicinity of the site.

3.6 ARCHAEOLOGICAL/HISTORICAL RESOURCES

A. Existing Conditions

Prior to the conducting this DEA, Verizon Wireless conducted a land use screening of the project site in conformance with the National Environmental Policy Act (NEPA) of 1969. As part of the screening, the State of Hawaii Department of Land and Natural Resources Historic Preservation Division (SHPD) was consulted. A historic properties assessment report was completed as part of the SHPD submittal. There are no known archaeological or historic sites within the direct Area of Potential Effect (APE). However, there are six historic properties within the visual APE, including: Marshall M. Goodsill Residence, Lyndon Roberts Residence, John and Kate Kelly Residence, Edward and Sally Sheenhan Residence, Milton I Residence, and Fort Ruger Historic District.

As part of the screening, the Office of Hawaiian Affairs was consulted through the Tower Construction Notification System on June 11, 2015. The Office of Hawaiian Affairs stated in automatic reply, dated June 15, 2015, "We have no interest in this site. However, if the applicant discovers archaeological remains or resources during construction, the Applicant should immediately stop construction and notify the appropriate Federal Agency and the Tribe."

B. Anticipated Impacts and Mitigative Measures

Because the proposed project is in a previously developed area, no archaeological or historically significant resources are anticipated to be encountered during the construction and installation period. The SHPD concluded that the project would have a "no historic properties affected" determination. No changes will be made to the surrounding physical environment, and visual impacts will be minimal.

In accordance with Section 6E-46.6, HRS and Chapter 13-300, HAR, if any significant cultural deposits or human skeletal remains are encountered, work shall stop in the immediate vicinity, and the contractor shall be required to contact SHPD.

3.7 NOISE

A. Existing Conditions

Noise levels in the vicinity of the project site are affected by students and vehicular noise. Traffic noise in the immediate area is generally not disruptive, because vehicle speeds are low.

B. Anticipated Impacts and Mitigative Measures

The construction activities of the Verizon Wireless antenna facility will result in an increase in noise level during the approximately one-month installation period. Construction-related noise may affect classrooms on the campus. Construction related noise should have only short-term, minor adverse impacts to ongoing residential activities in the surrounding neighborhood.

No long-term noise impacts are anticipated by the operations of the unmanned antenna facility. After installation of the panel antennas and equipment cabinets is complete, noise generated from the facility will be unchanged from the current situation, due to the fact that the proposed project is not a noise-generating facility.

3.8 AIR QUALITY

A. Existing Conditions

The overall air quality in the vicinity of the project area is good. There are no major sources of pollution near the project site. Present air quality in the project area is mostly affected by air pollutants from motor vehicles, with carbon monoxide being the most abundant of the air pollutants emitted.

B. Anticipated Impacts and Mitigative Measures

There will be two types of short-term air quality impacts that will result from the proposed project: 1) fugitive dust generation and 2) on-site emissions from construction equipment. Fugitive dust emissions may arise from site preparations and construction activity. On-site mobile and stationary construction equipment will emit some air pollutants in the form of engine exhaust. However, these impacts are anticipated to be minimal, due to the short construction period and the small size and scale of the proposed project.

Contractor construction equipment will be required to comply with State and County standards with respect to maintaining equipment so that trucks and heavy equipment will be operating in good condition. Best management practices such as this will help minimize any on-site emissions of air pollutants during the brief construction period.

Long-term air quality impacts will remain at current levels from normal, day-to-day operations after the construction for the proposed project, since the capacity of the campus parking lot will remain unchanged, and the facility will be unmanned, with a Verizon Wireless technician expected to visit the project site once a month to maintain the equipment and antennas.

4.0 UNAVOIDABLE ADVERSE IMPACTS

The construction of the antenna facility will have only minimal adverse environmental impacts, which cannot be fully mitigated by the measures planned to be implemented. The following list includes those short-term and long-term impacts that are expected to be unavoidable.

1. Negligible releases of air contaminants will occur from construction equipment. Emissions of fugitive dust may occur during dry periods as a result of construction operations despite efforts to control dust per State of Hawaii Department of Health (HDOH) regulations.
2. In the short-term, the visual character of the area will be affected by construction activities and by the presence and operation of construction equipment.
3. Short-term increase in noise levels will result from construction activities. Noise and construction may cause minor disruptions to portions of the campus in the immediate vicinity.

5.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The construction and operation of the Verizon Wireless antenna facility will involve the irretrievable commitment of certain physical and fiscal resources. The major resource commitment will be the loss of landscaped park/garden area on the OSSA Special Education Center of Hawaii campus. Financial resources, construction materials, manpower, and energy will be expended by Verizon Wireless to construct and operate the facility.

6.0 ALTERNATIVES

Alternative sites that were considered are discussed in Section 1.6 of this DEA.

The no-action alternative would result in Verizon Wireless not proceeding with necessary physical upgrades of its existing service level for the Diamond Head area. This alternative would result in no change to the present environmental characteristics of the project site; to employment, to government expenditures, to infrastructure services, and to traffic conditions. However, the existing capacity is diminishing and continued operations without improvement will make it difficult for Verizon Wireless to maintain expected quality service to its present customers. A potential scenario that may result from the no-action alternative is: for any customer who is in need of emergency assistance or able to respond to an emergency situation, lack of reliable broadband service at a critical moment could mean a lost opportunity to save a life.

The selection of a communications site is first determined by the coverage need. Based on the location of the coverage area, an existing structure or a property's ability to fulfill the height requirement is an important factor in providing the clearest unobstructed line of transmission. If availability of an existing structure is non-existent, then the placement of a tower is determined based on the topography of the area.

The initial search yielded three potential locations for the antenna site:

1. The Arc Center located at 3989 Diamond Head Road
2. Department of Education Training Center located at 475 22nd Avenue
3. OSSA Special Education Center of Hawaii located at 708 Palekaua Street (Portion of TMK: [1] 3-1-042: Parcel 034)

Only OSSA Special Education Center of Hawaii provided the required radio frequency engineering and alignment with existing Verizon Wireless cellular communication sites needed for optimal service. Because of this, OSSA Special Education Center of Hawaii was found to be the most suitable site for Verizon Wireless' antenna facility.

7.0 RELATIONSHIP TO EXISTING PLANS AND POLICES

This section includes a discussion of the relationship of the project to the following policies and plans: Hawaii State Plan, State Land Use law, City and County of Honolulu General Plan and Development Plan, and the Land Use Ordinance.

7.1 THE HAWAII STATE PLAN

This section includes an assessment of the proposed facility to the applicable goals, objectives, and policies of the Hawaii State Plan, Chapter 226, HRS.

Section 6-a-13: Objectives and policies for the economy-in general: "Foster greater cooperation and coordination between the government and private sectors in developing Hawaii's employment and economic growth opportunities."

Discussion: By working out an amenable leasing arrangement with Verizon Wireless, both Verizon Wireless and the OSSA are an example of public and private sector partnerships, which are beneficial to the State's economic growth and diversification. The facility will be under lease from the State of Hawaii Department of Land and Natural Resources and will provide a source of revenue to the State.

Section 10.5-a-1: "Promote effort to attain the highest speeds of electronic and wireless communication within Hawaii and between Hawaii and the world, and make high speed communication available to all residents and businesses in Hawaii."

Section 10.5-a-2: "Encourage the continued development and expansion of the telecommunications infrastructure serving Hawaii to accommodate future growth and innovation in Hawaii economy."

Discussion: With the completion of this proposed wireless communications facility, Verizon Wireless will continue to develop and expand its telecommunications infrastructure to provide high quality, safe, and secure communication services to the community. There will also be increased telecommunication reception available in case of emergency response.

7.2 STATE LAND USE LAW

The proposed project is presently classified within the State Land Use District. Public and private utility system facilities and research institutions are compatible in the Urban District. Thus, the project will be consistent with the State Land Use District classification upon approval by the Land Board of the lessee's request for the proposed project.

7.3 CITY AND COUNTY OF HONOLULU GENERAL PLAN

The 1992 edition of the General Plan is a statement of the long-range social, economic, environmental, and design objectives for the general welfare and prosperity of Oahu's citizens. These objectives contain both statements of desirable conditions to be sought over the long run and statements of desirable conditions which can be achieved within an approximate 20-year time horizon. The General Plan is also a statement of broad policies which facilitate the attainment of the objective of the Plan. The following discussion provides an assessment of how the proposed project implements the objectives and policies for Education in the General Plan.

Objective A: To prevent and control crime and maintain public order.

Policy 1: Provide a safe environment for residents and visitors on Oahu.

Discussion: By enabling the upgrade to Verizon Wireless telecommunications system, the project proposes to strengthen communications with Oahu residents and visitors with emergency services.

7.4 THE CITY AND COUNTY OF HONOLULU PRIMARY URBAN CENTER DEVELOPMENT PLAN

The City and County of Honolulu Primary Urban Center Development Plan (PUC DP), approved on June 21, 2004, presents a vision for the PUC's future development consisting of policies, guidelines and conceptual schemes that will serve as a policy guide for more detailed zoning maps and regulations and for public and private sector investment decisions.

Chapter 3: Land Use and Transportation

Protecting and Enhancing Natural, Cultural, and Scenic Resources.

Preserve panoramic views of natural landmarks and the urban skyline: This includes important vistas and focused views of significant natural and urban features and skyline profiles that make up or frame the PUC from publicly accessible places.

Discussion: The proposed Verizon Wireless telecommunication facility is planned to be stealthed as a palm tree so as not to impair the natural skyline profile of the Diamond Head Crater and to blend into the setting with other trees and natural vegetation.

7.5 LAND USE ORDINANCE-ZONING

According to the City and County of Honolulu Department of Planning and Permitting (DPP), the site is zoned "R-10 Residential." According to the Conditional Use Permit - Minor (CUP-m) (no. 2014/CUP-57, issued September 26, 2014), the site is zoned as R-10 Residential District (Appendix D). Pursuant to Table 21-3.4 of the Land Use Ordinance (LUO) Section 21-3.110-1 (b), a Utility Installation, Type B (communication facility) is a permitted use in the R-10 Residential District with the approved CUP-m. Per the requirements outlined in Table 21-3.4, the maximum height allowed in the subject property parcel is 25 feet. LUO Section 21-4.60 (c) (4) (B) states that "Antennas associated with utility installations shall not exceed 10 feet above the governing height limit, but in residential districts where utility lines are predominantly located underground the governing height shall apply." According to the CUP Application No. 2014/CUP-57 and Zoning Waiver (Zoning Waiver Application No. 2014/W-45, issued September 26, 2014), "Pursuant to LUO Section 21-2.130(a)(1), utility installations are eligible for a waiver from the strict development and/or design standards of the LUO. The maximum permitted height for nonagricultural structures in the R-10 Residential District is 25 feet and 35 feet for antennas. The monopole (monopalm) will be 65 feet high. The height setback is any portion of the structure exceeding 15 feet shall be setback from every side and rear buildable area boundary line one foot for each two feet of additional height above 15 feet. The added antenna height and height setback will not under the circumstances and conditions applied in this particular case, adversely affect the health or safety of persons, and shall not be materially detrimental to the public welfare or injurious to nearby property improvements. Under the circumstances and conditions applied in this particular case, the request to exceed the maximum height and height setback is reasonable." As part of the CUP (minor), Verizon Wireless applied for and received a Zoning Waiver to exceed the maximum height limit of the R-10 Residential District. (Appendix D)

Per the CUP-m, the site is located entirely within the Special Management Area (SMA), regulated by the City and County of Honolulu Revised Ordinances of Honolulu (ROH) Section 25, and a minor SMA use permit and Special District Permit (Minor) are required. According to the Section 25-2.2, ROH, "The special management area shall include those areas of the island of Oahu so designated on the maps." As defined in Chapter 25, ROH, SMA is "the land extending inland from the shoreline, as established in this chapter and delineated on the maps established by the council and filed with the council and agency pursuant to Hawaii Revised Statues (HRS) Section 205A-23." The minor SMA permit (no. 2014/SMA-40) was issued September 26, 2014. According to the Special District Permit (SDD) (Minor) (no. 2014/SDD-48, issued September 26, 2014), "The proposal is not located in the Core Area of the Diamond Head Special District and should have minimal disruption of views toward Diamond Head." The proposal complies with the adopted objectives and design controls, as well as the design guidelines for the Diamond Head Special District, including: no existing trees six inches or greater in trunk diameter will be removed; the proposed landscaping (tall hedges) along the 6-foot high chain-link fence will help to screen the outdoor equipment area; and the proposed monopalm with artificial fronds and painted with

camouflage colors will also help to reduce the visual impact of the 65-foot high monopalm. (Appendix D)

No documentation was obtained indicating this site was the subject of local controversy.

Per the CUP-m, the proposal was presented to the Waialae-Kahala Neighborhood Board No. 3, on July 17, 2014. A few questions were raised as to the location, height, health risks, and rent payment recipients. All the questions were answered, and there was no objection to the utility installation, Type B. Documentation of the meeting minutes are included in Appendix C. The Waialae-Kahala Neighborhood Board No. 3 recommended that the Outdoor Circle, an environmental non-profit organization, be consulted. The Outdoor Circle has not responded to any of Bureau Veritas' attempts on September 23, 2016 and October 17, 2016.

8.0 FINDINGS AND REASONS FOR SUPPORTING THE DETERMINATION

Based on the information and analysis disclosed in this document, Verizon Wireless anticipates findings that the project will not result in a significant impact on the environment. As such, Bureau Veritas recommends that a Finding of No Significant Impact (FONSI), pursuant to requirements of Chapter 343, HRS, be issued with a recommendation that an Environmental Impact Statement (EIS) will not be required.

In determining whether an action may have significant impact on the environment, the applicant must consider all phases of the project, its expected primary and secondary consequences, the cumulative impacts with other projects, and its short and long-term effects. Section 11-200-12, HAR established 13 significance criteria to be used as a basis for identifying whether significant environmental effects will result.

An applicant/agency will determine an action may have a significant impact on the environment if it meets any of the following criteria.

1. **Involves an irrevocable commitment to loss or destruction of any natural or cultural resources.**

   Development of the proposed project is not expected to impact natural or cultural resources, as the project site is located in a developed area. Consultation with the Office of Hawaiian Affairs (OHA) the Native Hawaiian Organization (NHO) conducted during the NEPA process indicated that no known cultural resources exist at the project site. SHPD indicated in a letter, dated January 21, 2016, that no historic structures exist within or near the area of potential effect.

2. **Curtails the range of beneficial uses of the environment.**

   The proposed project will be compatible with the existing uses of the surrounding area and will have minimal disturbance to the OSSA campus and surrounding community, as it is located in a 25- by 25-foot (625 square-foot)

portion of landscaped park/garden area. No significant visual impacts are anticipated, because the monopole (monopalm) blends with the existing landscaping. There are no unique natural features, coastal views, or other natural resources that will be adversely impacted.

3. **Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in chapter 344, HRS.**

   The proposed project is consistent with the State's long-term environmental policies, as well as the State's Land Use Plan because the proposed location is an urban/developed neighborhood, in creating opportunities for the residents of Hawaii to improve their quality of life through diverse economic activities which are stable and in balance with the physical and social environment. There are no unique natural features, coastal views, or other natural resources that will be adversely impacted.

4. **Substantially affects the economic or social welfare of the community or State.**

   Short-term construction-related activities will result in positive economic impacts through increased work for a selected contractor and design engineers during implementation of the project. No access issues will result when construction is completed. Long-term adverse effects are not foreseeable, as the economic and social welfare of the community should not be adversely affected. The proposed project should have no targeted adverse impacts to minorities or low-income families.

5. **Substantially affect public health.**

   Short-term construction-related activities will not impact public health as they are temporary in nature. In addition, construction activities will be regulated by State and County standards to minimize noise, dust, and exhaust emissions. It is not anticipated to adversely affect the health or safety of persons, be materially detrimental to the public welfare, or injurious to nearby property improvements.

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

   The proposed project does not directly result in secondary impacts and will only increase capacity of the communications systems to serve Oahu citizens in conformance with the General Plan. The proposed use will not alter the character of the surrounding area in a manner substantially limiting, impairing, or precluding the use of the surrounding properties for the principal uses permitted in the underlying zoning district.

7. **Involves a substantial degradation of environmental quality.**

   The proposed project is located on a portion of the OSSA Special Education Center of Hawaii campus landscaped park/garden area. Additionally, the

proposed project footprint is limited; therefore, the environmental quality of the surrounding campus will be essentially unaffected. There are no unique natural features, coastal views, or other natural resources that will be adversely impacted.

8. **Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions.**

   The proposed project does not have any cumulative effect upon the environment, and no larger commitments are required for the proposed telecommunications facility.

9. **Substantially affects a rare, threatened, or endangered species, or its habitat.**

   There are no known rare, endangered, or threatened species or habitat associated with the project site. The Department of Land and Natural Resources Division of Forestry and Wildlife stated in a response, dated July 22, 2015, "Given the height of the proposed tower, lack of guy wires, lack of planned vegetation removal and location in a suburban setting, there are no expected impacts to threatened or endangered species as a result of this project. The United States Department of the Interior Fish and Wildlife Service stated in a response, dated July 8, 2015, "Our data indicate there are no proposed or federally listed species and no proposed or designated critical habitat within the immediate vicinity of the proposed project." The area has been urbanized and the ground on which the site is located has undergone a relatively sufficient level of disturbance over the years with its subsequent improvements.

10. **Detrimentally affects air or water quality or ambient noise levels.**

    Negative effects on environmental quality will be short-term due to construction and will be limited to the areas adjacent to the project. These short-term impacts will be mitigated to meet project plans approvals and specification regulations. Project activities shall comply with the Community Noise Control Administrative Rules of the Department of Health, Chapter 11-46.

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

    The project site is not located in an environmentally sensitive area that would be vulnerable to flooding, because it is outside the 100-year flood plain. It is removed from the tsunami zone, coast, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters. Therefore, the project will not affect environmentally sensitive areas.

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

The proposed stealth structure is planned to resemble a palm tree to avoid causing any disruption to existing vistas and view planes. The stealth structure/palm tree is also being painted to match the color of the surroundings. Therefore, the proposed project is not expected to have an adverse effect on existing views on the OSSA campus and surrounding areas. The proposal is not located in the Core Area of the Diamond Head Special District and should have minimal disruption of views toward Diamond Head. There are no unique natural features, coastal views, or other natural resources that will be adversely impacted.

13. Requires substantial energy consumption.

Energy consumption will consist of short-term construction activities, in which diesel or gas-powered equipment will be used. Once completed, the antenna facility will require electrical power and telephone service at levels that Oahu Special Schools Association Special Education Center of Hawaii campus infrastructure and utilities systems have capacity enough to supply. Therefore, the proposed project would not be a burden on the existing facilities in terms of energy requirements.

9.0 SIGNATURES

This report was prepared by:

Nicole Okino
Staff Geologist
Health, Safety, and Environmental Services

This report reviewed by:

Mary E. Armstrong-Friberg
Senior Project Manager- Environmental Services
Health, Safety, and Environmental Services

Draft Environmental Assessment
Proposed Verizon Wireless
HON Kupikipikio Cell Site
708 Palekaua Street
(Portion of TMK: [1] 3-1-042: Parcel 034)
Honolulu, Hawaii 96816

September 24, 2019

9.0 REFERENCES

Verizon Wireless, July 2014. *HON Kupikipikio Zoning Drawings*

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Panel 15003C0369H, November 5, 2014.

Natural Resources Conservation Service. Web Soil Survey. December 2015.

U.S. Department of Interior U.S Fish and Wildlife Service. National Wetland Inventory. December 2015

U.S. Department of Interior U.S Fish and Wildlife Service. National Wildlife Refuge System. December 2015.

University of Montana. Wilderness.net

Appendix A
Site Figures

HON KUPIKIPIKIO
ZONING DRAWINGS

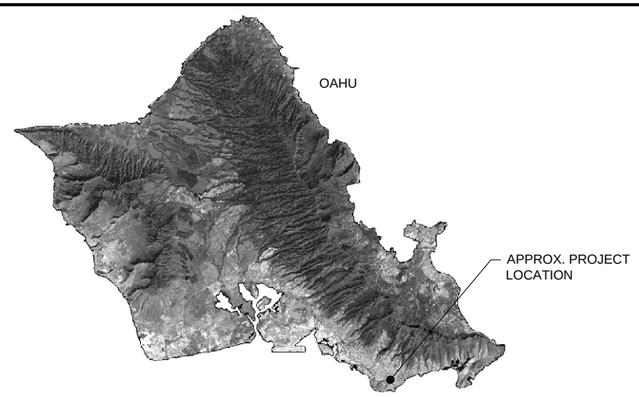
PROJECT DATA

SITE ADDRESS:	708 PALEKAUA STREET HONOLULU, HI 96816
LATITUDE:	21° 15' 44.48" N
LONGITUDE:	157° 47' 42.59" W
DATUM:	NAD 83
SOURCE:	1A
JURISDICTION:	CITY AND COUNTY OF HONOLULU
TMK:	(1) 3-1-042:034
GROUND ELEVATION:	71' AMSL
POLE TOP ELEVATION:	65' AGL
HEIGHT LIMIT:	25' AGL
OCCUPANCY GROUP:	U-2
CONSTRUCTION TYPE:	V-B
ZONING:	R-10
FLOOD ZONE:	ZONE X
DESIGN WIND LOAD:	100 MPH

GOVERNING CODES

- IBC - 2006, INTERNATIONAL BUILDING CODE ALL CONSTRUCTION SHALL CONFORM TO THE 2006 INTERNATIONAL BUILDING CODE (2006 IBC) AND THE LATEST CITYAND COUNTY OF HONOLULU AMENDMENTS AND ORDINANCES.
- NEC-2008, NATIONAL ELECTRICAL CODE
- NFPA - 2006, NATIONAL FIRE PROTECTION ASSOCIATION FIRE SAFETY DURING CONSTRUCTION, ALTERATION OR DEMOLITION SHALL COMPLY WITH 2006 NFPA 1
- A.D.A. COMPLIANCE
  INSTALLATION IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAP ACCESS IS NOT REQUIRED PER A.D.A.

ISLAND MAP



VICINITY MAP

PROJECT CONTACTS

APPLICANT
VERIZON WIRELESS
3350 161ST AVE. SE
BELLEVUE, WA 98008

LESSEE
OAHU SPECIAL SCHOOLS ASSN.
C/O VARIETY SCHOOL OF HAWAII
710 PALEKAUA ST
HONOLULU, HI 96816

FEE OWNER
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
1151 PUNCHBOWL ST
HONOLULU, HI 96813

MONOPOLE OWNER
VERIZON WIRELESS
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BELLEVUE, WA 98008

PRINCIPAL ENGINEER, NETWORK CONSTRUCTION
VERIZON WIRELESS
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MS 231
BELLEVUE, WA 98008
CONTACT: BRYAN ADAMS, PMP
PH: 425.603.2728
CELL: 206.715.6499

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CHARLES FORTNER
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PJ CAMOU
PH: 808.536.7406

SURVEY
LEAPS & BOUNDARIES, INC.
2016 WATERHOUSE ST., STE. 101
HONOLULU, HI 96819
ARDEN J. TORCUATO
PH: 808.484.5701

ELECTRICAL ENGINEER
9200 CHERRY CREEK S. DRIVE, SUITE 25
DENVER, CO 80231
RICHARD J. MOSS, PE
PH: 303 921 5061

STRUCTURAL ENGINEER
VECTOR STRUCTURAL ENGINEERS
9138 S STATE ST., SUITE 101
SANDY, UT 84070
ROGER T. ALWORTH, S.E.
PH: 801.990.1775

PROJECT SUMMARY

THIS PROJECT INCLUDES THE FOLLOWING SCOPE OF WORK:

1. NEW FACILITY WILL CONSIST OF A 625 SF FENCED LEASE AREA COMPOUND WITH A NEW 65' MONOPALM, TWELVE (12) VERIZON WIRELESS PANEL ANTENNAS, TWELVE (12) REMOTE RADIO HEADS (RRHs), THREE (3) SURGE PROTECTORS AND (1) GPS ANTENNA.

2. PROPOSED VERIZON WIRELESS EQUIPMENT CABINETS ON A NEW CONCRETE PAD AND 50KW OUTDOOR DIESEL GENERATOR ON A NEW CONCRETE PAD.

3. PROPOSED INSTALLATION OF 200A ELECTRICAL SERVICE & FIBER FOR VERIZON WIRELESS EQUIPMENT.

CALL BEFORE YOU DIG!
866-423-7287

DRAWING INDEX

SHEET	DESCRIPTION
T-1.0	TITLE SHEET
SV-1	SURVEY
A-1.0	OVERALL SITE PLAN
A-2.0	ENLARGED SITE PLAN
A-2.1	SITE PLAN DIMENSIONS
A-3.0	ELEVATIONS
A-3.1	ELEVATIONS

DRIVING DIRECTIONS

FROM HONOLULU INTERNATIONAL AIRPORT

1. HEAD NORTHWEST ON AOLELE ST (0.1 MI)
2. SLIGHT LEFT ONTO ALA ONAONA ST (0.2 MI)
3. CONTINUE ONTO AOLELE ST (348 FT)
4. SLIGHT RIGHT TO STAY ON AOLELE ST (348 FT)
5. TAKE THE INTERSTATE H1 E RAMP TO HONOLULU/WAIKIKI (0.9 MI)
6. MERGE ONTO I-H-1 E (8.4 MI)
7. TAKE EXIT 26A FOR KOKO HEAD AVE (0.2 MI)
8. TURN RIGHT ONTO KOKO HEAD AVE (240 FT)
9. TURN LEFT ONTO PAHOA AVE (0.6 MI)
10. TURN RIGHT ONTO 22ND AVE (0.7 MI)
11. TURN LEFT ONTO PUU PANINI AVE (0.1 MI)
12. TAKE THE 1ST RIGHT ONTO PALEKAUA ST; DESTINATION WILL BE ON THE RIGHT (469 FT)

ESTIMATED DISTANCE: 11.5 MILES
ESTIMATED TIME: 20 MINUTES

verizonwireless

Cascadia PM
1130 N NIMITZ HWY, SUITE A-200
HONOLULU, HI 96817
PH: (808) 536-7400

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CPM PROJECT NO.: 5185

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
1	07-14-14	CL/CL	LU SUBMITTAL

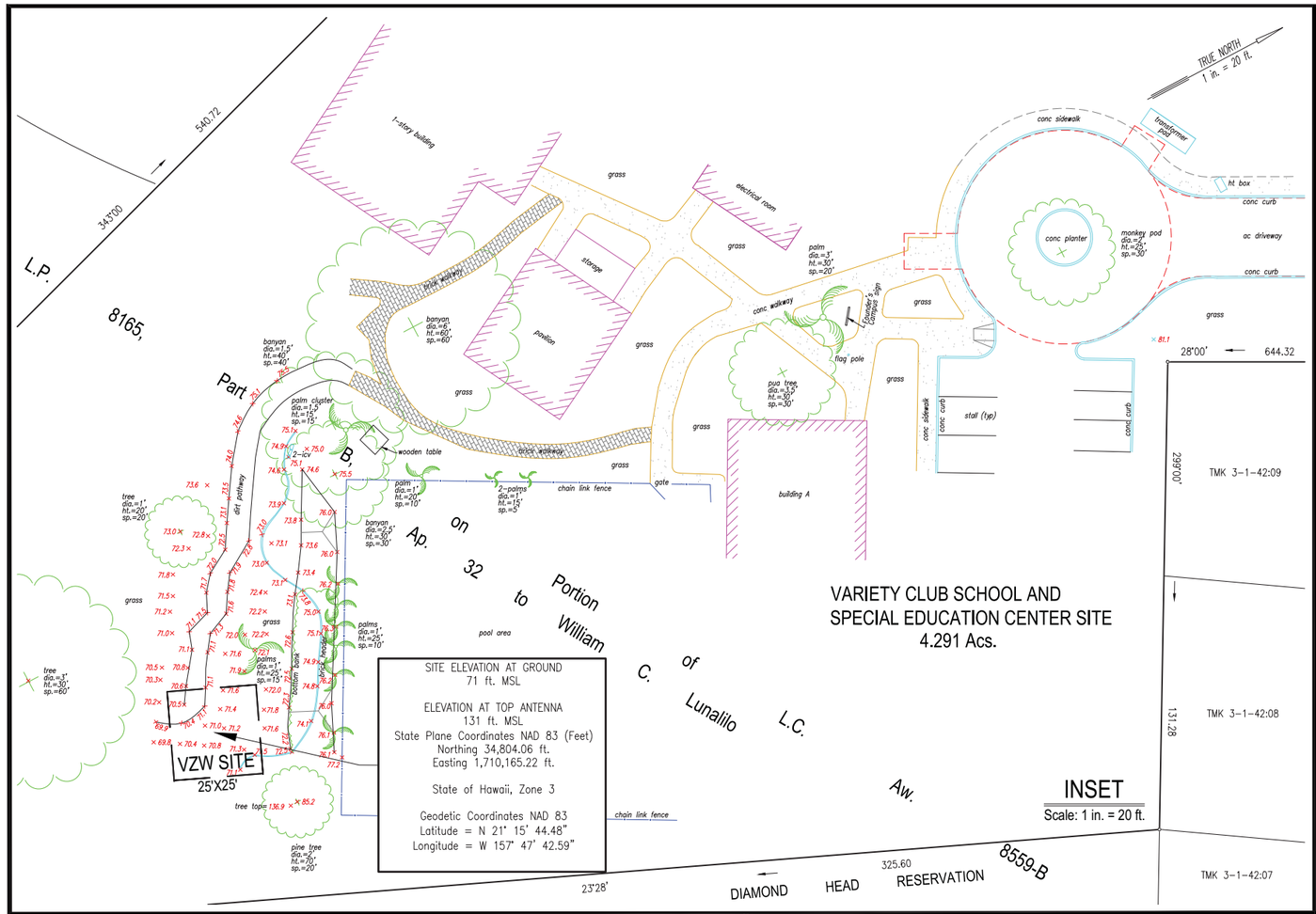
SITE NAME
HON KUPIKIPIKIO

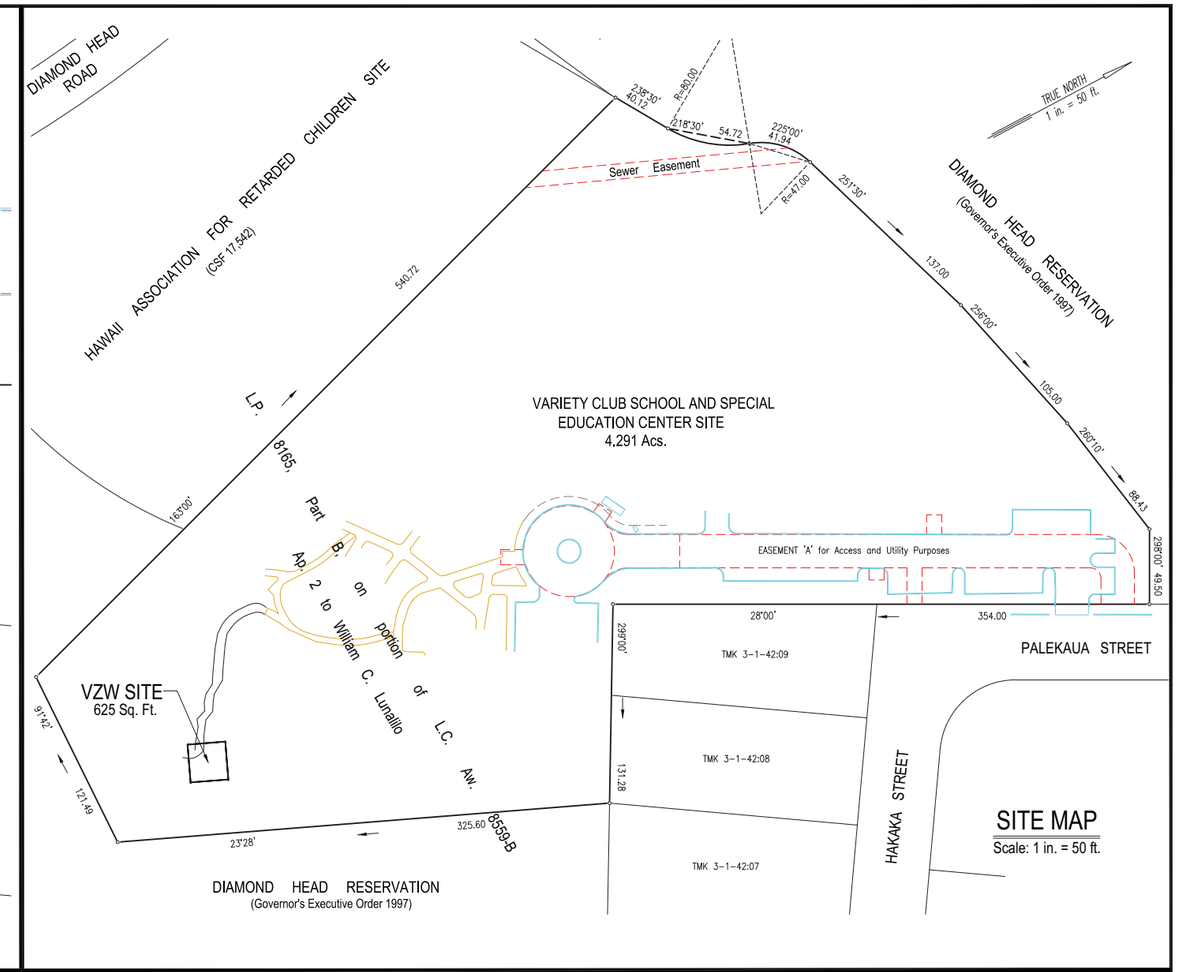
TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

SHEET TITLE
TITLE SHEET

SHEET NO.
T-1.0

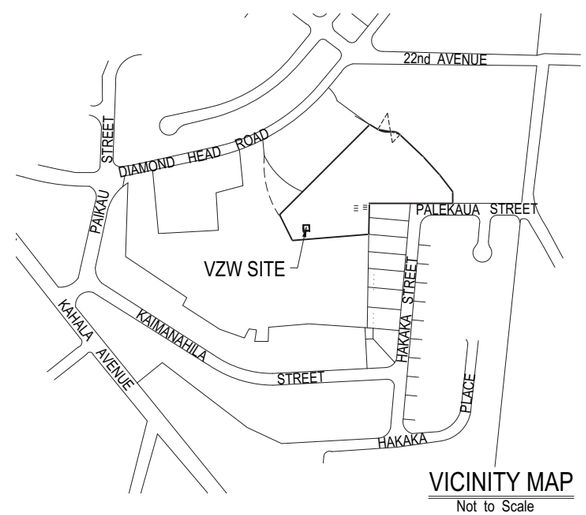




Legend:

bw	bottom wall
clf	chain link fence
co	cleanout
conc	concrete
mw	monitoring well
pav't	edge pavement
tsf	transformer
tw	top wall
wm	water meter
ws	wheel stop
x-walk	crosswalk

Note: Elevations established from GPS-RTK derived orthometric heights, applying Geoid 2009 separations, constraining to NGS control station B 12 (TU0317).



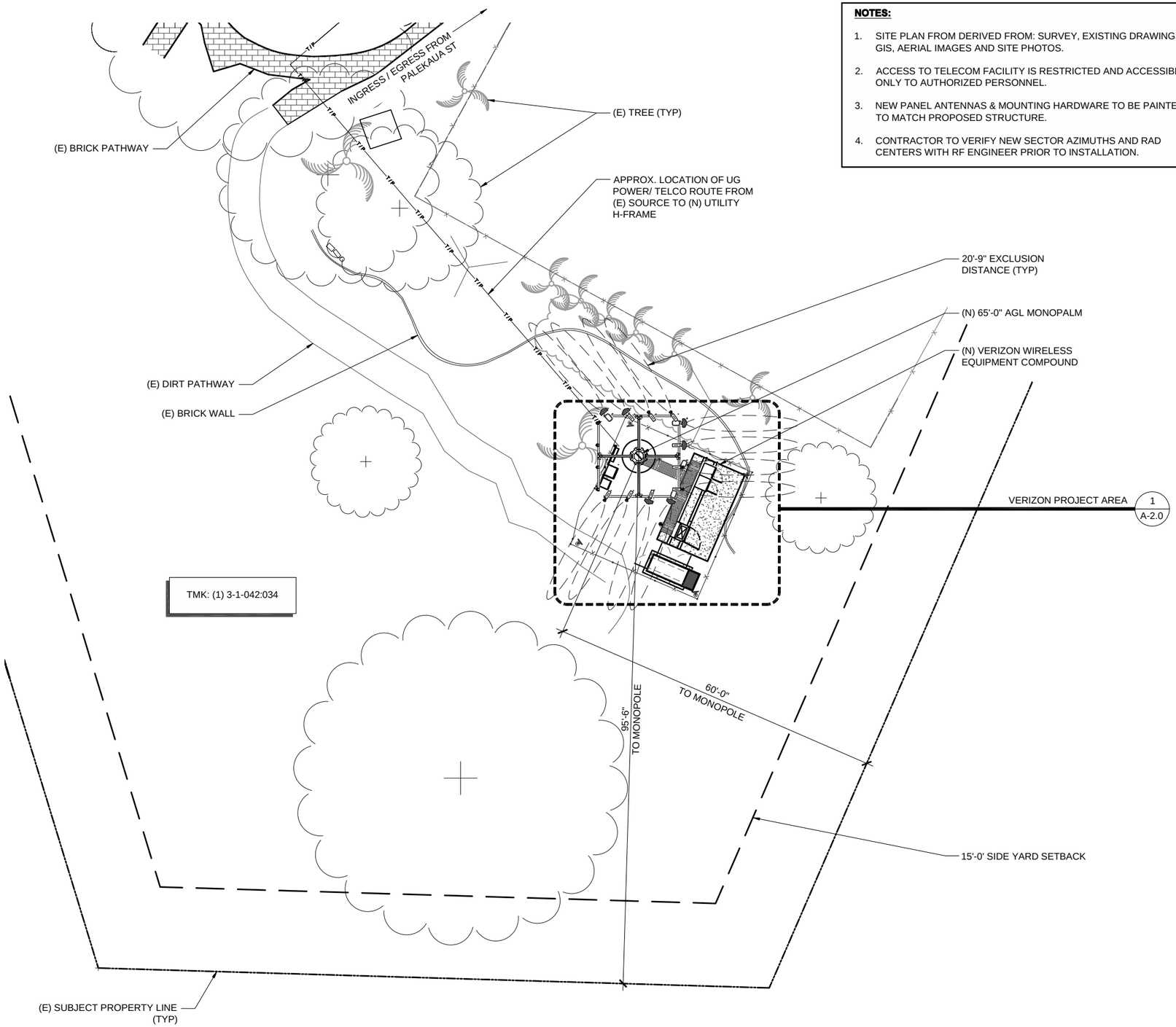
VZW HON KUPIKIPIKIO
VARIETY CLUB SCHOOL AND SPECIAL EDUCATION CENTER SITE
Being a Portion of L. P. 8165, Part B
on Portion of L.C. Aw. 8559-B, Ap. 32 to William C. Lunalilo
At Kapahulu, Waikiki, Honolulu, Oahu, Hawaii
DATE: March 14, 2014
TMK: (1) 3-1-042:034

ARDEN J. TORCUATO
LICENSED PROFESSIONAL LAND SURVEYOR
No. 10257
HAWAII, U.S.A.

This map was prepared by me or under my direct supervision

LICENSED PROFESSIONAL LAND SURVEYOR
CERTIFICATE NUMBER 10257 – Exp. 4/30/2016

LEAPS & BOUNDARIES, INC.
2016 WATERHOUSE ST., STE. 101 PH. (808) 484-5701
HONOLULU, HI 96819 FAX (888) 542-2097
EMAIL: SURVEYS@LEAPSANDBOUNDARIES.COM



NOTES:

1. SITE PLAN FROM DERIVED FROM: SURVEY, EXISTING DRAWINGS, GIS, AERIAL IMAGES AND SITE PHOTOS.
2. ACCESS TO TELECOM FACILITY IS RESTRICTED AND ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL.
3. NEW PANEL ANTENNAS & MOUNTING HARDWARE TO BE PAINTED TO MATCH PROPOSED STRUCTURE.
4. CONTRACTOR TO VERIFY NEW SECTOR AZIMUTHS AND RAD CENTERS WITH RF ENGINEER PRIOR TO INSTALLATION.

DRAWING LEGEND

	SUBJECT PROPERTY LINE
	ADJACENT PROPERTY LINE
	LEASE AREA
	ACCESS EASEMENT
CF	COAX/FIBER ROUTE
F	FIBER ROUTE
WG	WAVEGUIDE ROUTE
	EXISTING FENCE
X / X-X.X	ELEVATION MARKER
X / X-X.X	SECTION MARKER

COMMON ABBREVIATIONS

(E)	EXISTING
(P)	PROPOSED
(TYP)	TYPICAL
RE:	REFERENCE

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PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
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SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
1	07-14-14	CL/CL	LU SUBMITTAL

SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

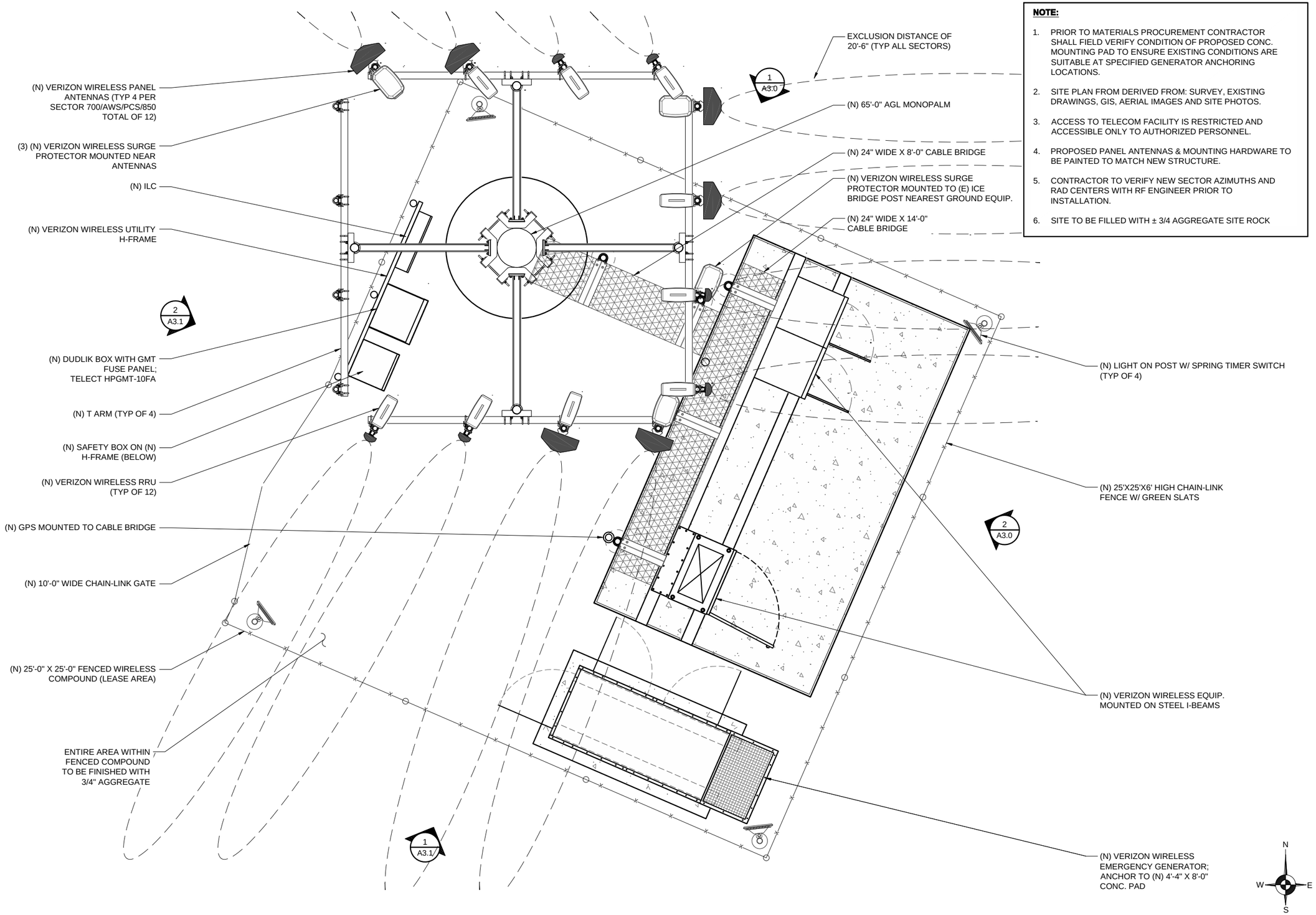
SHEET TITLE
OVERALL SITE PLAN

SHEET NO.
A-1.0

1 OVERALL SITE PLAN

SCALE: 1" = 20'-0" (11X17)
SCALE: 1" = 10'-0" (22X34)

0' 10' 20' 40'



NOTE:

1. PRIOR TO MATERIALS PROCUREMENT CONTRACTOR SHALL FIELD VERIFY CONDITION OF PROPOSED CONC. MOUNTING PAD TO ENSURE EXISTING CONDITIONS ARE SUITABLE AT SPECIFIED GENERATOR ANCHORING LOCATIONS.
2. SITE PLAN FROM DERIVED FROM: SURVEY, EXISTING DRAWINGS, GIS, AERIAL IMAGES AND SITE PHOTOS.
3. ACCESS TO TELECOM FACILITY IS RESTRICTED AND ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL.
4. PROPOSED PANEL ANTENNAS & MOUNTING HARDWARE TO BE PAINTED TO MATCH NEW STRUCTURE.
5. CONTRACTOR TO VERIFY NEW SECTOR AZIMUTHS AND RAD CENTERS WITH RF ENGINEER PRIOR TO INSTALLATION.
6. SITE TO BE FILLED WITH ± 3/4 AGGREGATE SITE ROCK

verizonwireless

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PH: (808) 536-7400

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PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
1	07-14-14	CL/CL	LU SUBMITTAL

SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

SHEET TITLE
ENLARGED SITE PLAN

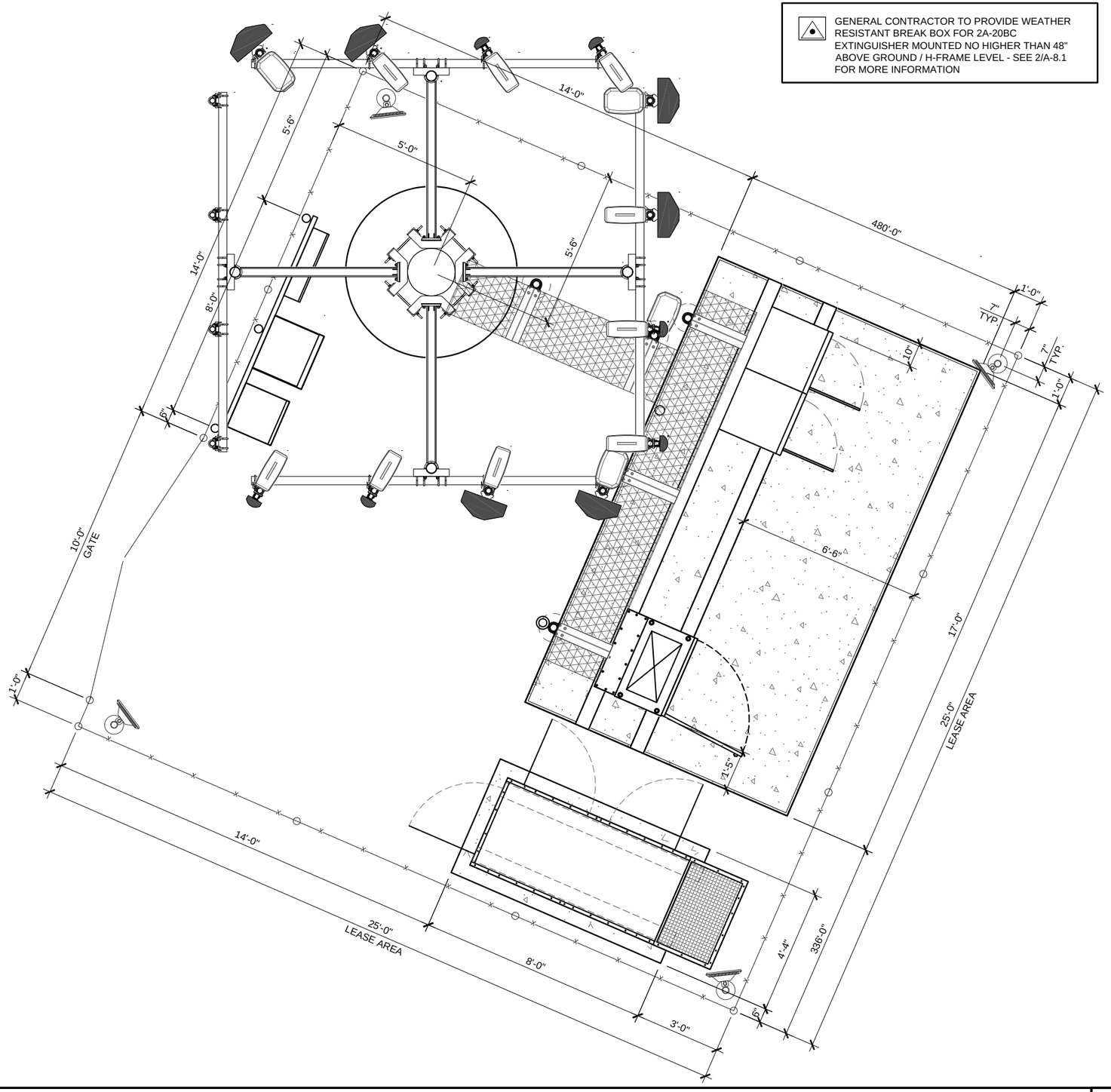
SHEET NO.
A-2.0

1 ENLARGED SITE PLAN

SCALE: 1/4"= 1'-0" (11X17)
SCALE: 1/2" = 1'-0" (22X34)

0' 2' 4' 8'

GENERAL CONTRACTOR TO PROVIDE WEATHER RESISTANT BREAK BOX FOR 2A-20BC EXTINGUISHER MOUNTED NO HIGHER THAN 48" ABOVE GROUND / H-FRAME LEVEL - SEE 2/A-8.1 FOR MORE INFORMATION



NOTE:

1. PRIOR TO MATERIALS PROCUREMENT CONTRACTOR SHALL FIELD VERIFY CONDITION OF PROPOSED CONC. MOUNTING PAD TO ENSURE EXISTING CONDITIONS ARE SUITABLE AT SPECIFIED GENERATOR ANCHORING LOCATIONS.
2. SITE PLAN FROM DERIVED FROM: SURVEY, EXISTING DRAWINGS, GIS, AERIAL IMAGES AND SITE PHOTOS.
3. ACCESS TO TELECOM FACILITY IS RESTRICTED AND ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL.
4. PROPOSED PANEL ANTENNAS & MOUNTING HARDWARE TO BE PAINTED TO MATCH EXISTING SURROUNDINGS.
5. CONTRACTOR TO VERIFY NEW SECTOR AZIMUTHS AND RAD CENTERS WITH RF ENGINEER PRIOR TO INSTALLATION.
6. GENERAL CONTRACTOR TO MAINTAIN POSITIVE DRAINAGE & SITE EROSION CONTROL MEASURES PER LOCAL JURISDICTIONAL REQUIREMENTS AT ALL TIMES OF CONSTRUCTION.
7. NEW VERIZON PANELS ANTENNAS & 60' MONOPOLE NOT SHOWN FOR CLARITY.

N
W E
S

verizonwireless

Cascadia PM
1130 N NIMITZ HWY, SUITE A-200
HONOLULU, HI 96817
PH: (808) 536-7400

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CPM PROJECT NO.: 5185

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
1	07-14-14	CL/CL	LU SUBMITTAL

SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

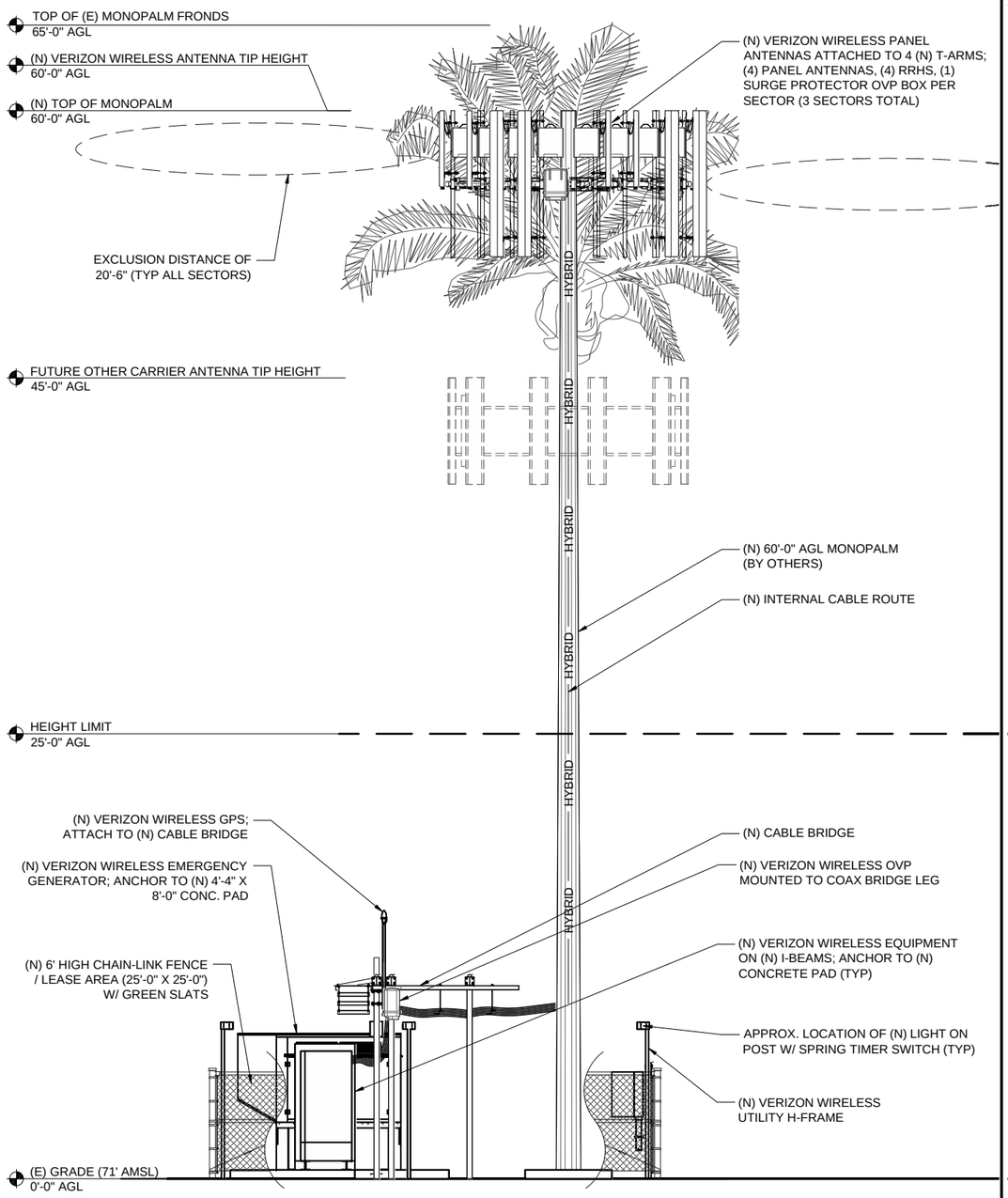
SHEET TITLE
SITE PLAN DIMENSIONS

SHEET NO.
A-2.1

1 SITE PLAN DIMENSIONS

SCALE: 1/4"= 1'-0" (11X17)
SCALE: 1/2" = 1'-0" (22X34)

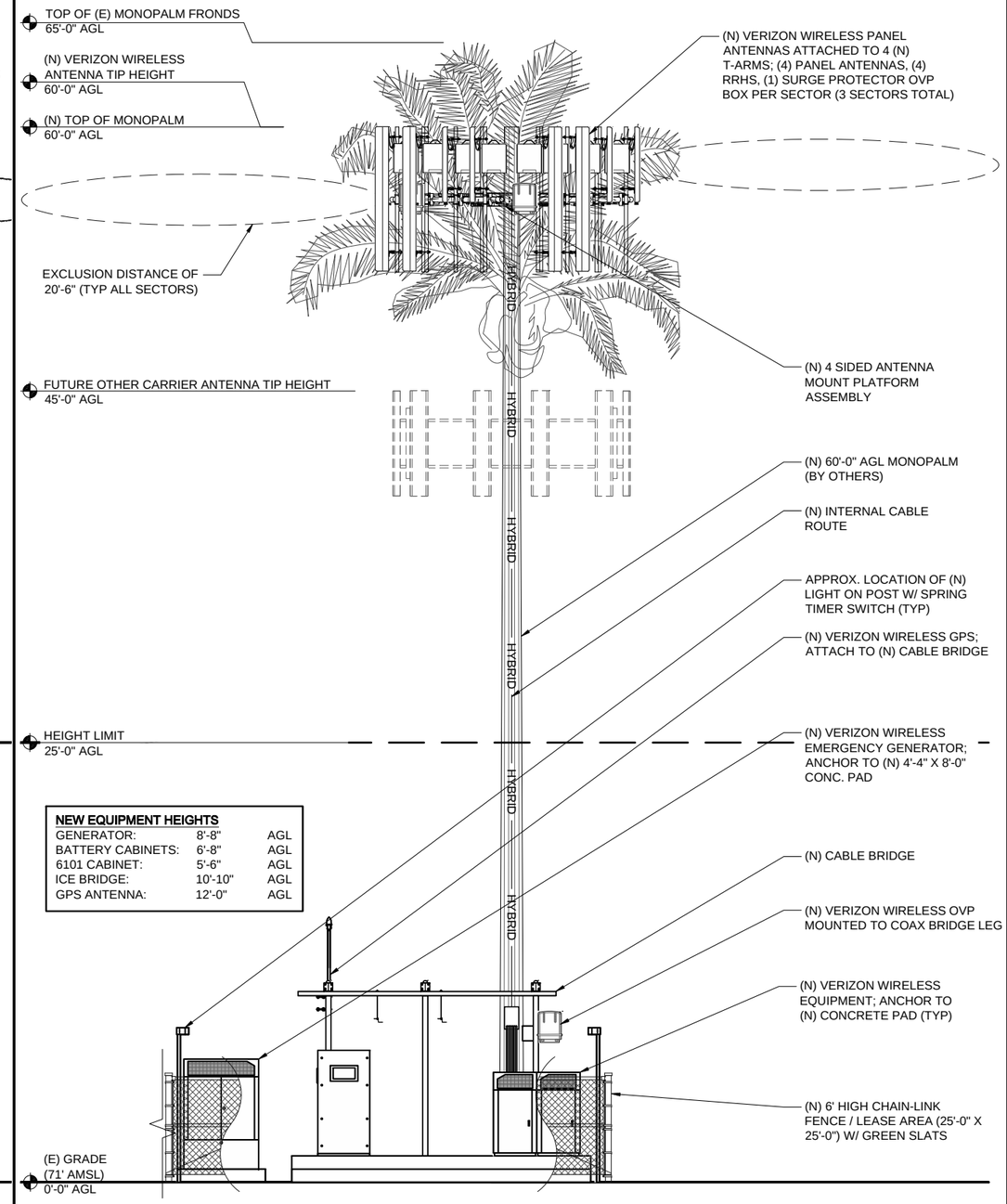
0' 2' 4' 8'



1 NORTHEAST ELEVATION

SCALE: 1/8" = 1'-0" (11X17)
SCALE: 1/4" = 1'-0" (22X34)

0' 4' 8' 16'



2 SOUTHEAST ELEVATION

SCALE: 1/8" = 1'-0" (11X17)
SCALE: 1/4" = 1'-0" (22X34)

0' 4' 8' 16'

verizonwireless

Cascadia PM
1130 N NIMITZ HWY, SUITE A-200
HONOLULU, HI 96817
PH: (808) 536-7400

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CPM PROJECT NO.: 5185

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
1	07-14-14	CL/CL	LU SUBMITTAL

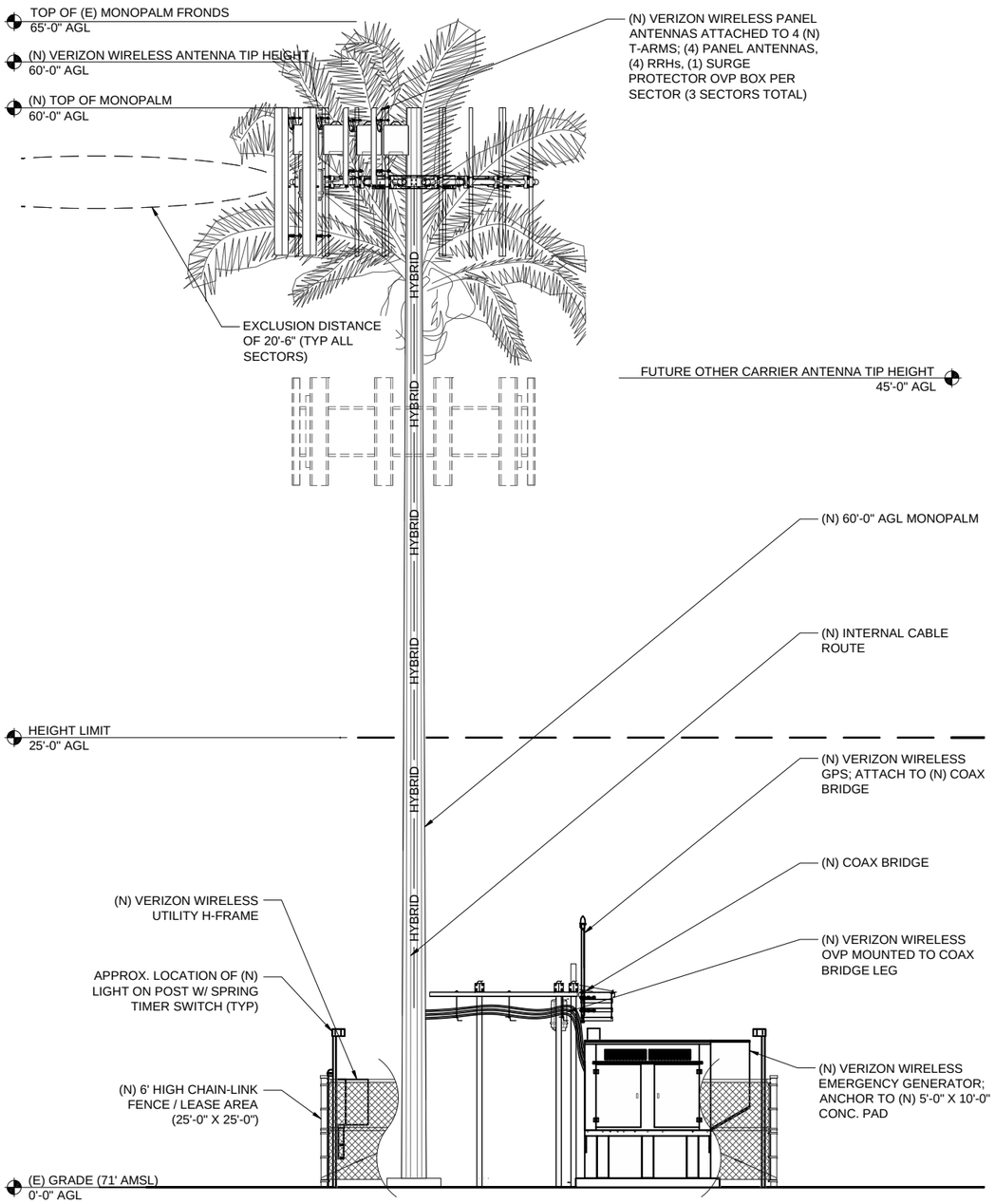
SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

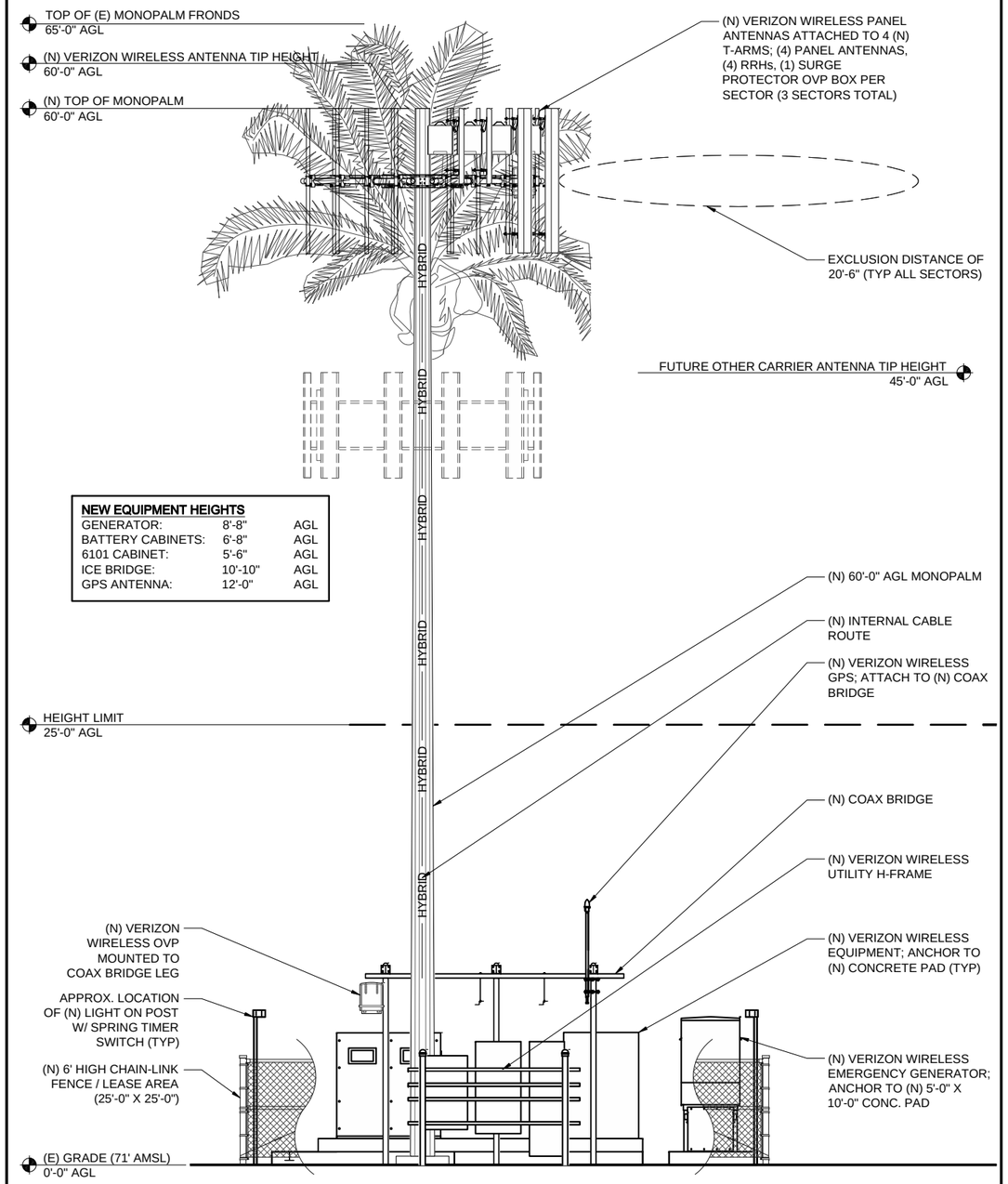
SHEET TITLE
ELEVATIONS

SHEET NO.
A-3.0



NOTE: SEE SITE PLAN (A-2.0 & A-2.1) FOR DETAIL REFERENCES

1	SOUTHWEST ELEVATION	SCALE: 1/8" = 1'-0" (11X17) SCALE: 1/4" = 1'-0" (22X34)	0' 4' 8' 16'



NEW EQUIPMENT HEIGHTS

GENERATOR:	8'-8"	AGL
BATTERY CABINETS:	6'-8"	AGL
6101 CABINET:	5'-6"	AGL
ICE BRIDGE:	10'-10"	AGL
GPS ANTENNA:	12'-0"	AGL

NOTE: SEE SITE PLAN (A-2.0 & A-2.1) FOR DETAIL REFERENCES

2	NORTHWEST ELEVATION	SCALE: 1/8" = 1'-0" (11X17) SCALE: 1/4" = 1'-0" (22X34)	0' 4' 8' 16'

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Cascadia PM
1130 N NIMITZ HWY, SUITE A-200
HONOLULU, HI 96817
PH: (808) 536-7400

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CPM PROJECT NO.: 5185

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
1	07-14-14	CL/CL	LU SUBMITTAL

SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

SHEET TITLE
ELEVATIONS

SHEET NO.
A-3.1

Appendix B
Site Photographs

Project No.	**Description**	View of the subject property, looking east	**Photo 1**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	Building with the electrical room north of the subject property	**Photo 2**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View inside of the electrical room	**Photo 3**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	Pad-mounted transformer north of the subject property, non-PCB unit	**Photo 4**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	Pool area northwest, north and northeast of the subject property	**Photo 5**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	Park area east, southeast, south, southwest, and west of the subject property	**Photo 6**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of Marshall M. Goodsill Residence	**Photo 7**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from Marshall M. Goodsill Residence	**Photo 8**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of Lyndon Roberts Residence	**Photo 9**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from Lyndon Roberts Residence	**Photo 10**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of John and Kate Kelly Residence	**Photo 11**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from John and Kate Kelly Residence	**Photo 12**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of Edward and Sally Sheehan Residence driveway	**Photo 13**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from Edward and Sally Sheehan Residence	**Photo 14**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of Milton I Residence	**Photo 15**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from Milton I Residence	**Photo 16**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of a portion of Fort Ruger Historic District	**Photo 17**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from Fort Ruger Historic District	**Photo 18**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Appendix C
Pre-Assessment Phase: Agency Correspondence

June 4, 2015

Dr. Loyal Mehrhoff, Ph.D., Field Supervisor
U.S. Department of the Interior
Pacific Islands Fish and Wildlife Office, Honolulu
300 Ala Moana Boulevard, Room 3-122
Honolulu, Oahu, Hawaii 96850

Project No. 17015-015032.00
Ensite No. 24234

Subject: NEPA Evaluation for the Proposed Verizon Wireless (VZW) HON Kupikipikio Communications Facility, 708 Palekaua Street (Portion of Tax Map Key [TMK] Number: [1] 3-1-042: Parcel 034), Honolulu, Honolulu County, Hawaii 96816

Dear Dr. Mehrhoff:

Bureau Veritas North America, Inc. (Bureau Veritas) has been retained by Cellco Partnership and its controlled affiliates doing business as Verizon Wireless (VZW) to conduct a National Environmental Policy Act (NEPA) evaluation for the Federal Communications Commission (FCC) of the above-referenced proposed communications facility.

Pursuant to FCC rules regarding review under Section 106 of NEPA, and 47 CFR § 1.1307 (A)(3), Bureau Veritas requests your opinion as to: (1) whether the proposed facility 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 at or near the proposed communication facility. Table 1 and Table 2 present a Federal and State list of protected species and expected effects by the proposed facility, if any.

If there are proposed or listed threatened or endangered species, or proposed or designated critical habitat at or nearby the proposed communication facility, we request your assistance/concurrence in determining whether the project will affect any proposed or listed species and/or proposed or designated critical habitats. A site location map (Figure 1), site plan (Figure 2), and site photographs are attached for your review and records. Descriptions of the proposed communication facility and site use are included below.

Bureau Veritas is also contacting the State of Hawaii, Department of Land & Natural Resources - Division of Forestry and Wildlife regarding this project.

We reviewed the National Wilderness Preservation System website (http://www.wilderness.net) an U.S. Fish and Wildlife Service (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 communications facility does not appear to be located within a designated wilderness area, wildlife preserve or National Wildlife Refuge.

Bureau Veritas North America, Inc.
841 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Main: (808) 531-6708
Fax: (808) 537-4084
www.us.bureauveritas.com

Project Description

Site name/location: The proposed VZW HON Kupikipikio communications facility is located at 708 Palekaua Street, Honolulu,, Honolulu County, Hawaii 96792. Figure 1 depicts the facility location.

Latitude/Longitude Coordinates: 21° 15' 44.48" North, 157° 47 42.59" West

Legal Description: The subject parcel is described as the parcel of land designated as TMK Number: (1)3-1-042: Parcel 034. According to the City and County of Honolulu, Department of Planning and Permitting, the subject parcel is currently zoned "R-10 Residential District." The State Land Use designation is "Urban."

Property Owner: Oahu Special Schools Association currently own the subject parcel.

Current Land Use: The subject parcel is developed with the Variety School of Hawaii campus.

Proposed Action: According to VZW, the proposed action involves the leasing of an approximately 25-by 25-foot area on the southeastern portion of subject parcel. VZW proposes to erect a 65 foot antenna monopalm (stealth palm tree monopole) with 12 panel antennas, 12 remote equipment cabinets and an outdoor emergency generator. Figure 2 depicts the site features and proposed action.

Construction activity is anticipated to have a minor impact to the ground surface.

Adjoining Property Use: The adjoining properties consist of residential use which are described below:

- **North:** Variety School of Hawaii.
- **East:** Variety School of Hawaii.
- **South:** Variety School of Hawaii.
- **West:** Variety School of Hawaii.

Photographs of the subject property and surrounding area are attached.

USFWS recommendations published in Interim Guidelines for Recommendations on Communication Tower Siting, Construction, Operation, and Decommissioning state the preferred tower height to decrease potential effects on migratory birds is less than 200 feet tall. The siting and design process for this project could not conform to all the USFWS recommendations. Therefore, it has included mitigating factors such as consideration of collocation, tower siting with existing towers or in minimally sensitive areas, limiting tower height to 65 feet and eliminating the need for guy wires.

As noted, we are contacting you to request your assistance/concurrence in determining: (1) whether the proposed communications facility 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.

We greatly appreciate your time and assistance in this matter and respectfully request a written response to our inquiry. If you have any questions or concerns, please feel free to contact me at 808.298.8198, or by email to nicole.okino@us.bureauveritas.com.

Sincerely,

Nicole Okino
Staff Geologist
Health, Safety, and Environmental Services

Dylan Galloway
Project Manager/Biologist
Health, Safety, and Environmental Services

NO/DG

Attachments: Table 1 Federal Species List for Honolulu County
Table 2 Endangered Species List for the State of Hawaii
Figures
Site Photographs

TABLE 1

FEDERAL SPECIES LIST FOR HONOLULU COUNTY

Table 1
Federal Species List for Honolulu County

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Hawaiian Duck (Anas wyvilliana)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Laysan duck (Anas laysanensis)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Laysan finch (honeycreeper) (Telespyza cantans)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Nihoa finch (honeycreeper) (Telespyza ultima)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Nihoa millerbird (old world warbler) (Acrocephalus familiaris kingi)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Hawaiian common moorhen (Gallinula chloropus sandvicensis)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Short-tailed albatross (Phoebastria (=Diomedea) albatrus)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Oahu creeper (Paroreomyza maculata)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Hawaiian stilt (Himantopus mexicanus knudseni)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Hawaiian coot (Fulica americana alai)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No

BUREAU VERITAS

Table 1 (continued)

Name (Common and Scientific	Status	Potential Effects	Subject property likely located in Critical habit?
Newell's Townsend's shearwater (Puffinus auricularis newelli)	Threatened	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not part of its natural critical habitat.	No
Oahu Elepaio (Chasiempis sandwichensis ibidis)	Endangered	None anticipated since suitable habitat typically include forested areas on Oahu.	No
Pendant kihi fern (Adenophorus periens)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Asplenium-leaved diellia (Diellia erecta)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Diellia falcata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Diplazium molokaiense)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ihi`ihi (Marsilea villosa)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Pteris lidgatei)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Pauoa (Ctenitis squamigera)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Wawae`iole (Huperzia nutans)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Doryopteris takeuchii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

BUREAU VERITAS

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
No common name (Amaranthus brownii)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Uhiuhi (Caesalpinia kavaiense)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Haha (Cyanea humboldtiana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea lanceolata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ha`iwale (Cyrtandra dentata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ha`iwale (Cyrtandra kaulantha)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Delissea undulata)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Fosberg's love grass (Eragrostis fosbergii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
`Akoko (Euphorbia haeleeleana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Aupaka (Isodendrion laurifolium)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Aupaka (Isodendrion longifolium)	Threatened	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

BUREAU VERITAS

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
`Anaunau (Lepidium arbuscula)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Lobelia gaudichaudii ssp. koolauensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Alani (Melicope saint-johnii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Lau `ehu (Panicum niihauense)	Endangered	None anitcipated since no critical habit is on Oahu	No
No common name (Phyllostegia hirsuta)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Phyllostegia parviflora)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Wahane (Pritchardia aylmer-robinsonii)	Endangered	None anticipated since its critical habit is the ocean.	No
Lo`ulu (Pritchardia remota)	Endangered	None anitcipated since no critical habit is on Oahu	No
Kaulu (Pteralyxia macrocarpa)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea calycina)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Sanicula purpurea)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

BUREAU VERITAS

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
No common name (Schiedea hookeri)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ma`oli`oli (Schiedea kealiae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Schiedea verticillata)	Endangered	None anitcipated since no critical habit is on Oahu	No
Ko`oloa`ula (Abutilon menziesii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Abutilon sandwicense)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Mahoe (Alectryon macrococcus)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Schiedea obovata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Schiedea trinervis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Bonamia menziesii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Olulu (Brighamia insignis)	Endangered	None anitcipated since no critical habit is on Oahu	No
Kamanomano (Cenchrus agrimonioides)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

BUREAU VERITAS

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
`Akoko (Chamaesyce celastroides var. kaenana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
`Akoko (Chamaesyce deppeana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ewa Plains `akoko (Chamaesyce skottsbergii var. skottsbergii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Kauila (Colubrina oppositifolia)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Cyanea (=Rollandia) crispa)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea grimesiana ssp. grimesiana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea st.-johnii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea superba)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ha`iwale (Cyrtandra polyantha)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ha`iwale (Cyrtandra subumbellata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Oha (Delissea subcordata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

BUREAU VERITAS

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Hawaiian gardenia (=Na`u) (Gardenia brighamii)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
No common name (Gouania hillebrandii)	Endangered	None anitcipated since no critical habit is on Oahu	No
No common name (Gouania meyenii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Gouania vitifolia)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Kio`ele (Kadua coriacea)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Kadua degeneri)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Kadua parvula)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Hesperomannia arborescens)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Hesperomannia arbuscula)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
(=Native yellow hibiscus) ma`o hau hele (Hibiscus brackenridgei)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Kula wahine noho (Isodendrion pyrifolium)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

BUREAU VERITAS

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Nehe (Lipochaeta lobata var. leptophylla)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Lobelia niihauensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Lobelia oahuensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Alani (Melicope christophersenii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Alani (Melicope lydgatei)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Alani (Melicope makahae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Alani (Melicope pallida)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Neraudia angulata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Neraudia sericea)	Endangered	None anitcipated since no critical habit is on Oahu	No
Kulu`i (Nototrichium humile)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Carter's panicgrass (Panicum fauriei var. carteri)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

BUREAU VERITAS

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Makou (Peucedanum sandwicense)	Threatened	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Kuahiwi laukahi (Plantago princeps)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Dwarf naupaka (Scaevola coriacea)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Diamond Head schiedea (Schiedea adamantis)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
No common name (Schiedea kaalae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Silene lanceolata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
`Aiakeakua, popolo (Solanum sandwicense)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
No common name (Stenogyne kanehoana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Tetramolopium filiforme)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Tetramolopium lepidotum ssp. lepidotum)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
`Ohe`ohe (Tetraplasandra gymnocarpa)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

BUREAU VERITAS

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Opuhe (Urera kaalae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Vigna o-wahuensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Pamakani (Viola chamissoniana ssp. chamissoniana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Viola oahuensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Round-leaved chaff-flower (Achyranthes splendens var. rotundata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea pinnatifida)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ha`iwale (Cyrtandra crenata)	Endangered	None anticipated since its critical habitat is mostly located in Kahana Valley.	No
Hilo ischaemum (Ischaemum byrone)	Endangered	None anitcipated since no critical habit is on Oahu	No
Kamakahala (Labordia cyrtandrae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Nehe (Melanthera tenuifolia)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Nehe (Lipochaeta waimeaensis)	Endangered	None anitcipated since no critical habit is on Oahu	No

BUREAU VERITAS

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
No common name (Lobelia monostachya)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Lysimachia filifolia)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Alani (Melicope hiiakae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Phyllostegia mollis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Platanthera holochila)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Hala pepe (Pleomele forbesii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ohai (Sesbania tomentosa)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Cyperus pennatiformis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea grimesiana ssp. obatae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Na`ena`e (Dubautia herbstobatae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Lo`ulu (Pritchardia kaalae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

BUREAU VERITAS

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Awiwi (Centaurium sebaeoides)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
`Akoko (Chamaesyce kuwaleana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea truncata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Pu`uka`a (Cyperus trachysanthos)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ha`iwale (Cyrtandra sessilis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ha`iwale (Cyrtandra viridiflora)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Nioi (Eugenia koolauensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Mehamehame (Flueggea neowawraea)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Hulumoa (Korthalsella degeneri)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Kolea (Myrsine juddii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Platydesma comuta comuta)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

BUREAU VERITAS

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
No common name (Platydesma comuta decurrens)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Sanicula mariversa)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Schiedea nuttallii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Silene perlmanii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Spermolepis hawaiiensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Trematolobelia singularis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea acuminata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
`Akoko (Chamaesyce herbstii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
`Akoko (Chamaesyce rockii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea koolauensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea longiflora)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

BUREAU VERITAS

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Nanu (Gardenia mannii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Phyllostegia kaalaensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Kohe malama malama o kanaloa (Kanaloa kahoolawensis)	Endangered	None anitcipated since no critical habit is on Oahu	No
Oahu wild coffee (=kopiko) (Psychotria hexandra ssp. oahuensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
A`e (Zanthoxylum oahuense)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ko`oko`olau (Bidens amplectens)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Blackline Hawaiian damselfly (Megalagrion nigrohamatum nigrolineatum)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Crimson Hawaiian damselfly (Megalagrion leptodemas)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Oceanic Hawaiian damselfly (Megalagrion oceanicum)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Pacific Hawaiian damselfly (Megalagrion pacificum)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Blackburn's sphinx moth (Manduca blackburni)	Endangered	None anitcipated since no critical habit is on Oahu	No

BUREAU VERITAS

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
[Unnamed] pomace fly (Drosophila aglaia)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
[Unnamed] pomace fly (Drosophila montgomeryi)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
[Unnamed] pomace fly (Drosophila obatai)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
[Unnamed] pomace fly (Drosophila substenoptera)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
[Unnamed] pomace fly (Drosophila tarphytrichia)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
[Unnamed] pomace fly (Drosophila hemipeza)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Hawaiian hoary bat (Lasiurus cinereus semotus)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Hawksbill sea turtle (Eretmochelys imbricata)	Endangered	None anitcipated since no critical habit is on Oahu	No
Leatherback sea turtle (Dermochelys coriacea)	Endangered	None anitcipated since no critical habit is on Oahu	No
Green sea turtle (Chelonia mydas)	Threatened	None anitcipated since no critical habit is on Oahu	No
Olive ridley sea turtle (Lepidochelys olivacea)	Threatened	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No

BUREAU VERITAS

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Oahu tree snails (Achatinella spp.)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No

TABLE 2

ENDANGERED SPECIES LIST FOR THE STATE OF HAWAII

Table 2
Endangered Species List for the State of Hawaii

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Nihoa Millerbird (Acrocephalus familiaris kingi)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Layson Duck (Anas laysanensis)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Kaloa-maoli (Anas wyvilliana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Pueo (Asio flammeus sanwichensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Nene (Branta sandvicensis)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Io (Buteo solitarius)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Oahu Elepaio (Chasiempis ibidis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Alala (Corvus hawaiiensis)	Endangered	None anticipated since no individuals are known to exist in the wild.	No
Alae ke'oke'o (Fulica alai)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

BUREAU VERITAS

Table 2 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Alae'ula (Gallinula chloropus sandvicensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Maui Nuku pu'u (Hemignathus lucidus affinis)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Kauai Nuku pu'u (Hemignathus lucidus hanapepe)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Akiapola'au (Hemignathus munroi)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Akialoa (Hemignathus stejnegeri)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Amakihi (Hemignathus virens wilsoni)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Ae'o (Himantopus mexicanus knudseni)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Palila (Iexioides bailleui)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Akekee (Loxops caeruleirostris)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Hawaii 'Akepeu'ie (Loxops coccineus coccineus)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Maui 'Akepeu'ie (Loxops coccineus ochraceus)	Endangered	None anticipated since the typical habitat is not on Oahu.	No

BUREAU VERITAS

Table 2 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Po'ouli (Melamprosops phaeosoma)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
O'O'o 'a'a (Moho braccatus)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Oloma'o (Myadestes lanaiensis rutha)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Kama'o (Myadestes myadestinus)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Puaiohi (Myadestes palmeri)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Ake'ake (Oceanodroma castro)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Akikiki (Oreomystis bairdi)	Endangered	None anticipated since it is restricted to Alaka'I Wilderness Preserve on Kauai.	No
Hawaii Creeper (Loxops mana)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Akohekohe (Palmeria dolei)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Kakawahie (Paroreomyza flammea)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Alauahio (Paroreomyza maculata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

BUREAU VERITAS

Table 2 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Short-tailed Albatross (Phoebastria albatrus)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Maui Parrotbill (Pseudonestor xanthophrys)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
O'u (Psittirostra psittacea)	Endangered	None anticipated since they are now presumed extirpated on every island except possible on Kauai and Hawaii.	No
Ua'u (Pterodroma sandwichensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Laysan Finch (Telespiza cantans)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Nihoa Finch (Telespiza ultima)	Endangered	None anticipated since it is restricted to Nihoa Island.	No
I'iwi (Vestiaria coccinea)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Fin Whale (Balaenoptera physalus)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ope'ape'a (Lasiurus cinereus semotus)	Endangered	None anticipated since the species may be extirpated from Oahu.	No
Humpback Whale (Megaptera novaeangliae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Hawaiian Seal (Monachus schauinslandi)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

BUREAU VERITAS

Table 2 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Sperm Whale (Physeter catodon)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
False Killer Whale (Pseudorca crassidens)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Pacific Leatherback Sea Turtle (Dermachelys coriacea schleglii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Pacific Hawksbill Sea Turtle (Eretmochelys imbricata bissa)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Oahu Tree Snails (Achatinella spp/)	Endangered	None anticipated since the tree sanils are restricted to remnant native forest on the highwst ridges of the Koolau and Waianae ranges.	No
Pe'e pe'e maka'ole (Adelocosa anops)	Endangered	None anticipated since it is found only on Kauai.	No
Drosophila aglaia	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Drosophila differens	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Hawaiian picture-wing fly (Drosophila digressa)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No

BUREAU VERITAS

FIGURES

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

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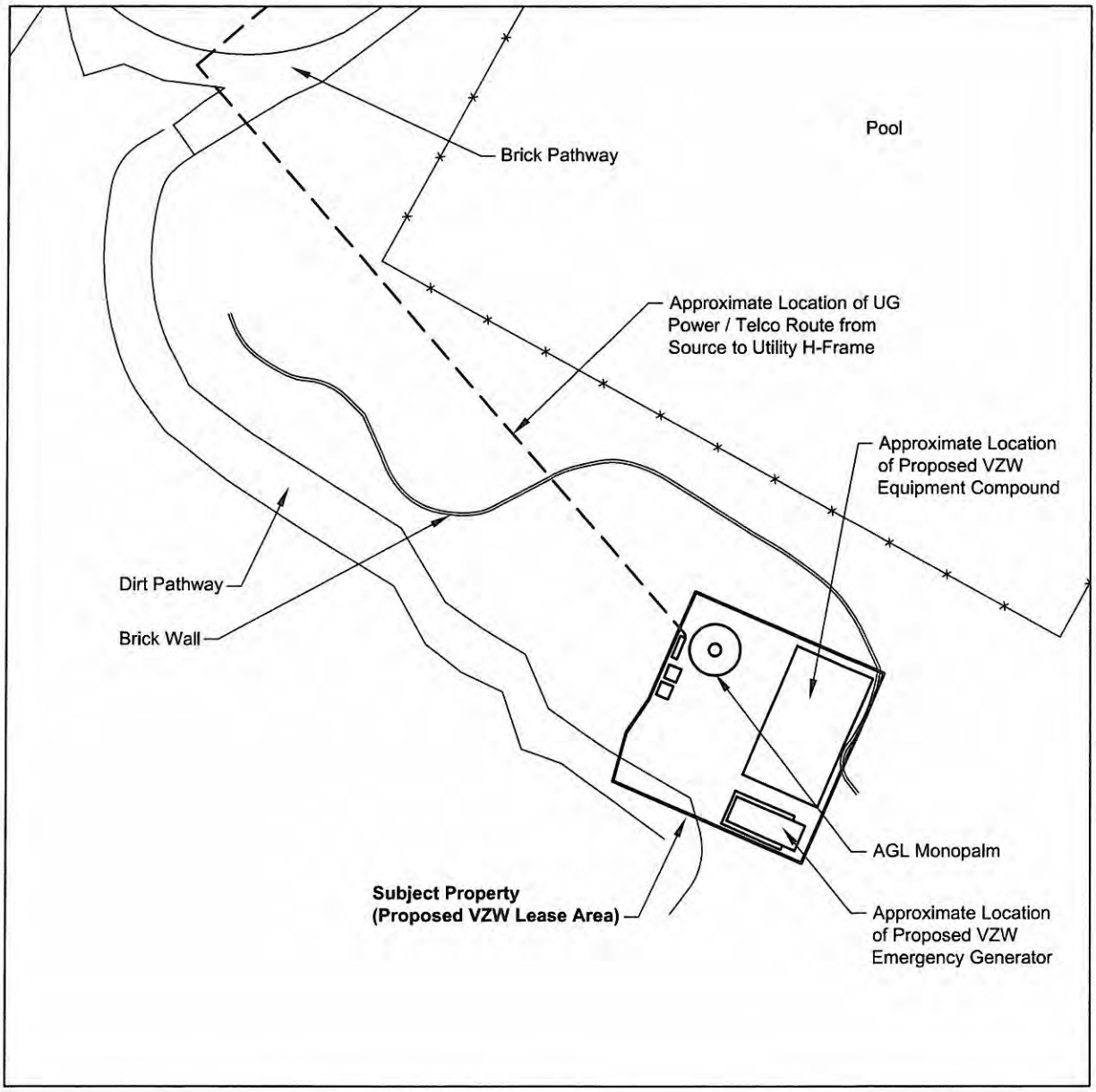
BUREAU VERITAS	Project No.: 17015-015032.00	Title: Site Location Map	FIGURE 1
	Date: 05/28/15	Location: Proposed VZW HON Kupikipikio Cell Site 708 Palekaua Street (TMK: [1] 3-1-042: Parcel 034) Honolulu, Oahu, Hawaii	
	Revised By: DG		
	Checked By: NO	Client: Verizon Wireless c/o Cades Schutte, LLP	



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0 5' 10' 20' 40'

Approximate Scale

BUREAU VERITAS 1828	Project No.: 17014-014105.00	Title: Site Vicinity Map	FIGURE 2
	Date: 07/03/14	Location: Proposed VZW HON Kupikipikio Cell Site 708 Palekaua Street (TMK: [1] 3-1-042: Parcel 034) Honolulu, Oahu, Hawaii	
	Revised By: DG		
	Checked By: NO	Client: Verizon Wireless c/o Cades Schutte, LLP	

SITE PHOTOGRAPHS

Project No. 17014-014105.00	**Description**	View of the subject property, looking east	**Photo 1**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No. 17014-014105.00	**Description**	Building with the electrical room north of the subject property	**Photo 2**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No.	Description	View inside of the electrical room	Photo 3
17014-014105.00	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	Photo Date
	Client	Verizon Wireless	June 30, 2014

Project No.	Description	Pad-mounted transformer north of the subject property, non-PCB unit	Photo 4
17014-014105.00	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	Photo Date
	Client	Verizon Wireless	June 30, 2014

Project No. 17014-014105.00	**Description**	Pool area northwest, north and northeast of the subject property	**Photo 5**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No. 17014-014105.00	**Description**	Park area east, southeast, south, southwest, and west of the subject property	**Photo 6**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawai'i 96850

JUL 0 8 2015

In Reply Refer To:
2015-TA-0318

Ms. Nicole Okino
Bureau Veritas North America, Inc.
841 Bishop Street, Suite 1100
Honolulu, Hawai'i 96813

Subject: Technical Assistance for the Proposed Verizon Wireless Kupikipikio Communications Facility, 708 Palekaua Street, Honolulu, O'ahu

Dear Ms. Okino:

The U.S. Fish and Wildlife Service received your letter on June 15, 2015, requesting our comments on the proposed Verizon Wireless Kupikipikio Communication Facility, located at 708 Palekaua Street, Honolulu, on the island of O'ahu [TMK: (1) 3-1-042:034]. The proposed project involves leasing a 25- by 25-foot area in the southeast portion of the subject parcel, and installing a 65-foot antenna monopalm (stealth palm tree monopole) with 12 panel antennas, 12 remote equipment cabinets, and an outdoor emergency generator. The lease area is owned by the Oahu Special Schools Association. Construction activities are anticipated to have a minor impact to the ground surface. You requested our 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 federally threatened or endangered species, or proposed or designated critical habitat within the proposed project site. We offer the following comments to assist you in planning for your project.

We have reviewed the information you provided and pertinent information in our files, including data compiled by the Hawai'i Biodiversity and Mapping Program. Our data indicate there are no proposed or federally listed species and no proposed or designated critical habitat within the immediate vicinity of the proposed project.

We appreciate your efforts to conserve listed species. If you have questions about our comments, please contact Leila Gibson, Fish and Wildlife Biologist (phone: 808-792-9400, email: leila_gibson@fws.gov).

Sincerely,

Aaron Nadig
Island Team Manager
O'ahu, Kaua'i, North Western Hawaiian Islands, and American Samoa

July 6, 2015

Ms. Lisa Hadway
Department of Land and Natural Resources
Division of Forestry and Wildlife
1151 Punchbowl Street, Suite 325
Honolulu, Hawaii 96813

Project No. 17015-015032.00
Ensite No. 24234

Subject: NEPA Evaluation for the Proposed Verizon Wireless (VZW) HON Kupikipikio Communications Facility, 708 Palekaua Street (Portion of Tax Map Key [TMK] Number: [1] 3-1-042: Parcel 034), Honolulu, Honolulu County, Hawaii 96816

Dear Ms. Hadway:

Bureau Veritas North America, Inc. (Bureau Veritas) has been retained by Cellco Partnership and its controlled affiliates doing business as Verizon Wireless (VZW) to conduct a National Environmental Policy Act (NEPA) evaluation for the Federal Communications Commission (FCC) of the above-referenced proposed communications facility project.

Pursuant to FCC rules regarding review under Section 106 of NEPA, and 47 CFR § 1.1307 (A)(3), Bureau Veritas requests your opinion as to: (1) whether the proposed facility 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 at or near the proposed communications facility. Table 1 and Table 2 present a Federal and State list of protected species and expected effects by the proposed facility, if any.

Based on our review of available information, there are no proposed or listed threatened or endangered species, or proposed or designated critical habitat at the proposed communications facility, we request your concurrence in determining whether the project will affect any proposed or listed species and/or proposed or designated critical habitats. A site location map (Figure 1), site plan (Figure 2), and site photographs are attached for your review and records. Descriptions of the proposed communication facility and site use are included below.

Bureau Veritas is also contacting the United States Fish and Wildlife Service (USFWS) regarding this project.

We 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 communications facility does not appear to be located within a designated wilderness area, wildlife preserve or National Wildlife Refuge.

Bureau Veritas North America, Inc.
841 Bishop Street, Suite 1100
Honolulu, Oahu, HI 96813

Main: (808) 531-6708
Fax: (808) 537-4084
www.us.bureauveritas.com

Project Description

Site name/location: The proposed VZW HON Kupikipikio communications facility is located at 708 Palekaua Street, Honolulu,, Honolulu County, Hawaii 96792. Figure 1 depicts the facility location.

Latitude/Longitude Coordinates: 21° 15' 44.48" North, 157° 47 42.59" West

Legal Description: The site is situated on a parcel of land designated as TMK Number: (1) 3-1-042: Parcel 034. According to the City and County of Honolulu, Department of Planning and Permitting, the parcel is currently zoned "R-10 Residential District." The State Land Use designation is "Urban."

Property Owner: Oahu Special Schools Association currently own the subject parcel.

Current Land Use: The subject parcel is developed with the Variety School of Hawaii campus.

Proposed Action: According to VZW, the proposed action involves the leasing of an approximately 25-foot by 25-foot area on the southeastern portion of subject parcel. VZW proposes to erect a 65 foot antenna monopalm (stealth palm tree monopole) with 12 panel antennas, 12 remote equipment cabinets and an outdoor emergency generator. Figure 2 depicts the site features and proposed action.

Construction activity is anticipated to have a minor impact to the ground surface.

Adjoining Property Use: The adjoining properties consist of residential use which are described below:

- **North:** Variety School of Hawaii.
- **East:** Variety School of Hawaii.
- **South:** Variety School of Hawaii.
- **West:** Variety School of Hawaii.

Photographs of the subject property and surrounding area are attached.

USFWS recommendations published in Interim Guidelines for Recommendations on Communication Tower Siting, Construction, Operation, and Decommissioning state the preferred tower height to decrease potential effects on migratory birds is less than 200 feet tall. The siting and design process for this project could not conform to all the USFWS recommendations. Therefore, it has included mitigating factors such as consideration of collocation, tower siting with existing towers or in minimally sensitive areas, limiting tower height to 65 feet and eliminating the need for guy wires.

Based on the information above we have determined that: (1) the proposed communication facility is not located within a wilderness area, wildlife preserve or a National Wildlife Refuge; and (2) there are no proposed or listed threatened or endangered species; or proposed or designated critical habitat within the proposed project site. We are requesting your concurrence with this determination.

We greatly appreciate your time and assistance in this matter and respectfully request a written response to our inquiry. If you have any questions or concerns, please feel free to contact me at 808.298.8198, or by email to nicole.okino@us.bureauveritas.com.

Sincerely,

Nicole Okino
Staff Geologist
Health, Safety, and Environmental Services

Dylan Galloway
Project Manager/Biologist
Health, Safety, and Environmental Services

DG/NO

Attachments:
1 – Federal Species List for Honolulu County (Table 1) and Endangered Species List for the State of Hawaii (Table 2)
2 – Figures
3 – Site Photographs

TABLE 1

FEDERAL SPECIES LIST FOR HONOLULU COUNTY

Table 1
Federal Species List for Honolulu County

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Hawaiian Duck (Anas wyvilliana)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Laysan duck (Anas laysanensis)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Laysan finch (honeycreeper) (Telespyza cantans)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Nihoa finch (honeycreeper) (Telespyza ultima)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Nihoa millerbird (old world warbler) (Acrocephalus familiaris kingi)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Hawaiian common moorhen (Gallinula chloropus sandvicensis)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Short-tailed albatross (Phoebastria (=Diomedea) albatrus)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Oahu creeper (Paroreomyza maculata)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Hawaiian stilt (Himantopus mexicanus knudseni)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Hawaiian coot (Fulica americana alai)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No

Table 1 (continued)

Name (Common and Scientific	Status	Potential Effects	Subject property likely located in Critical habit?
Newell's Townsend's shearwater (Puffinus auricularis newelli)	Threatened	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not part of its natural critical habitat.	No
Oahu Elepaio (Chasiempis sandwichensis ibidis)	Endangered	None anticipated since suitable habitat typically include forested areas on Oahu.	No
Pendant kihi fern (Adenophorus periens)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Asplenium-leaved diellia (Diellia erecta)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Diellia falcata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Diplazium molokaiense)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ihi`ihi (Marsilea villosa)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Pteris lidgatei)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Pauoa (Ctenitis squamigera)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Wawae`iole (Huperzia nutans)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Doryopteris takeuchii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Amaranthus brownii)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Uhiuhi (Caesalpinia kavaiense)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Haha (Cyanea humboldtiana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea lanceolata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ha`iwale (Cyrtandra dentata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ha`iwale (Cyrtandra kaulantha)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Delissea undulata)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Fosberg's love grass (Eragrostis fosbergii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
`Akoko (Euphorbia haeleeleana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Aupaka (Isodendrion laurifolium)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Aupaka (Isodendrion longifolium)	Threatened	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
`Anaunau (Lepidium arbuscula)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Lobelia gaudichaudii ssp. koolauensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Alani (Melicope saint-johnii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Lau `ehu (Panicum niihauense)	Endangered	None anitcipated since no critical habit is on Oahu	No
No common name (Phyllostegia hirsuta)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Phyllostegia parviflora)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Wahane (Pritchardia aylmer-robinsonii)	Endangered	None anticipated since its critical habit is the ocean.	No
Lo`ulu (Pritchardia remota)	Endangered	None anitcipated since no critical habit is on Oahu	No
Kaulu (Pteralyxia macrocarpa)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea calycina)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Sanicula purpurea)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Schiedea hookeri)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ma`oli`oli (Schiedea kealiae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Schiedea verticillata)	Endangered	None anitcipated since no critical habit is on Oahu	No

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Ko`oloa`ula (Abutilon menziesii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Abutilon sandwicense)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Mahoe (Alectryon macrococcus)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Schiedea obovata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Schiedea trinervis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Bonamia menziesii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Olulu (Brighamia insignis)	Endangered	None anitcipated since no critical habit is on Oahu	No
Kamanomano (Cenchrus agrimonioides)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
`Akoko (Chamaesyce celastroides var. kaenana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
`Akoko (Chamaesyce deppeana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ewa Plains `akoko (Chamaesyce skottsbergii var. skottsbergii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Kauila (Colubrina oppositifolia)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
No common name (Cyanea (=Rollandia) crispa)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea grimesiana ssp. grimesiana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea st.-johnii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea superba)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ha`iwale (Cyrtandra polyantha)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ha`iwale (Cyrtandra subumbellata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Oha (Delissea subcordata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Hawaiian gardenia (=Na`u) (Gardenia brighamii)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
No common name (Gouania hillebrandii)	Endangered	None anitcipated since no critical habit is on Oahu	No
No common name (Gouania meyenii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Gouania vitifolia)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Kio`ele (Kadua coriacea)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
No common name (Kadua degeneri)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Kadua parvula)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Hesperomannia arborescens)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Hesperomannia arbuscula)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
(=Native yellow hibiscus) ma`o hau hele (Hibiscus brackenridgei)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Kula wahine noho (Isodendrion pyrifolium)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Nehe (Lipochaeta lobata var. leptophylla)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Lobelia niihauensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Lobelia oahuensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Alani (Melicope christophersenii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Alani (Melicope lydgatei)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Alani (Melicope makahae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Alani (Melicope pallida)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Neraudia angulata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Neraudia sericea)	Endangered	None anitcipated since no critical habit is on Oahu	No
Kulu`i (Nototrichium humile)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Carter's panicgrass (Panicum fauriei var. carteri)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Makou (Peucedanum sandwicense)	Threatened	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Kuahiwi laukahi (Plantago princeps)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Dwarf naupaka (Scaevola coriacea)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Diamond Head schiedea (Schiedea adamantis)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
No common name (Schiedea kaalae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Silene lanceolata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
`Aiakeakua, popolo (Solanum sandwicense)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
No common name (Stenogyne kanehoana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Tetramolopium filiforme)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Tetramolopium lepidotum ssp. lepidotum)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
`Ohe`ohe (Tetraplasandra gymnocarpa)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Opuhe (Urera kaalae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Vigna o-wahuensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Pamakani (Viola chamissoniana ssp. chamissoniana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Viola oahuensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Round-leaved chaff-flower (Achyranthes splendens var. rotundata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea pinnatifida)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ha`iwale (Cyrtandra crenata)	Endangered	None anticipated since its critical habitat is mostly located in Kahana Valley.	No
Hilo ischaemum (Ischaemum byrone)	Endangered	None anitcipated since no critical habit is on Oahu	No

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Kamakahala (Labordia cyrtandrae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Nehe (Melanthera tenuifolia)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Nehe (Lipochaeta waimeaensis)	Endangered	None anitcipated since no critical habit is on Oahu	No
No common name (Lobelia monostachya)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Lysimachia filifolia)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Alani (Melicope hiiakae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Phyllostegia mollis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Platanthera holochila)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Hala pepe (Pleomele forbesii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ohai (Sesbania tomentosa)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Cyperus pennatiformis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea grimesiana ssp. obatae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Na`ena`e (Dubautia herbstobatae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Lo`ulu (Pritchardia kaalae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Awiwi (Centaurium sebaeoides)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
`Akoko (Chamaesyce kuwaleana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea truncata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Pu`uka`a (Cyperus trachysanthos)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ha`iwale (Cyrtandra sessilis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ha`iwale (Cyrtandra viridiflora)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Nioi (Eugenia koolauensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Mehamehame (Flueggea neowawraea)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Hulumoa (Korthalsella degeneri)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Kolea (Myrsine juddii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
No common name (Platydesma comuta comuta)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Platydesma comuta decurrens)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Sanicula mariversa)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Schiedea nuttallii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Silene perlmanii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Spermolepis hawaiiensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Trematolobelia singularis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea acuminata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
`Akoko (Chamaesyce herbstii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
`Akoko (Chamaesyce rockii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea koolauensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Haha (Cyanea longiflora)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Nanu (Gardenia mannii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
No common name (Phyllostegia kaalaensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Kohe malama malama o kanaloa (Kanaloa kahoolawensis)	Endangered	None anitcipated since no critical habit is on Oahu	No
Oahu wild coffee (=kopiko) (Psychotria hexandra ssp. oahuensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
A`e (Zanthoxylum oahuense)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ko`oko`olau (Bidens amplectens)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Blackline Hawaiian damselfly (Megalagrion nigrohamatum nigrolineatum)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Crimson Hawaiian damselfly (Megalagrion leptodemas)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Oceanic Hawaiian damselfly (Megalagrion oceanicum)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Pacific Hawaiian damselfly (Megalagrion pacificum)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Blackburn's sphinx moth (Manduca blackburni)	Endangered	None anitcipated since no critical habit is on Oahu	No
[Unnamed] pomace fly (Drosophila aglaia)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

Table 1 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
[Unnamed] pomace fly (Drosophila montgomeryi)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
[Unnamed] pomace fly (Drosophila obatai)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
[Unnamed] pomace fly (Drosophila substenoptera)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
[Unnamed] pomace fly (Drosophila tarphytrichia)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
[Unnamed] pomace fly (Drosophila hemipeza)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Hawaiian hoary bat (Lasiurus cinereus semotus)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Hawksbill sea turtle (Eretmochelys imbricata)	Endangered	None anitcipated since no critical habit is on Oahu	No
Leatherback sea turtle (Dermochelys coriacea)	Endangered	None anitcipated since no critical habit is on Oahu	No
Green sea turtle (Chelonia mydas)	Threatened	None anitcipated since no critical habit is on Oahu	No
Olive ridley sea turtle (Lepidochelys olivacea)	Threatened	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Oahu tree snails (Achatinella spp.)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No

TABLE 2

ENDANGERED SPECIES LIST FOR THE STATE OF HAWAII

Table 2
Endangered Species List for the State of Hawaii

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Nihoa Millerbird (Acrocephalus familiaris kingi)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Layson Duck (Anas laysanensis)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Kaloa-maoli (Anas wyvilliana)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Pueo (Asio flammeus sanwichensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Nene (Branta sandvicensis)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Io (Buteo solitarius)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Oahu Elepaio (Chasiempis ibidis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Alala (Corvus hawaiiensis)	Endangered	None anticipated since no individuals are known to exist in the wild.	No
Alae ke'oke'o (Fulica alai)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Alae'ula (Gallinula chloropus sandvicensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

Table 2 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Maui Nuku pu'u (Hemignathus lucidus affinis)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Kauai Nuku pu'u (Hemignathus lucidus hanapepe)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Akiapola'au (Hemignathus munroi)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Akialoa (Hemignathus stejnegeri)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Amakihi (Hemignathus virens wilsoni)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Ae'o (Himantopus mexicanus knudseni)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Palila (lexioides bailleui)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Akekee (Loxops caeruleirostris)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Hawaii 'Akepeu'ie (Loxops coccineus coccineus)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Maui 'Akepeu'ie (Loxops coccineus ochraceus)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Po'ouli (Melamprosops phaeosoma)	Endangered	None anticipated since the typical habitat is not on Oahu.	No

Table 2 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
O'O'o 'a'a (Moho braccatus)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Oloma'o (Myadestes lanaiensis rutha)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Kama'o (Myadestes myadestinus)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Puaiohi (Myadestes palmeri)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Ake'ake (Oceanodroma castro)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Akikiki (Oreomystis bairdi)	Endangered	None anticipated since it is restricted to Alaka'l Wilderness Preserve on Kauai.	No
Hawaii Creeper (Loxops mana)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Akohekohe (Palmeria dolei)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Kakawahie (Paroreomyza flammea)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Alauahio (Paroreomyza maculata)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Short-tailed Albatross (Phoebastria albatrus)	Endangered	None anticipated since the typical habitat is not on Oahu.	No

Table 2 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
Maui Parrotbill (Pseudonestor xanthophrys)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
O'u (Psittirostra psittacea)	Endangered	None anticipated since they are now presumed extirpated on every island except possible on Kauai and Hawaii.	No
Ua'u (Pterodroma sandwichensis)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Laysan Finch (Telespiza cantans)	Endangered	None anticipated since the typical habitat is not on Oahu.	No
Nihoa Finch (Telespiza ultima)	Endangered	None anticipated since it is restricted to Nihoa Island.	No
I'iwi (Vestiaria coccinea)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Fin Whale (Balaenoptera physalus)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Ope'ape'a (Lasiurus cinereus semotus)	Endangered	None anticipated since the species may be extirpated from Oahu.	No
Humpback Whale (Megaptera novaeangliae)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Hawaiian Seal (Monachus schauinslandi)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Sperm Whale (Physeter catodon)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No

Table 2 (continued)

Name (Common and Scientific)	Status	Potential Effects	Subject property likely located in Critical habit?
False Killer Whale (Pseudorca crassidens)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Pacific Leatherback Sea Turtle (Dermachelys coriacea schleglii)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Pacific Hawksbill Sea Turtle (Eretmochelys imbricata bissa)	Endangered	None anticitpated since the physical setting of the communication facility are not part of its natural critical habitat.	No
Oahu Tree Snails (Achatinella spp/)	Endangered	None anticipated since the tree sanils are restricted to remnant native forest on the highwst ridges of the Koolau and Waianae ranges.	No
Pe'e pe'e maka'ole (Adelocosa anops)	Endangered	None anticipated since it is found only on Kauai.	No
Drosophila aglaia	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Drosophila differens	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No
Hawaiian picture-wing fly (Drosophila digressa)	Endangered	None anticipated since no critical habitat has been published and the physical setting of the communication facility are not conducive to a natural habitat.	No

FIGURES

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

N

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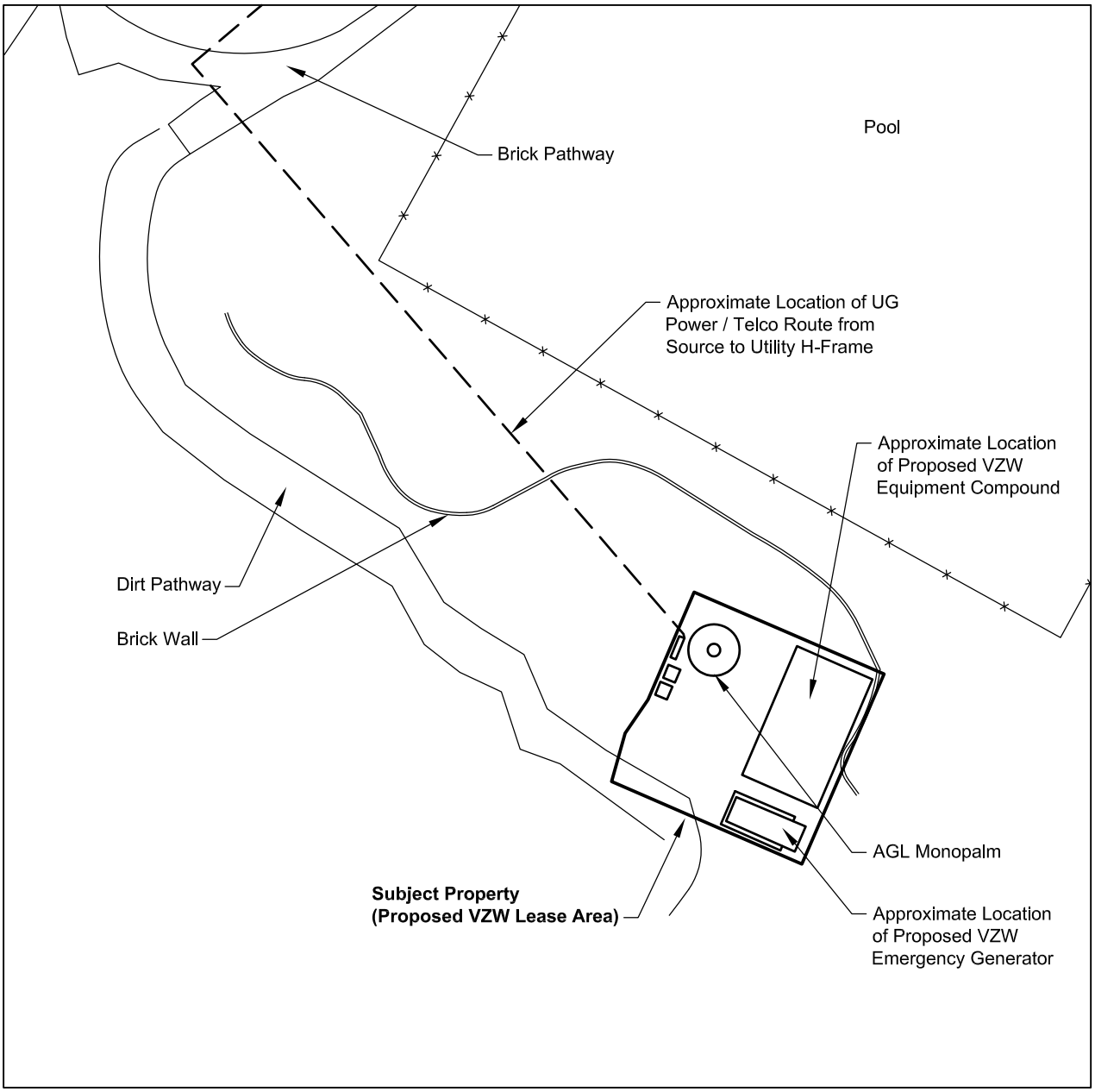
BUREAU VERITAS	Project No.: 17015-015032.00	Title: Site Location Map	FIGURE 1
	Date: 05/28/15	Location: Proposed VZW HON Kupikipikio Cell Site 708 Palekaua Street (TMK: [1] 3-1-042: Parcel 034) Honolulu, Oahu, Hawaii	
	Revised By: DG		
	Checked By: NO	Client: Verizon Wireless c/o Cades Schutte, LLP	



N

0 5' 10' 20' 40'

Approximate Scale

BUREAU VERITAS	Project No.: 17014-014105.00	Title: Site Vicinity Map	FIGURE 2
	Date: 07/03/14	Location: Proposed VZW HON Kupikipikio Cell Site 708 Palekaua Street (TMK: [1] 3-1-042: Parcel 034) Honolulu, Oahu, Hawaii	
	Revised By: DG		
	Checked By: NO	Client: Verizon Wireless c/o Cades Schutte, LLP	

SITE PHOTOGRAPHS

Project No.	**Description**	View of the subject property, looking east	**Photo 1**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	Building with the electrical room north of the subject property	**Photo 2**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View inside of the electrical room	**Photo 3**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	Pad-mounted transformer north of the subject property, non-PCB unit	**Photo 4**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No. 17014-014105.00	**Description**	Pool area northwest, north and northeast of the subject property	**Photo 5**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No. 17014-014105.00	**Description**	Park area east, southeast, south, southwest, and west of the subject property	**Photo 6**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA
FIRST DEPUTY

W. ROY HARDY
ACTING DEPUTY DIRECTOR - WATER

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET, ROOM 325
HONOLULU, HAWAII 96813

July 22, 2015

Nicole Okino
Staff Geologist
Bureau Veritas
841 Bishop Street #1100
Honolulu, HI 96813

Dear Ms. Okino:

The Department of Land and Natural Resources (DLNR) Division of Forestry and Wildlife (DOFAW) has received your inquiry regarding the proposed Verizon Wireless HON Kupikipikio Communications Facility in Honolulu, Hawaii.

The proposed facility would be located at 708 Palekaua Street, portion of TMK (1) 3-1-042:034, at coordinates N 21° 15' 44.48" / W 157° 47' 52.59". The proposed project would consist of a 25-foot by 25-foot leased area to contain a stealth monopole (monopalm) with a maximum height of 65 feet above ground level with 12 panel antennas, 12 remote equipment cabinets and an emergency generator. Given the height of the proposed tower, lack of guy wires, lack of planned vegetation removal and location in a suburban setting, there are no expected impacts to threatened or endangered species as a result of this project.

Should the height or proposed location of the project change, or should it become evident in the future that they may impact listed species, DOFAW requests that the project proponent reinitiate consultation.

Additionally, for future submittals there is no need to include the entire federal and state endangered species lists in each submittal. Please just submit a table with any species that <u>are</u> known to be present in the project area or likely to be impacted. If you have any questions, please contact Angela Amlin, Protected Species Habitat Conservation Planning Associate, at 808-587-4149.

Sincerely,

David Smith
Acting Administrator

FCC Form 620

Notification Date: **7AM EST 12/22/2015**
File Number: **0007070507**

FCC Wireless Telecommunications Bureau
New Tower ("NT") Submission Packet

Approved by OMB
3060 – 1039
See instructions for
public burden estimates

General Information

1) (Select only one) **(NE)** **NE** – New **UA** – Update of Application **WD** – Withdrawal of Application	
2) If this application is for an Update or Withdrawal, enter the file number of the pending application currently on file.	File Number:

Applicant Information

3) FCC Registration Number (FRN): **0012845343**
4) Name: **Verizon Wireless (VZW)**

Contact Name

5) First Name: **Robin**	6) MI:	7) Last Name: **Haeffner**	8) Suffix:
9) Title: **VZW HQ - NEPA Regulatory Compliance**			

Contact Information

10) P.O. Box:	**And /Or**	11) Street Address: **6 Campus Circle, Suite 500**		
12) City: **Westlake**			13) State: **TX**	14) Zip Code: **76272**
15) Telephone Number: **(501)529-5377**		16) Fax Number:		
17) E-mail Address: **npa@verizonwireless.com**				

Consultant Information

18) FCC Registration Number (FRN): **0013673579**
19) Name: **Bureau Veritas North America, Inc. (Bureau Veritas)**

Principal Investigator

20) First Name: **Nicole**	21) MI:	22) Last Name: **Okino**	23) Suffix:
24) Title:			

Principal Investigator Contact Information

25) P.O. Box:	**And /Or**	26) Street Address: **841 Bishop Street, Suite 1100**		
27) City: **Honolulu**			28) State: **HI**	29) Zip Code: **96813**
30) Telephone Number: **(808)543-6124**		31) Fax Number:		
32) E-mail Address: **nicole.okino@us.bureauveritas.com**				

Professional Qualification

33) Does the Principal Investigator satisfy the Secretary of the Interior's Professional Qualification Standards?	( ) Yes (X) No

34) Areas of Professional Qualification:

( ) Archaeologist

( ) Architectural Historian

( ) Historian

( ) Architect

(X) Other (Specify) **Environmental**

Additional Staff

35) Are there other staff involved who meet the Professional Qualification Standards of the Secretary of the Interior?	(X) Yes ( ) No

If "YES," complete the following:

36) First Name: **Thomas**	37) MI:	38) Last Name: **Dye**	39) Suffix:

40) Title:

41) Areas of Professional Qualification:

(X) Archaeologist

( ) Architectural Historian

( ) Historian

( ) Architect

( ) Other (Specify) _____

36) First Name: **Don**	37) MI:	38) Last Name: **Hibbard**	39) Suffix:

40) Title:

41) Areas of Professional Qualification:

( ) Archaeologist

(X) Architectural Historian

(X) Historian

( ) Architect

( ) Other (Specify) _____

Site Information

Tower Construction Notification System

1) TCNS Notification Number: **127688**

Site Information

2) Positive Train Control Filing Subject to Expedited Treatment Under Program Comment: ( ) Yes (X) No

3) Site Name: **HON Kupikipikio**

4) Site Address: **708 Palekaua Street**

5) Detailed Description of Project:

6) City: **Honolulu**	7) State: **HI**	8) Zip Code: **96816**

9) County/Borough/Parish: **HONOLULU**

10) Nearest Crossroads: **Palekaua Street and Hakaka Street**

11) **NAD 83** Latitude (DD-MM-SS.S): **21-15-44.4** (X) N or ( ) S

12) **NAD 83** Longitude (DD-MM-SS.S): **157-47-42.5** ( ) E or (X) W

Tower Information

13) Tower height above ground level (include top-mounted attachments such as lightning rods): **19.8** ( ) Feet (X) Meters

14) Tower Type (Select One):

( ) Guyed lattice tower

( ) Self-supporting lattice

(X) Monopole

( ) Other (Describe):

Project Status

15) Current Project Status (Select One):

(X) Construction has not yet commenced

( ) Construction has commenced, but is not completed — Construction commenced on: _____

( ) Construction has been completed — Construction commenced on: _____

Construction completed on: _____

Determination of Effect

14) Direct Effects (Select One):

(X) No Historic Properties in Area of Potential Effects (APE)

( ) No Effect on Historic Properties in APE

( ) No Adverse Effect on Historic Properties in APE

( ) Adverse Effect on one or more Historic Properties in APE

15) Visual Effects (Select One):

( ) No Historic Properties in Area of Potential Effects (APE)

(X) No Effect on Historic Properties in APE

( ) No Adverse Effect on Historic Properties in APE

( ) Adverse Effect on one or more Historic Properties in APE

Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	(X) Yes ( ) No

2a) Tribes/NHOs contacted through TCNS Notification Number: **127688** Number of Tribes/NHOs: **1**

2b) Tribes/NHOs contacted through an alternate system: Number of Tribes/NHOs: **0**

Tribe/NHO Contacted Through TCNS

3) Tribe/NHO FRN:

4) Tribe/NHO Name: **Office of Hawaiian Affairs**

Contact Name

5) First Name: **Everett**	6) MI:	7) Last Name: **Ohta**	8) Suffix:
9) Title: **Compliance Lead**			

Dates & Response

10) Date Contacted **06/11/2015** 11) Date Replied **06/15/2015**

( ) No Reply

(X) Replied/No Interest

( ) Replied/Have Interest

( ) Replied/Other

Other Tribes/NHOs Contacted

Tribe/NHO Information

1) FCC Registration Number (FRN):
2) Name:

Contact Name

3) First Name:	4) MI:	5) Last Name:	6) Suffix:
7) Title:			

Contact Information

8) P.O. Box:	**And /Or**	9) Street Address:		
10) City:			11) State:	12) Zip Code:
13) Telephone Number:		14) Fax Number:		
15) E-mail Address:				
16) Preferred means of communication: ( ) E-mail ( ) Letter ( ) Both				

Dates & Response

17) Date Contacted _____ 18) Date Replied _____

( ) No Reply

( ) Replied/No Interest

( ) Replied/Have Interest

( ) Replied/Other

Historic Properties

Properties Identified

1) Have any historic properties been identified within the APEs for direct and visual effect?	(X) Yes ( ) No
2) Has the identification process located archaeological materials that would be directly affected, or sites that are of cultural or religious significance to Tribes/NHOs?	( ) Yes (X) No
3) Are there more than 10 historic properties within the APEs for direct and visual effect? If "Yes", you are required to attach a Cultural Resources Report in lieu of adding the Historic Property below.	( ) Yes (X) No

Historic Property

4) Property Name: **Marshall M. Goodsill Residence**
5) SHPO Site Number:

Property Address

6) Street Address: **4258 Puu Panini Place**		
7) City: **Honolulu**	8) State: **HI**	9) Zip Code: **96816**
10) County/Borough/Parish: **HONOLULU**		

Status & Eligibility

11) Is this property listed on the National Register? Source:	( ) Yes (X) No
12) Is this property eligible for listing on the National Register? Source: **Historic Properties Assessment report**	(X) Yes ( ) No
13) Is this property a National Historic Landmark?	( ) Yes (X) No

14) Direct Effects (Select One):

(X) No Effect on this Historic Property in APE

( ) No Adverse Effect on this Historic Property in APE

( ) Adverse Effect on this Historic Property in APE

15) Visual Effects (Select One):

(X) No Effect on this Historic Property in APE

( ) No Adverse Effect on this Historic Property in APE

( ) Adverse Effect on this Historic Property in APE

Historic Properties

Properties Identified

1) Have any historic properties been identified within the APEs for direct and visual effect?	(X) Yes ( ) No
2) Has the identification process located archaeological materials that would be directly affected, or sites that are of cultural or religious significance to Tribes/NHOs?	( ) Yes (X) No
3) Are there more than 10 historic properties within the APEs for direct and visual effect? If "Yes", you are required to attach a Cultural Resources Report in lieu of adding the Historic Property below.	( ) Yes (X) No

Historic Property

4) Property Name: **Lyndon Roberts Residence**
5) SHPO Site Number:

Property Address

6) Street Address: **4382 Kahala Avenue**		
7) City: **Honolulu**	8) State: **HI**	9) Zip Code: **96816**
10) County/Borough/Parish: **HONOLULU**		

Status & Eligibility

11) Is this property listed on the National Register? Source:	( ) Yes (X) No
12) Is this property eligible for listing on the National Register? Source: **Historic Property Assessment report**	(X) Yes ( ) No
13) Is this property a National Historic Landmark?	( ) Yes (X) No

14) Direct Effects (Select One):

(X) No Effect on this Historic Property in APE

( ) No Adverse Effect on this Historic Property in APE

( ) Adverse Effect on this Historic Property in APE

15) Visual Effects (Select One):

(X) No Effect on this Historic Property in APE

( ) No Adverse Effect on this Historic Property in APE

( ) Adverse Effect on this Historic Property in APE

Historic Properties

Properties Identified

1) Have any historic properties been identified within the APEs for direct and visual effect?	(X) Yes ( ) No
2) Has the identification process located archaeological materials that would be directly affected, or sites that are of cultural or religious significance to Tribes/NHOs?	( ) Yes (X) No
3) Are there more than 10 historic properties within the APEs for direct and visual effect? If "Yes", you are required to attach a Cultural Resources Report in lieu of adding the Historic Property below.	( ) Yes (X) No

Historic Property

4) Property Name: **John and Kate Kelly Residence**
5) SHPO Site Number:

Property Address

6) Street Address: **4117 Black Point Road**		
7) City: **Honolulu**	8) State: **HI**	9) Zip Code: **96816**
10) County/Borough/Parish: **HONOLULU**		

Status & Eligibility

11) Is this property listed on the National Register? Source:	( ) Yes (X) No
12) Is this property eligible for listing on the National Register? Source: **Historic Property Assessment report**	(X) Yes ( ) No
13) Is this property a National Historic Landmark?	( ) Yes (X) No

14) Direct Effects (Select One):

(X) No Effect on this Historic Property in APE

( ) No Adverse Effect on this Historic Property in APE

( ) Adverse Effect on this Historic Property in APE

15) Visual Effects (Select One):

(X) No Effect on this Historic Property in APE

( ) No Adverse Effect on this Historic Property in APE

( ) Adverse Effect on this Historic Property in APE

Historic Properties

Properties Identified

1) Have any historic properties been identified within the APEs for direct and visual effect?	(X) Yes ( ) No
2) Has the identification process located archaeological materials that would be directly affected, or sites that are of cultural or religious significance to Tribes/NHOs?	( ) Yes (X) No
3) Are there more than 10 historic properties within the APEs for direct and visual effect? If "Yes", you are required to attach a Cultural Resources Report in lieu of adding the Historic Property below.	( ) Yes (X) No

Historic Property

4) Property Name: **Edward and Sally Sheehan Residence**
5) SHPO Site Number:

Property Address

6) Street Address: **239 Kulamanu Place**		
7) City: **Honolulu**	8) State: **HI**	9) Zip Code: **96816**
10) County/Borough/Parish: **HONOLULU**		

Status & Eligibility

11) Is this property listed on the National Register? Source:	( ) Yes (X) No
12) Is this property eligible for listing on the National Register? Source: **Historic Property Assessment report**	(X) Yes ( ) No
13) Is this property a National Historic Landmark?	( ) Yes (X) No

14) Direct Effects (Select One):

(X) No Effect on this Historic Property in APE

( ) No Adverse Effect on this Historic Property in APE

( ) Adverse Effect on this Historic Property in APE

15) Visual Effects (Select One):

(X) No Effect on this Historic Property in APE

( ) No Adverse Effect on this Historic Property in APE

( ) Adverse Effect on this Historic Property in APE

Historic Properties

Properties Identified

1) Have any historic properties been identified within the APEs for direct and visual effect?	(X) Yes ( ) No
2) Has the identification process located archaeological materials that would be directly affected, or sites that are of cultural or religious significance to Tribes/NHOs?	( ) Yes (X) No
3) Are there more than 10 historic properties within the APEs for direct and visual effect? If "Yes", you are required to attach a Cultural Resources Report in lieu of adding the Historic Property below.	( ) Yes (X) No

Historic Property

4) Property Name: **Milton I Residence**
5) SHPO Site Number:

Property Address

6) Street Address: **4339 Papu Circle**		
7) City: **Honolulu**	8) State: **HI**	9) Zip Code: **96816**
10) County/Borough/Parish: **HONOLULU**		

Status & Eligibility

11) Is this property listed on the National Register? Source: _____	( ) Yes (X) No
12) Is this property eligible for listing on the National Register? Source: **Historic Property Assessment**	(X) Yes ( ) No
13) Is this property a National Historic Landmark?	( ) Yes (X) No

14) Direct Effects (Select One):

(X) No Effect on this Historic Property in APE

( ) No Adverse Effect on this Historic Property in APE

( ) Adverse Effect on this Historic Property in APE

15) Visual Effects (Select One):

(X) No Effect on this Historic Property in APE

( ) No Adverse Effect on this Historic Property in APE

( ) Adverse Effect on this Historic Property in APE

Historic Properties

Properties Identified

1) Have any historic properties been identified within the APEs for direct and visual effect?	(X) Yes ( ) No
2) Has the identification process located archaeological materials that would be directly affected, or sites that are of cultural or religious significance to Tribes/NHOs?	( ) Yes (X) No
3) Are there more than 10 historic properties within the APEs for direct and visual effect? If "Yes", you are required to attach a Cultural Resources Report in lieu of adding the Historic Property below.	( ) Yes (X) No

Historic Property

4) Property Name: **Fort Ruger Historic District**
5) SHPO Site Number:

Property Address

6) Street Address: **Fort Ruger**		
7) City: **Honolulu**	8) State: **HI**	9) Zip Code: **96816**
10) County/Borough/Parish: **HONOLULU**		

Status & Eligibility

11) Is this property listed on the National Register? Source:	( ) Yes (X) No
12) Is this property eligible for listing on the National Register? Source: **Historic Property Assessment report**	(X) Yes ( ) No
13) Is this property a National Historic Landmark?	( ) Yes (X) No

14) Direct Effects (Select One):

(X) No Effect on this Historic Property in APE

( ) No Adverse Effect on this Historic Property in APE

( ) Adverse Effect on this Historic Property in APE

15) Visual Effects (Select One):

(X) No Effect on this Historic Property in APE

( ) No Adverse Effect on this Historic Property in APE

( ) Adverse Effect on this Historic Property in APE

Local Government Involvement

Local Government Agency

1) FCC Registration Number (FRN):
2) Name: **City and County of Honolulu Department of Planning and Permitting**

Contact Name

3) First Name: **George**	4) MI:	5) Last Name: **Atta**	6) Suffix:
7) Title:			

Contact Information

8) P.O. Box:	**And /Or**	9) Street Address: **650 South King Street, 7th Floor**		
10) City: **Honolulu**			11) State: **HI**	12) Zip Code: **96813**
13) Telephone Number: **(808)768-8000**		14) Fax Number:		
15) E-mail Address:				

16) Preferred means of communication:

( ) E-mail

(**X**) Letter

( ) Both

Dates & Response

17) Date Contacted **06/08/2015** 18) Date Replied **09/01/2015**

( ) No Reply

(**X**) Replied/No Interest

( ) Replied/Have Interest

( ) Replied/Other

Additional Information

19) Information on local government's role or interest (optional):

Other Consulting Parties

Other Consulting Parties Contacted

1) Has any other agency been contacted and invited to become a consulting party?	( ) Yes (X) No

Consulting Party

2) FCC Registration Number (FRN):
3) Name:

Contact Name

4) First Name:	5) MI:	6) Last Name:	7) Suffix:
8) Title:			

Contact Information

9) P.O. Box:	**And /Or**	10) Street Address:		
11) City:			12) State:	13) Zip Code:
14) Telephone Number:		15) Fax Number:		
16) E-mail Address:				
17) Preferred means of communication: ( ) E-mail ( ) Letter ( ) Both				

Dates & Response

18) Date Contacted _____ 19) Date Replied _____

( ) No Reply

( ) Replied/No Interest

( ) Replied/Have Interest

( ) Replied/Other

Additional Information

20) Information on other consulting parties' role or interest (optional):

Designation of SHPO/THPO

1) Designate the Lead State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) based on the location of the tower.

SHPO/THPO

Name: **State Historic Preservation Office**

2) You may also designate up to three additional SHPOs/THPOs if the APEs include multiple states. If the APEs include other countries, enter the name of the National Historic Preservation Agency and any state and provincial Historic Preservation Agency.

SHPO/THPO Name: _____

SHPO/THPO Name: _____

SHPO/THPO Name: _____

Certification

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

Party Authorized to Sign

First Name: **Nicole**	MI:	Last Name: **Okino**	Suffix:

Signature: **Nicole Okino**	Date: **12/21/2015**

FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID.

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

Attachments :

Type	Description	Date Entered
Resumes/Vitae	Resumes	12/21/2015
Map Documents	figures	12/21/2015
Area of Potential Effects	Area of Potential effect	12/21/2015
Tribal/NHO Involvement	Tribal	12/21/2015
Local Government Involvement	Local Government	12/21/2015
Public Involvement	Public Notice	12/21/2015
Historic Properties for Visual Effects	Visual/TS Dye	12/21/2015
Historic Properties for Direct Effects	Direct effect	12/21/2015
Photographs	Photo	12/21/2015

RESUMES

Resumes for Nicole Okino, Thomas Dye, and Don Hibbard.

Nicole Okino

Staff Geologist

Education

B.A, Geology, 2008
University of Hawaii at Manoa, Honolulu, Hawaii

Registrations/Certifications

OSHA 40-Hour Hazardous Waste Operations and Emergency Response Training, 2013

Location

Honolulu, Hawaii

Nicole Okino has two years of experience in the environmental consulting field. Her experience includes conducting Phase I Environmental Site Assessments (ESAs), Phase II ESAs including soil and groundwater sampling, real time exposure monitoring, and conducting National Environmental Policy Act (NEPA) compliance work.

Ms. Okino has conducted numerous Phase I ESAs which include site inspection and reconnaissance, as well as performing current and historical research. Research included analyzing historical aerial photographs, topographic maps, fire insurance maps, and government databases and environmental case files.

Ms. Okino is conducting numerous NEPA Screenings for proposed and existing wireless telecommunications facilities to assess compliance with federal regulations. Screenings included identifying if the facilities may have a significant environmental effect for which further evaluation should be conducted. These NEPA Screenings consist of working with the United States Fish & Wildlife Service, the United States Army Corps of Engineers, state agencies, local government offices, and Native Hawaiian Organizations. Ms. Okino has extensive knowledge of the National Programmatic Agreement executed by the Federal Communications Commission regarding Section 106 consultations. Additionally, Ms. Okino is preparing Environmental Assessments (EAs) for wireless telecommunications facilities.

Ms. Okino also conducts performance evaluation tests and prepares Status Reports on Underground Injection Control (UIC). She prepared UIC well status reports summarizing well efficiency during high volume discharges.

Thomas S. Dye, Archaeologist

Current Positions

President	T. S. Dye & Colleagues, Archaeologists, Inc., Honolulu
Affiliate	Graduate Faculty, University of Hawai‘i at Mānoa

Education

Ph.D.	Anthropology, Yale University (1987)
M.Phil.	Anthropology, Yale University (1983)
B.A.	Anthropology, University of Hawai‘i at Mānoa (1980)

Research Interests

^{14}C dating	Primary interests are identification of suitable dating materials, full specification of dated archaeological contexts, and Bayesian calibration. This work has (i) established the age of the early Bellows Dune site, O18; (ii) solved the long-standing problem of how to determine when Polynesians first settled the Hawaiian Islands; and (iii) proposed a new, late chronology for expansion and intensification of the Leeward Kohala Field System.
Fish remains	Primary interests are fish remains identification, statistical analysis of collections, and interpretation of patterns across space and through time. This work has (i) developed a manual of fish remains identification with Ken Longenecker; (ii) established a size/diversity relationship for archaeological fish bone collections from leeward Hawai‘i Island; (iii) developed a method to estimate fish size from the centrum diameter of vertebrae; and (iv) discovered, with Ken Longenecker, that bonefish were a major component of the traditional Hawaiian fishing catch at Waimānalo, O‘ahu.
Statistics	Primary interests are exploratory multivariate data analysis and its application to archaeological collections. This work has (i) developed graphical software for star plots distributed with the R Project for Statistical Computing; (ii) developed a graphical summary of large collections over the space of an excavation; (iii) explored the use of directed acyclic graphs to construct and analyze Harris matrices; and (iv) developed a set of landmarks for statistical shape analysis of fishhooks. Currently working with Jenny Kahn at Bishop Museum to characterize the sizes and shapes of more than 800 Hawaiian stone adzes.

Reproducible research Active collaborator in the development of Org-mode software, which can be used to carry out and publish reproducible research. This work has led to the publication of two reproducible research projects.

Selected Publications

Athens, J. Stephen, Timothy M. Rieth, and Thomas S. Dye (2014). "A Paleoenvironmental and Archaeological Model-Based Age Estimate for the Colonization of Hawai'i". In: *American Antiquity* 79.1, pp. 144–155.

Dye, Thomas S. (2014a). "Structure and Growth of the Leeward Kohala Field System: An Analysis with Directed Graphs". In: *PLOS One*. URL: `http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0102431`.

– (2014b). "Wealth in Old Hawai'i: Good Year Economics and the Rise of Pristine States". In: *Archaeology in Oceania* 49.2, pp. 59–85.

Bayman, James M. and Thomas S. Dye (2013). *Hawai'i's Past in a World of Pacific Islands*. Washington, DC: SAA Press.

Dye, Thomas S. and Carl E. Sholin (2013). "Changing Patterns of Firewood Use on the Waimānalo Plain". In: *Hawaiian Archaeology* 13, pp. 30–68.

Dye, Thomas S. (2012). "Hawaiian temples and Bayesian chronology". In: *Antiquity* 86.334, pp. 1202–1206.

Schulte, Eric, Dan Davison, Thomas Dye, and Carsten Dominik (2012). "A Multi-Language Computing Environment for Literate Programming and Reproducible Research". In: *Journal of Statistical Software* 46.3, pp. 1–24. URL: `http://www.jstatsoft.org/v46/i03`.

Dye, Thomas S. (2011a). "A Model-based Age Estimate for Polynesian Colonization of Hawai'i". In: *Archaeology in Oceania* 46, pp. 130–138.

– (2011b). "Contemporary Practice of Archaeology in Hawai'i". In: *Hawaiian Archaeology* 12, pp. 125–142.

– (2011c). "Gift Exchange and Interpretations of Captain Cook in the Traditional Kingdoms of the Hawaiian Islands". In: *The Journal of Pacific History* 46.3, pp. 275–292.

– (2011d). "The Tempo of Change in the Leeward Kohala Field System, Hawai'i Island". In: *Rapa Nui Journal* 25.2, pp. 21–30.

– ed. (2010a). *Research Designs for Hawaiian Archaeology*. Special Publications 3. Honolulu: Society for Hawaiian Archaeology.

– (2010b). "Social Transformation in Old Hawai'i: A Bottom-up Approach". In: *American Antiquity* 75.4, pp. 727–741.

– (2010c). "Traditional Hawaiian Surface Architecture: Absolute and Relative Dating". In: *Research Designs for Hawaiian Archaeology*. Ed. by Thomas S. Dye. Special Publications 3. Honolulu: Society for Hawaiian Archaeology. Chap. 2, pp. 93–155.

Dye, Thomas S. and Jeffrey Pantaleo (2010). "Age of the O18 Site, Hawai'i". In: *Archaeology in Oceania* 45, pp. 113–119.

Dye, Thomas S. (2004). “How to Fix the Inventory Survey Rule”. In: *Hawaiian Archaeology* 9, pp. 123–132.

Dye, Thomas S. and Ken Longenecker (2004). *Manual of Hawaiian Fish Remains Identification*. Special Publication 1. Honolulu: Society for Hawaiian Archaeology and Bishop Museum Press.

Dye, Thomas S. (2000). “Effects of ^{14}C sample selection in archaeology: An example from Hawai‘i”. In: *Radiocarbon* 42.2, pp. 203–217.

Dye, Thomas S. and H. David Tuggle (1998). “Land snail extinctions at Kalaeloa, O‘ahu”. In: *Pacific Science* 52.2, pp. 111–140.

Dye, Thomas S. (1996). “Assemblage definition, analytic methods, and sources of variability in the interpretation of Marquesan subsistence change”. In: *Asian Perspectives* 35, pp. 73–88.

Dye, Thomas S. and William R. Dickinson (1996). “Sources of sand tempers in prehistoric Tongan pottery”. In: *Geoarchaeology* 11, pp. 141–164.

Dye, Thomas S. (1995). “Comparing ^{14}C histograms: An approach based on approximate randomization techniques”. In: *Radiocarbon* 37.3, pp. 851–859.

– (1994a). “Apparent ages of marine shells: Implications for archaeological dating in Hawai‘i”. In: *Radiocarbon* 36, pp. 51–57.

– (1994b). “Comment on Gordon, “Screen Size and Differential Faunal Recovery: A Hawaiian Example””. In: *Journal of Field Archaeology* 21, pp. 391–392.

– (1994c). “Population trends in Hawai‘i before 1778”. In: *Hawaiian Journal of History* 28, pp. 1–20.

– (1992). “The South Point radiocarbon dates 30 years later”. In: *New Zealand Journal of Archaeology* 14, pp. 89–97.

Dye, Thomas S. and Eric K. Komori (1992a). “A Pre-censal Population History of Hawai‘i”. In: *New Zealand Journal of Archaeology* 14, pp. 113–128.

– (1992b). “Computer programs for creating cumulative probability curves and annual frequency distribution diagrams with radiocarbon dates”. In: *New Zealand Journal of Archaeology* 14, pp. 35–43.

Dye, Thomas S. (1991). “A reputation unmade: J. F. G. Stokes’s career in Hawaiian archaeology”. In: *Heiau of the Island of Hawai‘i*. Bishop Museum Bulletin in Anthropology 2. Edited and introduced by Tom Dye. Honolulu: Bishop Museum, pp. 3–20.

Stokes, John F. G. (1991). *Heiau of the Island of Hawai‘i: A Historic Survey of Native Hawaiian Temple Sites*. Bishop Museum Bulletin in Anthropology 2. Edited and introduced by Tom Dye. Honolulu: Bishop Museum.

Dye, Thomas S. (1990a). “Marine turtle bones from an archaeological site in Polynesia yield reliable age determinations”. In: *Radiocarbon* 32, pp. 143–147.

– (1990b). “The causes and consequences of a decline in the prehistoric Marquesan fishing industry”. In: *Pacific production systems: Approaches to economic prehistory*. Ed. by Douglas E. Yen and J. M. J. Mummery. Occasional Papers in Prehistory 18. Canberra, AU: Department of Prehistory, Research School of Pacific Studies, The Australian National University, pp. 70–84.

Dye, Thomas S. and Paul L. Cleghorn (1990). “Prehistoric use of the interior of Southern Guam”. In: *Micronesica*, pp. 261–274.
Dye, Thomas S. and David W. Steadman (1990). “Polynesian ancestors and their animal world”. In: *American Scientist* 78, pp. 207–215.
Yen, D. E. and J. M. J. Mummery, eds. (1990). *Pacific Production Systems: Approaches to Economic Prehistory*. Occasional Papers in Prehistory 18. Canberra, AU: Department of Prehistory, Research School of Pacific Studies, The Australian National University.
Dye, Thomas S. (1989). “Tales of two cultures: Traditional historical and archaeological interpretations of Hawaiian prehistory”. In: *Bishop Museum Occasional Papers* 29, pp. 3–22.
Pregill, Gregory K. and Thomas S. Dye (1989). “Prehistoric extinction of giant iguanas in Tonga”. In: *Copeia* 1989, pp. 505–508.
Dye, Thomas S., ed. (1987a). *Marshall Islands Archaeology*. Pacific Anthropological Records 38. Honolulu: Anthropology Department, B. P. Bishop Museum.
– (1987b). “Social and Cultural Change in the Prehistory of the Ancestral Polynesian Homeland”. PhD thesis. Yale University.
Cleghorn, Paul L., Thomas S. Dye, Marshall I. Weisler, and John Sinton (1985). “A preliminary petrographic study of Hawaiian stone adze quarries”. In: *Journal of the Polynesian Society* 94, pp. 235–251.
Dye, Thomas S. (1983). “Fish and fishing on Niuatoputapu”. In: *Oceania* 53, pp. 242–271.
– (1980). “The linguistic position of Niuafoʻou”. In: *Journal of the Polynesian Society* 89, pp. 349–357.
Kirch, Patrick V. and Thomas S. Dye (1979). “Ethno-archaeology and the development of Polynesian fishing strategies”. In: *Journal of the Polynesian Society* 88, pp. 53–76.

Archaeology Positions

2008	Instructor, Assemblage Analyses in Archaeology, University of Hawaii at Mānoa
2004	Guest Lecturer, Bayesian Statistics for Archaeologists, University of Arizona, Tucson
1997–2001	Associate Archaeologist, Projects Manager, International Archaeological Research Institute, Inc., Honolulu
1997	Instructor, Historic Preservation Seminar, University of Hawaiʻi at Mānoa
1991–1997	Oʻahu Island Archaeologist, Department of Land and Natural Resources, State of Hawaii
1987–1991	Associate Professor of Anthropology, Hawaiʻi Pacific University, Honolulu
1987	Research Associate, B. P. Bishop Museum, Honolulu

1984–1985	Associate Anthropologist, B. P. Bishop Museum, Honolulu
1977–1978	Staff Contract Archaeologist, B. P. Bishop Museum, Honolulu

Professional Memberships

Archaeology	Society for American Archaeology Society for Hawaiian Archaeology, Past President
History	Hawaiian Historical Society, Past President
Science	Sigma Xi
Software	Free Software Foundation

Contact Information

Mail	735 Bishop Street, Suite 315, Honolulu, Hawai‘i 96813
Telephone	(808) 387–9352
Fax	(808) 529–0884
E-mail	tsd at tsdye dot com
Web	`http://www.tsdye.com`

Honolulu, October 17, 2014

DON J. HIBBARD

45-287 Kokokahi Place
Kaneohe, Hawaii 96744
Phone: (808)-542-6230
email: idleidyll@hawaii.rr.com

Birth Date: 3/24/45
Birth Place: Suffern, New York
Married: wife: Debra Pang, children: Noah and Moani

Veteran: U.S. Army, 1968-1970

Education

1971-1975	University of Hawaii Honolulu, Hawaii	Ph.D. American Studies
1970-1971	University of Victoria Victoria, British Columbia	Graduate Study History in Art
1967-1968	University of Hawaii Honolulu, Hawaii	MA American Studies
1963-1967	Lafayette College Easton, Pennsylvania	BA American Civilization

Work Experience

2003-Present	Heritage Specialist
1993-2002	Deputy State Historic Preservation Officer
1982-2002	Administrator Hawaii State Historic Preservation Office
1978-1982	Architectural Historian Hawaii State Historic Preservation Office
1975-1978	Architectural Historian Idaho State Historical Society

Teaching Experience

Fall 1996	University of Hawaii School of Architecture
1991-1993	Hawaii Pacific University History Department
Fall 1991	University of Hawaii School of Architecture
1976-1978	Boise State University History Department

Director on the Boards of:
Ewa Villages Nonprofit Development Corp, dba Historic Ewa, 1992-2006
Hawaii Heritage Center, 2003-present
Hawaiian Historical Society, 2012-present
Doco Momo, Hawaii Chapter, 2012-present
Friends of Friendship Garden, 2013-present

Publications
Buildings of Hawaii (Charlottesville, Virginia: University of Virginia Press, 2011)

Hart Wood, Architectural Regionalism in Hawaii (Honolulu: University of Hawaii Press, 2010)

Designing Paradise, The Allure of Hawaiian Resorts (New York: Princeton Architectural Press, 2006)

The View from Diamond Head, Royal Residence to Urban Resort
(Honolulu: Editions Limited, 1986)

Problems and Issues in Cultural Heritage Preservation, Proceedings of the First HAPI Colloquium, The Preservation of Traditional Culture (Honolulu: Hawaii Heritage Center, 1986)

The Role of Rock, (New York: Prentice-Hall, 1983)

The concluding chapter of *The Role of Rock* was anthologized in Alan Wells, *Mass Media and Society*, (Lexington, Massachusetts: D.C. Heath and Company, 1987)

A number of essays and book reviews in such journals and books as: *CRM*, *Progressive Architecture*, *Hawaii Architect*, *Vernacular Architecture Newsletter*, *Pacific Historical Review*, *Winterthur Portfolio*, *Journal of Popular Culture*, *African American Architects A Biographical Dictionary 1865-1945*, *Atlas of Hawaii*, *The Encyclopedia of Vernacular Architecture*, and *Contemporary Architects.*

MAPS

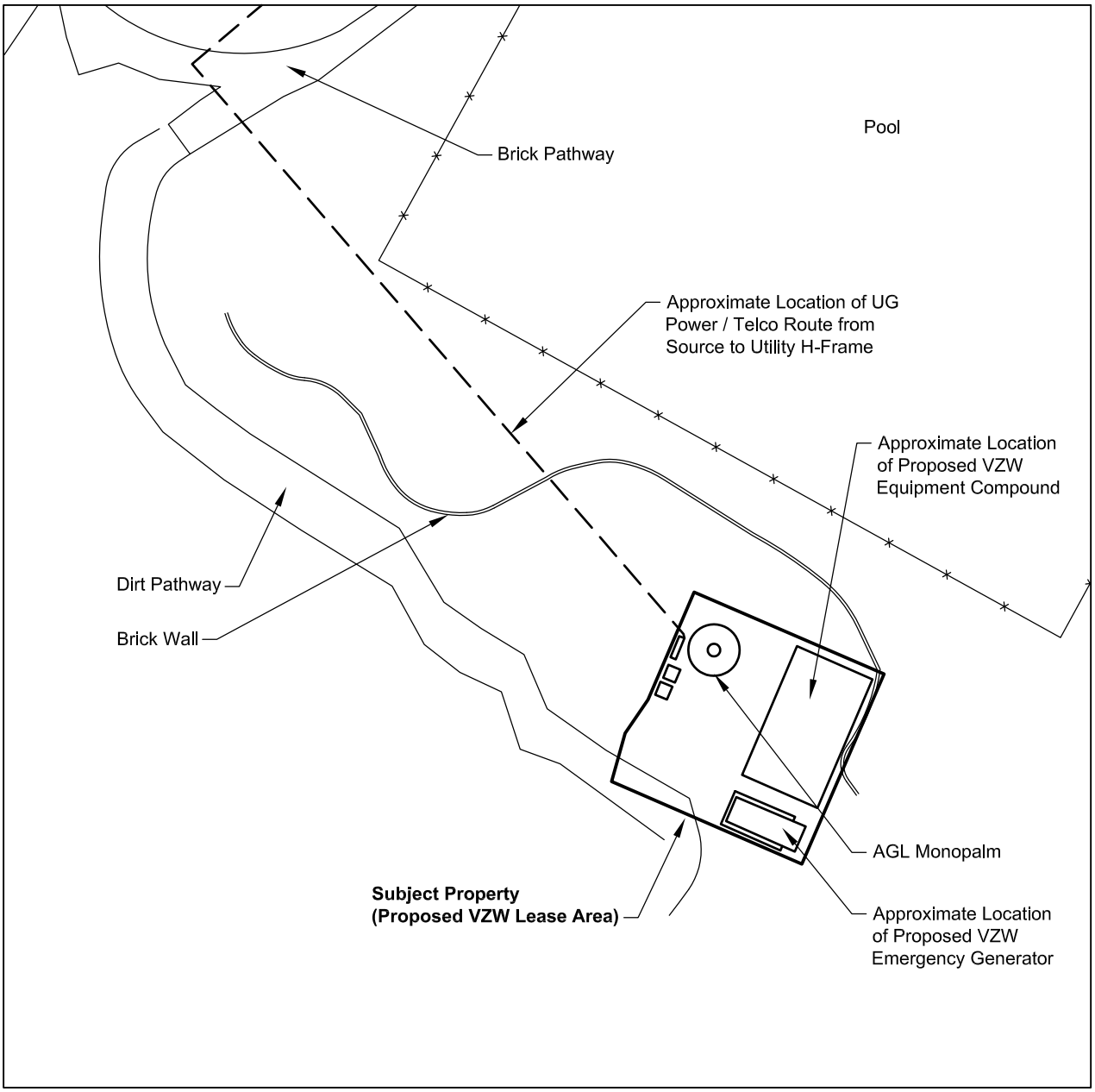
Figures 1 and 2

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

N

0 1/4 1/2 1 MILE

BUREAU VERITAS	Project No.: 17015-015032.00	Title: Site Location Map	FIGURE 1
	Date: 05/28/15	Location: Proposed VZW HON Kupikipikio Cell Site 708 Palekaua Street (TMK: [1] 3-1-042: Parcel 034) Honolulu, Oahu, Hawaii	
	Revised By: DG		
	Checked By: NO	Client: Verizon Wireless c/o Cades Schutte, LLP	



N

0 5' 10' 20' 40'

Approximate Scale

BUREAU VERITAS	Project No.: 17014-014105.00	Title: Site Vicinity Map	FIGURE 2
	Date: 07/03/14	Location: Proposed VZW HON Kupikipikio Cell Site 708 Palekaua Street (TMK: [1] 3-1-042: Parcel 034) Honolulu, Oahu, Hawaii	
	Revised By: DG		
	Checked By: NO	Client: Verizon Wireless c/o Cades Schutte, LLP	

HON KUPIKIPIKIO
ZONING DRAWINGS

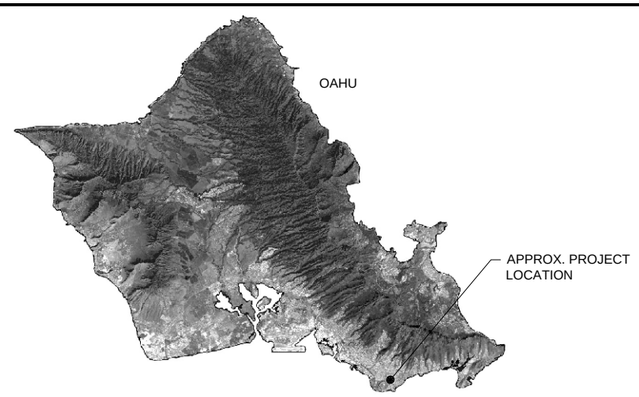
PROJECT DATA

SITE ADDRESS:	708 PALEKAUA STREET HONOLULU, HI 96816
LATITUDE:	21° 15' 44.48" N
LONGITUDE:	157° 47' 42.59" W
DATUM:	NAD 83
SOURCE:	1A
JURISDICTION:	CITY AND COUNTY OF HONOLULU
TMK:	(1) 3-1-042:034
GROUND ELEVATION:	71' AMSL
POLE TOP ELEVATION:	65' AGL
HEIGHT LIMIT:	25' AGL
OCCUPANCY GROUP:	U-2
CONSTRUCTION TYPE:	V-B
ZONING:	R-10
FLOOD ZONE:	ZONE X
DESIGN WIND LOAD:	100 MPH

GOVERNING CODES

- IBC - 2006, INTERNATIONAL BUILDING CODE ALL CONSTRUCTION SHALL CONFORM TO THE 2006 INTERNATIONAL BUILDING CODE (2006 IBC) AND THE LATEST CITYAND COUNTY OF HONOLULU AMENDMENTS AND ORDINANCES.
- NEC-2008, NATIONAL ELECTRICAL CODE
- NFPA - 2006, NATIONAL FIRE PROTECTION ASSOCIATION FIRE SAFETY DURING CONSTRUCTION, ALTERATION OR DEMOLITION SHALL COMPLY WITH 2006 NFPA 1
- A.D.A. COMPLIANCE
  INSTALLATION IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAP ACCESS IS NOT REQUIRED PER A.D.A.

ISLAND MAP



VICINITY MAP

PROJECT CONTACTS

APPLICANT
VERIZON WIRELESS
3350 161ST AVE. SE
BELLEVUE, WA 98008

LESSEE
OAHU SPECIAL SCHOOLS ASSN.
C/O VARIETY SCHOOL OF HAWAII
710 PALEKAUA ST
HONOLULU, HI 96816

FEE OWNER
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
1151 PUNCHBOWL ST
HONOLULU, HI 96813

MONOPOLE OWNER
VERIZON WIRELESS
3350 161ST AVE SE
BELLEVUE, WA 98008

PRINCIPAL ENGINEER, NETWORK CONSTRUCTION
VERIZON WIRELESS
3245 158TH AVE SE
MS 231
BELLEVUE, WA 98008
CONTACT: BRYAN ADAMS, PMP
PH: 425.603.2728
CELL: 206.715.6499

PROJECT MANAGER
CASCADIA PM
1130 N. NIMITZ HWY, SUITE A-200
HONOLULU, HI, 96817
CHARLES FORTNER
PH: 808.536.7404

ZONING & PERMITTING CONSULTANT
CASCADIA PM
1130 N. NIMITZ HWY, SUITE A-200
HONOLULU, HI, 96817
ROBYN KAHALELEHUA
PH: 808.536.7440

UTILITY COORDINATOR MANAGER
CASCADIA PM
1130 N. NIMITZ HWY, SUITE A-200
HONOLULU, HI, 96817
PJ CAMOU
PH: 808.536.7406

SURVEY
LEAPS & BOUNDARIES, INC.
2016 WATERHOUSE ST., STE. 101
HONOLULU, HI 96819
ARDEN J. TORCUATO
PH: 808.484.5701

ELECTRICAL ENGINEER
9200 CHERRY CREEK S. DRIVE, SUITE 25
DENVER, CO 80231
RICHARD J. MOSS, PE
PH: 303 921 5061

STRUCTURAL ENGINEER
VECTOR STRUCTURAL ENGINEERS
9138 S STATE ST., SUITE 101
SANDY, UT 84070
ROGER T. ALWORTH, S.E.
PH: 801.990.1775

PROJECT SUMMARY

THIS PROJECT INCLUDES THE FOLLOWING SCOPE OF WORK:

1. NEW FACILITY WILL CONSIST OF A 625 SF FENCED LEASE AREA COMPOUND WITH A NEW 65' MONOPALM, TWELVE (12) VERIZON WIRELESS PANEL ANTENNAS, TWELVE (12) REMOTE RADIO HEADS (RRHs), THREE (3) SURGE PROTECTORS AND (1) GPS ANTENNA.

2. PROPOSED VERIZON WIRELESS EQUIPMENT CABINETS ON A NEW CONCRETE PAD AND 50KW OUTDOOR DIESEL GENERATOR ON A NEW CONCRETE PAD.

3. PROPOSED INSTALLATION OF 200A ELECTRICAL SERVICE & FIBER FOR VERIZON WIRELESS EQUIPMENT.

CALL BEFORE YOU DIG!
866-423-7287

DRAWING INDEX

SHEET	DESCRIPTION
T-1.0	TITLE SHEET
SV-1	SURVEY
A-1.0	OVERALL SITE PLAN
A-2.0	ENLARGED SITE PLAN
A-2.1	SITE PLAN DIMENSIONS
A-3.0	ELEVATIONS
A-3.1	ELEVATIONS

DRIVING DIRECTIONS

FROM HONOLULU INTERNATIONAL AIRPORT

1. HEAD NORTHWEST ON AOLELE ST (0.1 MI)
2. SLIGHT LEFT ONTO ALA ONAONA ST (0.2 MI)
3. CONTINUE ONTO AOLELE ST (348 FT)
4. SLIGHT RIGHT TO STAY ON AOLELE ST (348 FT)
5. TAKE THE INTERSTATE H1 E RAMP TO HONOLULU/WAIKIKI (0.9 MI)
6. MERGE ONTO I-H-1 E (8.4 MI)
7. TAKE EXIT 26A FOR KOKO HEAD AVE (0.2 MI)
8. TURN RIGHT ONTO KOKO HEAD AVE (240 FT)
9. TURN LEFT ONTO PAHOA AVE (0.6 MI)
10. TURN RIGHT ONTO 22ND AVE (0.7 MI)
11. TURN LEFT ONTO PUU PANINI AVE (0.1 MI)
12. TAKE THE 1ST RIGHT ONTO PALEKAUA ST; DESTINATION WILL BE ON THE RIGHT (469 FT)

ESTIMATED DISTANCE: 11.5 MILES
ESTIMATED TIME: 20 MINUTES

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HONOLULU, HI 96817
PH: (808) 536-7400

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CPM PROJECT NO.: 5185

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
1	07-14-14	CL/CL	LU SUBMITTAL

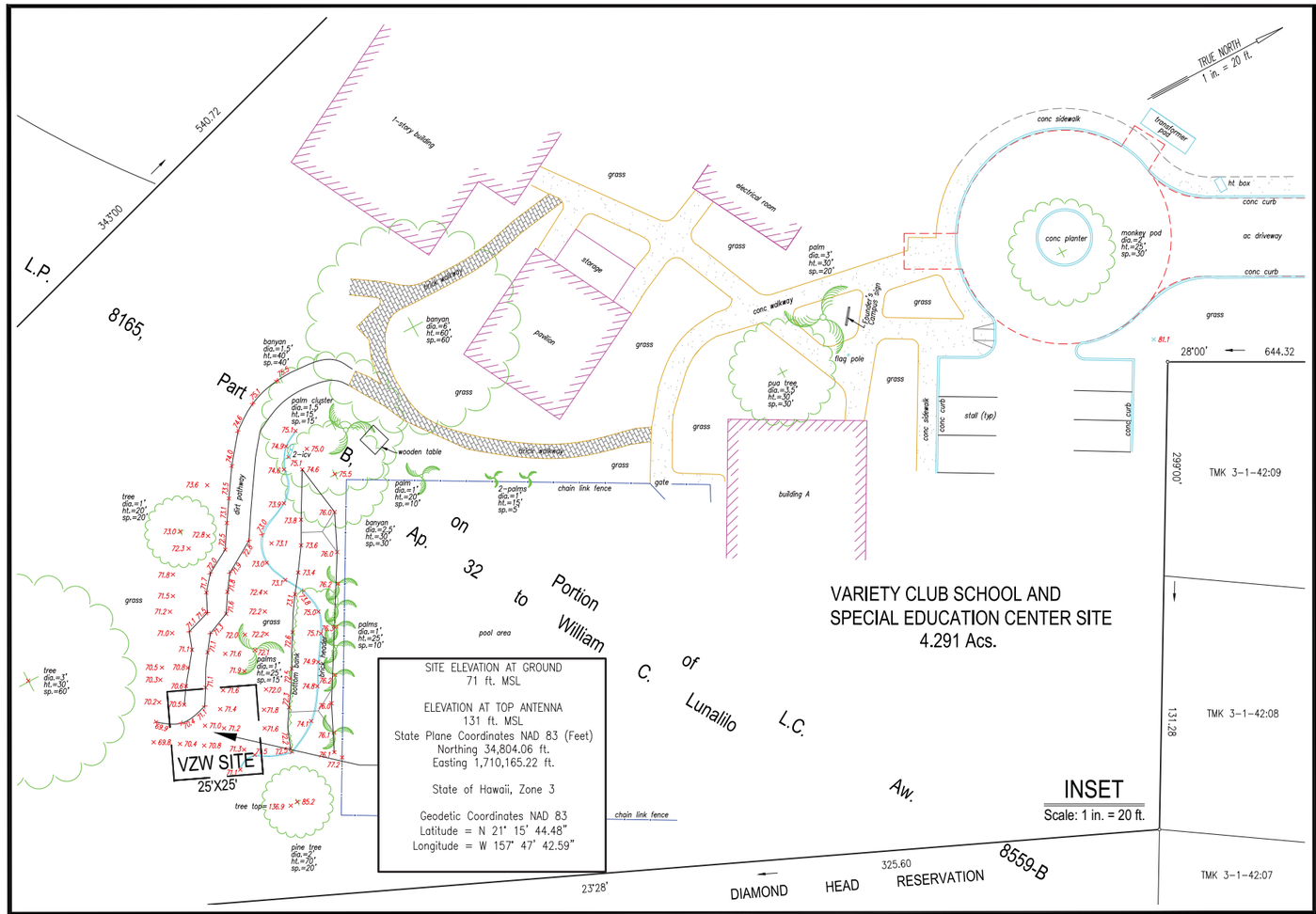
SITE NAME
HON KUPIKIPIKIO

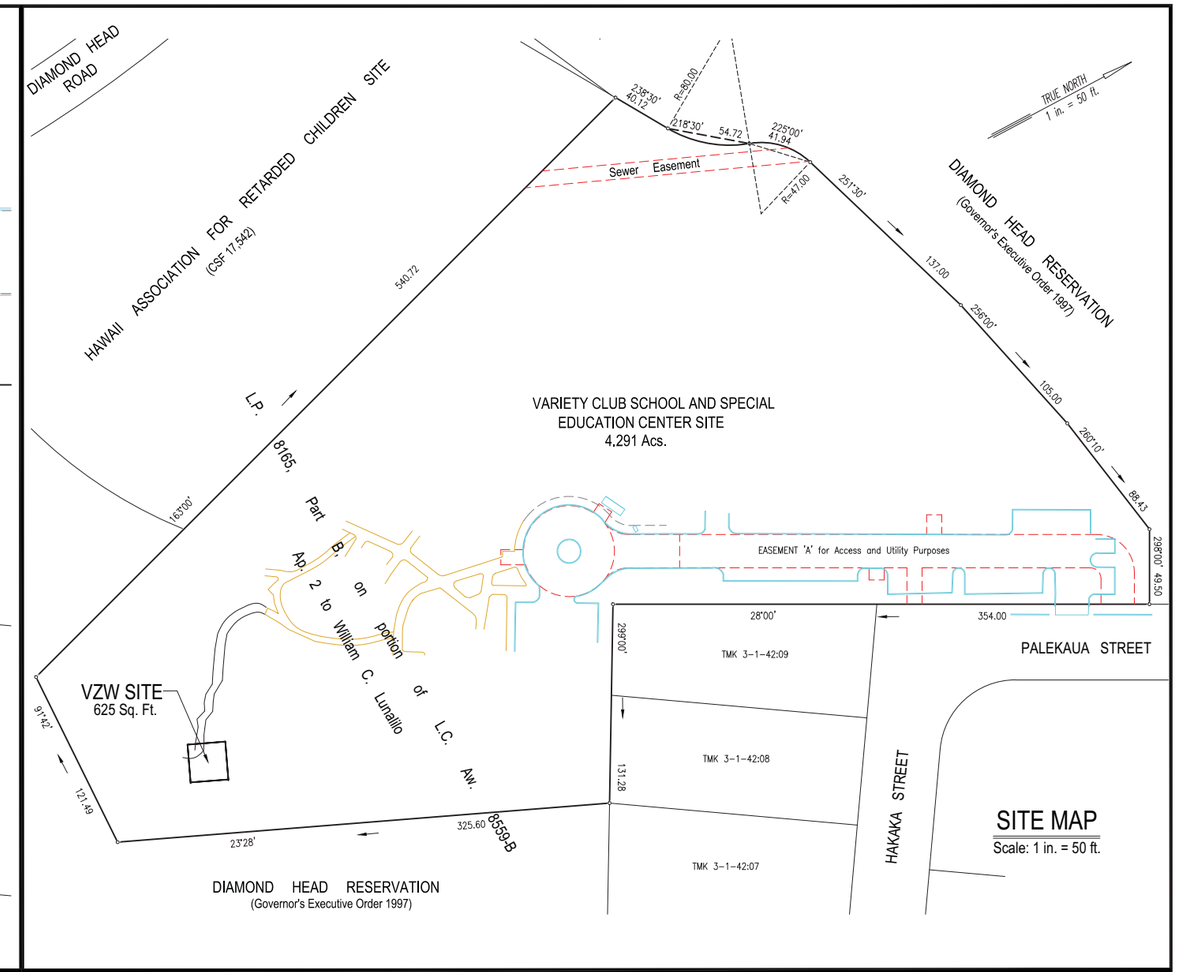
TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

SHEET TITLE
TITLE SHEET

SHEET NO.
T-1.0

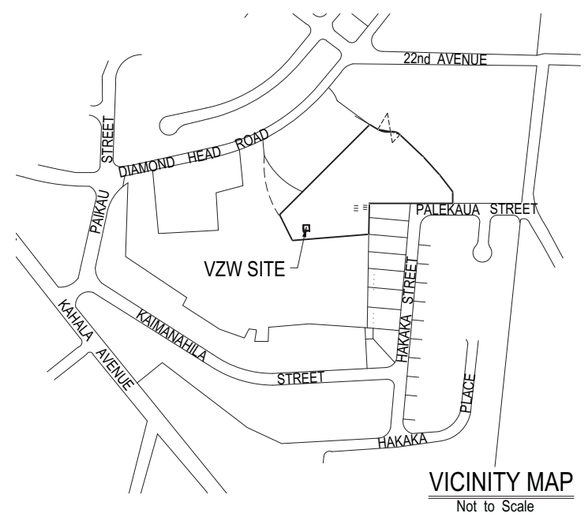




Legend:

bw	bottom wall
clf	chain link fence
co	cleanout
conc	concrete
mw	monitoring well
pav't	edge pavement
tsf	transformer
tw	top wall
wm	water meter
ws	wheel stop
x-walk	crosswalk

Note: Elevations established from GPS-RTK derived orthometric heights, applying Geoid 2009 separations, constraining to NGS control station B 12 (TU0317).



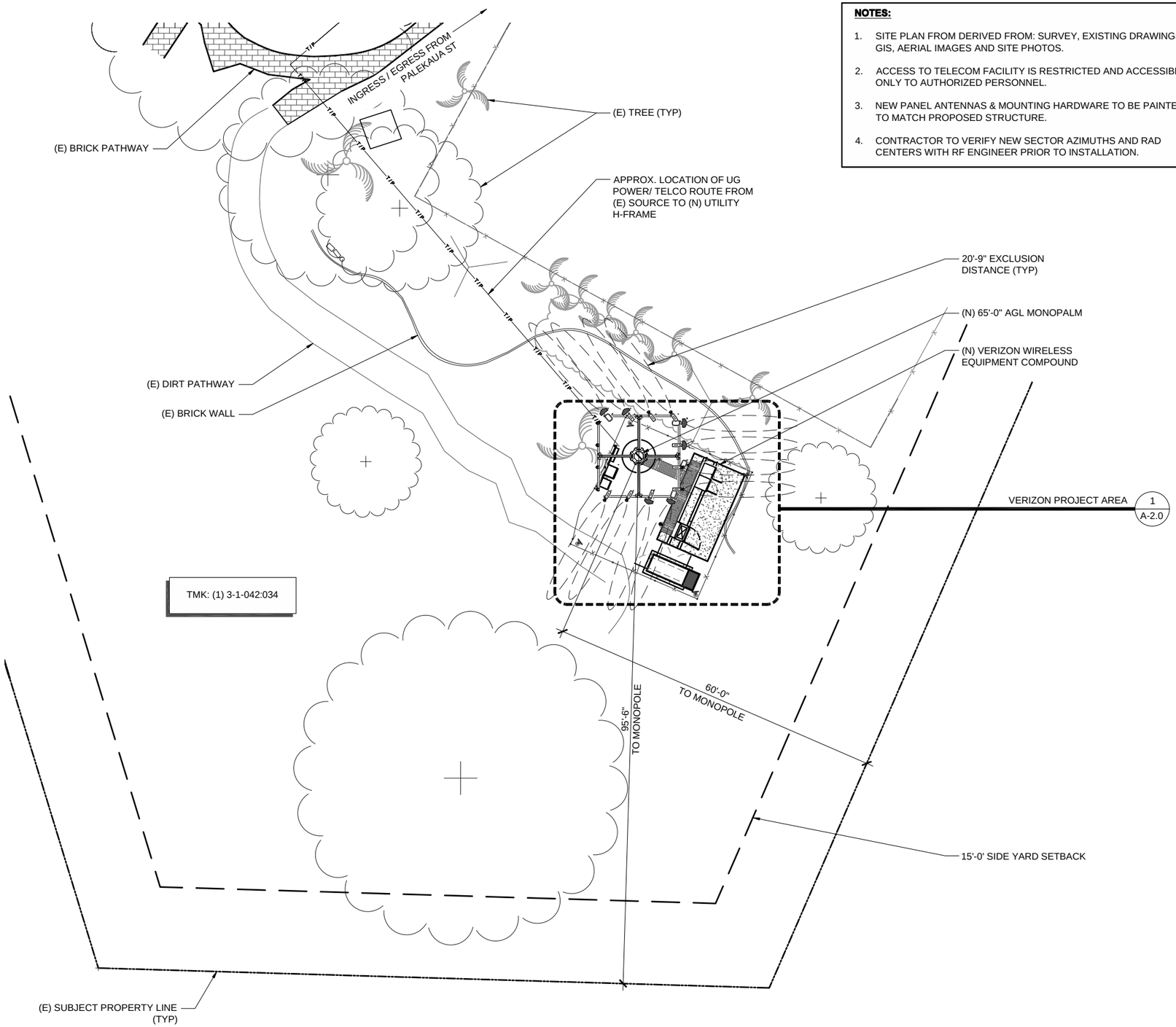
VZW HON KUPIKIPIKIO
VARIETY CLUB SCHOOL AND SPECIAL EDUCATION CENTER SITE
Being a Portion of L. P. 8165, Part B
on Portion of L.C. Aw. 8559-B, Ap. 32 to William C. Lunalilo
At Kapahulu, Waikiki, Honolulu, Oahu, Hawaii
DATE: March 14, 2014
TMK: (1) 3-1-042:034

ARDEN J. TORCUATO
LICENSED PROFESSIONAL LAND SURVEYOR
No. 10257
HAWAII, U.S.A.

This map was prepared by me or under my direct supervision

LICENSED PROFESSIONAL LAND SURVEYOR
CERTIFICATE NUMBER 10257 – Exp. 4/30/2016

LEAPS & BOUNDARIES, INC.
2016 WATERHOUSE ST., STE. 101 PH. (808) 484-5701
HONOLULU, HI 96819 FAX (888) 542-2097
EMAIL: SURVEYS@LEAPSANDBOUNDARIES.COM



NOTES:

1. SITE PLAN FROM DERIVED FROM: SURVEY, EXISTING DRAWINGS, GIS, AERIAL IMAGES AND SITE PHOTOS.
2. ACCESS TO TELECOM FACILITY IS RESTRICTED AND ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL.
3. NEW PANEL ANTENNAS & MOUNTING HARDWARE TO BE PAINTED TO MATCH PROPOSED STRUCTURE.
4. CONTRACTOR TO VERIFY NEW SECTOR AZIMUTHS AND RAD CENTERS WITH RF ENGINEER PRIOR TO INSTALLATION.

DRAWING LEGEND

	SUBJECT PROPERTY LINE
	ADJACENT PROPERTY LINE
	LEASE AREA
	ACCESS EASEMENT
CF	COAX/FIBER ROUTE
F	FIBER ROUTE
WG	WAVEGUIDE ROUTE
	EXISTING FENCE
X / X-X.X	ELEVATION MARKER
X / X-X.X	SECTION MARKER

COMMON ABBREVIATIONS

(E)	EXISTING
(P)	PROPOSED
(TYP)	TYPICAL
RE:	REFERENCE

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SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
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1	07-14-14	CL/CL	LU SUBMITTAL

SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

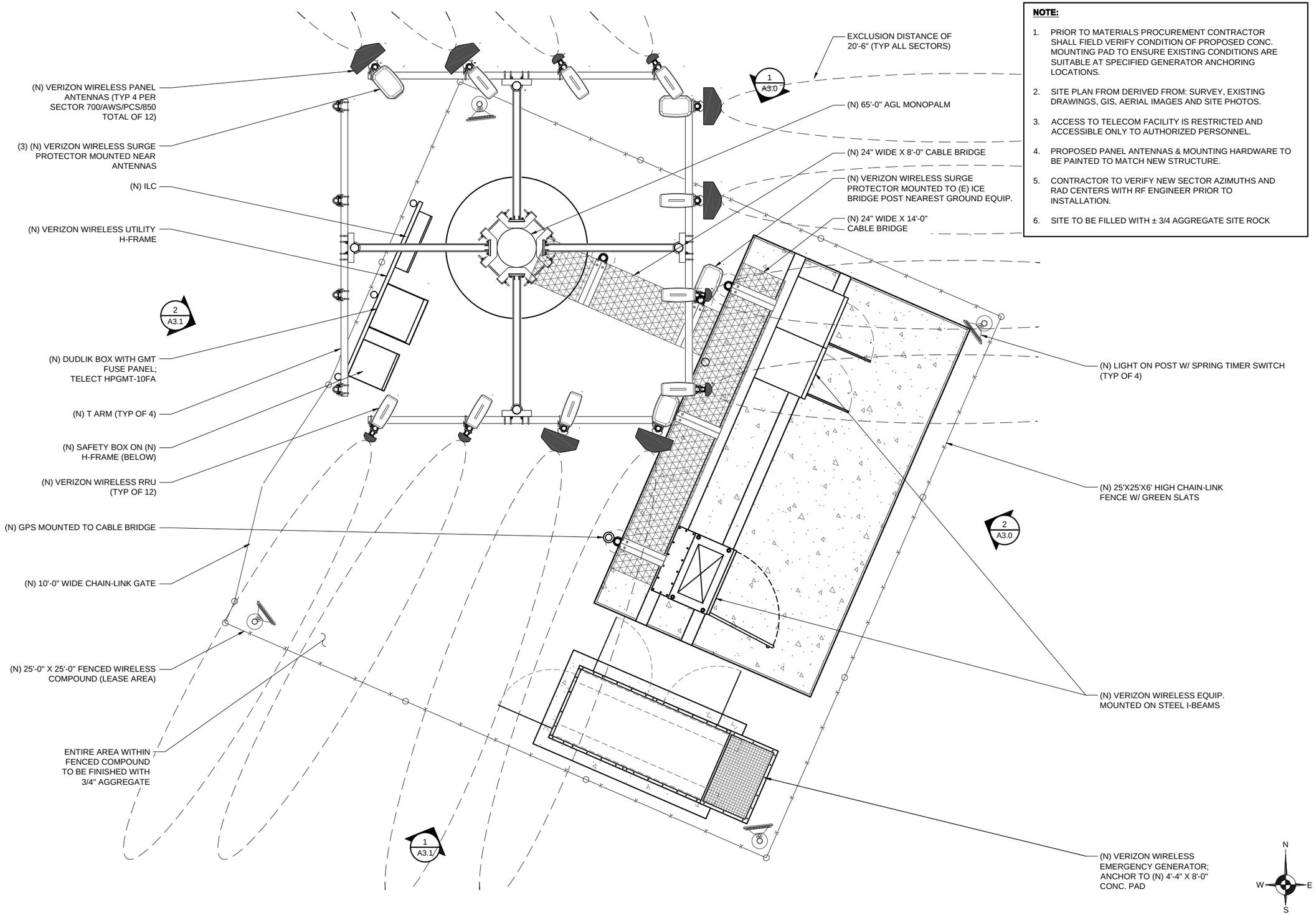
SHEET TITLE
OVERALL SITE PLAN

SHEET NO.
A-1.0

1 OVERALL SITE PLAN

SCALE: 1" = 20'-0" (11X17)
SCALE: 1" = 10'-0" (22X34)

0' 10' 20' 40'



NOTE:

1. PRIOR TO MATERIALS PROCUREMENT CONTRACTOR SHALL FIELD VERIFY CONDITION OF PROPOSED CONC. MOUNTING PAD TO ENSURE EXISTING CONDITIONS ARE SUITABLE AT SPECIFIED GENERATOR ANCHORING LOCATIONS.
2. SITE PLAN FROM DERIVED FROM: SURVEY, EXISTING DRAWINGS, GIS, AERIAL IMAGES AND SITE PHOTOS.
3. ACCESS TO TELECOM FACILITY IS RESTRICTED AND ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL.
4. PROPOSED PANEL ANTENNAS & MOUNTING HARDWARE TO BE PAINTED TO MATCH NEW STRUCTURE.
5. CONTRACTOR TO VERIFY NEW SECTOR AZIMUTHS AND RAD CENTERS WITH RF ENGINEER PRIOR TO INSTALLATION.
6. SITE TO BE FILLED WITH ± 3/4 AGGREGATE SITE ROCK

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SITE NAME
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TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

SHEET TITLE
ENLARGED SITE PLAN

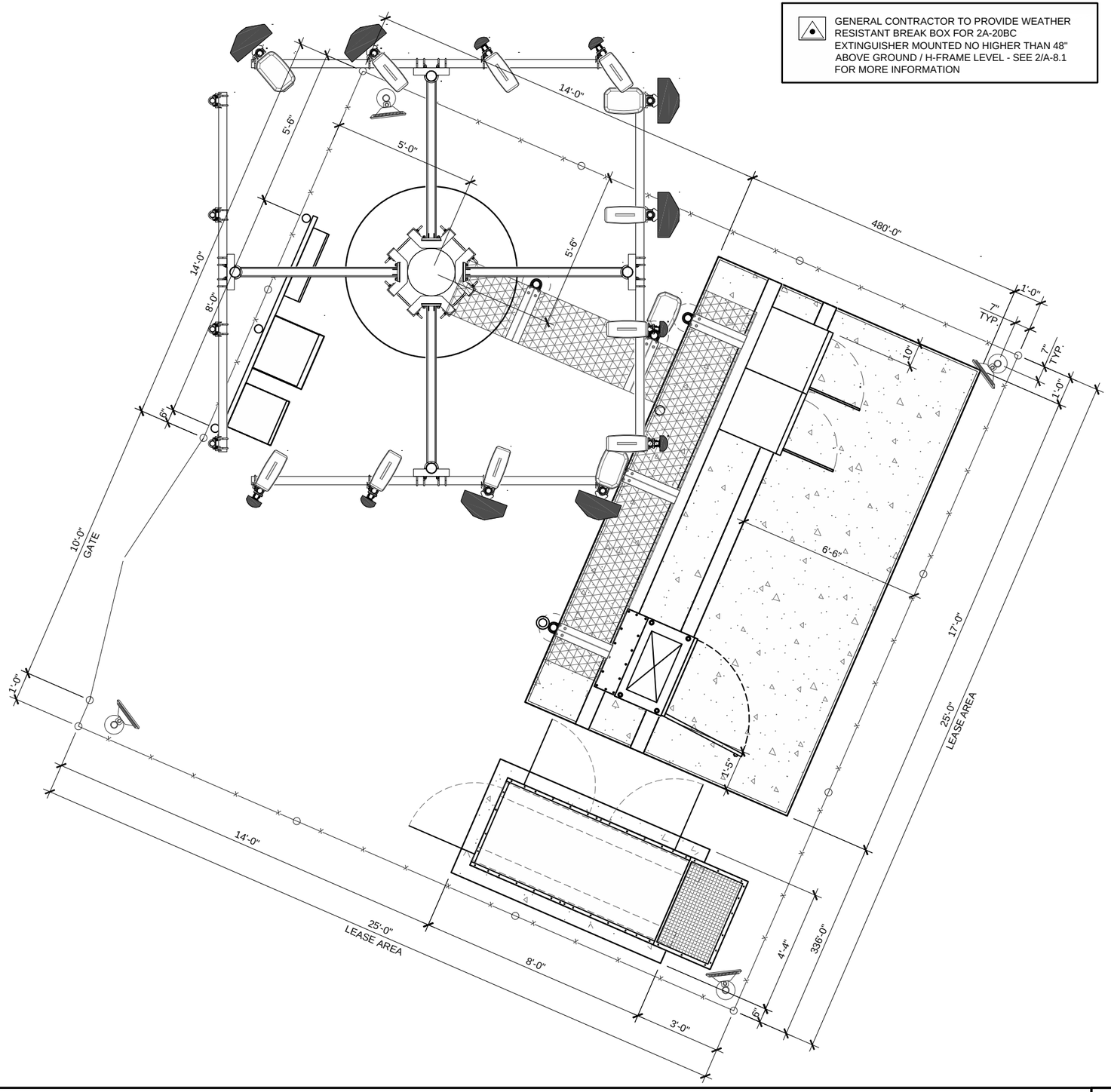
SHEET NO.
A-2.0

1 ENLARGED SITE PLAN

SCALE: 1/4"= 1'-0" (11X17)
SCALE: 1/2" = 1'-0" (22X34)

0' 2' 4' 8'

GENERAL CONTRACTOR TO PROVIDE WEATHER RESISTANT BREAK BOX FOR 2A-20BC EXTINGUISHER MOUNTED NO HIGHER THAN 48" ABOVE GROUND / H-FRAME LEVEL - SEE 2/A-8.1 FOR MORE INFORMATION



NOTE:

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3. ACCESS TO TELECOM FACILITY IS RESTRICTED AND ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL.
4. PROPOSED PANEL ANTENNAS & MOUNTING HARDWARE TO BE PAINTED TO MATCH EXISTING SURROUNDINGS.
5. CONTRACTOR TO VERIFY NEW SECTOR AZIMUTHS AND RAD CENTERS WITH RF ENGINEER PRIOR TO INSTALLATION.
6. GENERAL CONTRACTOR TO MAINTAIN POSITIVE DRAINAGE & SITE EROSION CONTROL MEASURES PER LOCAL JURISDICTIONAL REQUIREMENTS AT ALL TIMES OF CONSTRUCTION.
7. NEW VERIZON PANELS ANTENNAS & 60' MONOPOLE NOT SHOWN FOR CLARITY.

N
W E
S

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SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

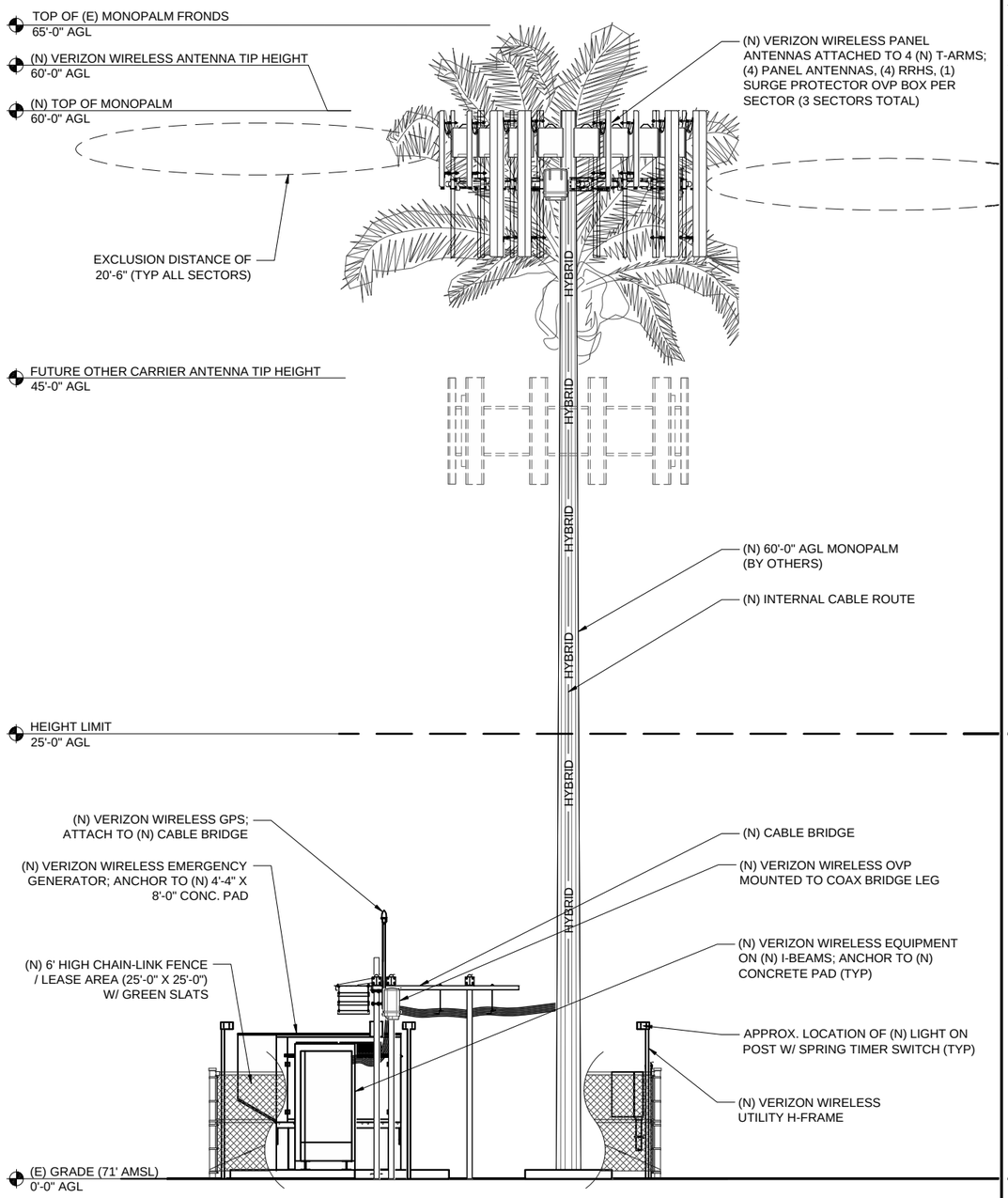
SHEET TITLE
SITE PLAN DIMENSIONS

SHEET NO.
A-2.1

1 SITE PLAN DIMENSIONS

SCALE: 1/4"= 1'-0" (11X17)
SCALE: 1/2" = 1'-0" (22X34)

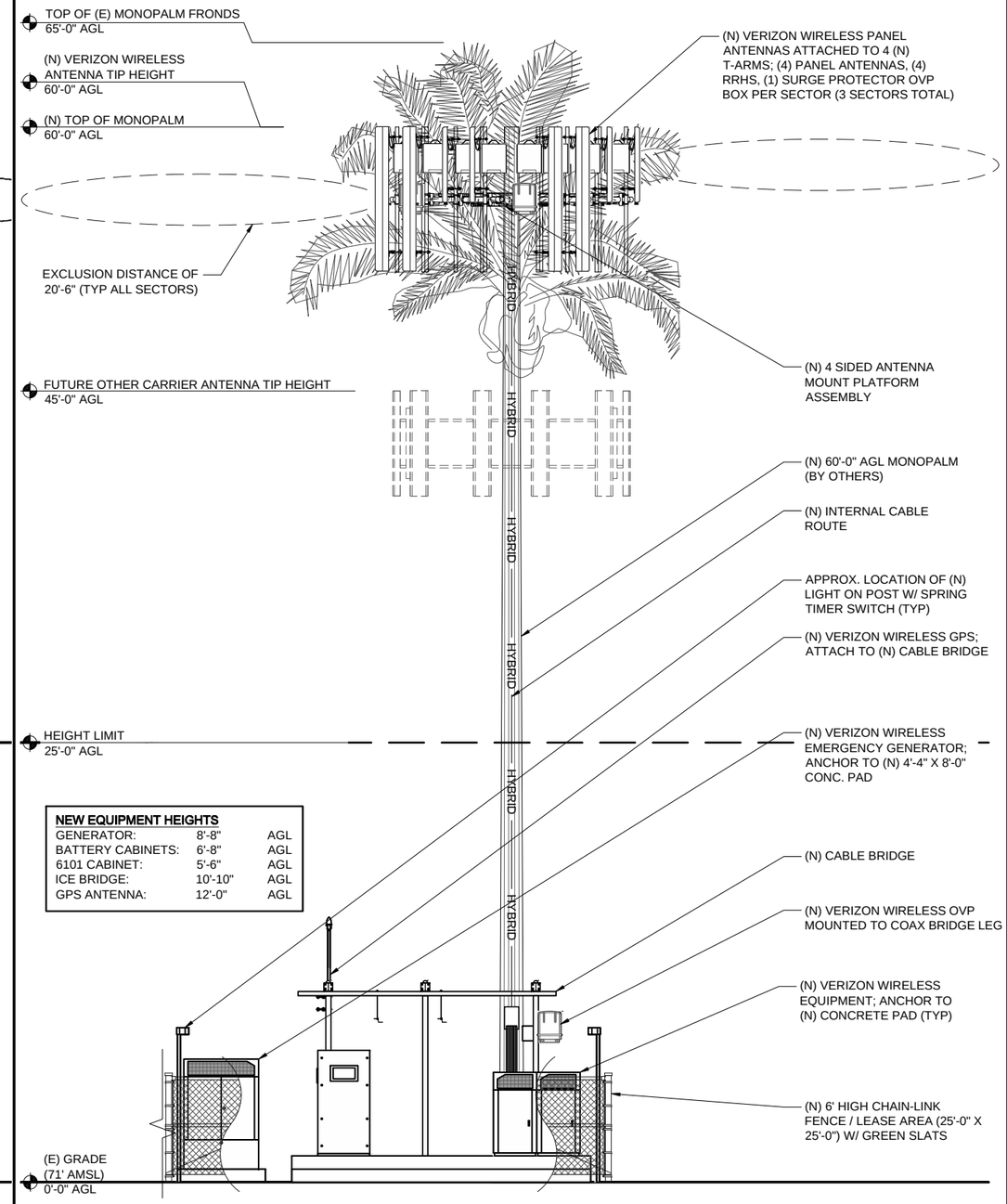
0' 2' 4' 8'



1 NORTHEAST ELEVATION

SCALE: 1/8" = 1'-0" (11X17)
SCALE: 1/4" = 1'-0" (22X34)

0' 4' 8' 16'



2 SOUTHEAST ELEVATION

SCALE: 1/8" = 1'-0" (11X17)
SCALE: 1/4" = 1'-0" (22X34)

0' 4' 8' 16'

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SUBMITTAL

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1	07-14-14	CL/CL	LU SUBMITTAL

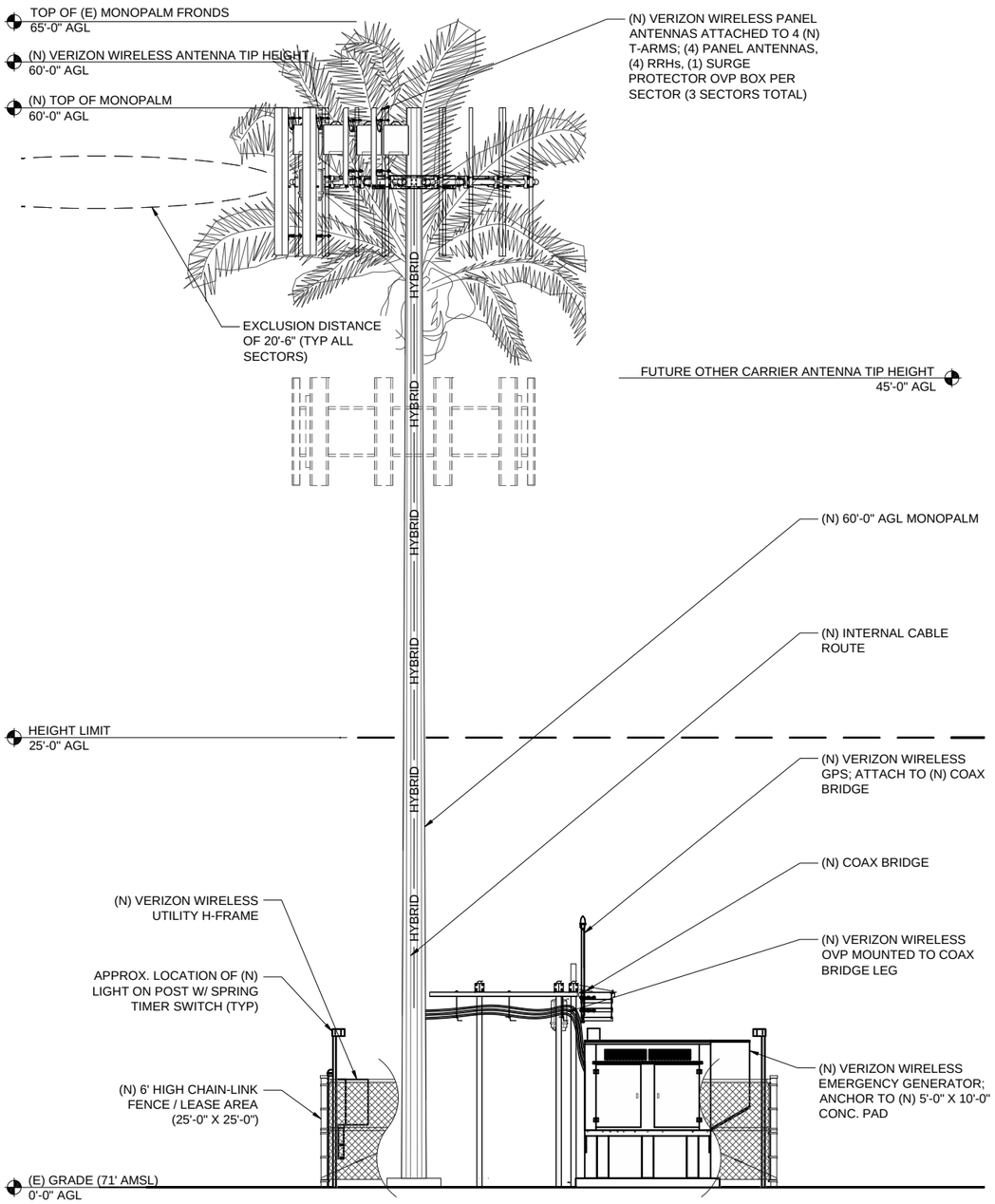
SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

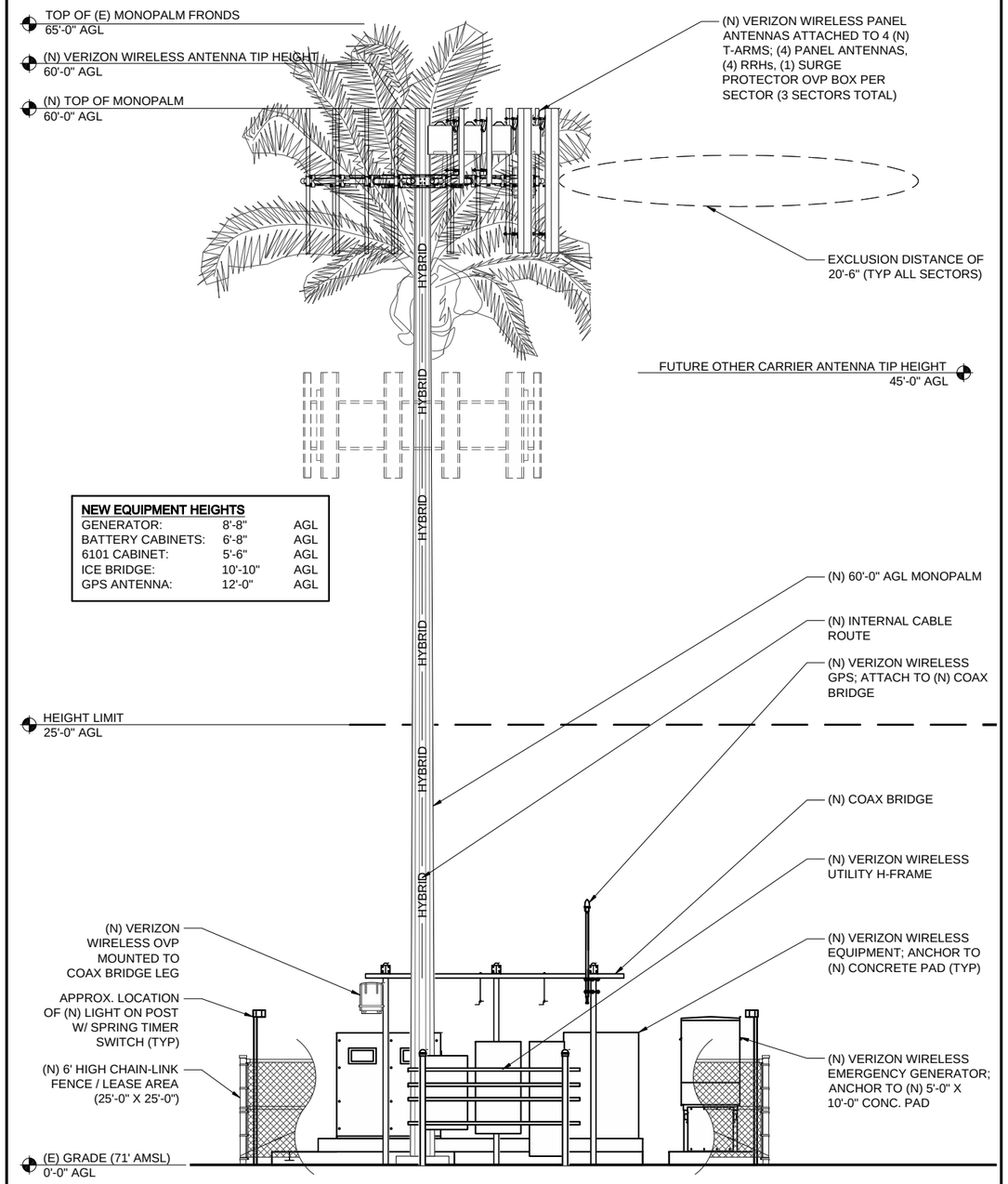
SHEET TITLE
ELEVATIONS

SHEET NO.
A-3.0



NOTE: SEE SITE PLAN (A-2.0 & A-2.1) FOR DETAIL REFERENCES

1	SOUTHWEST ELEVATION	SCALE: 1/8" = 1'-0" (11X17) SCALE: 1/4" = 1'-0" (22X34)	0' 4' 8' 16'



NEW EQUIPMENT HEIGHTS

GENERATOR:	8'-8"	AGL
BATTERY CABINETS:	6'-8"	AGL
6101 CABINET:	5'-6"	AGL
ICE BRIDGE:	10'-10"	AGL
GPS ANTENNA:	12'-0"	AGL

NOTE: SEE SITE PLAN (A-2.0 & A-2.1) FOR DETAIL REFERENCES

2	NORTHWEST ELEVATION	SCALE: 1/8" = 1'-0" (11X17) SCALE: 1/4" = 1'-0" (22X34)	0' 4' 8' 16'

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SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

SHEET TITLE
ELEVATIONS

SHEET NO.
A-3.1

PHOTOGRAPHS

Site Photographs

Project No.	**Description**	View of the subject property, looking east	**Photo 1**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	Building with the electrical room north of the subject property	**Photo 2**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View inside of the electrical room	**Photo 3**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	Pad-mounted transformer north of the subject property, non-PCB unit	**Photo 4**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	Pool area northwest, north and northeast of the subject property	**Photo 5**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	Park area east, southeast, south, southwest, and west of the subject property	**Photo 6**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of Marshall M. Goodsill Residence	**Photo 7**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from Marshall M. Goodsill Residence	**Photo 8**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of Lyndon Roberts Residence	**Photo 9**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from Lyndon Roberts Residence	**Photo 10**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of John and Kate Kelly Residence	**Photo 11**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from John and Kate Kelly Residence	**Photo 12**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of Edward and Sally Sheehan Residence driveway	**Photo 13**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from Edward and Sally Sheehan Residence	**Photo 14**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of Milton I Residence	**Photo 15**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from Milton I Residence	**Photo 16**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of a portion of Fort Ruger Historic District	**Photo 17**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from Fort Ruger Historic District	**Photo 18**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

AREA OF POTENTIAL EFFECTS

Area of Potential Effects

The Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings approved by the FCC (NPA) released by the FCC on October 5, 2004 and effective March 7, 2005 indicates that a proposed project will have Area of Potential Effects for direct and visual effects as defined below:

- Direct Effects - “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 direct effects have no effects on historic properties.

- Visual Effects – “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.” As stated by the NPA, the APE for visual effects for a tower

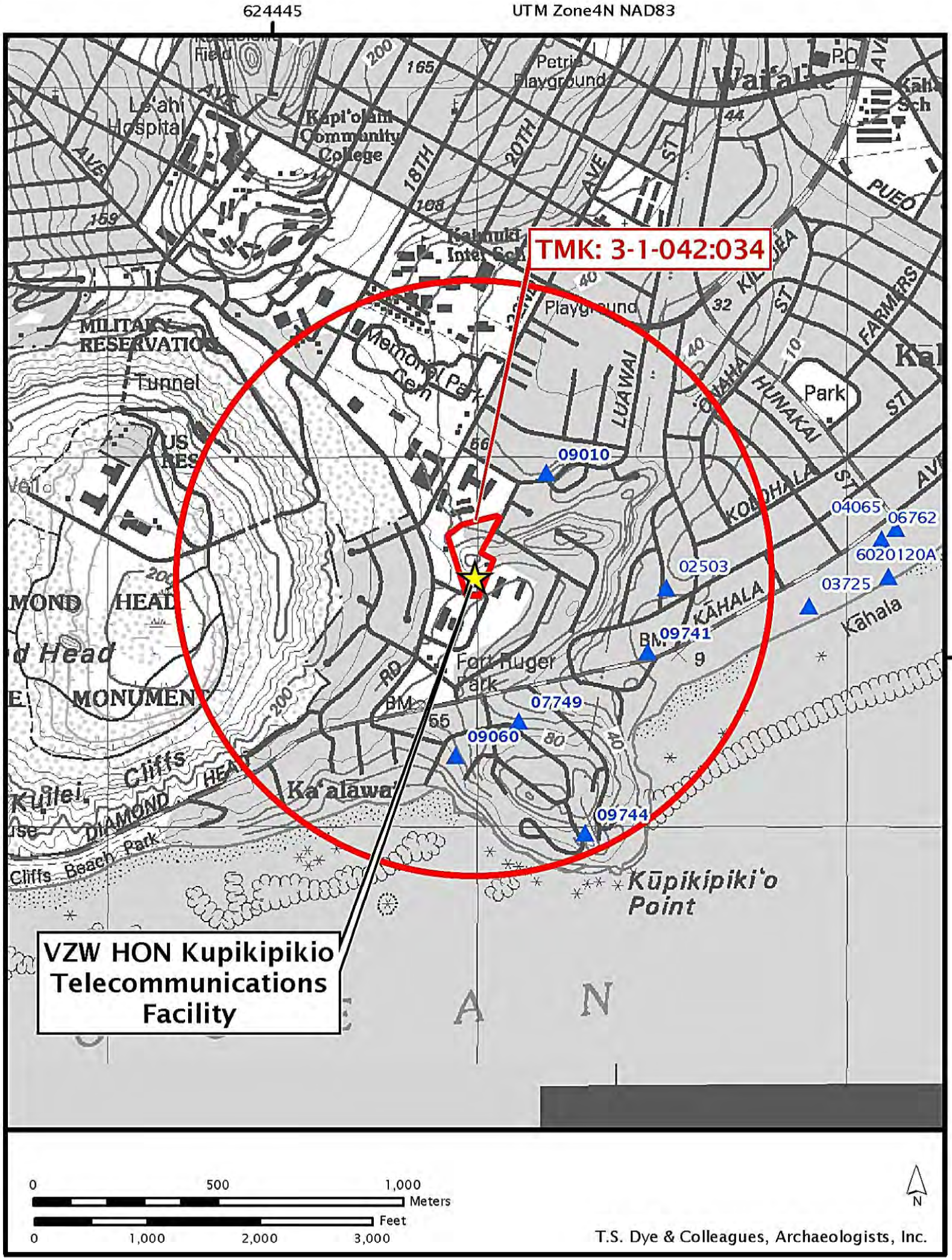
  1. Less than or equal to 200 feet in overall height, is ½ mile;
  2. Greater than 200 feet in height and less than 400 feet in height, is ¾ mile; and
  3. Greater than 400 feet in height, is 1.5 miles.

  The APE for visual effects for the proposed action includes the area within ½ mile of the subject property.

HISTORIC PROPERTIES FOR VISUAL EFFECTS

Historic Properties Assessment Report

A copy of the Historic Properties Assessment Report performed by T.S. Dye and Colleagues, Archaeologists, Inc. (T.S. Dye) is attached. According to this report, the communication facility will have no visual effect on historic properties.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Kapi'olani Community College
Petrie Playground
Waikiki
Kaimuki Inter Sch
Playground
Memorial Park
MILITARY RESERVATION
Tunnel
Park
HUNAKAI
LUAWAI
KOHOHALA
KĀHALA
Kāhala
FARMERS
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T.S. Dye & Colleagues, Archaeologists, Inc.

T. S. Dye & Colleagues, Archaeologists, Inc.
735 Bishop St., Suite 315, Honolulu, Hawai'i 96813

Historic Properties Assessment for the Proposed VZW HON Kupikipikio Cell Site

Waikīkī Ahupua'a, Kona District, O'ahu Island, TMK: (1) 3-1-042:034*

Krickette Murabayashi Don Hibbard Thomas S. Dye, PhD

November 10, 2015

Applicant: Bureau Veritas North America.
Applicant's Consultant: T. S. Dye & Colleagues, Archaeologists, Inc.
Location: 708 Palekaua Street, Waikīkī Ahupua'a, Kona District, O'ahu Island.
Tax Map Key: TMK: (1) 3-1-042:034.
Request: Proposed VZW HON Kupikipikio cell site.
Direct Effect: No historic properties in APE for direct effects.
Visual Effect: No effect on historic properties in APE for visual effects.

1 Introduction

At the request of Bureau Veritas North America, T. S. Dye & Colleagues, Archaeologists conducted an historic properties assessment of a parcel for the proposed VZW HON Kupikipikio cell site. The primary focus of the *project* was on the discovery and appropriate treatment of historic properties within the area of potential effect (APE). The goals of the investigation were to determine whether the installation of a telecommunications facility, including an antenna monopalm, will have direct or visual effects on historic properties.

1.1 Project Area

Verizon Wireless proposes to install a new 65 ft. monopalm mounted with 12 panel antennas on a parcel located at 708 Palekaua Street in Waikīkī, O'ahu. The 25 × 25 ft., 625 ft.^{2} lease parcel is located in the southeast portion of a 4.291 acre (ac.) parcel owned by the State of Hawai'i and identified as TMK: (1) 3-1-042:034 (figs. 1, 2).

Two concrete pads will be situated within the VZW HON Kupikipikio cell site lease area: one for the prefabricated equipment cabinets and associated equipment and one for the

*Prepared for Bureau Veritas North America, 841 Bishop Street, Suite 1100, Honolulu, HI 96813.

Figure 1: Proposed VZW HON Kupikipikio cell site on a portion of the 1998 USGS Honolulu Quadrangle.

emergency generator. The overall tower height is 65 ft., including 5 ft. of fronds. The antennas will be at 60 ft. The entire facility will be enclosed with a 6 ft. high chain-link fence. Ground disturbance is expected for the installation of the antenna pole, equipment cabinet foundation, emergency generator foundation, utility conduits, and fence posts (fig. 3).

According to the FCC Nationwide Programmatic Agreement, the APE for direct effects on historic properties includes the area of potential ground disturbance during the

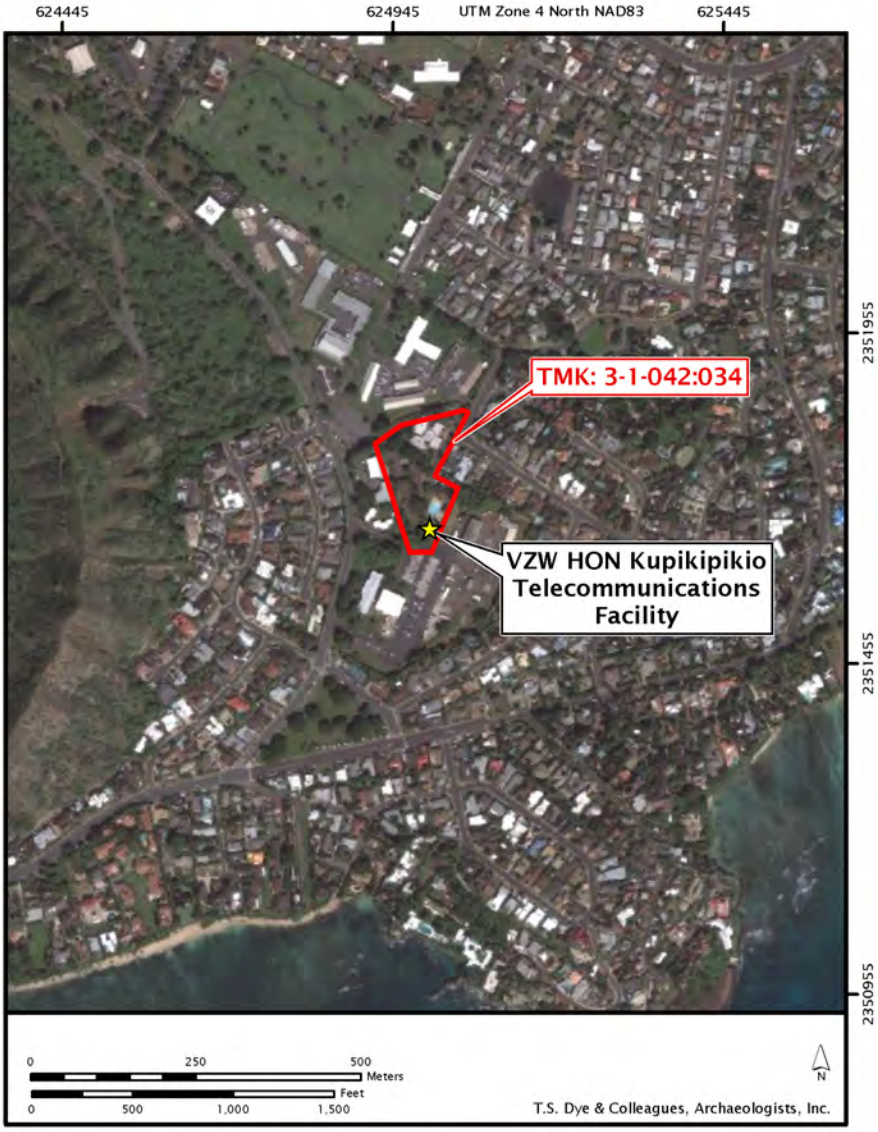

Figure 2: Proposed VZW HON Kupikipikio cell site location. Image adapted from ESRI World Imagery.

installation of the antenna pole, equipment cabinet foundation, emergency generator foundation, utility conduits, and fence posts. The APE for visual effects on historic properties for a tower 200 ft. or less is the area within ca. 0.5 mi. of the tower.

1.2 Background Research

This historic properties assessment includes the review of historic documents, maps, and archaeological reports on file at the State Historic Preservation Division library, the Hawaii

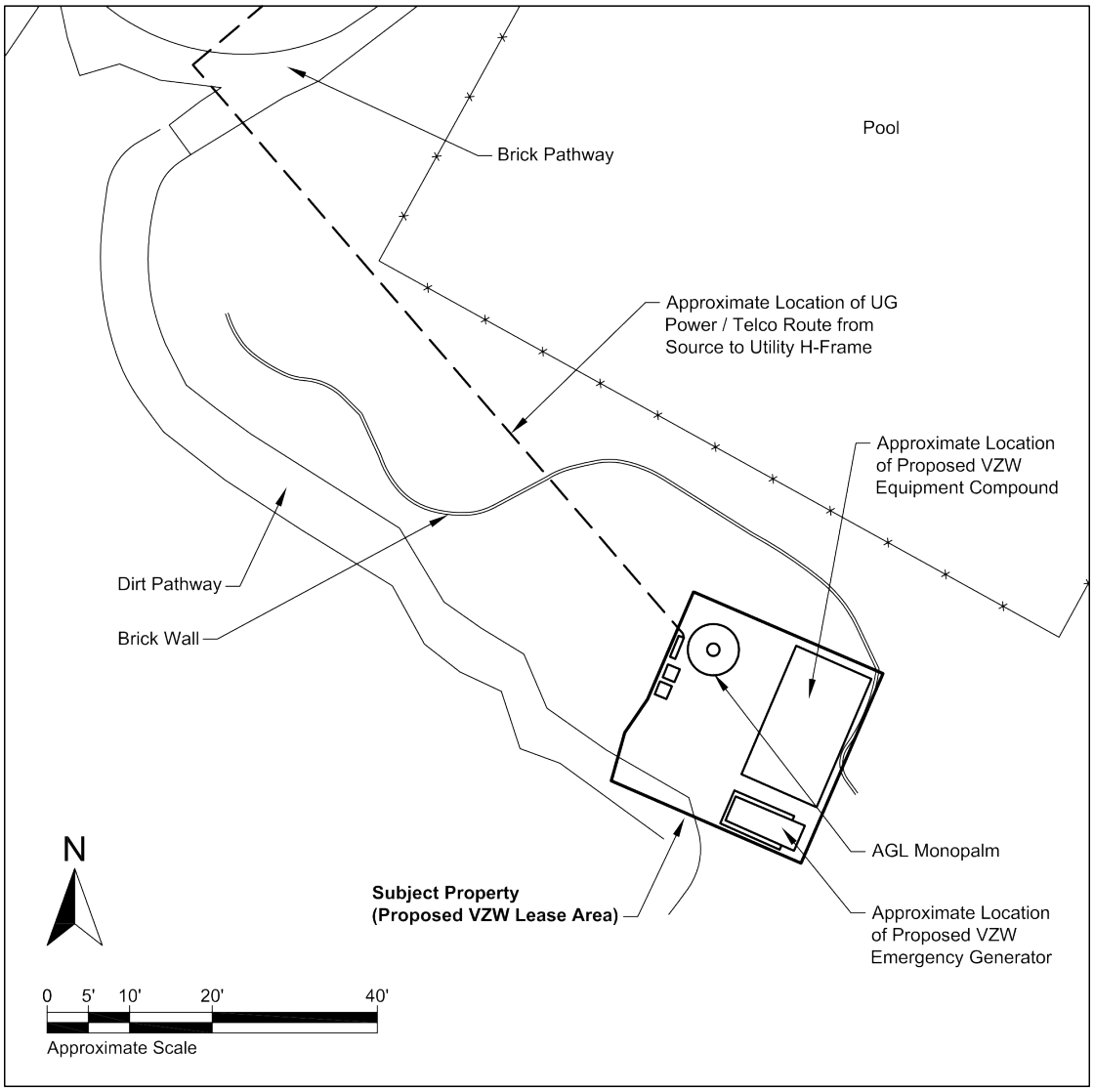

Figure 3: Proposed VZW HON Kupikipikio cell site plan, adapted from a plan provided courtesy of Bureau Veritas North America.

State Library, and the State Bureau of Conveyances. A field inspection of the proposed site was conducted by T. S. Dye & Colleagues, Archaeologists.

1.2.1 Natural Setting

The VZW HON Kupikipikio cell site lies at an elevation of ca. 71 ft. above sea level. The soils underlying most of the project parcel are classified as Mamala stony silty *clay* loam, 0 to 12 percent slopes (MnC). The Mamala series consists of shallow, well-drained soils

that formed from *alluvium* deposited over coral limestone and consolidated calcareous *sand*. There is also Ewa silty clay loam, moderately shallow, 0 to 2 percent slopes (EmA) in a small southern portion of the parcel. The Ewa series consists of deep, well-drained soils that formed in alluvium weathered from basaltic rock.[1] The project area receives 20–30 inches (in.) of rainfall annually [6].

1.2.2 Traditional and Historic Land Use

The project site is located in the *ahupuaʻa* of Waikīkī in the traditional district of Kona on the southeast coast of Oʻahu. Waikīkī Ahupuaʻa extends from Mānoa on the west to Maunalua (Hawaiʻi Kai) on the east. North of the project area is the residential neighborhood of Kaimukī. On the east lies the residential area of Kāhala. South lies the residential area of Black Point, known traditionally as Lae o Kūpikipikiʻō, which means "rough sea" [24]. On the west side of the project area is Diamond Head.

Diamond Head is a *tuff* cone that was formed during the Honolulu Volcanic Series nearly 500,000 years ago [16:369]. The name Diamond Head is derived from the calcite crystals in the rocks, which British sailors mistook for diamonds [16; 24]. This landmark was traditionally known as Laeʻahi, an older variant for Lēʻahi. One meaning given for Lēʻahi is credited to Pele's younger sister, Hiʻiaka, who compared the mountain to the brow (*lae*) of the *ʻahi* fish [24:126]. Several other names, such as Diamond Hill and Point Rose, were also used historically [25].

The shoreline area that is *makai* of the VZW HON Kupikipikio cell site is called Kaʻalāwai, which is a noted fishing ground. In references to Kaʻalāwai, another nearby fishing ground southwest of Diamond Head called Kaluahole is often mentioned (fig. 4).

Pukui et al. [24] translate Kaluahole as the "the *āhole* fish cavern." Kaluahole is a noted place in several legends associated with the area. In one story of Aiai, son of Kūulakai, a god who controlled all the gods of the sea, Beckwith relates that Aiai, following his father's instructions,

> traveled about the islands establishing fishing stations (koʻa) at fishing grounds (koʻa aina) where fish were accustomed to feed and setting up altars (kuula) upon which to lay, as offerings to the fishing gods, two fish from the first catch: one for the male, the other for the female aumakua. Some accounts give Aiai a son named Puniaiki who is a fish kupua and trickster and helps his father set up fishing stations . . . On Oahu, Aiai lands at Makapuʻu and makes the stone Malei the fish stone for the uhu fish of that place. Other stones are set up at grounds for different kinds of fish. The uhu is the common fish as far as Hanauma. At Ka-lua-hole the ahole fish run. The fish still spawn about a round sandstone (called Ponahakeone) which Aiai placed outside Kahuahui. [2:19–20, 23]

Tomonari-Tuggle and Blankfein [25:15] place the location of Ponahakeone offshore of Kaluahole.

[1] USDA Web Soil Survey, `http://websoilsurvey.nrcs.usda.gov`.

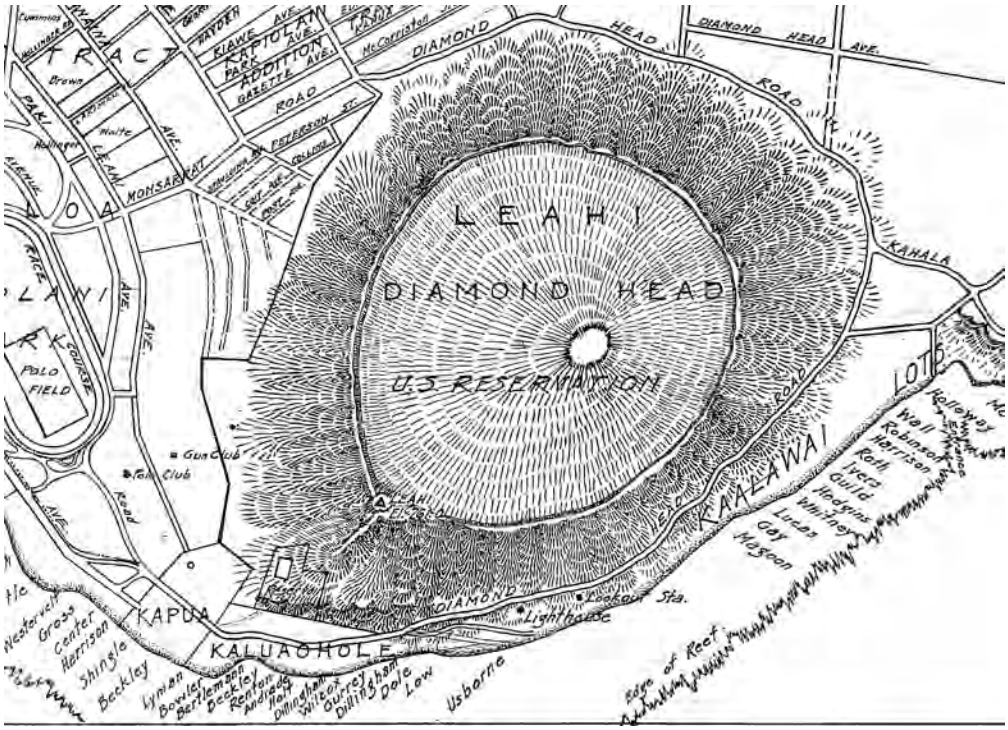

Figure 4: Portion of a 1920 map by Monsarrat [19] showing the shoreline areas of Kaʻalāwai and Kaluahole.

In a discussion of sharks and shark forms, Kamakau tells the story of a shark who came to the area of Kaluahole and Kaʻalāwai in Waikīkī:

> In 1834, during the time of Kaomi, a *malihini* shark came to Waikiki in search of food. When he reached Kaʻalawai and Kaluaahole, he was refused by the guardian sharks of that place (*ka poʻe kamaʻaina kiaʻi o ia wahi*) and then he came to Kapua, where the guardians of Waikiki were, and argued with them. They decided to kill him and leave visible proof of it, so they forced his head into a cleft in the rocks at Kukaʻiunahi, makai of Kupalaha. [11:74]

By Executive Order of President Theodore Roosevelt in 1906, the United States acquired government land at Diamond Head for military purposes.

> [T]he federal government set aside 755 acres at Diamond Head and surrounding areas for military use. The land set aside extended to Black Point (Kūpikipikiʻō), southeast of the crater. The area was named Fort Ruger, after Civil War Major General Thomas H. Ruger. In 1909 Fort Ruger would become part of the Artillery District of Honolulu, which included Fort DeRussy in Waikīkī, Fort Armstrong at Honolulu Harbor, and Fort Kamehameha at Pearl Harbor. [5:40]

Figure 5: Photograph of the area southeast of Diamond Head, where the VZW HON Kupikipikio cell site lies, dated 1932. The photograph shows the development related to military use of the crater and surrounding areas (US Army Museum of Hawaii). The approximate location of the VZW HON Kupikipikio cell site is just right of the buildings and developed area in the foreground.

Outside the crater was a parking and garage complex called the Auxiliary Gun Park. It housed the trucks and tractors used to tow artillery (fig. 5).

On historic military maps of Fort Ruger, the area of the VZW HON Kupikipikio cell site seems to be within or near the "Gun Park" and the "Balloon Section," (fig. 6) which housed

> a company of high-flying balloons to spot and target incoming enemy ships. [On] May 6, 1920, the Third Balloon Company began operating from a base built on the northeastern exterior slopes of Diamond Head. The company's balloons could reach heights of 3,500 feet and had a viewing range farther than any of the Diamond Head-Fort Ruger guns could shoot. [5:46]

Due to cost-cutting, dependency on fair weather, and inaccuracy of observations, the balloons were later inactivated.

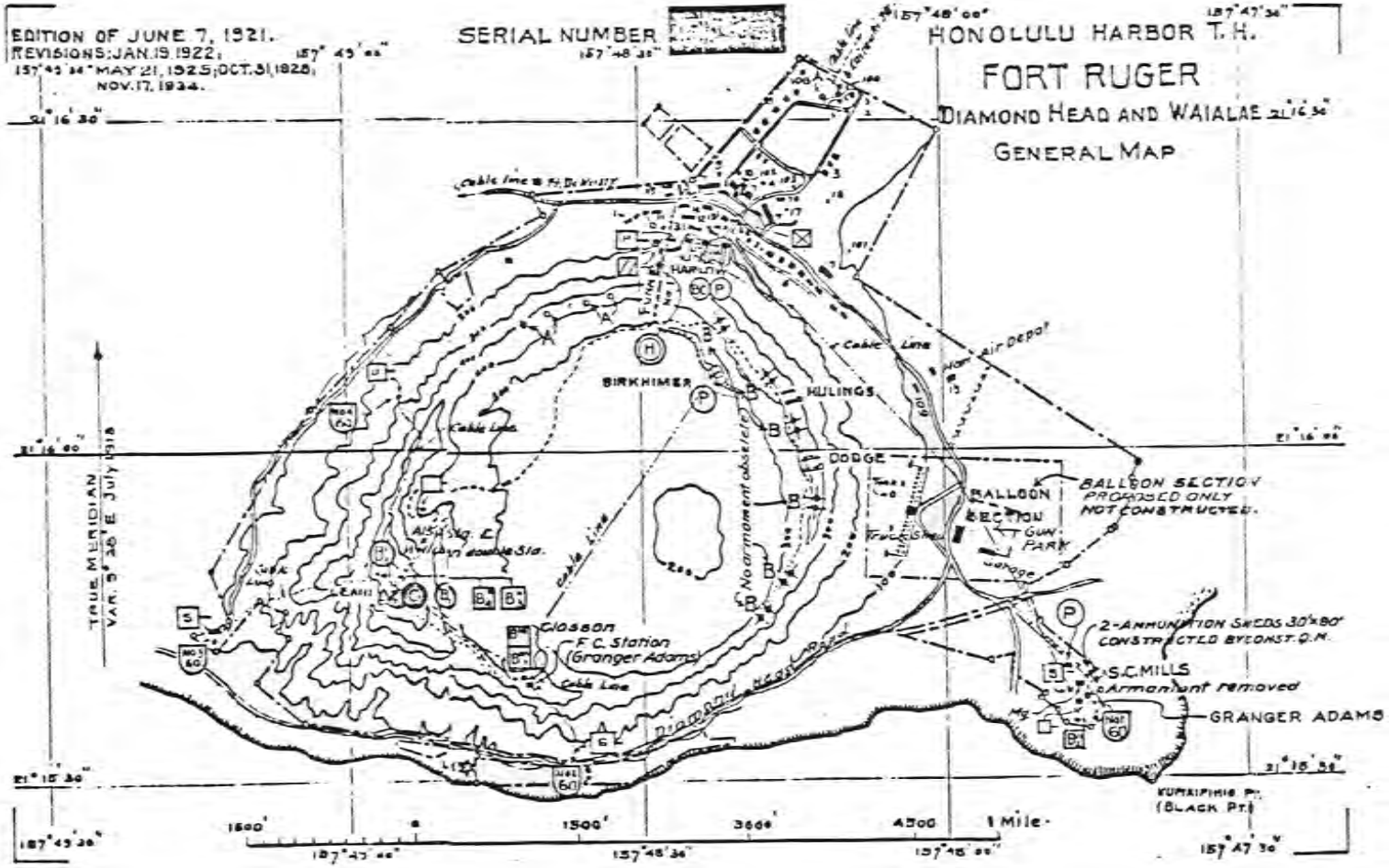

Figure 6: Map of Fort Ruger, dated 1921, showing the Balloon Section and Gun Park in the vicinity of the VZW HON Kupikipikio cell site (US Army Museum of Hawaii).

Diamond Head and the surrounding areas were retained by the US government until after World War II.

> In December 1955, the Army transferred 595 acres of Fort Ruger's 675 acres, including Diamond Head Crater, to the Territory of Hawaii for use by the Hawaii National Guard. [5:57]

Thus ended the military occupation of Diamond Head.

1.2.3 Land Ownership

The *ʻili* of Kapahulu, which includes Diamond Head, was included in Land Commission Award 8559-B, Apana 32 to William C. Lunalilo during the *Māhele*. Lunalilo, who ruled Hawaiʻi from 1873 to 1874, received most of his lands through his mother Kekāuluohi. During the *Māhele*, Lunalilo relinquished 174 of his 239 land holdings. Included in the 65 parcels retained were four *ʻili* in Waikīkī, including Kapahulu [13:243]. In 1850, Lunalilo gave up another 22 parcels, paying commutation to the government, leaving only 43 land parcels—18 percent of what he held before the *Māhele*. In 1858, Lunalilo's father, Charles Kanaʻina, "petitioned the court to appoint guardians to manage his twenty-four-year-old son's estate. Kanaʻina testified that Lunalilo was wasting his money on drink and other 'bad' things" [13:308]. Lunalilo agreed with his father's request and guardians were appointed by the court to manage his estate. Upon Lunalilo's death in 1874, his entire estate was bequeathed to his father with the stipulation that upon Kanaʻina's death, the estate would be placed into a trust for the "poor, aged and infirm people of Hawaiian ancestry" [13:309]. The Lunalilo Estate was established three years later in 1877 upon the death of Kanaʻina. In 1884, Land Commission Award 8559-B was subdivided and the Diamond Head portion, comprising 729 ac., was transferred to the Hawaiian government.[2]

The project parcel, TMK: (1) 3-1-042:034, is currently owned by the State of Hawaiʻi and is leased by the Oahu Special Schools Association. It is the site of Variety School of Hawaii.

1.2.4 Historic Properties

T. S. Dye & Colleagues, Archaeologists consulted the State Historic Preservation Division (SHPD) register and architectural files.[3] The residential areas surrounding Diamond Head have a few houses which are listed on the Hawaiʻi Register of Historic Places (HRHP) and/or the National Register of Historic Places (NRHP). The properties within the half-mile visual APE of the VZW HON Kupikipikio cell site are described below.

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[2]Bureau of Conveyances, Liber 88, p. 223–234.

[3]Per the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission, Section VI-D-1-a, "Applicants are required to review such records only to the extent they are available at the offices of the SHPO/THPO or can be found in publicly available sources identified by the SHPO/THPO."

Marshall M. Goodsill Residence The property at 4258 Pu'u Panini Place is known as the Marshall M. Goodsill Residence. It is assigned the *site* number 50-80-14-9010 and is located about 0.2 mi. northeast of the VZW HON Kupikipikio cell site. The residence was added to the HRHP in 2006. The U-shaped house is characterized by its strong indoor-outdoor relationships with large sliding doors opening the living and dining rooms to the outdoors. In addition, a spacious, covered *lānai* overlooks a landscaped central courtyard. Other characteristic features of the house and significance are described thus:

> Built in 1953, this single-story residence has a lateral running roof with broad overhanging closed eaves, a vertical tongue and groove front wall, and a garden landscape with Asian design influences. The interior features: bleached redwood ceiling and walls; ... built-in shelves, cabinets, and furniture; pocket doors and screened openings; [and] a rounded masonry fireplace... The Marshall M. Goodsill Residence is significant as an example of the work of master architect Vladimir Ossipoff. It is also significant for its association with Marshall Goodsill, a prominent Honolulu attorney.[4]

Lyndon Roberts Residence The property at 4382 Kahala Avenue is called the Lyndon Roberts Residence. It is assigned the site number 50-80-14-9741 and is located about 0.3 mi. southeast of the VZW HON Kupikipikio cell site. The residence was added to the HRHP in 1989. The characteristic features of the house and significance are described thus:

> The Lyndon Roberts Residence was built circa 1930 in the middle-class Kahala neighborhood of Honolulu. The house is significant for its architecture as one of the few examples of "Hawaiian style" residential architecture remaining in Kahala from the early 20th century. It is a single-story frame house, distinguished by its prominent, double-pitched hipped roof, over-hanging eaves, exposed rafter [tail]s, and numerous windows for ventilation. It has a centered, inset lanai with concrete coconut trunk columns. The lanai columns are the only known example of this motif in the city making this especially noteworthy. The "Hawaiian style" was formalized by C. W. Dickey and Hart Wood around 1926 with the construction of cottages at the Halekulani Hotel. As the style became popular, a number of building supply companies such as Lewers & [C]ooke and Theo E. Davies provided house plans to customers. The house may have been constructed using such plans... Mr. Roberts [was] a salesman, and his wife, Wanda ... was a teacher with the Territorial Department of Public Instruction.[5]

John and Kate Kelly Residence The property at 4117 Black Point Road is known as the John and Kate Kelly Residence. It is assigned the site number 50-80-14-9744 and is located about 0.4 mi. south-southeast of the VZW HON Kupikipikio cell site. The residence

[4] Historic Hawai'i Foundation, `http://historichawaii.org/`.
[5] Ibid.

was added to the HRHP in 1989, and to the NRHP in 1991. The characteristic features of the house and significance are described thus:

> The Kelly Residence was built in 1931 in the Kahala neighborhood of Honolulu, and the second story was added in 1939. It was one of the first homes along Black Point. The house is significant for its architecture and for its association with John and Kate Kelly, two prominent artists in Hawaii from 1923–1960s. The Kelly residence exemplifies the Craftsman style in Hawaii during this period through its various materials and textures, ranging from the Chinese granite floor of the lanai, to the canec walls, acid stained concrete floors, bamboo trimmed railings, shingled exterior walls, and hand-hewn beams. The second story of the house functioned as a lanai and artist studio where some of their greatest works were created. Although it was ostensibly designed by local architect [and family friend] Louis E. Davis, ... Kate Kelly is given credit as the primary designer of the home, accounting for the openness and craftsman-esque character of the house, and the serial spatial sequencing of the first floor.[6]

The Kellys played a role in establishing Black Point as an artist community.

Edward and Sally Sheehan Residence The property at 239 Kulamanu Place is called the Edward and Sally Sheehan Residence. It is assigned the site number 50–80–14–9060 and is located about 0.3 mi. south of the VZW HON Kupikipikio cell site. The residence was added to the HRHP in 2009. The characteristic features of the house and significance are described thus:

> The Edward and Sally Sheehan Residence was constructed in 1957. This single story residence has a[n overhanging] gable roof with exposed rafter [tail]s ... and is situated on a raised post and pier foundation. The interior features tongue and groove redwood boards and Japanese style screen and glass paneled sliding doors. The Edward and Sally Sheehan Residence is significant as a late 1950's Modern Movement style house with Japanese influences designed by Richard Dennis and L. Harold Whitaker, well respected figures in Hawaii's post-World War II architectural community. The residence is further significant for its associations with original owners Edward and Sally Sheehan, prominent members of Hawaii's communications industry in the 1950's and 1960's.[7]

Milton I Residence The property at 4339 Papu Circle is called the Milton I Residence. It is assigned the site number 50–80–14–7749 and is located about 0.2 mi. south of the VZW HON Kupikipikio cell site. The residence was added to the HRHP in 2015.

The Milton I Residence was constructed in 1957. Designed by Kenji Onodera, this single-story residence has a gable roof with exposed rafter tails and redwood tongue-and-groove

[6]Ibid.
[7]Ibid.

walls. Originally the house was constructed with no doors, only wide openings which allowed the living room, dining room, and master bedroom to flow out into the garden and *lānai*. The interior features tongue-and-groove redwood boards, original jalousie windows, and intact bathrooms. The Milton I Residence is significant as a late 1950s Modern Movement–style house splendidly adapted to Hawai'i's environment. Architect Kenji Onodera was one of the earlier architects of Asian descent to practice in Hawai'i and this is the only building of his listed in the Hawai'i Register of Historic Places.

In addition to the residences on the Hawai'i Register of Historic Places, the Fort Ruger Historic District is within the 0.5 mi. visual APE of the VZW HON Kupikipikio cell site.

Fort Ruger Historic District The district is identified as site 50–80–14–1350. It was added to the HRHP in 1982, and the NRHP in 1983. The Historic Hawai'i Foundation describes the Fort Ruger Historic District thus:

> The Fort Ruger Historic District is a noncontinguous district which includes structures located in and on Diamond Head and on lands adjacent to the crater. This includes five batteries, seven fire control stations, two tunnels, and one building dating from 1909–1921.[8] The district encompasses a portion of the remnants of Oahu's earliest U.S. Army coastal defense fortification. The structures included in the district are significant as tangible reminders of the U.S. Army's presence at Diamond Head crater. These structures are associated with the role of the coast artillery system on Oahu. Fort Ruger is significant in the history of the military in Hawaii as the first coastal defense fortification established by the U.S. Army in the islands.[9]

1.2.5 Archaeological Background

Early Twentieth Century Several archaeological investigations have been conducted in the general vicinity of the VZW HON Kupikipikio cell site. One of the earliest studies was that by J. Gilbert McAllister. During his survey of the island of O'ahu in the 1930s, McAllister [17] recorded several *heiau* along the slopes of Diamond Head, including

Site 58 Papaenaena was located on the Honolulu side of Leahi (Diamond Head); and

Site 59 Pahu-a-Maui, according to Thrum, is the name of a *heiau* which was located at the site of the lighthouse at Leahi.

McAllister also mentions three *heiau*—Kapua, Kupalaha, and Makahuna—listed by Thomas G. Thrum in the *Hawaiian Annual*. Kapua, a *heiau po'o kanaka*, was said to be located near Kapi'olani Park and was torn down in 1860. The *heiau* was the location where a chief named Kaolohaka was sacrificed [17:78]. Kapua Heiau is mentioned by Kawaharada [15] in a story of a pig farmer named Pumaia. In this version, Kūali'i, king of O'ahu at the time, was building Kapua Heiau, "east of Lē'ahi (Diamond Head) overlooking Māmala Bay." Kūali'i ordered pigs from Pumaia for the *heiau*, and took all of his pigs, except for Pumaia's

[8] The one building is no longer extant.

[9] Historic Hawai'i Foundation, `http://historichawaii.org/`.

favorite pig. When Kūali‘i attempted to take this pig also, Pumaia fought against Kūali‘i’s warriors and after several battles killed all of them. Kūali‘i called upon his god, Kānemuka, to capture Pumaia who was “immediately killed and dragged to Kapua, where his dead body was thrown into a pit with the men he had killed” [15:33–34]. Tomonari-Tuggle and Blankfein [25] suggest that Kapua Heiau was located along the shoreline west of Diamond Head.

A description and location of Kupalaha Heiau was given by Thrum: “Kapiolani Park near Cunha’s.[10] Entirely obliterated. Class unknown, but said to have had connection in its workings with Papaenaena.” McAllister was unable at the time to gather any additional information on the location of this *heiau*. However, information gathered by Hammatt and Chiogioji [8:9] locates Kupalaha Heiau “on or adjacent to Kalākaua Ave., just southeast of the intersection with Monsarrat Ave.”

McAllister states that Makahuna Heiau was located at Diamond Head, overlooking “Aqua Marine” and adds that

> Thrum writes: “A large heiau enclosure dedicated to Kane and Kanaloa, of Kuula character, so said.” Tucker reports: “Opposite the residence of the Honorable Sanford B. Dole. The ruins of a heiau of the Pookanaka class. Was located at this place in order to propitiate, by human sacrifice, the departure of the Aliis to foreign shores, and Black Point, between that and Kahala, was called Keala o Kahiki [the way to Tahiti]. These ruins are mostly all overgrown and have been used probably to make fences or for road purposes. A dense growth of lantana and kiawe, scrub kiawe, covers the ruins.” [17:196]

This description places Makahuna Heiau on the west side of Diamond Head.

The most notable *heiau* in the area was Papaenaena, which was located over 1 mi. west of the VZW HON Kupikipikio cell site. It was traditionally associated with Kamehameha I, and was mentioned by several early voyagers, including Tyerman and Bennett, who note

> In the year 1804, when the late king, Tamehameha, was on his way from Hawaii, to invade Tauai, he halted with an army of eight thousand men at Oahu. The yellow fever broke out among the troops, and in the course of a few days swept away more than two-thirds of them. During the plague, the king repaired to the great marae at Wytiti, to conciliate the god, whom he supposed to be angry. [17:71]

According to Kamakau [12:144], Papaenaena was one of the many *heiau po‘o kanaka* of Waikīkī, along with Mau‘oki and Kupalaha. McAllister [17] cites several descriptions of Papaenaena (also called Lē‘ahi Heiau by some of the early voyagers). In these descriptions, the length of the *heiau* varies from 60 to 200 ft. and the width ranges from 40 to 100 ft. From the accounts, the *heiau* could be described as a “quadrangular paved terrace, with walls on three sides, but open on the west side, which faced the village of Waikiki and the sea. This side was approached by a series of step-like terraces” [17:74].

In 1968, Bishop Museum archaeologists excavated two test pits at the supposed site of Papa‘enaena Heiau. No evidence of the *heiau* was found [25].

[10]Surfing area named for the Emmanuel S. Cunha estate near Kapahulu and Kalākaua Avenues [24].

Late Twentieth Century to Present The reports of archaeological work done in the area since McAllister's time are summarized below.

Site 50-80-14-2503 is located approximately 0.3 mi. east of the VZW HON Kupikipikio cell site. The only available information on the site was found in the state site database. The site is a natural rock shelter, which Bishop Museum archaeologist Lloyd J. Soehren tested in 1967.[11] He found shell *midden*; traditional Hawaiian artifacts, including a fishhook, octopus lure, and coral abrader; and historic artifacts such as bottle glass fragments dating to 1880–1920 and copper tubing. The site was interpreted as having a habitation function.

McMahon [18] conducted a reconnaissance survey of a 19 ac. parcel for a proposed tennis court complex on the northeast slope of Diamond Head Crater in 1988. Remnants of Fort Ruger Military Reservation were the only historic properties found.

Bordner conducted archaeological monitoring during construction associated with the replacement of a 12 in. water main along Diamond Head Road in 1990. No cultural material was found. Bordner suggests that the *heiau* of the area were ritually linked and that

> the lack of other material culture indicators suggests that 1) this section of Diamond Head was not heavily utilized for other cultural activity, such as habitation or food production, possibly due to the strong concentration of high mana structures at Diamond Head; or 2) the amount of historic disturbance in road, waterline and house construction has erased the archaeological record of past use of this portion of Diamond Head. [3:9]

In 1993, Mullins, Flood, and Dixon [20] conducted archaeological monitoring for a new sewage system at the Diamond Head Lighthouse, located approximately 1 mi. southwest of the VZW HON Kupikipikio cell site. Mechanical excavation of the sewage system included two trenches for the seepage tanks, two trenches for the septic tanks, and two trenches for the sewer lines. Excavations ranged from 1 to 4.9 m in depth. No traditional Hawaiian remains were found. Evidence of cut-and-fill terracing of the property and a few artifacts dating from the late 1800s and early 1900s were found from the stratigraphic layers associated with the landscaping of the lighthouse property. The study concluded that the eastern side of the Diamond Head Lighthouse property had been extensively disturbed. Although no evidence of traditional Hawaiian use of the area was observed, it was thought that possible evidence of *heiau* may still be present on the east side of the property in the vicinity of the lighthouse itself. However, this area has also been fully developed with the lighthouse, guest quarters, and parking garage and lot.

Tomonari-Tuggle and Blankfein [26] conducted historical research and an archaeological reconnaissance survey of a Federal Aviation Administration (FAA) Combined Center Radar Approach Control (CERAP) within Diamond Head Crater in 1997. The 0.9 ac. area is located approximately 0.6 mi. west-northwest of the VZW HON Kupikipikio cell site. After conducting historical research and the reconnaissance survey, the archaeologists determined that

[11] Previous site number O-19.

> there are no archaeological or historical resources located on the subject property. The likelihood of subsurface deposits in the project area is nil, given the size of the three FAA building footprints on the parcel and the extent of development in this general area of the crater. [26:12]

In 1998, Tomonari-Tuggle and Blankfein [25] conducted historical research and an archaeological reconnaissance survey of the Diamond Head State Monument. No evidence of *pre-contact* remains or human burials were found. Thirty-five sites dating to the twentieth century and related to the development of Fort Ruger were identified during the survey within and around the slopes of Diamond Head Crater.

Archaeological monitoring was conducted by Cultural Surveys Hawai'i in 2003 for the Black Point Water System Improvements project [10]. The area monitored was approximately 0.2 mi. south and *makai* of the VZW HON Kupikipikio cell site. Jaucus sands, in which burials are usually found, were expected in the project area. However, only a small area contained Jaucus sands. No significant cultural material was found.

Pacific Consulting Services, Inc. (PCSI) conducted archaeological monitoring for traffic control signalization improvements on Kilauea Avenue from 2008 to 2009 [21]. The area that was monitored is about 0.8 mi. northeast of the VZW HON Kupikipikio cell site. During construction excavations, the archaeologists encountered a concentration of largely mid-twentieth-century historic materials, which was interpreted as "an isolated occurrence probably associated with earlier construction events" [21:39]. No burials or traditional Hawaiian deposits were identified.

In 2009, Cultural Surveys Hawai'i completed a literature review and field inspection of the footprint of the Diamond Head Digital Media Center, located about 0.5 mi. north-northwest of the VZW HON Kupikipikio cell site [22; 23]. The archaeologists did not find archaeological surface structures, and observed that the area had been largely graded, as much as 3 m in some areas, to create a level surface.

Burials Several burials have been found in the Kahala area, not far from the VZW HON Kupikipikio cell site. However, note that the burials have been located in coastal areas with sand substrate, unlike the VZW HON Kupikipikio cell site which is located approximately 0.3 mi. away from the shore and is underlain by soil.

In 1987, human remains were discovered at a construction site at 4505 Kahala Avenue, located about 0.5 mi. east of the VZW HON Kupikipikio cell site [7]. An individual from the Medical Examiner's office had recovered some bones she believed to be ancient. An archaeologist from SHPD visited the construction site and recovered one primary burial in excellent condition. No artifacts were found associated with the burial. The osteological report indicated the burial was of Polynesian ancestry.

At 4585 Kahala Avenue, about 0.7 mi. east of the VZW HON Kupikipikio cell site, bones were discovered during foundation excavation for a new house in 1989 [14]. The bones were dug up by police and taken to the Medical Examiner's office. SHPD archaeologists went to the construction site, but no additional remains were found. The osteological report and the burial position indicated the burial was of Polynesian ancestry.

In 1989, human remains were discovered at a construction site at 4745 Aukai Avenue, located about 1 mi. northeast of the VZW HON Kupikipikio cell site [1]. A partial skeleton was recovered. Artifacts possibly associated with the burial are two polished basalt chips that appear to be broken off the side of an adze. The osteological report indicated the burial was of Polynesian ancestry.

At 4433 Kahala Avenue, about 0.4 mi. southeast of the VZW HON Kupikipikio cell site, human remains were inadvertently discovered during construction activities in 1995 [4]. Three individuals were recovered:

> a 35 to 45 years old male of postulated East Asian and/or mixed Hawaiian/East Asian ancestry (Burial 1); a 20 to 24 year old female, also of postulated East Asian and/or mixed Hawaiian/East Asian ancestry (Burial 2); and a 3 year old possible male of postulated Hawaiian/Polynesian ancestry (Burial 3). [4:1]

A shell button and two porcelain beads were found while screening backdirt to recover more remains and were associated with Burial 1. Also, a square-cut nail was found *in situ* with Burial 3. Thus, the archaeologists concluded probable *post-contact*, nineteenth-century origin for the burials.

2 Results

T. S. Dye & Colleagues, Archaeologists conducted a field inspection on June 26, 2015. The VZW HON Kupikipikio cell site is located on the campus of Variety School. In the area of the cell site, the ground appeared to have been cleared, leveled, and landscaped (fig. 7). These qualities indicate past ground disturbance of the project area. Nearby is a swimming pool (fig. 8). No materials regarding the construction of the swimming pool were found in SHPD records or county permit records. No historic properties were observed at the VZW HON Kupikipikio cell site.

3 Discussion and Conclusions

A review of the archaeological literature, historic maps, information provided by Bureau Veritas North America, and field inspection results shows that the project site has been modified by twentieth-century development, first for the establishment of Fort Ruger by the US Military, and later by development of the Variety School campus. No surface historic properties were observed, and it is unlikely that subsurface historic properties exist in the APE for direct effects.

According to soil maps, the project area is not expected to have the Jaucus sands in which burials are usually found (sec. 1.2.1). An area *makai* of the project that was monitored did not have Jaucus sands (sec. 1.2.5); thus it is very unlikely that Jaucus sands exist in the project area. Due to the probable lack of historic properties in the APE for direct effects, the construction of the facility will have no direct effect on historic properties.

Figure 7: View of proposed VZW HON Kupikipikio cell site, looking north. The approximate location of the APE for direct effects is outlined in red. The scale is in decimeters.

Figure 8: Overview of proposed VZW HON Kupikipikio cell site area, looking east. Note the pool on the left, and the sloping, landscaped nature of the area. The cell site is near the center of the photograph, next to the palm tree.

A few historic properties are within the half-mile visual APE of the VZW HON Kupikipikio cell site (sec. 1.2.4). The qualities possessed by these properties that make them significant will not be affected by the VZW HON Kupikipikio cell site. Therefore, the VZW HON Kupikipikio cell site will have no effect for visual effects on historic properties.

Glossary

alluvium Detrital deposits from rivers or streams.
clay Fine earth particles less than 0.002 mm.
detritus Material produced by the disintegration and weathering of rocks that has been moved from its site of origin, or a deposit of such material.
in situ In the natural or original position.
lantana A historically introduced shrub, *Lantana camara*.
midden A heap or stratum of refuse normally found on the site of an ancient settlement. In Hawai'i, the term generally refers to food remains, whether or not they appear as a heap or stratum.
post-contact After the arrival of Captain Cook in 1778.
pre-contact Prior to AD 1778 and the first written records of the Hawaiian Islands made by Captain James Cook and his crew.
project The archaeological investigation, including laboratory analyses and report preparation. See also *undertaking*.
sand Detrital material ranging in size from 0.5 mm to 2 mm in diameter. See also *detritus*.
site The fundamental unit of archaeological investigation, a location that exhibits material evidence of past human activity.
tuff Rock formed of compacted volcanic fragments, generally smaller than 4 mm in diameter.
undertaking Any action with the potential for an adverse effect on significant historic properties. See also project.

Hawaiian Terms

ahupua'a Traditional Hawaiian land division, usually extending from the uplands to the sea.
'aumakua Family or personal gods, deified ancestors who might assume the shape of animals, rocks, clouds, or plants.
heiau Traditional Hawaiian place of worship.
heiau po'o kanaka *Heiau* where human sacrifices were offered.
'ili A land section, next in importance to *ahupua'a*, and usually a subdivision of an *ahupua'a*.
Kahiki Tahiti, foreign land.
kiawe The algaroba tree, *Prosopis* sp., a legume from tropical America, first planted in Hawai'i in 1828.
ko'a Shrine, often consisting of circular piles of coral or stone, built along the shore or by ponds or streams, used in ceremonies as to make fish multiply; also built on bird islands, and used in ceremonies to make birds multiply.
kupua Demigod or culture hero, especially a supernatural being possessing several forms.
kū'ula Any stone god used to attract fish, whether tiny or enormous, carved or natural, named for the god of fishermen.

lānai Porch, veranda, booth, shed; temporary roofed construction with open sides near a house.

Māhele The mid-nineteenth century land division responsible for the introduction of fee simple land title in Hawai'i.

makai Seaward.

malihini Stranger, newcomer, guest; one unfamiliar with a place or custom; new, unusual, rare, or of foreign origin; for the first time.

mana Supernatural or divine power; spiritual, miraculous power.

uhu An adult fish in the family Scaridae. Commonly known as parrotfish.

Abbreviations

ac. A unit of land area equal to 4,840 square yards (0.405 hectare).

APE The geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist. See also undertaking.

in. A unit of linear measure equal to one twelfth of a foot (2.54 cm).

m The meter, a base unit of length in the International System of Units, equal to the length of the path traveled by light in vacuum during a time interval of 1/299,792,458 of a second.

NRHP The official list of the Nation's historic places worthy of preservation.

SHPD The State Historic Preservation Division of the Hawai'i Department of Land and Natural Resources, a government agency responsible for implementing the National Historic Preservation Act of 1966, as amended, and Chapter 6E of the Hawai'i Revised Statutes.

SHPO The appointed official in each state and territory charged with administering the national historic preservation program mandated by the National Historic Preservation Act of 1966.

USDA A federal government agency whose mission is to provide leadership on food, agriculture, natural resources, and related issues based on sound public policy, the best available science, and efficient management. Archaeologists in Hawai'i typically describe sediments according to standards established by the agency.

USGS A federal agency that provides reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect the quality of life.

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HISTORIC PROPERTIES FOR DIRECT EFFECTS

Historic Properties Assessment Report

A copy of the Historic Properties Assessment Report performed by T.S. Dye is attached under the cover “Historic Properties for Visual Effect.” According to this report, there is no effect on historic properties.

PUBLIC INVOLVEMENT

Newspaper Announcement

Bureau Veritas provided public notice of the proposed project through publication of a legal notice in the Honolulu Star-Advertiser. A copy of the affidavit of publication, which affirms that the ad copy, as shown on the affidavit, was published in the above newspaper on October 12, 2015, is attached. Bureau Veritas did not receive responses or objections to the notice.

If additional correspondence is received, Bureau Veritas will forward a copy of that correspondence to your office.

AFFIDAVIT OF PUBLICATION

IN THE MATTER OF
PUBLIC NOTICE HON KUPIKIPIKIO

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

Doc. Date: OCT 12 2015 **# Pages:** 1
Notary Name: Patricia K. Reese First Judicial **Circuit**
Doc. Description: Affidavit of Publication

Patricia K. Reese OCT 12 2015
Notary Signature Date

PATRICIA K. REESE NOTARY PUBLIC Comm. No. 86-467 STATE OF HAWAII

Cellco Partnership and its controlled affiliates doing business as Verizon Wireless is proposing to install antennas on a 65-foot monopalm communications tower in the vicinity of 708 Palekaua Street, Honolulu, Hawaii 96816. Public comments regarding potential effects from this site on historic properties may be submitted within 30 days from the date of this publication to: Nicole Okino, nicole.okino@us.bureauveritas.com, 841 Bishop Street, Ste.1100, Honolulu, HI 96813, 808.298.8198. (SA805407 10/10/15)

Julie Clark being duly sworn, deposes and says that she is a clerk, duly authorized to execute this affidavit of Oahu Publications, Inc. publisher of The Honolulu Star-Advertiser, MidWeek, The Garden Island, West Hawaii Today, and Hawaii Tribune-Herald, 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-Advertiser 1 times on:
10/10/2015
MidWeek 0 times on:
The Garden Island 0 times on:
Hawaii Tribune-Herald 0 times on:
West Hawaii Today 0 times on:
Other Publications: 0 times on:

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

Julie Clark

Subscribed to and sworn before me this 12th day of Oct. A.D. 20 15

Patricia K. Reese, Notary Public of the First Judicial Circuit, State of Hawaii
My commission expires: Oct 07, 2018

PATRICIA K. REESE NOTARY PUBLIC Comm. No. 86-467 STATE OF HAWAII

Ad # 0000805407

SP.NO.: _____ L.N.

TRIBAL/NHO INVOLVEMENT

Notice Sent to OHA

Bureau Veritas submitted information concerning the proposed project to the FCC's Tower Construction Notification System (TCNS) on June 3, 2015 and was assigned an identification number of 127688. The TCNS was developed to aid in identifying Native American Indian Tribes, Native Hawaiian Organizations, and Tribal Historic Preservation Officers (collectively "tribes") that have requested consultation for projects located within specific geographic regions as defined by each tribe. Tribes were contacted through TCNS on June 11, 2015.

NOTICE OF ORGANIZATION(S) WHICH WERE SENT PROPOSED TOWER CONSTRUCTION NOTIFICATION INFORMATION - Email ID #4237845

towernotifyinfo to: Nicole Okino 06/11/2015 09:02 PM
Cc: Jonathan.Jonas, diane.dupert

Dear Sir or Madam:

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

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

The information you provided was forwarded to the following Tribal Nations and NHOs. If a Tribal Nation or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribal Nation or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event a Tribal Nation or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribal Nation or NHO, you must seek guidance from the Commission (NPA, Section IV.G). These procedures are further set forth in the FCC's Declaratory Ruling released on October 6, 2005 (FCC 05-176).

1. Compliance Lead Everett Ohta - Office of Hawaiian Affairs - Honolulu, HI - electronic mail and regular mail

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

Tribal lands), with a Submission Packet pursuant to Section VII.A of the NPA.

2. Chairman William J Aila Jr - Department of Land & Natural Resources - Honolulu, HI - regular mail

3. Deputy SHPO Theresa K Donham - State Historic Preservation Office - Kapolei, HI - electronic mail

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

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

Notification Received: 06/03/2015
Notification ID: 127688
Tower Owner Individual or Entity Name: Verizon Wireless
Consultant Name: Nicole Okino
Street Address: 841 Bishop Street
Suite 1100
City: Honolulu, Oahu
State: HAWAII
Zip Code: 96813
Phone: 808-298-8198
Email: nicole.okino@us.bureauveritas.com

Structure Type: MTOWER - Monopole
Latitude: 21 deg 15 min 44.4 sec N
Longitude: 157 deg 47 min 42.5 sec W
Location Description: 708 Palekaua Street
City: Honolulu
State: HAWAII
County: HONOLULU
Detailed Description of Project:
Ground Elevation: 21.6 meters
Support Structure: 18.3 meters above ground level
Overall Structure: 19.8 meters above ground level
Overall Height AMSL: 41.4 meters above mean sea level

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

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

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

Thank you,
Federal Communications Commission

LOCAL GOVERNMENT INVOLVEMENT

Notice Sent to DPP

Bureau Veritas submitted the proposed project's information to the County of Maui Planning Department and requested their comment concerning the proposed project's impact to cultural resources and historic properties. Correspondence with the DPP is attached.

June 4, 2015

Mr. George I. Atta, FAICP, Director
City and County of Honolulu
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Project No. 17015-015032.00
Ensite No. 24234

Subject: Notice to Local Zoning Board for the Proposed Verizon Wireless (VZW) HON Kupikipikio Communications Facility, 708 Palekaua Street (Portion of Tax Map Key [TMK] Number: [1] 3-1-042: Parcel 034), Honolulu, Honolulu County, Hawaii 96816

Dear Mr. Atta:

Bureau Veritas North America, Inc. (Bureau Veritas) has been retained by Cellco Partnership and its affiliates doing business as Verizon Wireless (VZW) to conduct a site evaluation for the Federal Communications Commission (FCC) of the above-referenced proposed communications facility 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 posting 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

Site name/location: The proposed VZW HON Kupikipikio communications facility is located at 708 Palekaua Street, Honolulu,, Honolulu County, Hawaii 96792. Figure 1 depicts the facility location.

Latitude/Longitude Coordinates: 21° 15' 44.48" North, 157° 47 42.59" West

Legal Description: The subject parcel is described as the parcel of land designated as TMK Number: (1)3-1-042: Parcel 034. According to the City and County of Honolulu, Department of Planning and Permitting, the subject parcel is currently zoned "R-10 Residential District." The State Land Use designation is "Urban."

Property Owner: Oahu Special Schools Association currently own the subject parcel.

Bureau Veritas North America, Inc.
841 Bishop Street, Suite 1100
Honolulu, Oahu, HI 96813

Main: (808) 531-6708
Fax: (808) 537-4084
www.us.bureauveritas.com

Current Land Use: The subject parcel is developed with the Variety School of Hawaii campus.

Proposed Action: According to VZW, the proposed action involves the leasing of an approximately 25-by 25-foot area on the southeastern portion of subject parcel. VZW proposes to erect a 65 foot antenna monopalm (stealth palm tree monopole) with 12 panel antennas, 12 remote equipment cabinets and an outdoor emergency generator. Figure 2 depicts the site features and proposed action.

Construction activity is anticipated to have a minor impact to the ground surface.

Adjoining Property Use: The adjoining properties consist of residential use which are described below:

- **North:** Variety School of Hawaii.
- **East:** Variety School of Hawaii.
- **South:** Variety School of Hawaii.
- **West:** Variety School of Hawaii.

Photographs of the subject property and surrounding area are attached.

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 communications facility project.

Per FCC NEPA/NHPA 106 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 at nicole.okino@us.bureauveritas.com.

If you have any questions or concerns, please feel free to contact me at 808.298.8198 or by email at nicole.okino@us.bureauveritas.com. We greatly appreciate your time and assistance in this matter.

Regards,

Nicole Okino
Staff Geologist
Bureau Veritas North America, Inc.

/no

Attachments: Figures
Site Photographs

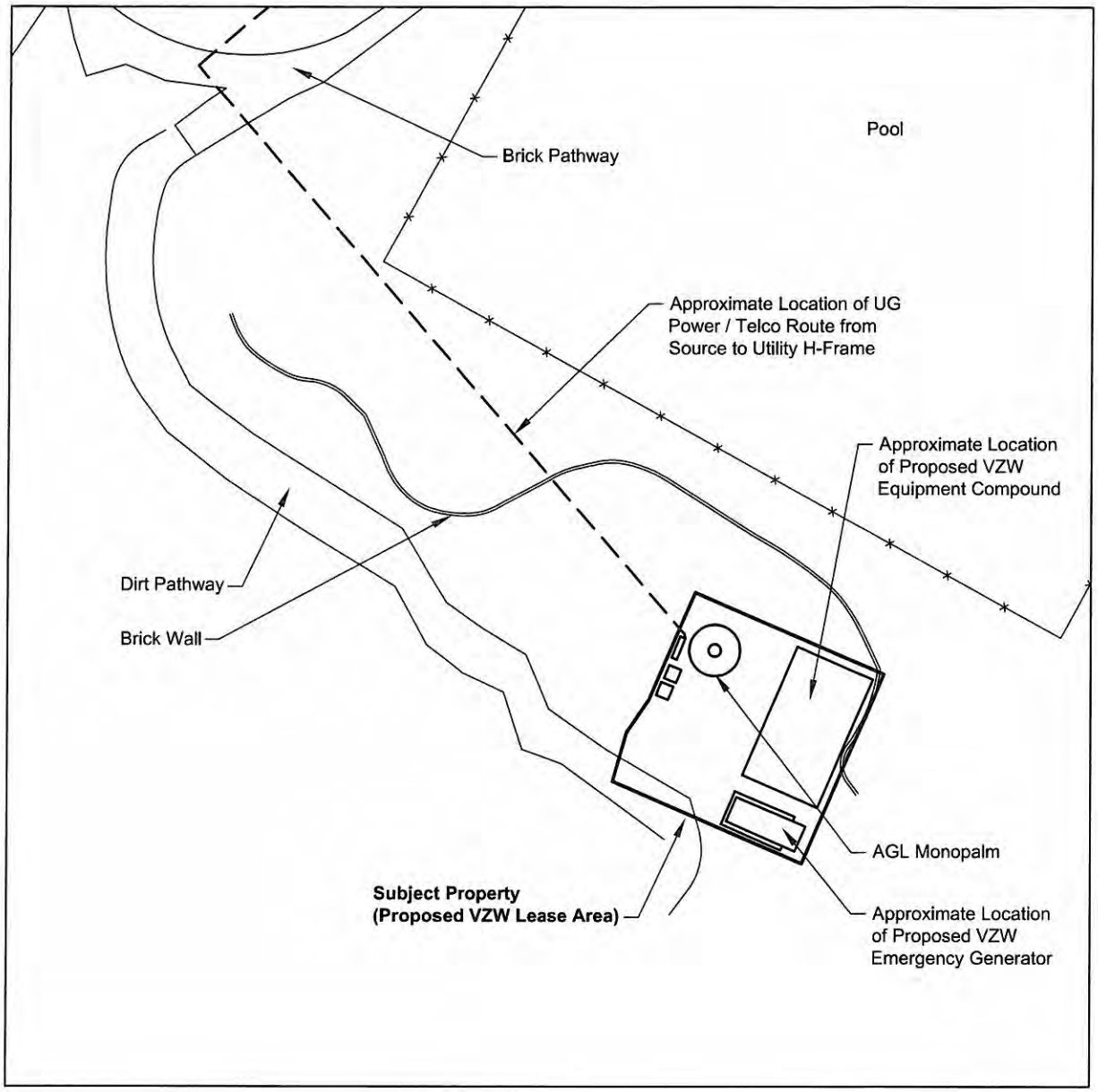
FIGURES

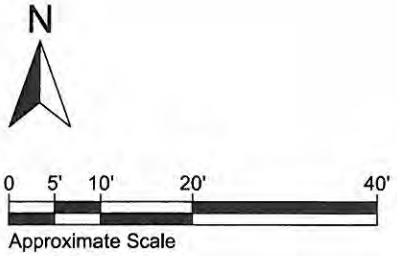
Portion of 7.5-minute Series (Topographic) Maps
United States Department of Interior
United States Geological Survey
Honolulu Quadrangle, City & County of Honolulu, Hawaii
1998

N

0 1/4 1/2 1 MILE

BUREAU VERITAS	Project No.: 17015-015032.00	Title: Site Location Map	FIGURE 1
	Date: 05/28/15	Location: Proposed VZW HON Kupikipikio Cell Site 708 Palekaua Street (TMK: [1] 3-1-042: Parcel 034) Honolulu, Oahu, Hawaii	
	Revised By: DG		
	Checked By: NO	Client: Verizon Wireless c/o Cades Schutte, LLP	





BUREAU VERITAS	Project No.: 17014-014105.00	Title: Site Vicinity Map	FIGURE 2
	Date: 07/03/14	Location: Proposed VZW HON Kupikipikio Cell Site 708 Palekaua Street (TMK: [1] 3-1-042: Parcel 034) Honolulu, Oahu, Hawaii	
	Revised By: DG		
	Checked By: NO	Client: Verizon Wireless c/o Cades Schutte, LLP	

SITE PHOTOGRAPHS

Project No. 17014-014105.00	**Description**	View of the subject property, looking east	**Photo 1**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No. 17014-014105.00	**Description**	Building with the electrical room north of the subject property	**Photo 2**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No.	Description	View inside of the electrical room	Photo 3
17014-014105.00	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	Photo Date
	Client	Verizon Wireless	June 30, 2014

Project No.	Description	Pad-mounted transformer north of the subject property, non-PCB unit	Photo 4
17014-014105.00	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	Photo Date
	Client	Verizon Wireless	June 30, 2014

Project No. 17014-014105.00	**Description**	Pool area northwest, north and northeast of the subject property	**Photo 5**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No. 17014-014105.00	**Description**	Park area east, southeast, south, southwest, and west of the subject property	**Photo 6**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honoluludpp.org • CITY WEB SITE: www.honolulu.gov

KIRK CALDWELL
MAYOR

GEORGE I. ATTA, FAICP
DIRECTOR

ARTHUR D. CHALLACOMBE
DEPUTY DIRECTOR

2015/ELOG-1161(WA)

September 1, 2015

Ms. Nicole Okino
Bureau Veritas North America, Inc.
841 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Dear Ms. Okino:

SUBJECT: Zoning Verification
Verizon Wireless - Kupikipikio
708 Palekaua Street - Diamond Head
Tax Map Key 3-1-42: 34

This responds to your request for zoning verification received on June 8, 2015, regarding any native Hawaiian cultural, religious, and/or burial sites; historic places, artifacts and/or other related concerns; and whether or not any of these issues will be impacted by the proposed communications facility project for the subject property. It is recommended that you contact the State of Hawaii Department of Land and Natural Resources, Historic Preservation Division (SHPD), for information concerning the presence of any potential impacts to historical and/or cultural resources.

Please note that we did not check the site, site plans, or the complete building permit history for the site, which may reveal unique circumstances and conditions associated with the property. We are unable to determine if there are any other nonconforming situations, such as yard encroachments or off-street parking.

This letter is not a disclosure statement nor is it intended to substitute for mandatory disclosures in real-estate transactions regarding the subject parcel. The City is under no obligation to investigate, research, or participate in the preparation of disclosure statements, other than providing available public records. This letter does not create liability on the part of the City, or any officer or employee thereof, if used in or as a disclosure statement. The seller, buyer, lender, or their agent, not the City, is solely responsible for the use of any public record information in the preparation of a disclosure statement.

If you have any questions, please contact William Ammons of our staff at 768-8025.

Very truly yours,

Anthony X. Cheng

FOR George I. Atta, FAICP
Director

Doc 1275974

DAVID Y. IGE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA
FIRST DEPUTY

JEFFREY T. PEARSON
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

January 21, 2016

IN REPLY REFER TO:
LOG: 2015.04366
DOC: 1601JLP04
"no historic properties affected"/
"no historic properties affected"

Nicole Okino
Bureau Veritas North America, Inc.
841 Bishop Street, Suite 1100
Honolulu, HI 96813

Dear Ms. Okino:

RE: Section: Section 106 Cultural Resources Management and Chapter 6E-42 Historic Preservation Review
Agency: Federal Communications Commission (FCC)
Project: HON Kupikipikio, 708 Palekaua Street, Honolulu, Oahu
TMK: (1) 3-1-042:034

On December 21, 2015, the State Historic Preservation Division (SHPD) received a submittal from Bureau Veritas on behalf of the Federal Communications Commission (FCC) and Verizon Wireless for the construction of a new 65 ft. monopalm mounted with 12 panel antennas with associated equipment at 708 Palekaua Street, Honolulu. The Area of Potential Effect (APE) is a 25 x 25 ft., 625 ft^2 lease parcel in the southeast portion of a 4.291-acre parcel owned by the State of Hawaii and identified as TMK: [1] 3-1-042:034.The historic properties assessment (Murabayashi et al. 2015) completed for this project indicates that no surface historic properties are present within the proposed VZW HON Kupikipikio cell site, and it is unlikely that subsurface historic properties exist within the APE for direct effects.

Per Section 106 of the National Historic Preservation Act of 1966, as amended, SHPD has reviewed the undertaking and the State Historic Preservation Officer (SHPO) **concurs** with Bureau Veritas's determination of **no historic properties affected** within the area of potential effects of this undertaking.

Per Chapter 6E-42 of Hawaii Revised Statutes, SHPD has reviewed the undertaking and has found that it is unlikely that historic properties will be affected by the proposed project. Therefore, **SHPD's determination is no historic properties affected**.

FCC and Verizon Wireless are the offices of record for this undertraining. Please maintain a copy of this letter with your environmental review record for this undertaking. If you have any questions about this undertaking or if there is a change to the scope of work, please contact Jessica Puff, Architectural Historian, at (808) 692-8023 or at Jessica.L.Puff@Hawaii.gov. If you have any questions about archaeological resources, please contact Susan Lebo, Archeology Branch Chief, at (808) 692-8019 or at Susan.A.Lebo@Hawaii.gov.
Mahalo,

Alan S. Downer, PhD
Administrator, State Historic Preservation Division
Deputy State Historic Preservation Officer

In the event that historic resources, including human skeletal remains, cultural layers, cultural deposits, features, artifacts, or sinkholes, lava tubes or 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.

January 20, 2016

Mr. James Toma, Noise Section Supervisor
Indoor and Radiological Health Branch
591 Ala Moana Boulevard
Honolulu, Hawaii 96813

Project No. 17015-015032.00
Ensite No. 24234

Subject: Notice for the Proposed Verizon Wireless (VZW) HON Kupikipikio Communications Facility, 708 Palekaua Street (Portion of Tax Map Key [TMK] Number: [1] 3-1-042: Parcel 034), Honolulu, Honolulu County, Hawaii 96816

Dear Mr. Toma:

Bureau Veritas North America, Inc. (Bureau Veritas) has been retained by Cellco Partnership and its affiliates doing business as Verizon Wireless (VZW) to conduct a site evaluation for the Federal Communications Commission (FCC) of the above-referenced proposed communications facility project.

We are contacting you for information with regards to any potential impacts from the construction of the proposed facility.

Project Description

Site name/location: The proposed VZW HON Kupikipikio communications facility is located at 708 Palekaua Street, Honolulu, Honolulu County, Hawaii 96792. Figure 1 depicts the facility location.

Latitude/Longitude Coordinates: 21° 15' 44.48" North, 157° 47 42.59" West

Legal Description: The subject parcel is described as the parcel of land designated as TMK Number: (1) 3-1-042: Parcel 034. According to the City and County of Honolulu, Department of Planning and Permitting, the subject parcel is currently zoned "R-10 Residential District." The State Land Use designation is "Urban."

Property Owner: Oahu Special Schools Association currently own the subject parcel.

Current Land Use: The subject parcel is developed with the Variety School of Hawaii campus.

Proposed Action: According to VZW, the proposed action involves the leasing of an approximately 25-foot by 25-foot area on the southeastern portion of subject parcel. VZW proposes to erect a 65-foot antenna monopalm (stealth palm tree monopole) with 12 panel antennas, 12 remote equipment cabinets and an outdoor emergency generator. Figure 2 depicts the site features and proposed action. Construction drawings for the proposed cell site are included in Attachment 2.

Construction activity is anticipated to have a minor impact to the ground surface.

Adjoining Property Use: The adjoining properties consist of the following:

- **North:** Variety School of Hawaii.
- **East:** Variety School of Hawaii, beyond which is State of Hawaii Department of Defense
- **South:** Variety School of Hawaii, beyond which is State of Hawaii Department of Defense
- **West:** Variety School of Hawaii, beyond which is the Arc Center of Hawaii

Photographs of the subject property and surrounding area are included in Attachment 3.

If you have any questions or concerns, please feel free to contact me at 808.298.8198 or by email at nicole.okino@us.bureauveritas.com. We greatly appreciate your time and assistance in this matter.

Regards,

Nicole Okino
Staff Geologist
Bureau Veritas North America, Inc.

/no

Attachments: 1 – Figures
2 – Site Drawings
3 - Site Photographs

ATTACHMENT 1

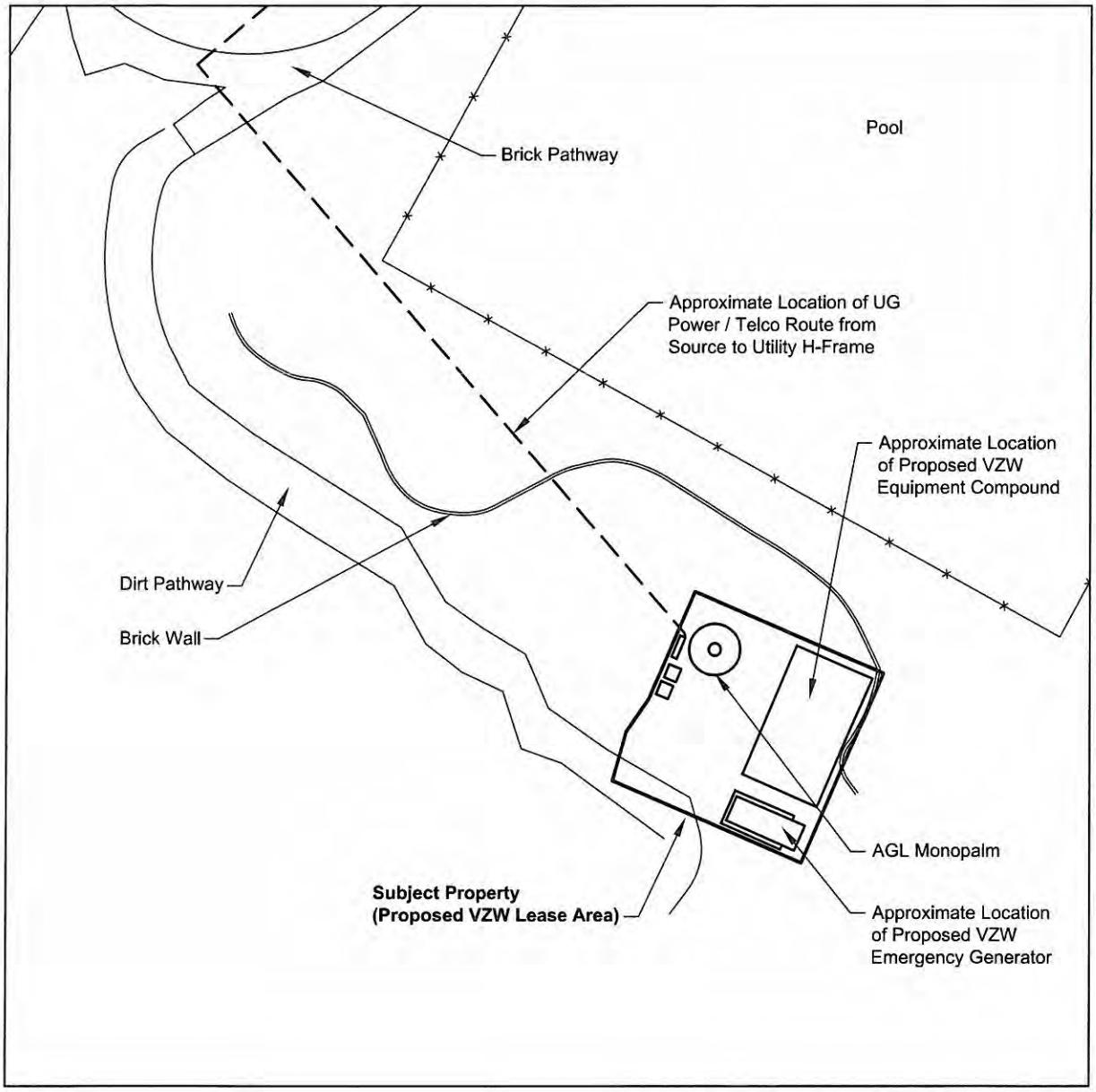
FIGURES

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

N

0 1/4 1/2 1 MILE

BUREAU VERITAS	Project No.: 17015-015032.00	Title: Site Location Map	FIGURE 1
	Date: 05/28/15	Location: Proposed VZW HON Kupikipikio Cell Site 708 Palekaua Street (TMK: [1] 3-1-042: Parcel 034) Honolulu, Oahu, Hawaii	
	Revised By: DG		
	Checked By: NO	Client: Verizon Wireless c/o Cades Schutte, LLP	



N

0 5' 10' 20' 40'

Approximate Scale

BUREAU VERITAS	Project No.: 17014-014105.00	Title: Site Vicinity Map	FIGURE 2
	Date: 07/03/14	Location: Proposed VZW HON Kupikipikio Cell Site 708 Palekaua Street (TMK: [1] 3-1-042: Parcel 034) Honolulu, Oahu, Hawaii	
	Revised By: DG		
	Checked By: NO	Client: Verizon Wireless c/o Cades Schutte, LLP	

ATTACHMENT 2

SITE DRAWINGS

HON KUPIKIPIKIO
ZONING DRAWINGS

verizonwireless

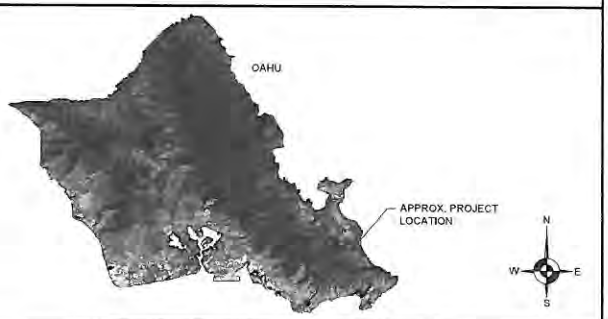
PROJECT DATA

SITE ADDRESS:	708 PALEKAUA STREET HONOLULU, HI 96816
LATITUDE:	21° 15' 44.48" N
LONGITUDE:	157° 47' 42.59" W
DATUM:	NAD 83
SOURCE:	1A
JURISDICTION:	CITY AND COUNTY OF HONOLULU
TMK:	(1) 3-1-042:034
GROUND ELEVATION:	71' AMSL
POLE TOP ELEVATION:	65' AGL
HEIGHT LIMIT:	25' AGL
OCCUPANCY GROUP:	U-2
CONSTRUCTION TYPE:	V-B
ZONING:	R-10
FLOOD ZONE:	ZONE X
DESIGN WIND LOAD:	100 MPH

GOVERNING CODES

- IBC - 2006, INTERNATIONAL BUILDING CODE ALL CONSTRUCTION SHALL CONFORM TO THE 2006 INTERNATIONAL BUILDING CODE (2006 IBC) AND THE LATEST CITYAND COUNTY OF HONOLULU AMENDMENTS AND ORDINANCES.
- NEC-2008, NATIONAL ELECTRICAL CODE
- NFPA - 2006, NATIONAL FIRE PROTECTION ASSOCIATION FIRE SAFETY DURING CONSTRUCTION, ALTERATION OR DEMOLITION SHALL COMPLY WITH 2006 NFPA 1
- A.D.A. COMPLIANCE
  INSTALLATION IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAP ACCESS IS NOT REQUIRED PER A.D.A.

ISLAND MAP



VICINITY MAP

PROJECT CONTACTS

APPLICANT
VERIZON WIRELESS
3350 161ST AVE. SE
BELLEVUE, WA 98008

LESSEE
OAHU SPECIAL SCHOOLS ASSN.
C/O VARIETY SCHOOL OF HAWAII
710 PALEKAUA ST
HONOLULU, HI 96816

FEE OWNER
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
1151 PUNCHBOWL ST
HONOLULU, HI 96813

MONOPOLE OWNER
VERIZON WIRELESS
3350 161ST AVE SE
BELLEVUE, WA 98008

PRINCIPAL ENGINEER, NETWORK CONSTRUCTION
VERIZON WIRELESS
3245 158TH AVE SE
MS 231
BELLEVUE, WA 98008
CONTACT: BRYAN ADAMS, PMP
PH: 425.603.2728
CELL: 206.715.6499

PROJECT MANAGER
CASCADIA PM
1130 N. NIMITZ HWY, SUITE A-200
HONOLULU, HI, 96817
CHARLES FORTNER
PH: 808.536.7404

ZONING & PERMITTING CONSULTANT
CASCADIA PM
1130 N. NIMITZ HWY, SUITE A-200
HONOLULU, HI, 96817
ROBYN KAHALELEHUA
PH: 808.536.7440

UTILITY COORDINATOR MANAGER
CASCADIA PM
1130 N. NIMITZ HWY, SUITE A-200
HONOLULU, HI, 96817
PJ CAMOU
PH: 808.536.7406

SURVEY
LEAPS & BOUNDARIES, INC.
2016 WATERHOUSE ST., STE. 101
HONOLULU, HI 96819
ARDEN J. TORCUATO
PH: 808.484.5701

ELECTRICAL ENGINEER
9200 CHERRY CREEK S. DRIVE, SUITE 25
DENVER, CO 80231
RICHARD J. MOSS, PE
PH: 303 921 5061

STRUCTURAL ENGINEER
VECTOR STRUCTURAL ENGINEERS
9138 S STATE ST., SUITE 101
SANDY, UT 84070
ROGER T. ALWORTH, S.E.
PH: 801.990.1775

DRAWING INDEX

SHEET	DESCRIPTION
T-1.0	TITLE SHEET
SV-1	SURVEY
A-1.0	OVERALL SITE PLAN
A-2.0	ENLARGED SITE PLAN
A-2.1	SITE PLAN DIMENSIONS
A-3.0	ELEVATIONS
A-3.1	ELEVATIONS

PROJECT SUMMARY

THIS PROJECT INCLUDES THE FOLLOWING SCOPE OF WORK:

1. NEW FACILITY WILL CONSIST OF A 625 SF FENCED LEASE AREA COMPOUND WITH A NEW 65' MONOPALM, TWELVE (12) VERIZON WIRELESS PANEL ANTENNAS, TWELVE (12) REMOTE RADIO HEADS (RRHs), THREE (3) SURGE PROTECTORS AND (1) GPS ANTENNA.
2. PROPOSED VERIZON WIRELESS EQUIPMENT CABINETS ON A NEW CONCRETE PAD AND 50KW OUTDOOR DIESEL GENERATOR ON A NEW CONCRETE PAD.
3. PROPOSED INSTALLATION OF 200A ELECTRICAL SERVICE & FIBER FOR VERIZON WIRELESS EQUIPMENT.

CALL BEFORE YOU DIG!
866-423-7287

DRIVING DIRECTIONS

FROM HONOLULU INTERNATIONAL AIRPORT

1. HEAD NORTHWEST ON AOLELE ST (0.1 MI)
2. SLIGHT LEFT ONTO ALA ONAONA ST (0.2 MI)
3. CONTINUE ONTO AOLELE ST (348 FT)
4. SLIGHT RIGHT TO STAY ON AOLELE ST (348 FT)
5. TAKE THE INTERSTATE H1 E RAMP TO HONOLULU/WAIKIKI (0.9 MI)
6. MERGE ONTO I-H-1 E (8.4 MI)
7. TAKE EXIT 26A FOR KOKO HEAD AVE (0.2 MI)
8. TURN RIGHT ONTO KOKO HEAD AVE (240 FT)
9. TURN LEFT ONTO PAHOA AVE (0.6 MI)
10. TURN RIGHT ONTO 22ND AVE (0.7 MI)
11. TURN LEFT ONTO PUU PANINI AVE (0.1 MI)
12. TAKE THE 1ST RIGHT ONTO PALEKAUA ST; DESTINATION WILL BE ON THE RIGHT (469 FT)

ESTIMATED DISTANCE: 11.5 MILES
ESTIMATED TIME: 20 MINUTES

verizonwireless

Cascadia PM
1130 N NIMITZ HWY, SUITE A-200
HONOLULU, HI 96817
PH: (808) 536-7400

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CPM PROJECT NO.: 5185

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
1	07-14-14	CL/CL	LU SUBMITTAL

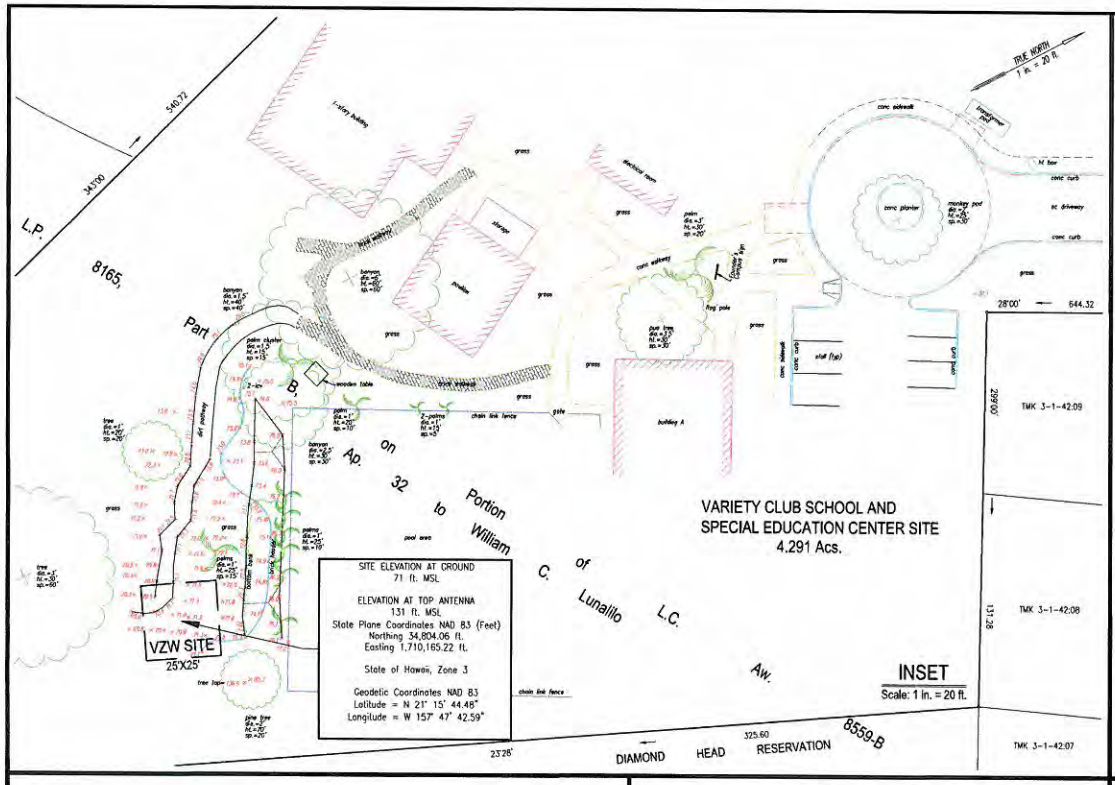
SITE NAME
HON KUPIKIPIKIO

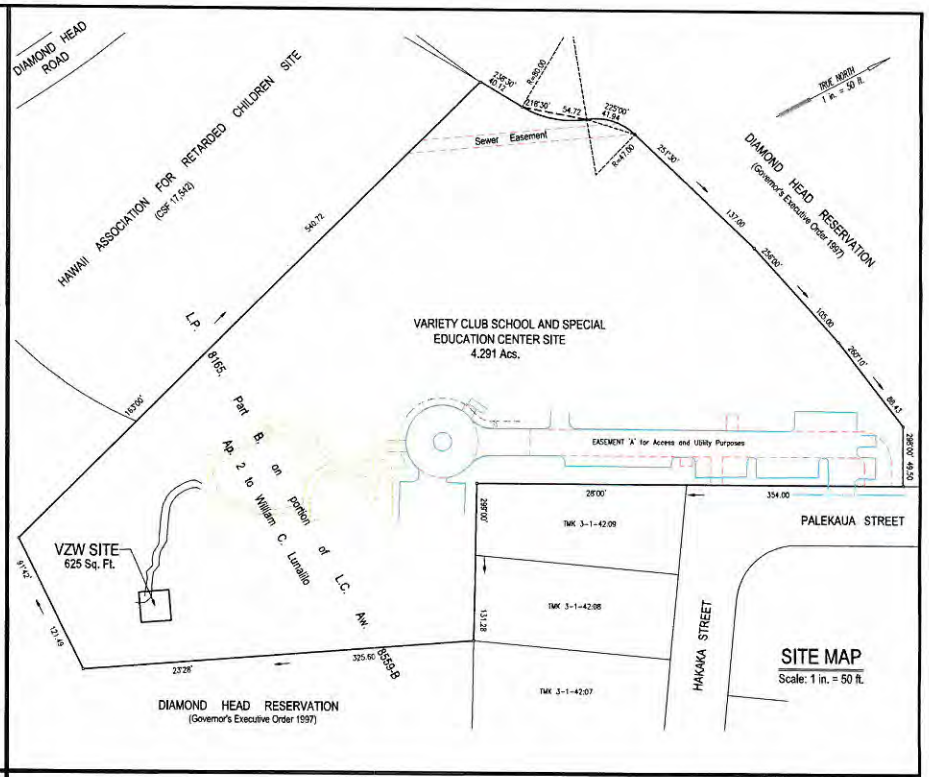
TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

SHEET TITLE
TITLE SHEET

SHEET NO.
T-1.0

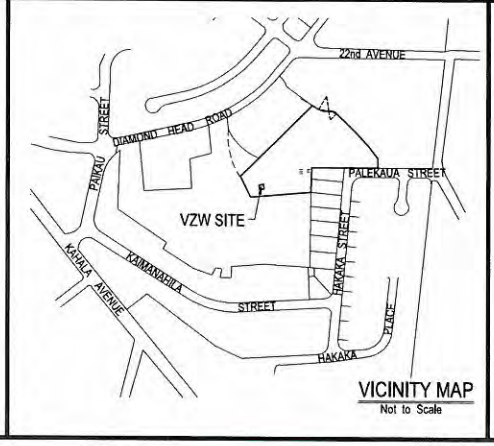




Legend:

bw	bottom wall
clf	chain link fence
co	cleanout
conc	concrete
mw	monitoring well
pav't	edge pavement
tsf	transformer
tw	top wall
wm	water meter
ws	wheel stop
x-walk	crosswalk

Note: Elevations established from GPS-RTK derived orthometric heights, applying Geoid 2009 separations, constraining to NGS control station B 12 (TU0317).



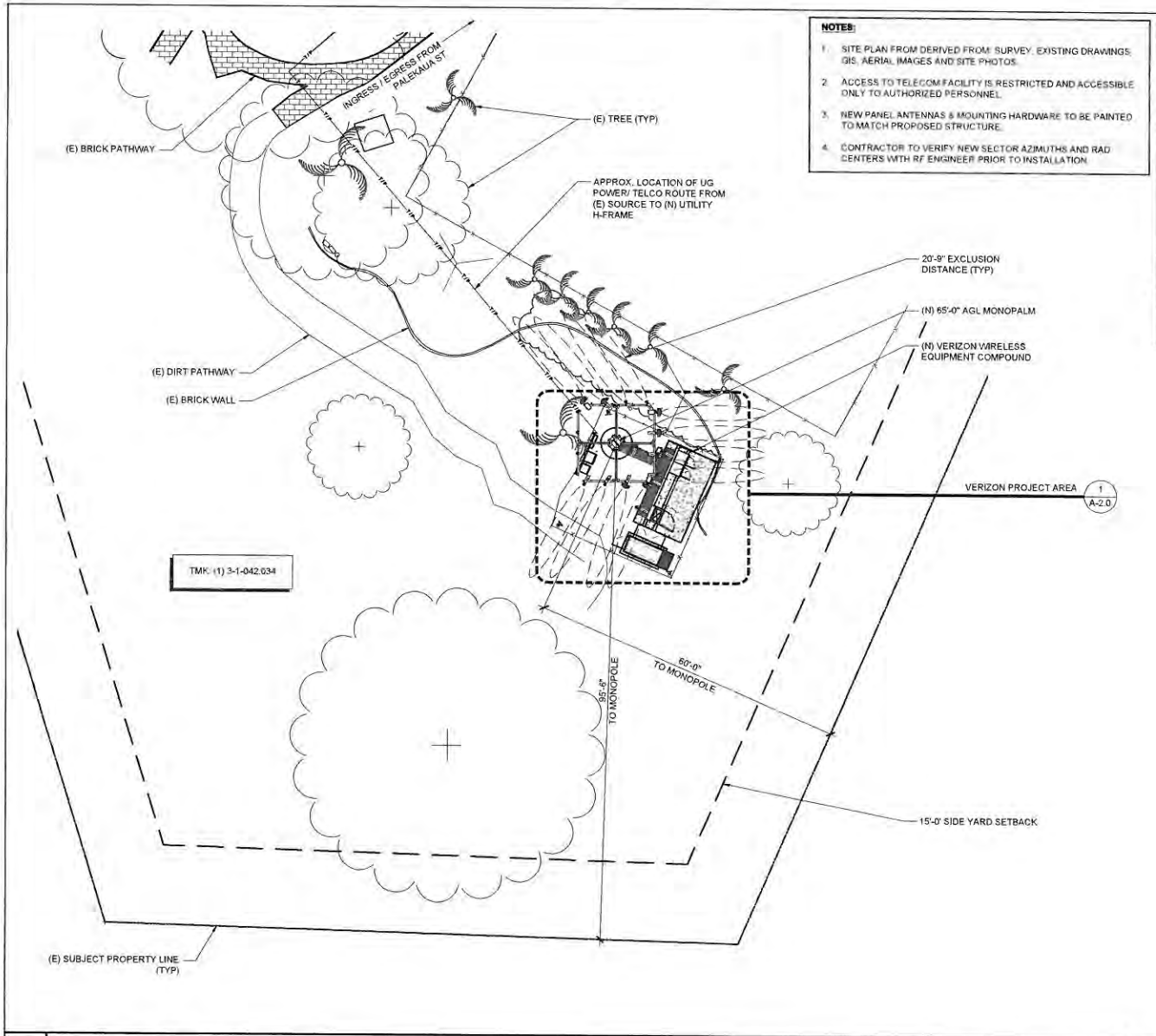
VZW HON KUPIKIPIKIO
VARIETY CLUB SCHOOL AND SPECIAL EDUCATION CENTER SITE
Being a Portion of L. P. 8165, Part B
on Portion of L.C. Aw. 8559-B, Ap. 32 to William C. Lunalilo
At Kapahulu, Waikiki, Honolulu, Oahu, Hawaii
DATE: March 14, 2014
TMK: (1) 3-1-042:034

AARON J. TORCUATO
LICENSED PROFESSIONAL LAND SURVEYOR
No. 10257
HAWAII, U.S.A.

This map was prepared by me or under my direct supervision

LICENSED PROFESSIONAL LAND SURVEYOR
CERTIFICATE NUMBER 10257 - Exp. 4/30/2016

LEAPS & BOUNDARIES, INC.
2016 WATERHOUSE ST., STE. 101 PH. (808) 484-5701
HONOLULU, HI 96819 FAX (888) 542-2097
EMAIL: SURVEYS@LEAPSANDBOUNDARIES.COM



NOTES:

1. SITE PLAN FROM DERIVED FROM: SURVEY, EXISTING DRAWINGS, GIS, AERIAL IMAGES AND SITE PHOTOS.
2. ACCESS TO TELECOM FACILITY IS RESTRICTED AND ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL.
3. NEW PANEL ANTENNAS & MOUNTING HARDWARE TO BE PAINTED TO MATCH PROPOSED STRUCTURE.
4. CONTRACTOR TO VERIFY NEW SECTOR AZIMUTHS AND RAD CENTERS WITH RF ENGINEER PRIOR TO INSTALLATION.

DRAWING LEGEND

	SUBJECT PROPERTY LINE
	ADJACENT PROPERTY LINE
	LEASE AREA
	ACCESS EASEMENT
CF	COAX/FIBER ROUTE
F	FIBER ROUTE
WG	WAVEGUIDE ROUTE
	EXISTING FENCE
X / X-X_X	ELEVATION MARKER
X / X-X_X	SECTION MARKER

COMMON ABBREVIATIONS

(E)	EXISTING
(P)	PROPOSED
(TYP)	TYPICAL
RE	REFERENCE

verizonwireless

Cascadia PM
1130 N NIMITZ HWY, SUITE A-200
HONOLULU, HI 96817
PH: (808) 536-7400

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CPM PROJECT NO.: 5185

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
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SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
1	07-14-14	CL/CL	LU SUBMITTAL

SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

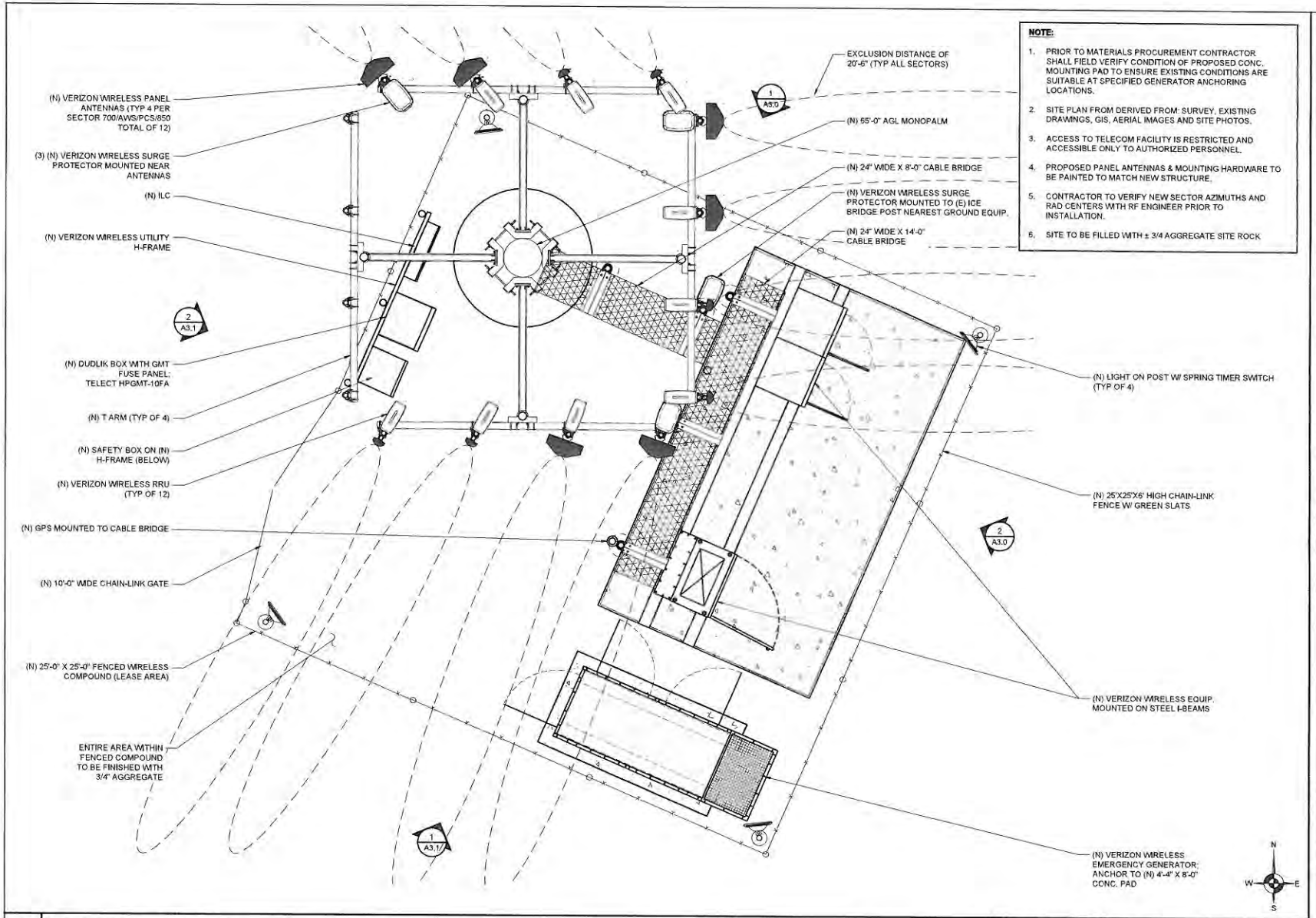
SHEET TITLE
OVERALL SITE PLAN

SHEET NO.
A-1.0

1 OVERALL SITE PLAN

SCALE: 1" = 20'-0" (11X17)
SCALE: 1" = 10'-0" (22X34)

0' 10' 20' 40'



NOTE:

1. PRIOR TO MATERIALS PROCUREMENT CONTRACTOR SHALL FIELD VERIFY CONDITION OF PROPOSED CONC. MOUNTING PAD TO ENSURE EXISTING CONDITIONS ARE SUITABLE AT SPECIFIED GENERATOR ANCHORING LOCATIONS.
2. SITE PLAN FROM DERIVED FROM: SURVEY, EXISTING DRAWINGS, GIS, AERIAL IMAGES AND SITE PHOTOS.
3. ACCESS TO TELECOM FACILITY IS RESTRICTED AND ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL.
4. PROPOSED PANEL ANTENNAS & MOUNTING HARDWARE TO BE PAINTED TO MATCH NEW STRUCTURE.
5. CONTRACTOR TO VERIFY NEW SECTOR AZIMUTHS AND RAD CENTERS WITH RF ENGINEER PRIOR TO INSTALLATION.
6. SITE TO BE FILLED WITH ± 3/4 AGGREGATE SITE ROCK

1 ENLARGED SITE PLAN

SCALE: 1/4"= 1'-0" (11X17)
SCALE: 1/2" = 1'-0" (22X34)

0' 2' 4' 8'

verizonwireless

Cascadia PM
1130 N NIMITZ HWY, SUITE A-220
HONOLULU, HI 96817
PH: (808) 536-7466

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION, CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CPM PROJECT NO.: 5185

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	05-16-14	EG/EG	LU SUBMITTAL
1	07-14-14	CL/CL	LU SUBMITTAL

SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

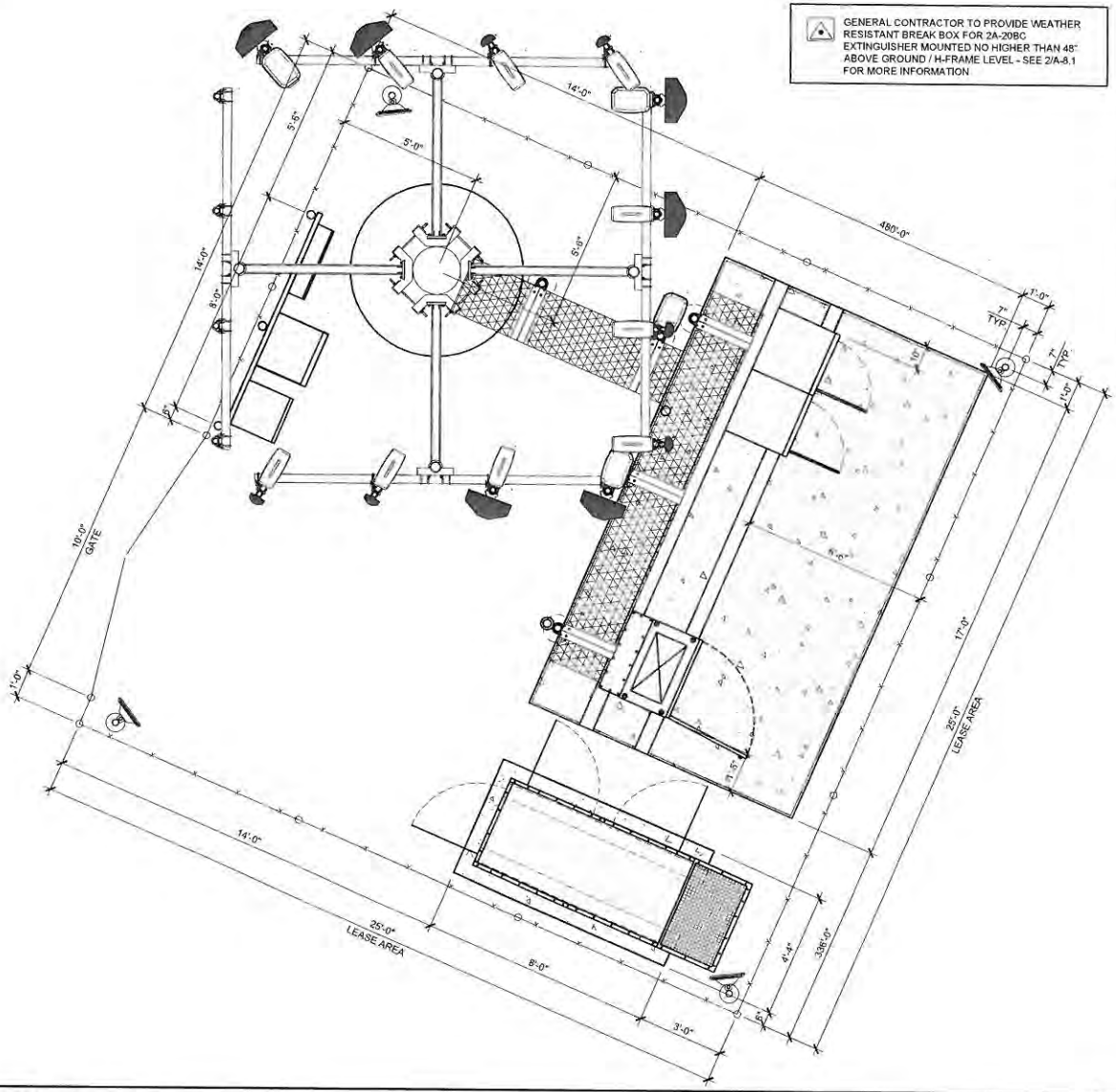
SHEET TITLE
ENLARGED SITE PLAN

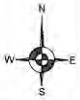
SHEET NO.
A-2.0

GENERAL CONTRACTOR TO PROVIDE WEATHER RESISTANT BREAK BOX FOR 2A-20BC EXTINGUISHER MOUNTED NO HIGHER THAN 48" ABOVE GROUND / H-FRAME LEVEL - SEE 2/A-8.1 FOR MORE INFORMATION.

NOTE:

1. PRIOR TO MATERIALS PROCUREMENT CONTRACTOR SHALL FIELD VERIFY CONDITION OF PROPOSED CONC. MOUNTING PAD TO ENSURE EXISTING CONDITIONS ARE SUITABLE AT SPECIFIED GENERATOR ANCHORING LOCATIONS.
2. SITE PLAN FROM DERIVED FROM: SURVEY, EXISTING DRAWINGS, GIS, AERIAL IMAGES AND SITE PHOTOS.
3. ACCESS TO TELECOM FACILITY IS RESTRICTED AND ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL.
4. PROPOSED PANEL ANTENNAS & MOUNTING HARDWARE TO BE PAINTED TO MATCH EXISTING SURROUNDINGS.
5. CONTRACTOR TO VERIFY NEW SECTOR AZIMUTHS AND RAD CENTERS WITH RF ENGINEER PRIOR TO INSTALLATION.
6. GENERAL CONTRACTOR TO MAINTAIN POSITIVE DRAINAGE & SITE EROSION CONTROL MEASURES PER LOCAL JURISDICTIONAL REQUIREMENTS AT ALL TIMES OF CONSTRUCTION.
7. NEW VERIZON PANELS ANTENNAS & 60' MONOPOLE NOT SHOWN FOR CLARITY.





1 SITE PLAN DIMENSIONS

SCALE: 1/4"= 1'-0" (11X17)
SCALE: 1/2" = 1'-0" (22X34)

0' 2' 4' 8'

verizonwireless

Cascadia PM
1150 N NIMITZ HWY, SUITE A-200
HONOLULU, HI 96817
PH: (808) 536-7480

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CPM PROJECT NO.: 5185

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	05-16-14	EG/EG	LU SUBMITTAL
1	07-14-14	CL/CL	LU SUBMITTAL

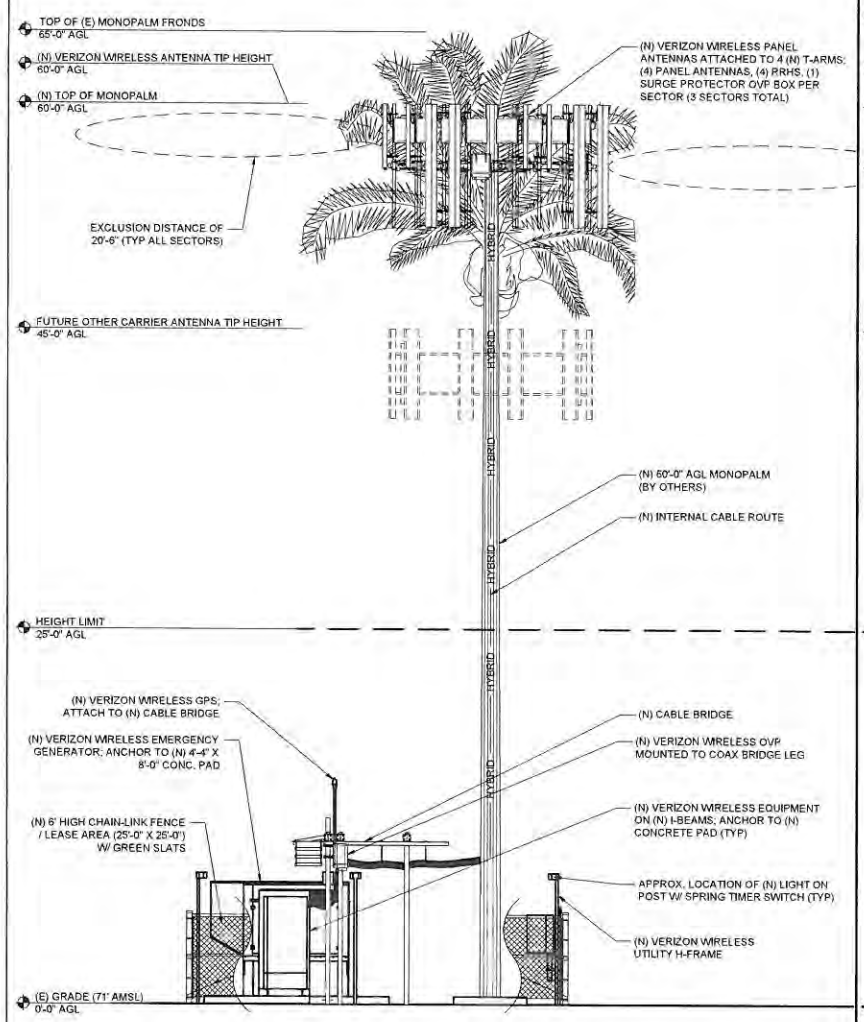
SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

SHEET TITLE
SITE PLAN DIMENSIONS

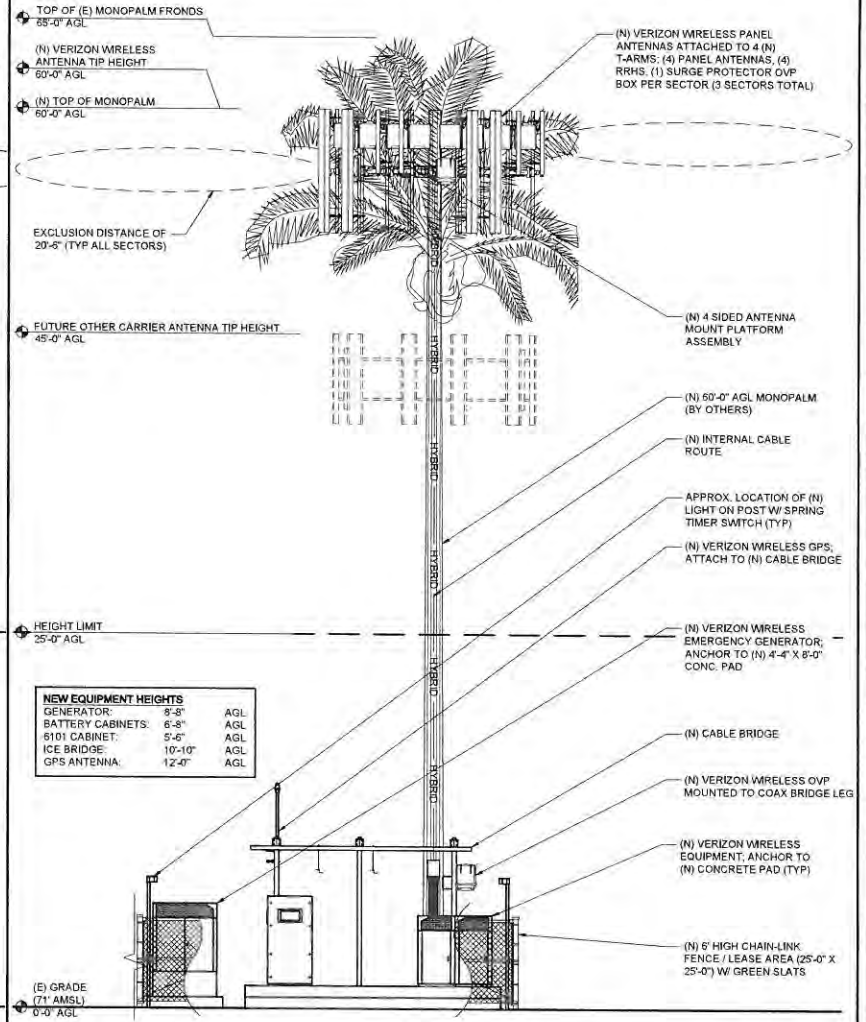
SHEET NO.
A-2.1



1 NORTHEAST ELEVATION

SCALE: 1/8" = 1'-0" (11X17)
SCALE: 1/4" = 1'-0" (22X34)

0' 4' 8' 16'



2 SOUTHEAST ELEVATION

SCALE: 1/8" = 1'-0" (11X17)
SCALE: 1/4" = 1'-0" (22X34)

0' 4' 8' 16'

verizonwireless

Cascadia PM
1130 N NIMITZ HWY, SUITE A-200
HONOLULU, HI 96817
PH: (808) 538-7400

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CPM PROJECT NO.: 5185

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
1	07-14-14	CL/CL	LU SUBMITTAL

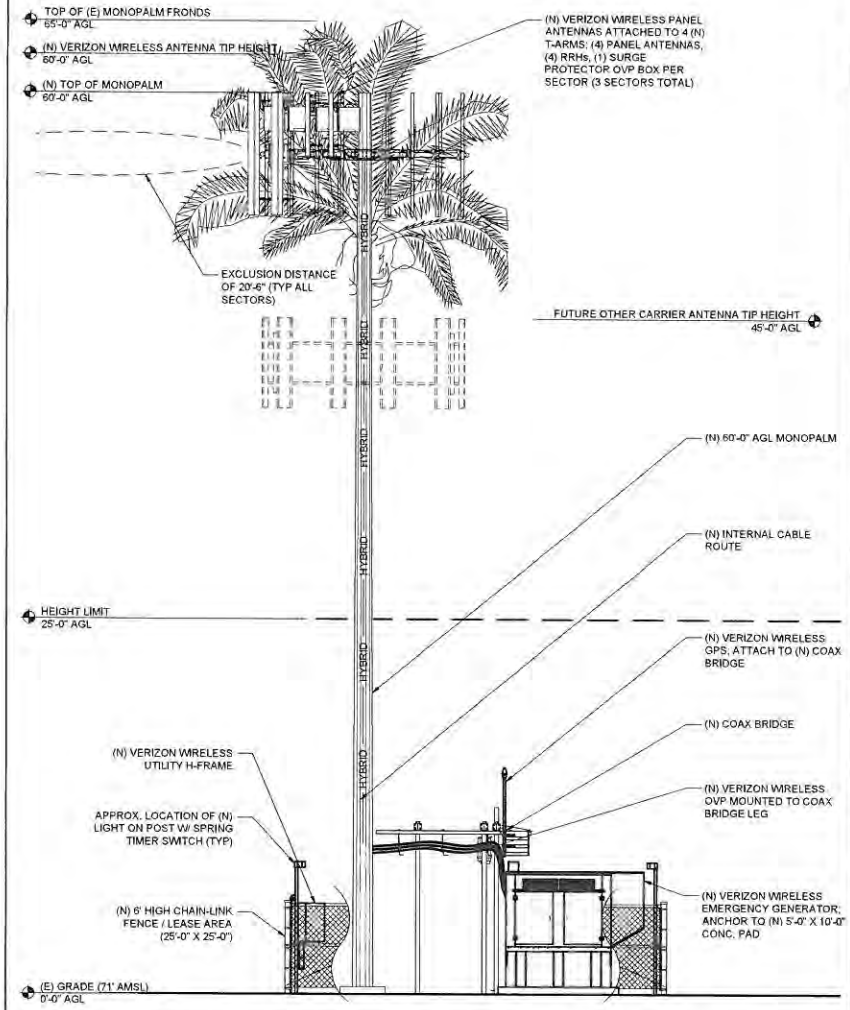
SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

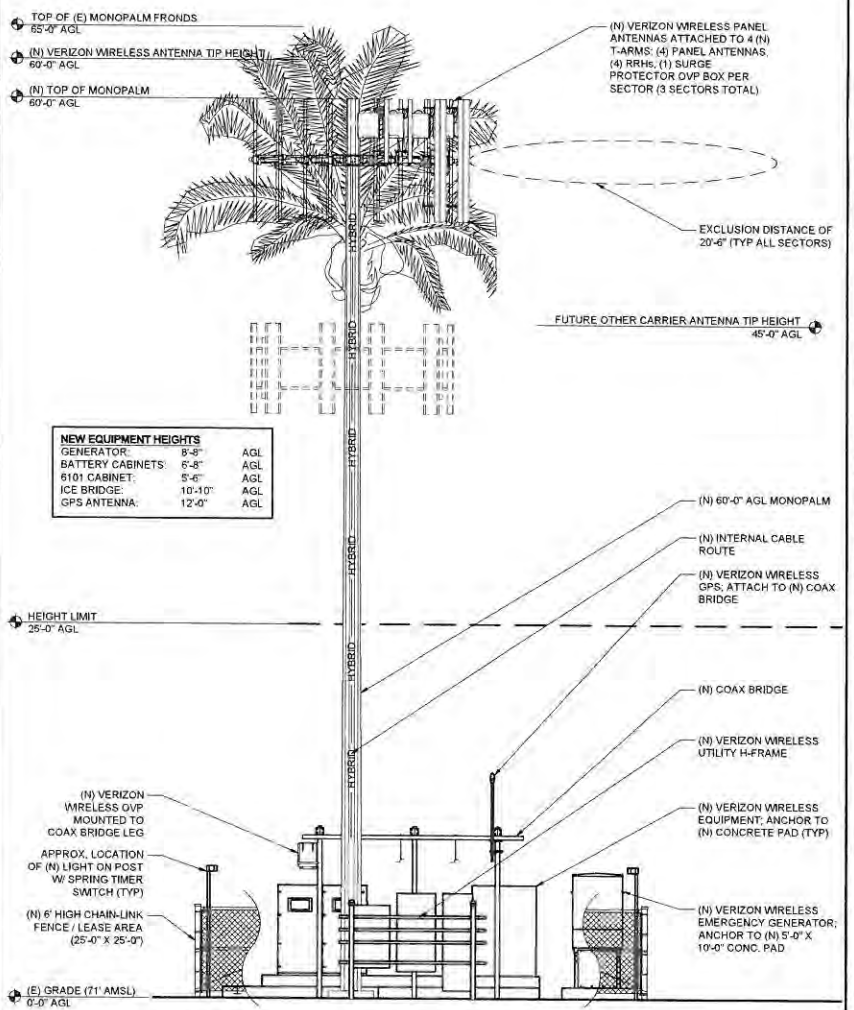
SHEET TITLE
ELEVATIONS

SHEET NO.
A-3.0



NOTE: SEE SITE PLAN (A-2.0 & A-2.1) FOR DETAIL REFERENCES

1	SOUTHWEST ELEVATION	SCALE: 1/8" = 1'-0" (11X17) SCALE: 1/4" = 1'-0" (22X34)	0' 4' 8' 16'



NOTE: SEE SITE PLAN (A-2.0 & A-2.1) FOR DETAIL REFERENCES

2	NORTHWEST ELEVATION	SCALE: 1/8" = 1'-0" (11X17) SCALE: 1/4" = 1'-0" (22X34)	0' 4' 8' 16'

verizon wireless

Cascadia PM
1130 N NIMITZ HWY, SUITE A-255
HONOLULU, HI 96817
PH: (808) 536-7400

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION; CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CPM PROJECT NO.: 5185

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	05-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	05-16-14	EG/EG	LU SUBMITTAL
1	07-14-14	CL/CL	LU SUBMITTAL

SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

SHEET TITLE
ELEVATIONS

SHEET NO.
A-3.1

ATTACHMENT 3

SITE PHOTOGRAPHS

Project No. 17014-014105.00	**Description**	View of the subject property, looking east	**Photo 1**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No. 17014-014105.00	**Description**	Building with the electrical room north of the subject property	**Photo 2**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No.	Description	View inside of the electrical room	Photo 3
17014-014105.00	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	Photo Date
	Client	Verizon Wireless	June 30, 2014

Project No.	Description	Pad-mounted transformer north of the subject property, non-PCB unit	Photo 4
17014-014105.00	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	Photo Date
	Client	Verizon Wireless	June 30, 2014

Project No. 17014-014105.00	**Description**	Pool area northwest, north and northeast of the subject property	**Photo 5**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No. 17014-014105.00	**Description**	Park area east, southeast, south, southwest, and west of the subject property	**Photo 6**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No.	Description	View of Marshall M. Goodsill Residence	Photo 7
17014-014105.00	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	Photo Date
	Client	Verizon Wireless	June 30, 2014

Project No.	Description	View of the Site from Marshall M. Goodsill Residence	Photo 8
17014-014105.00	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	Photo Date
	Client	Verizon Wireless	June 30, 2014

Project No. 17014-014105.00	**Description**	View of Lyndon Roberts Residence	**Photo 9**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No. 17014-014105.00	**Description**	View of the Site from Lyndon Roberts Residence	**Photo 10**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No. 17014-014105.00	**Description**	View of John and Kate Kelly Residence	**Photo 11**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No. 17014-014105.00	**Description**	View of the Site from John and Kate Kelly Residence	**Photo 12**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No. 17014-014105.00	**Description**	View of Edward and Sally Sheehan Residence driveway	**Photo 13**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No. 17014-014105.00	**Description**	View of the Site from Edward and Sally Sheehan Residence	**Photo 14**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No.	Description	View of Milton I Residence	Photo 15
17014-014105.00	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	Photo Date
	Client	Verizon Wireless	June 30, 2014

Project No.	Description	View of the Site from Milton I Residence	Photo 16
17014-014105.00	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	Photo Date
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of a portion of Fort Ruger Historic District	**Photo 17**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from Fort Ruger Historic District	**Photo 18**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

DAVID Y. IGE
GOVERNOR OF HAWAII

VIRGINIA PRESSLER, M.D.
DIRECTOR OF HEALTH

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

In reply, please refer to:
File:

February 26, 2016

Ms. Nicole Okino
Bureau Veritas North America, Inc.
841 Bishop Street, Suite 1100
Honolulu, HI 96813

Dear Ms. Okino:

Thank you for your submittal requesting comments to the Proposed Verizon Wireless HON Kupikipikio Communications Facility, 708 Palekaua Street, Honolulu, Hawaii 96816.

Project activities shall comply with the following Administrative Rules of the Department of Health:

- Chapter 11-46 Community Noise Control

Should you have any questions, please contact me at (808) 586-4700.

Sincerely,

Jeffrey M. Eckerd
Program Manager
Indoor and Radiological Health Branch

June 4, 2015

Mr. George I. Atta, FAICP, Director
City and County of Honolulu
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Project No. 17015-015032.00
Ensite No. 24234

Subject: Notice to Local Zoning Board for the Proposed Verizon Wireless (VZW) HON Kupikipikio Communications Facility, 708 Palekaua Street (Portion of Tax Map Key [TMK] Number: [1] 3-1-042: Parcel 034), Honolulu, Honolulu County, Hawaii 96816

Dear Mr. Atta:

Bureau Veritas North America, Inc. (Bureau Veritas) has been retained by Cellco Partnership and its affiliates doing business as Verizon Wireless (VZW) to conduct a site evaluation for the Federal Communications Commission (FCC) of the above-referenced proposed communications facility 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 posting 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

Site name/location: The proposed VZW HON Kupikipikio communications facility is located at 708 Palekaua Street, Honolulu,, Honolulu County, Hawaii 96792. Figure 1 depicts the facility location.

Latitude/Longitude Coordinates: 21° 15' 44.48" North, 157° 47 42.59" West

Legal Description: The subject parcel is described as the parcel of land designated as TMK Number: (1)3-1-042: Parcel 034. According to the City and County of Honolulu, Department of Planning and Permitting, the subject parcel is currently zoned "R-10 Residential District." The State Land Use designation is "Urban."

Property Owner: Oahu Special Schools Association currently own the subject parcel.

Bureau Veritas North America, Inc.
841 Bishop Street, Suite 1100
Honolulu, Oahu, HI 96813

Main: (808) 531-6708
Fax: (808) 537-4084
www.us.bureauveritas.com

Current Land Use: The subject parcel is developed with the Variety School of Hawaii campus.

Proposed Action: According to VZW, the proposed action involves the leasing of an approximately 25-by 25-foot area on the southeastern portion of subject parcel. VZW proposes to erect a 65 foot antenna monopalm (stealth palm tree monopole) with 12 panel antennas, 12 remote equipment cabinets and an outdoor emergency generator. Figure 2 depicts the site features and proposed action.

Construction activity is anticipated to have a minor impact to the ground surface.

Adjoining Property Use: The adjoining properties consist of residential use which are described below:

- **North:** Variety School of Hawaii.
- **East:** Variety School of Hawaii.
- **South:** Variety School of Hawaii.
- **West:** Variety School of Hawaii.

Photographs of the subject property and surrounding area are attached.

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 communications facility project.

Per FCC NEPA/NHPA 106 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 at nicole.okino@us.bureauveritas.com.

If you have any questions or concerns, please feel free to contact me at 808.298.8198 or by email at nicole.okino@us.bureauveritas.com. We greatly appreciate your time and assistance in this matter.

Regards,

Nicole Okino
Staff Geologist
Bureau Veritas North America, Inc.

/no

Attachments: Figures
Site Photographs

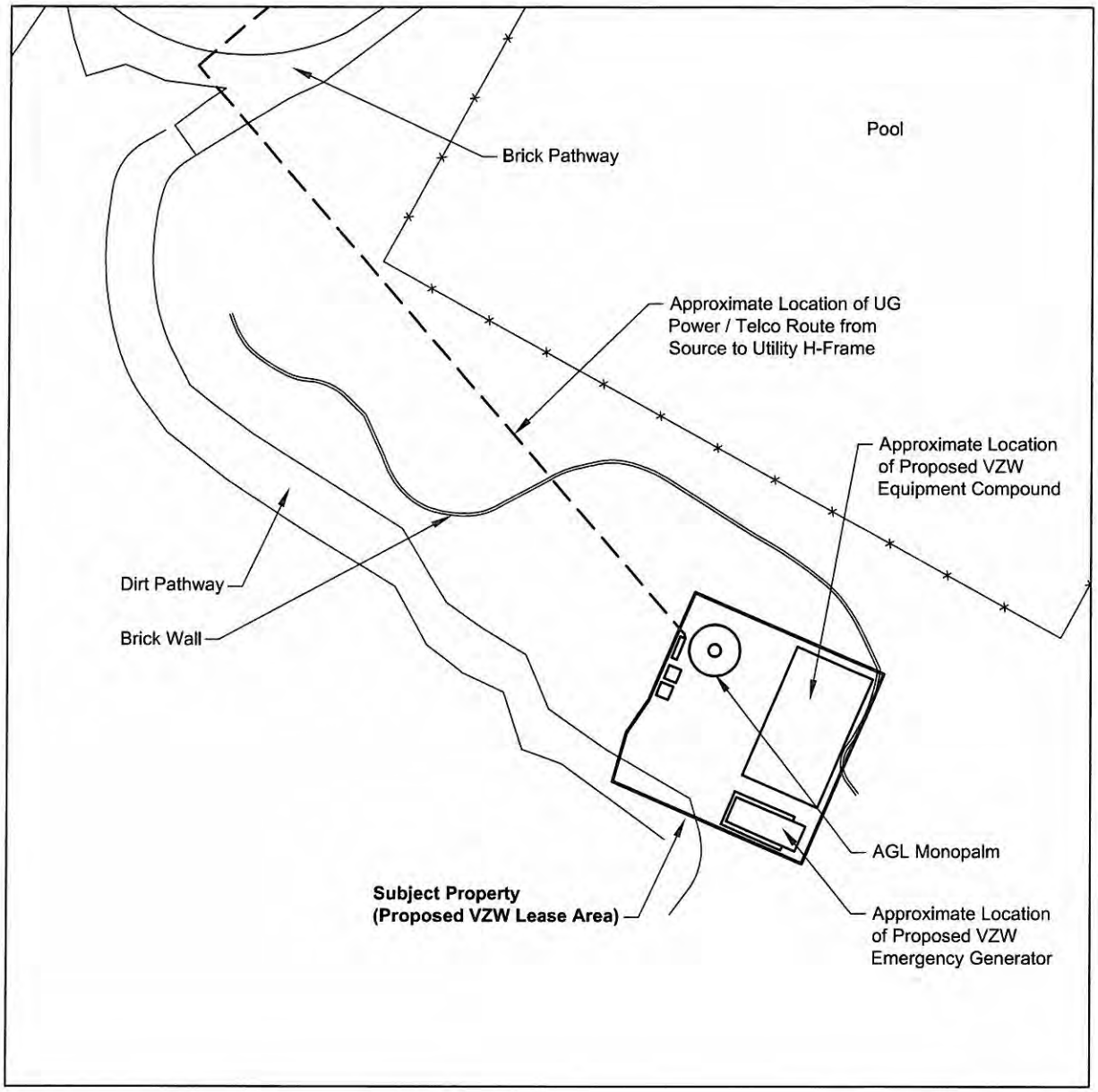
FIGURES

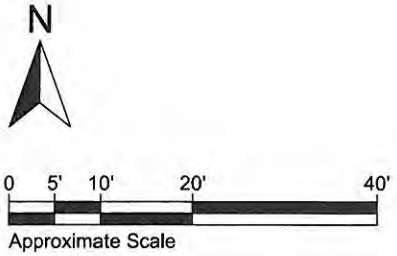
Portion of 7.5-minute Series (Topographic) Maps
United States Department of Interior
United States Geological Survey
Honolulu Quadrangle, City & County of Honolulu, Hawaii
1998

N

0 1/4 1/2 1 MILE

BUREAU VERITAS	Project No.: 17015-015032.00	Title: Site Location Map	FIGURE 1
	Date: 05/28/15	Location: Proposed VZW HON Kupikipikio Cell Site 708 Palekaua Street (TMK: [1] 3-1-042: Parcel 034) Honolulu, Oahu, Hawaii	
	Revised By: DG		
	Checked By: NO	Client: Verizon Wireless c/o Cades Schutte, LLP	





BUREAU VERITAS	Project No.: 17014-014105.00	Title: Site Vicinity Map	FIGURE 2
	Date: 07/03/14	Location: Proposed VZW HON Kupikipikio Cell Site 708 Palekaua Street (TMK: [1] 3-1-042: Parcel 034) Honolulu, Oahu, Hawaii	
	Revised By: DG		
	Checked By: NO	Client: Verizon Wireless c/o Cades Schutte, LLP	

SITE PHOTOGRAPHS

Project No. 17014-014105.00	**Description**	View of the subject property, looking east	**Photo 1**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No. 17014-014105.00	**Description**	Building with the electrical room north of the subject property	**Photo 2**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No.	Description	View inside of the electrical room	Photo 3
17014-014105.00	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	Photo Date
	Client	Verizon Wireless	June 30, 2014

Project No.	Description	Pad-mounted transformer north of the subject property, non-PCB unit	Photo 4
17014-014105.00	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	Photo Date
	Client	Verizon Wireless	June 30, 2014

Project No. 17014-014105.00	**Description**	Pool area northwest, north and northeast of the subject property	**Photo 5**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

Project No. 17014-014105.00	**Description**	Park area east, southeast, south, southwest, and west of the subject property	**Photo 6**
	Site Name	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date** June 30, 2014
	Client	Verizon Wireless	

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honoluludpp.org • CITY WEB SITE: www.honolulu.gov

KIRK CALDWELL
MAYOR

GEORGE I. ATTA, FAICP
DIRECTOR

ARTHUR D. CHALLACOMBE
DEPUTY DIRECTOR

2015/ELOG-1161(WA)

September 1, 2015

Ms. Nicole Okino
Bureau Veritas North America, Inc.
841 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Dear Ms. Okino:

SUBJECT: Zoning Verification
Verizon Wireless - Kupikipikio
708 Palekaua Street - Diamond Head
Tax Map Key 3-1-42: 34

This responds to your request for zoning verification received on June 8, 2015, regarding any native Hawaiian cultural, religious, and/or burial sites; historic places, artifacts and/or other related concerns; and whether or not any of these issues will be impacted by the proposed communications facility project for the subject property. It is recommended that you contact the State of Hawaii Department of Land and Natural Resources, Historic Preservation Division (SHPD), for information concerning the presence of any potential impacts to historical and/or cultural resources.

Please note that we did not check the site, site plans, or the complete building permit history for the site, which may reveal unique circumstances and conditions associated with the property. We are unable to determine if there are any other nonconforming situations, such as yard encroachments or off-street parking.

This letter is not a disclosure statement nor is it intended to substitute for mandatory disclosures in real-estate transactions regarding the subject parcel. The City is under no obligation to investigate, research, or participate in the preparation of disclosure statements, other than providing available public records. This letter does not create liability on the part of the City, or any officer or employee thereof, if used in or as a disclosure statement. The seller, buyer, lender, or their agent, not the City, is solely responsible for the use of any public record information in the preparation of a disclosure statement.

If you have any questions, please contact William Ammons of our staff at 768-8025.

Very truly yours,

Anthony X. Cheng

FOR George I. Atta, FAICP
Director

Doc 1275974

Nicole.Okino

From: webmaster@honolulu.gov
Sent: Friday, July 11, 2014 6:01 PM
To: Robyn Kahalelehua
Subject: Neighborhood Board 3 Agenda

You are here: Main / Neighborhood Commission Office / nb3 / 14 / Waialae NB July Agenda

Waialae-Kahala Neighborhood Board No. 3

Printable Version (copy and paste into browser)

http://www1.honolulu.gov/nco/nb3/14/03201407Ag.PDF

REGULAR MEETING AGENDA
Thursday, July 17, 2014 7:00 p.m.
Wesley United Methodist Church
1350 Hunakai Street

Rules of Speaking: Anyone wishing to speak is asked to raise their hand, and when recognized by the Chair, to address comments to the Chair. Speakers are encouraged to keep their comments under three (3) minutes, and those giving reports are urged to keep their reports under three (3) minutes. Please silence all electronic devices.

Note: The Board may take action on any agenda item. As required by the State Sunshine Law (HRS 92), specific issues not noted on this agenda cannot be voted on, unless added to the agenda.

1. **CALL TO ORDER** – Chair Arnold Brady

2. **INTRODUCTION OF BOARD MEMBERS & GUESTS**

3. **CHAIR'S ANNOUNCEMENTS**

4. **MONTHLY REPORTS** – (Limited to three (3) minutes each) Request representatives remain in attendance through Agenda Item 5, Residents and Community Concerns.

   4.1. Honolulu Fire Department (HFD)
   4.2. Honolulu Police Department (HPD)
   4.3. Board of Water Supply (BWS) – Lorna Heller
   4.4. Oahu Metropolitan Planning Organization (OMPO) – Les Fukuda – http://www.oahumpo.org
   4.5. Governor Neil Abercrombie's Representative – Adjutant General Darryll Wong
   4.6. Mayor Kirk Caldwell's Representative – Gerald Saito
   4.7. Councilmember Stanley Chang (Council District 4)

4.8. Representative Bertrand Kobayashi (House District 19)
4.9. Representative Mark Hashem (House District 18)
4.10. Senator Sam Slom (Senate District 9)

5. ELECTION OF OFFICERS – Nominate and elect Board Officers (Neighborhood Plan 2-14-120)

6. RESIDENTS' AND COMMUNITY CONCERNS – (Limited to three (3) minutes each)

7. BOARD BUSINESS / PRESENTATIONS – (Limited to 20 minutes each)

6.1. 21st Annual Heart Walk Saturday, August 9, 2014. Jacqui Phenicie will be presenting for the American Heart Association.
6.2. Verizon Wireless will present a proposal to install a wireless telecommunications facility at the Special Education Center of Hawaii, 708 Palekaua Street.
6.3. Seawall Removal 4465 & 4469 Kahala Avenue. There will be continued discussion regarding the installation of a sloped "revetment" above the new high water mark after the removal of the old seawall and monitoring of the beach condition.

8. OTHER REPORTS – (Limited to three (3) minutes each)

8.1. Chair's Report / Correspondence
8.2. Approval of the Thursday, June 19, 2014 Regular Meeting Minutes
8.3. Treasurer's Report
8.4. Land Use & Zoning – City Council actions or pending hearings.

9. ANNOUNCEMENTS

8.1. Dick Evans Memorial 112 Mile Road Race - August 31, 2014. Bicycle enthusiasts please contact Carl Brooks at OuttaBoundsHawaii@gmail.com for more info and on line registration visit www.usacycling.org.
8.2. Norman T. Tamanaha 15K Run / Walk - August 10, 2014 presented by Mid-Pacific Road Runners Club and 808 Race Hawaii. For more info please contact Joan Davis at jrdva4vp@hotmail.com and visit www.mprrc.com.
8.3 The next regular monthly meeting will be held on Thursday, September 18, 2014 at Wesley United Methodist Church, 1350 Hunakai St. at 7:00 p.m.

10. ADJOURNMENT

Last Reviewed: Friday, July 11, 2014

A mailing list is maintained for interested persons and agencies to receive this Board's agenda and minutes. Additions, corrections, and deletions to the mailing list may be directed to the Neighborhood Commission Office (NCO), Honolulu Hale, 530 South King Street, Room 406, Honolulu, Hawaii 96813; Telephone (808) 768-3710 or Fax (808) 768-3711. Agendas and minutes are also available on the internet at www1.honolulu.gov/nco.

Any individual wishing to attend a Neighborhood Board meeting who has questions about accommodations for a physical disability or a special physical need should call the NCO at 768-3710 between 8:00 a.m. and 4:00 p.m., at least 24-hours before the scheduled meeting.

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WAIALAE-KAHALA NEIGHBORHOOD BOARD NO. 3

c/o NEIGHBORHOOD COMMISSION • 530 SOUTH KING STREET ROOM 406 • HONOLULU, HAWAII 96813
PHONE (808) 768-3710 • FAX (808) 768-3711 • INTERNET: http://www.honolulu.gov/nco

DRAFT REGULAR MEETING MINUTES
THURSDAY, JULY 17, 2014
WESLEY UNITED METHODIST CHURCH

CALL TO ORDER: Pro Tem Chair Arnold Brady called the Waialae-Kahala Neighborhood Board meeting to order at 7:03 p.m. **with five (5) members present. Quorum was ACHIEVED.** Note – This nine (9) member Board requires five (5) members to establish quorum and to take official Board action.

Board Members Present: Arnold Brady, Kenneth Chang, Peter Dudgeon, John Pyles, Martin Schiller, and Richard Turbin (7:14 p.m.).

Board Members Absent: Marianne Au, Scotty Anderson, and Sylvia Himeda.

Vacancies: There were no vacancies.

Guests: Sergeant Gary Sunada, Lieutenant Maurice Asato, and Officer Shane Fujitami (Honolulu Police Department); Captain Tim Turgeon (Honolulu Fire Department); Les Fukuda (Oahu Metropolitan Planning Organization); Lorna Heller (Board of Water Supply); Gerald Saito (Mayor Kirk Caldwell's representative); Michael Leong (Councilmember Stanley Chang's office staff); Representative Bertrand Kobayashi; Representative Mark Hashem; Senator Sam Slom; Robyn Kahalelehua and Charles Fortner (Cascadia PM); Glen Tsugawa (Special Education Center of Hawaii); Don Weisman (American Heart Association); Robert Murakami; Nina Carney; Anita Bruhl; Natalie Iwasa; Lori Snyder (Neighborhood Commission Office staff).

INTRODUCTION OF BOARD MEMBERS AND GUESTS

MONTHLY REPORTS

Honolulu Fire Department (HFD): Captain Tim Turgeon reported the following:

- Fire Statistics for May 2014: Statistics included 2 wildfires, 80 medical emergencies, 35 miscellaneous emergencies, 0 major incidents, and 117 total alarms.
- Fire Safety Tip: Childproof Homes: Check for situations that may cause electrical shock, accidental falls, and poisoning from unsecured medications, cleaning products, or houseplants. Ensure swimming pools are properly fenced and gated. An alarm on the door from the house to the pool can help prevent an unattended keiki from drowning. Keep matches and lighters out of children's reach or in a locked cabinet.

Honolulu Police Department (HPD): Lieutenant Maurice Asato provided a handout and reported the following:

- Crime Statistics for June 2014: Statistics included 6 motor vehicle thefts, 14 burglaries, 33 thefts, and 8 unauthorized entries into a motor vehicle (UEMV). HPD district seven (7) officers responded to a total of 5,743 emergency calls.
- Safety Tip: In preparation for a natural disaster, store enough non-perishable food to last for at least two (2) weeks. More information can be found on the handout provided.

Questions, comments, and concerns followed:

1. Vehicle Break-Ins: Lieutenant Asato clarified there were eight (8) vehicle break-ins, not burnings.
2. Graffiti: Chair Brady noted graffiti at the Blockbuster on Hunakai Street.

Board of Water Supply (BWS): Lorna Heller provided handouts and reported the following:

- Unthirsty Plant Sale: A celebration of the 25th anniversary of the Halawa Xeriscape Garden will be held on Saturday, August 2, 2014 at the Unthirsty Plant Sale from 9:00 a.m. to 3:00 p.m. The free event is open to the public, and a shuttle service will be provided. For more information, visit www.boardofwatersupply.com or call 748-5041.
- Summer Water Conservation: BWS would like to remind all residents to avoid wasting water. Tips included checking for property leaks, avoid watering plants between 9:00 a.m. and 5:00 p.m., and turning off the tap while brushing teeth or shaving.

Oahu Metropolitan Planning Organization (OahuMPO): Les Fukuda reported the following: Emergency Management: Fukuda attended a presentation on Wednesday, July 16, 2014 about emergency management and how to evacuate residents during a tsunami. Residents were advised not to take evacuation sirens lightly, and if a Category four (4) emergency occurred, a 10 foot wall of water was to be expected.

Governor Neil Abercrombie's Representative: No representative was present; a written report was not provided.

Richard Turbin arrived at 7:14 p.m. Six (6) members were present.

Mayor Kirk Caldwell's Representative: Gerald Saito reported the following:

- Road Repairs: Construction is ongoing for the rehabilitation of localized streets in Waialae Nui, Waialae Iki and Aina Haina. Construction is anticipated to be completed on Monday, February 9, 2015.
- Tree Removal: A resident was concerned about three (3) coconut trees at 3711 Poka Place falling on his property, and requested the City remove the trees. The Department of Planning and Permitting's (DPP) investigation concluded that the abutting property owner is the State Department of Land and Natural Resources (DLNR). DLNR has sent a Notice of Alleged Violation to Poka Place and is working with the complainant's attorney to rectify the situation. The matter has also been referred to the State Attorney General's Office for follow-up. DPP will not take any action while DLNR takes appropriate corrective action.
- Irrigation Repair: The Department of Facilities Maintenance (DFM) is working with the Department of Parks and Recreation (DPR) irrigation repair staff to fix the irrigation system in the Hunakai Street medial strip the week of Monday, July 21, 2014, or sooner.
- Phone Numbers: The Department of Transportation Services (DTS) Public Transit Division phone number is 768-8396. In response to a concern raised at the June 2014 Waialae Neighborhood Board meeting, DTS will have this number connected to voicemail. The Customer Service Line for the City's transit services contractor, Oahu Transit Services, Inc. (OTS) phone number is 845-4500, and the OTS customer service department phone number is 848-5555 and press 3. Both lines are staffed from 7:45 a.m. to 4:00 p.m., Mondays through Fridays, except City holidays.
- Illegal Green Waste: Illegal dumping can be reported to the Refuse Inspection Office at 768-5220, or if witnessed call 911. Inspectors and police officers issue citations for this type of illicit activity.
- Vegetation Overgrowth: Vegetation overgrowth around 3751 Poka Place is the property owner's responsibility to maintain. Overgrowth blocking the City street signs is cleared by the City road crew and will be scheduled by the end of July 2014 or as soon as resources are available.

Questions, comments, and concerns followed:

1. Illegal Green Waste: Turbin emphasized the concern about the illegal waste dumped in front of properties on Kahala Avenue, and noted residents do not have time to police the area.
2. Wilson Park Lights: Schiller recommended the Wilson Park lights shut off at 10:00 p.m. rather than sporadically to decrease noise and criminal activity.
3. Kalanianaole Highway Repaving: Resident Anita Bruhl voiced concern that the repaving on Kalanianaole Highway would take two (2) years to complete, noted the long traffic delays resulting from the construction, and questioned why the construction occurred at the busiest time of the day from 8:00 a.m. to 3:00 p.m. The concerns were directed to the State officials.
4. Ahina Street Hole: Resident Nina Carney noted she contacted Councilmember Chang's office about a space under 537 Ahina Street. An inspector noted the space was the property owner's responsibility, but Carney voiced concern that the vegetation strip nearby was beginning to fall in the hole, and requested a more thorough investigation.
5. Sidewalk: Community member Natalie Iwasa noted a resident was concerned about the lack of pedestrian sidewalk due to the bike lanes by the golf course on Kealaolu Avenue, and requested the City consider implementing those suggestions in the Complete Streets project. Saito was aware of the concern and will follow up. Schiller noted the suggestion to put a pedestrian walkway on that street was looked at in the past and was told the lane was not available. A community member noted the pedestrians share the bike lane and it is working very well. Les Fukuda noted many older streets do not have sidewalks, and the funding would be needed from an Improvement District which would come from the taxpayers.
6. Canal: A community member requested an update on Ross Sasamura's revised plans to change the canal access, and noted many of the public, including a drainage engineer inspecting the canal, are unaware of the plan. The community member thanked Sasamura for opening up the beach access that allows water to rush in and out of the canal.

Representative Bertrand Kobayashi – Representative Kobayashi provided a handout and reported the following:

- Magazine: Senator Sam Slom was mentioned in a national magazine.

- Bed and Breakfasts (B&B): A suggestion was made at the June 2014 Waialae Neighborhood Board Meeting about using the B&B websites to enforce issues relating to B&B's. The websites would address the property issues, but the State would need to address the issue of revenue made from the business.
- Vetoed Bills: The House of Representatives had a scattered interest in overriding vetoed bills.
- Culinary Institute: Kapiolani Community College was given a bid extension for Phase 1 construction for the Culinary Institute. The bid will be going out sometime around the end of July 2014. Construction is estimated to start in November 2014.
- Kindergarten: At the end of July 2014, Kindergarten will be mandatory for Hawaii.

Questions, comments, and concerns followed:

- Information Sharing Bills: Representative Kobayashi responded for Pyles that an information sharing bill was signed into law in 2012. Schiller requested paperwork of the bills passed that requires mandatory mediation if a homeowner has issues with condominium management.
- Kahala Shell Closure: Turbin noted the Kahala Shell and many other service stations were closing, and noted the annual safety check should not be required. Schiller noted Kamehameha Schools is redeveloping Kahala Shell land and the Shell station will still be providing gas but will not provide safety checks.
- Kalanianaole Repaving: Representative Kobayashi responded to resident Bruhl's question referring to the time of construction by noting highway work is done during the day for work safety, efficiency, and pay.

Representative Mark Hashem: Representative Hashem provided a handout and reported the following:

- Kalanianaole Highway: Kalanianaole construction began Monday, July 14, 2014 and noted traffic from Waialae to Hawaii Kai was not too bad, but the reverse direction would add 20 to 30 minutes to one's drive. The construction would last for 18 months. In the past, the community requested construction during the day because of the bright lights and loud noise if done at night. Chair Brady recommended traffic e-mail updates for those concerned about traffic. Call 587-2160 to speak to a live person from 8:00 a.m. to 4:30 p.m. for traffic information.
- Kalani High School Paving: Repaving is occurring on the streets along the sides of Kalani High School.

Questions, comments, and concerns followed: Kalauha'iha'I Fishpond: Representative Hashem clarified for Chair Brady that the current volunteer work to restore the fishpond is separate from the construction work to be done using allocated funds in the 2014 budget.

Senator Sam Slom – Senator Slom reported the following:

- Safety Inspection: Senator Slom previously introduced two (2) bills relating to eliminating the safety inspection and give two (2) years until a new car needed an inspection. There was opposition to the bills, and Senator Slom would reintroduce the bills in 2015 if desired.
- Kalanianaole Construction: Senator Slom attended a briefing from the Department of Transportation (DOT) explaining that the contractor will not change the contract from a day to night shift and the neighbors along Kalanianaole Highway are opposed to night construction. The contractor was very adamant about not changing contract, and is doing their best to keep people informed.
- Legislation: Governor Abercrombie signed 229 bills, vetoed seven (7), and allowed six (6) to become law without signature.
- Senate Bill (SB) 2682: The Financial Disclosure Bill became law without signature and 22 people have already resigned from various boards and commissions. Senator Slom wished for the bill to become law after a year, but the bill became law immediately, and Governor Abercrombie is currently looking for people to serve on the boards.
- Financial News: The State Budget Director Calvin Young agrees that the state of Hawaii will be broke and 2017. Hawaii unemployment rate stayed at 4.4%.

Questions, comments, and concerns followed:

1. Construction: Community member Iwasa noted the work is occurring five (5) hours a day, and if one (1) hour each day was added, the project could be completed 20% of the time earlier. Senator Slom noted this was previously suggested but the contractor is firm about not changing the contract, and strongly suggested receiving the e-mail construction updates.
2. Safety Checks: Schiller noted the reason for safety checks was the roads wear out tires very quickly, by agreed with Turbin that safety checks should be more accessible.
3. Stadium: Senator Slom noted the funding was not available for a new stadium at the University of Hawaii.
4. Property Tax Appeal: The question about the status of the property tax appeal was directed to the City.

John Pyles left at 8:16 p.m. **Five (5) members present**.

ELECTION OF OFFICERS:

Board Chair: Chair Pro Tem Brady opened the floor for nominations of Chair person. **Turbin nominated Brady.** Noting no other nominees, nominations were closed. **The motion to elect Brady as Board Chair person was ADOPTED UNANIMOUSLY, 5-0-0, (Aye**: Brady, Chang, Dudgeon, Schiller, and Turbin**.)**

Board Vice Chair: Chair Brady opened the floor for nominations of Vice Chair. **Schiller nominated Anderson.** Noting no other nominees, nominations were closed. **The motion to elect Anderson as Vice Chair was ADOPTED UNANIMOUSLY, 5-0-0, (Aye:** Brady, Chang, Dudgeon, Schiller, and Turbin**.)**

Board Secretary: Chair Brady opened the floor for nominations of Secretary. **Schiller nominated Turbin.** Noting no other nominees, nominations were closed. **The motion to elect Turbin as Secretary was ADOPTED UNANIMOUSLY, 5-0-0, (Aye:** Brady, Chang, Dudgeon, Schiller, and Turbin**.)**

Board Treasurer: Chair Brady opened the floor for nominations of Treasurer. **Schiller nominated Dudgeon.** Noting no other nominees, nominations were closed. **The motion to elect Pyles as Treasurer was ADOPTED UNANIMOUSLY, 5-0-0, (Aye:** Brady, Chang, Dudgeon, Schiller, and Turbin**.)**

John Pyles returned at 8:22 p.m. **Six (6) members present.**

Chair Brady took the agenda out of order to **4.7. Councilmember Stanley Chang.**

Councilmember Stanley Chang – Michael Leong provided handouts and reported the following:

- Bulky Trash Items: The accumulated bulky items reported in June 2014 were removed on June 23, 2014.
- Park: Various improvement requests on Aiana Koa Neighborhood Park have been directed to the Department of Planning and Permitting (DPP).
- DPP Fines Bill: Councilmember Chang will introduce a new bill related to DPP fines in residential areas.

Questions, comments, and concerns followed:

1. DPP Fines Bill: Turbin asked if the new bill being introduced would be retroactive. Leong will follow up.
2. Beach Signs: Leong noted for Pyles that he would get more information from DPR about the new No Animals On Beach signs.
3. Kilauea Avenue: Bruhl inquired about any future construction on Kilauea Avenue. Leong will forward the Department of Design and Construction (DDC) web link to Chair Brady that contains a list of the design projects, and Kilauea Avenue is on the list.

RESIDENTS'/COMMUNITY CONCERNS: Kamehameha Schools: A Board member requested the Board invite Kamehameha Schools to present an update on their development plans at a future Waialae Neighborhood Board meeting.

BOARD BUSINESS/PRESENTATIONS:

Annual Heart Walk: Don Weisman from the American Heart Association distributed a flyer and reported on the 21st Annual Heart Walk. The Heart Walk will be held on Saturday, August 9, 2014. 5,000 walkers attended at the 2013 event. An entire lane of Diamond Head Road will be closed from 6:30 a.m. to 11:00 p.m.

Verizon Wireless: Robyn Kahalelehua with Cascadia PM on behalf of Verizon wireless reported on a proposal to install a 65 foot tall wireless telecommunications facility at the Special Education Center of Hawaii (SECOH), 708 Palekaua Street. The parcel is four (4) acres. The tower will be camouflaged as a palm tree. The purpose of the tower is to provide additional cell coverage and data speed to Verizon customers. This presentation is the prerequisite to file an application for the permits. Glen Tsugawa, President and Chief Executive Officer (CEO) of SECOH, noted the constituents of SECOH were informed of the proposed project.

Questions, comments, and concerns followed:

1. Health Concerns: Kahalelehua responded to Schiller's concerns about the health effects by noting that the State of Hawaii Board of Health performed a study and declared there were no health risks with this project. Kahalelehua will e-mail the health study to Chair Brady.
2. Profit: Tsugawa answered for Chang that SECOH would be receiving some profit from the project.

3. The Outdoor Circle: Schiller recommended Kahalelehua discuss the project with the The Outdoor Circle, an environmental non-profit organization.
4. Neighbors: Kahalelehua answered for Turbin that neighbors were notified about the project.

Seawall Removal: John Pyles provided photos of the seawall removal, and noted the removal is having a positive effect. Pyles thanked Jeff Overton of Group 70 for their efforts on the seawall removal.

Approval of Minutes: **Pyles moved and Schiller seconded to approve the June 19, 2014 regular meeting minutes as published. The motion was ADPOPTED by UNANIMOUS CONSENT 6-0-0; (Aye:** Brady, Chang, Dudgeon, Pyles, Schiller, and Turbin.**)**

Treasurer's Report: Dudgeon reported a spending of $13.07 in May 2014.The remaining balance was $213.30.

ANNOUNCEMENTS:

- 112 Mile Road Race: The Dick Evans Memorial 112 Mile Bicycle Road Race will be held on Sunday, August 31, 2014. For more information, contact Carl Brooks at OutaBoundsHawaii@gmail.com and register at www.usacycling.org.
- 15K Run/Walk: The Norman T. Tamanaha 15K Run/Walk will be held on Sunday, August 10, 2014. For more information contact Joan Davis at jrdva4vp@hotmail.com and visit www.mprrc.com.
- Next Regular Meeting: The next regular Waialae-Kahala Neighborhood Board meeting will be held on Thursday, September 18, 2014 at 7:00 p.m. at Wesley United Methodist Church.

ADJOURNMENT: The meeting adjourned at 8:46 p.m.

Submitted By: Lori Snyder, Neighborhood Assistant
Reviewed By: Neil Baarde, Neighborhood Assistant
Reviewed and Finalized By: Arnold Brady, Chair

Project Inquiries
Nicole Okino to: east_honolulu 09/23/2016 01:20 PM

Hello. I am working with Verizon Wireless and it was recommended that I contact you regarding a proposed stealth structure/palm tree communications facility. Please see the attached letter for project details. Thank you.

Nicole

Outdoor circle.pdf

Nicole Okino
Staff Geologist
Bureau Veritas North America, Inc.
Health, Safety, and Environmental Services
841 Bishop Street, Suite1100, Honolulu, HI 96813
p: 808.543.6124, m: 808.298.8198, f: 808.537.4084
nicole.okino@us.bureauveritas.com
www.us.bureauveritas.com
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ISO 14001:2004 - Environmental Management System Certified
OHSAS 18001:2007 - Occupational Health and Safety Management System Certified
Please consider the environment before printing this e-mail

September 23, 2016

Ms. Susan Spangler
Outdoor Circle
713 Ulumaika Loop
Honolulu, Hawaii 96816

Project No. 17015-015032.00
Ensite No. 24234

Subject: NEPA Evaluation for the Proposed Verizon Wireless (VZW) HON Kupikipikio Communications Facility, 708 Palekaua Street (Portion of Tax Map Key [TMK] Number: [1] 3-1-042: Parcel 034), Honolulu, Honolulu County, Hawaii 96816

Dear Ms. Spangler:

Bureau Veritas North America, Inc. (Bureau Veritas) has been retained by Cellco Partnership and its controlled affiliates doing business as Verizon Wireless (VZW) to conduct a National Environmental Policy Act (NEPA) evaluation for the Federal Communications Commission (FCC) of the above-referenced proposed communications facility project.

The Waialae-Kahala Neighborhood Board No.3 recommended the Outdoor Circle be consulted regarding the proposed HON Kupikipikio communication facility.

Project Description

Site name/location: The proposed VZW HON Kupikipikio communications facility is located at 708 Palekaua Street, Honolulu, Honolulu County, Hawaii 96792. Figure 1 depicts the facility location.

Latitude/Longitude Coordinates: 21° 15' 44.48" North, 157° 47 42.59" West

Legal Description: The site is situated on a parcel of land designated as TMK Number: (1) 3-1-042: Parcel 034. According to the City and County of Honolulu, Department of Planning and Permitting, the parcel is currently zoned "R-10 Residential District." The State Land Use designation is "Urban."

Property Owner: Oahu Special Schools Association currently owns the subject parcel.

Current Land Use: The subject parcel is developed with the Variety School of Hawaii campus.

Proposed Action: According to VZW, the proposed action involves the leasing of an approximately 25-foot by 25-foot area on the southeastern portion of subject parcel. VZW proposes to erect a 65 foot antenna monopalm (stealth palm tree monopole) with 12 panel antennas, 12 remote equipment cabinets and an outdoor emergency generator. Figure 2 depicts the site features and proposed action.

Construction activity is anticipated to have a minor impact to the ground surface.

Bureau Veritas North America, Inc.
841 Bishop Street, Suite 1100
Honolulu, Oahu, HI 96813

Main: (808) 531-6708
Fax: (808) 537-4084
www.us.bureauveritas.com

Adjoining Property Use: The adjoining properties consist of residential use which are described below:

- **North:** Variety School of Hawaii.
- **East:** Variety School of Hawaii.
- **South:** Variety School of Hawaii.
- **West:** Variety School of Hawaii.

Photographs of the subject property and surrounding area are attached.

We greatly appreciate your time and assistance in this matter and respectfully request a written response to our inquiry within 30. If you have any questions or concerns, please feel free to contact me at 808.298.8198, or by email to nicole.okino@us.bureauveritas.com.

Sincerely,

Nicole Okino
Staff Geologist
Health, Safety, and Environmental Services

NO

Attachments: 1- Figures
2 - Site Photographs

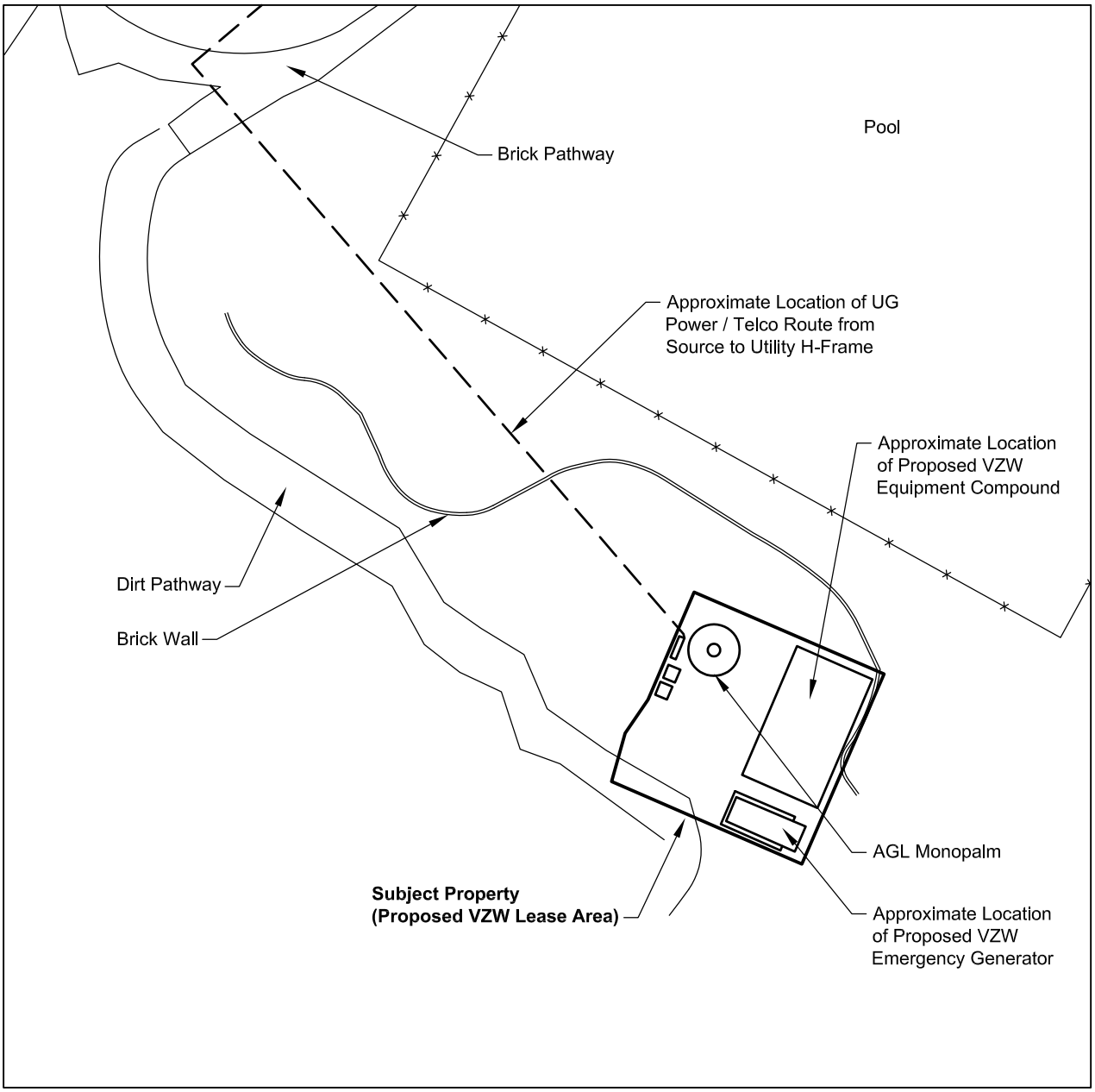
FIGURES

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

N

0 1/4 1/2 1 MILE

BUREAU VERITAS	Project No.: 17015-015032.00	Title: Site Location Map	FIGURE 1
	Date: 05/28/15	Location: Proposed VZW HON Kupikipikio Cell Site 708 Palekaua Street (TMK: [1] 3-1-042: Parcel 034) Honolulu, Oahu, Hawaii	
	Revised By: DG		
	Checked By: NO	Client: Verizon Wireless c/o Cades Schutte, LLP	



N

0 5' 10' 20' 40'

Approximate Scale

BUREAU VERITAS	Project No.: 17014-014105.00	Title: Site Vicinity Map	FIGURE 2
	Date: 07/03/14	Location: Proposed VZW HON Kupikipikio Cell Site 708 Palekaua Street (TMK: [1] 3-1-042: Parcel 034) Honolulu, Oahu, Hawaii	
	Revised By: DG		
	Checked By: NO	Client: Verizon Wireless c/o Cades Schutte, LLP	

SITE PHOTOGRAPHS

Project No.	**Description**	View of the subject property, looking east	**Photo 1**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	Building with the electrical room north of the subject property	**Photo 2**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View inside of the electrical room	**Photo 3**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	Pad-mounted transformer north of the subject property, non-PCB unit	**Photo 4**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	Pool area northwest, north and northeast of the subject property	**Photo 5**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	Park area east, southeast, south, southwest, and west of the subject property	**Photo 6**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of Marshall M. Goodsill Residence	**Photo 7**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from Marshall M. Goodsill Residence	**Photo 8**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of Lyndon Roberts Residence	**Photo 9**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from Lyndon Roberts Residence	**Photo 10**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of John and Kate Kelly Residence	**Photo 11**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from John and Kate Kelly Residence	**Photo 12**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of Edward and Sally Sheehan Residence driveway	**Photo 13**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

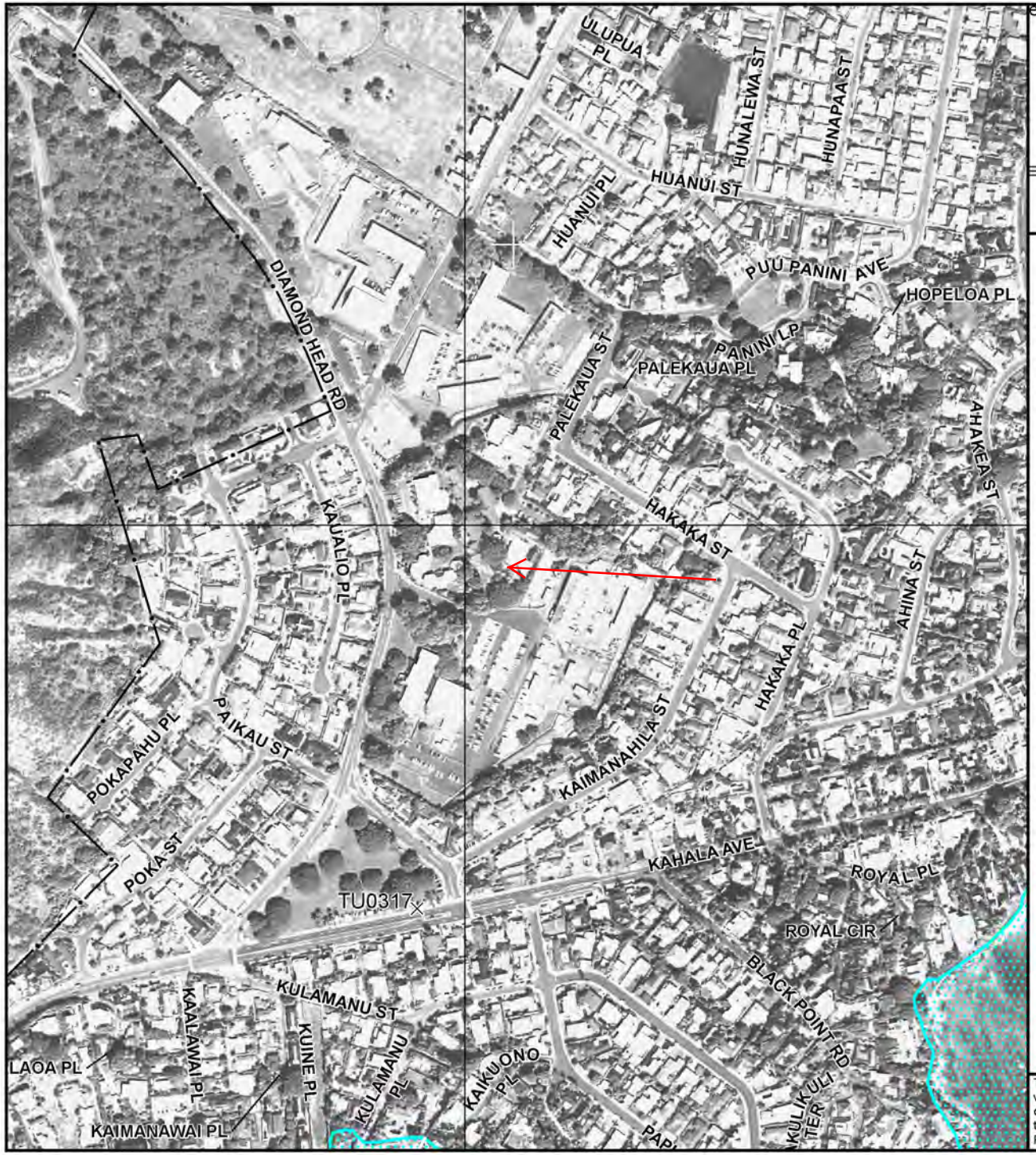
Project No.	**Description**	View of the Site from Edward and Sally Sheehan Residence	**Photo 14**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of Milton I Residence	**Photo 15**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from Milton I Residence	**Photo 16**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of a portion of Fort Ruger Historic District	**Photo 17**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014

Project No.	**Description**	View of the Site from Fort Ruger Historic District	**Photo 18**
17014-014105.00	**Site Name**	708 Palekaua Street, TMK No. (1) 3-1-042: Parcel 034, Honolulu, Oahu, Hawaii	**Photo Date**
	Client	Verizon Wireless	June 30, 2014



e Program at 1-800-638-6620.

MAP SCALE 1" = 500'

0 250 500 750 1,000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0369H

FIRM

FLOOD INSURANCE RATE MAP

CITY AND COUNTY OF HONOLULU, HAWAII

PANEL 369 OF 395

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
HONOLULU, CITY AND COUNTY OF	150001	0369	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
15003C0369H

MAP REVISED
NOVEMBER 5, 2014

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

U.S. Fish and Wildlife Service

National Wetlands Inventory

HON kupikipikio

Jan 7, 2016

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

Soil Map—Island of Oahu, Hawaii
(HON kupikipikio)

Map Scale: 1:302 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 4 8 16 24

Feet: 0 10 20 40 60

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 4N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Island of Oahu, Hawaii
Survey Area Data: Version 10, Sep 21, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Island of Oahu, Hawaii (HI990)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
EmA	Ewa silty clay loam, moderately shallow, 0 to 2 percent slopes	0.1	21.5%
MnC	Mamala cobbly silty clay loam, 0 to 12 percent slopes, MLRA 163	0.3	78.5%
Totals for Area of Interest		**0.4**	**100.0%**

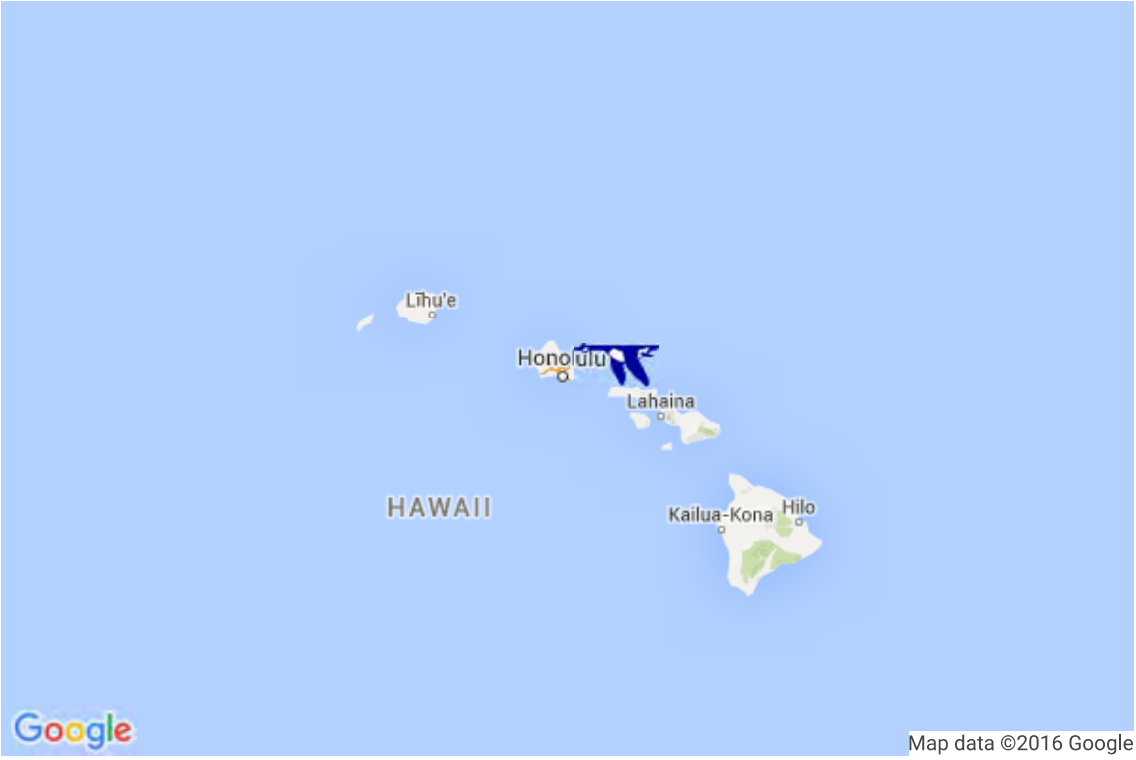
National Wildlife Refuge System

Find a Refuge by Zip Code

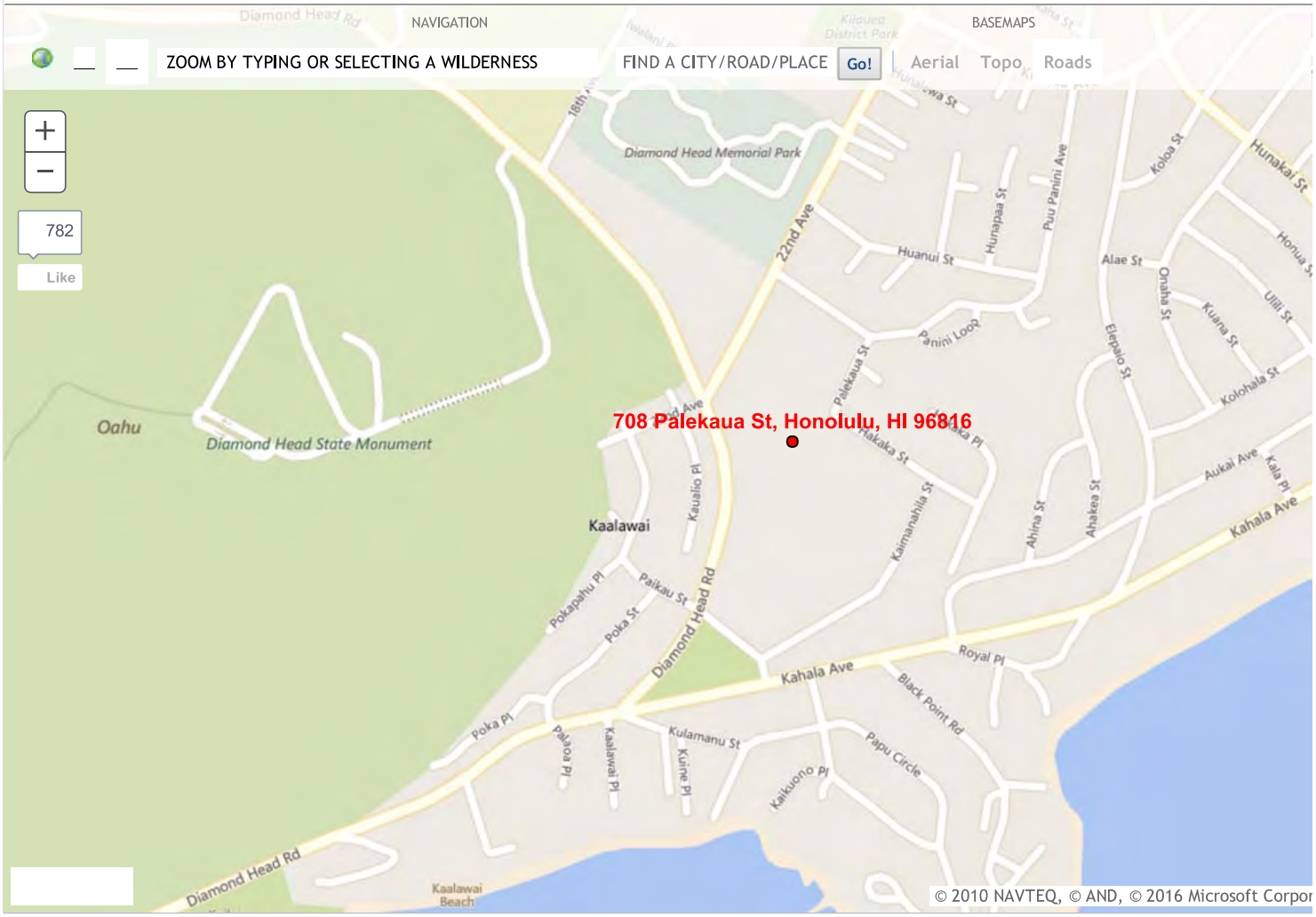
Zip Code: 96816
Distance: within 50 miles
Search

Refuges Near 96816 (within 50 miles)

Refuge	Address	Distance
Johnston Atoll National Wildlife Refuge	Honolulu, HI 96850	4.78 miles
Oahu Forest National Wildlife Refuge	Haleiwa, HI 96712	25.16 miles



Wilderness.net



Latitude/Longitude: 21.267443, -157.781607

Wildernesses Managed By: Bureau of Land Management Fish and Wildlife Service Forest Service National Park Service

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

January 31, 2019

RECEIVED
2019 FEB -7 PM 2:47
DEPT. OF LAND & NATURAL RESOURCES STATE OF HAWAII

RECEIVED
2019 FEB 01 AM 10:48
LAND DIVISION ENGINEERING

Ref: PSF #19OD-008

MEMORANDUM

~~TO:~~ FROM

DLNR Agencies:
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
X Div. of Forestry & Wildlife
X Div. of State Parks
__Commission on Water Resource Management
__Office of Conservation & Coastal Lands
__Land Division

~~FROM:~~ TO: Patti E. Miyashiro, Land Agent
SUBJECT: Draft Environmental Assessment – Proposed Verizon Wireless HON Kupikipikio Cell Site
LOCATION: Kapahulu, Waikiki, Honolulu Oahu, Tax Map Key: (1) 3-1-042:Por. of 034
APPLICANT: Verizon Wireless

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document before we recommend the Chairperson's approval to publish the Draft Environmental Assessment and the anticipated FONSI. Please submit any comments by March 4, 2019.

A copy of the document has been uploaded to One Drive, please use the following link to view:

https://hawaiioimt-my.sharepoint.com/:b:/r/personal/patti_miyashiro_hawaii_gov/Documents/Request%20for%20Comments%20Documents/HEPA%20for%20HON%20Kupikipikio%201-29-2019.pdf?csf=1&e=0yB3A0

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Patti E. Miyashiro at 587-0408. Thank you.

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

Carty S. Chang, Chief Engineer
Signed: _____
Date: 2/7/19

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/Russell Y. Tsuji
Ref: Draft Environmental Assessment – Proposed Verizon Wireless HON Kupikipikio Cell Site, Kapahulu, Waikiki, Honolulu, Oahu, TMK: (1) 3-1-042:Por. of 034

COMMENTS

The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a Special Flood Hazard Area (high risk areas). State projects are required to comply with 44CFR regulations as stipulated in Section 60.12. Be advised that 44CFR reflects the minimum standards as set forth by the NFIP. Local community flood ordinances may stipulate higher standards that can be more restrictive and would take precedence over the minimum NFIP standards.

The owner of the project property and/or their representative is responsible to research the Flood Hazard Zone designation for the project. Flood Hazard Zones are designated on FEMA's Flood Insurance Rate Maps (FIRM), which can be viewed on our Flood Hazard Assessment Tool (FHAT) (http://gis.hawaiinfip.org/FHAT).

If there are questions regarding the local flood ordinances, please contact the applicable County NFIP coordinating agency below:

- Oahu: City and County of Honolulu, Department of Planning and Permitting (808) 768-8098.
- Hawaii Island: County of Hawaii, Department of Public Works (808) 961-8327.
- Maui/Molokai/Lanai County of Maui, Department of Planning (808) 270-7253.
- Kauai: County of Kauai, Department of Public Works (808) 241-4846.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: 2/7/19

19493

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

January 31, 2019

RECEIVED
LAND DIVISION
2019 FEB 25 AM 11:19
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

Ref: PSF #19OD-008

MEMORANDUM

TO: FR: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
✓ X Div. of Forestry & Wildlife
X Div. of State Parks
__Commission on Water Resource Management
__Office of Conservation & Coastal Lands
__Land Division

TO:

FROM: Patti E. Miyashiro, Land Agent
SUBJECT: Draft Environmental Assessment – Proposed Verizon Wireless HON Kupikipikio Cell Site
LOCATION: Kapahulu, Waikiki, Honolulu Oahu, Tax Map Key: (1) 3-1-042:Por. of 034
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https://hawaiioimt-my.sharepoint.com/:b:/r/personal/patti_miyashiro_hawaii_gov/Documents/Request%20for%20Comments%20Documents/HEPA%20for%20HON%20Kupikipikio%201-29-2019.pdf?csf=1&e=0yB3A0

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

Signed: _____
Date: 2/21/19

19493

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
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
DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET, ROOM 325
HONOLULU, HAWAII 96813

FEB 22 2019

MEMORANDUM

TO: RUSSEL T. TSUJI, Administrator
Land Division

Attn: Patti E. Miyashiro, Land Agent

FROM: DAVID G. SMITH, Administrator
Division of Forestry and Wildlife

SUBJECT: Division of Forestry and Wildlife Comments on the Draft Environmental Assessment for the Proposed Verizon Wireless HON Kupikipikio Cell Site.

The Department of Land and Natural Resources Division of Forestry and Wildlife (DOFAW) has received your inquiry regarding the Draft Environmental Assessment for the proposed Verizon Wireless HON Kupikipikio communications tower at 708 Palekaua Street in Honolulu on O'ahu, Hawai'i, TMK: (1) 3-1-042:034. Proposed work includes the construction of a stealth 65 feet tall monopalm communications tower, a concrete pad, a generator, equipment cabinets, and a light pole, enclosed within a chain link fenced compound.

The State Endangered White Tern (*Gygis alba*) is known to nest in the proposed project vicinity. If tree trimming or removal is planned, DOFAW strongly recommends surveying for the presence of White Terns prior to any action that could disturb the trees. White Tern pairs lay their single egg in a branch fork with no nest. The eggs and chicks can be easily dislodged by construction equipment that nudges the trees. If a nest is discovered, please notify DOFAW staff for assistance.

We note that artificial lighting can adversely impact seabirds that may pass through the area at night by causing disorientation. This disorientation can result in collision with manmade artifacts or grounding of birds. For nighttime lighting that might be required, including the light pole, DOFAW recommends that all lights be fully shielded to minimize impacts. Nighttime work that requires outdoor lighting should be avoided during the seabird fledging season from September 15 through December 15. This is the period when young seabirds take their maiden voyage to the open sea.

The State listed Hawaiian Hoary Bat or 'Ōpe'ape'a (*Lasiurus cinereus semotus*) has the potential to occur in the vicinity of the project area and may roost in nearby trees. If any site clearing is required this should be timed to avoid disturbance during the bat birthing and pup rearing season (June 1 through September 15). If this cannot be avoided, woody plants greater than 15 feet (4.6

meters) tall should not be disturbed, removed, or trimmed without consulting DOFAW. Barbed wire should be avoided for any construction because bat mortalities have been documented as a result of becoming ensnared by barbed wire during flight.

We appreciate your efforts to work with our office for the conservation of our native species. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible.

If you have any questions, please contact Jim Cogswell, Wildlife Program Manager at (808) 587-4187 or James.M.Cogswell@hawaii.gov.

DAVID Y. IGE
GOVERNOR OF HAWAII

RECEIVED
LAND DIVISION
2019 FEB 13 AM 11:03
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

January 31, 2019

Ref: PSF #19OD-008

MEMORANDUM

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
X Div. of Forestry & Wildlife
X Div. of State Parks
__Commission on Water Resource Management
__Office of Conservation & Coastal Lands
__Land Division

FROM: Patti E. Miyashiro, Land Agent
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LOCATION: Kapahulu, Waikiki, Honolulu Oahu, Tax Map Key: (1) 3-1-042:Por. of 034
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( ) We have no objections.
(✓) We have no comments.
( ) Comments are attached.

Signed: [signature]
Date: 2-7-19

Appendix D
Local Zoning and Planning Documentation

§226-6 Objectives and policies for the economy--in general.

(a) Planning for the State's economy in general shall be directed toward achievement of the following objectives:

(1) Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawaii's people, while at the same time stimulating the development and expansion of economic activities capitalizing on defense, dual-use, and science and technology assets, particularly on the neighbor islands where employment opportunities may be limited.

(2) A steadily growing and diversified economic base that is not overly dependent on a few industries, and includes the development and expansion of industries on the neighbor islands.

(b) To achieve the general economic objectives, it shall be the policy of this State to:

(1) Promote and encourage entrepreneurship within Hawaii by residents and nonresidents of the State.

(2) Expand Hawaii's national and international marketing, communication, and organizational ties, to increase the State's capacity to adjust to and capitalize upon economic changes and opportunities occurring outside the State.

(3) Promote Hawaii as an attractive market for environmentally and socially sound investment activities that benefit Hawaii's people.

(4) Transform and maintain Hawaii as a place that welcomes and facilitates innovative activity that may lead to commercial opportunities.

(5) Promote innovative activity that may pose initial risks, but ultimately contribute to the economy of Hawaii.

(6) Seek broader outlets for new or expanded Hawaii business investments.

(7) Expand existing markets and penetrate new markets for Hawaii's products and services.

(8) Assure that the basic economic needs of Hawaii's people are maintained in the event of disruptions in overseas transportation.

(9) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.

(10) Encourage the formation of cooperatives and other favorable marketing arrangements at the local or regional level to assist Hawaii's small scale producers, manufacturers, and distributors.

(11) Encourage labor-intensive activities that are economically satisfying and which offer opportunities for upward mobility.

(12) Encourage innovative activities that may not be labor-intensive, but may otherwise contribute to the economy of Hawaii.

(13) Foster greater cooperation and coordination between the government and private sectors in

developing Hawaii's employment and economic growth opportunities.

(14) Stimulate the development and expansion of economic activities which will benefit areas with substantial or expected employment problems.

(15) Maintain acceptable working conditions and standards for Hawaii's workers.

(16) Provide equal employment opportunities for all segments of Hawaii's population through affirmative action and nondiscrimination measures.

(17) Stimulate the development and expansion of economic activities capitalizing on defense, dual-use, and science and technology assets, particularly on the neighbor islands where employment opportunities may be limited.

(18) Encourage businesses that have favorable financial multiplier effects within Hawaii's economy, particularly with respect to emerging industries in science and technology.

(19) Promote and protect intangible resources in Hawaii, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.

(20) Increase effective communication between the educational community and the private sector to develop relevant curricula and training programs to meet future employment needs in general, and requirements of new or innovative potential growth industries in particular.

(21) Foster a business climate in Hawaii--including attitudes, tax and regulatory policies, and financial and technical assistance programs--that is conducive to the expansion of existing enterprises and the creation and attraction of new business and industry. [L 1978, c 100, pt of §2; am L 1986, c 276, §5; am L 1988, c 70, §4; am L 1993, c 213, §4; am L 2009, c 167, §2; am L 2014, c 133, §2]

§226-10.5 Objectives and policies for the economy--information industry. (a) Planning for the State's economy with regard to telecommunications and information technology shall be directed toward recognizing that broadband and wireless communication capability and infrastructure are foundations for an innovative economy and positioning Hawaii as a leader in broadband and wireless communications and applications in the Pacific Region.

(b) To achieve the information industry objective, it shall be the policy of this State to:

(1) Promote efforts to attain the highest speeds of electronic and wireless communication within Hawaii and between Hawaii and the world, and make high speed communication available to all residents and businesses in Hawaii;

(2) Encourage the continued development and expansion of the telecommunications infrastructure serving Hawaii to accommodate future growth and innovation in Hawaii's economy;

(3) Facilitate the development of new or innovative business and service ventures in the information industry which will provide employment opportunities for the people of Hawaii;

(4) Encourage mainland- and foreign-based companies of all sizes, whether information technology-focused or not, to allow their principals, employees, or contractors to live in and work from Hawaii, using technology to communicate with their headquarters, offices, or customers located out-of-state;

(5) Encourage greater cooperation between the public and private sectors in developing and maintaining a well-designed information industry;

(6) Ensure that the development of new businesses and services in the industry are in keeping with the social, economic, and physical needs and aspirations of Hawaii's people;

(7) Provide opportunities for Hawaii's people to obtain job training and education that will allow for upward mobility within the information industry;

(8) Foster a recognition of the contribution of the information industry to Hawaii's economy; and

(9) Assist in the promotion of Hawaii as a broker, creator, and processor of information in the Pacific. [L Sp 1988, c 1, §3; am L 2009, c 167, §7; am L 2014, c 133, §4]

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

Property Information

708 PALEKAUA ST

Tuesday, March 15, 2016 | 1:56:14 PM

General Information

TMK:	31042034:0000
Building Value:	$1,450,700.00
Building Exemption:	$1,450,700.00
Land Value:	$2,789,200.00
Land Exempt:	$2,789,200.00
Acres:	4
Square Feet	0
Property Tax Class:	Residential
City:	Honolulu / Waialae Kahala
Zip Code:	96816
Realtor Neighborhood:	Diamond Head

Nearest Park:
show all addresses >>

Tax Bill Owner Information

Name	Type	Address	Address 2	City State Zip
OAHU SPECIAL SCHOOLS ASSN	Lessee	C/O VARIETY SCHOOL OF HAWAII	710 PALEKAUA ST	HONOLULU HI 96816
STATE OF HAWAII	Fee Owner			

2010 Census Information

Tract Number:	000600
Block Number:	2014
Population (block):	0

Voting Information

City Council Member:	Trevor Ozawa
Polling Place:	Kilauea Rec Ctr
Address:	4109 Kilauea Ave
Neighborhood Board:	WAIALAE-KAHALA

School and Transit Information

Elementary School:	Kahala	show route
High School:	KALANI	show route
Near Transit Route:		Yes
Near Bus Routes:		

Zoning and Flood Information

Zoning (LUO) Designation:	R-10
Ohana Zoning Designation:	Ineligible
FEMA Flood Designation:	X
Tsunami Evacuation Zone:	No

more public safety info >>

Page Tools: PRINT | BOOKMARK | EMAIL | STREET/BIRD'S EYE

More info: ZONE INFO | BUILDING PERMITS | PROPERTY TAX

Information shown on these maps are derived from public records that are constantly undergoing change and do not replace a site survey, and is not warranted for content or accuracy.

2010 Assessed Values as of October 1, 2009.

Department of Planning & Permitting
650 S. King St, Ste 8, Honolulu, HI 96813
gis@honolulu.gov
Property Info Page FAQ

© 2016 City and County of Honolulu. All Rights Reserved

General Plan

Objectives and Policies

AMENDED OCTOBER 3, 2002 (RESOLUTION 02-205, CD1)

General Plan

Objectives and Policies

Department of General Planning
City and County of Honolulu
1992

AMENDED OCTOBER 3, 2002
RESOLUTION 02-205, CD1

Contents

Introduction

Preamble

Objectives and Policies

I. Population

II. Economic Activity

III. Natural Environment

IV. Housing

V. Transportation and Utilities

VI. Energy

VII. Physical Development and Urban Design

VIII. Public Safety

IX. Health and Education

X. Culture and Recreation

XI. Government Operations and Fiscal Management

Introduction

The General Plan for the City and County of Honolulu is a comprehensive statement of objectives and policies which sets forth the long-range aspirations of Oahu's residents and the strategies of actions to achieve them. It is the focal point of a comprehensive planning process that addresses physical, social, economic and environmental concerns affecting the City and County of Honolulu. This planning process serves as the coordinative means by which the City and County government provides for the future growth of the metropolitan area of Honolulu.

Since the adoption of the General plan in 1977, a number of amendments were subsequently adopted in 1979, 1982, 1985,1987,1989,1990, and 1991. However, in spite of these changes, the basic themes and directions for growth remain valid, and require continued pursuit.

The Department of Planning and Permitting strives to maintain the dynamic nature of the General Plan by keeping abreast of emerging issues, changing community attitudes, needs and conditions, as well as new opportunities and planning approaches. The emergence of any particular issue of Citywide concern may also activate the need for our department to reassess pertinent objectives and policies of the plan.

In this way, we can assist our policy makers and decision makers in assuring that the objectives, policies and planning priorities are kept current.

This 1992 edition of the General Plan reinforces this planning concept. It supersedes all previous editions and includes all changes which were adopted through the end of 1991.

Preamble

Purpose of the General Plan

The General Plan for the City and County of Honolulu, a requirement of the City Charter, is a written commitment by the City and County government to a future for the Island of Oahu which it considers desirable and attainable. The Plan is a two-fold document: First, it is a statement of the long-range social, economic, environmental, and design objectives for the general welfare and prosperity of the people of Oahu. These objectives contain both statements of desirable conditions to be sought over the long run and statements of desirable conditions which can be achieved within an approximate 20-year time horizon. Second, the General Plan is a statement of broad policies which facilitate the attainment of the objectives of the Plan.

The General Plan is a guide for all levels of government, private enterprise, neighbor- hood and citizen groups, organizations, and individual citizens in eleven areas of concern:

(1) population;
(2) economic activity;
(3) the natural environment;
(4) housing,
(5) transportation and utilities;
(6) energy;
(7) physical development and urban design;
(8) public safety;
(9) health and education;
(10) culture and recreation; and
(11) government operations and fiscal management.

Content of the General Plan

The eleven subject areas provide the framework for the City's expression of public policy concerning the needs of the people and the functions of government. The objectives and policies reflect the comprehensive planning process of the City and County which addresses all aspects of the health, safety, and welfare of the people of Oahu.

In preparing the statement of objectives and policies, the fair distribution of social benefits was held to be of paramount importance. It shall continue to be of paramount importance in the pursuit and implementation of these objectives and policies.

- **Population**
  The population objectives and policies encompass three distinct thrusts: First, to control population growth to the extent possible to avoid social, economic, and environmental disruptions. Second, to plan for anticipated future population growth. And, finally, to maintain a pattern of population distribution that will allow people to live and work in harmony.

- **Economic Activity**
  The objectives and policies for economic activity attempt to address the needs for an adequate standard of living for residents and future generations. Issues of employment opportunities, viability of major industries, diversification of the economic base, and the location of jobs are addressed in terms of what government can do to provide, encourage, and promote economic opportunities for our people.

- **Natural Environment**
  The natural environment of our island, next to our people, is our greatest asset. The pleasures of a year-round mild and amiable climate, beautiful mountains, attractive beaches, scenic vistas, and natural drinking water are enjoyed by those of us who reside in the community as well as those who visit here. The City's policies seek to protect and enhance our natural attributes by increasing public awareness and appreciation of them and by mitigating against the degradation of these assets.

- **Housing**
  Obtaining decent, reasonably priced homes in safe and attractive neighborhoods has been a perennial problem for the residents of Oahu, and is a primary concern of the General Plan.

  The objectives and policies for housing seek to provide a choice of living environments, affordable housing, and a reduction of inflationary speculation.

- **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 government, as well as the communication, electricity, and gas systems provided by the private sector. Not only must such needs be met, but the social, economic, and environmental consequences of meeting these needs must be carefully considered.

- **Energy**
  There is no more salient example of the impact of world events on our island community than in the provision of energy. Energy development, utilization, and conservation are addressed with the stress on the reduction in dependence on outside sources.

- **Physical Development and Urban Design**
  Physical development and urban design is concerned with the quality of growth that occurs within the various parts of the Island. The objectives and policies in this area of concern deal with the coordination of public facilities and land development, compatibility of land uses, and specification of certain land uses at particular locations. Urban design emphasis is contained in objectives to create and maintain attractive, meaningful, and stimulating

environments and to promote and enhance the social and physical character of Oahu's older towns and neighborhoods.

- **Public Safety**
  Many of the City's services derive from the concern for the safety of the people. The prevention and control of crime and maintenance of public order are one aspect of public safety. The City's policies reflect the roles of the citizen, Honolulu Police Department, and City Prosecutor in providing for the safety of residents and visitors to our island. Another aspect deals with the protection of people and property from natural disasters and other emergencies, traffic and fire hazards, and other unsafe conditions.

- **Health and Education**
  The provision of health care services for the individual on Oahu is largely a function of the private sector. The City's concern concentrates on the accessibility of health facilities through planning and land use controls, and on the protection of environ-mental health through health codes and other regulations which mitigate against disease and pollution.

  Objectives and policies for education call for a wide range of 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.

- **Culture and Recreation**
  Preservation and enhancement of Hawaii's multi-ethnic culture will be achieved through policies directed toward people, our most important resource, and cultural, historic and archaeological sites, buildings, and artifacts.

  The use of leisure time is addressed through objectives and policies encouraging visual and performing arts and the provision of a wide range of recreational facilities and services that are readily available to all our residents.

- **Government Operations and Fiscal Management**
  The objectives and policies in the above ten areas of concern represent an ambitious agenda which will stretch the resources of City government to the limit. Increased efficiency, effectiveness, responsiveness, and fiscal integrity in carrying out the functions of City government will be crucial to whatever degree of success is achieved.

The Northwestern Hawaiian Islands

According to the Hawaii Revised Statutes, those islands extending northwest from Nihoa to Kure Atoll, except the Midway Islands, are part of the City and County of Honolulu. This latter chain of islands and reefs is commonly referred to as the North- western Hawaiian Islands. Effective jurisdiction of these islands is currently in the hands of the federal and state governments.

The federal government exercises jurisdiction pursuant to numerous laws and regulations, as well as through its administration of the Hawaiian Islands National Wildlife Refuge which encompasses most of the Northwestern Hawaiian Islands. All of the subject islands and

archipelagic waters within the State of Hawaii are included in the State Land Use Conservation District and, thus, are subject to State regulation and management in the absence of federal jurisdiction.

In the event that any jurisdictional responsibilities relating to the Northwestern Hawaiian Islands are transferred to the City and County of Honolulu, the City will need to review and, if necessary, amend the objectives and policies of the General Plan, as well as other pertinent plans and pro- grams, in terms of their adequacy in ad- dressing these responsibilities.

Other Offshore Islands and Marine Waters

All offshore islands and marine waters within three miles of the Oahu coastline are considered part of Oahu in terms of the applicability of the objectives and policies in this General Plan. Although most of these islands, as well as Oahu's coastal marine waters, are included in the State Land Use Conservation District and, thus, are beyond the effective jurisdiction of the City and County of Honolulu, they may be included in Development Plans as may be appropriate.

Role of the City and County Government

The City and County government will implement the policies contained in the General Plan through ordinances and resolutions as well as through rules and regulations. Also essential to policy implementation are the City's annual budget and six-year capital-improvement program, both of which should be consistent with the objectives and policies of the Plan, especially with regard to long-term commitments of money. It is necessary to remember, however, that the City and County government is not alone in deter- mining the general welfare of the people of Oahu: The State and Federal governments, too, have an important influence on the life of the community. The City and County recognizes the need for close cooperation among the various levels of government and, in striving to meet the objectives of the General Plan, pledges not to lose sight of this very great need.

Citizen Participation

Individual citizens and citizens' groups should participate freely to help bring about the success of the General Plan. Indeed, in a democratic society they have a responsibility to express their concerns to the City and County government and to work constantly for more effective government action. To provide the residents of the City and County of Honolulu with the opportunity to democratically and meaningfully participate in the determination of the direction and quality of future growth on Oahu, a citizen participation process which focuses on citizen advisory boards as called for in the City Charter has been established.

These boards represent a valuable means of encouraging and formally maintaining strong citizen participation in all parts of the Island. It is hoped that their members, along with members of the Island's many community organizations, will actively participate in the City planning process. Members of the advisory boards can pro- vide valuable assistance by soliciting the input of other neighborhood groups and residents and identifying the concerns of the areas they represent. By

monitoring conditions, they can also help to make sure that the policies of the General Plan are implemented.

Most planning issues have impacts which extend beyond the boundaries of neighborhoods. Regular planning forums for the discussion of regional and islandwide issues are an important part of the citizen participation process.

Implementation

By itself, the General Plan cannot bring about all of the changes and improvements which the City and County government considers to be desirable and attainable. It is, by design, a very general document, and one of its purposes is to establish a coherent set of broad guidelines which can be used in developing plans, programs, and legislation for guiding Oahu's future. Development Plans, according to the City Charter, are relatively detailed guidelines for the physical development of the Island. They are intermediate means of implementing the objectives and policies of the General Plan in the various parts of the Island. The Development Plans provide for land use and public facilities planning as well as indicate the sequence in which development will occur. They must implement and accomplish the objectives and policies of the General Plan.

Development Plans contain 'statements of standards and principles' with respect to land uses and 'statements of urban design principles and controls.' The City Council adopts Development Plans and amendments thereto by ordinance. These Plans should not, however, be confused with zoning ordinances. Zoning ordinances will continue to regulate the use of land within clearly demarcated zones and set detailed standards for the height, bulk, and location of buildings.

In addition to zoning ordinances, the functional plans and programs of the City and County agencies must conform to the General Plan and implement the Development Plans. This will ensure that the provision of City services is in accord with the General Plan's objectives and policies and provisions contained in the Development Plans.

Implementation of the General Plan also occurs through the budgetary responsibilities of government. The budget process or function is closely intertwined with the planning process of the City. It involves developing the yearly operating budget and the projected capital improvement program budget. Both documents represent the final step in the comprehensive planning process relating the long-range objectives and policies of the City's General Plan to the specific uses of public revenues. To ensure the implementation of the General Plan, the City budget and programs must comply with the purposes of the General Plan and implement applicable provisions of the Development Plans.

Amendments

For the General Plan to fulfill its purpose of providing overall guidance to the actions of government, private enterprise, and individual citizens across a broad spectrum of concerns, it must become neither a rigid nor an obsolete document. To keep the Plan flexible and up-to-date, its objectives and policies must be subject to change over time in response to changes in the

concerns of the people of Oahu, new approaches and opportunities for addressing those concerns, and changes in the basic assumptions underlying the objectives and policies. One means of accomplishing this is provided by the City Charter which directs the Chief Planning Officer to prepare revisions to the General Plan at least every five years for Council consideration. More importantly, however, the City Council may amend or revise the General Plan whenever it deems necessary.

Emphasis should be placed on reevaluating and amending selected General Plan objectives and policies as problems and issues arise. The City and County government should develop means for identifying emerging problems and issues and evaluating their effect on the concerns of the people of Oahu as expressed in the General Plan. Such an ongoing process would provide a basis for the Chief Planning Officer to initiate timely proposals to amend the General Plan in response to changing public concerns.

One of the key assumptions underlying many of the General Plan objectives and policies is anticipated future population growth for the Island of Oahu as projected by the State Department of Business and Economic Development (DBED). Consequently, whenever DBED revises its population projections for Oahu, the objectives and policies of the Plan will be reevaluated in light of the new projections, and amendments will be proposed as may be appropriate. Also, whenever revised population projections include an extended time horizon, the General Plan will be amended to maintain a planning horizon of approximately 20 years.

Interpretation

Conflicts which may arise regarding the interpretation or prioritization of any of the objectives and policies of the General Plan will be resolved by the City Council. All policy statements and the "% of total" figures in the population distribution table contained in this Plan are intended to serve as policy guidelines, as opposed to rigid requirements, in the preparation and amendment of Development Plans and agency plans, programs, and projects.

I. Population

Objective A

To control the growth of Oahu's resident and visitor populations in order to avoid social, economic, and environmental disruptions.

Policy 1

Participate in State and Federal programs which seek to develop social, economic, legal, and environmental controls over population growth.

Policy 2

Seek a balance between the rate of inmigration and the rate of outmigration by reducing inmigration.

Policy 3

Support Federal policies providing for a more even distribution of immigrants throughout the country.

Policy 4

Seek to maintain a desirable pace of physical development through City and County regulations.

Policy 5

Encourage family planning.

Policy 6

Publicize the desire of the City and County to limit population growth.

Objective B
To plan for future population growth.

Policy 1
Allocate efficiently the money and re- sources of the City and County in order to meet the needs of Oahu's anticipated future population.

Policy 2
Provide adequate support facilities to accommodate future growth in the number of visitors to Oahu.

Objective C
To establish a pattern of population distribution that will allow the people of Oahu to live and work in harmony.

Policy 1
Facilitate the full development of the primary urban center.

Policy 2
Encourage development within the secondary urban center at Kapolei and the Ewa and Central Oahu urban-fringe areas to relieve developmental pressures in the remaining urban-fringe and rural areas and to meet housing needs not readily provided in the primary urban center.

Policy 3
Manage physical growth and development in the urban-fringe and rural areas so that:

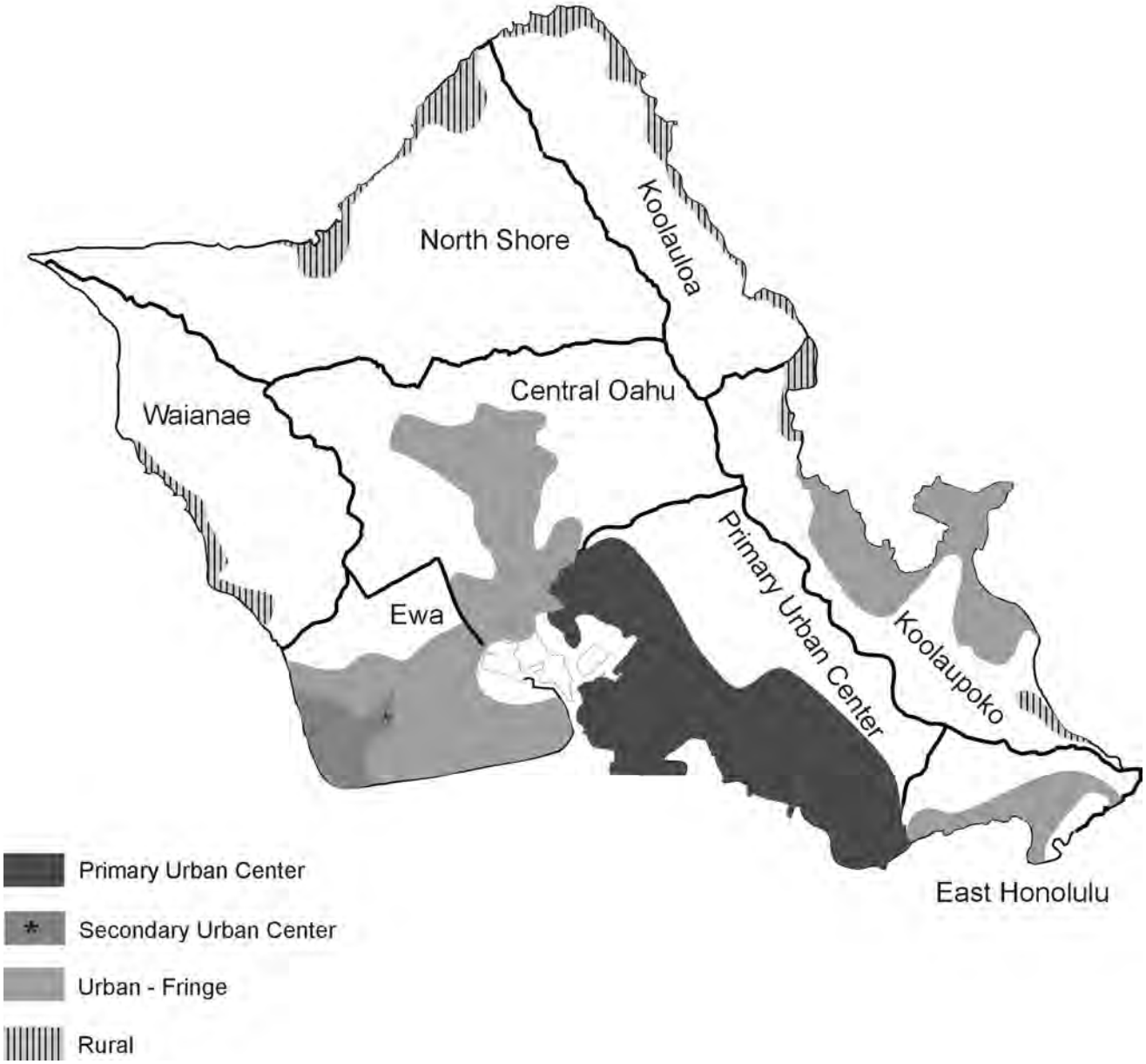
a. An undesirable spreading of development is prevented; and
b. Their population densities are consistent with the character of development and environmental qualities desired for such areas.

Policy 4 (Amended, Resolution 02-205, CD1)
Direct growth according to Policies 1, 2, and 3 above by providing land development capacity and needed infrastructure to seek a 2025 distribution of Oahu's residential population as follows:

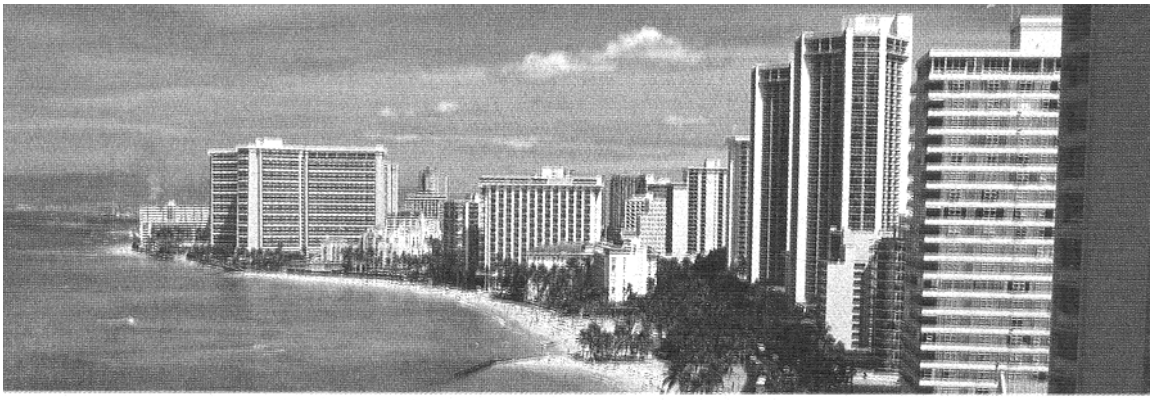
Distribution of Residential Population

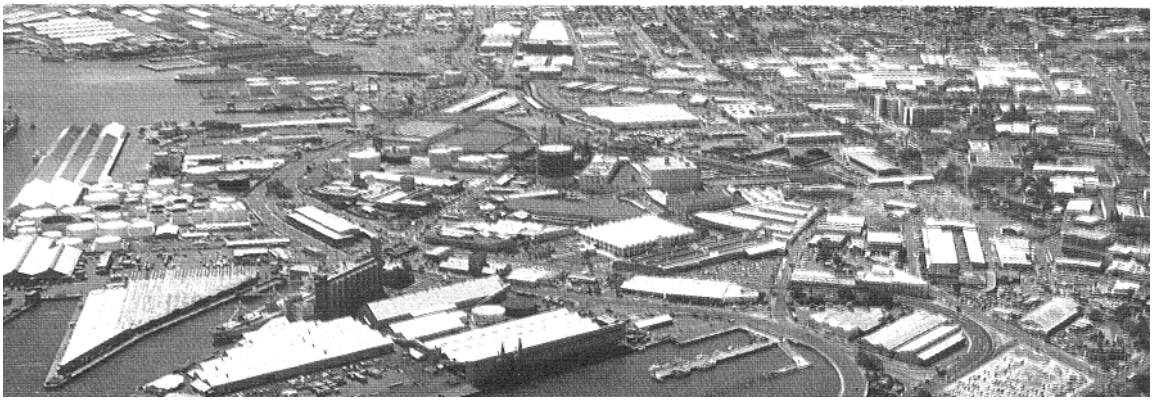
LOCATION	% SHARE OF 2025 ISLANDWIDE POPULATION
Primary Urban Center	46.0%
Ewa	13.0%
Central Oahu	17.0%
East Honolulu	5.3%
Koolaupoko	11.6%
Koolauloa	1.4%
North Shore	1.7%
Waianae	4.0%
	100.0%

General Plan Development Pattern



II. Economic Activity





Objective A

To promote employment opportunities that will enable all the people of Oahu to attain a decent standard of living.

Policy 1

Encourage the growth and diversification of Oahu's economic base.

Policy 2

Encourage the development of small businesses and larger industries which will contribute to the economic and social well-being of Oahu residents.

Policy 3

Encourage the development in appropriate locations on Oahu of trade, communications, and other industries of a nonpolluting nature.

Policy 4

Encourage the development of local, national, and world markets for the products of Oahu-based industries.

Policy 5
Encourage the wider distribution of available employment opportunities through such methods as shortening the work week and reducing the use of overtime.

Policy 6
Encourage the continuation of a significant level of Federal employment on Oahu.

Objective B
To maintain the viability of Oahu's visitor industry.

Policy 1
Provide for the long-term viability of Waikiki as Oahu's primary resort area by giving the area priority in visitor industry related public expenditures.

Policy 2
Provide for a high quality and safe environment for visitors and residents in Waikiki.

Policy 3
Encourage private participation in improvements to facilities in Waikiki.

Policy 4
Prohibit major increases in permitted development densities in Waikiki.

Policy 5
Prohibit further growth in the permitted number of hotel and resort condominium units in Waikiki.

Policy 6
Permit the development of secondary resort areas in West Beach, Kahuku*, Makaha, and Laie.

Policy 7
Manage the development of secondary resort areas in a manner which respects existing lifestyles and the natural environment, and avoids substantial increases in the cost of providing public services in the area.

Policy 8
Preserve the well-known and widely publicized beauty of Oahu for visitors as well as residents.

Policy 9
Encourage the visitor industry to provide a high level of service to visitors.

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* *Kahuku is the area encompassing Kuilima*

Objective C

To maintain the viability of agriculture on Oahu.

Policy 1

Assist the agricultural industry to ensure the continuation of agriculture as an important source of income and employment.

Policy 2

Support agricultural diversification in all agricultural areas on Oahu.

Policy 3

Support the development of markets for local products, particularly those with the potential for economic growth.

Policy 4

Provide sufficient agricultural land in Ewa, Central Oahu, and the North Shore to encourage the continuation of sugar and pineapple as viable industries.

Policy 5

Maintain agricultural land along the Windward, North Shore, and Waianae coasts for truck farming, flower growing, aquaculture, livestock production, and other types of diversified agriculture.

Policy 6

Encourage the more intensive use of productive agricultural land.

Policy 7

Encourage the use of more efficient production practices by agriculture, including the efficient use of water.

Policy 8

Encourage the more efficient use of non- potable water for agricultural use.

Objective D

To make full use of the economic resources of the sea.

Policy 1

Assist the fishing industry to maintain its viability.

Policy 2

Encourage the development of aquaculture, ocean research, and other ocean- related industries.

Policy 3
Focus the development of ocean related economic activities in the Northwestern Hawaiian Islands on those which are compatible with preserving the area's unique environmental, marine, and wildlife assets.

Objective E
To prevent the occurrence of large scale unemployment.

Policy 1
Encourage the training and employment of present residents for currently available and future jobs.

Policy 2
Make full use of State and Federal employment and training programs.

Policy 3
Encourage the provision of retraining programs for workers in industries with planned reductions in their labor force.

Objective F
To increase the amount of Federal spending on Oahu.

Policy 1
Take full advantage of Federal programs and grants which will contribute to the economic and social well-being of Oahu's residents.

Policy 2
Encourage the Federal government to pay for the cost of public services used by Federal agencies.

Policy 3
Encourage the Federal government to lease new facilities rather than construct them on tax-exempt public land.

Policy 4
Encourage the military to purchase locally all needed services and supplies which are available on Oahu.

Objective G

To bring about orderly economic growth on Oahu.

Policy 1

Direct major economic activity and government services to the primary urban center and the secondary urban center at Kapolei.

Policy 2

Permit the moderate growth of business centers in the urban-fringe areas.

Policy 3

Maintain sufficient land in appropriately located commercial and industrial areas to help ensure a favorable business climate on Oahu.

Policy 4

Encourage the continuation of a high level of military-related employment in the Hickam-Pearl Harbor, Wahiawa, Kailua-Kaneohe, and Ewa areas.

III. Natural Environment

Objective A
To protect and preserve the natural environment.

Policy 1
Protect Oahu's natural environment, especially the shoreline, valleys, and ridges, from incompatible development.

Policy 2
Seek the restoration of environmentally damaged areas and natural resources.

Policy 3
Retain the Island's streams as scenic, aquatic, and recreation resources.

Policy 4
Require development projects to give due consideration to natural features such as slope, flood and erosion hazards, water- recharge areas, distinctive land forms, and existing vegetation.

Policy 5
Require sufficient setbacks of improvements in unstable shoreline areas to avoid the future need for protective structures.

Policy 6
Design surface drainage and flood-control systems in a manner which will help preserve their natural settings.

Policy 7
Protect the natural environment from damaging levels of air, water, and noise pollution.

Policy 8
Protect plants, birds, and other animals that are unique to the State of Hawaii and the Island of Oahu.

Policy 9
Protect mature trees on public and private lands and encourage their integration into new developments.

Policy 10
Increase public awareness and appreciation of Oahu's land, air, and water resources.

Policy 11
Encourage the State and Federal governments to protect the unique environmental, marine, and wildlife assets of the Northwestern Hawaiian Islands.

Objective B

To preserve and enhance the natural monuments and scenic views of Oahu for the benefit of both residents and visitors.

Policy 1
Protect the Island's well-known resources: its mountains and craters; forests and watershed areas; marshes, rivers, and streams; shoreline, fishponds, and bays; and reefs and offshore islands.

Policy 2
Protect Oahu's scenic views, especially those seen from highly developed and heavily traveled areas.

Policy 3
Locate roads, highways, and other public facilities and utilities in areas where they will least obstruct important views of the mountains and the sea.

Policy 4
Provide opportunities for recreational and educational use and physical contact with Oahu's natural environment.

IV. Housing

Objective A

To provide decent housing for all the people of Oahu at prices they can afford.

Policy 1

Develop programs and controls which will provide decent homes at the least possible cost.

Policy 2

Streamline approval and permit procedures for housing and other development projects.

Policy 3

Encourage innovative residential development which will result in lower costs, added convenience and privacy, and the more efficient use of streets and utilities.

Policy 4

Establish public, and encourage private, programs to maintain and improve the condition of existing housing.

Policy 5

Make full use of State and Federal programs that provide financial assistance for low- and moderate-income homebuyers.

Policy 6
Expand local funding mechanisms avail- able to pay for government housing programs.

Policy 7
Provide financial and other incentives to encourage the private sector to build homes for low- and moderate-income residents.

Policy 8
Encourage and participate in joint public- private development of low- and moderate- income housing.

Policy 9
Encourage the preservation of existing housing which is affordable to low- and moderate-income persons.

Policy 10
Promote the construction of affordable dwellings which take advantage of Oahu's year-round moderate climate.

Policy 11
Encourage the construction of affordable homes within established low-density communities by such means as 'ohana' units, duplex dwellings, and cluster development.

Policy 12
Encourage the production and maintenance of affordable rental housing.

Policy 13
Encourage the provision of affordable housing designed for the elderly and the handicapped.

Policy 14
Encourage equitable relationships between landowners and leaseholders, between landlords and tenants, and between condominium developers and owners.

Objective B
To reduce speculation in land and housing.

Policy 1
Encourage the State government to coordinate its urban-area designations with the developmental policies of the City and County.

Policy 2
Discourage private developers from acquiring and assembling land outside of areas planned for urban use.

Policy 3
Seek public benefits from increases in the value of land owing to City and State developmental policies and decisions.

Policy 4
Require government-subsidized housing to be delivered to appropriate purchasers and renters.

Policy 5
Prohibit the selling or renting of government-subsidized housing for large profits.

Objective C

To provide the people of Oahu with a choice of living environments which are reasonably close to employment, recreation, and commercial centers and which are adequately served by public utilities.

Policy 1
Encourage residential developments that offer a variety of homes to people of different income levels and to families of various sizes.

Policy 2
Encourage the fair distribution of low- and moderate-income housing throughout the Island.

Policy 3
Encourage residential development near employment centers.

Policy 4
Encourage residential development in areas where existing roads, utilities, and other community facilities are not being used to capacity.

Policy 5
Discourage residential development where roads, utilities, and community facilities cannot be provided at a reasonable cost.

Policy 6
Preserve older communities through self-help, housing-rehabilitation, improvement districts, and other governmental programs.

V. Transportation & Utilities

Objective A

To create a transportation system which will enable people and goods to move safely, efficiently, and at a reasonable cost; serve all people, including the poor, the elderly, and the physically handicapped; and offer a variety of attractive and convenient modes of travel.

Policy 1

Develop and maintain an integrated ground-transportation system consisting of the following elements and their primary purposes:

a. Public transportation-for travel to and from work, and travel within Central Honolulu;

b. Roads and highways-for commercial traffic and travel in nonurban areas;

c. Bikeways-for recreational activities and trips to work, schools, shopping centers, and community facilities; and

d. Pedestrian walkways-for getting around Downtown and Waikiki, and for trips to schools, parks, and shopping centers.

Policy 2

Provide transportation services to people living within the Ewa, Central Oahu, and Pearl City-Hawaii Kai corridors primarily through a mass transit system including exclusive right-of-way

rapid transit and feeder-bus components as well as through the existing highway system with limited improvements as may be appropriate.

Policy 3
Provide transportation services outside the Ewa, Central Oahu, and Pearl City-Hawaii Kai corridors primarily through a system of express- and feeder-buses as well as through the highway system with limited to moderate improvements sufficient to meet the needs of the communities being served.

Policy 4
Improve transportation facilities and services in the Ewa corridor and in the trans-Koolau corridors to meet the needs of Ewa and Windward communities.

Policy 5
Improve roads in existing communities to reduce congestion and eliminate unsafe conditions.

Policy 6
Consider both environmental impact as well as construction and operating costs as important factors in planning alternative nodes of transportation.

Policy 7
Promote the use of public transportation as a means of moving people quickly and efficiently, of conserving energy, and of guiding urban development.

Policy 8
Make available transportation services to people with limited mobility: the young, the elderly, the handicapped, and the poor.

Policy 9
Promote programs to reduce dependence on the use of automobiles.

Policy 10
Discourage the inefficient use of the private automobile, especially in congested corridors and during peak-hours.

Policy 11
Make public, and encourage private, improvements to major walkway systems.

Policy 12
Encourage the provision of separate aviation facilities for small civilian aircraft.

Policy 13
Facilitate the development of a second deep-water harbor to relieve congestion in Honolulu Harbor.

Objective B

To meet the needs of the people of Oahu for an adequate supply of water and for environmentally sound systems of waste disposal.

Policy 1
Develop and maintain an adequate supply of water for both residents and visitors.

Policy 2
Develop and maintain an adequate supply of water for agricultural and industrial needs.

Policy 3
Encourage the development of new technology which will reduce the cost of providing water and the cost of waste disposal.

Policy 4
Encourage a lowering of the per-capita consumption of water and the per-capita production of waste.

Policy 5
Provide safe, efficient, and environmentally sensitive waste-collection and waste- disposal services.

Policy 6
Support programs to recover resources from solid-waste and recycle wastewater.

Policy 7
Require the safe disposal of hazardous waste.

Objective C

To maintain a high level of service for all utilities.

Policy 1
Maintain existing utility systems in order to avoid major breakdowns.

Policy 2
Provide improvements to utilities in existing neighborhoods to reduce substandard conditions.

Policy 3
Plan for the timely and orderly expansion of utility systems.

Policy 4
Increase the efficiency of public utilities by encouraging a mixture of uses with peak periods of demand occurring at different times of the day.

Objective D

To maintain transportation and utility systems which will help Oahu continue to be a desirable place to live and visit.

Policy 1

Give primary emphasis in the capital- improvement program to the maintenance and improvement of existing roads and utilities.

Policy 2

Use the transportation and utility systems as a means of guiding growth and the pattern of land use on Oahu.

Policy 3

Encourage the study and use of telecommunications as an alternative to conventional transportation facilities.

Policy 4

Evaluate the social, economic, and environ- mental impact of additions to the transportation and utility systems before they are constructed.

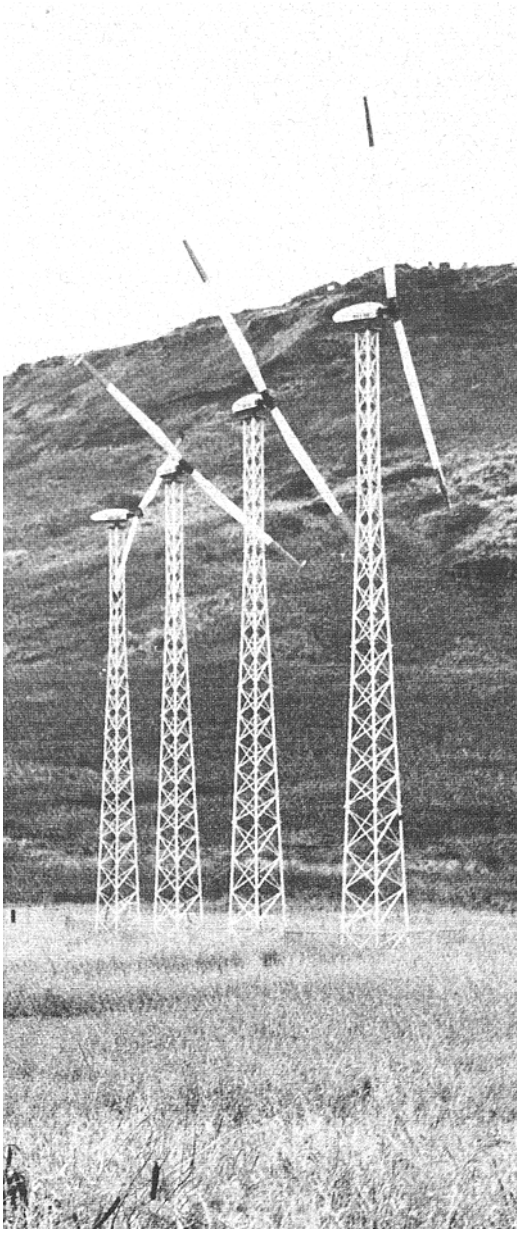
Policy 5

Require the installation of underground utility lines wherever feasible.

Policy 6

Seek improved taxing powers for the City and County in order to provide a more equitable means of financing transportation and utility services.

VI. Energy



Objective A

To maintain an adequate, dependable, and economical supply of energy for Oahu residents.

Policy 1
Develop and maintain a comprehensive plan to guide and coordinate energy conservation and alternative energy development and utilization programs on Oahu.

Policy 2
Establish economic incentives and regulatory measures which will reduce Oahu's dependence on petroleum as its primary source of energy.

Policy 3
Support programs and projects which contribute to the attainment of energy self- sufficiency on Oahu.

Policy 4
Promote and assist efforts to establish adequate petroleum reserves within Hawaii's boundaries.

Policy 5
Give adequate consideration to environ- mental, public health, and safety concerns, to resource limitations, and to relative costs when making decisions concerning alternatives for conserving energy and developing natural energy resources.

Policy 6
Work closely with the State and Federal governments in the formulation and implementation of all City and County energy-related programs.

Objective B

To conserve energy through the more efficient management of its use.

Policy 1
Ensure that the efficient use of energy is a primary factor in the preparation and administration of land use plans and regulations.

Policy 2
Provide incentives and, where appropriate, mandatory controls to achieve energy- efficient siting and design of new developments.

Policy 3
Carry out public, and promote private, programs to more efficiently use energy in existing buildings and outdoor facilities.

Policy 4
Promote the development of an energy- efficient transportation system.

Objective C
To fully utilize proven alternative sources of energy.

Policy 1
Encourage the use of commercially avail- able solar energy systems in public facilities, institutions, residences, and business developments.

Policy 2
Support the increased use of operational solid waste energy recovery and other biomass energy conversion systems.

Objective D
To develop and apply new, locally available energy resources.

Policy 1
Support and participate in research, development, demonstration, and commercialization programs aimed at producing new, economical, and environmentally sound energy supplies from:

a. solar insolation;
b. biomass energy conversion;
c. wind energy conversion;
d. geothermal energy; and
e. ocean thermal energy conversion.

Policy 2
Secure State and Federal support of City and County efforts to develop new sources of energy.

Objective E

To establish a continuing energy information program.

Policy 1

Supply citizens with the information they need to fully understand the potential supply, cost, and other problems associated with Oahu's dependence on imported petroleum.

Policy 2

Foster the development of an energy conservation ethic among Oahu residents.

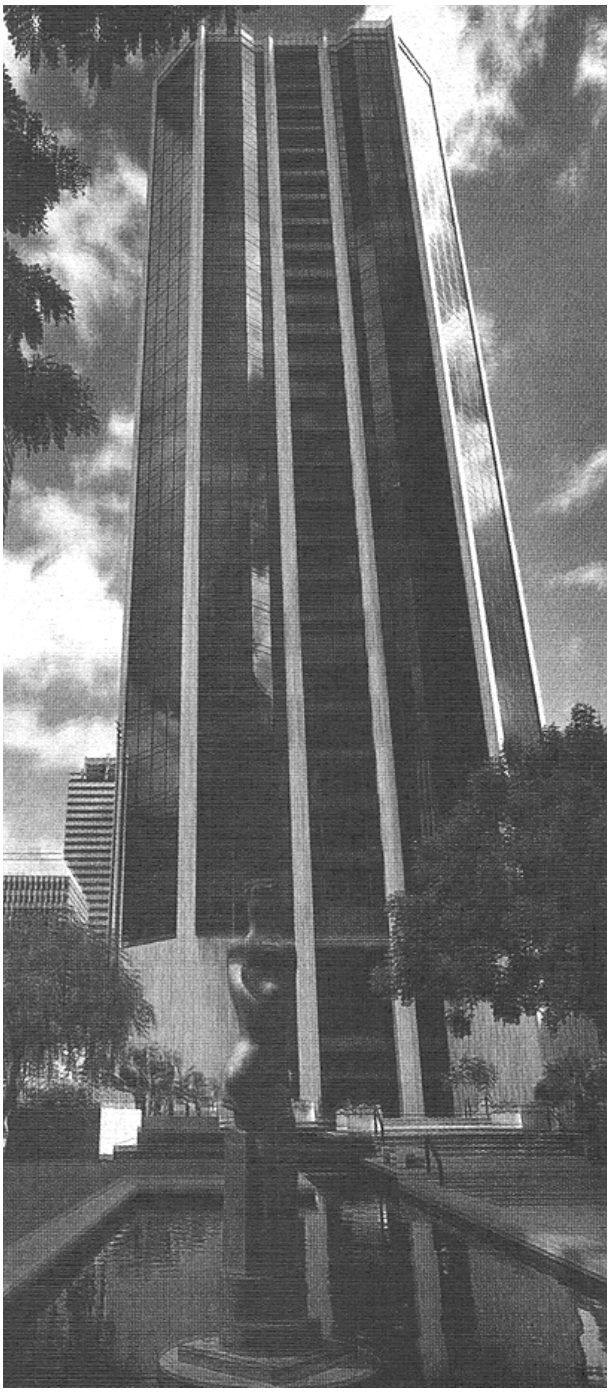
Policy 3

Keep consumers informed about available alternative energy sources and their costs and benefits.

Policy 4

Provide information concerning the impact of public and private decisions on future energy use.

VII. Physical Development and Urban Design



Objective A

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

Policy 1
Plan for the construction of new public facilities and utilities in the various parts of the Island according to the following order of priority: first, in the primary urban center; second, in the secondary urban center at Kapolei; and third, in the urban- fringe and rural areas.

Policy 2
Coordinate the location and timing of new development with the availability of adequate water supply, sewage treatment, drainage, transportation, and public safety facilities.

Policy 3
Phase the construction of new developments so that they do not require more regional supporting services than are available.

Policy 4
Require new developments to provide or pay the cost of all essential community services, including roads, utilities, schools, parks, and emergency facilities that are intended to directly serve the development.

Policy 5
Provide for more compact development and intensive use of urban lands where compatible with the physical and social character of existing communities.

Policy 6
Encourage the clustering of developments to reduce the cost of providing utilities and other public services.

Policy 7
Locate new industries and new commercial areas so that they will be well related to their markets and suppliers, and to residential areas and transportation facilities.

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

Policy 9
Exclude from residential areas, uses which are major sources of noise and air pollution.

Policy 10
Establish danger zones to exclude incompatible uses from hazardous areas surrounding airfields, electromagnetic- radiation sources, and storage places for fuel and explosives.

Policy 11
Prohibit new airfields, electromagnetic- radiation sources, and storage places for fuel and explosives from locating on sites where they will endanger or disrupt nearby communities.

Objective B

To develop Honolulu (Waialae-Kahala to Halawa), Aiea, and Pearl City as the Island's primary urban center.

Policy 1
Stimulate development in the primary urban center by means of the City and County's capital-improvement program and State and Federal grant and loan programs.

Policy 2
Provide for the expanded development of low-rise multi-unit housing.

Policy 3
Encourage the establishment of mixed-use districts with appropriate design and development controls to insure an attractive living environment and compatibility with surrounding land uses.

Policy 4
Provide downtown Honolulu and other major business centers with a well-balanced mixture of uses.

Policy 5
Encourage the development of attractive residential communities in downtown and other business centers.

Policy 6
Maintain and improve downtown as the financial and office center of the Island, and as a major retail center.

Policy 7
Provide for the continued viability of the Hawaii Capital District as a center of government activities and as an attractive park-like setting in the heart of the City.

Policy 8
Foster the development of Honolulu's waterfront as the State's major port and maritime center, as a people-oriented mixed-use area, and as a major recreation area.

Policy 9
Facilitate the redevelopment of Kakaako as a major residential, as well as commercial and light-industrial area.

Objective C
To develop a secondary urban center in Ewa with its nucleus in the Kapolei area.

Policy 1
Allocate funds from the City and County's capital-improvement program for public projects that are needed to facilitate development of the secondary urban center at Kapolei.

Policy 2
Encourage the development of a major residential, commercial, and employment center within the secondary urban center at Kapolei.

Policy 3
Encourage the continuing development of Barbers Point as a major industrial center.

Policy 4
Coordinate plans for the development of the secondary urban center at Kapolei with the State and Federal governments and with the sugar industry.

Policy 5
Cooperate with the State and Federal governments in the development of a deep water harbor at Barbers Point.

Policy 6
Encourage the development of the Ewa Marina Community as a major residential and recreation area emphasizing recreational boating activities through the provision of a major marina and a related maritime commercial center containing light-industrial, commercial, and visitor accommodation uses.

Objective D

To maintain those development characteristics in the urban-fringe and rural areas which make them desirable places to live.

Policy 1

Develop and maintain urban-fringe areas as predominantly residential areas characterized by generally low rise, low density development which may include significant levels of retail and service commercial uses as well as satellite institutional and public uses geared to serving the needs of households.

Policy 2

Coordinate plans for developments within the Ewa and Central Oahu urban-fringe areas with the State and Federal governments and with the sugar, pineapple, and other emerging agricultural industries.

Policy 3

Establish a green belt in the Ewa and Central Oahu areas of Oahu in the Development Plans.

Policy 4

Maintain rural areas as areas which are intended to provide environments supportive of lifestyle choices which are dependent on the availability of land suitable for small to moderate size agricultural pursuits, a relatively open and scenic setting, and/or a small town, country atmosphere consisting of communities which are small in size, very low density and low rise in character, and may contain a mixture of uses.

Objective E

To create and maintain attractive, meaningful, and stimulating environments throughout Oahu.

Policy 1

Prepare and maintain a comprehensive urban-design plan for the Island of Oahu.

Policy 2

Integrate the City and County's urban- design plan into all levels of physical planning and developmental controls.

Policy 3

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

Policy 4

Require the consideration of urban-design principles in all development projects.

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

Policy 6
Provide special design standards and controls that will allow more compact development and intensive use of lands in the primary urban center.

Policy 7
Promote public and private programs to beautify the urban and rural environments.

Policy 8
Preserve and maintain beneficial open space in urbanized areas.

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

Policy 10
Establish a review process to evaluate the design of major development projects.

Objective F
To promote and enhance the social and physical character of Oahu's older towns and neighborhoods.

Policy 1
Encourage new construction to complement the ethnic qualities of the older communities of Oahu.

Policy 2
Encourage, wherever desirable, the rehabilitation of existing substandard structures.

Policy 3
Provide and maintain roads, public facilities, and utilities without damaging the character of older communities.

Policy 4
Seek the satisfactory relocation of residents before permitting their displacement by new development, redevelopment, or neighborhood rehabilitation.

VIII. Public Safety

Objective A
To prevent and control crime and maintain public order.

Policy 1
Provide a safe environment for residents and visitors on Oahu.

Policy 2
Provide adequate criminal justice facilities and staffing for City and County law- enforcement agencies.

Policy 3
Emphasize improvements to police and prosecution operations which will result in a higher proportion of wrongdoers who are arrested, convicted, and punished for their crimes.

Policy 4
Keep the public informed of the nature and extent of criminal activity on Oahu.

Policy 5
Establish and maintain programs to encourage public cooperation in the prevention and solution of crimes.

Policy 6
Seek the help of State and Federal law- enforcement agencies to curtail the activities of organized crime syndicates on Oahu.

Policy 7
Conduct periodic reviews of criminal laws to ensure their relevance to the community's needs and values.

Policy 8
Cooperate with other law-enforcement agencies to develop new methods of fighting crime.

Policy 9
Encourage the improvement of rehabilitation programs and facilities for criminals and juvenile offenders.

Objective B

To protect the people of Oahu and their property against natural disasters and other emergencies, traffic and fire hazards, and unsafe conditions.

Policy 1
Keep up-to-date and enforce all City and County safety regulations.

Policy 2
Require all developments in areas subject to floods and tsunamis to be located and constructed in a manner that will not create any health or safety hazard.

Policy 3
Participate with State and Federal agencies in the funding and construction of flood- control projects.

Policy 4
Cooperate with State and Federal agencies to provide tsunami warning and protection for Oahu.

Policy 5
Cooperate with State and Federal agencies to provide protection from war, civil disruptions, and other major disturbances.

Policy 6
Reduce hazardous traffic conditions.

Policy 7
Provide adequate fire protection and effective fire prevention programs.

Policy 8
Provide adequate search and rescue and disaster response services.

Policy 9
Design safe and secure public buildings.

Policy 10
Provide adequate staff to supervise activities at public facilities.

Policy 11
Develop civil defense plans and programs to protect and promote public health, safety and welfare of the people.

Policy 12
Provide educational materials on civil defense preparedness, fire protection, traffic hazards and other unsafe conditions.

IX. Health and Education

Objective A
To protect the health of the people of Oahu.

Policy 1
Encourage the provision of health-care facilities that are accessible to both employment and residential centers.

Policy 2
Encourage prompt and adequate ambulance and first-aid services in all areas of Oahu.

Policy 3
Coordinate City and County health codes and other regulations with State and Federal health codes to facilitate the enforcement of air-, water-, and noise-pollution controls.

Objective B
To provide a wide range of educational opportunities for the people of Oahu.

Policy 1
Support education programs that encourage the development of employable skills.

Policy 2
Encourage the provision of informal educational programs for people of all age groups.

Policy 3
Encourage the after-hours use of school buildings, grounds, and facilities.

Policy 4
Encourage the construction of school facilities that are designed for flexibility and high levels of use.

Policy 5
Facilitate the appropriate location of learning institutions from the preschool through the university levels.

Objective C
To make Honolulu the center of higher education in the Pacific.

Policy 1
Encourage continuing improvement in the quality of higher education in Hawaii.

Policy 2
Encourage the development of diverse opportunities in higher education.

Policy 3
Encourage research institutions to establish branches on Oahu.

X. Culture and Recreation

Objective A
To foster the multiethnic culture of Hawaii.

Policy 1
Encourage the preservation and enhancement of Hawaii's diverse cultures.

Policy 2
Encourage greater public awareness, understanding, and appreciation of cultural heritage and contributions to Hawaii made by the City's various ethnic groups.

Policy 3
Encourage opportunities for better interaction among people with different ethnic, social, and cultural backgrounds.

Policy 4
Encourage the protection of the ethnic identities of the older communities of Oahu.

Objective B
To protect Oahu's cultural, historic, architectural, and archaeological resources.

Policy 1
Encourage the restoration and preservation of early Hawaiian structures, artifacts, and landmarks.

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

Policy 3
Cooperate with the State and Federal governments in developing and implementing a comprehensive preservation program for social, cultural, historic, architectural, and archaeological resources.

Policy 4
Promote the interpretive and educational use of cultural, historic, architectural, and archaeological sites, buildings, and artifacts.

Policy 5
Seek public and private funds, and public participation and support, to protect social, cultural, historic, architectural, and archaeological resources.

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

Objective C
To foster the visual and performing arts.

Policy 1
Encourage and support programs and activities for the visual and performing arts.

Policy 2
Encourage creative expression and access to the arts by all segments of the population.

Policy 3
Provide permanent art in appropriate City public buildings and places.

Objective D
To provide a wide range of recreational facilities and services that are readily available to all residents of Oahu.

Policy 1
Develop and maintain community-based parks to meet the needs of the different communities on Oahu.

Policy 2
Develop and maintain a system of regional parks and specialized recreation facilities.

Policy 3
Develop and maintain urban parks, squares, and beautification areas in high density urban places.

Policy 4
Encourage public and private botanic and zoological parks on Oahu to foster an awareness and appreciation of the natural environment.

Policy 5
Encourage the State to develop and maintain a system of natural resource-based parks, such as beach, shoreline, and mountain parks.

Policy 6
Provide convenient access to all beaches and inland recreation areas.

Policy 7
Provide for recreation programs which serve a broad spectrum of the population.

Policy 8
Encourage ocean and water-oriented recreation activities that do not adversely impact on the natural environment.

Policy 9
Require all new developments to provide their residents with adequate recreation space.

Policy 10
Encourage the private provision of recreation and leisure-time facilities and services.

Policy 11
Encourage the after-hours, weekend, and summertime use of public schools facilities for recreation.

Policy 12
Provide for safe and secure use of public parks, beaches, and recreation facilities.

Policy 13
Encourage the safe use of Oahu's ocean environments.

Policy 14
Encourage the State and Federal governments to transfer excess and underutilized land to the City and County for public recreation use.

XI. Government Operations and Fiscal Management

Objective A

To promote increased efficiency, effectiveness, and responsiveness in the provision of government services by the City and County of Honolulu.

Policy 1
Maintain City and County government services at the level necessary to be effective.

Policy 2
Promote consolidation of State and City and County functions whenever more efficient and effective delivery of government programs and services can be achieved.

Policy 3
Ensure that government attitudes, actions, and services are sensitive to community needs and concerns.

Policy 4
Prepare, maintain, and publicize policies and plans which are adequate to guide and coordinate City programs and regulatory responsibilities.

Objective B

To ensure fiscal integrity, responsibility, and efficiency by the City and County government in carrying out its responsibilities.

Policy 1

Provide for a balanced budget.

Policy 2

Allocate fiscal resources of the City and County to efficiently implement the policies of the General Plan and Development Plans.

PREVIOUS APPENDIX DELETED BY
CITY RESOULUTION 02-205, CD1

PRIMARY URBAN CENTER DEVELOPMENT PLAN

Exhibit A4, May 2004

Department of Planning and Permitting
City and County of Honolulu
Jeremy Harris, Mayor

City Clerk, Eff. Date: 6-21-04

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Preface

The *Primary Urban Center Development Plan* has been prepared in accordance with the Charter-prescribed requirements for development plans and is to be accorded force and effect as such for all Charter- and ordinance-prescribed purposes. It is one of a set of eight community-oriented plans intended to help guide public policy, investment and decision-making through the 2025-planning horizon. Each plan addresses one of eight geographic planning regions on Oahu, responding to the specific conditions and community values of each region.

Two of the eight planning regions, Ewa and the Primary Urban Center, are the areas to which major growth in population and economic activity will be directed over the next twenty years and beyond. The plans for these regions will continue to be titled "Development Plans," and will serve as the policy guides for the development decisions and actions required to support that growth.

The remaining six planning regions are envisioned to remain relatively stable. The plans for these regions are titled "*Sustainable* Communities Plans" to appropriately indicate the intent of the plans to serve as policy guides for public actions that support existing populations, and maintain and enhance the region's ability to sustain their unique character and lifestyle.

THE DEVELOPMENT PLAN PROCESS

This document is the culmination of the Charter-mandated development plan revision effort lead by the City and County of Honolulu's Planning Department and its successor agency, the Department of Planning and Permitting. This effort was comprised of a process that encouraged and enabled involvement from the region's neighborhood boards, community associations, business leaders, private landowners and area residents.

In its final form, the Plan incorporates input received from public outreach, review and comment received through a variety of formats since 1996.

LAND USE PLANNING AND MANAGEMENT IN HONOLULU

The City and County of Honolulu guides and directs land use and growth through a three-tier system of objectives, policies, planning principles, guidelines and regulations. The **General Plan** forms the first tier of this system. First adopted by resolution in 1977, the General Plan is a relatively brief document, consisting primarily of one-sentence statements of objectives and policies. It has been amended several times, but the basic objectives and policies set forth in the 1977 Plan remain intact.

The second tier of the system is formed by the **Development Plans and *Sustainable* Community Plans** (hereinafter referred to as "Development Plans" for simplicity), which are adopted and revised by ordinance. These plans address eight geographic regions of the island, including the Primary Urban Center, Central Oahu, Ewa, Waianae, North Shore, Koolauloa, Koolaupoko and East Honolulu. Under the current revision program, the Primary Urban Center and Ewa retain the title "Development Plan," while the other regions are now referred to as "*Sustainable* Community Plans" to reflect their policy intent. The map on the following page illustrates these planning regions (Figure P.1).

The third tier of the system is composed of the **implementing ordinances and regulations**, including the Land Use Ordinance (Honolulu's zoning code) and the City's Capital Improvement Program. Mandated by the City Charter, these ordinances constitute the principal means for implementing the City's plans. These ordinances are required to be consistent with the General Plan, the Development Plans (or *Sustainable* Communities Plans), and each other.

In addition to these three Charter-mandated tiers, the development plans are supplemented by two planning mechanisms that are not required by the Charter: the functional planning process and special area planning.

Functional planning activities, some of which are mandated by state or federal regulations, provide long-range guidance for the development of public facilities such as the water system, wastewater disposal and transportation. Special area plans are intended to give specific guidance for neighborhoods, communities and specialized resources.

AUTHORITY OF THE DEVELOPMENT PLANS AND SUSTAINABLE COMMUNITIES PLANS

The authority of the Development Plans is derived from the City Charter, which mandates preparation of a General Plan and development plans to guide "the development and improvement of the city." Together with the General Plan, the development plans provide a policy context for the land use and budgetary actions of the City. This is the authority the originally adopted Development Plans carried, and it remains unchanged in the revised Plan presented in this document.

The Charter provides that "public improvement projects and subdivision and zoning ordinances shall be consistent with the development plan for that area." Although the development plans are not themselves regulatory, they "regulate the regulators." They are policy tools and are to be used, in conjunction with the programs and budgets of the City, to accomplish the objectives of the City and as guides for the decisions made in the private sector.

WHY THE DEVELOPMENT PLANS HAVE BEEN REVISED

In 1992, the City Charter Commission recommended, and the voters of Honolulu adopted, amendments to the City Charter. Chief among its findings, the Charter Commission concluded that the development plans were overly detailed and had engendered processes that duplicated the zoning process. To eliminate this unnecessary duplication, the 1992 Charter amendments changed the definition of development plans from "relatively detailed plans" to "conceptual schemes."

The 1992 Charter amendments established that the purpose of the development plans is to provide:

- "Priorities ... (for the) coordination of major development activities"; and
- Sufficient description of the "desired urban character and the significant natural, scenic and cultural resources ... to serve as a policy guide for more detailed zoning maps and regulations and public and private sector investment decisions."

In response to the 1992 Charter amendments, the Planning Department launched a thorough review of the development plans. The goal of that review was the revision of all eight of the development plans to bring them into conformance with the Charter-mandated conceptual orientation. The revised plan presented in this document conforms to that mandate.

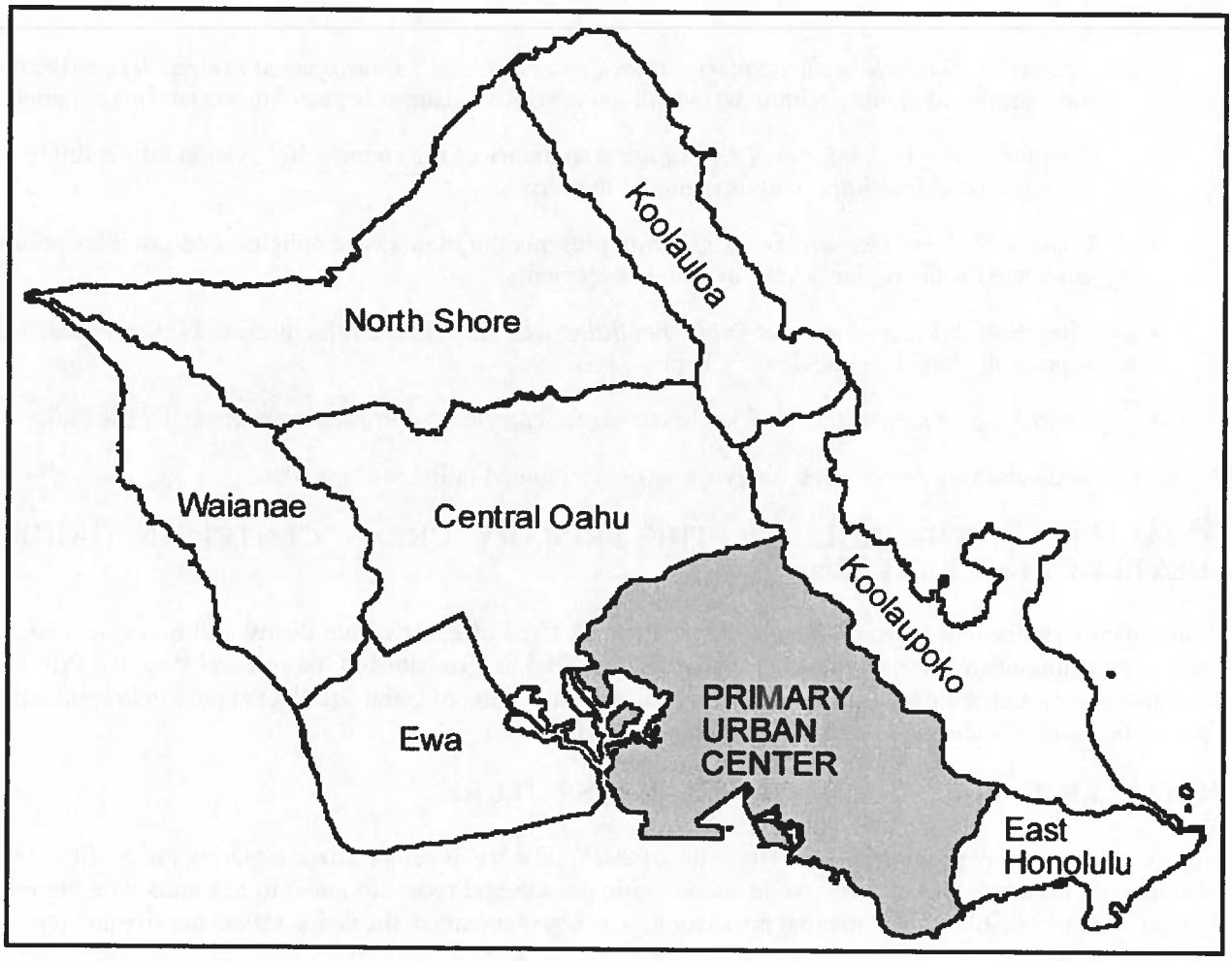


FIGURE P.1: DEVELOPMENT PLANS AND SUSTAINABLE COMMUNITIES PLAN AREAS FOR OAHU

Executive Summary

This plan, which is incorporated into Ordinance 04-14 by reference, is organized in five chapters and an appendix, as follows:

- Chapter 1: *The Role of the Primary Urban Center in Oahu's Development Pattern* defines the region's role and identity within the overall framework of islandwide planning and land management.
- Chapter 2: *The Vision for the PUC's Future* summarizes the community's vision for the future of the region and lists important elements of that vision.
- Chapter 3: *Land Use and Transportation* presents the Plan's core policies, and provides policy guidance for the region's various land use elements.
- Chapter 4: *Infrastructure and Public Facilities* outlines policies, principles, and actions needed to support the land use policies of Chapter 3.
- Chapter 5: *Implementation* addresses needs for carrying out provisions outlined by the Plan.

The following summary provides an overview to the vision and policies of the Plan.

CHAPTER 1: THE ROLE OF THE PRIMARY URBAN CENTER IN OAHU'S DEVELOPMENT PATTERN

This chapter defines the role and identity of the Primary Urban Center within the overall framework of islandwide planning and land management. Consistent with the provisions of the General Plan, the Primary Urban Center is expected to accommodate a significant proportion of Oahu's projected growth in residential population and jobs during the 20-year horizon of this Plan.

CHAPTER 2: THE VISION FOR THE PUC'S FUTURE

The Vision for the PUC describes the Honolulu of 2025. The Vision emphasizes retaining the qualities that attract both residents and visitors, while encouraging growth and redevelopment to accommodate the projected increases in jobs and residential population. The key elements of the vision reflect the size and importance of the PUC:

- Honolulu's natural, cultural and scenic resources are protected and enhanced.
- Livable neighborhoods have business districts, parks and plazas, and walkable streets.
- The PUC offers in-town housing choices for people of all ages and incomes.
- Honolulu is the Pacific's leading city and travel destination.
- A balanced transportation system provides excellent mobility.

CHAPTER 3: LAND USE AND TRANSPORTATION

Chapter 3 describes the policies and guidelines intended to promote and implement the Key Elements of the Vision Statement. The policies and guidelines are organized around the Key Elements to maintain a holistic focus on the Plan's vision and to encourage an integrated approach to implementation. A summary of the policies is presented below.

Protecting and Enhancing Natural, Cultural and Scenic Resources

Natural, cultural and scenic resources provide the context for the PUC and provide its unique identity as a world-class city in a spectacular Pacific island setting. They create the city's scenic backdrop, provide a balance to its buildings and homes, and define the unique settings for the PUC's many neighborhoods and districts. Policies to protect and enhance these resources include:

- **Preserve historic and cultural sites:** Special emphasis should be placed on sites and associated settings that are unique, of special significance, or are in good condition.
- **Preserve and protect natural resource and constraint areas:** Establish an urban community boundary to define urban development and protect areas outside the boundary for their open space, scenic, and resource values.
- **Preserve panoramic views of natural landmarks and the urban skyline:** This includes important vistas and focused views of significant natural and urban features and skyline profiles that make up or frame the PUC from publicly accessible places.
- **Improve access to shoreline and mountain areas:** This includes continuous public access along Oahu's southern shoreline as well as access to its *mauka* natural environments and features.
- **Develop stream greenbelts:** Keep or create *mauka-makai* connections and views up and down important streams and create public walkways where possible and appropriate.
- **Provide parks and active recreation areas:** Create or strengthen parks, plazas and other conveniences throughout the PUC, especially in more populated areas as a balance to the built environment, for recreation, social interaction and leisure interludes.

CULTIVATING LIVABLE NEIGHBORHOODS

Neighborhoods and districts throughout the PUC where people live, work, and play should be actively supported through neighborhood planning, public policies, regulations, and investment to enhance their attractiveness as places that are safe, comfortable, convenient, and attractive. Plan policies for promoting these conditions are:

- **Develop a system for collaborative neighborhood planning:** Refine and further develop a stakeholder-based process for continuing community-based neighborhood planning for areas requiring this attention.
- **Cultivate existing and new "neighborhood centers":** Develop neighborhood centers as the principal places for people in a neighborhood to gather, shop, dine or play, and to provide a source of community identity.
- **Promote mixed land uses:** Encourage compatible mixtures of land uses for in-town PUC neighborhoods and districts to support a variety of urban lifestyle choices and to create vibrant and convenient neighborhoods.
- **Create parks that draw people and activity:** Develop parks that invite people and promote positive social interaction and activity.
- **Make streets "pedestrian-friendly":** Create inviting and attractive streetside environments that support and enhance convenient and safe pedestrian use.

IN-TOWN HOUSING CHOICES

While other vision elements address the livability of communities, this element emphasizes the need to provide residential choices for in-town (urban) living that are affordable and meet the lifestyle needs and preferences of different population groups. Policies for housing options along the PUC's vibrant coastal plain include:

- **Promote people-scaled apartment and townhouse dwellings in low- or mid-rise buildings oriented to the street:** This policy encourages residential buildings that are modest in height and have ground-floor shopping and dining opportunities to create pedestrian-oriented neighborhoods that satisfy a range of lifestyle needs conveniently.
- **Improve the feasibility of redeveloping small lots:** Encourage housing variety and affordability by removing barriers for small-scale townhouse and low-rise apartment development on smaller apartment-zoned lots.
- **Reduce costs for apartment homes:** Promote affordable housing choices consistent with creating livable communities by reducing certain construction and development-related costs.
- **Provide adequate schools and parks for in-town neighborhoods:** Conveniently located schools and parks that can be reached safely are needed to meet the needs of young, active families.
- **Expand the capacity of infrastructure, including water supply, sewers, and storm drains:** This policy calls for government action and leadership in creating adequate infrastructure to meet present and future demands in order to support the strengthening or creation of livable in-town communities.
- **Preserve and expand the current inventory of affordable rental housing units:** The City should assure that the current inventory of affordable rental units, whether owned by the City or not, is preserved and retained as affordable, and that the inventory of affordable rental units is expanded as needed by the community.
- **Support the retention, rehabilitation and improvement of older, low-rent apartment buildings:** Maintain, rehabilitate and improve older apartment buildings to retain existing housing stock as viable in-town housing choices.
- **Provide for special needs housing: Allow housing for people with special needs and promote their integration into the larger PUC community.**
- **Provide incentives and cost savings for affordable housing:** This policy promotes exemptions from regulations, on a case-by-case basis, to make "affordable" housing available to those needing it.
- **Provide for high-density housing options in mixed-use developments around transit stations.** This type of "transit-oriented development" facilitates transit use and allows for increased densities without generating increased vehicular congestion.

THE PACIFIC'S LEADING CITY

The Plan recognizes the PUC as an economic center of importance to both Oahu and the State of Hawaii, and envisions Honolulu to be "the Pacific's leading city and travel destination." The following are key policies to help make this happen.

- **Create public open space along the Pearl Harbor waterfront and strengthen the physical and visual connections between the urban center and the water:** This recognizes the waterfront as a principal element in the PUC's setting and as an organizing reference point for the city, and supports development of an economic and social asset for the surrounding community.

- **Redevelop the Downtown/Iwilei waterfront:** This policy proposes to increase visual and physical access to the waterfront by re-routing traffic away from Nimitz Highway and introducing commercial activities such as restaurants, shops, offices, and entertainment, low to medium-rise residences, and areas capable of hosting recreational activities.

- **Stimulate the development of high technology and knowledge-based industries:** Attract high-technology businesses to Hawaii and provide in-town locations for them. Encourage investment in infrastructure within commercial buildings that will accommodate and attract high-technology and biotechnology businesses.

- **Develop and implement a plan for a vibrant and livable Waikiki:** This plan should address resident and visitor experiences, the street environment, the design of new buildings, and relationships with adjacent districts.

- **Support attractions that are of interest to both residents and visitors in the Ala Moana/Kakaako/Downtown corridor.** Develop commercial and cultural attractions and improvements to serve residents and visitor interests.

- **Provide opportunities for the development of visitor units in the Ala Moana/Kakaako/Downtown corridor:** Provide accommodation options for convention and business travelers conveniently located near downtown and the Hawaii Convention Center.

- **Provide opportunities for the development of village inns in existing commercial centers and allow bed and breakfast establishments in residential neighborhoods:** This policy encourages development of alternative visitor accommodations in contrast to the traditional resort enclaves of Waikiki.

- **Support continuation of military uses:** Support and coordinate with the military's long-range land planning activities to realize common employment, housing and recreation goals.

- **Enhance Honolulu Harbor and harbor-related uses:** Reserve lands adjacent to the harbor for harbor-related uses.

- **Support industrial uses in Kalihi-Palama industrial districts:** Support existing mixed-usages in the industrial districts of Kalihi-Kai and Kapalama, as well as existing commercial uses along the Nimitz, Dillingham, King, Kalihi, and Waiakamilo corridors.

- **Define the role of town centers and promote a mixture of land uses in Aiea-Pearl City:** Strengthen the functions and latent identities of town centers in Pearl City, Aiea, Waimalu and Halawa, and establish the Pearlridge area as a Pearl Harbor Regional Town Center.

- **Encourage the full use of existing private and public parking garages:** Encourage private parking garage owners to rent underused parking stalls within commercial buildings and large-scale residential projects.

DEVELOP A BALANCED TRANSPORTATION SYSTEM

A pleasant and efficient balance of travel choices that provide timely and convenient access to destinations throughout the PUC is essential to protect the region's natural assets, enhance the livability of its communities, and support a world-class city. Policies to promote a balanced transportation system include:

- **Implement land use strategies to achieve a balanced transportation system:** To achieve community livability and enable transportation choices, land use strategies that support alternative travel modes such as walking, bicycling, and transit should be adopted and implemented.

- **Improve the public transit system, including development of a rapid transit component:** A convenient and efficient public transit system aids in maintaining traffic flows at an acceptable level for an attractive and successful urban setting. An effective public transit system for the PUC could be created with an east-west rapid transit route supplemented by effective links to the PUC's valley communities.
- **Implement Transportation Demand Management (TDM) strategies:** Employ management strategies that encourage alternative travel models.
- **Review existing plans and establish priorities for roads and road improvements:** Conduct a comprehensive classification of roadways to identify prospective improvements (e.g., automobile, transit, bikeways, pedestrian routes), and prioritize the implementation of such improvements.
- **Implement the Honolulu Bicycle Master Plan:** Institutionalize a policy that all streets designated for bicycle travel should be maintained to accommodate shared bicycle and automobile use.
- **Enhance and improve pedestrian mobility:** Create pedestrian districts, routes and a regional pedestrian network, and address pedestrian safety concerns.
- **Encourage the full use of existing private and public parking garages:** Encourage private parking garage owners to rent underused parking stalls within commercial buildings and large-scale residential projects.

CHAPTER 4: INFRASTRUCTURE AND PUBLIC FACILITIES

This chapter addresses infrastructure and public facilities at the regional level, and identifies policies and planning principles to support the land use policies presented in Chapter 3. Functional areas include:

- Water Allocation and System Development
- Wastewater System
- Electrical Power
- Telecommunications Facilities
- Solid Waste
- Stormwater Systems
- School and Library Facilities
- Civic and Public Safety Facilities

CHAPTER 5: IMPLEMENTATION

This chapter discusses the various actions that will be necessary to ensure timely implementation of the plan, including measures that will minimize disruption during the transition into the plan. Measures addressed by this chapter include changes to the zoning maps, the Land Use Ordinance, and various other regulatory codes and standards necessary to achieve required consistency with the Development Plan. This chapter also addresses proactive measures, such as the planning and construction of infrastructure improvements, functional planning, and the development of Special Area Plans. Implementation of the Plan will be monitored via comprehensive reviews conducted at five-year intervals.

APPENDIX A

Appendix A consists of six conceptual maps and a glossary of land use designations used in the Plan. The conceptual maps (Map A.1, Significant Panoramic Views; Map A.2, Open Space Map; Map A.3, Land Use Key Map; Maps A.4, A.5 and A.6, Land Use Maps for PUC-West, PUC-Central and PUC-East) represent the vision elements and major land use and open space policies articulated in the Plan. The maps, which depict generalized categories or groups of land uses within the region, are intended to be illustrative of the Plan's text and are not parcel-specific.

APPENDIX B: IMPLEMENTATION STRATEGIES

Appendix B offers potential strategies, or options, that could be used to carry out the policies and guidelines discussed in the Plan. The strategies are intended as a resource for the development of Special Area Plans and for revisions to the Land Use Ordinance.

1. The Role of the Primary Urban Center in Oahu's Development Pattern

The *General Plan* and eight regional plans guide "the development and improvement of the City" as mandated by the Charter of the City and County of Honolulu. The *General Plan* is a relatively broad document, consisting primarily of one-sentence statements of "objectives" and "policies" that provide guidelines for shaping the future of Oahu. The two development plans and six sustainable communities plans cover eight geographical regions, encompassing the entire Island of Oahu.

The Primary Urban Center (PUC) extends from the core of historic downtown Honolulu to Pearl City in the west and Waialae-Kahala in the east. The undulating shorelines of East Mamala Bay and Pearl Harbor define the PUC's southern edge. To the north, the deep green of the Koolau Range frames the landscape. The busiest parts of the city lie along the coastal plain, while quieter residential communities cluster on ridges and in *mauka* valleys. The volcanic craters of Diamond Head, Punchbowl and Aliamanu rise above the coastal plain.

The Primary Urban Center is a lively, metropolitan city that is home to almost half the island's population and three-quarters of Oahu's jobs. At the turn of the millennium, the PUC is a mature urban center. While there are vacant lots, the PUC has no remaining "greenfields" – i.e., no large reservoir of open, developable land. The planning goal for the PUC is to enhance its livability while accommodating a moderate amount of growth.

As part of the City's overall strategy to "Keep the country, country" and to maintain a compact urban core, the *General Plan* directs most of the projected growth in residential population and jobs to the PUC and Ewa (the Secondary Urban Center), though some growth will also go to urban fringe areas such as Central Oahu. Objective C, Policy 1 of the General Plan states: "Facilitate the full development of the Primary Urban Center." Proportionately, Ewa will have the greatest amount of growth. While the PUC is projected to gain both residents and jobs, the *General Plan* calls for the PUC's share of Oahu's population and employment to decline over the next 20 years.

The *Primary Urban Center Development Plan* (PUC DP) establishes policy to shape the growth and development of the PUC over the next 20 years. Chapter 2 sets forth an overall vision for the year 2025. Chapter 3 presents policies regarding land use and transportation. Chapter 4 sets policies for infrastructure and public facilities. Chapter 5 addresses implementation of the plan.

This update of the *PUC Development Plan* reaffirms the region's role in Oahu's development pattern through the establishment of policies in the following areas:

- Natural, historic, cultural and scenic resources;
- Parks and recreation areas;
- Lower- and higher-density residential neighborhoods;
- Commercial and visitor industry facilities;
- Military installations, transportation centers and industrial areas;
- Design of streets and buildings;
- Neighborhood planning; and
- Transportation networks and systems.

The "Primary Urban Center" planning region is actually a large and diverse mix of neighborhoods, businesses, and industries, as well as health, education and cultural centers. Each neighborhood or district has its own special qualities as well as its own issues and opportunities. Some already have special area plans and/or special zoning districts – e.g., the Chinatown Special District and the Punchbowl Special District. Other neighborhoods are in the process of creating long-range plans. In response to this diversity, the PUC Development Plan establishes broad regional policy and provides a foundation for more specific planning at the neighborhood level.

2. The Vision for the PUC's Future

The vision for the future of the PUC looks forward to the Honolulu of 2025. It expresses the big ideas about what Honolulu will be in 20 years – our aspirations for the City of Honolulu. The vision provides a basis for the policies and guidelines discussed in Chapters 3 and 4.

The Primary Urban Center (PUC) stretches from Kahala to Pearl City. It is the capital of the State of Hawaii, the state's commercial and financial center, and the home of its premier educational and cultural institutions. It is the heart of Hawaii's economic, political and cultural life. The value created in the PUC nourishes the entire state.

The **Key Elements** of the vision for the PUC reflect the size and importance of Honolulu and its lead role in the state's business:

- Honolulu's natural, cultural and scenic resources are protected and enhanced.
- Livable neighborhoods have business districts, parks and plazas, and walkable streets.
- The PUC offers in-town housing choices for people of all ages and incomes.
- Honolulu is the Pacific's leading city and travel destination.
- A balanced transportation system provides excellent mobility for residents and visitors

2.1 HONOLULU'S NATURAL, CULTURAL AND SCENIC RESOURCES ARE PROTECTED AND ENHANCED

The mountain lands and shorelines that frame the city are protected and preserved, as are the natural, cultural and scenic areas and resources that lie within the urban area. Beaches and coastal waters, as well as historic sites and mountain lands, are actively managed and improved. Physical access to the mountains, the shoreline, streams and other resources is assured and continually enhanced.

Within the city, the open space network links *mauka* lands and shorelines to parks and open spaces within the urban area. Regional, beach and nature parks, the larger district parks, major campuses and golf courses provide green open space and recreational opportunities. The Civic Center, campuses and cemeteries also provide valuable open space. The public enjoys the Honolulu and Pearl Harbor waterfronts, with their promenades, bikeways and opportunities for entertainment. Stream greenbelts, numerous bikeways and pedestrian-friendly streets connect major parks and open spaces.

Culturally- and historically-important sites, landforms and structures continue to be preserved and enhanced. Historic and cultural districts are improved and interpreted for visitors.

People enjoy the panoramic views of Honolulu's mountain ridges, craters and coastlines from key vantage points. Within the city, view corridors are preserved through careful planning and design.

2.2 LIVABLE NEIGHBORHOODS HAVE BUSINESS DISTRICTS, PARKS AND PLAZAS, AND WALKABLE STREETS

The PUC is an interconnected network of vibrant, distinct neighborhoods. Each has qualities that make it a livable and enjoyable place to live, work or play. The City and County of Honolulu supports an ongoing program of neighborhood planning and improvement.

Livable neighborhoods include business and community services as well as residences. Key to livability is convenient access to work and to the many services and attractions found in an urban center. Rather than segregate residential from commercial uses, the goal is to integrate them in ways that provide greater convenience and bring activity to neighborhood streets.

Livable neighborhoods have centers where people meet. In some neighborhoods, the center is a business district. In others, it is a popular park that has sports activities. Some neighborhoods have more than one center. In neighborhood business districts, shaded sidewalks and district parking support small shops open to the street.

Mauka residential neighborhoods primarily consist of single-family homes and townhouses on the edges of the central city. They retain their historically residential character, with mostly one- and two-story buildings and plenty of yard space and trees. Shops, parks and schools are located within walking or bicycling distance of most residents. Churches, schools, and other uses coexist harmoniously.

In-town residential neighborhoods offer the greatest amenities for urban living. Consisting mostly of apartment dwellings, these neighborhoods are closest to employment centers, universities and cultural institutions. They are also close to grocery stores, shopping districts, and other government, health and commercial services. Proximity to rapid transit lines gives residents mobility and makes it possible to live with fewer automobiles. Newer apartment buildings are typically four to six stories tall, with shops and services on the ground floor. Small parks, plazas and "green streets" provide places for people to meet and for small children to play.

FIGURE 2.1: VISION OF A LIVABLE NEIGHBORHOOD WITH MID-RISE APARTMENTS. Illustrating the potential for a livable neighborhood in Kakaako, this photo-simulation shows new development on the blocks around Mother Waldron Park. Neighborhood families can walk to the water plaza and to stores from the surrounding apartment buildings. Shops and offices occupy the ground floor of each building, and parking is accessed from side streets.[1]

[1] To illustrate concepts discussed in community workshops, the Department of Planning and Permitting prepared several "before and after" photo-simulations showing new development of various sites. This "after" image is based on a photograph looking *makai* across Mother Waldron Park, with Cooke Street on the left intersecting Pohukaina Street. This and other illustrations are found in Chapter 3.

Shopping districts include "Main Street" corridors, shopping centers and neighborhood business districts. Served by transit and district parking, businesses in older commercial districts are freed from individual parking requirements.

Livability is cultivated through collaborative planning that involves residents, businesses and government at the neighborhood level. The City has adopted specific area plans for many PUC neighborhoods. The plans recognize and support diversity among the neighborhoods, enhance the special qualities of each neighborhood, and guide programmed improvements. City agencies work with the neighborhoods on an ongoing basis.

2.3 THE PUC OFFERS IN-TOWN HOUSING CHOICES FOR PEOPLE OF ALL AGES AND INCOMES

More and more households are attracted to in-town residential neighborhoods because of the convenience and amenities of the urban lifestyle. They include a growing number of elderly moving to smaller quarters but wanting to remain near their home neighborhoods. Young families are drawn to in-town neighborhoods with convenient elementary schools and parks. Living close to work is more popular than ever.

Mid-rise apartments and townhouses are the accommodation of choice because they are attractive, affordable and convenient. With storefronts and pedestrian entries facing the sidewalk, these buildings provide easy access to neighborhood shopping and services. Because they are similar in height and are generally built out to the sidewalk, they relate well to buildings around them and to the street. With street trees and a park or plaza nearby, these buildings form very desirable neighborhood environments.

Builders are enthusiastic about mid-rise apartments because they cost less to build than high-rise towers, and they can be built in smaller increments on smaller lots. Because development is less expensive and involves less risk, apartment units can be sold and rented at affordable prices.

Older walk-up apartments are being repaired and rehabilitated. Preserving the large supply of lower-priced rental units makes living in the PUC affordable for all income groups. The State and City contribute to the supply by preserving or causing to be preserved the existing inventory of affordable rental units and by supporting housing for the elderly, other special needs groups, and low- to moderate-income households with grants, tax credits and land use approvals.

2.4 HONOLULU IS THE PACIFIC'S LEADING CITY AND TRAVEL DESTINATION

The Primary Urban Center continues to be Oahu's primary employment center and the center for many commercial, industrial, transportation and government functions essential to the State of Hawaii.

An expanded Downtown continues to be the hub of government and financial activity. In Kakaako, the University of Hawaii Medical School is an internationally known research center. The adjoining biotechnology park houses the offices and laboratories of key American and overseas companies. A leading center in health research and technology development, the campus draws together researchers and medical innovators from the mainland United States, China and Japan.

With ongoing redevelopment and improvement, Waikiki remains the State's largest and most popular visitor destination. An ever-growing number of visitors are drawn to Honolulu for business reasons. Many organizations travel here for conferences and meetings at the City's highly rated Hawaii Convention Center. Newer hotels are located near the Convention Center and in Downtown. In addition, smaller hotels and inns are integrated into the commercial districts of several PUC neighborhoods, where local restaurants and businesses benefit from visitor spending.

FIGURE 2.2: VISION OF THE HONOLULU WATERFRONT. In this vision of the future, Honolulu's waterfront is transformed into a "people place." By building a Sand Island-Kakaako bypass road, Nimitz Highway has been reduced in size and land has been recaptured for businesses and broad promenades next to the harbor.

Higher-spending vacationers are attracted to Oahu's unique historic and cultural attractions. Many of these attractions are located in the PUC – particularly the Ala Moana/Kakaako/Downtown corridor, where public agencies and private companies provide visitor services and interpretation. Visitors and residents stroll the harbor-front promenade along Nimitz Boulevard. Since through-traffic destined for Kakaako and Waikiki uses the Sand Island Parkway, Nimitz Highway is transformed into an urban boulevard, with a landscaped median and broad sidewalks.

With the Kalihi Channel restored, Honolulu Harbor is able to accommodate today's larger ships and increased commercial traffic with greater efficiency and safety. Expanded shore facilities handle growth in container freight as well as port calls by international and interisland cruise ships.

Residents and visitors also enjoy the broad waterfront of Pearl Harbor's East Loch. The historic OR&L bikeway and promenade links extensive parks, including Aiea Bay State Recreation Area, the new park at McGrew Point, and an expanded Neal S. Blaisdell Park. Restored historic sites on Ford Island, together with the U.S.S. Missouri and the U.S.S. Arizona Memorial, make Pearl Harbor the nation's most important site for World War II history.

The PUC continues to be home to the U.S. Pacific Armed Forces and several military bases, including Hickam Air Force Base and the Navy facilities surrounding Pearl Harbor. The more intensive military activities are located on the *makai* side of Nimitz Highway and Kamehameha Highway, with lands on the *mauka* side reserved for housing and community services.

2.5 A BALANCED TRANSPORTATION SYSTEM PROVIDES MOBILITY

Honolulu's balanced transportation system provides excellent mobility for residents, workers and visitors traveling throughout the Primary Urban Center. Streets are engineered to accommodate automobiles along with transit vehicles, bicycles and pedestrians.

A fully built-out rapid transit system serves thousands of people every day. Its comfortable vehicles ride on priority routes, speeding travel across the central PUC. High-capacity vehicles travel east-west routes connecting Pearl City to Downtown, Waikiki and the University of Hawaii. The system also speeds commuters from Ewa to the PUC without adding to congestion. An efficient hub-and-spoke bus system links neighborhoods to the main rapid transit lines. Community circulator routes (spokes) deliver riders to transit centers (hubs) where they transfer to high-service rapid transit routes. Connected to regional lines that serve outlying communities, rapid transit carries many residents to and from their workplaces in the PUC. During the day, many people hop on rapid transit to make in-town trips, finding it fast, reliable, convenient and less expensive than driving and parking.

Using highly-developed intelligent transportation systems, State and City transportation agencies monitor and manage traffic flow. Efficient management allows optimum utilization of existing roadway capacity. On-board navigation equipment aids both transit vehicles and private automobiles to select the best-flowing routes.

Well-planned bicycle routes make commuting by bicycle safe and convenient. Using Bike-Friendly Route One, cyclists can traverse the PUC from Pearl City to Kahala. Bike routes also contribute to increased recreational bicycling as well.

The PUC is known for being a pedestrian-friendly place, where tree-lined sidewalks attract people to walk for health and pleasure. Regional pedestrian networks along streets and stream corridors connect neighborhoods and *mauka* areas in both the Honolulu and Pearl Harbor regions. In Waikiki, Kakaako, McCully-Moiliili and other in-town neighborhoods, special pedestrian streets and districts connect residential blocks with parks and shopping areas. Streets with rapid transit system lines have shelters and specially-designed pedestrian crossings. Sidewalks and bus shelters are designed to assure that disabled individuals also have excellent mobility.

3. Land Use and Transportation

To achieve the vision for 2025, the City must organize and direct its future actions in the key areas of land use and transportation. This chapter sets forth policies and guidelines organized according to the Key Elements of the Vision (Chapter 2).

3.1 PROTECTING AND ENHANCING NATURAL, CULTURAL AND SCENIC RESOURCES

The first Key Element, "Honolulu's natural, cultural, and scenic resources are protected and enhanced," addresses the natural and cultural setting of the Primary Urban Center (PUC), the need for natural areas and open space, and the concept of an open space network that pervades urbanized areas and links them to the mountains and the shoreline.

Section 3.1.1 examines the existing conditions and issues that affect these "heritage" resources and the open space network. **Sections 3.1.2** and **3.1.3** set forth policies and guidelines, and **Section 3.1.4** discusses the relationship of the policies to the maps.

3.1.1 EXISTING CONDITIONS, ISSUES AND TRENDS

The mountains and shoreline that define the *mauka* and *makai* edges of the Primary Urban Center's continuous urban corridor are the dominant elements of the open space system. Within the corridor itself, the open space system consists of volcanic craters, streams, and other water bodies, as well as the larger parks and campuses:

***Mauka* edge:** The Koolau Mountain Range and its undeveloped foothills and slopes.

- ***Makai* edge:** The shorelines and waters of the Pacific Ocean, Pearl Harbor (East Loch), Keehi Lagoon, Kapalama Basin, Honolulu Harbor, Kewalo Basin, and Ala Wai Harbor.

- **Volcanic craters:** Leahi (Diamond Head), Puowaina (Punchbowl) and Aliamanu; also, a minor crater remnant in Kaimuki.

- **Perennial streams:** Kapakahi Stream, Palolo Stream, Manoa Stream, Makiki Stream, Nuuanu Stream, Kalihi Stream, Kapalama Stream, Moanalua Stream, Halawa Stream, Aiea Stream, Kalauao Stream, Waimalu Stream and Waiawa Stream and their tributaries.

- **Other important water bodies and wetlands:** Kalauao Springs (watercress farm in Pearlridge area), Salt Lake, Nuuanu Reservoir and Ala Wai Canal.

- **Major parks and campuses:** Regional, beach, and large district parks; golf courses; large cemeteries; college and high school campuses; and the Civic Center.

These elements combine to create the extraordinary scenic setting that Hawaii's – and the Pacific Basin's – greatest city enjoys. Residents and visitors enjoy striking vistas from many vantage points and convenient physical access to beaches, coastal waters, hiking trails and other recreational spots. Open space features are an integral part of daily urban life, not only for their scenic quality and recreational value, but also because they act as directional reference points when traveling through the city. For these reasons, it is very important that they remain visible and accessible.

In future years, as development in the Primary Urban Center continues and obsolete buildings are replaced, the urban form can be shaped to preserve and enhance the natural setting and to improve visual and physical access to open spaces.

3.1.1.1 Natural Resource And Development Constraint Areas

Most areas within the Primary Urban Center that have high natural resource value – such as habitats for native species, beaches, and water bodies – or that have unfavorable characteristics for urban development – such as steep slopes and unstable soils – are located within the State Conservation District and protected from urban encroachment. In general, protected areas include the mountains, the coastal waters and a few places within the State Urban District, such as Diamond Head, Punchbowl, Ala Wai Canal and Aliamanu/Salt Lake.

URBAN STREAMS AND WETLANDS

The State Urban District includes smaller-scale natural resource elements such as stream segments and wetlands. The few remaining wetlands in the Primary Urban Center are located near Pearl Harbor and are protected by Federal regulations. Most of the urban stream channels have been hardened with concrete and stone structures, and their banks are often devoid of vegetation. The degree of modification tends to be greater in downstream segments. Many of the upstream segments that run through single-family residential neighborhoods are still in relatively natural condition.

The purpose of stream modifications was to stabilize banks, provide flood protection for adjacent properties or accommodate bridges. While it is typically not feasible to return stream channels to their original state, it is possible in many cases to reintroduce natural elements such as shade trees along the banks, rip-rap lining and V-notched or unlined channel bottoms to the stream environment. Such measures mitigate impacts on biological habitat and improve the aesthetic quality and recreational value of urban streams. (See additional discussion in **Section 3.1.1.3**, Stream Corridors.)

STEEP SLOPES AND UNSTABLE SOILS

Development on steep slopes or unstable soils could result in adverse visual impacts or hazardous conditions. Most of the vacant lands in the State Urban District with these characteristics are located in valley and hillside neighborhoods. Where hillside locations have stable soil material, the primary impact is aesthetic, since structures built along slopes tend to be visually prominent and can interrupt the silhouette of the natural ridgeline when viewed from below. Building on the lower slopes of valley walls cannot only have a visual impact, but can also be potentially hazardous. Where these valley locations have deposits of unstable soils, slow-moving landslides can cause property damage, prompting claims against the City – as has happened in both Manoa and Moanalua Valleys.

Incremental build-out of hillsides and lower valley slopes can also affect both natural and urbanized drainage systems. Increased lot coverage by larger buildings and more extensive paving increases the volume and rate of stormwater discharge. This problem is exacerbated in the *mauka* reaches of the valleys and hillsides, where rainfall is higher.

Over the long term, the cumulative impact of greater lot coverage threatens to erode or convert natural stream banks downstream by requiring expensive, aesthetically and ecologically undesirable structural hardening of the drainage channel or by exceeding the capacity of the drainage system, resulting in flood conditions. To prevent inappropriate development, hillside lands should be placed in preservation or low-density residential zoning districts. Such lands should also be subject to stricter development standards – such as maximum lot coverage and structural stability – than those that apply to level land.

Where hillsides and drainage channels have already been adversely affected by inappropriate development, remediation should be pursued by removing or repairing damaged or threatened structures on unstable slopes and selectively modifying drainage channels to introduce more natural elements (e.g., streamside trees, rip-rap lining, and V-notched or unlined channel bottoms).

3.1.1.2 Scenic Views

PANORAMIC VIEWS OF NATURAL FEATURES AND LANDMARKS

Panoramic views are broad vistas from distant vantage points. **Map A.1, Significant Panoramic Views**, depicts the vantage points and orientation of major panoramic views of the following view objects within the Primary Urban Center:

- The Koolau and Waianae Mountain Ranges and their foothills (notably, Red Hill and Puu Ualakaa, or Round Top);
- The Pacific Ocean, Pearl Harbor's East Loch, Ford Island, Honolulu Harbor, Keehi Lagoon and Kewalo Basin, and their respective shorelines; and
- The craters of Leahi (Diamond Head), Puowaina (Punchbowl) and Aliamanu.

In some areas of the Primary Urban Center – especially within central Honolulu – building height limits have been adopted specifically to protect viewplanes. Nevertheless, there are public places along the shoreline – such as Ala Moana Beach Park, Kakaako Waterfront Park and Kewalo Basin – and along the Ala Wai Canal where panoramic *mauka* views of the Koolau Mountain Range and Punchbowl are gradually diminishing as high-rise buildings in the Kakaako, Ala Moana and McCully-Moiliili districts are developed to the height limits that are allowed there. Distant views of the Waianae Mountain Range and Pearl Harbor are less likely to be obstructed by intervening high-rise buildings, but there is no explicit regulatory mechanism to prevent the potential for loss of these views.

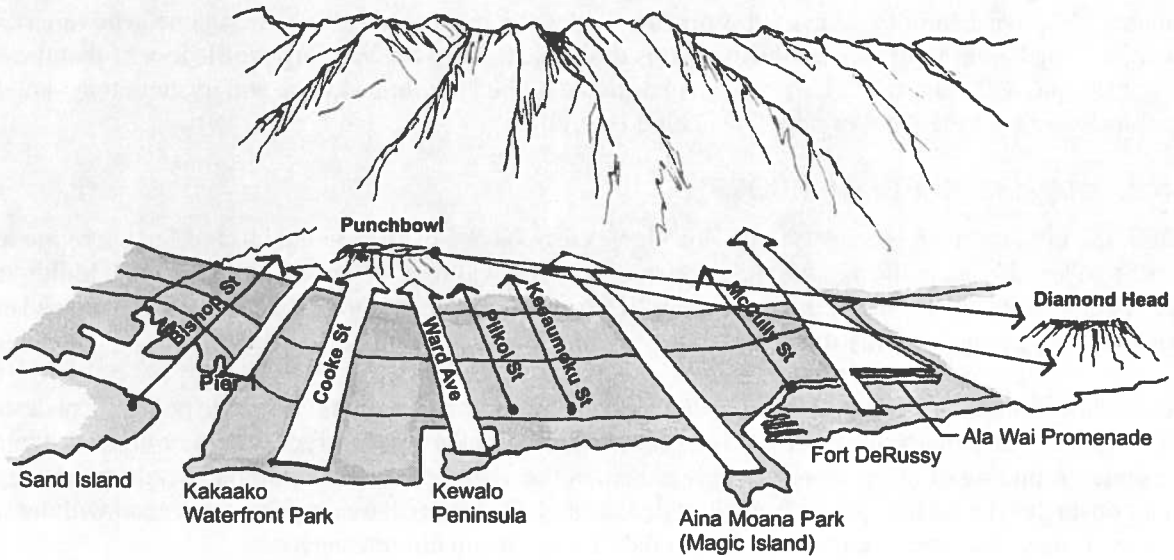


Figure 3.1: View Corridors. A diagram of *mauka* views from the shoreline and the view toward Diamond Head from Punchbowl Lookout.

PANORAMIC VIEWS OF THE URBAN SKYLINE

Panoramic views of the urban skyline between Diamond Head and Pearl Harbor's Middle Loch – from arrival points by air or sea, from above the Koolaus, and from outlying areas to the east and west – reveal the relationship between the city and its open space elements. The skyline is an important aspect of the city's image. It establishes a distinctive identity for Honolulu, defines subdistricts within it, and provides a directional orientation.

The lateral extent of Honolulu's skyline is defined by Nuuanu Stream on the west and Kapiolani Park and Diamond Head on the east. At present, Downtown, with its taller profile and denser clustering of buildings emphasized by the low-rise profiles of the Chinatown and Hawaii Capitol Special Districts, is a visually prominent element of the skyline. Recent high-rise developments in Kakaako have begun to weaken this prominence. Kakaako's development regulations allow buildings that are as tall or taller as those Downtown, but the towers are not as closely spaced. As a result, a high-rise "picket fence" is emerging on the Kakaako skyline, making the distinction between Downtown and other districts less clear.

Over the next few decades, there is not likely to be significant change to the western and eastern ends of the skyline, which are the respective locations of Downtown and Waikiki. In the Downtown financial district, there are few remaining sites available for new high-rises. In Waikiki, most of the high-rise buildings exceed present building height and density controls. While current regulations allow such "nonconforming" buildings to be redeveloped under limited circumstances, this will not result in appreciable changes to distant views of the skyline.

The Kakaako and Ala Moana districts, recognized as areas with substantial capacity for future urban development, are located in the central portion of the skyline. It is in these districts, as well as in McCully-Moiliili, where lower building height limits would not only help maintain the visual prominence of the Downtown skyline, but also promote a feasible and desirable building form.

The skyline in the western portion of the Primary Urban Center is less pronounced than in Honolulu. There is a cluster of high-rise buildings in the Pearlridge vicinity and an anomalous pair of apartment towers at Manana. Otherwise, buildings have a low profile. Redevelopment could affect the skyline in this area unless lower building height limits are established. It is desirable to keep the building profile low so that the Pearl Harbor skyline will continue to be visually subordinate to the Honolulu skyline and its mountain backdrop, which is lower than the Koolau ridgeline behind Honolulu.

MAUKA-MAKAI STREET CORRIDORS

Within the city, there are framed views – or view "corridors" – of the mountains and the shoreline along streets that are aligned in the *mauka-makai* orientation. The width of the street, combined with building setback requirements, create and retain these views. Unfortunately, streetscape elements such as overhead utility lines and signage significantly diminish the quality of the view in many instances.

Views of the mountains or shoreline along the street are important directional reference points for pedestrians and motorists, particularly for those who are not familiar with the City's street system or urban landmarks. The undergrounding of utility lines not only enhances the visibility of the mountain backdrop, but also removes obstacles (i.e., utility poles) from the sidewalk and allows street tree canopies to spread without interference. It may also improve utility system reliability in certain circumstances.

Due to the cost and disruptive effects of underground installation, priority should be given to burying utility lines on the major collector streets and where *mauka-makai* view corridors are indicated in **Figure 3.1**. Preferably, undergrounding would occur concurrently with other major construction within the right-of-way.

3.1.1.3 Access to the Shoreline, Mountains and Streams

STREAM CORRIDORS

Portions of important streams that flow through Honolulu – Manoa Stream, Nuuanu Stream, Moanalua Stream and Kapalama Stream – have landscaped greenbelts and/or parallel pathways already in place. Extension and improvement of these pathways and greenbelts would complement efforts to reintroduce natural elements to the stream environment and would make them more useful components of the open space network for recreational use and short walking trips.

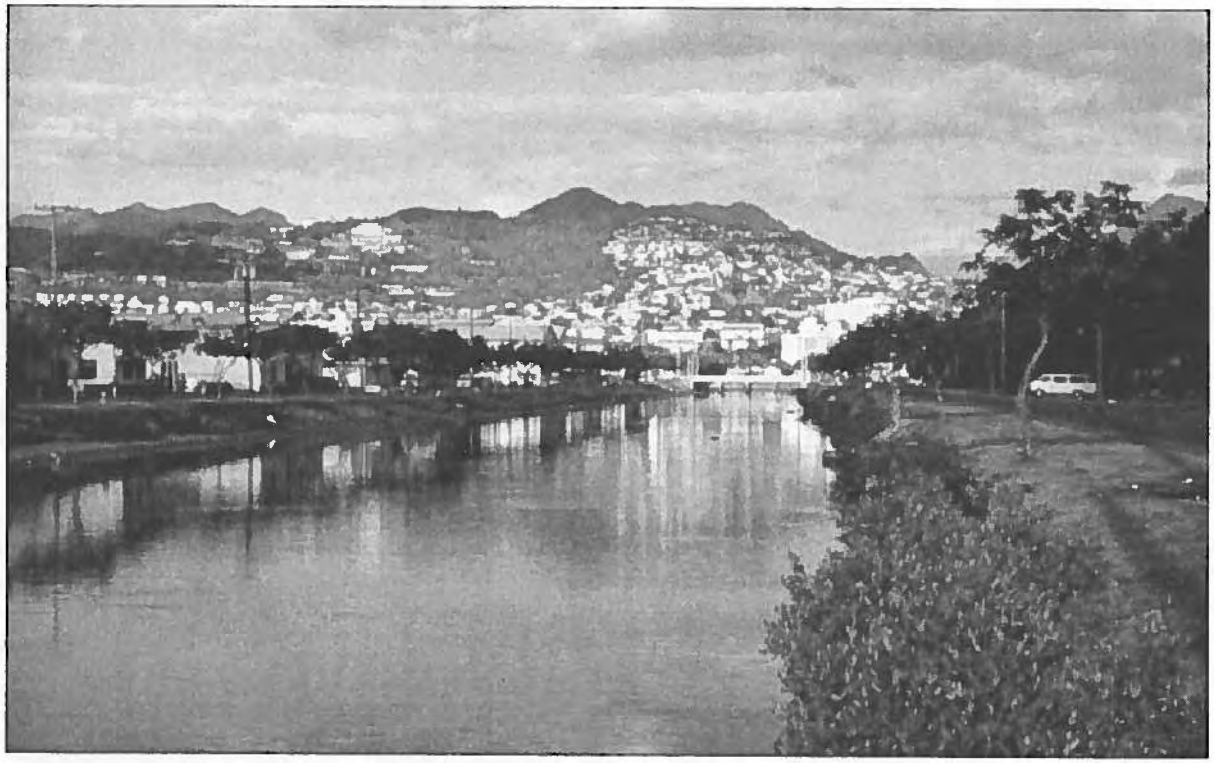


FIGURE 3.2. STREAM CORRIDORS. Stream corridors running through the Primary Urban Center offer potential for water recreation, such as outrigger canoe paddling, as well as for bicycle and pedestrian paths along the stream banks.

The design of greenbelts should vary along stream segments to respond to adjacent land uses and resolve security and maintenance issues. While a continuous *mauka-makai* pathway may not be achievable, priority should be given to the creation of streamside pathways where they would connect existing parks, hiking trails and bikeways, or provide a shorter, safer pedestrian route between neighborhoods or major land uses. Examples include Manoa Stream from Ala Wai Canal to Date Street and from the campus of University of Hawaii (UH) at Manoa to Woodlawn Drive.

SHORELINE ACCESS

Public access to the shoreline, which is located at intervals of one-quarter mile or less, is adequately provided. Two beach right-of-ways, one from Paoa Place and one from Kalia Road, increase access to Waikiki beaches. East of Diamond Head in the residential neighborhood of Kahala, shoreline access is available from Kahala Beach Park, six pedestrian rights-of-way along Kahala Avenue, and a right-of-way from Kaikoo Place.

From Nuuanu Stream westward to Aiea Bay, access to the shoreline is largely preempted or constrained by Honolulu Harbor, the Honolulu International Airport, Hickam Air Force Base, and Pearl Harbor Naval Base. The Keehi Lagoon shoreline will receive greater visual exposure with the development of the proposed Sand Island Parkway as a new through route from the Airport to Waikiki. The State of Hawaii Department of Transportation (DOT) envisions the development of Keehi Lagoon and its shoreline, including portions of Airport land, for recreational small-boat marinas and for viewing and competing in canoe and kayak paddling races. The State also proposes the development of a commercial "fishing village" at Pier 38, which would attract more people to a portion of the maritime industrial zone of Honolulu Harbor that presently receives little public exposure.

The need to enhance shoreline access is greatest in the more heavily developed portions of Honolulu and Pearl City, which are presently the centers of urban life and are expected to play an even more vital role in the future.

Within Honolulu, a continuous pedestrian route from Diamond Head to Downtown could be achieved by developing a beachfront promenade in Waikiki and by creating other relatively short connections between the chain of parks and promenades that now exist along the shoreline.

Lateral access in Waikiki would be more useful and feasible than additional pedestrian connections from Kalakaua Avenue and Kalia Road. Significant sections of a continuous beachfront walkway are already in place fronting Fort DeRussy, Halekulani Hotel, Sheraton Waikiki Hotel and portions of Hilton Hawaiian Village. The public sector should assume ultimate responsibility for the maintenance and security of such a highly public area because continuous, safe access for pedestrians and wheelchairs along the beach serves a clear public purpose.

Waterfront access should be a key component of any plan to redevelop Honolulu Harbor and the Kakaako district, revitalize Chinatown, and reconnect both Chinatown and Downtown to the historic waterfront. While the waterfront is within short walking distance of activity centers in Chinatown, Downtown and, increasingly, Kakaako, the design and operation of Ala Moana Boulevard – and especially Nimitz Highway – discourage pedestrians from crossing these thoroughfares. In addition, links need to be developed – especially in Kakaako – to fill gaps in the pedestrian route along the waterfront.

Within the Aiea-Pearl City area, continuous lateral public access to the Pearl Harbor shoreline would be greatly enhanced by acquiring lands *makai* of the OR&L right-of-way between Neal S. Blaisdell Park and Aiea Bay State Park, as identified in the *Pearl Harbor Historic Trail Master Plan*. While portions of this right-of-way are contiguous to the shoreline, intervening private lands and buildings at other points impair physical or visual access to Pearl Harbor.

MOUNTAIN ACCESS

There are several points of public access to forested mountain areas within the Primary Urban Center, and they are fairly well distributed. Access to many of these trails is from State parks, where public parking and rest rooms are available. At other trailheads, parking is usually quite limited, and rest rooms or other amenities are not available.

The State also maintains lookouts at the summits of Nuuanu Pali and Puu Ualakaa (Round Top) for enjoying scenic vistas toward the shoreline. Both of these State parks, like most other State park facilities, provide picnic areas, potable water and public rest rooms, and prohibit overnight camping.

3.1.1.4 Public Parks and Recreation Facilities

Public parks and outdoor recreational facilities fall into two general categories: (1) islandwide and regional parks and (2) community-based parks. Islandwide, regional, district parks and other major open spaces are shown in **Map A.2, Open Space**.

All of the community-based parks are maintained, if not owned in fee, by the City and County of Honolulu. Many of the islandwide and regional facilities are under State or military jurisdiction, or are privately owned. Some of the private golf courses are not available for public play, but make a visual contribution to the open space system.

For the most part, community-based parks and recreation facilities in the Primary Urban Center's *mauka* residential neighborhoods meet – or come close to meeting – the land-to-population standard. However, there is a shortage of comparable facilities in the more densely populated areas along the coastal plain, especially for organized sports and other active recreation. As a result, people from these areas must travel to use parks and recreation facilities in other neighborhoods.

FIGURE 3.3: CHILDREN ENJOY NEW PLAY EQUIPMENT AT A HONOLULU PARK. Equipment like this provides exercise and entertainment for younger children, and is well suited to both large and small urban parks.

Due to the shortage of parkland in densely populated neighborhoods, much of the available space in community-based parks and regional parks such as Queen Kapiolani and Ala Moana is dedicated to facilities for intensive, active recreation. This often compromises the aesthetic and recreational value of parks as places for quiet enjoyment of the outdoors.

The design and programming of parks and recreation areas for the more intensively urbanized areas requires careful planning. Acquisition of significant additional park space is constrained by high real estate values, the limited number of vacant parcels with favorable characteristics for recreation use, and the cost and practical difficulties of alternatives such as the use of air rights over highways. With limited land area and high-rise apartment buildings nearby, the light and noise generated by outdoor recreational activities can cause disturbances to residential neighbors. Unsupervised and unlighted parks can also attract crime and other problems associated with urban areas.

On the other hand, Honolulu's urban setting offers some advantages for expanding recreational opportunities in a number of ways:

- The City can enter into partnerships with the State Department of Education (DOE) and private, non-profit organizations to jointly use, develop, or improve recreational facilities, including gymnasiums and other buildings designed for a variety of activities and programs.
- A large number of people can walk or ride transit to parks and recreation facilities, reducing the need for space-consuming parking lots and garages.
- The diversity of the population enables parks and recreational facilities to be designed and programmed for a variety of activities at different times of the day or simultaneously at different locations within a facility.
- The City's network of streets, shorelines, and streams can become linear extensions of parks by enhancing them with landscaping, special paving, and other features to support and promote recreational walking, jogging, and bicycling.

3.1.1.5 Other Urban Open Spaces

CEMETERIES

Cemeteries, with their landscaped, park-like settings, are part of the open space network within an urban environment. The cemeteries that make the most significant contribution to the open space within the Primary Urban Center, due to their size and high visibility from major thoroughfares and other urban areas, are shown on the Open Space Map (**Map A.2**).

CAMPUSES

The campuses of almost all of the Primary Urban Center's private and public academic institutions contribute in some degree to the urban open space network. In addition, many other institutions such as churches and hospitals are situated on landscaped grounds that add to urban open space. The effect is often more pronounced when such campuses are adjacent to each other, creating an open space "cluster." Institutions with sizable and visible landscaped grounds include the University of Hawaii at Manoa, Punahou School and Chaminade College-Saint Louis School. The Open Space Map also shows the Civic Center, including the broad landscaped areas around the State Capitol, Honolulu Hale, Iolani Palace and other government buildings, as a campus-type of open space.

PLAZAS

The Primary Urban Center's commercial districts, particularly Downtown Honolulu, contain landscaped plazas, which are situated on private property, and are accessible to the public. The plazas were created primarily by zoning code provisions that offer floor area bonuses for the development of public open space. As attractive venues for public events, informal meetings and quiet enjoyment, these plazas function as important elements of the urban open space system.

Successfully designed plazas typically include generous seating, shade and exposure to commercial activity. Such spaces are like an outdoor room, an open space enclosed by buildings. The best-used public open spaces are similar to the plaza behind Downtown's Dillingham Transportation Building. This plaza is a true "outdoor room" contained by building walls on three sides with people entering from three different directions – from Queen Street, from the neighboring office towers on Alakea Street, and from Bishop Street through the Dillingham Building arcades. Many more people actively use this plaza than use the much larger open space around the State Library or the Honolulu Municipal Building.

3.1.2 POLICIES

Establish and maintain an integrated open space network throughout the Primary Urban Center comprised of the following elements:

- **Preserve historic and cultural sites.** Preserve and protect sites that have high preservation value because of their good condition or unique features. Protection includes planning and design of adjacent uses to avoid conflicts or abrupt contrasts that detract from or destroy the physical integrity and historic or cultural value of the site. Retain, whenever possible, significant vistas associated with historic, natural and man-made features. Allow adaptive reuse of historic buildings to serve a new function and/or enhance interpretive value without destroying the historic value of a site.

- **Preserve and protect natural resource and constraint areas.** Establish an Urban Community Boundary to define the area for urban development. Place large contiguous areas of natural resource and constraint areas designated for Preservation, including all lands within the State Conservation District, outside of the Urban Community Boundary.

- **Preserve panoramic views of natural landmarks and the urban skyline.** Preserve views of the Koolau and Waianae Mountain Ranges, Punchbowl, Diamond Head, Pearl Harbor and other natural landmarks. Maintain important view corridors within and across urban Honolulu and keep Downtown as the most prominent feature of the urban skyline. Views along the Pearl Harbor shoreline and the Pearl Harbor Historic Trail toward the mountains, shoreline, significant landmarks, and adjacent communities should be created and maximized wherever possible and appropriate.

- **Improve access to shoreline and mountain areas.** Provide continuous lateral access along the Honolulu waterfront and around the East Loch of Pearl Harbor, where urban activity is most intense. Maintain access to mountain hiking trails and increase opportunities for nature education and camping.

- **Develop stream greenbelts.** Develop and maintain greenbelts and pathways along streams, especially those running from the mountains to the sea through central Honolulu, as visual and physical linkages between *mauka* and *makai* open spaces.

- **Provide parks and active recreation areas.** Develop and maintain parks and other outdoor public spaces in a manner that expands opportunities for both active and passive recreation. Increase and enhance recreational open space in the most densely settled parts of the PUC.

3.1.3 GUIDELINES

3.1.3.1 Historic and Cultural Sites

- Preserve the architectural character, landscape setting and visual context of historic landmarks through appropriate zoning standards and development controls, as necessary, and public outreach programs such as design guidelines for the maintenance, renovation or expansion of older dwellings.

- Preserve and enhance the significant historic and aesthetic features of institutional campuses and campus clusters through zoning permit reviews for campus expansions or modifications.

3.1.3.2 *Mauka* Conservation Areas

- Prevent development on properties with average slopes of 40 percent or more, and on lands with slopes of 20 percent or more where development of the site would have a significant adverse visual impact when viewed from parks, major public streets, and other public places.

- Maintain public access points and hiking trails on the slopes of the Koolau Range in the areas beyond the Urban Community Boundary, and improve amenities for hiking, camping and nature study.
- In Preservation areas, avoid disturbance to native species and prevent the visual intrusion of structures, including utility and telecommunications installations, when seen from below and from hiking trails.
- Ensure access for traditional and customary practices and gathering rights, consistent with the provisions of the Constitution of the State of Hawaii.

3.1.3.3 Urban Skyline and *Mauka-Makai* Views

- Maintain the visual prominence of important districts by allowing a greater height and massing of buildings, such as in the Downtown area.
- Apart from Downtown and other central Honolulu locations, promote mid-rise or low-rise scale for new buildings.
- Preserve the following panoramic views indicated schematically in **Figure 3.1** by establishing building height limits and setbacks that are based on viewplane analyses to determine the sight lines and desired view dimensions and characteristics:
  - From Ala Wai Canal Promenade toward the Koolau Range
  - From Ala Moana Beach Park toward the Koolau Range
  - From Kewalo Basin toward the Koolau Range and Punchbowl
  - From Kakaako Waterfront Park toward Punchbowl and the Koolau Range
  - From Punchbowl Lookout toward Diamond Head
- Preserve and enhance significant *mauka* or *makai* view corridors along major collector streets indicated in **Figure 3.1** through a combination of zoning controls and streetscape improvements.
- Increase line-of-sight opportunities towards Pearl Harbor – particularly the U.S.S. Missouri and the U.S.S. Arizona memorials.

3.1.3.4 *Makai* Access

- Provide continuous lateral shoreline access for pedestrians extending from Diamond Head to Nuuanu Stream, around Keehi Lagoon, and from Neal S. Blaisdell Park through Aiea Bay State Recreation Area.
  - Construct walkways along the Waikiki and Kakaako-Honolulu waterfronts.
  - Along the Pearl Harbor shoreline in Aiea and Pearl City, acquire privately owned properties and the Navy-owned McGrew Point *makai* of the Pearl Harbor bikeway for recreational use, and/or encourage complementary redevelopment with incentives for higher zoning in return for view corridors, extra open space, public amenities, and public access to the shoreline.

3.1.3.5 Stream Greenways and Drainage

- Establish riparian zones for all streams to prevent the encroachment of buildings and structures – other than those for drainage, flood control or recreational purposes – and to establish and enforce policies for the protection and enhancement of stream habitats and water quality.

- Develop streamside pathways to improve access to recreation sites and natural areas and provide safe, convenient pedestrian routes between neighborhoods. Stream segments to be considered for priority action include, but are not limited to, the following:

  — Aiea Stream: segment through former Aiea Sugar Mill site
  — Ala Wai Canal: both banks, entire length
  — Halawa Stream: segment near Aloha Stadium
  — Kalauao Stream: from Kamehameha Highway to Pearl Harbor's East Loch
  — Kalihi Stream: segment *makai* of H-1 Freeway
  — Kapalama Stream: segment *makai* of Kuakini Street
  — Makiki Stream: segment *makai* of Nehoa Street
  — Manoa/Palolo Streams: from Manoa Marketplace to Ala Wai Canal
  — Moanalua Stream: segment near Moanalua Gardens
  — Nuuanu Stream: from Kuakini Street to Honolulu Harbor
  — Nuuanu Stream: from Kuakini Street *mauka* to Kapena Falls

- In developing drainage and flood control, seek to limit stormwater velocity and reduce the transport of sediment and pollutants to coastal waters.

3.1.3.6 Parks and Recreational Open Spaces

- Recognizing that it is difficult to acquire additional park land in the PUC, develop innovative approaches to make optimum use of existing parks and recreation resources, such as:

  — Building partnerships between City, State and private, nonprofit organizations for joint use of facilities and complementary recreation programs.
  — Optimizing private sector contributions to open space through park dedication as properties are redeveloped.
  — Reassessing and reassigning, as appropriate, the use of existing park land.

- Promote linear connections in the recreational open space network by using existing public lands and rights-of-way, where possible.

3.1.3.7 Other Urban Open Spaces

- Maintain significant trees and landscaped open space within institutional campuses, cemeteries and other open-space uses that are visible from public right-of-ways.
- Enhance the entries and street frontages of cemeteries and campuses with trees and landscaping.
- Promote the development of plazas to fulfill park and open space requirements; provide floor area bonuses to encourage plazas in dense areas such as Downtown.

3.1.4 RELATION TO VIEWS AND OPEN SPACE MAPS (A.1 AND A.2)

Maps A.1 and A.2 show the Urban Community Boundary and the components of the regional open space system.

The ***Urban Community Boundary*** serves as a primary tool for the long-term organization and guidance of urban growth. To be fixed during the life of the plan (to the year 2025), the Urban Community Boundary is intended to define and contain the extent of urbanized or "built-up" areas designated "urban" by the General Plan. The purpose is twofold: (1) to provide adequate lands for facilities or other groupings of built uses needed to support established or developing communities; and (2) to protect lands outside of the Urban Community Boundary that have important natural, cultural, or scenic resource values.

Lands outside of the Urban Community Boundary include lands with important resource values – e.g., wildlife habitat, archaeological sites, significant landforms and landscapes critical to important viewplanes – as well as lands that may be hazardous for development of structures or whose development could lead to environmental degradation in surrounding or downstream areas.

The maps show the following components of the open space network:

- ***Mauka Conservation Areas.*** Lands within the State Conservation District, as well as some steep hillside areas and deep valley areas within the State Urban District are shown as outside of the Urban Community Boundary and are designated by the Preservation symbol on all of the maps.
- ***Mauka-Makai Views.*** Significant views are indicated on **Map A.1, Significant Panoramic Views**, by directional arrows originating from public vantage points.
- ***Makai Access.*** Existing and proposed lateral public easements along the waterfront are identified on **Map A.2, Open Space**.
- ***Stream Greenbelts.*** Major stream greenbelts are indicated on the map. However, the policies and guidelines concerning stream greenbelts apply to all perennial streams, even if they are not specifically shown on the map.
- ***Parks and Recreational Open Spaces.*** Larger land areas, such as golf courses, regional and district parks, botanical gardens and zoological parks are identified on the Open Space and Land Use maps. Community, neighborhood and miniparks are part of the open space system, but are too small to display on the map.
- ***Other Urban Open Spaces.*** Cemeteries and campuses or campus clusters consisting of over twenty contiguous acres are indicated on **Map A.2, Open Space**. Urban plazas are too small to display on the map.

3.2 NEIGHBORHOOD PLANNING AND IMPROVEMENT

The Vision states: "Livable neighborhoods have business districts, parks and plazas, and walkable streets." Key components of livability include residences within close proximity to employment, businesses, community services and recreational amenities, with facilities integrated in a manner that enhances accessibility and convenience, encourages walking and bicycling as alternative forms of mobility and promotes sidewalk activity. Livable neighborhoods need to be cultivated through neighborhood planning, appropriate zoning controls and incentives, and targeted capital improvements.

To cultivate livable neighborhoods, this section sets forth general land use policy for residential neighborhoods and the commercial districts that serve them. Land use policy for specialized economic functions – e.g., resort, office and industrial – is addressed in Section 3.4.
Section 3.2.1 examines existing conditions, issues and trends; **Section 3.2.2** outlines broad policies; and **Section 3.2.3** sets forth guidelines. Sections 3.2.1 and 3.2.2 are divided into four corresponding subsections, as follows:

- "Neighborhood planning" addresses the role of more detailed planning at the neighborhood level in the development of livable communities that respect and incorporate the characteristics and values unique to each neighborhood.

- "*Mauka* residential neighborhoods" refers to lower density residential areas comprised of single-family and townhouse dwellings, mostly located *mauka* of the coastal plains.

- "In-town residential neighborhoods" refers to areas on the centrally located coastal plains of Honolulu and Pearl City-Aiea that are generally planned to include higher-density residential use. These neighborhoods often include a mix of apartment and single-family residences, and are closely related to major commercial districts and corridors.

- "Shopping and retail business districts" includes regional shopping centers, commercial districts and corridors, and neighborhood shopping areas.

Section 3.2.4 discusses the relationship of the policies to the Land Use Maps and describes the meaning of the Land Use Map designations.

3.2.1 EXISTING CONDITIONS, ISSUES AND TRENDS

Urban development in the Primary Urban Center began with Honolulu Harbor and the surrounding Downtown area and gradually spread across the coastal plain, into the valleys and atop the broad faces of the coastal ridges. The smaller communities of Aiea and Pearl City grew up around plantation agriculture and the military bases near Pearl Harbor. Growth in the decades following Statehood brought the development of apartments and greater density to Honolulu neighborhoods from Kahala to Kalihi, and the creation of many new communities to the west, including Salt Lake, Moanalua, Aiea Heights, Waimalu and Pearl City Heights. Shopping and industrial districts grew, as did Waikiki and the Civic Center.

Nearly all of the commercial and industrial development, as well as high-density residential development, settled in the flat coastal plain close to the main east-west highways and arterial roads.

In the eastern part of the PUC, most of the higher-density development is located between Middle Street and Kapahulu Avenue, *makai* of a line delineated by School and Prospect Streets, Nehoa Avenue and the H-1 Freeway. A "main street" corridor extends east along Waialae Avenue to Kahala Mall. The State's major cultural, educational, recreational, shopping and entertainment centers lie along Honolulu's coastal plain.

In the western part of the PUC, a high-density node occupies the east side of Salt Lake, while higher-intensity military, airport, and industrial uses are located *makai* of Salt Lake Boulevard. In the Aiea-Pearl City area, the higher-density commercial, industrial and residential buildings developed on the coastal plain, mostly *makai* of the H-1 Freeway. Manana, a former Navy installation, is centrally located in Pearl City. Now owned by the City, it will be redeveloped for a mix of uses that will serve the community. Finally, the site now occupied by the State Department of Health's Waimano Training School and Hospital is being studied by the State Department of Land and Natural Resources for its potential for other uses.

Several older, central Honolulu neighborhoods have a mix of uses and housing types. In Kakaako, the State government has established a special redevelopment district and has invested over $125 million in upgrading street, water, sewer, drainage and utility infrastructure. As a result, Kakaako is gradually transitioning from industrial uses to apartment, office and retail development. In Iwilei, west of Downtown, older industrial activities are being succeeded by new, large-scale retail and entertainment uses. Nearby Kapalama, with its Dillingham Boulevard and King Street commercial corridors, continues to support a vital mixture of retail, service and industrial businesses.

The primarily residential areas of Makiki and McCully-Moiliili each have a mixture of high- and mid-rise apartments, older walk-up apartments and single-family residences. McCully-Moiliili also has important commercial and transportation corridors along King Street, Beretania Street, McCully Street and University Avenue. Development has slowed following the concentrated period of mid- and high-rise apartment development in the 1970s and 1980s.

Lower Kalihi and Kalihi-Kai were historically residential neighborhoods, developed with houses and walk-up apartments. More recent planning and zoning policy designated Kalihi-Kai for industrial use and Lower Kalihi for a mixture of industrial, commercial and residential uses. Due to market forces, commercial activity along Dillingham Boulevard, Kalihi Street and other major streets has increased. Kalihi-Kai now has a diverse mixture of businesses and residences.

These older neighborhoods demonstrate that residential uses can coexist with commercial and even light industrial uses in the same neighborhood. In McCully-Moiliili, for example, commercial businesses along King and Beretania Streets serve the needs of surrounding residential neighborhoods. Exemplifying mixed-use development, some newer apartment buildings rent ground floor spaces to small businesses.

Trends in development over the past 30 years have given rise to a number of "livability issues" that affect PUC neighborhoods to varying degrees. These issues range from not knowing your neighbors to needing motorized transportation to shop for groceries or go to a park. One measure of livability is having a coffee shop or a grocery store or other needed conveniences within walking distance of residences. Feeling safe to walk on the streets is another measure of livability.

Cultivating livable neighborhoods involves reintegrating commercial and residential uses within neighborhoods; making streets safe and pedestrian-friendly; redeveloping certain streets to attract pedestrian-oriented commercial activity; and creating parks and urban open spaces that attract people for informal recreation and socializing.

3.2.1.1 Neighborhood Planning

Neighborhood Boards, Community Vision Teams (CVTs) and community associations throughout Oahu are actively planning for their neighborhoods. Community leaders continually request recognition and endorsement of neighborhood planning processes and plan documents.

The City Charter mandates an islandwide *General Plan* and a system of regional Development Plans, of which this is one of eight. As such, the role of the PUC Development Plan is to establish a clear regional policy framework that will support neighborhood-level planning within the region's many diverse communities. Neighborhood- or community-level plans would act as more detailed, tactical elaborations of the more general, strategic policy framework established by the PUC Development Plan. This more detailed level of planning is critical because citizens identify most closely with and have the greatest investment in their specific neighborhood or community.

City governments in other states typically have some form of neighborhood planning. Seattle has a system of Neighborhood Plans that covers 31 neighborhoods. The City of Portland, Oregon prepares Community Plans covering specific areas within its jurisdiction. Both Seattle and Portland center their planning processes around broad community participation and representative advisory groups.

In the 1990s, the City and County of Honolulu recognized this need and began to support various forms of neighborhood planning. The Planning Department's 1993 report, *General Plan and Development Plans Revision Program,* proposed the creation of "Special Area Plans" as a new element in the City's planning system. The *Waipahu Town Plan,* the first community-based effort to be funded by the City, was accepted by the City Council in 1999.

At the turn of the millennium, the City funded a wide variety of community-based, community-level planning efforts. Community Vision Teams planned a variety of community improvements. Many undertook multiyear Capital Improvement Projects. Some of these teams initiated formal neighborhood planning projects.

Learning from these experiences, the City needs to establish a clear and consistent path for neighborhood-level planning – one that clarifies the City's role and the neighborhood's role in a collaborative process.

3.2.1.2 *Mauka* Residential Neighborhoods

"*Mauka* residential neighborhoods" refers to lower-density residential areas consisting of single-family and townhouse neighborhoods, mostly located *mauka* of the coastal plain. *Mauka* valley and ridge areas are predominantly developed with single-family residences. Single-family neighborhoods are also located in older parts of Aiea and Pearl City, Foster Village, Salt Lake, Kaimuki, Kapahulu and Waialae-Kahala. Townhouse neighborhoods are located in Waiau, Newtown, Pearlridge and Waialae-Kahala. Small enclaves of higher-density use are located within lower-density areas, such as the tall apartment buildings along Nuuanu Avenue.

Key livability issues include the following:

- **Overdevelopment of single-family house lots.** The principal elements of building scale and design for single-family residential and townhouse development are: (a) low building height profile, generally one or two stories; (b) a low ratio of building coverage on the lot, with landscaped yards on all sides; and (c) pitched roof design, varied facades and other architectural features that reduce the apparent structural bulk.

    - In many single-family residential areas, there is a trend towards increased density and larger dwelling unit size. In some cases, properties are subdivided into multiple small lots. In other cases, larger new dwellings replace smaller old ones, houses are expanded, or *ohana* units are added. This results in increasingly large dwellings covering a greater portion of the lot on which they are located.

    - Often, depending on the occupancy of the dwelling, there is increased demand for off-street parking which results in additional paving, particularly in the front yard. In addition, there is a greater tendency towards lots enclosed within a solid wall, usually because the larger building is located closer to the street.

- **Overdevelopment of nonresidential uses.** Building design standards for residential districts apply not only to dwellings but also to other types of uses that are permitted on residential-zoned lots, such as churches, day-care facilities, private schools and community centers. While these uses are generally consistent with the purpose of a residential zone and provide a service to the neighborhood, they tend to be less compatible with surrounding uses as their building scale becomes larger and the level of use intensifies.

- **Planning and design of residential streets overemphasizes the rapid movement of automobile traffic.** Many single-family residential neighborhoods were developed prior to the automobile age and have narrower streets than are required by modern public works standards. Often canopy trees shade the streets, creating a pleasant ambience for residents, motorists and pedestrians. While formal sidewalks may not be present, safe pedestrian passage is usually available along grassed areas on either side of the road pavement, or even within the roadway itself where the vehicular traffic volumes and speeds are relatively low.

  Following a nationwide trend, Honolulu adopted public works standards in the late 1960s that sized and configured roads to enhance the flow of automobile traffic. The road standards applied to residential subdivisions were based on highway design featuring wide travel lanes and broad curve radiuses. This had two results. First, new subdivisions were built with overly wide roadways that encourage speeding and detract from the sense of community. Secondly, many older roads were rated "substandard." Subsequently, many older streets have been designated for widening by the City's Department of Transportation Services (DTS). While there is no comprehensive City-funded program to accomplish planned widenings, parties redeveloping or subdividing properties are required to dedicate street improvements built to current standards. In this way, segments are widened or acquire sidewalks while the remainder of the street remains in the preexisting configuration.

  The small amount of additional growth that is anticipated in these neighborhoods does not warrant an aggressive program to reconstruct older right-of-ways to current public works standards. Doing so would not only be prohibitively expensive, but also environmentally disruptive. In many instances, street widening would require the taking of private residential lots and dwellings. Presently, many residential lots are encumbered by setbacks for future street-widening projects that may never occur.

  Moreover, present street conditions in older neighborhoods tend to calm traffic and promote a quieter, cooler environment. It would be more cost-effective and environmentally desirable to direct the City's financial resources towards safety improvements for vehicular, bicycle and pedestrian routes along older streets where needed.

  Conversely, some of the wider streets in newer neighborhoods are potential candidates for traffic calming measures such as pavement narrowing, more effective pedestrian and bicycle routes, and street tree planting. Where traffic is calmed, there is less reason to build high, solid walls at the front property line for privacy and screening out headlight glare and traffic noise.

- **Building on steep slopes.** *Mauka* valley and ridge neighborhoods include sites with steep topography where development may result in adverse visual impacts or hazardous conditions. For the most part, hillside locations have stable soils, so the primary impact is aesthetic as structures built too high on steep slopes tend to be visually obtrusive, especially when they interrupt the silhouette of a ridgeline. Hazardous building conditions are more prevalent on the lower slopes of valley walls, where deposits of unstable soils are susceptible to slow-moving landslides.

  Incremental build-out of hillsides and lower valley slopes affects both natural and urbanized drainage systems. Increased lot coverage by larger buildings and more extensive paving has increased the volume and rate of stormwater discharge. The problem is exacerbated in the *mauka* reaches of the valleys and hillsides, where rainfall is higher.

  Over the long term, the cumulative impact of greater lot coverage threatens to erode natural stream banks downstream. This typically leads to structural hardening of the drainage channel with concrete – an expensive, aesthetically and ecologically undesirable result. In some areas, the increased level of stormwater runoff has exceeded the capacity of the drainage system and resulted in flood conditions.

3.2.1.3 In-Town Residential Neighborhoods

"In-town residential neighborhoods" refers to areas on the centrally located coastal plains of Honolulu and Aiea-Pearl City that are planned for higher-density residential use. Ranging from older two- to four-story walk-up buildings to 40-story high-rise towers, higher-density residential buildings take a variety of forms and are often mixed with or located close to office and retail uses. Higher-density residential areas vary widely in terms of the height and volume of the buildings, the mix of uses in the neighborhood, and connections to the street and neighboring properties.

In-town housing is near jobs, shopping districts, hospitals, parks and entertainment. Residents of these areas enjoy excellent access to all of the opportunities of the city, without having to rely exclusively on costly automobile transportation. Mixed-use is an essential component of the most livable in-town neighborhoods, and residents of these neighborhoods find parks and shopping in easy walking distance. Bicycling on the flat coastal plain is a practical mode of transportation, and transit provides a comfortable ride with fast connections.

Key livability issues include the following:

- **Single-use zoning.** Segregation of residential, industrial and commercial uses into separate zoning districts means that many neighborhoods lack essential services within walking distance. Residents are forced to use their cars to go shopping or find recreation.

- **Unneighborly building relationships.** In Makiki and other areas planned for and in transition to apartment use, high- and mid-rise towers are physically isolated from other buildings. Many are also isolated from the public street, with lobbies accessible only from the parking garage or across a parking lot. These larger buildings are juxtaposed with older, walk-up apartments and single-family lots occupied by older houses or redeveloped in two-story "adaptive residential" configurations. Typically, the walk-up apartment lots are completely paved, with no trees or landscaping. Many blocks are a jumble of different building styles and different scales of height and bulk. Often, there is little to unify the apartments visually and little in terms of shared public space where neighbors might become acquainted. Because of the juxtaposition of different uses and buildings of dramatically different scales, many blocks within the transitional neighborhoods lack a consistent character. Often, buildings bear little or no relationship to their neighbors, and open space between buildings typically consists of service yards and parking lots.

- **Declining commercial districts.** Increasing concentration of retail establishments in shopping centers and the advent of supermarkets and "big-box" retailers have displaced smaller neighborhood stores and left older commercial districts at a competitive disadvantage. In addition, increased street widths and changed zoning standards have rendered older properties nonconforming. Existing zoning regulations preclude improvements and/or render building rehabilitation infeasible.

- **Automobile dominance.** Widening and conversion of key streets to one-way arterials, such as along King and Beretania Streets, has resulted in reduced sidewalk widths, reduced on-street parking, and reduced pedestrian activity. In the Aiea-Pearl City area, walking distances between destinations are generally too long for most pedestrians. Parking lots and garages typically separate bus stops and public sidewalks from entrances to commercial establishments and apartment buildings. Adverse street and traffic conditions further discourage walking.

- **Insufficient parks and open space.** The older and more intensively developed parts of the PUC lack sufficient parks, recreation facilities and open space. Particularly impacted are Makiki, Nuuanu, Downtown, Liliha and Kalihi-Palama.

3.2.1.4 Shopping and Retail Business Districts

Retail shopping is concentrated in four regional shopping centers: Ala Moana, the Victoria Ward Centers, Pearlridge and Kahala Mall. These shopping enclaves dominate the market, while older street-oriented business communities – e.g., the Waialae Avenue corridor in Kaimuki and the King Street corridor in Kalihi – have declined. Regional shopping centers have been designed as massive building forms primarily accessible by automobile, with expansive parking lots or large parking structures separating stores from their surrounding neighborhoods. Smaller shopping centers, such as Pearl Kai, are similarly cut off from the street and the surrounding community. Throughout the Aiea-Pearl City area, shoppers typically drive from center to center, and pedestrian use of the streets is practically nonexistent.

The Downtown-Chinatown area contrasts the shopping centers. With its large employee population, Downtown-Chinatown supports many small and large retail businesses accessible from the sidewalk. Parking is generally available in structures above the street level. With its retail storefronts, pedestrian-oriented Fort Street Mall, and commercial plaza spaces (e.g., Maunakea Marketplace), Downtown-Chinatown offers a wide variety of experiences quite different from the homogeneity of the shopping mall.

Older commercial buildings along major streets are typically built up to the front and side property lines creating a street-wall composed of interesting storefronts such as those found in Chinatown, Kaimuki and in parts of McCully-Moiliili. Under current zoning regulations, many of these older buildings lack sufficient off-street parking. Due to the lack of parking, a new business tenant often faces difficulty and delay in obtaining a building permit for store or restaurant improvements.

Figure 3.4: Lehua Avenue, Pearl City – 2001. Community members identified the old heart of Pearl City as a place with potential for revitalization. The photograph looks *mauka* along Lehua Avenue, which – at four lanes – is wider than needed.

FIGURE 3.5: LEHUA AVENUE, PEARL CITY – IN THE FUTURE. A vision of the future shows the potential of streets like this, given active business investment, and a modest amount of street improvements. Lehua Street is transformed into a boulevard with wide sidewalks, trees, a center median, and head-in parking. Responding to the improvements and increased parking, owners have renovated buildings and storefronts. In the foreground, coffee shop customers chat over a cup of java, and the bike shop caters to cyclists using the nearby Pearl Harbor Historic Trail.

In older areas, a combination of small lot size and the location of the building footprint often makes it impossible to provide on-site parking to meet current zoning requirements. This in turn hinders owners from changing commercial tenants and expanding or improving the building. Consequently, lots with older commercial buildings oriented towards the street are often redeveloped with new buildings that are set back from the street and parking lots adjacent to the sidewalk, or assembled with adjacent lots and redeveloped as small shopping centers.

In addition to the major commercial districts located in the more intensively developed coastal plain, there are also community-level shopping areas located within the *mauka* residential neighborhoods. Smaller commercial enclaves, such as Kamehameha Shopping Center and Manoa Marketplace, provide grocery stores and other important services in convenient proximity to residences. The grocery store often functions as a *de facto* neighborhood center, a place where people meet their neighbors in casual encounters. In other neighborhoods, such as Palolo and Pauoa, groupings of stores are situated along collector roads. The issues discussed above relating to parking requirements, small lot size, and the street-wall of older storefronts are also prevalent in neighborhood commercial areas.

3.2.2 POLICIES

Cultivating livable neighborhoods demands a broad set of policies addressing an array of topics, including the design of residential, commercial, and industrial development; the design of parks, streets, and other public spaces; priorities for public investment; and planning at the neighborhood level. Following are key policies. Additional policies relating to multifamily housing may be found in **Section 3.3**. Others relating to transportation may be found in **Section 3.5**.

3.2.2.1 Neighborhood Planning

This set of policies can be applied to different types of neighborhoods and business districts, including both lower-density and higher-density residential areas. Applications will differ according to the particular character of the community.

- ***Develop a system for collaborative neighborhood planning.*** Planning for neighborhood improvement must be undertaken at the neighborhood level. Neighborhood planning is a collaborative enterprise involving residents, business and property owners, government agencies, and others who have a stake in the neighborhood.

  Special Area Plans are intended to be developed in accordance with the overall policy planning guidance of the PUC Development Plan and to elaborate on it at the local level. Special Area Plans should respond to the specific issues of their communities. They may address issues such as neighborhood character (this may apply to building, streetscape, or open space character), special features, types of facilities or uses, specific opportunities or constraints to neighborhood improvement or enhancement, economic direction, safety, lifestyle opportunities, access, and circulation.

  While it already engages in this type of community-based planning, the City Department of Planning and Permitting should take the lead in developing a *formalized* process for initiating, staffing, funding, and preparing Special Area Plans.

- ***Cultivate existing and new "neighborhood centers."*** Neighborhoods need central places where people gather for shopping, entertainment, and/or recreation. The center of a neighborhood could be a public plaza or a recreation complex, or a commercial town center, with a grocery store and other shops and services. It could have a public park or a plaza linked to shops. Cultivating neighborhood centers entails investment in parks and pedestrian street improvements.

- ***Promote mixed land uses.*** Office, retail, and community service uses can coexist with residential uses; and there are a number of opportunities for them to support each other. In traditional single-family neighborhoods, groupings of small stores provide convenient service and a place to meet neighbors. In the PUC's in-town neighborhoods, both residential and office development support retail and other services. Neighborhoods with a strong mix of uses have activity 24 hours a day. Residences providing "eyes on the street" contribute to neighborhood safety.

- ***Create parks that draw people and activity.*** The PUC should have a range of parks. While all provide open space and relief from buildings and traffic, some should provide for organized sports and fitness activities, and others should function more as neighborhood gathering places. In the PUC, development of one or two large sports complexes with substantial parking could provide for league play of all kinds, while smaller parks could be used in inventive ways to meet the needs of their surrounding neighborhoods. Like other cities throughout the world, plazas and open spaces that attract people and activity are integrated with churches, shops, and other buildings.

- ***Make streets "pedestrian-friendly."*** There are many opportunities to create street environments that invite pedestrian use, such as widening sidewalks, planting trees to provide shade and buffer pedestrians from vehicular traffic, and narrowing intersections to provide shorter and safer pedestrian crossings. The Land Use Maps (Maps A.4, A.5 and A.6) show primary pedestrian routes. These streets and others identified through neighborhood planning should be given high priority for pedestrian improvement.

- ***Make major streets which connect communities convey neighborhood identity.*** The identifying characteristics that give neighborhoods their unique visual signatures or identities should be emphasized and conveyed by the streets that connect them to other places. To help accomplish this, landscape and other streetscape design for major streets which serve as *principal routes* connecting two or more neighborhoods should reflect the unique identities of each neighborhood and, where possible, should provide open spaces between them which create significant public views or access to *mauka* or shoreline resources.

3.2.2.2 *Mauka* Residential Neighborhoods

- ***Density.*** Lower-density residential areas may have single-family residences and townhouse apartments at a density of five to 12 dwelling units per acre, with predominantly two-story building heights. Areas zoned for apartment use may have higher densities.

- ***Appropriate Building Design.*** For institutional and other nonresidential uses allowed within lower-density residential areas, provide guidelines for the location and design of buildings, service areas, and pedestrian and vehicular access. In general, street-facing building elements should be attractive, designed for human scale, and have clear points of entry. Service and utility elements should be located out of sight from the street and away from residences.

3.2.2.3 In-Town Residential Neighborhoods

- ***Density.*** Areas close to transit lines and the major east-west arterials should be zoned for medium-density residential, which may range from 13 to 90 units per acre, or high-density residential mixed use, which may range up to 140 units per acre. Neighborhoods in these zones would also include reinforcing uses which support resident lifestyle and livelihood choices, such as convenience or neighborhood stores, dining establishments, professional and/or business services, or other similar activities. (See **Section 3.3** for more discussion of higher-density residential design.)

- ***Building Heights.*** Establish maximum desired building heights in apartment-zoned districts on the basis of viewplane studies to preserve views of natural landmarks as indicated in **Section 3.1**. Otherwise, the maximum building height for districts zoned low-density apartment should be approximately four stories or 40 feet. For areas zoned medium-density apartment, the maximum desired building height should be either 60 feet or the present height of the building occupying the lot. It is expected that with these criteria, building heights for most in-town residential neighborhoods, including Moiliili, McCully, and other established neighborhoods between Ala Moana and the University of Hawaii would not exceed currently allowed heights. Given market conditions, development feasibility, and future incentives and standards encouraging the enhancement and development of livable neighborhoods, such districts may experience lower than currently sanctioned building heights.

- ***Building Design and the Streetscape Environment.*** Neighborhood plans should distinguish between principal or "front door" streets that give a neighborhood the opportunity to "put on its best face," and secondary or local streets where a variety of activities are appropriate or where service is the main function. Utilitarian elements such as service yards, parking lots, or utilities should be located on nonprincipal streets in ways that support efficient patterns of circulation.

  Along principal streets, buildings should be designed to reflect human scale, to create pleasant walking conditions, and to provide attractive front entrances. Monolithic building faces and blank walls should be avoided. A generally consistent building line (i.e., "build-to" line) should govern the street front placement of building faces. Courtyards or other recessed open spaces may be placed along the street in order to provide strategic open space relief and opportunities for social activity or respite.

3.2.2.4 Shopping and Retail Business Districts

- ***Community/Neighborhood Commercial.*** These commercial areas should be located within and should primarily serve lower-density residential neighborhoods. Generally 10 acres or less in land area, these districts or clusters of establishments typically have service stations, grocery and sundry stores, and other small businesses serving residential customers. Buildings are generally one or two stories in height. While they vary greatly in total size and number of business establishments, a Community/Neighborhood Commercial area typically has no more than 200,000 square feet of commercial floor area.

- ***District Commercial.*** District Commercial includes a wide variety of commercial uses located in the core areas of the Primary Urban Center. These districts typically have larger facilities and serve larger populations than community/neighborhood commercial districts. They may include major office buildings, shopping centers, and older commercial streets that serve a district-wide, regional or islandwide population. Mixed uses, including medium to higher density residential uses where appropriate, and higher densities are encouraged in these areas. Downtown should have the tallest buildings on Oahu. In other areas, maximum building heights should be established on the basis of viewplane studies to preserve views of natural landmarks.

- ***Commercial streets.*** Enliven commercial streets by providing wide sidewalks and trees for shade, and encouraging property owners to build to the sidewalk edge. Vital urban neighborhoods rely on high pedestrian activity. Storefronts create interest and stimulate pedestrian activity along the street, especially when they are built to the property line and meet the public sidewalk.

- ***District-wide parking.*** Support older commercial districts and the continued use and rehabilitation of small commercial lots by providing conveniently located municipal parking. In the past, the City organized parking improvement districts and built centralized parking in Downtown and Kaimuki.

- ***Integration of shopping centers with adjacent neighborhoods.*** Ensure that all shopping areas integrate well with adjacent residential neighborhoods. Require safe, pleasant, pedestrian connections between shopping establishments and their host neighborhoods. Encourage the planning and development of centers or clusters of shopping establishments to have their shops rather than parking lots face and be adjacent to abutting neighborhoods. Wherever possible and appropriate, encourage compatible or seamless design and landscape treatment of public routes and thoroughfares between residential and shopping areas. To the greatest extent possible, avoid placing service uses adjacent to resident areas and major frontages. Efforts should be made to appropriately locate and distinguish between front door and service zones.

  Require good pedestrian connections within shopping center parking lots. Encourage retail complexes and small centers to reduce or eliminate physical barriers to pedestrian access between facilities within the complex and from adjacent neighborhoods. Develop agreements for shared parking. Regulate large centers in order to reduce traffic and parking impacts on the surrounding neighborhood. Encourage redevelopment of shopping centers as shopping districts by developing commercial buildings along street frontages and by redeveloping driveways as shop-lined streets.

3.2.3 RELATION TO LAND USE MAPS (A.4-A.6) AND ZONING

The following summarizes the land uses within the Primary Urban Center, as shown on **Land Use Maps A.4 to A.6** in the Appendix of this document. The Land Use Maps, which illustrate generalized categories of land use within the region, are conceptual in nature. The land use designations are broad classifications that refer to the desired character of the area and not the specific use of the individual parcels.

- ***Lower-Density Residential.*** Areas designated Lower-Density Residential are shown as yellow on the maps. They include neighborhoods in valleys and on ridges, such as Manoa Valley and Aiea Heights; neighborhoods around Aliamanu Crater and Salt Lake, including military housing; older portions of Aiea and Pearl City; and the neighborhoods surrounding Diamond Head. Areas designated Lower-Density Residential encompass most of the established single-family residential neighborhoods in Honolulu and Pearl City.

- ***Medium- and Higher-Density Residential/Mixed Use.*** Shown on the maps as light brown, the Medium- and Higher-Density Residential/Mixed Use designation is generally applied to centrally located neighborhoods that are served by major east-west highways and arterials, as well as by express public transit. They include apartment areas in the Pearl City region *makai* of the H–1 Freeway; apartment areas in Salt Lake, Red Hill, and nearby military reservations; areas of Kalihi-Palama between the H-1 Freeway and Dillingham Boulevard; and areas across the coastal plain of central Honolulu – i.e., Liliha, Vineyard, Punchbowl, Makiki, Kakaako, McCully-Moiliili, Waikiki, and Date Street. Because of their central location, predominantly single-family residential areas in lower Manoa, McCully, and Kaimuki that lie near the H-1 Freeway should be considered for Higher-Density Residential use in the future.

  It should be kept in mind that building height does not necessarily increase with density. Medium or higher density residential complexes which employ efficient site usage and creative clustering or groupings of units can result in medium- to high-density residential areas that may be low- to medium-rise in height, that relate harmoniously to people and to adjacent streetscapes, that reflect residential character, and that can provide courtyards or private, semipublic, or completely public and usable active or passive open spaces that can serve as conveniences to residents, visitors, or passersby.

- ***District Commercial.*** Indicated by red on the maps, areas designated for District Commercial include the PUC's primary retail and office complexes. They consist of central in-town areas, including Downtown Honolulu, shopping centers, and commercial areas located along arterial streets such as Kamehameha Highway, King Street, Dillingham Boulevard, Ala Moana Boulevard, Ward Avenue, Kapiolani Boulevard, Keeaumoku Street, Kapahulu Avenue, and Waialae Avenue.

- ***Community/Neighborhood Commercial.*** Indicated on the maps by a red dot, Community/Neighborhood Commercial districts are primarily located within the lower-density residential areas that they serve. These districts take a variety of forms: small clusters of stores such as in Kalihi Valley; business streets like Lehua Avenue in Pearl City and School Street in Kapalama; and small centers like Salt Lake Shopping Center, Stadium Mall, Kamehameha Shopping Center, and Manoa Marketplace.

- ***Resort.*** Intended as a mixed-use designation, Resort districts consist primarily of resort hotels, timeshares and other apartments used as transient visitor units (TVUs); and supporting commercial uses, such as shops, restaurants and entertainment. This designation only applies to the Waikiki, Marina, Hobron and Fort DeRussy neighborhoods that are colored pink on the Land Use Maps (See Maps A.5 and A.6).

- ***Industrial.*** Shown on the maps as purple, this designation includes not only industrial districts but also the major transportation facilities – Honolulu Harbor and Honolulu International Airport (HIA). The mostly State-owned lands around Honolulu Harbor and on Sand Island support cargo handling and port facilities. Also State-owned, HIA consists of airfields linked to Hickam Air Force Base, aircraft maintenance facilities, and terminals for passengers and cargo.

FIGURE 3.6: KUAKINI STREET, LILIHA – 2001. Community members identified the commercial areas in lower Liliha as having potential for revitalization. The photograph shows existing shops and apartments along Kuakini Street, looking Diamond Head to the Liliha intersection.

Figure 3.7: Kuakini Street, Liliha – In the Future. In a vision of the future, Liliha residents and visitors enjoy a lively mix of shops and small restaurants. This block and nearby Liliha Street have become a neighborhood center. New buildings filling in the block and trees shading the sidewalks provide an interesting and comfortable ambience for pedestrians. Above the shops are apartments and businesses. More parking is found in a midblock municipal lot.

- ***Institutional.*** The location of the Civic Center and major institutional campuses – including public and private secondary schools, colleges, hospitals and other large institutions – are indicated by a blue color on the Land Use Maps. Smaller institutional uses – such as churches, elementary schools, and community centers – are generally not shown, but are allowed in most zoning districts subject to appropriate zoning controls to assure compatibility with surrounding uses.

- ***Military.*** Military uses other than residential, parks and open space, and commercial functions are shown in gray. Areas designated for military use include Pearl City Peninsula, Pearl Harbor Naval Base, Hickam Air Force Base, Camp Smith, Tripler Army Medical Center, and Fort Shafter Military Reservation. Ford Island, which is shown as military, is projected for a mixture of military, residential, commercial, and community uses. Military bases are exempt from local planning and zoning. Nevertheless, it is important to recognize that military residential communities often abut nonmilitary neighborhoods.

- ***Parks and Open Space.*** Larger land areas such as golf courses, regional and district parks, botanical gardens and zoological parks are identified as Parks and Open Space on the Land Use Maps. Community, neighborhood and miniparks are part of the open space system, but are too small to display on the maps.

- ***Preservation.*** Shown on the Land Use Maps as light green, lands designated Preservation lie primarily in the State Conservation District, outside of the Urban Community Boundary. Also included in this designation are the few PUC lands that are zoned for Agriculture, including areas along the edge of Waiawa Stream, Kalauao Springs, and at the back of Palolo Valley.

3.3 IN-TOWN HOUSING CHOICES

The PUC of the future "offers in-town housing choices for people of all ages and incomes." This third element of the Vision addresses the need for affordable housing, both rental and for sale, in the PUC to serve families with young children as well as young adults, elderly residents, and multigenerational households.

Section 3.3.1 examines the issues relating to the housing stock and impediments to new housing development. **Sections 3.3.2 and 3.3.3** set forth policies and guidelines.

3.3.1 EXISTING CONDITIONS, ISSUES AND TRENDS

In the year 2000, the PUC had a population of 419,000. The General Plan calls for the PUC to accommodate 47 percent of Oahu's population. Based on the City's long-range population projections, this would yield a 2025 PUC population of 486,000 people – a potential population increase of 67,000 people over 25 years.

3.3.1.1 Housing Stock and Occupancy

In 2000, the PUC had 172,000 housing units, or approximately 55 percent of Oahu's total housing stock. Compared to the rest of Oahu, the PUC housing stock is older and has a higher proportion of multifamily (apartment) units. Almost 50 percent of the PUC's housing is occupied by renters, compared to 41 percent for the rest of Oahu.

A little more than one-fourth of all housing units in the PUC were built prior to 1959, the year of Statehood. As of 2000, the PUC had 89,000 units over 30 years old – sixty percent more than the rest of Oahu. Most of the older units found in the PUC are single-family residences located between Kalihi and Kaimuki.

According to 2000 census data, over 60 percent of PUC housing consists of multifamily units. Renters occupy over 70 percent of PUC apartment units, while owners occupy about 73 percent of single-family units.

Renters are concentrated in the urban core of Honolulu. With the exception of the *mauka* residential areas, census tracts from Kalihi to Kaimuki had at least 40 percent renters. Renters occupied more than 55 percent of the available housing units in Kalihi-Palama, Downtown Honolulu, and Ala Moana-McCully. The same areas had high proportions of low- and moderate-income households. Pre-1969 walk-up apartments located in these neighborhoods comprise an important reservoir of affordable, in-town housing units.

In the 1980s and early '90s, the City and the State carried out aggressive low-moderate income housing development not only in Ewa but also in Downtown and Kakaako. As of 2000, however, most of the government-owned in-town sites have been developed, and funding for new housing has been drastically reduced, making preservation and retention of existing affordable units an integral and essential component of fulfilling the housing needs of PUC residents.

3.3.1.2 Development of New Housing

The PUC is essentially "built-out" – i.e., there is no reservoir of vacant land designated for future urban use. New housing is developed on lands which are underutilized or where it is not economical to maintain the existing uses or structures. This occurs primarily in older in-town districts where land values are relatively high, and there is a strong market demand for higher use.

One key redeveloping area is Kakaako, which is zoned and regulated by the State's Hawaii Community Development Authority (HCDA). HCDA has invested in improving infrastructure in order to support higher-density residential and mixed-use development. Based on plans developed in the late 1970s, more than $125 million has been spent on infrastructure improvements in four improvement districts. The comprehensive program has included improvements to roadways, drainage facilities, sewers, water lines, and electrical and communications lines. The State of Hawaii underwrote 80 percent of the cost, with the remainder paid by property owners and utility companies.

With large blocks of land controlled by large landowners, infrastructure already in place, and relatively, generous floor area ratios (FAR) available for larger projects, Kakaako is projected to absorb about 30 percent of the PUC's future residential growth and a large portion of the region's projected commercial growth. Kakaako regulations provide for a maximum floor area ratio of 3.5 to 3.8 for "Planned Developments," compared to 1.9 FAR for A-2 Medium Density Apartment zoning, and 2.8 FAR for A-3 High Density Apartment zoning under the City's *Land Use Ordinance (LUO)*.

Floor Area Ratio, or the ratio of the floor area of a building to the legally defined area of the land it stands on, governs how much building may be built on any given parcel of land. The higher the FAR, the more floor area a building can contain. Greater FARs allow greater intensities of land use, and may influence the character of development that results from it. However, because a building can be shaped and arranged in many different ways on the land it uses, greater intensity of land use may not always result in taller buildings or feelings of congestion. Skillfully planned and designed developments using generous FARs can create buildings and building groupings of moderate heights which relate comfortably to the size and needs of people, with pleasant, usable open spaces and senses of spaciousness that provide comfortable balances with the built environment.

Other PUC neighborhoods, such as Makiki and McCully-Moiliili, already have substantial amounts of medium- and high-density housing. Several important factors, however, hinder the development of new residences, especially new multifamily dwellings. These factors may be briefly summarized as follows:

- **Higher Prices.** Prices for all types of housing – both sale and rental prices – are extremely high in the PUC, with single-family houses clearly beyond the affordable range. Prices for apartments are generally high because of higher costs for land and for construction of high-rise structures.

- **Housing Preferences.** Due to the high price of real estate in the PUC, homebuyers seeking affordable housing are typically limited to apartment dwellings in the PUC. (Most new housing, and practically all of the new single-family housing, is being built in Ewa and Central Oahu.) Living in multifamily housing in the PUC is readily accepted by elderly and other households without children but is viewed as less desirable by families who can afford to buy. In addition to resistance to apartment-type housing, families are also concerned about the lack of schools and parks in PUC apartment neighborhoods.

- **Rental Unit Development.** Market conditions also discourage development of rental units. For many years, pure rental projects were developed only when heavily subsidized by government. Indirectly, rental units have become available as investors purchased individual condominium units and then rented them out.

- **Higher Risks.** Development of a multifamily, high-rise structure carries more developer risk than lower-density housing because the structure must be completed (and the investors fully extended) before any sales are closed. Honolulu's *Uniform Building Code* requires "Type 1" construction for large apartment buildings. Type 1 standards essentially demand a reinforced concrete structure, which is very expensive. With the high carrying costs of a completed building, slow absorption can cut into or eliminate profits. The higher risk makes it more difficult and costly to obtain development financing.

- **Infrastructure Deficiencies.** Infrastructure deficiencies are found in most of the older, in-town neighborhoods. Some affect broad areas and are costly to correct, such as insufficient capacity of a sewer trunk line or a pump station. In such cases, development cannot occur until the City makes improvements to expand capacity. For upgrading local water, sewer, or drainage lines, the developer typically bears the full cost of the required improvement (even though other properties may benefit as well). The cost of required infrastructure improvements can make a project infeasible.

- **Zoning Regulations.** Zoning regulations strictly limit the floor area and the lot coverage of apartment buildings. High minimum parking requirements, combined with limitations on lot coverage, force the development of costly structured parking. In addition to substantially increasing project design and construction costs, existing regulations force apartment buildings into a tower configuration with a parking pedestal.

These factors limit the availability of affordable housing for middle- and lower-income families in the PUC. While the City and County of Honolulu cannot directly affect market factors, it can support new housing development by modifying zoning and building regulations, and upgrading infrastructure.

3.3.1.3 Design of Multifamily Housing

As discussed above, existing regulations in the *Land Use Ordinance,* as well as in HCDA's *Kakaako Community Development District Administrative Rules*, favor tower-type apartment buildings with large parking pedestals. With blank garage walls on the parking pedestal and a visually prominent tower above, such buildings typically relate poorly to the street and to the buildings around them. Driveways and garage entrances dominate the street frontage, making the area uninteresting and unattractive to pedestrians. While the main housing element may be a slender tower, the building appears massive from the ground because of the large parking pedestal. The *LUO* regulations have promoted the construction of towers in several ways: by limiting building footprints (which in turn promotes tall buildings); by requiring yard setbacks; and by allowing unlimited floor area within parking structures (which in turn promotes massive parking structures).

An alternative type of housing design is shown in a future vision of Kakaako. "Before-and-after" illustrations, **Figures 3.8 and 3.9**, show how the warehouse district around Mother Waldron Park could be transformed into a residential neighborhood. Residential buildings of up to six stories have pedestrian entrances and ground-floor shops. Parking is accessed from side or rear driveways. If Pohukaina Elementary School were rebuilt next to the park (the site is to the right of the picture), this townhouse and apartment neighborhood could provide a welcome in-town alternative for young families.

The housing design represented in **Figure 3.9** creates a cohesive neighborhood environment. All of the buildings are built up to the sidewalk, have entries and commercial uses on the ground floor, and have similar cornice (roof) heights. While similar building types and scale create a sense of cohesion, architectural detailing can give each building a distinctive character. Together, the buildings create four walls that frame the park and make it "an outdoor room" similar to the urban parks and plazas discussed in Section 3.1.3.5.

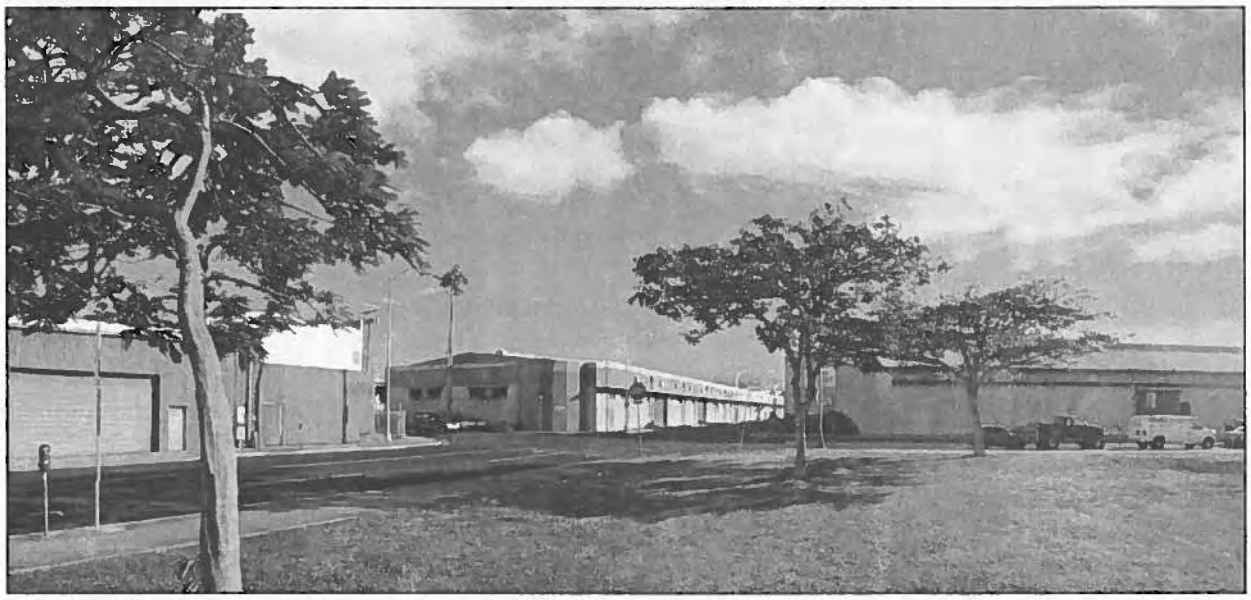


FIGURE 3.8: KAKAAKO – COOKE AND POHUKAINA STREETS – 2001. This view *makai* along Cooke Street shows warehouse buildings occupying the blocks near Mother Waldron Park. Based on plans to redevelop the area with residential and commercial uses, the State has upgraded roads and utilities and has built a new drainage system for the area. With the existing park and a proposal to construct a new public elementary school, this part of Kakaako has excellent potential for in-town residential development.

FIGURE 3.9: KAKAAKO – FUTURE IN-TOWN RESIDENTIAL NEIGHBORHOOD. In this vision of the future, mid-rise apartment buildings ring Mother Waldron Park. Families living in the area enjoy a revitalized Mother Waldron Park. They browse and have coffee in the shopping arcade along Cooke Street. Food and other necessities are available at the full-sized grocery store on the corner. Residents can walk to Downtown offices or commute to work using rapid transit.

3.3.2 POLICIES

The following policies are intended to promote housing choices in livable in-town neighborhoods that are planned for higher-density residential and mixed uses. The first two policies entail changing development standards for apartment zoned districts and other zoning districts that allow multifamily dwellings.

- ***Promote people-scaled apartment and townhouse dwellings in low- or mid-rise buildings oriented to the street.*** Promote buildings that are modest in height and have a pedestrian entrance facing the street. Encourage the use of ground-floor space for shops that will serve residents and contribute to a pedestrian-oriented neighborhood. This policy entails revising zoning regulations.

- ***Improve the feasibility of redeveloping small lots.*** Remove disincentives for townhouse and low-rise apartment development on smaller lots zoned for multi-family dwellings. This policy entails revising zoning regulations.

- ***Reduce costs for apartment homes.*** Reduce construction costs and promote low-rise buildings by allowing less expensive building construction types while maintaining health and safety. Reduce land costs by allowing greater dwelling unit density while limiting building volume consistent with promoting livable neighborhoods. This policy entails revising building and zoning regulations.

- ***Provide adequate parks and schools for in-town neighborhoods.*** Community parks and recreation facilities should be provided in and near residential neighborhoods. To attract young families, access to elementary schools must be assured.

- ***Expand the capacity of infrastructure, including water supply, sewers, and storm drains.*** Government needs to lead both planning and investment in renewing and expanding infrastructure. To remedy district- or neighborhood-scale infrastructure constraints is beyond the capability of individual landowners. Likewise, paying for relief lines and larger-scale projects that will benefit multiple landowners requires government leadership in providing long-term financing and apportioning costs.

- ***Support the retention, rehabilitation, and improvement of older, low-rent apartment buildings.*** Many older, walk-up apartment buildings constructed prior to the *1969 Comprehensive Zoning Code* do not conform to current zoning or building standards but collectively comprise a valuable reservoir of low-cost rental housing. The City should relax zoning requirements to encourage the rehabilitation and improvement of these buildings.

- ***Preserve the current inventory of affordable rental housing units.*** The City should assure that the current inventory of affordable rental units, whether owned by the city or not, is preserved and retained as affordable rentals.

- ***Provide for special needs housing.*** Allow housing for people with special needs, such as group homes for the disabled or congregate living and care homes for the elderly, subject to special development standards or permit review. Promote the dispersal of special needs housing among various neighborhoods and avoid over-concentrating facilities in just a few areas.

- ***Provide incentives and cost savings for affordable housing.*** Provide exemptions from zoning and building codes for housing projects that meet established standards of affordability, on a case-by-case basis.

- ***Provide for high-density housing options in mixed-use developments around transit stations.*** This type of "transit-oriented development" facilitates transit use and allows for increased densities without generating increased vehicular congestion.

3.3.3 GUIDELINES

- In order to implement Development Plan policies, review and revise zoning regulations for apartment districts and other zoning districts that allow multifamily dwellings.

- Review and revise zoning and building regulations to allow more flexibility in design and reduce the cost of multifamily structures.

- Review and revise zoning regulations and permitting processes to encourage innovative forms of housing and group living accommodations for people with special needs, such as the elderly or disabled, in all zoning districts that allow dwellings.

- Promote the location of grocery stores and other service businesses in higher-density neighborhoods. Having shops and services within walking distance is an important amenity of in-town living. In addition to promoting retail stores on the ground level of apartment buildings, zoning regulations should provide incentives for locating full-service grocery stores in high-density residential neighborhoods. An essential element of the higher-density livable neighborhood, grocery stores require much more floor area and service facilities than the typical retail use and therefore warrant special incentives.

3.4 THE PACIFIC'S LEADING CITY

According to the Vision, the Honolulu of 2025 will be "the Pacific's leading city and travel destination." This section addresses the importance of the PUC to the economy of Oahu and the state as a whole, and sets policy relating to the central business and industrial areas of the PUC.

Section 3.4.1 examines economic issues relevant to the PUC, especially as they relate to planning and land use. **Section 3.4.2** sets forth policies.

3.4.1 EXISTING CONDITIONS, ISSUES AND TRENDS

In 2000, the PUC had approximately 380,000 nonconstruction jobs, or almost 78 percent of Oahu's total jobs. The City's 2025 projections show the number of PUC jobs increasing by 20 percent. By comparison, jobs in Ewa are projected to increase by over 200 percent. While the PUC's share of Oahu employment will decline to about 70 percent by 2025, the PUC will remain by far the most important center of economic activity in the state.

In general, the PUC is zoned to permit the expansion of office and retail functions in and around existing commercial nodes and corridors. Although there is an adequate supply of land to support future expansion, provisions need to be made for moderate expansion of visitor facilities and for the continued viability of military, transportation, and industrial districts.

The major job centers of the PUC can be divided into two general areas:

- The **Pearl Harbor area**, reaching from Aliamanu to Pearl City. This area includes the various military bases and functions centered around Pearl Harbor, Fort Shafter, and Hickam Air Force Base. It also includes Aloha Stadium, the regional commercial activities centered around Kamehameha Highway, and the industrial areas at Waiawa, Waiau, Bougainville, and Halawa.

- The **Honolulu** area, reaching from Honolulu International Airport to Waikiki. This area includes the state's major commercial harbor and airport, Downtown Honolulu, the Civic Center, Ala Moana, Waikiki and the University of Hawaii at Manoa. Major industrial activities are located around Honolulu Harbor, stretching west to Mapunapuna.

3.4.1.1 The Urban Waterfront

As demonstrated in leading cities throughout the world, recapturing visual and physical access to the urban waterfront can stimulate economic renewal and be a source of civic pride. Waterfront redevelopment can bring vitality and business to commercial centers. There are opportunities for waterfront renewal around both Honolulu Harbor and Pearl Harbor.

The development of Aloha Tower Marketplace opened an avenue to the Honolulu waterfront and demonstrated the potential of the harbor to attract commercial and recreational activity. Lands fronting the harbor are a prime site for new commercial, hotel, and residential development. Increased entertainment and recreational opportunities along the waterfront will benefit from the patronage of Downtown workers and residents. Revitalization of the waterfront will in turn lend impetus to redevelopment in Iwilei.

The major impediment to revitalizing the Honolulu waterfront is Nimitz Highway. Carrying a large volume of traffic on six through lanes, Nimitz effectively acts as a physical and visual barrier cutting off the waterfront from *mauka* pedestrian travel. To address increasing traffic volumes in this corridor, there is a current State proposal to extend the H-1 viaduct over Nimitz from Middle Street into Downtown. Given that this would create a virtual wall and would severely detract from, if not forever preclude, renewal of the Honolulu waterfront, as an alternative, it may be desirable to have a bypass highway that would serve Sand Island and the Nimitz industrial corridor and route Waikiki-bound through-traffic away from Downtown.

In the Aiea-Pearl City region, Pearl Harbor's East Loch is a major visual feature and potential recreational asset for the region, but the types of urban development that currently occupy the lands *makai* of Kamehameha Highway obstruct visual and physical access to the shoreline. In some locations along the shoreline, perimeter fencing and walls surround large industrial and commercial buildings. Reopening physical and visual access to the East Loch shoreline provides an important opportunity to revitalize and enrich the Aiea-Pearl City area.

3.4.1.2 Visitor Industry

The visitor industry is expected to continue to be the primary income generator through the year 2025. Directly or indirectly, the visitor industry influences the lives of nearly all Oahu residents. Policies affecting the industry must take into consideration the needs of residents as well as the quality of the visitor's experience.

The visitor industry in Hawaii is greatly affected by economic conditions in overseas markets, especially the Japanese and U.S. West Coast markets. While economic conditions tend to be cyclical, the State and City 2025 visitor projections are premised on a long-term average rate of growth of one to two percent per year.

Issues currently affecting the industry and facilities in the PUC include:

- **Changing objectives and expectations of visitors.** Recent surveys indicate that the majority of visitors are no longer coming to Hawaii primarily for sun and surf, but are now more interested in shopping, cultural, and environmental experiences.

- **The impact of the Convention Center on visitor units.** The Convention Center is expected to attract larger numbers of visitors to Honolulu. As both western and Asian travelers will favor Honolulu as their destination, the increased numbers of visitors will create demand for additional visitor accommodations.

- **The need to upgrade Waikiki.** Waikiki is competing in the global marketplace and, as a mature destination, needs to be refurbished and improved. In addition to upgrading streets and public spaces, the City and State need to adopt policies that will elicit private reinvestment in Waikiki's physical plant.

- **Market acceptance of Oahu's secondary resort areas.** City policies direct growth in the visitor industry to Makaha, Kuilima, and Ko Olina, but these areas have been slow to develop. Unless development of these resort areas accelerates, there may be additional demand for new visitor units in the PUC.

Existing zoning allows hotel uses in the following parts of the PUC:

- The Resort Mixed Use Precinct of the Waikiki Special District – generally, the *makai* portions of the District. In addition, the *mauka* portions of the District have numerous older hotel and resort condominium units in use as visitor accommodations.

- The City's Central Business Mixed Use District, which applies to the Downtown business district.

- Industrial districts near Honolulu International Airport, *makai* of Nimitz Highway.

The number of visitor units in the PUC is projected to grow from approximately 34,600 units in the year 2000 to approximately 37,800 units in 2025[2]. This represents approximately 28 percent of the projected islandwide increase in visitor units between 2000 and 2025. About 70 percent of the islandwide increase is projected to occur at two planned major resort areas outside of Waikiki – at Ko Olina in the Ewa region and at Kuilima in the Koolauloa region. While the projection follows the City's official growth policy and reflects build-out of lands zoned for resort development, a strong demand for Oahu resort destinations outside of Waikiki is as yet unproven.

Given that Waikiki is substantially built out, other PUC sites outside Waikiki will be needed for new hotels. The preferred approach for additional visitor accommodations is to provide new hotels near the Convention Center and the Downtown waterfront for both business travelers and visitors attending conventions, and to allow smaller facilities (i.e., inns and lodges) within other "town center" areas in the PUC for visitors who prefer alternatives to the typical hotel properties found in Waikiki. In addition, the demand for bed-and-breakfast (B&B) establishments should be recognized. B&Bs are not only popular with visitors, but they also generate income directly to local families. Unlike houses that are rented directly to visitors (known as transient vacation rentals or TVUs), a B&B is an accessory unit within a residence, and the B&B owner is present to assist and supervise the visiting party. The proposal to allow B&Bs under specific standards and permitting procedures should be reexamined in consultation with interested communities.

FIGURE 3.10: WAIKIKI. Visitors and residents alike enjoy the widened promenade along Kuhio Beach in Waikiki. Vitalized through ongoing physical improvements, Waikiki continues to be a world-leading urban beach resort and Hawaii's most popular visitor destination.

[2] From "Department of Planning and Permitting 2025 Land Use Forecast," Department of Planning and Permitting, City & County of Honolulu, 2000.

3.4.1.3 Technology Businesses, Office Facilities

The PUC is the economic center of the state. State and City policies call for diversifying the economic base by attracting businesses in scientific and technological fields – knowledge-based industries that provide higher paying jobs. The fields include telecommunications, marine resources, natural energy, and health sciences. Stimulating particular types of economic activity may require incentives and subsidies typically delivered through the State of Hawaii. Existing land use policy and zoning provides an adequate supply of land to accommodate potential new development.

New manufacturing and industrial activities associated with technology-based businesses should locate in districts planned for industrial use. Many of these new businesses will migrate to Ewa, where there is a substantial amount of land available for lease at lower rates than in Honolulu or Pearl City.

Leading-edge research enterprises and the business operations of technology-based businesses, however, may wish to locate in central Honolulu near the University of Hawaii's Manoa campus, other universities, and the leading hospitals. Enterprises combining laboratories and offices may want to locate near other office facilities. The UH Medical School is building a new campus in Kakaako with the specific intent of collaborating with hospitals and other research institutes in order to attract research projects and funding. Kamehameha Schools is considering the development of a private high-technology campus on adjacent properties.

Between 1975 and 1995, Honolulu added new office buildings totaling over four million square feet of rentable space. Combined with the economic slowdown, this resulted in a surplus of office space through the 1990s. Based on projected increases in office employment for the next 20-25 years, there will be demand for an additional 1.2 million square feet of floor area. The existing supply of vacant and underutilized land zoned for business use – principally in Kakaako, Downtown, and other parts of central Honolulu – will be more than sufficient to meet future needs.

3.4.1.4 Military, Airport, Harbor and Industrial Uses

MILITARY INSTALLATIONS

Military installations within the Primary Urban Center include the Pearl Harbor Naval Base, Hickam Air Force Base, and Fort Shafter Military Reservation (Army). For the most part, land use patterns on military bases are compatible with adjacent civilian uses. For example, Hickam's airfield shares runways with the Honolulu International Airport. At Pearl Harbor, the Rainbow Bay Marina, which is the Navy's recreational marina, is located next to the Aiea Bay State Recreation Area and provides a visual and functional transition from the industrial Pearl Harbor Naval Shipyard.

The largest housing areas for military families – Aliamanu Crater, Fort Shafter, and Moanalua Terrace – contain community services similar to those of nearby civilian residential neighborhoods, such as elementary schools, child care centers, community shopping centers, and a variety of recreational facilities.

A better integration of military and civilian land uses and circulation routes could be achieved by relocating the Navy Public Works Center to an area within Pearl Harbor Naval Base closer to the Shipyard. The current site could be redeveloped for housing, linking the adjacent Moanalua Terrace and Aliamanu residential neighborhoods.

HONOLULU HARBOR AND ENVIRONS

The land areas most directly influenced by Honolulu Harbor are *makai* of Nimitz Highway, including the *mauka* portions of Sand Island (Anuenue). Maritime industrial uses are concentrated in the portion of the Harborfront between Pier 15 and Sand Island Access Road.
Due to new efficiencies in retailing and shipping, the demand for warehousing near Honolulu Harbor has decreased. This trend enables the conversion of the Diamond Head portions of the harbor, between Piers 1 and 15, for expanded recreational and commercial uses and maritime passenger travel, as envisioned in the 1989 *Honolulu Waterfront Master Plan*. A prerequisite to full development of the waterfront for commercial and recreation activities, however, will be the prior development and modernization of maritime support facilities.

HONOLULU INTERNATIONAL AIRPORT AND ENVIRONS

Since there is typically high turnover in air freight storage and the items stored are less bulky, aviation warehouse needs are even lighter than in the harbor area. The industrial-type uses associated with the operation of the airport (e.g., aircraft storage and repair and cargo handling) are mostly contained within the grounds of the airport itself.

The airport vicinity attracts a wide range of uses, including hotel accommodations for transiting passengers and crew, businesses offering services related to air travel, and other businesses that prefer to locate their administrative offices near their operation centers and storage facilities rather than in the financial or retail districts. As a result, a mix of commercial and industrial uses is appropriate in this area.

3.4.1.5 Aiea-Pearl City Town Centers

While there are pockets of older neighborhoods in Pearl City and Aiea, most of the region's urban development occurred since the early 1950s. As a result, the land use pattern and circulation system are oriented to the automobile as the primary mode of transportation. Retail stores, services and commercial entertainment have self-contained parking and are located within shopping centers and on automobile-dominated highway frontages rather than along commercial streets with a pedestrian and transit orientation. Nevertheless, the development pattern differs from the typical post-1950s suburb in that it contains five significant clusters of commercial, institutional and high-density residential development, referred to below as "town centers" (see **Figure 3.11**):

- **Halawa Town Center**, the focus of which is Aloha Stadium, also contains several apartment complexes and two shopping centers – one entertainment-oriented and the other neighborhood-oriented.

- **Aiea Town Center** consists of a neighborhood-oriented commercial center, the former site of the Aiea Sugar Mill (which is being redeveloped as a community center), schools and other community facilities.

- **Pearl Harbor Regional Town Center**, commonly called "Pearlridge" after the name of the large regional shopping center that is located there, encompasses intensive retail and office commercial developments, high-density apartment buildings, light-industrial uses, a medical complex and various community facilities. Central open space features of this area include a large watercress farm and shoreline frontage along Pearl Harbor's East Loch.

- **Waimalu Town Center** is a smaller, neighborhood-oriented commercial center that includes some community facilities. The Newtown Business Park, consisting primarily of light industrial uses, lies on the *mauka* edge.

- **Pearl City Town Center** contains a mix of neighborhood-oriented (Pearl City Shopping Center) and regional (Pearl Highlands Center) commercial uses, apartment buildings, a residential subdivision, and civic and community facilities. The Navy's former Manana storage area is adjacent and planned for redevelopment and conversion to industrial-commercial mixed-use.

Some of the older, "town center" sections of Aiea and Pearl City exhibit the characteristics of a traditional commercial street, with storefronts facing the sidewalk and civic buildings, schools and a community park clustered near the commercial center. However, the sense of a community-oriented center is relatively lacking in areas that developed or redeveloped after the 1950s. The Pearlridge Shopping Center, for example, is a vibrant center, but its activity is focused inward, out of view from the concentration of high-density residential uses and other commercial developments that surround it. A commercial development pattern that mixes residential, commercial and institutional uses within relatively short distances and exposes building entrances and activity areas to the street, sidewalks and other public places to invite passers-by is much more likely to be recognized as a "community-oriented center."

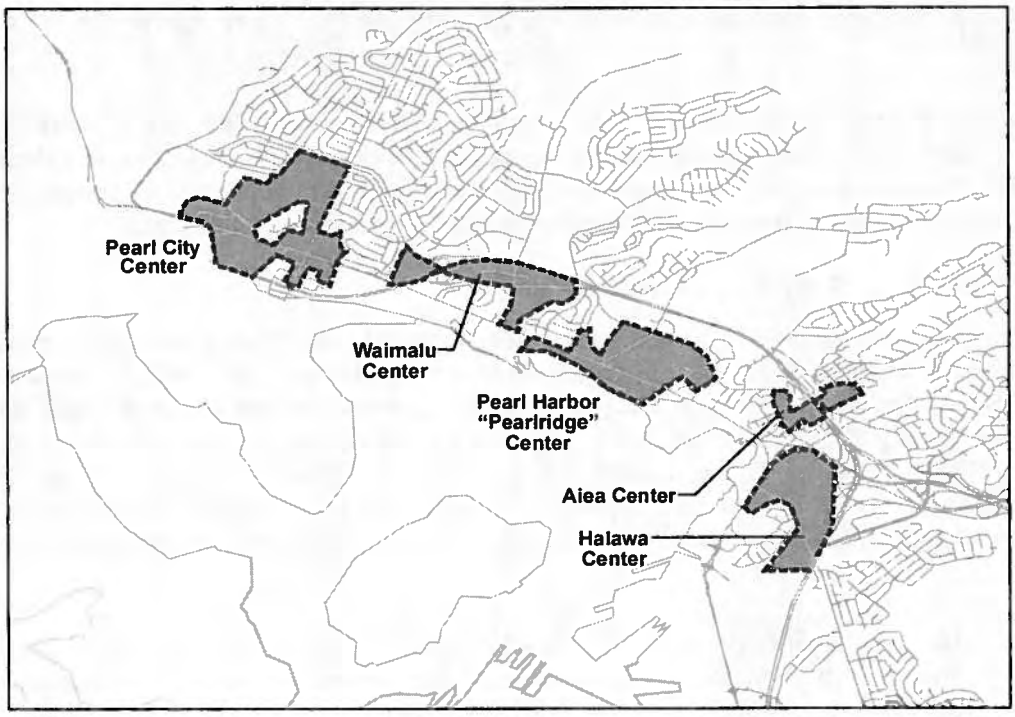


Figure 3.11: Location of Town Centers in Aiea-Pearl City.

3.4.2 POLICIES

To be the Pacific's leading city and to attract high-technology businesses as well as conventions and visitors, the PUC needs to enhance those qualities that make it an attractive place to do business. Following are policies for enhancing the PUC's commercial centers while providing for moderate growth and maintaining essential military, industrial and transportation functions.

3.4.2.1 Honolulu and Pearl Harbor Waterfronts

Reconnecting the PUC's main commercial centers to the Honolulu and Pearl Harbor waterfronts would enhance livability, create new residential and commercial opportunities, and enliven the PUC. The following policies have this common purpose:

- ***Create public open space along the Pearl Harbor waterfront and strengthen the physical and visual connections between the urban center and the water.*** As shown on the Open Space and Land Use Maps, the *Development Plan* calls for converting lands along the East Loch shoreline to park use. Areas to be converted include (a) McGrew Point, at such time as the Navy carries out plans to decommission housing there; and (b) the area currently in industrial use *makai* of Kamehameha Highway between Neal S. Blaisdell Park and Lipoa Place, which the City could acquire through eminent domain. Where conversion to park use is not feasible, encourage complementary redevelopment with incentives for higher zoning in return for view corridors, extra open space, public amenities, and public access to the shoreline.

- ***Improve mauka-makai pedestrian and bicycle circulation across Kamehameha Highway.*** Developing physical access to the Pearl Harbor waterfront demands substantial improvements to pedestrian and bicycle access across Kamehameha Highway.

- ***Redevelop the Downtown/Iwilei waterfront.*** Reroute through traffic to a new Sand Island parkway and harbor tunnel thoroughfare, and replace the *makai* portion of Nimitz Highway with a new shoreline pedestrian promenade and mixed-use commercial/recreational/residential complexes. Adopt appropriate measures to enhance the attractiveness of the Nimitz corridor and public and private responsibilities to implement and maintain such improvements. By creating a new parkway across Sand Island and a tunnel beneath the Harbor entrance, Airport-to-Waikiki traffic (and all other through-traffic not destined for the Iwilei/Downtown area) will bypass this unsightly industrial section and significantly reduce the traffic demand on Nimitz Highway through town. This will enable the Ewa-bound *mauka* section of the highway to be converted to a two-way local access street. It will also allow the Waikiki-bound *makai* section to be converted to a major shoreline promenade and waterfront activity area, providing space for restaurants, shops, indoor and outdoor entertainment, and recreation areas. This area would also hold potential for development of low- to mid-rise housing.

3.4.2.2 Visitor Facilities

The following policies are intended to guide the development of visitor facilities within the PUC.

- ***Adopt and implement a plan for a vibrant and livable Waikiki.*** This plan needs to address the quality of the resident experience as well as the quality of the visitor experience. Based on development parameters set by the Waikiki Special District, the plan should encompass mobility, the quality of the street environment for pedestrians, public spaces, the scale and design of new buildings, and Waikiki's relationship to the Convention Center and neighboring districts.

- ***Support attractions that are of interest to both residents and visitors in the Ala Moana/Kakaako/Downtown corridor.*** Opportunities include State-sponsored waterfront commercial and cultural attractions around the Kewalo Basin area; retail/entertainment facilities around Ala Moana Center, Victoria Ward Centers and Kamehameha Schools properties; and improvements to serve visitors in the Capitol District, Aloha Tower, and Chinatown.

- ***Provide opportunities for the development of visitor units in the Ala Moana/Kakaako/Downtown corridor.*** Hotels serving the Convention Center should be within a 5-minute walk (one-quarter mile) and located on commercially zoned parcels along major thoroughfares. Those in the Downtown area should be in the area zoned BMX-4 or the Aloha Tower complex.

- ***Provide a transit link along the Ala Moana/Kakaako/Downtown corridor.*** The City should assure that there is convenient transit service between visitor accommodations and the visitor attractions along the corridor. Visitor-oriented transit should utilize at-grade trolley types of vehicles and could be publicly or privately operated.

- ***Provide opportunities for the development of smaller-scale visitor accommodations (i.e., inns and lodges) in existing commercial centers.*** These could serve resident and business needs (visiting family, friends and business associates) as well as visitors looking for an alternative to the resort enclave. Potential areas include Kapahulu, Kaimuki, the King/Beretania corridor, Kapalama, Pearlridge, and Pearl City. Development of such facilities should consider the community's preferences and be integrated with the surrounding neighborhood.

- ***Allow Bed & Breakfast establishments (but not transient vacation units or TVU's) in residential neighborhoods.*** With adequate parking, community involvement, and other regulatory controls, B&Bs provide a highly integrated, well-supervised, low-impact form of visitor accommodation. For residents, operating a B&B is a viable home occupation and a means to retain and reuse homes in older neighborhoods.

3.4.2.3 Technology Businesses, Office Facilities

The following policies are intended to guide the development of office and related uses in the PUC.

- ***Stimulate development of high technology and knowledge-based industries.*** Take advantage of Honolulu's active urban ambience to attract high-technology businesses. Use State lands in Kakaako for a campus dedicated to biomedical research and other high-technology businesses. Encourage investment in infrastructure in commercial buildings to accommodate and attract high-technology and biotechnology businesses.

- ***Encourage street-front retail.*** Office buildings should have retail stores, entrances, and windows fronting the principal street.

- ***Provide usable open space.*** Zoning requirements and bonus provisions for open space associated with larger office buildings should specify design guidelines for usable plazas, parks, and arcades. Key elements of usable open space are enclosure, shade, seating, and location at street level.

Figure 3.12: AIEA-Pearl City Region. The vision of the region's future calls for reinforcing town centers and opening visual and physical access to the Pearl Harbor waterfront.

3.4.2.4 Military, Airport, Harbor, and Industrial Areas

The following policies are intended to assure the long-term viability of military, transportation, and industrial functions:

- ***Support continuation of military uses.*** National defense objectives and budget priorities determine the military bases and functions located in the Primary Urban Center and the state as a whole. The City should support long-range land use planning by the military services and coordinate with them to achieve common goals of employment, housing, and recreation.

- ***Integrate civilian and military residential communities.*** The City should work with the military services to link adjacent residential communities through the use of connecting roadways, bikeways, walkways, landscape features, and/or architectural scale and character.

- ***Allow a mix of industrial and commercial uses.*** Allow a broader mix of commercial uses in the Airport and Bougainville industrial districts. The Airport district should include office, hotel, and retail uses that are compatible with airport operations, as well as existing light industrial uses. The Bougainville district should include uses that support surrounding residential neighborhoods.

- ***Enhance Honolulu Harbor and harbor-related uses.*** Reserve areas around Honolulu Harbor, particularly around Kapalama Basin and the Sand Island container yards, for harbor-related uses.

- ***Support industrial uses in Kalihi-Palama industrial districts.*** Commercial uses along the Nimitz, Dillingham, King, Kalihi, and Waiakamilo corridors should be recognized and encouraged. In industrial districts where residential uses have endured for many years – i.e., Kalihi Kai and Kapalama – such uses should be allowed to continue, and should be rehabilitated and improved.

- ***Promote compatibility with the surrounding urban and natural environment.*** Where industrial uses are mixed with or adjacent to residential communities or natural areas, mitigate visual, noise, and other environmental impacts by adopting performance standards.

- ***Support development of adequate warehousing facilities to support increased economic activity.*** Encourage development and maintenance of warehouse space of sufficient quality to prevent shortages and support growing businesses.

3.4.2.5 Aiea-Pearl City Town Centers

A separate set of policies is needed to address the problems of the shopping center-based urban pattern in this region. Following are policies for stimulating the evolution of vibrant, people-oriented town centers that provide a strong sense of community.

- ***Define the role of town centers.*** Establish the "Pearlridge" area as the Pearl Harbor Regional Town Center, and strengthen the physical and visual connection between this urban activity center and the Pearl Harbor waterfront. Other town centers at Pearl City, Waimalu, Aiea, and Halawa should serve as more localized or specialized activity and service areas.

- ***Promote mixed land use.*** Town centers should support some form of mixed land use to respond more flexibly to market needs and to reduce dependency on the private automobile for local travel. The Pearl Harbor Regional Town Center should be designated for a greater diversity of uses than the other town centers, emphasizing an integration of medium- or higher-density residential and commercial development. Land use designations and design standards should be oriented toward assuring compatibility of building forms and uses, creating street connections, and providing a smooth transition between town centers and adjacent residential neighborhoods.
- ***Facilitate pedestrian, transit, and bicycle improvements.*** There should be major improvements to transportation facilities and services, with particular emphasis on pedestrian, bicycle, and public transit modes along Kamehameha Highway, and commuter travel on the H-1 Freeway and in the Aloha Stadium vicinity (see Figure 3.17: Pedestrian Network Concept for Pearl Harbor). Design standards for new development in the town centers – especially the Pearl Harbor Regional Town Center – should encourage pedestrian and transit travel.

3.5 DEVELOP A BALANCED TRANSPORTATION SYSTEM

The fifth Key Element is to "develop a balanced transportation system that reduces reliance on cars and improves alternate modes connecting neighborhoods and activity centers." Full development of the Primary Urban Center, as called for in the General Plan, can only be achieved with the support of a well-conceived transportation system that is tightly integrated with land use policies and regulations.

Section 3.5.1 reviews the existing conditions, issues, and trends that shape the Primary Urban Center's transportation system. **Sections 3.5.2** and **3.5.3** set forth policies and guidelines.

3.5.1 EXISTING CONDITIONS, ISSUES AND TRENDS

3.5.1.1 Current Transportation Policy

OAHU REGIONAL TRANSPORTATION PLAN

Oahu's official long-range surface transportation strategy is documented in the *Oahu Regional Transportation Plan*, a federally mandated document that is updated every five years by the Oahu Metropolitan Planning Organization (OMPO). OMPO includes representation from the City Council, the State Legislature, and the City and State transportation agencies. The most recent update – titled *Transportation for Oahu Plan 2025* (TOP 2025) – was adopted by OMPO in April 2001.

The land transportation strategy set forth in *TOP 2025* is to minimize the increase in automobile congestion by making selective improvements to roadway and intersection capacities, implementing intelligent transportation systems and travel demand management (TDM) strategies, and developing a bus rapid transit (BRT) system for urban Honolulu and the Leeward commuter corridor. *TOP 2025* lists transportation improvement projects to be funded in the next couple of decades, and most of this investment is designated for the Primary Urban Center. The in-town portion of the BRT by itself represents almost one-quarter of the proposed islandwide expenditures.

ISLANDWIDE MOBILITY CONCEPT PLAN

Prior to the preparation of *TOP 2025*, the City and State transportation agencies launched "Oahu Trans 2K: A Community-Based Transportation Vision for the 21st Century." Following several rounds of community workshops held throughout Oahu, the City Department of Transportation Services published the *Islandwide Mobility Concept Plan* (March 1999). While not formally adopted, this document described the conceptual framework for the major transportation projects later incorporated into *TOP 2025*. In the Primary Urban Center, the most significant projects were the BRT and its components and the Sand Island Bypass Road/Nimitz Parkway. In addition, the *Concept Plan* addressed several neighborhood-level initiatives that were already in early stages, such as the traffic-calming program and localized transit service using community circulator routes.

3.5.1.2 Automobiles

The automobile dominates Oahu's and the Primary Urban Center's transportation system. In the post WWII era, the automobile profoundly shaped urban development, stimulating the creation of bedroom communities and a distinct separation of residential and employment-related land uses. With its major employment and commercial centers, the Primary Urban Center attracts many more vehicle trips than it generates. Automobile dependency therefore raises a number of issues and concerns about the quality of life within the Primary Urban Center over the next two to three decades.

TRAFFIC CONGESTION

The prevalently dispersed pattern of land uses makes people dependent on the automobile for an increasing share of daily trips. Along with commuting, this places great stress on the traffic capacity of the road infrastructure. About 80 percent of all trips are not work related – i.e., for social, recreational, and utilitarian (school, shopping, dentist) purposes. Although commuting to work represents a small percentage of the total number of trips, peak-hour congestion is a major problem because over 60 percent of Honolulu commuters drive alone to work. In 1998, the average occupancy rate for vehicle trips during the peak morning commute (between 6 and 9 am), was 1.24 persons per car.

Most of Oahu's households have access to a car, and an increasing number have access to two or more cars. Following national trends, the number of licensed drivers on Oahu is increasing at over twice the rate of population growth. This rate of growth is likely to increase in the next couple of decades as the "Y" generation cohort begins to drive. As a conservative estimate, there will be 22 percent more drivers on Oahu by the year 2020, exclusive of visitors who rent cars during their stay. If alternative modes of transportation are not made more convenient and practicable, more drivers will stimulate demand for more vehicles and generate more roadway congestion.

As highways become more congested, commuters try to find alternate routes by "shortcutting" through residential neighborhoods, essentially trying to bypass the bottleneck much like water flowing around an obstruction. Primary Urban Center neighborhoods bear the brunt of this impact, which is particularly acute in the Aiea-Pearl City area and in the Diamond Head-Kaimuki area.

DEVELOPMENT OF ROADS AND PARKING

City and State transportation agencies find it ever more challenging to increase roadway capacity to accommodate the high rate of growth in automobile traffic within the Primary Urban Center. Acquisition of right-of-ways to build new or widen existing thoroughfares is severely constrained by high costs and limited space. Proposals to "double-deck" the H-1 Freeway and Nimitz Highway have encountered strong political opposition and have been shelved.

Most of the attempts to add roadway capacity are confined to existing right-of-ways. Many of Honolulu's major streets were converted to one-way traffic in the 1970's. More recent initiatives to improve traffic flow include adjustments to traffic signals, modifications to intersections, and conversion of parking lanes to traffic lanes.

However, roadway capacity improvements come at a cost to other modes of travel and to the quality of life in the affected neighborhoods. Several of the major roadways within the PUC, principally the major east-west highways and arterials, act as substantial barriers to *mauka-makai* access and interneighborhood mobility. The following are examples of such improvements:

- Construction of the H-1 Freeway cut through many old neighborhoods and exposed adjacent areas to significant noise, visual and air quality impacts. Many major roadways – including collector streets as well as highways – are inhospitable to bicyclists and pedestrian crossings, particularly for children and the elderly.

- Kamehameha Highway in the Pearl City-Aiea area cuts most of the residential community off from the Pearl Harbor waterfront and its important scenic and recreational amenities.

- The multilane Nimitz Highway isolates the Downtown area from the Honolulu waterfront. Diverting through-traffic on Nimitz Highway to a new Sand Island bypass route would enable the reconnection of Downtown Honolulu to the waterfront and more efficient travel between the Airport and Waikiki.

In addition, several streets in the Downtown/Chinatown area currently have road widening designations that were imposed years ago, which, if implemented, would severely impact the buildings which front them.

While several thousand acres of the Primary Urban Center are committed to streets, several thousand more are consumed by automobile parking. Based on vehicle ownership figures, the estimated space required to park all vehicles registered to residents of the PUC is more than twice the total amount of existing park acreage in the Primary Urban Center. This does not include parking for commercial, industrial and institutional uses, which accommodates vehicles from both within and outside of the Primary Urban Center.

Current City land use policy promotes the construction of private parking facilities. The *Land Use Ordinance* exempts structured parking within buildings from floor area calculations and allows freestanding commercial parking garages in most zoning districts. It also requires new residential projects to provide an average of two off-street parking stalls per housing unit plus provisions for guest stalls in multifamily projects, except in Waikiki and Downtown where only one stall per multifamily dwelling is required. This requirement raises housing costs, since the average construction cost per stall in a parking garage is about $25,000. Work-based parking is generally required at a ratio of one stall per 400 square feet of space. Employer-subsidized parking stimulates single-occupant vehicle commuting and masks the true cost of parking stalls in Downtown and other commercial areas.

ECONOMIC, SAFETY AND PUBLIC HEALTH IMPACTS

Hundreds of millions of dollars are spent each year by the State and the City to operate and maintain Oahu's roadways ($17.9 billion projected between 1995 and 2020). At the consumer level, cars are expensive to operate and maintain compared to the cost of an annual City bus pass.

The Federal National Mortgage Association has recognized the cost of owning a car and is now experimenting with a "Location Efficient Mortgage" product where homeowners purchasing homes close to transit lines are able to qualify for a higher loan-to-earning ratio. This mortgage product results in increasing the number of people qualifying to purchase a home and makes residing in the PUC more attractive.

Automobiles also have societal costs such as public health hazards, lost time, and productivity from sitting in congested traffic, "hidden" subsidies, and environmental and thermal pollution. An average of 60 persons have been killed in Oahu roadway accidents each year between 1997 and 2000, and thousands more have been injured. Many pedestrian accidents occur along neighborhood streets that are designed more for motorist than for pedestrian safety. Roads designed to highway standards disproportionately endanger children and the elderly. Anecdotal reports indicate a general increase in road-related stress (road rage) due to increasing roadway congestion.

Finally, overreliance on the automobile promotes a sedentary lifestyle, which in turn adversely affects longevity and quality of life. Thousands of acres throughout the region are blighted by elevated noise levels generated by the automobile. Engine emissions from the automobile are responsible for a range of pulmonary disorders. The combustion of motor fuel produces thousands of tons of particulate matter and spot concentrations of toxic gases such as carbon monoxide. Studies have shown that per capita fuel consumption drops with increases in urban density and mix of uses, as public transit, walking, and bicycling become more desirable modes of transportation.

3.5.1.3 Public Transit

MUNICIPAL BUS SYSTEM

Honolulu's municipal bus system – TheBus – has over 200.000 passenger boardings per day, and ridership has remained relatively stable over the past several years. The 2000 U.S. Census found that 8.0 percent of Oahu commuters use the bus to get to and from work. The most heavily used routes are within the Primary Urban Center, and the routes that follow Honolulu's main east-west arterials account for more than half the daily ridership islandwide. Fare box receipts cover 27 percent of total costs to operate TheBus system, with the remaining cost paid primarily out of the City's General Fund.

Much has been done over the years to improve TheBus by building modern vehicle maintenance and baseyards; continually expanding the size of the fleet; adding vehicle design features for passenger comfort and convenience, such as lift entries and bicycle racks; acquiring quieter buses with better emission controls; adjusting and adding routes and schedules; and providing bus shelters. Currently, the City is implementing a "hub-and-spoke" system that is designed to improve circulation within neighborhoods while connecting neighborhoods to "transit centers" along major east-west transit routes.

The potential for improving the service provided by TheBus within the Primary Urban Center is constrained by its technology. Sharing increasingly congested street and highway lanes with automobiles, buses cannot move any faster than other traffic. Only through the center of Downtown – along Hotel Street Bus Mall – is there a dedicated transit lane.

RAPID TRANSIT SYSTEM

To reduce automobile dependency and elevate quality of life, the Primary Urban Center needs a higher-capacity higher-speed public transit system that can move efficiently through the urban core.

The City is presently pursuing the development of a Bus Rapid Transit System (BRT) that would employ high-capacity vehicles traveling at grade on city streets within central Honolulu and along the H-1 Freeway on a semiexclusive lane with dedicated access ramps from Middle Street to Kapolei. In the future, all or a portion of the BRT system may be convertible to a fixed-rail or elevated monorail system.

To attract ridership, proposed rapid transit routes will be within a five-minute walk from central Honolulu's major activity centers, higher-density neighborhoods, and redevelopment areas. This service area is illustrated conceptually as a "transit corridor" in **Figure 3.13**. Transit service to the neighborhoods outside the five-minute zone will be supplemented by circulator buses to connect passengers to the rapid transit system at transit centers.

3.5.1.4 Walking

Walking is the oldest and most basic form of transportation. It is also the most affordable and accessible of all transportation modes. Almost every trip includes a pedestrian phase, even if it only involves walking to and from the parking garage.

In the PUC, particularly on the relatively dry, flat coastal plain of Honolulu, natural conditions are excellent for walking, though shade from the sun is needed during the summer months. The 2000 U.S. Census estimates that 5.6 percent of Oahu commuters walk to work, compared to the national average of 2.9 percent. The City's few promenades and pedestrian paths are well used in the evenings and on the weekends, indicating strong demand for these types of facilities, not only for destination travel, but also for recreation and fitness.

The distance of the trip and its purpose are the principal determinants in an individual's choice to walk or use some other transport mode. Physical and environmental conditions are also important determinants of mode choice. National research shows that people are willing to walk about one-quarter of a mile to work and up to one-eighth of a mile for shopping.

While central Honolulu's climate and topography are ideal for walking, the relatively large physical separation between walking destinations and poor pedestrian infrastructure discourage people from walking. Sidewalks are often narrow, lacking in shade or interrupted by numerous driveways. In many locations, it is unsafe or inconvenient to cross streets and highways. Several public streets have been closed and sold to adjacent owners for the assembly of large "superblocks." This loss of public thoroughfare makes pedestrian routes longer, less direct, and less convenient.

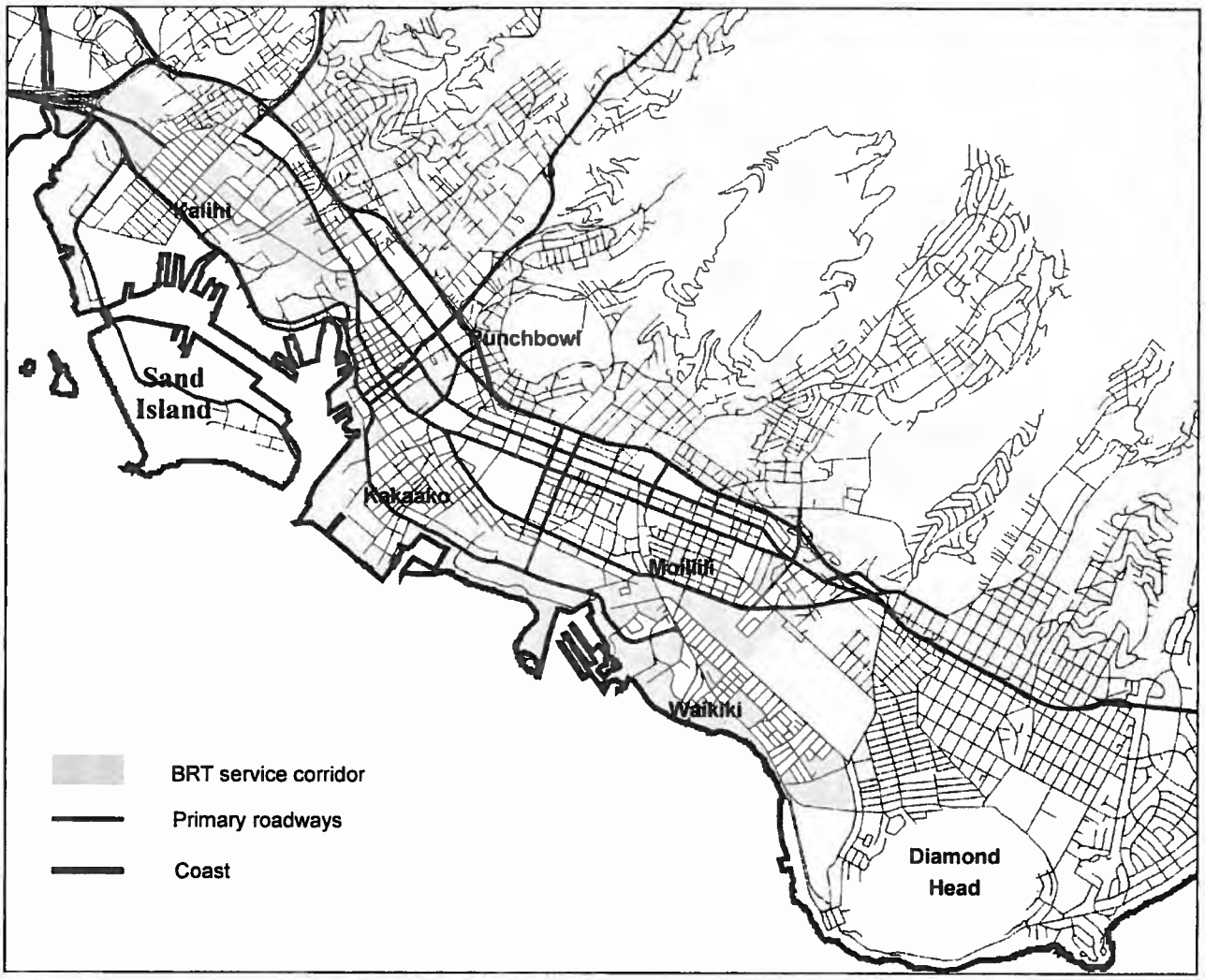


Figure 3.13: Rapid Transit Corridor.

To facilitate pedestrian travel, the Primary Urban Center needs a regional pedestrian network of trails and districts. The purpose of the network is to link neighborhoods and enhance pedestrian mobility within neighborhoods. The network should extend *mauka* to the Koolau Mountain Trail System and *makai* to the shoreline.

Designating pedestrian districts and routes through design features and traffic control measures would establish priority for pedestrians over other transportation modes. Design features might include raised and midblock crosswalks, corner bulb-outs, landscaped medians and traffic islands for pedestrian refuge, broad promenades, public squares, pocket parks, shade trees, and street furniture. Traffic control measures may include adjustment to traffic signal phasing, enforcement of "pedestrian rights" laws, and the use of streets for events such as parades, fairs, and other entertainment.

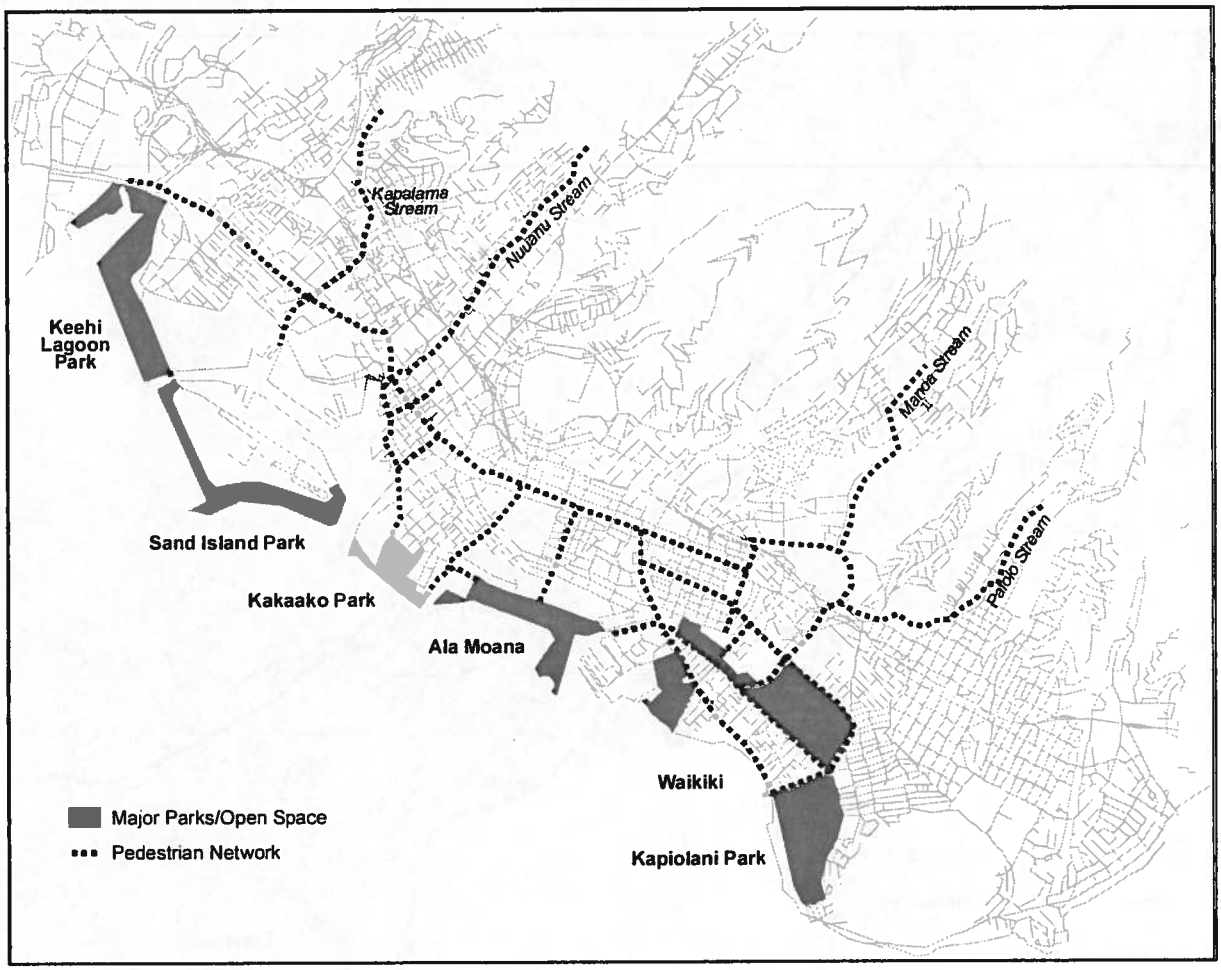


Figure 3.14: Pedestrian Network Concept For Honolulu.

Regional pedestrian networks are appropriate for the central Honolulu and Pearl Harbor areas. Districts with existing high levels of pedestrian activity include Waikiki and Downtown. As shown in **Figure 3.14**, the Honolulu pedestrian network concept incorporates shared-use paths along the Kapalama, Nuuanu, Manoa, and Palolo Streams, and the Ala Wai Canal. It also incorporates the *Honolulu Bicycle Master Plan's* "Lei of Parks" concept, a series of shared-use paths linking the City's major regional parks (Keehi Lagoon Park, Kakaako Waterfront Park, Ala Moana Beach Park, Kapiolani Park and Diamond Head Monument). Additional elements of the network are new promenades and other pedestrian improvements to city streets (e.g., Punchbowl Street, Nimitz Highway in the Downtown area, Ward Avenue, Young Street, Keeaumoku Street and Kalakaua Avenue).

The network concept for the Pearl Harbor area (see **Figure 3.15**) focuses on improving pedestrian mobility within and between the town centers of Aiea, Pearlridge, Waimalu, and Pearl City. Improvements along the Pearl Harbor Historic Trail will link a number of shoreline parks, including the Aiea Bay State Recreation Area, Neal S. Blaisdell Park and the West Loch Shoreline Park. The addition of "gateways," as discussed in the *Honolulu Bicycle Master Plan*, will create marked entrances to the Pearl Harbor Historic Trail along Kamehameha Highway. Similar to the Honolulu pedestrian network, shared-use paths along the Waiau, Waimalu, Kalauao and Aiea Streams will increase *maukamakai* pedestrian access. Finally, pedestrian crossing improvements at Kamehameha Highway will increase access to the commercial areas on either side of the highway.

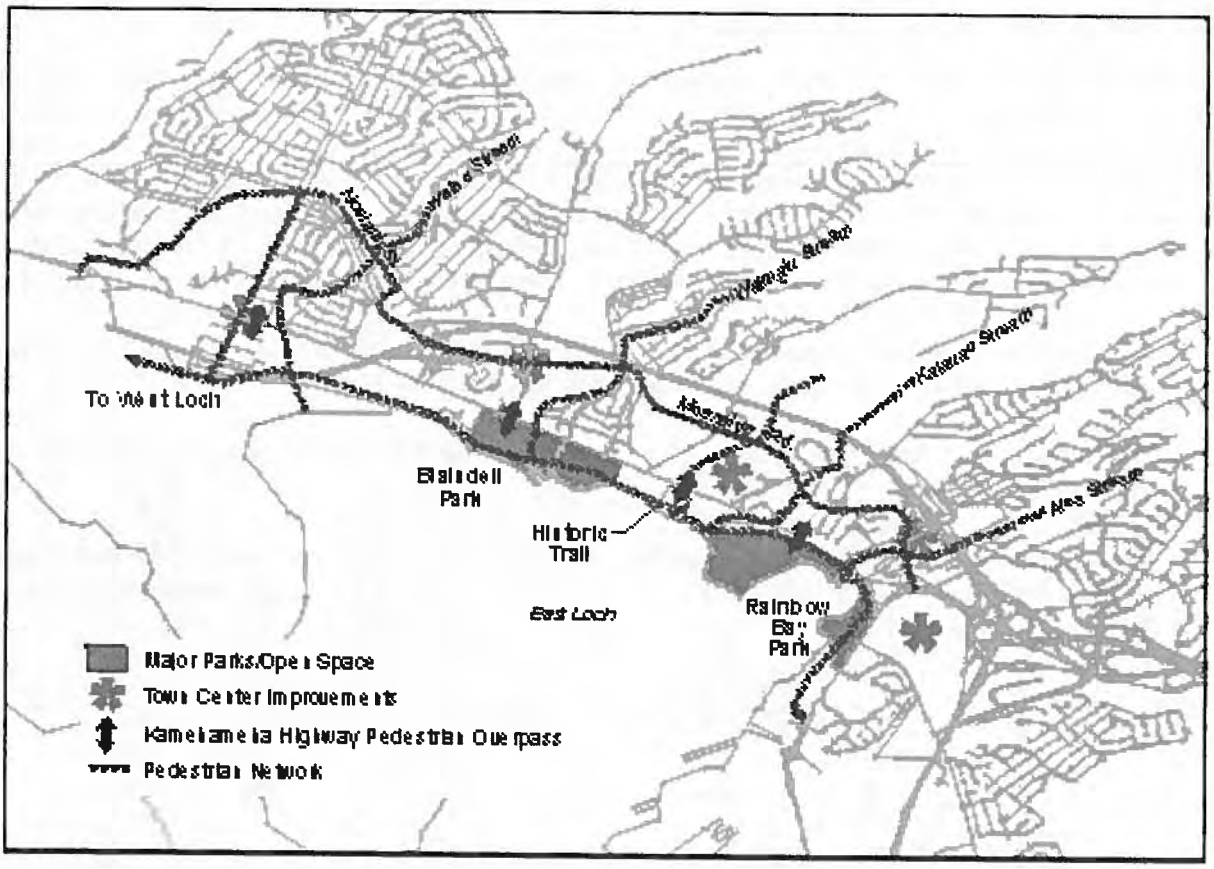


Figure 3.15: Pedestrian Network Concept for Pearl Harbor.

In addition to the regional pedestrian networks, there is an opportunity to create small "pedestrian districts" through focused improvements within existing in-town neighborhoods. Rights-of-way for minor streets in medium- and high-density residential neighborhoods could be redeveloped to give more space to trees, sidewalks, and even small park spaces.

3.5.1.5 Bicycles

Bicycle transportation is gaining popularity on Oahu. According to an October 1997 telephone survey, approximately one in four Oahu residents rode a bike within a 30-day period. The 2000 U.S. Census found that 1.0 percent of employees in the City and County of Honolulu biked to work. This is above the national average of 0.4 percent, but well behind "bicycle-friendly" cities such as Portland and Seattle.

Like walking, the choice to use a bicycle over another mode is a function of the distance to be traveled, barriers during the trip (e.g., lack of designated bikeways), and the lack of appropriate facilities such as secure bike parking, lockers, and shower facilities at the destination.

To encourage bicycle ridership, the City has employed a Bicycle Coordinator, installed bike racks on all its buses and on many of Honolulu's streets, and has planned and partially developed a system of bikeways. There is currently a total of 24.8 miles of bikeways within the Primary Urban Center. The longest is the Pearl Harbor Bike Path, a shared-use pathway that extends from near Aloha Stadium to Waipio Peninsula, also referred to as the Pearl Harbor Historic Trail (refer to **Figure 3.15**).

HONOLULU BICYCLE MASTER PLAN

The *Honolulu Bicycle Master Plan* provides a strategy for the bicycle component in the Primary Urban Center's future transportation system. It identifies an integrated network of on-road bike lanes and off-road shared-use paths that will link people with their favorite destinations. It also provides an array of policy and program recommendations to institutionalize the commitment at all levels of government. The "Lei of Parks" Concept Plan **(Figure 3.16)** calls for creating links between parks by means of shared-use paths designed for recreational bicycle riding. The Plan describes a network of almost 100 miles of new bikeway facility improvements to be implemented over the next 20 years. Three types of bikeway facilities are identified:

- Bike lanes, which typically occupy the outside/curb lane of the street and are identified by a continuous white stripe placed four to six feet from the gutter pan or parking lane
- Bike routes, which are posted streets with wide curb lanes or shared travel lanes along which there is less traffic
- Shared-use paths, which are typically separated from the road right-of-way. Paths are generally located adjacent to the roadway or within parks or other open space areas, and are used more for recreation than for daily travel.

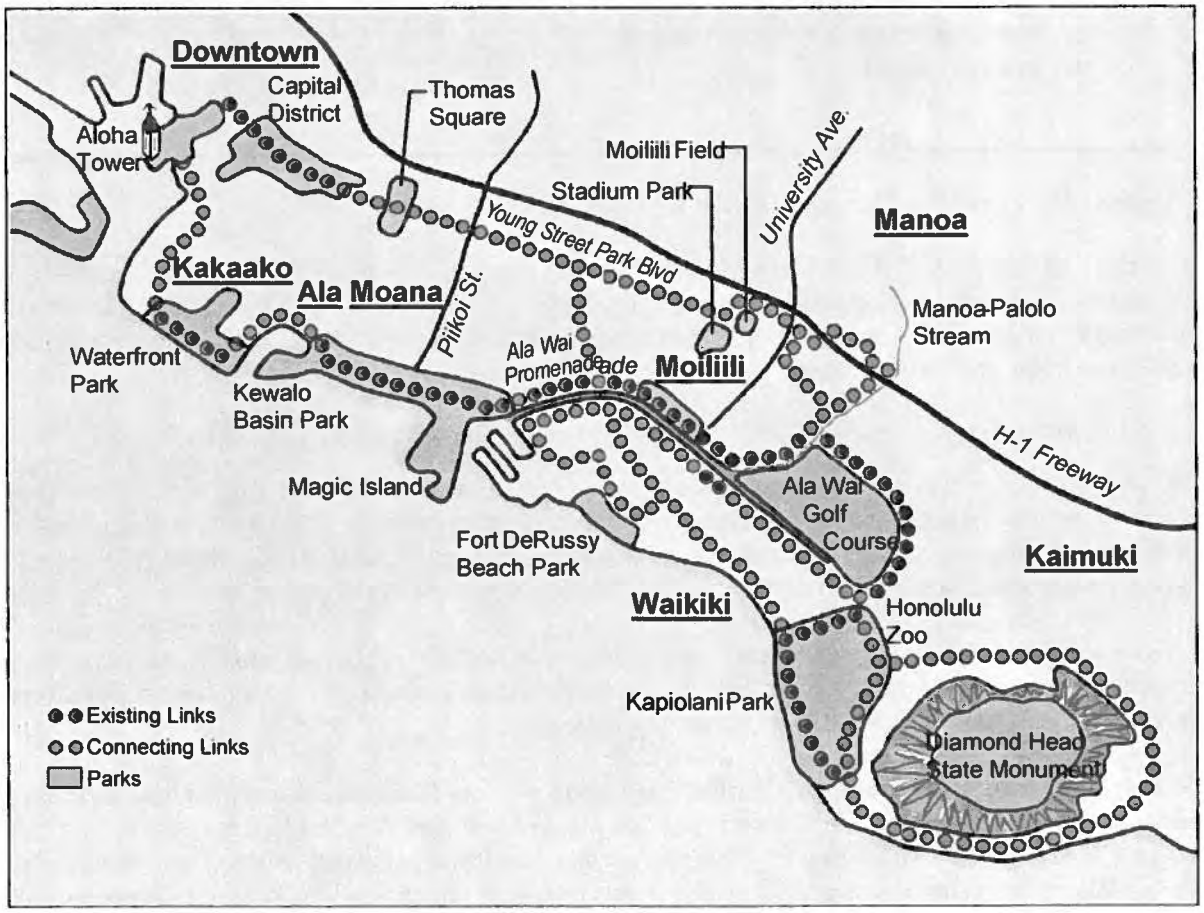


Figure 3.16: Bicycle Links in "Lei of Parks" Concept Plan.

3.5.1.6 Water Transportation

The Primary Urban Center hosts Hawaii's principal commercial port facilities at Honolulu Harbor in addition to facilities at Kewalo Basin, Keehi Lagoon, and Ala Wai Harbor. All are under the jurisdiction of the State Department of Transportation Harbors Division (DOT).

OAHU COMMERCIAL HARBORS 2020 MASTER PLAN

The *Oahu Commercial Harbors 2020 Master Plan*, prepared by the DOT, sets the direction for the Primary Urban Center's commercial harbors. It envisions Honolulu Harbor having a second entrance channel; four container terminals; an interisland cargo terminal; liquid and dry bulk cargo facilities; neo-bulk and break-bulk cargo facilities; backlands and pier facilities for automobile shipments; a domestic fishing village; four cruise ship terminals; two ferry terminals; an excursion vessel terminal; a maritime office building; the Foreign Trade Zone "One-Stop Shop"; adequate berthing for the anticipated number and types of vessels; and the necessary roadways to support these operations.

Plans for Kewalo Basin reflect a gradual transition to ocean-based tourist activities, with commercial fishing being relocated to Honolulu Harbor and Keehi Lagoon. The Hawaii Community Development Authority, with private sector participation, will develop shoreside land uses.

Commercial maritime activity is planned for both Ala Wai Boat Harbor and Keehi Lagoon. At Ala Wai, the "front row" is targeted for offshore activity boats. At Keehi, plans call for two marinas for recreational vessels, commercial fishing boats, and mega-yachts, as well as other berths for larger commercial fishing boats and oil spill response vessels.

Planned land transportation improvements include the development of a perimeter roadway around Honolulu Harbor to alleviate traffic on Nimitz Highway and a new vehicle tunnel under Kalihi Channel to replace the existing Sand Island Bridge.

The *2020 Master Plan* proposes to combine the Inter-Island Ferry Terminal with the new Excursion Vessel Terminal at Piers 26 and 27 in Honolulu Harbor. DOT has conducted several interisland and intraisland ferry projects that failed due to lack of demand. There may be future potential for an interisland passenger and vehicle ferry service with the additional possibility of carrying perishables and high-value freight. DOT's experiments with an intraisland ferry have focused on service between Honolulu and Ewa. Community-based proposals for ferry service between the airport and Waikiki, and along the Ala Wai Canal connecting Waikiki hotels to the Hawaii Convention Center, have not been able to demonstrate economic feasibility. Moreover, ferry or water taxi service along the Ala Wai Canal is constrained by low bridge clearances, the lack of boarding/debarking facilities, and competition with existing recreational uses.

3.5.2 POLICIES

- ***Implement land use strategies to achieve a balanced transportation system.*** To improve the quality of life in the Primary Urban Center and to accommodate growth, development initiatives and regulatory controls should promote the growth of sustainable and appropriate alternative urban travel modes such as transit, walking, and bicycling.

- ***Improve the public transit system, including development of a rapid transit component.*** Improvements to the transit system should be targeted to accommodating trans-PUC travel and making neighborhood service more convenient. A rapid transit component is needed to serve the high-volume east-west corridor, connect activity centers, and provide transportation capacity in place of increased roadways.

- ***Implement Transportation Demand Management strategies.*** Due to limited land area and high costs, it is increasingly necessary to shift from increasing roadway and parking capacity to policies and practices that reward use of transit and other alternative modes.

- ***Review existing plans and establish priorities for roads and road improvements.*** Conduct a comprehensive review of roads and designate those which should receive priority treatment for transit, bike routes, and pedestrian routes, as well as the principal arterial and collector network for automobile travel.

- ***Implement the Honolulu Bicycle Master Plan.*** Institutionalize the policy that every street and highway on which bicycles are permitted to operate is a "bicycle street," designated and maintained to accommodate shared use by bicycles and motor vehicles.

- ***Enhance and improve pedestrian mobility.*** Create special pedestrian districts and corridors and a regional network of pedestrian facilities. Comprehensively address pedestrian safety concerns related to vehicle speeding and excessive volumes on local streets and neighborhood collector streets.

- ***Encourage the full use of existing private and public parking garages.*** Encourage private parking garage owners to rent underused parking stalls within commercial buildings and large-scale residential projects.

3.5.3 GUIDELINES

- Identify and stimulate transit-oriented development on potential infill and redevelopment properties within the rapid transit corridor. Examples of development stimulators include tax incentives, development code amendments, and public infrastructure investments.

- Undertake a comprehensive review of the City's street widening plans and reevaluate the use of ROH Chapter 14, Article 21, on streets that the City does not intend to commit funds for street widening. Eliminate travel-way widenings that are not necessary, degrade neighborhood character, or are unlikely to be achieved. In older, built-out neighborhoods, consider alternatives for improving safety or pedestrian comfort, but do not involve substantial widening and acquisition of land.

- Implement the Honolulu Bicycle Master Plan's three priority projects: (1) "Lei of Parks," a shared-use path connecting the City's major parks and open spaces (**see Figure 3.16**); (2) Bike Friendly Route No. 1, a continuous, cross town bicycle lane, connecting to the Kalanianaole Highway Bikeway in the east and the Pearl Harbor Bike Path in the west; and (3) a series of bicycle access improvements around the various colleges and universities.

- Establish pedestrian districts where walking is intended to be a primary mode of travel, such as within Downtown and Waikiki. Develop specific facility standards for these districts; encourage midblock pathways or arcades; and implement sidewalk improvements, such as widening, paving, and landscaping.

- Work with residents and school organizations to improve pedestrian safety through planning and education efforts, including the development of traffic management plans, construction of traffic calming devices, and the improvement of neighborhood sidewalks and crosswalks.

4. Infrastructure and Public Facilities

This chapter addresses the support systems that are vital to all PUC communities. It is intended to give direction to the long-range functional and facility plans that should be prepared by each of the respective service agencies. Agencies should coordinate the planning and construction of infrastructure improvements so that: (1) services are available when needed; and (2) construction impacts to neighborhoods are minimized.

Many of the PUC's support facilities are part of islandwide or interregional systems –(e.g., water supply and wastewater management). Issues relating to sustainability of islandwide or interregional systems cannot be resolved in the context of a single regional plan like this one, but rather need to be addressed in long-range functional plans and – as need be – in the City's *General Plan*.

4.1 WATER ALLOCATION AND SYSTEM DEVELOPMENT

4.1.1 EXISTING CONDITIONS, ISSUES AND TRENDS

The Honolulu Board of Water Supply (BWS) is responsible for the management, control and operation of Oahu's municipal water system that serves the entire Primary Urban Center Development Plan area. The BWS system is an integrated, islandwide system with interconnections between water sources and service areas. Water is exported from areas of available supply to areas of municipal demand.

The East and Central sections of the Primary Urban Center overlie the Honolulu aquifer. The western Primary Urban Center area overlies the Pearl Harbor aquifer, the largest supplier of groundwater on Oahu and the source of most of the PUC's municipal supply. Pursuant to the *State Water Code, Chapter 174C, Hawaii Revised Statutes*, the State Commission on Water Resource Management (CWRM) has determined that water resources from the Honolulu and Pearl Harbor aquifers may be threatened by existing or proposed withdrawals or diversions of water. Accordingly, the aquifers have been designated as Water Management Areas (WMAs) under the control of CWRM.

INTEGRATED RESOURCE PLANNING

Under the *State Water Code*, each county must prepare a long-range "water use and development plan" and submit it to the Commission on Water Resource Management for approval and inclusion as an element of the *Hawaii Water Plan*. The *Oahu Water Management Plan*, prepared by the City Department of Planning and Permitting with the assistance of the BWS, was adopted by the CWRM and the City Council in 1990. More recently, the BWS has undertaken preparation of an "integrated resource plan" that addresses all facets of water resource management, including stream flow.

The BWS will be conducting integrated resources planning by preparing individual Development Plan area watershed management plans that will identify watershed protection projects as well as inventory and develop plans for water use and development. This will meet the State Water Code requirement for preparing County Water Use and Development Plans that are consistent with County land use plans.

PROJECTED WATER DEMANDS FOR PUC, YEAR 2000 - 2025

Per Capita Day Demand for Years 2000 to 2025 is estimated at 173 gallons per capita per day. The per capita day demand in the PUC shows a decreasing trend from 1990 – 180 gpcd, a decrease that may be attributed to increasing density and water conservation measures. Today's best estimated current year use is the year 2000 average day demand of 78.00 million gallons per day (mgd).

Projected residential population growth from Year 2000 (419,333 persons) to year 2025 (485,849 persons) results in a 71,008-person increase of BWS served population. The resultant year 2025 water demand is expected to be 90.25 mgd, an increase of 12.25 mgd.

PUC DP AREA POPULATION AND WATER DEMAND

Year	Resident Population	BWS Served Population	Demand (mgd)	Per Capita Day Demand (gpcd)
2000	419,333	450,690	78.00	173
2025	485,849	521,698	90.25	173
Net Increase	66,516	71,008	12.25	

STRATEGIES TO MEET ADDITIONAL WATER DEMAND IN THE PUC

The BWS is planning to meet additional water demand in the PUC with the long-range integration of multiple water resource strategies consisting of:

- More efficient water system operation and reduced customer water use
- Additional groundwater development and redirecting existing sources in the Pearl Harbor basin
- Desalination of seawater
- Nonpotable water from brackish sources, recycled wastewater, existing surface reservoirs and drainage channels
- Aquifer storage and recovery
- Additional booster pumping, transmission main, and storage facilities

The BWS is planning to meet additional water demand in the Primary Urban Center by developing new sources in Waipahu and Waiawa, and constructing new trunk lines in central Honolulu. The BWS is aware of the need to integrate water resource planning for urban development, in-stream uses, agricultural uses, possible use of reclaimed water, and the sustainability of groundwater aquifers. Toward this end, the BWS is engaged in a long-range integrated water resources planning effort, in coordination with the State Commission on Water Resource Management.

4.1.2 POLICIES

- Integrate resource management of all potable and nonpotable water sources, including groundwater, stream water, storm water, and wastewater effluent.
- Adapt water conservation practices in the design of new developments and modification of existing uses, including landscaped areas.
- Implement upgrades and capacity improvements to serve projected population increases.
- Protect and maintain watersheds to ensure an adequate supply of high quality water with sufficient infiltration recharge into groundwater aquifers.

4.1.3 GUIDELINES

- Conserve the use of potable water by implementing the following measures, as feasible and appropriate:

  — Install low-flush toilets, flow restrictors rain catchment barrels, plumbing fixture meters, and other water conserving devices in commercial and residential developments.

  — Promote xeriscaping techniques to reduce water use in landscaping by using various ground cover, drought-tolerant plant material and efficient irrigation systems in landscaped areas.

  — Conduct extensive leak detection and repair for all public and private water infrastructure systems and residential, commercial and industrial plumbing. Conduct public education programs on awareness of water conservation.

  — Reuse tertiary treated wastewater effluent, brackish water sources, storm runoff and surface reservoirs for the irrigation of golf courses, parks, other open landscaped areas, and industrial use.

- Develop additional potable groundwater sources in the Pearl Harbor and Honolulu Basin, redirect existing groundwater sources from Central Oahu to the Primary Urban Center, and develop a desalination plant in Honolulu to meet future demands, maintain sustainability of aquifers, and provide relief from drought periods.

- Create public watershed management partnerships to restore and manage watershed areas and conduct water conservation programs in conjunction with the BWS watershed management and water conservation programs.

Refer to the following table of potential sources to develop additional potable and nonpotable water capacity for the PUC:

POTENTIAL SOURCES OF POTABLE AND NONPOTABLE WATER FOR THE PRIMARY URBAN CENTER	
POTABLE WATER SOURCES	
Ground Water Source	Estimated Source Yield (Million Gallons per Day)
1. Waipahu Wells III	3.00
2. Waiau Wells (existing redirected source)	2.50
3. Manana Well	1.00
4. Waipahu Wells IV	3.00
5. Waialae Nui Valley Well	0.70
6. Waialae Nui Ridge Well	0.50
7. Kapakahi Well	0.60
8. Waialae West Well	0.25

POTENTIAL SOURCES OF POTABLE AND NONPOTABLE WATER FOR THE PRIMARY URBAN CENTER	
POTABLE WATER SOURCES	
Ground Water Source	Estimated Source Yield (Million Gallons per Day)
9. Hoaeae Wells	2.50
10. Ewa Shaft	4.60
11. Honolulu Desalination Plant	5.00
Total Additional Potable Source Capacity	23.65
NONPOTABLE WATER SOURCES	
Nonpotable Source	Estimated Source Yield (Million Gallons per Day)
1. Recycled Wastewater	2.00
2. Nuuanu Open Reservoir Rain Catchment	1.00
3. Ala Wai Canal Stormwater	0.37
Total Additional Nonpotable Source Capacity	3.37

4.2 WASTEWATER SYSTEM

4.2.1 EXISTING CONDITIONS, ISSUES AND TRENDS

The City's Department of Environmental Services manages the municipal wastewater collection, treatment, and disposal system and provides almost complete service coverage for the Primary Urban Center through the Mamala Bay Sewerage District. Most of the Primary Urban Center is within the East Mamala Bay service area, with outflows processed through the Sand Island Wastewater Treatment Plant. The western portion of the Primary Urban Center, from Halawa through Pearl City, is within the West Mamala Bay service area, with outflows processed through the Honouliuli Wastewater Treatment Plant.

The East Mamala collection system, which is much older than the West Mamala system, experiences significant water infiltration. In some areas of the East Mamala subdistrict, the age of sewer lines is approaching 100 years old.

The Primary Urban Center's aging collection system is recognized as a major obstacle to the orderly development of the city. In large parts of central Honolulu, new development is restricted due to inadequate sewer capacity. Current wastewater policy requires new developments to pay for the correction of existing system deficiencies, in addition to improvements directly related to the project. In many cases, high costs for off-site wastewater facilities make development economically infeasible.

4.2.2 POLICIES

- Implement wastewater collection system improvements to provide adequate service and sound facilities to existing neighborhoods and timely increases in system capacity to areas planned to undergo improvement or change in use.

- Implement adequate and timely upgrades/expansion of wastewater treatment facilities to meet the growth demands of the PUC.

4.2.3 GUIDELINES

- Complete current projects needed to correct currently identified service or facility inadequacies for neighborhoods where change in service demand is not anticipated.
- In consultation with adjacent communities, implement the recommendations of the *East and West Mamala Bay Wastewater Facilities Plans* to upgrade treatment and collection systems to serve projected increases in service demands on a timely basis, as such demand increases become identified.

4.3 ELECTRICAL POWER

4.3.1 EXISTING CONDITIONS, ISSUES AND TRENDS

Hawaiian Electric Company (HECO) operates the electrical utility serving Oahu, subject to regulation by the State Public Utilities Commission. HECO provides electrical power through an integrated islandwide system. While most of the electrical power generated by HECO comes from power plants in the Ewa Development Plan area, HECO maintains two power plants within the Primary Urban Center, in Waiau and central Honolulu. Power is delivered to customers by a system of transmission and distribution lines.

In 1983, HECO initiated an investigation into the reliability of its transmission and distribution systems. As a result of this investigation, as well as in response to a series of power outages and irregularities, HECO has accelerated its efforts to increase redundancy in the 138 kV transmission system on Oahu. The plan proposes a backup system consisting of several transmission line loops, connecting the various generating facilities and substations over alternative routes.

4.3.2 POLICIES

- Support retention and upgrade of the Waiau and Honolulu Power Plants as part of a strategic plan to improve the reliability of the Primary Urban Center's electrical power system.
- Promote and implement energy conservation measures and integrated resource planning.
- Planning and building of new or relocated transmission lines should take into consideration system and cost concerns, and the impacts on the environment. Options to place utility lines underground should be considered, and priorities should be established.

4.3.3 GUIDELINES

- In planning new or relocated substations or transmission lines, the selection of the site or route of such facilities should avoid or mitigate adverse impacts on scenic and natural resources.

4.4 TELECOMMUNICATIONS FACILITIES

4.4.1 EXISTING CONDITIONS, ISSUES AND TRENDS

Telecommunications facilities are defined as broadcasting and receiving structures associated with telecommunications services. Telecommunications facilities generally fall into three categories:

- Broadcast: Generally high power, with potentially hazardous exposure to radio frequency (RF) radiation, such as AM radio stations and broadcast television. These should be located away from population centers, in order to avoid radiation hazard.

- Point-to-Point Microwave: Generally high-power, but focused beam for line-of- sight transmissions reduces radiation hazards. These may be located in populated areas with little risk. Because they employ a highly directional beam to transmit from one point to another point, RF radiation risk in the surrounding environment is minimal. Typically, microwave antennas are placed on towers, at some distance from human activity.

- Telecommunications: Generally low-power antennas, serving mobile radio, cellular, personal communications service (PCS) and other "wireless" communications technologies. These are powered at 100-200 watts for intermittent use, which is far below the level of any possible health impact. (By comparison, a broadcast antenna may be powered at 50,000 watts or more).

Broadcast towers are regulated under the City's *Land Use Ordinance* according to a national standard for radio frequency protection. This standard forces new broadcast antennas to locate in remote areas.

With the proliferation of wireless communications companies over the past several years, there is a strong demand for antenna sites both in preservation areas and in heavily built-up urban areas. A site may have multiple antennas, especially in built-up areas where coverage is more difficult to achieve. The antennas are generally small and can be camouflaged. Equipment is housed in cabinets or toolshed-like structures, which can also be camouflaged, but because the equipment requires 24-hour air conditioning, it can create noise problems when sited near residences or other uses sensitive to noise.

4.4.2 POLICIES

- Minimize the visual impacts and potential health hazard of new facilities.

4.4.3 GUIDELINES

- In general, antennas and other facilities should be required to "blend in" with the surrounding environment. Visually obtrusive installations, such as locating in the middle of an open area or silhouetting antennas on top of ridges, should be avoided.

- In granting land use permits for antennas, observe the following general principles:

  — Wherever possible, antennas should be sited on existing structures, such as tall buildings, athletic field light standards, water reservoirs, or existing towers. Antennas should be flush-mounted when possible.

  — Minimize the number of new towers (towers include lattice structures, as well as monopoles). New towers should be capable of accommodating more than one provider, with clear rules for sharing of costs.

  — Where more than one tower is required, they should be clustered rather than dispersed.

4.5 SOLID WASTE

4.5.1 EXISTING CONDITIONS, ISSUES AND TRENDS

The City's Department of Environmental Services manages Honolulu's municipal solid waste system, including the H-POWER resource recovery facility and one sanitary landfill. The military operates two landfills on Oahu, and a private company operates a construction debris landfill in Nanakuli. There are no sanitary landfills within the Primary Urban Center.

The 1995 *Solid Waste Integrated Management Plan* addresses the need for expanded sanitary landfill capacity. Options include expanding existing landfills and developing new landfills in both Leeward and Windward Oahu. The City is considering opening the Primary Urban Center's first refuse convenience center at the Keehi/Middle Street Transfer Station to serve residents of the region.

4.5.2 POLICIES

- Reduce the solid waste stream by encouraging recycling and reuse.
- Reduce dependence on landfills by encouraging alternative waste disposal technologies.

4.5.3 GUIDELINES

- Promote waste recycling by expanding collection facilities and services, and public outreach and education programs.
- Expand the use of automated refuse collection in residential areas.
- Implement new technologies that more efficiently convert solid waste to green energy, thereby reducing the need for landfills.
- In planning new public facilities, include neighborhood recycling convenience centers where feasible.

4.6 STORMWATER SYSTEMS

4.6.1 EXISTING CONDITIONS, ISSUES AND TRENDS

Management of stormwater within the City and County of Honolulu is shared among Federal, State, and City agencies. City responsibilities are shared among the Departments of Planning and Permitting, Design and Construction, and Environmental Services.

Polluted stormwater runoff from agriculture, urban development, recreational boating and marinas, and wetlands activities are the leading cause of water pollution in waters across the country and in Hawaii.

The Primary Urban Center is highly urbanized and relies heavily on the attractiveness of its coastal waters and beaches for tourism, and recreational and cultural uses. Recent studies of Mamala Bay have determined that urban runoff (nonpoint sources) entering Mamala Bay from subembayments such as Pearl Harbor, Keehi Lagoon-Honolulu Harbor, Kewalo Basin, and the Ala Wai Canal is the most significant contributor to the pollution of nearshore waters. The control and management of urban watersheds and protection of its coastal water quality are the leading stormwater management issues in the Primary Urban Center.

The *mauka*, upland areas of the Primary Urban Center are drained via natural drainageways and streams that ultimately empty into Mamala Bay. In the east and central sections of the Primary Urban Center, Moanalua Stream and Kalihi Stream flow into Keehi Lagoon; Kapalama Canal and Nuuanu Stream empty into Honolulu Harbor; and the Manoa, Palolo, and Makiki Streams drain to Mamala Bay via the Ala Wai Canal. In the western section, the major drainageways are Waiawa, Waimalu, and Halawa Streams, which flow into the East Loch of Pearl Harbor. The lower reaches of most of the Primary Urban Center's major streams have been channelized to facilitate the rapid transport and disposal of runoff from urbanized areas.

The Ala Wai Canal watershed covers a significant portion of the central and eastern portion of the Primary Urban Center, including most of Waikiki. The Ala Wai Canal is a significant contributor of pollutants to the beaches and nearshore waters of Waikiki. The State Department of Health, in cooperation with City agencies, is implementing a community-based watershed management plan that included the dredging and cleanup of the canal.

4.6.2 POLICIES

- Require methods of retaining or detaining stormwater for gradual release into the ground as the preferred strategy for the management of stormwater. Where feasible, utilize open spaces including parking lots, landscaped areas, parks, and golf courses to detain or infiltrate stormwater flows to reduce their volume and runoff rates. (*City Council Resolution No. 94-296*).

- Manage stormwater flows through best management practices to minimize stormwater runoff and peak discharge rates.

- Preserve stream and estuarine habitats.

4.6.3 GUIDELINES

- Revise flood control design criteria to recognize important aesthetic and ecological factors in the design process. Streams should not be channelized except when absolutely necessary to protect existing urban development from flooding.

- Integrate planned improvements to the drainage system into the open space network by emphasizing the use of retention basins, the creation of passive recreational areas, and recreational access for pedestrians and bicycles without jeopardizing public safety. Support development of shared-use paths and parks along Manoa and Palolo Streams, Nuuanu Stream and Kapalama Canal.

- Establish best management practices to guide stormwater management within the Primary Urban Center.

- Encourage community-based watershed planning, recognizing the array of stakeholders in the Primary Urban Center's urban watersheds and the important role of education and community involvement in urban watershed management.

- Support the establishment of short- and long-term ecological monitoring programs, particularly those that measure pollutant loading and are directed at improving water quality and quantity in order to conserve, protect, and restore the natural resources of the Primary Urban Center.

- Maintain and increase permeable surfaces within public right-of-ways to facilitate bio-filtration and groundwater recharge.

- Design and construct stormwater infrastructure in areas that contribute to high inflow and infiltration into the wastewater collection system.

4.7 SCHOOL AND LIBRARY FACILITIES

4.7.1 EXISTING CONDITIONS, ISSUES AND TRENDS

4.7.1.1 Schools

The Primary Urban Center encompasses three public school districts – Honolulu, Leeward (portion) and Central Oahu (portion) – that consist of over 70 schools, including nine high schools (Kalani, Kaimuki, Roosevelt, McKinley, Farrington, Radford, Moanalua, Aiea, and Pearl City). The Primary Urban Center also includes a similar number of private and parochial schools.

4.7.1.2 Colleges and Universities

The Primary Urban Center hosts the State's largest concentration of public and private post-secondary institutions, including the University of Hawaii at Manoa. Other major campuses include the University of Hawaii's community colleges (Kapiolani and Honolulu), Chaminade University, Hawaii Pacific University's downtown campus and a number of smaller private colleges. The University of Hawaii also operates research and teaching facilities at Kakaako, Honolulu Harbor, Sand Island, and the Waikiki Aquarium.

4.7.1.3 Libraries

The Primary Urban Center is served by the State's Main Library located in the Capitol District, two regional libraries in Kaimuki and Pearl City, and branch libraries in Aiea, Kalihi-Palama, Liliha, Manoa, McCully-Moiliili, Salt Lake-Moanalua, and Waikiki-Kapahulu. Also located in the Primary Urban Center is the Library for the Blind and Physically Handicapped.

4.7.1.4 Trends

State and City capital improvement budgets are focused on the new growth areas in the State, including development of new facilities in Kapolei. Within the Primary Urban Center, the general strategy is to maintain existing, usually aging, educational and library facilities.

Public schools in the Primary Urban Center are some of the oldest in the State, and several, such as McKinley High School, have historic status. Some schools have experienced enrollment declines, reflecting the aging population profile of most Primary Urban Center neighborhoods. In response, the State Department of Education (DOE) adjusts facility requirements by shifting school service boundaries and/or removing portable classrooms. If there is an increase in school-age children in the Primary Urban Center, the DOE plans to either readjust service boundaries or implement year-round, multitrack school schedules. The only new facility being considered is a new elementary school at the former Pohukaina School site to serve the expected growth in population in the Kakaako redevelopment district.

One option for schools with declining enrollments is to reuse the facilities for other community needs such as day or senior care, special needs housing, or parks. However, this alternative is sometimes complicated because, while the Department of Education owns the facilities, the land may be either ceded land, leased from the City, or be a fee-owned lot held by the State's Department of Land and Natural Resources. It is also politically unpopular to close schools.

The DOE and the City's Department of Parks and Recreation have had a joint use agreement for many years. Several elementary schools are adjacent to City parks and are used as school playgrounds, but there are sometimes conflicts over scheduling or maintenance responsibilities. The Department of Education prefers to keep secondary school facilities dedicated solely for school use to avoid scheduling problems for its athletic programs, but this would not necessarily preclude community use on weekends, holidays, semester breaks, or late evenings.

University of Hawaii's Manoa campus enrollments are projected to remain stable over the foreseeable future, with undergraduate growth projected for the planned West Oahu campus. UH's current major facility plans within the Primary Urban Center are redevelopment around Honolulu Community College, and relocation of the Pier 41 Snug Harbor research facility and Marine Mammal Laboratory at Kewalo Basin. Also under consideration for the Kakaako *Makai* Area are a new medical school campus and a new aquarium that would replace the Waikiki Aquarium.

4.7.2 POLICIES

- Support the development of a high quality educational system of schools and post-secondary institutions that increase the attractiveness of the Primary Urban Center as a place to live and work.
- Work with the Department of Education to develop innovative shared-use facilities, particularly on City-owned school properties.

4.7.3 GUIDELINES

- Identify ways for the City and the general community to improve conditions within and near school and college campuses. For example, the City could take a lead role in enhancing street appearance, security, and traffic and pedestrian safety near campuses.

- The City Department of Parks and Recreation should coordinate with the DOE regarding the development and use of athletic facilities such as playgrounds, playfields and courts, swimming pools, and gymnasiums, where joint use of such facilities would maximize use and reduce duplication of function without compromising the schools' athletic programs.

4.8 CIVIC AND PUBLIC SAFETY FACILITIES

4.8.1 EXISTING CONDITIONS, ISSUES AND TRENDS

The Primary Urban Center is served by four satellite city halls located at Ala Moana Center, Downtown, Kapalama, and Pearlridge Center. They offer many basic services, including bus pass sales, bicycle registration, and driver's license renewals. The State Department of Accounting and General Services proposes to develop a site in Liliha as a one-stop regional service center to consolidate State agencies that offer social services and business assistance, collect fees and taxes, and issue licenses and registrations.

The Honolulu Police Department serves the Primary Urban Center out of its Capitol District Headquarters and substations in Downtown-Chinatown, Waikiki, Kalihi, and Pearl City. The Honolulu Fire Department serves the Primary Urban Center from 21 fire stations. It also maintains a training facility on military land near the airport that is to be relocated once a new site is identified and secured. Ambulance service, provided by the City's Emergency Medical Services Division, is currently delivered from each of the fire stations. In general, existing facilities are adequate to serve expected future growth in the Primary Urban Center.

4.8.2 POLICIES

- Provide adequate staffing and facilities to ensure effective and efficient delivery of basic governmental service and protection of public safety.

4.8.3 GUIDELINES

- As population increases, provide support for civil defense building shelters and improved technology, equipment and training for fire fighting, police protection and paramedical services.
- Establish new Satellite City Halls within neighborhood commercial complexes or community centers if there is an opportunity to do so with little or no capital expense or modest rent.

5. Implementation

Implementation of the *Primary Urban Center Development Plan* will be a major challenge for City government, concerned State agencies, and the residents and businesses of Honolulu. In contrast to previous Development Plans that functioned primarily as regulatory guides and were prerequisites for the zoning of each parcel, this revised Plan is oriented towards implementation on a broader scale. To implement the vision for the future, it provides broad guidance for neighborhood planning, zoning matters, and actions relating to land use, public facilities and infrastructure. Many of the DP provisions reflect consultations that occurred throughout the planning process with government agencies and community representatives.

Many other city, county, and town jurisdictions on the U.S. mainland have instituted comprehensive planning programs that emphasize a proactive community-based planning and implementation process. These local governments seek to establish a strong link between planning policies and guidelines, and the specific organization, funding and actions needed to implement a variety of public and private projects and programs. This Chapter is intended to strengthen the linkage to implementation, so that the vision presented in this plan can be realized.

Implementation of the *Primary Urban Center Development Plan* will be accomplished by a variety of means, including:

- Initiating zoning map and development code amendments to achieve consistency with the policies and guidelines of the Development Plan;
- Guiding public investment in infrastructure through functional planning activities in support of the vision of the Development Plan;
- Recommending approval, approval with modifications, or denial of developments seeking zoning and other development approvals based on how well they support the vision for the Primary Urban Center's development;
- Incorporating Development Plan priorities through the Public Infrastructure Map and the City's annual budget process;
- Evaluating progress in fulfilling the vision of the *Primary Urban Center Development Plan* every two years and presenting the results of the evaluation in the Biennial Report; and
- Conducting a review of the vision, policies, guidelines, and CIP priority investments of the *Primary Urban Center Development Plan* every five years and recommending revisions as necessary.

5.1 PUBLIC FACILITY INVESTMENT PRIORITIES

The vision for the Primary Urban Center requires the cooperation of both public and private agencies in planning, financing, and improving infrastructure. The City must take an active role in planning infrastructure improvements, such as land acquisition and site improvements for proposed parks; provision of adequate public access to the shoreline and mountain areas; provision of pedestrian, bicycle, and other transportation options; and improvements to wastewater and stormwater management systems. Of particular importance is the need to achieve a balanced transportation system and upgrade the wastewater system in older, in-town Honolulu neighborhoods. These improvements are needed in order to accommodate new housing and other needed facilities.

5.2 DEVELOPMENT PRIORITIES

Projects to receive priority in the approval process are those that:

- Involve land acquisition and improvements for public projects which are consistent with the Development Plan vision, policies and guidelines; and

- Involve applications for zoning and other land use permits that are consistent with the Development Plan vision, policies, and guidelines.

5.3 SPECIAL AREA PLANS

Special Area Plan is a title given to a plan that covers a particular neighborhood or district. A Special Area Plan provides more detailed policies, principles, and guidelines than the Development Plan. The form and content of a Special Area Plan depends on what characteristics and issues need to be addressed in greater detail in planning and guiding development or use of the Special Area.

Special Area Plans can be used to guide land use development and infrastructure investment in areas throughout the PUC and, where they exist, shall be consulted when reviewing applications for zone changes and other applicable development approvals. Special Area Plans may address a Special District, special natural or cultural resource areas or issues, or the objectives and needs of a specific neighborhood, activity center, or corridor.

Special Area Plans provide a vehicle for the neighborhood planning discussed in Chapter 3. Because the PUC is so large and diverse in area, population, and activities, this Development Plan must necessarily be general in content. However, communities may develop Special Area Plans, which shall be reviewed and may be accepted by the City Council by resolution, with or without amendments as the Council deems appropriate, for the purpose of guidance in establishing specific policies and an implementation program for the affected area.

The Special Districts previously established within the Primary Urban Center are generally consistent with the policies and guidelines of this Development Plan. They should be revised as necessary in keeping with the five key elements of the PUC vision and the policies and guidelines for each key element. Special Area Plans for specific neighborhoods will be essential in establishing action programs, capital improvements, and regulatory changes. The geographic boundaries and content of these plans will be determined by interested communities working in partnership with the City.

5.4 FUNCTIONAL PLANNING

Functional planning is the process through which various City agencies determine needs, assign priorities, phase projects, and propose project financing to implement the vision articulated in the Development Plan. This process may take a variety of forms, depending upon the missions of the various agencies involved, as well as upon requirements imposed from outside the City structure, such as federal requirements for wastewater management planning. Typically, functional planning occurs as a continual or iterative activity within each agency.

Through the functional planning process, City agencies responsible for development and maintenance of infrastructure and public facilities, and the provision of City services review existing functional planning documents and programs. As a result of these reviews, the agencies then update existing plans or prepare new long-range functional plans that address facilities and service system needs. Updates of functional planning documents are also conducted to assure that agency plans will serve to implement the Development Plan as well as to provide for coordination of plans and programs among the various agencies.

The number and types of functional planning documents will vary from agency to agency, as will the emphases and contents of those documents. A typical agency may develop a set of core documents such as:

- A resource-constrained long-range capital improvement program. A "resource-constrained" program is one that identifies the fiscal resources that can be reasonably expected to be available to finance the improvements.
- A long-range financing plan, with identification of necessary new revenue measures or opportunities.
- A development schedule with top priorities for areas designated for earliest development.
- Service and facility design standards, including level of service guidelines for determining adequacy.

Other documents may also be developed as part of an agency's functional planning activities, such as master plans for provision of services to a specific region of the island. In some cases, functional planning activities will be undertaken in cooperation with agencies outside the City structure, such as the transportation planning activities that are conducted in association with the Oahu Metropolitan Planning Organization.

Functional planning is intended to be a proactive public involvement process that provides public access to information about infrastructure and public facility needs assessments, alternatives evaluations, and financing. Outreach activities should involve Neighborhood Boards, community organizations, landowners, and others who may be significantly affected by the public facilities and infrastructure projects or programs being developed to further implement the policies of the Development Plan.

The functional planning process should be characterized by opportunities for early and continuing involvement, timely public notice, public access to information used in the evaluation of priorities, and the opportunity to suggest alternatives and to express preferences. The functional planning process provides the technical background for the Capital Improvement Program and public policy proposals that are subject to review and approval by the City Council.

5.5 REVIEW OF ZONING AND OTHER DEVELOPMENT APPLICATIONS

One way in which the vision of the *Primary Urban Center Development Plan* will guide land use will be through the review of applications for zone changes and other development approvals. Approval for all development projects should be based on the extent to which the project supports the policies, principles, and guidelines of the Development Plan.

Projects that do not involve significant zone changes will be reviewed by the Department of Planning and Permitting for consistency with the policies, principles, and guidelines of the *Primary Urban Center Development Plan* during the Zone Change Application process.

Projects involving significant zone changes will require an Environmental Assessment which must include a Project Master Plan. This is submitted to the Department of Planning and Permitting for review prior to initiation of the first Zone Change Application. (See definitions of "significant zone change" and "project master plan" in Section 24-2.1 of the adopting ordinance.)

5.5.1 ADEQUATE FACILITIES REQUIREMENT

All projects requesting zone changes shall be reviewed to determine if adequate public facilities and infrastructure will be available to meet the needs created as a result of the development. Level of Service Guidelines to define adequate public facilities and infrastructure requirements will be established during the Capital Improvement Program.

In order to guide development and growth in an orderly manner as required by the City's *General Plan*, zoning and other development approvals for new developments should be approved only if the responsible City and State agencies indicate that adequate public facilities and utilities will be available at the time of occupancy or if conditions the functional agency indicates are necessary to assure adequacy are otherwise sufficiently addressed.

The Department of Planning and Permitting, as part of its report on the consistency of the project with the *Primary Urban Center Development Plan's* vision, will review and summarize any individual agency's findings regarding public facilities and utilities adequacy which are raised as part of the environmental assessment/environmental impact statement (EA/EIS) process. The Department of Planning and Permitting will address these findings and any additional agency comments submitted as part of the agency review of the zone change application, and recommend conditions that should be included in the Unilateral Agreement or Development Agreement to insure adequacy of facilities.

5.6 FIVE-YEAR DEVELOPMENT PLAN REVIEW

The Department of Planning and Permitting shall conduct a comprehensive review of the *Primary Urban Center Development Plan* and shall report its findings and recommended revisions to the Planning Commission and the City Council five years after adoption and every five years thereafter.

5.6.1 URBAN COMMUNITY BOUNDARY

The Urban Community Boundary (UCB) is intended to remain fixed through the year 2025 planning horizon. All future growth in the PUC should be primarily in-fill and redevelopment.

5.7 TRANSITION FROM THE CURRENT SYSTEM

This section discusses the transition from the former Development Plan to this revised Development Plan, including its independence from Development Plan Common Provisions, its relationship to the *General Plan* guidelines, and the need for review and revision of development codes, standards, and regulations.

5.7.1 DEVELOPMENT PLAN COMMON PROVISIONS AND EXISTING LAND USE APPROVALS

This Development Plan will go into effect upon adoption by ordinance. At that time, the revised Development Plan will become a self-contained document, not reliant on the Development Plan Common Provisions that formerly applied to the *Primary Urban Center Development Plan* as well as all the other Development Plans.

Land use approvals granted under existing zoning, Unilateral Agreements, and approved Urban Design Plans will remain in force and guide entitlement decisions until any zoning action to further implement the vision and policies of the *Primary Urban Center Development Plan* is initiated. If an environmental assessment or environmental impact statement is accepted in the course of a Development Plan land use approval for a project, it should be acceptable to meet the requirement for an initial project EA/EIS when zone change applications are submitted for subsequent phases of the project unless the project scope and land uses are being significantly changed from that described in the initial EA/EIS.

5.7.2 REVIEW AND REVISION OF DEVELOPMENT CODES

Upon completion of the Development Plan Revision Program, current regulatory codes and standards should be reviewed and revised, as necessary, to maintain their consistency and effectiveness as standards to guide attainment of the objectives and policies envisioned for all Development Plan and *Sustainable* Communities Plan areas. At the time such reviews are conducted, the following regulatory codes and standards may warrant further review and revision to ensure achievement of the vision for the Primary Urban Center region, as identified in this plan, as well as consistency with the *Primary Urban Center Development Plan:*

- ***Land Use Ordinance*** (Chapter 21, Revised Ordinances of Honolulu).
- ***Subdivision Rules and Regulations*** (Department of Planning and Permitting, pursuant to Chapter 22, Revised Ordinances of Honolulu).
- ***Building Code*** (Department of Planning and Permitting).
- ***Traffic Standard Manual*** (Department of Transportation Services, July 1976, as revised).
- ***State Highways Division Procedures Manual***, Vol. 8, Chapter 5, Section 4 (State Department of Transportation, Highways Division).
- ***Standard Details for Public Works Construction*** (Department of Planning and Permitting).
- ***Storm Drainage Standards*** (Department of Design and Construction, March 1986).
- ***Park Dedication Rules and Regulations*** (Department of Planning and Permitting, pursuant to Chapter 22, Article 7, Revised Ordinances of Honolulu).
- ***Wastewater Management Design Standards*** (Department of Design and Construction Design Standards, Volumes I and II, and the 1990 Revised Ordinances of Honolulu, Chapter 14, Relating to Sewer Services).

Appendix A: Maps

The PUC DP includes six foldout maps:

- Significant Panoramic Views (**Map A.1**)
- Open Space Map (**Map A.2**)
- Land Use Key Map (**Map A.3**)
- Land Use Maps for PUC-West, PUC-Central and PUC-East (**Maps A.4, A.5, A.6**)

These maps illustrate the long-range vision of the future of the plan area and the major land use and open space policies that are articulated in the plan. In using these maps, the reader should keep in mind that:

(1) These maps are general and conceptual.

(2) The maps are illustrative of the plan's policy statements, presented in the text of this report.

The policy and guideline statements are considered to be the most important elements of the plan. The maps are considered illustrations of the policies.

The maps present the Urban Community Boundary, generalized views, open space designations, and general land use designations. The land use maps are not parcel-specific, and illustrate generalized categories or groups of land uses within the region.

Because they are not parcel-specific, the lines depicted by these boundaries do not indicate precise demarcations. The extent of permissible or appropriate uses within land use categories should be evaluated in concert with relevant sections of the plan's text and specific site characteristics. The plan is intended to guide the zoning district regulations contained in the *Land Use Ordinance* and the mapping of zoning districts. Recognizing that the maps may be more accessible and more interesting than the written policies, the following section presents a summary description of the organizing boundaries and land use designations common to all the maps, and a brief explanation of the contents of each of the maps followed by a glossary of the land use designations.

URBAN COMMUNITY BOUNDARY

The Urban Community Boundary defines and contains the intended extent of developed or "built-up" areas of urban and urban fringe communities. Its purpose is to define the land area that is appropriate for urban development while protecting lands outside this boundary for agriculture or open space values. The Urban Community Boundary is intended to remain fixed through the year 2025 planning horizon. Areas within this boundary are generally characterized by extensive tracts of residential, commercial, industrial, or mixed-use development clearly distinguishable from undeveloped, agricultural or more "natural" portions of the region.

PRESERVATION BOUNDARY

For the purposes of this region, the Preservation Boundary can be considered the reverse side of the Urban Community Boundary. The primary purpose of the preservation boundary is to protect lands which are not valued primarily for agriculture, but which form an important part of the region's open space fabric for their natural, cultural, unique agricultural, or scenic resource values. The boundary generally circumscribes undeveloped lands designated "preservation" on the Open Space and Land Use maps. Preservation Boundaries that are located within the PUC's Urban Community Boundary are intended to remain fixed.

URBAN AREAS

Urban lands include those lands that have been developed or are planned for development for residential, commercial, and industrial uses.

PRESERVATION AREAS

Preservation areas include lands valued primarily for their natural, cultural, or scenic resource values. These lands generally include important wildlife habitat, cultural sites, significant landforms, views, or hazard areas, such as:

- Lands necessary for protecting watersheds, water resources, and water supplies.
- Lands necessary for the conservation, preservation, and enhancement of sites with scenic, historic, archaeological, or ecologic significance.
- Lands necessary for providing and preserving park lands, wilderness and beach reserves, and for conserving natural ecosystems of endemic plants, fish and wildlife, for forestry, and other related activities to these uses.
- All offshore and outlying islands of Oahu unless otherwise classified.
- Lands with topography, soils, climate, or other related environmental factors that may not be normally adaptable or presently needed for urban, rural, or agricultural use.
- Lands with general slopes of 20 percent or more that provide for open space amenities and/or scenic values.
- Lands susceptible to floods and soil erosion, lands undergoing major erosion damage and requiring corrective attention by the State or Federal government, and lands necessary to the protection of the health, safety and welfare of the public by reason of soil instability or the lands' susceptibility to landslides and/or inundation by tsunami and flooding.
- Lands used for national, state, or city parks.
- Lands suitable for growing of commercial timber, grazing, hunting, and recreation uses, including facilities accessory to such uses when said facilities are compatible with the natural physical environment.

VIEWS MAP

The Significant Panoramic Views Map (**Map A.1**) is intended to illustrate the region's major views and indicate major view features, such as mountain preservation areas and the three volcanic craters along the coastal plain – Aliamanu, Punchbowl (Puowaina), and Diamond Head (Leahi).

OPEN SPACE MAP

The Open Space Map (**Map A.2**) is intended to illustrate the region's major open space patterns and resources as outlined in **Section 3.1**. It highlights major open space elements and resources, including preservation and agricultural lands, major parks and recreational facilities, harbors and waterfront promenades, stream greenbelts, and areas such as major institutional campuses, golf courses, and cemeteries that contribute to open space but are not used by the general public.

LAND USE MAPS

The Land Use Key Map (**Map A.3**) shows how the Land Use Map is divided into three sections – PUC-West, PUC-Central and PUC-East (**Maps A.4, A.5, A.6**). The three colored Land Use Maps illustrate the desired long-range land use pattern for the entire Primary Urban Center. (Note that the maps overlap in order to provide context on the edges of each area.)

While the land use designations displayed on the map are intended to denote the predominant land use pattern, minor occurrences of other uses may also be present to the extent that the use is compatible with the predominant land use, and the character and intensity of the intended land use designation is maintained. For instance, areas designated for "lower-density residential" may also contain pockets of "higher-density residential/mixed use" areas where higher-density housing areas are integrated with retail and commercial services and with recreation and community facilities serving the surrounding neighborhood.

The land use maps illustrate the following land use designations within the Urban Community Boundary:

Lower-Density Residential

These uses are depicted as a single tone yellow color. Lower-Density Residential generally refers to single-family detached residences, attached houses, and low-density, low-rise multifamily residences that maintain a density between five and 12 dwelling units per acre. Areas zoned for apartment use within the lower-density residential designation may have higher densities and land uses consistent with that zoning classification.

Commercial services are an integral part of livable communities such as these. Therefore, the yellow color which indicates lower density residential uses may also accept clusters of community and neighborhood-level commercial establishments where appropriate. In some cases, particularly where such clusters signify higher levels of development or neighborhood use, such clusters, may be indicated by a red dot.

Medium and Higher-Density Residential/Mixed Use

Areas identified for medium and higher-density residential/mixed use designations are shown as light brown on the maps. This designation refers to a broad range of medium and higher-density residential uses that vary in density from 13 to 140 units per acre. Medium density residential may range from 13 to 90 units per acre, while high density residential may range from 90 to 140 units per acre. Building types are intended to include low-rise multifamily residences such as townhouses or low-density apartments to mid-rise and high-rise multifamily buildings. The integration or close location of residential buildings with office and retail services or recreation and community facilities should be encouraged as mixed-use is an essential component of this designation.

Community/Neighborhood Commercial

These centers generally consist of clusters of commercial establishments intended for neighborhood service within lower-density residential neighborhoods. While they may not be mapped, certain more intensely developed clusters may be indicated by red dots. Uses typically include service stations, grocery and sundry stores, and other services and shops catering to common household- or neighborhood-level convenience items. While they vary greatly in total size and number of business establishments, a community/neighborhood commercial area is typically comprised of less than 200,000 square feet of commercial floor area.

District Commercial

District commercial areas, which are shaded in red on the maps, refer to a wide variety of commercial uses and related activities intended to serve district, regional and/or islandwide populations. Uses typically include major office buildings, shopping centers, professional and business services, municipal services, and commercial activities located along major streets. Mixed uses, including appropriately integrated medium or higher-density residential facilities, and higher densities are encouraged in these areas.

Industrial

Areas identified for industrial use designation are shaded in purple. It includes the major transportation facilities, and facilities for light- and service-related industrial uses associated with repair, processing, construction, manufacturing, transportation, wholesaling, distribution, storage, or similar economic activities, and supporting facilities that directly enhance their viability. Industrial areas also include a range of compatible commercial activities, except where otherwise specified within the text of the Development Plan. Areas intended primarily for more intensive, noxious industrial uses are also specified in the text of the plan.

Resort

Areas designated for resort use are depicted in pink. This designation consists primarily of full-service or specialty hotels, timeshares, and apartments to support the visitor industry, as well as accessory and supporting commercial uses such as retail, food and entertainment establishments intended to enhance the viability of the principal use. Mixed-use concept is an essential component of this designation, and the integration of visitor accommodations in close proximity to related support services should be encouraged.

Institutional

The institutional designation includes facilities for public use or benefit, including schools, churches, hospitals, group living establishments, utilities and infrastructure production or support facilities, civic, public, and social services facilities, and government facilities. These areas are depicted as blue shapes.

Major Parks and Open Space

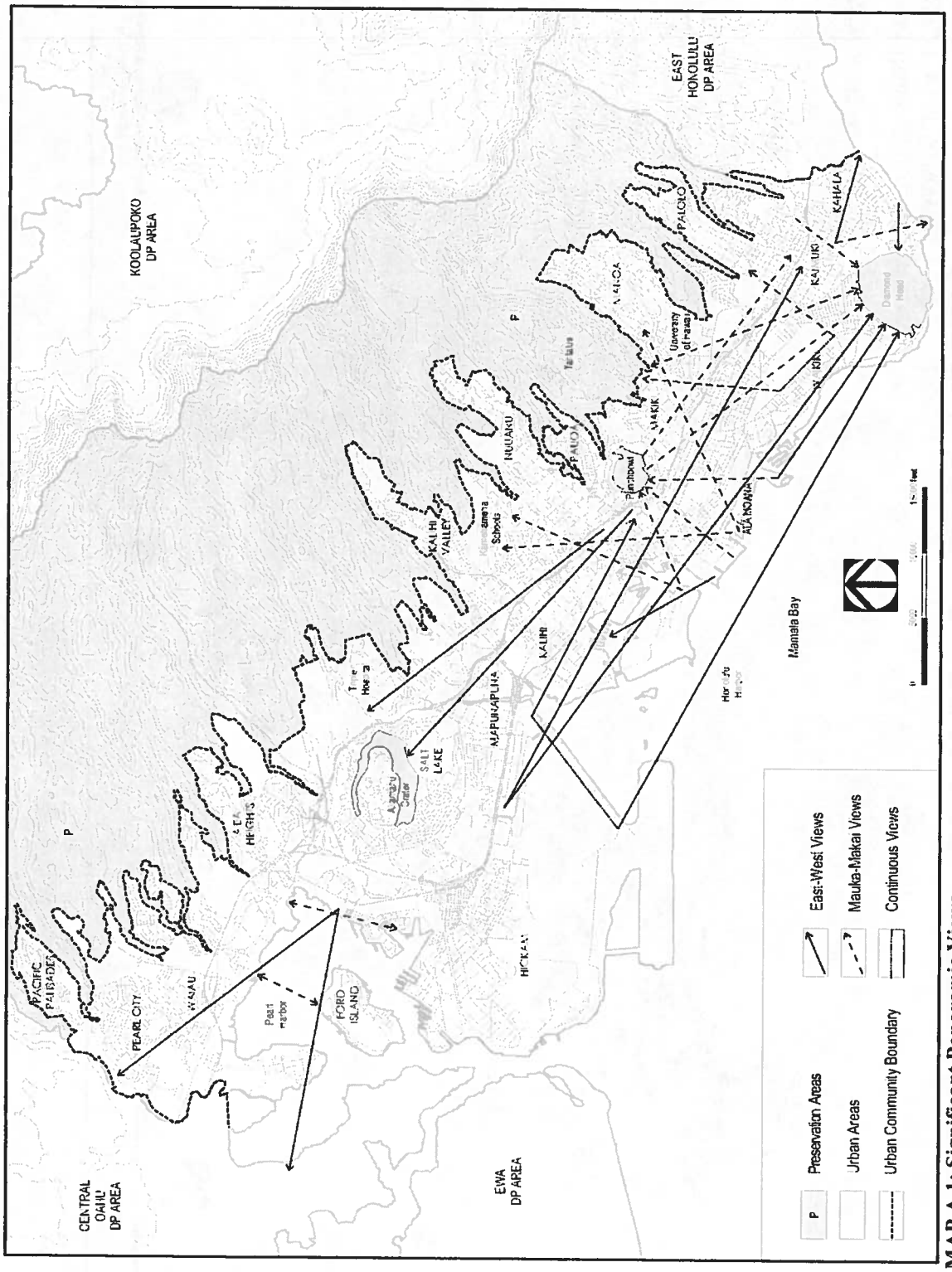
Parks and Open Space features are depicted by a dark green color. This designation refers to larger land areas and recreational facilities that contribute to the region's open space network, including regional and district parks, botanical gardens, zoological parks, golf courses and cemeteries. Community, neighborhood, and miniparks are part of the open space system, but are too small to display on the map.

Military

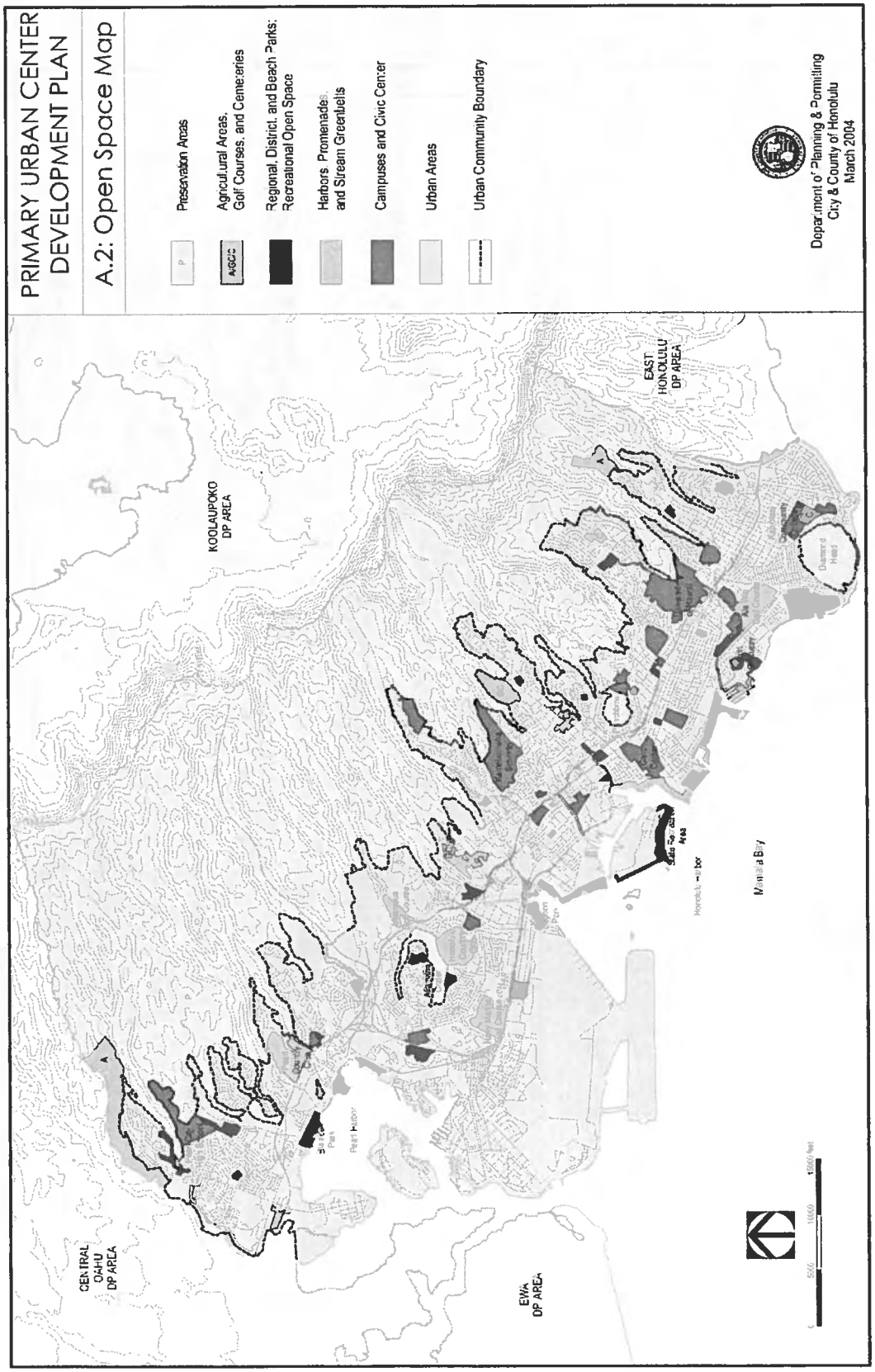
These uses, which are depicted on the maps by a gray color, include lands for military and military support purposes.

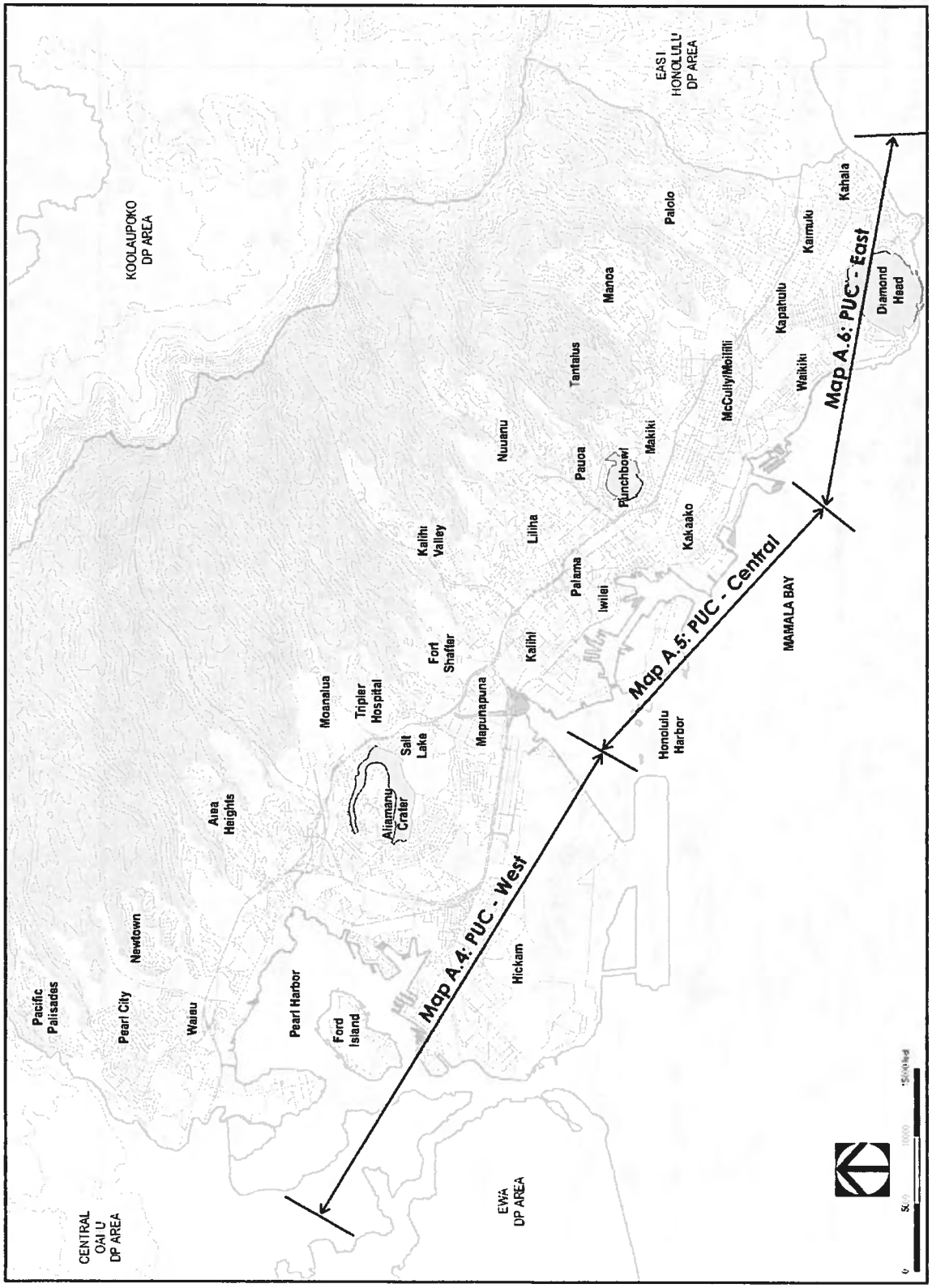
Pedestrian Network

A regional system of pedestrian facilities intended to enhance pedestrian mobility within and between neighborhoods.



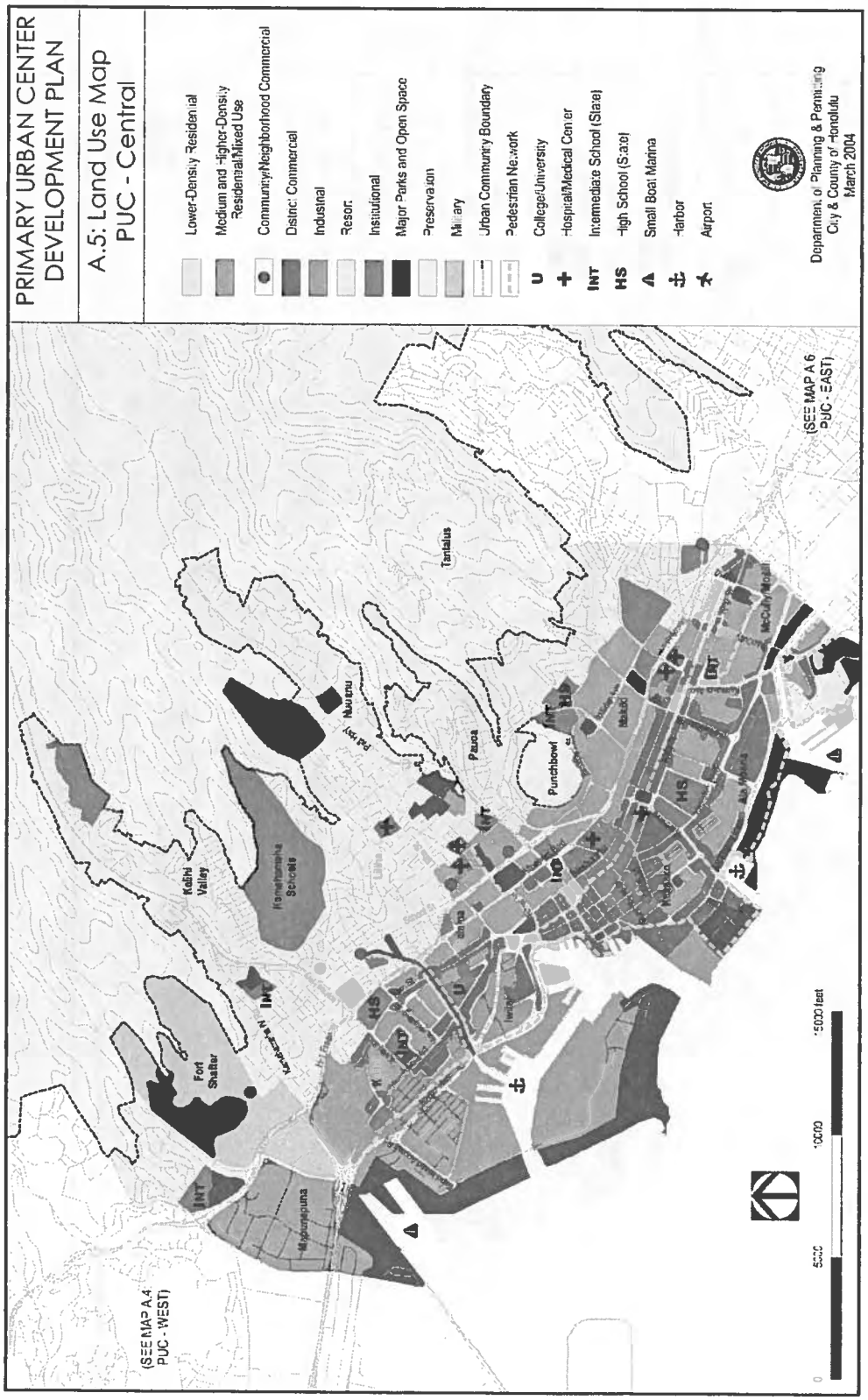
MAP A.1: Significant Panoramic Views

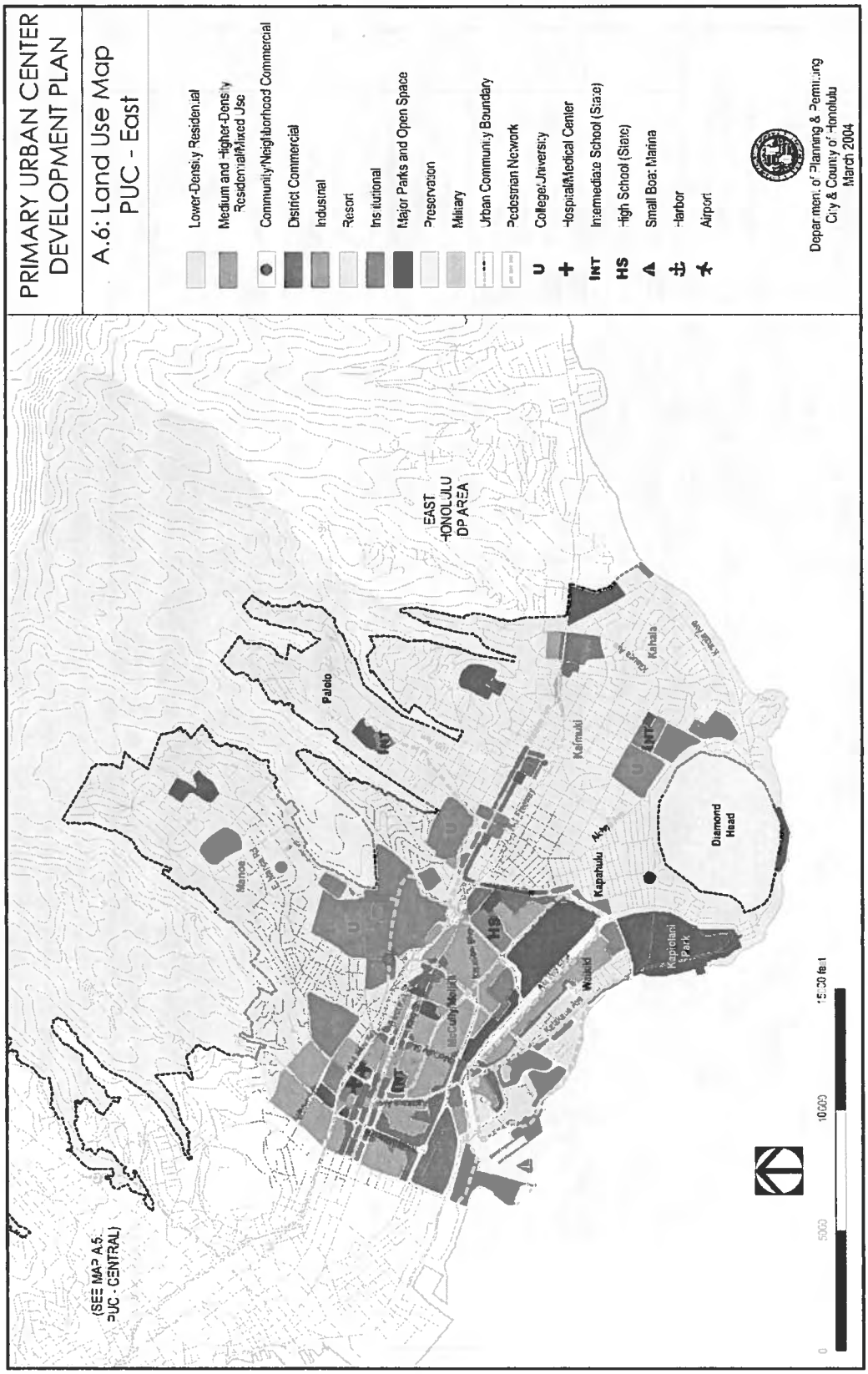

PRIMARY URBAN CENTER DEVELOPMENT PLAN
A.2: Open Space Map
Preservation Areas
Agricultural Areas, Golf Courses, and Cemeteries
Regional, District, and Beach Parks; Recreational Open Space
Harbors, Promenades and Stream Greenbelts
Campuses and Civic Center
Urban Areas
Urban Community Boundary
Department of Planning & Permitting
City & County of Honolulu
March 2004
KOOLAUPOKO DP AREA
EAST HONOLULU DP AREA
CENTRAL OAHU DP AREA
EWA DP AREA
Pearl Harbor
Mamala Bay



Map A.3: Land use Key Map

PRIMARY URBAN CENTER DEVELOPMENT PLAN
A.4: Land Use Map
PUC - West
Lower-Density Residential
Medium and Higher-Density Residential/Mixed Use
Community/Neighborhood Commercial
Distinct Commercial
Industrial
Resort
Institutional
Major Parks and Open Space
Preservation
Military
Urban Community Boundary
Pedestrian Network
College/University
Hospital/Medical Center
Intermediate School (State)
High School (State)
Small Boat Marina
Harbor
Airport
Department of Planning & Permitting
City & County of Honolulu
March 2004
0
5000
10000
15000 feet
CENTRAL OAHU DP AREA
EWA DP AREA
(SEE MAP A.5: PUC - CENTRAL)
Pacific Palisades
Pearl City
Newtown
Waiau
Aiea Heights
East Loch
Pearl Harbor
Aiea Bay
Ford Island
Moanalua
Tripler Hospital
Salt Lake
Aliamanu Crater
Fort Shafter
Mapunapuna
Keehi
HS
INT


PRIMARY URBAN CENTER
DEVELOPMENT PLAN
A.5: Land Use Map
PUC - Central
Lower-Density Residential
Medium and Higher-Density Residential/Mixed Use
Community/Neighborhood Commercial
Distinct Commercial
Industrial
Resort
Institutional
Major Parks and Open Space
Preservation
Military
Urban Community Boundary
Pedestrian Network
College/University
Hospital/Medical Center
Intermediate School (State)
High School (State)
Small Boat Marina
Harbor
Airport
Department of Planning & Permitting
City & County of Honolulu
March 2004
(SEE MAP A.4
PUC - WEST)
(SEE MAP A.6
PUC - EAST)
Fort Shafter
Kalihi Valley
Kamehameha Schools
Nuuanu
Pauoa
Tantalus
Punchbowl
Makiki
Moiliili
Manoa
Mānoa
McCully
Moiliili
INT
HS
U
0
5000
10000
15000 feet


PRIMARY URBAN CENTER DEVELOPMENT PLAN
A.6: Land Use Map
PUC - East
Lower-Density Residential
Medium and Higher-Density Residential/Mixed Use
Community/Neighborhood Commercial
District Commercial
Industrial
Resort
Institutional
Major Parks and Open Space
Preservation
Military
Urban Community Boundary
Pedestrian Network
College/University
Hospital/Medical Center
Intermediate School (State)
High School (State)
Small Boat Marina
Harbor
Airport
Department of Planning & Permitting
City & County of Honolulu
March 2004
EAST HONOLULU DP AREA
(SEE MAP A.5. PUC - CENTRAL)
Manoa
Palolo
Kaimuki
Kahala
Kapahulu
Waikiki
Diamond Head
Kapiolani Park
0
5000
10000
15,000 feet

Appendix B: Implementation Strategies

This appendix is like a tool box. It sets forth some potential strategies, or options, that can be studied further, used, adopted, or otherwise modified when considering how to implement the policies and guidelines of **Chapter 3** of the *Primary Urban Center Development Plan* or when considering what kinds of specific implementation-oriented planning instruments to use in developing neighborhood plans. They are generally more specific and detailed than the guidelines. In some cases, more study may be needed to establish the efficacy and understand the possible disadvantages of a particular option. Some options may be best suited to more detailed community- or neighborhood-level plans. This appendix is intended as a resource for the making of neighborhood plans and for revisions to the *Land Use Ordinance (LUO)*. The implementation strategies are organized according to the five major headings of **Chapter 3**. Strategies are listed for **Sections 3.1, 3.2, 3.3,** and **3.5**. There are none listed for **Section 3.4**, which relates to visitor, office, military and industrial centers.

3.1 POTENTIAL IMPLEMENTATION STRATEGIES FOR PROTECTION OF NATURAL, CULTURAL, SCENIC RESOURCES

Following are potential implementation strategies relating to natural, cultural, and scenic resources, organized by subject area.

Historic Sites and Districts

- Adopt a property tax abatement program that bases assessments of land value for eligible historic sites on existing use rather than highest and best use.
- Develop flexible development standards for historic sites and landmarks.
- Allow adaptive reuse of historic dwellings and sites compatible in type and scale with the residential neighborhood.
- Promote private reinvestment in historic districts by making public investments that upgrade services and improve security and enhance the appearance of the area, consistent with the historic design theme of the district.

Native Hawaiian Cultural and Archaeological Sites

- Require preservation in-situ where recommended by the State Historic Preservation Officer.
- Determine the appropriate preservation methods on a site-by-site basis in consultation with the State Historic Preservation Officer.
- Determine appropriate delineation of site boundaries and setbacks and restrictions for adjacent uses on a site-by-site basis in consultation with the State Historic Preservation Officer, taking into consideration sight lines that are significant to the original purpose and value of the site.

Stream Greenways and Drainage

- Where possible, retain and restore natural vegetation along stream channels.
- Use athletic fields and other natural areas as stormwater retention basins.
- Where modification of a stream channel is necessary for flood control or to stabilize the channel, use rip-rap armoring and vegetation on the upper banks in lieu of a concrete box design.

Parks and Recreational Open Spaces

- Locate areas designed for sporting events that attract high numbers of people near major collector streets and transit stops.
- Avoid the placement of lighted playfields and outdoor courts near apartments or other residential areas where excessive glare and noise would cause disturbances during the evening and night.
- Promote the joint development, use and maintenance of facilities under the jurisdiction of the City Department of Parks and Recreation, the State Department of Education and private, nonprofit recreational organizations.
- Maintain a significant amount of open space and area dedicated to passive recreation on all park lands, especially the regional and islandwide parks.
- Minimize the visibility of large recreation buildings or structures, lighting, parking lots, perimeter fencing, and other utilitarian elements through plantings or other appropriate visual screening adjacent to residential areas and major streets.

3.2 POTENTIAL IMPLEMENTATION STRATEGIES FOR CULTIVATING LIVABLE NEIGHBORHOODS

The following implementation strategies relate to planning for neighborhoods and specific areas, commercial corridors, and the areas around transit stations. They are organized into categories for "Tools for Livable Communities," with strategies specific to Shopping and Retail Business Districts, In-Town Residential Neighborhoods and *Mauka* Residential Neighborhoods.

TOOLS FOR LIVABLE COMMUNITIES

Maintain existing zoning where appropriate

- Apply existing zoning where warranted by neighborhood character or community objectives.
- Strengthen existing zoning provisions where needed to clarify or implement zoning intent.

Improve the pedestrian network

- Retain public roads and right-of-ways.
- Avoid superblock developments.
- Create midblock pathways.

Allow "build-to lines" rather than yard setbacks

- Along key "main street" corridors.
- Fronting or bordering parks.
- At "neighborhood corner" commercial areas.
- Exceptions include civic and educational institutions.

Create buildings that turn their "eyes on the street":

- No blank walls, parking garage facades or lots along key streets.
- Place usable entry doors and windows at street level.

Require usable parks rather than "buffers"

- Create usable open space – plazas, parks, and courtyards (eliminate unusable building setbacks and "buffers").
- Increase safety by using adjacent buildings to help supervise parks.
- Revise Park Dedication rules for in-town multifamily projects to favor usable public open spaces.

Review and evaluate existing parking regulations and requirements

- Consider creating "Park-Once Districts" where appropriate.
- Consider counting all parking in a given district.
- Evaluate parking requirements based on actual use and needs within 1/4 mile of transit stops.

Develop "healthy streetscape" standards

- Provide wider sidewalks on key streets.
- Plant shade trees in planter strips between curbs and sidewalks.
- Develop safer pedestrian crossings using curb extensions and median crossings.
- Incorporate bike lanes.

Foster mixed-use zoning and apply where appropriate

- Promote residential apartments in commercial districts.
- Create Workplace Zoning Districts where a combination of "clean" lifestyle support uses are allowed subject to performance standards for compatibility.

SHOPPING AND RETAIL BUSINESS DISTRICTS

IN-TOWN COMMERCIAL DISTRICTS

- Revitalize older commercial streets by providing municipal parking lots or additional on-street parking instead of requiring parking on each lot, and by making visual improvements such as street trees, special signage, and fixtures.
- Locate and design municipal parking to be convenient for business customers and clients. Parking lots should be no farther than a five-minute walking distance from any business establishment, which may mean several small lots at dispersed points along a commercial street rather than a single, large lot.

- Require that buildings on specified streets build to the sidewalk.
- Support older commercial centers by providing public parking, possibly using parking improvement districts and by reducing or eliminating parking requirements for small, older commercial buildings in targeted neighborhood business districts.
- Preserve street-wall building forms along older commercial streets by establishing "build-to" lines and requiring display windows and pedestrian entries along street frontages for new construction. Allow canopies to project into the sidewalk area and plant street trees in the sidewalk area instead of landscaped setbacks from the front property line.

COMMUNITY/NEIGHBORHOOD COMMERCIAL AREAS

- Require parking lots, service areas, and loading zones to be screened from view of the street and adjacent residential lots.
- Require new commercial buildings located directly adjacent to residential dwellings to achieve effective transition in scale, if necessary, and to utilize building and roof treatments that are sympathetic to residential character.
- Allow only low-level lighting for parking and service areas.
- Reduce or waive off-street parking requirements for neighborhood stores.

SHOPPING CENTERS

- Develop performance standards for shopping centers requiring: (1) clearly-defined pedestrian walkways between the sidewalk and building entrances; (2) placement of stores along a portion of the street frontage; (3) convenient access to public transit; and (4) mitigation of vehicular traffic impacts. Standards could be implemented by requiring a conditional use or similar permit for shopping centers over a certain size.

IN-TOWN RESIDENTIAL NEIGHBORHOODS

- Redevelop minor streets within in-town, higher-density residential neighborhoods to create open space "green streets." A green street may have limited one-way vehicular traffic and should employ traffic calming design. Reclaimed portions of the right-of-way could accommodate wider sidewalks, trees and plantings, and seating areas. **Figure A** is one example of how a green street might be designed.

MAUKA RESIDENTIAL NEIGHBORHOODS

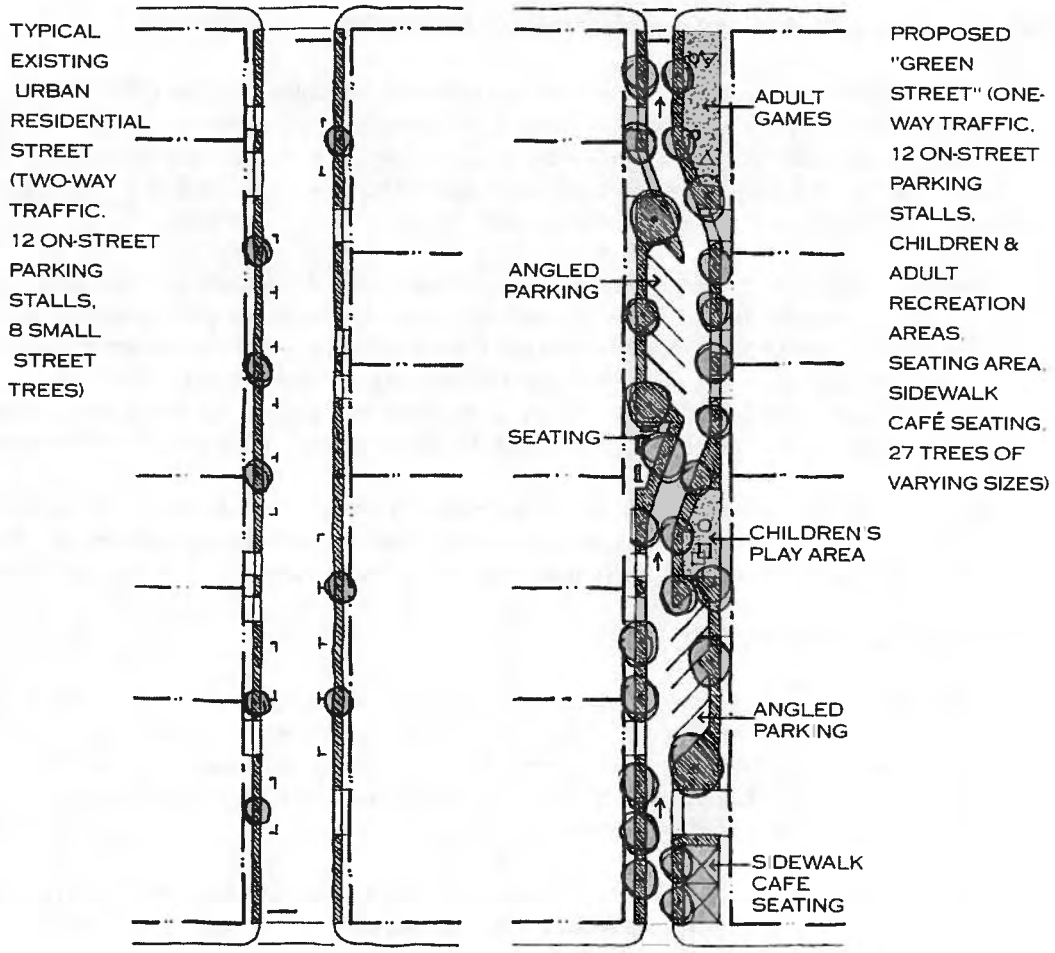
Residential Street Character

- Adopt revised standards for streets and front yards that maintain or enhance the visual openness and landscaped quality of streets and front yards and emphasize pedestrian and bicycle safety and convenience.
- Widen the automobile travelway only where clearly needed for public health and safety.
- Implement traffic calming measures in conjunction with community-based efforts to improve neighborhood quality of life.

Commercial Uses and Parking

- Encourage the development and continuation of commercial uses that have a pedestrian orientation and a predominantly neighborhood service area.
- Alleviate traffic and parking impacts of commercial and institutional uses.

FIGURE A: URBAN GREEN STREET



3.3 POTENTIAL IMPLEMENTATION STRATEGIES FOR DEVELOPING IN-TOWN HOUSING CHOICES

Policies in **Section 3.3** of the plan call for developing in-town housing opportunities that are affordable and that contribute to livable neighborhoods. Zoning and building regulations are among the key factors affecting the design and cost of housing. Below are some potential options for revising zoning and building regulations.

These options could be used to thoroughly revise apartment development standards citywide; or they could be applied to specific neighborhoods or districts of the PUC. At a minimum, the *LUO* development standards for Apartment districts should be thoroughly reviewed in light of current best practices. Neighborhood and special area plans should also consider alternative zoning and building standards for apartment housing.

Promote people-scaled, pedestrian-friendly multifamily housing

- Allow buildings to cover a larger portion of the lot. Because current (2001) *LUO* standards limit building area to 40 percent on larger lots, tower type of building design is rewarded. If, instead, greater lot coverage is allowed, then building heights can be reduced. Buildings that have similar, low heights bring residents closer to the ground, relate better to adjoining buildings, and have a scale more in keeping with the streets and street trees.

- Reduce or eliminate required front and side yard setbacks. Front yards provide little usable open space and remove buildings from the street and from easy access by pedestrians. Eliminating the front yard provides opportunities for ground-floor storefronts, enlivening the street. Side yards often create "tunnels" of wasted space between tall buildings. Allowing walls to abut at side property lines eliminates this wasted space, allows more efficient use of the lot, and creates a "street wall" along the sidewalk. Establishing a required "build-to" line is often used to create a street wall.

- Require a pedestrian entrance from the sidewalk. An entry from the sidewalk encourages residents to do errands by walking and encourages interaction among neighbors. Along with ground-floor storefronts, pedestrian entries contribute to activity and safety along the street.

Reduce the cost of apartment dwellings

- Allow additional floor area for multifamily housing. Existing floor-to-land-area ratios (FAR) are relatively low. For example, it is possible to build 1.0 FAR in a residential district, but the A-1 Apartment District allows only 0.9 FAR. Some very successful apartment projects have been built at 3.5 FAR under BMX-3 zoning. Increasing the FAR has the effect of reducing the per-unit cost of land and infrastructure.

- Evaluate minimum parking requirements. Since the typical cost for a multilevel parking structure averages $25,000 per stall, reducing the number of required spaces where appropriate could make apartment housing less costly.

- Count parking as floor area and increase FAR commensurately. Although aboveground parking structures contribute substantially to building mass, parking is not counted as floor area under current *LUO* regulations. (Parking structures can add as much as 3.0 FAR in building mass.) Under this flexible, market-based option, the developer would choose how much FAR to use for apartments and how much to use for parking stalls.

- Change building regulations to encourage less costly types of construction while maintaining existing health and safety standards.

Improve the feasibility of building on small lots

- Eliminate disincentives for building on small lots. Current *LUO* regulations have a sliding scale that reduces the maximum FAR for lots of less than 40,000 square feet. Eliminating or modifying this disincentive, and eliminating or reducing development standards for setbacks and site coverage may improve development feasibility for smaller lots.

Encourage rehabilitation of older apartment housing

- Develop separate building code provisions for rehabilitation of older apartment buildings, while maintaining health and safety standards. A more flexible code would encourage reinvestment and maintenance of low-rent housing.

Augment schools and services to serve higher-density residential areas

- Establish after-hours use of school fields and recreational facilities for neighborhood residents. Residents should contribute to care and maintenance of the facilities. The school campus should be integrated into the neighborhood and should have multiple points of pedestrian entry.

Expand the supply of affordable housing

Expand the inventory of affordable housing units as needed by the community.

3.4 POTENTIAL IMPLEMENTATION STRATEGIES FOR DEVELOPING A BALANCED TRANSPORTATION SYSTEM

Policies in **Section 3.5** of the Development Plan call for developing a balanced transportation system that will provide mobility and improve the quality of life in the Primary Urban Center without major roadway expansions. Below are some potential options that could be used to carry out specific policies and guidelines.

Coordinate land use policies and regulations with transit development

- To promote the development of higher-density, mixed-use (i.e., residential-commercial) projects within the rapid transit corridor, provide incentives in the zoning code, such as floor area bonuses, use allocation ratios, and shared use of parking and loading.

- To promote pedestrian activity and facilitate transit ridership, establish special land use, design, and development standards for frontage properties along transit-oriented streets, with particular attention to the areas around transit centers and stops. Development standards may include reduced off-street parking; pedestrian entries close to the sidewalk, façade treatments that provide interest and amenities for pedestrians, and uses at ground level that generate pedestrian traffic.

Support transit and manage transportation demand

- Develop strategically located public parking facilities to support transit ridership.

- To promote transit ridership and increase housing affordability, reduce off-street parking requirements in the transit corridor and consider establishing maximum parking ratios rather than minimum ratios in selected areas.

- Provide incentives for developers and employers to prepare and implement trip reduction plans. Density bonuses may be appropriate for new development projects that demonstrate reductions in the number of external trips through provision of mixed uses and transit-oriented design.
- Encourage Downtown employers to implement work behavior changes such as telecommuting, flexible hours, and four-day workweeks.

Improve roadway planning and design

- Classify the major traffic streets, transit streets, pedestrian routes, bikeways, truck routes, and streets that serve multiple functions. Develop design and traffic operation guidelines for each street type, including appropriate land use and design treatment for frontage properties.
- Develop guidelines and initiatives to retrofit those streets that have a distinctive identity or whose identity has been degraded but could be restored. Examples of streets with a strong identity include Kapahulu Avenue, Waialae Avenue, Kahala Avenue, Bishop Street, and Oahu Avenue.
- Redefine the primary purpose of street setback lines and right-of-way acquisition to widen sidewalks, provide landscaping, and develop transit facilities. Priority should be given to major streets within the rapid transit corridor that are fronted by properties with significant development potential. Examples are Kalakaua Avenue between King Street and Ala Wai Bridge; Keeaumoku Street between Kinau Street and Kapiolani Boulevard; and Pensacola Street between King Street and Kapiolani Boulevard.
- Identify neighborhoods experiencing "shortcutting" to determine where to implement traffic calming and enforcement measures to minimize the impact.

Improve bicycling facilities

- Implement other policies and programs recommended in the Honolulu Bicycle Master Plan, giving priority to the following: (1) amending the Land Use Ordinance to require minimum short- and long-term bicycle parking by land use type; (2) providing incentives for developers to provide secure bicycle storage facilities and showers; and (3) undertaking educational, promotional and enforcement programs to institutionalize the concepts of bicycle-friendliness.

Appendix C: Glossary of Terms

B&B	Bed and Breakfast Establishment
BRT	Bus Rapid Transit
BWS	Board of Water Supply
CIP	Capital Improvement Program
CVT	Community Vision Team
CWRM	State Commission on Water Resource Management
DOE	State Department of Education
DOT	State Department of Transportation
EA	Environmental Assessment
EIS	Environmental Impact Statement
FAR	Floor Area Ratio
HCDA	Hawaii Community Development Authority
HECO	Hawaiian Electric Company
HIA	Honolulu International Airport
LUO	Land Use Ordinance
Mauka	*towards the mountain; upland or inland*
Makai	*towards the sea*
Ohana unit	*an attached home of limited size on a lot where the underlying zoning normally allows only one house that must be occupied by relatives of the family living in the main house*
OMPO	Oahu Metropolitan Planning Organization
OR&L	Oahu Railway and Land Company
PCS	Personal Communications Systems
PUC	Primary Urban Center
PUC DP	Primary Urban Center Development Plan
RF	Radio Frequency
TDM	Transportation Demand Management
TOP 2025	Transportation for Oahu Plan 2025
TVU	Transient Vacation Unit
UH	University of Hawaii
USS	United States Ship
WMA	Water Management Areas

CITY AND COUNTY OF HONOLULU

Department of Planning and Permitting (DPP)

Aloha. We provide services and information on building permits, development projects, and planning activities for the City and County of Honolulu.

Tax Map Key Info

TMK:	3-1-042:034	POID:	159210
Historical TMK Sequence:		Tax Pin:	159210
Area (sq ft):	186915		
Area (acres):	4.291		
Lot Number:			
Ohana:	(None)		

PARCEL INFO

Type	Description
Council District Effective 2003	4 - Trevor Ozawa
Development Plan Areas	Primary Urban Center
Flood Zones	X - Beyond 500 Year Flood Plain
Height Limit	25'
Lot Restriction	None
Neighborhood Boards	3 - WAIALAE-KAHALA
SMA	In SMA
Slide Area	None
Special Districts	Diamond Head Special District
State Land Use	Urban District
Street Setback	NONE
Zoning (LUO)	R-10 Residential District

FACILITIES

Facility Code	Year Built	No. of Floors	Total Floor Area
51 - Educational/Cultural		0	0
51 - Educational/Cultural		0	0
51 - Educational/Cultural		0	0
51 - Educational/Cultural		0	0
51 - Educational/Cultural		0	0
51 - Educational/Cultural		0	0

TMK SEPARATIONS

Activity Code	Census Tract	Census Block
65 - EDUCATIONAL SERVICES (INCLUDING RIDING ACADEMY)	600	2014

Address List:

708 PALEKAUA ST
710 PALEKAUA ST

Submit Cancel

City and County of Honolulu, Department of Planning & Permitting
650 So. King St., Honolulu, HI 96813 • Fax: (808) 768-6743
email: info@honoluludpp.org

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DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honoluludpp.org • CITY WEB SITE: www.honolulu.gov

KIRK CALDWELL
MAYOR

GEORGE I. ATTA, FAICP
DIRECTOR

ARTHUR D. CHALLACOMBE
DEPUTY DIRECTOR

2014/CUP-57(WA)
2014/SDD-48
2014/SMA-40
2014/W-35

September 26, 2014

Ms. Robyn Kahalelehua
Cascadia PM
1130 North Nimitz Highway, Suite A-200
Honolulu, Hawaii 96817

Dear Ms. Kahalelehua:

SUBJECT: Conditional Use Permit No. 2014/CUP-57
Special District Permit No. 2014/SDD-48
Special Management Area Permit No. 2014/SMA-40
Zoning Waiver No. 2014/W-45
708 Kalekaua Street - Diamond Head
Tax Map Key 3-1-42: 34

The above applications for Conditional Use Permit (Minor), Special District Permit (Minor), Special Management Area Permit (Minor), and Zoning Waiver for a utility installation, Type B, have been **APPROVED**, subject to conditions contained in the attached "Findings of Fact, Conclusions of Law, and Decision and Order."

Any person who is specifically, personally, and adversely affected by the Director's action (in this case) and wants to appeal any part or requirement of the action may submit a written request for a contested case hearing to the Department of Planning and Permitting (DPP) within 30 calendar days from the date of mailing, personal service, or publication of the action of the Director of the DPP. Contested case hearings shall be conducted pursuant to Chapter 12 of the DPP Part 2 Rules Relating to Shoreline Setbacks and the Special Management Area. Essentially, these Rules require that a petitioner show that the Director of the DPP based his action on an erroneous finding of a material fact, and/or that the Director otherwise acted in an arbitrary or capricious manner, or there are extenuating circumstances. The filing fee for the contested case hearing is $400 (payable to the City and County of Honolulu).

Any party (to the case) wishing to appeal the Director's action must submit a written petition to the Zoning Board of Appeals (ZBA) within 30 calendar days from the date of mailing or personal service of the Director's written decision (ZBA Rules Relating to Procedure for Appeals, Rule 22-2, Mandatory Appeal Filing Deadline). Essentially, the ZBA rules require that a petitioner show that the Director based his action on an erroneous finding of a material fact, and/or that the Director acted in an arbitrary or capricious manner, or manifestly abused his discretion. Generally, the ZBA can only consider the evidence previously presented to the

Director of the DPP. The filing fee for appeals to the ZBA is $400 (payable to the City and County of Honolulu).

Failure to comply with ZBA Rules Chapter 22, Procedure for Appeals, may result in the dismissal of the appeal. Copies of the ZBA Rules are available at the DPP. Appeals should be addressed to:

Zoning Board of Appeals
c/o Department of Planning and Permitting
650 South King Street, 7th floor
Honolulu, Hawaii 96813

If you have any questions or need additional information concerning these permits, please contact William Ammons of our staff at 768-8025.

Very truly yours,

FOR George I. Atta, FAICP
Director

Encl: Exhibits A through E
Exhibits A-1 through A-8

cc: Office of Planning (Shichao Li)

Doc 1180983

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

STATE OF HAWAII

IN THE MATTER OF THE APPLICATION OF VERIZON WIRELESS FOR A CONDITIONAL USE PERMIT (MINOR) SPECIAL DISTRICT PERMIT (MINOR) SPECIAL MANAGEMENT AREA PERMIT (MINOR) ZONING WAIVER	)	FILE NOS. 2014/CUP-57 2014/SDD-48 2014/SMA-40 2014/W-35

FINDINGS OF FACT, CONCLUSIONS
OF LAW, AND DECISION AND ORDER

I. APPLICATION

A. Basic Information:

APPLICANT:	Verizon Wireless
AGENT:	Cascadia PM (Robyn Kahalelehua)
LANDOWNER:	State of Hawaii (leased by Special Education Center of Hawaii)
LOCATION:	708 Kalekaua Street - Diamond Head (Exhibit A)
TAX MAP KEY:	3-1-42: 34
LAND AREA:	4.291 Acres (186,915 Square Feet)
ZONING:	R-10 Residential District (Exhibit B)
STATE LAND USE:	Urban District (Exhibit C)
EXISTING USE:	Private school (Special Education Center of Hawaii)
SURROUNDING LAND USE:	Single-family dwellings, private school, and government buildings

B. Proposal:

1. Conditional Use Permit - Minor (CUPm): The Applicant proposes to establish a utility installation, Type B, consisting of 12 panel antennas (six panel antennas 50.75L x 12W x 6.42D-inch; six panel antennas 98.42L x 18.67W x 9.08D-inch),

12 remote radio units (RRUs)(17.67L x 17W x 7.17D-inch) mounted at 60 feet on a 65-foot monopalm. There will also be two equipment cabinets (57H x 27.42L x 27.42W-inch), one battery cabinet (87.5H x 32L x 29W-inch), one emergency generator (92H x 110L x 30.02W-inch), one Global Positioning System antenna (approximately 4H-foot). The cabinets will be mounted on an 8-inch concrete pad. The monopalm and equipment will be contained within 25 x 25-foot (625 square feet) area surrounded by a six-foot high chain-link fence with green slats. See Exhibits A-1 through A-8.

Access to the site is from Palekaua Road. The facility will operate 24 hours a day, seven days a week. No personnel will work at the facility except for periodic maintenance.

II. FINDINGS OF FACT

On the basis of the evidence presented, the Director of the Department of Planning and Permitting (DPP) has found:

A. Description of Site and Surrounding Land Use: The 4.291-acre irregular-shaped lot is zoned R-10 Residential District and in the State Urban District. The utility installation, Type B will be placed on the south end of the lot within the landscaped border surrounding the adjacent parking lot. The site is relatively flat.

The site is bordered by the Office of Curriculum, Instruction & Student Support to the north, to the west is The Arc in Hawaii (private school for the developmentally disabled persons). The southern half of the lot is the Department of Defense facility and to the east single-family dwellings. See Exhibit A-8.

B. Other Permits and Approvals:

1. On October 25, 1990, Special Management Area (SMA) Permit No. 90/SMA-86, was approved for construction of a basketball court and related recreational elements.

2. On May 8, 1996, Existing Use Permit No. 96/SPR-2 and SMA Permit No. 96/SMA-10, was approved for construction of a new basketball court surrounded by an 8-foot high chain-link fence atop an new retaining wall. Construction of a new 80-square-foot prefabricated storage shed and modification of the R-10 Residential District development standards to allow the 8-foot high chain-link fence to encroach 11 feet into the required 15-foot side yard.

C. Environmental Review: Applicant has not provided documents to show compliance with the environmental assessment review requirements of Chapter 343, Hawaii Revised Statutes (HRS).

D. Flood District: The Federal Management Agency Flood Insurance Rate Map Community Panel No. 15003C0369G revised on January 19, 2011, indicates that the utility installation, Type B is entirely within Flood Zone X. Flood Zone X consists of areas where flood hazards are determined to be outside the 0.2% annual chance (500-year) floodplain. See Exhibit E.

E. Neighborhood Board: The Applicant presented the proposed project to the Waialae-Kahala Neighborhood Board No. 3 at its regular meeting on July 17, 2014. Notification of the presentation was sent to the adjacent property owners. A few questions were raised as to the location, height, health risks, and rent payment recipients. All the questions were answered and there was no objection to the utility installation, Type B.

F. Applicant's Justification: The Applicant provided justification statements which are a part of the file.

III. ANALYSIS

A. Conditional Use Permit (CUPm): The Director of the DPP may allow a conditional use upon finding that the proposed use satisfies the following criteria:

1. The proposed use is permitted as a conditional use in the underlying zoning district and conforms to the requirements of the Land Use Ordinance (LUO).

Pursuant to LUO Section 21-3.70-1(a) [Table 21-3], a utility installation, Type B, is a permitted use in the R-10 Residential District with an approved CUPm.

a. LUO Section 21-3.70-1(b) [Table 21-3.2], Residential District Development Standards: The following table summarizes the project's compliance with the development standards for the Residential District.

LUO Standards	LUO Provisions	Project Site
Minimum Lot Area (square feet)	10,000	186,915 square feet or (4.291 acres); Complies
Minimum Lot Width/Depth (feet)	65 for dwellings, 100 for other uses	Complies
Yards (feet): Front Side/Rear	 10 for dwellings 30 for other uses 5 for dwellings 15 for other uses	 30 15 Complies
Maximum Building Area	50 percent of zoning lot	Complies
Maximum Height (feet)	25 to 30 35 for antennas	65-foot monopole (monopalm); Does not comply
Height Setbacks	Per Section 21-3.70-1(c)	Complies

The project does not comply with all applicable R-10 Residential District development standards. The proposed monopole (monopalm) exceeds the 35-foot maximum height for antennas by 30 feet. Therefore, a Zoning Waiver is required to allow the monopole (monopalm) to exceed the maximum height, which is further addressed in Section B of this report.

b. LUO Section 21-5.650(a), Specific Use Standards for Utility Installation, Type B:

(1) Landscaping: All requests for Type B utility installations must include a landscape plan which shall be approved by the Director. Special emphasis shall be placed on buffering the installation from adjacent streets and highways.

The monopole (monopalm) resembles a palm tree and will blend with the existing vegetation. The site is visible from the project site and the outdoor recreation facility west of the project site. The Applicant proposes a six-foot high chain-link fence surrounding the project site. The perimeter of the fence will be landscaped with trees and scrubs. This visual mitigation is acceptable and reasonable and shall be made a condition of this approval.

(2) Fencing: Type B utility installations for telecommunications shall provide fencing or other barriers to restrict public access within the area exposed to a power density of 0.1 milliwatt/cm2 for all associated antennas involving radio frequency (RF) or microwave transmissions.

The Applicant submitted a "Certificate for Telecommunications Antenna" with a calculated exclusion distance of 20.5 feet. The area of exposure will not be accessible to the public due to the installation of a six-foot high chain-link fence surrounding the 25 x 25 square-foot (625 square feet) utility installation, Type B.

(3) Height Limit: In residential districts, where utility lines are predominately located underground, antennas shall not exceed the governing height limit.

Antennas associated with utility installations shall not exceed ten feet above the governing height limit, but in residential districts where utility lines are predominantly located underground the governing height limit shall apply.

The proposed facility is in a residential district, where the maximum allowable height is 25 feet. The maximum allowable height for an antenna installation is 35 feet. The proposed antennas exceed the permitted maximum height by 30 feet. The Applicant has applied for a zoning waiver to authorize the height overage. See Exhibits A-3 through A-6.

(4) LUO Sections 21-6.20 [Table 21-6.1] and 21-6.100 Off-Street Parking and Loading Requirements: There is adequate parking space on the site for periodic maintenance personnel. Table 21-6.1 allows the Director to determine the parking requirement for utility installations. Because the facility does not generate a need for off-site parking due to the nature of the operation, additional off-street parking will not be required.

Because there is no floor area associated with the utility installation, Type B, loading stalls are not required.

(5) Access: Access to the facility for periodic maintenance will be via Palekaua Street.

2. The site must be suitable for the proposed use considering size, location, topography, infrastructure, and natural features. The size, location, topography, and terrain of the site, and the infrastructure available are suitable for the proposed installation. There are no notable natural features on the property.

   a. Size, Location, Topography, and Natural Features: The 4.291-acre irregular-shaped lot, exceeds the minimum 10,000 square-foot lot size for the R-10 Residential District. The site is relatively flat. No significant visual impacts are anticipated because the monopole (monopalm) blends with the existing landscaping. The Applicant proposes to construct a six-foot high chain link fence surrounding the perimeter of the project site. There are no unique natural features, coastal views, or other natural resources that will be adversely impacted.

      The proposed monopole (monopalm) and outdoor equipment area will be located about 250 feet from the nearest residential lot. The 65-foot high monopole (monopalm) will be 60 feet from the side property line.

   b. Infrastructure: The project will require electricity and telephone service from Hawaiian Electric and Hawaiian Telcom or Oceanic Time Warner Cable, respectively. The project will not require service by either municipal water and/or sewer systems since it will be unmanned and the monopole (monopalm) does not require water or wastewater to operate. The operation of the monopole (monopalm) will not generate traffic. Once established the utility installation, Type B will provide mobile phone coverage to its customers.

3. The proposed use will not alter the character of the surrounding area in a manner substantially limiting, impairing, or precluding the use of surrounding properties for the principal uses permitted in the underlying zoning district. The technology associated with a utility installation, Type B system does not involve any nuisance noise, dust, or odors. The installation will be unmanned, with no personnel assigned to the site other than for periodic maintenance. The Applicant will be constructing a fence to provide security. The proposed use will not diminish the existing uses on the site nor alter the character of the surrounding area in a manner substantially limiting, impairing, or precluding the use of surrounding properties. It is also a "clean" facility that does not generate any contamination or waste.

   To insure the proposed installation does not significantly impact surrounding land uses once it is constructed, the CUP can be reevaluated if it is later determined that the impacts of the installation are greater than anticipated. This requirement will be imposed as a condition of approval.

4. The use at its proposed location will provide a service or facility which will contribute to the general welfare of the community-at-large or surrounding neighborhood. The proposed utility installation, Type B will contribute to the general welfare of the community-at-large by providing mobile phone coverage to the area.

B. Zoning Waiver: The Director of the DPP may grant a zoning waiver upon a finding that the proposal shall not, under the circumstances and conditions applied in the particular case, adversely affect the health or safety of persons, and shall not be materially detrimental to the public welfare or injurious to nearby property improvements.

Pursuant to LUO Section 21-2.130(a)(1), utility installations are eligible for a waiver from the strict development and/or design standards of the LUO. The maximum permitted height for nonagricultural structures in the R-10 Residential District is 25 feet and 35 feet for antennas. The monopole (monopalm) will be 65 feet high. The height setback is any portion of a structure exceeding 15 feet shall be setback from every side and rear buildable area boundary line one foot for each two feet of additional height above 15 feet. The added antenna height and height setback will not under the circumstances and conditions applied in this particular case, adversely affect the health or safety of persons, and shall not be materially detrimental to the public welfare or injurious to nearby property improvements. Under the circumstances and conditions applied in this particular case, the request to exceed the maximum height and height setback is reasonable.

C. Special Management Area Permit (Minor): The project site is located along the SMA boundary line that extends along portion of Palekaua Street and the rear property line of residential lots along Hakaka Street. See Exhibit B.

1. The proposal has a project valuation of approximately $250,000 and will have no substantial adverse environmental or ecological effect, taking into account potential cumulative effects.

2. The proposal is consistent with the objectives and policies of Chapter 25.

3. The proposal is consistent with the general plan, development plan and zoning.

D. Special District Permit (Minor):

1. Objectives: The objective of the Diamond Head Special District is to preserve existing prominent public views of Diamond Head. The proposal will not have significant visual impacts from the listed prominent public vantage points - public streets and public viewing sites. The proposal is not located in the Core Area of the Diamond Head Special District and should have minimal disruption of views towards Diamond Head. According to submitted photographs, the monopole (monopalm) will be no higher than most of the existing trees on the subject lot. Additionally, the existing landscaping along the property line near the location of the monopalm will provide a visual buffer from public views.

2. Design Controls: No existing trees six inches or greater in trunk diameter will be removed. The proposed landscaping (tall hedges) along the 6-foot high chainlink fence will help to screen the outdoor equipment area. The proposed monopalm

with artificial fronds and painted with camouflage colors will also help to reduce the visual impact of the 65-foot high monopalm.

The proposal complies with the adopted objectives and design controls, as well as the design guidelines for the Diamond Head Special District.

IV. CONCLUSIONS OF LAW

The Director of the DPP hereby makes the following Conclusions of Law:

A. Conditional Use Permit (Minor):

1. The proposed utility installation, Type B, monopole (monopalm) is a permitted use in the R-10 Residential District with an approved CUP (Minor).

2. The characteristics of the site are suitable for the proposed use.

3. The request conforms to minimum development standards for the R-10 Residential District. The size, location, and topography of the site are suitable for the use, and there are no natural features which preclude the use of the utility installation, Type B at the site.

4. The proposed use will not alter the character of the surrounding area in a manner substantially limiting, impairing, or precluding the use of the surrounding properties for the principal uses permitted in the underlying zoning district.

5. The utility installation, Type B will provide a facility and service of benefit to community-at-large and the Diamond Head area.

B. Zoning Waiver: Given the particular circumstances and conditions of this case, the request to permit the proposed utility installation, Type B, to exceed the maximum height of the underlying zoning district (25 feet):

1. It will not adversely impact surrounding properties;

2. It is not anticipated to adversely affect the health or safety of persons, be materially detrimental to the public welfare, or injurious to nearby property improvements; and

3. It is reasonable.

C. Special Management Area Permit (Minor):

1. The proposal and site is within the SMA, as established in Chapter 25, ROH; however, the proposed development has a stated valuation of less than $500,000 ($250,000).

2. The Applicant is seeking approval to construct a utility installation, Type B, 65-foot high monopole (monopalm). The project should not have any substantial adverse environmental or ecological effect on the SMA.

D. Special District Permit (Minor):

1. The proposal complies with the adopted objectives, design controls, and design guidelines of the Diamond Head Special District.

2. The proposed landscaping (tall hedges) along the 6-foot high chainlink fence will help to screen the outdoor equipment area.

3. The proposed monopalm with artificial fronds and painted to match surrounding vegetation will help to reduce the visual impact of the 65-foot high monopole and antennas.

V. DECISION AND ORDER

Pursuant to the Findings or Fact and Conclusions of Law, the Director of the Department of Planning and Permitting (DPP) hereby **APPROVES** the request for a Conditional Use Permit, Minor (CUPm), Special District Permit (SDD), Minor, Special Management Area Permit (SMA), Minor, and Zoning Waiver to allow a utility installation, Type B, 65-foot high monopole (monopalm) in the R-10 Residential District, which exceeds the maximum height, subject to the following conditions:

A. Development and operation of the utility installation, Type B on the site shall be in general conformance with the approved project, as described herein and shown on Exhibits A-1 through A-8, attached hereto, which shall be deemed the approved plans for the project. Any modification of the approved project and/or plans shall be subject to the prior review of and approval by the Director of the DPP. Minor modifications shall be processed in accordance with Section 21-2.20(k) of the Land Use Ordinance (LUO). Major modifications shall require a new CUPm, SDD, SMA, and Waiver Permits.

B. Prior to the submittal of any building permit, the Applicant shall provide to the DPP the required documentation from the State Department of Land and Natural Resources to show compliance with the environmental assessment review requirements of Chapter 343, Hawaii Revised Statutes (HRS).

C. To mitigate the visual impact of the utility installation, Type B, the monopalm with artificial fronds shall be painted to match surrounding vegetation and the equipment cabinets and accessory uses and structures shall be painted with an earth tone color to blend with the surrounding area.

D. This application has only been reviewed and approved pursuant to the provisions of LUO Sections 21-5.650(a) (Utility Installations, Type B), 21-9.40, et seq. (Diamond Head Special District), and 21-2.130 (Waiver), and Chapter 25, Revised Ordinances of Honolulu (ROH) (Special Management Area), and development shall comply with all other provisions of the LUO.

E. Approval of the CUPm, SDD, SMA, and Waiver Permits does not constitute compliance with other LUO or governmental requirements, including building and/or sign permit approval. They are subject to separate review and approval. The Applicant shall be responsible for insuring that the final plans for the project approved under this action comply with all applicable codes and other governmental provisions and requirements.

F. **The Applicant shall obtain the required building permits within one year from the date of this approval, or the CUPm, SDD, SMA, and Waiver Permits shall lapse.**

G. If the use of the site as a utility installation is discontinued for 12 consecutive months, the CUPm, SDD, SMA, and Waiver Permits shall automatically lapse. In that case, the Applicants and/or landowner shall remove all structures which were authorized by these approvals.

H. The Applicant shall submit written notification to the Director of the DPP within 30 days from the date the utility installation is discontinued and/or terminated.

I. The Director of the DPP may modify the conditions of this CUPm, SDD, SMA, and Waiver Permits by imposing additional conditions, modifying existing conditions, or deleting conditions deemed satisfied upon a finding that circumstances related to the approved project have significantly changed so as to warrant a modification to the conditions of approval.

J. The Director of the DPP may reevaluate this approval after construction of the facility to determine if visual, noise, or other impacts are significantly greater than anticipated (i.e., as represented by the Applicant). The Director may impose additional conditions to mitigate greater adverse impacts, or revoke the CUPm, SDD, SMA, and Waiver Permits if adverse impacts cannot be mitigated.

K. In the event of the noncompliance with any of the conditions set forth herein, the Director of the DPP may terminate all uses approved under the CUPm, SDD, SMA, and Waiver Permits, or halt their operation until all conditions are met or may declare the CUPm, SDD, SMA, and Waiver Permits null and void or issue civil fines; provided that, for good cause, the Director may amend the above conditions.

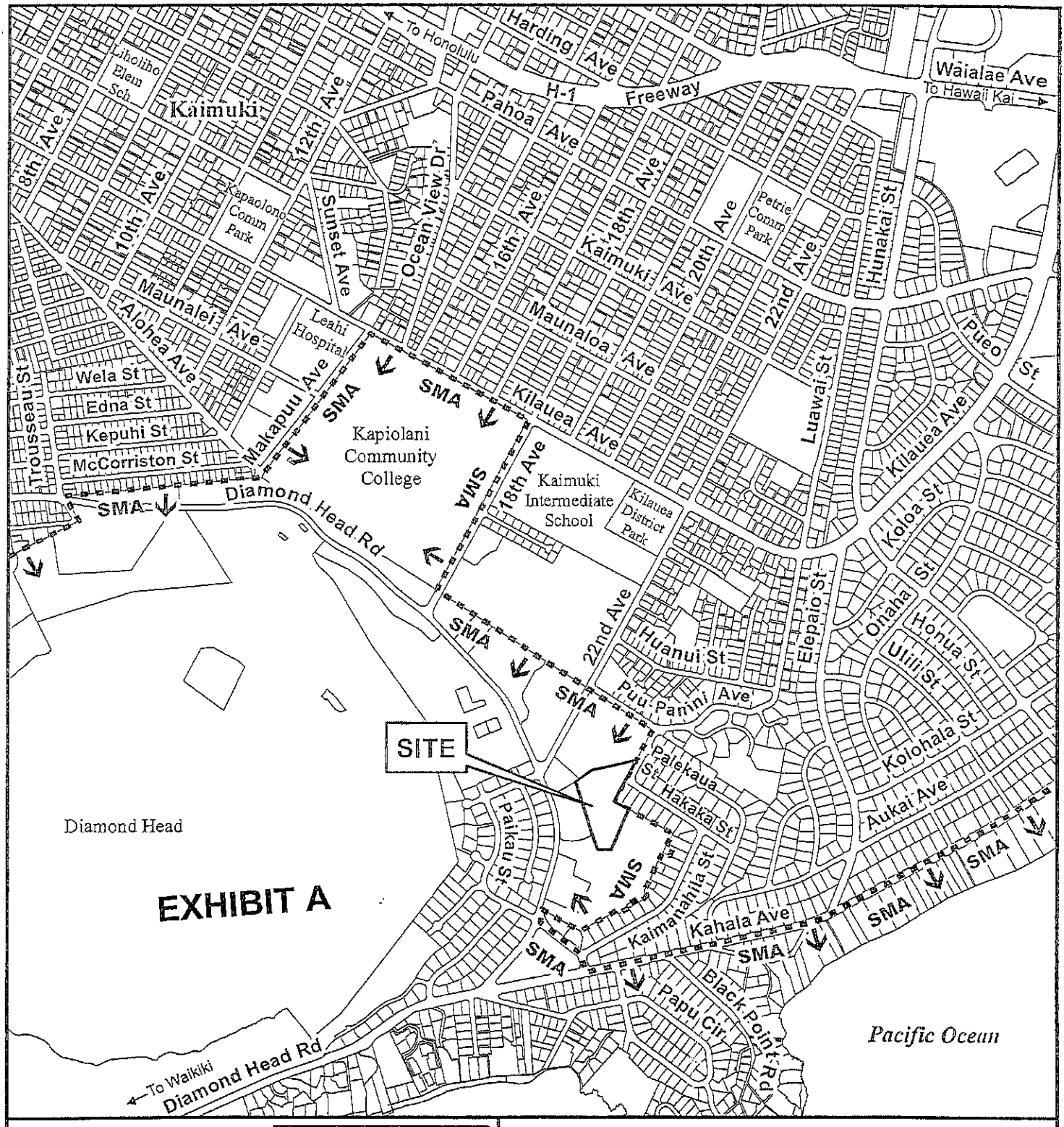
Dated at Honolulu, Hawaii, this 26th of September, 2014.

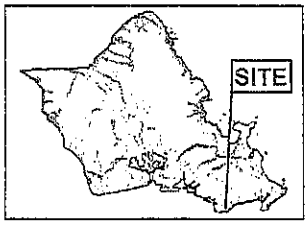
Department of Planning and Permitting
City and County of Honolulu
State of Hawaii

By Anthony X. Ching
FOR George I. Atta, FAICP
Director

Encl: Exhibits A through E
Exhibits A-1 through A-8

Doc 1180892





VICINITY MAP

0 550 1,100 2,200

Scale: 1 inch = 1100 feet

LOCATION MAP
DIAMOND HEAD

In Special Management Area (SMA)

TAX MAP KEY(S): 3-1-042:034

FOLDER NO.: 2014/CUP-57

Prepared by: Department of Planning & Permitting
City and County of Honolulu

Date Prepared: August 18, 2014

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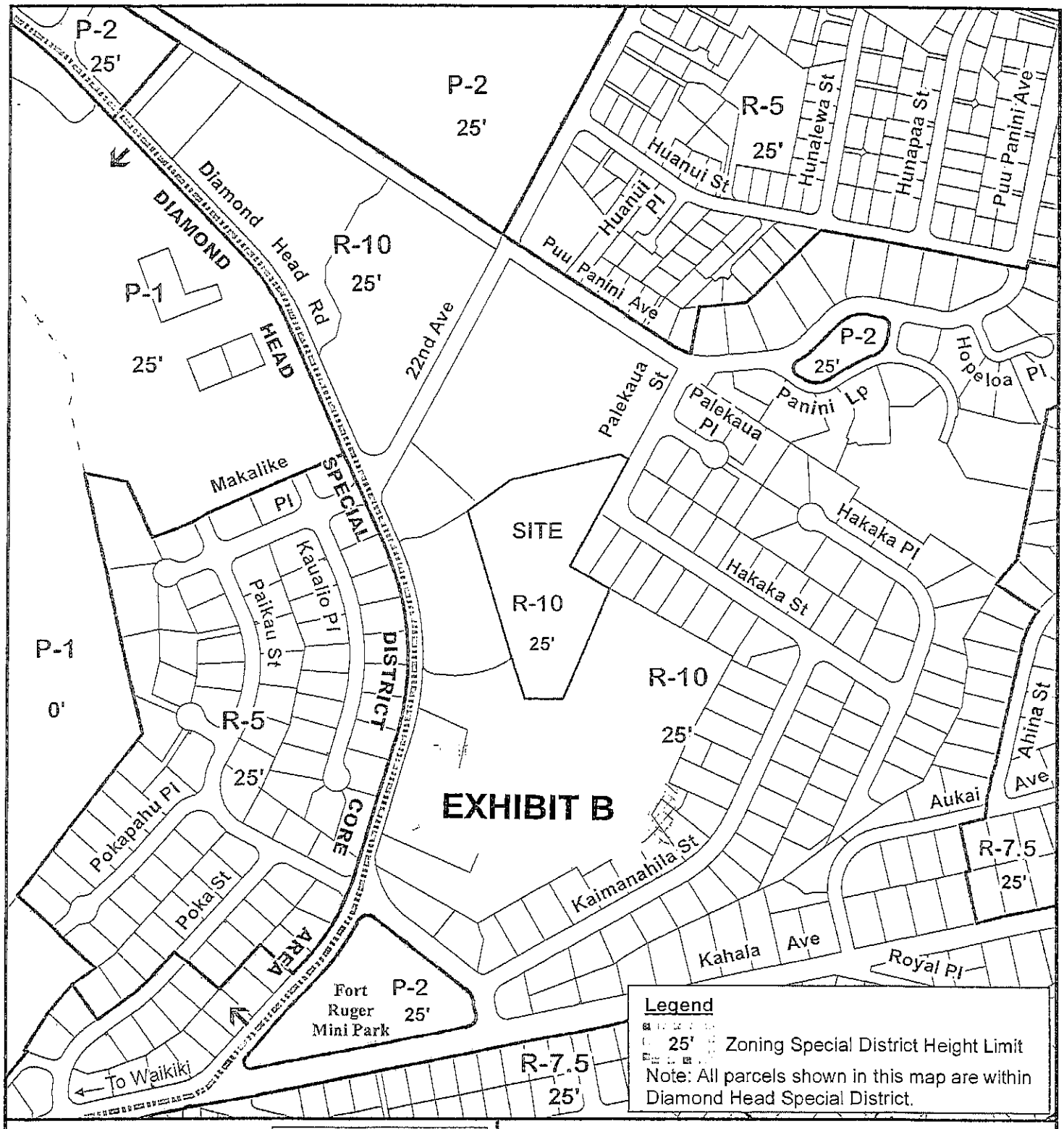

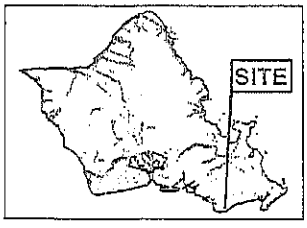

VICINITY MAP

0 200 400 800

Scale: 1 inch = 400 feet

PORTION OF

EXISTING ZONING MAP #2 (KAHALA-KULIOUOU)

TAX MAP KEY(S): 3-1-042:034

FOLDER NO.: 2014/CUP-57

Prepared by: Department of Planning & Permitting
City and County of Honolulu

Date Prepared: August 18, 2014

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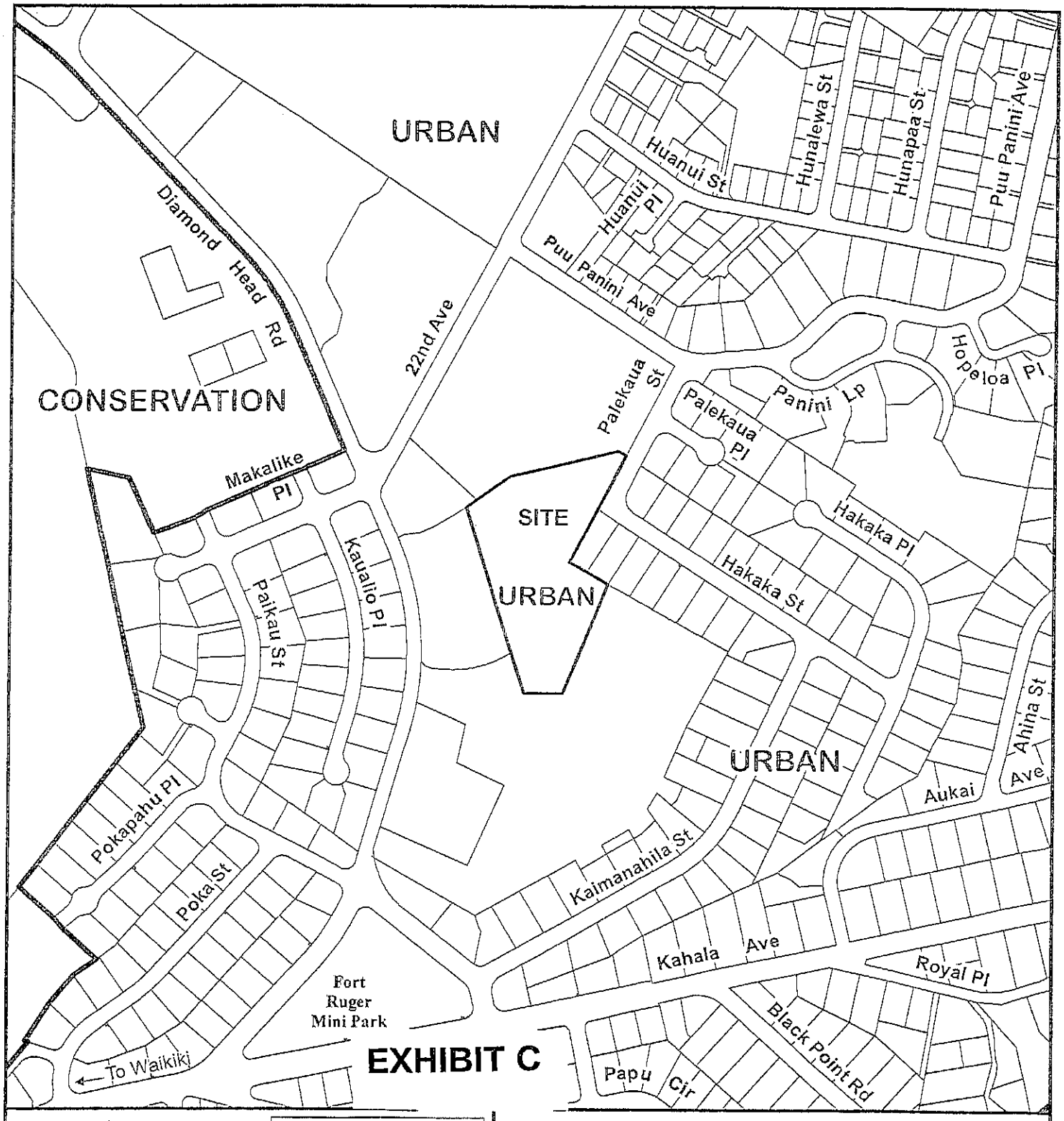

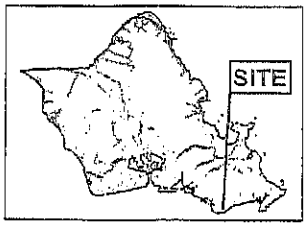

VICINITY MAP

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Scale: 1 inch = 400 feet

STATE LAND USE MAP

DIAMOND HEAD

TAX MAP KEY(S): 3-1-042:034

FOLDER NO.: 2014/CUP-57

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Date Prepared: August 18, 2014

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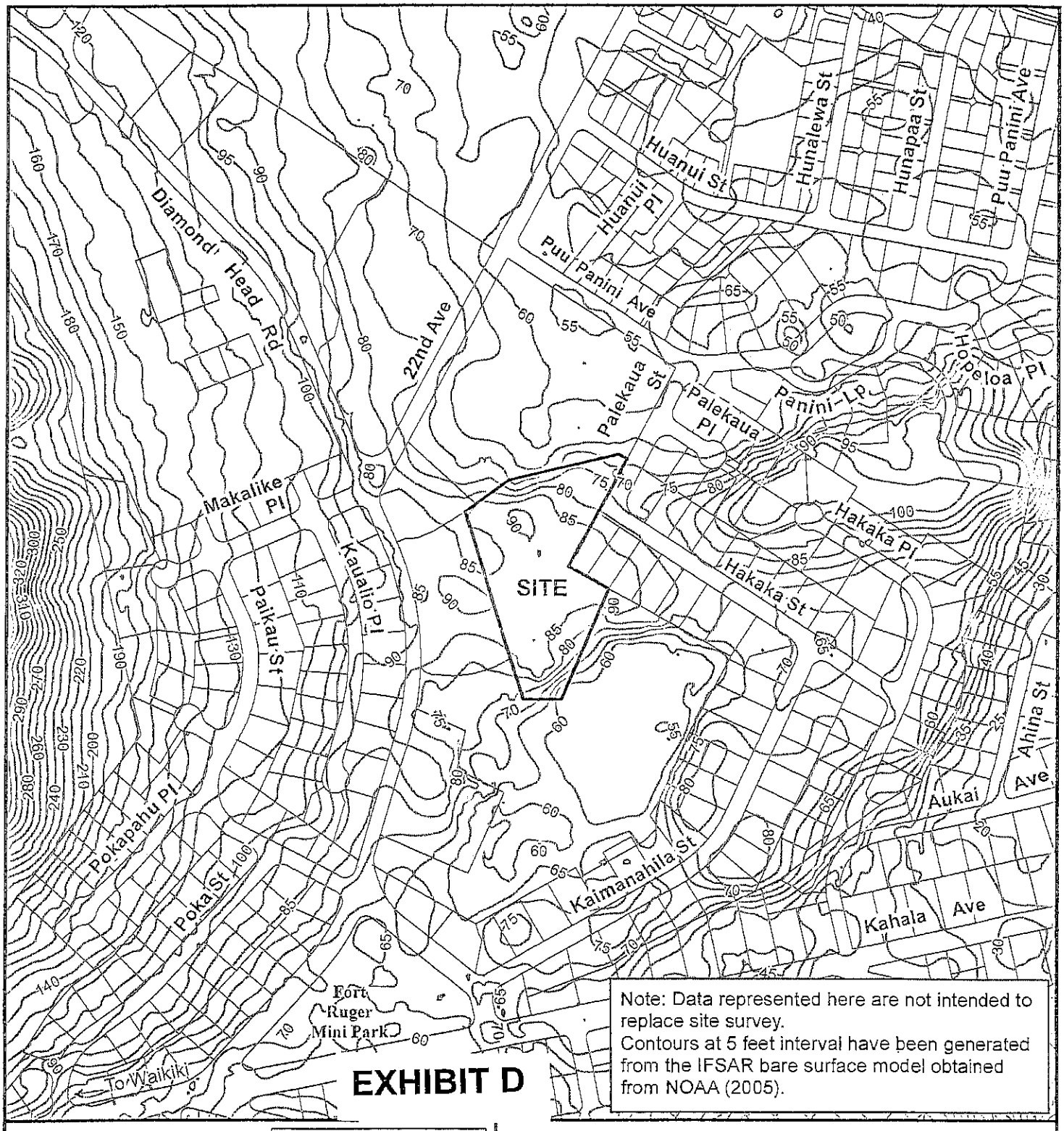
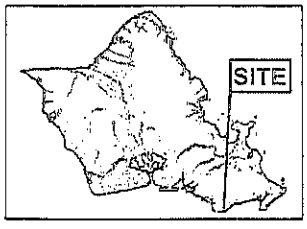


Note: Data represented here are not intended to replace site survey.
Contours at 5 feet interval have been generated from the IFSAR bare surface model obtained from NOAA (2005).

EXHIBIT D



VICINITY MAP

0 200 400 800

Scale: 1 inch = 400 feet

TOPOGRAPHIC MAP

DIAMOND HEAD

TAX MAP KEY(S): 3-1-042:034

FOLDER NO.: 2014/CUP-57

Prepared by: Department of Planning & Permitting
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Date Prepared: August 18, 2014

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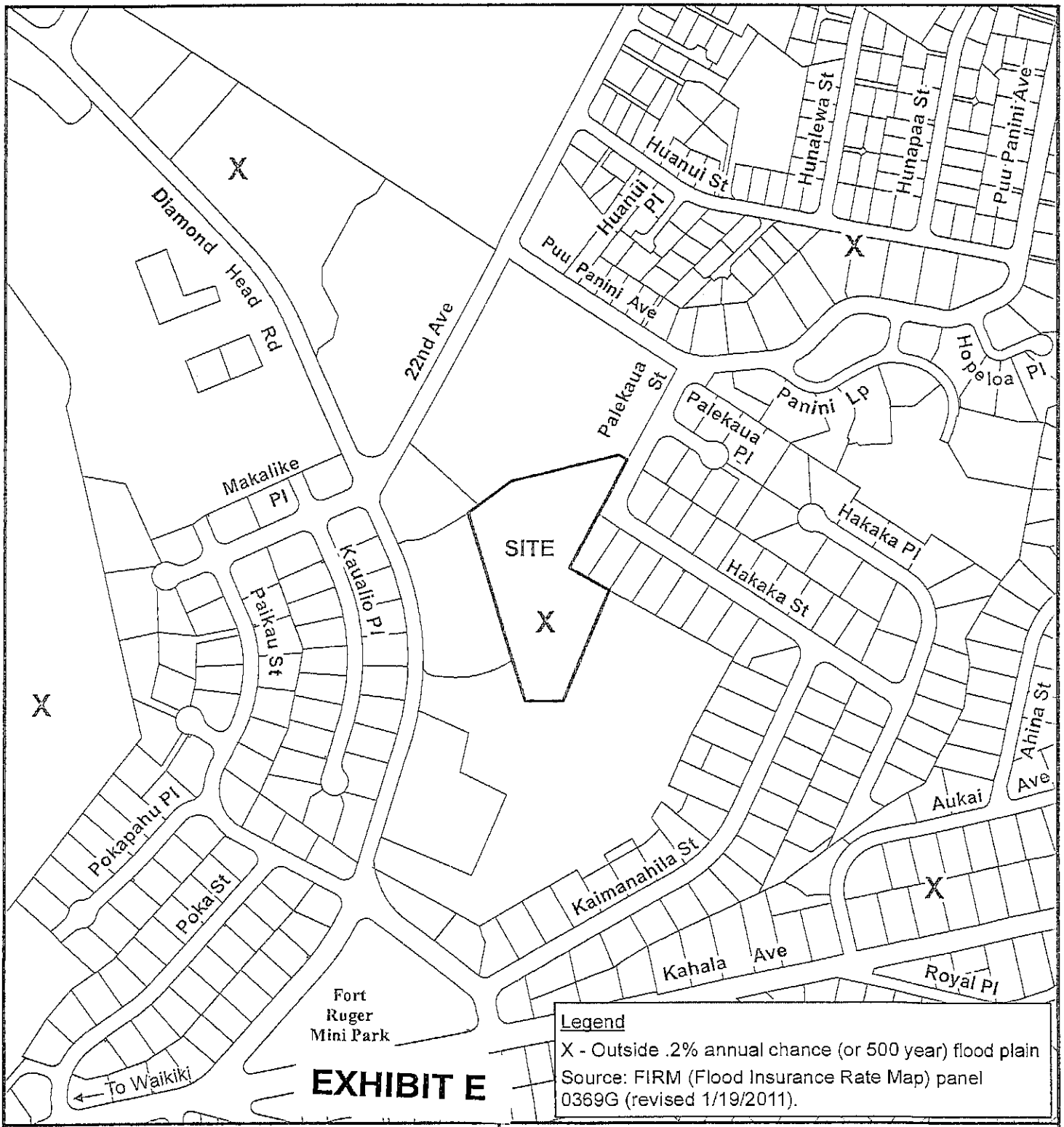
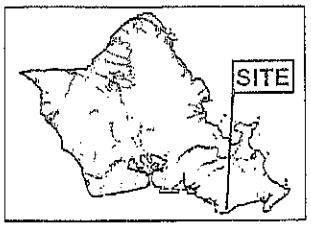


Legend

X - Outside .2% annual chance (or 500 year) flood plain

Source: FIRM (Flood Insurance Rate Map) panel 0369G (revised 1/19/2011).

EXHIBIT E



VICINITY MAP

0 200 400 800

Scale: 1 inch = 400 feet

FLOOD HAZARD MAP

DIAMOND HEAD

TAX MAP KEY(S): 3-1-042:034

FOLDER NO.: 2014/CUP-57

Prepared by: Department of Planning & Permitting
City and County of Honolulu

Date Prepared: August 18, 2014

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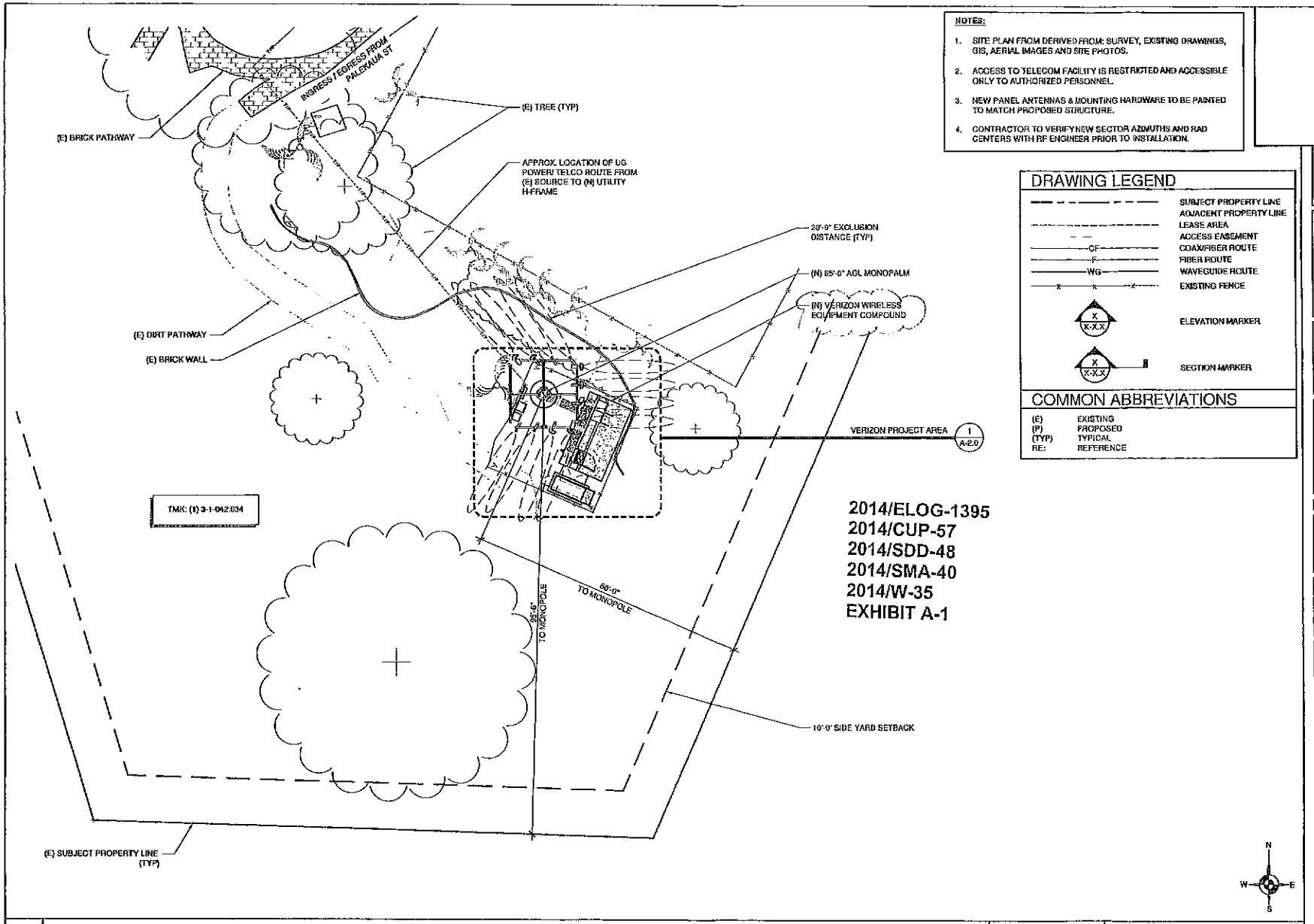


NOTES:

1. SITE PLAN FROM DERIVED FROM: SURVEY, EXISTING DRAWINGS, GIS, AERIAL IMAGES AND SITE PHOTOS.
2. ACCESS TO TELECOM FACILITY IS RESTRICTED AND ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL.
3. NEW PANEL ANTENNAS & MOUNTING HARDWARE TO BE PAINTED TO MATCH PROPOSED STRUCTURE.
4. CONTRACTOR TO VERIFY NEW SECTOR AZIMUTHS AND RAD CENTERS WITH RF ENGINEER PRIOR TO INSTALLATION.

DRAWING LEGEND

	SUBJECT PROPERTY LINE
	ADJACENT PROPERTY LINE
	LEASE AREA
	ACCESS EASEMENT
—CF—	COAX/FIBER ROUTE
—F—	FIBER ROUTE
—WG—	WAVEGUIDE ROUTE
—x—x—x—	EXISTING FENCE
X / X-X.X	ELEVATION MARKER
X / X-X.X	SECTION MARKER

COMMON ABBREVIATIONS

(E)	EXISTING
(P)	PROPOSED
(TYP)	TYPICAL
RE:	REFERENCE

verizon wireless

CASCADIA PM
3022 SOUTH BAY ROAD RE
OLYMPIA, WA 98506
PH: 360.438.6002

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CPM PROJECT NO.: 5185

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
2	07-23-14	CL/CL	LU SUBMITTAL
3	07-31-14	CL/CL	LU SUBMITTAL

SITE NAME

HON KUPIKIPIKIO

TAX MAP KEY

(1) 3-1-042:034

SITE ADDRESS

708 PALEKAUA STREET
HONOLULU, HI 96816

SHEET TITLE

OVERALL SITE PLAN

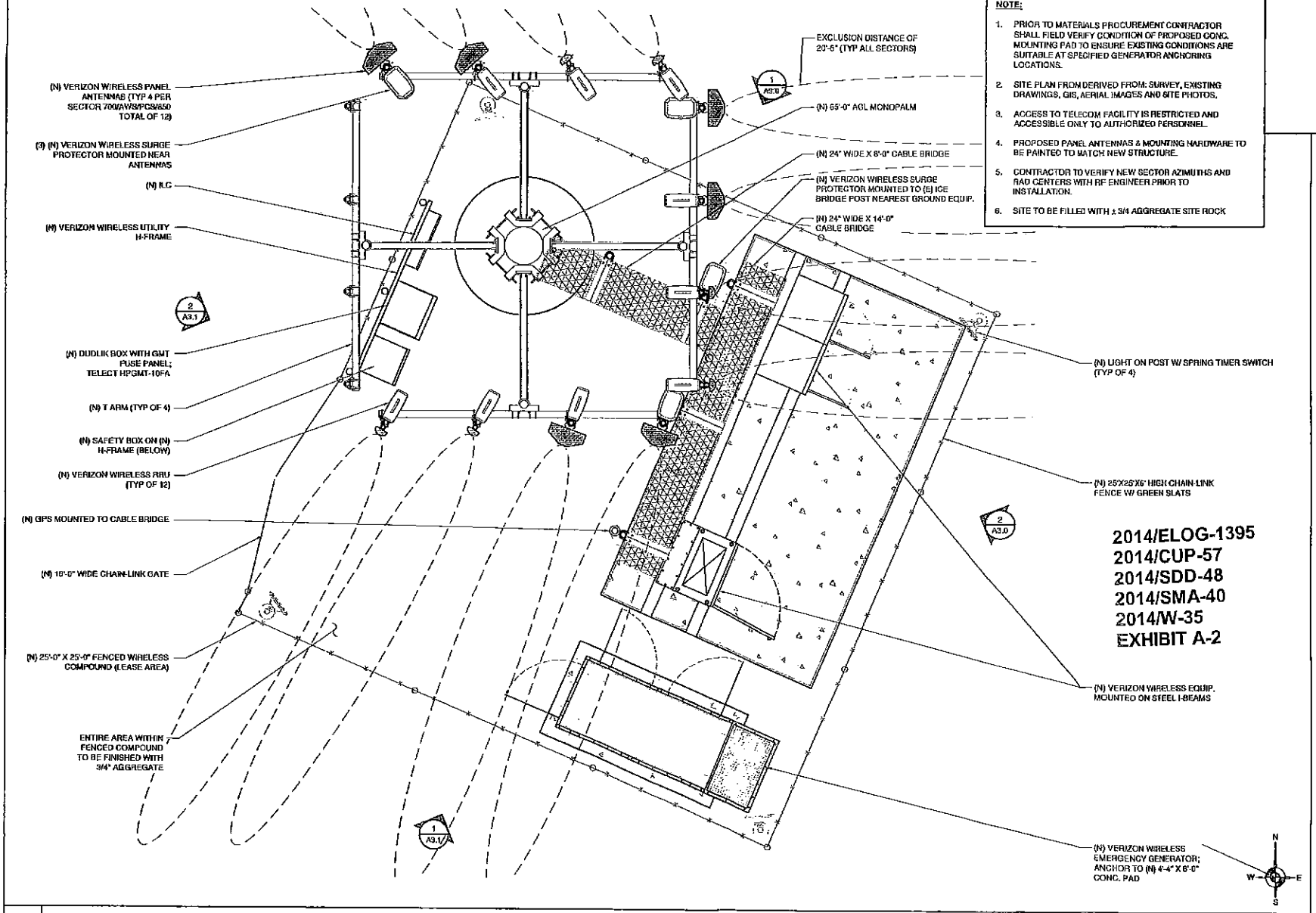
SHEET NO.

A-1.0

1	OVERALL SITE PLAN

SCALE: 1" = 20'-0" (11X17)
SCALE: 1" = 10'-0" (22X34)

0' 10' 20' 40'



NOTE:

1. PRIOR TO MATERIALS PROCUREMENT CONTRACTOR SHALL FIELD VERIFY CONDITION OF PROPOSED CONC. MOUNTING PAD TO ENSURE EXISTING CONDITIONS ARE SUITABLE AT SPECIFIED GENERATOR ANCHORING LOCATIONS.
2. SITE PLAN FROM DERIVED FROM: SURVEY, EXISTING DRAWINGS, GIS, AERIAL IMAGES AND SITE PHOTOS.
3. ACCESS TO TELECOM FACILITY IS RESTRICTED AND ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL.
4. PROPOSED PANEL ANTENNAS & MOUNTING HARDWARE TO BE PAINTED TO MATCH NEW STRUCTURE.
5. CONTRACTOR TO VERIFY NEW SECTOR AZIMUTHS AND RAD CENTERS WITH RF ENGINEER PRIOR TO INSTALLATION.
6. SITE TO BE FILLED WITH ± 3/4 AGGREGATE SITE ROCK

2014/ELOG-1395
2014/CUP-57
2014/SDD-48
2014/SMA-40
2014/W-35
EXHIBIT A-2

1 ENLARGED SITE PLAN

SCALE: 1/4"= 1'-0" (11X17)
SCALE: 1/2" = 1'-0" (22X34)
0' 2' 4' 8'

verizon wireless

CASCADIA PM
3322 SOUTH BAY ROADNE
OLYMPIA, WA 98506
PH: 360.438.6002

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CPM PROJECT NO.: 5185

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
2	07-23-14	CL/CL	LU SUBMITTAL
3	07-31-14	CL/CL	LU SUBMITTAL

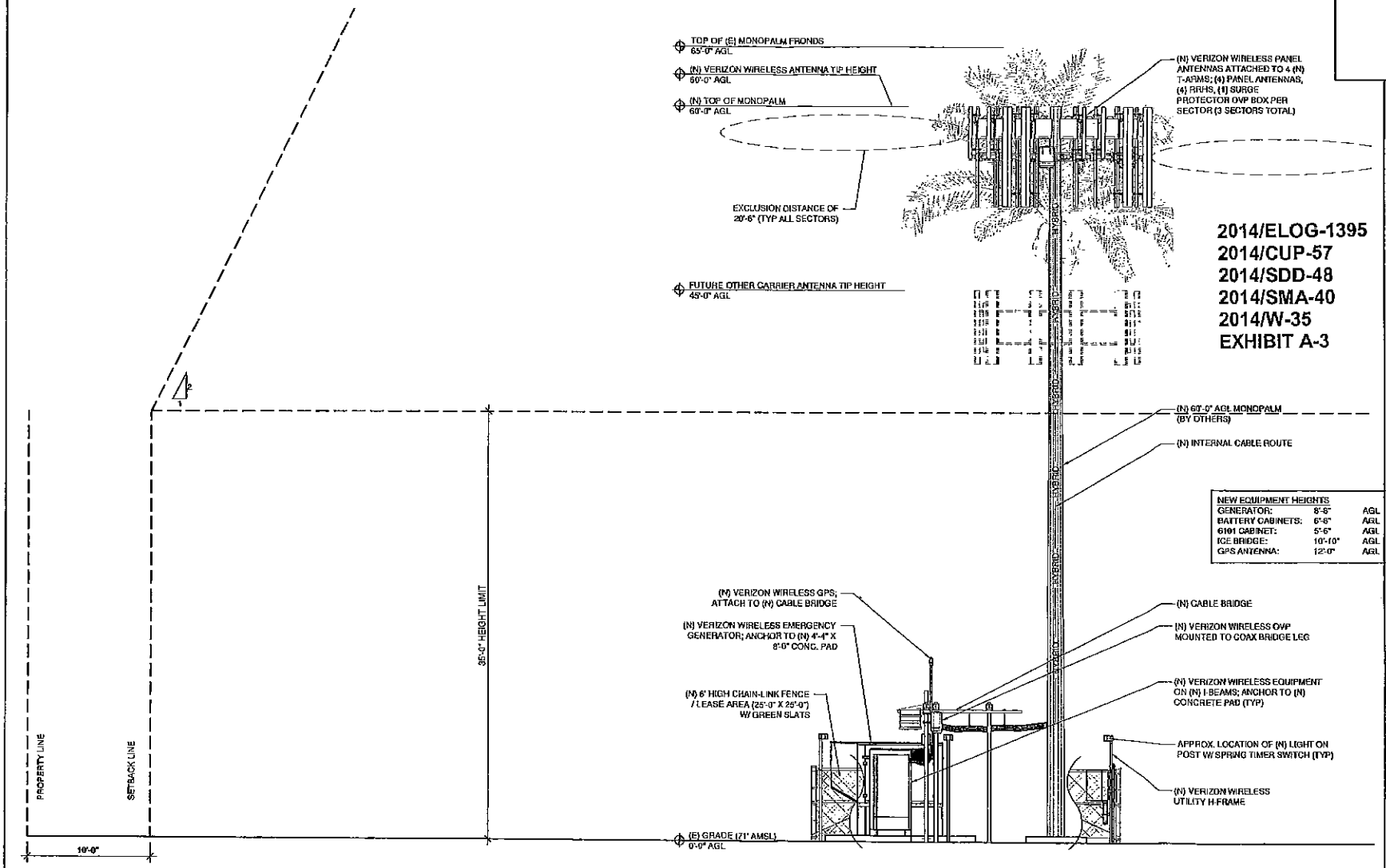
SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

SHEET TITLE
ENLARGED SITE PLAN

SHEET NO.
A-2.0



1 NORTHEAST ELEVATION

verizon wireless

CASCADIA PM
3322 SOUTH BAY ROAD NE
OLYMPIA, WA 98506
PH: 360.438.8002

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CPM PROJECT NO.: 5185

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
2	07-23-14	CL/CL	LU SUBMITTAL
3	07-31-14	CL/CL	LU SUBMITTAL

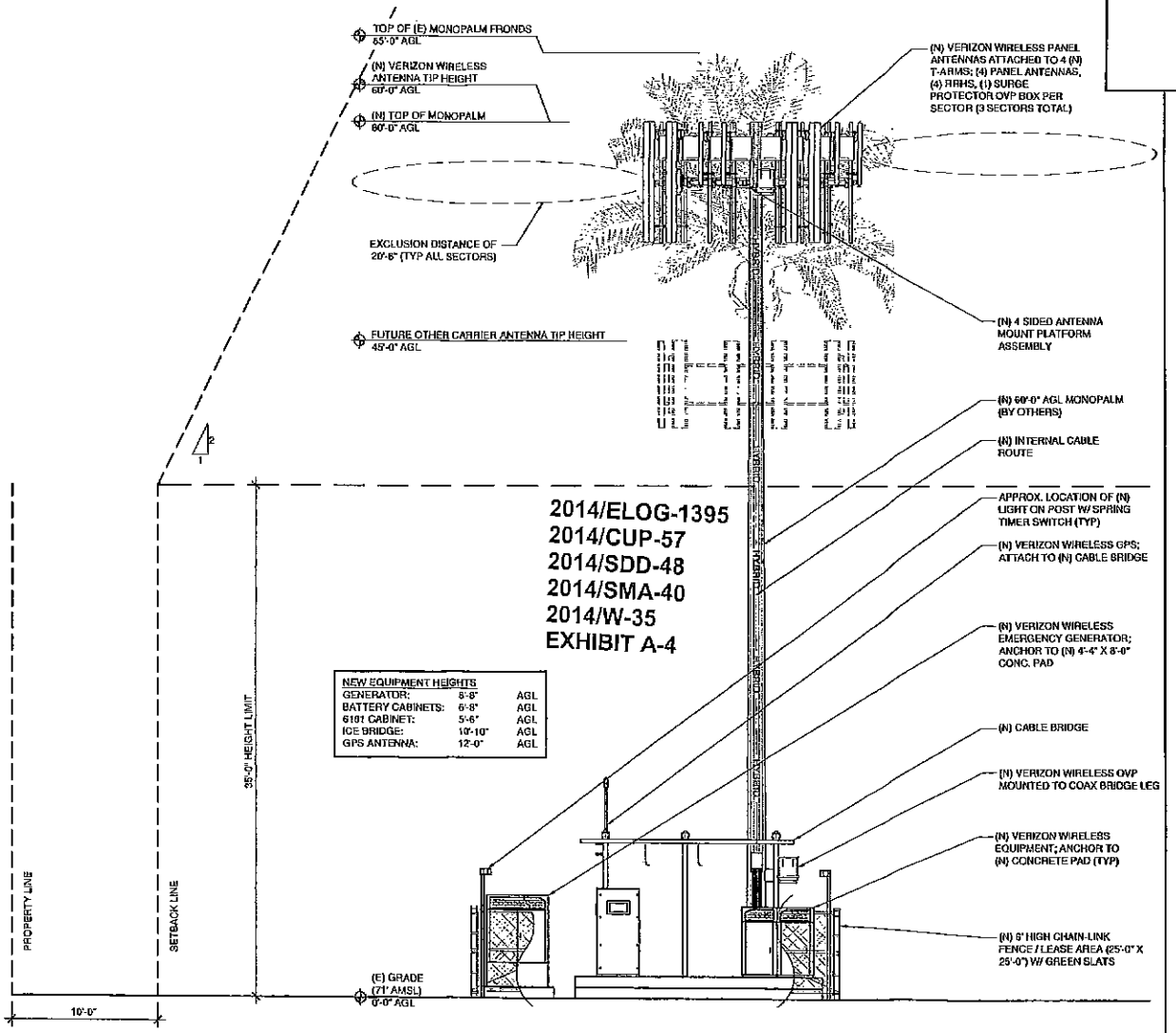
SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

SHEET TITLE
ELEVATIONS

SHEET NO.
A-3.0



NOTE: SEE SITE PLAN (A-2.0 & A-2.1) FOR DETAIL REFERENCES

1 SOUTHEAST ELEVATION

SCALE: 1/8" = 1'-0" (11X17)
SCALE: 1/4" = 1'-0" (22X34)

0' 4' 8' 16'

verizon wireless

CASCADIA PM
3322 SOUTH BAY ROAD NE
OLYMPIA, WA 98506
PH: 360.438.8002

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CPM PROJECT NO.: 5165

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
2	07-23-14	CL/CL	LU SUBMITTAL
3	07-31-14	CL/CL	LU SUBMITTAL

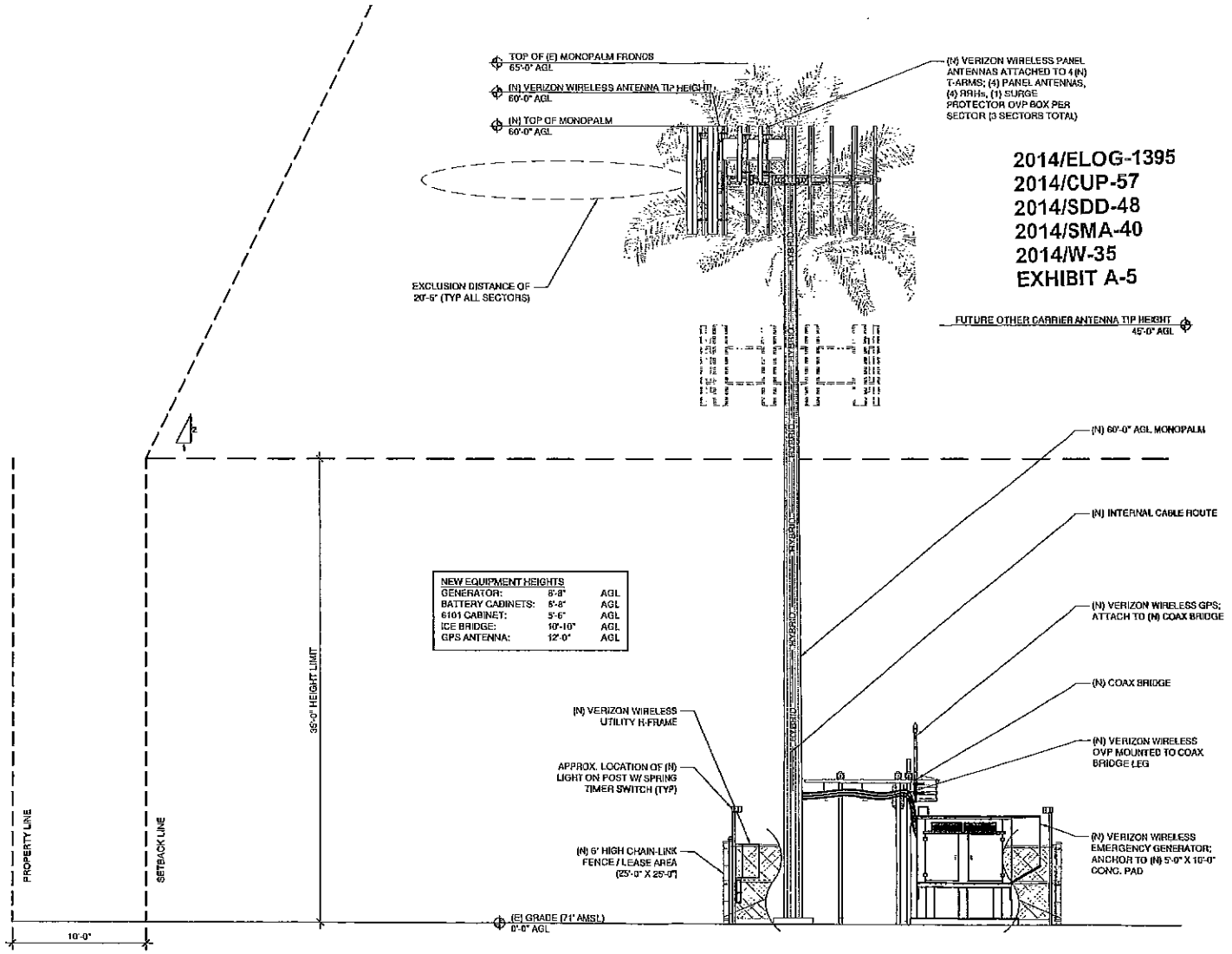
SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
709 PALEKAUA STREET
HONOLULU, HI 96816

SHEET TITLE
ELEVATIONS

SHEET NO.
A-3.1



2014/ELOG-1395
2014/CUP-57
2014/SDD-48
2014/SMA-40
2014/W-35
EXHIBIT A-5

NOTE: SEE SITE PLAN (A-2.0 & A-2.1) FOR DETAIL REFERENCES

1 SOUTHWEST ELEVATION

SCALE: 1/8" = 1'-0" (11X17)
SCALE: 1/4" = 1'-0" (22X34)

0' 4' 8' 16'

verizon wireless

CASCADIA PM
3322 SOUTH BAY ROAD NE
OLYMPIA, WA 98506
PH: 360.438.8002

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CPM PROJECT NO.: 5185

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
2	07-23-14	CL/CL	LU SUBMITTAL
3	07-31-14	CL/CL	LU SUBMITTAL

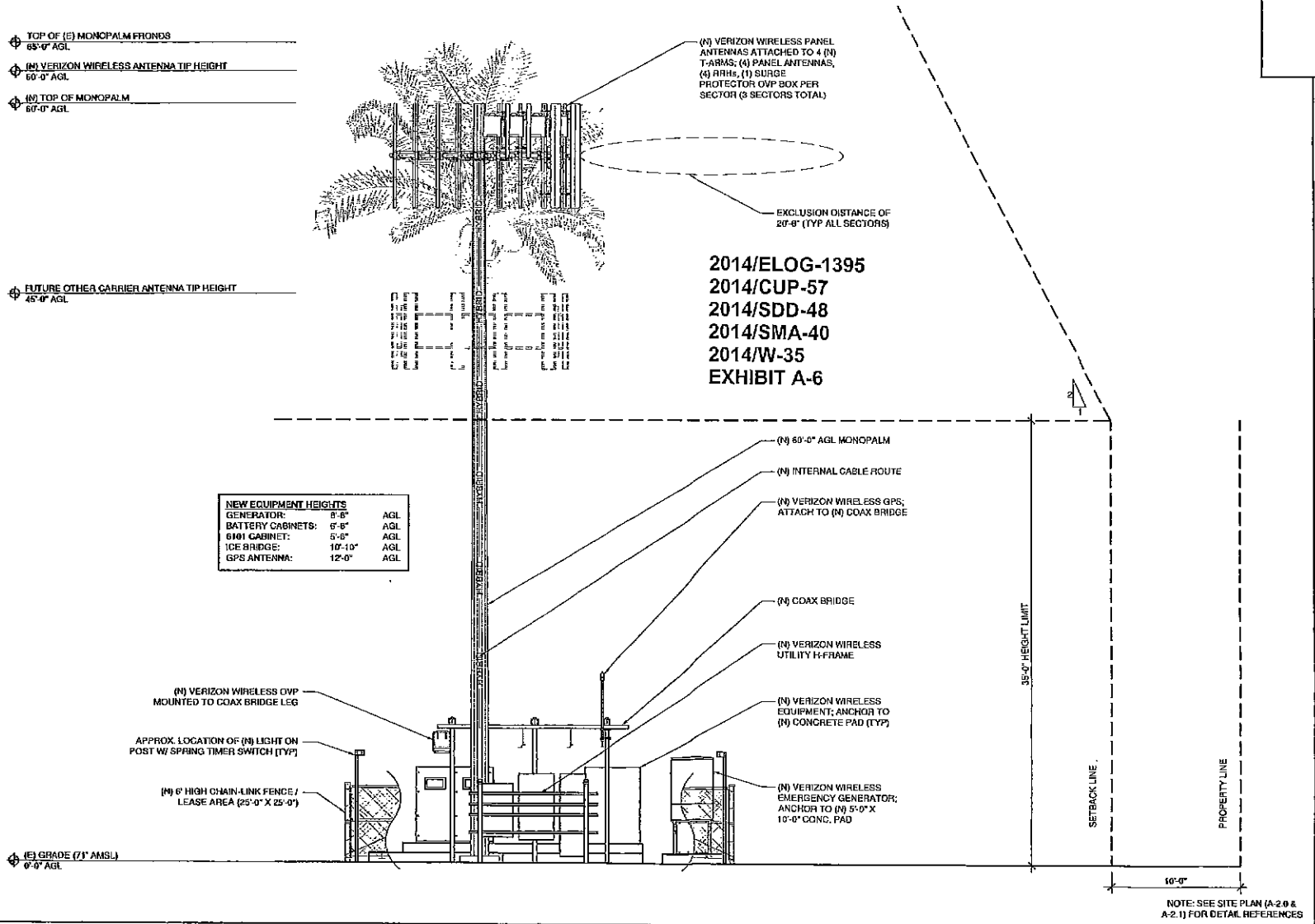
SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

SHEET TITLE
ELEVATIONS

SHEET NO.
A-3.2



NOTE: SEE SITE PLAN (A-2.0 & A-2.1) FOR DETAIL REFERENCES

1 NORTHWEST ELEVATION

SCALE: 1/8" = 1'-0" (11X17)
SCALE: 1/4" = 1'-0" (22X34)

0' 4' 8' 16'

verizon wireless

CASCADIA PM
3322 SOUTH BAY ROAD NE
OLYMPIA, WA 98506
PH: 360.438.8002

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

CPM PROJECT NO.: 5165

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
2	07-23-14	CL/CL	LU SUBMITTAL
3	07-31-14	CL/CL	LU SUBMITTAL

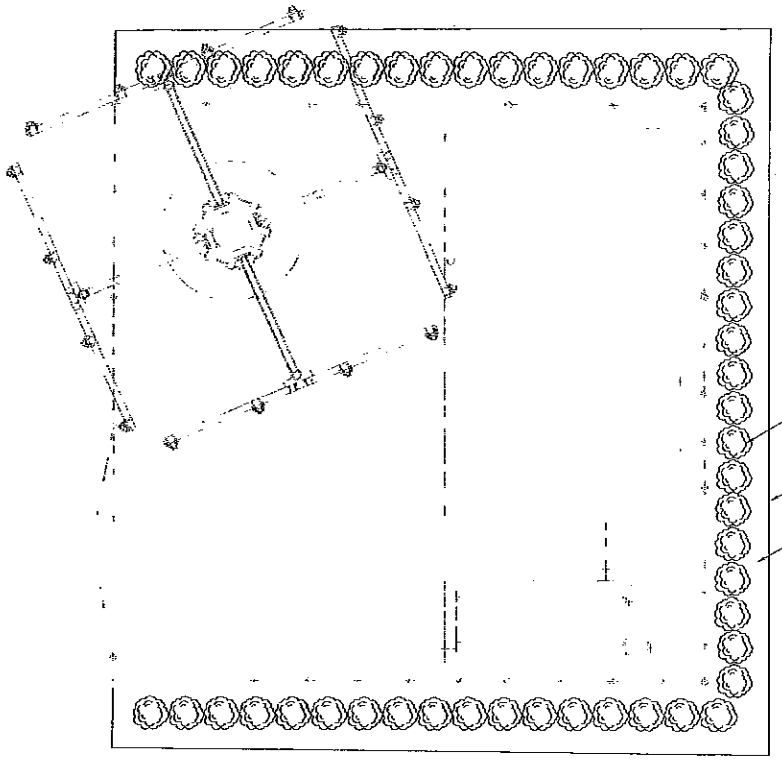
SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
706 PALEKAUA STREET
HONOLULU, HI 96816

SHEET TITLE
ELEVATIONS

SHEET NO.
A-3.3



2014/ELOG-1395
2014/CUP-57
2014/SDD-48
2014/SMA-40
2014/W-35
EXHIBIT A-7

(52) (N) WHITE OLEANDER
NERIUM OLEANDER
5 GALLON SIZE, 5'-6" HEIGHT,
1'-6" O.C. - SEE DETAIL

(N) POLY DIVIDER
55 L.F. - SEE DETAIL

(N) MULCH
2" DEPTH, 1 C.Y.

LANDSCAPE NOTES:

1. THE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE TO ARRANGE AN ON-SITE MEETING TO DISCUSS PROJECT PRIOR TO COMMENCEMENT OF ANY WORK.

2. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UNDERGROUND UTILITIES AND OTHER OBSTRUCTIONS THAT MAY AFFECT HIS/HER WORK AND SHALL BE RESPONSIBLE FOR REPAIRING AND/OR REPLACING, AS HIS/HER OWN EXPENSE, ANY DAMAGES FROM HIS/HER OPERATION.

3. CLEAR AND GRUB ALL NEW PLANTING AREAS PRIOR TO INSTALLATION OF PLANT MATERIAL. MAINTAIN AS WEED-FREE AREA UP TO DATE OF FINAL INSPECTION.

4. BACKFILL MIX SHALL CONSIST OF THREE (3) PARTS OF IMPORTED SCREENED SOIL TO ONE (1) PART LAWN AND GARDEN MIX FROM HAWAIIAN EARTH PRODUCTS, OR APPROVED EQUAL. ADD ONE (1) POUND OF NUTRA COAT 13-13-13 FERTILIZER TO ONE (1) CUBIC YARD OF BACKFILL MIX. MIX THOROUGHLY ON PROJECT SITE PRIOR TO ANY PLANTING OPERATIONS.

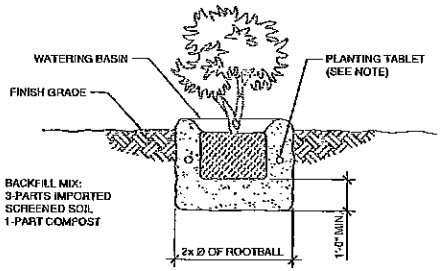
5. PLANTING TABLES FOR TREES, PALMS, AND SHRUBS SHALL BE AS FOLLOWS:

A) FIELD SPECIMEN	12 TABLETS
B) 25 GALLON	8 TABLETS
C) 15 GALLON	5 TABLETS
D) 5 GALLON	3 TABLETS
E) 3 GALLON	2 TABLETS
F) 1 GALLON	1 TABLET

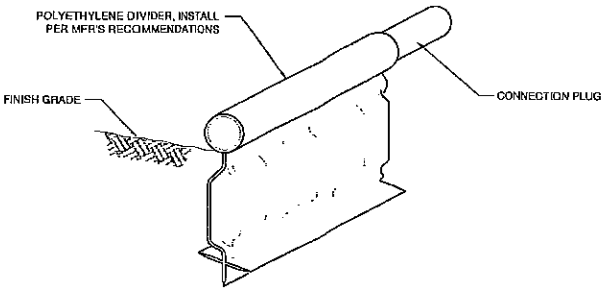
USE AGRIFORM TABLETS 20-10-5, 21 GRAM SIZE

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ALL EXISTING LANDSCAPED AREAS DAMAGED AS A RESULT OF THE CONSTRUCTION OF THIS PROJECT. REPLANT WITH SAME PLANTS/SPECIES.

7. THE CONTRACTOR SHALL ARRANGE A FINAL INSPECTION AND APPROVAL OF LANDSCAPE AND IRRIGATION WORK. THE OWNER'S REPRESENTATIVE SHALL BE PRESENT.



SHRUB DETAIL (NOT TO SCALE)



POLY DIVIDER (NOT TO SCALE)

verizon wireless

CASCADIA PM
3322 SOUTH BAY ROAD NE
OLYMPIA, WA 98506
PH: 360.439.8602

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CPM PROJECT NO.: 5165

PRELIMINARY

NO.	DATE	D/C	DESCRIPTION
0	04-24-14	EG/EG	90% REVIEW
3	06-03-14	EG/EG	CLIENT COMMENT

SUBMITTAL

NO.	DATE	D/C	DESCRIPTION
0	06-16-14	EG/EG	LU SUBMITTAL
2	07-23-14	CL/CL	LU SUBMITTAL
3	07-31-14	CL/CL	LU SUBMITTAL

SITE NAME
HON KUPIKIPIKIO

TAX MAP KEY
(1) 3-1-042:034

SITE ADDRESS
708 PALEKAUA STREET
HONOLULU, HI 96816

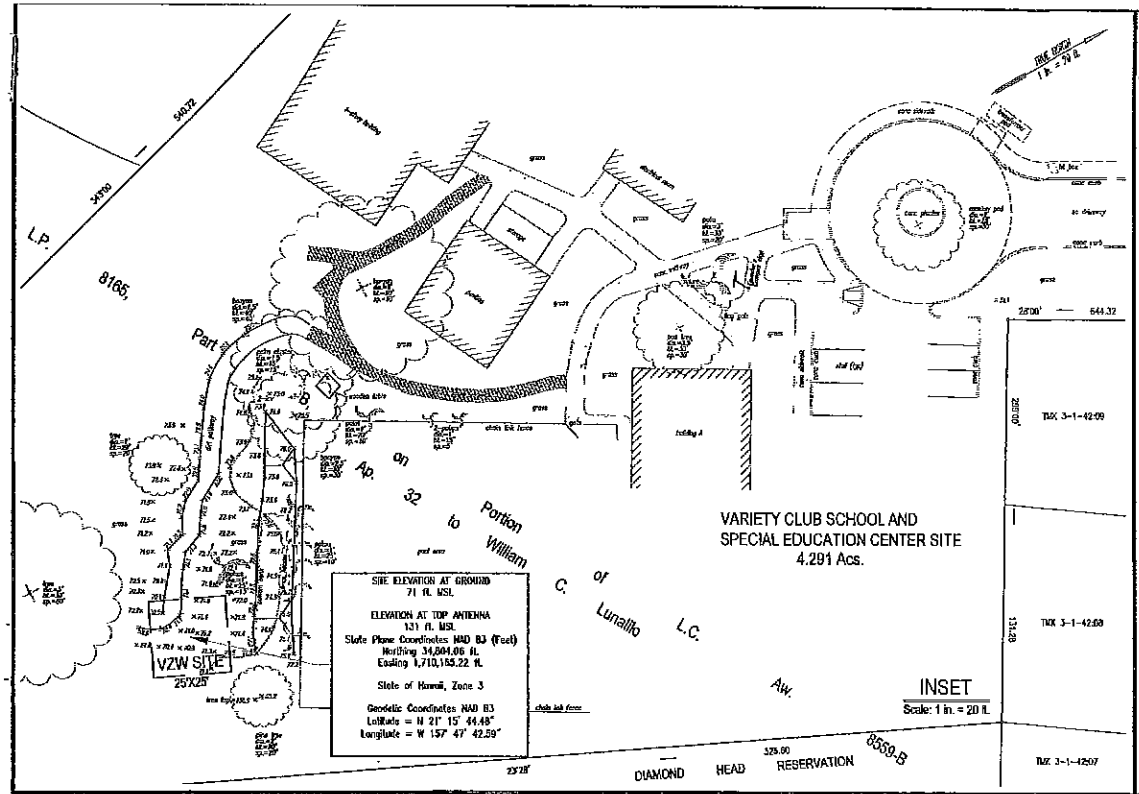
SHEET TITLE
LANDSCAPE PLAN

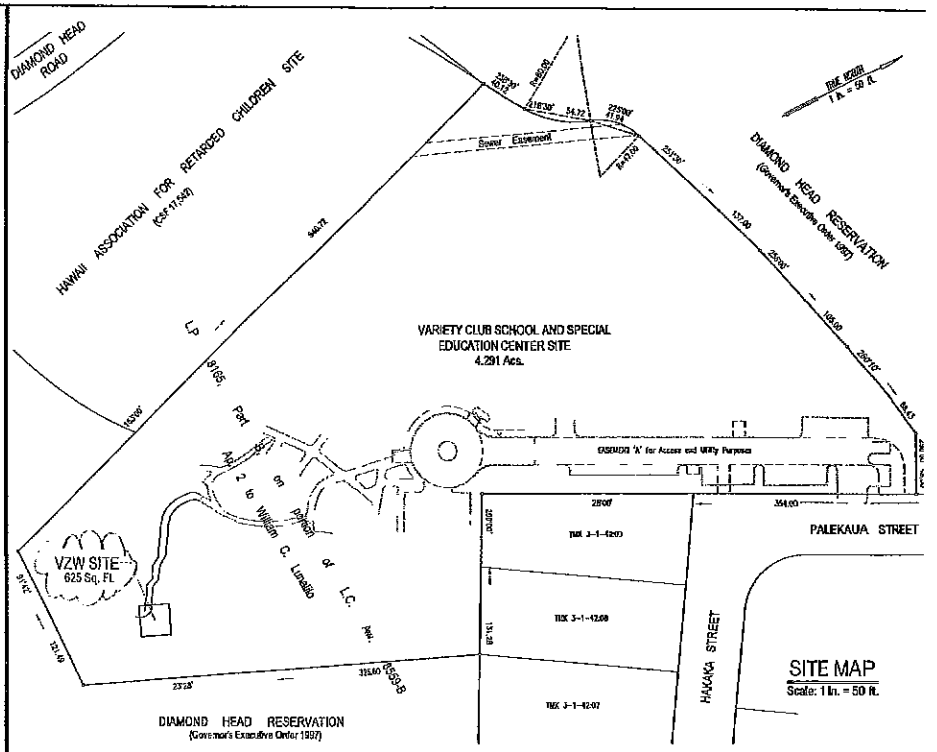
SHEET NO.
L-1.0

1 LANDSCAPE PLAN

SCALE: 3/16" = 1'-0" (11X17)
SCALE: 3/8" = 1'-0" (22X34)

0' 5' 10'



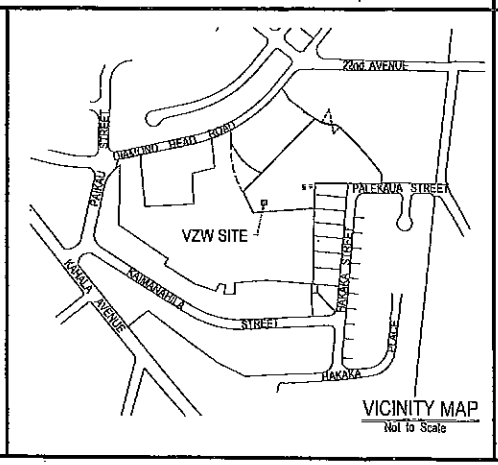


2014/ELOG-1395
2014/CUP-57
2104/SDD-40
2014/SMA-40
2014/W-35
EXHIBIT A-8

Legend:

bw	bottom wall
clf	chain link fence
co	cleanout
conc	concrete
mw	monitoring well
pav't	edge pavement
tsf	transformer
tw	top wall
wm	water meter
ws	wheel stop
x-walk	crosswalk

Note: Elevations established from GPS-RTK derived orthometric heights, applying Geoid 2009 separations, constraining to MGS control station B 12 (TU0317).



VZW HON KUPIKIPIKIO
VARIETY CLUB SCHOOL AND SPECIAL EDUCATION CENTER SITE
Being a Portion of L. P. 8165, Part B
on Portion of L.C. Aw. 8559-B, Ap. 32 to William C. Lunalilo
At Kapahulu, Waikiki, Honolulu, Oahu, Hawaii
DATE: March 14, 2014
TMK: (1) 3-1-042:034

ARON J. TORCUATO
LICENSED PROFESSIONAL LAND SURVEYOR
No. 10297
HAWAII, U.S.A.

This map was prepared by me or under my direct supervision

LICENSED PROFESSIONAL LAND SURVEYOR
CERTIFICATE NUMBER 10297 – Exp. 4/30/2015

LEAPS & BOUNDARIES, INC.
2016 WATERHOUSE ST., STE. 101 PH. (808) 484-5301
HONOLULU, HI 96819 FAX (808) 542-2607
EMAIL: SURVEYS@LEAPSANDBOUNDARIES.COM

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honoluludpp.org • CITY WEB SITE: www.honolulu.gov

KIRK CALDWELL
MAYOR

GEORGE I. ATTA, FAICP
DIRECTOR

ARTHUR D. CHALLACOMBE
DEPUTY DIRECTOR

2015/ELOG-1477 (WA)
2014/CUP-57
2014/SDD-48
2014/SMA-40
2014/W-45

July 28, 2015

Ms. Robyn Kahalelehua
Cascadia PM, Agent for Verizon Wireless
1130 North Nimitz Highway, Suite A-200
Honolulu, Hawaii 96817

Dear Robyn:

SUBJECT: Request for Time Extension
Conditional Use Permit No. 2014/CUP-57
Special Design District Permit No. 2014/SDD-48
Special Management Area Permit No. 2014/SMA-40 and
Zoning Waiver No. 2014/W-45
Verizon Wireless – Special Education Center of Hawaii
708 Palekaua Street - Diamond Head
Tax Map Key 3-1-42: 34

This is in response to your letter received on July 24, 2015, requesting an extension to the one year time limit for processing the above application. We understand that the Department of Land and Natural Resources (DLNR) requested that Verizon Wireless complete a full environmental assessment which is estimated to be completed in November 2015. The current deadline to obtain the required building permits is September 26, 2015. We hereby grant a one year time extension to end on **September 26, 2016**.

Please contact William Ammons of our staff at 768-8025, if you have any questions.

Very truly yours,

Anthony X. Cliney

FOR George I. Atta, FAICP
Director

Doc 1266595

Appendix E
Qualifications of Personnel

Nicole Okino

Staff Geologist

Education

B.A, Geology, 2008
University of Hawaii at Manoa, Honolulu, Hawaii

Registrations/Certifications

OSHA 40-Hour Hazardous Waste Operations and Emergency Response Training, 2013

Location

Honolulu, Hawaii

Nicole Okino has two years of experience in the environmental consulting field. Her experience includes conducting Phase I Environmental Site Assessments (ESAs), Phase II ESAs including soil and groundwater sampling, real time exposure monitoring, and conducting National Environmental Policy Act (NEPA) compliance work.

Ms. Okino has conducted numerous Phase I ESAs which include site inspection and reconnaissance, as well as performing current and historical research. Research included analyzing historical aerial photographs, topographic maps, fire insurance maps, and government databases and environmental case files.

Ms. Okino is conducting numerous NEPA Screenings for proposed and existing wireless telecommunications facilities to assess compliance with federal regulations. Screenings included identifying if the facilities may have a significant environmental effect for which further evaluation should be conducted. These NEPA Screenings consist of working with the United States Fish & Wildlife Service, the United States Army Corps of Engineers, state agencies, local government offices, and Native Hawaiian Organizations. Ms. Okino has extensive knowledge of the National Programmatic Agreement executed by the Federal Communications Commission regarding Section 106 consultations. Additionally, Ms. Okino is preparing Environmental Assessments (EAs) for wireless telecommunications facilities.

Ms. Okino also conducts performance evaluation tests and prepares Status Reports on Underground Injection Control (UIC). She prepared UIC well status reports summarizing well efficiency during high volume discharges.

Dylan Galloway

Project Manager / Biologist

B.S., Freshwater Ecology/Fish Biology, 2006
University of Washington, Seattle, WA

Environmental Manager Certificate, Federal and State Environmental Laws and Regulations, University of Washington, 1999

US Army Corps of Engineers Wetland Delineator Certificate, 2007

FEMA Incident Command ICS 100, 200, 700, and 800

Hazardous Waste Operations and Emergency (HAZWOPER) Response Training (40-Hour)

HAZWOPER Refresher Training (8-Hour), Annual

Environmental Professional as defined in Section 312.10 of 40 CFR 312

Asbestos Hazard Emergency Response Act (AHERA) Building Inspector

State of Hawaii Department of Health - Certified Asbestos Project Monitor

Department of the Navy, Navy Environmental Restoration Program (24-Hour)

Department of the Navy, Human Health Risk Assessment (24-Hour)

IFCI Site Assessor and UST Decommissioner

US Army Corps of Engineers EM-385 Safety Training (40-Hour)

OSHA Construction Training (30-Hour)

OSHA Supervisor Training (8-Hour)

OSHA Hearing Conservation Training

First Aid, CPR, AED

Radiation Safety and Use of XRF Analyzer (8-Hour)

Radiation Safety and Use of Nuclear Gauges Training (8-Hour)

Hazardous Materials Transportation (8-Hour)

Mr. Galloway has sixteen years of experience in environmental resource management conducting natural resource assessments, critical areas assessments and mitigation, general site characterizations, release response actions, UST closures and assessments, remedial investigations and alternative analysis, health and safety planning and oversight, construction quality control oversight, and industrial hygiene.

He has conducted numerous natural resource investigations and mitigations for public and private clients, including the University of Washington, private developers, and a hazardous waste treatment and disposal facility. Many of such projects have included biological surveys, fish tissue sampling, biotic and abiotic factor analyses, habitat assessments and restoration, threatened and endangered species analyses, and wetland determinations and delineations.

Mr. Galloway has planned, conducted, and supervised field activities for additional environmental investigations including industrial hygiene (asbestos and lead-based paint surveys and project monitoring), Phase I and II Environmental Site Assessments, underground storage tank closures and assessments, groundwater and surface water sampling and remediation, site remedial planning, designing, and implementation, wetland determinations and delineations, stream restoration, emergency spill responses, storm water management, and critical areas mitigation, construction quality control oversight, health and safety planning and monitoring, and erosion and sediment control planning and inspections at construction sites.

Key tasks regularly includes developing and managing project plans, contract preparation, project scheduling, budget tracking, providing leadership to support staff, performing field tasks for all of the above project types, maintaining client relations, negotiating with regulators, and preparing project deliverables.

Thomas S. Dye, Archaeologist

Current Positions

President	T. S. Dye & Colleagues, Archaeologists, Inc., Honolulu
Affiliate	Graduate Faculty, University of Hawai‘i at Mānoa

Education

Ph.D.	Anthropology, Yale University (1987)
M.Phil.	Anthropology, Yale University (1983)
B.A.	Anthropology, University of Hawai‘i at Mānoa (1980)

Research Interests

^{14}C dating	Primary interests are identification of suitable dating materials, full specification of dated archaeological contexts, and Bayesian calibration. This work has (i) established the age of the early Bellows Dune site, O18; (ii) solved the long-standing problem of how to determine when Polynesians first settled the Hawaiian Islands; and (iii) proposed a new, late chronology for expansion and intensification of the Leeward Kohala Field System.
Fish remains	Primary interests are fish remains identification, statistical analysis of collections, and interpretation of patterns across space and through time. This work has (i) developed a manual of fish remains identification with Ken Longenecker; (ii) established a size/diversity relationship for archaeological fish bone collections from leeward Hawai‘i Island; (iii) developed a method to estimate fish size from the centrum diameter of vertebrae; and (iv) discovered, with Ken Longenecker, that bonefish were a major component of the traditional Hawaiian fishing catch at Waimānalo, O‘ahu.
Statistics	Primary interests are exploratory multivariate data analysis and its application to archaeological collections. This work has (i) developed graphical software for star plots distributed with the R Project for Statistical Computing; (ii) developed a graphical summary of large collections over the space of an excavation; (iii) explored the use of directed acyclic graphs to construct and analyze Harris matrices; and (iv) developed a set of landmarks for statistical shape analysis of fishhooks. Currently working with Jenny Kahn at Bishop Museum to characterize the sizes and shapes of more than 800 Hawaiian stone adzes.

Reproducible research Active collaborator in the development of Org-mode software, which can be used to carry out and publish reproducible research. This work has led to the publication of two reproducible research projects.

Selected Publications

Athens, J. Stephen, Timothy M. Rieth, and Thomas S. Dye (2014). "A Paleoenvironmental and Archaeological Model-Based Age Estimate for the Colonization of Hawai'i". In: *American Antiquity* 79.1, pp. 144–155.

Dye, Thomas S. (2014a). "Structure and Growth of the Leeward Kohala Field System: An Analysis with Directed Graphs". In: *PLOS One*. URL: `http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0102431`.

– (2014b). "Wealth in Old Hawai'i: Good Year Economics and the Rise of Pristine States". In: *Archaeology in Oceania* 49.2, pp. 59–85.

Bayman, James M. and Thomas S. Dye (2013). *Hawai'i's Past in a World of Pacific Islands*. Washington, DC: SAA Press.

Dye, Thomas S. and Carl E. Sholin (2013). "Changing Patterns of Firewood Use on the Waimānalo Plain". In: *Hawaiian Archaeology* 13, pp. 30–68.

Dye, Thomas S. (2012). "Hawaiian temples and Bayesian chronology". In: *Antiquity* 86.334, pp. 1202–1206.

Schulte, Eric, Dan Davison, Thomas Dye, and Carsten Dominik (2012). "A Multi-Language Computing Environment for Literate Programming and Reproducible Research". In: *Journal of Statistical Software* 46.3, pp. 1–24. URL: `http://www.jstatsoft.org/v46/i03`.

Dye, Thomas S. (2011a). "A Model-based Age Estimate for Polynesian Colonization of Hawai'i". In: *Archaeology in Oceania* 46, pp. 130–138.

– (2011b). "Contemporary Practice of Archaeology in Hawai'i". In: *Hawaiian Archaeology* 12, pp. 125–142.

– (2011c). "Gift Exchange and Interpretations of Captain Cook in the Traditional Kingdoms of the Hawaiian Islands". In: *The Journal of Pacific History* 46.3, pp. 275–292.

– (2011d). "The Tempo of Change in the Leeward Kohala Field System, Hawai'i Island". In: *Rapa Nui Journal* 25.2, pp. 21–30.

– ed. (2010a). *Research Designs for Hawaiian Archaeology*. Special Publications 3. Honolulu: Society for Hawaiian Archaeology.

– (2010b). "Social Transformation in Old Hawai'i: A Bottom-up Approach". In: *American Antiquity* 75.4, pp. 727–741.

– (2010c). "Traditional Hawaiian Surface Architecture: Absolute and Relative Dating". In: *Research Designs for Hawaiian Archaeology*. Ed. by Thomas S. Dye. Special Publications 3. Honolulu: Society for Hawaiian Archaeology. Chap. 2, pp. 93–155.

Dye, Thomas S. and Jeffrey Pantaleo (2010). "Age of the O18 Site, Hawai'i". In: *Archaeology in Oceania* 45, pp. 113–119.

Dye, Thomas S. (2004). “How to Fix the Inventory Survey Rule”. In: *Hawaiian Archaeology* 9, pp. 123–132.

Dye, Thomas S. and Ken Longenecker (2004). *Manual of Hawaiian Fish Remains Identification*. Special Publication 1. Honolulu: Society for Hawaiian Archaeology and Bishop Museum Press.

Dye, Thomas S. (2000). “Effects of ^{14}C sample selection in archaeology: An example from Hawai‘i”. In: *Radiocarbon* 42.2, pp. 203–217.

Dye, Thomas S. and H. David Tuggle (1998). “Land snail extinctions at Kalaeloa, O‘ahu”. In: *Pacific Science* 52.2, pp. 111–140.

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Archaeology Positions

2008	Instructor, Assemblage Analyses in Archaeology, University of Hawaii at Mānoa
2004	Guest Lecturer, Bayesian Statistics for Archaeologists, University of Arizona, Tucson
1997–2001	Associate Archaeologist, Projects Manager, International Archaeological Research Institute, Inc., Honolulu
1997	Instructor, Historic Preservation Seminar, University of Hawaiʻi at Mānoa
1991–1997	Oʻahu Island Archaeologist, Department of Land and Natural Resources, State of Hawaii
1987–1991	Associate Professor of Anthropology, Hawaiʻi Pacific University, Honolulu
1987	Research Associate, B. P. Bishop Museum, Honolulu

1984–1985	Associate Anthropologist, B. P. Bishop Museum, Honolulu
1977–1978	Staff Contract Archaeologist, B. P. Bishop Museum, Honolulu

Professional Memberships

Archaeology	Society for American Archaeology Society for Hawaiian Archaeology, Past President
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Tim Swartz has over 27 years of experience in the environmental and industrial hygiene fields. His background includes numerous Phase I environmental site assessments (ESAs) and management of large-scale Phase I ESA projects; soil and groundwater sampling; asbestos and lead paint assessments and management of large-scale asbestos and lead paint projects; air monitoring and project oversight for asbestos and lead paint abatement projects; and various air quality surveys.

Mr. Swartz has extensive project management experience and is familiar with standards and requirements of the American Society for Testing and Materials (ASTM) International standards for Phase I environmental site assessments (ESAs), and Asbestos Hazard Emergency Response Act (AHERA) standards for asbestos projects. He is also familiar with Environmental Protection Agency (EPA) regulations for asbestos building surveys and air monitoring projects; EPA and Department of Housing and Urban Development (HUD) guidelines for lead-based paint surveys and abatement; and Occupational Safety and Health Administration (OSHA) regulations for projects involving worker health and safety.