OFFICE OF HAWAIIAN AFFAIRS
KAKA'AKO MAKAI

LAND MANAGEMENT AND DEVELOPMENT DESIGN SERVICES

No. OHA 13-02

RLB Rider Levett Bucknall

GROUP 70 INTERNATIONAL

SANFORD MURATA, INC.

November 2013

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Office of Hawaiian Affairs Kaka‘ako Makai Strategic Action Plan

October 2013

Hui O Kukuluae‘o

GROUP 70 INTERNATIONAL

RLB Rider Levett Bucknall

E lauʻena ka wanaʻao a ka lā	*Glowing are the spearing rays of the rising sun*
He lau i ka launahele o Puʻuʻōhiʻa,	*A budding leaflet in the forest growth of Puʻuʻōhiʻa*
Lau ā lau nā lapawai o Kahuawai	*Abundant are the cascading waters of Kahuawai*
Ua laupaʻi ka hana	*there is much work to be accomplished*
Ua lawa pono ka ʻike	*Knowledge is ample if thoughts are aligned*
Hoʻolaulā ka manaʻo	*then the mind is broadened*
E lauele i ka laukapalili ma Māmala	*Envisioned is the trembling net at Māmala*
E laulima ka laukanaka	*the multitude in complete cooperation*
E lauaki kākou	*Pooled together as of experts to concentrate*
I ke kūkulu kumuhana	*in the sacredness of thought and prayer to succeed*
ke kūkulu o ka lani,	*the pillars above the horizon*
ke kūkulu o ka honua	*the pillars below the horizon*
E laule'a ka nohona	*A restored relationship and life*
E ola ma Kūkuluae'o	*Stemmed at Kūkuluae'o*
E ola ma Ka'ākaukukui	*Stemmed at Kaakaukukui*
E ola mai no e…	*Life indeed…*

Introduction

This document is the OHA Kakaʻako Makai Strategic Action Plan, which is a composition of reports and a summary of highlight and priority recommendations. This document completes the scope of services as identified under the Office of Hawaiian Affairs (OHA) Kakaʻako Makai Management and Development Services contract (No. OHA 13-02). On April 11, 2013, OHA engaged Rider Levett Bucknall, Ltd. (RLB) to prepare a recommended Strategic Action Plan to guide OHA with its planning, management, disposition, and development of lands in the Kakaʻako Makai region. RLB assembled a consulting project team (Hui O Kukuluaeʻo) comprised of land management development experts that include Group 70 International, Inc. and Sanford Murata, Inc. to collaborate with OHA's leadership in creating the framework for the development and evaluation of value-creation scenarios for the lands of Kakaʻako Makai.

Strategic Action Plan

The Strategic Action Plan (SAP) is a synthesis of the project team's findings, analyses and conclusions with recommendations to OHA leadership relative to the path that lies ahead regarding its responsibilities as the haku ʻāina (land steward) for the Kakaʻako Makai parcels. The SAP provides baseline information and outcomes of initial assessments and evaluations relative to land use opportunities that OHA decision makers can use to guide their decisions and actions. While seeking to attain its own goals and respond to the needs of its constituency, OHA leadership will be empowered to recognize and identify both internal and external influences in

the stewardship goals it seeks to attain. The SAP enables OHA to be flexible and agile in response to shifts in market and economic conditions and to circumstances that could ebb and flow with leadership prioritization and direction changes. It is intended to guide OHA's deliberations and decision-making as stewards of the lands and shape the future development in the Kakaʻako Makai area over time rather than prescribe or preclude specific parcel developments.

The SAP is an early step in the continuing and evolving series of planning and design that will subsequently be completed to attain both short and long term goals in the development and programming of these lands. The SAP is meant to establish a foundation upon which succeeding efforts can be developed and expanded. As a foundation document, the SAP provides a flexible structure, particularly in the baseline development strategy analysis, to accommodate changing conditions, directions and new opportunities as they arise. As presented below, the SAP organizes the information and conclusions of the specific contract deliverables into a cohesive context.

Background

In 2012, the State of Hawaiʻi transferred nine parcels of land (Property) to OHA to settle the ceded land revenue claims that date back to 1978. OHA expects the land to be a source of revenue to grow and support its programs created to enhance opportunities for Native Hawaiians. The Property consists of approximately thirty acres of state-owned land in the Kakaʻako Makai area. OHA is presented with the opportunity to plan and create a model urban waterfront community in Kakaʻako Makai that will serve as a beacon for Native Hawaiian values, practices, and deep knowledge.

The Property consists of nine fee-simple parcels ranging from 0.9 to 7.2 acres, for a total area of 30.718 acres. The Hawaiʻi Community Development Authority (HCDA) guides and oversees the redevelopment of land in Kakaʻako. Under HCDA rules, the land use zoning for the OHA parcels includes Waterfront Commercial (WC), Mixed-Use Zone (MUZ), and Mixed-Use Industrial (MUZ-I) . With the waterfront location and adjacent park, OHA's Kakaʻako Makai lands are potentially the most valuable in Kakaʻako, if residential uses are allowed.

The Property is located in the Makai area of Kakaʻako and is subject to the HCDA's Makai Area Rules, which incorporate the Makai Area Plan. The project is bound by Honolulu Harbor to the west, Ala Moana Boulevard to the North, Kewalo Basin to the east and the Pacific Ocean to the south.

Pursuant to the contract, the project team completed eight specific deliverable tasks over the past six months. The following is a summary of the major conclusions and recommendations

derived from those specific tasks. A full and complete report of each work product is contained in the appendices of this report.

History, Cultural Landscape & Ancestral Connectivity

The first part of the SAP describes the rich history, cultural landscape and ancestral connectivity associated with the Kakaʻako area. Understanding the history of these lands will give OHA a better understanding of how the past practices and the uses by Kanaka Maoli can shape the future development of the lands and their rightful place in the larger ahupuaʻa. The document provides a cultural overview to determine a sense of ancestral connections to place through the identification and documentation of cultural practices known to be common within these lands and the surrounding landscape. The analysis of the cultural document primarily focuses on defining the relationship and responsibility of cultural stewardship between past, present, and future generations that provided a Kahua foundation for the SAP.

Nestled in the moku of Kona, in the ahupuaʻa of Waikīkī, the parcels lie within the former coastline and nearshore fisheries belonging to the ʻili of Kaʻākaukukui and Kukuluaeʻo. Various native and foreign accounts consistently record that these lands were part of a larger and productive agrarian and aquaculture landscape that met the subsistence needs of the population in traditional times. Traditional practices included paʻakai harvesting, fish pond farming activities, and other marine subsistence gathering activities that are still practiced today. Also of importance, the coastal and flat plains are well known for chiefly residence, healing practices, ancestral places, coastal trails, and burials.

The lands were once predominantly comprised of fishing grounds, coral flats and salt beds. However, the surrounding area underwent a major transition in the latter 19th and early 20th Century, which included development of salt works, a human quarantine center and cemetery, a coastal battery and fort, Native Hawaiian occupation, the Magoon tenement and the Ward Estate. By the early 1900's, the area became a prime spot for large industrial uses, service lumbers schooners and commercial fisherman. In the mid-1900's, the area was one of the first residential areas for working class families, with nearly 5,000 residents. Today, the area is undergoing a major transformation to create a modern urban mixed-use community.

In summary, there is a high potential of cultural relevancy and an opportunity to integrate cultural planning in the development of these lands. Although these lands are in-filled former reef lands, their proximity to the oceanfront, past related marine activities and practices, their visual and triangulation associations to other significant points of ancestral alignment, their accessibility, as one of the main publicly owned shoreline areas, and the opportunity for OHA to be the land steward makes this a viable cultural landscape in the urban corridor.

The report provides seventeen recommendations. Key recommendations that are highlighted here as potential priority steps in reestablishing a cultural connection to these lands as planning and design move forward include:

a. Seek opportunities that restore orientation and cultural relationship to the restorative and regenerative powers of the ocean.
b. Acknowledge and celebrate all animated forms of water as illustrated in a life cycle in lewa-mauka-makai relationship.
c. Utilize Hawaiian astronomical concepts to develop site(s).
d. Develop and maintain a visual corridor and triangulation alignment to significant geographic points within ahupuaʻa and entire archipelago.
e. Respect ancestral presence by creating space for meditation and ocean purification practices.
f. Creating opportunities for the ʻōlelo mākuahine to be utilized consistently and prominent at and Maoli art in public spaces.
g. Restore a cultural kīpuka with the presence of appropriate kinolau to establish an urban coastal ecosystem.
h. Consider gateway and arrival monuments themed to concepts of Hoʻoulu Lāhui Hawaiʻi.
i. Support preserving and restoring energy resource capacities for future generations.
j. Establish and set-up organizational structure of an advisory ʻaha of recognized kumu, kūpuna, and loea that develop a list of required criteria to be included in all design reviews and to help initiate what a hālau ola, university, and/or global welcoming center within a Hawaiian context would be.
k. Study the opportunities to engage the waʻa community as a whole and consider potential of developing a portion of the OHA KM parcels as a hosting site for annual Molokaʻi Hoe, Nā Wahine O Ke Kai; and other canoe association races; and to be a home site for long distance voyaging canoe.
l. Work with Hawaiian or community service organizations that have an existing presence in the area who help to perpetuate the legacy and heritage of place.
m. Conduct Complete Streets study to guide and direct a more comprehensive approach to transportation that supports mauli ola concepts and promotes healthy lifestyles (ie. tree-lined shaded pedestrian walkways, bicycle paths and lanes, etc.).
n. Conduct Archaeological Inventory Survey and start early consultation with known cultural descendants within the ahupuaʻa.

Charrette Vision & Strategic Priority

In August 2013, a two-day charrette process was conducted for the SAP. The charrette is a brainstorming session that is intended to elicit input from key community leaders and to gain a sense of their collective priorities. The subject of this charrette was to envision the future vibrancy of OHA Kakaʻako Makai lands as an asset that requires a balance between commerce

and culture. For this Plan, the charrette sought to have an understanding of the lifestyles valued by community stakeholders, including OHA's Trustees and executive leadership; Aliʻi Trusts and Hawaiian service organizations; neighboring landowners and educational partners; political representatives; and community, environmental, cultural leaders and potential partners. The major objectives of the charrette included the gathering of input from area and community leaders/stakeholders, prioritizing the many issues and ideas into the three major themes, and hearing of social, cultural and environmental concerns and issues pertaining to Kakaʻako. These are for the Trustee's consideration. The charrette process included five basic steps: lifestyle, major themes, configuration, minor themes and signature details.

As a result of the charrette meetings, three major themes were identified by the participants for the Strategic Management Plan:

1. Create a ***kīpuka***, cultural oasis, where Hawaiian national identity can flourish and be celebrated among Hawaiians and local communities throughout the Pacific, but also serve as a welcoming place for global leaders to gather.

   Commentary: As these lands were traditionally the coastal front and fishery of Kaʻākaukukui and Kukuluaeʻo, the relevance is amplified for consideration these lands as a kīpuka with connection to the ocean wherein life flourishes and extends from a firm foundation. These lands can be a source of pride that embodies the Hawaiian national identity while defining and maintaining a Hawaiian sense of place and strategically become a place where global leadership can gather and immerse within an exclusive Hawaiian space, reflecting on issues with universal impact.

2. Support the development of a ***cultural marketplace*** that invests in intellectual capital, seeking possibilities of exploration and innovation in education, health and political leadership.

   Commentary: The concept of hālau ola, a center of life and healing, speaks to the possibility of these lands being strategically directed to provide benefit to the physical, mental, emotional, and spiritual well-being for Native Hawaiians. Highlighted issues shared include the social and economic well-being of Native Hawaiians; promoting and supporting initiatives in sustainability, specifically food security and alternative energy; expanding on-going ocean research; and addressing the needs and impacts of an aging population.

3. Create a cohesive and multi-functional planned community that embraces a transformative ideal of ***live, work and play***.

   Commentary: The lands continue to be a place where communities live, work and play. Historically, the area supported the working middle class community and comprised a diverse heritage of different ethnicities. It is a place where people still gather to find

recreation, relaxation, and reflection within the urban corridor. The SAP includes alternatives for a sensible arrangement of a residing and working community whose density is appropriate and intimate enough for interaction.

These three major themes aim to elevate these parcels in a unique and distinct way as compared to other conventional real estate development. These themes involve values that are both global to Native Hawaiian cultural identity and intrinsic to the unique sense of place. The inputs gained from the charrette were utilized towards the development of scenarios in the Baseline Development Strategy.

Master Baseline Infrastructure Review

The master baseline infrastructure provides an overview assessment of the current existing infrastructure conditions and capacity of potable water, wastewater, drainage, roadways, circulation and other infrastructure issues in the Kaka‘ako Makai area.

The existing off-site infrastructure appears to be sufficient to accommodate the existing land use. The review lists some major recommendations and considerations for future development of the Property:

- An ALTA survey should be performed to assess properties, easements and restrictions.
- Although water supply is adequate under current conditions, development in the surrounding area can potentially affect available water supply and water pressure to the Property.
- Wastewater capacity should be reviewed prior to proceeding with development. Sewer laterals that require replacement are the responsibility of the developer/owner.
- Additional assessment should be made of proposed improvements with respect to the current flood zone during master planning.
- Topographic survey is needed to determine the extent of work associated with development within a Flood Zone and to address the potential sea level rise and flooding in the future.

In addition, sea level rise in the project area has been recently studied primarily due to unpredictable global climate changes and the unknown impact to our properties. In January 2012, a report by Dr. Charles Fletcher indicated that varying levels of sea level rise were modeled to determine the impact to the Kaka‘ako Makai area and surrounding areas. Dr. Fletcher’s analysis indicates that although vulnerable to inundation, such hazards are event-based with temporary impacts and development can be designed to withstand those events to achieve decades of useful life.

Market Assessment & Land Value Analysis

A critical component in the planning process is an understanding of the market conditions and land values that will influence the use of the lands. Primarily focused on revenue generation and land value, the analysis gives an overview of relevant market conditions and land implications. It provides a range of potential land uses that is feasible to pursue while being consistent with near-term market trends. The rationale is to gauge the potential viability of prospective land uses, based on current and past market demand trends.

The market assessment includes a summary of macro-economic data, demographic and other trends that impact residential and commercial uses and developments planned for Kakaʻako.

Macro-economic factors indicate that Hawaiʻi's economy is generally healthy and ahead of national averages. The demographic and real estate trends for residential and commercial uses for Kaka`ako indicate continued and sustained growth. Kakaʻako is experiencing a real estate boom, fueled by the convergence of pent-up demand with the acceleration of the development plans for major landowners and developers, low-interest mortgage loans and the blossoming of Kakaʻako as the heart of urban Honolulu.

In the next 10 to 15 years, as developments are constructed and new residents move in, the demographics of the population will be changing dramatically to account for the addition of families in the planned 10,000+ residential units. While demand has increased to international buyers, there is a pent-up demand for affordable housing residential units near downtown and Waikīkī . The median sales price for Kakaʻako condominiums is currently $630,000. Comparing this to a condominium in Honolulu, at $330,000, Kakaʻako condominiums indicate a surging demand and, combined with low housing inventory, low mortgage interest rates, and an improving economy with job growth, are motivating factors for developers to proceed with their developments. Kakaʻako is a current hotbed for condominium and commercial property development and the trend is expected to continue for the foreseeable future.

An analysis of the Property's land values was prepared to evaluate the revenue production capability for planning purposes. The land value analysis is comprised of the Property's estimated land value and income potential provided as a basis for future consideration. It includes a comparison of adjacent land uses, market values as reported from two appraisal reports, a range of rates of return, ground lease analysis, and the residual land values for single-use projects.

The ground lease analysis stated that seven of the nine parcels are encumbered by ground leases which combined produce an annual base rent of $1,017,183. The ground lease summary indicated that OHA is achieving a weighted average annual lease income of $0.98 per

square foot of land. Typical returns on commercial properties with ground leases are about 7% to 8% of the unimproved market value of the land. Assuming an average return of 7.5% on the Property valued at $200 million, the lands could potentially generate approximately $15 million.

The baseline for the single-use projects was composed using hypothetical commercial and residential projects specifically for parcels F & G, which combined equal a total land area of seven acres. A consistent methodology was applied to compare financial results of certain land uses. The methodology uses a mixed-use zoning and a maximum allowable height of 200 feet. The pro forma models are shown separately for each project type. The project types studied included: a high-rise residential condominium of 624 units; a mid-rise rental apartment of 960 units; a single-level multi-tenant retail building of 237,500 square feet of gross leasable area; and a high-rise multi-tenant office of 593,950 square feet of net rentable area.

A table summary of the estimated residual land value of the project types shows the estimated square foot value of each land use type. These project types serve as a reference point to shape the alternative land use scenarios in the Baseline Development Strategy report.

Land Use Type	**Dollars Per Square-Foot**
Residential Condominium	$219
Rental Apartment	$20
Retail	$72
Office	($245)

Baseline Development Strategy

The Baseline Development Strategy is based upon the synthesis and analysis of the preceding reports: Market Assessment and Land Value Analysis; the three major themes identified in the charrette process; the key findings from the infrastructure report; and the recommendations derived from the Cultural Analysis & Ancestral Connectivity report that are essential underpinnings for seeking balance between cultural and commercial use of the lands.

While the scope of services of the contract called for a minimum of three alternative scenarios, the project team developed a total of nine scenarios that were determined to be a suitable representation, enabling the project team to investigate a range of assumed values for potential land use activities. These alternatives should not be treated as alternative development scenarios typical under a Master Plan, but rather treated collectively to explore ideas and provide OHA leadership with a measuring tool that provides simple economic implications for a range of specific land use activities.

The nine scenarios considered six land uses, some of which are allowable under current land use zoning and use designations under HCDA, while the others represent feasible and

compatible land use opportunities for OHA leadership to consider. The Baseline Development Strategy uses include: commercial, hotel, industrial, residential condominium (at two distinct interval heights of 200 feet and 300 feet), residential rental, and park space.

Given the guidance from the major themes derived from the charrette to create a "live, work and play" environment, the alternatives include a residential component with a typical height allowance of 200 feet. The consideration of residential use in this analysis recognizes that currently under Hawaii Revised Statues 206E-31.5, that the HCDA is prohibited from approving any plan or proposal for residential development in the Kaka'ako Makai area. However, the residential development option clearly demonstrates the impact of residential use on land values at $219/SF for these parcels.

The OHA Kaka'ako Policy directs OHA to balance culture and commerce within these parcels. As such, priority must be given to the utilization of the HCDA Park use designation as a means to identify areas for passive (open space) or active facility space dedicated to developing cultural facilities, programs, and events within the parcels. Park space may be used for various culturally appropriate activities including those requiring facilities such as a performing arts center, museum, art galleries and workshops, gardens, aquariums and marine research facilities; exploratoriums, etc.

The following lists the nine scenarios with a brief description: Alternative A (Existing zoning) – the allowable uses under existing HCDA land use zoning and height allowances. Alternative A-1 (Existing zoning with office) – all land uses are the same as Alternative A except for parcel E, which is assigned for office use. Alternative A-2 (Existing zoning with hotel) – all land uses are the same as Alternative A, except for parcel E, assigned for hotel use. Alternative B (Residential-condominium and rental) – residential use was divided into two categories; 40% residential-condominiums and 18% residential-rentals. The remaining was assigned to commercial use and park use. Alternative B-1 (Increased residential-condominium and limited rental) – this divides residential into 51% for fee simple and 7% for rental. The remaining is assigned to commercial use and park use. Alternative C (Residential-condominium only) – Similar to B-1 in all land use assignments except for parcel E which is assigned for condominium use and represents 58% of land use allocation. Alternative C-1 (Increased residential-condominium and park use) – this alternative attempts to broaden the mixed-use distribution of Alternative C with the intent to increase residential rental to condominium use. Alternative C-2 (300-foot residential-condominium and increased park use) – this alternative increases the height allowance from 200 feet to 300 feet on one parcel and assigns 25% for park use. Alternative D (300-foot residential condominium with 50% park use) – this scenario analyzes the effect of increasing park space to near 50% of land use allocation for an extensive range of culturally based uses to be developed.

In summary, the alternatives provide a range of estimated land value between $61 million and $211 million. The scenarios provide what is currently allowed under existing zoning and the

potential for residential use. OHA leadership will need to determine what is a favorable portion and allocation of uses to achieve its desired residual land value goal. The Baseline Development Strategy will be used as a tool to guide OHA Trustees as they formulate an appropriate balance of land values and uses.

Recommendations & Next Steps

The project team recommends that OHA take the following steps in order to commence implementation of subsequent steps to this phase of work:

1. Using past policies and information articulated in the SAP, formulate and adopt a series of quantified objectives for the property, which will be the basis of a master planning effort. These should include the following:
    a. Cultural activities and values to be incorporated into the development of the land.
    b. The residual value target for the property.
    c. The approximate proportion of the developed land that should be designated for "Park" use.
    d. Commercial and other uses projected for the property and the approximate proportion of developed FAR that is to be targeted for each use.

2. With the above information, seek through an RFP process, a planning entity to work with OHA to develop a master plan.

3. Concurrently, organize and move to seek the proper legislated entitlements to achieve the planning objectives. These would include uses such as housing, if appropriate.

4. Once the master plan is developed and approved, seek a development entity to proceed with either the first phase (only) of the master plan or to develop the master plan over all phases. This planning entity should be able to modify the master plan, after their selection is made, so as to fit into their approach to the markets. They should, however, be required to be faithful to the cultural, environmental and social concerns embodied in the master plan.

5. With the selected development entity, gain HCDA entitlements (as necessary) for the development of the plan. The developer, and its consultants, may be primarily responsible for this.

6. As approvals are obtained and the developer prepares to proceed, develop a project management oversight capacity, either on-staff or through a consultant familiar with

construction issues. This is not to oversee construction but to interface with the developer and governmental entities during the construction period.

7. Other

    a. Engage in regional partnerships with relevant public agencies and surrounding land owners that support OHA's vision of Kakaʻako Makai.

    b. Prepare a comprehensive financial proforma and capital financing plan. Leveraging OHA's existing cash flow through potential debt financing sources such as revenue bonds can generate additional capital for its development projects and represents one financing option.

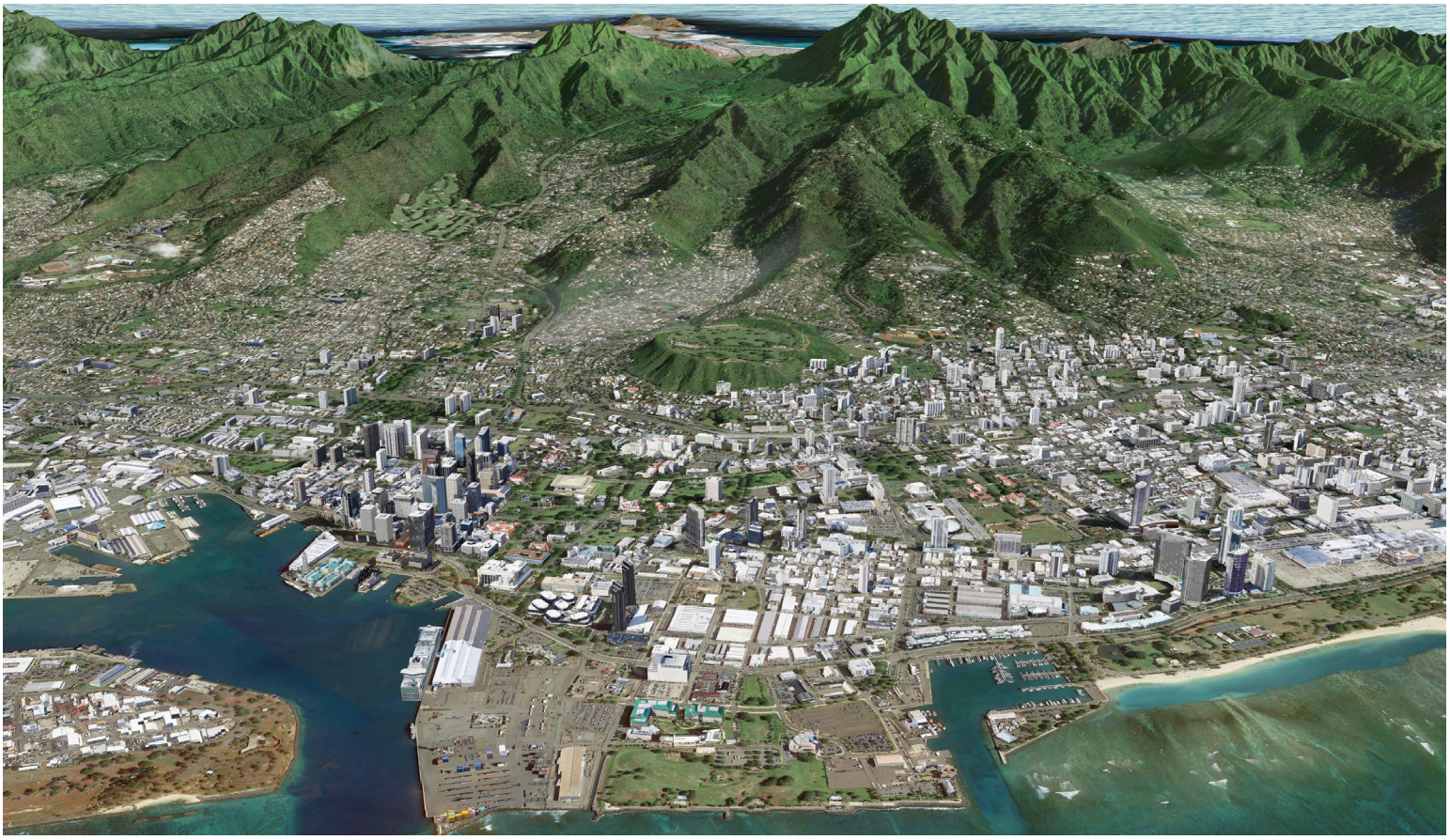
Conclusion

OHA has a tremendous opportunity to develop the Kakaʻako Makai land parcels in a unique and genuine way, through harmony and the balance of cultural, social, spiritual and economic values. OHA can realize the balance of culture and commerce with smart decisions in harvesting monetary returns on its lands and also satisfy its fiduciary responsibilities of maximizing the land value and preserving the cultural history and significance of the land. While the neighboring developers are focused on typical urban developments, OHA has the opportunity to be the light and epicenter (piko) of Kakaʻako, complementing the infusion of the culture and arts lifestyle by using the land and natural elements while reestablishing the relevance of an ancestral relationship to place. The strategic location and value of these lands serves as an asset that aims to meet OHA's overall vision Hoʻoulu Lāhui Aloha, provides an overall positive contribution to the surrounding community, and potentially will be an inspiration to draw national and international leaders and visitors to Hawaiʻi.

2 Cultural Landscape & Ancestral Connectivity Analysis

OFFICE OF HAWAIIAN AFFAIRS

Strategic Management Framework Kaka'ako Makai



CULTURAL LANDSCAPE AND ANCESTRAL CONNECTIVITY ANALYSIS

Prepared by:

GROUP 70 INTERNATIONAL

October 2013

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This mele hanohano, composed in November 2012 from kūpuna-derived inspired dreams and thoughts for the lands that traditionally form the ʻili of Kaʻākaukukui and Kukuluāeʻo, defines the essential passion that stirs within the collective senses of our naʻau to support the Office of Hawaiian Affairs (OHA) in its kuleana as a haku ʻāina (land steward) and hoaʻāina (native tenant). For this time and effort, our planning team is guided by a simple premise of a deep-rooted cultural understanding - "E lauaki kākou" - that we believe in a purposeful collaboration of talents and expertise working in a cooperative spirit with OHA leadership, its Maoli constituency, and the thriving communities therein as the motivation for a critical and transformative movement to be born in Kakaʻako Makai.

Our approach is resolute to pool together the knowledge, wisdom, and expertise of all those involved from times before to those currently charged with the responsibility to ensure the vibrancy of tomorrow's future. This study is to provide a cultural underpinning to support the purpose of **creating a framework for the development and evaluation of value-created scenarios, which are culturally appropriate for the lands of Kakaʻako Makai.** What is presented in this report will help inform OHA leadership to further the perpetuation and protection of Maoli culture and aid the continuing ancestral obligation and dutiful responsibilities associated with OHA's contributions to a strong and healthy lāhui Hawaiʻi.

RELEVANCE OF RELATIONSHIP-COSMOGONIC ORIGINS

For Kanaka ʻŌiwi (a term that literally translates to mean "of the bone" and is a known identifier reference for Native Hawaiians as a people), the Kumulipo is a Pule Hoʻolaʻa Aliʻi (a sanctifying prayer of a ruling chief) which was first chanted as a consecration prayer at the birth of Kalaninuiʻīamamao, also known as Lonoikamakahiki. The Kumulipo is a creation chronicle wherein the coral polyps of the sea are born first out of the depths of ancestral night. This is the first tier of a processional order and hierarchy of creation that establishes a relational and genealogical connection between man and nature.

Over two thousand lines in length, the Kumulipo divides the creation sequencing of the world in sixteen wā (eras or time periods) that unfold through a specific genealogical procession. The elements of light and darkness, salt water and freshwater are the primordial first-borns, the essential foundational sources of life to all that have emerged since the beginning of time. The progression of these births within these specified time periods detail that nā kānaka, human beings, are the youngest of all creations in the natural world.

In the twelfth and thirteenth wā, the Kumulipo acknowledges the genealogical lineages of Wākea and Papahānaumoku. The emergence of these two lineages comes from such a time of antiquity that they are ascribed as Sky Father and Earth Mother, respectively. According to the Opukahonua tradition, Wākea and Papa are the "parents" of the Hawaiian Islands and the union of these two figures results in the birth of the first human offspring, a daughter named Hoʻohokukalani.

In variations of this creation account, Hoʻohokukalani gives birth to a stillborn child named Hāloanakalaukapalili (the long breath of the quivering leaf). A second child was later born to Hoʻohokukalani, also named Hāloa in honor of his elder brother and is considered to be the progenitor of all Native Hawaiians. The stillborn child was buried, known as one of the first documented accounts of hoʻokanu (translates as purposeful "planting" when referring to the burying of the dead). It is recorded that out of the wahi kanu (burial) of Hāloanakalaukapalili emerged the first kalo (taro, *Colocasia esculenta*) plant, the staple food source that is understood as the kuaʻana, the older sibling of all Hawaiians (Kameʻeleihiwa 1992).

In the cultivation of kalo, the plant is extracted from the irrigated or dryland field system where the upper huli (stalk) is separated from the ample ʻohā (corm) by cutting the plant at the kōhina (dividing line). It is the huli that are then hoʻokanu, replanted, whereby over time and tended care grow new ʻohā, which provides sustenance and nourishment over generations. It is from this process, the word ʻohana (family) is derived and demonstrates the associated ancestral and familial relationship exercised in the practice of hoʻokanu with the land. Over time, this cyclic interaction and exchange of foundational sustenance and provision over generations invokes a responsibility and blueprint of sustained stewardship. Upholding this responsibility creates the seed bank of mana (spiritual power) that is infused back into the ʻāina which each planting to become a source of new growth for subsequent generations to follow.

The primary lesson derived from these moʻokupuna (ancestral genealogies) is the world is created through a sacred processional order codified by a set of associated obligations, privileges, responsibilities, and duties for each tier that is connected to one indivisible genealogical line. Thus, the ʻāina (commonly reference as "land" but in its literal translation means "that which feeds and devours") is characterized as an ancestral and familial member, serving as the kuaʻana, the eldest sibling whose responsibilities in the traditional ʻohana structure was to hoʻomalu (protect), hānai (nurture and feed), and to kauoha (give instruction). Conversely, it is human beings that are given the responsibilities of the kaikaina, the younger siblings, who are to mālama (care for), aloha (extend love to), and hoʻolohe (listen

intently) to their elders, including the land from which we are all born and eventually return (McKeague 2005; McGregor et al 1997).

Therefore, as applicable to land tenure management and resource stewardship practices, the cultural values of mālama ʻāina and aloha ʻāina are derived from obligatory sense and importance to develop and nurture a relationship to then carry out specific responsibilities that allow connections between kanaka, ʻāina, and Akua (spiritual divinity) to thrive. Mālama ʻāina, literally translated as "to care for or preserve, protect, and maintain that which feeds and devours", can then be characterized as a key cultural principle in stewardship practices that emphasizes the importance of possessing and maintaining a systematic and intimate relationship between man and the natural environment. Mālama ʻāina acknowledges the cyclic movement of mana and its invocation is a means to accessing a shared memory and ancestral consciousness that is imbued within the landscape, as perpetuated in traditions and practices, and communicated through stories that have transcended over many generations. The illustrative point is that if the cultural values of aloha ʻāina and mālama ʻāina are perpetuated, practiced, and invoked, then life-giving sustenance within these lands will continue to emerge and flourish for generations to come. For Kanaka ʻŌiwi, the land and natural elements are the foundation of subsistence, cultural and religious belief, custom, and practice. Therefore, in evaluating options for any land based stewardship activity, there is a necessity to derive a culturally based understanding of any given landscape and wherein reestablishing the relevance of an ancestral relationship to place (McKeague 2005).

SCOPE OF CULTURAL LANDSCAPE & ANCESTRAL CONNECTIVITY ANALYSIS

At the request of the Office of Hawaiian Affairs (OHA), the purpose of this cultural exposition is to provide guidance as to: 1) how to ensure relevancy and authenticity in the celebration of a shared ancestral heritage to place; 2) how the needs of today's generation can be met with cultural activism; and 3) uphold the quantitative and qualitative nature of the cultural landscape for generations yet to be born.

This study is not intended to be a "classical" cultural impact assessment or ethnohistorical study as the level of detail from these types of analyses would be reserved for subsequent steps of project development and entitlements. Rather, this analysis is intended to focus on the 30-acres of OHA Kakaʻako Makai (KM) lands as a means to facilitate a dialogue inclusive of critical information from a cultural perspective that will assist in the development of the Strategic Management Framework being developed under this current level of effort. This study will be a foundational piece for other relevant cultural resource management documents that will become necessary under an area-wide Master Plan or subsequent parcel development plan leading to necessary compliance and approvals under an environmental review. The scope of this Cultural Landscape & Ancestral Connectivity Analysis (CLACA) includes the following:

a. Description of the project area and surrounding community
b. Definition of "cultural space" and its relevance to ancestral connectivity
c. OHA governance and guidance related to understanding ancestral connectivity
d. Summary of Known Cultural Practices, Beliefs, & Values Associated to Kakaʻako Makai
e. Recommendations for developing Strategic Management Framework

DESCRIPTION OF THE PROJECT AREA & SURROUNDING LANDSCAPE

A pehea lā au, e Honokaʻupu, kuʻu aloha	*Oh what of me, O Honokaʻupu, my love*
I ka welelau nalu kai o Uhi, o ʻŌa	*Upon the crest of the surf at Uhi and ʻŌa*
ʻO nā maka i ke ao (pō) o poina	*Eyes in the realm (night) of oblivion*
Ma hea lā wau, e ke aloha la	*Where am I, O my love*
ʻO Kou ka papa	*Kou is the coral flat*
ʻO Kaʻākaukukui ka loko	*Kaʻākaukukui is the pool*
ʻO ka alamihi aʻe nō	*Some alamihi indeed*
ʻO ka lā a pō iho	*Wait all day until night*
Hui aku i Kou nā maka	*Friends shall meet in Kou*

Chanted by Hiʻiakaikapoliopele upon her arrival in Kou during the night of kilu festivities hosted by the chiefess Peleʻula, this mele highlights one the salient features wherein the OHA KM parcels lie. Nestled in the moku of Kona, in the ahupuaʻa of Waikīkī, the OHA KM parcels reside (*Figure 1* and *2*) just outside the coastal village of Kou (currently area known today as Downtown Honolulu) and within the former coastal edge of the nearshore fisheries within the ʻili of Kaʻākaukukui and Kukuluāeʻo. The reference in the chant to a pool that Hiʻiaka pays homage is thought possibly to be Kaimukanaka Pond, cited as a place near Pākākā Heiau, a political heiau since the time before Kakuhihewa located just west of the OHA lands.

Various native and foreign storied accounts consistently record the lands of Kaʻākaukukui and Kukuluāeʻo as part of an abundant and productive agrarian and aquacultural landscape within the ahupuaʻa that sufficed the subsistence needs of the populace in traditional times. The coastal nearshore regime was fed by the ua Kiʻowao that gather and filled the various poʻowai at Lulumahu, ʻAihualama, and Waihī in the upper regions of the Koʻolau, feeding the extending kahawai of Kahuawai, Makiki, Kanahā, Kaʻaikahi, Nuʻuanu, and several other streams to the muliwai estuaries of Kou and Māmala. Specifically, along the nearshore waters and former reef system wherein the OHA KM parcels lie, paʻakai harvesting, fishpond farming activities, and other marine subsistence gathering and extraction activities were traditionally known to occur and to some degree are still practiced today. Also of importance to note, the coastal and immediate flat plains located just mauka of the OHA KM parcels are well documented wahi kanu from traditional through post-encounter historic periods.

The OHA KM parcels are within the physiographic region of Oʻahu known as the Honolulu Plain, which is stratified with a late-Pleistocene coral reef substrate overlain with calcareous marine beach sand or terrigenous sediments, and stream-fed alluvial deposits. A high stand in the sea for the Hawaiian Islands about 1.5 m to 2.0 m above present sea level was well documented about 2,000 to 4,500 years ago. The deposit of marine sediments during this period greatly affected the project area shoreline. Based upon a Hawaiian Territorial Sanitary Commission report in 1911, it was estimated about one-third of the Honolulu Plain was a wetland. Traditionally, the lagoon/estuary environment of the Honolulu Plain was used to construct fishponds. The project area is mostly Fill Land, Mixed (FL) with the undeveloped natural condition consisting of low-lying marshes, tidal flats, fishponds, and reefs (CSH 2011; Foote 1972).

FIGURE 1 OHA KAKA'AKO MAKAI PARCELS & RELATIONSHIP TO OTHER SIGNIFICANT WAHI PANA

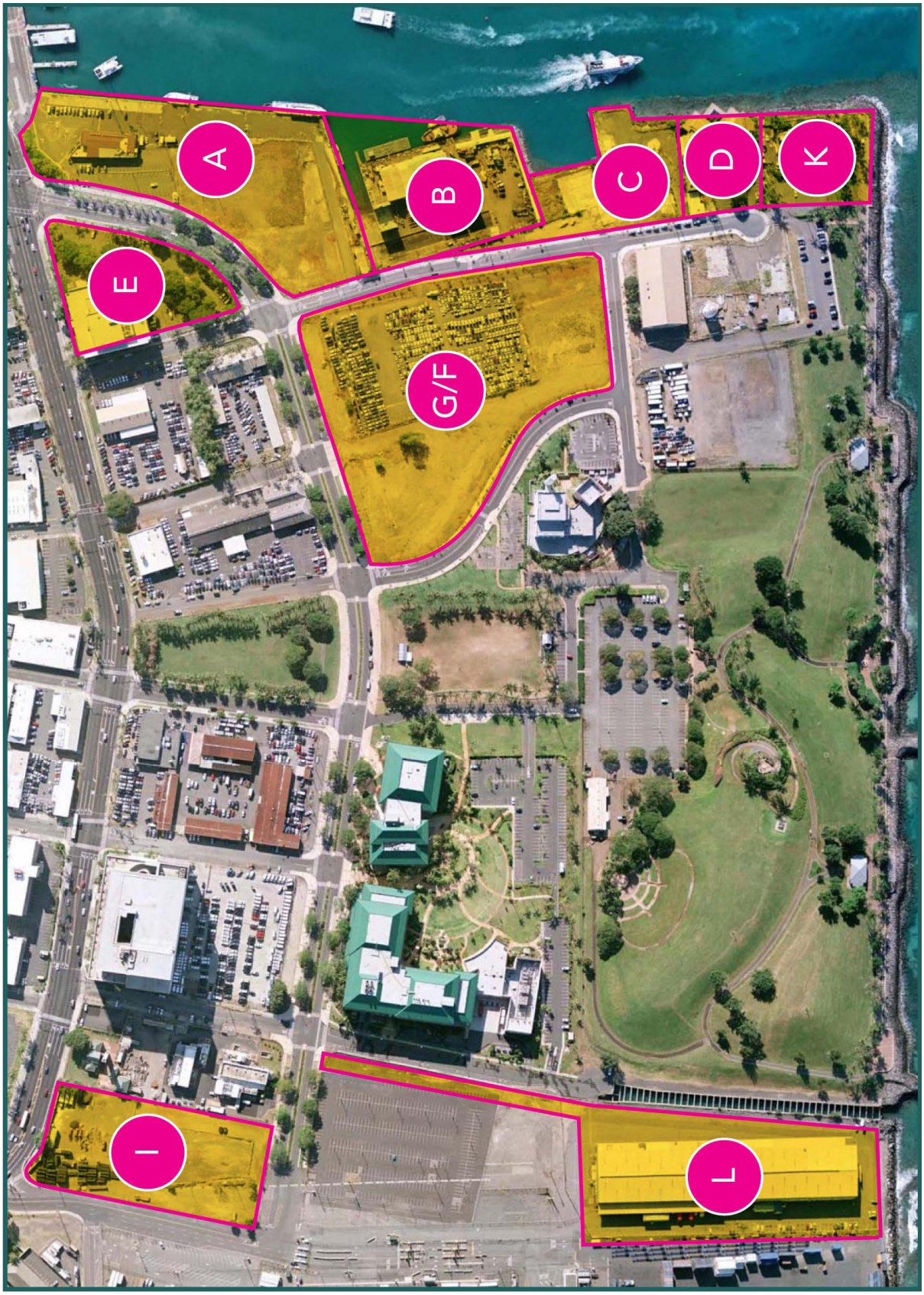

FIGURE 2 OHA KAKA'AKO MAKAI PARCELS

During the Māhele, the ʻili of Kukuluāeʻo was awarded as a part of various lands to the American Board of Commissioners for Foreign Missions under Land Commission Award 387 and was associated with Punahou School. However, the lands were originally conveyed from Kamāʻuleʻule (Boki) to Hiram Bingham, pastor of Kawaiahaʻo Church, and were recorded as being comprised of fishing grounds, coral flats, and salt beds. The ʻili of Kaʻākaukukui was awarded to Victoria Kamāmalu Kaʻahumanu IV, sister of Alexander ʻIolani Liholiho (Kamehameha IV) and Lot Kapuāiwa (Kamehameha V), under LCA 7712. The award identifies four fishponds, one spring fed and three salt ponds filled by tidal waters. The surrounding and adjacent landscape of Kaʻākaukukui and Kukuluāeʻo underwent major transition in the latter 19th and 20th Century. Increasing urbanization dramatically altered the landscape from a once dominant productive fishpond and salt pan to a large maritime industrial center (OHA 2013).

In the 19th Century, Kakaʻako also became a place associated with illness and isolation: during the 1853 smallpox epidemic, infected patients were isolated at a temporary quarantine camp and hospital in Kakaʻako (Thrum 1907). This epidemic resulted in 9,082 cases and 5,748 deaths in a population of about 70,000 in the entire Hawaiian archipelago, and a population of about 20,000 on Oʻahu. Nearly all those deaths were Native Hawaiians. After Hansen's Disease was first reported in 1840 and then identified in 1853, a branch hospital and receiving station for cases of Hansen's Disease was opened first in Kalihi then in Kakaʻako in order to keep those suspected of having the disease isolated from the general population. "Fisherman's Point" was donated by Princess Ruth Keʻelikōlani and became known as the "Leper Hospital." In 1884, the Franciscan nun Mother Marianne Cope built a convent with a two-story house, a small chapel, and took over running the dilapidated hospital in response to a plea made by Walter Murray Gibson, minister in King Kalākaua's government. In 1884, Mother Marianne built a home at Kakaʻako for the non-leprous daughters for the patients of Kakaʻako and of the exiled lepers of Molokaʻi. The girl's home was named after Queen Kapiʻolani, who supported the plan for the home by raising funds. In 1899, the first cases of bubonic plague were identified and spread rapidly in the tenements of Chinatown. The government decided that the best way to eradicate the disease was through "controlled burning" of the wooden buildings. Infected patients were moved to a quarantine camp at Kakaʻako (OHA 2013; CSH 2009; Garcia 2008).

There was also a military presence in Kakaʻako. During the monarchy, the point at Kakaʻako was the location for a battery comprised of three cannons used to salute visiting naval vessels. After the illegal annexation and U.S. military occupation of Hawaii in 1898, the U.S. Congress began to plan the coastal defenses for the islands. The U.S. government claimed 76 acres of former crown lands on Fisherman's Point. A small military reservation was set up on Kaʻākaukukui Reef for the storage of underwater mines, which would have been placed at the outer entrance to Honolulu Harbor as a last resort before an attack. This place became known as Fort Armstrong (OHA 2013). A seawall was eventually built to reclaim land for the fort. In 1911, the Honolulu Rife Association also used the area as a rifle range. The greatest land alteration came during several reclamation projects, which included the original dredging and deepening of Honolulu Harbor in the 1840s followed by a serious of other in-fill projects that reclaimed former loʻi wetlands as part of a purported public health and sanitation concern by the Board of Health in early 1900s.

In 1899, work began in Honolulu on a new water and sewage disposal system with separate networks to carry water to pumping stations, where the water was then forced out through pipes into the ocean. A new Kaka'ako Pumping Station was built in 1900, designed by Oliver Traphagen, who used Hawaiian bluestone to build the two-story main station building for the steam-powered pumps, a stone chimney, and an adjacent Screen Room. In 1925, a brick pump house for new electric pumps was built on the southwestern side of the old station. A second pumping station was later built on the southwestern side in 1939, which still exists today along with two 1900 structures on the National Register of Historic Places as SIHP #50-80-14-9710 (HCDA 2010).

In 1905, the Kaka'ako area was also used for the incineration of waste from urban Honolulu. Putrescible trash could be burned in incinerators (OHA 2013; Thrum 1906). The surrounding area continued to become a prime spot for large-scale industrial uses including the garbage incineration site, a production area for iron works, lumber yards, a tuna cannery, and draying companies (OHA 2013; CSH 2009). In 1920, trash was burned in the open at Ala Moana Dump (landfill area Makai of Ala Moana Boulevard). In 1930, the Kewalo incinerator was constructed in an Italianate-style at Mohala Street (now 'Āhui Street) near the east end of the Fort Armstrong seawall and close to the former John Dominis Restaurant (now 53 By the Sea) where waste was burned. The ash from the incinerator was used to fill the seawall in Ka'ākaukukui in the late 1940s that then created 29 acres of additional land adjacent to Fort Armstrong.

Eventually 15 acres were set aside by the Territorial Government for the disposal of ash from the incinerator. Boulders were brought from Wailupe during the development of 'Āina Haina and also from Punchbowl during construction of the National Memorial Cemetery to build a retaining wall for the ash material in Kaka'ako. In 1971, the State mandated that the City and County stop placing ash at Kewalo. In 1992, the Kaka'ako Waterfront Park was opened on the site of the former municipal landfill, consisting of 35 acres of grass-covered rolling hills adjacent to the ocean. There is no sandy beach in the park and access to the ocean is by concrete stairs. There is an amphitheater, paved jogging paths, and popular surf spots. (KPA 2013; OHA 2013; CSH 2009; Ganda 2008)

The area knows as Honolulu Iron Works was established by a mechanic named David Weston in 1853 with $2,000 in funds from a Boston investor. A steam engine was built on site and shared by a flour mill and the iron works. Later the Iron Works furnaces were used to incinerate victims of the Bubonic Plague that struck Honolulu. The Iron Works were torn down in the 1970s to make way for the present day Restaurant Row. Kerosene was stored at a government facility on Ka'ākaukukui in 1876, and fires were noted at the facility in 1891 and 1907 (Thrum 1907). In 1919, Kewalo Basin was dredged to service lumber schooners and commercial fishermen adjacent to the OHA KM parcels. In mid-1900s, the surrounding area was one of the first residential areas for working class families with nearly 5,000 residents (KPA 2013; OHA 2013; CSH 2009; Ganda 2008).

Today, what we know as Kaka'ako is part of a major transformation in urban Honolulu with new development pursuing a livable walkable mixed-use, high-density, urban community. In 2012, OHA

acquired these lands as part of a prolonged effort to settle a long standing claim on ceded land revenues. One of the kuleana for OHA, as the haku ʻāina, is to ensure genuine place-making emanates from the core cultural landscape that once and in some respect still continues to exist at Kaʻākaukukui and Kukuluāeʻo. For these landholdings, there is necessity to bring a balance of cultural, social, spiritual and economic values in harmony. Alternative considerations for the future use of OHA's landholdings in Kaʻākaukukui and Kukuluāeʻo requires completion of some due diligence, inclusive of: assessing the economic and market potential; identifying site development constraints such as infrastructure and utility concerns, environmental factors, regulatory controls; and lastly and focus of this paper is understanding the historical and cultural composition to place and forming a relationship to various forms of cultural and ancestral space to ensure a continuum between past, present, and future.

Appendix A provides a series of maps that chronologically document the land tenure patterns and changes within the Kakaʻako shoreline area.

DEFINING CULTURAL SPACE & RELEVANCE TO ANCESTRAL CONNECTIVITY

According to noted Kumu Hula and Cultural Historian Kepā Maly, as a result of the cultural diversity of our island community, island residents look at the natural and cultural resources around them in different ways and apply different values to them. In a Hawaiian context, these relationships and expressions of values, or the "sense of place", have developed over hundreds of generations of evolving "cultural attachment" to the natural, physical, and spiritual environments (Maly 2001). According to James Kent, noted social ecologist, the concept of cultural attachment can be defined as follows:

"Cultural Attachment" embodies the tangible and intangible values of a culture—how a people identify with, and personify the environment around them. It is the intimate relationship (developed over generations of experiences) that people of a particular culture feel for the sites, features, phenomena, and natural resources etc., that surround them—their sense of place. This attachment is deeply rooted in the beliefs, practices, cultural evolution, and identity of a people. The significance of cultural attachment in a given culture is often overlooked by others whose beliefs and values evolved under a different set of circumstances (Kent 1995).

For any consideration of land use, or perhaps a better consideration of word choice is "land engagement" practices in Hawaiʻi, one must understand that Hawaiian culture evolved in close partnership with the natural environment. Therefore, sense of place in a Hawaiian context does not have a clear dividing line of where culture and human interaction ends and nature begins (Maly 2001). As further postulated by Edward L.H. Kanahele, noted Hawaiian scholar, the idea of "place" in a Hawaiian worldview holds deep meaning as it conveys the following:

- Tells us who we are and identifies family connections to a physical location
- Gives us our history in the remnant and tangible elements that remain in the landscape which help to tell stories that are preserved in human memory and recounted intergenerationally
- Provides a sense of stability and belonging to an ancestral presence, both in the realm of the living and in the spiritual afterlife
- Gives a sense of well-being and acceptable of all who experience place (James 1991)

The purpose of this CLACA is to outline some of the understood ancestral connections that are relevant and meaningful to the OHA Kaʻākaukukui and Kukuluāeʻo lands. These connections will be identified through first understanding the governance model in which these connections are to be defined; second, completing a review of various sources of ʻike (knowledge) that describe known traditional and contemporary cultural practices, beliefs, or values associated with these lands and spatial relationships within and external to the region; and lastly, presenting recommendations as to how to integrate this knowledge in the strategic framework.

APPLICABLE OHA GOVERNANCE RELATIVE TO ANCESTRAL CONNECTIVITY

The acknowledgement and understanding of ancestral connections is a basic and fundamental directive within the vision, mission, and strategic direction of OHA.

OHA Vision and Mission

The vision of OHA is to "Hoʻoulu Lāhui Aloha" - to Raise a Beloved Nation. According to OHA's website, the vision statement blends the thoughts and leadership of King David Kalākaua, and his sister, Queen Liliʻuokalani, both who as political leaders were challenged on multiple fronts with the transitions that were facing Hawaiʻi's people in the late 1800s- socially, economically, politically, spiritually, and culturally. The first part of OHA's vision statement is "Hoʻoulu Lāhui", which was Kalākaua's motto. "Aloha" expresses the high values of Queen Liliʻuokalani.

The mission statement of OHA is as follows: *to mālama (protect) Hawai'i's people and environmental resources and OHA's assets, toward ensuring the perpetuation of the culture, the enhancement of lifestyle and the protection of entitlements of Native Hawaiians, while enabling the building of a strong and healthy Hawaiian people and nation, recognized nationally and internationally.*

In a Hawaiian worldview, the OHA Vision and Mission encapsulate two very basic but important tenets vital to proper Hawaiian leadership and governance. The first is simply recognizing the hierarchical order and relationship of kanaka to ʻāina. There is a commonly well-known saying "I aliʻi ka ʻāina, ke kauwa ke kanaka"- the land is the ruler, man is the servant. The second elaborates on the relationship of those entrusted to govern over the land, its resources, and the general public- "I aliʻi no ke aliʻi i ke kanaka"- a leader is a leader because of the people he or she is entrusted to mālama.

OHA Trustees and its Executive Leadership team understand fully the stewardship responsibility to be undertaken in determining the future of the OHA Kaʻākaukukui and Kukuluāeʻo lands and also recognize that the proper execution of stewardship actions must take into account what the land holds in balance of cultural and environmental value to the market and economic residual value as endorsed in the OHA Strategic Plan. Additionally, it can be an assumptive rationale that other variables equally important and that should be balanced into the planning and decision-making should include community, education, artistic, and recreational goals.

OHA 2010-2018 Strategic Plan

Under the OHA 2010-2018 Strategic Plan, there are eight (8) core values and guiding principles:

Kākou	E alu like mai kākou i ka hoʻokoana i ko kākou mikiona	We work together, unified to accomplish our mission
Aloha Kekahi I Kekahi	ʻOluʻolu a maikaʻi kākou i nā kanaka apau	We are kind and compassionate to all whose lives we touch
Pono Pau ʻOle	E hana kūpuna kākou me ka ʻoiaʻiʻo	We act with integrity and truthfulness
Mālama I Kekahi I Kekahi	E hōʻihi a mālama kākou i nā poʻe apau a me nā mea e aʻe a pau	We respect and care for others and all that surrounds us
Kuleana	E hoʻokō kākou i ko kākou kuleana hana	We carry out our individual and collective responsibilities
Kūlia	E hoʻokumu kākou i ka hana e pili ana i na kuleana Hawaii me ka hoʻohulu	We take initiative and are resilient in advocating for Hawaiian rights
Poʻokela	E hana kākou me ka oi a e hoʻomaikaʻi iā kākou iho	We do our best and continuously seek improvement
Hoʻomau	E hoʻomau kākou i ke ea o ka ʻāina, nā mea e hoʻopuni ana, ka moʻomeheu a me ka poʻe Hawaiʻi	Together, steadfast, we preserve and perpetuate our culture, people, land and environment

Additionally, there are six (6) strategic priorities (*Figure 3*) that are targeted under the current plan:

Moʻomeheu (Culture)	To strengthen identity, Native Hawaiians will preserve, practice and perpetuate their culture.
ʻĀina (Land and Water)	To maintain the connection to the past and a viable land base, Native Hawaiians will participate and benefit in from responsible stewardship of Ka Pae ʻĀina o Hawaiʻi.
Ea (Governance)	To restore pono and ea, Native Hawaiians will achieve self-governance, after which the assets of OHA will be transferred to the new governing entity
Hoʻokahua Waiwai (Economic Self Sufficiency)	To have choices and a sustainable future, Native Hawaiians will progress towards greater economic self sufficiency
Hoʻonaʻauao (Education)	To maximize choices of life and work, Native Hawaiians will gain knowledge and excel in educational opportunities at all levels
Mauli Ola (Health)	To improve the quality and longevity of life, Native Hawaiians will enjoy health lifestyles and experience reduced onset of chronic diseases.

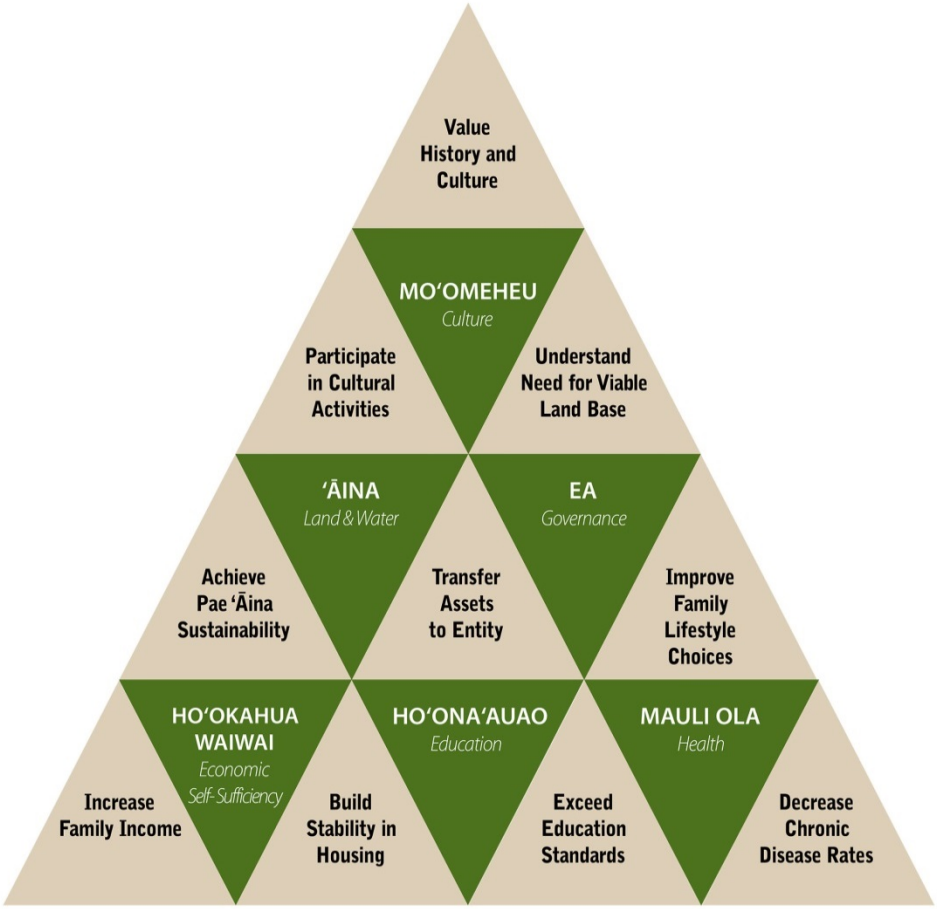

FIGURE 3 OHA 2010-2018 STRATEGIC PLAN & RESULT PRIORITIES

Under the OHA Strategic Plan, there are four applicable strategic results that should be considered in translating the necessity for ancestral connection into the practicality of integrating and programming that connection into the Strategic Framework for these lands. The applicable strategic results (and their intersecting priorities) include:

- Value of history and culture (Ea-Mo'omeheu)
- Participate in cultural activities (Mo'omeheu-Mauli Ola)
- Understand the need for viable land base (Ea-'Āina)
- Achieve pae 'āina sustainability ('Āina-Ho'ona'auao-Mo'omeheu)

It is clearing evident then that providing cultural context and relevance to land engaging actions is essential to seek the balance of the Strategic Plan's direction and desired outcomes.

OHA Kaka'ako Makai Cultural Policy & Implementing Actions

In August 2012, an internal OHA process was initiated to develop cultural guidelines for the OHA Ka'ākaukukui and Kukuluāe'o parcels. These guidelines were approved by OHA leadership and are the cornerstone for developing a sense of cultural context for these parcels. As stated by OHA leadership during the development of these guidelines, the Hawaiian worldview is fundamental to having the

necessary competence and knowledge to carry out the responsibilities of land and resource stewardship. These cultural guidelines define key principles important to OHA leadership that direct how ʻāina-wide initiatives balance the commerce-cultural equation. Specific project area indicators were then identified to determine how a culturally functional and active landscape is to be achieved in the OHA KM parcels. As a result, four cultural principles are the foundational basis for these guidelines:

- Moʻomeheu (Cultural history, traditions, practices, and language)- emphasizes a need to celebrate the history that is imprinted and permeates within the landscape
- Kūlia (Innovation and excellence)- defines a desire to excel through innovation to address challenges
- Ao (The living world)- ensures the vibrancy and abundance of this generation
- Pilina (Relationships, interactions, and connectivity)- emphasizes a need to connect to our past, our living world that surrounds us, and the communities that have and will continue to flourish

These four cultural principles drive the questions "what types of guidance becomes evident in the culture and land tenure history specific to this place" and "how does this knowledge inform decision-making to fulfill those needs?" As OHA is a haku ʻāina of other landholdings inclusive of Wao Kele o Puna, Waimea Falls Park, the Gentry Design Center parcel, and the Kaʻākaukukui and Kukuluāeʻo parcels, these cultural principles guide five (5) key ʻāina-wide statements which include the following:

- Space matters as a cultural layer
- Spaces should facilitate relationship building
- Value-added development- what is the commercial and cultural worth for the community
- Living culture in a living world
- Planning for the next five generations

Specifically for these OHA KM parcels, there are eight (8) recommended indicators as to how layers of cultural meaning are integrated into the functional and active use of these lands:

1. Leave a corridor for the Kūkalahale wind and rain
2. Dualism in building structures (vertical and horizontal structure complements)
3. Go green: space, technology, materials, and environment
4. Multi-use/multi-purpose spaces that can create revenue but still give-back to the community for use: gathering, meetings, parties, rallies, performing, learning center
5. Fishing restoration activities
6. Walking paths
7. Cultural enhancement opportunities for tenants- distinguish OHA KM lands as a globally significant destination to share one's business with the community
8. Lele and kuahu- acknowledging aspects of our living and spiritual world

This paper is not intended to revise or update the dynamic and forward progress made internally by OHA leadership and staff. Rather, wherein appropriate, this study will look to support these existing indicators and as stated the intended goal of this CLACA is have a set of clear recommendations for OHA decision-makers that fortifies the cultural directives as indicated in the existing policy. ***Appendix B*** illustrates the OHA cultural policy and implementing actions.

OHA Strategic Management Framework Charrette & Major Themes

In August 2013, a two-day charrette process was conducted for the OHA Kaka'ako Makai Strategic Management Framework Plan by the Hui Kukuluāe'o project team comprised of Rider Levett Bucknall, Ltd.; Sanford Murata, Inc.; and Group 70 International, Inc. The subject of this charrette was to envision the future vibrancy of OHA Kaka'ako Makai lands as an asset that requires a balance between commerce and culture. The charrette's main purposes included: 1) listen to key stakeholders and their relevant issues, concerns, and passions for these lands; 2) collect and record the information shared; and 3) seek some level of agreement of significant ideas that should be the underpinnings for a vision to place. Unfortunately, most of the present-day memories of those in the living generations recall this area in the last 50 years or as in-filled trash dump so relevant to cultural knowledge, the information garneed was somewhat limited. The present-day generation unfortunately to some degree dismisses or is slowly forgetting the cultural and ancestral permanence that still exists and forms the character and nature of Ka'ākaukukui and Kukuluāe'o.

For the Strategic Management Framework, three major themes were identified from the charrette process to help elevate the significance and meaning of the OHA Kaka'ako Makai parcels above that of a conventional real estate development. The potential strategic value of these lands as an asset that aims to meet the goals and objectives of OHA's overall mission requires that its revival and restitution provides a synergy, connectivity, and overall a positive contribution to the local community but also to key cultural precepts and values that are both global to Native Hawaiian cultural identity and intrinsic to unique sense of place. The three major themes are highlighted and briefly summarized:

1. **Create a kīpuka where Hawaiian national identity can flourish and be celebrated among Hawaiians and local communities throughout the Pacific but also serve as a welcoming place for global leaders to gather.**

The concept of a kīpuka, a cultural oasis, for Hawaiian nationalism speaks to the sensitive and mindful idealism and symbolism of restitution. Under OHA, as the haku 'āina, the stewardship of these lands as part of a traditional cultural landscape with strong connections to the life-giving and –emerging waters of Ka Moana Nui (the Great Ocean Expanse), should reflect the deep understanding and commitment to the surrounding community locally but also globally across the ocean expanse to other parts of the Pacific and beyond.

As these lands were traditionally the coastal front and fishery of Ka'ākaukukui and Kukuluāe'o, the relevance to consider these lands as a kīpuka with connection to the ocean whereupon life flourishes

and extends from a firm ancestral foundation that connects us throughout the Pacific is amplified. For this Plan, there needs to be a constant reminder that these lands can be a source of pride that embodies our Hawaiian national identity and as such, defining and maintaining a Hawaiian sense of place through design and programming should be a driving priority. Once fortified with that ideal in mind, this Plan should assess how these lands strategically can become a place where global leadership can gather and immerse within an exclusive Hawaiian space, to inclusively contemplate and reflect on issues that have a universal impact.

2. Support the development of a "cultural marketplace" that invests in intellectual capital, seeking possibilities of exploration and innovation in education, health, and political leadership.

The concept of a hālau ola, a center of "life" and "healing", speaks to the possibility of these lands being strategically directed to provide benefit to the physical, mental, emotional, and spiritual well-being for Native Hawaiians. The presence and potential partnerships with existing neighbors such as Kamehameha Schools, John A. Burns School of Medicine, and the Pacific Biosciences Research Center Kewalo Marine Laboratory increases the opportunity for "ola"-centric innovation and collaboration between cultural and science that also provides a source of revenue generation for OHA. The Plan should seek to support a direction towards developing a "cultural marketplace" wherein the exchange of knowledge and wisdom can occur.

Highlighted issues shared during the charrette that could have relevancy and opportunity within these lands as a focal point for this collaboration include the social and economic well-being of Native Hawaiian; promoting and supporting initiatives in sustainability, specifically food security and alternative energy; expanding ongoing ocean research, resource management, with relevancy of impacts of sea-level rise; addressing the needs and impacts of an aging population in Hawaiʻi; and addressing an ever-changing global economy in Asia and across the Pacific and the impacts these changes may have upon the economic vitality in Hawaiʻi.

3. Create a cohesive and multi-functional planned community that embraces a transformative ideal of "live, work, and play."

The lands of Kaʻākaukukui and Kukuluāeʻo have and continue to be a place where communities have settled to live, work, and play. The area historically has been one that has supported the needs of a middle-class working community. It is also a place that supported a diverse heritage of people of different ethnicities. It is also a place where people still gather to find recreation, relaxation, and reflection within the urban corridor. The strategic framework should provide alternatives that include a sensible arrangement of a residing and working community whose density is appropriate that is intimate enough for people to still know each other. It should also provide alternatives for vibrant places of interaction and open space, an all-around engagement to create choices for living and working in an area that are deemed vital and central to regional growth.

Understanding and integrating the elements of ancestral connectivity to further pursue these themes in the strategic management framework is important to convey and define in seeking balance between culture and commerce. A key component to developing this understanding is to identify wherein the knowledge, practices, unique experiences/perspectives that are site-specific, or cultural values ascribed to these landholdings can further inform and guide how these themes can help decision-makers achieve the stated strategic goals of the institution and the policies for these landholdings.

Known Cultural Beliefs, Customs, Practices Associated to Kaka'ako Makai

Numerous ethnohistories, archaeological investigations, and cultural studies have occurred within the general Kaka'ako area as far back as the early 1960s. The intent of this paper is provide a succinct summary of available information relative to the known cultural beliefs, customs, practices and values associated directly with the OHA KM parcels or within the general vicinity of the traditional landscape in which these lands lie. This paper will not resynthesize the information contained within these other sources documents. Rather it will present them in annotated form and then outline specific recommendations to guide the strategic framework plan.

Hawaiian beliefs, custom, and practices encompass a full range of traditional, subsistence, cultural, and religious activities that 'ohana have engaged in for multiple generations to live as a people in a unique island environment. Thus, the beliefs, customs, practices, and values stem from every major aspect of Hawaiian lifestyle and livelihood including: community life, family, human well-being and spirituality, stewardship and use of natural and cultural resources, ancestral obligations and legal rights, and economics. Traditional subsistence practices, beliefs and customs included but not limited to: cultivation of plants and marine resources for food, structures, implements, medicine, adornments, ceremonies and rituals, clothing, cooking, fuel, mulching; mauka, makai, and stream gathering; hula; spiritual practices; lā'au lapa'au or healing practices; weaving; carving; lei making; swimming, surfing, diving, fishing; and to experience natural phenomena and hō'ailona which convey spiritual messaging. All of these activities were dependent upon having access to land and ocean areas and being able to care for and use the natural and cultural resources (McGregor et al 1997).

For this study, five distinct elements and their known associated beliefs, customs, practices, and values were examined and included: 1) significance of place names; 2) home of royalty; 3) celestial, atmospheric, and predominant meteorological patterns; 4) relationship to land; and 5) relationship to the ocean.

Significance of Place Names

One of the foremost and primary sources of cultural information that lends to an understanding of history, heritage, and cultural identity is in Hawaiian place names that have been recorded and preserved throughout time. Source of names are varied but commonly include inoa ho'omana'o (names of remembrance), inoa pō (names from the realm of ancestral knowledge beyond our own human cognition), and inoa hō'ailona (names derived from a distinct occurrence of an event or pattern that reveals itself as sign or distinguished mark). Place names are culturally important because they:

- Imbues life and existence to a place
- Create ancestral presence and identity
- Establish an ancestral connection between past, present, and future
- Provide a foundational underpinning that defines the unique and inherent characteristics, phenomena, or cyclic and repetitive events in the natural and spiritual words in a specific geographic place (McKeague 2008).

In traditional times, named localities served a variety of functions, telling people about: (1) places where the gods walked the earth and changed the lives of people for good or worse; (2) heiau or other features of ceremonial importance; (3) triangulation points such as koʻa (ceremonial markers) for fishing grounds and fishing sites; (4) residences and burial sites; (5) areas of planting; (6) water sources; (7) trails and trail side resting place (oʻioiʻna) as a rock shelter or tree shaded spot; (8) the sources of particular natural resources/resource collections areas, or any number of other features; or (9) notable events (in the traditional and historic periods) which occurred at a given area. Through place names knowledge of the past and places of significance was handed down across countless generations (KPA 2013).

An investigation of place names will reveal the reasons for those names and the relationship of the area with Hawaiʻi's people, their philosophy of life, and between kanaka-ʻāina-akua (Kanahele 1997). Further, place names are important cultural signatures etched into the Hawaiian landscape and are embedded with traditional histories, transforming once-empty geographic spaces into cultural places enriched with meaning and significance (Kikiloi 2010).

Below is a succinct listing of the place names that are associated to the OHA KM parcels or within near vicinity. Known place names beyond the area but in association to other distant mauka points of significance are also identified but not fully detailed in this study.

Kakaʻako, Honolulu, & Kou

The modern district of Kakaʻako is significantly larger than the area which was traditionally known as Kakaʻako. In mid-19th century documents, Kakaʻako is described as a small ʻili within the ahupuaʻa of Waikīkī but known today as part of the urban fringe and landscape of Honolulu. In addition to including the traditional ʻili of Kakaʻako, the modern Kakaʻako area also encompasses lands once known as Kaʻākaukukui, Kukuluāeʻo, and Kewalo, and even smaller areas—possibly portions of ʻili - called Kawaiahaʻo, Honuakaha, Puʻunui, Kaʻalaʻa, ʻĀpua, and ʻAuwaiolimu (OHA 2013, KPA 2013).

Originally the name of a small place at Niukūkahi at the junction of Liliha and School Street which some man turned into a small taro patch, "Honolulu" is the name referenced for much of the coastal downtown urban corridor between Kalihi and Waikīkī. The place name of Honolulu we know today means "sheltered or protected cove" but the area in and around Honolulu Harbor was named Kou, a favored sheltered harbor of Oʻahu's chiefly class named after the *Cordia* trees which were a prominent feature on the landscape.

According to Westervelt (1915), when Kakuhihewa, the noted king of Oʻahu divided the island among his favorite chiefs, the area lying roughly between Hotel Street and the ocean, and between Nuʻuanu to Alakea Streets was given to and named after Kou, who was an Ilāmuku or "marshal" for Kakuhihewa. In 1809, the seat of government was moved to Kou by Kamehameha (KPA 2013). In Kou was the noted Pakākā heiau, or temple, built before the time of Kakuhihewa. This temple once stood on the western side of the foot of Fort Street long after the fort was built from which the street was named. Pakākā was owned by Kīnaʻu, the mother of Kamehameha V. In this temple, the school of the priests of Oʻahu had its headquarters for centuries and it was known as a political center. The walls of the temple were adorned with heads of men offered in sacrifice (KPA 2013).

Today, the OHA KM parcels are referenced as "Kakaʻako Makai." However, these lands are traditionally part of the coastal fisheries and reef system of lands known by their ʻili names, Kaʻākaukukui and Kukuluāeʻo, respectively. The original location and extent of the "Kakaʻako" region is a bit ambiguous. One of the earliest known map references that include the name Kakaʻako is on an 1872 C.J. Lyons map of Kaʻākaukukui and Puʻunui which as a coastal point labeled "Kakaʻako" between Cooke Street, ʻOhe Lane, and Ala Moana Boulevard. An 1897 map by M.D. Monsarrat shows the area adjacent to a coastal wharf as "Kakaʻako."

Famed Hawaiian language and history expert, Mary Kawena Pukui, did not give a meaning for the place name, Kakaʻako. One translation of the name has a varied spelling and application of diacriticals in the word, Kaka'ako, which means "dull, or slow." However, no other historical evidence would suggest this to be accurate. Thomas Thrum, who published a paper on place names in the 1922 edition of Lorrin Andrews Dictionary of the Hawaiian Language, who Pukui cautioned his translations as unreliable, stated that Kakaʻako means "preparing the thatching."

The name Kaka'ako comes up in two recorded moʻolelo, the Thrum version of Kūʻula and his son ʻAiʻai, who were the first to teach Hawaiians the various fishing techniques, including line and net making, and how to maintain the koʻa kūʻula and the protocols associated with its care, as well as the koʻa iʻa. ʻAiʻai, born in Maui, comes to Oʻahu, where in the Kakaʻako regions befriends a man named ʻĀpua (also a place name in the area) and the chief Kou who was an expert haiku fisherman. Several other places names include Kuloloia (former beach extending from Fort Street to Kakaʻako) and Kapapoko (an eating house near the harbor used by Kaʻahumanu, wife of Kamehameha). Although we today are comfortable with calling the general region as Kakaʻako, one of the first recommendations from this study is to become equally comfortable with referencing the known ʻili names within the area.

Kaʻākaukukui

The name Kaʻākaukukui means "the north or right light" or "the radiating place or lamp" and is the coastal land east of an area traditionally known as Waikahalulu ("water of roaring" and references a former reef filled-in during the 1850s dredging of Honolulu Harbor). The area was a long reef that extended along the shore adjoining Kukuluāeʻo to the east and it thought to have been a maritime navigation landmark. The area was fronted by fishponds and salt works. According to Kekahuna,

Kaʻākaukukui was "a beautiful sand beach that formerly extended along Ala Moana Park to Kewalo Basin, a quarter mile long reef extended along the shore." Bishop's 1884 map shows it extending from Punchbowl to Cooke Street just makai of Queen Street. Lyons's 1876 map shows several place names in Kaʻākaukukui and along the coast. Pukui describes Kaʻākaukukui as a "reef that was filled in to create Kakaʻako Waterfront Park and the rest of lower Kakaʻako, seaward of Olomehani Street" (KPA 2013; CSH 2011; CSH 2009; OHA 2013).

The OHA KM parcels are located on fill land that is identified as the former coral reef of Kaʻākaukukui and Kukuluāeʻo. The ʻili of Kaʻākaukukui was awarded to Victoria Kamāmalu, the sister of Kamehameha IV and Kamehameha V under Land Commission Award 7712 with smaller kuleana lands awarded to seven other native tenants. The lands were administered by Kamāmaluʻs father and guardian Mataio Kekūanaoʻa, who inherited his daughterʻs lands at her death. Early maps indicate the presence of a "beach road" that follows the shoreline. This road roughly overlaps with the present day alignment of Ala Moana Boulevard. The surrounding area over time transformed from a primarily coastal village to a maritime industrial area.

Kaʻākaukukui once consisted of three non-contiguous sections, a type of ʻāina called a lele. An early surveyor for the Hawaiian Government Survey office explains about lele in general, and Kaʻākaukukui in particular:

> **There were two features of the ʻili, referred to by the terms lele- the ʻili often consisted of several distinct sections of land—one, for instance, on the seashore, another on dry, open land, or kula, another in the regularly terraced and watered kalo patch or aina loi district, and another still in the forest, thus again carrying out the equable division system which we have seen in the ahupuaa. These separate pieces were called, lele, i.e., "jumps," and were most common on Oahu. Kaʻākaukukui held Fisherman's Point and the present harbor of Honolulu; then kalo land near the present Kukui street, and also a large tract of forest at the head of Pouoa [Pauoa] valley…These different pieces were called variously, either by their own individual name or by that of the whole ʻili, thus puzzling one sadly when attempting to obtain information with respect to them. (CSH 2011)**

Kaʻākaukukui or Kekaukukui was close to Ulakua, and was the place that small kōnane boards were laid. There were flat stones with rows of little holes in which a game was played with black and white stones. Here Māmala and Ouha drank and played kōnane. Here also Kekūanaoʻa built is home (KPA 2013; OHA 2013; CSH 2009; Ganda 2008).

Other place names within or adjacent to Kaʻākaukukui are worth noting. A land area at Kaʻākaukukui was a place called Kalokoʻeli (the dug pond) that adjoined Kuaimeki (purchased metal), both noted for its salt works. Also, Puʻunui (large hill or mound) was a detached ʻili in several locations, noted for its salt making ponds in the vicinity extending from Queen Street near Hale Kauwila towards Kaʻākaukukui.

ʻĀpua (woven fish basket) was the name of coastal flats between Richards, Queen, and Punchbowl Streets, named after a fisherman resident of the land near Kaʻākaukukui. According to an 1876 map of

the area, a large portable observatory was housed in 1874, where several astronomers arrived from Great Britain to observe a rare transit of the planet Venus across the sun. Permission to use this area was granted by then King David Kalākaua and a station housing an equatorial telescope, a transit instrument, an altazimuth, clocks, and chronometers, compasses were installed (KPA 2013, OHA 2013; CSH 2009; Ganda 2008). Kūāi was the name of a canoe landing in Kaʻākaukukui, where the Honolulu Iron Work was located and where the former point of Fort Armstrong was before the land was filled in (OHA 2013; CSH 2009; Ganda 2008; Kekahuna 1958). Kaholoakeāhole was the name of the waterfront district of Kaka'ako (OHA 2013; CSH 2009; Ganda 2008). Puʻunui was a detached ʻili land in several locations. The coastal section of Puʻunui was noted for its salt-making ponds in the vicinity extending from Queen Street, across Halekauila to Kaʻākaukukui (KPA 2013; OHA 2013; CSH 2009; Ganda 2008).

Kukuluāeʻo

Kukuluāeʻo, translates as the "Hawaiian stilt bird", scientifically known as *Himantopus himantopus*. The name also means to "walk on stilts". Pukui describes the area as the "tract formerly fronting Kewalo Basin, Honolulu, containing marshes, salt pans, and small fishpond." The ethnographer Henry Kekahuna described it as an area where salt was formerly made (KPA 2013; OHA 2013; CSH 2009; Ganda 2008).

Kukuluāeʻo was a famous place in ancient times and the heiau here was Puʻukea and was noted for its fish and salt ponds. Translated literally as "white hill", the name of Puʻukea is referenced to the name of a heiau built by Hua-nui-ka-la-laʻilaʻi, a hereditary chief of Oahu, who was born at Kewalo and is also a small land division within Kukuluāeʻo (KPA 2013; Kamakau 1991).

Nine known LCAs where awarded in Kukuluāeʻo: 982 (Kukao, one houselot); 1366 (Wahiena); 1499 (Kapalu); 1503 (Puaa, one house lot and 3 fishponds); 1504 (Pahika, one house lot, fishpond, and salt bed); 1592 (Kauo), and 1903 (Lolohi), 9549 (Kaholomoku, fishpond and four saltpans), and 10463 (Napela, house site, two ponds, and salt lands). In the testimony for LCA 1903, located in the Kukuluāeʻo, Lolohi claimed four separate types of salt features: the ponds near the shore that fill with salt water at high tide (ālia); the drains where the salt water is transferred to smaller clay-lined or leaf-lined channels (hoʻoliu); the natural depressions (or modified depressions) in the rocks along the shore where salt formed naturally (poho kai); and the land that could probably not be used for agriculture as it was impregnated with salt (kula).

Ahuaiki (little mound/hillock) also written as Ahukai was the name of a fishpond/salt pond area situated in Kukuluāeʻo bounded on east side by the Auwai o Paki (water channel of Paki) which in Māhele claims, native tenants of kuleana lands identified the water course extending into the area (KPA 2013).

Kolowalu

Kolowalu was a small land section between Kukuluāeʻo and Kewalo that encompassed a large fishpond. Pukui does not give a meaning for Kolowalu Pond, but they interpret the name of Kolowalu, a ridge in Mānoa, as "eight creeping." Since Kolowalu Kai was probably a lele of Mānoa, it is possible that "eight creeping" is also the correct interpretation for the pond name. The kolowalu law was initiated by the

Hawaiian chief Kūaliʻi, who ruled Oʻahu from about 1720 to 1740. This law protected the rights of commoners and provided food to the hungry (CSH 2011).

Kewalo

Translated as "the calling", this place name covers the kula land and coastal region, once noted for fish and salt ponds in the area. There was once a famous spring at Kewalo near the ponds, where victims of sacrifice at Kānelāʻau Heiau on the slopes of Pūowaina were first drowned. The priest when holding the victims head under water would say to her or him on any signs of struggling "moe mālie i ke kai o ko haku"- lie still in the waters of your lord. From this it was called Kawailumaʻiluma'i (drowning waters). The law under which these sacrifices were made was called Kakaihehe'e.

Kewalo was also the nesting ground of the owl who was the cause of battle between the owl and the king Kākuhihewa. In one legend, Kewalo is a marsh near the beach, where tall pili grass grew. A man named Kapoʻi went to this area to get thatching for his house. While there, he found seven eggs of a pueo (Hawaiian short-eared owl) and took them home to cook for his supper. An owl perched on the fence surrounding his house and cried out "O Kapoʻi, give me my eggs!" After several such pleas, Kapoʻi eventually returned the eggs. In return, the owl became his ʻaumakua (deified ancestor) and instructed him to build a heiau named Mānoa. Kapoʻi built the heiau, placed some bananas on the altar as a sacrifice, and set the kapu days for its dedication. The king of Oʻahu, Kākuhihewa, who was building his own heiau, had made a law that if any man among his people erected a heiau and set the kapu before him, that man should die. Kapoʻi was seized and taken to the heiau of Kūpalaha at Waikīkī. Kapoʻi's ʻaumakua asked for aid from the king of the owls at Puʻu Pueo in Mānoa, who gathered all of the owls of the islands. They flew to Kūpalaha and battled the king's men, who finally surrendered: "The owls scratched at the eyes and noses of the men and befouled them with excrement." From this time, Hawaiians considered the owl a powerful akua (god, divine). Because of this battle, the Hawaiians name the area Kukaeunahiokapueo, which means, "the confused noise of owls rising in masses" (KPA 2013; OHA 2013; CSH 2009; Ganda 2008; Kamakau 1991).

There was once a freshwater spring in the central portion recorded in the proverb "Ka wai huahuaʻi o Kewalo" (the bubbling water of Kewalo). One moʻolelo tells of the two children of the chief Haʻo, who ran away from their stepmother. They stayed for a time at Kewalo but left when their stepmother sent men to look for them. They tried to travel to Kou, but collapsed from weariness and thirst. In a dream, the children's mother told them to pull up a plant. When they did, they found a spring (OHA 2013; CSH 2009; Ganda 2008).

Ke Kai o Māmala

Ke Kai o Māmala was the name of the surf which came in the outer entrance of the harbor of Kou. It was named after Māmala, a chiefess who loved to play kōnane, drink awa and ride the surf. Her first husband was the shark man Ouha, who later became a shark god, living as a great shark outside the reefs of Waikiki and Koko Head. Her second husband was the chief Honokaʻupu (Albatross bird bay), to whom the king gave the land east of Kou, which afterward bore the name of its chief (KPA 2013).

Her story as recorded by Westervelt (1915), mentions many names of people which were later made into the place names of Honolulu and surrounding districts. A synopsis of this legend is included here:

> **Kou was a noted place for games and sports among chiefs of long ago. A little to the east of Kou was a pond with a beautiful grove of cocoa-nut trees belonging to a chief, Honokaupu, and afterward known by his name. Straight out toward the ocean was the narrow entrance to the harbor, through which rolled the finest surf waves of old Honolulu. The ocean bore the name, Ke-Kai-o- Māmala (the sea of Māmala) and the high surf bore the name Ka-nuku-o- Māmala (the mouth or peak of Māmala).**
>
> **Māmala was a chiefess of kupua [supernatural] character. This meant that she was a moʻo [nature-water form goddess], as well as a beautiful woman, and could assume whichever shape she most desired. One of the legends says that she was a shark and woman, and had for her husband the shark-man Ouha, afterward a shark-god having his home in the ocean near Koko Head. Māmala and Ouha drank awa together and played konane on the large smooth stone at Kou. Māmala was a wonderful surf-rider. Very skillfully she danced on the roughest waves. The surf in which she most delighted rose far out in the rough sea, where the winds blew strong and whitecaps were on waves which rolled in rough disorder into the bay of Kou. The people on the beach, watching her, filled the air with resounding applause, clapping their hands over her extraordinary athletic feats. (KPA 2013)**

Kuloloia

Kuloloia is another name of significance along the former Kou/Honolulu waterfront. It was the name of the beach which extended from about the foot of Fort Street to Kaka'ako, Honolulu. Lengthy narratives which cover locations inclusive of Kuloloia and Mamala describe the establishment of a fishing shrine at Kou (KPA 2013).

Celestial, Atmospheric, and/or Predominant Meteorological Patterns

Recognizing the relationship and importance to the vertical space between the land and the sky is important in understanding the relevance and relationship of that spatial division between man and akua. Kanaka ʻŌiwi are guided by the cosmic animation that occurs within the higher heavens and the lower realms of space closest to earth. This animation manifests itself through the pattern of cloud movement, rain sequences, and the seasonal revelations that denote periods of our earth's movement and its accompanying moon in relation to their path around the sun and other celestial bodies in the universe (McKeague 2008). Further, particular natural phenomena and cultural areas are important as traditional domains of ʻaumakua or ancestral spirits and deities, where Hawaiians renew and fortify their ties to ancestors through experience of natural phenomena and witnessing hōʻailona or natural signs, including those in the celestial, atmospheric, and meteorological realms (McGregor et al 1997).

Due to the diversity of topography and geographic conditions and their impact and generation of micro-climates, each island is blessed with unique features of wind circulation and rain distribution. Further, the relationship between the ocean and island temperatures generates sea-land breeze conditions due to variance of temperatures and impacts to atmospheric pressures. This generates cyclic patterning and phenomena of cloud gatherings and periodic rain spells that are common in some areas. No place-specific wind or rain names are known for Kakaʻako, Kaʻākaukukui or other associated areas.

One of the primary wind chants (Wind Gourd of Laʻamaomao) provides the following:

Pu'uokona is of Kuli'ou'ou,
Māua is the wind of Niu,
Holouha is of Kekaha,
Māunuunu is of Wai'alae,
The wind of Lē'ahi turns here and there,
'Ōlauniu is of Kahaloa,
Wai'ōma'o is of Pālolo,
Kuehulepo is of Kahua,
Kūkalahale is of Honolulu,
'Ao'aoa is of Mamala,
'Ōlauniu is of Kapālama,
Haupe'epe'e is of Kalihi,
Kōmomona is of Kahauʻiki,
Ho'e'o is of Moanalua (Nakuina 2005)

However, patterns of rain and wind movement especially sea-born wind and near vicinity off-shore showers are common occurrences in this landscape. Oratorical traditions cite that the known winds and rains for Honolulu such as the Kūkalahale wind and rain and the ʻAoʻaoa wind that blows through Māmala would have some influence or presence within the OHA KM lands. ʻAoʻaoa, also called ʻAoa is a sea breeze at Honolulu that blows gently toward land and is probably the wind closest associated to the OHA parcels. Also, the Moaʻe is a Honolulu north wind, typically known as the prevalent tradewinds. Mūʻululū is a chilled wind of Honolulu (Garcia 2008; OHA 2013).

Celebration of seasonal change

Seasonal movements were celebrated in traditional Hawaiian culture as evidence by the demarcation of the two seasons, kau and hoʻoilio, dry and hot seasons, respectively and known practices related to movements of celestial bodies. The arrival and movement of the sun during the two periods of Ka Piko o Wakea (spring and autumn equinox) and Ke Ao Polohiwa a Kāne (summer solstice) and Ke Ao Polohiwa a Kanaloa (winter solstice) also provided a means for Kanaka ʻŌiwi to develop their own calendar year and purposefully built-in this knowledge into their planning and construction of sacred structures. The arrival of the constellation of Makaliʻi (Pleiades) demarcated the period of a new Makahiki season and soon arrival of the Lonoikamakahiki derived rains that would commence during the winter months. Additionally, for all traditional daily ʻoihana or Hawaiian practices, include agricultural and fishing activities, the tracking the kaulana mahina (positioning of the moon) through its own seasonal cycle was instrumental in the survival and adaptability of man to environment through observation of change and opportunity to engage the land (Nuʻuhiwa 2013).

In a study conducted by noted Hawaiian scholar, Rubellite Kawena Johnson, she noted that there are distinct indigenous terms and perception expressed in the “concepts of dimension express in the symbolism of profane space made sacred by related sky to earth, which is a rationalization of cosmology”. There is a trigonometric relationship and importance to understanding how heiau were constructed in reference to this concept of dimension (Johnson 1982).

Given the known and prevalent relationship of the OHA KM parcels to on-going ocean-related activities and marine extraction and cultivation, it would be assumed that the traditional poʻe of these lands would have derived their own methodology of observation, analysis, and conclusion to the unique natural phenomena occurring within the oceans and land and the overall correlation to the celestial, atmospheric and meteorological movements. There are no known practitioners or keepers of knowledge distinct to these lands. However, there are resources of individuals in modern time that could help resuscitate the cultural practice of observational learning over time on these OHA lands.

Relationship to the Land

For Kanaka ʻŌiwi, the land and natural elements are the foundations of subsistence, cultural and religious belief, custom, practice, and identity. The land and the natural environment are alive, respected, treasured, and venerated (McGregor et al 1997). Even within an urban environment and context, the value, association, and relationship to land and the responsibilities of appropriate stewardship are not obviated (McKeague 2005). The land is one hānau (birth sands), and kulāiwi (resting place of ancestral remains). The land lives as does the ʻuhane (spirits of family ancestors who nurtured both physical and spiritual relationships with the land). The land has provided for generations of Kanaka ʻŌiwi and will provide for those yet to come (McGregor et al 1997). For this study, the elements relevant to the relationship to land include: trails, wahi kanu (burials), agricultural lands and fishponds, residence of aliʻi (Hawaiian royalty) and makaʻāinana (commoners) will be discussed.

Trails

In the late 1700s and early 1800s, during the time of Kamehameha I, a trail to the sea at Kakaʻako was located on the makai side of Kaoaopa, near King Street and downtown Honolulu. The trail to the sea continued to the area where a ship called Namahana was once anchored. The ship was berthed on the north side of the home of Naʻahu, at the place where Halakika later lived. Kakaʻako was at that time the home of fishermen, and below the trail lived the kahuna Hewahewa along with several other kahuna. These kahuna were very powerful and were of the kanalu class (priests of Kū serving in the luakini temple). The fishing settlement extended along the coastline for some distance and probably included a dozen or more traditional-style dwellings (Garcia 2008).

John Papa ʻIʻī mentions some of the lands of Kaka'ako while discussing early nineteenth century trails in the Honolulu/Waikīkī area. The fact that a trail traversed this region, characterized by ponds, marshlands and loʻi, suggests that the trail, especially as it neared the coastline at Kālia, must have run on a sand berm raised above surrounding wetlands and coral flats. On the makai trail (probably close to the current alignment of Queen Street), walking from Waikīkī to Honolulu, the following is noted:

> **The trail from Kālia led to Kukuluāeʻo, then along the graves of those who died in the smallpox epidemic of 1853, and into the center of the coconut grove of Honuakaha. On the upper side of the trail was the place of Kīnaʻu, the father of Kekauonohi. From the makai side of Kaoaopa was a trail to the sea at Kakaʻako, where stood the homes of the fishermen. Below the trail lived Hewahewa and his fellow kahunas (CSH 2009).**

Today, pedestrian access is somewhat limited to available sidewalk and park experiences with a meandering path system within the Kakaʻako Waterfront Park. There is ample opportunity to evaluate and assess how a predominant pedestrian level experience can be purposefully created along a shoreline promenade as well as integrated interior path system that provide visual and relationship access to lateral mauka-makai corridors.

Mālama Iwi Kūpuna a Wahi Kanu (Protection of Ancestral Human Remains and Burials)

The term ʻŌiwi invokes an insight that our individual existence as contemporary Hawaiians is predicated upon the inherited transference and continuance of mana that extends from our moʻokūʻauhau, the specific genealogical and temporal association we have to our ancestral past. Even after death, although the spirit of the individual may have continued its journey in one of the understood realms of the afterlife, the ancestral remains are genetically imprinted and spiritually imbued with the mana of that individual and are the physical remnants in which the ʻuhane, the spirit, remains identified. Within the burial context, the physical connectivity between iwi kūpuna and ʻāina stimulates the cyclic process whereupon the mana of the individual returns back to the collective energy to "that which feeds and devours", poetically understood as returning to the womb of Papahānaumoku. Although mana is retained by an individual from life into death, its origins emanate from ancestral sources that are beyond our own understanding. Thus, we are symbolic extensions or branches from these sources, which is a secondary meaning of mana. Iwi kūpuna are the primary essence of our identity and being from which the totality of our connection to that ancestor lies within the in the "genetics" of the ancestral path. The cyclic process of mana is metaphorically framed in the term, kulāiwi, which translates as the "bone plain" or "bone source," reinforcing the understanding that the homeland or birthplace of our people is defined as the physical and cultural space in which the bones of our ancestors have been and will continue to be buried. Thus, the disinterment and eviction of iwi kūpuna from their sacred space of hoʻokanu, of a spiritual and physical cultivation and connector with the ʻāina, is a negative influence on the balance of life and the sustenance of mana. Justified acts of bone disturbance only took place under the patronage of the family or kahuna tasked with their protection, which was a rare exception for purposes to protect from other wanton acts of desecration (McKeague 2005).

Burials in the Kakaʻako urban corridor are probably the most significance and abundant "resource" that requires the utmost sensitivity and planning to ensure they are treated and cared for with utmost respect. Traditionally, unmarked Native Hawaiian burials were a common feature along this coastline given the soil conditions (sandy beach), the unique historic land tenure practices (traditional population settlements nearshore with small family burial plots as late as the 1920s), and significant events in history (battlefront and large epidemic diseases) that have resulted in many subsequent encounters with traditional burials in the modern era. Additionally, cluster of historic burials, such as Kaʻākaukukui Cemetery, have been found throughout the area (Garcia 2008).

Iwi kūpuna are typically found in areas containing Jaucus Sands, or calcareous sand deposits. For the OHA parcels, the majority of these lands were filled in on a once abundant reef system from traditional times through the early 20th Century. Therefore, it is initially thought that within the vast majority of

these lands, there is potentially less likelihood of encountering burials. However, any planned subsurface improvements along or near Ala Moana Boulevard or extending out from the project area into more mauka areas (like the potential need of utility or infrastructure improvements) should include early planning efforts to conduct archaeological investigations to verify and validate any concerns. It is important to also note that often the historic fill that was brought in to places like Kakaʻako came from several sources including ʻĀina Haina, Pūowaina, Kewalo, Ala Wai, and Ala Moana. Past discoveries of disarticulated iwi kūpuna fragments within fill layers are known to have occurred and should be considered for any project planning in Kakaʻako.

Agricultural and Inland Fishponds

In terms of natural resources, the coastal Kakaʻako lands were not well suited for agriculture and it appears that people living here acquired most of their food from the mauka areas, particularly Nuʻuanu and Pauoa. Resources of importance to the coastal area included a large number of fishponds and salt pans. Subsistence activities at Kakaʻako, especially in the late period of Hawaiian history, included tending to the area's large, subdivided, inland fishponds. One of the fishponds in Kakaʻako was situated in Kewalo, makai of King Street) (Garcia 2008). Greater detail regarding marine cultivation and resource extraction is provided in a subsequent section below.

Residence of Hawaiian Royalty and Makaʻāinana

Around 1810, Honoukaha was a cluster of grass houses for the compound of the chief Kīnaʻu, which was located along a major trail that extended from Honolulu to Waikīkī. Many house lots were awarded in this area near the corner of Punchbowl and Queen Street, in the mid-nineteenth century Māhele. Honuakaha was near a major crossroad, near fishponds in the Kaʻākaukukui and Puʻunui ʻili, and most importantly, near the salt lands along the Kakaʻako coast. The high aliʻi and the royal household had interests in the lucrative salt trade, and they built their houses near the saltpans, mauka of the marsh lands.

John Dominis Holt, who had several Hawaiian aliʻi on both sides of the family, had many relatives who lived in this area in the late nineteenth century, including his great-grandparents Owen Jones Holt and Hanakaʻulani, who lived in a house called Hale o ʻĀpua (near ʻĀpua Pond). His great-grandparents lived makai, on the north side of Punchbowl and Halekauwila, and his relations, Princess Kekaulike and her sons, David Kawanakoa, Jonah Kūhio, and Edward, lived across the street. Princess Ruth Keʻelikōlani also had a house nearby on the west side of Punchbowl Street, makai of Queen Street (CSH 2009; Garcia 2008).

Other documented events to note regarding the presence of royalty included the daughters of Kamehameha's fishermen who were well known to play the ʻūkēkē in Kakaʻako. ʻŪkēkē consisted of a piece of coconut stem and midrib, held over the mouth and strummed. The girls would draw crowds of listeners to Kakaʻako to enjoy their ʻūkēkē strumming. Another account details that in 1810 the American sailor Isaac Davis, confidant to Kamehameha, passed away. His funeral procession went to Kewalo and he was buried there on land owned by a foreigner. An 1817 map by Russian commander

Otto von Kotzebue showed the location of a cemetery in Kewalo next to fishponds and trails that connected Honolulu and Waikīkī, and this may be the cemetery where Davis and other Europeans who died in the early 1800s were buried (Garcia 2008).

Concomitantly, as mentioned in earlier discussions, during the historic transitional period, the issue of habitation and settlement of maka'āinana under a new set of western laws versus what was considered an ancestral obligation and privilege to the land and its resources came to the forefront in Kaka'ako. Between 1900 and 1909 the Ka'ākaukukui reef became home for a group of Gilbert Islanders who came to work on the sugar plantations and established a squatters' settlement on the reef. By the mid-1920's the community numbered about 700 Hawaiians and part-Hawaiians. During this period of development and change during the 1920s "Squattersville", as Kaka'ako was referred to at that time, continued until the Territorial government started evicting people in 1924 and razed dwellings in May of 1926. A summary of this period of change is accounted:

The shoreline land that Squattersville occupied was known as Ka'ākaukukui, commonly shortened to 'Ākaukukui. The majority of the homes were comfortable and sturdily built. The dwellings that lined the seashore, where the present Olomehani Street now runs, were protected from the ocean by a low sea wall about three feet high. Relatives and friends of the residents often went there to spend weekends and summers. By the mid-1920s, the community numbered about 700 Hawaiians and part-Hawaiians, but because of the illegality of their settlement all of the families were evicted by May 1926 and all of the dwellings were razed.

During the 1930s and 1940s, the Ka'ākaukukui area continued to be heavily utilized as a fishing and swimming area, especially by children from the nearby community of Kaka'ako. The children surfed on redwood planks in the break they called 'Stonewall.' Many varieties of fish were abundant. Younger divers were warned by old-time residents to stay away from the large shark hole on the Waikīkī side of Kewalo Channel. Many people came to this area to pick *limu* and *wana*, and also to catch squid on the shallow reef.

In August 1948 a severe change took place. The City and County began work on a project to provide a dump for the noncombustible material from the nearby incinerator. A huge seawall was constructed, 10 feet high, 10 feet wide on top, and 30 feet wide at the base, and it extended 500 feet seaward from the old shoreline. From its outer extremity, along the edge of Kewalo Channel, the wall was continued parallel to the coast all the way to Fort Armstrong… With the completion of the seawall in 1949, filling operations began and in the mid-1950s the shallow reef of Ka'ākaukukui was completely covered over. Twenty-nine acres of new land had been added to the old shoreline. (Clark 2005)

Another article entitled ***Ka 'Āina o Ka'ākaukukui a me Kukuluāe'o, or The Land of Ka'ākaukukui and Kukuluāe'o*** that was published in the 1925 edition of Nūpepa Kū'okoa (The Independent Newspapers), a Hawaiian language newspaper, reflected on the issue of Hawaiian settlement during the post-Māhele period and the attempt to bring these lands under the newly established Hawaiian Home Act:

KA AINA O KAAKAUKUKUI AME KUKULUAEO.

He elua mau olelo hooholo, i hookomoia ae iloko o ka hale o na lunamakaainana, e koi ana i ka ahaolelo lahui, e hoihoi ae i na aina o Kaakaukukui ame Kukuluaeo malalo o ke Kanawai o na Home Hawaii, no ka hoopulapula ana i na Hawaii; no keia mau olelo hooholo, he elua mau hoike i waihoia ae e ke komite o na aina aupuni, o ka hoike a ka hapa uuku o ke komite, e hoole ana ia i ke apono ana aku i na olelo hooholo, ma ko laua mau ano i hookomoia ae ai; ma ka hoike hoi a ka hapanui o ke komite, e apono ana ia i na olelo hooholo, me ka waiho ana aku na ka ahaolelo e hooko mai i ka makemake o kela mau olelo hooholo, a hoole mai paha.

Hookahi mea maopopo loa ma ka nana aku i kela mau hoike a ke komite, ua hookahuaia kekahi hoike maluna o ke kahua pololei, a ua hookahuaia kekahi, maluna o ke kahua politika.

Ma ka mea oiaio, o na aina o Kaakaukukui ame Kukuluaeo, he mau aina ia a ke aupuni i kuai aku ai a lilo mai, no kekahi mau hana a ke aupuni i makemake ai e hoohana aku maluna o kela mau aina; o ka hoi ana aku o kekahi poe kakaikahi a noho maluna o ua mau aina la iloko o keia mau la, ua hoi aku lakou me ke kuleana ole, koe wale no malalo o ka lokomaikai o na luna oihana o ke aupuni, i kuleana i na aina aupuni, me ka hooneleia nae o na makaainana e ae, mai ka pono mai, e noho ma kela mau aina.

Ua maopopo no i na Hawaii e noho nei maluna o kela mau aina, e hoea mai ana ka la e ku ai lakou a hele mai kela mau wahi aku, no ke kumu, aole o lakou kahua paa e mau ai ka noho ana malaila, pela e kau aku nei ko lakou mau manaolana, ma o kela mau olelo hooholo ae la elua, no ka ae mai o ka ahaolelo lahui, e lilo keia mau aina i mau aina hoopulapula no na Hawaii.

O ka ae mai o ka ahaolelo lahui, a ae ole mai paha, he ninau okoa loa ia i keia manawa, hookahi nae mea maopopo aole no e kuleana ana na Hawaii i na wahi a lakou e noho mai nei, no ka mea aia iloko o ke komisina o na Home Hawaii, ka mana ame ke kuleana e ae aku ai i ka poe noi, no ka noho ana ma kela mau wahi, ma keia ano, e koiia mai ana ka poe noi, i kekahi mau hookuonoono ana ma ko lakou aoao iho, mamua o ka hiki ana ia lakou ke hoi ae a noho ma kela mau aina.

Mamua o ka nui loa ana aku o ka poe e hoi ana a noho maluna o kela mau aina he mea pono, e lawelaweia kekahi mau hana, ma ka aoao o ke aupuni, i wahi e ikeia ai, aole he hana maalahi, ka hoao ana e maua'e wale aku maluna o ko ke aupuni mana.

Mamuli o ka hua'iia ana ae o kekahi hana ohumu iwaena o na koa ma Leilehua, no ke kukulu aku i ahahui, e ku-e ana i ke aupuni i noho hana aku ai lakou, i pio koke ai ke ahi i ke kinaiia i ka wa pono loa, mamua o ka lalapa ana ae o kona ulaahi, e lilo ai i hana paakiki ke kinai ana mahope aku. Elike me ka anoano i luluia, pela no e ohi ai ka poe na lakou kela hana i na hua awahia, elike me ka hoopa'i i kauia mai maluna o ke alakai o kela hana.

Ma na hoike i waihoia ae imua o ke komite hoonaauao o ka hale o na lunamakamainana e pili ana i na kumu hoohalahala no ke ano o ka malama ame ka hoohanaia ana o ka Home Waimano o na keiki nawaliwali o ka noonoo, he mea pono no e kapaeia aku ke poo o kela home, ina ia he kumu e nohoalii mai ai na ano maikai ma kela home ma keia mua aku.

Relationship to the Ocean

The Ka Moana Nui is the vast expanse of ocean water that connects Hawaii within the Pacific and portals to the rest of the world. The deep ocean expanse is the realm that belongs primarily to Kanaloa, the akua that tends to the needs of long-distance navigators, fishermen, and anyone seeking its resources and curative powers. Near the shoreline areas and reefs specifically, the realm belongs to Hina and to some extent Kū. Hawaiians considered the land and the ocean to be integrally united and land sections inclusive of the shoreline were considered to be most complex in ensuring ponds, fishing grounds, and ko'a were constructed and maintained in a manner the ensure that both ecological systems and their inhabitants thrived. Modern observation and known accounts of humpback whales (*Megaptera novaeangliae*), green sea turtles (*Chelonia mydas*) and spinner dolphins (*Stenella longirostris*) off the deeper waters fronting the OHA KM parcels have been witnessed. There has been as recent September 2013 an observation of a tiger shark (*Galeocerdo cuvier*) roaming the inner surf break fronting Kaka'ako. The endangered Hawaiian monk seal (*Monachus schauinslandi*) have been seen along O'ahu's southern shores and are becoming more common place.

One clear haumia (act of defilement) that exists and will continue to be an issue of consideration is the past historical uses of the area as a dumping ground. Issues regarding potential toxic and hazardous contamination are a concern to the long-term life-sustaining ability of these lands and their impact to nearshore waters. However, although the existing shoreline is the result of land-filling activities that took place in the early 1900s and mid-1950s, the coastline continues to be used for fishing, shoreline gathering, and other recreational activities including swimming and surfing. In the vicinity of the OHA KM parcels, these ocean-related activities primarily occur at Kaka'ako Waterfront Park which is located within the heart of the OHA lands. Access to the Park and shoreline is via surface streets terminating at the Park's parking lot which is typically where ocean goers leave their cars. (Clark 2005).

Surfing

There were no identified traditional accounts specifically related to surfing the waters that front the OHA KM parcels. However, there are traditional stories for other areas of the southern shoreline including those of Māmala and Kālia. In modern times, nicknames have been derived for popular surf breaks. "Flies" or "Incinerators" (nicknames that comes from when the park was a landfill) is a hidden surf break just west of "Point Panic", located out from a rock jetty with very little reef and a break in deep water. "Point Panic" is a surf break just to the west of Kewalo Basin Boat Channel, mostly utilized by bodyboarders. "Kewalo(s)" is known today as a fast hollow wave that breaks on the shallow reef located right outside the mouth of Kewalo Basin straight out from the Basin Park and the first of many surf breaks that stretch across Ala Moana Beach Park, with summer swells that can reach 4-6 feet. Access and protection of these surf spots are important to many community and cultural users.

Marine Resource Extraction and Gathering

In the Kumulipo, one of the first elements of life to emerge was the coral polyp. As such, this is the older sibling (of the sea) and a means from which sustenance could be acquired. In general, the hierarchical systems of practice to instill the sense of rank between kanaka and 'āina (or in this case the kai and ko'a) must be deemed sacred (McKeague 2005).

The ae kai and kai heʻe nalu are believed to be both the realm of Hina and her multitudinous forms including Hinahele (coral reef), Hinaopuhalakoa (corals and spiny creatures of the ocean) as well as Kaneikekokala, -kokalaloa, -kokalaiki (Kane of the coral, of the long and short). Oral history document that corals were utilized as abrasives but also as medicines (Beckwith 1970).

Although there appears to have been limited numbers of wet-taro-growing plots, the general physiographic characteristics of low-lying marshy environments once offered favorable conditions for fishpond construction in the inland portions and salt-making along portions of the shore. Fishponds, which required a substantial input of labor and careful management, largely fell into disrepair, and lands previously dedicated to raising fish were infilled. Salt making areas along the coast were used for other purposes as land-use pressures from the adjoining areas of Honolulu and Waikiki increased (CSH 2009).

Other Kakaʻako area subsistence references are found in moʻolelo involving the renowned ʻAiʻai. ʻAiʻai was befriended by a man named ʻĀpua, with whom he stayed for several days. ʻAiʻai was observing Kou, a chief and expert fisherman whose grounds were from Māmala to Moanalua. Kou was known for his fishing skill as well as his generosity for giving aku to the people in the region. While ʻAiʻai was staying with ʻĀpua at Kakaʻako, he wandered off one day along the shore of Kuloloia (a former name for the coastline from Fort Street to Kakaʻako). He continued on to Pākākā, an area ʻewa of Kakaʻako. ʻAiʻai did not return to ʻĀpua's house because he met a young woman collecting limu and crabs (Garcia 2008).

In a 1975 interview, James "Kimo" Kalua described the area near the ocean before it was filled by the city. As a child he lived in Squattersville, which was near Kewalo Basin. At that time the shoreline was at Olomehani Street, and the water came up to a low stone wall. The reef was full of limu, and many Japanese came from Kakaʻako to pick ogo. There was also a lot of wana, squid, and fish. They made their own goggles by carving hau branches and inserting pieces of glass. Strips of inner tube were utilized for the head straps. They surfed on the old redwood planks. In 1948 the city decided to make a dump for the new incinerator, and they built a boulder sea wall along the boat channel and across the reef. It surrounded a wreck of a PT boat called the La Putita. The boat had been his playground, but by 1956 the boat and the reef were covered over by fill (Garcia 2008).

Several kinds of reef fish were caught in the Kakaʻako area, including *ʻaweoweo* (Bigeye; *Heteropriacanthus cruentatus*), *manini* (convict tang; *Acanthurus triostegus*), *ʻōpelu* (mackerel scad; *Decapterus macarellus*), *ʻaholehole* (possibly, *Kuhlia xenura*), and *ʻamaʻama* (Striped mullet; *Mugil cephalus*), and squid. Several of her uncles were *aku sampan* fishermen at Kewalo Basin. After selling their catch at the fish auction, they divided any extra fish amongst themselves and shared it with their families (CSH 2011).

Very few fishes are seen in the inner harbor and other than the dominant alien black-chin tilapia, most of these are found in proximity to Kewaloʻs harborʻs entrance channel. Thus the inner harbor is biologically degraded and few native species are present. During a 2010 survey five turtles were sighted

with four of these being 400 m or more offshore of the shoreline fronting Kewalo Basin. Protected invertebrate species that are sometimes encountered in harbor settings include the black-lipped pearl oyster or pā (*Pinctada margaritifera*), the introduced oysters (*Crassostrea* spp.) as well as corals. Fish species of commercial and/or recreational interest that are frequently encountered in harbors include the Hawaiian silverside or ʻiao (*Atherinomorus insularum*), juvenile jacks or pāpiʻo (family Carangidae), barracuda or kākū (*Spyraena barracuda*), mullets or ʻamaʻama (*Mugil cephalus*), flagtails or aholehole (*Kuhlia sandvicensis*), goatfishes (family Mullidae), squirrelfishes or menpachi and alaʻihi (family Holocentridae), surgeonfishes (family Acanthuridae), bigeyes or ʻāweoweo (family Priacanthidae) and to a lesser extent a number of other fish species. (Brock 2011)

Fish species commonly caught by hook and line in Kewalo Basin during the 1950's and 1960's included mullet or ʻamaʻama (*Mugil cephalus*), uouoa (*Neomyxus leuciscus*), menpachi (*Myripristes* spp.), ʻāweoweo (*Heteropriacanthus cruentatus*), pāpiʻo (family Carangidae), ʻāholehole (*Kuhlia sandvicensis*), needlefish or ʻaha (*Platybelone argalus*), halalū or akule (*Selar crumenophthalmus*), goatfishes including weke (*Mulloidichthys flavolineatus*), wekeʻula (*M. vanicolensus*) and juveniles (ʻoama), moano (*Parupeneus multifasciatus*), weke pueo (*Upeneus arge*), mamo (*Abudefduf abdominalis*), kākū (*Sphyraena barracuda*), pakiʻi (*Bothus mancus*), moray eels or puhi (family Muraenidae) and puffers (family Tetraodontidae) (Brock 2011)

As noted in the Land Commission documents, much of the land in Kewalo and Kukuluāeʻo was used to produce salt. Salt was used to flavor food, preserve fish, for medicine, and for ceremonial purposes. The traditional method of earth saltpans led to the salt works of Kamehameha IV in the Kaka'ako region. One of the earliest accounts of salt making and preparation was recorded by Captain Cook in his journals:

> **Amongst their arts, we must not forget that of making salt, with which we were amply supplied, during our stay at these islands, and which was perfectly good of its kind. Their saltpans are made of earth, lined with clay; being generally six or eight feet square, and about eight inches deep. They are raised upon a bank of stones near the high-water mark, from whence the salt water is conducted to the foot of them, in small trenches, out of which they are filled, and the sun quickly performs the necessary process of evaporation. . . . . Besides the quantity we used in salting pork, we filled all our empty casks, amounting to sixteen puncheons, in the Resolution only. (Cook 1784)**

Noted Native Hawaiian historian Malo also discusses saltpans and production:

> ***O ka paakai kekahi mea e pono ai, he mea e ono ai, ka ia, a me ke koekoe o ka paina ana, he mea hana ia ka paakai, ma kekahi aina, aole i hana a ma Kekahi aina, o ke kai makai, e kii aku no ka wahine, a lawe mai ma ke poi, a ke kai hooholo ia mai kekahi ma kauwahi mai. E waiho kela kai ma kekahi poho paha, he ekaha paha, he kahe ka paha, a liu malaila, alaila lawe ana kauwahi e, a paakai iho la no ia, o ka papa laau ka mea kui poi.*** **(Malo 2006)**
>
> **Paʻakai (salt) is another beneficial item. It is used to make fish delicious and tasteless foods edible. Paʻakai is made at a particular place, [but] it [salt] is not actually made from this spot, rather it [salt**

> **water] came from the sea. A woman went to get some when the sea crashed [upon the rocks] and she ran back [the salt water] to this particular spot. That salt water (kai) is placed in, perhaps, a depression (poho) or a "Bird's nest" (ēkeha) or rock basin (kāheka) and allowed to evaporate (liu). Then it is taken to another spot and is formed into paʻakai. Wooden boards (papa lāʻau) are used to pound poi (*mashed cooked* kalo *corms*) on.**

In the testimony for a lot with a salt pond in Kukuluāeʻo, the awardee claimed two ālia (salt beds), 15 ho'oliu (drains), two poho kai (depressions where salt is gathered) and one salt kula (dryland or wasteland). Four separate types of salt features are mentioned: the ponds near the shore that fill with salt water at high tide (ālia), the drains (ho'oliu) where the salt water is transferred to smaller clay-lined or leaf-lined channels, the natural depressions (or modified depressions) in the rocks along the shore where salt formed naturally, and the salt kula, which was waste land, that is, land that could probably not be used for agriculture as it was so impregnated with salt (CSH 2010; CSH 2009).

Therapeutic healing, ceremonial practices, & spiritual invocation

Traditionally, the areas of Kou and presumably to these lands were noted for a number of ceremonial sites, including various kahuna practices through the mid-1930s. These kahuna were considered very powerful and their names were not used lightly. A person was not taken to a kahuna unless an illness did not go away after taking herbs and seeing a doctor. The kahuna would also curse fireballs that would be seen flying over the ocean from Molokaʻi, Kauaʻi, and Lānaʻi to Kakaʻako. They came in low and were fiery balls with long tails, unlike a falling star. These would be sent by powerful kahuna and would disappear over an area. If the Kakaʻako kahuna did not curse a given fireball, then someone in a one mile radius would die (Ethnic Studies Oral History Project 1978).

Today, many of these practices are no longer well known in the area or the sites no longer exist. However other modern rituals for ceremonial and spiritual invocation practices still exist. These practices serve many distinct purposes: 1) allows time for commemoration and remembrance of significant events or seasonal cycles; 2) enables an individual to express and reflect on an intimate relationship between the physical and ethereal realms; 3) provides a means of a systematic and repetitive approach to honor the sources of life from the earth, sea, and sky that provide our physical and spiritual sustenance.

In total, conducting ceremonial practices affords the current generation to enable a reliance on ancestral mana and provides an understanding as to the source of spiritual power that comes from either the realm of akua; the natural forces of the lewa (sky), honua (earth), or moana (ocean), or from the intrinsic and inherited knowledge, talents, and traits transmitted through genetic code from our ancestral beginnings. According to Kanahele (1988), the means to increase our mana comes from the following:

- Attending to all spiritual rituals and obligations and contribute to the strength of that spiritual source;
- Attend to all extended family obligations and contribute to the strength and increase of the family;

- Acknowledge the singularity/plurality manifestation of God/gods and honor through daily contact and interaction;
- Strive for excellence and our personal best in our individualistic endeavors;
- Protect the bones of kūpuna from desecration

Today, known ceremonial practices that occur within or near vicinity to the OHA KM parcels include meditation practices known as nalu or noʻonoʻo pono as well ocean-related purification rites known as hiʻuwai or kaiʻauʻau. In general, the ocean waters are considered to have curative powers and an ability to extract both physical and spiritual induced ailment and disease. There is some belief that the interface between specific freshwater outlets from the land create pockets of muliwai, or brackish water that lend to the curative healing capability. The ocean waters down near Kālia, known as Kawehewehe, for example, also by their brackish quality had produced certain edible seaweed varieties that were also thought to have healing properties.

Today, most ceremonial healing practices in the ocean are conducted often during pre-dawn or post-sunset hours with an introduction of protocols that culminate with a purposed focus and immersion into the nearshore waters for a period of time per occurrence and may require multiple periodic visits over time. Most of these practices are considered to be intimate in their invocation and once of the primary limitations is the ability to conduct these practices in private. Early morning activities include other users of the area (i.e. fishermen, swimmers, dawn patrol surfers, joggers, and houseless community) which can impede and sometimes distract or deter practitioners from utilizing the area.

Hoʻoulu Lāhui Aloha

Hawaiian well-being is tied first and foremost to a strong sense of cultural identity that links people to their homeland (Kikiloi 2010). Native Hawaiians are genealogically connected to ka pae ʻāina Hawaiʻi as both the ancestral homeland and the elder sibling in their traditional belief system. This relationship is integral to Hawaiian identity and is distinctive from that of other groups who live and work in the Hawaiian Islands. Significance of place to Native Hawaiian identity and cultural survival is an imperative issue across the archipelago. Understanding the physical, spiritual, genealogical, and sociopolitical/ historical ties to land and sea that nourish Hawaiian well-being is the beginning of a discourse to examining how these OHA KM parcels can speak to the ideal of Hawaiian nationalism in form, expression, and development direction. Despite the strain on these ties and challenges to ancestral identity from population decimation and displacement, multicultural mixing, and migration, place is still the key connection linking Native Hawaiians to each other and to an indigenous heritage. Arguably, consumptive patterns continue to destroy the ecological and natural balance of Hawaiʻi and in doing so critical questions emerge about Hawaiʻi's future and the rightful place of Native Hawaiians in our homeland (Kanaʻiaupuni 2006).

It is difficult for many 21st-century Native Hawaiians to share the same degree of involvement and connection with ancestral lands as perhaps their kūpuna once did. Increasing urbanization, commodification, and value acculturation have forever changed the landscape. But recognition of the pivotal role that place plays in identity and learning processes has begun to transform the service and

delivery of many educational and social programs for Native Hawaiians. The reforms integrate the rich history, stories, and knowledge about the land and sea, and at the same time reinforce the integral link between the 'āina and identity. Primarily fueled by the concern and passion of Hawaiian community members, parents, and advocates, these efforts are an organic solution to the chilling negative statistics that plague Native Hawaiian children: high rates of poverty, substance abuse, juvenile deviance and criminal activity, teenage pregnancies, poor educational outcomes, domestic abuse, depression, and suicide (Kana'iaupuni 2006).

Opportunities for exploration of these concerns could be explored through the convention of other indigenous groups facing similar struggles for political and cultural representation in the 21st Century. Pivotal issues regarding how to change existing social and political paradigms that empower and resuscitate a nationhood of well-being must begin at the individual level, then to the 'ohana, and then the kaiāulu at large. Answering the basic questions of what is Hawai'i's future regarding its own sustainability in the likes of energy production/consumption; food security; economic vitality; and cultural vibrancy and wherein lies Kanaka 'Ōiwi is perhaps something these lands can offer in terms of creating a Hawaiian space and place for discourse and intellectual capital to flourish and have influence locally and globally.

Recommendations

In putting forth recommendations for the Strategic Management Framework, six review criteria or characteristics were considered:

1. Are there unique natural or manmade features that contribute to cultural traditions?
2. Are there general elements that support existing or known cultural practices?
3. Are there historical or cultural traditions being practiced within these lands?
4. Would these lands be suitable for cultural stewardship practices to be developed?
5. How accessible are these lands to existing Hawaiian communities or to Hawaiian service organizations or cultural/art groups?
6. Do these lands contain a "heritage" or "ancestral" element to can be perpetuated?

In summary, there is a high potential of cultural relevancy and opportunity to integrate cultural planning in the development of these lands. The primary reason for the high potential is that although these lands are in-filled former reef lands, their proximity to the oceanfront; the known marine related activities and practices; their visual and triangulation associations to other significant points of ancestral alignment; their accessibility as one of the main publicly owned shoreline areas in Southern Oahu; and the opportunity served by OHA taking on the haku aina role makes this a viable cultural landscape in the urban corridor. Herein then are recommendations that will support the development of the Strategic Management Framework and other initiatives to be developed as planning for these lands proceeds.

- Focus on salt and freshwater restorative and regenerative process. Water was and is necessary for all life forms as part of the restorative and regenerative process. Further, the emergence of islands from the ocean and transmigrations of our ancestors across the Pacific serve as a reminder of our

spiritual beginnings, consideration of enhancing the nearshore waters and developing an ocean-oriented relationship should be paramount. As the OHA KM parcels are nearshore and the relevance and importance to the ocean cycles have been described, there should be an opportunity to restore the orientation and relationship to the ocean. Specific ideas include:

- Develop an ongoing and active ocean- and ʻāina stewardship program to ensure no debris, trash, pollutants, or any foreign matter that can endanger terrestrial or marine resources, water quality, or the ecosystem
- Consider the removal of historic trash fill and develop restoration plan for one nearshore parcel to acknowledge the presence of the papakoʻa
- Conduct a salt-pan restoration project to demonstrate the unique cultural practices of this area
- Restore the sensibility of the once predominant fishing village
- Develop a marine observational program to understand the full breath of species characterization, abundance, frequency, and lifecycle of marine mammals, invertebrates, limu, etc. to the nearshore area
- Develop a marine fisheries project that looks at the environmental and cultural restoration of coral and limu species once abundant in the nearshore area
- Recognize the declining number of aku fishermen with mastery of the traditional methods of fishing and knowledge of the aku sampan and conduct a living master's study or video project to capture their stories and/or provide opportunities for hands on demonstrations, workshops, and training
- Develop a pilot project that looks to create a new modern day kūʻula with intended purpose to create fish stock for wild release and island-wide fishpond hatcheries or pond restoration
- Consider partnership that explores a Hawaiian scientific research project to investigate key cultural concepts as to the healing and curative powers of the ocean (such as JABSOM)
- Include all planned infrastructure improvements to be developed with minimal impact and/or seek to improve existing conditions to nearshore waters, i.e. design of bio-swales and rain garden to treat any future stormwater or filter contaminants. For infiltration areas, incorporate the use of native plant species (perhaps makaloa) that was a traditional material for weaving. Wherein feasible, design the collection of rainwater from roofs to celebrate its qualities in sound and movement. Allow stormwater runoff to flow into vegetated bioretention areas through permeable pavement for a more natural low-impact design in areas where topography and site conditions are favorable.
- Employ pollution abatement systems to watershed stormwater sources to prevent nutrient loading and contaminant discharges along the project shoreline.
- Understand the opportunities and limitation of on-site gardening and landscaping knowing the soil strata conditions include potential hazardous, toxic, and noxious materials that require remediation.
- Grade the shoreline walk and promenade area to collect any runoff in areas to sustain planted pockets of landscaping.

- Acknowledge the prevalent and life-feeding attractive forces between the upper slopes of the Koʻolau and the regions of the waomaukele which draws atmospheric water and the natural cycle of water flow that we benefit from. Consider the integration of a water flowing concept, illustrative of the life-giving waters that emanate from the upper mountain peaks that eventually feed into nearshore fisheries. Interactive water features aligned with recreational experiences, like discovery kīpuka, for residents and visitors could be created for reflection and relaxation. One example would be the Robert Irwin's Central Garden experience at the Getty Center.

- Further the potential of applying Hawaiian astronomical concepts to site development and orientation. Utilize available technology and science to develop a series of alignment and orientation maps based upon an idea for piko-based knowledge center or gathering forum. Conceptually, align known astronomical and directional relationships to develop the equivalent of a Hawaiian engineered compass-calendar plan that accounts for solar-lunar-stellar associations.

- Consider as part of master plan/development concepts a visual corridor or built triangulation alignment to key and significant summit points including but not limited to significant points on Oʻahu but also could be directional ahu, or markers to tie in the entire archipelago.

- Honor and respect the ancestral presence and spirituality of the area. Provide space and access for cultural practitioners to be able to conduct ocean-related purification or meditative ceremonies with some opportunity for privacy and intimacy but also transformative to be celebratory and inclusive.

- Language and art are our lifeways. The use of Hawaiian language should be highly visible and prevalent for all public signage and interpretative exhibits or wayfinding. Wherein applicable, hiring of ʻŌiwi artisans during architectural design review and commissioning of ʻŌiwi and local artists for all art in designated public places. Art is an identifiable connection for ʻŌiwi to place. Consider the various mediums of art and seek a balance between traditional and contemporary modes of expression: paintings, wood carving, stone work, weaving, metal, concrete, and more.

- Restore a cultural kīpuka with a presence of kinolau (physical manifestation of ancestral expressions in plant forms). Conduct a biological assessment through an extensive research project of oratorical traditions that may convey what plant species were once predominant in the area or a suitable coastal environment. Create a pilot project that looks to create a reflective and contemplative space of an "urban coastal forest" in select open spaces. Seek creative solutions to develop a capacity of having on-site stock of plant species available for gathering by cultural practitioners and develop on-site stewardship relationship for long-term care and maintenance of the area.

- Consider the planning and construction of a series of gateway and arrival monuments themed to concepts of Hoʻoulu Lāhui Aloha and perhaps centered on a cultural and performing art complex.

Design and built examples include the Alaska Native Heritage Center in Anchorage, Alaska; the Jean-Marie Tjibaou Cultural Center in the Tinu Peninsula in New Caledonia; City of Culture of Galacia in Santiago de Compostela, Spain.

- Recognizing that these parcels represent the interests of Hawaiians across the pae ʻāina, consider for all built features into the landscape, there should be opportunities to maintain visual access, wayfinding, and corridor relationships within the parcel to the ocean and mountains. Additionally, there could be new ahu markers such as pōhaku or integration of native landscaping that align and are oriented in the landscape to significant wahi kūpuna on all major islands, the Northwest Hawaiian Islands, and to Lōʻihi/Kamaʻehu seamount.

- Wherein appropriate, preserving and restoring resource capacities for future generations is fundamental to Hawaiian belief. All projects within OHA KM parcels should consider the use of acceptable alternative energies including solar panels, solar glass, passive solar, etc. Other plausible alternative energies such as vertical wind turbines and/or untested ideas such as wave buoys should be further examined and integrated as appropriate.

- For all proposed buildings, consider the use of natural light; orientation, depth, and height of spaces, and wherein practical, select natural materials. Consider orientation and alignment to significant celestial and atmospheric patterns and prevalent wind and solar movement.

- Establish and set-up organizational structure of an advisory ʻaha of recognized kumu, kūpuna, and loea that develop a list of required criteria to be included in all design reviews and to help initiate what a hālau ola, university, and/or global welcoming center within a Hawaiian context would be. The advisory ʻaha could be authorized to make recommendations to OHA as to any development plans within the OHA KM parcels; help establish appropriate programming and events; assist in seeking potential partnerships from Hawaiian service and community organizations; create leverage and collaboration for funding for cultural programs; and if appropriate, advise and recommend necessary protocols during development and construction.

- Consider to study the opportunities to engage the waʻa community as a whole and consider potential of developing a portion of the OHA KM parcels as a hosting site for annual Molokaʻi Hoe, Nā Wahine o ke Kai; and other canoe association races; and to be a home site for long distance voyaging canoes.

- Work with Hawaiian or community service organizations that have an existing presence in the area who help to perpetuate the legacy and heritage of place. Protect the Native Hawaiian garden and cultural activities of Hālau Kū Mana.

- Conduct a Complete Streets study as means to guide and direct a more comprehensive and balanced approach to planning of transportation alternatives with specificity to the pedestrian

experience in the OHA KM parcels. Complete Streets is a set of design principles that promotes safe access for pedestrians, bicyclists, motorist, and public transportation users of all ages and abilities. Encourage opportunities for physical activity within the parcels and develop programs that promote the health benefits of an active lifestyle and a mauli ola approach to urban living for kūpuna, makua, and keiki of all abilities.

- Conduct and complete the archaeological inventory survey for the OHA KM parcels. Develop a community group of known and recognized cultural descendants to other projects in the area to have early dialogue regarding the highly unlikely but yet still potential scenario of iwi kūpuna encounters when development is ever to begin.

- Engage in a community- and descendant-engaged consultation process during the historic preservation review process as it relates to developing an archaeological inventory survey plan prior to commencing any redevelopment activities that takes into account the concern for potential unmarked Native Hawaiian burials within project lands.

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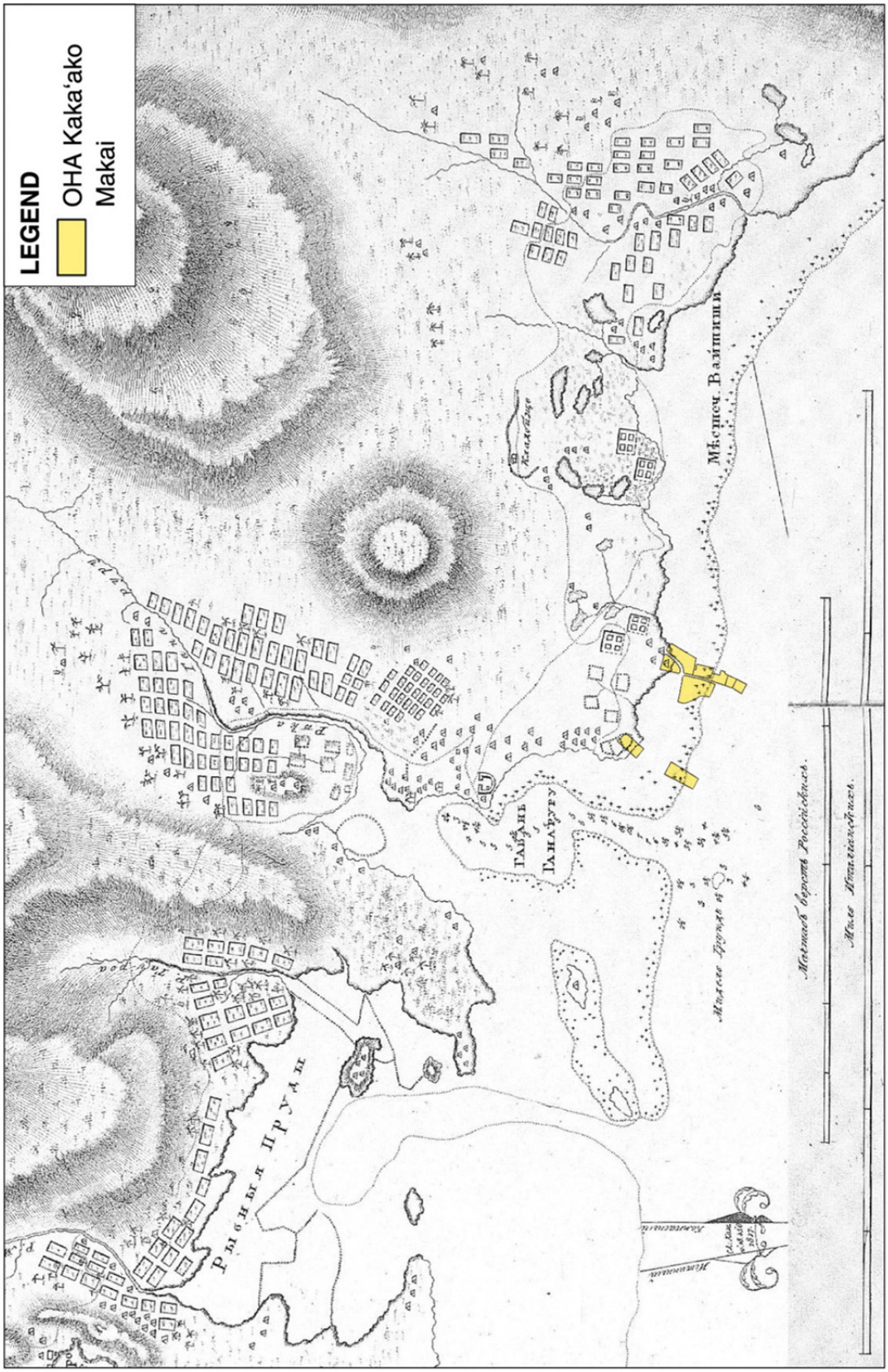
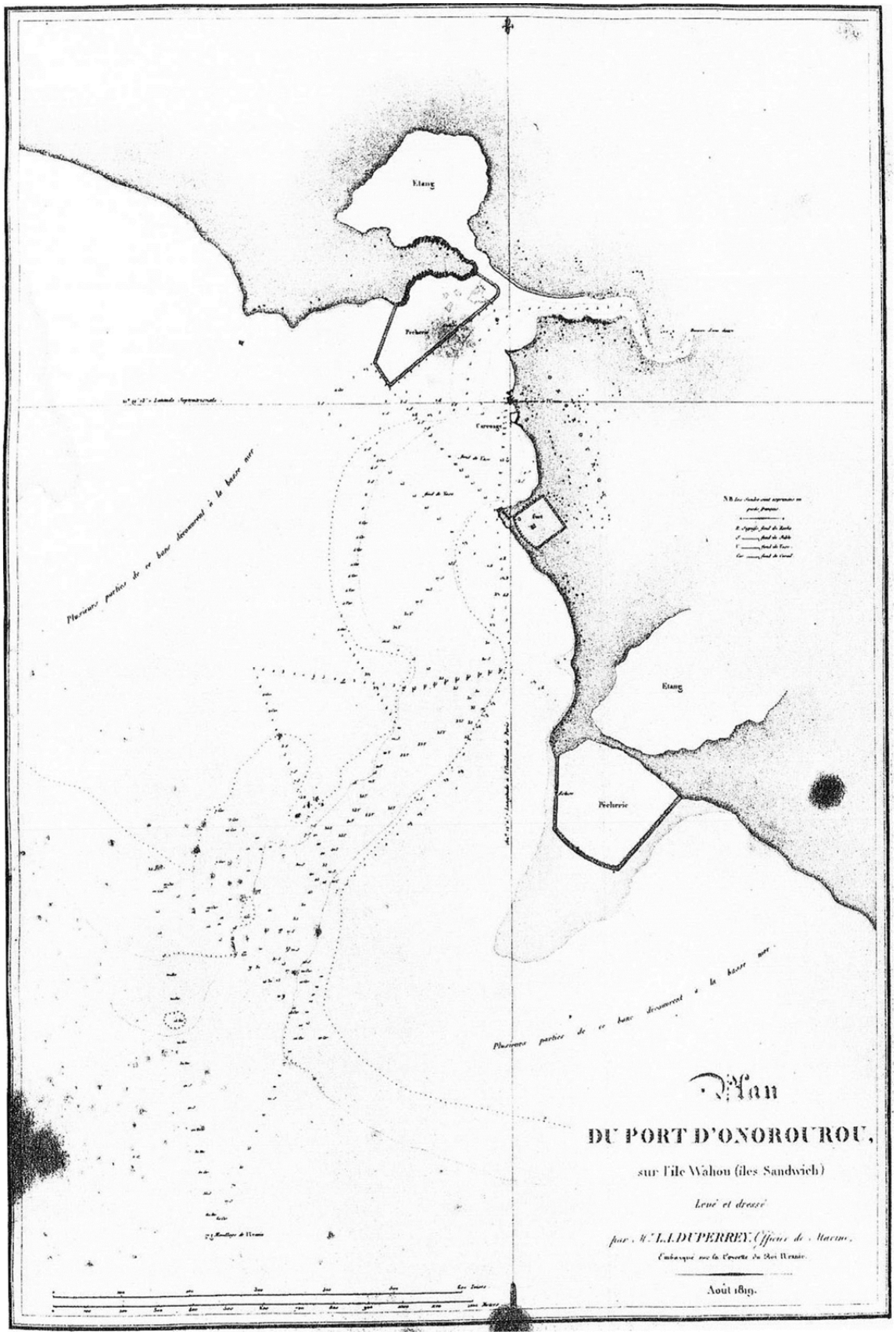
APPENDIX A

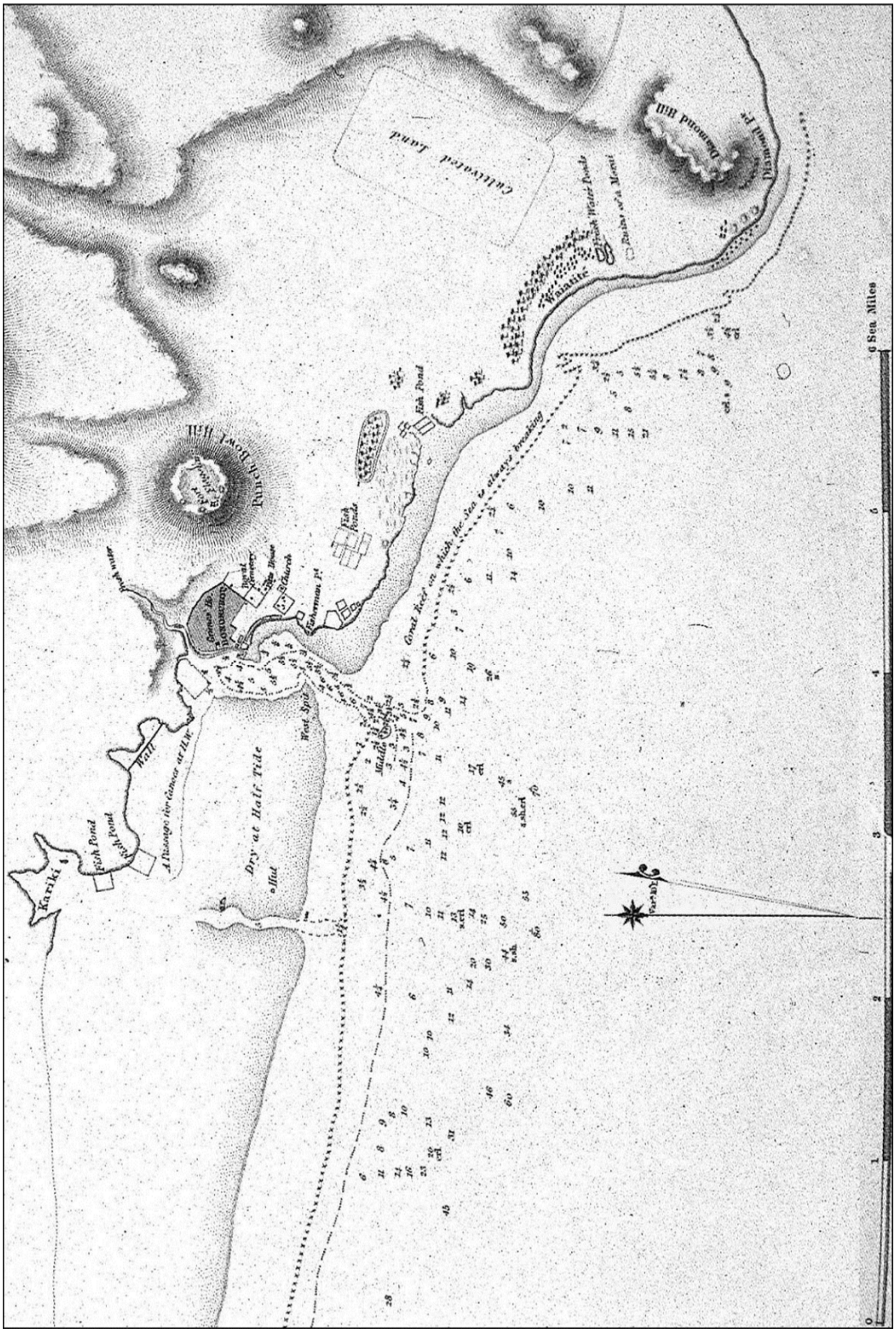
HISTORICAL MAPS FOR OHA KAKA'AKO MAKAI PARCELS



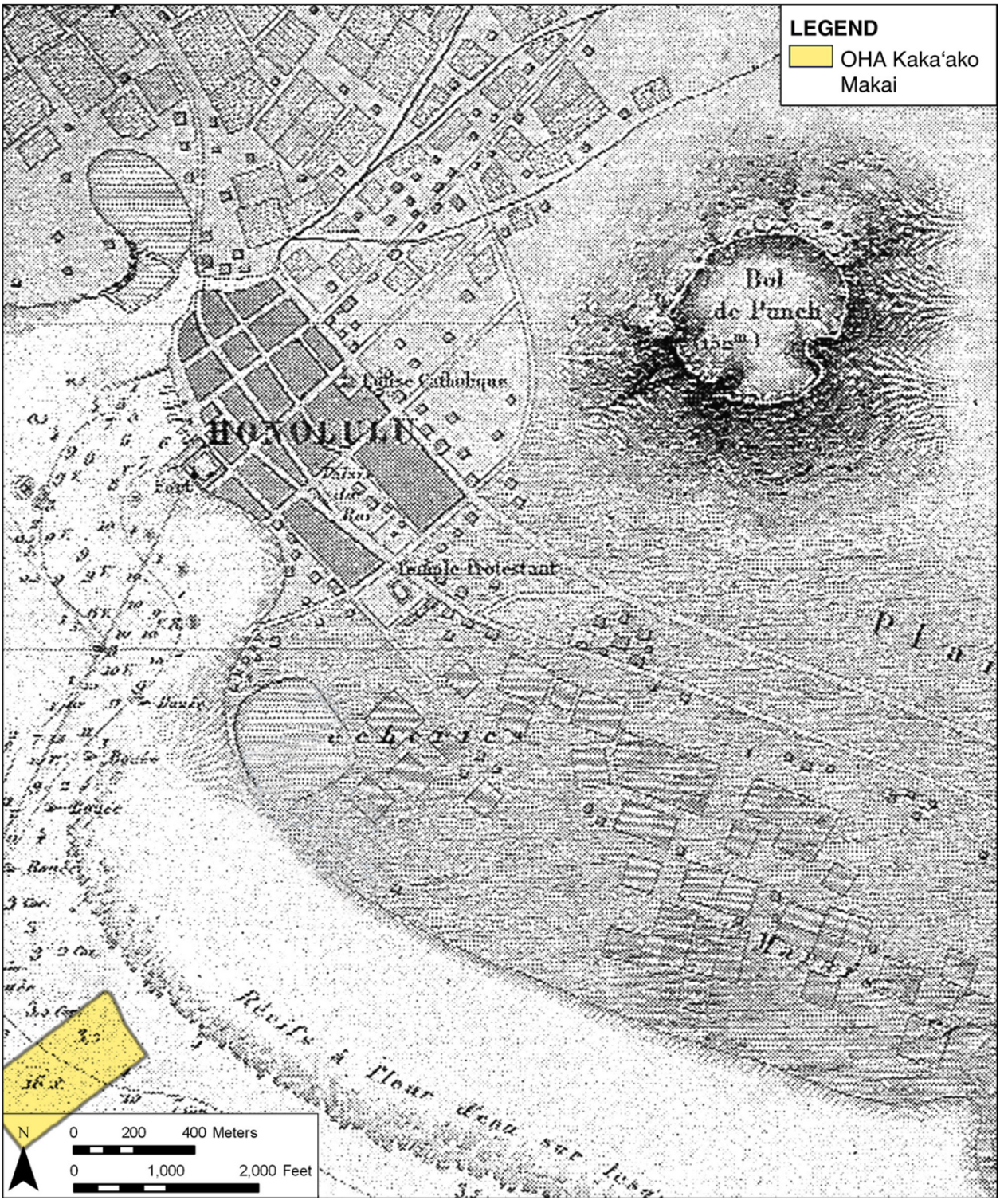
1817 Otto von Kotzbue, commander of the Russian ship *Rurick* (reprint in Fitzpatrick 1986)



1819 Louis Isidore Duperrey

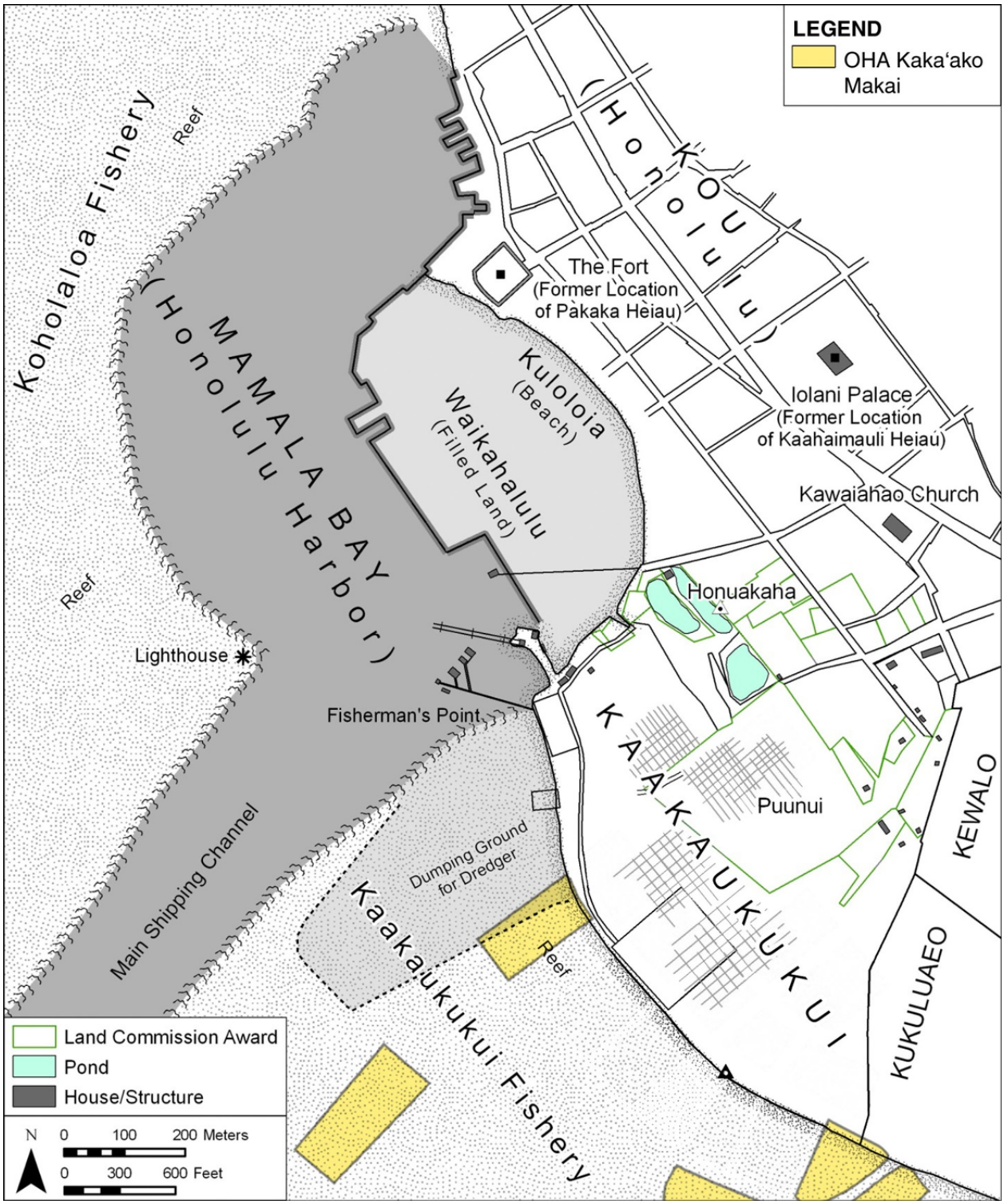


1825 Charles R. Malden



1855 Lieutenant Joseph Marie Henri de LaPasse of the French Vessel, *L'Eurydice* (reprint in Fitzpatrick 1986)

1855 Lieutenant Joseph Marie Henri de LaPasse of the French Vessel, *L'Eurydice* (reprint in Fitzpatrick 1986)

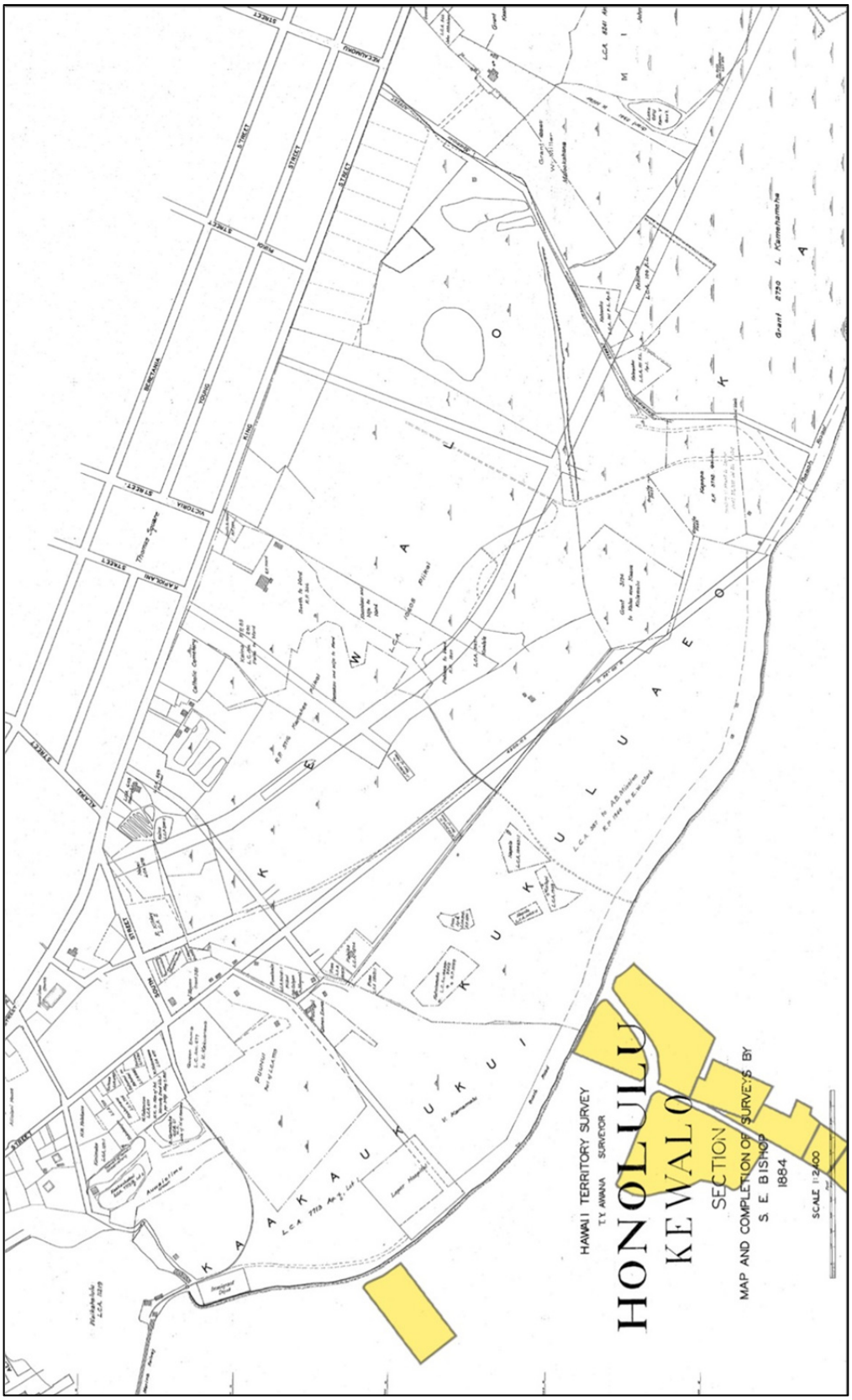


1876 Lyons Bishop Map (reconstructed by Cultural Surveys Hawaii)

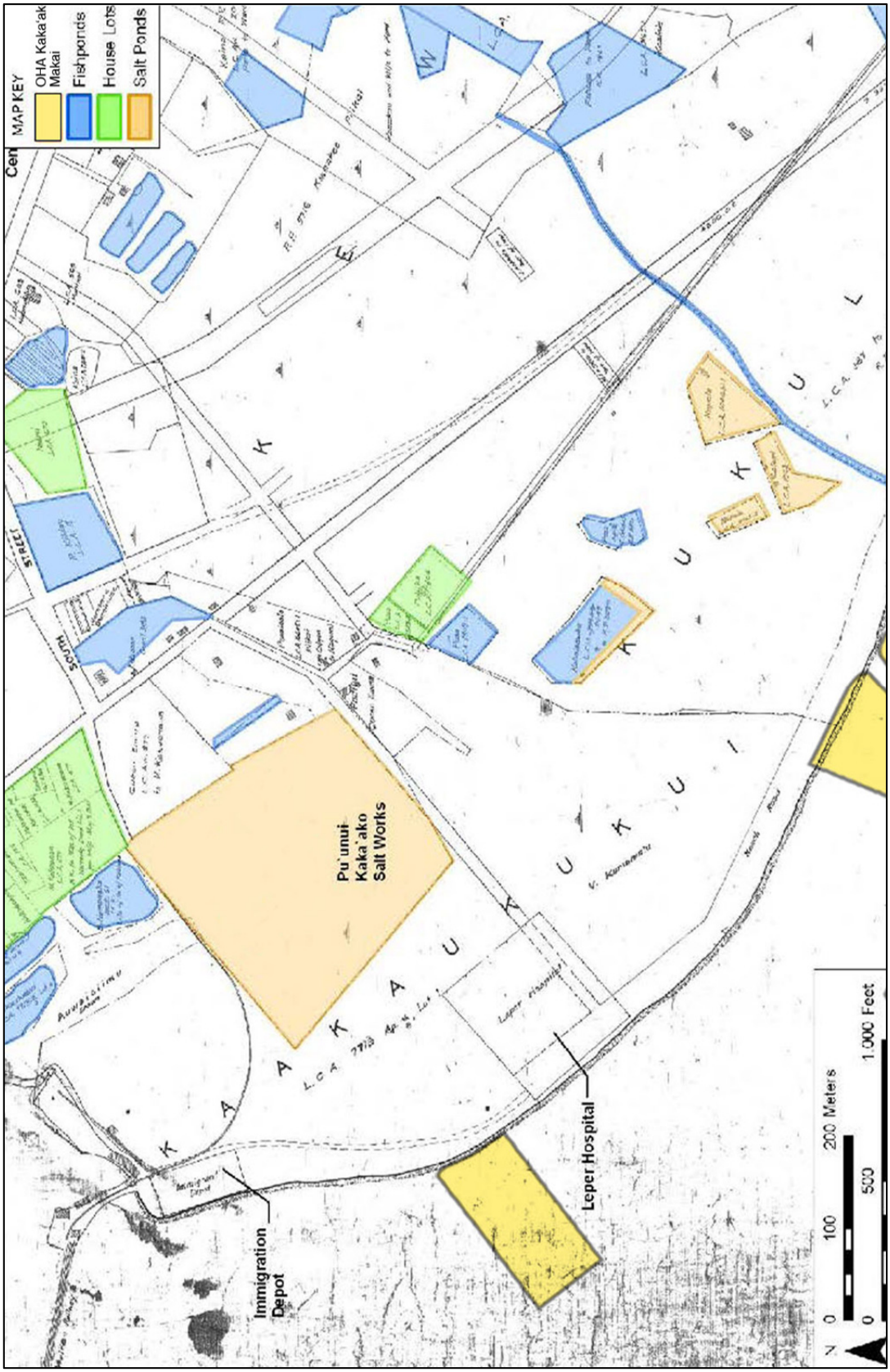
1880 JD Brown

28 October 2013

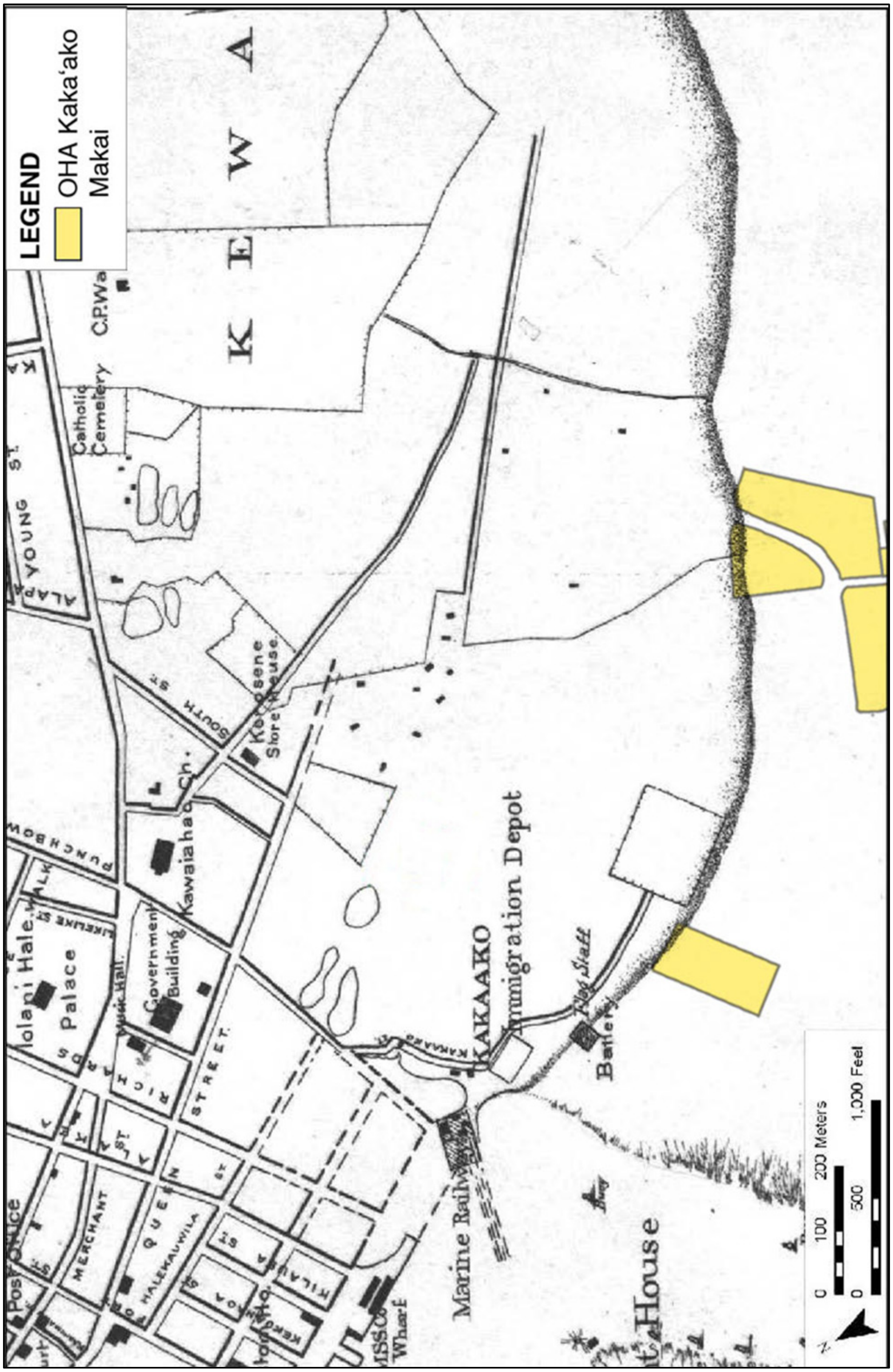
1881 Covington HLSD RMN 1381



1884 S.E. Bishop, Hawaii Territorial Survey

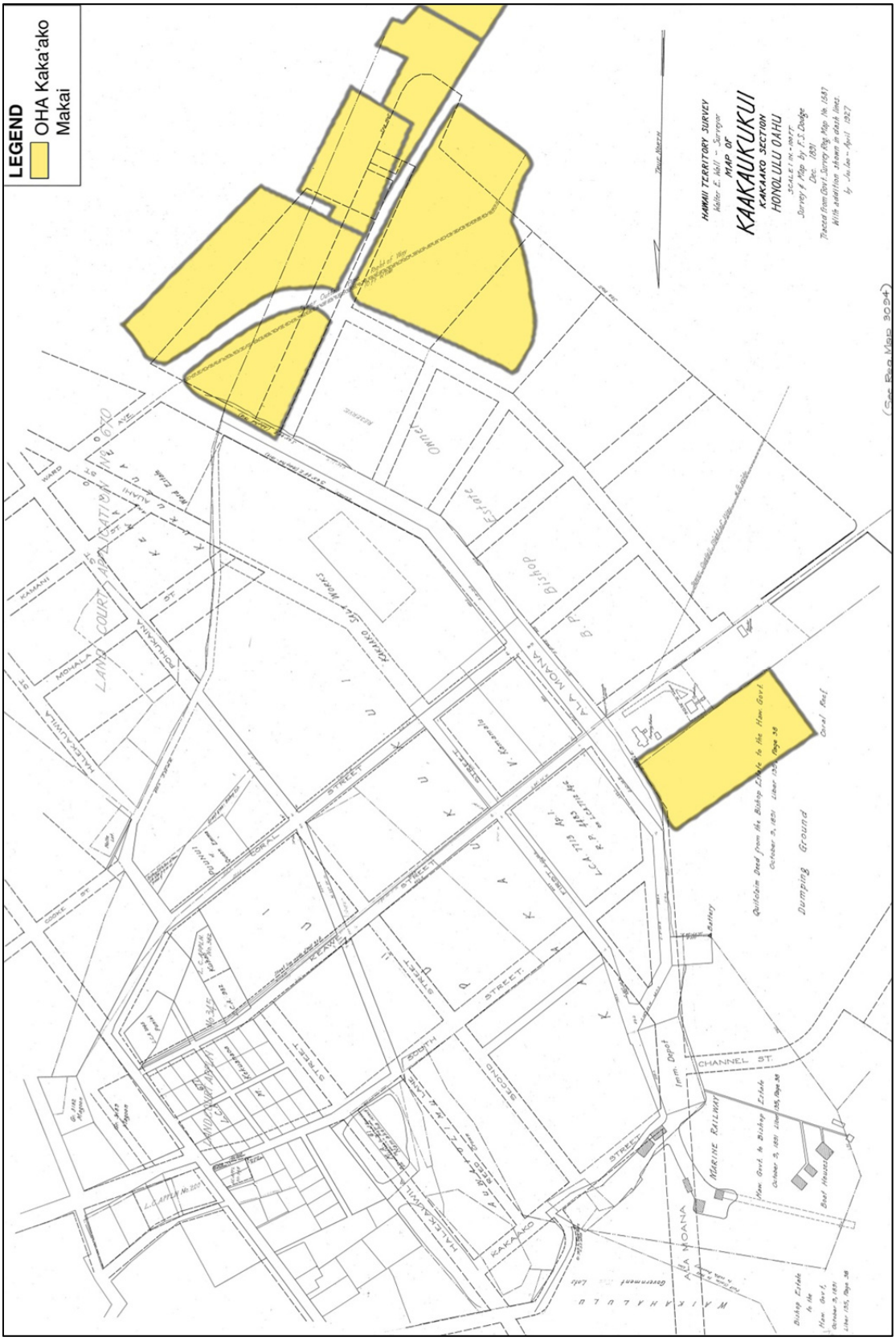


1884 HLSD RMN 1381

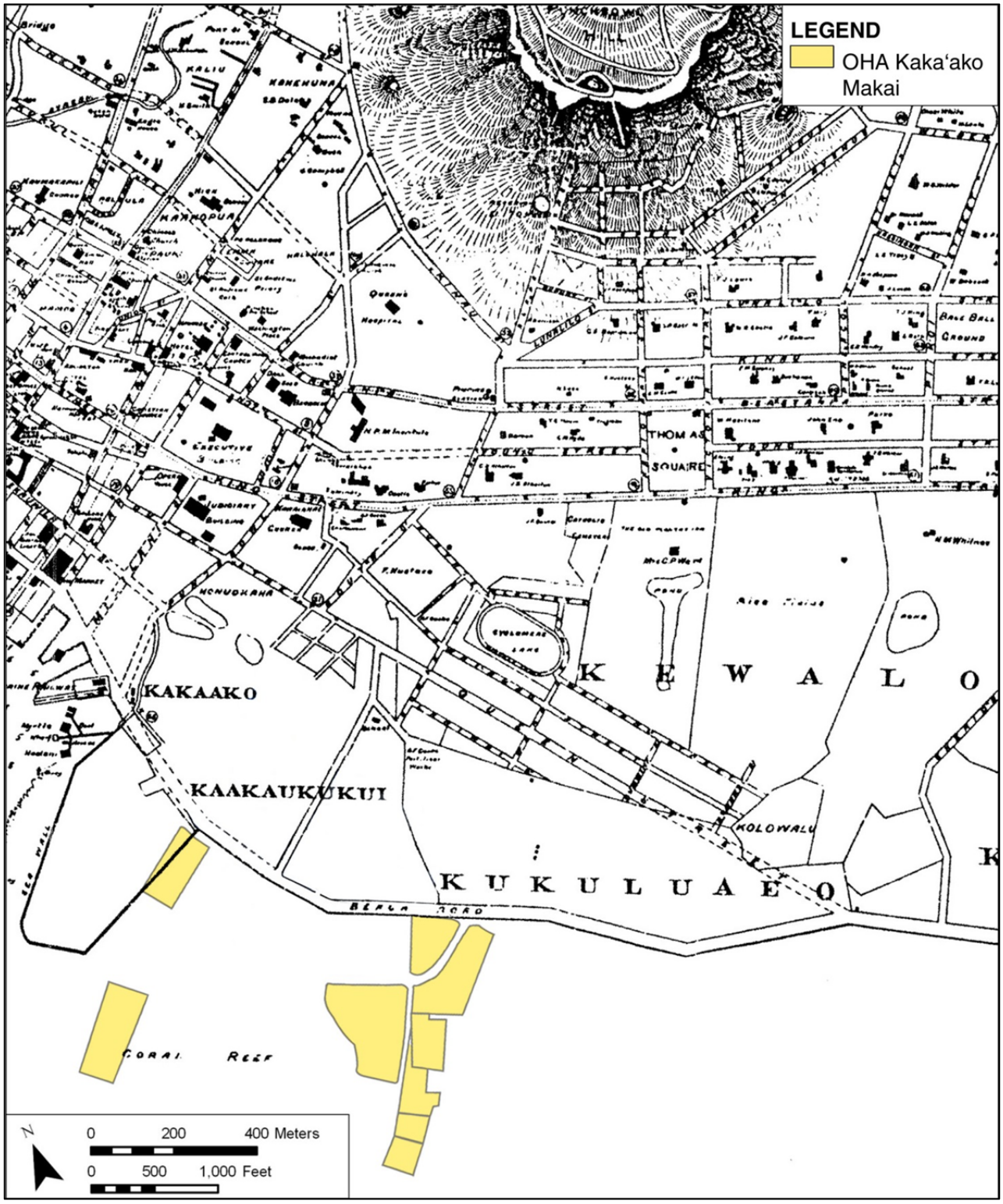


LEGEND
OHA Kaka'ako Makai
KAKAAKO
Immigration Depot
Marine Railway
Kawaiahao Ch.
Palace
Government Building
Catholic Cemetery
Kerosene Store House
YOUNG ST.
SOUTH ST.
PUNCHBOWL
QUEEN
MERCHANT
STREET
Bailey
Flag Staff
Wharf
Post Office
K E W A
0 100 200 Meters
0 500 1,000 Feet

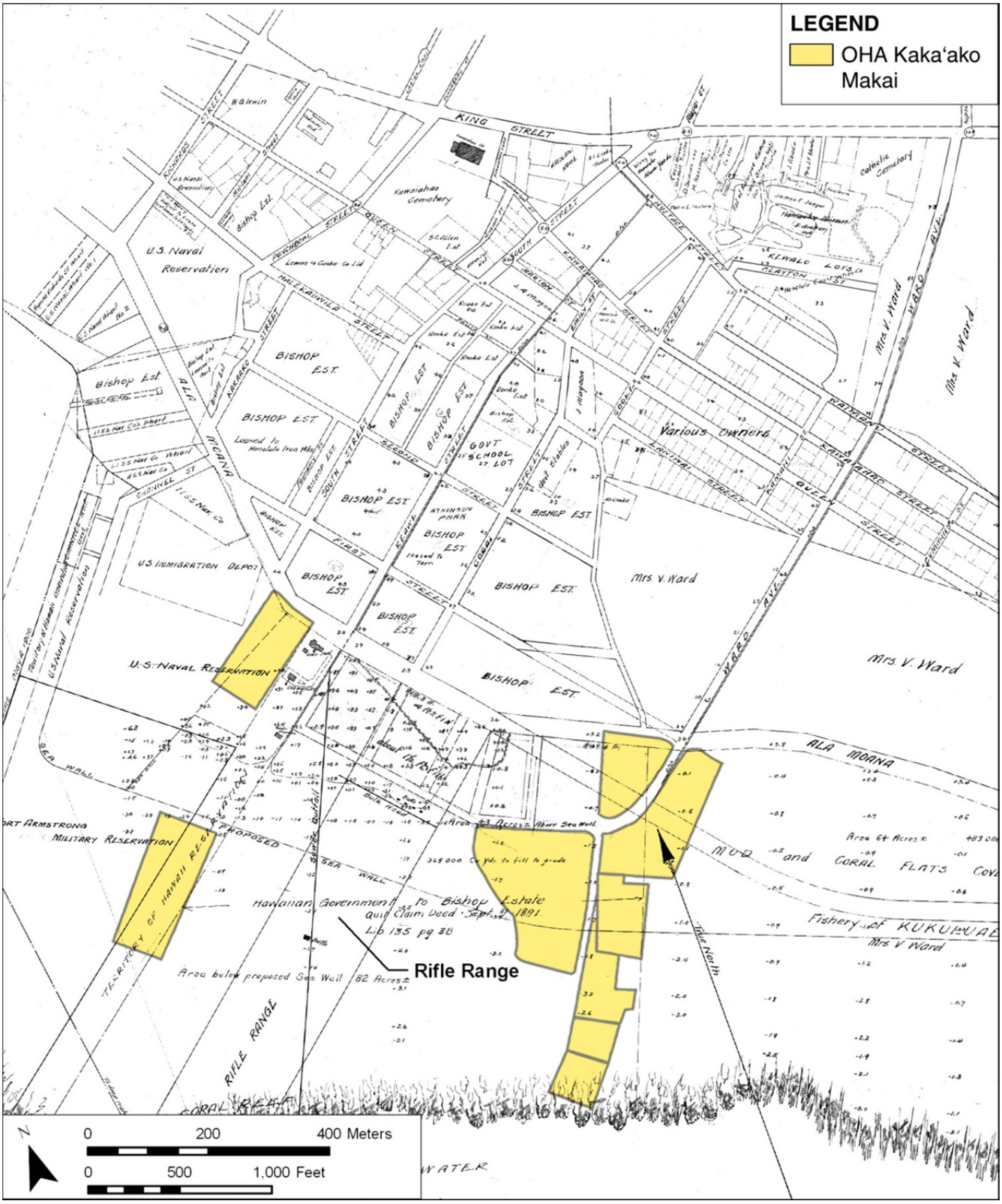
1887 W.A. Wall



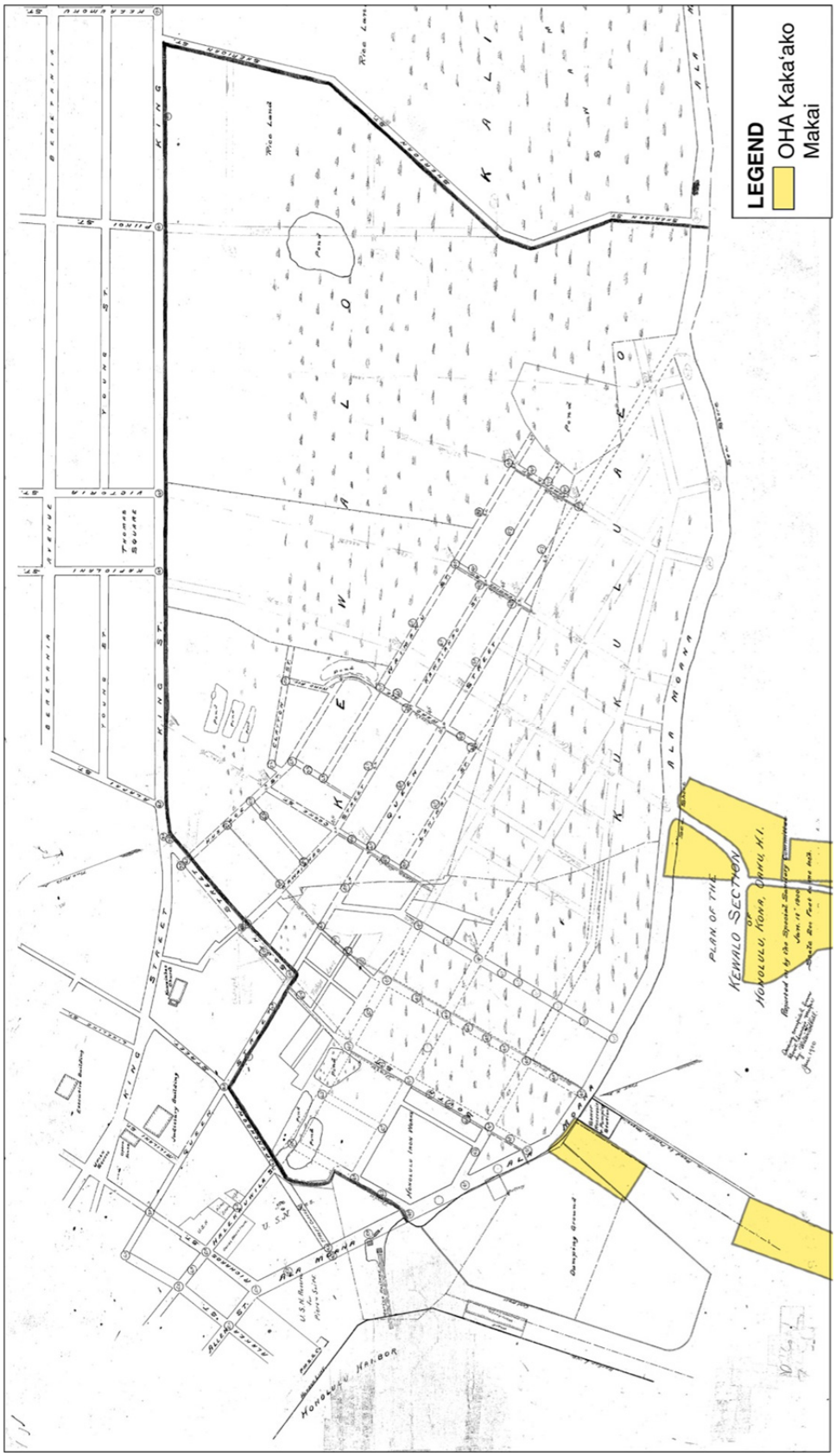
1891 F.S. Dodge



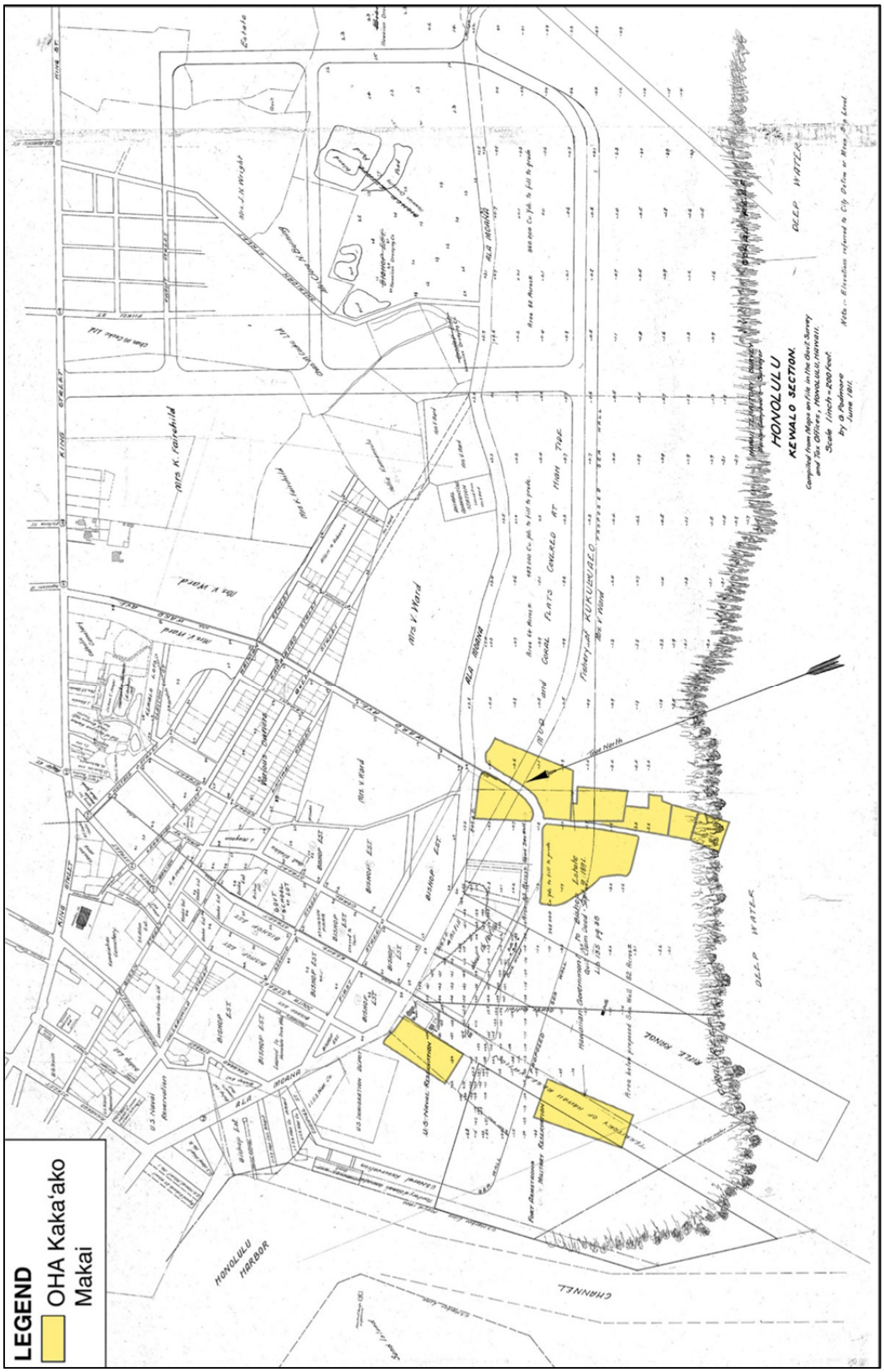
1897 MD Monsarrat HLSD RMN 1910



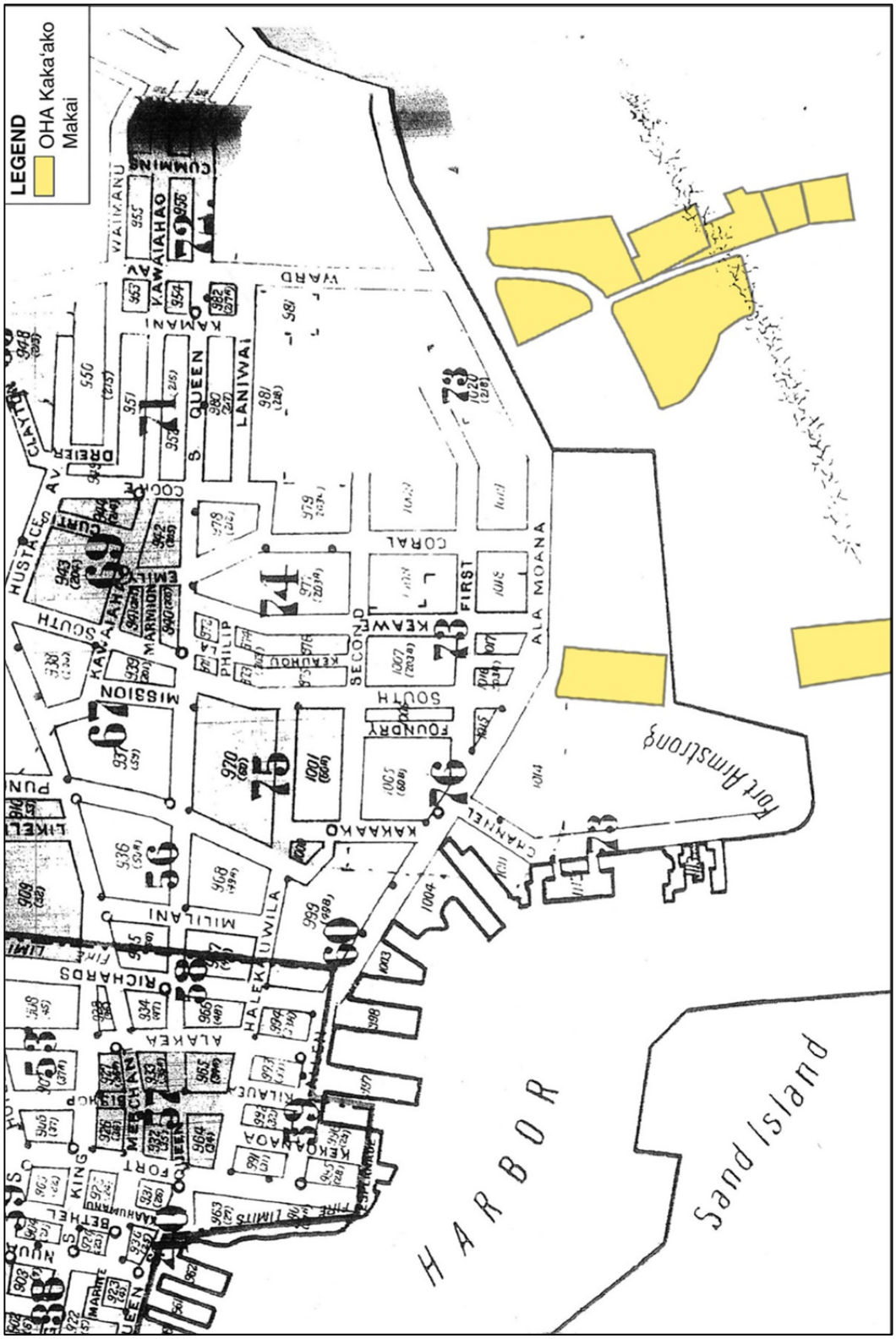
1911 Podmore HLSD RMN 3094



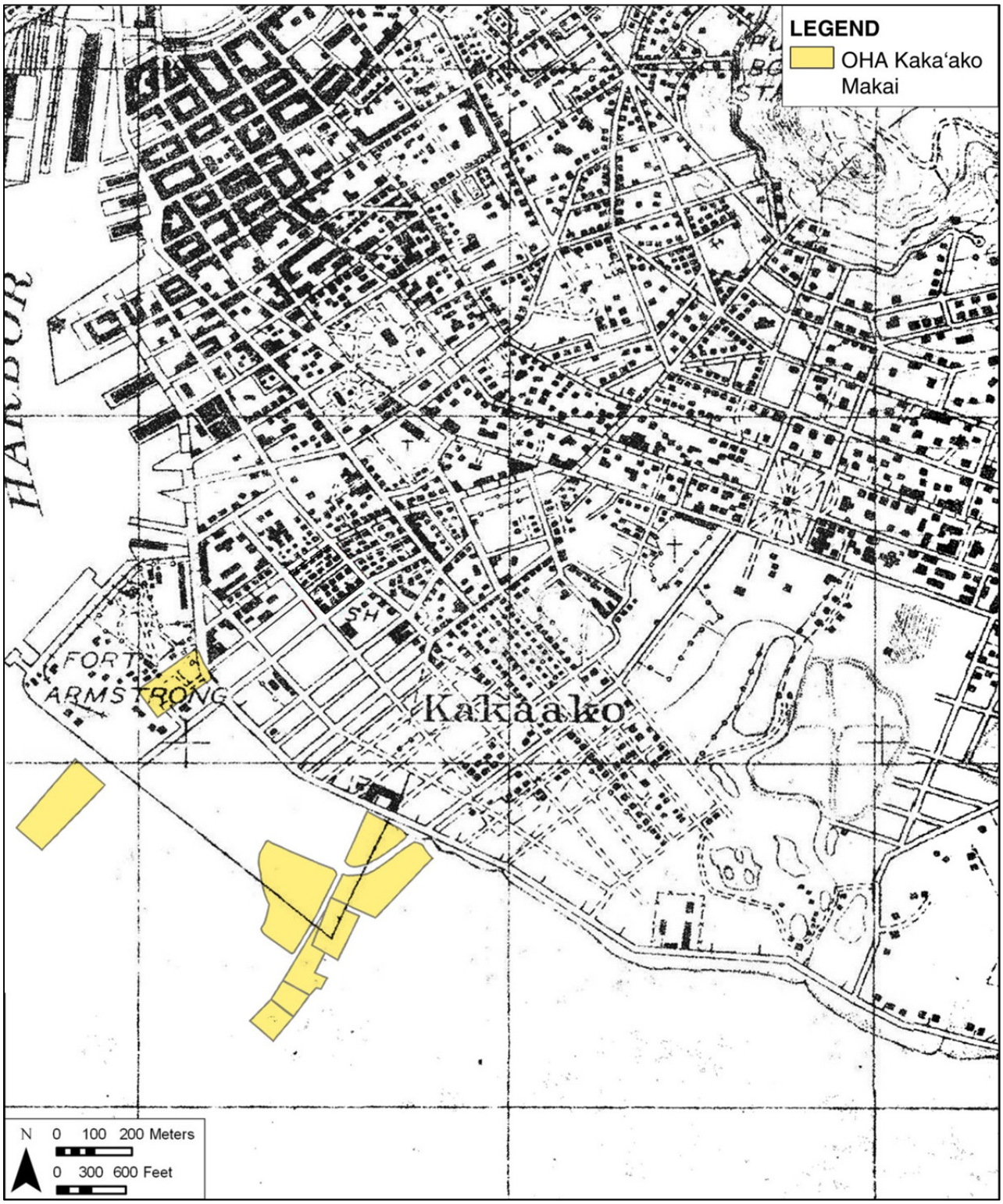
1900 Special Sanitary Committee Map



1911 G. Podmore



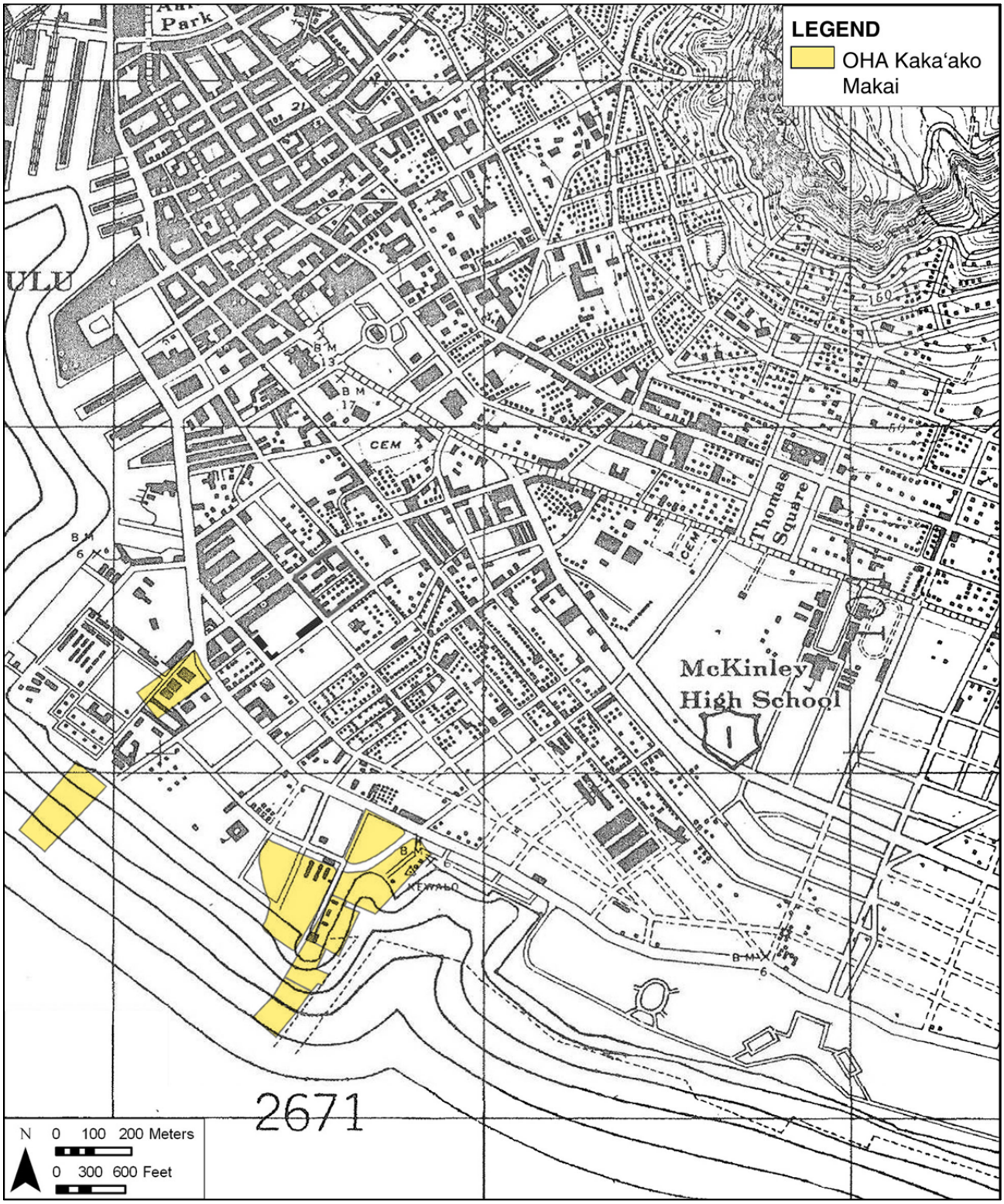
1914 Sanborn Map Company



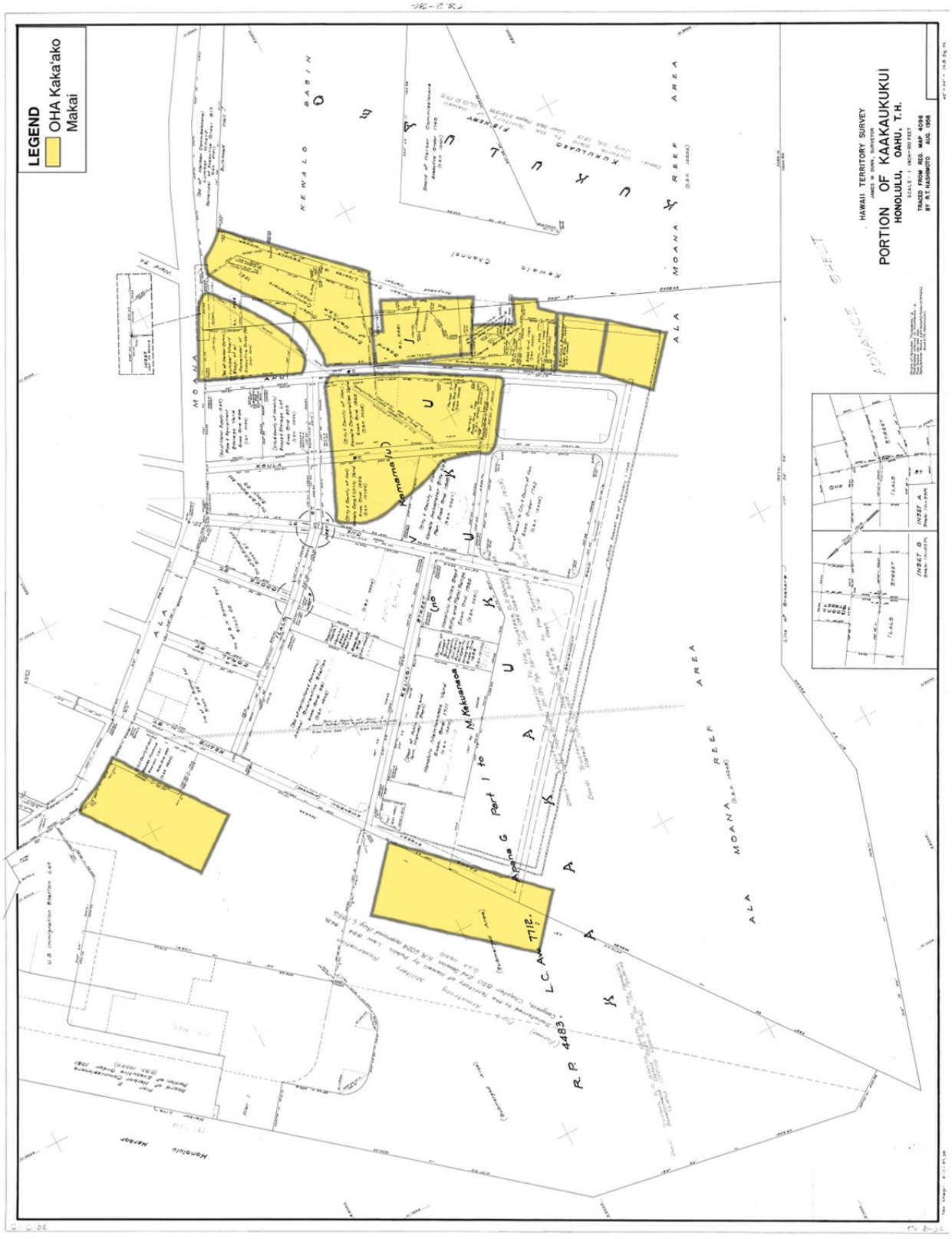
1919 US War Department Honolulu Quad Map

1927 USGS Honolulu Quad Map

1939-1941 US Army Air Service Map



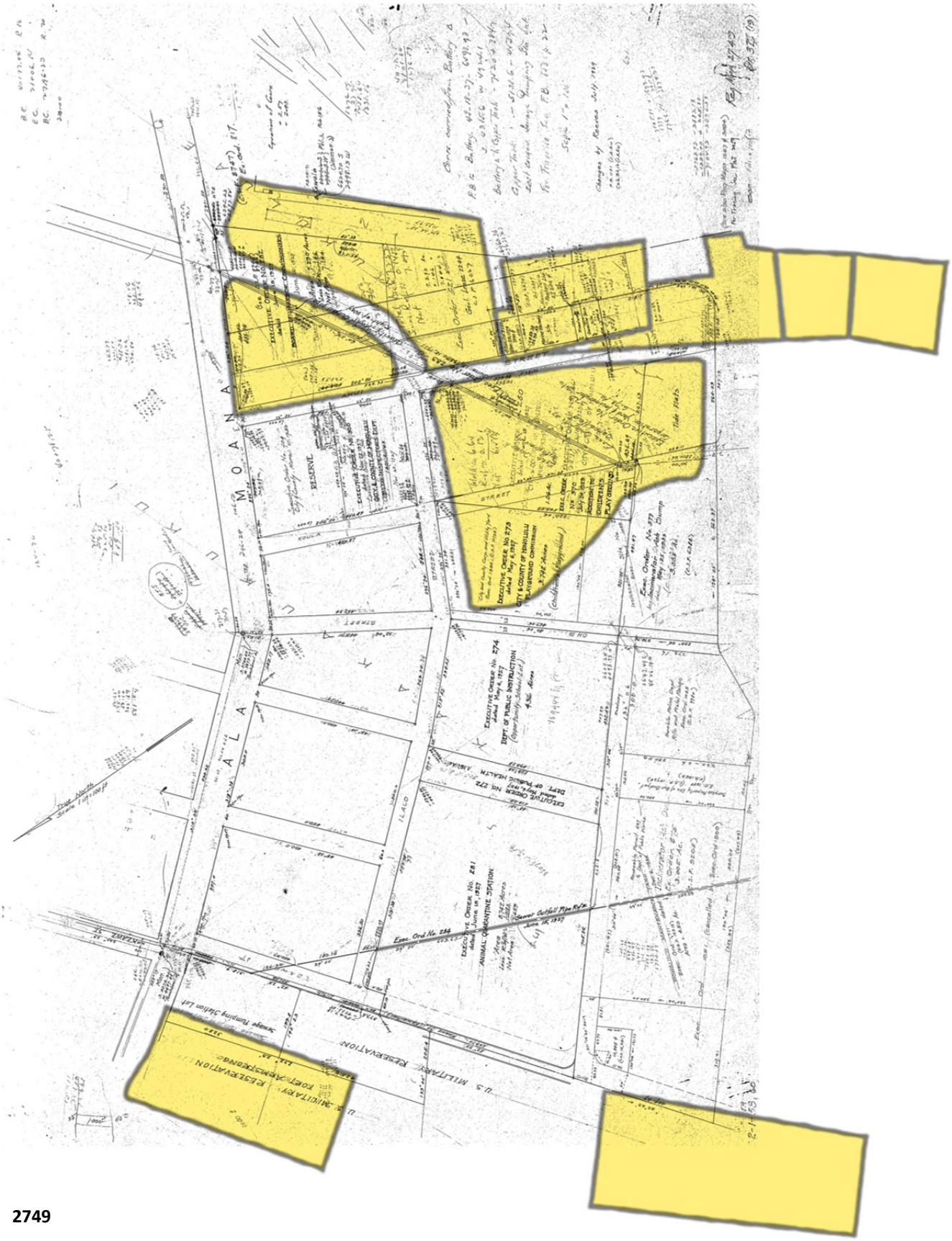
1943 US War Department Honolulu Quad Map



1958 R.T. Hashimoto

1978 US Geological Survey Map

1978 USGS Orthophoto Map


MOANA
ALA
STREET
RESERVE
EXECUTIVE ORDER No. 273
EXECUTIVE ORDER No. 274
DEPT. OF PUBLIC INSTRUCTION
EXECUTIVE ORDER No. 281
ANIMAL QUARANTINE STATION
Exec. Ord No. 284
U.S. MILITARY RESERVATION
FORT ARMSTRONG
Sewage Pumping Station Lot
Sewer Outfall Pipe R/W
Tide Flats

2749

APPENDIX B

OHA KAKA'AKO MAKAI CULTURAL GUIDELINES AND POLICY (2012)

Kuana`ike Hawai`i: Universal/cosmic standard general worldview

- *Essence, values, dualism, mana (animate and inanmiate; psychic and phsyical), mankind and nature, etc.*

O ka wā mamua: `Ike ku`una hawai`i

- *Standard historical and cultural inclusion criterion for OHA*
- *Provides foundation building for master planning and scopes of work via Hawaiian principles*

O ka wā mahope: Integrated profile

- *Highlight and recommend a framework for land-related development and management*
- *Broad and general inclusion criterion units*
- *Provides a link between traditional and contemporary knowledge foundations*

O kēia au: Finding the balance between culture & commerce

- *Distinct project development goals*
- *Discrete criterion unit inclusion*
- *Provides functional and utilization goals for planning and management processes*

Consummate foundation to our Hawaiian philosophy and worldview of land and natural resources for OHAs `āina acquisition and management projects

Finding a Balance Between Culture & Commerce for OHA

OHA-WIDE				`ĀINA-WIDE	PROJECT-SPECIFIC
-O KA WĀ MAMUA- *The historical and cultural principles*				-O KA WĀ MAHOPE- *The contemporary profile of current recommendation statements*	-O KĒIA AU- *Recommended indicators for a functional and active Kaka`ako Makai**
Principle	*Our Characterization*	*Phrase Statement*	*What about it?*		
MO`OMEHEU	Cultural history, traditions, practices, and language	*Past*		1. Space matters as a cultural layer 2. Spaces should facilitate relationship building 3. Value-added development – Commercial and Cultural worth for the community 4. Living culture in a living World 5. Planning for the next five generations	**These are meant to serve as examples of how we integrate layers of meaning to the functional and active use of our space.* • Leaving a corridor for Kūkalahale wind and rain • Dualism with building structures, ex: tall buildings and flat space distribution • Go Green: space, technology, materials, environment • Multi-use/Multi-purpose spaces that can create revenue but still give-back to the community for use: gathering, meetings, parties, rally, performance, learn • Fishing restoration activities • Walking paths • Cultural enhancement opportunities for tenants: Distinguish Kaka`ako Makai as a globally significant destination to share your business with the community ▪ Shared use of cultural spaces ▪ Involvement with community ▪ Brings the business to a humanistic side • Lele and kuahu: acknowledging aspects of our living and spiritual world
		Our history is imprinted in the land and in us.	We celebrate the history imprinted in the land and in us.		
KŪLIA	Innovation and excellence	*Future*			
		Our excellence today establishes a higher standard for the next generations.	We excel and innovate to meet our current challenges and continue to elevate the lāhui.		
AO	Living World	*Present*			
		Our stewardship and connection to the environment are integral to who we are as a people.	We ensure vibrancy and abundance i ke ao nei (in the living world).		
PILINA	Relationships, interactions and connectivity	Our connections to the principles and one another lives on.	We are connected to and affected by our relationships to our past, our living world, and our communities.		

3 Charrette Vision & Strategic Priority

GROUP 70
INTERNATIONAL

PRINCIPALS

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Katherine M. MacNeil AIA, LEED AP
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Paul T. Matsuda PE, LEED AP

OF COUNSEL

Ralph E. Portmore FAICP

September 13, 2013

Mr. Allen Kam, AICP
Pou Kākoʻo Kuleana Hoʻowaiwai| Commercial Property Manager
Office of Hawaiian Affairs
711 Kapiʻolani Blvd, #500
Honolulu, HI 96813

RE: Summary of Charrette Process Conducted for the OHA Kakaʻako Makai Strategic Management Framework Plan ('Plan") (No. OHA 13-02)

Aloha mai, e Mr. Kam:

On behalf of the Hui Kukuluaeʻo project team, comprised of Rider Levett Bucknall, Ltd.; Sanford Murata, Inc.; and Group 70 International, Inc., we are submitting this letter report that summarizes the two-day charrette process conducted on August 1 and August 22, 2013, for the OHA Kakaʻako Makai Strategic Management Framework Plan. To summarize, a charrette is a brainstorming session that is intended to identify and prioritize the "big picture" ideas for a specific project. The subject of this charrette was to envision the future vibrancy of OHA Kakaʻako Makai lands as an asset that requires a balance between commerce and culture. The design approach under this charrette recognizes and characterizes the unique and distinct qualities of the area as the Plan helps to provide OHA leadership with a range of alternatives that will guide how development and other improvements are to occur over time. The charrette also discovered a range of lifestyle considerations deemed important by contributing members of the area's "user communities" to ensure what is proposed over time is harmonious to the surrounding environment. Over the last 35 years, our charrette approach has been customized to include five basic steps:

- **Lifestyle**- this step includes a detailed discussion of the lifestyles of past, present, and envisioned 40-50 year projected future for the Kakaʻako Makai parcels.
- **Major Themes**- this step defines and characterizes the lifestyle patterns of the Kakaʻako Makai parcels into major theme statements which ultimately guide and are used to reflect back on in all subsequent steps of the Plan.
- **Configuration**- this step typically involves the creation of physical designs and patterns to not only accommodate but vividly express the distinct major themes. For the Plan, the configuration step was the beginning step to what will ultimately become the baseline development strategy for the Plan.
- **Minor Themes**- this step typically involves emphasizing other important thoughts during the lifestyle step that support the major themes, providing detailed guidance and options for expression without being overshadowing.
- **Signature Details**- this step seeks to capture those special detail elements that would distinguish this project from all others in the Kakaʻako region.

Lifestyles and Major Themes

At their onset, most projects have too many good ideas and sometimes end up being too busy and fragmented in quality once implemented. The charrette process allows all good ideas to be recorded, categorized, and prioritized to some degree so that no idea is lost or tossed aside. For this Plan, the charrette sought to have a thorough understanding of the lifestyles valued by many key stakeholders, including OHA Trustees and executive leadership; aliʻi institutions and Hawaiian service organizations; neighboring landowners and educational partners; political representatives; and community, environmental, and cultural leaders and potential partners.

For this Plan, three major themes were identified to help elevate the significance and meaning of the OHA Kakaʻako Makai parcels above that of a conventional real estate development. The potential strategic value of these lands as an asset management project that aims to meet the goals and objectives of OHA's overall mission requires that its revival and restitution provides a synergy, connectivity, and overall a positive contribution to the local community. The three major themes are highlighted and briefly summarized:

1. **Create a kīpuka where Hawaiian national identity can flourish and be celebrated among Hawaiians and local communities throughout the Pacific but also serve as a welcoming place for global leaders to gather.**

   The concept of a kīpuka, a cultural oasis, for Hawaiian nationalism speaks to the sensitive and mindful idealism and symbolism of restitution. Under OHA, as the haku ʻāina, the stewardship of these lands, as part of a traditional cultural landscape with strong connections to the life-giving and –emerging waters of Ka Moana Nui, should reflect the deep understanding and commitment to the surrounding community locally but also globally across the ocean expanse. As these lands were traditionally the coastal front and fishery of Kaʻākaukukui and Kukuluaeʻo, the relevance to consider these lands as a kīpuka with connection to the ocean whereupon life flourishes and extends from a firm foundation is amplified. For this Plan, there needs to be a constant reminder that these lands can be a source of pride that embodies our Hawaiian national identity and as such, defining and maintaining a Hawaiian sense of place through design and programming should be a driving priority. Once fortified with that ideal in mind, this Plan should assess how these lands strategically can become a place where global leadership can gather and immerse within an exclusive Hawaiian space, to inclusively contemplate and reflect on issues that have a universal impact.

2. **Support the development of a "cultural marketplace" that invests in intellectual capital, seeking possibilities of exploration and innovation in education, health, and political leadership.**

   The concept of a hālau ola, a center of "life" and "healing", speaks to the possibility of these lands being strategically directed to provide benefit to the physical, mental, emotional, and spiritual well-being for Native Hawaiians. The presence of and potential partnerships with existing neighbors such as Kamehameha Schools, John A. Burns School

of Medicine, and the Pacific Biosciences Research Center Kewalo Marine Laboratory increases the opportunity for "ola"-centric innovation and collaboration between culture and science that also provides a source of revenue generation for OHA. The Plan should seek to support a direction towards developing a "cultural marketplace" wherein the exchange of knowledge and wisdom can occur. Highlighted issues shared during the charrette that could have relevancy and opportunity within these lands as a focal point for this collaboration include the social and economic well-being of Native Hawaiians; promoting and supporting initiatives in sustainability, specifically food security and alternative energy; expanding ongoing ocean research, resource management, with relevancy of impacts of sea-level rise; addressing the needs and impacts of an aging population in Hawaiʻi; and addressing an ever-changing global economy in Asia and across the Pacific and the impacts these changes may have upon the economic vitality in Hawaiʻi.

3. **Create a cohesive and multi-functional planned community that embraces a transformative ideal of "live, work, and play."**

   The lands of Kaʻākaukukui and Kukuluaeʻo have and continue to be a place where communities have settled to live, work, and play. The area historically has been one that has supported the needs of a middle-class working community. It is also a place that supported a diverse heritage of people of different ethnicities. It is also a place where people still gather to find recreation, relaxation, and reflection within the urban corridor. The strategic framework should provide alternatives that include a sensible arrangement of a residing and working community of appropriate density that is intimate enough for people to still know each other. It should also provide alternatives for vibrant places of interaction and open space, an all-around engagement to create choices for living and working in an area that are deemed vital and central to regional growth.

Configuration, Minor Themes, and Signature Attributes

In summary, the primary development opportunities and constraints relative to possible configuration alternatives were identified during the charrette:

- Balance of culture and commerce for any development or improvement considerations
- Understand and adjust the existing development constraints and assess how the constraints may need to change over time (i.e. enable future residential use within the Kakaʻako Makai parcels)
- Address current alienation and segregation related to pedestrian access to Kakaʻako Makai parcels along and across Ala Moana Boulevard from adjacent mauka communities
- Orientation and relationship of future development and improvements for open space to the adjacent harbor and oceanfront
- Ensure public shoreline and promenade access and provide for open spaces or built spaces that engage or support community needs

- Integration of elements from other successful oceanfront models that are appropriate to these parcels (i.e. San Francisco South of Market, Marina Del Rey, etc.)
- The identification of signature attributes was limited as this charrette is not leading to a specific design. However, some ideas shared included the importance of the "arrival experience" from the ocean and the alignment and prominent views to the ocean, Diamond Head and the opportunity for these lands to host and welcome visitors. Specific examples included the possible transformation of the arrival experience from cruise ships including a "green" attraction, or creating some signature destination/arrival point for the Molokaʻi Hoe and Nā Wahine o Ke Kai canoe races.

Attached to this letter are the two detailed conference reports (Attachment A) that provide chronological order of specific comments shared during the two-part charrette. Findings from this charrette will be utilized in the development of alternative scenarios and the baseline strategy to be presented at the conclusion of this project.

Mahalo for the opportunity to engage in this process with the Office of Hawaiian Affairs.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

Francis S. Oda, Arch. D., FAIA, AICP, LEED AP
Chairman

CONFERENCE REPORT

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925 Bethel Street, Fifth Floor ● Honolulu, Hawai'i 96813-4398 ● PH: (808) 523-5866 ● FAX: (808) 523-5874

TO:	Files and Invited Participants		
FROM:	Hui Kukuluāeʻo Planning Team on behalf of OHA		
DATE:	August 1, 2013		
PROJECT:	OHA Kakaʻako Makai	**PROJECT NO:**	213034-01
SUBJECT:	Charrette #1- Lifestyle and Major Themes		
LOCATION:	JABSOM Medical Education Building, 314	**NO. OF PAGES:**	5
THOSE PRESENT:	See attached list of participants		

NOTE: This is a working DRAFT and is for DISCUSSION PURPOSES ONLY. This is not intended for distribution beyond the participants of this charrette. Mahalo for your cooperation in this regard.

SUMMARY: The first charrette looked at LIFESTYLES and identified three MAJOR THEMES, which were voted upon as a straw poll among those that attended and where still present at the end of the meeting.

OVERARCHING THEMES

Two overarching themes that were identified by participants as very important constants and are to be consistently integrated into the development of the management framework include: 1) sustainability and 2) Native Hawaiian cultural identity. Specific comments shared in the LIFESTYLE discussion related to these overarching themes included:

- Creation of a Fossil-free zone
- Defining sustainability from a Hawaiian perspective
- Integration of land and water best management practices (such as the ahupuaʻa land model)
- Maintaining Hawaiian sense of place and defining that sense by Hawaiians

MAJOR THEMES

1. Place for world, high level discussions influence by Hawaiian perspectives – place for leaders to gather. Place of national identity; pride "plant the nation"; raising and elevating Hawaiians and pacific people. Celebration of Hawaii at-large, welcoming for all. **11 VOTES**

2. Cultural marketplace. Seat of leadership, a Hālau Ola, education, magnet for investment in intellectual capital. Innovations to address sea-level rise - economic opportunity. **9 VOTES**

3. Develop a cohesive and multi-functional planned community. Entertainment, restaurants. "Live, work, play – transformative" concept. **9 VOTES**

Note: An identified theme not voted as a MAJOR THEME was the provision of visitor accommodations and resident amenities that honor Hawaiian lifestyle, perspective. **2 VOTES**

<u>Major Theme #1:</u> Place for world, high level discussions influence by Hawaiian perspectives – place for leaders to gather. Place of national identity; pride "plant the nation"; raising and elevating Hawaiians and Pacific Island people. Celebration of Hawaii at-large, welcoming for all. 11 VOTES

- Source of pride that embodies our Hawaiian national identity
- Maintaining Hawaiian sense of place and defining that sense by Hawaiians
- Place where major world leaders can come to deliberate
- Global perspective
- Place to kūkākūkā face-to-face
- Dynamics of high-tech, high-touch
- Urban sense of space from Hawaiian perspective ("Japanese skyscraper, Korean store front")
- Changing global and U.S. economy. Increase rise in Asia Pacific populations and immigration
- Hawai'i continues to be a gathering place internationally.
- Need for space that's kept open, to gather. To provide peace and solitude
- Maintaining Hawaiian sense of place and defining that sense by Hawaiians

<u>Major Theme #2:</u> Cultural marketplace. Seat of leadership, a Hālau Ola, education, magnet for investment in intellectual capital. Innovations to address sea-level rise - economic opportunity. 9 VOTES

- Lands benefitting health (he ola), social, cultural well-being.
- Major think-tank for world – where Hawaiian values infuse such thinking
- Source of OHA revenue generation
- JABSOM presence leading and addressing health and well-being
- Well used visitor destination- visitor core will continue to expand out of Waikiki
- Multi-ethnic, vibrant community
- Icon for innovation
- Innovation – brining culture and science together. Hālau ola- multiple perspectives among Hawaiian scientists and practitioners; design healthier places to live and breathe; have Hawaiian psychologists and architects plan together
- Accommodation of sea-level rise
- Fossil-fuel free zone
- System that intervenes relative to separation resulting from tech
- Scaling back of materialism and consumption
- Changing global and U.S. economy. Increase rise in Asia Pacific populations and immigration
- Growing older population- how will feed our future populations?
- Hawai'i continues to be a gathering place internationally
- Management of ocean resources

- Central place for international ocean-related research (existing marine lab)
- Need for more sustainability
- Challenge of providing jobs for ʻōpio
- Social well-being of Native Hawaiians
- What does OHA need from this asset? What is a game changer for OHA- educational and intellectual hub. Intellectual economy

<u>Major Theme #3:</u> Develop a cohesive and multi-functional planned community. Entertainment, restaurants. "Live, work, play – transformative" concept.

- Residents – Hawaiian
- Entertainment and gathering place
- Place where communities can settle in – live, work, play, set roots
- Middle-class community
- Source of OHA revenue generation
- Aku boats and tuna cannery- remember going down to the water to meet family
- Preserve recreational and open space
- Prominence of relationship to ocean- surfing and fishing
- Rice fields and salt pans
- Ocean access
- Well used visitor destination- visitor core will continue to expand out of Waikiki
- Multi-ethnic, vibrant community
- Rugged character
- Urban village
- Wetlands integrated within ahupuaʻa system
- Kakaʻako – sugar train
- Concept of ʻIli Lele fisheries
- Mixed use working class community (flowers and iron works)
- Rail transit line completed
- Part of regional Lei of green concept
- TOD – "Rail Living" trade off to promote higher density to avoid urban sprawl to country
- Highly diverse, multi-ethnic population that is living longer but still need sense of community
- Maintaining Hawaiian sense of place and defining that sense by Hawaiians
- Define affordability by Hawaiian population income
- Urban sense of space from Hawaiian perspective ("Japanese skyscraper, Korean store front")
- Scaling back of materialism and consumption.
- Smaller, redefined definition of family

- Growing older population- how will feed our future populations?
- New ways to support decreasing population
- Need for area of respite to get away from urban environments, place of interaction
- Tax created to offset OHA's preservation of area as an open space
- Relaxation could involve active uses of land
- Preservation and development not necessarily dichotomies
- Increased population density creating added lifestyle choices, economic opportunity, need to address food security and energy solutions
- City within a city – lots of activity
- Need for more sustainability
- Not the next Tokyo or Hong Kong
- Dense community but intimate enough where people still know each other
- Challenge of providing jobs for ʻōpio
- Mauka/makai currently are artificially defined in the community- need authentic cultural delineation

August 1 OHA Kaka'ako Makai Charrette Participants

FIRST	LAST	ORG
Carmen Hulu	Lindsey	OHA BOT
Collette	Macahado	OHA BOT
Dan	Ahuna	OHA BOT
Haunani	Apoliona	OHA BOT
John	Waihee	OHA BOT
Oswald	Stender	OHA BOT
Peter	Apo	OHA BOT
Robert	Lindsey Jr.	OHA BOT
Rowena	Akana	OHA BOT
Kamana'opono	Crabbe	OHA CEO
Wayne	Takamine	CPAC
Darrell	Young	DHHL
Ronald	Iwami	Friends of Kewalo
Anthony	Ching	HCDA
Brickwood	Galuteria	HI State Senator
Nicholas	Vanderboom	Howard Hughes
Daniel	Naho'opi'i	HTA
Mark	Higa	KIA
Walter	Thoemmes	Kamehameha Schools
J. Kuhio	Asam	Lunalilo Trust
Scott	Glenn	Sierra Club
Kamana	Beamer	UH Hawai'inuiakea
Keaweaimoku	Kaholokula	UH Native Hawaiian Health
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GROUP 70 INTERNATIONAL

TO:	Files		
FROM:	Hui Kukuluāeʻo Planning Team		
DATE:	August 27, 2013		
PROJECT:	OHA Kakaʻako Makai	**PROJECT NO:**	213034-01
SUBJECT:	Charrette #2		
LOCATION:		**NO. OF PAGES:**	
THOSE PRESENT:	See attached list of participants		

SUMMARY: The second charrette reflected on the LIFESTYLES and the identified three MAJOR THEMES from Charrette Part I held on August 1 and then proceeded to address CONFIGURATION considerations and MINOR THEMES as presented below.

REFLECTION & ADDITIONAL MANAʻO ON MAJOR THEMES

Senator Akaka shared some brief words as to the importance of these lands and the responsibility upon OHA leadership to be prudent in its consideration of how these lands are used to serve the interests of Hawaiians moving forward into the future. He emphasized the need of OHA leadership to hold fast to what it means to be Hawaiian and how these lands, if planned appropriately, will play a part in strengthening our community as a whole.

THEME #1: Place for world, high level discussions influence by Hawaiian perspectives – place for leaders to gather. Place of national identity; pride "plant the nation"; raising and elevating Hawaiians and pacific people. Celebration of Hawaii at-large, welcoming for all.

- Place should have the ability to create opportunities for contemplation and reflection.

THEME #2 Cultural marketplace. Seat of leadership, a Hālau Ola, education, magnet for investment in intellectual capital. Innovations to address sea-level rise - economic opportunity.

- Before we can have a discussion on a Hawaiian sense of place, we need a center like a Hawaiian-based university by which the intellectual capital can be developed and nurtured to think Hawaiian. The need to define specifically a Hawaiian university includes:
  - Site and process
  - Not just information but understanding process of how to think Hawaiian.
  - Hawaiian learning model that's not built on Western norms.
  - Spirit and ancestral connection
  - Central place for collective activity and identity

- What would Hawaii be today if western contact never occurred? What should the model of Hawaii be with that thought in mind?

- A place that allows you to know where you came from to guide where you need to go- example Hawaii Okinawan Center- a place for ancestral/spiritual connectivity.

- Place to encourage and enable various disciplines to engage in Hawaiian thinking and processes and finding the ways of integration. Existing models could include how to bring knowledge within existing Hawaiian programs such as those at UH-Hilo and LCC into one center

- Technology may create greater physical separation of people; therefore, there is a need to have Kakaʻako Makai be a place that can intervene and bring people (especially different generations) together. Fundamental idea of how get back to the idea and value of face-to-face interaction and communication

- Multi-generational place with intergenerational space

- Mixing of multiple generations

<u>THEME #3</u>: Develop a cohesive and multi-functional planned community. Entertainment, restaurants. "Live, work, play – transformative" concept.

- Who will be 'Hawaiian" in the future? What will that term mean? What is "Hawaiian", especially as it relates to income generation parameters and/or commercial development?

- These lands could be the central core of cultural practice- related to ocean related science; health and wellness; etc.

- Does OHA generate money at Kakaʻako Makai and use it elsewhere for cultural efforts or use Kakaʻako Makai lands directly for cultural efforts?

- 2006 amendment to HCDA rules- no allowance for residential in Kakaʻako Makai area. Issue at hand is lease to fee-simple and overall land control and access of public lands over time.

- Consideration to role of Department of Hawaiian Home Lands in residential component and overall partnering participation as one way to address lease to fee-simple concern. One scenario could be residential lots go into DHHL inventory.

- Need to look at larger context and not see OHA parcels in isolation. Need to think of these parcels in collaboration with adjoining landowners (Kamehameha Schools, DOT-Harbors, Howard Hughes) as one community and to approach future growth in a group dynamic of partnerships.

- Consider signature botanical themes for multiple Kakaʻako land owners.

- Increased population pressure increases need for recreational spaces. Many areas are already reserved for recreation in area.

- Friends of Kewalo's primary objectives and concerns.

    - No residential development
    - 14 guiding principles under earlier master plan
    - Inclusion of shoreline promenade and parks (lei of green)
    - Keep Kewalo Marine Center (noted by Trustees that KMC is not paying rent)- existing infrastructure such as water pipe provide opportunities to expand coastal/reef research- role under Science, Technology, Engineering, and Mathematics (STEM) programs.

- Consideration to expand beyond STEM and include STEAM (role of arts and culture), or STREAM (arts/culture and recreation) – a need to better integrate arts and culture into science. Educational process is so important- use of just STEM eliminates the ability for Hawaiians to be themselves.

CHARRETTE #3: CONFIGURATION

- Need to attract 3rd party developers as OHA is not a land developer- need to convey constraints to interested parties and identify what will make for an attractive RFP.

- Use successful models like Sydney, Catalina, San Francisco South of Market examples to inform both constraints and opportunities in developing harbor activities and land relationships.

- Existing Height limitation – some models suggest that height should not be a constraint but the use- meaning high office/commercial in Honolulu happens once every 10 years so only "high" building that makes viable financial sense would be presumably residential

- The differentiator is the recognizing the value of waterfront orientation and the potential market to that orientation. We turn our back to the ocean- we need to change that thinking as we have the nicest oceans. What is the relationship of the properties to the harbor, the waterfront park, and ocean?

- Consider the existing development constraints on OHA properties and assess whether these constraints change over time- relevance of proximity of OHA lands to the ocean and the market potential (residential, retail/dining, passive recreation experiences); or a potential increased demand for retail created by increased population mass by nearby development. Market trends and needs for different kinds of spaces, uses, and experiences may change once these developments ensue. Consider the appreciation value over time of Marina Del Rey as one example.

- Alternate market analyses and assumption on trends needed – we need to account for possible lower land values given constraints such as "isolative" nature of property on one side of six-lane road, no adjoining "easy" access; development constraints under current rules, etc.

- Assess how harbor activity and ocean will impact market scenarios.

- Need to consider whole environment, not just we will make money off of the lands. What are the other non-economic functions and considerations of value that these lands should hold?

- We have the nicest ocean. Consideration of a Class A aquarium (similar to one in San Francisco Aquarium of the Bay) – could be a part of the place-based environment and educational learning component – cultural/environmental use of the ocean (but is this a part of OHA kuleana? As compared to KS with educational objective and mission?)

- Current promenade plans and other setback limits from the proposed walkway will limit ocean- adjacent activities to/from OHA's lands.

- If OHA were to build an aquarium, likely that the constraints relative to ocean adjacent uses would be relaxed.

- More than likely, the Obama Presidential Library campaign will result with a location selection in Chicago, Ilinois versus Honolulu. However, there might be still potential for an "Obama area" that may involve a learning or policy center – potential bridge for Asia and Pacific focusing on sustainability. First Lady initiatives support "sustain-ʻáina-ability"

- Concerns that an "Obama area" may have huge development SF footprint and impact- change the character and feel of place

- Lot "I" seen as ideal location for residential- discussion over residential is probably the biggest hurdle for the various stakeholders including OHA to address. Want to work with the various groups and not have to battle in legislature. More discussion needed but the main residential use concerns are:

    - Desire for open, "public" land for recreation and shoreline access
    - Land sale (fee simple conversion transactions) that may ensue after issuing residential leases
    - If one residential development allowed, many others will follow

- Proposed Illuminage light show at 9 acres of HCDA park land in Kakaʻako is an example of development or activities within the area that OHA has no control over but can have its own impacts. HCDA's considerations for land activities must consider OHA's opportunities.

- Shoreline access and promenade – both "givens".

- Suggestion of a tax rate applied (how unclear) to generate income to offset operation, maintenance, repair, and restoration costs to keeping land as open and passive recreation.

CHARRETTE #5: SIGNATURE ATTRIBUTES

- Create "green" attraction for tourists on cruise ships to immediately enjoy Hawaii. Imagine a promenade with a table to sit and talk, take in the prominent view of Diamond Head and the ocean. Program the arrival experience from the ocean.

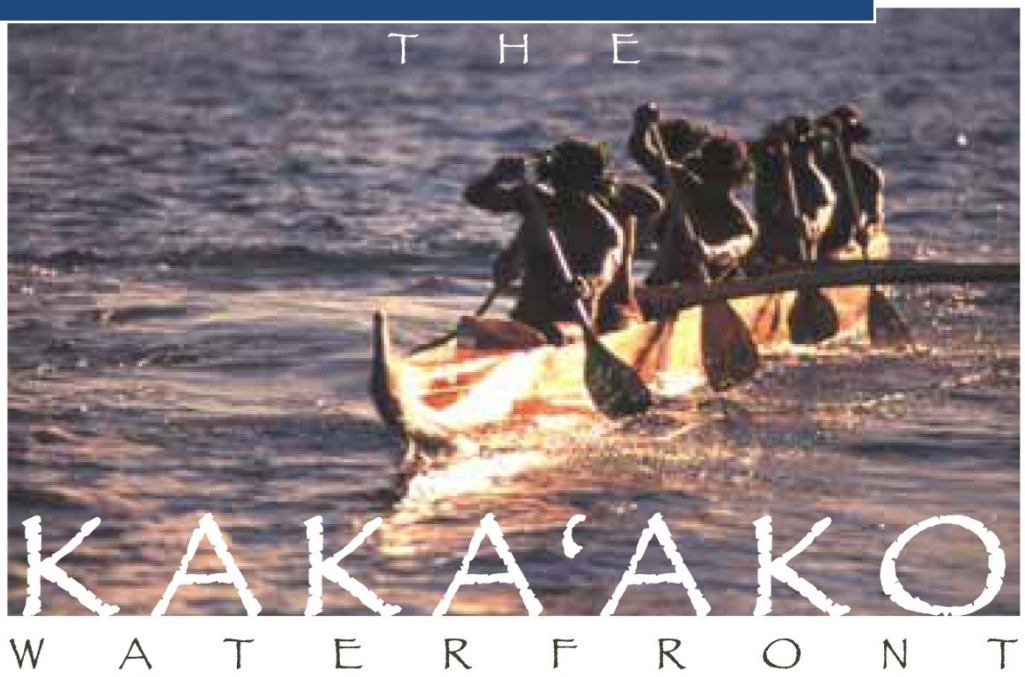
- Consider that the Molokaʻi Hoe, Nā Wāhine o Ke Kai races end at a landing spot at Kakaʻako- create programs and facilities to support international canoe events. However, landing spot requires limitations on access and use of ocean resources and community impacts on both Molokaʻi and Oʻahu end (e.g. beaches overcrowded at start/end points with race teams; area overfished during participants stay, etc).

Note: Meeting also included a brief summary presentation by Sanford Murata LLC on the market assumption and residual land value. This is not included here as a draft preliminary report with full details is forthcoming.

4 Market Assessment & Land Value Analysis

2013

KAKA‘AKO MAKAI
STRATEGIC MANAGEMENT FRAMEWORK PLAN



Market Assessment &

Land Value Analysis

Prepared for:

Office of Hawaiian Affairs

Prepared by:

Sanford Murata, Inc.

October 23, 2013

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I. EXECUTIVE SUMMARY

KULEANA

The Office of Hawaiian Affairs has been presented with an unprecedented opportunity to plan and create a model urban waterfront community at Kaka'ako Makai that will serve as a beacon for Native Hawaiian values, practices and 'ike na'auao (deep knowledge). OHA's mandate and vision, balanced by a sound strategic plan, will enable OHA to continue to fulfill its mission:

"To mālama (protect) Hawai'i's people and environmental resources and OHA's assets, toward ensuring the perpetuation of the culture, the enhancement of lifestyle, and the protection of entitlements of Native Hawaiians, while enabling the building of a strong and healthy Hawaiian people and nation, recognized nationally and internationally" (OHA website).

After many years of prolonged efforts to settle the ceded lands claims, the state and OHA finally agreed in 2012 to transfer title to 30 acres of state-owned land located in Kaka'ako Makai to OHA to satisfy the claims.

STRATEGIC FRAMEWORK PLAN

OHA has taken possession of the lands and has retained a consulting hui to prepare a strategic framework plan to guide OHA's kūkākūkā (deliberations) and decision-making as stewards of the lands. The plan consists of inter-related tasks and work products which synthesize the conclusions of the hui's research findings and evaluations.

MARKET ASSESSMENT AND LAND VALUE ANALYSIS

An early step in and integral part of the planning process is to understand the market conditions and land values that will influence use of the lands.

MARKET TREND AND DIRECTION

Partially created from submerged lands in the 1800's, Kaka'ako has changed slowly over time. From marshy, shoreline lands to quarters for squatters, to a fishing village, to immigrant camps, to a modest residential neighborhood, to a hodgepodge of industrial, commercial and government uses, the development of Kaka'ako has been largely bypassed until now. While the state established the Hawai'i Community Development Authority 37 years ago "to revitalize urban areas in need of timely redevelopment" (HCDA website), only relatively recently has the 600-acre Kaka'ako Community Development District been discovered by developers and consumers.

Following the urban redevelopment patterns in many U.S. cities and elsewhere, Kaka'ako, once a somewhat rough, underdeveloped, overlooked section of the city, is coming to life with an avalanche of new real estate projects. Macro-economic factors and demographic and land use trends all appear favorable for the long-term and sustained transformation of Kaka'ako from a small fishing village into the thriving mixed-use, high-rise, high-density urban village envisioned by the HCDA and major Kaka'ako land owners. Over

10,000 residential units are planned for Kaka'ako, some already under construction, and nearly all of those units have been sold through pre-sales programs.

With their waterfront location and adjacent park, OHA's Kaka'ako Makai lands are potentially the most valuable in Kaka'ako if residential uses are allowed. Carefully planned and executed, a significant new model community can be created on those lands.

LAND VALUE IMPLICATIONS

At the time the 30 acres of land were acquired by OHA in 2012, their total unimproved, unencumbered market value was estimated to be about $200 million by the two appraisers retained to appraise the lands. The appraisals concluded that commercial use is the Highest and Best Use for the lands. One appraisal (Hallstrom) assumed a maximum building height limit of 400 feet, 200 feet higher than the maximum height allowed on the lands. While it is not known how the appraiser calculated the value, given the 400-foot height assumption, the appraiser may have anticipated residential use as well. Due to this probability, residential use was included in this analysis.

A review of current ground leases on the lands show a total annual lease rental income of about $1 million. Typical returns on commercial properties with ground leases are about 7% to 8% of the unimproved market value of the land. At a value of about $200 million, the lands potentially could generate an annual income of about $14 to $16 million, many times the current annual income of about $1 million.

RESIDUAL LAND VALUES

The residual land values were derived for four hypothetical, single-purpose projects for a portion of the lands for comparison purposes. Residential condominium use produced the highest residual land value, while rental apartments and retail uses produced smaller residual land values, and office use produced negative land value. Since there is no specific project to analyze, this exercise is intended to serve as a preliminary reference point to shape alternative land use scenarios which are being developed as a part of this planning process.

PONO

Genuine place-making emanates from embracing the natural elements of the place and the culture of its people. OHA aspires to imbue the traditions of Hawai'i at Kaka'ako Makai. By being "pono" – doing the right thing, in the right way, for the right reasons - a balance of social, spiritual and economic values can be achieved. By smartly and steadily harvesting monetary returns on its lands, OHA will be able to realize those goals whose intrinsic values are immeasurable and immutable.

II. INTRODUCTION

PROPERTY ACQUISITION EVENT

On April 11, 2012, Governor Neil Abercrombie signed a bill into law, transferring 10 parcels of land (the Property) located in Kaka'ako Makai in Honolulu from the State of Hawai'i to the Office of Hawaiian Affairs (OHA) to settle the ceded land revenue claims that date back to 1978. OHA, a state agency and trust, expects that the land will become a source of revenue to grow its programs created to enhance opportunities for a better life and future for all Hawaiians.

ENGAGEMENT: STRATEGIC MANAGEMENT FRAMEWORK PLAN

On August 16, 2013, OHA engaged Rider Levett Bucknall, Ltd. (RLB) to prepare a Strategic Management Framework Plan (the Framework Plan) to guide OHA with its planning, management, disposition and development of the Property. RLB assembled a consulting team (Hui O Kukuluae'o) including Group 70 International, Inc. (Group 70) and Sanford Murata, Inc. (SMI) to join it in undertaking the engagement (the Engagement).

The Framework Plan is an early step in a continuing and evolving series of plans, studies, architectural and engineering drawings and reports and many other documents to be prepared to provide OHA with the information required to make sound decisions - short and long term - concerning the use and disposition of the Property. The Framework Plan is intended to establish a foundation upon which succeeding efforts can be developed and expanded. The fundamental structure of the Framework Plan is purposely designed to accommodate and be shaped further by more detailed information as it is obtained and by changing conditions and directions and new opportunities as they surface. The Framework Plan organizes the information and conclusions into a cohesive context to understand their inter-relationships.

The Framework Plan is a synthesis of the team's findings, analyses and conclusions into a recommended strategic action plan for the Property that balances OHA's goals with external forces, while being flexible and agile to respond to shifts in market and economic conditions and to changes in OHA's leadership direction over time.

EFFECTIVE DATE OF REPORT

The effective date of this report is October 23, 2013.

MARKET ASSESSMENT

This Market Assessment and Land Value Analysis is one of the Engagement tasks and deliverables. As some of the tasks are intended to be undertaken on an iterative basis, additional market and land value information will be contained in succeeding deliverables. For example, in the Baseline Development Strategy, a development strategy will be proposed resulting from a melding and assessment of market demand, land value and other influencing and limiting factors. The economic implications of several conceptual land use scenarios will be compared.

Therefore, this assessment and analysis provides an overview of relevant market conditions and land value implications. It is not intended to be a market and financial feasibility study, as there is no specific project upon which to conduct such a study at this time.

The purpose of this task is to assess the market for a range of candidate land uses that may be feasible to pursue, consistent with current and near-term (3-5 years) demand trends. The assessment is useful to gauge the potential viability of prospective land uses that may be proposed and considered for the Property. As market demand is a primary driver for property development, demand trends based on past experience provide a basis to forecast the probable success of a contemplated project.

Rather than undertaking and preparing separate market studies for probable uses, the planned approach was to use market data from existing documents such as market studies and due diligence and appraisal reports prepared by others for the Property. However, as the documents provided by OHA contain little market demand trend information and since the assignment does not include conducting primary market research, relevant information prepared by others was used for this overview of the market. Given the cursory information available at this early stage, only inferences and non-definitive conclusions can be drawn about the direction of the market. This report is presented in summary format, exhibits and details are located in our work files.

LAND VALUE ANALYSIS

An analysis of the Property's land values was prepared to evaluate the Property's revenue production capability for planning purposes. The estimated Market Value is used as a baseline and reference point. The residual land values were estimated for hypothetical commercial and residential projects for Parcels F and G, containing a total land area of about seven acres. The resulting values are used to evaluate the comparative results for those uses. A commentary about land valuation factors is included.

As the Engagement progresses, three distinctively different conceptual land use scenarios selected by OHA will be evaluated. The residual land values for each will be derived and evaluated.

THE PROPERTY

The Property consists of nine fee-simple parcels ranging in size from 0.9 to 7.2 acres, for a total area of 30.718 acres. Six of the parcels are waterfront parcels, five of which are zoned Waterfront Commercial and one which is zoned Mixed Use, and three parcels are non-waterfront, zoned Mixed Use Zone, one of which is zoned Mixed Use Industrial. Residential uses are not allowed. The maximum allowable building height ranges from 45 to 200 feet and the maximum Floor Area Ratio (FAR) ranges from 0.6 to 2.5.

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KAKA'AKO MAKAI

A: 1009 Ala Moana Blvd. (WC, 65')	5.082 acres
B: 113 & 123 Ahui St. (WC, 65')	3.150 acres
C: 59 Ahui St. (WC, 65')	2.043 acres
D: 45 & 53 Ahui St. (WC 65')	0.938 acres
E: 919 Ala Moana Boulevard (MUZ, 200')	2.200 acres
F/G: 160 Ahui St. (MUZ, 200')	7.159 acres
I: Ala Moana Boulevard (MUZ, 200')	3.336 acres
K: 40 Ahui St. (WC 65')	1.584 acres
L: Keawe St. (MUZ-I, 45')	5.226 acres
Total	30.718 acres

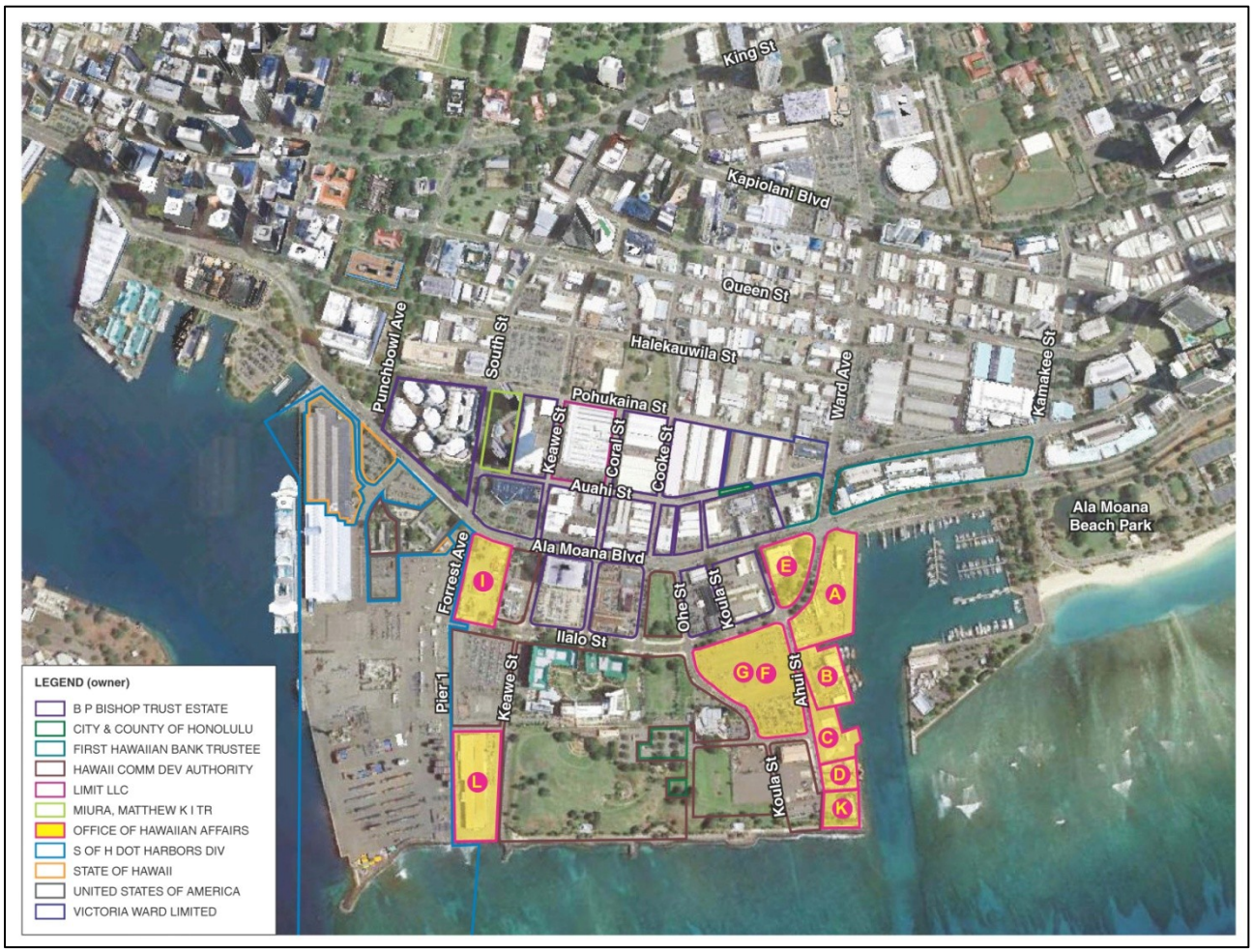


Figure 1 summarizes the individual parcels in the Property Summary. Note that there is no property no. 8 and the properties nos. 6 and 7, identified as F and G, are considered one parcel by OHA.

THE HAWAIʻI COMMUNITY DEVELOPMENT AUTHORITY (HCDA)

The HCDA has played and will continue to play a vital role in the planning and development of Kakaʻako. Its long-range plans, rules and commitment to its vision and mission have guided a cohesive development of Kakaʻako. The state's more than $217 million investment in Kakaʻako's infrastructure has positioned the district for the development currently occurring.

According to the HCDA[1]:

> The Hawaiʻi Community Development Authority (HCDA) is a State agency that was established to supplement traditional community renewal methods by promoting and coordinating public and private sector community development.

[1] Hawaiʻi Community Development Authority (HCDA) Website: http://dbedt.Hawaiʻi.gov/hcda/about-hcda/

FIGURE 1

PROPERTY SUMMARY
Kakaako Makai Properties
Kakaako, Honolulu, Oahu, Hawaii

Property No.	Identification (TMK)	Land Area acres	Land Area sq. ft.	Zoning (Ht/FAR)	Improvements	Land Highest & Best Use	Interest Analyzed [1]	Tenant/Occupant/Use	Comments
1 (A)	1009 Ala Moana Boulevard (2-1-58-95 & 125)	5.082	221,372	WC (65'/1.50)	7,441 sf Restaurant (vacant)	Commercial	FS	Kewalo Wharf LLC (Parcel 125)	Waterfront land at Kewalo Basin.
2 (B)	113 & 123 Ahui Street (2-1-58-02 & 35)	3.150	137,213	WC (65'/1.50)	Warehouse (9,870 sf)	Commercial	FS	Honolulu Marine, Inc.	Waterfront land and submerged land at Kewalo Basin.
3 (C)	59 Ahui Street (2-1-58-124 & 126)	2.043	88,996	WC (65'/1.50)	Vacant	Commercial	FS	Kewalo Keiki Fishing Conservancy (Parcel 124)	Irregularly shaped waterfront land parcel at Kewalo Basin.
4 (D)	45 & 53 Ahui Street (2-1-58-48)	0.083	3,600	WC (65'/1.50)	Radio transmitter tower & utility building	Commercial	FS	Salem Media of Hawaii, Inc.	Leased for radio tower use.
	(2-1-60-13)	0.855	37,241	WC (65'/1.50)	Vacant (under construction with a wedding chaple)	Commercial	FS	Ocean Investments, LLC	Waterfront land at Kewalo Basin. Leased for wedding chapel development.
	Total	0.938	40,841						
5 (E)	919 Ala Moana Boulevard (2-1-58-06)	2.200	95,832	MUZ (200'/2.50)	5 story masonry office building (103,336 sf GBA)	Commercial	FS	State of Hawaii	Non-waterfront property.
6 (F)	160 Ahui Street (2-1-60-05)	4.613	200,942	MUZ (200'/2.00)	Vacant (paved parking lot)	Commercial	FS	Parking	Non-waterfront land bisected by sewer easement.
7 (G)	160 Koula Street (2-1-60-06)	2.546	110,904	MUZ (200'/2.00)	Vacant (paved parking lot & portion of Ohe Street)	Commercial	FS	Parking/Roadway	Non-waterfront land.
9 (K)	40 Ahui Street (2-1-60-por. 01)	1.584	69,000	WC (65'/1.50)	3 story Office building	Commercial	FS	University of Hawaii	Waterfront property at Kewalo Basin.
10 (L)	Keawe Street (2-1-15-51)	5.226	227,645	MUZ (45'/0.60)	Warehouse (70,000± sf)	Commercial	FS	Re-use Hawaii	Waterfront property.
11 (I)	Ala Moana Boulevard (2-1-15-53)	3.336	145,316	MUZ (200'/3.5)	Vacant	Commercial	FS	Quality Assurance Engineering Inc. et al.	Non-waterfront land bisected by sewer easement.
TOTALS		30.718	1,338,061						

[1] Some of the properties may be encumbered by leases, licenses or other agreements which have not been provided to the appraisers. Based on instructions from the client, the properties have been valued as though vacant, unencumbered and available for development to their highest and best uses.

SOURCE: MEDUSKY & CO., INC. SUPPLEMENT TO SUMMARY APPRAISAL REPORT REGARDING TEN PROPERTIES, KAKAAKO, HONOLULU, HAWAII, TMK 2-1-58-95, ET AL., FIRST DIVISION; DATED DECEMBER 29, 2011 WITH AN EFFECTIVE DATE OF NOVEMBER 30, 2011, PAGE 6.

The 1976 State Legislature created the HCDA to plan for and to revitalize urban areas in the State which lawmakers find to be in need of timely redevelopment. These areas, designated as "Community Development Districts", were determined to be underused and deteriorating, but with the potential, once redeveloped, to address the needs of Hawai'i's people and to provide economic opportunities for the State. In creating the HCDA, the Legislature also designated the Kaka'ako area of Honolulu as the Authority's first Community Development District, recognizing its potential for increased growth and development and its inherent economic importance to Honolulu as well as to the State. Lawmakers found that Kaka'ako was significantly underdeveloped and underutilized relative to its central location in urban Honolulu. The Legislature foresaw that the redevelopment of Kaka'ako would offer tremendous opportunities to address the need for more housing, parks, and open areas, as well as new commercial and industrial space near downtown Honolulu.

The 600-acre Kaka'ako District is bounded by Pi'ikoi, King, Punchbowl Streets and Ala Moana Boulevard. The District also includes the waterfront area from Kewalo Basin to Forrest Avenue, and the Hawaiian Electric Company power plant site. As a public corporation, the HCDA is working to bring together private enterprise and government to make redevelopment happen and to establish Kaka'ako as an economically and socially viable community that can provide a range of public benefits.

The HCDA envisions itself to be the creator and leader to establish Kaka'ako **as the most desirable urban place in Hawai'i in which people can work, live, visit, learn and play.** Kaka'ako's residents will be able to live in a safe and attractive environment, one with first class facilities for shopping, entertainment, education, culture, and social activities. Housing opportunities are being increased in Kaka'ako, along with parks, open spaces and other recreational facilities. Through Kaka'ako's redevelopment, the State's economy is being enhanced with new business and job opportunities.

The HCDA mission is to ensure that the Kaka'ako District is invigorated and established as a dynamic urban neighborhood, one which will accommodate a mix of people with a wide spectrum of activities and commerce. In doing so, HCDA serves as an infrastructure developer, landowner, city planner, regulator, and property manager to expeditiously implement Kaka'ako's master plan. To foster a well-balanced and successful living and working environment in Kaka'ako, the HCDA is trying to ensure that its community planning efforts are responsive to the many interests involved. One of the agency's aims is to create an outstanding physical neighborhood which will be known for its environmental excellence, and its active, pedestrian-oriented public realm.

State-of-the art infrastructure and public facilities are being developed by the HCDA to spur new housing opportunities, community facilities, and increase business opportunities. To date the State has invested over $217 million on improvement district projects in Kakaʻako. This major investment demonstrates the State's long-term development commitment to Kakaʻako.

In carrying out its mission, HCDA is contributing to Hawaiʻi's economic development, education, and exposure to the culture and the arts; being sensitive to and supporting existing businesses and residents; and in the process, providing the most livable community and raising standards for new communities throughout the State of Hawaiʻi.

The Due Diligence report opines that whether the Conceptual Master Plan will be binding on OHA is "somewhat unclear" and contains the following:[2]

The HCDA guides and oversees the redevelopment of land in Kakaʻako. The Property is located in the Makai Area of Kakaʻako and is subject to the HCDA's Makai Area Rules which incorporate the Makai Area Plan. The Makai Area comprises the lands on the makai side of Ala Moana Boulevard from the Ewa end of Ala Moana Park to Forrest Avenue and includes the Hawaiʻian Electric power plant site. The Mauka Area is the area mauka of Ala Moana Boulevard.

The Makai Area Plan contains general principles and objectives relating to land uses, transportation systems, urban design principles and elements, infrastructure facilities and systems, and financing mechanisms. The Makai Area Plan dated October 2005 provides the following:

- PARCELS A, B, C, D AND K are zoned Waterfront Commercial, or WC, which allows "residential and commercial uses as well as fishing and boating services along the edges of Kewalo Basin ... (T)he best use ... is a complex of shops, restaurants, and entertainment adjacent to existing fishing and maritime operations with residential uses at the upper levels."

- PARCELS E, F, G, I AND L are zoned Mixed Use Zone, or MUZ, which allows "for the development of commercial uses, such as offices and retail establishments, and housing. It is anticipated that both commercial and residential uses will coexist within the same development, and the purpose of this zone is to foster a wide range of development options."

An important exception is that a state law passed in 2006 prohibits residential uses in the Makai Area except for the Hawaiian Electric site.

In accordance with the 2006 legislative mandate prohibiting residential uses, the HCDA organized a community planning group, which resulted in the preparation of the Kakaʻako Makai Conceptual Master Plan. The Conceptual Master Plan suggests the following uses for the Property:

- PARCEL A – "significant public facilities including a 40,000 square foot facility celebrating Hawaiian music and dance and a marketplace with shops, restaurants, and open-air retail kiosks." "a renovated Fisherman's Wharf Restaurant ... pedestrian promenade and enhanced public access to the wharf of the Kewalo Basin Harbor." "(P)ark-like landscaped setting with ample rooms for passive enjoyment ... (O)pen space requirements ... that range from forty, to as much as seventy percent, of the gross lot acreage."

[2] Due Diligence document dated February 7, 2012, prepared by McCorriston Miller Mukai MacKinnon LLP for OHA

- PARCEL E – A 650-stall parking facility with commercial spaces along Ilalo Street, along with an adjacent, unspecified "civic" use.

- PARCELS F AND G – "public benefit uses" such as a performing arts center, museum community center, farmer's market and fish market; community gardens, a two-level parking structure; and park-like landscaped setting with open space between forty and seventy percent of the gross lot acreage.

- PARCEL I – "civic related uses".

- PARCEL K – passive recreational uses and park expansion.

OFFICE OF HAWAIIAN AFFAIRS (OHA)

OHA's Mission:

> ***"To mālama (protect) Hawai'i's people and environmental resources and OHA's assets, toward ensuring the perpetuation of the culture, the enhancement of lifestyle, and the protection of entitlements of Native Hawaiians, while enabling the building of a strong and healthy Hawaiian people and nation, recognized nationally and internationally."***

OHA is striving to embrace this time-tested wisdom through its new Strategic Plan.

> ***A NEW DIRECTION: Our Hawaiian ancestors understood that the well-being of our community rested upon the inter-relationship of how we conduct ourselves, steward the islands we call home, and fulfill the responsibility of caring for our families, all within the physical and spiritual realms. They also understood that successfully maintaining lōkahi meant careful observation, knowledge gathering, and informed decision making to achieve pono.***

The plan defines a series of results that balances OHA's direction and strengthens its roles as advocates, knowledge leaders, and asset managers. The strategic results listed below guide OHA's actions to improve conditions for all Native Hawaiians:

- VALUE HISTORY & CULTURE – Increase the number of Hawai'i residents who appreciate and value Native Hawaiian history and culture.

- PARTICIPATE IN CULTURAL ACTIVITIES – Increase the number of Native Hawaiians living in the State of Hawai'i participating in cultural activities.

- UNDERSTAND NEED FOR VIABLE LAND BASE – Increase the percent of Hawai'i residents who understand and agree that a viable land base is necessary for the new Native Hawaiian governing entity.

- ACHIEVE PAE 'ĀINA SUSTAINABILITY – Increase the percent of Ka Pae 'Āina O Hawai'i managed to create economic value and preserve cultural and natural resources and historic properties.

- TRANSFER ASSETS TO ENTITY – Adoption by the Board of Trustees of a Transition Plan that includes the legal transfer of assets and other resources to the new Native Hawaiian governing entity.

- IMPROVE FAMILY LIFESTYLE CHOICES – Increase the percent of Native Hawaiian families actively improving lifestyle choices by engaging in health programs and supporting family development practices.

- INCREASE FAMILY INCOME – Native Hawaiian median family income will equal 100% or greater than the Statewide median family income.

III. MARKET ASSESSMENT

This Market Assessment provides an overview of the market situation for Kaka'ako. It includes a summary of macro-economic data, demographic and other trends that impact residential and commercial uses (the primary potential uses for the Property) and developments occurring and planned for Kaka'ako.

A comprehensive market feasibility study was not undertaken, as it is premature to do so. An in-depth market study can be prepared for a specific project at the appropriate time. For now, information that was previously gathered for the Property by others at the time the Property was being considered for acquisition was augmented by information that is publicly available to prepare this overview and assessment.

FINDINGS AND CONCLUSIONS

Macro-economic factors indicate that Hawai'i's economy is generally healthy and ahead of national averages. The demographic and real estate trends for residential and commercial uses for Kaka'ako indicate the continued and sustained growth of the demand for those uses for the foreseeable future. Kaka'ako is experiencing a real estate boom, fueled by the convergence of pent-up demand with the acceleration of the development plans of major landowners and developers, low mortgage loan interest rates and the blossoming of Kaka'ako as the heart of urban Honolulu. Condominium sales prices for projects in and around Kaka'ako are continuing to surge upward.

A primary driver of the success of most privately-developed real estate projects is the condition of the market at the time the project is offered for purchase or rent to the targeted consumer. The following are some of the influencing factors:

- MARKET CYCLE – As with the economy, the demand for real estate is cyclical. Upturns are followed by downturns and so forth. Cycles can also be impacted by a "Black Swan" event, which is a relatively recently coined term for an unexpected adverse event such as the subprime mortgage crash which led to the economic recession commencing in 2008.

- SUPPLY – Supply and demand go hand in hand. As demand increases so does supply to satisfy the demand, and when the oversupply point is reached, demand drops. About 10,000 new residential units are being built and/or planned for Kaka'ako. While it is assumed that the developers of those units are confident that there is sufficient demand for those units, the depth of the market is not certain.

- FINANCIAL MARKETS – While there is a robust market for condominium units in Kaka'ako, the increase in mortgage interest rates could have a dampening affect on the interest and ability of unit buyers.

- PUBLIC SUPPORT AND MOOD – Recently, Hawai'i has been experiencing a general anti-change, anti-development public sentiment such as "keep the country country" and opposing the Super Ferry. There are some who are voicing their opposition to further development of Kaka'ako, especially for high-priced, high-rise condominium projects. An interesting dynamic is surfacing, with some of the older, local generation opposed to the further development of Kaka'ako, while some of the younger population, which has experienced living in diverse urban centers, favors it.

- CRITICAL MASS OF SYNERGISTIC USES – Paradoxically, while some are opposed to further development of Kaka'ako, it is the critical mass of projects and the high-density direction supported by the HCDA that is creating the urban village with its amenities that many buyers and consumers are seeking. The increase in

population fosters the continued development of real estate projects such as Ala Moana Center, which creates a magnet for others to follow.

MACRO-ECONOMIC FACTORS

THE GROSS DOMESTIC PRODUCT (GDP) – GDP is the value of goods and services produced. It is also viewed as the state's gross domestic product, based on national prices for the goods and services produced. Compared to the U.S. gross product, which registered a 12-year average annual increase of 3.9% from 2000 to 2011, Hawai'i's gross product increased at an average of 4.4% for the same period. It is forecasted to increase from 4.5% to 4.8% between 2013 and 2016. **Figure 2** shows the comparison of gross domestic product of Hawai'i to that of the nation, and the annual percent increases.

VISITORS – The total visitors to the state increased from 7.3 million in 2011 to 7.9 million in 2012, an increase of 9.6%, and the total number of visitors is expected to increase from a low of 8.3 million to a high of 8.9 million from 2013 to 2016, according to a recent economic and statistical report.[3] Visitor expenditures have increased 18.5% over the past two years, from $12.3 billion in 2011 to $14.5 billion in 2012. They are expected to increase 5.6%, to $15.3 billion, in 2013 and continue to increase steadily to $16.1 billion in 2014, $16.8 billion in 2015, and $17.5 billion in 2016.

CONSTRUCTION – Both government contracts awarded and the value of private building permits increased, according to DBEDT[4]. The report cited that in the first quarter of 2013, government contracts awarded totaled $157.3 million, while the permit value for private construction increased $72.4 million, compared to the same quarter in 2012, adding 2,500 jobs for this sector.

INFLATION – One way to gauge inflation is by tracking the consumer price index (CPI). CPI is defined, "Measure of the average change in prices over time for a fixed market basket of goods and services."[5] The recent annual percent changes started at 1% in 2000, adjusting to an increased annual percent change of 5.9% in 2006 and beginning to slow to 2.4% in 2012. The projections are for minimal annual percent changes ranging from 2.2% to 2.3% between 2013 and 2016, according to a recent economic and statistical report.[1]

FISCAL AND MONETARY POLICY – Through monetary policy, the Federal Reserve System can make more or less money available to banks to lend, and it can move to increase or decrease the demand for money by changing the interest rate on loans made to banks. The financial indexes track indicators of demand in commercial and residential real estate, which in turn affects other products and services related to this chain. According to the financial rates illustrated in **Figure 3**, the mortgage indexes have been in a downward trend since 2006.

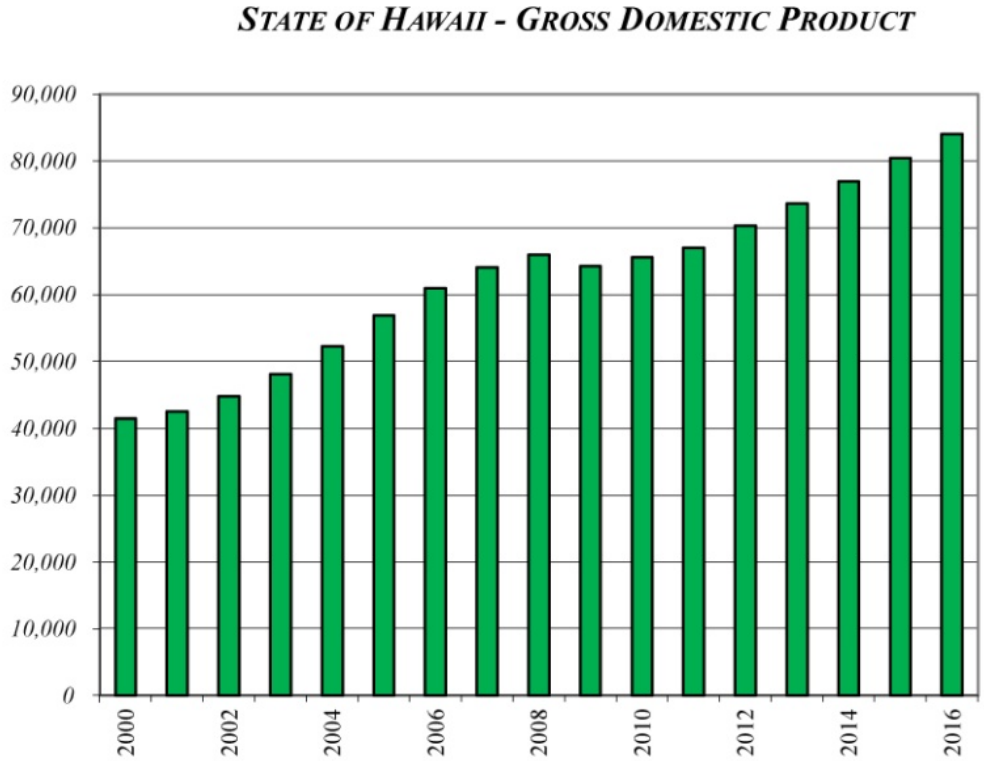
[3] The Department of Business, Economic Development & Tourism/State of Hawai'i Quarterly Statistical & Economic Report, 2nd Quarter 2013, Page 9

[4] The Department of Business, Economic Development & Tourism/State of Hawai'i Quarterly Statistical & Economic Report, 2nd Quarter 2013, Page 6

[5] The Department of Business, Economic Development & Tourism/State of Hawai'i Quarterly Statistical & Economic Report, 2nd Quarter 2013, Page 151

FIGURE 2

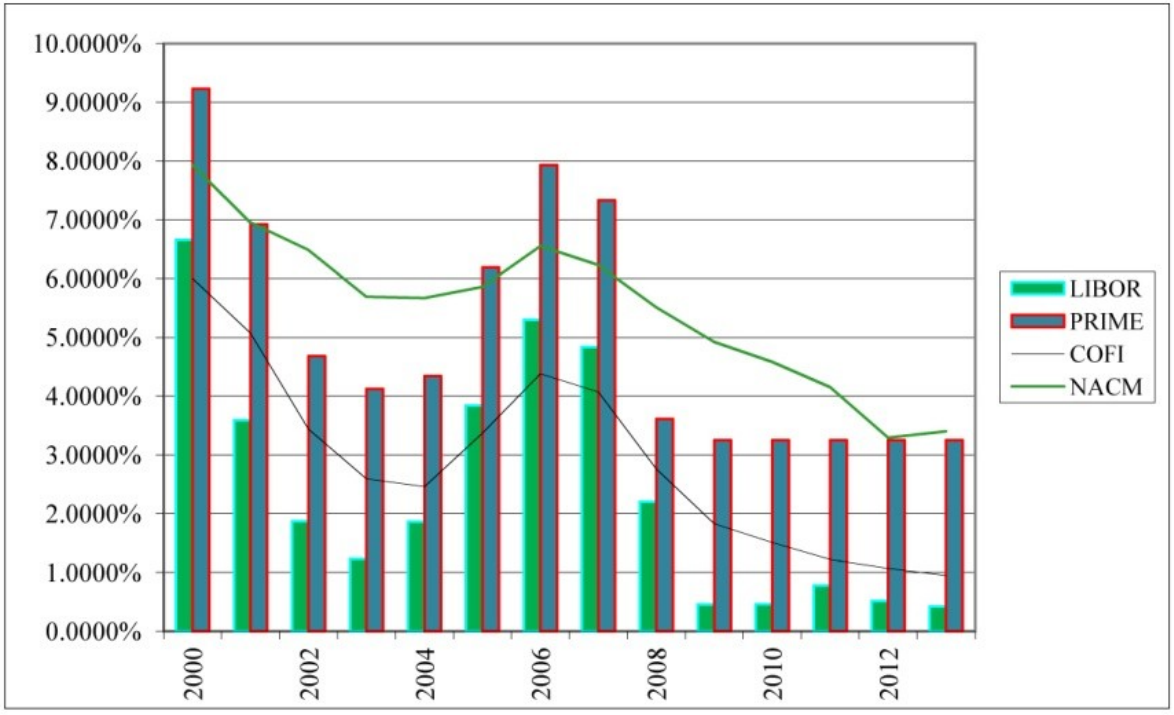
Year	USA	% Incr.	Hawaii	% Incr.
2000	9,884,171	6.4%	41,450	5.4%
2001	10,218,019	3.4%	42,529	2.6%
2002	10,572,388	3.5%	44,752	5.2%
2003	11,067,829	4.7%	48,095	7.5%
2004	11,774,410	6.4%	52,290	8.7%
2005	12,539,116	6.5%	56,901	8.8%
2006	13,289,235	6.0%	60,993	7.2%
2007	13,936,199	4.9%	64,070	5.0%
2008	14,193,120	1.8%	65,978	3.0%
2009	13,834,700	-2.5%	64,251	-2.6%
2010	14,416,601	1.6%	65,599	2.1%
2011	14,981,020	8.3%	66,991	2.1%
2012	--	--	70,315	5.0%
2013	--	--	73,659	4.8%
2014	--	--	76,970	4.5%
2015	--	--	80,433	4.5%
2016	--	--	84,045	4.5%
Percent Ave. Incr. (12 Yr)		***4.2%***	***(12Yr)***	***4.6%***



Sources: 1) 1980-2011: Hawaii State Data Book 2011 2) 2012-2016: DBEDT Quarterly Statistical & Economic Report, Outlook of the Economy, 2nd Quarter 2013,
Notes: A) Figures above are in current million dollars. B) As of 2nd Qtr. 2013, the actual amount for 2012 was reported and following suit are projections.

FIGURE 3

Year	Mo.	COFI	LIBOR	PRIME	NACM
2000		6.0000%	6.6600%	9.2300%	7.9300%
2001		5.0700%	3.5900%	6.9200%	6.9500%
2002		3.4400%	1.8700%	4.6800%	6.4800%
2003		2.5900%	1.2300%	4.1200%	5.6900%
2004		2.4600%	1.8600%	4.3400%	5.6700%
2005		3.3700%	3.8400%	6.1900%	5.8600%
2006		4.3800%	5.3000%	7.9300%	6.5500%
2007		4.0720%	4.8353%	7.3300%	6.2300%
2008		2.7570%	2.2003%	3.6100%	5.5100%
2009		1.8280%	0.4546%	3.2500%	4.9200%
2010		1.5080%	0.4587%	3.2500%	4.5800%
2011		1.2210%	0.7782%	3.2500%	4.1500%
2012		1.0710%	0.5152%	3.2500%	3.2900%
2013		0.9510%	0.4214%	3.2500%	3.4000%
2013	1	0.9620%	0.4902%	3.2500%	3.3500%
	2	0.9990%	0.4641%	3.2500%	3.4300%
	3	0.9670%	0.4483%	3.2500%	3.5400%
	4	0.9700%	0.4360%	3.2500%	3.5600%
	5	0.9510%	0.4214%	3.2500%	3.4000%



PERSONAL INCOME – Personal income was reported at $42.7 billion in 2011 and $43.3 billion in 2012, a 1.34% increase. According to a recent economic and statistical report,[3] personal income is projected to increase steadily to $64.4 billion in 2013, $67.7 billion in 2014, $71.0 billion in 2015, and $74.5 billion in 2016, representing a $10.1 billion increase over four years, or an average annual increase of 3.9%.

UNEMPLOYMENT RATE – The civilian unemployment rate was reported at 6.5% in 2011 and 5.8% in 2012. These rates are projected to range from 4.1% to 4.8% between calendar years 2013 and 2016, according to a recent economic and statistical report.[3] CBRE points out that with the increase in large international and domestic companies looking to expand in the Hawaiian Islands, job growth is exhibiting positive trends, resulting in low unemployment rates in the state compared to the rest of the nation. According to DBEDT, a total of 10,400 jobs were added in the first quarter of 2013.

ECONOMIC INDICATORS

The following article[6] and report cites that Hawai'i is moving onto a strong expansion path and that the islands are poised for several years of moderately rapid growth that will bring measurable improvements for many local families. This news article summarizes the University of Hawai'i Economic Research Organization quarterly economic forecast released on August 8, 2013:

University of Hawai'i economists dialed back their forecast for visitor arrivals this year as higher hotel room rates and a weaker yen have put a damper on growth in the state's No. 1 industry. The University of Hawai'i Economic Research Organization said in its quarterly economic forecast scheduled for release today that visitor arrivals will grow 5.5 percent this year, down from its May prediction of 6.6 percent.

"In the wake of last year's record setting performance, the tourism sector has downshifted to a more measured pace of expansion," the economists, led by Carl Bonham, wrote. The slower growth is partly due to hotels being almost full, especially on O'ahu. Hotel occupancy in the first quarter on O'ahu was 85 percent.

Because of the demand, hotels are able to charge more for rooms. The average room rate on O'ahu in the first quarter was up 18 percent compared with the first quarter of 2012 and 30 percent higher than the first quarter of 2011. "While the large rise in room rates is good for hoteliers, higher room bills are squeezing spending on other tourism activities, dining, shopping, and so forth," the report said.

Bonham said if politicians in Washington don't muck up things, the U.S. economy should continue to improve, which would make affording higher room rates easier for mainland visitors.

HAWAII ECONOMIC INDICATORS

UH economists said Hawaii is in the midst of a solid economic growth cycle which should continue for several more years.

	2013	2014	2015
Visitor arrivals	5.5	2.3	1.7
U.S. visitor arrivals	4.7	1.9	1.7
Japan visitor arrivals	4.7	1.3	0.6
Other visitor arrivals	8.8	4.6	2.7
Payroll jobs	2.1	2.6	2.1
Unemployment rate (1%)	4.7	4.4	3.9
Inflation rate, Honolulu MSA (1%)	1.8	2.2	3.0
Real personal income	2.6	3.3	3.2
Real GDP	3.3	4.4	3.9

Source: UHERO STAR-ADVERTISER

"A healthy rebound in U.S. household income would help to alleviate this (room rate) squeeze," the report said.

[6] Star Advertiser, August 9, 2013, B1

For tourists from Japan, the higher room rates are compounded by the weaker yen. The yen has dropped nearly 30 percent against the dollar in the past year, meaning virtually everything in Hawai'i costs 30 percent more if you are converting from yen. That's why the economists are predicting Japanese arrivals will grow by only 1.3 percent next year and 0.6 percent in 2015. While the growth in tourism may appear weaker than it did three months ago, the industry is still chugging along nicely, as is the rest of the state's economy.

The UH economists are forecasting Hawai'i's economy will grow by 3.3 percent this year and 4.4 percent next year. "Hawai'i is moving onto a strong expansion path," the report said. "The islands are poised for several years of moderately rapid growth that will bring measurable improvements for many local families." Construction is one of the highlights. The economists estimated construction jobs will grow by at least 9 percent this year and more than 11 percent next year. By 2015 there should be 39,200 construction jobs in the state, or 10,000 more than in 2012. Incomes should also start increasing more rapidly. Inflation-adjusted personal income will rise by 2.6 percent this year and 3.3 percent next year, the report said.

DEMOGRAPHIC TRENDS

KAKA'AKO – The current population within a one-mile radius is 12,571, and this increases to 188,924 within a three-mile radius. The average annual growth rate in population has been minimal. Similarly, households followed suit, with 6,214 within a one-mile radius and 82,759 within a three-mile radius. The median household income was reported at $48,603 within a one-mile radius and $43,953 within a three-mile radius. Within a one-mile radius, 18.5% earn less than $15,000 a year, 17% earn between $50,000 and $74,999, 13.7% earn between $100,000 and $149,999.

ESRI indicated that within a one-mile radius, 29% of the population represents the retirement community, and nearly half of these households earn income from interest, dividends, and rental properties, and/or retirement income.

28% of the population consists of trendsetters, on the cutting edge of urban style; this lifestyle group is young, diverse, and mobile. More than half of this group share rent with a roommate. These residents are educated professionals who work in substantive jobs. Of the total group, 19% have a graduate degree, 30% earned a bachelor's degree, and 73% have attended college.

The next 25% of the population are the Laptops and Lattes, with no homeownership or child-rearing responsibilities. This segment is highly educated and affluent and is generally living alone or with a roommate. The median household income of this group is $97,408.

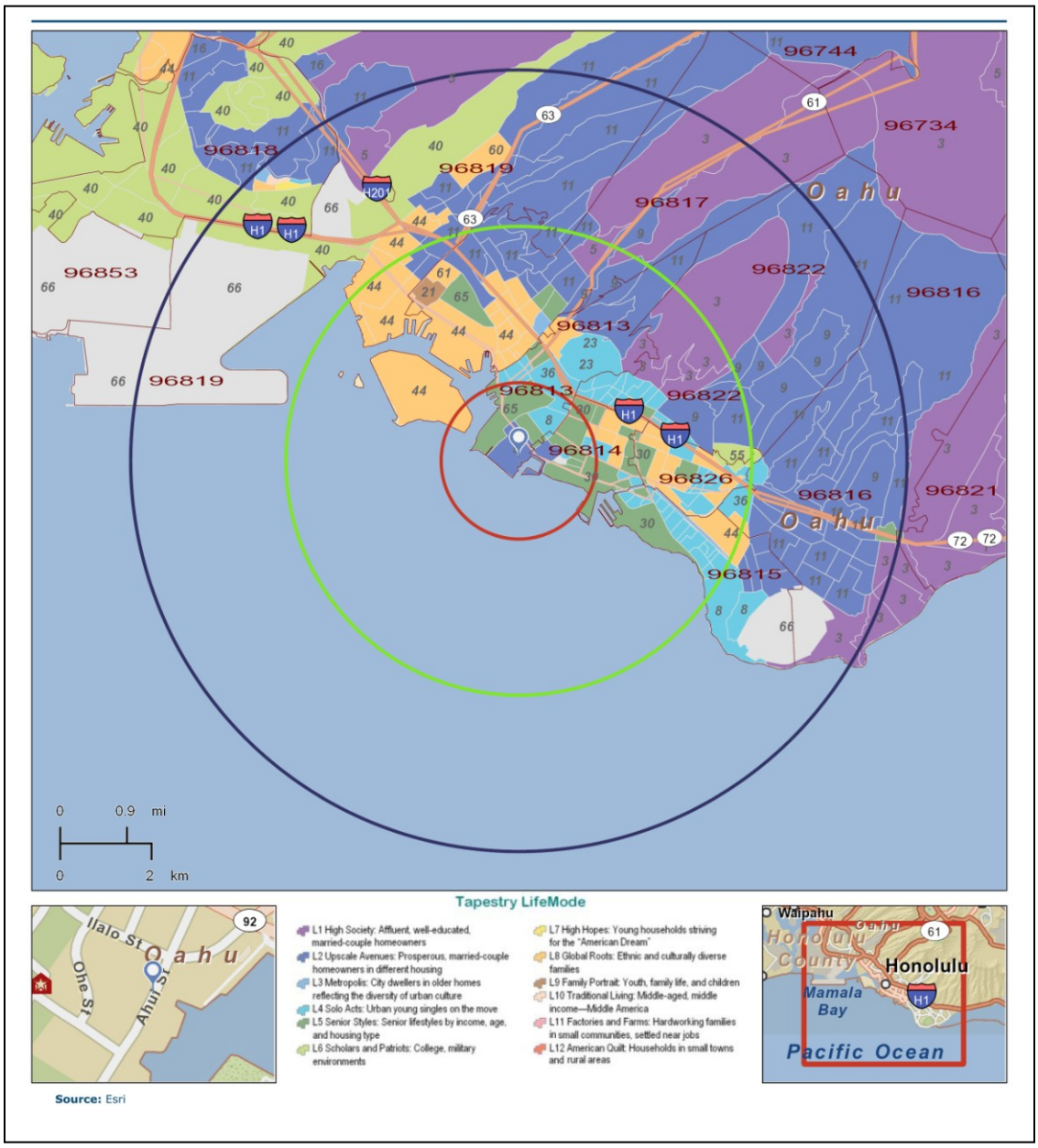
In 2012, ESRI reported 37.8% of the housing units as owner-occupied, 49.6% as renter-occupied, and 13% vacant and not occupied.

DEMOGRAPHIC SUMMARY

Mile Radius		1	3	5
	Populaton			
	2010	12,405	186,888	311,738
	2012	**12,571**	**188,924**	**313,982**
	2017	13,042	195,503	323,394
	2010 - 2017 Annual Rate	0.74%	0.69%	0.59%
	Households			
	2010	6137	81753	121,707
	2012	**6214**	**82759**	**122,750**
	2017	6446	85761	126605
	2010 - 2017 Annual Rate	0.59%	0.51%	0.44%
	Median Household Income			
	2012	**$48,603**	**$43,953**	**$52,246**
	2017	$55,570	$51,513	$61,803
	2010 - 2017 Annual Rate	11.30%	10.60%	9.20%
	2012 Households by Income			
	Household Income Base	6,214	82,759	122,747
	< $15,000	**18.5%**	**17.0%**	**13.6%**
	$15,000 - $24,999	10.3%	11.4%	9.9%
	$25,000 - $34,999	**10.7%**	**11.4%**	**10.1%**
	$35,000 - $49,999	11.3%	15.2%	14.3%
	$50,000 - $74,999	**17.0%**	**15.5%**	**16.0%**
	$75,000 - $99,999	9.1%	9.2%	10.4%
	$100,000 - $149,999	13.7%	11.1%	13.9%
	$150,000 - $199,999	3.6%	4.2%	6.1%
	$200,000 +	5.7%	4.9%	5.7%
	Average Household Income	$69,222	$65,962	$74,730

Source: ESRI

In the next 10 to 15 years, as developments are constructed and new residents move in, the demographics of the population will be changing dramatically to account for the addition of families in the planned 10,000+ residential units.



RESIDENTIAL MARKET TRENDS

SUPPLY – The residential community is forecast to expand exponentially in the Kaka'ako area due to large investments being made in the development of residential condominiums, apartments and commercial uses. With the Honolulu Rail Transit projected for completion in 2019, transit-oriented development is being included in the planning process, as the rail is expected to serve this area. The following projects, consisting of over 10,000 residential units, are currently under construction or proposed for Kaka'ako.

Ward Villages Rendering

690 Pohukaina Rendering

Under Construction	Address	Units
Symphony Honolulu Tower	888 Kapiolani Blvd.	388
Waihonua at Kewalo	1189 Waimanu St.	341
One Ala Moana	One Ala Moana	210
801 South Street	801 South Street	635
Subtotal		1,574
Proposed		
801 South Street Adjacent Tower	801 South Street	400
Forest City Enterprises (Rentals)	690 Pohukaina	600
Phase 1: Halekauwila Place	690 Pohukaina	204
Waihonua (Rentals -Senior)	1226 Waimanu St.	72
Ola Ka Ilima Artspace Lofts (Live/Work)	1025 Waimanu St.	80
Subtotal		1,356
Ward Village/Howard Hughes Corp. Ph. 1		
Ward Village Land Block 5, Project 1	404 Ward Ave.	424
Ward Village Land Block 2, Project 1	1127 & 1140 Ala Moana Blvd.	177
Ward Village Land Block 3, Project 1	1108 Auahi St.	318
Remaining Units Planned		681
Subtotal		1,600
Ward Village/Howard Hughes Corp. Ph. 2		1,500
Ward Village/Howard Hughes Corp. Future Phases		1,550
Subtotal		3,050
Kamehameha Schools		
A&B Properties: The Collection	604 Ala Moana	467
Kamehameha Schools: Keauhou Place (Rentals)	555 South St.	150
Stanford Carr Development: Keauhou Place	555 South St.	450
Remaining Units Planned		1,683
Subtotal		2,750
Grand Total Units Planned		10,330

SOURCES: HAWAI'I COMMUNITY DEVELOPMENT AUTHORITY WEBSITE, HTTP://DBEDT.HAWAII.GOV/HCDA/; HONOLULU STAR ADVERTISER ARTICLES JUNE 30, JULY 2, 12, 18 AND 27, 2013.

DEMAND – Demand has increased due to international buyers taking advantage of favorable exchange rates and being attracted to the United States, especially to Hawai'i properties. In addition, there is pent-up demand for affordable residential units near downtown and Waikīkī. This is evidenced by the long lines of condominium buyers and quick sell-out of condominium projects marketed this past year. As many of the existing rental apartment communities in Honolulu are for military families, the affordable and senior markets, or public housing, the non-government subsidized rental apartment investment market is small. A large number of condominium units are rented by their investor-owners and add to the rental apartment market. Nationwide, apartments have been the most desirable real estate investment as apartment rents are continually increasing, with a 4.6% increase expected this year, according to CCIM Quarterly Market Trends.[7]

SALES TRENDS – The Honolulu Board of Realtors[8] reported the current median sales price for single family homes has increased 2.0% from $635,000 in July 2012 to $647,500 in July 2013. Condominium median sales prices increased faster at 8.0% from $320,000 in July 2012 to $345,500 in July 2013. The Board also reported that the Days on Market indicator shows both houses and condominiums selling faster last month compared to a year ago. The median sales price reported for single-family homes is 1.1% below the 2007 market peak average price of $685,000.

According to Prudential Locations[9], the median sales price for Kaka'ako condominiums is currently $630,000, with a low of $259,000 for a studio at Honuakaha and a high of $4.5 million for a super luxury condominium at Hokua. Comparing this to the median sales price for a condominium in Honolulu at $330,000, Kaka'ako condominiums are 90% higher, indicating a surging demand for this location.

Low housing inventory, low mortgage interest rates, an improving local economy with job growth are motivating developers to proceed with their condominium development plans.

RETAIL MARKET TRENDS

SUPPLY – Retail space consists of approximately 13.6 million square feet. There is approximately 720,000 square feet of available space, representing a 5.2% vacancy rate. According to CBRE[10], value centers have a vacancy rate of 4%, or 77,447 square feet; regional malls have a vacancy rate of 5.9%, or 366,293 square feet; strip centers have a vacancy rate of 5.9%, or 57,767 square feet; and resort centers have the highest vacancy rate at 10.8%, or 204,192 square feet.

New construction is planned in the Property's immediate neighborhood. Recently, TJ Maxx was added with a parking structure in the Ward retail complex. Ala Moana Center is expanding the vacated Sears space for an additional 650,000 square feet, making way for Bloomingdale's and another anchor.

7 CCIM Quarterly Market Trends, 2Q13, Commercial Real Estate Forecast Page 9

8 Star Advertiser, O'ahu Home Sales, July sales produce record median price for condominiums, August 7, 2013, Page A1.

9 Prudential Locations, Living the Kaka'ako Condo Lifestyle, http://www.prudentiallocations.com/news/lifestyle/life-in-kakaako.aspx

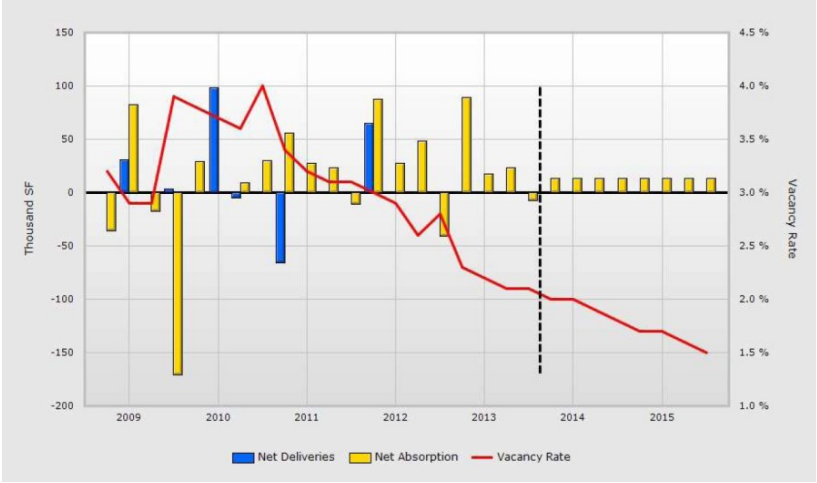
10 CBRE Hawai'i Retail MarketView Q2 2013, Increased Consumer Demand Has Inspired New Retail Developments, Pages 1 & 2

According to existing HCDA applications, among Forest City, Howard Hughes, and Kamehameha Schools, over one million square feet of commercial retail space is planned for the Kaka'ako area to accommodate the expanding community base in the next ten years. SALT, the conversion of old warehouse and commercial buildings into a retail complex by Kamehameha Schools, was recently approved by the HCDA. It is located on Ala Moana Boulevard near the Property.

Kamehameha Schools' SALT is a planned specialty retail center and village, catering to culture and commerce to provide an experience that fuses art, film and cuisine.

SOURCE: KAMEHAMEHA SCHOOLS' KALAULU O' KAKA'AKO MASTER PLAN/ WEBSITE

VACANCY & ABSORPTION TRENDS – Within a three-mile radius of the Property, negative absorption of the past reversed into positive absorption starting in late 2012, causing the vacancy rate to turn downward to a rate closer to 2%, as illustrated in this graph.



DEMAND – Increasing rental rates are indications of the increasing demand for retail space due to the relative lack of existing inventory of space available. Demand for retail is also based on consumers' disposable income.

RENTAL RATE TRENDS – Within the State of Hawai'i, average net rental rates for retail space increased 8.25%, from $4.36 to $4.72 per square foot per month, as reported by CBRE[2] quarterly comparisons.

- Resort centers are commanding the highest average net rents at $7.28 per square foot, with common area maintenance reimbursements of $2.11 per square foot per month.

- Regional malls are next, averaging a net rent of $4.22 per square foot, with common area reimbursements of $1.63 per square foot per month.

- Value centers, which typically include big box retailers, are averaging $4.21 net and common area maintenance reimbursements of $0.89 per square foot per month.

- Community neighborhood centers are averaging $3.42 net and common area reimbursements of $1.13 per square foot per month; while

- Strip Centers are averaging $2.57 net plus common area reimbursements of $0.84 per square foot per month.

CONSUMER SPENDING – Consumer spending varies among residents, military families and visitors. Annual consumer spending represented a total of $4.6 billion spent within a five-mile radius in 2012. This total is expected to increase 15% in the next few years to $5.3 billion by 2017.

- Apparel: $185.5 million in 2012, forecast to increase to $215.2 million by 2017
- Entertainment: $455.6 million in 2012, forecast to increase to $528.6 million by 2017
- Food at home: $450.5 million in 2012, forecast to increase to $522.6 million by 2017
- Food away from home: $405.1 million in 2012, forecast to increase to $469.9 million by 2017
- Alcohol beverages: $76.7 million in 2012, forecast to increase to $89.0 million by 2017
- Furniture & appliances: $394.0 million in 2012, forecast to increase to $457.1 million by 2017
- Transportation & maintenance: $938.8 million in 2012, forecast to increase to $1.1 billion by 2017
- Healthcare: $201.9 million in 2012, forecast to increase to $234.2 million by 2017
- Education & daycare: $472.6 million in 2012, forecast to increase to $548.3 million by 2017

As discussed earlier, visitor expenditures have increased 18.5% over the past two years, from $12.3 billion in 2011 to $14.5 billion in 2012. They are expected to increase 5.6%, to $15.3 billion, in 2013 and continue to increase steadily to $16.1 billion in 2014, $16.8 billion in 2015, and $17.5 billion in 2016.

RESIDUAL CAPITALIZATION RATES – Institutional investors expect and reported a range of rates from a low of 5% to a high of 12% for regional malls, power centers, and strip centers, with averages nearing 7.5%. Local transactions in Honolulu since January 2012 have reported rates ranging from 6.5% to 7.5%.

OFFICE MARKET TRENDS

SUPPLY – Office space consists of approximately 11.0 million square feet on the island of O'ahu, with 5.0 million in the Central Business District or downtown submarket and 2.8 million square feet in the Kapi'olani submarket. In the downtown submarket, 731,884 square feet of space is available (a 14.6% vacancy rate) and in the Kapi'olani submarket, 92,354 square feet of space is available (a 14.0% vacancy rate).

According to CBRE[11], the 2008 market crash impacted the office market, forcing employers to downsize and resulting in an increased supply of office space. Since then, the market has improved and is currently experiencing positive absorption trends in downtown. The University of Hawai'i Cancer Center was recently added to Kaka'ako Makai, and 250,000 square feet of office space is planned in Kaka'ako by Forest City.

February 2013 marked the grand opening of the Cancer Center located in Kaka'ako Makai.

SOURCE: UNIVERSITY OF HAWAI'I CANCER CENTER WEBSITE: WWW.UHCANCERCENTER.ORG

VACANCY & ABSORPTION TRENDS – Within a three-mile radius of the Property, negative absorption of the past was upgraded in late 2010 to positive absorption. The supply has decreased, as evidenced by the declining vacancy rates.

DEMAND – Increasing rental rates are indications of the increasing demand for office space and are expected in the near term. Another source of demand is the job employment market; as jobs increase and employers need more space to accommodate more employees, more office space is absorbed, which is reflected in a declining vacancy rate. Jobs in industries such as banks, finance, insurance, real estate, services, medical, and healthcare all contribute to the demand for office space.

[11] CBRE Honolulu Office MarketView Q2 2013, Downtown Allure Draws Tenants Back to CBD, Pages 1 & 2

RENTAL RATES TRENDS – The office market gross rental rates have increased 2% over the past year, from $2.86 in 3rd quarter 2012 to $2.97 per square foot per month in 2nd quarter 2013. CBRE[3] reports gross rents in the downtown area ranging from a low of $2.80 to a high of $3.07, with operating expenses at $1.41 per square foot per month. The Kapiʻolani submarket's gross rents are higher, ranging from a low of $3.05 to a high of $3.27, with operating expenses at $1.59 per square foot per month.

RESIDUAL CAPITALIZATION RATES – Institutional investors expect and reported a range of rates from a low of 5% to a high of 11% for Central Business District and suburban office space, with averages nearing 8.0%. Local transactions in Honolulu since January 2012 have reported rates ranging from 7.5% to 8.0%.

DEVELOPMENT PROJECTS UNDERWAY

Kakaʻako is the current hotbed for condominium and commercial property development, and that trend is expected to continue for the foreseeable future. In the last 20 years, according to Hawaiʻi Business, HCDA reported that over $2.2 billion in private investment was spent in Kakaʻako, $225 million was spent on public investment in the infrastructure, and $528.9 million was spent for public sector developments. Laying down the infrastructure in the last 20 years made possible today's large-scale community development. **Figure 4**, Projects Underway or Planned, is an aerial photo of the projects planned for or underway in Kakaʻako.

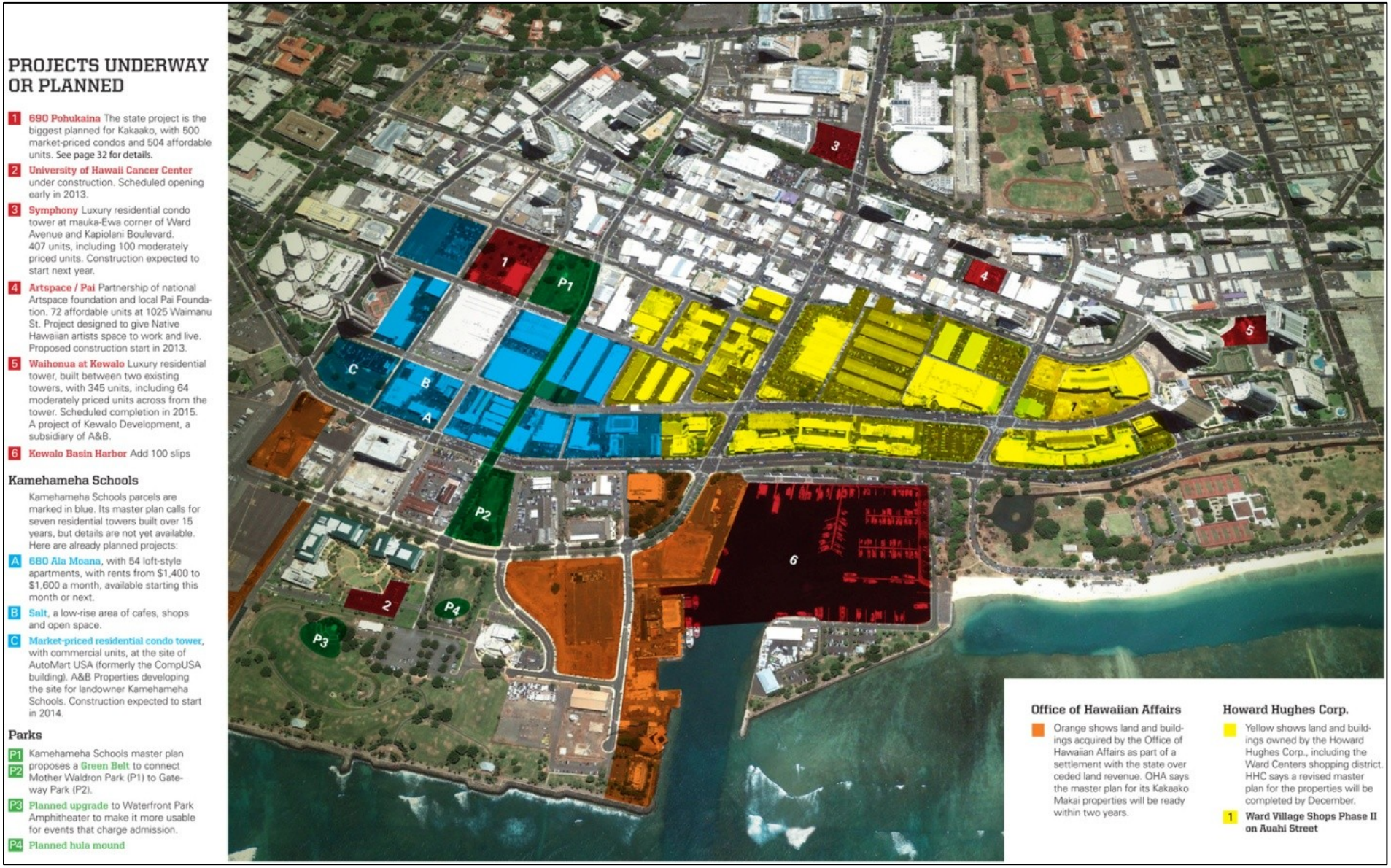
THE EMERGENCE OF KAKAʻAKO

Kakaʻako was once a prototypical overlooked and underdeveloped section of a major city, somewhat akin to San Francisco's South of Market district. Early on it consisted of salt and fish ponds, coconut groves and a fishing village. Its name, Kakaʻako, described in the early 1800's a marshy area with bulrushes used to make thatch. Much of the current area makai of Ala Moana Boulevard was under water and was later filled during the land reclamation period, as illustrated on **Figure 5**, Map dated 1880.

Many early immigrants, mainly from China and Japan, made Kakaʻako their home as they left the sugar and pineapple plantations for city life. Along with the Native Hawaiians and others already residing there, they formed a diverse and close-knit neighborhood of modest homes and small stores. As Honolulu expanded outward to accommodate its growing population, many residents left Kakaʻako for newer residential areas. Kakaʻako subsequently evolved into a mixture of light industrial and small business uses, a back-of-the house to the Central Business District. Its humble and raw character was punctuated by the sprawling city dump and incinerator and various other government facilities such as an animal quarantine station that occupied a large part of the waterfront of Kakaʻako Makai. While downtown Honolulu to its west and Waikīkī to its east developed into major anchors of the city, Kakaʻako remained largely underdeveloped, overlooked and bypassed.

Much of Kakaʻako's improvements have, until recently, consisted of low-rise structures such as warehouses and small industrial and commercial buildings, some intentionally built to be eventually replaced by higher and better uses. The recent Kakaʻako development boom has been spurred by the following factors.

FIGURE 4



SOURCE: HAWAII BUSINESS, KAKA'AKO'S BUILDING BOOM, SEPTEMBER 2012

FIGURE 5

SOURCE: OHA MAP DATED 1880, HIGHLIGHTING THE OHA LAND PARCELS IN THE HONOLULU SEA (UNDER WATER).

- STRATEGIC LOCATION – Kaka'ako is centrally located between downtown, the civic and financial center of the city and the state, and Waikīkī, the heart of Hawai'i's visitor industry. The HCDA's vision and the master plans by Kaka'ako's major land owners point to making Kaka'ako the heart of Honolulu's urban core.

- CHANGING DEMOGRAPHICS & LIFESTYLES – As with other major cities across the country, Honolulu residents are moving back into the city core into multi-family, mainly high-rise, condominium and rental apartment properties. The growing trend is for mixed-use projects with retail, commercial and entertainment uses included in the complexes. Many buyers are empty-nesters who no longer need or want a single-family home and now prefer to be closer to their jobs and amenities such as medical facilities and entertainment venues without the commute from outlying suburban areas. Others are younger singles and couples who prefer being in the city center with easy access to urban life. A large segment is non-residents who visit Hawai'i often and want to have their own place to stay when they visit. Lastly, some are buyers who believe that owning a condominium in the growth area is a smart investment.

- MAJOR PROJECTS UNDERWAY – Two of the largest private landowners in Kaka'ako - Howard Hughes Corp. with its 60-acre Ward Village and Kamehameha Schools with its 29-acre Our Kaka'ako projects - are proceeding with implementing their multi-billion dollar master plans approved by the HCDA. In addition, construction of Hughes's One Ala Moana condominum at Ala Moana Center and A & B Properties' Waihonua condominium are well underway. A & B is also developing the Collection, a mixed-use project on the site owned by Kamehameha Schools which was formerly occupied by CompUSA, and Forest City has secured a ground lease from the HCDA to develop a high-rise rental apartment community on Pohukaina Street. These major landowners and capable developers are leading the way for others to follow.

- TRANSIT-ORIENTED DEVELOPMENT – The city's rail project has identified areas in and around Kaka'ako designated for transit-oriented development zones around the stations. The zoning ordinance is still being prepared by the city, and city officials expect that the rail project will be completed in 2019.

- STATE-OF-THE-ART MEDICAL EDUCATION CAMPUS – Located adjacent to OHA's properties are the University of Hawai'i John A. Burns School of Medicine and the recently completed Cancer Center. They are expected to anchor a biomedical and bioscience education and research campus in Kaka'ako Makai.

- NEAR THE MOST PROFITABLE & LARGEST OPEN-AIR SHOPPING CENTER IN THE UNITED STATES – Ala Moana Center anchors the major retail/commercial/entertainment section of Honolulu. With the conversion of the three-story space formerly occupied by a Sears department store into a multi-tenanted space and the construction of the sold-out One Ala Moana luxury condominium project over the Nordstrom parking structure, Ala Moana Center will continue to grow and attract more shoppers and visitors.

- PUBLIC RECREATION – Ala Moana Park, which lies adjacent to and just east of Kaka'ako, is the major beachfront park serving urban Honolulu. It attracts thousands of users every day and tens of thousands for special events.

- PUBLIC ENTERTAINMENT & SPORTS VENUE WITH REDEVELOPMENT POTENTIAL – Located within the district is the city's Blaisdell Center with its performing arts theater, sports and entertainment arena, exhibition hall and meeting rooms. The HCDA visualizes its redevelopment into a multi-use project with the addition of a 700-foot residential condominium tower by way of a public-private partnership.

- PUBLIC SCHOOL WITH REDEVELOPMENT POTENTIAL – Next to the Blaisdell Center is McKinley High School. School officials and the HCDA have proposed the redevelopment of its athletic field with multiple sports venues and space for related entities such as a YMCA facility.

- HIGH TRAFFIC COUNTS – The major east-west thoroughfares of Ala Moana and Kapi'olani Boulevards and King and Beretania Streets are active commercial and residential corridors through and around Kaka'ako.

San Francisco revitalized its South of Market district that had fallen into blight and urban decay caused by the movement to the suburbs, and other cities followed suit, renewing dilapidated sections of their cities. Kaka'ako is primed for steady redevelopment, as envisioned in 1976 when the HCDA was created. Today, after over a generation of planning and significant infrastructure investment, meaningful transformation of Kaka'ako is finally being realized.

IV. LAND VALUE ANALYSIS

In this section, the Property's land value and income were analyzed to provide a basis for considering proposed future uses for the Property.

FINDINGS AND CONCLUSIONS

DEFINITION OF VALUE – The simplistic real estate truism, "land is only worth what it can earn," speaks to economic or monetary value. Just as important to OHA is the value of the Property which cannot be measured by economic or monetary measures. It can be described as social value or benefits that flow from the land, which may be more meaningful than earnings power.

A holistic view of land use planning and value creation would consider all 30 acres of the Property together and not as separate parcels. The use of each parcel should support the use and benefits of the others and provide synergistic value to the whole. For example, that part of the Property that is designated for open and public spaces, from which no revenue is received, should be off-set by the revenue that is received from other parts of the Property. As with the tenant mix for a shopping center, a mixture of uses should be considered and tested to find the right balance between economic and social value.

UNIQUE LOCATION AND ADJACENT USES – Kaka'ako Makai was created by fill commencing in the 1840's. Except for the lands owned by Kamehameha Schools, all of the real estate in Kaka'ako Makai is owned by State of Hawai'i entities. With its unique Kewalo Basin and Ala Moana Boulevard frontages, it could be the most valuable land in Kaka'ako.

Waterfront land in Hawai'i, as with nearly everywhere else in the world, has a premium value. For many years, Kewalo Basin and the Kewalo Basin parcels were home to the local tuna fishing and maritime industries, with little improvement to the area since the tenants vacated those parcels.

As with the rest of Kaka'ako, Kaka'ako Makai is ripe for substantial transformation and could become the ocean gateway to Kaka'ako. The University of Hawai'i's John A. Burns School of Medicine and Cancer Center anchor a medical education and research campus. While Kamehameha Schools has tabled its plans to build a biotechnology facility adjacent to the campus, it may still be a natural addition some day as an adjunct to the University of Hawai'i's research activities. A President Obama Library is proposed for the state property adjacent to Kaka'ako Waterfront Park that would add distinction and prestige to the area. Working with these neighbors and potential community partners, OHA could create a place modeled after Native Hawaiian cultural practices with an iconic presence symbolizing Hawai'i's welcome to all.

MARKET VALUE – The two appraisal reports prepared at the time of the acquisition concluded with a total estimated market value of nearly $200 million, with a range of about $145 to $149 per square foot. The higher value assumed a height limit of 400 feet versus the 200 feet that is allowed, which indicates a residential use.

The appraisal reports assumed that the Property is vacant, unencumbered and available for development to its highest and best use (commercial). As shown in the section on existing ground leases, seven of the nine parcels are encumbered by ground leases, four long term, and produce a total rent of slightly more than $1 million. Market rates of return on land range from about 7% to 8%. At a capitalization rate of 7.5%,

the indicated capitalized value is about $13 per square foot, or about 9% of the appraised value. The ground lease rents are substantially less than market rents and the uses may not be able to produce rents to support the estimated value of the Property. Moreover, limitations and restrictions imposed on the Property such as uses, height and Floor Area Ratio should be studied for their impact on value.

A financial plan for the Property should first determine the amount of net revenue that the Property is expected to generate. A net present value projection of the net annual cash flow (revenue less costs and expenses) that any proposed use to the Property will produce over a specific time period can be used to evaluate the economic results of the proposed use.

GROUND LEASES - Seven of the nine parcels are encumbered by ground leases which produce an annual base rent of about $1 million, which is substantially less than the potential ground lease rent of about $15 million, assuming an average return of 7.5% on a land value of $200 million.

RESIDUAL LAND VALUES – As a comparative measure, the residual land values for hypothetical, single-use projects were estimated to be as follows:

- Residential condominium – $219 per square foot
- Rental apartment – $20 per square foot
- Retail – $72 per square foot
- Office – negative $245 per square foot

ESTIMATED MARKET VALUE

The Summary Appraisal prepared by Medusky & Co. presented market value of the Property's interest appraised in fee simple with an effective date as of November 30, 2011. This appraisal did not estimate the market value of the Property's interest in leased fee, although the Property is encumbered by ground leases. On the contrary, it assumed that the Property is vacant, unencumbered and available for development to its highest and best use (commercial). The report includes a comparison of its market value conclusions with that of the appraisal firm of The Hallstrom Group, Inc., which was retained by the State of Hawai'i.

In an updated Summary of Conclusions with an effective date of November 30, 2011, Hallstrom's value conclusion for the Property is $199,130,000 (an average of $149 per square foot) and Medusky's is $194,200,000 (an average of $145 per square foot) for the 30.718 acres of land. Hallstrom's value conclusion for Parcel E is based on an assumed height limit of 400 feet. The presumption can be made that the anticipated use is for housing, since no other market use would reasonably support 30 acres of land development at that height. **Figure 6**, the Summary of Conclusions, lists value conclusions for the Property by the two appraisal firms.

The Summary Appraisal states that: "The Kaka'ako District has experienced redevelopment in recent years and is planned for continued redevelopment over the next few decades." Most of the redevelopment is for high-rise residential condominium projects. **Figure 7** illustrates the HCDA Development Projects in Kaka'ako.

FIGURE 6

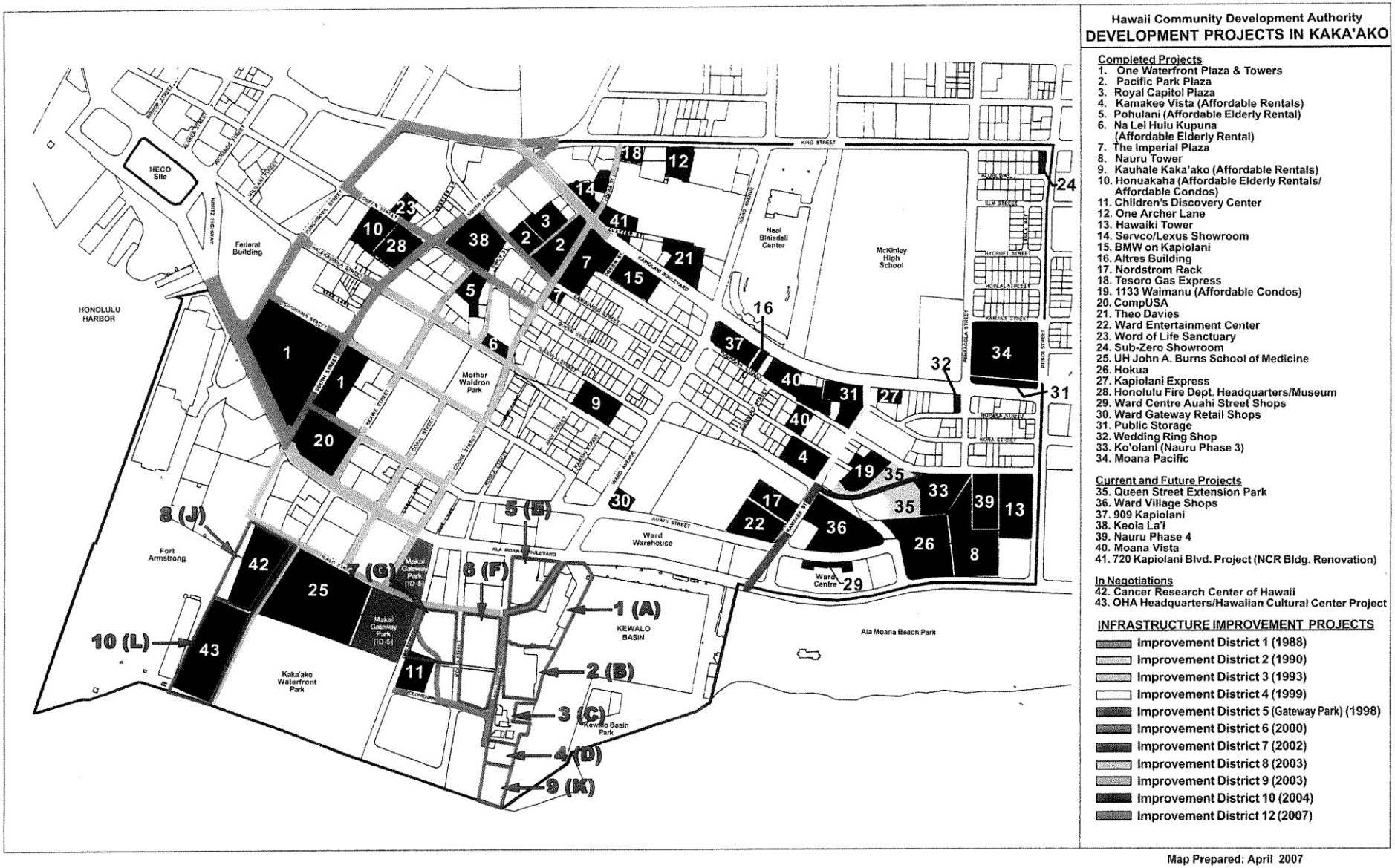
SUMMARY OF CONCLUSIONS
Kakaako Makai Properties
Kakaako, Honolulu, Oahu, Hawaii

Property No.	Identification (TMK)	Land Area acres	Land Area sq. ft.	Zoning (Ht/FAR)	Land Highest & Best Use	Rights Appraised	Hallstrom Conclusions $	Hallstrom Conclusions $/sq. ft.	Appraisers' Conclusions $	Appraisers' Conclusions $/sq. ft.	Exposure/ Marketing Time (mos)
1 (A)	1009 Ala Moana Boulevard (2-1-58-95 & 125)	5.082	221,372	WC (65'/1.50)	Commercial	FS	$34,980,000	$158	$36,000,000	$163	12
2 (B)	113 & 123 Ahui Street (2-1-58-02 & 35)	3.150	137,213	WC (65'/1.50)	Commercial	FS	$17,750,000	$129	$18,500,000	$135	12
3 (C)	59 Ahui Street (2-1-58-124 & 126)	2.043	88,996	WC (65'/1.50)	Commercial	FS	$13,820,000	$155	$13,600,000	$153	12
4 (D)	45 & 53 Ahui Street (2-1-58-48 & 2-1-60-13)	0.938	40,841	WC (65'/1.50)	Commercial	FS	$7,400,000	$181	$7,300,000	$179	12
5 (E)	919 Ala Moana Boulevard (2-1-58-06)	2.200	95,832	MUZ (200'/2.50)	Commercial	FS	$17,160,000 [1]	$179	$16,100,000	$168	12
6 (F)	160 Ahui Street (2-1-60-05)	4.613	200,942	MUZ (200'/2.00)	Commercial	FS	$30,660,000	$153	$27,200,000	$135	12
7 (G)	160 Koula Street (2-1-60-06)	2.546	110,904	MUZ (200'/2.00)	Commercial	FS	$18,470,000	$167	$16,300,000	$147	12
9 (K)	40 Ahui Street (2-1-60-por. 01)	1.584	69,000	WC (65'/1.50)	Commercial	FS	$11,420,000	$166	$12,400,000	$180	12
10 (L)	Keawe Street (2-1-15-51)	5.226	227,645	MUZ (45'/0.60)	Commercial	FS	$21,930,000	$96	$22,900,000	$101	12
11 (I)	Ala Moana Boulevard (2-1-15-53)	3.336	145,316	MUZ (200'/3.5)	Commercial	FS	$25,540,000 [1]	$176	$23,900,000	$164	12
TOTALS		30.718	1,338,061				$199,130,000		$194,200,000		

[1] Hallstrom value conclusion based on assumed height limit of 400 ft.

SOURCE: MEDUSKY & CO., INC. SUPPLEMENT TO SUMMARY APPRAISAL REPORT REGARDING TEN PROPERTIES, KAKAAKO, HONOLULU, HAWAII, TMK 2-1-58-95, ET AL., FIRST DIVISION; DATED DECEMBER 29, 2011 WITH AN EFFECTIVE DATE OF NOVEMBER 30, 2011, PAGE 8.

FIGURE 7



SOURCE: MEDUSKY & CO., INC. SUMMARY APPRAISAL REPORT REGARDING TEN PROPERTIES, KAKAAKO, HONOLULU, HAWAII, TMK 2-1-58-95, ET AL. PREPARED FOR WILLIAM MEHEULA, ESQ., FIRST DIVISION; DATED NOVEMBER 30, 2011 WITH AN EFFECTIVE DATE OF NOVEMBER 30, 2011, PAGE 12.

GROUND LEASE ANALYSIS

EXISTING GROUND LEASES – The Property is encumbered by certain ground leases, which are summarized in the following schedule. The ground lease summary indicates that OHA is achieving a weighted average annual lease income of $0.98 per square foot of land. Capitalizing the annual income of 7.5% results in an average land value of $13 per square foot, representing about 9% of the appraised value of nearly $150 per square foot. The ground rents do not reflect the estimated market land value of the Property.

			Land Area		Base Rent			
Parcel/Lessee	Zoning	Expires	Acres	Sq. Ft.	Annual	Monthly	$/SF/Yr	% Rent
A: Goodfellow Bros. & Eye Productions	MUZ	2012	5.020	218,671	160,950	13,413	0.74	
B: Honolulu Marine	WC	2021	3.150	137,214	205,760	17,147	1.50	
C: Kewalo Keiki Fishing Conservancy	WC	2074	2.043	88,993	1	0	0.00	
D: Ocean Investments LLC	WC	2035/42	0.938	40,859	430,616	35,885	10.54	
E: HCDA/State of Hawaii	MUZ	2018	2.200	95,832	100,000	8,333	1.04	
F/G: Cutter Chrysler, etal	MUZ	2012	7.159	311,846	54,000	4,500	0.17	80%
I: HCDA/Hawaii Irrigation Supply Co., etal	MUZ	mtm	3.336	145,316	65,856	5,488	0.45	
K: Office tenant leases	WC	--	1.584	69,000	--	--	--	
L: Warhouse tenant leases	MUZ-I	--	5.226	227,465	--	--	--	
			23.846	1,038,732	1,017,183	84,765	0.98	

According to the HCDA records, a ground lease is being negotiated between Forest City and the State of Hawai'i. The proposed $500 million transit-oriented development will incorporate various uses, including affordable rentals and condominiums, mixed with commercial space for business incubation, office, retail, civic space, and a hotel. While the lease terms were not disclosed, including the base and percentage rent, more than $30 million of incentives are proposed to be paid to the state, which includes a $14 million lease premium, $50,000 for entitlements, $1.5 million for the EIS, and $6.25 million for the provision of a 35,000 square foot civic space provided rent-free to the state. The total paid at commencement of construction would be $9.3 million.

RESIDUAL LAND VALUE ANALYSIS

PURPOSE – In addition to assessing the market situation, it is useful to gauge the relative value of the probable uses for the Property. In this residual land value analysis, a consistent methodology was applied to compare financial results of certain land uses. Essentially, it provides OHA with a common basis for measurement.

The parcels that comprise the Property are zoned either Waterfront Commercial or Mixed Use Zone, which permit a wide range of commercial, residential, maritime, community service and accessory uses. Although it is a permissible use, state law prohibits the HCDA from approving any plan or proposal for residential development on the Property.

As amply demonstrated in many mixed-use projects, the residential component is a vital part of thriving and successful mixed-use communities. Retail stores often struggle in downtown areas where there are no residences to patronize those stores when offices are not open. A classic case in point is the failure of Aloha Tower Marketplace. The developers of the marketplace intended to add residential, office and hotel uses around the marketplace to create a critical mass of activities to attract customers to the marketplace stores and restaurants. As those additions never materialized, the marketplace has failed. Moreover, Ala Moana Boulevard/Nimitz Highway separates the marketplace from the downtown area, which discourages the downtown population from going to the marketplace. Ala Moana Boulevard similarly separates the Property from the developments on the mauka side of the boulevard. This is an important and potentially significant impediment to keep in mind.

Referred to as festival marketplaces, stand-alone specialty retail venues on the waterfront have eventually faltered and many have failed. Projects that have a mix of residential, commercial, retail, entertainment and other synergistic uses have a greater chance of success. Many such developments can be found in cities on the mainland and throughout the world. Closer to the Property are the large-scale Ward Village and Our Kaka'ako mixed-use projects across Ala Moana Boulevard from Kaka'ako Makai and the hugely successful Ala Moana Center retail and condominium complex nearby. They all contain both residential and commercial uses.

A common development approach, especially for waterfront projects with large open areas for public use, is to maximize the value and income-generation from residential uses to support those other uses which generate little or no income.

METHODOLOGY – Because of its large size of over seven acres, maximum allowable height limit of 200 feet, mixed-use zoning and it's central location, the combined parcels F and G were selected for this residual land value analysis. On that site, the consulting team estimated the building sizes, construction costs and net income for purely hypothetical projects for the following single-use projects:

High-rise residential condominium (market prices)	624 units
Mid-rise rental apartment (mid-range rents)	960 units
Single-level multi-tenant retail (neighborhood & specialty)	237,500 SF Gross Leasable Area
High-rise multi-tenant office (market rents)	593,950 SF Net Rentable Area

As with the appraisal reports, it is assumed that the property is vacant, unencumbered and available for development. From the parameters and assumptions used, an abbreviated financial pro forma model was

prepared to derive the residual land value for each project. The analyses assume the complete development of the site, with the units or spaces sold or rented within a reasonable amount of time. All amounts are in 2013 dollars. No development time schedule was estimated, hence, the amounts were not adjusted for time.

For the condominium project, the estimated value is the net sales proceeds. For the rental apartment, retail and office projects, the net operating income is capitalized with an appropriate cap rate to determine the estimated value of the property. The selected rate chosen accounts for a recapture of the investment by the investor and should reflect all factors that influence the value of the property, such as tenant quality, property condition, neighborhood change, market trends, interest rates and inflation, in addition to other essential characteristics. This analysis uses a single year's stabilized net operating income as a basis for a value indication by dividing the income by a capitalization rate.

From the estimated value, the development cost of the newly constructed building and developer's profit were deducted to derive the resulting residual land value.

PRO FORMA MODEL – The following are the projections used to estimate the gross order-of-magnitude residual land values for the project types. The parameters and assumptions used in the pro forma model were a collaboration of market information and estimates prepared by the consultant team. As this analysis is an economic exercise based on hypothetical developments for the uses considered, it is not intended to be conclusive but merely to provide an early metric to guide further planning.

STABILIZED OPERATING PRO FORMA AND RESIDUAL LAND VALUE
RESIDENTIAL CONDOMINIUM

Sales Proceeds		Amount
Condominium Units		$561,600,000
Parking Stalls	+	4,700,000
Total		**566,300,000**
Less: Sales Costs	-	22,652,000
Net Sales Proceeds		**543,648,000**
Less: Development Costs		
Direct Costs - Condominium		217,526,000
Direct Costs - Parking	+	39,621,000
Direct Costs - Other	+	25,715,000
Subtotal		282,862,000
Indirect Costs	+	113,145,000
Total Direct & Indirect Costs		396,007,000
Developer's Profit	+	79,201,000
Total Development Costs	-	**475,208,000**
Residual Land Value		**$68,440,000**
Per Unit		**$109,700**
Per SF of Land Area		**$219**

Site Area	311,846 SF (7.159 acres)
Gross Building Area	623,692 SF
Salable Area	561,323 SF (90%)
Total Units	624 (1/1,000 SF = 87/Acre)
Average Size Per Unit	900 SF
Total Parking Area	337,200 SF (300 SF/Stall)
Total Parking Spaces	1,124
Parking Stalls for Units	936 (1.5/Unit)
Parking Stalls for Visitors	94 (10%)
Parking Stalls for Sale	94 (10%)
Average Sales Price Per Unit	$900,000 ($1,000/SF)
Average Sales Price Per Stall	$50,000
Sales Cost	4% of Gross Sales Proceeds
Direct Costs	$282,862,000
Indirect Cost	40% of Direct Cost
Developer's Profit	20% of Direct & Indirect Costs

STABILIZED OPERATING PRO FORMA AND RESIDUAL LAND VALUE
RENTAL APARTMENT

		Amount
Potential Gross Income		
Apartment Units		$20,736,000
Parking Stalls	+	615,000
Total		**21,351,000**
Less: Vacancy	-	427,000
Effective Gross Income		**20,924,000**
Operating Expenses	-	4,740,000
Net Operating Income		**16,184,000**
Gross Capitalized Value		**323,680,000**
Less: Transaction Costs	-	**3,237,000**
Net Capitalized Value		**320,443,000**
Less: Development Costs		
Direct Costs - Apartment		140,716,000
Direct Costs - Parking	+	39,975,000
Direct Costs - Other	+	9,035,000
Subtotal		189,726,000
Indirect Costs	+	35,179,000
Total Direct & Indirect Costs		224,905,000
Developer's Profit	+	89,298,000
Total Development Costs	-	**314,203,000**
Residual Land Value		**$6,240,000**
Per Unit		**$6,500**
Per SF of Land Area		**$20**

Site Area	311,846 SF (7.159 acres)
Gross Building Area	623,692 SF
Net Rentable Area	592,692 SF (95%)
Total Units	960 (1/650 SF)
Average Size Per Unit	617 SF
Total Parking Spaces	1,300
Parking Stalls for Units	960 (1/Unit)
Parking Stalls for Visitors	96 (10%)
Parking Stalls for Rent	244
Average Rent Per Unit Per Month	$1,800 ($2.92 PSF)
Average Rent Per Stall Per Month	$210
Vacancy Rate	2% of Potential Gross Income
Operating Expenses ($/Unit/Yr)	$4,936 Per Year ($8 PSF)
Overall Capitalization Rate	5%
Transaction Costs	1.0% of Gross Capitalized Value
Direct Costs	$189,726,000
Indirect Cost	25% of Direct Cost
Developer's Profit	15% of Direct & Indirect Costs

STABILIZED OPERATING PRO FORMA AND RESIDUAL LAND VALUE
RETAIL

		Amount
Potential Gross Income		
Retail Space		$12,723,000
Parking Stalls	+	302,000
Total		**13,025,000**
Less: Vacancy	-	1,303,000
Effective Gross Income		**11,722,000**
Operating Expenses	-	0
Net Operating Income		**11,722,000**
Gross Capitalized Value		**195,367,000**
Less Transaction Costs	-	**1,954,000**
Net Capitalized Value		**193,413,000**
Less: Development Costs		
Direct Costs - Retail		66,527,000
Direct Costs - Parking	+	40,129,000
Direct Costs - Other	+	5,333,000
Subtotal		111,989,000
Indirect Costs	+	19,958,000
Total Direct & Indirect Costs		131,947,000
Developer's Profit	+	38,881,000
Total Development Costs	-	**$170,828,000**
Residual Land Value		**$22,585,000**
Per SF of Land Area		**$72**

Site Area	311,846 SF (7.159 acres)
Gross Building Area	294,477 SF
Gross Leaseable Area	237,003 SF (95%)
Total Parking Spaces	1,305 (5.5/1,000 SF)
Parking Stalls for Customers	1,185
Parking Stalls for Rent	120
Average Rent Retail SF Per Year	$51.00 ($4.25 SF/Mo.)
Average Rent Per Stall Per Month	$210
Vacancy Rate	10% of Potential Gross Income
Operating Expenses ($/SF/Yr)	Direct Pass-Thru
Overall Capitalization Rate	6%
Transaction Costs	1% of Gross Capitalized Value
Direct Cost	$111,989,000
Indirect Cost	30% of Direct Cost
Developer's Profit	15% of Direct & Indirect Costs

STABILIZED OPERATING PRO FORMA AND RESIDUAL LAND VALUE
OFFICE

		Amount
Potential Gross Income		
Office Space		$24,324,000
Parking Stalls	+	801,000
Total		**25,125,000**
Less: Vacancy Rate	-	3,015,000
Effective Gross Income		**22,110,000**
Operating Expenses	-	10,179,000
Net Operating Income		**11,931,000**
Gross Capitalized Value		**159,080,000**
Less: Transaction Costs	-	**1,591,000**
Net Capitalized Value		**157,489,000**
Less: Development Costs		
Direct Costs - Office		167,177,000
Direct Costs - Parking	+	50,430,000
Direct Costs - Other	+	10,880,000
Subtotal		228,487,000
Indirect Costs	+	3,264,000
Total Direct & Indirect Costs		231,751,000
Developer's Profit	+	2,122,000
Total Development Costs	-	**233,873,000**
Residual Land Value		**($76,384,000)**
Per SF of Land Area		**($245)**

Site Area	311,846 SF (7.159 acres)
Gross Building Area	623,692 SF
Net Rentable Area	530,138 SF (85%)
Total Parking Spaces	1,640
Average Rent OfficeSF Per Year	$39.00 ($3.25/SF/Mo.)
Average Rent Per Parking Stall	$250
Vacancy Rate	12% of Potential Gross Income
Operating Expenses ($/SF/Yr)	$19.20/SF/Yr. ($1.60/SF/Mo.)
Overall Capitalization Rate	7.5%
Transaction Cost	1% of Capitalized Value
Direct Cost	$228,487,000
Indirect Cost	30% of Direct Cost
Developer's Profit	15% of Direct & Indirect Costs

SUMMARY – The following is a summary of the estimated residual land values of the four project types that were considered. The results should be considered as gross order-of-magnitude estimates, as broad parameters and assumptions were used.

Land Use Type	*$/SF*
Residential Condominium	$219
Rental Apartment	$20
Retail	$72
Office	($245)

5 Master Baseline Infrastructure Review

MEMORANDUM

Group 70 International, Inc. Architecture • Planning & Environment • Civil Engineering • Interior Design • Technology
925 Bethel Street, Fifth Floor ● Honolulu, Hawai'i 96813-4307 ● PH: (808) 523-5866 ● FAX: (808) 523-5874

GROUP 70 INTERNATIONAL

TO:	Rider Levitt Bucknall 1001 Bishop Street, Suite 1340 Honolulu, Hawaii 96813		
ATTENTION:	Mr. Kaulana H.R. Park		
DATE:	October 3, 2013		
PROJECT:	OHA Kakaako Makai	**PROJECT NO:**	213034-01
E-MAIL/ FAX:		**NO. OF PAGES:**	8
SUBJECT:	Final Baseline Infrastructure Memo		

I. INTRODUCTION

As a first step in developing the Kakaako Makai area, the Office of Hawaiian Affairs (OHA) contracted a team to create a management and development framework. This document describes existing infrastructure conditions at Kakaako Makai and highlights issues that should be addressed when creating the aforementioned framework.

A. Project Location and Description

The project site consists of 14 Tax Map Key (TMK) parcels in the Kakaako Community Development District. See Figure 1, Project Area. The general project area is bound by Honolulu Harbor to the west, Ala Moana Boulevard to the North, Kewalo Basin to the East and the Pacific Ocean to the south. TMK parcels and parcels sizes for the project is as follows:

TMK	Parcel Area (acres)	TMK	Parcel Area (acres)
(1) 2-1-015:051	5.266	(1) 2-1-058:124	0.344
(1) 2-1-015:061	3.256	(1) 2-1-058:125	1.000
(1) 2-1-058:002	2.378	(1) 2-1-058:126	1.699
(1) 2-1-058:006	2.202	(1) 2-1-060:001	5.450
(1) 2-1-058:035	0.772	(1) 2-1-060:005*	4.613
(1) 2-1-058:048	0.083	(1) 2-1-060:006*	2.546
(1) 2-1-058:095	4.000	(1) 2-1-060:013	0.856
*Indicates the parcel is not owned by the OHA			

Table 1: Project Parcel Data

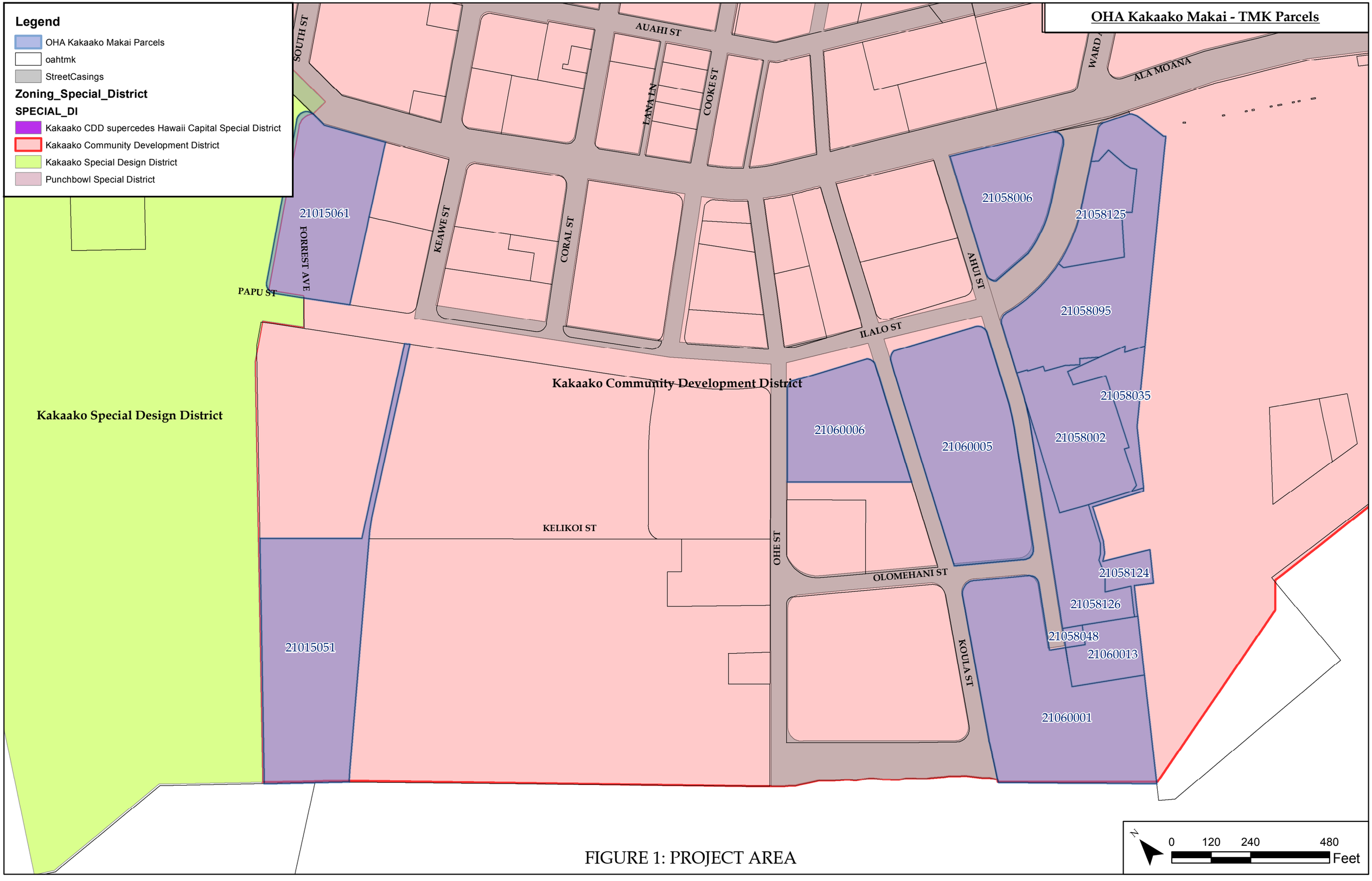


FIGURE 1: PROJECT AREA

II. EXISTING CONDITIONS

A. Existing Site, Access, Parking and Safety

The existing site, access, parking and safety were assessed using available City and County of Honolulu (City) Geodetic Information System (GIS) data, Google aerial imagery and Google oblique imagery. At the time of assessment, existing property lines in the HoLIS appeared to be outdated. The realignments of Forrest Avenue, Ohe Street and Koula Street were visible in aerial imagery, but were not depicted in HoLIS. Google aerial imagery from 2013 was used in cases of conflicting data.

Vehicular access to the general project area is solely off Ala Moana Boulevard, between Keawe Street and Ilalo Street. Ala Moana Boulevard is a regional arterial under State jurisdiction that runs in an east-west orientation immediately north of the general project area. The portion of Ala Moana Boulevard fronting the general project area exhibits the characteristics below.

Ala Moana Boulevard*	
ROW Width	100'
Access Restrictions	None
Lane Configuration	3 lanes (10-12' wide) in each direction with left turn lanes at all intersections fronting the project area except Forrest Avenue.
Sidewalks	3-8' wide sidewalks with concrete curb and gutter on both sides of highway.
Posted Speed Limit	35 mph
*Based on the State's Single Line Diagrams	

Table 2: Ala Moana Boulevard Characteristics

Vehicular access to each parcel is through existing driveways along each property's respective street frontage. Street ownership in the project area is listed in Table 3, below. Although City records indicate presence of road widening setbacks on some of the project properties, Hawaii Community Development Authority (HCDA) rules overrule those setbacks. City road widening setbacks and HCDA roadway design criteria (Lane count and Right of Way width) are listed in Table 3 and should be considered during master planning.

East-West Streets	Ownership*	Lane Configuration	City Road Widening Setbacks**	HCDA Minimum Requirements
Ward Avenue Extension	City	1 lane northeast 1 lane southwest	none	5 Lanes 94′ ROW width
Ilalo Street	City	1 lane eastbound 1 lane westbound	5' on both sides of street 60' ROW width	5 Lanes 94′ ROW width
Olomehani Street	City	1 lane eastbound 1 lane westbound	none	2 Lanes 50′ ROW width

North-South Streets	Ownership*	Lane Configuration	City Road Widening Setbacks**	HCDA Requirements
Forrest Avenue	Unknown	2 lanes northbound 2 lanes southbound	none	2 Lanes 50′ ROW width
Keawe Street	City	1 lane northbound 1 lane southbound (w/ southbound bike lane)	none	2 Lanes 50′ ROW width
Ohe Street	Various	1 lane northbound 1 lane southbound	5' on both sides of street 60' ROW width	2 Lanes 50′ ROW width
Koula Street	Various	Not delineated	none	2 Lanes 50′ ROW width
Ahui Street	Various	Not delineated	none	2 Lanes 50′ ROW width
Coral Street	Various	1 lane northbound 1 lane southbound	none	2 Lanes 50′ ROW width
Cooke Street	City	1 lane northbound 1 lane southbound	none	2 Lanes 56′ ROW width

*Based on the Honolulu Land Information System (HoLIS)
**Project area is subject to HCDA rules. HCDA rules overrule City Road Widening Setbacks in Kakaako.

Table 3: Kakaako Makai Street Characteristics

City bus route 65 runs along the entire length of Ilalo Street and the northwestern portion of Forrest Avenue, with 2 stops on Ilalo Street, in each direction of travel. As of the date of this report, there are no other City bus stops in the Kakaako Makai area.

B. Existing Water

Domestic water is currently provided from Board of Water Supply (BWS) water mains installed in each street fronting the project site. Water for the site originates as groundwater from Halawa Shaft, Kalauao Wells, Kalihi Shaft and Punanani Wells. Water is then distributed through the Honolulu-Windward-Pearl Harbor distribution system to the project site.

Distribution maps and available record drawings were reviewed to confirm existence of BWS water mains in the streets fronting the project area. BWS records indicate 6″ through 12″ Ductile Iron, Cast Iron and PVC water mains service Ward Avenue Extension, Ilalo Street, Olomehani Street, Forrest Avenue, Ohe Street, Koula Street and Ahui Street. Most of the water mains serving the project area were constructed within the last 15 years. See Figure 2, Existing Water.

Based on calculated sewer and water flows for HCDA zoning, the existing average daily potable water demand is estimated to be between 140,000 and 250,000 gallons per day (GPD). However, BWS water meter readings for the project properties between January 2013 and May 2013 indicate actual water demand is significantly less under existing conditions. Records indicate monthly consumption as

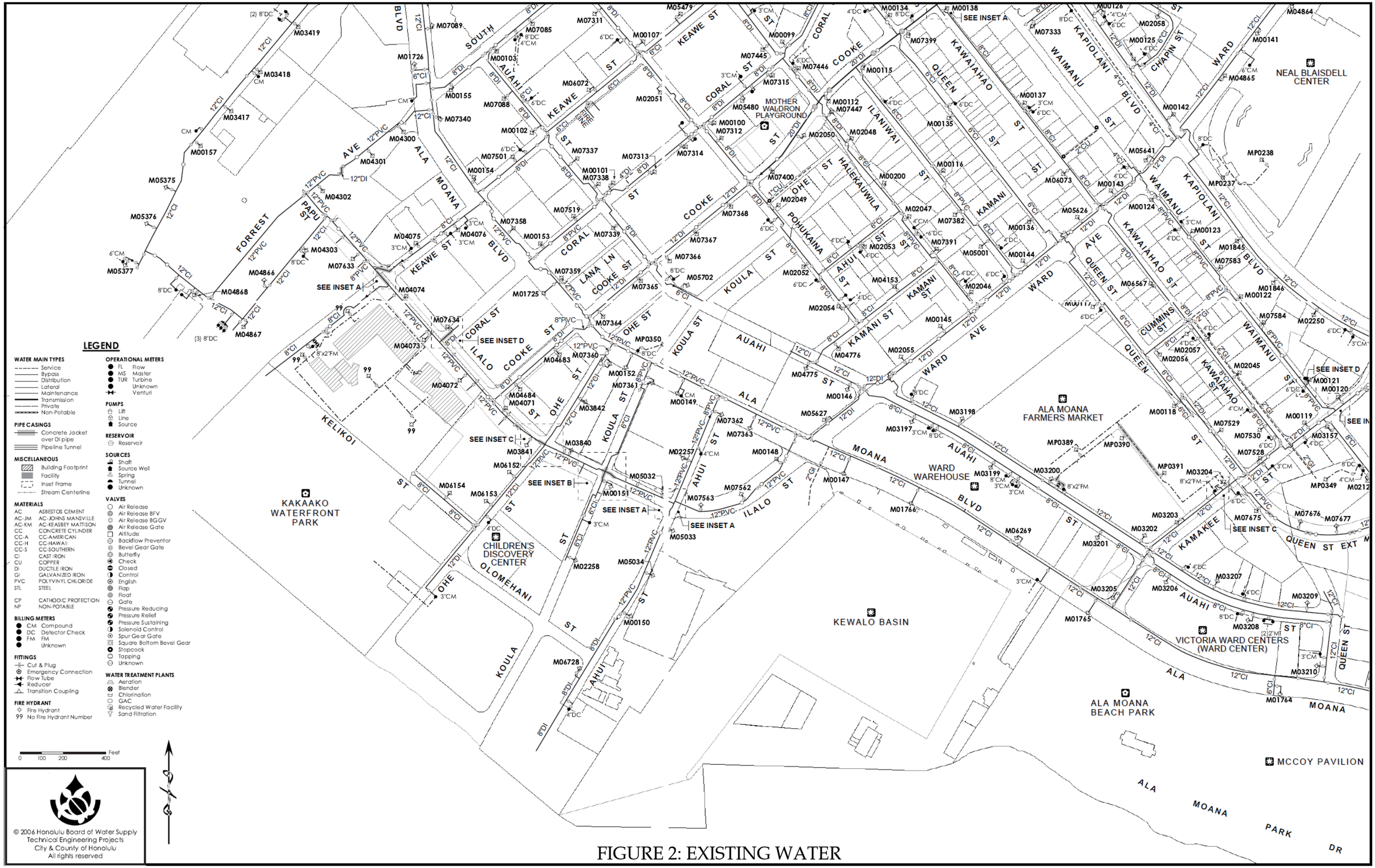
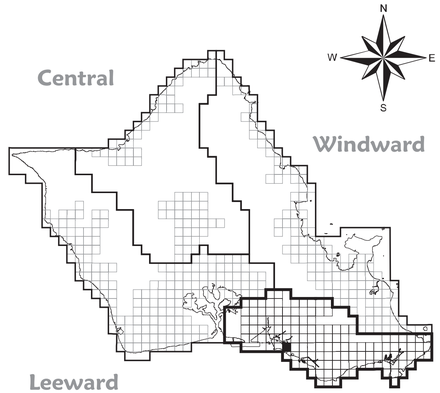


FIGURE 2: EXISTING WATER

Tile: R36C43 (Metro)



LEGEND

WATER MAIN TYPES
- Service
- Bypass
- Distribution
- Lateral
- Maintenance
- Transmission
- Private
- Non-Potable

PIPE CASINGS
- Concrete Jacket over DI pipe
- Pipeline Tunnel

MISCELLANEOUS
- Building Footprint
- Facility
- Inset Frame
- Stream Centerline

MATERIALS

AC	ASBESTOS CEMENT
AC-JM	AC-JOHNS MANSVILLE
AC-KM	AC-KEASBEY MATTISON
CC	CONCRETE CYLINDER
CC-A	CC-AMERICAN
CC-H	CC-HAWAII
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CU	COPPER
DI	DUCTILE IRON
GI	GALVANIZED IRON
PVC	POLYVINYL CHLORIDE
STL	STEEL
CP	CATHODIC PROTECTION
NP	NON-POTABLE

BILLING METERS
- CM Compound
- DC Detector Check
- FM FM
- Unknown

FITTINGS
- Cut & Plug
- Emergency Connection
- Flow Tube
- Reducer
- Transition Coupling

FIRE HYDRANT
- Fire Hydrant
- 99 No Fire Hydrant Number

OPERATIONAL METERS
- FL Flow
- MS Master
- TUR Turbine
- Unknown
- Venturi

PUMPS
- Lift
- Line
- Source

RESERVOIR
- Reservoir

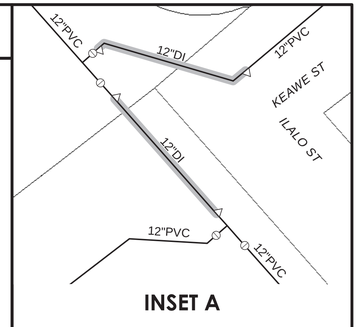
SOURCES
- Shaft
- Source Well
- Spring
- Tunnel
- Unknown

VALVES
- Air Release
- Air Release BFV
- Air Release BGGV
- Air Release Gate
- Altitude
- Backflow Preventor
- Bevel Gear Gate
- Butterfly
- Check
- Closed
- Control
- English
- Flap
- Float
- Gate
- Pressure Reducing
- Pressure Relief
- Pressure Sustaining
- Solenoid Control
- Spur Gear Gate
- Square Bottom Bevel Gear
- Stopcock
- Tapping
- Unknown

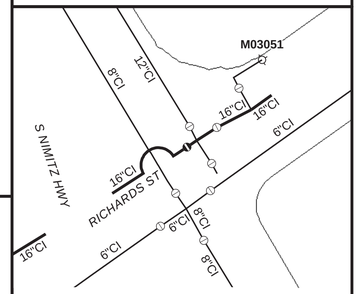
WATER TREATMENT PLANTS
- Aeration
- Blender
- Chlorination
- GAC
- Recycled Water Facility
- Sand Filtration

This map is a schematic representation of the water distribution system. Some features have been exaggerated for clarity & may not be to scale.

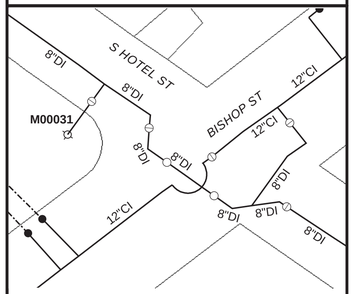
Revisions as of: 4/25/2006



INSET A

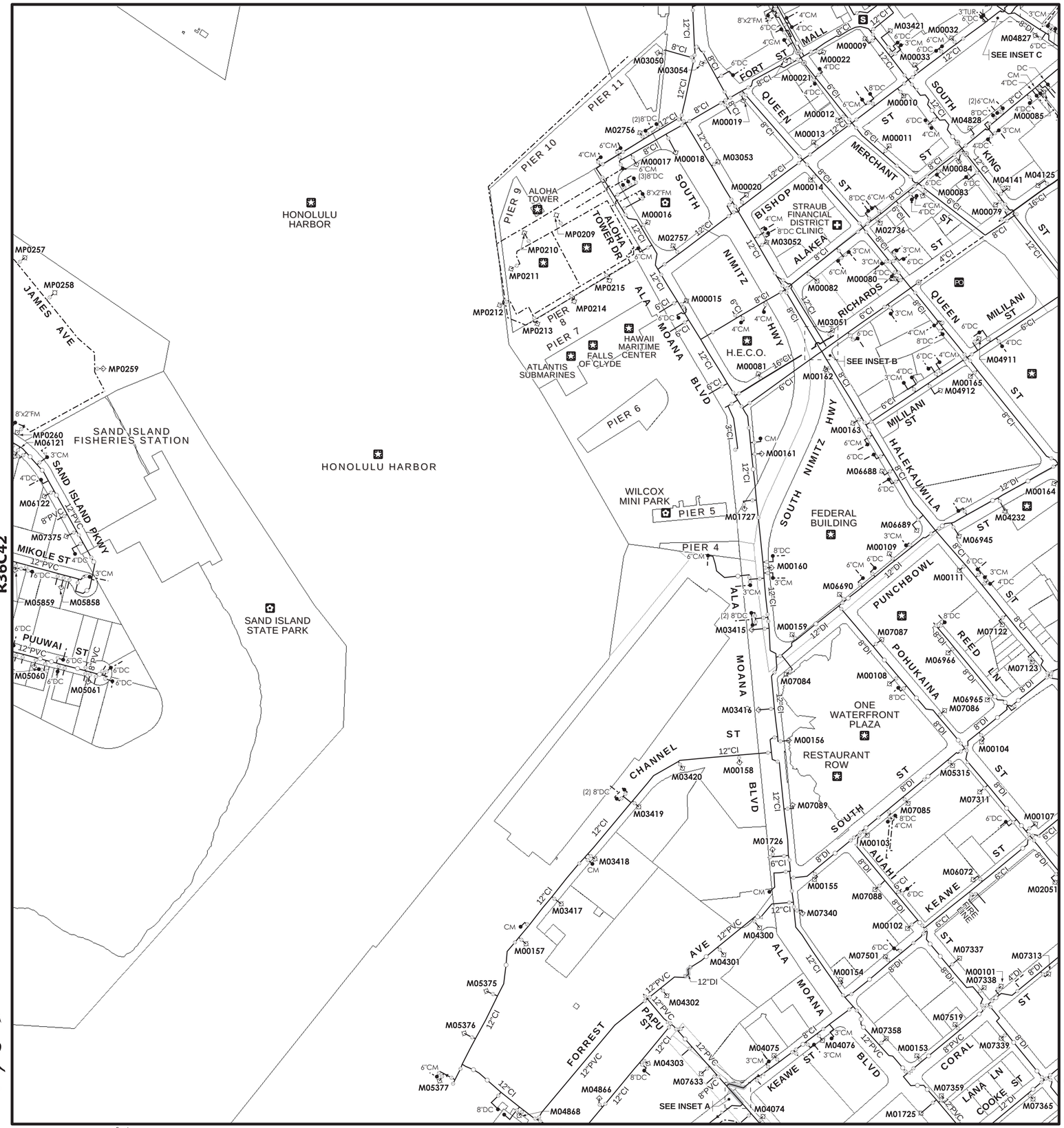


INSET B



INSET C

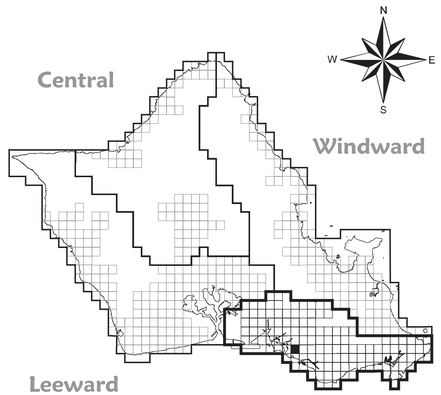
R35C43



0 100 200 400 Feet

FIGURE 2a: EXISTING WATER - Distribution Map

Tile: R36C44 (Metro)



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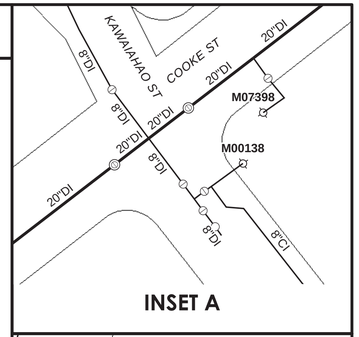
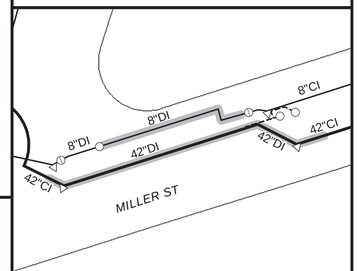
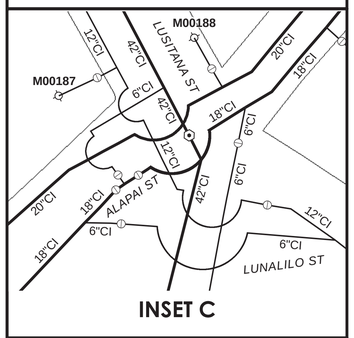
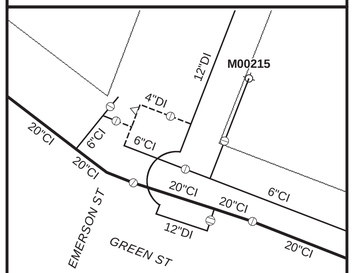
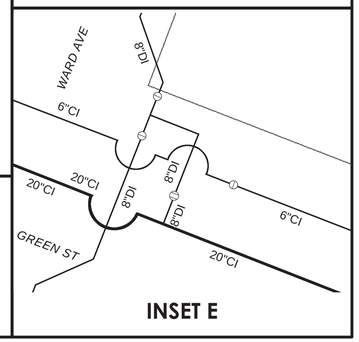


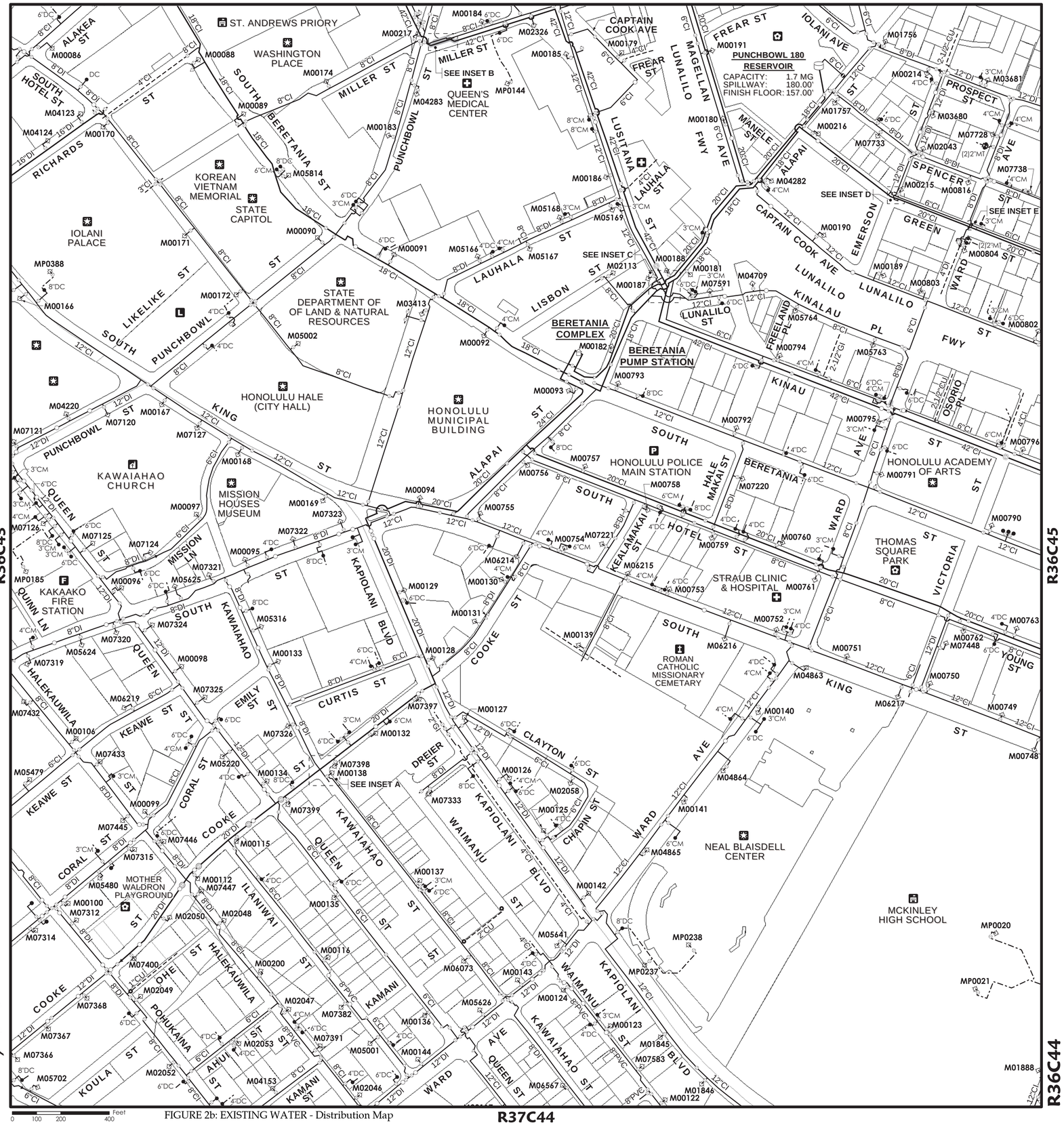








R35C44

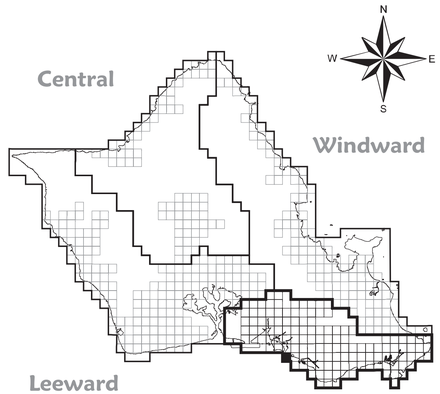


R36C43 R36C45 R36C44 R37C44

0 100 200 400 Feet

FIGURE 2b: EXISTING WATER - Distribution Map

Tile: R37C43 (Metro)



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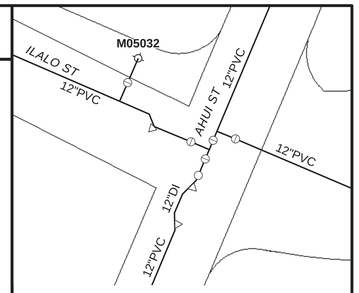

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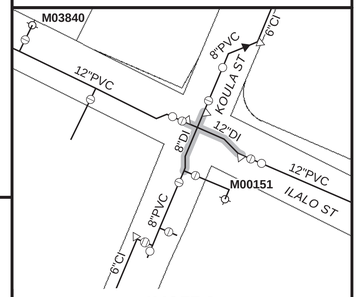

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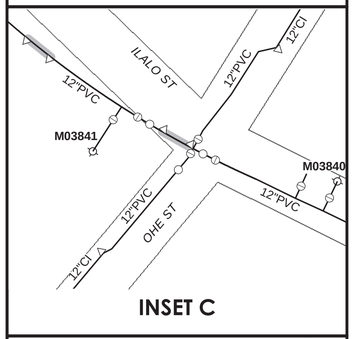
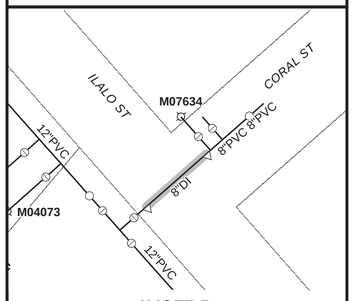


INSET C



INSET D

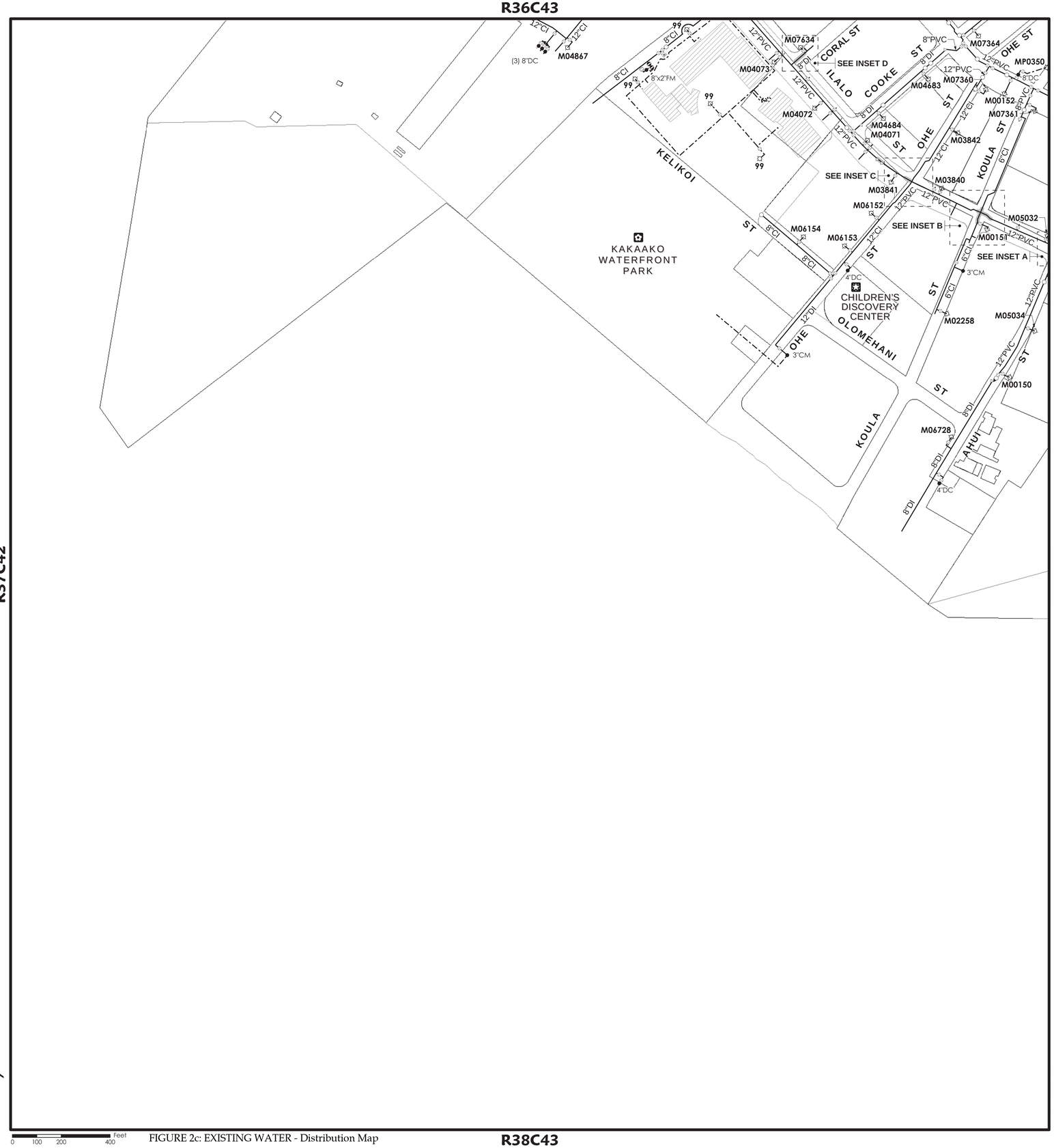
R36C43

R37C42

R37C44

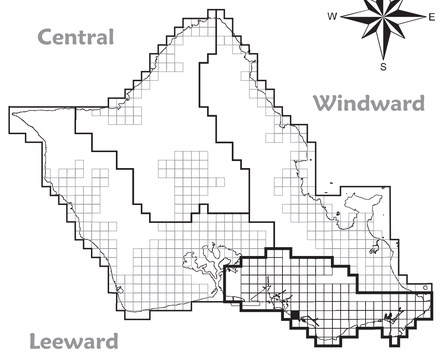
R37C43

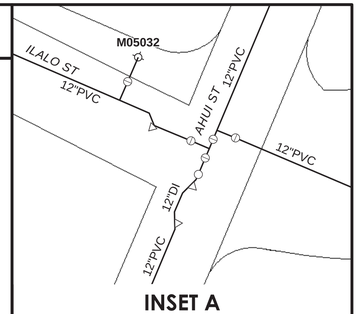
R38C43

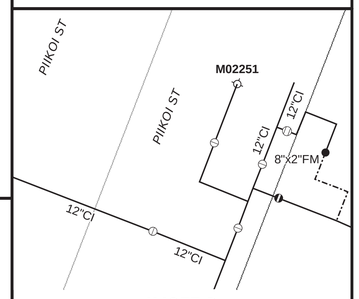


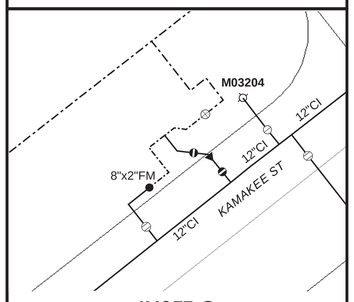
0 100 200 400 Feet

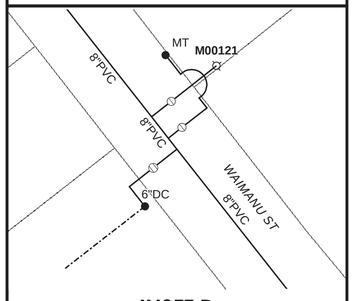
FIGURE 2c: EXISTING WATER - Distribution Map

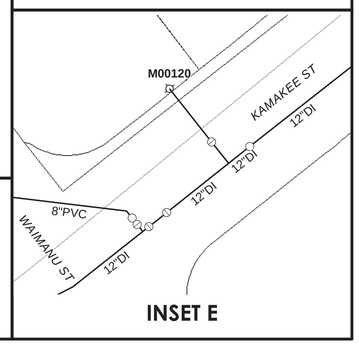


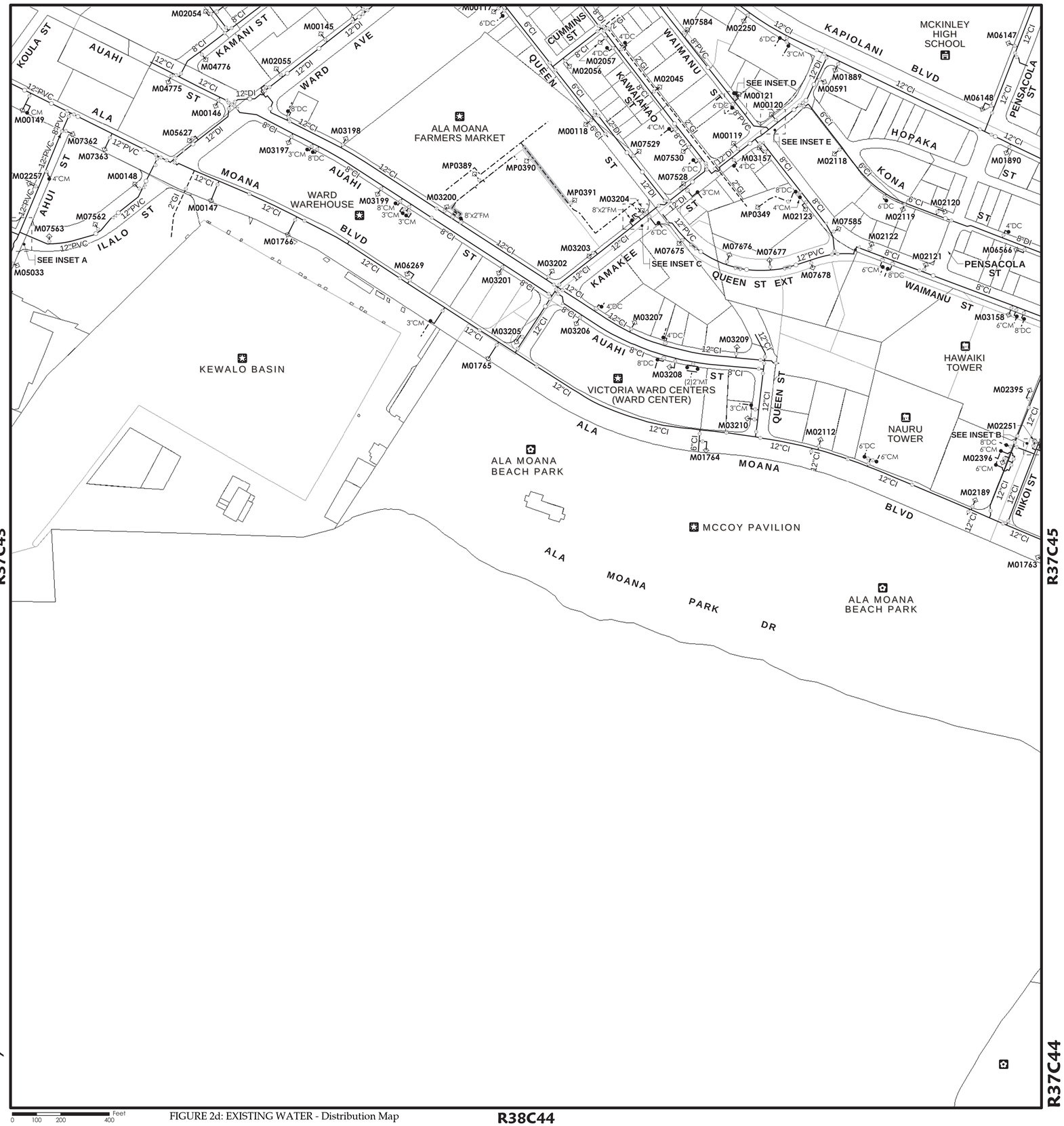












Tile: R37C44 (Metro)

LEGEND

WATER MAIN TYPES

- Service
- Bypass
- Distribution
- Lateral
- Maintenance
- Transmission
- Private
- Non-Potable

PIPE CASINGS

- Concrete Jacket over DI pipe
- Pipeline Tunnel

MISCELLANEOUS

- ▨ Building Footprint
- Facility
- Inset Frame
- Stream Centerline

MATERIALS

AC	ASBESTOS CEMENT
AC-JM	AC-JOHNS MANSVILLE
AC-KM	AC-KEASBEY MATTISON
CC	CONCRETE CYLINDER
CC-A	CC-AMERICAN
CC-H	CC-HAWAII
CC-S	CC-SOUTHERN
CI	CAST IRON
CU	COPPER
DI	DUCTILE IRON
GI	GALVANIZED IRON
PVC	POLYVINYL CHLORIDE
STL	STEEL
CP	CATHODIC PROTECTION
NP	NON-POTABLE

BILLING METERS

- ● CM Compound
- ● DC Detector Check
- ● FM FM
- ● Unknown

FITTINGS

- Cut & Plug
- Emergency Connection
- Flow Tube
- Reducer
- Transition Coupling

FIRE HYDRANT

- ✧ Fire Hydrant
- 99 No Fire Hydrant Number

OPERATIONAL METERS

- ● FL Flow
- ● MS Master
- ● TUR Turbine
- ● Unknown
- Venturi

PUMPS

- Lift
- Line
- Source

RESERVOIR

- Reservoir

SOURCES

- Shaft
- Source Well
- Spring
- Tunnel
- ● Unknown

VALVES

- ○ Air Release
- ◎ Air Release BFV
- Air Release BGGV
- ◎ Air Release Gate
- □ Altitude
- ⊕ Backflow Preventor
- Bevel Gear Gate
- Butterfly
- Check
- Closed
- ◑ Control
- English
- Flap
- Float
- ⊖ Gate
- Pressure Reducing
- Pressure Relief
- Pressure Sustaining
- ◑ Solenoid Control
- ⊙ Spur Gear Gate
- Square Bottom Bevel Gear
- Stopcock
- ⊖ Tapping
- ⊖ Unknown

WATER TREATMENT PLANTS

- Aeration
- Blender
- Chlorination
- GAC
- Recycled Water Facility
- Sand Filtration

Technical Engineering Projects
City & County of Honolulu

This map is a schematic representation of the water distribution system. Some features have been exaggerated for clarity & may not be to scale.

Revisions as of: 4/25/2006

INSET A

INSET B

INSET C

INSET D

INSET E

FIGURE 2d: EXISTING WATER - Distribution Map

indicated below. The large April consumption can be attributed to a single property that consumed 82,569 gallons that month, approximately 60,000 gallons (300%) more than previous months. Available records do not indicate any other monthly spikes in water demand between January 2013 and May 2013.

	January	February	March	April	May
Monthly Water Use – All Parcels (Gallons)	31,094	48,834	49,591	108,782	20,309
Average Daily Water Demand – All Parcels (GPD)	1,003	1,744	1,600	3,626	655

Table 4: BWS Water Meter Readings (January 2013 through May 2013)

The low water demand exhibited in BWS water meter records are likely attributed to the absence of water intensive facilities in the project area.

Fire Hydrants (FH) are located along each street fronting the project site and appear to meet the 250-feet minimum spacing required by BWS. Fire Hydrants installed along each street are served by the 12" water mains discussed above.

Existing irrigation systems are in use in a portion of the vegetated areas at the project site. However, aerial imagery indicates less than 10% of the project area is vegetated.

C. Existing Wastewater

Sewer Mains

Wastewater generated in the project properties gravity flows to the Ala Moana Pump Station (PS) before being pumped to Sand Island Wastewater Treatment Plant (WWTP). The project properties can be broken down into 3 service areas as indicated below. The City wastewater system in the general area is depicted in Figure 3, Existing Sewer.

Wastewater Service Area	West Boundary	East Boundary	TMK Parcels Serviced*
West	Forrest Avenue	Keawe Street	2-1-015 : 061
Middle	Keawe Street	Koula Street	2-1-060 : 005 and 006
East	Koula Street	Kewalo Basin Harbor	2-1-058 : 002, 006, 035, 048, 095, 124, 125 and 126 2-1-060 : 001 and 013
*TMK Parcels list contains only project properties.			

Table 5: Wastewater Service Areas within Project Area

The sewer main servicing the west service area ranges from 8" to 21" in diameter and flows south on Forrest Avenue and east on Ilalo Street before discharging into the Ala Moana PS through a 24" sewer main. The Honolulu Land Information System (HoLIS), the City's GIS database, indicates the sewer main in this area consists of Vitrified Clay Pipe (VCP) and is installed in groundwater. A sewer installation in groundwater is allowed, but results in higher flow rates due to infiltration and inflow (I/I) of stormwater into the sewer system.

The sewer main servicing the middle service area ranges from 8" to 16" in diameter and flows west on Ilalo Street before discharging into the Ala Moana PS through the same 24" sewer main as the west service area. HoLIS indicates the sewer mains in this area consist of VCP, with the exception of

OHA Kakaako Makai - Sewer

Legend

- sewer_lateral
- sewer_pumpstation
- sewer_manhole

sewer_main

- <all other values>

SEWERMAINS

- 7 Low Pressure FM
- 6 Outfall
- 5 Treatment
- 4 Siphon
- 3 Model Link
- 2 FM
- 1 Gravity
- Project Area - Middle Service Area
- Project Area - West Service Area
- Project Area - East Service Area
- oahtmk

21015061
21015051
21060006
21060005
21060001
21058006
21058125
21058095
21058035
21058002
21058126
21058124
21058048
21060013

ALA MOANA BLVD
HI-92
FORREST AVE
ILALO ST
CORAL ST
COOKE ST
CHIEF ST
KEAWE ST
KELIKOI ST
OLOMEHANI ST
AHUI ST
Kakaako Waterfront Park
Fisherman's Wharf

FIGURE 3: EXISTING SEWER

Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRC
Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

N
0 120 240 480
Feet

approximately 115 feet of Ductile Iron Pipe (DIP) at the end of the sewer main. The sewer main in this area is installed in groundwater.

The sewer main servicing the east service area ranges from 18″ to 78″ in diameter and flows north on Ahui Street, east along Ilalo Street, west along Ala Moana Boulevard and south on Keawe Street before discharging into the Ala Moana PS. HoLIS indicates the Ahui Street and Ilalo Street segments consist of 8″ to 15″ diameter VCP, the Ala Moana Street segment consists of 36″ diameter Reinforced Concrete Pipe (RCP) and the Keawe Street segment consists of 60″ to 78″ diameter RCP. The sewer main in this area is installed in ground water.

The City's alleged violation of their National Pollutant Discharge Elimination System (NPDES) permit conditions and Sections 301 and 402 of the Clean Water Act resulted in a consent decree that, amongst other penalties, required the City to upgrade and repair its sewer collection system by 2020. As part of addressing concerns within the consent decree, described in District Court Civil No. 94-00765 DAE-KSC, the City is replacing sewer mains in the Kakaako area. However, preliminary discussion with the City indicates the sewer mains servicing the project areas have adequate capacity for future development.

Sewer Laterals
All of the project properties, with the exception of the southwestern parcel (TMK 2-1-015:051), discharge wastewater into the aforementioned City sewer mains through small diameter (6″-8″ diameter) vitrified clay pipe (VCP) sewer laterals. The VCP laterals convey wastewater into sewer mains located in streets fronting each parcel. Preliminary discussion with the City indicates the existing laterals are aging and are anticipated to need replacement when redeveloping the project area.

Based on The City Design Standards of the Department of Wastewater Management (July 1993) and current zoning, average daily wastewater flow generated under existing conditions (based solely on City zoning) is depicted in Table 6, below.

HCDA Zoning*	TMK	Density (Capita per acre)	Area (acres)	Flow per capita (gpd)	Average Daily Flow (gpd)
Mixed Use Zone	**2-1-015** : 051 and 061 **2-1-058** : 006 **2-1-060** : 005 and 006	140	17.9	80	200,480
Waterfront Commercial	**2-1-058** : 002, 035, 048, 095, 124, 125 and 126 **2-1-060** : 001 and 013	40	16.6	80	53,120
*According to City Zoning, the project is in the Kakaako Community Development District. Within this district, HCDA zoning and zoning requirements are applicable.					

Table 6: Existing Wastewater Flow

Assuming Waterfront Commercial consists of 40 capita/acre (for waterfront industry in the City Wastewater Standards) and Mixed Use Zones consist of 140 capita per acre (for community business in the City Wastewater Standards), existing zoning indicates approximately 253,600 gallons per day (gpd) of wastewater would be discharged into the City sewer system under current conditions. However, aerial imagery indicates most of the OHA properties (Table 1) consist of parking lots and warehouses and exhibit existing wastewater flows that are less than that calculated based on zoning.

City Sewer Service – Consent Decree and Ala Moana Pump Station
In order to comply with the consent decree, the City must increase capacity at Ala Moana PS to convey projected 2030 flows by 2020. However, the existing pump station property is 1.215 acres and does not have adequate room for expansion (minimum 2 acres). The shortage of space for expansion of the PS on the existing property is anticipated to limit further redevelopment unless property is acquired such that the City can expand or replace the existing PS. Furthermore, the property that contains Ala Moana PS is owned by the Hawaii Community Development Authority and is currently leased by the City until 2045.

The City indicated they are considering two options to accommodate expansion of Ala Moana PS as follows:

1. Replace the PS with a new PS to another property. (Desired by the City)
2. Add a new PS on another property to accommodate additional flow.

The City also indicated that two Office of Hawaiian Affairs (OHA) properties in the Kakaako Makai area, TMK 2-1-015:061 (immediately west of the pump station) and TMK 2-1-015:051 (slightly south of the pump station), are considered potential locations for a replacement pump station. The former TMK is preferred by the City over the latter parcel. RM Towill prepared a conceptual design for a replacement pump station in the property immediately west of the existing pump station, in TMK 2-1-015:061. The project was abandoned when the property of interest was conveyed to OHA.

Securing Sewer Service for Future Development
When planning development, the City will allocate sewer capacity as sewer connection applications are received from developers. However, although sewer capacity is currently available, capacity cannot be guaranteed in the future due to the high amount of development anticipated in the general area.

D. Existing Drainage

Drainage
The project site is flat with localized low and high spots with elevations ranging from sea level to approximately 10 feet above mean sea level (MSL). The project properties do not appear to have subsurface drainage systems. Stormwater from the parcels appear to sheet flow outward towards fronting streets. Once offsite, stormwater enters City catch basins and is conveyed through stormwater outfalls into Kewalo Basin to the east and the Pacific Ocean to the south. The portions of Kewalo Basin and the Pacific Ocean receiving stormwater discharge from the project sites are both classified as Class A water by the Hawaii State Department of Health Clean Water Branch (DOH CWB). See Figure 4, Existing Drainage.

Aerial imagery from 2013 indicates the project properties consist of greater than 90% impervious area, most of which discharges stormwater into existing City drainage systems in fronting streets. HoLIS does not have invert elevations for drainage structures in the area and a hydraulic analysis was not performed on the existing City drainage systems that receive stormwater from the project properties.

Flood Zones
Based on the 2011 Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), most of the properties are partially or wholly within the 100-year flood zone. Properties within the 100-year flood zone are anticipated to experience coastal inundation between 7 to 10 feet above mean sea level due to storm surge, run-up and wave action. Properties immediately adjacent to Kewalo Basin and the Pacific Ocean also experience velocity hazards up to 10 feet above mean sea level. See Figure 5, Flood Zones.

OHA Kakaako Makai - Drainage

Legend

- Contour40Ft

sw_structure

- <all other values>

TYPE_USE

- 1 Drain Manhole
- 2 Catch Basin
- 3 Grate/Drain Inlet
- 5 Inlet/Outlet
- 8 Other
- 9 Unknown
- sw_conduit
- Project_Properties
- oahtmk

21015061
21015051
21058006
21058125
21058095
21058035
21060006
21060005
21058002
21058126
21058124
21058048
21060013
21060001

ALA MOANA BLVD HI-92
KEAWE ST
FORREST AVE
LOKAL ST
COOKE ST
OHE ST
KOHOLA ST
AHUI ST
HARD AVE
ILALO ST
KELIKOI ST
OLOMEHANI ST
Kakaako Waterfront Park
Fisherman's Wharf
30
20
10

FIGURE 4: EXISTING DRAINAGE

Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRC
Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

N
0 120 240 480
Feet

OHA Kakaako Makai - Hydro

Legend

Flood_Zones_2011
- <all other values>

FLD_ZONE
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- A
- AE
- AH
- AO
- D
- VE
- X
- X PROTECTED BY LEVEE
- Project_Properties

21015061
21015051
21058006
21058125
21058095
21058035
21058002
21060006
21060005
21058126
21058124
21058048
21060013
21060001

AE5
AE6
AE7
AE8
AE9
AE10
VE10
VE12
X-9999

ALA MOANA BLVD
HI-92
KEAWE ST
FORREST AVE
CORAL ST
COOKE ST
LANA LN
AUAHI ST
KAMAKEE ST
OHE ST
KOULA ST
NAHUA ST
WARD AVE
AHUI ST
ILALO ST
KELIKOI ST
OLOMEHANI ST
Kakaako Waterfront Park
Fishermans Wharf

FIGURE 5: EXISTING FLOOD ZONE

Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRC
Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

N
0 120 240 480
Feet

Redevelopment of the properties within the flood plain will need to conform to government regulations including FEMA regulations and the Kakaako Makai Area Rules as indicated in Hawaii Administrative Rules (HAR) Title 15, Subtitle 4, Chapter 23. There are multiple alternatives for developments to comply with flood plain regulations such as; flood proofing of structures, elevating buildings above the base flood elevation, placement of fill, letters of map change, etc. For building permits and other administrative actions, compliance is generally outlined in the regulations. For discretionary approvals such as zone change and subdivisions, approval may be subject to agency and public review and approval.

Due to the flat nature of the project area, a topographic survey is needed to determine the extent of work associated with development within a Flood Zone. The 100-year flood zone as indicated in the FIRM includes flood elevation bands. Development within the flood zone is possible, but the requirements for development depend on whether existing elevations are above/below FEMA flood elevations and if there is velocity hazard. Although the Kakaako Makai Area Rules indicate development must comply with City Land Use Ordinance (LUO) chapter 21, other city ordinances may be applicable depending on the type of land use or development action.

Sea Level Rise

Sea level rise in the project area has been the subject of study and debate in recent years. In January 2012, Dr. Charles Fletcher released the "Kakaako Makai – Hazard Assessment". Within that document, sea level rise of varying levels were modeled to determine impact to the Kakaako Makai area, among other surrounding areas. Based on that study, a 4 foot sea level rise (anticipated near the end of this century or beginning of next century) appears to result in flooding in at least 4 of the project properties. Impacted properties are depicted in Figure 6, Sea Level Rise. Lower levels of sea level rise result in decreased impact to the properties, but the study does not take into account wave overtopping, tsunamis, storm surges or intense rainfall.

Dr. Fletcher's analysis within the report indicates that although vulnerable to inundation, hazards are event based with temporary impacts and development can be designed to withstand those events to achieve several decades of useful life.

E. Existing Electrical

Adequacy of existing electrical was not examined in this report.

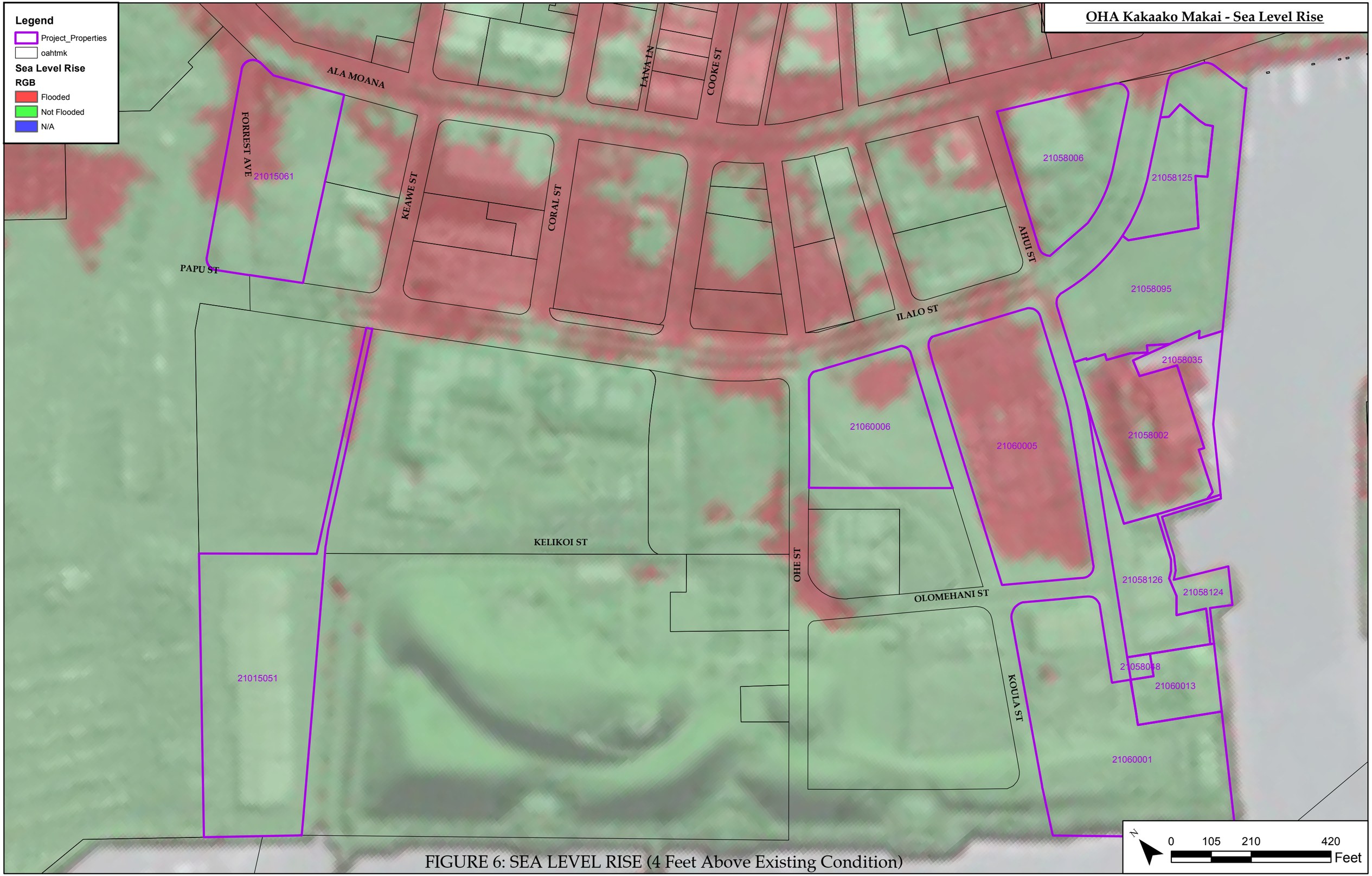


FIGURE 6: SEA LEVEL RISE (4 Feet Above Existing Condition)

III. RECOMMENDATIONS AND CONSIDERATIONS

Inherent with land development, on-site infrastructure must be constructed to support proposed facilities. Under current conditions, existing off-site infrastructure appears to be adequate to accommodate the existing land use, with caveats as indicated in sections IIIA through IIID, below.

A. Site, Access, Parking and Safety

- An ALTA Survey should be performed to assess properties, easements and restrictions.
- This area is located within the Kakaako Community Development District. Roads in this area are subject to HCDA guidelines and are not bound to City road widening setbacks.
    - Note Section 15-23-140 in the HCDA's Kakaako Makai Rules regarding requirements within the Right-of-Way.

B. Water

- Although water supply does not appear to be an issue under current conditions, a number of developments are in various stages of planning and design in the Kakaako area. Development in the surrounding area can potentially affect available water supply and water pressure in the Kakaako Makai properties.
- Although future water capacity and water pressure cannot be projected on a timeline, it is presumed that as time passes more projects in the general area will be allocated available resources.

C. Wastewater

- Although the City does not anticipate the need to replace sewer mains servicing the project area, development of Ala Moana Pump Station's service area is anticipated to cause sewer capacity issues at the pump station.
    - Wastewater capacity should be reviewed prior to proceeding with development. Recommend considering negotiations with the City to trade pump station land for secured capacity through a memorandum of understanding.
    - Although future wastewater capacity cannot be projected on a timeline, it is presumed that as time passes, more projects in the general area will be allocated portions of the limited, available wastewater capacity.
- Sewer laterals that require replacement are the responsibility of the developer and are typically addressed as part of the project requiring connection to the City sewer main.

D. Drainage

- Existing 100-year flood zones as indicated in the FEMA FIRM will play a large role in how the area is master planned. Having an understanding of potential improvements (i.e., structures, uses, etc.) to the project area ahead of time is necessary to plan the proper way to address the 100-year flood zone
    - Recommend additional assessment of proposed improvements with respect to the current flood zone during master planning.
- Existing elevations were obtained from HoLIS and was originally generated from Light Detection and Ranging (LiDAR). Although LiDAR provides a high level of detail, only 5 foot contours are available on HoLIS.
    - Recommend obtaining topographic survey to assess the extent of work needed to address potential sea level rise and flooding in the future.

6 Master Baseline Development Strategy

MEMORANDUM

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TO:	Rider Levitt Bucknall 1001 Bishop Street, Suite 1340 Honolulu, Hawaii 96813		
ATTENTION	Mr. Kaulana H.R. Park		
DATE:	October 24, 2013		
PROJECT:	OHA Kaka'ako Makai Strategic Framework Plan No. OHA 13-02	**PROJECT NO:**	213034-01
E-MAIL/ FAX:		**NO. OF PAGES:**	21
SUBJECT:	Baseline Development Strategy		

Pursuant to the Scope of Services (SoS) under Contract No. OHA 13-02 Deliverable #6, the planning team is to provide a Baseline Development Strategy (BDS) that is based upon the synthesis and analysis of all the following deliverables: 1) a market assessment and land value analysis; 2) the major themes derived from the charrette process completed in August 2013; 3) the key findings from the infrastructure report; and 4) recommendations derived from the cultural analysis that are essential underpinnings for seeking balance between cultural and commercial use of these lands.

The SoS called for a minimum of three (3) alternative strategic scenarios for the OHA Kaka'ako Makai parcels (Figure 1). This BDS memorandum documents nine (9) total scenarios that were determined to be a suitable representation, enabling the project team to investigate a range of assumed values for potential land use activities. It is important to note that these nine scenarios should not be treated as alternative development plans but rather treated collectively to explore ideas and priorities of OHA leadership. The strategic alternatives presented in this BDS, therefore, are not intended to be options for development schemes typical under a Master Plan. Rather, these alternative scenarios are to provide OHA leadership with a measuring tool that provides simple economic implications for a range of specific land use activities. This tool gives OHA leadership and management opportunities to be flexible while considering and responding to shifts in market demand trends or assessing emerging competition over time, as well as assigning land use priorities based upon the decision-making preferences and directives of OHA Trustees.

The nine scenarios considered six land use activities, some of which are allowable under current land use zoning and use designations under the Hawaii Community Development Authority (HCDA), pursuant to Hawaii Administrative Rules, Title 15, Subtitle 4, Chapter 23 (Kaka'ako Community Development District Rules for the Makai Area) while others represent feasible and compatible land use opportunities for OHA Trustees to determine as to their appropriateness in their own governance structure in order to achieve a yet-to-be-determined residual land value goal. Under HCDA rules, the land use zoning for the OHA parcels include Mixed-Use Zone (MUZ), Waterfront Commercial (WC), and Mixed-Used Industrial (MUZ-I). (Figure 2)

FIGURE 1 OHA KAKA'AKO MAKAI PARCELS

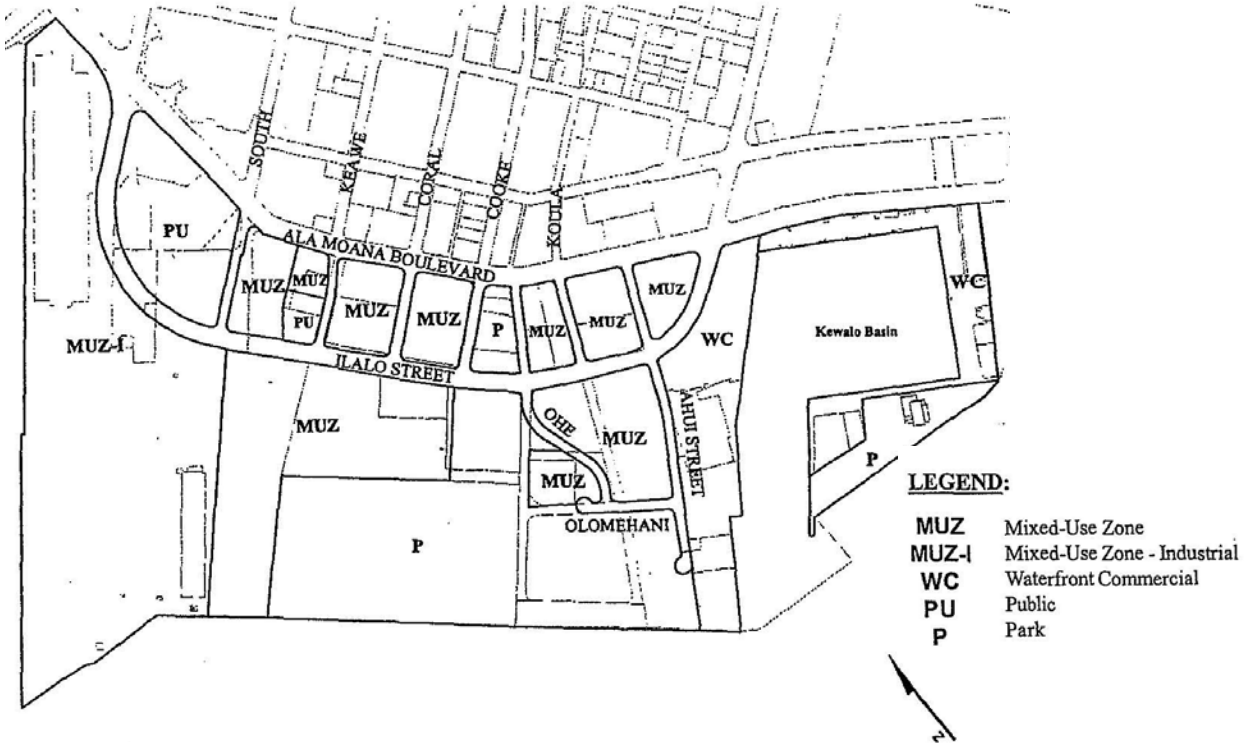


FIGURE 2 HCDA LAND ZONE DESIGNATIONS IN KAKA'AKO MAKAI

The OHA Kaka'ako Policy directs OHA to balance culture and commerce within these parcels. This BDS considers a range and variety of mixed land uses that the project team and its cumulative years of development expertise believes can coexist compatibly within the OHA Kaka'ako Makai lands and the neighboring uses (Figure 3). The range of uses include: commercial, hotel, industrial, residential-condominium (at two distinct interval heights of 200' and 300'), residential-rental, and park space. Residual land values were provided from the market assessment analysis for four land uses as well as one independent scenario of hotel use at the request of executive leadership. Additionally, the BDS utilizes the HCDA Kaka'ako Makai Park use designation as a means to identify areas to be dedicated for passive (open space) or active facility space dedicated to developing cultural facilities, programs, and events within the parcels.

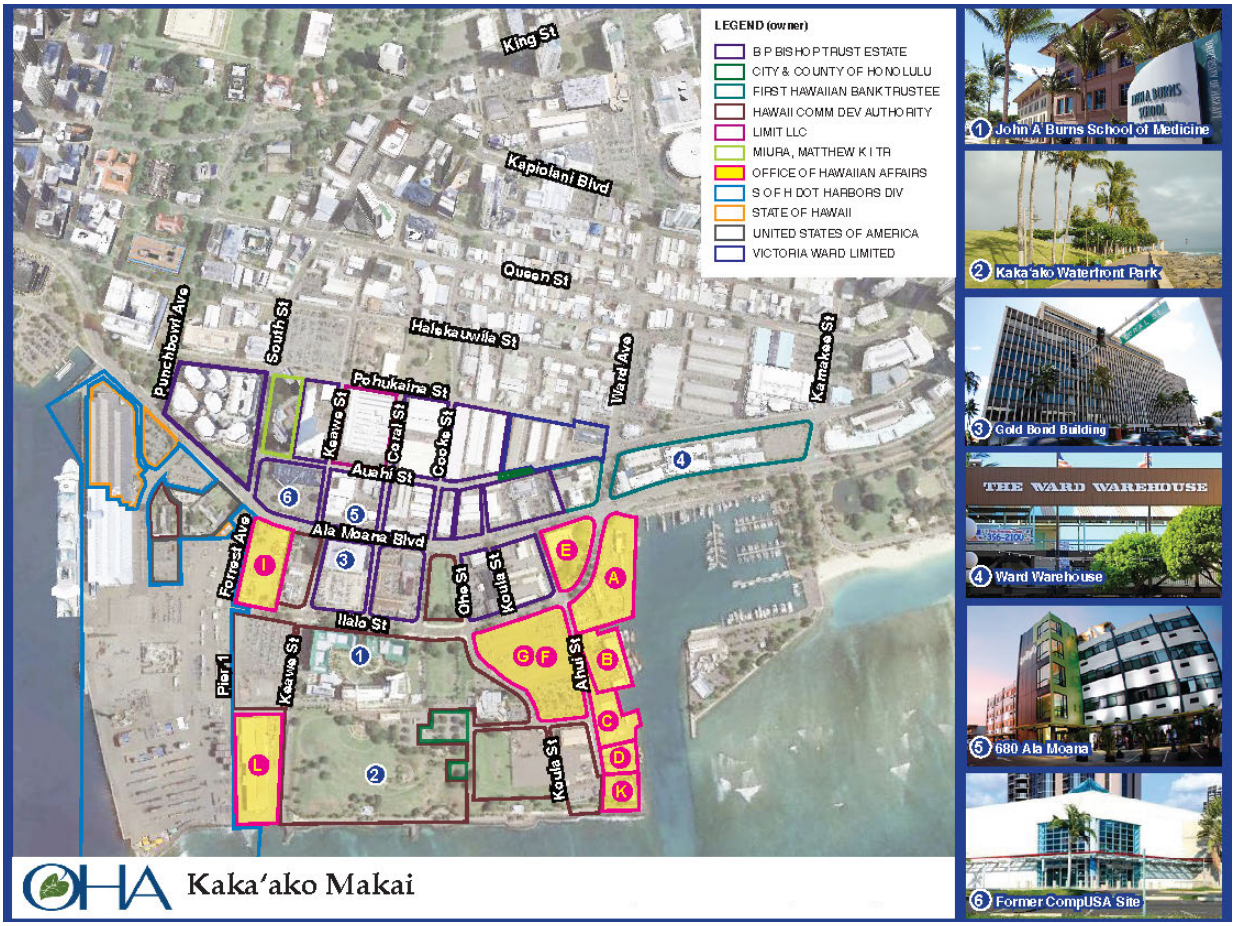


FIGURE 3 NEIGHBORING LANDOWNERS AND ADJOINING USES

It is important to outline a major caveat related to residential consideration. Given the guidance from the Major Themes derived from the charrette to create a work-live-play environment, the assumptions of the majority of alternatives scenarios presented do include a residential component with a typical height allowance of 200 feet with consideration for both condominium and rental options. The consideration of residential use in this analysis acknowledges that currently under 206E-31.5, Hawaii Revised Statutes, that the HCDA is prohibited from approving any plan or proposal for residential development in the portion of the Kaka'ako community development district makai of Ala Moana Boulevard.

This BDS does not delve into detail how OHA would pursue a residential development option with said rules in place but presents the findings of its investigation to demonstrate the impact of residential use on land values for these parcels. Also, of note, the Market Assessment conducted for this project revealed that residential (condominium) as a land use type does yield the greatest estimated land residual value ($219/SF) as compared to other uses including residential rental ($20/SF), commercial ($72/SF), office (minus (-)$245/SF). Additionally, land residual value estimates were calculated for industrial ($72/SF), hotel (minus (-)$71.SF), and park ($0/SF) uses.

Below is a succinct description of the nine scenarios.

Alternative A (Existing Zoning). This scenario provides for simply what are allowable uses under existing HCDA land use zoning and height provisions. It considers a land allocation distribution of 78% commercial (Parcels A-G, I), 17% industrial (Parcel L), and 5% park use (Parcel K).

Alternative A-1 (Existing Zoning with Office). This alternative differs slightly from Alternative A only from the consideration that Parcel E is assigned to office use from commercial. All other land use assignments remain the same as Alternative A.

Alternative A-2 (Existing zoning with Hotel). Similar to A-1, this alternative holds all other land use assignments to remain the same as Alternative A but reconsiders Parcel E to be assigned to business hotel use from commercial. Given there were no defined parameters for a hotel development scenario, a hypothetical example was conceived.

Alternative B (Residential-condominium and rental). For this alternative, residential use is introduced and is divided into two categories: 40% for residential-condominium (Parcel F/G and L) and 18% for residential-rentals (Parcel E and I). Remaining land allocation assigned 37% to commercial use (Parcels A-C) and 5% to park use (Parcel D and K).

Alternative B-1 (Increased residential-condominium and limited rental). Under this alternative, Parcel I is re-assigned for residential rental to condominium use. This then divides residential into 51% for condominium and 7% for rental, respectively. Additionally, 33% is assigned to commercial use (Parcels A, B, and C) and 8% to park use (Parcel D and K).

Alternative C (Residential-condominium only). This alternative is similar to B-1 in all land use assignments except for Parcel E which is reassigned from residential rental to condominium use. Therefore, no rentals are provided. Residential represents 58% of land use allocation with 33% assigned to commercial use (Parcels A, B, and C) and 8% to park use (Parcel D and K).

Alternative C-1 (Increased residential-condominium and park use). This alternative broadens the mixed-use distribution of Alternative C with an intention to increase residential-condominium use and park use at the same time. This alternative considers an allocation distribution of 17% to limited commercial use (Parcel A), 64% for residential-condominium use (Parcel B, D, F/G, L, and I), and remaining 19% for park use (Parcels E and K).

Alternative C-2 (300-foot Residential-condominium for Parcel L with increased park use). This alternative evaluates and creates a relationship and opportunity to expand park use, thereby increasing a potential of cultural uses within the parcels. This alternative also assesses expanding residential-condominium use by increasing the height allowance from 200 feet to 300 feet on one parcel (Parcel L). The allocation distribution includes 17% for commercial use (Parcel A), 41% for residential-condominium use at 200 feet (Parcel E, F/G, and I) and 17% for residential-condominium use at 300' (Parcel L), with the remaining 25% of lands assigned for park use (Parcels B, C, D, and K).

Alternative D (300-foot Residential-condominium for Parcel L with approximately 50% park use). This alternative seeks to analyze the effect of increasing park space to near 50% of land allocation in the OHA Kaka'ako makai parcels (Parcel B, C, D, and K). Presumably, a significance increase in park space allocation increases the potential for an extensive range of culturally based uses to be developed. This alternative still holds 17% of land allocation as in Alternative C-2 for residential-condominium at 300 feet (Parcel L) while adjusting for 18% allocation for residential-condominium use at 200 feet (Parcel E and I). The remaining 17% of lands are assigned as commercial use.

In review, the alternatives yielded a range of estimated land value between $61 million and $211 million. One of the key decision-points for OHA Trustees is to determine what is a favorable proportion and allocation of uses to achieve some residual land value goal for these parcels. This BDS is a tool that can be utilized by Trustees as they formulate a specific goal strategy and adjust the inputs to see the land value estimates for other ranges of use distributions.

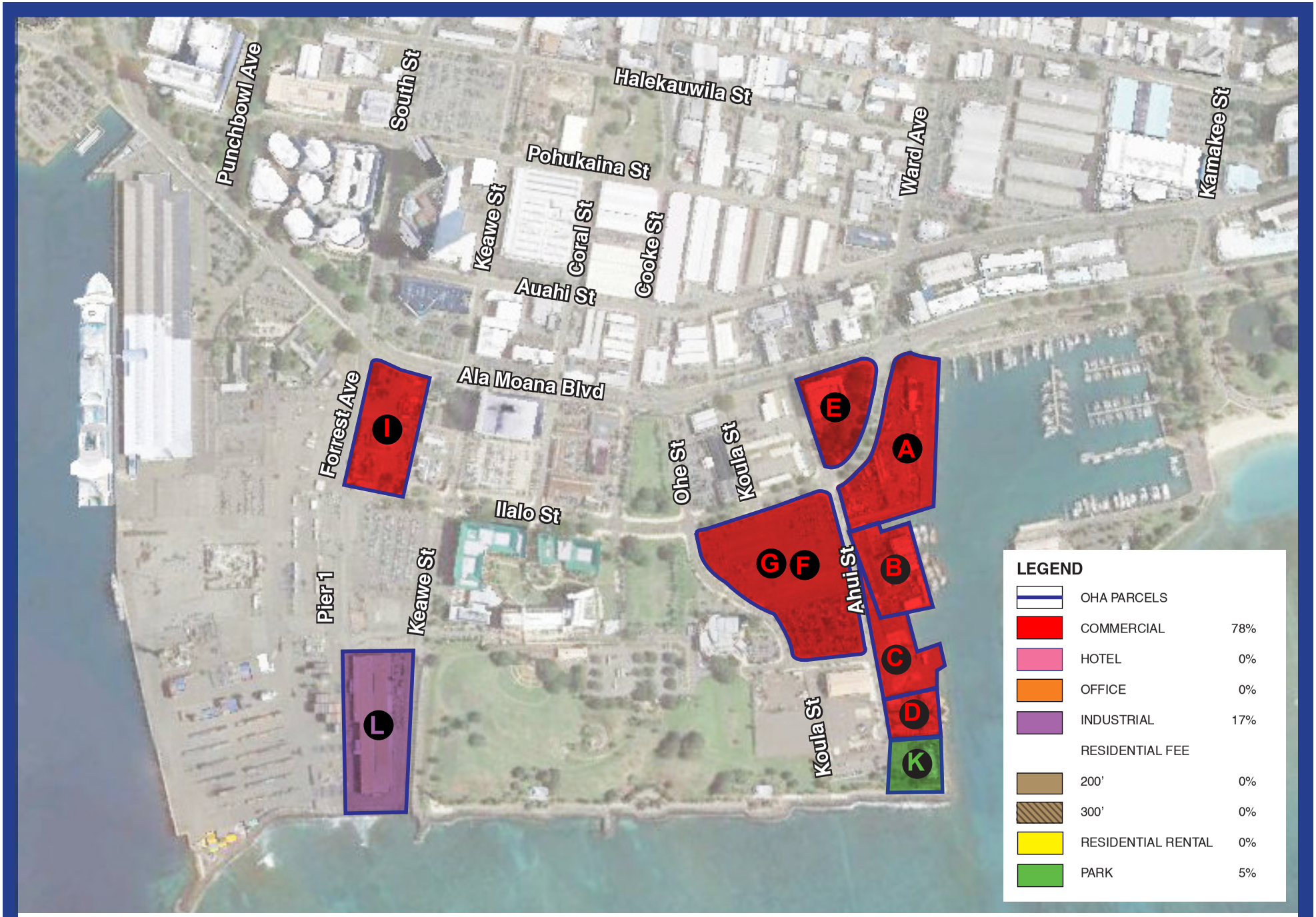
Table 1 provides an overall summary of the alternatives, their allocation percentages to identified uses, and calculated land value. Appendix A provides the allocation maps for the nine alternative scenarios. Appendix B provides the detailed calculations that were developed by Sanford Murata, Inc. for this analysis.

TABLE 1: MATRIX OF SCENARIOS

ALT		OPEN	COMMERCIAL	OFFICE	INDUSTRIAL	RESIDENTIAL CONDO 200'	RESIDENTIAL CONDO 300'	RESIDENTIAL RENTAL 200'	HOTEL 200'	RESIDUAL LAND VALUE
A	EXISTING ZONING	5%	78%	0%	17%	0%	0%	0%	0%	$ ± 91,400,000
A-1	EXISTING ZONING WITH OFFICE	5%	71%	7%	17%	0%	0%	0%	0%	$ ± 61,000,000
A-2	EXISTING ZONING WITH HOTEL	5%	71%	0%	17%	0%	0%	0%	7%	$ ± 77,700,000
B	RESIDENTIAL CONDOMINIUM & RENTAL	5%	37%	0%	0%	40%	0%	18%	0%	$ ± 155,200,000
B-1	RESIDENTIAL CONDOMINIUM & LIMITED RENTAL	8%	33%	0%	0%	51%	0%	7%	0%	$ ± 184,100,000
C	RESIDENTIAL CONDOMINIUM	8%	33%	0%	0%	58%	0%	0%	0%	$ ± 203,200,000
C-1	RESIDENTIAL CONDOMINIUM & PARK INCREASE	19%	17%	0%	0%	64%	0%	0%	0%	$ ± 204,900,000
C-2	300' RESIDENTIAL-LOT L	25%	17%	0%	0%	41%	17%	0%	0%	$ ± 211,700,000
D	300' RESIDENTIAL-LOT L WITH APPR. 50% PARK	48%	17%	0%	0%	18%	17%	0%	0%	$ ± 143,400,000

APPENDIX A

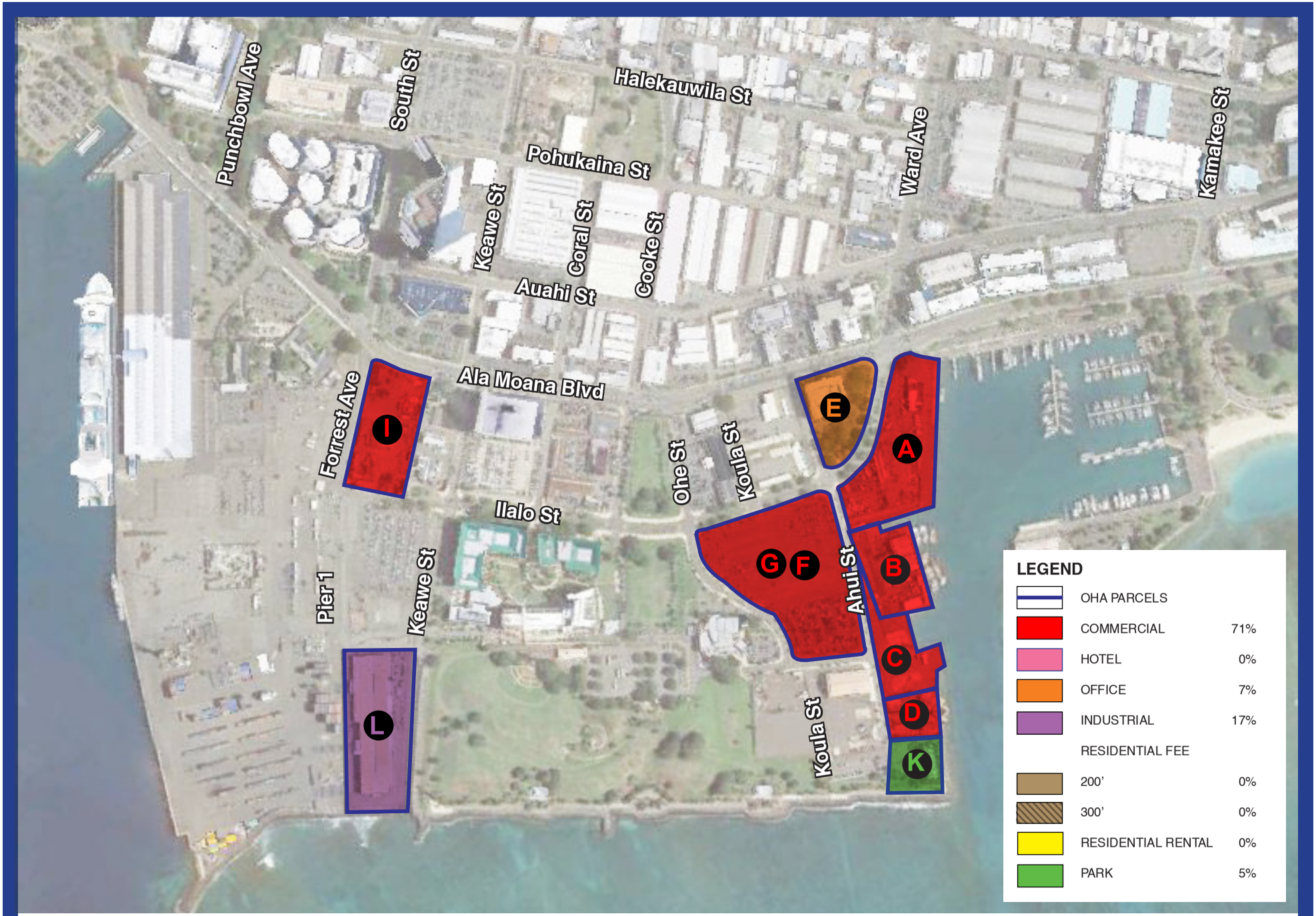
LAND USE ALLOCATION ALTERNATIVES FOR BASELINE DEVELOPMENT STRATEGY



Kaka'ako Makai

Alternative A (Existing Zoning)

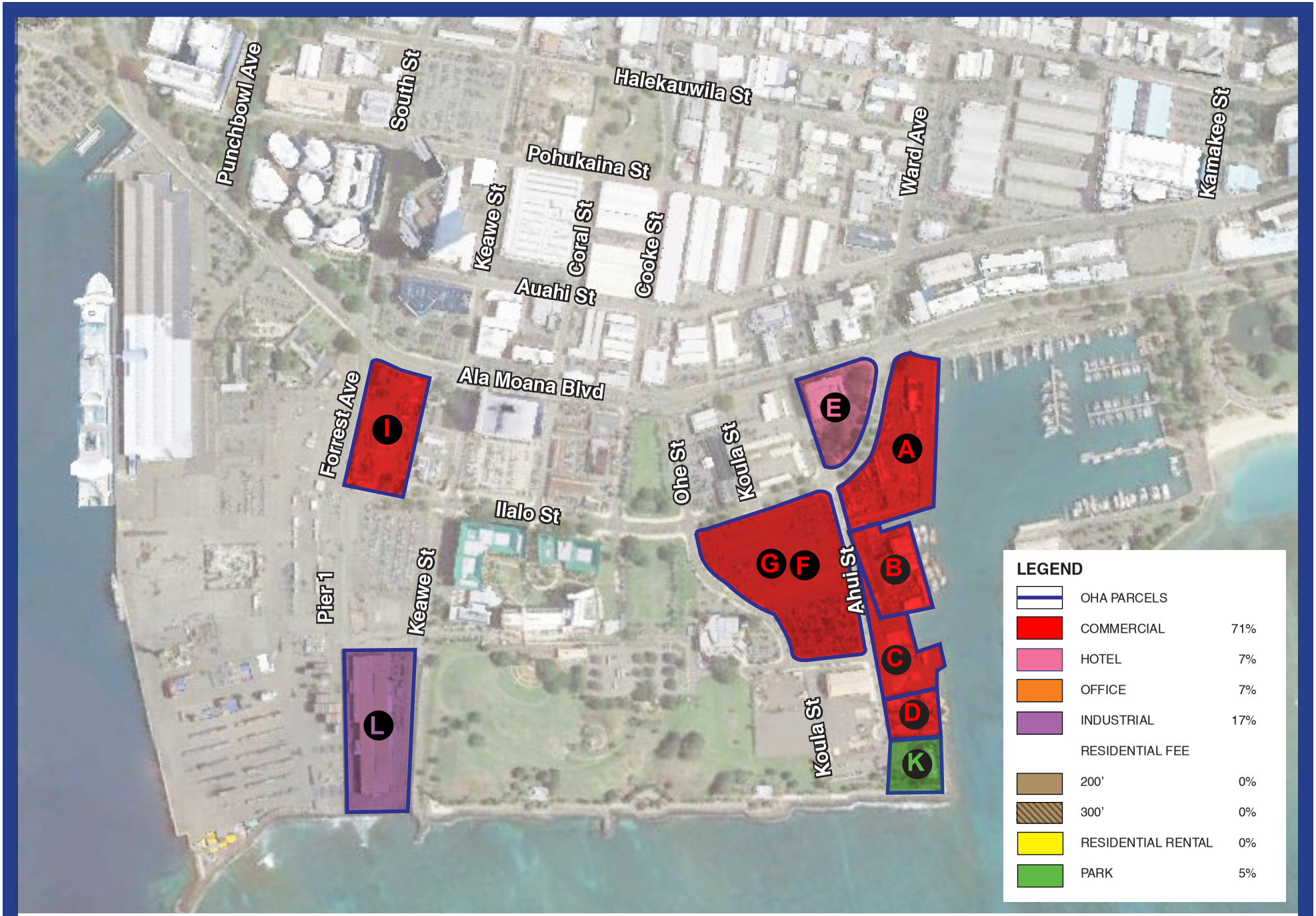
October 2013



Kaka'ako Makai

Alternative A-1 (Existing Zoning with Office)

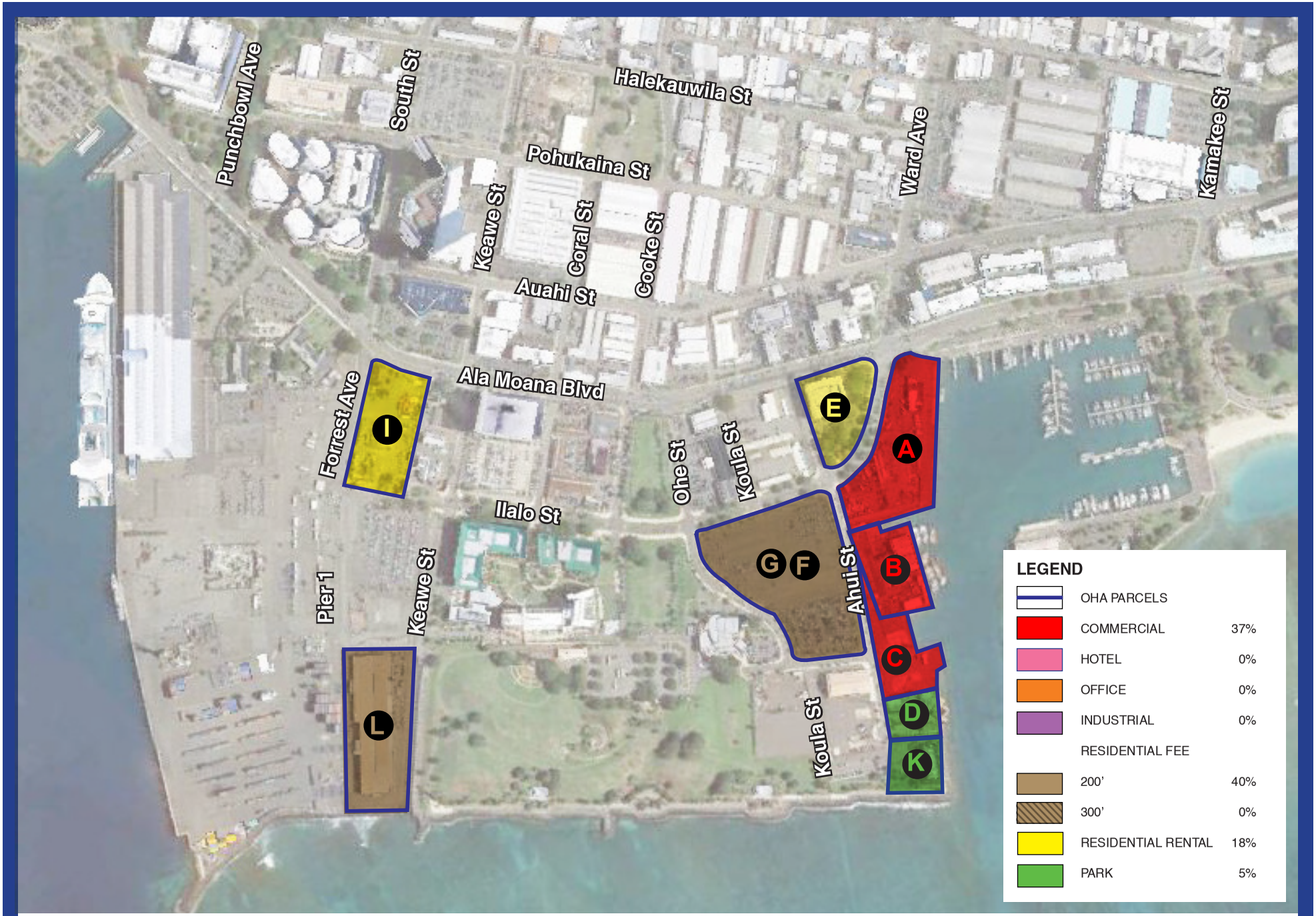
October 2013



Kaka'ako Makai

Alternative A-2 (Existing Zoning with Hotel)

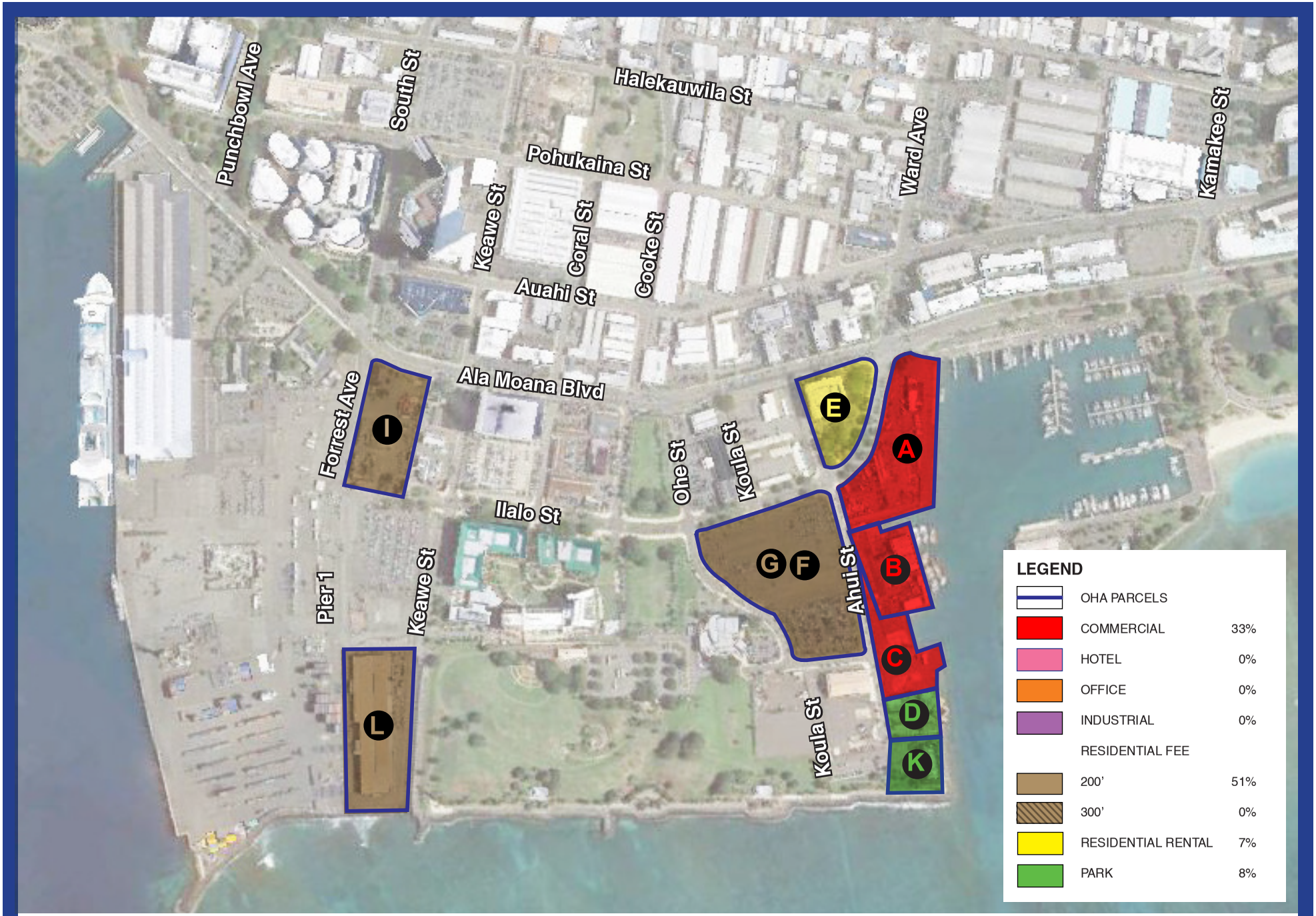
October 2013



Kaka'ako Makai

Alternative B (Residential Fee & Rental Combo)

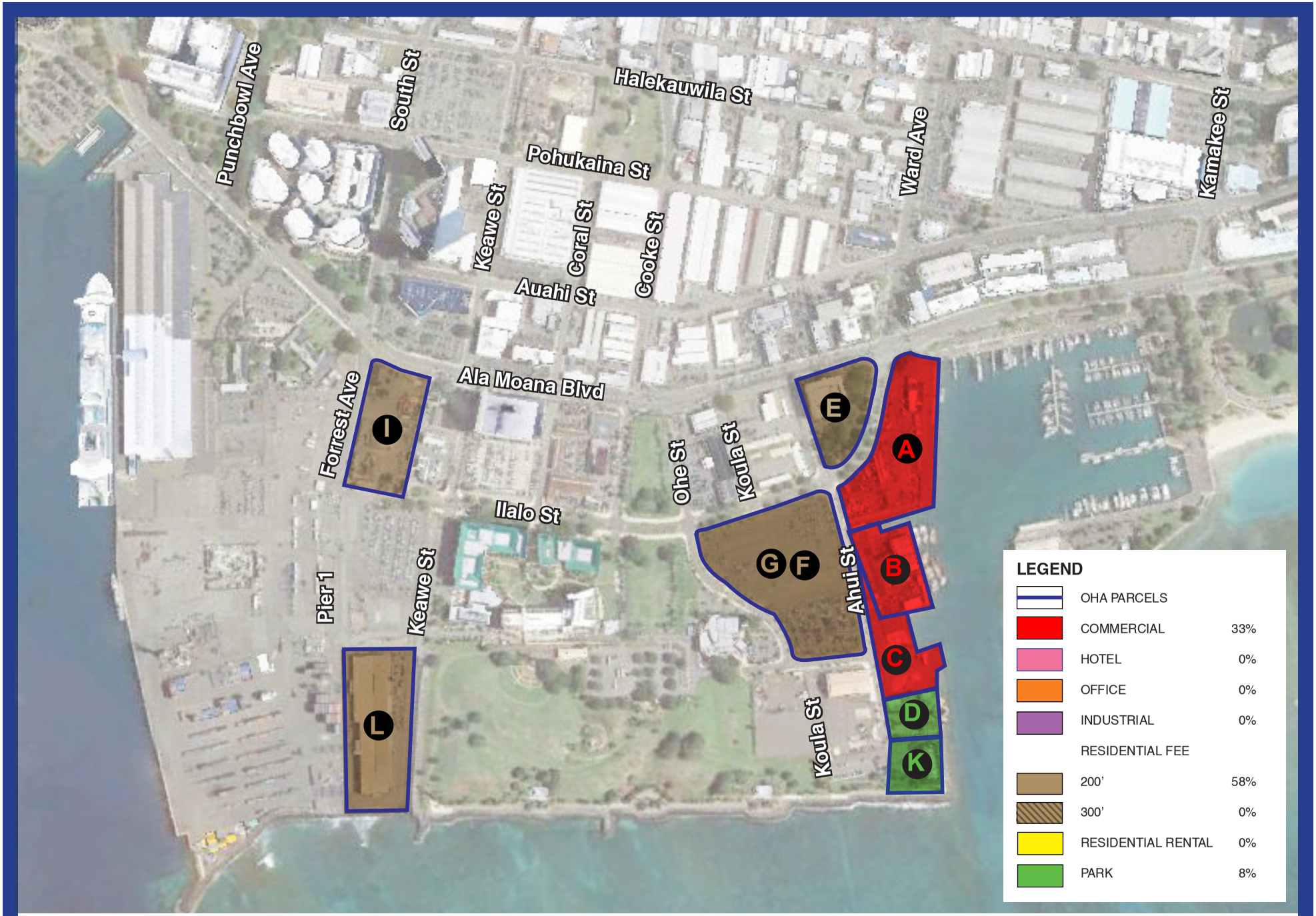
October 2013



Kaka'ako Makai

Alternative B-1 (Residential Fee & Limited Rental)

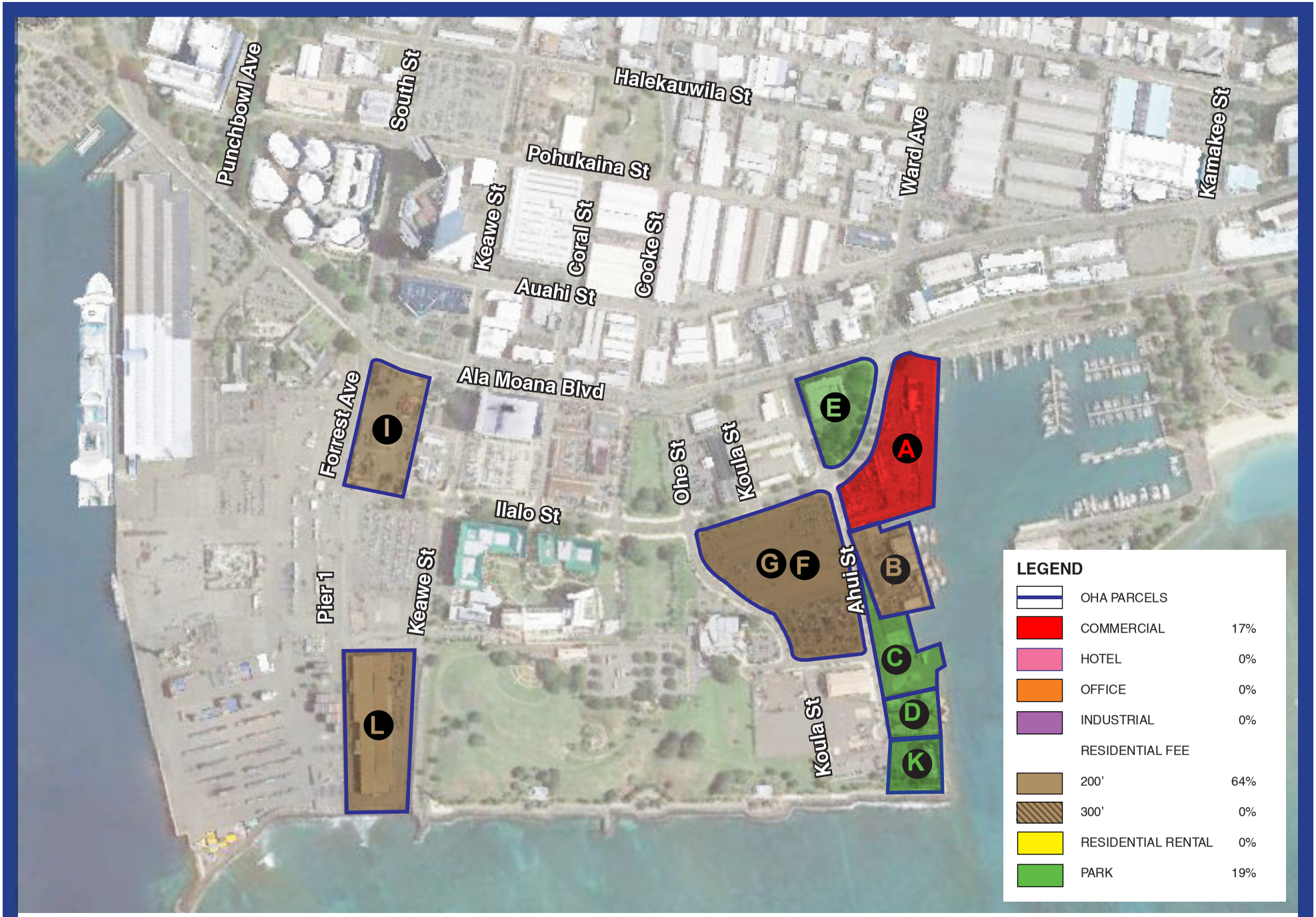
October 2013



Kaka'ako Makai

Alternative C (Residential Fee Only)

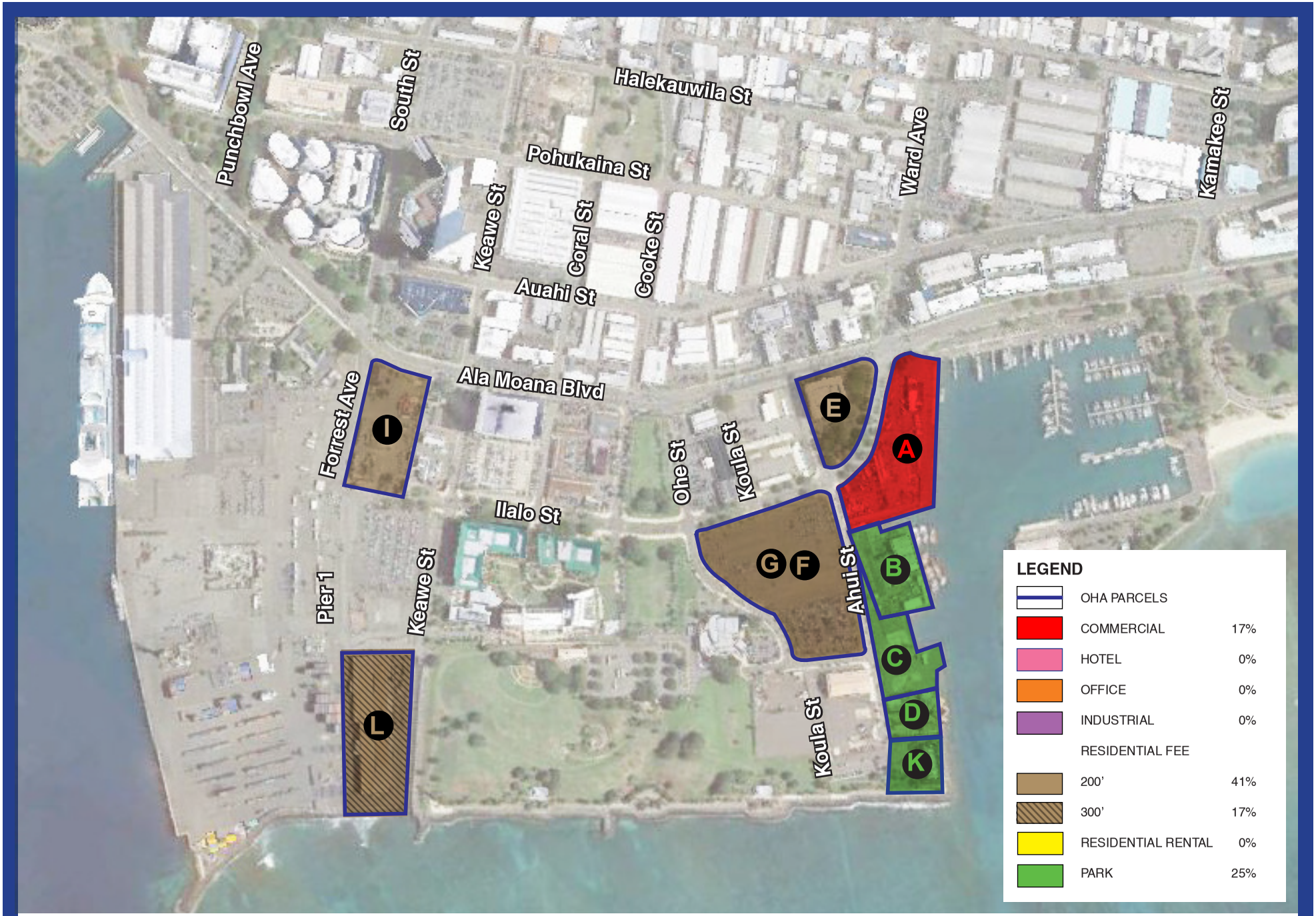
October 2013



Kaka'ako Makai

Alternative C-1 (Increased Residential Fee & Open Space)

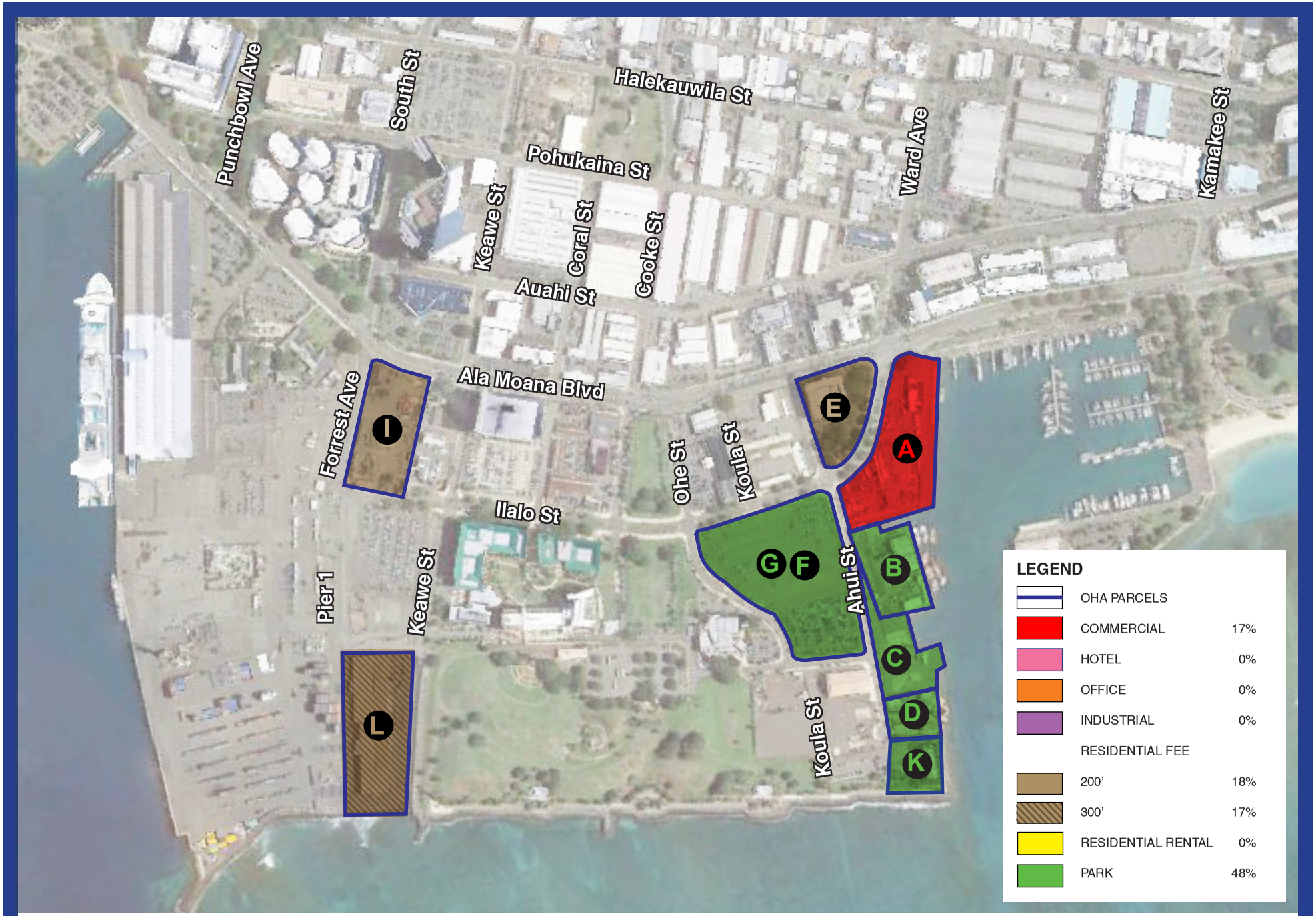
October 2013



Kaka'ako Makai

Alternative C-2 (300′ Residential for Parcel L)

October 2013



Kaka'ako Makai

Alternative D (300' Residential for Parcel L with 50% Park Space)

October 2013

APPENDIX B

DETAILED LAND VALUE AND ALLOCATION CALCULATIONS

OHA KAKA`AKO MAKAI PROPERTY

Alternative Land Use Value Analysis, Draft 8, 10.23.13

Prepared by Sanford Murata Inc.

Parcel	Zoning	Max. Ht. (Ft.)	Area (Ac.)	Use	Residual Land Value $ PSF	Residual Land Value $ Total
Alternative A (Existing Zoning)						
A	WC	65	5.082	Commercial	72	15,938,778
B	WC	65	3.150	Commercial	72	9,879,408
C	WC	65	2.043	Commercial	72	6,407,502
D	WC	65	0.938	Commercial	72	2,941,868
E	MUZ	200	2.200	Commercial	72	6,899,904
F/G	MUZ	200	7.159	Commercial	72	22,452,915
K	WC	65	1.584	Park	0	-
L	MUZ-I	45	5.226	Industrial	72	16,390,408
I	MUZ	200	3.336	Commercial	72	10,462,764
Total			30.718		68	91,373,547
Commercial			23.908	78%		
Industrial			5.226	17%		
Park			1.584	5%		
Total			30.718	100%		
Alternative A-1 (Existing Zoning with Office)						
A	WC	65	5.082	Commercial	72	15,938,778
B	WC	65	3.150	Commercial	72	9,879,408
C	WC	65	2.043	Commercial	72	6,407,502
D	WC	65	0.938	Commercial	72	2,941,868
E	MUZ	200	2.200	Office	(245)	(23,478,840)
F/G	MUZ	200	7.159	Commercial	72	22,452,915
K	WC	65	1.584	Park	0	-
L	MUZ-I	45	5.226	Industrial	72	16,390,408
I	MUZ	200	3.336	Commercial	72	10,462,764
Total			30.718		46	60,994,803
Commercial			21.708	71%		
Office			2.200	7%		
Industrial			5.226	17%		
Park			1.584	5%		
Total			30.718	100%		

Alternative A-2 (Existing Zoning with Hotel)

A	WC	65	5.082	Commercial	72	15,938,778
B	WC	65	3.150	Commercial	72	9,879,408
C	WC	65	2.043	Commercial	72	6,407,502
D	WC	65	0.938	Commercial	72	2,941,868
E	MUZ	200	2.200	Hotel	(71)	(6,804,072)
F/G	MUZ	200	7.159	Commercial	72	22,452,915
K	WC	65	1.584	Park	0	-
L	MUZ-I	45	5.226	Industrial	72	16,390,408
I	MUZ	200	3.336	Commercial	72	10,462,764
Total			30.718		58	77,669,571

Commercial	21.708	71%
Hotel	2.200	7%
Industrial	5.226	17%
Park	1.584	5%
Total	30.718	100%

Alternative B (Residential - Condominium and Rental)

A	WC	65	5.082	Commercial	72	15,938,778
B	WC	65	3.150	Commercial	72	9,879,408
C	WC	65	2.043	Commercial	72	6,407,502
D	WC	65	0.938	Park	0	-
E	MUZ	200	2.200	Res-Rental	20	1,916,640
F/G	MUZ	200	7.159	Res-Condo	219	68,294,283
K	WC	65	1.584	Park	0	-
L	MUZ	200	5.226	Res-Condo	219	49,854,159
I	MUZ	200	3.336	Res-Rental	20	2,906,323
Total			30.718		116	155,197,093

Commercial	11.213	37%
Residential-Condominium (200')	12.385	40%
Residential-Rental	5.536	18%
Park	1.584	5%
Total	30.718	100%

Alternative B-1 (Residential - Condominium and Limited Rental)

A	WC	65	5.082	Commercial	72	15,938,778
B	WC	65	3.150	Commercial	72	9,879,408
C	WC	65	2.043	Commercial	72	6,407,502
D	WC	65	0.938	Park	0	-
E	MUZ	200	2.200	Res-Rental	20	1,916,640
F/G	MUZ	200	7.159	Res-Condo	219	68,294,283
K	WC	65	1.584	Park	0	-
L	MUZ	200	5.226	Res-Condo	219	49,854,159
I	MUZ	200	3.336	Res-Condo	219	31,824,239
Total			30.718		138	184,115,008

Commercial	10.275	33%
Residential-Condominium (200')	15.721	51%
Residential-Rental	2.200	7%
Park	2.522	8%
Total	30.718	100%

Alternative C (Residential - Condominium)

A	WC	65	5.082	Commercial	72	15,938,778
B	WC	65	3.150	Commercial	72	9,879,408
C	WC	65	2.043	Commercial	72	6,407,502
D	WC	65	0.938	Park	0	-
E	MUZ	200	2.200	Res-Condo	219	20,987,208
F/G	MUZ	200	7.159	Res-Condo	219	68,294,283
K	WC	65	1.584	Park	0	-
L	MUZ	200	5.226	Res-Condo	219	49,854,159
I	MUZ	200	3.336	Res-Condo	219	31,824,239
Total			30.718		152	203,185,576

Commercial	10.275	33%
Residential-Condominium (200')	17.921	58%
Park	2.522	8%
Total	30.718	100%

Alternative C-1 (Residential - Condominium and Park)

A	WC	65	5.082	Commercial	72	15,938,778
B	WC	200	3.150	Res-Condo	219	30,049,866
C	WC	65	2.043	Park	0	-
D	WC	65	0.938	Res-Condo	219	8,948,182
E	MUZ	200	2.200	Park	0	-
F/G	MUZ	200	7.159	Res-Condo	219	68,294,283
K	WC	65	1.584	Park	0	-
L	MUZ	200	5.226	Res-Condo	219	49,854,159
I	MUZ	200	3.336	Res-Condo	219	31,824,239
Total			30.718		153	204,909,507

Commercial	5.082	17%
Residential-Condominium (200')	19.809	64%
Park	5.827	19%
Total	30.718	100%

Alternative C-2 (300' Residential for Parcel L)

A	WC	65	5.082	Commercial	72	15,938,778
B	WC	65	3.150	Park	0	-
C	WC	65	2.043	Park	0	-
D	WC	65	0.938	Park	0	-
E	MUZ	200	2.200	Res-Condo	219	20,987,208
F/G	MUZ	200	7.159	Res-Condo	219	68,294,283
K	WC	65	1.584	Park	0	-
L	MUZ	300	5.226	Res-Condo	328	74,667,416
I	MUZ	200	3.336	Res-Condo	219	31,824,239
Total			30.718		158	211,711,924

Commercial	5.082	17%
Residential-Condominium (200')	12.695	41%
Residential-Condominium (300')	5.226	17%
Park	7.715	25%
Total	30.718	100%

Alternative D (300' Residential for Parcel L with 50% Park)

A	WC	65	5.082	Commercial	72	15,938,778
B	WC	65	3.150	Park	0	-
C	WC	65	2.043	Park	0	-
D	WC	65	0.938	Park	0	-
E	MUZ	200	2.200	Res-Condo	219	20,987,208
F/G	MUZ	200	7.159	Park	0	-
K	WC	65	1.584	Park	0	-
L	MUZ	300	5.226	Res-Condo	328	74,667,416
I	MUZ	200	3.336	Res-Condo	219	31,824,239
Total			30.718		107	143,417,641

Commercial	5.082	17%
Residential-Condominium (200')	5.536	18%
Residential-Condominium (300')	5.226	17%
Park	14.874	48%
Total	30.718	100%