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DEPARTMENT OF PLANNING AND PERMITTING
KA 'OIHANA HO'OLĀLĀ A ME NĀ PALAPALA 'AE
CITY AND COUNTY OF HONOLULU

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March 28, 2025

2024/SMA-132(LM)

The Honorable Tommy Waters
Chair and Presiding Officer
and Members
Honolulu City Council
530 South King Street, Room 202
Honolulu, Hawai'i 96813

Dear Chair Waters and Councilmembers:

SUBJECT: Special Management Area (SMA) Major Permit
Waikīkī Aquarium Wastewater System Improvements
2777 Kalākaua Avenue – Waikīkī
Tax Map Key 3-1-031: 006

Enclosed for your consideration are the Department of Planning and Permitting's (DPP) Report and Recommendation, and Draft Resolution for the SMA Major Permit application for improvements to the Waikīkī Aquarium Supply Water Intake System.

The DPP recommends that the Project be approved, as proposed, subject to compliance with recommended conditions, which primarily consist of standard conditions relating to archaeological resources, coastal ecosystems, and protected species.

Additionally, the Project requires a Shoreline Setback Variance (SSV) as it proposes reconstruction of structures and construction of new accessory structures within the 60-foot shoreline setback. Once the City Council has acted on the SMA Major Permit application, the DPP must render a decision on the SSV application within 45 calendar days.

Pursuant to Revised Ordinances of Honolulu Chapter 25, the City Council must act within 60 calendar days after receipt of our Findings and Recommendation; however, the City Council may extend this period of time upon receipt of a request from the Applicant for an extension.

DEPT. COM. 245

Should you have any questions, please contact me at (808) 768-8000.

Very truly yours,

Dawn Takeuchi Apuna
Director

Enclosures: DPP Report and Recommendation
Exhibits A through F, G-1 through G-2, and H through N
Draft Resolution

APPROVED BY:

For Michael D. Formby, Managing Director
Office of the Managing Director

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

STATE OF HAWAIʻI

IN THE MATTER OF THE APPLICATION BY UNIVERSITY OF HAWAIʻI (UH), OFFICE OF PROJECT DELIVERY FOR A SPECIAL MANAGEMENT AREA (SMA) MAJOR PERMIT	FILE NO. 2024/SMA-132 (LM)

FINDINGS OF FACT, CONCLUSIONS
OF LAW, AND RECOMMENDATION

I. GENERAL INFORMATION

A. Basic Information:

PROJECT:	Waikīkī Aquarium (Aquarium) Supply Water Intake System Improvements
LANDOWNER:	State of Hawaiʻi
APPLICANT:	UH
AGENT:	Oceanit (Berna Senelly)
LOCATION:	2777 Kalākaua Avenue – Waikīkī (Exhibit A)
TAX MAP KEY:	3-1-031: 006
LAND AREA:	2.35 acres
ZONING:	P-2 General Preservation District (P-2 District) (Exhibit B)
SPECIAL DISTRICT:	Diamond Head Special District (DHSD), Core Area
STATE LAND USE:	Urban
DEVELOPMENT PLAN:	Primary Urban Center

B. Proposal: The Applicant seeks an SMA Major Permit to allow development within the SMA. The proposed Project is to improve the Waikīkī Aquarium supply

water intake systems, along with associated electrical and mechanical systems, and to reconstruct and expand the Edge of Reef (EOR) Exhibit from approximately 1,300 square (sq.) feet (ft.) to approximately 1,800 sq. ft. (see Exhibits C through F). The Project is proposed over five phases, and is anticipated to be completed by the end of 2028. Value of work is estimated at $10 million.

The water intake is comprised of three water sources: natural seawater, saltwater well, and freshwater. Upgrades are proposed to the saltwater systems, portions of which are within the shoreline setback area. Work within the shoreline setback area is being concurrently reviewed for compliance with Revised Ordinance of Honolulu (ROH) Chapter 26, relating to shoreline setbacks, under Shoreline Setback Variance (SSV) File No. 2024/SV-3. The SSV permit is being processed in accordance with the Department of Planning and Permitting (DPP) Administrative Rules Title 20, Chapter 31 ("Shoreline Setbacks and the Special Management Area"), effective July 25, 2024. Work makai of the shoreline setback area is within the State Conservation District, and requires State approvals.

For the natural seawater system the following is proposed:

- Removal and replacement of the two 8-inch ocean water intake pipes which extend approximately 160-ft. offshore with new 8-inch-diameter, 170-ft-long. pipes;
- Replacement of pumps and piping;
- Reconfiguration of piping;
- Reconstruction and expansion of the existing pump vault; and
- Installation of new saltwater treatment components, such as ultraviolet (UV) sterilizers, filtration equipment, and bio controls.

For the saltwater well the following is proposed:

- Refurbishment of the existing well;
- Installation of a new saltwater well to add redundancy and capacity;
- Reconfiguration of associated plumbing; and
- Reconstruction and expansion of influent treatment building, to be built on a foundation of micropiles.

In summary, the new equiptment will consist of: Eight pumps, four media filters, two UV sterilizers, a heat exchanger and chiller air compressors and diffusers, flow meters, level sensors, and other appurtenances.

Proposed earthwork includes: Trenching for new underground piping and structural supports; excavation for a new aeration settling tank, new pumps (air injection, well water, and natural saltwater), the new pump vault, and new saltwater vault; and reconstruction and extension of the existing pump building. The pump vault, well water aeration/settling tank, and influent structures will be supported on micro piles. No importation of fill is proposed.

C. Site and Surrounding Area: The Project site has an area of 102,210 sq. ft. or approximately 2.35 acres, and is a shoreline lot located in Waikīkī on the south shore of Oʻahu. The site is within the P-2 District, the SMA, and the DHSD Core Area. The site is developed with the Aquarium. The Aquarium provides educational outreach to the public, which includes fish and invertebrate in exhibition tanks, an outdoor tide pool display (Edge of Reef), and space for indoor and outdoor events amongst the exhibits. Surrounding properties are also within the P-2 District. The Aquarium is bounded by Kapiʻolani Regional Park to the north and Kalākaua Avenue to the east. Beyond Kalākaua Avenue is Kapiʻolani Regional Park. To the south is Kapiʻolani Regional Park and the Waikīkī Natatorium War Memorial (Natatorium). To the west is a public shoreline walkway that connects the Natatorium to Kalākaua Avenue and beaches to the north and south of the site. Further to the west is the Pacific Ocean (see Exhibit A).

D. Background: The Aquarium was established in 1904 by the Honolulu Rapid Transit and Land Company as a privately financed aquarium, and is the second oldest aquarium in the United States (US). In 1912, a marine biology laboratory was gifted to the Aquarium and since 1919, the Aquarium has been part of the UH. In 1955, the Aquarium was constructed in its present location, which is 100 yards south of the original site. Much of the existing Aquarium's water intake system was part of the original 1950s construction.

Permit history relating to an SMA, SSV, and minor shoreline structures (MSS) are listed in the following table:

SMA, SSV, MSS Permit History

Date Issued	File No.	Project Description
1/22/1982	82/SMA-11	Additional lighting.
9/24/1982	82/SMA-97	Signs.
3/6/1985	85/SMA-118	Building additions, new structures, and landscaping.
4/16/1985	85/SV-7	Hawaiian Rocky Shore Exhibit.

Date Issued	File No.	Project Description
4/16/1985	85/SMA-37	Hawaiian Rocky Shore Exhibit.
2/25/1988	88/SMA-36	Exterior renovations (stairway and balcony railing), and new sump pump room and equipment.
10/29/1991	91/SMA-82	Replacing the on-site emergency generator and related electrical improvements.
5/15/1992	92/SMA-62	Seawater intake system modifications.
5/15/1992	92/SV-10	Seawater intake system modifications.
5/28/1992	92/SMA-60	Improvements: New concrete walkways in the parking area and near monk seal pool, and new canopy at the entry.
10/27/1997	94/MSS-4	Six-ft. metal fence.
10/27/1994	94/SMA-78	Replace temporary construction fence along Diamond Head property line with permanent decorative fence.
9/8/2000	2000/SMA-66	Exterior gateway sculptures.
2/12/2008	2008/SMA-5	New electrical room and emergency generator shed.
2/12/2008	2008/W-10	New electrical room and emergency generator shed.
2/12/2008	2008/SDD-8	New electrical room and emergency generator shed.
10/14/2021	2021/SMA-81	Flow meter installation and test injection well.
6/5/2024	2023/SMA-23 & 2023/SV-1	Water discharge upgrades.

II. FINDINGS OF FACT

On the basis of the evidence presented, the Director of the DPP has found:

Lot Area	102,210 square ft. or approximately 2.35 acres.
Lot Shape	Semi-square.
Topography	Relatively flat and undulating, with elevations ranging from around six to nine ft. above mean sea level (MSL).
Certified Shoreline Survey	Dated January 13, 2024 (see Exhibits G-1 and G-2).

Nearest Body of Water	*Pacific Ocean* - Estuarine and Marine Wetland and Estuarine and Marine Deepwater (see Exhibit H).
Soil Classifications (*makai to mauka*)	*Beach* soils have one to five percent slopes consisting of excessively drained soils with very little runoff. *Jaucas sands* have zero to 15 percent slopes consisting of excessively drained, calcareous soils that occur as narrow strips on coastal plains, adjacent to the ocean. Permeability is rapid, and with low runoff (see Exhibit I).
Existing Vegetation	Native species, including naupaka kahakai, milo trees, and ti leaf. Non-native grasses and groundcover, coconut palms, heliotrope, and shrubs.
Flood Zones (*mauka to makai*)	*Flood Zone X*, an area determined to be outside the two percent annual chance floodplain or outside of the 500-year floodplain. *Flood Zone AE*, a special flood hazard area subject to inundation by a one percent annual of flooding where base flood elevations (BFE) (elevation of eight ft. above MSL) are determined. *Flood Zone VE*, a coastal hazard area with a one percent annual chance or greater of flooding where BFE (elevation of 12 ft. above MSL) are determined and is associated with storm waves (see Exhibit J).
Tsunami	Tsunami evacuation zone (see Exhibit K).
Storm Surge	The Project area is anticipated to be inundated by storm surges in a Category 4 hurricane event, with water levels less than three ft. above ground. During a Category 1 hurricane event, peripheral impacts to coastal edges of the site are anticipated (see Exhibit L).
Environmental Compliance	An Environmental Assessment (EA) was prepared in accordance with the Hawai‘i Revised Statutes (HRS) Chapter 343. The UH issued a Finding of No Significant Impact (FONSI). The Final EA-FONSI was published in “*The Environmental Notice*” on November 8, 2024.
Other Permits and Approvals	<u>Federal</u> *US Army Corps of Engineers* – Work in Navigable Waters of the US, Clean Water Act. Additional Federal approvals may be necessary

	<u>State</u> *Office of Planning and Sustainable Development* – Coastal Zone Management Consistency Determination. *Department of Land and Natural Resources:* *Office of Coastal Conservation and Coastal Lands* – Site Plan Approval *Commission of Water Resource Management* – Well Construction / Pump Installation Permit *State Historic Preservation Division (SHPD)* – Archaeological Monitoring Plan *Division of Boating and Ocean Recreation* – Land Disposition / Right of Entry *Department of Health:* *Clean Water Branch* – National Pollution, Discharge Elimination System Notice of Intent Form C, Section 401 Water Quality Certification *Indoor and Radiological Health Branch* Community Noise Control Permit. <u>City</u> *DPP* – DHSD Permit, Waiver, Building Permit (BP), Trenching Permit, Stockpiling Permit, Grading Permit, Grubbing Permit, and Construction Plan Approval. *Department of Parks and Recreation* – Right-of-Entry Permit.
Agency Comments	During the EA process, the Applicant routed the proposal to various State and City agencies. All letters and comments received have been included in the Project file and incorporated into the Analysis section, as appropriate.
Neighborhood Board/Community Association Presentation	The Applicant presented the Project to the Diamond Head/Kapahulu/Saint Louis Neighborhood Board No. 5 on August 10, 2023.
Public Hearing	The DPP conducted a public hearing at 9:30 a.m. on February 10, 2025, at the Fasi Municipal Building. The UH Project manager, Agents, and the DPP staff members were the only attendees at the public hearing.

III. ANALYSIS

The proposed Project was analyzed in accordance with the objectives, policies, and guidelines established in the ROH Sections 25-3.1 and 25-4.1, as well as HRS Sections 205A-2 and 205A-26.

1. Recreational Resources

Development within the SMA should provide coastal recreational opportunities to the public. Adequate access, by dedication or other means, to beaches, coastal dunes, recreation areas, and natural reserves must be provided to the extent consistent with sound conservation principles. Adequate and properly located public recreation areas and wildlife preserves must be preserved.

Implementation of the Project will not result in any change to existing beach access or opportunities for hiking, fishing, and cultural practices. Publicly accessible coastal resources in the area include the San Souci State Recreational Park located to the west of the Project site and Kaimana Beach located to the southeast. There is no direct public access to the beach through the subject property, and the Project does not propose any impediments to existing public access adjacent to the site. Any nuisances caused by construction-related activities will be temporary and are required to follow Best Management Practices (BMPs). Therefore, no conditions of approval are recommended to address coastal recreational resources.

2. Historic and Cultural Resources

Development within the SMA should protect, preserve, and restore natural or human-made historical and cultural resources.

A cultural impact assessment was conducted to evaluate cultural practices in the area. The analysis found that no traditional and customary Native Hawaiian rights are exercised within the Project site, that no traditional or customary Native Hawaiian rights are impacted by the Project, and that no Native Hawaiian rights related to historical or cultural resources have been found to exist within the Project site.

Additionally, an archeological literature review (ALR) and field survey study were conducted to determine whether the Project poses significant impacts to historical or archeological resources. The ALR findings identify Hawaiian historic properties and human burials near the Project area. While the field survey yielded no new discoveries, previous archeological studies near the Project area have recorded subsurface historic properties. The ALR recommended archaeological monitoring for identification purposes. To protect and preserve historic resources, an archeological monitoring plan

(AMP) meeting the requirements of Hawai‘i Administrative Rules (HAR) Section 13-279-4 AMP must be submitted to SHPD for review.

In accordance with HRS Section 6E-42, the Applicant submitted the Project for review to the SHPD via the HICRIS (Project Review No. 2025PR00207). The Applicant will continue to work with SHPD to confirm the Project's compliance with HRS Section 6E-42 and the HAR Section 13-284 through all stages of construction.

The standard stop-work conditions apply if, during construction, any previously unidentified archaeological sites or remains (such as artifacts, shell, bone, or charcoal deposits, human burials, rock or coral alignments, pavings, or walls) are encountered, the Applicant shall stop work, protect the find from further disturbance, and contact the SHPD immediately. Work in the immediate area must be stopped until the SHPD is able to assess the impact and make further recommendations for mitigative activity. A copy of SHPD's acceptance of the AMP must be provided to the DPP prior to issuance of BPs. This is a condition of approval.

The primary aquarium building was built approximately in 1955. Being that the building is over 50 years old, it may qualify to apply for listing in the National Register of Historic Places. As it is not currently listed, and no work is proposed to improve the building, no related conditions of approval are recommended.

3.	**Scenic and Open Space Resources**
	Development within the SMA should protect, preserve, and whenever desirable, restore or improve the quality of coastal scenic and open space resources. Alterations to existing land forms and vegetation, other than for the cultivation of coastal dependent crops, must be limited so they result in minimum adverse impacts on water resources, beaches, coastal dunes, and scenic or recreational amenities. Development that is not dependent on the coast is encouraged to locate mauka of the SMA.

No impacts to any scenic and open space resources are anticipated as the proposed height of the accessory pump building and saltwater well vault does not exceed the height of any existing structure on the Project site.

The Project will also have to meet the development standards of the ROH, Chapter 21, the Land Use Ordinance (LUO), including the DHSD objectives and design standards. Given this, no conditions of approval are recommended to address scenic and open space resources.

4. Coastal Ecosystems

Development within the SMA should protect valuable coastal ecosystems, including reefs, beaches, and coastal dunes from disruption, and minimize adverse impacts on all coastal ecosystems. Solid and liquid waste treatment and disposition must be managed to minimize adverse impacts on SMA resources.

The Project site is a shoreline lot. Over the long-term, no significant impacts to coastal ecosystems are expected as a result of the Project. The proposed Project will remove the asbestos-cement intake pipes, which is anticipated to improve water quality for the nearshore coastal ecosystems. However, there is potential for temporary impacts to sensitive species during Project construction, as discussed below:

a. Wetlands and Streams: According to the US Fish and Wildlife Service (USFWS) National Wetlands Inventory, the nearest body of water to the Project site is the Pacific Ocean and is identified as Estuarine and Marine Wetland and Estuarine and Marine Deepwater. In the short-term, impacts to nearshore waters are expected to occur temporarily during in-water construction for the replacement of the intake pipes.

b. Flora: In May 2022, the Project conducted a terrestrial biological resources survey (TBRS) which observed cultivated landscaping by the Aquarium, including native species such as naupaka kahakai, milo, and ti leaf, and introducted species including non-native grasses and groundcover, coconut palms, heliotrope, and shrubs. The Project proposes no additional landscaping. A review of the USFWS *Information for Planning and Consultation* (IPaC) database shows that a number of endangered flowering plants, ferns, and allies may occur in the area. In order to minimize potential adverse effects to listed flora that may occur on the Project site, the Division of Forestry and Wildlife (DOFAW) recommended the following mitigation measures:

- If new landscaping is used, to the extent practicable, utilize native plant species appropriate for the area, with no use of invasive species. Refer to the Plant Pono site (www.plantpono.org) for guidance on selection and evaluation of landscaping plants;

- Minimize the movement of plant or soil materials between worksites to avoid adverse impacts to native species and ecosystems; and

- Adhere to the Department of Agriculture's Plant Quarantine Interim Rule restricting the movement of coconut rhinoceros

beetle (CRB) host material to manage host materials and plants that may contain CRB in any stage of life.

c. Fauna: The TBRS observed native fauna included two white fairy terns, which are considered "threatened." Other terrestrial fauna observed during the survey included introduced non-native species. A review of the IPaC database revealed there are several threatened and endangered fauna species that may visit the site for foraging or breeding purposes. Sensitive terrestrial mammal species which may be present include the Hawaiian Hoary Bat. Hawaiian Hoary Bats may roost in trees or tall vegetation in the area. Therefore, to avoid impacting this species, woody plants greater than 15 ft. in height should not be disturbed, removed, or trimmed during the bat birthing and pup rearing season (June 1 through September 15). Further, barbless fencing should be used for all fence construction to avoid entanglement of Hawaiian Hoary Bats. These standard measures should be conditions of approval.

Sensitive avian species which may be present include the Hawaiian seabirds, water birds, pueo and the manu-o-kū, white fairy tern. These species may be impacted by Project implementation, particularly during construction activities. The DOFAW recommends the following mitigation measures:

- Remove and exclude non-native mammals such as mongoose, cats, dogs, and ungulates from the area;
- Examine trees prior to cutting or trimming to determine if manu-o-kū (white fairy terns) are nesting in them, especially during the breeding season of January through June. If active nests are found, contact DOFAW and do not trim or remove trees;
- If the nest of other sensitive avian species is discovered during construction, contact the DOFAW, and place a 100 ft. buffer of no activity around the active nests/downed seabird;
- If State-listed waterbirds are present during construction, all activities within 100 ft. must cease until the bird(s) leave of their own accord;
- Before any potentially disturbing activity like clearing vegetation, or other ground-based disturbance, DOFAW recommends that a qualified biologist conduct surveys during crepuscular hours and walk line transects through the project area to detect any active pueo nests. If a pueo nest

is discovered, notify DOFAW staff, minimize time spent at the nest, and establish a minimum buffer distance of 650 ft. (200 meters) from the nest until chicks are capable of flight; and

- Prior to initiation of work, provide information about seabird fallout to staff working on the site.

These conditions relating to the protection of avian species are recommended.

DOFAW also notes that the endangered ʻīlio holo i ka uaua, Hawaiian Monk Seal, and the threatened honu, Green Sea Turtle, could potentially occur or haul out onshore within the vicinity of the proposed project site. Nesting season for the honu is April through December, and the ʻīlio holo i ka uaua may birth pups year-round. All Project-related activities must cease if a Hawaiian Monk Seal, Green Sea Turtle, or Hawksbill Turtle is on land within 150 ft. of the work area, or as recommended by State or federal regulations. Project activities may only recommence after the animal voluntarily leaves the area. If a monk seal pup is present, a 300-ft. buffer must be observed. Any Project-related debris that may pose an entanglement threat to monk seals or turtles, must be removed from the work area at the end of each day and at the conclusion of Project-related activities. This standard condition should be made a condition of approval.

Artificial lighting can be disruptive to avifauna and marine life in their navigation, nesting, and reproductive cycles. All outdoor lighting should be fully shielded both during and after construction to avoid artificial light impacts on seabirds, hoary bats, and sea turtles, particularly during the seabird fledgling season from September 15 through December 15. Additionally, artificial light from exterior lighting fixtures, including but not limited to floodlights, uplights, or spotlights are prohibited if the light directly illuminates or is directed to project across property boundaries toward the shoreline or ocean waters, or both, except as permitted by HRS Section 205A-71(b). To further mitigate potential lighting impacts, the Applicant should use full cutoff light fixtures for exterior lighting. The International Dark Sky Association has established lighting standards to mitigate ecological impacts. Their Fixture Seal of Approval program requires that lighting have a correlated color temperature of 3,000 degrees kelvin or lower. These standard measures should be conditions of approval.

d. Invasive Species: According to the Oʻahu Invasive Species Committee (OISC) website, several invasive flora and fauna species

are being targeted for eradication on Oʻahu. Flora species include cane tibouchina, cape ivy, devil weed, fireweed, glory bush, Himalayan blackberry, miconia, naio thrips, pampas grass, and the fungi that cause rapid ʻōhiʻa death. Fauna species include CRB, coquí frogs, and little fire ants. The OISC provides protocols for decontamination in the event these species are encountered, as well as protocols to prevent the spread of these species. These measures should be conditions of approval.

e. Reefs, Beaches, and Coastal Dunes: The Project's potential impacts to reefs, beaches, and coastal dunes are discussed in Section 8, below.

f. Solid and Liquid Waste Treatment and Disposition: No changes to solid and liquid waste generation at the site compared to current levels are expected as a result of the Project. Construction waste and wastewater from drilling activities will be hauled off site and will not be discharged on site or offshore. Therefore, no conditions related to solid and liquid waste are recommended.

5. Economic Uses

Development within the SMA should consist of facilities and improvements important to the State's economy, and ensure that coastal-dependent development and coastal-related development are located, designed, and constructed to minimize exposure to coastal hazards and adverse social, visual, and environmental impacts within the SMA.

The Project is expected to positively impact the local economy as it consists of improvements that will allow the continued operation of the Aquarium, which is a popular destination for residents, tourists, and academics alike. The improvements will also support economic opportunities and temporary jobs during construction.

6. Coastal Hazards

Development within the SMA should reduce impacts of coastal hazards on life and property, and must be designed to minimize impacts from landslides, erosion, sea level rise (SLR), siltation, or failure in the event of earthquake.

a. Flooding: The Project site is located within three Flood Zones (see Exhibit J): Zone X (an area determined to be outside the two percent annual chance floodplain), Flood Zone AE (a special flood hazard area subject to inundation by a one pecent annual of flooding with a BFE of eight ft. above MSL, and Flood Zone VE (a coastal hazard area with a one percent annual chance or greater of flooding) with a

BFE of 12 ft. above MSL. A majority of the proposed work is located within Zones AE and VE.
The Project does not propose to bring in fill or raise elevations, and no new occupiable floor area is proposed below the BFE. The Project proposes to flood-proof the necessary equipment to provide protection from potential flood hazards. The Project must be designed in accordance with the standards of ROH Chapter 21A, the Flood Hazard Areas Ordinance, to mitigate hazards related to flooding. Compliance with ROH Chapter 21A will be confirmed during the construction and BP review process, so no condition of approval is recommended.

b. SLR: Based on a review of the UH Pacific Island Ocean Observing System SLR Viewer, under a scenario envisioning 0.5 ft. of SLR, a majority of the Project site will be impacted; the southern end of the lawn area and the parking lot are the only portions of the site not impacted under this scenario. Under the 3.2 ft. scenario, a majority of the Project site will be impacted by 3.2 ft. of SLR by the year 2100 (see Exhibit M). Although the site is anticipated to be impacted by SLR, the Project itself will not exacerbate the impacts of SLR, nor increase the Aquarium's degree of risk and exposure to SLR. Rather, the Project will increase the site's resiliency in the face of SLR. The upgraded equipment and utilities will not be affected by the presence of groundwater, nor by increased elevations of groundwater on-site due to SLR. All new utilities will be outfitted with waterproof enclosures and connections. Therefore, no conditions of approval related to SLR adaptation are necessary or recommended for this Project.

In recognizing the immediate need for the proposed improvements, the DPP sees the public benefit of this Project as outweighing the potential for future impacts. However, we note that continued investment in the facility must be supported by a clear plan on minimizing coastal hazard impacts. As such, the UH and any other participating parties are strongly encouraged to develop a long-term plan posthaste.

c. Storm Surge: The National Storm Surge Hazards Maps indicate that the Project area is anticipated to be inundated by storm surges in a Category 4 hurricane event, with water levels less than three ft. above ground. A Category 1 hurricane event shows the coastal edges of the Project site will be impacted by storm surges (see Exhibit L). In such an event, early warning systems are in place to encourage evacuation to the safe zone. As such, no related conditions of approval are recommended.

d. Tsunami: The Project site is located within the tsunami evacuation zone (see Exhibit K). During a tsunami warning, evacuation requirements will be enforced based on guidelines issued by the Department of Emergency Management. Operators will follow appropriate procedures to protect the public during a tsunami warning. As such, no conditions specific to tsunami events are recommended.

7. Managed Development and Public Participation

The development review process should stimulate public awareness, education, and participation in coastal management.

The public was made aware of the Project and was given the opportunity to review the proposed Project during both the EA phase and the processing of the SMA Major Permit application. The application materials were also posted on the DPP website upon acceptance.

During the EA phase, the Applicant presented to the Diamond Head/ Kapahulu/Saint Louis Neighborhood Board No. 5 on August 10, 2023. The questions from the Neighborhood Board related to the effects of construction in the area, including the presence of construction equipment and impacts related to noise and access. These topics were addressed in the EA and the SMA Major Permit application, and do not involve any significant concerns relating to the SMA.

A public hearing was held for the SMA Major Permit application at 9:30 a.m. on February 10, 2025, at the Fasi Municipal Building. Notices of the application and public hearing were published in the Honolulu Star-Advertiser and sent to neighbors within 300 ft. of the subject property, various public agencies, elected officials for the area, and other interested parties. No written testimony was received prior to the hearing. The UH Project manager, Project engineer, Agent, and DPP staff members were the only attendees at the public hearing. Additional opportunities for public input will be available during the City Council hearings. No related conditions of approval are recommended.

8. Beach and Coastal Dune Protection

Development within the SMA should facilitate beach management and protection by safeguarding beaches and coastal dunes for public use and recreation, the benefit of ecosystems, and use as natural buffers against coastal hazards. New structures should be located mauka of the shoreline setback line to conserve open space, minimize interference with natural shoreline processes, and minimize the loss of improvements due to erosion.

The Project site is located on areas identified as beaches and Jaucas sands (see Exhibit I). Earthwork involving excavation and trenching is proposed, but no impacts to beaches and coastal dunes are anticipated as a result of the Project because the proposed improvements are primarily located within an existing developed area, and will not involve the importation of fill materials.

Further, no impacts to drainage patterns or storm water infiltration are anticipated and BMPs will mitigate impacts during construction-related activities. Therefore no impacts to beaches and coastal dunes are anticipated as a result of the Project and no conditions of approval, beyond those discussed elsewhere, are recommended.

9.	**Marine and Coastal Resources**
	Development within the SMA should promote the protection, use, and development of marine and coastal resources to ensure that these resources are ecologically and environmentally sound and economically beneficial. Impacts on water resources, beaches, coastal dunes, and scenic or recreational amenities resulting from the construction of structures must be minimized. Development within wetland areas should be limited to activities that are dependent on or enhance wetlands, or are otherwise approved by appropriate State and Federal agencies.

The Project is located on a shoreline lot and proposes to improve the supply water intake, which is critical to the operation of the Aquarium and to the life support systems for biota at the Aquarium. However, no adverse impacts are anticipated as the proposed improvements are to remove asbestos-containing pipes, which are anticipated to have a positive effect on surrounding resources.

Additionally, there are no known wetlands located on the Project site itself. Storm water will be managed via the City's municipal drainage system. Construction-related activities will also be required to follow BMPs relating to storm water management. No impacts to bays, estuaries, or nearby water features are anticipated. Therefore, marine and coastal resources are unlikely to be negatively impacted as a result of the proposal, and no conditions of approval are recommended.

10.	**Cumulative Impact or Significant Effect and Compelling Public Interest**
	Development within the SMA should not have any cumulative impact or significant effect, unless minimized to the extent practicable and clearly outweighed by public health, safety, or other compelling public interest.

Substantial or cumulative negative environmental impacts associated with the phased improvements are not anticipated. Any cumulative impacts or significant effects identified in this Report will be mitigated to the extent practicable by the proposed conditions of approval.
Within 500 ft. of the Project site, seven SMA Major Permits have been issued within the last five years (see Exhibit N):

- File No. 2020/SMA-15, SMA Major Permit for the Honolulu Zoo Coastal Wetlands Aviary Exhibit;

- File No. 2020/SMA-26, SMA Minor Permit for the Waikīkī Shell Floodlighting Improvements;

- File No. 2021/SMA-6, SMA Minor Permit for the Honolulu Zoo Water System Upgrade Phase 1 - Potable System;

- File No. 2021/SMA-81, SMA Minor Permit for the Aquarium Flow Meter Installation and Test Injection Well;

- File No. 2022/SMA-39, SMA Minor Permit for the Kaimana Beach Outdoor Shower Improvements;

- File No 2023/SMA-37, SMA Major Permit for the Waikīkī Shell Phased Improvements; and

- File Nos. 2023/SMA-23 and 2023/SV-1, SMA Major Permit and Shoreline Variance for the Aquarium Wastewater Discharge System Upgrades.

No additional near-term work is anticipated in the area in the foreseeable future.

Potential cumulative impacts to SMA resources could occur if projects collectively resulted in damage to the quality of water in the nearby Pacific Ocean, or the loss of critical habitat for known protected species. However, within the SMA, projects proposing any activity meeting the definition of development are required to address any impacts to sensitive coastal resources. They must also comply with regulatory requirements and site-specific conditions of approval, thus the potential contribution to cumulatively significant impacts is considered low. Furthermore, this Project is expected to improve SMA resources by improving and modernizing the water intake system. The upgrades will protect against likely future failures of the existing deteriorating natural seawater intake pipes, which contain asbestos. Additionally, the new intake pipes will be designed to minimize biota entrapment. Given this, no conditions of approval specific to cumulative impacts are recommended for this Project.

11. Consistency with Plans and Regulations

Development within the SMA must be consistent with the general plan (GP), development plans, sustainable communities plans, and zoning ordinances; provided that a finding of inconsistency does not preclude concurrent processing of amendments to applicable plans or a zone change.

The proposal is generally consistent with the applicable plans and regulations as detailed below.

1. O‘ahu GP, 2021: The Project is generally consistent with the O‘ahu GP. The O‘ahu GP conceptually identifies the Project area as an urbanized area. The most applicable O‘ahu GP policies for Natural Environment and Resource Stewardship (i.e. SMA resources) are as follows:

   - Objective A, Policy No. 1: Protect O‘ahu’s natural environment from incompatible development;

   - Objective A, Policy No. 2: Seek the restoration of environmentally damaged areas and natural resources; and

   - Objective A, Policy No. 10: Increase public awareness, appreciation, and protection of O‘ahu’s land, air, and water resources.

   Each of these resource areas is discussed above, and where necessary, conditions of approval are recommended. Given this, the proposed improvements to the Aquarium supply water intake system are generally consistent with the O‘ahu GP. Therefore, no conditions of approval related to O‘ahu GP compliance are recommended.

2. Primary Urban Center (PUC) Development Plan (DP), 2004: The Land Use Map on Appendix A.6 of the PUC DP identifies the Project area as major parks and open space. This designation refers to larger land areas and recreational facilities that contribute to the region’s open space network, including regional and district parks, botanical gardens, zoological parks, golf courses, and cemeteries. The most applicable PUC DP policies for the preservation of open space, coastal lands, and historical and cultural resources (i.e. SMA resources) are as follows:

   - Preserve historic and cultural sites. Special emphasis should be placed on sites that are unique, of special significance, or are in good condition;

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

- Provide parks and active recreation areas. Create or strengthen parks, plazas, and other conveniences throughout the PUC, especially in more populated areas as a balance to the built environment, for recreation, social interaction, and leisure interludes.

The proposed development is generally consistent with the PUC DP because it is designed to allow the existing facility, the only publicly operated aquarium in the City, to continue operations. As discussed above, new structures are designed to remain at or below the height of existing structures, and will not impede views of natural features. Therefore, no conditions of approval related to compliance with the PUC DP are recommended.

3. LUO: The Project site is within the P-2 District which allows public uses. The Project proposes new structures, some of which replace existing structures: The pump vault and influent treatment buildings will be reconstructed with expanded footprints; piping and plumbing will be replaced and reconfigured; and a new saltwater well will be installed. Most, if not all, of the structures are proposed within required yards. Within the P-2 District, front yard setbacks are 30 ft., and side and rear setbacks are 15 ft. A waiver permit will be required to waive the development standards related to structures within the setbacks.

   The Project is also located within the DHSD Core Area, where design controls include strict architectural character and landscaping requirements in order to preserve existing prominent public views and the natural appearance of Diamond Head, and to preserve and enhance the park-like character of the immediate slopes of the Diamond Head monument. A minor SD permit will be required for the major exterior alterations and additions, and new accessory structures. Compliance with the LUO will be confirmed during the review of future SD Permits, and during the construction and BP review process.

4. Shoreline Setback Ordinance: The Project requires an SSV because it proposes reconstruction and expansion of existing structures and construction of new accessory structures within the 60-ft. shoreline setback. Pursuant to ROH Section 26-1.10(a), the Director of the DPP acts upon all SSVs according to the criteria set forth in ROH

Chapter 26. Pursuant to Section 21-31-24 of the DPP Administrative Rules, when simultaneously processing an SSV and an SMA Major Permit, after the City Council has approved, approved with conditions, or denied the SMA Major Permit via Resolution, the Director shall continue to process the SSV. Pursuant to Section 21-31-25 of the Rules, the Director must render a decision on the SSV within 45 days of the adoption of the City Council Resolution.

As a structure and activity that is necessary for or ancillary to facilities or improvements by a public agency (UH), the proposal will be reviewed in accordance with the public interest standard, pursuant to ROH Section 26-1.8. Under this standard, the Director must find that the proposal is the practicable alternative that best conforms to the purpose of ROH Chapter 26 and the Rules. Based on our initial evaluation, the proposal meets this standard and is supportable. Therefore, we recommend approval of the SMA Major Permit, subject to conditions.

IV. CONCLUSIONS OF LAW

The Project was reviewed under the provisions of ROH Sections 25-3.1 and 25-3.2, and HRS Sections 205A-2 and 205A-26, and found to be generally consistent with the established objectives, policies, and guidelines. Based on the Analysis, the proposed development will not adversely impact SMA resources or have cumulative impacts, provided that certain mitigative conditions of approval are imposed.

V. RECOMMENDATION

Based on the preceding Analysis and Conclusions of Law, it is recommended that this application for an SMA Major Permit for the Aquarium Supply Water Intake System Improvements be **APPROVED** subject to the following conditions:

A. Development must be in general conformity with the Project as described in the DPP's Report and Recommendation, referenced above, and as depicted in Exhibits A through F, G-1 through G-2, and H through N, enclosed hereto and incorporated herein by this reference. Any change in the size or nature of the Project that may have a significant effect on coastal resources addressed in ROH Chapters 25 or HRS Chapter 205A will require a new application for an SMA Major Permit. Any change that does not have a significant effect on coastal resources will be considered a Minor Modification and may be permitted under this resolution upon review and approval by the Director of the DPP.

B. The Applicant must obtain SSV approval from the Director of the DPP or the Project may not proceed.

C. To minimize impacts to archaeological, historic, and cultural resources that may be present at the Project site, the Applicant shall comply with the following:

1. Prior to the issuance of any construction permit or building permit for the Project, the Applicant shall submit to the SHPD an AMP meeting the requirements of HAR Section 13-279-4, and submit to the DPP a copy of its acceptance from the SHPD; and

2. If, during construction, any previously unidentified archaeological sites or remains (such as artifacts, shell, bone, or charcoal deposits, human burials, rock or coral alignments, pavings, or walls) are encountered, the Applicant shall stop work, protect the find from further disturbance, and contact the SHPD immediately. Work in the immediate area must be stopped until SHPD is able to assess the impact and make further recommendations for mitigative activity.

The requirements enumerated in this condition, and all mitigation protocols approved or otherwise required by SHPD, must be clearly stated under "Environmental Notes" on all Project construction permit plans and building permit plans.

D. To minimize impacts to endangered, threatened, or protected flora that may be present on the project site, and to minimize the spread of invasive pathogens, pests, or plants that may harm native species and ecosystems, the Applicant is responsible for the following:

1. To the extent practicable, native Hawaiian plant species appropriate for the area must be used for new Project landscaping, with no use of invasive species. A recommended reference is the Plant Pono website.

2. If at any time, species on the Oʻahu Invasive Species Committee's (OISC) invasive species target list website, or any successor website or list provided by the OISC, are discovered on the Project site, the Applicant shall immediately contact the OISC to report the discovery. The current email address and phone number for the OISC must be visibly posted at the Project site during pre-construction and construction activities. The Applicant shall implement any measures recommended by the OISC and any responsible federal or State of Hawaiʻi agency charged with the eradication and management of invasive species;

3. To minimize the movement of plant or soil material on the Project site, and all Project construction equipment, materials, and personnel must be cleaned of excess soil and debris prior to entering and leaving a Project worksite, in accordance with the current recommendations from the OISC;

4. Prior to the commencement of any ground-disturbing or construction activities and upon the arrival of any new workers to the Project site, a copy of the most recently updated OISC "Decontamination Protocols for the Prevention of Invasive Species" ("Protocols") must be distributed to all workers who will be present at the site; the Protocols must be posted at the Project site in a visible location accessible to all Project workers, including delivery and haul-out contractors; or Protocols may both be distributed or posted. All onsite Project workers must be instructed to review the species photos and all Protocols prior to commencing any ground-disturbing or construction activities;

5. To manage host materials and plants that may contain the coconut rhinoceros beetle (in any stage of life), the Applicant shall comply with the State Department of Agriculture's Plant Quarantine Interim Rule restricting the movement of coconut rhinoceros beetle (CRB) host material; and

6. To minimize the importation of soil and structural fill material to the extent possible. No importation of soil or structural fill material is currently proposed.

The requirements enumerated in this condition must be clearly stated under the "Environmental Notes" on all Project construction permit plans and building permit plans.

E. To minimize impacts to endangered, threatened or protected avian, marine and terrestrial fauna that may frequent or traverse the vicinity of the Project site, the Applicant is responsible for the following:

1. All new and replacement outdoor light fixtures must not exceed a color temperature of 3,000 degrees kelvin;

2. Artificial light from exterior lighting fixtures on the Project site, including but not limited to floodlights, uplights, or spotlights used for decorative or aesthetic purposes, is prohibited if the light directly illuminates or is directed to project across property boundaries toward the shoreline and ocean waters, except as may otherwise be permitted pursuant to HRS Section 205A-71(b);

3. Exterior lighting that is not necessary for security purposes must be turned off when human activity is not occurring in the illuminated area;

4. Exterior light fixtures on the zoning lot must be fully shielded using full cutoff fixtures with the light directed downward so that the light bulb is only visible from below the light fixture;

5. All Project site work and construction activities are limited to daylight hours (sunrise to sunset);

6. Woody plants greater than 15 ft. in height must not be disturbed, removed, or trimmed during the Hawaiian Hoary Bat birthing and pup rearing season (June 1 through September 15);

7. Barbless fencing must be used for all fence construction to avoid entanglement of Hawaiian Hoary Bats;

8. The presence of non-native predators, such as cats, rodents, and mongooses, must be minimized to the extent practicable;

9. If the nest of sensitive avian species is discovered during construction, contact the DOFAW, and place a 100 ft. buffer of no activity around the active nests/downed seabird;

10. If State-listed waterbirds are present during construction, all activities within 100 ft. must cease until the bird(s) leave of their own volition;

11. Before any potentially disturbing activity like clearing vegetation, or other ground-based disturbance, a qualified biologist must conduct surveys during crepuscular hours and walk line transects through the area to detect any active pueo nests. If a pueo nest is discovered, notify DOFAW staff, minimize time spent at the nest, and establish a minimum buffer distance of 650 ft. (200 meters) from the nest until chicks are capable of flight;

12. All Project-related activities must cease if a Hawaiian Monk Seal, Green Sea Turtle, or Hawksbill Turtle is on land within 150 feet of the work area, or as recommended by State or federal regulations. Project activities may only recommence after the animal voluntarily leaves the area. If a monk seal pup is present, a 300-foot buffer must be observed. Any Project-related debris that may pose an entanglement threat to monk seals or turtles must be removed from the work area at the end of each day and at the conclusion of Project-related activities;

13. Examine trees several days prior to cutting or trimming to determine if manu-o-kū (white fairy terns) are nesting in them, especially during the breeding season of January through June. If active nests are found, contact DOFAW and do not trim or remove trees; and

14. Prior to initiation of work, provide information about seabird fallout to staff working on the site.

These requirements must be clearly stated under “Environmental Notes” on any Project construction permit plans and building permit plans.

F. To minimize the potential for adverse impacts related to coastal hazards, including but not limited to SLR, coastal erosion, flooding, wave action, and storm surge, the landowner hereby acknowledges (and any successor owner or interested party is hereby notified of) the following:

1. *"The landowner hereby acknowledges that Tax Map Key 3-1-031: 006 is susceptible to coastal hazards, which may result in harm to or loss of life and property."*

2. *"The landowner hereby acknowledges that a majority of Tax Map Key 3-1-031:006 is projected to be impacted by 3.2 feet of sea level rise by the year 2100, and that a majority of the proposed Project is located within the 3.2-foot sea level rise exposure area ("SLR-XA"). The landowner agrees to assume all risk and liability for any harm to or loss of life and property due to development within the SLR-XA. The landowner further agrees to accept all responsibility for the cost and physical removal of materials and structures lost or damaged as a result of coastal hazards, including the cleanup and restoration of the Project site."*

This statement must be clearly stated under "Landowner Acknowledgements" on all Project BP plans.

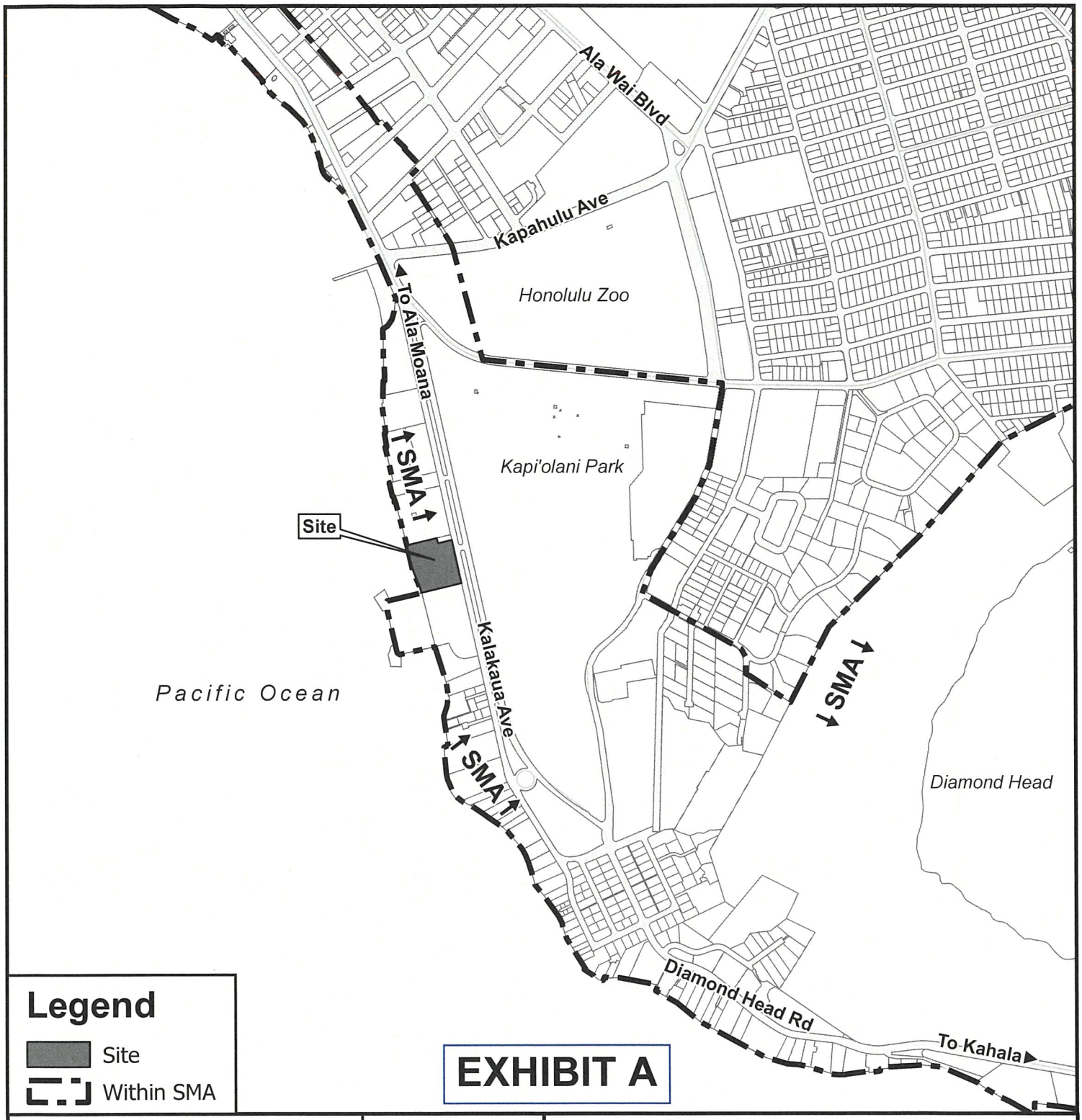
G. Approval of this SMA Major Permit does not constitute compliance with other City ordinances, including but not limited to the Land Use Ordinance (LUO), building and construction codes, or other governmental requirements, including but not limited to LUO-related approvals and building, grading, and grubbing permit approvals which are subject to separate review and approval. The Applicant is responsible for ensuring that the final plans for the Project approved under this SMA Major Permit comply with all applicable City ordinances and other governmental provisions and requirements.

Dated at Honolulu, Hawai'i, this 28th day of March 2025.

Department of Planning and Permitting
City and County of Honolulu
State of Hawai'i

By _____
Dawn Takeuchi Apuna
Director

Enclosure: Exhibits A through F, G-1 through G-2, and H through N



Legend

Site

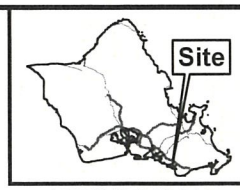
Within SMA

EXHIBIT A

CITY AND COUNTY OF HONOLULU · STATE OF HAWAII

0 1,000 2,000

Distance in Feet



VICINITY MAP

N

LOCATION MAP

WAIKIKI, HONOLULU

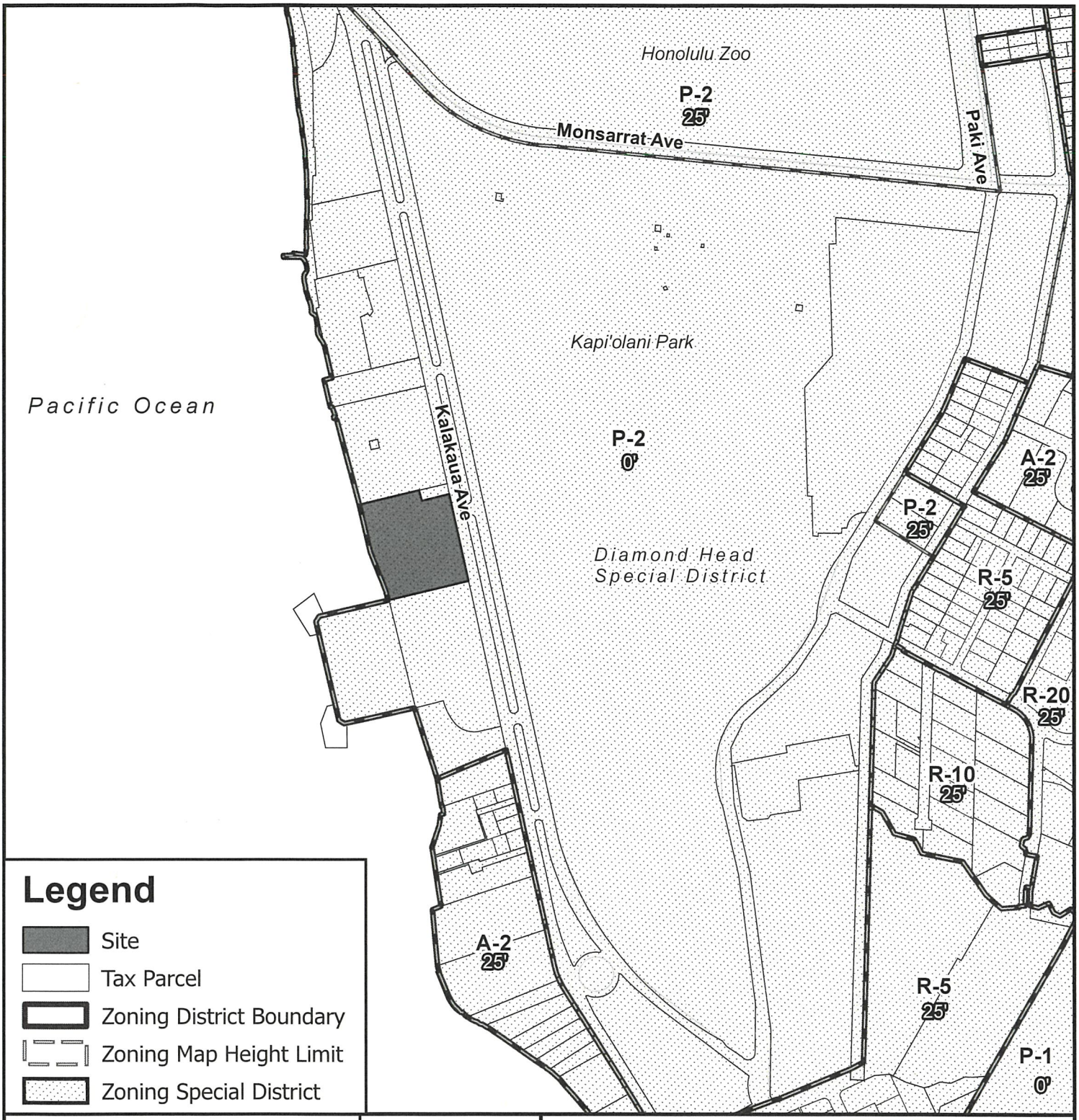
TAX MAP KEY(S): 3-1-031:006

FOLDER NO.: 2024/SMA-132 & 2024/SV-3

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

Date Prepared: 01/2025

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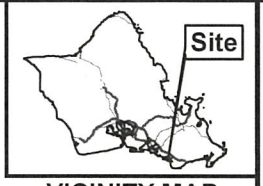


Legend

- Site
- Tax Parcel
- Zoning District Boundary
- Zoning Map Height Limit
- Zoning Special District

0 250 500

Distance in Feet



VICINITY MAP

EXHIBIT B

PORTION OF
ZONING MAP
(MOILIILI - KAIMUKI)

TAX MAP KEY(S): 3-1-031:006
FOLDER NO.: 2024/SMA-132 & 2024/SV-3

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

Date Prepared: 01/2025

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EXHIBIT C

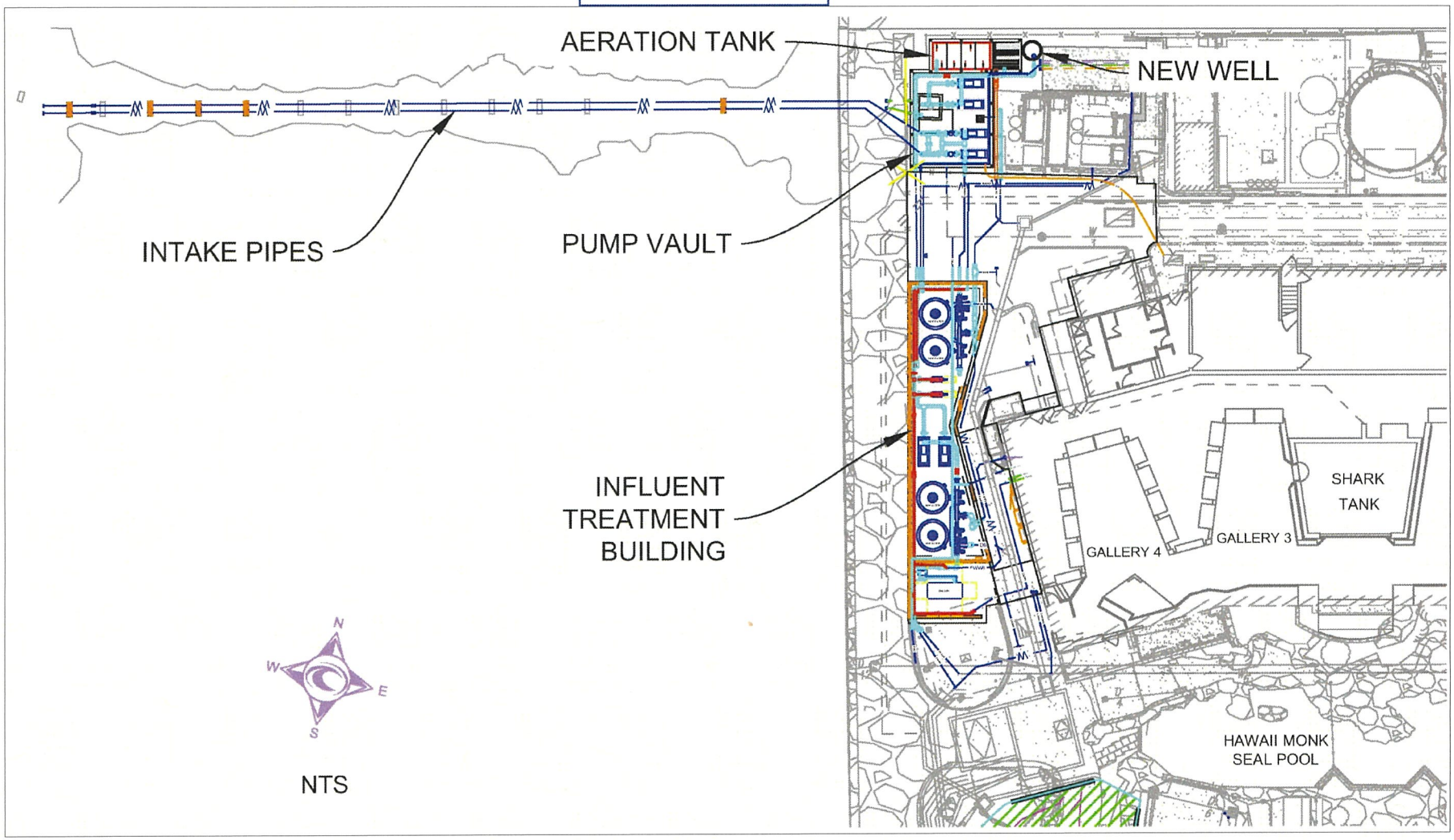


Figure 5: Conceptual Site Plan Layout

EXHIBIT D

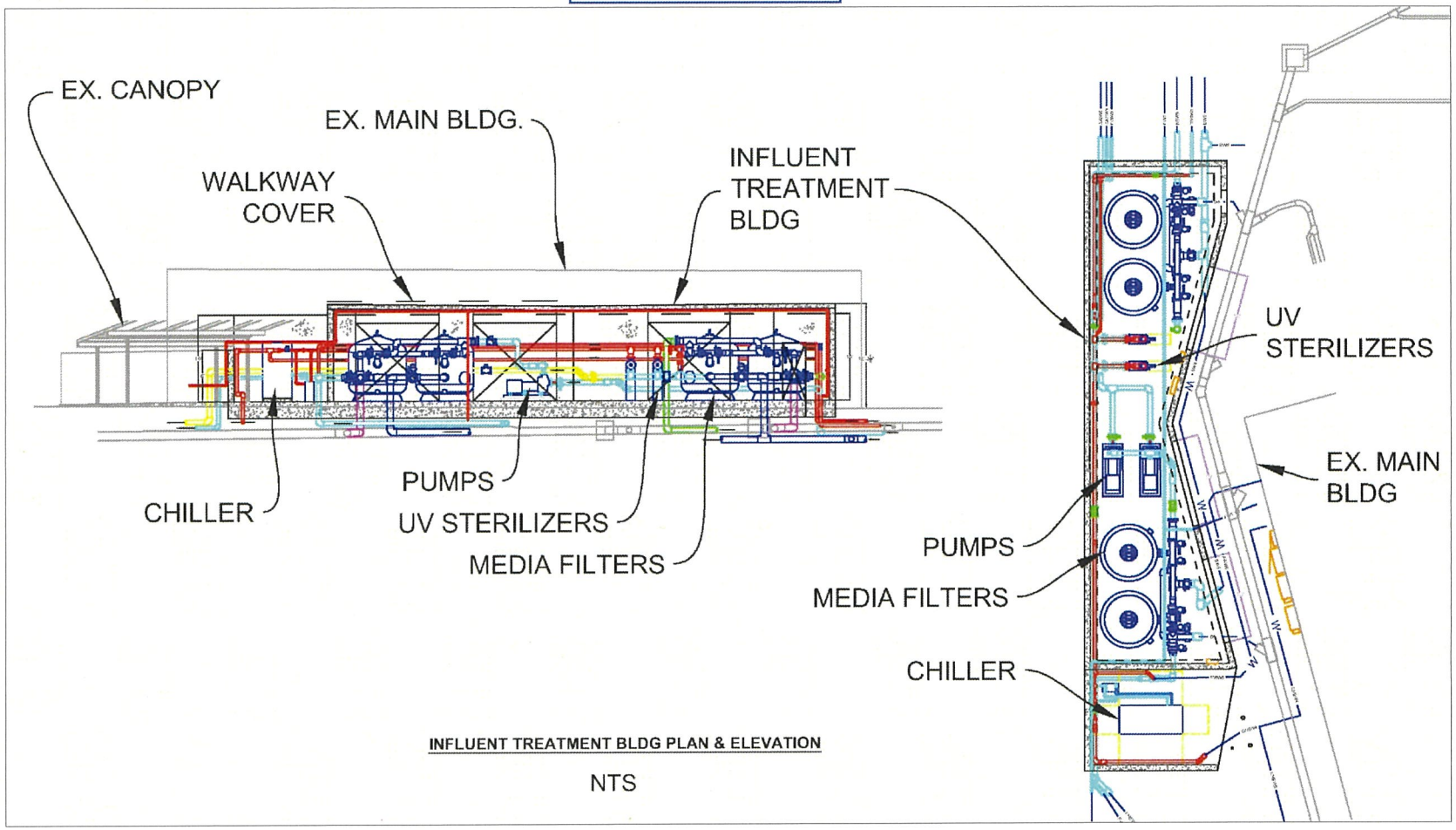


Figure 6: Influent Treatment Building Plan and Elevation

EXHIBIT E

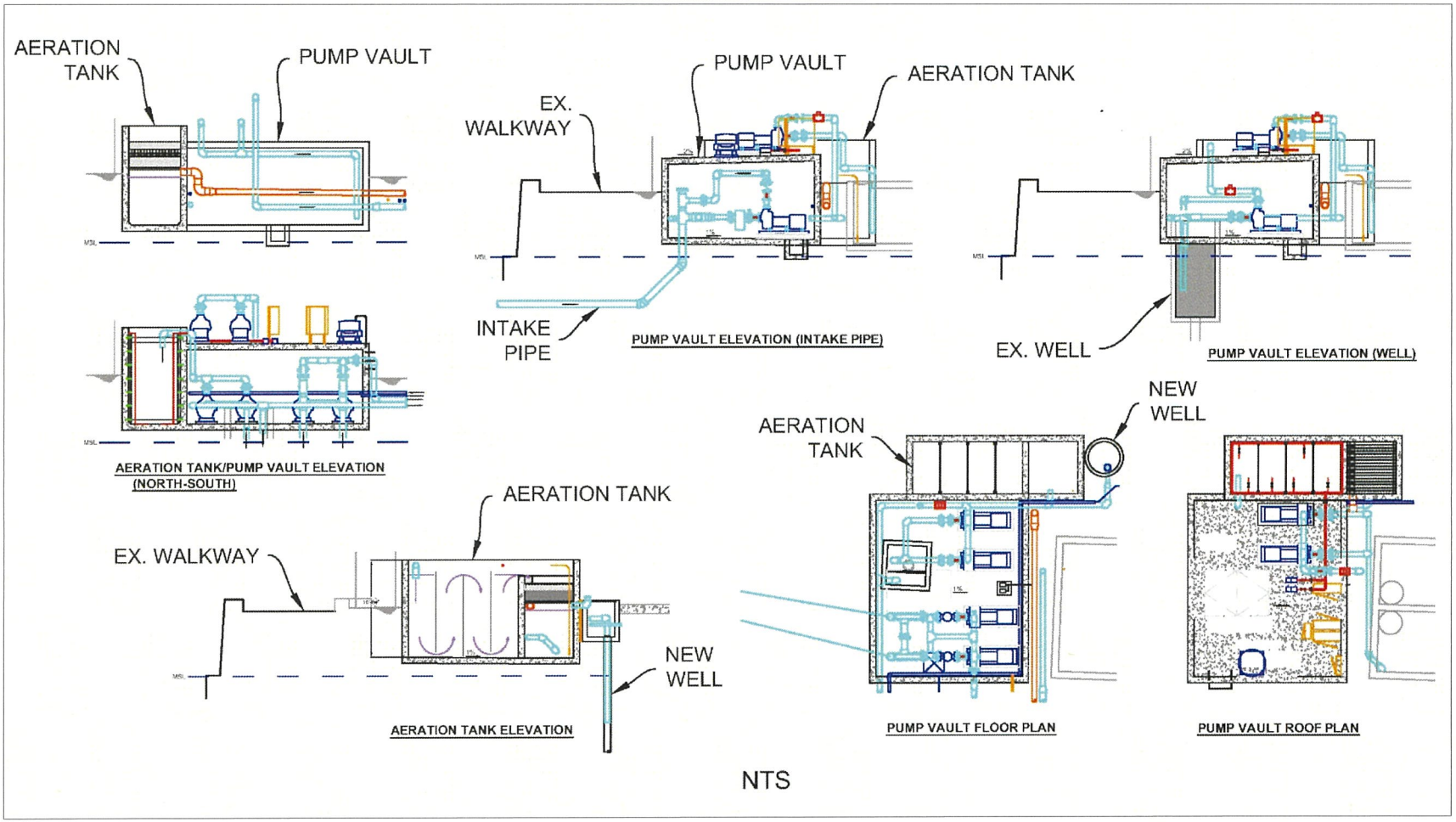


Figure 7: Pump Vault / Aeration Tank Plan and Elevation

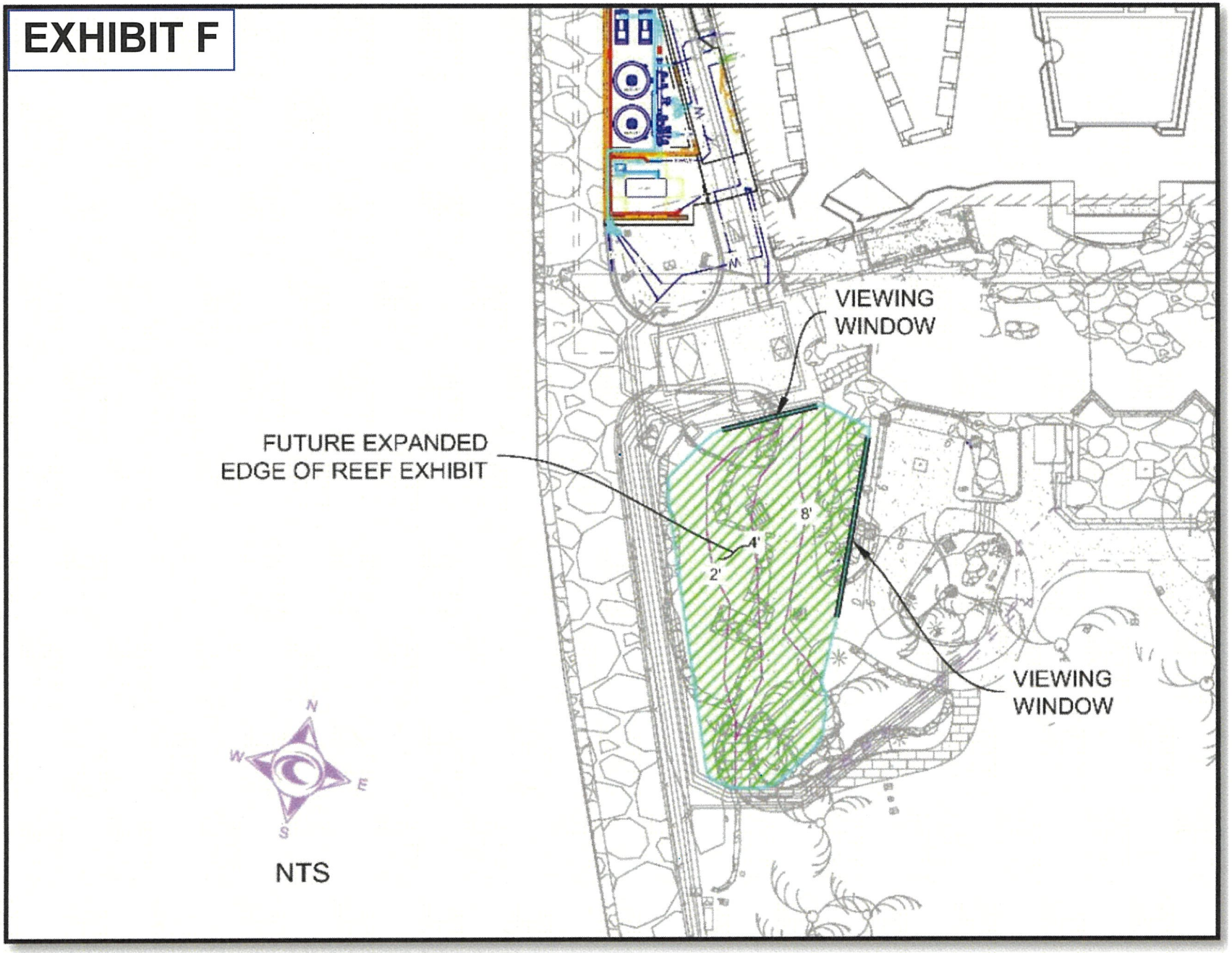
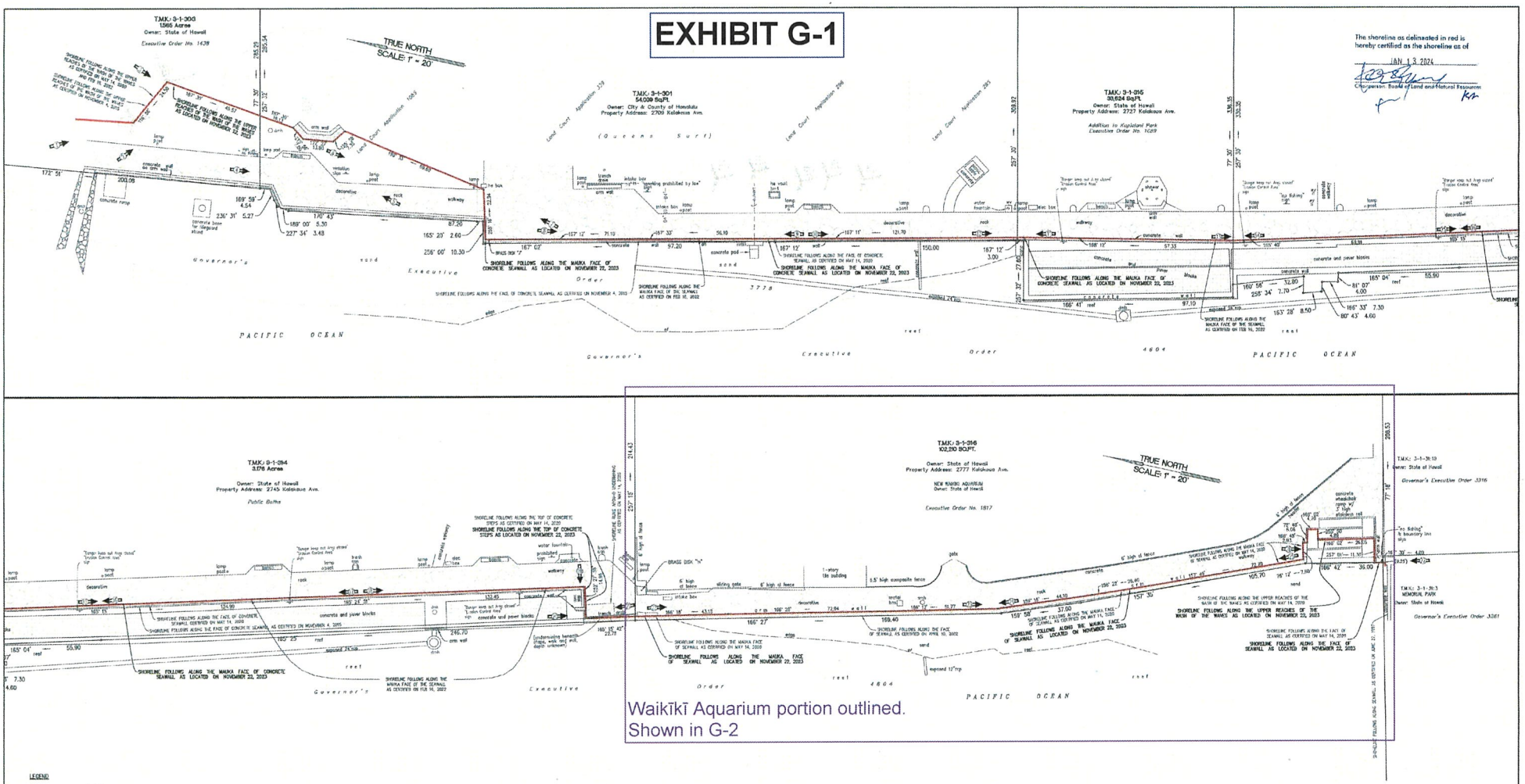


Figure 9: Future Expanded EOR Exhibit

EXHIBIT G-1



LEGEND

cl	chain link
coco	coconut tree
conc	concrete
crm	concrete rubble masonry
elec	electric
d	diameter
drnh	drain manhole
h	height
he	hawaiian electric
rcp	reinforced concrete pipe
s	spread
smh	sewer manhole
Sq.Ft.	Square Feet
w/	with
wv	water valve

NOTE:

⇨ INDICATES PICTURE NUMBER AND DIRECTION TAKEN.

DECEMBER 13, 2023
NOVEMBER 29, 2023
DATE: AUGUST 23, 2023
FIELD BOOK NO. 2739, 2933, 3168

MAP SHOWING SHORELINE
FRONTING A PORTION OF KAPIOLANI REGIONAL PARK
AT WAIKIKI, HONOLULU, OAHU, HAWAII

OWNER: CITY AND COUNTY OF HONOLULU – DEPARTMENT OF PARKS AND RECREATION
ADDRESS: 1000 ULUOHIA STREET, SUITE 309
KAPOLEI, HAWAII 96707

ParEn, Inc. dba Park Engineering
Pacific Park Place Suite 1500 711 Kapiolani Blvd Honolulu Hawaii 96813
808-595-1616

GRAPHIC SCALE : 1"=20'

KEVIN A. RAPOZA
LICENSED PROFESSIONAL LAND SURVEYOR No. 11919 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Kevin A. Rapoza
ParEn, Inc.
dba PARK ENGINEERING
LICENSE EXPIRES 4/30/2024

TAX MAP KEY: 3-1-30:1,Por.3 AND 3-1-31:4,5,6

SURVEY OFFICE COPY

24"X36"=6.0 sq.ft.

EXHIBIT G-2

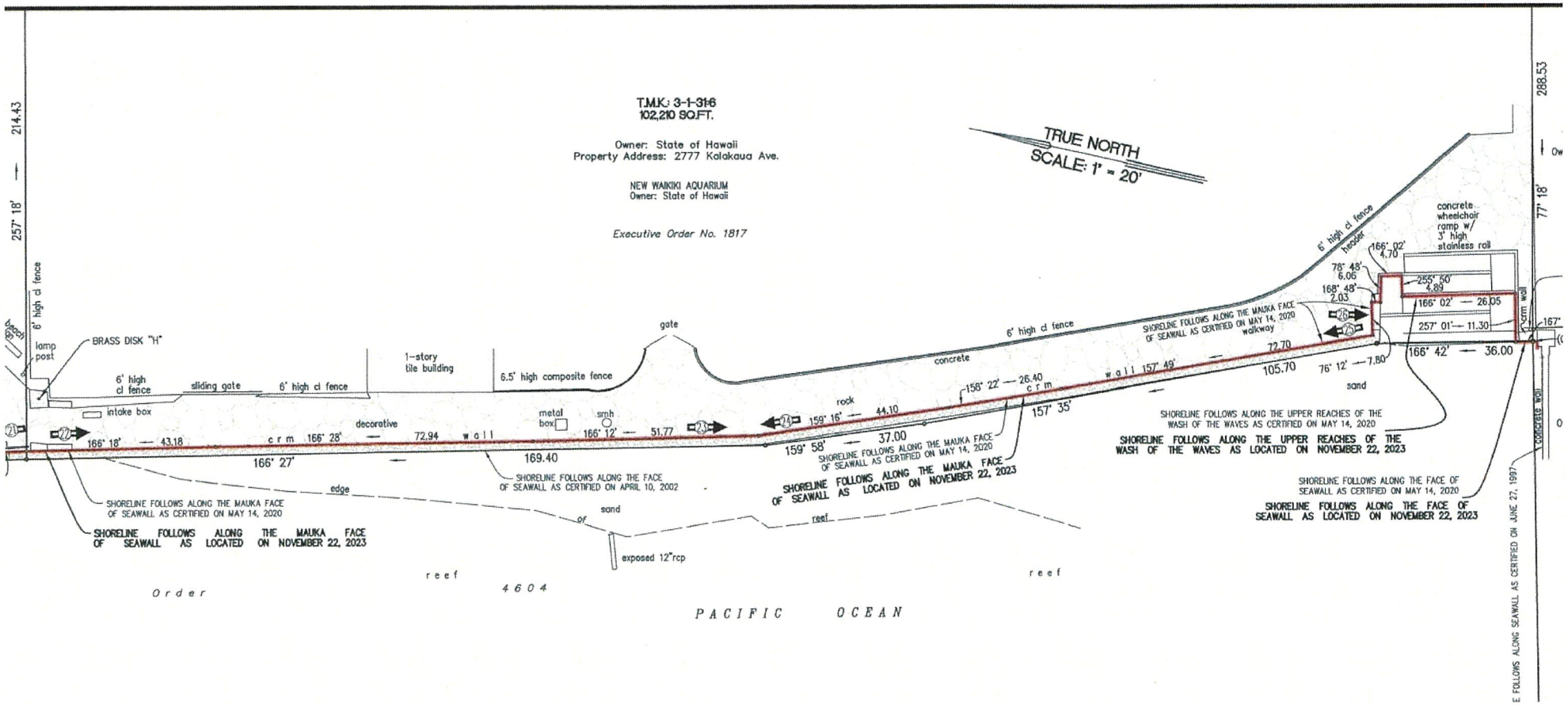
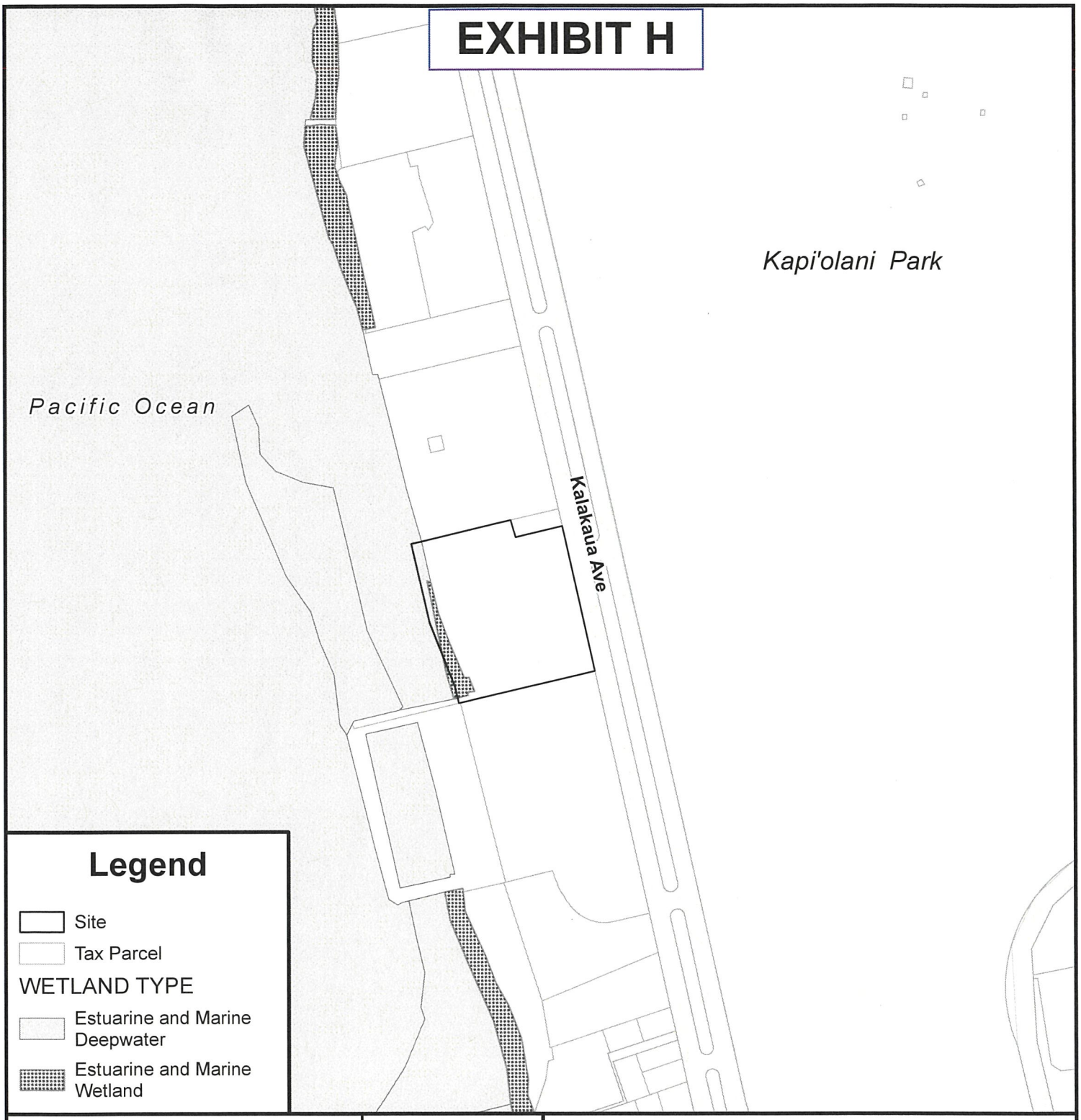

T.M.K: 3-1-31:6
102,210 SQ.FT.
Owner: State of Hawaii
Property Address: 2777 Kalakaua Ave.
NEW WAIKIKI AQUARIUM
Owner: State of Hawaii
Executive Order No. 1817
TRUE NORTH
SCALE: 1" = 20'
214.43
257° 18'
6' high ci fence
lamp post
BRASS DISK "H"
6' high ci fence
sliding gate
6' high ci fence
intake box
1-story tile building
6.5' high composite fence
gate
concrete
6' high ci fence
SHORELINE FOLLOWS ALONG THE MAUKA FACE OF SEAWALL AS CERTIFIED ON MAY 14, 2020
walkway
6' high ci fence
header
concrete wheelchair ramp w/ 3' high stainless rail
288.53
77° 18'
166° 18' — 43.18
c r m
166° 28' — 72.94
w a l l
166° 12' — 51.77
metal box
smh
159° 16' — 44.10
rock
158° 22' — 26.40
c r m
w a l l 157° 49'
157° 35'
159° 58' — 37.00
72.70
105.70
76° 12' — 7.80
sand
166° 02' 4.70
78° 48' 6.06
168° 48' 2.03
255° 50' 4.89
166° 02' — 26.05
257° 01' — 11.30
166° 42' — 36.00
166° 27'
169.40
SHORELINE FOLLOWS ALONG THE MAUKA FACE OF SEAWALL AS CERTIFIED ON MAY 14, 2020
SHORELINE FOLLOWS ALONG THE MAUKA FACE OF SEAWALL AS LOCATED ON NOVEMBER 22, 2023
SHORELINE FOLLOWS ALONG THE FACE OF SEAWALL AS CERTIFIED ON APRIL 10, 2002
SHORELINE FOLLOWS ALONG THE MAUKA FACE OF SEAWALL AS CERTIFIED ON MAY 14, 2020
SHORELINE FOLLOWS ALONG THE MAUKA FACE OF SEAWALL AS LOCATED ON NOVEMBER 22, 2023
SHORELINE FOLLOWS ALONG THE UPPER REACHES OF THE WASH OF THE WAVES AS CERTIFIED ON MAY 14, 2020
SHORELINE FOLLOWS ALONG THE UPPER REACHES OF THE WASH OF THE WAVES AS LOCATED ON NOVEMBER 22, 2023
SHORELINE FOLLOWS ALONG THE FACE OF SEAWALL AS CERTIFIED ON MAY 14, 2020
SHORELINE FOLLOWS ALONG THE FACE OF SEAWALL AS LOCATED ON NOVEMBER 22, 2023
edge of reef
sand
exposed 12"rcp
reef
reef
Order 4604
PACIFIC OCEAN
E FOLLOWS ALONG SEAWALL AS CERTIFIED ON JUNE 27, 1997
concrete wall
crm wall

EXHIBIT H



Legend

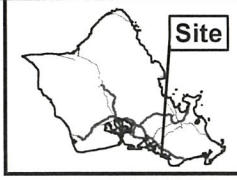
- Site
- Tax Parcel

WETLAND TYPE

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

CITY AND COUNTY OF HONOLULU
STATE OF HAWAII

0 300 600
Distance in Feet



VICINITY MAP

PORTION OF
WETLANDS MAP
WAIKIKI, HONOLULU

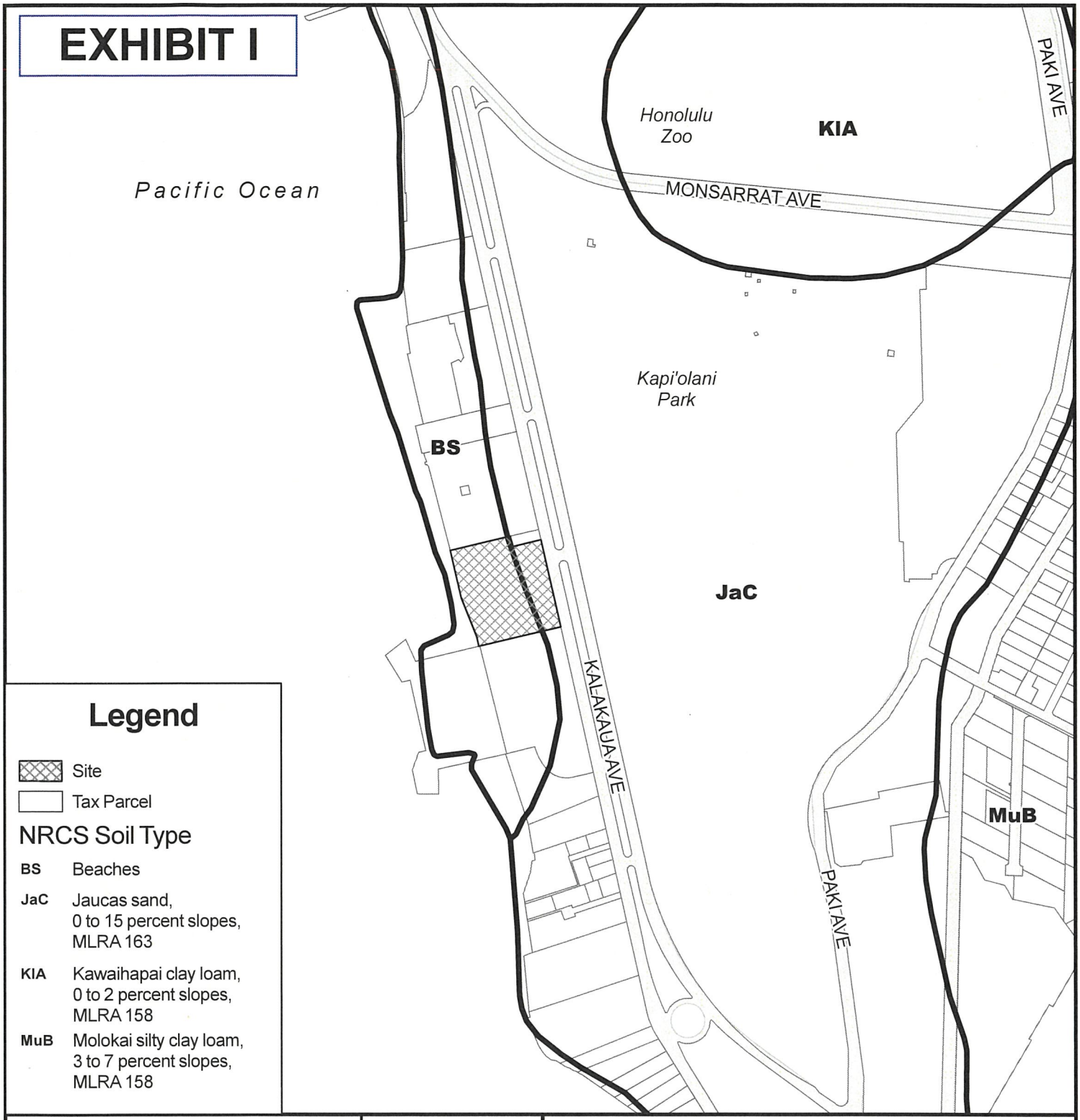
TAX MAP KEY(S): 3-1-031:006
FOLDER NO.: 2024/SMA-132 & 2024/SV-3

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Date Prepared: 01/2025

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EXHIBIT I



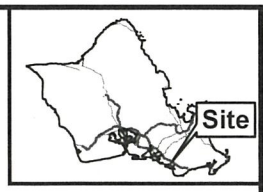
Legend

- Site
- Tax Parcel

NRCS Soil Type

BS	Beaches
JaC	Jaucas sand, 0 to 15 percent slopes, MLRA 163
KIA	Kawaihapai clay loam, 0 to 2 percent slopes, MLRA 158
MuB	Molokai silty clay loam, 3 to 7 percent slopes, MLRA 158

0 500 1,000
Distance in Feet



VICINITY MAP

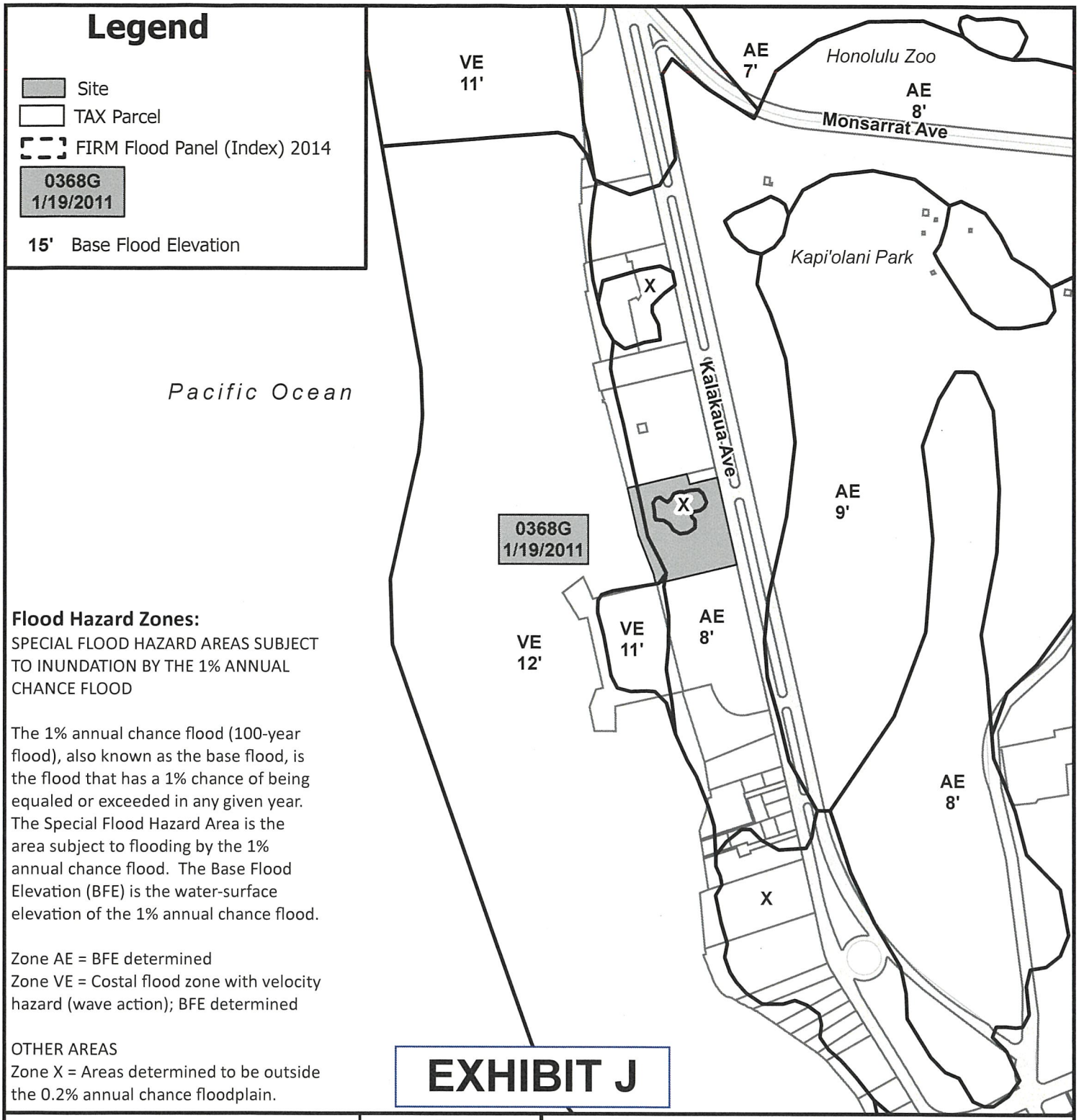
PORTION OF
SOIL MAP
KAPIOLANI PARK, WAIKIKI, HONOLULU

TAX MAP KEY(S): 3-1-031:006
FOLDER NO.: 2024/SMA-132 & 2024/SV-3

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

Date Prepared: 01/2025

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PORTION OF
FLOOD HAZARD MAP

FIRM PANEL 15003C0368G

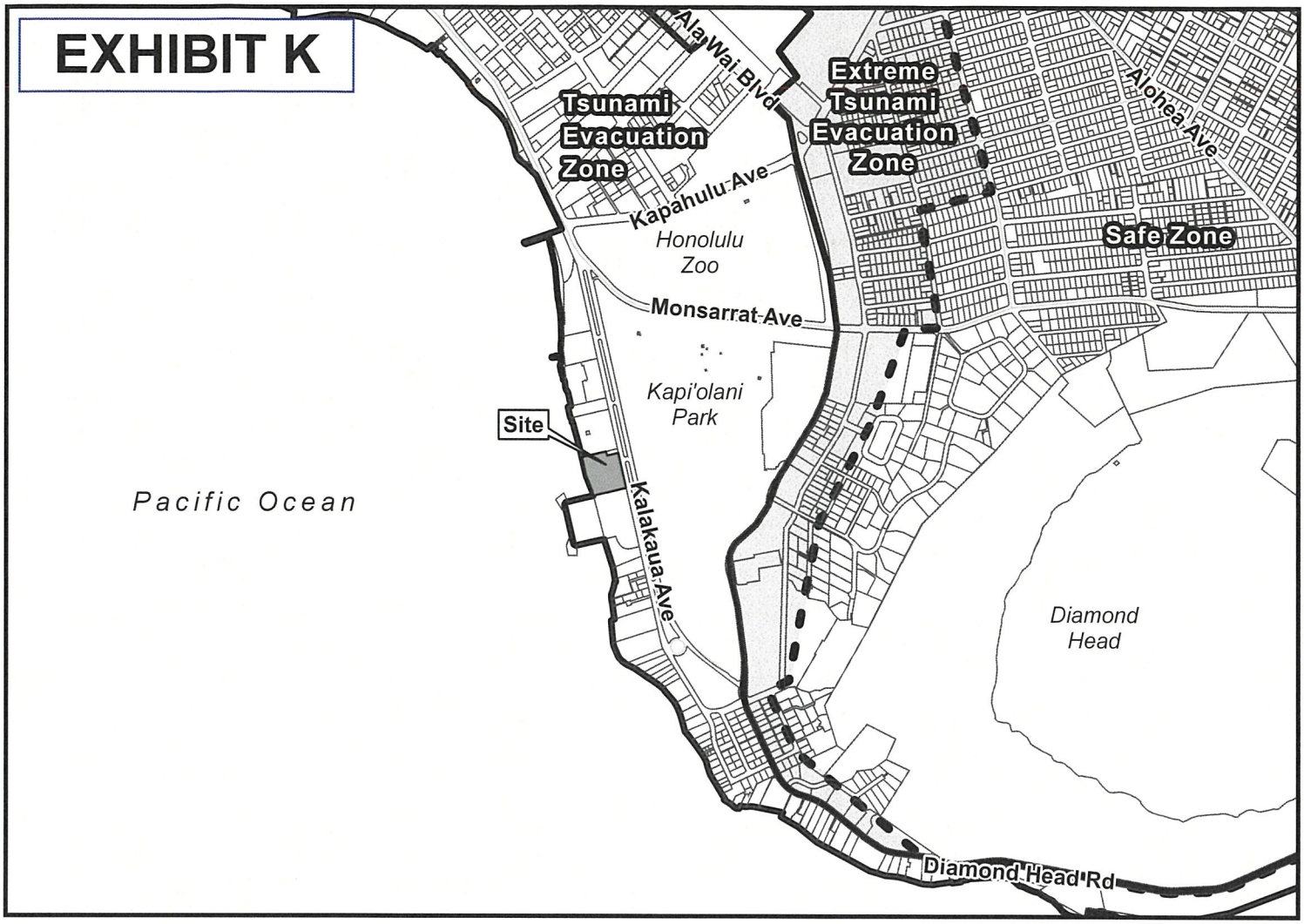
TAX MAP KEY(S): 3-1-031:006
FOLDER NO.: 2024/SMA-132 & 2024/SV-3

Prepared by: Honolulu Land Information System (HoLIS) -ADS
Department of Planning & Permitting (DPP)
City and County of Honolulu

Date Prepared: 01/2025

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EXHIBIT K



* For most Tsunami Warnings, evacuate out of the Tsunami Evacuation Zone; in the unlikely case of an Extreme Tsunami Warning, evacuate out of the Extreme Tsunami Evacuation Zone

* Remain at least 100 feet away from inland waterways and marinas connected to the ocean due to wave surges and possible flooding

* Boaters should move vessels to at least 50 fathoms (300 ft) deep and 2 miles away from harbor entrances; follow all directions from the Captain of the Port

*Structural steel or reinforced concrete buildings of ten or more stories provide increased protection on or above the fourth floor; if you are caught near the shoreline consider using vertical evacuation

*These maps do not consider the destructive effects of a locally generated tsunami. If you feel shaking, move inland immediately, well inland from the red tsunami evacuation zone

* The evacuation zone is a guideline and should be considered the minimum safe evacuation distance

1. TSUNAMI WARNING: Destructive waves from a tsunami may inundate all coastline. Evacuate Tsunami Evacuation Zone

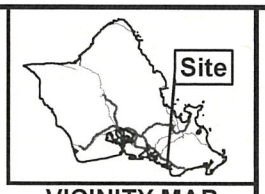
2. EXTREME TSUNAMI WARNING: In the unlikely event of an extreme tsunami waves may move significantly inland; evacuate Tsunami Evacuation Zone and Extreme Tsunami Evacuation Zone

Safe Zone: Evacuate to this area
Extreme Tsunami Evacuation Zone: Evacuate out of these areas for an EXTREME TSUNAMI WARNING
Tsunami Evacuation Zone: For any TSUNAMI WARNING evacuate out of these areas

CITY AND COUNTY OF HONOLULU · STATE OF HAWAII

0 750 1,500

Distance in Feet



VICINITY MAP

PORTION OF

TSUNAMI EVACUATION MAP

Waikiki

Map 1

TAX MAP KEY(S): 3-1-031:006

FOLDER NO.: 2024/SMA-132 & 2024/SV-3

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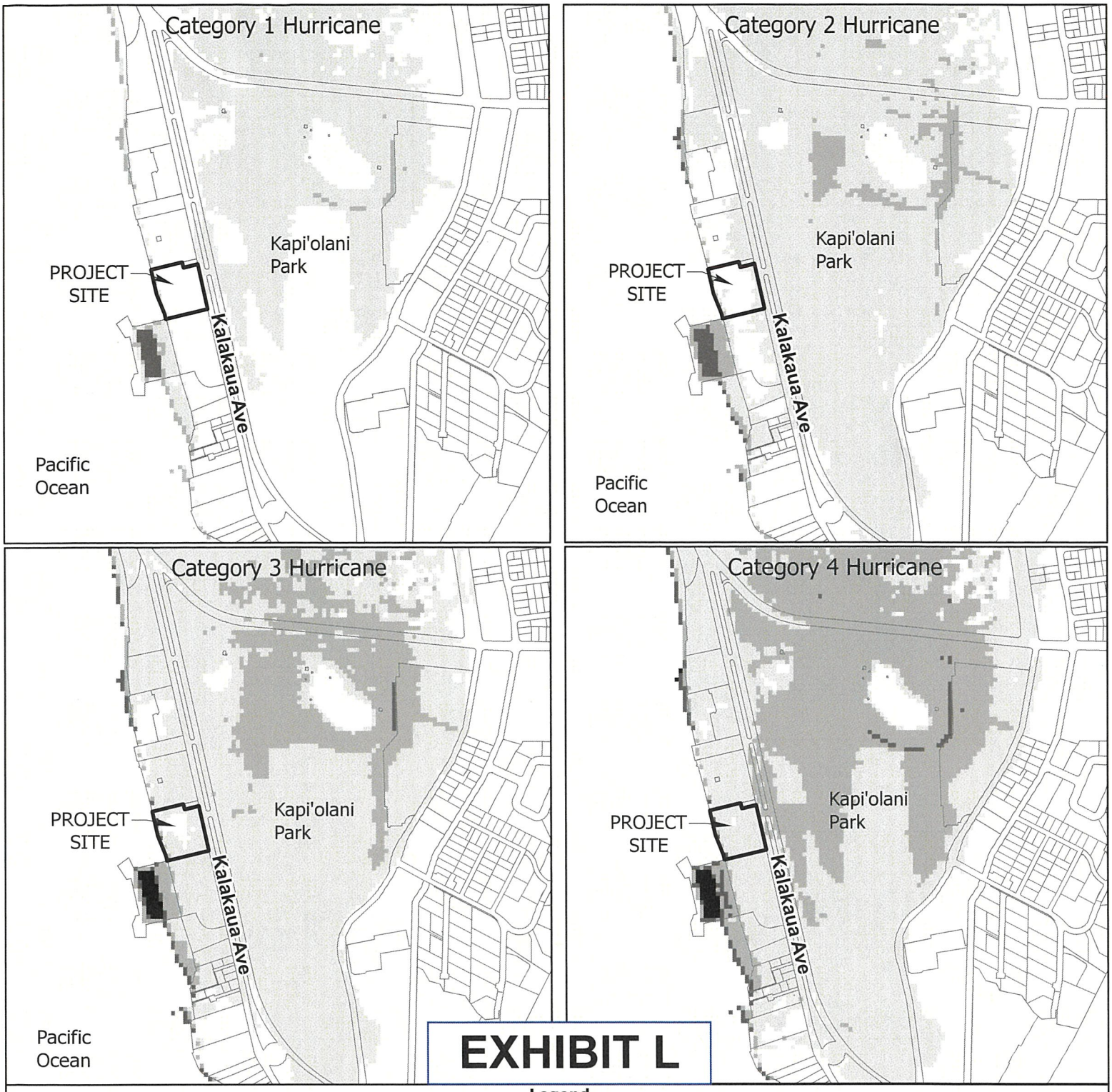


EXHIBIT L

Legend

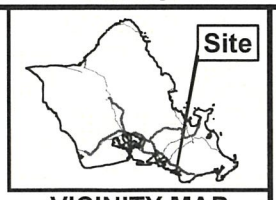
Less than 3 feet above ground

Greater than 3 feet above ground

Greater than 6 feet above ground

Greater than 9 feet above ground

CITY AND COUNTY OF HONOLULU · STATE OF HAWAII



VICINITY MAP

0 1,000 2,000

Distance in Feet

PORTION OF

STORM SURGE MAP

Data from National Hurricane Center Storm Surge Risk Maps

Data Source: National Weather Service (NWS) SLOSH model; Maximum of MEOWs (MOMs) for various category storms at a high tide.

TAX MAP KEY: 3-1-031:006

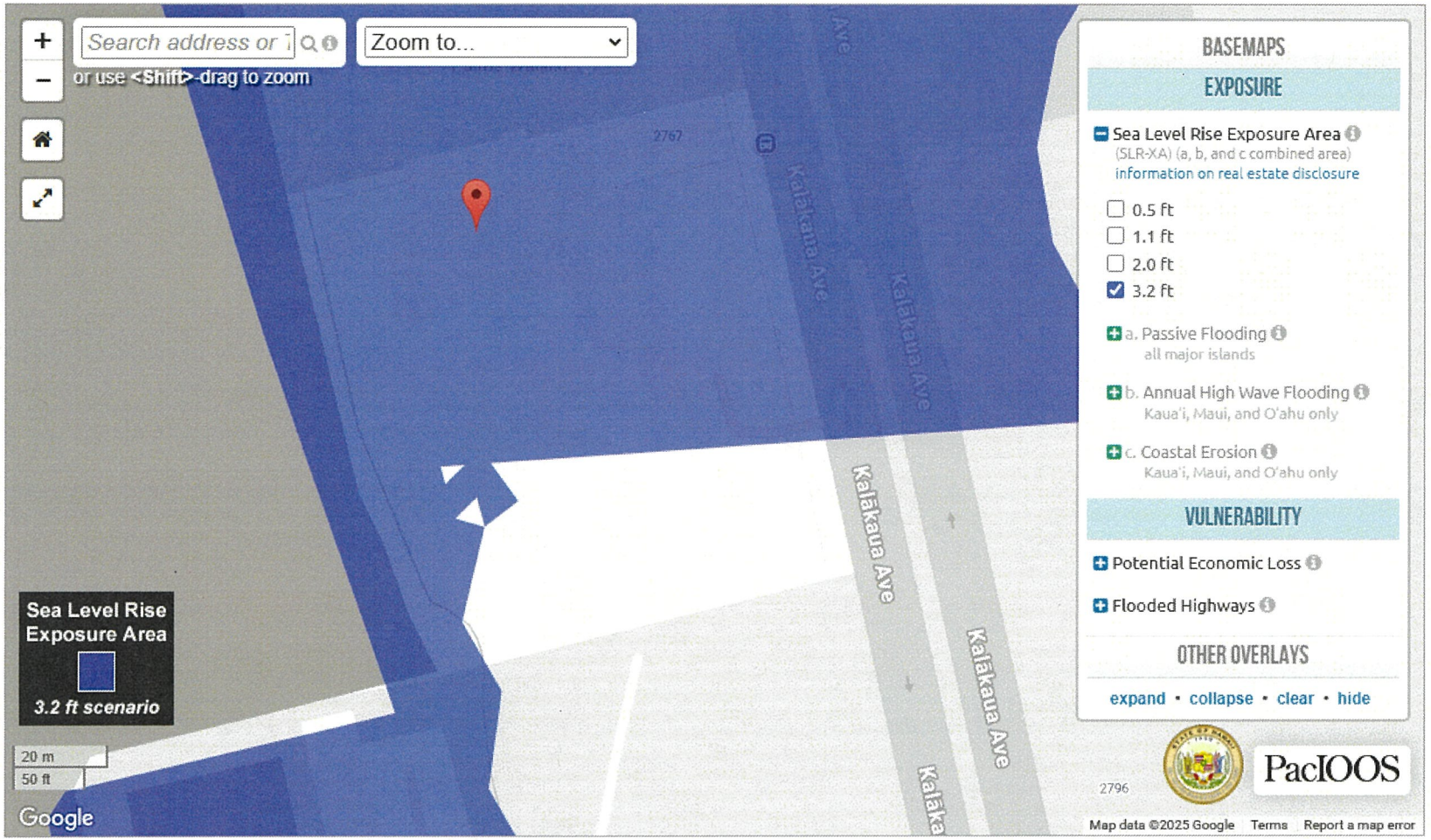
FOLDER NO.: 2024/SMA-132 & 2024/SV-3

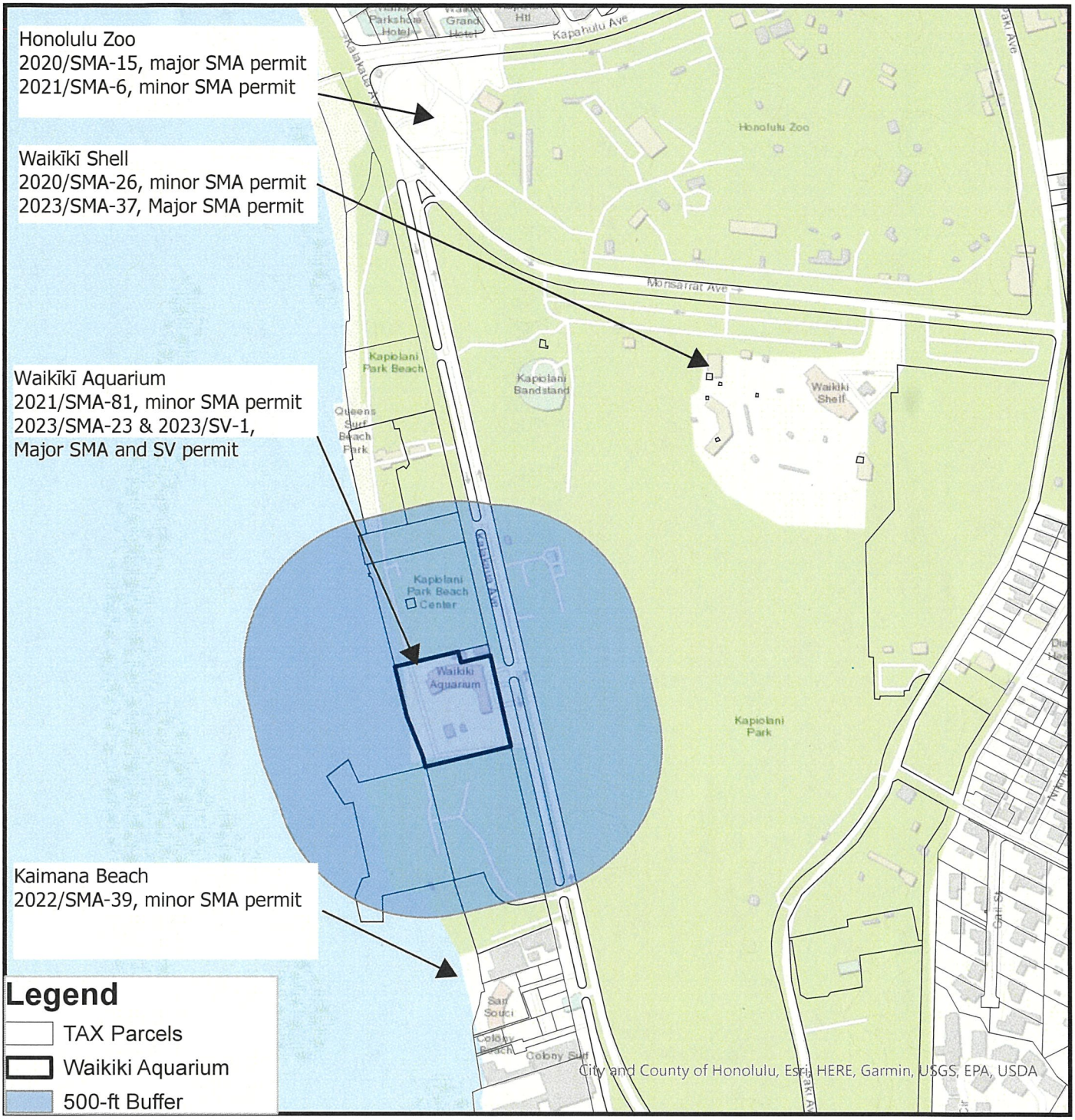
Prepared by: Honolulu Land Information System (HoLIS) -ADS
Department of Planning & Permitting (DPP)
City and County of Honolulu

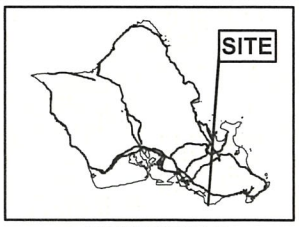
Date Prepared: 01/2025

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EXHIBIT M


Search address or
Zoom to...
or use <Shift>-drag to zoom
Kalākaua Ave
Kalākaua Ave
Kalākaua Ave
Kalākaua Ave
2767
2796
Sea Level Rise Exposure Area
3.2 ft scenario
20 m
50 ft
Google
BASEMAPS
EXPOSURE
Sea Level Rise Exposure Area
(SLR-XA) (a, b, and c combined area)
information on real estate disclosure
0.5 ft
1.1 ft
2.0 ft
3.2 ft
a. Passive Flooding
all major islands
b. Annual High Wave Flooding
Kaua'i, Maui, and O'ahu only
c. Coastal Erosion
Kaua'i, Maui, and O'ahu only
VULNERABILITY
Potential Economic Loss
Flooded Highways
OTHER OVERLAYS
expand • collapse • clear • hide
PacIOOS
Map data ©2025 Google
Terms
Report a map error





VICINITY MAP

0 235 470 940

Scale in Feet

EXHIBIT N

500-Ft Buffer Area

2777 Kalākaua Avenue

TAX MAP KEY: 3-1-031: 006

FOLDER NO.: 2024/SMA-132 & 2024/SV-3

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HONOLULU CITY COUNCIL

KE KANIHELA O KE KALANA O HONOLULU

CITY AND COUNTY OF HONOLULU

No._____

RESOLUTION

GRANTING A SPECIAL MANAGEMENT AREA MAJOR PERMIT TO ALLOW IMPROVEMENTS TO THE WAIKĪKĪ AQUARIUM SUPPLY WATER INTAKE SYSTEM AT 2777 KALĀKAUA AVENUE, WAIKĪKĪ, O'AHU.

WHEREAS, on January 3, 2025, the Department of Planning and Permitting ("DPP") accepted the application (DPP Reference Number 2024/SMA-132) from Oceanit on behalf of the University of Hawai'i ("UH") (Applicant) for a Special Management Area ("SMA") Major Permit to allow renovation of the water intake system and associated electrical and mechanical systems, and to reconstruct and expand the Edge of Reef ("EOR") Exhibit. The Waikīkī Aquarium ("Aquarium") is located in the P-2 General Preservation District, and also within the Diamond Head Special District, Core Area, located at 2777 Kalākaua Avenue, and identified as Tax Map Key 3-1-031: 006 (Project); and

WHEREAS, a portion of the proposed work is located within the Shoreline Setback Area, as established in the Revised Ordinances of Honolulu ("ROH") Chapter 26, and the Applicant has submitted an application for a Shoreline Setback Variance ("SSV"), for which the Director of the DPP must render a decision within 45 days of the adoption of this Resolution; and

WHEREAS, on February 10, 2025, the DPP held a public hearing at the Fasi Municipal Building, which was attended by the UH Project manager, Project engineer, Agent, and the DPP staff. No members of the public attended, and no written testimony was received; and

WHEREAS, on March 28, 2025, within 45 calendar days after the close of the public hearing, the DPP, having duly considered all evidence and the objectives, policies, and guidelines as established in the ROH §§ 25-3.1, and 25-4.1, and the Hawai'i Revised Statues ("HRS") §§ 205A-2, 205A-26, and 205A-46, completed its report and transmitted its Report and Recommendation of approval to the City Council ("Council"); and

WHEREAS, the Council, having received the Report and Recommendation of the DPP on _____, by Departmental Communication Number _____ (2025), and having duly considered all of the findings and reports on the matter, desires to approve the subject application for an SMA Major Permit with the conditions enumerated below; now, therefore,

RESOLUTION

BE IT RESOLVED by the Council of the City and County of Honolulu that an SMA Major Permit be issued to the Applicant for the Project, subject to the following conditions:

A. Development must be in general conformity with the Project as described in the DPP's Report and Recommendation, referenced above, and as depicted in Exhibits A through F, G-1 through G-2, and H through N enclosed hereto and incorporated herein by this reference. Any change in the size or nature of the Project that may have a significant effect on coastal resources addressed in ROH Chapters 25 or HRS Chapter 205A will require a new application for an SMA Major Permit. Any change that does not have a significant effect on coastal resources will be considered a Minor Modification and may be permitted under this resolution upon review and approval by the Director of the DPP.

B. Development must be in general conformity with the Project as described in the DPP's Report and Recommendation, referenced above, and as depicted in Exhibits A through F, G-1 through G-2, and H through N, enclosed hereto and incorporated herein by this reference. Any change in the size or nature of the Project that may have a significant effect on coastal resources addressed in ROH Chapters 25 or HRS Chapter 205A will require a new application for an SMA Major Permit. Any change that does not have a significant effect on coastal resources will be considered a Minor Modification and may be permitted under this resolution upon review and approval by the Director of the DPP.

C. The Applicant must obtain a SSV approval from the Director of the DPP or the Project may not proceed.

D. To minimize impacts to archaeological, historic, and cultural resources that may be present at the Project site, the Applicant shall comply with the following:

1. Prior to the issuance of any construction permit or building permit for the Project, the Applicant shall submit to the State Historic Preservation Division ("SHPD") an archeological monitoring plan meeting the requirements of HAR § 13-279-4, and submit to the DPP a copy of its acceptance from the SHPD; and

2. If, during construction, any previously unidentified archaeological sites or remains (such as artifacts, shell, bone, or charcoal deposits, human burials, rock or coral alignments, pavings, or walls) are encountered, the Applicant shall stop work, protect the find from further disturbance, and

contact the SHPD immediately. Work in the immediate area must be stopped until SHPD is able to assess the impact and make further recommendations for mitigative activity.

The requirements enumerated in this condition, and all mitigation protocols approved or otherwise required by SHPD, must be clearly stated under "Environmental Notes" on all Project construction permit plans and building permit plans.

E. To minimize impacts to endangered, threatened, or protected flora that may be present on the project site, and to minimize the spread of invasive pathogens, pests, or plants that may harm native species and ecosystems, the Applicant is responsible for the following:

1. To the extent practicable, native Hawaiian plant species appropriate for the area must be used for new Project landscaping, with no use of invasive species. A recommended reference is the Plant Pono website.

2. If at any time, species on the O'ahu Invasive Species Committee's ("OISC") invasive species target list website, or any successor website or list provided by the OISC, are discovered on the Project site, the Applicant shall immediately contact the OISC to report the discovery. The current email address and phone number for the OISC must be visibly posted at the Project site during pre-construction and construction activities. The Applicant shall implement any measures recommended by the OISC and any responsible federal or State of Hawai'i agency charged with the eradication and management of invasive species;

3. To minimize the movement of plant or soil material on the Project site, and all Project construction equipment, materials, and personnel must be cleaned of excess soil and debris prior to entering and leaving a Project worksite, in accordance with the current recommendations from the OISC;

4. Prior to the commencement of any ground-disturbing or construction activities and upon the arrival of any new workers to the Project site, a copy of the most recently updated OISC "Decontamination Protocols for the Prevention of Invasive Species" ("Protocols") must be distributed to all workers who will be present at the site; the Protocols must be posted at the Project site in a visible location accessible to all Project workers, including delivery and haul-out contractors; or Protocols may both be

distributed or posted. All onsite Project workers must be instructed to review the species photos and all Protocols prior to commencing any ground-disturbing or construction activities;

5. To manage host materials and plants that may contain the coconut rhinoceros beetle (in any stage of life), the Applicant shall comply with the State Department of Agriculture's Plant Quarantine Interim Rule restricting the movement of coconut rhinoceros beetle ("CRB") host material; and

6. To minimize the importation of soil and structural fill material to the extent possible. No importation of soil or structural fill material is currently proposed.

The requirements enumerated in this condition must be clearly stated under the "Environmental Notes" on all Project construction permit plans and building permit plans.

F. To minimize impacts to endangered, threatened or protected avian, marine and terrestrial fauna that may frequent or traverse the vicinity of the Project site, the Applicant is responsible for the following:

1. All new and replacement outdoor light fixtures must not exceed a color temperature of 3,000 degrees kelvin;

2. Artificial light from exterior lighting fixtures on the Project site, including but not limited to floodlights, uplights, or spotlights used for decorative or aesthetic purposes, is prohibited if the light directly illuminates or is directed to project across property boundaries toward the shoreline and ocean waters, except as may otherwise be permitted pursuant to HRS Section 205A-71(b);

3. Exterior lighting that is not necessary for security purposes must be turned off when human activity is not occurring in the illuminated area;

4. Exterior light fixtures on the zoning lot must be fully shielded using full cutoff fixtures with the light directed downward so that the light bulb is only visible from below the light fixture;

5. All Project site work and construction activities are limited to daylight hours (sunrise to sunset);

6. Woody plants greater than 15 feet ("ft.") in height must not be disturbed, removed, or trimmed during the Hawaiian Hoary Bat birthing and pup rearing season (June 1 through September 15);

7. Barbless fencing must be used for all fence construction to avoid entanglement of Hawaiian Hoary Bats;

8. The presence of non-native predators, such as cats, rodents, and mongooses, must be minimized to the extent practicable;

9. If the nest of sensitive avian species is discovered during construction, contact the Division of Forestry and Wildlife ("DOFAW"), and place a 100 ft. buffer of no activity around the active nests/downed seabird;

10. If State-listed waterbirds are present during construction, all activities within 100 ft. must cease until the bird(s) leave of their own volition;

11. Before any potentially disturbing activity like clearing vegetation, or other ground-based disturbance, a qualified biologist must conduct surveys during crepuscular hours and walk line transects through the area to detect any active pueo nests. If a pueo nest is discovered, notify DOFAW staff, minimize time spent at the nest, and establish a minimum buffer distance of 650 ft. (200 meters) from the nest until chicks are capable of flight;

12. All Project-related activities must cease if a Hawaiian Monk Seal, Green Sea Turtle, or Hawksbill Turtle is on land within 150 ft. of the work area, or as recommended by State or federal regulations. Project activities may only recommence after the animal voluntarily leaves the area. If a monk seal pup is present, a 300-ft. buffer must be observed. Any Project-related debris that may pose an entanglement threat to monk seals or turtles must be removed from the work area at the end of each day and at the conclusion of Project-related activities;

13. Examine trees several days prior to cutting or trimming to determine if manu-o-kū (white fairy terns) are nesting in them, especially during the breeding season of January through June. If active nests are found, contact DOFAW and do not trim or remove trees; and

14. Prior to initiation of work, provide information about seabird fallout to staff working on the site.

These requirements must be clearly stated under "Environmental Notes" on any Project construction permit plans and building permit plans.

G. To minimize the potential for adverse impacts related to coastal hazards, including but not limited to SLR, coastal erosion, flooding, wave action, and storm surge, the landowner hereby acknowledges (and any successor owner or interested party is hereby notified of) the following:

1. *"The landowner hereby acknowledges that Tax Map Key 3-1-031: 006 is susceptible to coastal hazards, which may result in harm to or loss of life and property."*

2. *"The landowner hereby acknowledges that a majority of Tax Map Key 3-1-031:006 is projected to be impacted by 3.2 feet of sea level rise by the year 2100, and that a majority of the proposed Project is located within the 3.2-foot sea level rise exposure area ("SLR-XA"). The landowner agrees to assume all risk and liability for any harm to or loss of life and property due to development within the SLR-XA. The landowner further agrees to accept all responsibility for the cost and physical removal of materials and structures lost or damaged as a result of coastal hazards, including the cleanup and restoration of the Project site."*

This statement must be clearly stated under "Landowner Acknowledgements" on all Project BP plans.

H. Approval of this SMA Major Permit does not constitute compliance with other City ordinances, including but not limited to the Land Use Ordinance ("LUO"), building and construction codes, or other governmental requirements, including but not limited to LUO-related approvals and building, grading, and grubbing permit approvals which are subject to separate review and approval. The Applicant is responsible for ensuring that the final plans for the Project approved under this SMA Major Permit comply with all applicable City ordinances and other governmental provisions and requirements.

HONOLULU CITY COUNCIL

KE KANIHELA O KE KALANA O HONOLULU

CITY AND COUNTY OF HONOLULU

No._____

RESOLUTION

BE IT FINALLY RESOLVED by the Council of the City and County of Honolulu that copies of this Resolution be transmitted to Ross Richards, Director of the UH Office of Project Delivery, 2002 East-West Road, Honolulu, Hawai'i 96822; Berna Senelly, Oceanit, 828 Fort Street Mall, Suite 600, Honolulu Hawai'i 96813; Dawn Takeuchi Apuna, Director of the DPP, 650 South King Street, 7th Floor, Honolulu, Hawai'i 96813; and Mary Alice Evans, Director of the Office of Planning and Sustainable Development, Attention: Coastal Zone Management Branch, P.O. Box 2359, Honolulu, Hawai'i 96804-2359.

INTRODUCED BY:

_____

_____

_____

_____

_____

_____

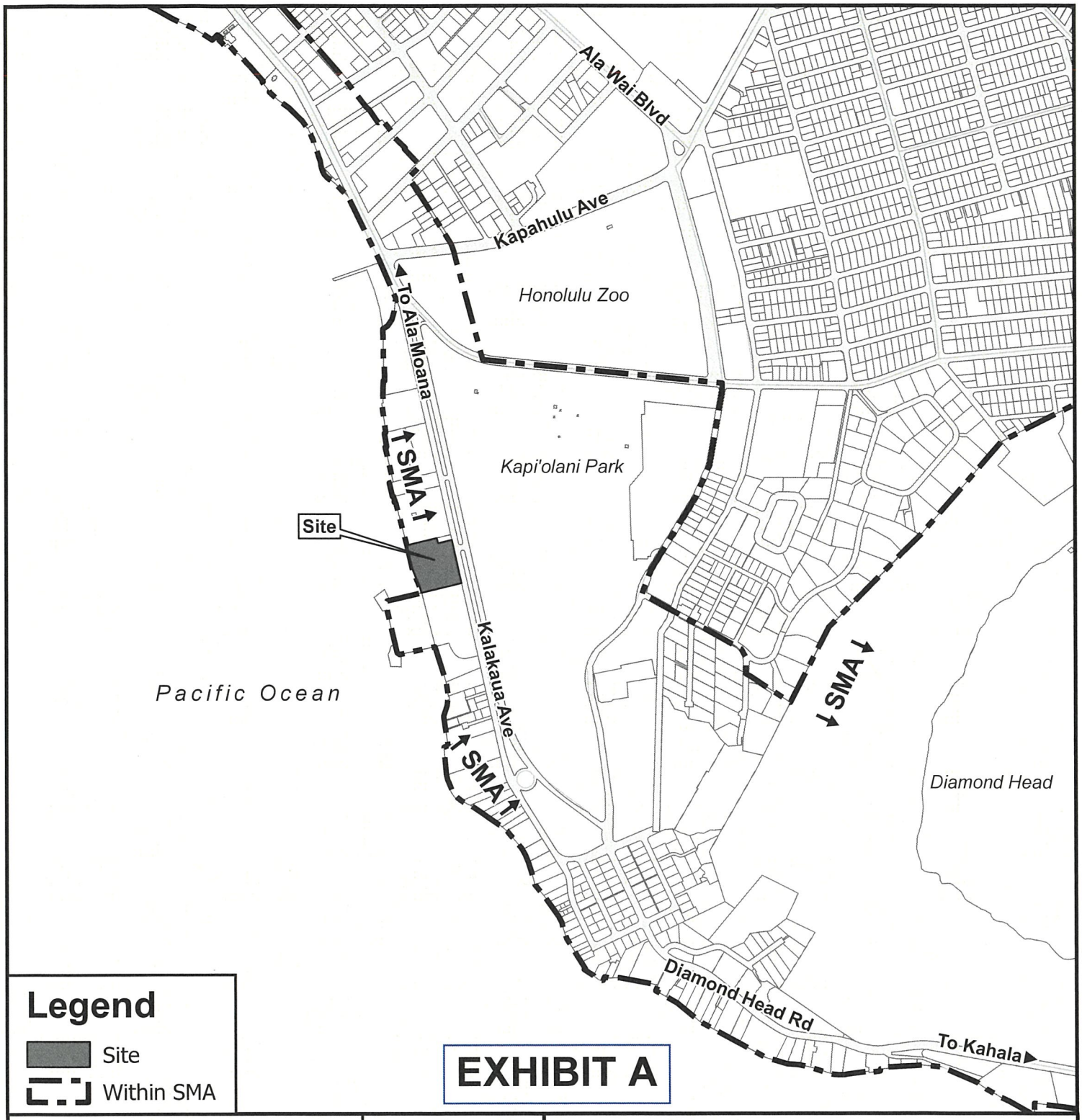
DATE OF INTRODUCTION: _____

_____

_____

_____ _____

Honolulu, Hawai'i Councilmembers



Legend

Site

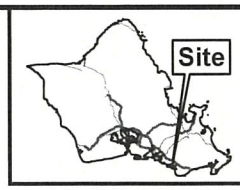
Within SMA

EXHIBIT A

CITY AND COUNTY OF HONOLULU · STATE OF HAWAII

0 1,000 2,000

Distance in Feet



VICINITY MAP

N

LOCATION MAP

WAIKIKI, HONOLULU

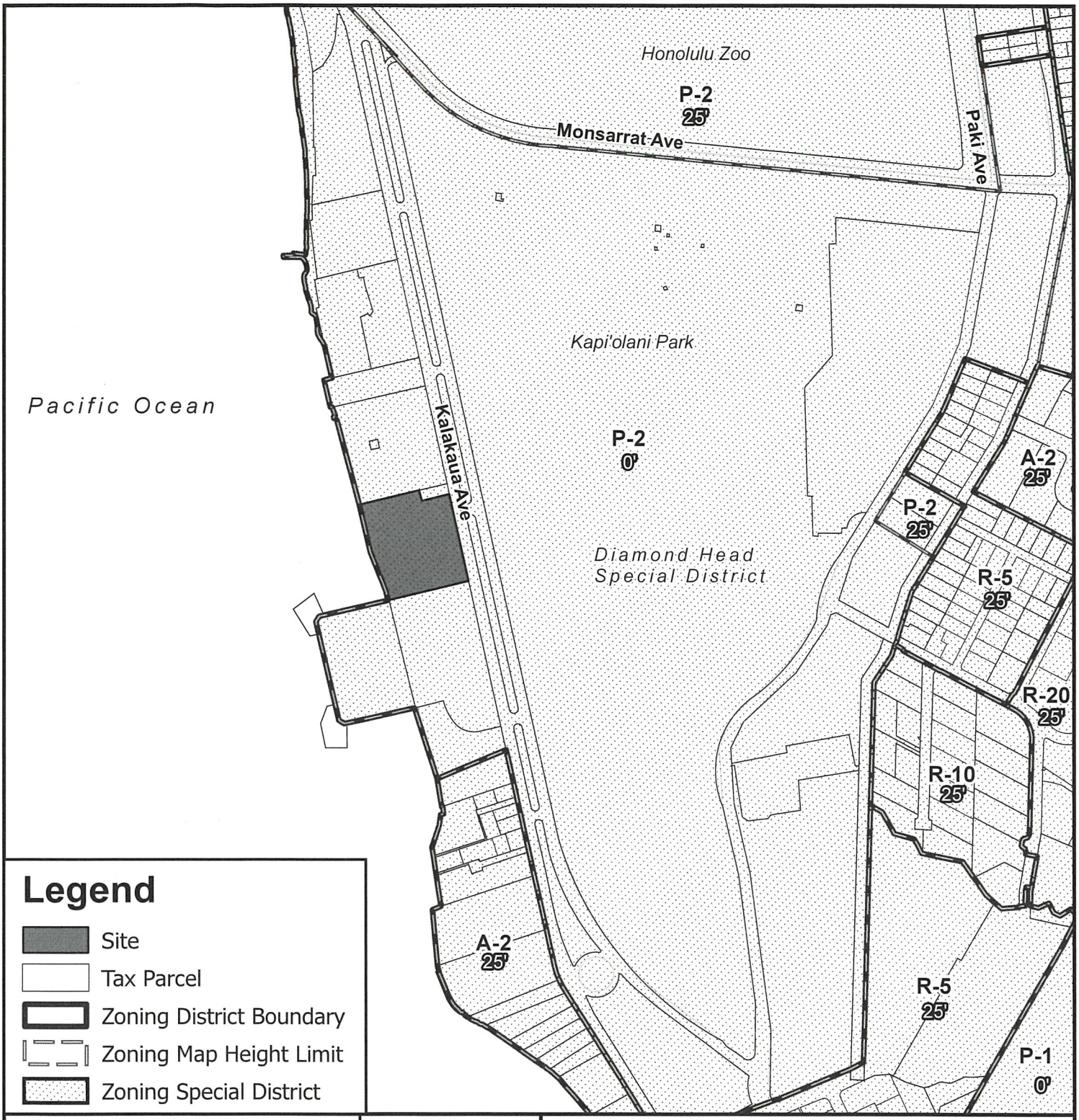
TAX MAP KEY(S): 3-1-031:006

FOLDER NO.: 2024/SMA-132 & 2024/SV-3

Prepared by: Honolulu Land Information System (HoLIS)- ADS
Department of Planning & Permitting (DPP)
City and County of Honolulu

Date Prepared: 01/2025

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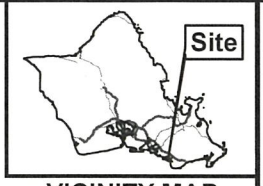


Legend

- Site
- Tax Parcel
- Zoning District Boundary
- Zoning Map Height Limit
- Zoning Special District

0 250 500

Distance in Feet



VICINITY MAP

EXHIBIT B

PORTION OF
ZONING MAP
(MOILIILI - KAIMUKI)

TAX MAP KEY(S): 3-1-031:006
FOLDER NO.: 2024/SMA-132 & 2024/SV-3

Prepared by: Honolulu Land Information System (HoLIS)- ADS
Department of Planning & Permitting (DPP)
City and County of Honolulu

Date Prepared: 01/2025

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EXHIBIT C

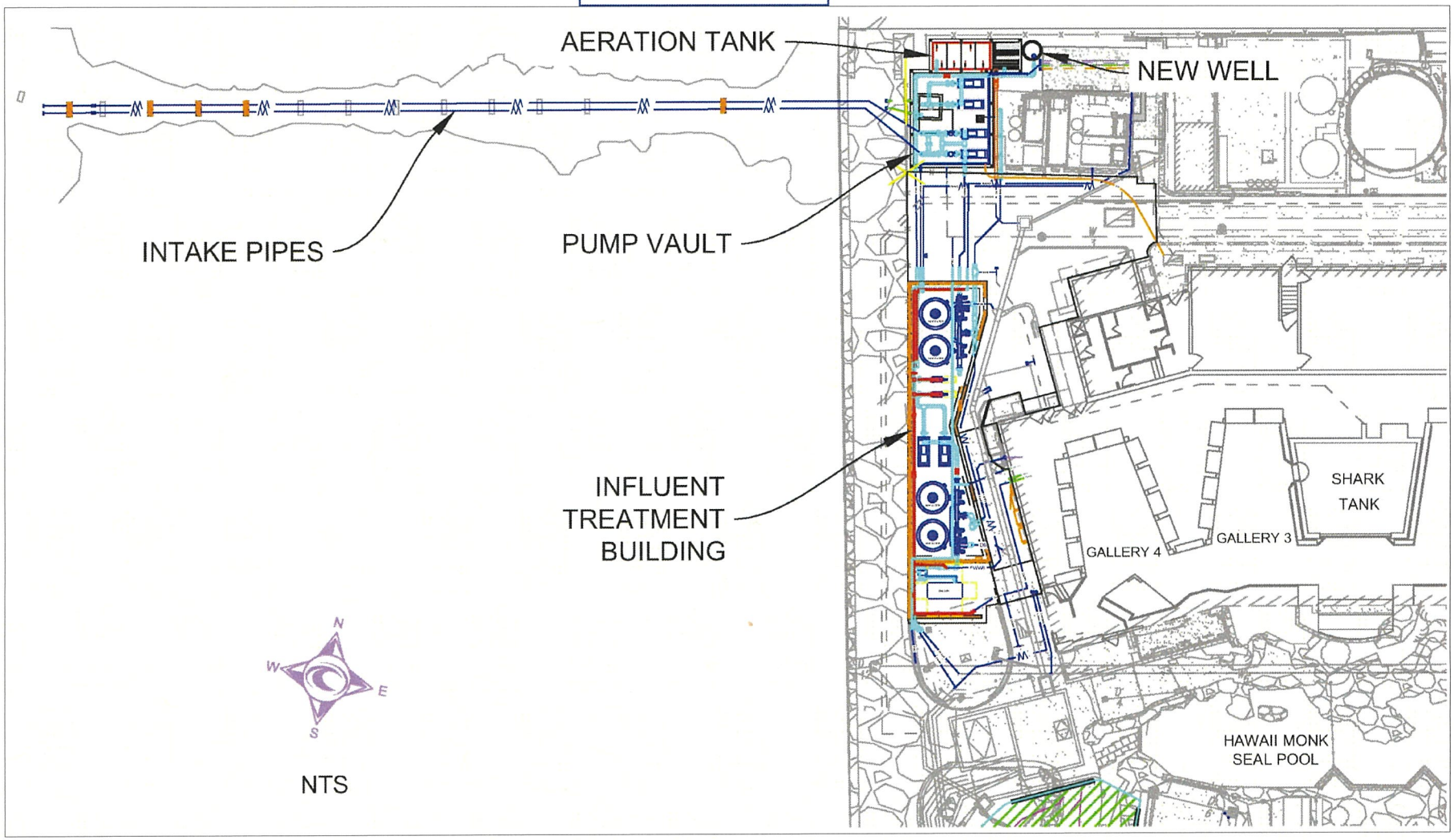


Figure 5: Conceptual Site Plan Layout

EXHIBIT D

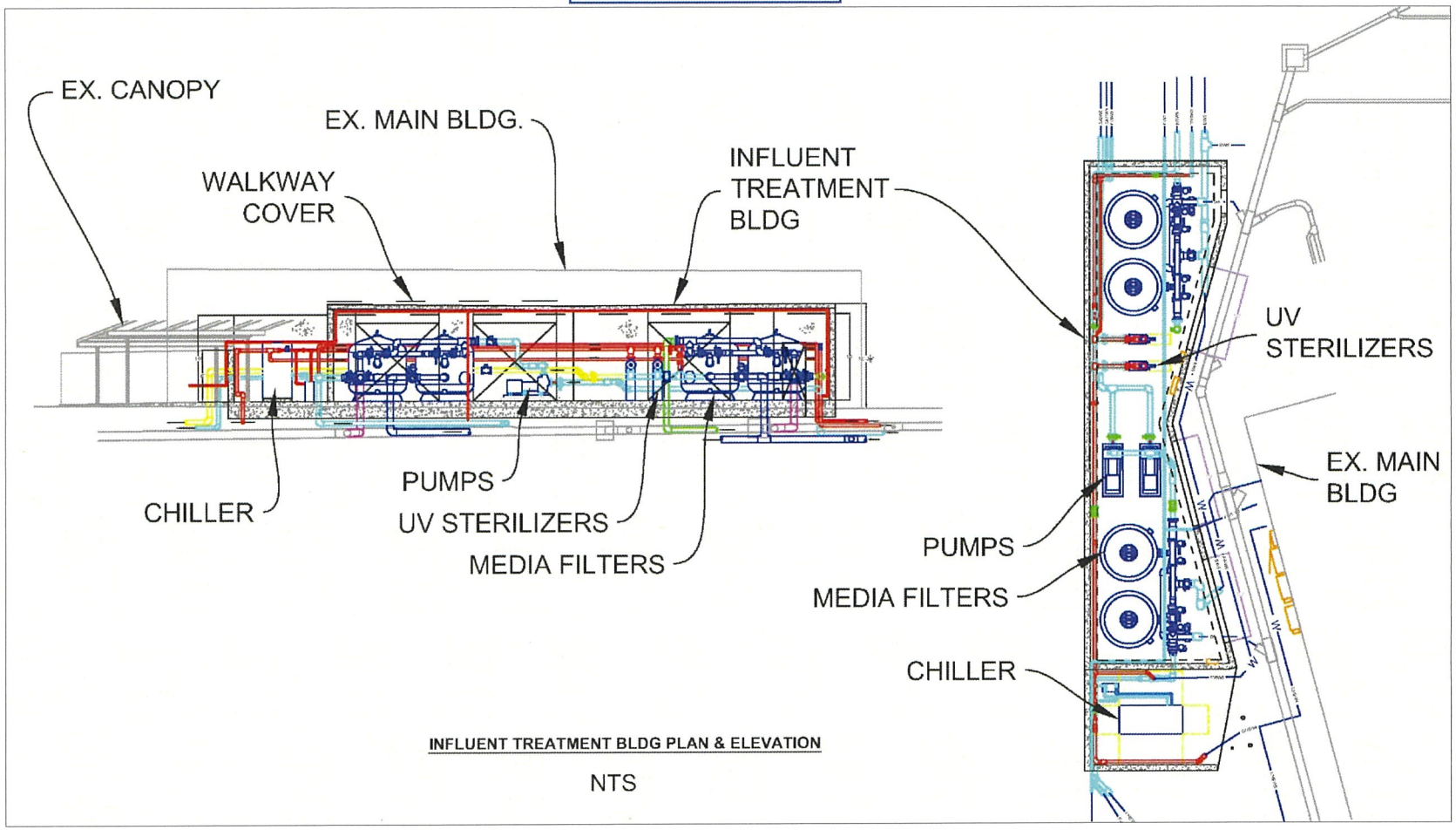


Figure 6: Influent Treatment Building Plan and Elevation

EXHIBIT E

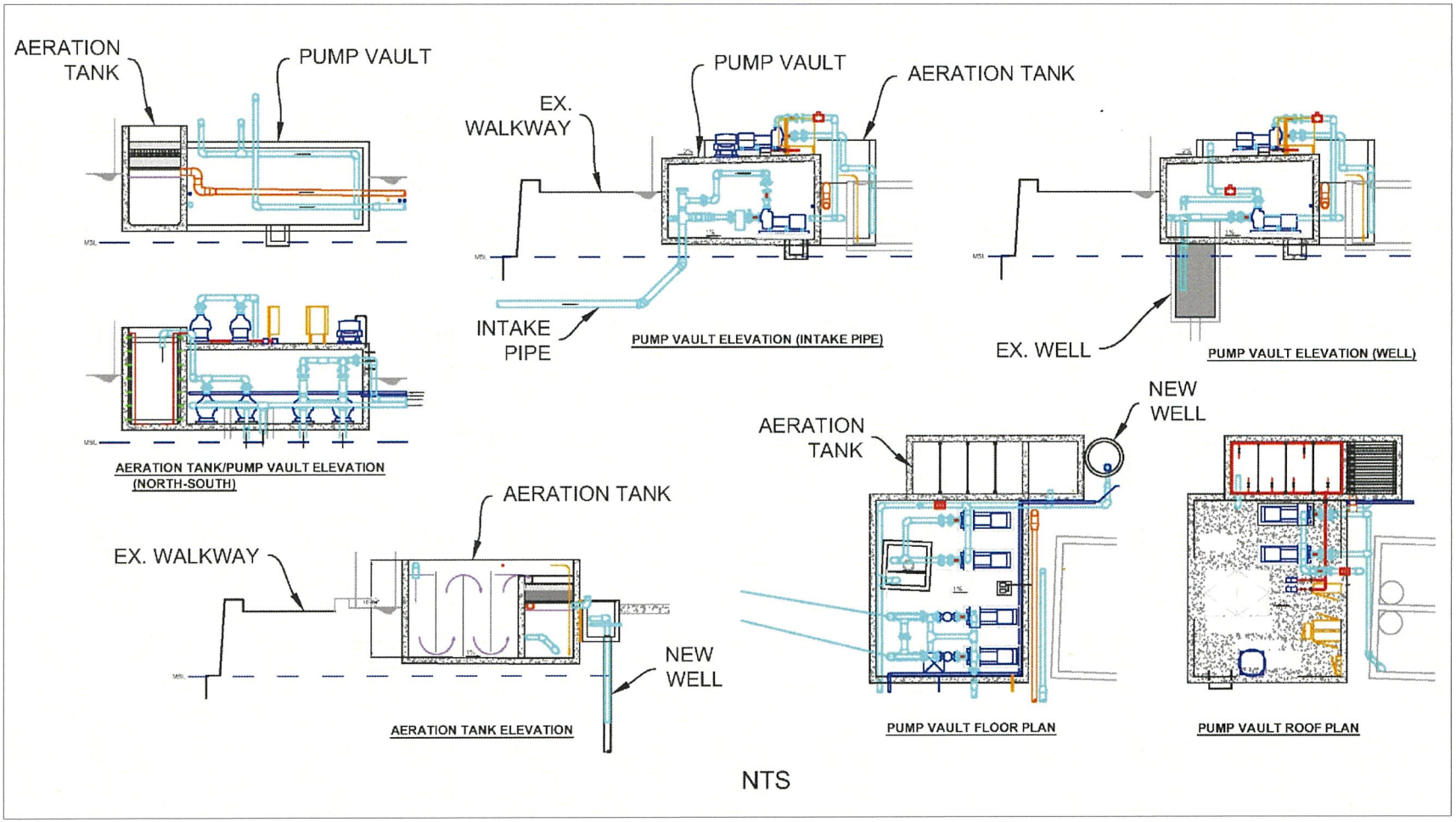


Figure 7: Pump Vault / Aeration Tank Plan and Elevation

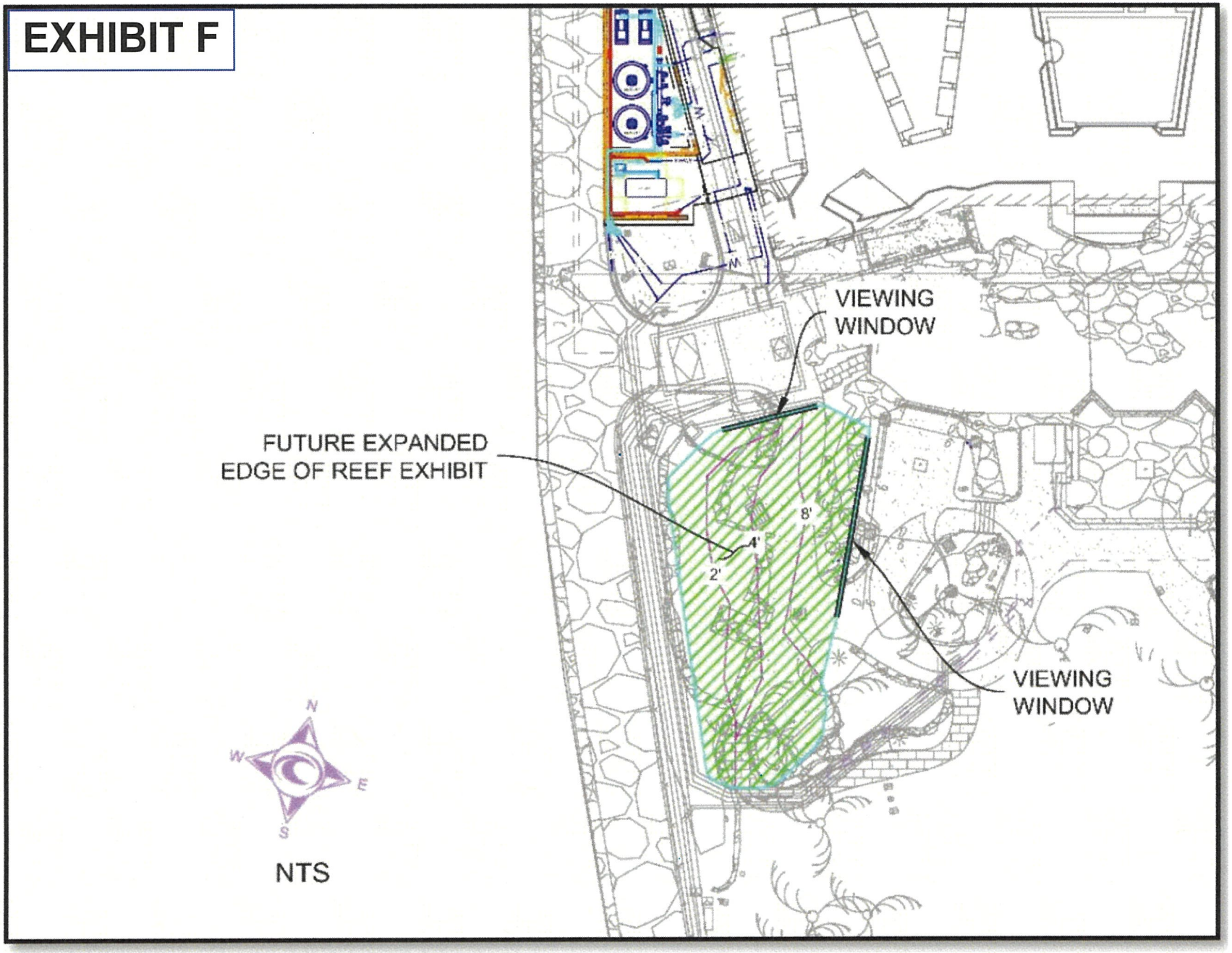
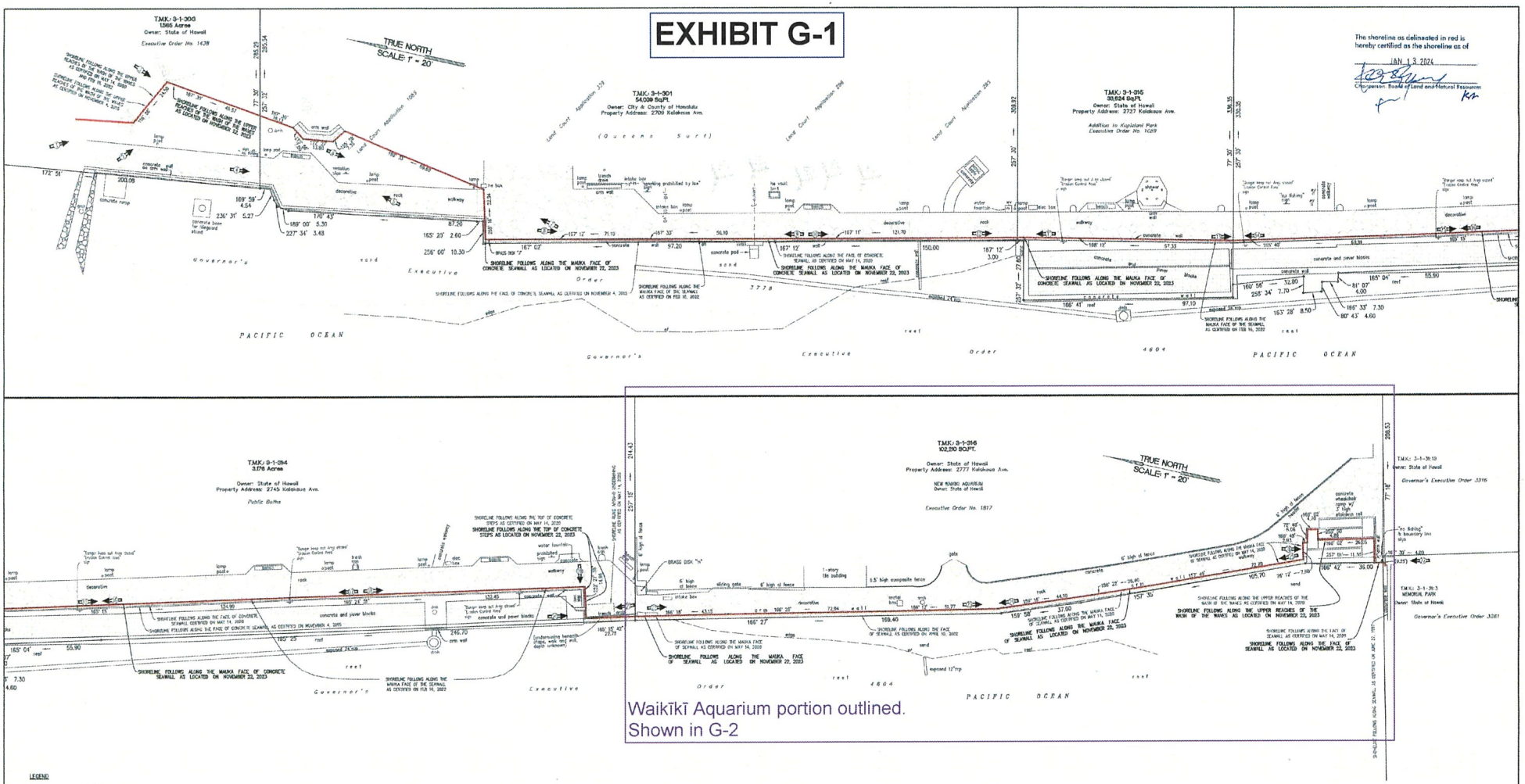


Figure 9: Future Expanded EOR Exhibit

EXHIBIT G-1



LEGEND

cl	chain link
coco	coconut tree
conc	concrete
crm	concrete rubble masonry
elec	electric
d	diameter
drnh	drain manhole
h	height
he	hawaiian electric
rcp	reinforced concrete pipe
s	spread
smh	sewer manhole
Sq.Ft.	Square Feet
w/	with
wv	water valve

NOTE:

⇨ INDICATES PICTURE NUMBER AND DIRECTION TAKEN.

DECEMBER 13, 2023
NOVEMBER 29, 2023
DATE: AUGUST 23, 2023
FIELD BOOK NO. 2739, 2933, 3168

MAP SHOWING SHORELINE
FRONTING A PORTION OF KAPIOLANI REGIONAL PARK
AT WAIKIKI, HONOLULU, OAHU, HAWAII

OWNER: CITY AND COUNTY OF HONOLULU – DEPARTMENT OF PARKS AND RECREATION
ADDRESS: 1000 ULUOHIA STREET, SUITE 309
KAPOLEI, HAWAII 96707

ParEn, Inc. dba Park Engineering
Pacific Park Place Suite 1500 711 Kapiolani Blvd Honolulu Hawaii 96813
808-595-1616

GRAPHIC SCALE : 1"=20'

KEVIN A. RAPOZA
LICENSED PROFESSIONAL LAND SURVEYOR No. 11919 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Kevin A. Rapoza
ParEn, Inc.
dba PARK ENGINEERING
LICENSE EXPIRES 4/30/2024

TAX MAP KEY: 3-1-30:1,Por.3 AND 3-1-31:4,5,6

SURVEY OFFICE COPY

24"X36"=6.0 sq.ft.

EXHIBIT G-2

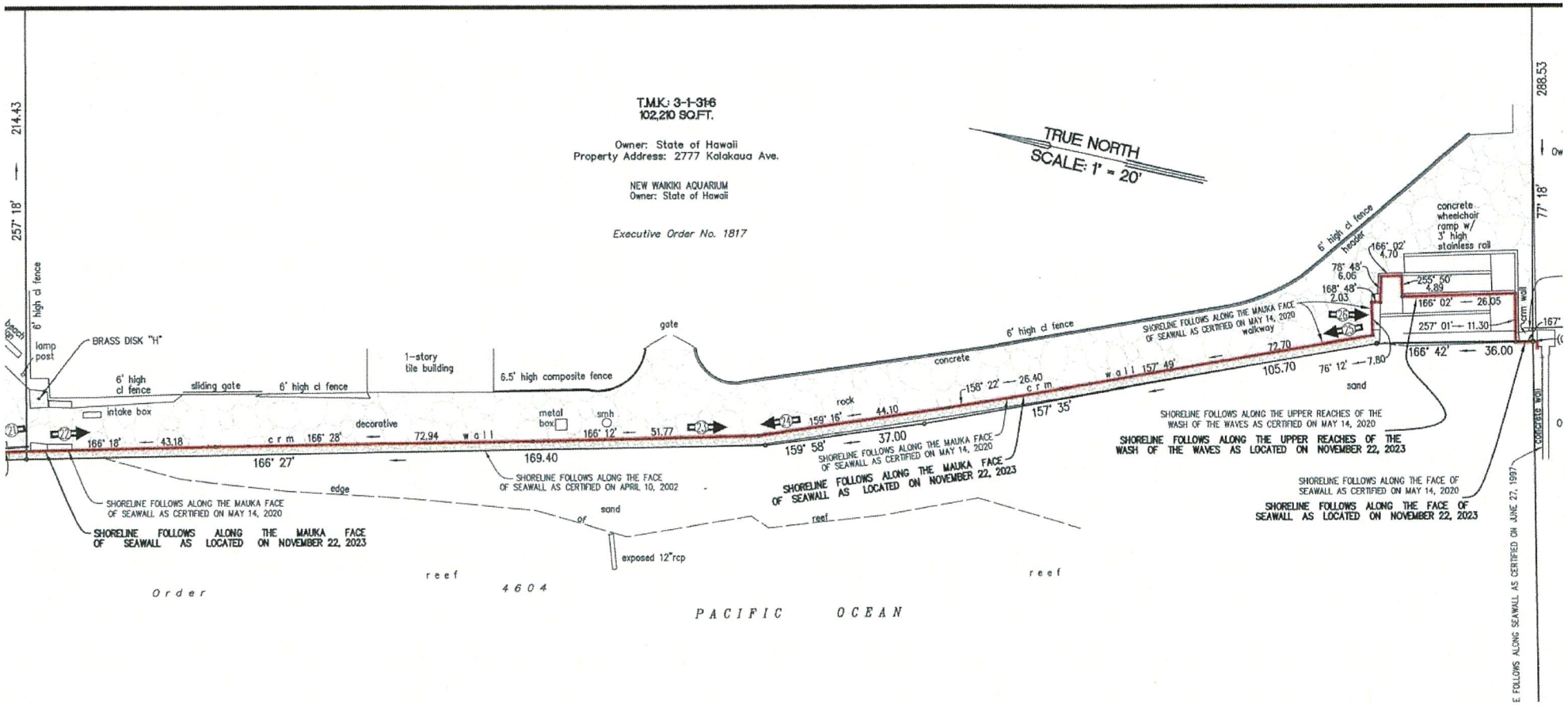
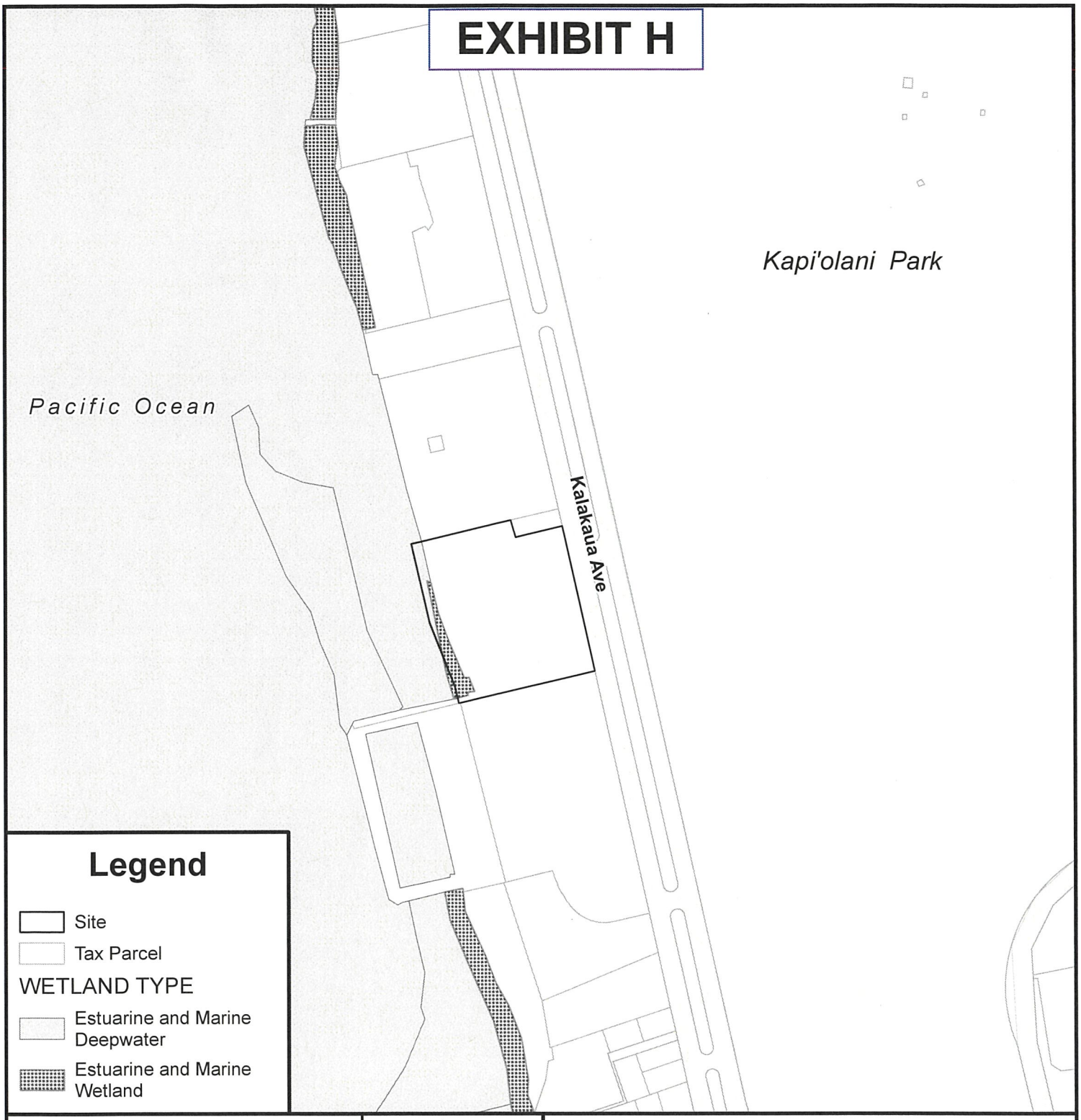

T.M.K: 3-1-31:6
102,210 SQ.FT.
Owner: State of Hawaii
Property Address: 2777 Kalakaua Ave.
NEW WAIKIKI AQUARIUM
Owner: State of Hawaii
Executive Order No. 1817
TRUE NORTH
SCALE: 1" = 20'
214.43
257° 18'
6' high ci fence
lamp post
BRASS DISK "H"
6' high ci fence
sliding gate
6' high ci fence
intake box
1-story tile building
6.5' high composite fence
gate
concrete
6' high ci fence
SHORELINE FOLLOWS ALONG THE MAUKA FACE OF SEAWALL AS CERTIFIED ON MAY 14, 2020
walkway
6' high ci fence
header
concrete wheelchair ramp w/ 3' high stainless rail
288.53
77° 18'
166° 18' — 43.18
c r m
166° 28' — 72.94
w a l l
166° 12' — 51.77
metal box
smh
159° 16' — 44.10
rock
158° 22' — 26.40
c r m
w a l l 157° 49'
157° 35'
159° 58' — 37.00
72.70
105.70
76° 12' — 7.80
sand
166° 02' 4.70
78° 48' 6.06
168° 48' 2.03
255° 50' 4.89
166° 02' — 26.05
257° 01' — 11.30
166° 42' — 36.00
166° 27'
169.40
SHORELINE FOLLOWS ALONG THE MAUKA FACE OF SEAWALL AS CERTIFIED ON MAY 14, 2020
SHORELINE FOLLOWS ALONG THE MAUKA FACE OF SEAWALL AS LOCATED ON NOVEMBER 22, 2023
SHORELINE FOLLOWS ALONG THE FACE OF SEAWALL AS CERTIFIED ON APRIL 10, 2002
SHORELINE FOLLOWS ALONG THE MAUKA FACE OF SEAWALL AS CERTIFIED ON MAY 14, 2020
SHORELINE FOLLOWS ALONG THE MAUKA FACE OF SEAWALL AS LOCATED ON NOVEMBER 22, 2023
SHORELINE FOLLOWS ALONG THE UPPER REACHES OF THE WASH OF THE WAVES AS CERTIFIED ON MAY 14, 2020
SHORELINE FOLLOWS ALONG THE UPPER REACHES OF THE WASH OF THE WAVES AS LOCATED ON NOVEMBER 22, 2023
SHORELINE FOLLOWS ALONG THE FACE OF SEAWALL AS CERTIFIED ON MAY 14, 2020
SHORELINE FOLLOWS ALONG THE FACE OF SEAWALL AS LOCATED ON NOVEMBER 22, 2023
edge of reef
sand
exposed 12"rcp
reef
reef
Order 4604
PACIFIC OCEAN
E FOLLOWS ALONG SEAWALL AS CERTIFIED ON JUNE 27, 1997
concrete wall
crm wall

EXHIBIT H



Legend

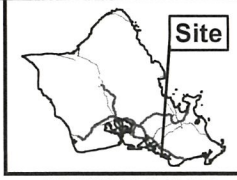
- Site
- Tax Parcel

WETLAND TYPE

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

CITY AND COUNTY OF HONOLULU
STATE OF HAWAII

0 300 600
Distance in Feet



VICINITY MAP

PORTION OF
WETLANDS MAP
WAIKIKI, HONOLULU

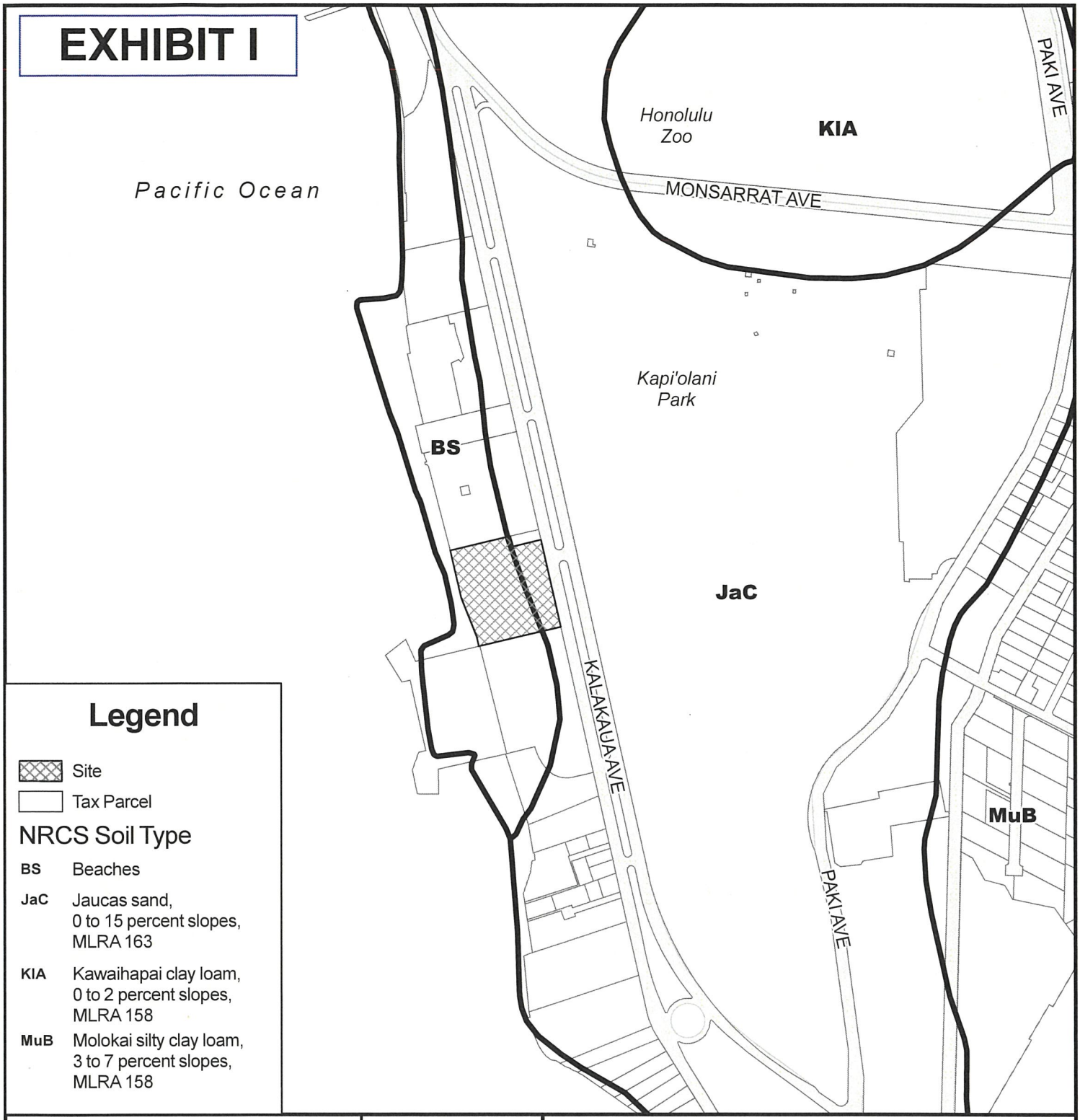
TAX MAP KEY(S): 3-1-031:006
FOLDER NO.: 2024/SMA-132 & 2024/SV-3

Prepared by: Honolulu Land Information System (HoLIS)- ADS
Department of Planning & Permitting (DPP)
City and County of Honolulu

Date Prepared: 01/2025

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EXHIBIT I



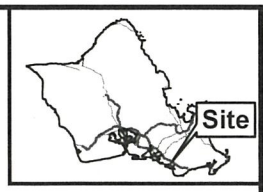
Legend

- Site
- Tax Parcel

NRCS Soil Type

BS	Beaches
JaC	Jaucas sand, 0 to 15 percent slopes, MLRA 163
KIA	Kawaihapai clay loam, 0 to 2 percent slopes, MLRA 158
MuB	Molokai silty clay loam, 3 to 7 percent slopes, MLRA 158

0 500 1,000
Distance in Feet



VICINITY MAP

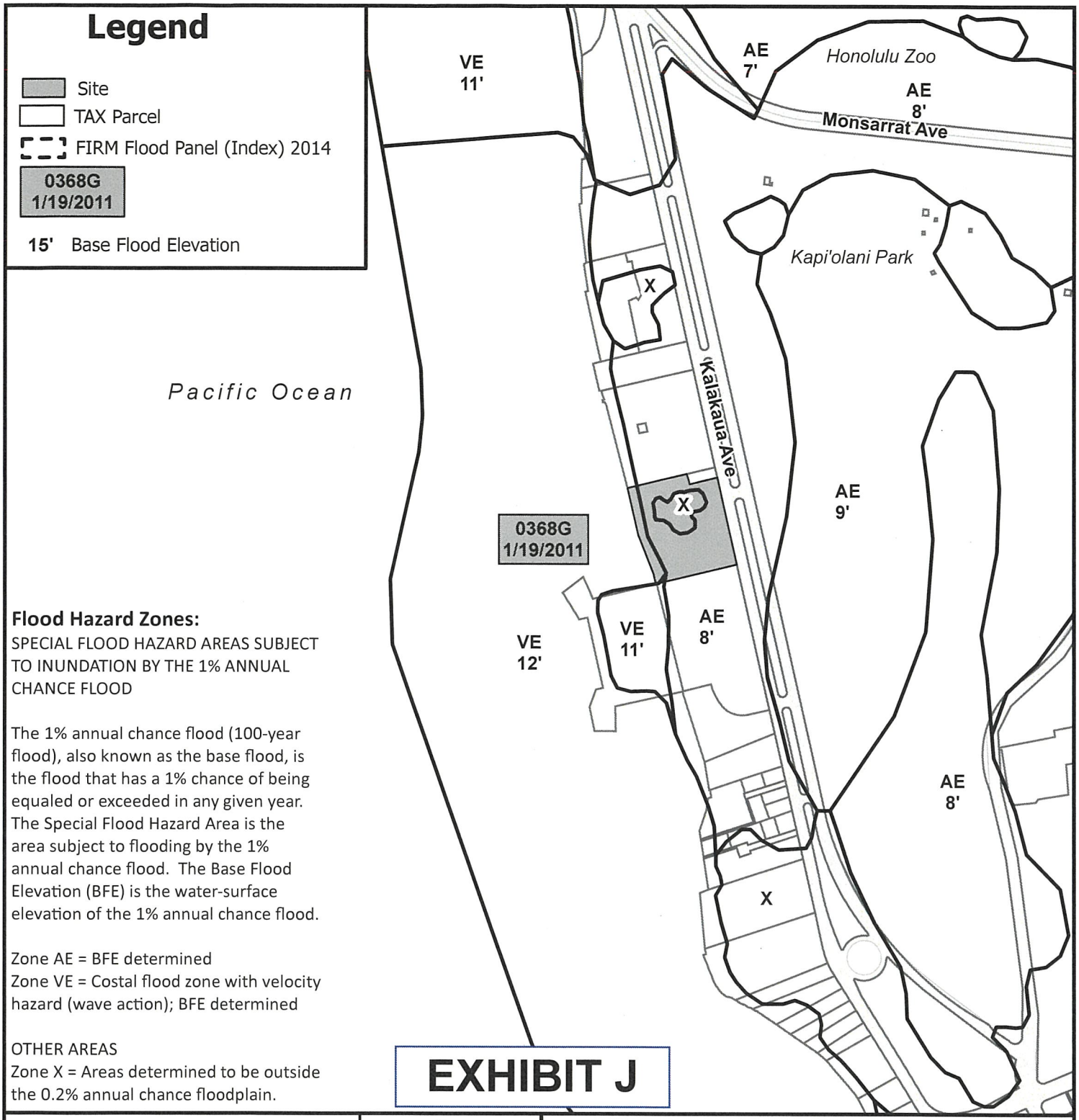
PORTION OF
SOIL MAP
KAPIOLANI PARK, WAIKIKI, HONOLULU

TAX MAP KEY(S): 3-1-031:006
FOLDER NO.: 2024/SMA-132 & 2024/SV-3

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PORTION OF
FLOOD HAZARD MAP

FIRM PANEL 15003C0368G

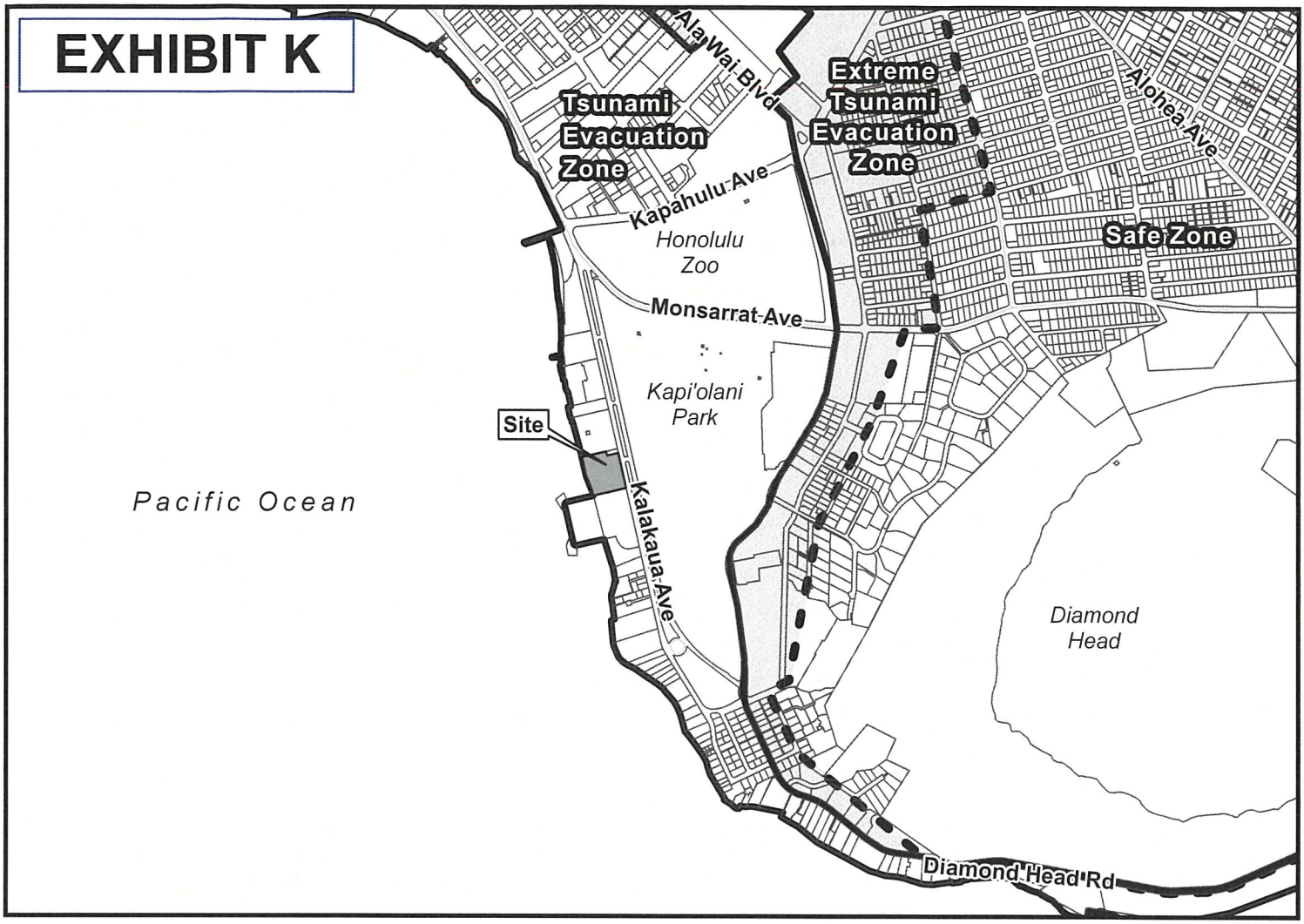
TAX MAP KEY(S): 3-1-031:006
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EXHIBIT K



* For most Tsunami Warnings, evacuate out of the Tsunami Evacuation Zone; in the unlikely case of an Extreme Tsunami Warning, evacuate out of the Extreme Tsunami Evacuation Zone

* Remain at least 100 feet away from inland waterways and marinas connected to the ocean due to wave surges and possible flooding

* Boaters should move vessels to at least 50 fathoms (300 ft) deep and 2 miles away from harbor entrances; follow all directions from the Captain of the Port

*Structural steel or reinforced concrete buildings of ten or more stories provide increased protection on or above the fourth floor; if you are caught near the shoreline consider using vertical evacuation

*These maps do not consider the destructive effects of a locally generated tsunami. If you feel shaking, move inland immediately, well inland from the red tsunami evacuation zone

* The evacuation zone is a guideline and should be considered the minimum safe evacuation distance

1. TSUNAMI WARNING: Destructive waves from a tsunami may inundate all coastline. Evacuate Tsunami Evacuation Zone

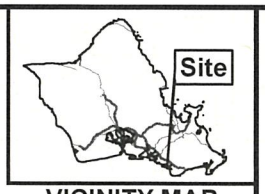
2. EXTREME TSUNAMI WARNING: In the unlikely event of an extreme tsunami waves may move significantly inland; evacuate Tsunami Evacuation Zone and Extreme Tsunami Evacuation Zone

Safe Zone: Evacuate to this area
Extreme Tsunami Evacuation Zone: Evacuate out of these areas for an EXTREME TSUNAMI WARNING
Tsunami Evacuation Zone: For any TSUNAMI WARNING evacuate out of these areas

CITY AND COUNTY OF HONOLULU · STATE OF HAWAII

0 750 1,500

Distance in Feet



VICINITY MAP

PORTION OF

TSUNAMI EVACUATION MAP

Waikiki

Map 1

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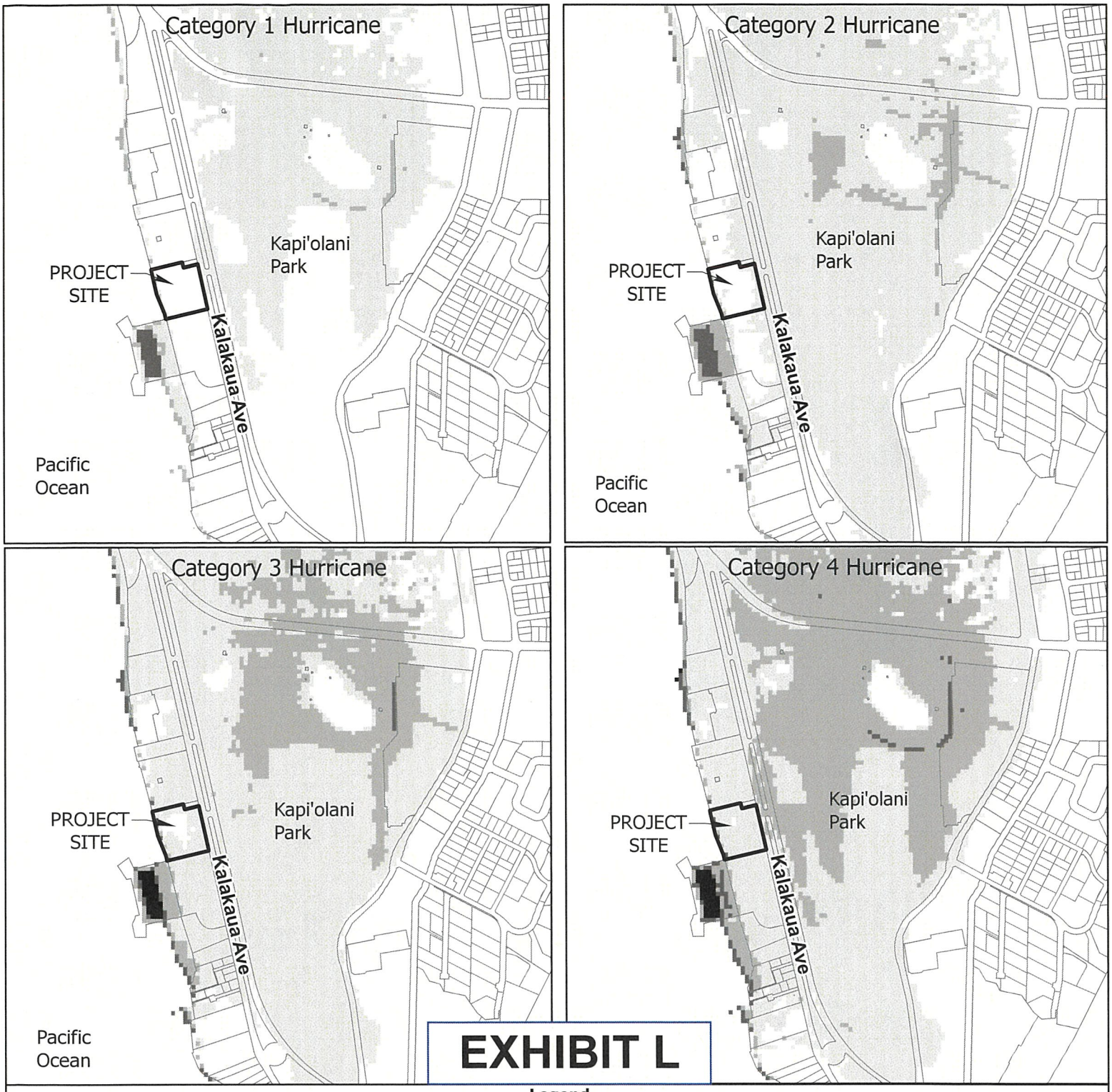


EXHIBIT L

Legend

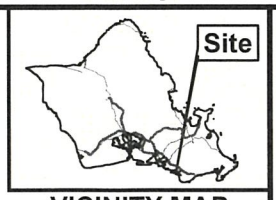
Less than 3 feet above ground

Greater than 3 feet above ground

Greater than 6 feet above ground

Greater than 9 feet above ground

CITY AND COUNTY OF HONOLULU · STATE OF HAWAII



VICINITY MAP

0 1,000 2,000

Distance in Feet

PORTION OF

STORM SURGE MAP

Data from National Hurricane Center Storm Surge Risk Maps

Data Source: National Weather Service (NWS) SLOSH model; Maximum of MEOWs (MOMs) for various category storms at a high tide.

TAX MAP KEY: 3-1-031:006

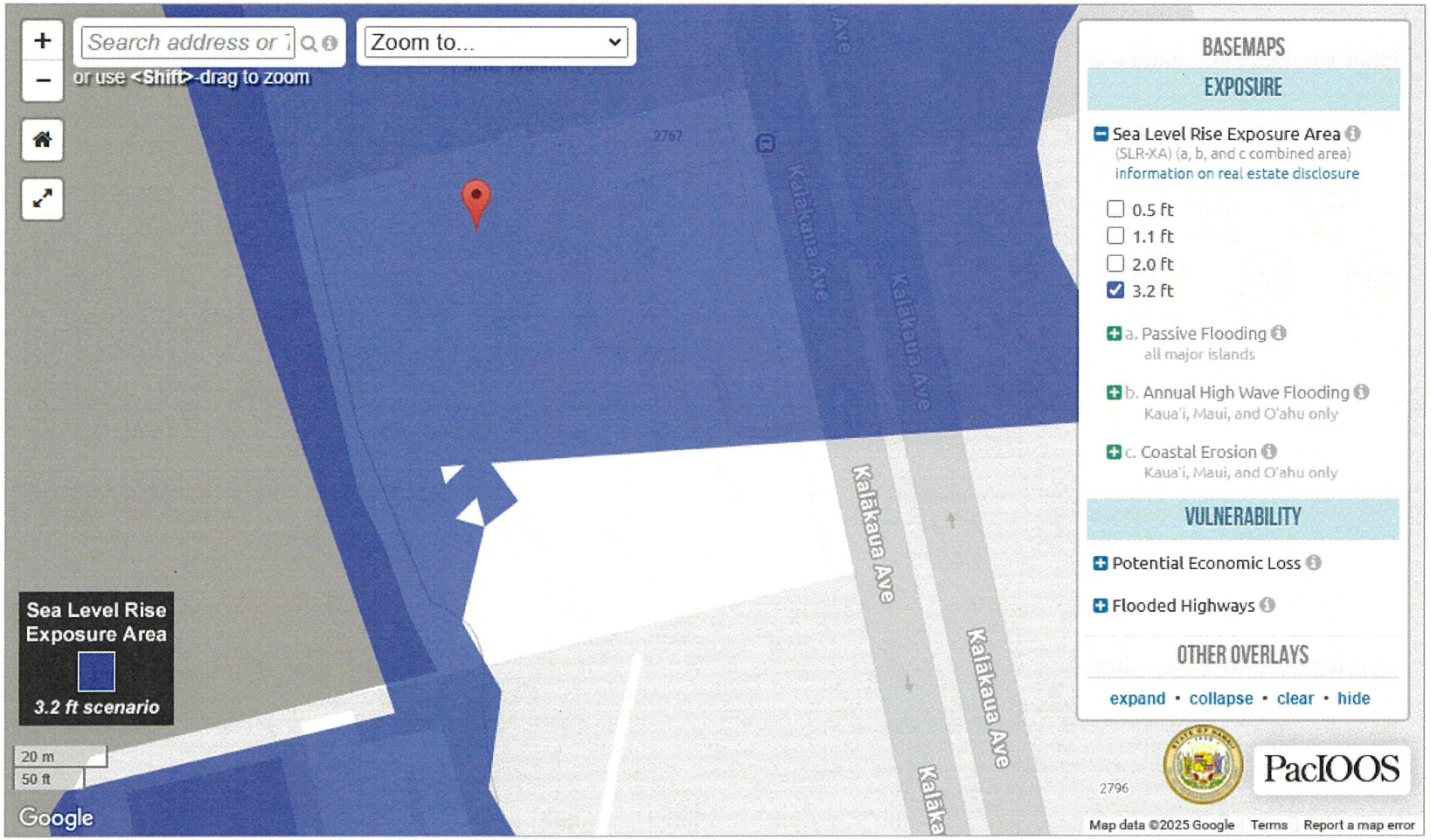
FOLDER NO.: 2024/SMA-132 & 2024/SV-3

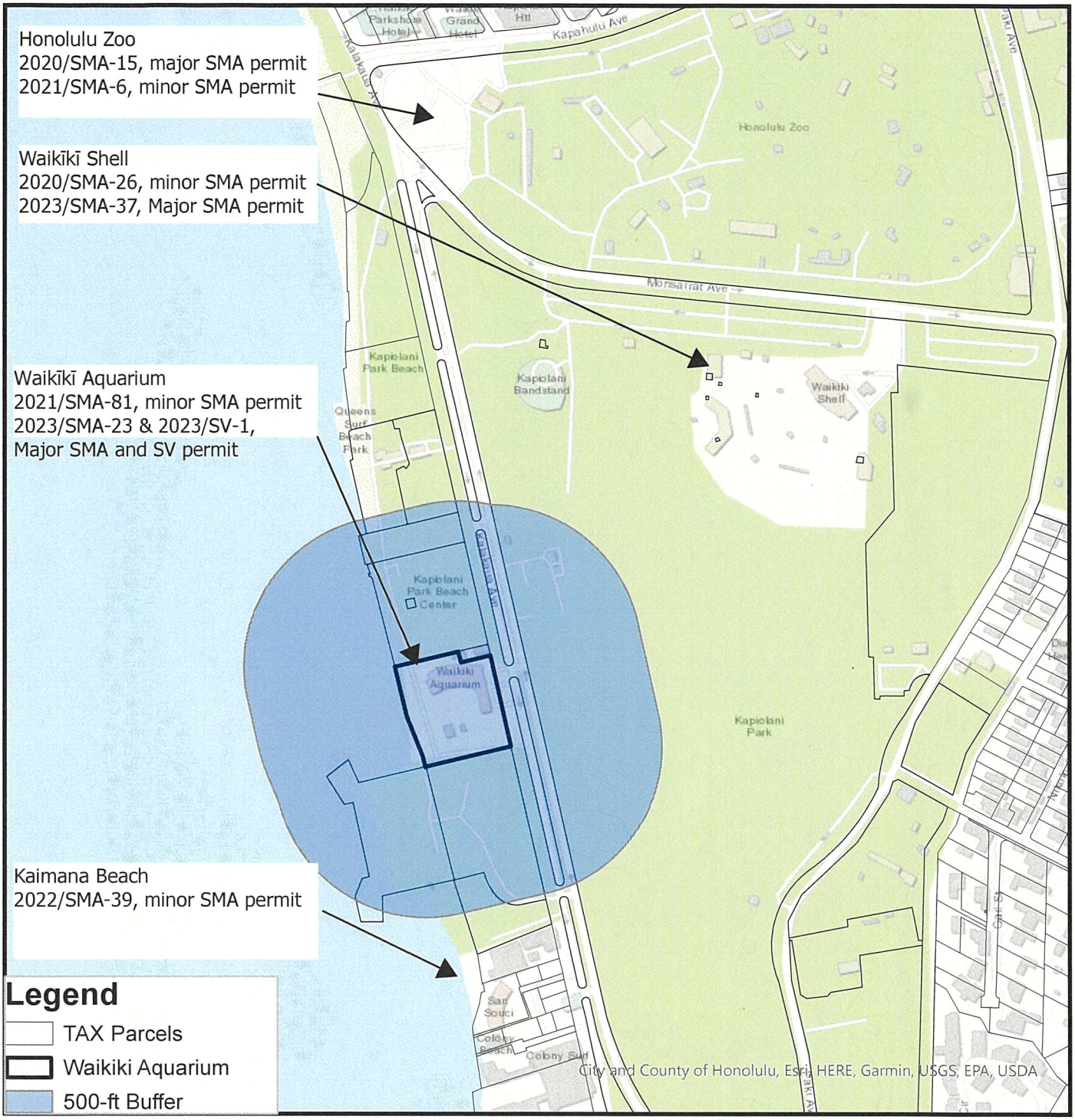
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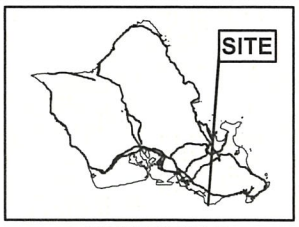
Date Prepared: 01/2025

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EXHIBIT M


Search address or
Zoom to...
or use <Shift>-drag to zoom
Kalākaua Ave
Kalākaua Ave
Kalākaua Ave
Kalākaua Ave
2767
2796
Sea Level Rise Exposure Area
3.2 ft scenario
20 m
50 ft
Google
BASEMAPS
EXPOSURE
Sea Level Rise Exposure Area
(SLR-XA) (a, b, and c combined area)
information on real estate disclosure
0.5 ft
1.1 ft
2.0 ft
3.2 ft
a. Passive Flooding
all major islands
b. Annual High Wave Flooding
Kaua'i, Maui, and O'ahu only
c. Coastal Erosion
Kaua'i, Maui, and O'ahu only
VULNERABILITY
Potential Economic Loss
Flooded Highways
OTHER OVERLAYS
expand • collapse • clear • hide
PacIOOS
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Report a map error





VICINITY MAP

0 235 470 940

Scale in Feet

EXHIBIT N

500-Ft Buffer Area

2777 Kalākaua Avenue

TAX MAP KEY: 3-1-031: 006

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