State of Hawaii DEPARTMENT OF LAND AND NATURAL RESOURCES Division of Boating and Ocean Recreation Honolulu, Hawaii 96819

October 12, 2018

Chairperson and Members Board of Land and Natural Resources State of Hawaii Honolulu, Hawaii

Land Board Members:

SUBJECT: DECLARE INSTALLATION OF AN EXISTING OFFSHORE MOORING

EXEMPT FROM REQUIREMENTS OF CHAPTER 343, HAWAII REVISED STATUES, AND TITLE 11, CHAPTER 200, HAWAII ADMINISTRATIVE RULES AND APPROVE INSTALLATION AFTER-THE-FACT OUTSIDE OF AN EXISTING OFFSHORE MOORING AREA, LAHAINA, ISLAND OF MAUI,

HAWAII, FOR KAANAPALI QUEEN, INC.

REQUEST

The Division of Boating and Ocean Recreation ("DOBOR") is requesting that the Board of Land and Natural Resources ("Board") approve the installation of an existing offshore mooring outside of the Lahaina Offshore Mooring Zone. As required by HAR 13-235-9, any applicant requesting to moor a vessel outside of an established offshore mooring area must obtain approval from the Board.

DOBOR is also requesting that the Board declare the installation exempt from the requirements of Hawaii Revised Statutes, Chapter 343 to prepare an Environmental Assessment ("EA"), due to the use of submerged State land.

The applicant, Kaanapali Queen, Inc. ("Applicant"), uses an existing offshore mooring installed outside of the Lahaina Offshore Mooring Area in Lahaina on the Island of Maui that has been in place for several years. Applicant is requesting that the Board declare the installation of the offshore mooring exempt from the requirement to prepare an EA, as required by Chapter 343, HRS, and Chapter 11-200, HAR due to the use of submerged State land. In addition, the Applicant is requesting that the Board approve the mooring installation outside of the Lahaina Offshore Mooring Zone, as required by HAR 13-235-9, due to the water depths there being too shallow and congestion of vessels within the mooring zone, both of which present a risk of damage to his vessel and possible grounding during large storm and ocean swell events. The Applicant's request is attached as **Exhibit A.**

PERMITS AND COMPLIANCE WITH FEDERAL AND STATE LAW

In order to comply with Federal Law (Section 10 of the Rivers and Harbors act of 1899), DOBOR is requiring that all offshore moorings under their jurisdiction obtain a permit from the U.S. Army Corps of Engineers ("ACOE"). In addition, in order to ensure that the mooring system is structurally sound, DOBOR is requiring that all offshore mooring permittees submit an Offshore Mooring Installation Plan, prepared by a licensed structural engineer, for approval. The Applicant has obtained a Nationwide Permit Verification from the ACOE authorizing the installation and use of the existing mooring. A Mooring Installation Plan, prepared by a licensed structural engineer, has also been submitted to and approved by DOBOR Engineering Branch. The ACOE Permit and approved Mooring Installation Plan are also attached with Exhibit A.

In accordance with HAR 13-235-6, the National Marine Fisheries Service (NMFS) and DLNR, Division of Aquatic Resources (DAR) must determine whether an offshore mooring is detrimental to the habitat or spawning ground of marine life. Through the ACOE permitting process, NMFS has been consulted and determined the offshore mooring has no detrimental effect to the habitat or spawning ground of marine life. DAR has also been consulted and concurred that the offshore mooring has no detrimental effect to the habitat or spawning ground of marine life.

ENVIRONMENTAL ASSESSMENT EXEMPTION

In accordance with Hawaii Administrative Rule (HAR) Section 11-200-8(A) and the Exemption List for the Department of Land and Natural Resources (DLNR), approved by the Environmental Council, on June 5, 2015, it has been determined that the installation of the existing mooring is exempt from the preparation of an EA pursuant to the following exemptions:

<u>Item No. 13 of Exemption Class 6</u>: "Placement or construction of accessory structures such as utility sheds, storage or maintenance sheds, office trailers, trash enclosures, comfort stations or sanitation facilities and related individual wastewater disposal systems, bus shelters, pavilions or picnic shelters, parking and fee collection facilities, checking stations, interpretive kiosks and displays, dock boxes, mooring cleats, bumpers, and mooring buoys, blocks, and piles, and other similar structures accessory to existing facilities on state land and waters."

Consultations with the State of Hawaii, Office of Planning, Coastal Zone Management Program and State of Hawaii, DLNR, Office of Conservation and Coastal Lands for this EA Exemption have been conducted as required by HAR 11-200-8.

RECOMMENDATION

Declare that, after considering the potential effects of the installed mooring as provided by Chapter 343, HRS, and Chapter 11-200, HAR, this project will probably have minimal or no significant effect on the environment and is therefore exempt from the preparation of an environmental assessment and approve the installation of the existing offshore mooring outside the Lahaina Offshore Mooring Zone after-the-fact.

Respectfully Submitted,

EDWARD R. UNDERWOOD, Administrator Division of Boating & Ocean Recreation

APPROVED FOR SUBMITTAL:

SUZANNE D. CASE, Chairperson Board of Land and Natural Resources

Attachment:

A. Applicant's request for approval of mooring, approved Mooring Installation Plan, Nationwide Permit Verification Letter from Army Corps of Engineers

EXEMPTION NOTIFICATION

Regarding the preparation of an environmental assessment pursuant to Chapter 343, HRS and Chapter 11-200, HAR

Offshore Magring Outside of Labeine Offshore Magring Area		
Offshore Mooring Outside of Lahaina Offshore Mooring Area, Lahaina, Island of Maui, for Kaanapali Queen, Inc.		
N/A		
Lahaina Offshore Mooring Area, Lahaina, Island of Maui		
Installation of an offshore mooring for a privately owned vessel		
Use of State (submerged) lands		
Class No. 6, Item 13: "Placement or construction of accessory		
structures such as utility sheds, storage or maintenance sheds,		
office trailers, trash enclosures, comfort stations or sanitation		
facilities and related individual wastewater disposal systems, bus		
shelters, pavilions or picnic shelters, parking and fee collection		
facilities, checking stations, interpretive kiosks and displays, dock		
boxes, mooring cleats, bumpers, and mooring buoys, blocks, and		
piles, and other similar structures accessory to existing facilities		
on state land and waters."		
No. There are no planned successive actions to be undertaken at		
the same location.		
No. The environment in the area of the existing offshore mooring		
is sand bottom with no coral reefs or marine features that are		
critical for aquatic species habitat or spawning areas in the		
proximity of the mooring anchor.		
The materials installed for the offshore mooring are chemically		
inert and do not pose a threat to essential marine habitat or		
endangered species and do not pose any hazard or obstruction to		
existing uses of the ocean in the area.		
- State DLNR, Office Conservation and Coastal Lands		
- State Office of Planning, Coastal Zone Management		
The Board finds that this project will probably have minimal or		
no significant effect on the environment and declares that this		
project is exempt from the preparation of an environmental		
assessment.		

Ka'anapali Queen, Inc.

June 18, 2018

Request for Exemption from Requirement for Preparations of Environmental Assessment for and Approval for the Installation and Modification of an Existing Offshore Mooring within Lahaina Small Boat Harbor on the Island of Maui

Submitted in Compliance with Hawaii Revised Status Chapter 343and HAR §§11-200-8(b)

SUBMITTED TO:

Mr. Finn McCall Board of Land & Natural Resources, State of Hawaii, Department of Land & Natural Resources (DLNR) Division of Boating and Ocean Recreation

4 Sand Island Access Road, Honolulu, HI 96819

Phone: (808) 587-3520

Email: finn.d.mccall@hawaii.gov

SUBMITTED BY:

Kaanapali Queen, Inc. Denver Coon, Assistant Vice President PO Box 1119 Lahaina, HI 96767 Phone: 808-283-2169

Email: denver.coon@sailtrilogy.com

REQUEST:

Kaanapali Queen, Inc. (hereinafter referred to as "Petitioner") requests approval for installation and modification of an existing offshore mooring within Lahaina Small Boat Harbor and an exemption from requirement for environmental assessment report associated with the proposed mooring installation, as the proposed mooring will have little to no environmental impact, as discussed herein below:

REASONING AND JUSTIFICATION FOR REQUEST:

<u>ENVIRONMENTAL ASSESSMENT EXEMPTION –</u>

- 1) The reason for the Environmental Assessment is due to the use of State submerged lands
- 2) Petitioner requests exemption from requirement for environmental assessment report associated with the proposed mooring installation, as the proposed installation will have little or no impact on the environment in the proposed location.
- 3) The current exemption list for the Department of Land and Natural Resources data June 5, 2015 provides as follows under Exemption Class 6:
 - "13. Placement or construction of accessory structures such as ...mooring, cleats, bumpers, and mooring buoys, blocks and piles, and other similar structures accessory to existing facilities on state land waters."

Ka'anapali Queen, Inc.

PROJECT DESCRIPTION -

Modification of an existing private offshore mooring buoy in Lahaina Small Boat Harbor, Lahaina Hawaii.

TECHNICAL DESCRIPTION OF PROPOSED INSTALLATION -

The modification of the mooring will be the retention of one mooring buoy comprised of one concrete block weighing approximately 3,600 pounds (lbs.). Two MR-SR manta marine anchors are to be driven 7 to 8 feet into the sand bottom approximately 14 feet apart and approximately 5 feet from the mooring block. There is a ¾-inch galvanized Campbell dock fender chain from the seafloor to the manta anchor attached with a ¾-inch galvanized bolt anchor shackle with seizing wire. The other end of the manta anchor is shackled with a ¾-inch galvanized bolt anchor shackle with seizing wire and a ¾-inch galvanized Campbell mooring chain that is 10 feet long.

The two 10 foot long chains are shackled to a weldless ring by a 7/8 –inch galvanized bolt anchor shackle with seizing wire. Going to the surface, there is a ¾-inch galvanized Campbell mooring chain that is 88 feet long which is shackled to a 7/8-inch galvanized bolt anchor shackle with seizing wire to a 1 ¼ inch forged eye-eye swivel. The eye swivel is shackled with a 7/8-inch galvanized bolt shackle with seizing wire to ¾-inch galvanized mooring chain six feet long. The 6-foot long chain goes thru a three inch tube in the buoy and is attached with ¾ inch galvanized bolt anchor with seizing wire. The buoy is a 36 inch mooring buoy with a 6 inch Diameter ring and star plate. The top of the mooring buoy has two 1 ¼ inch double braided nylon ropes which are 30 feet long with an eye splice with thimble attached to the buoy and eye splice (no thimble) at the other end. The chain is suspended and floating with one float ball with a 180-lb buoyancy at mid-depth (approx. 22 feet). All work will be conducted in accordance with the attached Army Corps of Engineers permit.

LOCATION OF PROPOSED INSTALLATION -

The proposed Mooring buoy will be located at center coordinates: Latitude: 20.86657N, Longitude: 156.68517W. The location is approximately 1,000 yards from the nearest shore.

PURPOSE OF PROPOSED INSTALLATION -

The proposed mooring will be used by the Petitioner solely for the purpose of mooring a sailing catamaran for commercial purposes.

IMPACT ON COASTAL ECOSYSTEMS -

NEGLIGIBLE The mooring site is 1,000 yards from the nearest shore and is not within the Special management Area or Shoreline Setback Area, nor is the site within a State Conservation District. This site does not provide habitat for any known endangered species of plants, birds or mammals. The site is not within, and does not boarder any National Area Reserve, Marine Conservation District, or estuary. The

Ka'anapali Queen, Inc.

site is not on or close to any reef or coral colonies. No material will be placed or discharged in the project area. A MANTA RAY anchor will be attached to the existing mooring block and is an environmentally friendly anchor system that installs easily underwater with conventional equipment. No dredge or fill activities will be involved in the installation of the MANTA RAY mooring anchor. The mooring will be placed in an already existing designated DLNR "Offshore" mooring area.

IMPACT ON MARINE RESOURCES –

NONE The proposed mooring does not involve or affect the use of the development of any marine or coastal resources.

IMPACT ON HISTORIC RESOURCES -

NONE The project site is not within a designated historic or cultural district and has not been listed or nominated for the Hawaii or National Register of Historic Places. The proposed project site contains no known historic or archaeological resources and is not within or adjacent to any Hawaiian fishpond or historic settlement area.

IMPACT ON SCENIC AND OPEN SPACE RESOURCES -

NEGLIGIBLE A sailboat will be located on the mooring location and will be visible. The mooring ball will be visible floating on the surface of the water.

ENCLOSURE: Army Corps of Engineers Permit #POH-2017-00059



DEPARTMENT OF THE ARMY

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

June 7, 2018

SUBJECT: Nationwide Permit Verification for Kaanapali Queen Offshore Mooring, Outside of Lahaina Small Boat Harbor, Island of Maui, Hawaii, Department of the Army File No. POH-2017-00059

Denver Coon Kaanapali Queen, Inc. PO Box 1119 Lahaina, HI 96767

Dear Mr. Coon:

The Honolulu District, U.S. Army Corps of Engineers (Corps), Regulatory Branch has completed review of your Pre-Construction Notification dated March 29, 2017 requesting authorization for the proposed reinforcement off an offshore mooring buoy located outside of Lahaina small boat harbor, Island of Maui, Hawaii; Latitude: 20.8656°, Longitude: -156.68517°. Please reference Department of the Army (DA) file number POH-2017-00059 in any future correspondence related to this permit.

This letter verifies your activity complies with the terms and conditions of Nationwide Permit (NWP) #9, (Structures in Fleeting and Anchorage Areas) issued on March 19, 2017 (82 FR 1860, January 6, 2017). This NWP verification letter is being issued pursuant to Section 10 of the Rivers and Harbors Act of 1899 for work or structures in, over, under or affecting navigable waters of the U.S. You are authorized to conduct the following work as described below and as depicted on the enclosed drawings (Enclosure 1):

Reinforce an existing offshore commercial, concrete block mooring located outside of Lahaina small boat harbor, Maui, Hawaii. The proposed work includes using a hydraulic hammer to install two manta anchors, which are "spade" type anchors, approximately 7 ft into the sea floor in an area with sandy bottom. The two Manta Anchors will be spaced at a minimum of 14' from one another. New 3/4" galvanized chain will run from both Manta Anchors to a 7/8" galvanized shackle on the existing concrete block. Eighty-eight (88) feet of new 3/4" galvanized chain will run from the shackle on the existing concrete block to a 36" mooring buoy at the surface. A float with a minimum of 180 lbs. of buoyance will be placed at mid-depth. No fill material will be discharged.

The existing mooring buoy will replace a mooring which has been in place for the past few years. The new mooring buoy would be located among numerous other buoys within the Lahaina Mooring Zone, outside of Lahaina Small Boat Harbor, Island of Maui, Hawaii. The mooring will be installed in an area where the bottom

consists of fine sand, medium density, and coral rubble. There is seagrass within the vicinity. The area was determined to be void of any living corals. This mooring is located within a designated mooring zone by DLNR-DOBOR, which permits recreational and commercial use of this area.

In order for this NWP authorization to be valid, you must ensure that the work is performed in accordance with the *Nationwide Permit General Conditions*, the *Honolulu District Regional Conditions* (Enclosure 2), and the following project-specific Special Conditions:

- 1. Pre-Construction Meeting. You must extend an invitation to the Corps to attend a pre-construction meeting to discuss the terms and conditions of this permit. The pre-construction meeting must be scheduled a minimum of 7-days prior to commencement of the authorized work. The pre-construction meeting must be attended by the following individuals, the permittee or duly authorized agent (as identified on your PCN) and your construction contractor. The Corps may attend the pre-construction meeting in person or via teleconference. The intent of the preconstruction meeting is to ensure all parties are aware of the permit terms and conditions and so the Corps may obtain verbal confirmation from the permittee and construction contractor of the ability to comply with the permit terms and conditions. Any modifications to the scope of work must be identified at this meeting so the Corps may determine if the proposed modification requires modification of your permit.
- 2. Notification. You must notify this office of your intent to proceed with the authorized work in waters of the U.S. a minimum of 3 days prior to commencement. Your notification should be transmitted via email or phone number using the contact information provided on your verification letter.
- 3. Essential Fish Habitat. You must comply with the following conditions to avoid and/or minimize adverse impacts to EFH resources:
 - a. The applicant should have plans in place to avoid the discharge of any potential pollutants from mooring installation vessel, installation activities, and the
 - b. The Applicant should have a long term maintenance plan for each mooring and buoy to ensure its integrity. Once it is no longer needed, the applicant is responsible for removing all components of the mooring buoy to ensure that it does not become marine debris. This will avoid impacts to nearby resources from broken and derelict buoys and vessels.
- 4. Endangered Species. You must comply with the following conditions to avoid and/or minimize adverse impacts to threatened and endangered species, including designated critical habitat:
 - a. Incidents where any individuals of Green Sea Turtle (*Chelonia mydas*), Hawksbill Turtle (*Eretmochelys imbricata*), Loggerhead Sea Turtle

(Caretta caretta), Hawaiian Monk Seal, (Monachus schauinslandi) listed by NOAA Fisheries under the Endangered Species Act appear to be injured or killed as a result of discharges of dredged or fill material into waters of the U.S. or structures or work in navigable waters of the U.S. authorized by this NWP shall be reported to NOAA Fisheries. Office of Protected Resources at (301) 713-1401 and the Regulatory Branch of the Honolulu District, U.S. Army Corps of Engineers at (808) 835-4303. The finder should leave the animal alone, make note of any circumstances likely causing the death or injury, note the location and number of individuals involved and, if possible take photographs. Adult animals should not be disturbed unless circumstances arise where they are obviously injured or killed discharge exposure or some unnatural cause. The finder may be asked to carry out instructions provided by NOAA Fisheries, Office of Protected Resources, to collect specimens or take other measurements to ensure that evidence intrinsic to the specimen is preserved.

- You must comply with the attached Standard Local Operating Procedures for Endangered Species in the Central and Western Pacific Region (Pac-SLOPES) general conditions and best management practices (BMPs) (Enclosure 4).
- You must implement and abide by the conditions of your individual Section 401
 Water Quality Certification issued for this project by the State of Hawaii
 Department of Health, Clean Water Branch.
- 6. You must implement and abide by the conditions of the Coastal Zone Management (CZM) Consistency Concurrence issued for this NWP on February 22, 2017 by the State of Hawaii, Department of Business, Economic Development and Tourism, Office of Planning. Expiration of your CZM Consistency Concurrence invalidates this authorization.

Verification of your project under this NWP is valid until <u>March 19, 2022</u> unless this NWP is modified, reissued, or revoked prior to that date. It is incumbent upon you to remain informed of changes to the NWPs. If the Corps modifies, reissues, or revokes any NWP at an earlier date, we will issue a public notice announcing the changes. Failure to comply with all terms and conditions of this NWP verification invalidates this authorization and could result in a violation of the Clean Water Act and Rivers and Harbors Act and subsequent enforcement action. This authorization does not relieve you of the responsibility to obtain any other federal, state, and/or local authorizations required by law.

General Condition #30 requires a signed certification be submitted to this office upon completion of work. Therefore, please sign, date and return the enclosed *Compliance*

Certification form (Enclosure 3) within 7 days of completion of work to the email address specified below or to the mailing address indicated on the letterhead above.

This letter of authorization does not obviate the necessity to obtain any other Federal, State, or local permits, which may be required. Prior to the initiation of any construction, projects qualifying for this NWP must receive a Section 401 Water Quality Certification (WQC) (or waiver) and Coastal Zone Management (CZM) Federal consistency concurrence, issued by the State of Hawaii, Department of Health, Clean Water Branch (DOH-CWB) and the State of Hawaii, Department of Business, Economic Development and Tourism, Office of Planning.

Thank you for your cooperation with the Honolulu District Regulatory Program. Should you have any questions related to this authorization, please contact Jason Brewer of my staff at (907) 753-2823 or via e-mail at Jason.D.Brewer@usace,army.mil. You are encouraged to provide comments on your experience with the Honolulu District Regulatory Office by accessing our web-based customer survey form at http://corpsmapu.usace.army.mil/cm apex/f?p=136:4:0.

Sincerely,

Sin W. h She

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Tunis W. McElwain Chief, Regulatory Branch

Enclosures

CC:

USCG (Jason Olney)
State of Hawaii Department of Health, Clean Water Branch (DOH-CWB)
State of Hawaii Office of Planning, Coastal Zone Management Program (Hawaii CZM Program)

AHAINA MO RE MOORIN

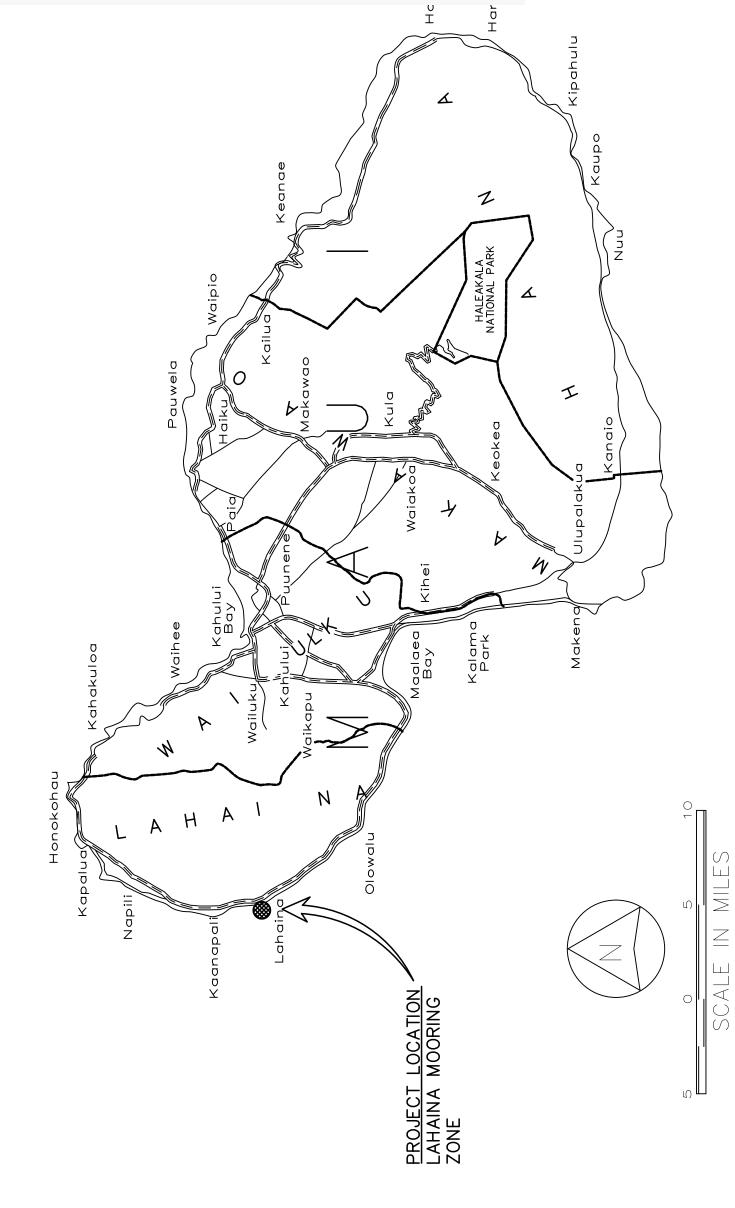
CREATIONS, LLC.

PHREE

DENVER COON POINT OF CONTACT:

20.86557°N, 156.68517°W GPS COORDINATES OF MOORING:

44 APPROXIMATE WATER DEPTH:



OF HAWAII

Department of Land and Natural Resources Division of Boating and Ocean Recreation PLAN REVIEW:

Approved
 Rejected
 Rejected

☐ Approved, as noted ☐ Revise & Resubmit

Corrections, comments or approval of plans shall not relieve the contractor from other tocal, state, 3/21/17 Date:_ By: _

with engineering design guidelines. The contractor conditions. This review is for general conformance federal or other agency regulations or permit is responsible for confirming all dimensions, quantities, fabrication requirements, and coordination with all other trades.

MOORING LOCATION (8) 25

OCATION MAP

AND VICINITY MAP

TITLE, INDEX TO DRAWINGS,

MOORING PLAN

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SWING CIRCLE

S-2

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DESCRIPTION

DRAWING NUMBER

SHEET NUMBER

DRAWINGS

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INDEX

DESCRIPTION GENERAL NOTES 61-655 KAMEHAMEHA HIGHWAY HALEIWA, HAWAII 96712 • (808) 349-4990 LAHAINA MOORING ZONE FOR: OFFSHORE MOORING PROPOSED No.13750

SHEET TITLE 20.86557°N 156.68517°W CONTACT: DENVER COON 207 KUPUOHI ST. LAHAINA HAWAII 96761 PHONE: (808) 283-2169 KAANAPALI Queen, inc. TITLE SHEET GPS COORDINATES:

PROJECT

LAHAINA OFFSHORE MOORING ZONE BOUNDARIES

DRAWING	-	<u>-</u>	SHEET 1
JOB NO. 2015-0007.35	DRAWN JMM	CHECKED JMM	DATE FEB. 16, 2017

1 OF 3

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- CODE AS STATED CONFORMING TO WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE BUILDING (BELOW. HOWEVER, WHERE REFERENCE IS MADE TO PERFORMANCE OTHER STANDARDS THE MORE STRINGENT SHALL APPLY.

 1. COUNTY OF MAUI: AMENDED IBC, 2006
 - THE CONTRACTOR SHALL TAKE FIELD MEASUREMENTS AND VERIFY FIELD (SHALL COMPARE SUCH FIELD MEASUREMENTS AND CONDITIONS WITH THE BEFORE COMMENCING WORK. REPORT IN WRITING TO THE ENGINEER ALL INCONSISTENCIES AND OMISSIONS. \dot{m}

AND

CONDITIONS E DRAWINGS

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR METHODS OF CONSTRUCTION, WORKMANSHIP AND JOB SAFETY. $\ddot{\circ}$
- APPLY SHALL DETAILS NOTED AS TYPICAL ON THE STRUCTURAL DRAWINGS CONDITIONS UNLESS SPECIFICALLY SHOWN OR NOTED. \Box

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FOR ENGINEER 出 SUBMITTED TO IT DATA REQUIRED BY THESE NOTES SHALL BE AND APPROVAL PRIOR TO FABRICATION. PRODUCT REVIEW AN

DESIGN CRITERIA:

MINIMUM DESIGN CRITERIA FOR MOORING IN ACCORDANCE WITH UFC 1. TYPE IIB STORM MOORING WIND DESIGN DATA: 1. BASIC WIND SPEED: 105 MPH

-03:

4 - 159

GENERAL NOTES

CONTRACTOR/OWNER BUILDER SHALL CHECK AND VERIFY ALL DIMENSION AND CONDITIONS AT THE JOBSITE BEFORE PROCEEDING WITH THE WORK AND NOTIFY ENGINEER OF ANY DISCREPANCIES FOR RESOLUTION.

ALL CONSTRUCTION SHALL CONFORM TO THE 2006 INTERNATIONAL BUILDING CODE AND THE LATEST COUNTY OF MAUI/STATE OF HAWAII AMENDMENTS AND ORDINANCES AND/OR THE CITY AND COUNTY OF THIS PROJECT IS LOCATED AND HAVING JURISDICTION.

61-655 KAMEHAMEHA HIGHWAY HALEIWA, HAWAII 96712 • (808) 349-4990

No.13750

CREATIONS, LLC

PHREE

- MAX CURRENT: 1.5 KNOTS CURRENT

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- "TRILOGY ALSO ADEQUATE FOR WAVES AND TIDAL VARIATIONS:

 1. PEAK OFFSHORE WAVE HEIGHT: 8 FEET
 IGN VESSEL: "TRILOGY III" (MOORING ALSO DESIGN VESSEL:
 - 64'-0" LENGTH:
- WIDTH: 32'-6" DRAFT: 9'-0"
- MOORED VESSEL 4. WEIGHT: 38 NET TONS *MOORING IS DESIGNED FOR DESIGN VESSEL ONLY, ANY CHANGE IN REQUIRES RE-ANALYSIS.

EARTH ANCHORS:

- SOIL PROBING TO SHALL PROVIDE ENGINEER FOR SELECTION OF ANCHOR TYPE SHALL BE BASED UPON SURVEY SITE AND MINIMUM DEPTH OF 10' AT PROPOSED ANCHOR LOCATION. CONTRACTOR RESULTS OF SURVEY, SOIL PROBING, AND PROPOSED ANCHOR TYPE TO APPROVAL PRIOR TO INSTALLATION.
- TO MINIMUM L INSTALL ANCHORS PER MANUFACTURERS INSTRUCTIONS. PROOF TE CAPACITY STATED ON DESIGN DRAWINGS. SUBMIT DOCUMENTATION TESTING TO ENGINEER FOLLOWING INSTALLATION. $\dot{\mathrm{m}}$
- SAND MAY IFTING SH MANTA ANCHORS SHALL NOT BE INSTALLED IN LOCATIONS WHERE RESULT IN REDUCED SOIL COVER OVER ANCHOR HEAD. $\ddot{\circ}$

AND MOORING COMPONENTS ROPE, CHAIN, HARDWARE,

MITH ACCORDANCE HOT DIP GALVANIZED IN SHALL BE CHAIN AND HARDWARE

PROJECT

LAHAINA MOORING ZONE

FOR:

OFFSHORE MOORING

PROPOSED

KAANAPALI Queen, inc

SHEET TITLE

MOORING PLAN

20.86557°N 156.68517°W

GPS COORDINATES:

CONTACT: DENVER COON 207 KUPUOHI ST. LAHAINA HAWAII 96761 PHONE: (808) 283–2169

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DRAWING

2015-0007.35

JOB NO.

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CHECKED

OF

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SHEET

FEB. 16, 2017

DATE

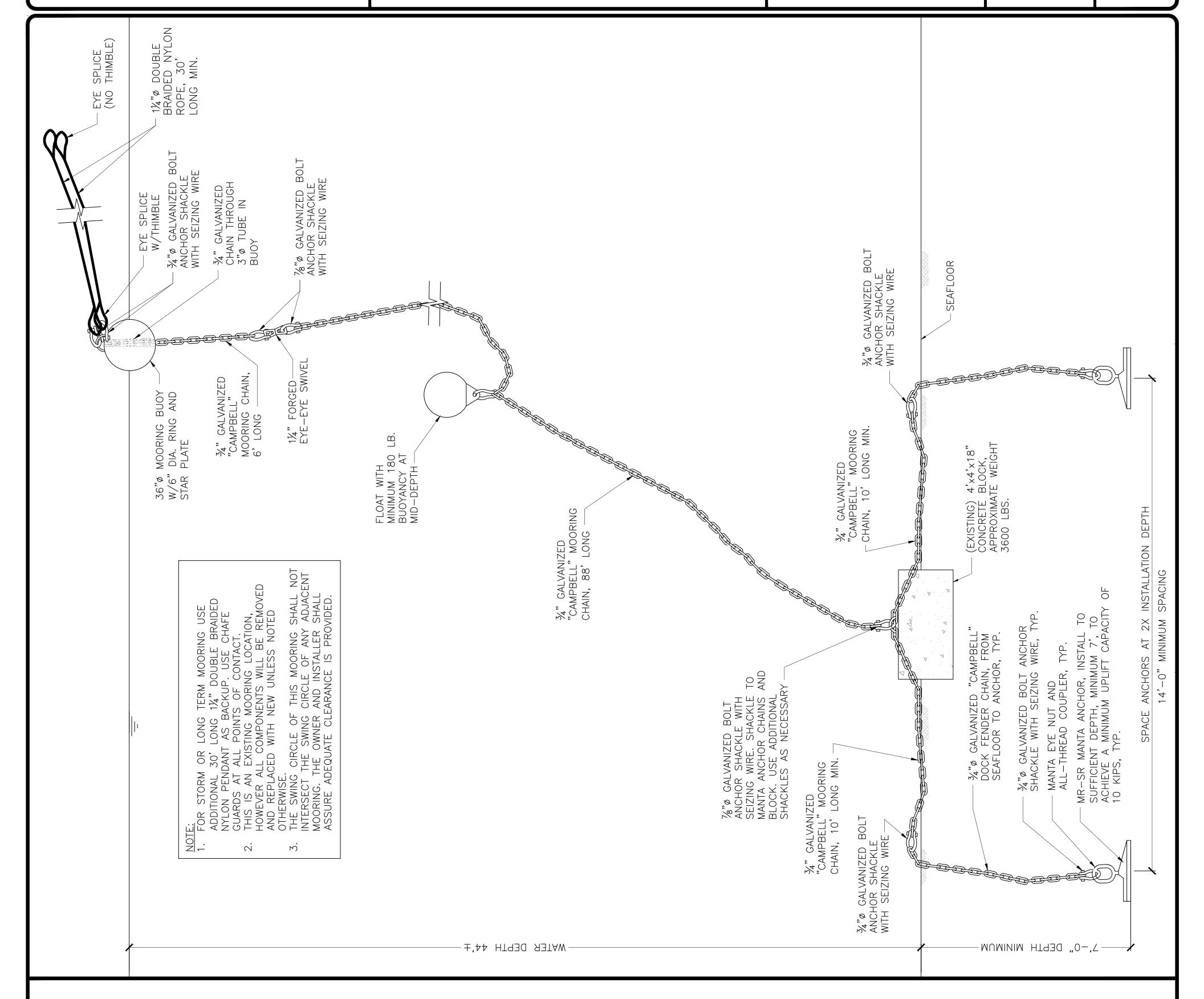
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DATE

- CONTACT. ОР POINTS THIMBLES OR CHAFE GUARDS SHALL BE USED WITH ROPES AT ALL
- COMPONENTS AND MOORING ROPE, CHAINS, HARDWARE, F RIOR TO FABRICATION. 3MIT PRODUCT DATA OF ALL CHAI ENGINEER FOR APPROVAL PRIOR SUBMIT 0

MOORING HARDWARE, MAINTENANCE AND INSPECTION

- THE VESSEL OWNER SHALL BE RESPONSIBLE FOR MAINTAINING THE VESSEL'S MOORING HARDWARE. ANY FAILURE RESULTING FROM NON MAINTAINED COMPONENTS OR UNREPAIRED DAMAGE OF THE MOORING RESULTING FROM NORMAL USE SHALL BE THE RESPONSIBILITY OF THE VESSEL OWNER.
- THE VESSEL OWNER SHALL INSPECT ALL MOORING HARDWARE, ROPES, AND CHAINS FROM SEA FLOOR TO PENDANT FOR SAFETY AND SECURITY NO LESS THAN TWO TIMES PER YEAR. INSPECTION REPORT/RECORDS SHALL BE KEPT BY VESSEL OWNER AND REPORTED HARBORMASTER/DLNR AS REQUIRED. \dot{m}
- THE VESSEL OWNER IS RESPONSIBLE FOR INSTALLING AND MAINTAINING CHAFING GEAR ON ALL MOORING LINES. ပ



61-655 KAMEHAMEHA HIGHWAY HALEIWA, HAWAII 96712 • (808) 349-4990 CREATIONS, LLC. PHREE



CONTRACTOR/OWNER BUILDER SHALL CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOBSITE BEFORE PROCEEDING WITH THE WORK AND NOTIFY ENGINEER OF ANY DISCREPANCIES FOR RESOLUTION.

ALL CONSTRUCTION SHALL CONFORM TO THE 2006 INTERNATIONAL BUILDING CODE AND THE LATEST COUNTY OF MAUJ/STATE OF HAWAII AMENDMENTS AND ORDINANCES AND/OR THE CITY AND COUNTY OF WHERE THIS PROJECT IS LOCATED AND HAVING JURISDICTION. GENERAL NOTES

64'-0" VESSEL LENGTH

JO" PENDANT LINE LENGTH

PROPOSED

DESCRIPTION

R177'-0" MAXIMUM SWING CIRCLE OF VESSEL

PROJECT OFFSHORE MOORING LAHAINA MOORING ZONE FOR:

MOORING ANCHORAGE, 20.86557°N 156.68517°W, WATER DEPTH 44'

NOTE:
THE SWING CIRCLE OF THIS MOORING
SHALL NOT INTERSECT THE SWING CIRCLE
OF ANY ADJACENT MOORING. THE OWNER
AND INSTALLER SHALL ASSURE ADEQUATE
CLEARANCE IS PROVIDED.

KAANAPALI QUEEN, INC. contact: denver coon 207 kupuohi st. lahaina hawaii 96761 phone: (808) 283-2169 gps coordinates: 20.86557'n 156.68517'w

SHEET TITLE

SWING CIRCLE

DRAWING

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JOB NO. 2015-0007.35 DRAWN JMM CHECKED JMM

DATE FEB. 16, 2017

CIRCL

SWING

SCALE: 1/32"

3 OF 3

SHEET