

State of Hawaii
DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESOURCE MANAGEMENT DIVISION
Honolulu, Hawaii

DEPARTMENT OF AGRICULTURE

Phyllis Shimabukuro-Geiser
Chairperson

CONTRACT SPECIFICATIONS

Job No. DOAH29
Maintenance of Mechanical and Electrical Equipment
Island of Hawaii, Hawaii


May 2022

7
State of Hawaii
DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESOURCE MANAGEMENT DIVISION
Honolulu, Hawaii

CONTRACT SPECIFICATIONS

Job No. DOAH29
Maintenance of Mechanical and Electrical Equipment
Island of Hawaii, Hawaii

Approved: _____


BRIAN KAU, P.E.
Administrator and Chief Engineer
Agricultural Resource Management Division
Department of Agriculture

May 2022

CONTENTS

NOTICE TO BIDDERS	iii
INFORMATION AND INSTRUCTIONS TO BIDDERS	I-1
PROPOSAL	P-1
SPECIAL PROVISIONS	SP-1
TECHNICAL SPECIFICATIONS	
Scope of Work Tasks	00101
Maintenance Materials and Lubrication	00102
PLANS	
Project Location Map, Facility Map, Equipment Information	MP-1

DEPARTMENT OF LAND AND NATURAL RESOURCES
INTERIM GENERAL CONDITIONS, DATED OCTOBER 1994
(Included by reference and bound separately)

NOTICE TO BIDDERS
(Chapter 103D, HRS)

COMPETITIVE BIDS for Job No. DOAH29 Maintenance of Mechanical and Electrical Equipment, Island of Hawaii, Hawaii shall be submitted to the Department of Agriculture, Agricultural Resource Management Division, on the specified date and time through the Hawaii State e-Procurement (HiePRO). HiePRO is accessible through the State Procurement Office website at www.spo.hawaii.gov.

The Department of Land and Natural Resources Interim General Condition, dated October 1994, as amended, and the General Conditions –AG008, latest revision, shall be made part of the specifications.

The project is located on the Island of Hawaii, Hawaii.

The work shall generally consist of maintenance of mechanical and electrical equipment.

The award of the contract, if it be awarded, will be subject to the availability of funds.

This project is subject to preference to Hawaii Products established by Section 103D, Hawaii Revised Statutes. The Hawaii Product List may be examined at the State Procurement Office website.

Should there be any questions, please refer to the HiePRO solicitation.

The Hawai'i Department of Agriculture does not discriminate on the basis of race, color, sex, national origin, age, or disability, or any other class as protected under applicable federal or state law, in administration of its programs, or activities, and, the Department of Agriculture does not intimidate or retaliate against any individual or group because they have exercised their rights to participate in actions protected, or oppose action prohibited, by 40 C.F.R. Parts 5 and 7, or for the purpose of interfering with such rights.

If you have any questions about this notice or any of the Department's non-discrimination programs, policies, or procedures, you may contact:

Morris Atta, Acting Non-Discrimination Coordinator
Hawai'i Department of Agriculture
1428 S. King Street, Honolulu, HI 96814,
(808) 973-9560
hdoa.titlevi@hawaii.gov

If you believe that you have been discriminated against with respect to a Department of Agriculture program or activity, you may contact the Non-Discrimination Coordinator identified above.

To request translation, interpretation, modifications, accommodations, or other auxiliary aids or services for this RFP, contact the HDOA at (808)973-9473 or email janice.fujimoto@hawaii.gov. Please allow sufficient time for HDOA to meet accommodation requests.

‘A‘ole nō ho‘okae ka ‘Oihana Mahi ‘Ai o ka Moku‘āina o Hawai‘i i kō ke kanaka lāhui, ‘ili, keka, ‘āina, kūlana makahiki, kīnānā a mea ‘oko‘a a‘e i ka‘a ma lalo o nā kānāwai pekelala a moku‘āina, ma ka ho‘okele ‘ana i kona mau papahana, pāhana, a ‘a‘ole ho‘i ho‘omaka‘u, ‘imi mākaia, a ‘āke‘ake‘a ka ‘Oihana Mahi ‘Ai i kekahi kanaka a hui paha ma muli o kō lākou pono, hihia ‘ana i kekahi mau hana ho‘opale ‘ia a i ‘ole kū‘ē kekahi mau hana ho‘okapu ‘ia ma lalo o nā Mahele 5 a me ka 7 o ka 40 Papa Kānāwai Pekelala (C.F.R.).

Inā he mau nīnau kāu no kēia ho‘olaha, a i ‘ole no kekahi o kō ka ‘Oihana Mahi ‘Ai mau polokalamu, kulekele, a ka‘ina hana i pili i ka ho‘okae, e ho‘ohui ‘oe me:

Hawai'i Department of Agriculture
1428 S. King Street, Honolulu, HI 96814,
(808) 973-9560
hdoa.titlevi@hawaii.gov

Inā he mana‘o no kou ho‘okae ‘ia i loko kekahi pō‘aiapili no kekahi pāhana a hanana o ka ‘Oihana Mahi ‘Ai, e ho‘ohui nō ‘oe me ka Ho‘olauka‘i Hihia Ho‘okae i ‘ōlelo ‘ia i luna a‘e nei.

No ke noi ‘ana i kōkua māhele a unuhi ‘ōlelo, a me nā lawelawe a kōkua keu o kēlā ‘ano kēia ‘ano no kēia RFP, e kelepona aku i ke ke‘ena o ka Luna Ho‘okele o ka HDOA ma (808)973-9473 a i ‘ole e leka uila aku iā janice.fujimoto@hawaii.gov. E ‘ae mai i wā e ho‘olako aku ai ka HDOA i ia mau lawelawe ‘ana.

Ti Departamento ti Agrikultura ti Hawai‘i ket saan a mangidumduma maibasar iti puli, kolor, seks, nasion a nagtaudan, edad, wenna disabilitas, wenna aniaman a dadduma a klase a protektado iti masakupan ti maipakat a linteg ti pederal wenna estado, iti panangimaton kadagiti programa, wenna aktibidadna, ken, ti Departamento ti Agrikultura ket saan a mamutbuteng wenna bumales maibusor iti siasinoman nga indibidual wenna grupo gapu ta inusarda dagiti karbenganda a makipaset kadagiti tignay a maprotektaran, wenna sinumra ti aramid a maiparit, babaen ti 40 C.F.R. Paset 5 ken 7, wenna para iti panggep a panangsinga kadagita a karbengan.

Nu addaanka iti aniaman a saludsod maipapan iti daytoy nga abiso wenna aniaman a programa, pagalagadan, wenna wagas ti saan a panangidumduma ti Departamento, mabalinmo a kontakten ti:

Hawai'i Department of Agriculture
1428 S. King Street, Honolulu, HI 96814,
(808) 973-9560
hdoa.titlevi@hawaii.gov

Nu patiem a naidumdumaka mainaig iti programa wenna aktibidad ti Departamento ti Agrikultura, mabalinmo a kontakten ti Tagakoordina iti Saan a Panangidumduma a nadakamat iti ngato.

Tapno agkiddaw iti panagipatarus, interpretasion, modipikasion, akomodasion, wenna dadduma pay a pangtulong a tulong wenna serbisio para iti daytoy nga RFP, kontakten ti Opisina ti Mangidadaulo iti HDOA iti (808)973-9473 wenna ag-email iti janice.fujimoto@hawaii.gov. Maidawat a palubusam ti umdas a tiempo para iti HDOA tapno matun-oyna dagiti kiddaw nga akomodasion.

ພະແນກກະສິກໍາຂອງລັດຮາວາຍບໍ່ເລືອກຈໍາແນກບົນພື້ນຖານດ້ານເຊື້ອຊາດ, ສີເຜິ້ວ, ເພດ, ຊາດກໍາເນີດ, ອາຍຸ ຫຼື ຄວາມພິການ ຫຼື ກຸ່ມຄົນອື່ນໆ ທີ່ຖືກປົກປ້ອງພາຍໃຕ້ກົດໝາຍລັດຖະບານ ຫຼື ລັດທີ່ກ່ຽວຂ້ອງ, ໃນການບໍລິຫານໂຄງການ ຫຼື ກິດຈະກຳຕ່າງໆ ແລະ, ພະແນກກະສິກໍາບໍ່ໄດ້ຂໍ່ມຊໍ່ ຫຼື ຕອບໂຕ້ຕໍ່ບຸກຄົນ ຫຼື ກຸ່ມຄົນໃດໜຶ່ງ ເພາະວ່າພວກເຂົາໄດ້ໃຊ້ສິດທິຂອງເຂົາເຈົ້າໃນການມີສ່ວນຮ່ວມໃນການກະທຳທີ່ໄດ້ຮັບການຄຸ້ມຄອງ ຫຼື ຄັດຄ້ານການກະທຳທີ່ຖືກຫ້າມ, ໂດຍ 40 CFR ພາກ 5 ແລະ 7 ຫຼື ເພື່ອຈຸດປະສົງໃນການແຈ້ງຮຽດສິດທິດັ່ງກ່າວ.

ຖ້າຫາກທ່ານມີຄໍາຖາມໃດໆກ່ຽວກັບແຈ້ງການສະບັບນີ້ ຫຼື ໂຄງການ, ນະໂຍບາຍ ຫຼື ຂັ້ນຕອນທີ່ບໍ່ມີການຈໍາແນກຂອງພະແນກ, ທ່ານສາມາດຕິດຕໍ່ຫາ:

Hawai'i Department of Agriculture
1428 S. King Street, Honolulu, HI 96814,
(808) 973-9560
hdoa.titlevi@hawaii.gov

ຖ້າທ່ານເຊື່ອວ່າທ່ານໄດ້ຖືກຈໍາແນກກ່ຽວກັບໂຄງການ ຫຼື ກິດຈະກຳຂອງກະຊວງກະສິກໍາ, ທ່ານສາມາດຕິດຕໍ່ຫາ ຜູ້ປະສານງານການບໍ່ຈໍາແນກ ທີ່ລະບຸຢູ່ຂ້າງເທິງ.

ເພື່ອຂໍການແປ, ການຕືອວາມ, ການດັດແປງ, ການ ອ່າ ນວຍຄວາມສະດວກ ຫຼື ເຄື່ອງຊ່ວຍ ຫຼື ການຊ່ວຍເຫຼືອບໍລິການເສີມອື່ນໆ ສໍາລັບ RFP ນີ້, ຕິດຕໍ່ຫ້ອງການ HDOA ຂອງປະທານ ທີ່ (808)973-9473 ຫຼື ສົ່ງອີເມວຫາ janice.fujimoto@hawaii.gov. ກະລຸນາອະນຸຍາດໃຫ້ມີເວລາພຽງພໍ ສໍາລັບ HDOA ເພື່ອຕອບສະ ໜອງຄໍາຮ້ອງຂໍທີ່ພັກ.

Hawai'i 農業部在其管理的計劃或活動中，不會基於種族、膚色、性別、國籍、年齡或殘障，或任何其他受適用聯邦或州法律保護的類別而进行歧視行
或任何其他受適用聯邦或州法律保護的類別而进行歧視行為，並且農業部不因任何個人或團體依據
40 C.F.R.第5部份和第7部份行使其權利進行受保護活動或反對禁止的行為，或以干擾其權利為目的而
恐嚇或報復他們。

如果您對本通告或本部門的任何無歧視計劃、政策或程序有任何疑問，您可以聯絡：

Hawai'i Department of Agriculture
1428 S. King Street, Honolulu, HI 96814,
(808) 973-9560
hdoa.titlevi@hawaii.gov

如果您認為您在參與農業部計劃或活動中受到歧視，請聯絡上述指明的無歧視協調員。

如需與本RFP相關的翻譯、口譯、修改、住宿或其他輔助設施與服務，請致電(808) (808)973-9473 或發送電子郵件至 janice.fujimoto@hawaii.gov聯絡HDOA主席辦公室。請允許HDOA足夠的時間來滿足住宿要求。

Ang Kagawaran ng Agrikultura ng Hawai'i ay hindi nagtatangi batay sa lahi, kulay, kasarian, bansang pinagmulan, edad, o kapansanan, o anumang iba pang klase na protektado sa ilalim ng naaangkop na batas ng pederal o estado, sa pangangasiwa ng mga programa, o aktibidad nito, at, ang Kagawaran ng Agrikultura ay hindi nananakot o gumaganti laban sa sinumang indibidwal o grupo dahil ginamit nila ang kanilang mga karapatan na lumahok sa mga pagkilos na protektado, o tutulan ang ipinagbabawal na pagkilos, ng 40 C.F.R. Bahagi 5 at 7, o para sa hangarin na makagambala sa naturang mga karapatan.

Kung mayroon kang anumang mga katanungan tungkol sa abisong ito o alinman sa mga programa, patakaran, o pamamaraan sa hindi pandidiskrimina ng Kagawaran, maaari kang makipag-ugnayan sa:

Hawai'i Department of Agriculture
1428 S. King Street, Honolulu, HI 96814,
(808) 973-9560
hdoa.titlevi@hawaii.gov

Kung naniniwala kang nakaranas ka ng pandidiskrimina patungkol sa isang programa o aktibidad ng Kagawaran ng Agrikultura, maaari kang makipag-ugnayan sa Tagakoordina ng Hindi Pandidiskrimina na tinukoy sa itaas.

Upang humiling ng pagsasalin, interpretasyon, pagbabago, akomodasyon, o iba pang mga pantulong na tulong o serbisyo para sa RFP na ito, makipag-ugnayan sa Opisina ng Tagapangulo ng HDOA sa (808)973-9473 o mag-email sa janice.fujimoto@hawaii.gov. Mangyaring maglaan ng sapat na oras para matugunan ng HDOA ang mga kahilingan sa akomodasyon.

กรมวิชาการเกษตรแห่งฮาวายไม่เลือกปฏิบัติบนพื้นฐานของเชื้อชาติ สีผิว เพศ ชาตีกำเนิด อายุ หรือความทุพพลภาพ หรือกลุ่มอื่นใดที่ได้รับการคุ้มครองภายใต้กฎหมายของรัฐบาลกลางหรือรัฐที่เกี่ยวข้อง
ในการบริหารโครงการหรือกิจกรรมต่าง ๆ และกรมวิชาการเกษตรไม่ได้ข่มขู่หรือตอบโต้บุคคลหรือกลุ่มใด ๆ

เนื่องจากได้ใช้สิทธิในการมีส่วนร่วมในการกระทำที่ได้รับการคุ้มครองหรือคัดค้านการกระทำที่ต้องห้ามโดย 40 C.F.R. ตอนที่ 5 และ 7, หรือเพื่อวัตถุประสงค์ในการแทรกแซงสิทธิดังกล่าว

หากคุณมีคำถามใดๆ เกี่ยวกับประกาศนี้หรือของโครงการการไม่เลือกปฏิบัติของกรม นโยบาย หรือขั้นตอนต่างๆ สามารถติดต่อได้ที่:

Hawai'i Department of Agriculture

1428 S. King Street, Honolulu, HI 96814,

(808) 973-9560

hdoa.titlevi@hawaii.gov

หากเชื่อว่า คุณถูกเลือกปฏิบัติในส่วนที่เกี่ยวกับโครงการหรือกิจกรรมของกรมวิชาการเกษตร
คุณอาจติดต่อผู้ประสานงานการไม่เลือกปฏิบัติที่ระบุไว้ข้างต้น

หากต้องการขอการแปล สามภาษา การปรับเปลี่ยน ที่พัก หรือความช่วยเหลือหรือบริการสำหรับ RFP นี้
โปรดติดต่อสำนักงาน HDOA ของประธานที่ (808)973-9473 หรืออีเมล janice.fujimoto@hawaii.gov.
โปรดใช้เวลาสำหรับ HDOA ในการดำเนินการตามคำขอที่พัก

INFORMATION AND INSTRUCTIONS TO BIDDERS

CONTENTS

		<u>Page</u>
A	Project Location and Scope of Work	I-2
B	Sealed Proposals	I-2
C	General Conditions	I-2
D	Proposal Form	I-2
E	Omissions or Erasures	I-2
F	Notice of Intent to Bid and Questionnaire	I-2
G	Bid Security	I-2
H	Contractor's License Required	I-2
I	Irregular Bids	I-3
J	Withdrawal of Bids	I-3
K	Successful Bidder to File Performance and Payment Bonds	I-3
L	Number of Executed Original Counterparts of Contract Documents	I-3
M	Change Orders	I-3
N	Wages and Hours	I-3
O	Permits	I-3
P	Property Damage	I-4
Q	Time	I-4
R	Bidder's Responsibility to Provide Proper Superintendence	I-4
S	Liquidated Damages	I-4
T	Hiring of Hawaii Residents	I-4
U	Water and Electricity	I-5
V	Public Convenience and Safety	I-5
W	Work to be Done Without Direct Payment.....	I-5
X	As-Built Drawings	I-5
Y	Asbestos Containing Materials	I-5
Z	Worker Safety	I-5
AA	Toilet Facilities	I-6
BB	Signs	I-6
CC	Quantities	I-6
DD	Other Health Measures	I-6
EE	Hawaii Business Requirement	I-6
FF	Compliance With §3-122-112 HAR	I-6

INFORMATION AND INSTRUCTIONS TO BIDDERS

- A. PROJECT LOCATION AND SCOPE OF WORK: The project area is on the Island of Hawaii and includes equipment located at TMK No. 3-6-4-003:015, Waimea, Hawaii. The scope of work shall be as generally described in the Proposal, Special Provisions, and Technical Specifications.
- B. PROPOSAL FORM: The Bidders shall use the proposal form provided on HiePRO.
- C. GENERAL CONDITIONS: The Department of Land and Natural Resources Interim General Conditions dated October 1994, as amended, shall be made a part of these contract specifications.
- D. SEALED PROPOSALS Bidders shall submit their "Sealed Bid", including the completed proposal form, bid bond, and any other documents required by the solicitation as part of their bid, via HiePRO.
- E. OMISSIONS OR ERASURES: Any proposal which contains any omission or erasure or alteration not properly initialed, or conditional bid, or other irregularity may be rejected by the Board of Agriculture (Board).
- F. NOTICE OF INTENT TO BID AND QUESTIONNAIRE:
A Notice of Intent to Bid is not required for this project. In compliance with HRS Section 103D-310, the lowest responsive and responsible bidder may be required to complete a questionnaire. When requested by the State, the completed questionnaire shall be submitted to the Chief Engineer for evaluation. Failure to furnish the requested information within the time allowed may be grounds for a determination of non-responsibility, in accordance with HRS Section 103D-310 and HAR Section 3-122-108.
- G. BID SECURITY: A bid security will be furnished by each bidder as provided in sub-section 2.7 of the General Conditions. The successful bidder's bid security will be retained until Contract execution and furnished a performance and payment bond in an amount equal to one hundred percent (100%) of the total Contract price, including an amount estimated to be required for extra work, is furnished.
- The Board reserves the right to hold the bid securities of the four lowest bidders until the successful bidder has entered into a contract and has furnished the required performance bond. All bid securities will be returned in accordance with sub-section 3.5 of the General Conditions.
- Should the successful bidder fail to enter into a contract and furnish a satisfactory performance bond within the time stated in the proposal, the bid security shall be forfeited as required by law. Proof of bid security shall be provided with the Proposal, via HiePRO.
- H. CONTRACTOR'S LICENSE REQUIRED: The Board will reject all bids received from contractors who have not been licensed by the State Contractors License Board in accordance

with Chapter 444, HRS; Title 16, Chapter 77, Hawaii Administrative Rules; and statutes amendatory thereto.

- I. IRREGULAR BIDS: No irregular bids or propositions for doing the work will be considered by the Board.
- J. WITHDRAWAL OF BIDS: No bidder may withdraw his bid between the time of the opening thereof and the award of contract.
- K. SUCCESSFUL BIDDER TO FILE PERFORMANCE AND PAYMENT BONDS: The successful bidder will be required to file performance and payment bonds each; in the amount equal to fifty percent (50%) of the total contract price, including amounts estimated to be required for extra work, as provided in sub-section 3.6 of the General Conditions.
- L. NUMBER OF EXECUTED ORIGINAL COUNTERPARTS OF CONTRACT DOCUMENTS: If requested by the Board, up to six copies of the Contract, performance and payment bonds shall be executed.
- M. CHANGE ORDERS: No work of any kind in connection with the work covered by these bid documents shall be considered as change order work, or entitle the Contractor to extra compensation, except when the work has been ordered in writing by the Chief Engineer (Engineer) and in accordance with sub-section 4.2 of the General Conditions.

The Contractor shall clearly identify and inform the Engineer in writing of any deviations from the contract documents at the time of submission, and shall obtain the Engineer's written approval to the specified deviation prior to proceeding with any work.

- N. WAGES AND HOURS: In accordance with sub-sections 7.3 to 7.9 of the General Conditions relative to hours of labor, minimum wages and overtime pay, the current minimum wage rates promulgated by the Department of Labor and Industrial Relations (DLIR) shall be paid to the various classes of electricians and plumbers engaged in the performance of this contract on the job site. The minimum wages shall be increased during the performance of the contract in an amount equal to the increase in the prevailing wages for those kinds of work as periodically determined by the DLIR.

The Department of Agriculture will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the said minimum wage rates. The possibility of wage increase is one of the elements to be considered by the Contractor in determining his bid, and will not, under any circumstances, be considered as the basis of a claim against the Department under this Contract.

No work shall be done on Saturdays, Sundays, legal State holidays, and/or in excess of eight (8) hours each day without the written consent of the Engineer. Should permission be granted to work at such times, the Contractor shall pay for all inspection administrative costs thereof. No work shall be done at night unless authorized by the Engineer.

- O. PERMITS: The State will process permit applications whenever possible, and the Contractor shall procure the pre-processed permits and pay the required fees. If permit applications are not processed by the State, the Contractor shall process the permit applications, permits and licenses, and pay all charges and fees. In all cases, the Contractor shall give all notices

necessary and incident to the due and lawful prosecution of the work.

- P. PROPERTY DAMAGE: It shall be the responsibility of the contractor to respect State property and to prevent damage to existing improvements. The Contractor will be responsible for damages resulting from construction operations. Immediately upon discovery, the Contractor shall repair such damage to the satisfaction of the Engineer.

All trees and shrubbery outside the excavation, embankment or construction limits shall be fully protected from injury.

- Q. TIME: The time of completion is specified in the Proposal. It is the Board's intention to insist the Contractor diligently prosecute the work to completion within the specified time.

Prospective bidders are reminded that the State has the option to proceed with or abandon a project depending on whether the project can be completed for occupancy in the specified time.

It is the bidder's responsibility to check the availability of all materials before bidding. The bidder shall select sub-contractors and suppliers who can warrant availability and delivery of all specified or qualified materials to assure project completion within the specified time.

The successful bidder must assume all risks for completing the project by the specified date. There shall be no extension of time for any reason except for delays caused by acts of God, labor disputes involving unions, or actions of the State. If for any reason the project falls behind schedule, the Contractor shall at its own cost, take necessary remedial measures to get the project back on schedule, i.e., working overtime, air freighting all materials, etc. In addition, if the Contractor fails to fully complete the project by the completion date, Contractor will be required to make the facility usable at its own cost.

- R. BIDDER'S RESPONSIBILITY TO PROVIDE PROPER SUPERINTENDENCE: The successful low bidder shall designate in writing to the Engineer the name of its authorized superintendent (Superintendent), who will be present at the job site whenever any work is in progress. The Superintendent shall be responsible for all work, receiving and implementing instructions from the Engineer in a timely manner. The cost for superintendence shall be considered incidental to the project.

If the Superintendent is not present at the site of work, the Engineer shall have the right to suspend the work as described under sub-section 5.5 c. and 7.20 - Suspension of Work of the General Conditions.

- S. LIQUIDATED DAMAGES: Liquidated damages in the amount specified in the Proposal will be assessed for each and every calendar day from and after the expiration of the time period stated in the Contract for the completion of the project.

- T. HIRING OF HAWAII RESIDENTS: The Contractor shall comply with Act 68, SLH 2010, in the performance and for the duration of this contract. The Contractor shall ensure that Hawaii residents compose not less than eighty percent of the workforce employed to perform the contract work on the project. The eighty percent requirement shall be determined by dividing the total number of hours worked on the contract by Hawaii residents, by the total number of hours worked on the contract by all employees of the Contractor in the

performance of the contract. The hours worked by any Subcontractor of the Contractor shall count towards the calculation for this section. The hours worked by employees with shortage trades, as determined by the Department of Labor and Industrial Relations (DLIR), shall not be included in the calculation for this section.

The requirements shall apply to any subcontract of \$50,000 or more in connection with the Contractor, that is, such Subcontractors must also ensure that Hawaii residents compose not less than eighty percent of the Subcontractor's workforce used to perform the subcontract.

- U. WATER AND ELECTRICITY: The Contractor shall make all necessary arrangements and pay all expenses for water and electricity used in this project.
- V. PUBLIC CONVENIENCE AND SAFETY: The Contractor shall conduct construction operations with due regard to the convenience and safety of the public at all times. No materials or equipment shall be stored where it will interfere with the safe passage of public traffic. The Contractor shall provide, install, and maintain in satisfactory condition, all necessary signs, flares and other protective facilities and shall take all necessary precautions for the protection of the work and the convenience and safety of the public. The Engineer shall have the right to suspend the performance of the work in accordance with sub-section 7.20 - Suspension of Work of the General Conditions.
- W. WORK TO BE DONE WITHOUT DIRECT PAYMENT: Whenever the contract that the Contractor is to perform work or furnish materials of any kind for which no price is fixed in the contract, it shall be understood that the Contractor shall perform such work or furnish said materials without extra charge or allowance or direct payment of any sort. The cost of performing such work or furnishing said material is to be included by the Contractor in a unit price for the appropriate item unless it is expressly specified that such work or material is to be paid for as extra work.
- X. AS-BUILT DRAWINGS: As-built drawings, the intent of which is to record the actual in-place construction so that any future renovations or tie-ins can be anticipated accurately, shall be required. All authorizations given by the Engineer to deviate from the plans shall be drawn on the job site plans. All deviations from alignments, elevations and dimensions which are stipulated on the plans shall be recorded on the as-built drawings. Final as-built drawings shall be submitted to the Engineer by the Contractor at the end of the project in both hard copy and electronic copy in Adobe PDF format on CD ROM.
- Y. ASBESTOS CONTAINING MATERIALS: The use of asbestos containing materials or equipment is prohibited. The Contractor shall insure that all materials and equipment incorporated in the project are asbestos-free
- Z. WORKER SAFETY: The Contractor shall provide, install and maintain in satisfactory condition all necessary protective facilities and shall take all necessary precautions for the protection and safety of its workers in accordance with the Occupational Safety and Health Standards for the State of Hawaii. The Engineer shall have the right to suspend the performance of the work in accordance with sub-section 7.20 - Suspension of Work of the General Conditions.
- AA. TOILET FACILITIES: All toilet facilities constructed at the project site shall be in accordance with the Public Health Regulations of the State Department of Health (DOH).

All necessary precautions shall be observed at the project site. The use of sanitary facilities shall be strictly enforced and workers violating these provisions shall be promptly discharged.

- BB. SIGNS: Whenever the project involves closing or obstructing any public thoroughfare, the Contractor shall provide traffic signs conforming to the applicable provisions of the current edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", published by the Federal Highway Administration as directed by the Engineer for the purpose of diverting or warning traffic prior to the construction area. All traffic signs shall bear proper wording stating thereon the necessary information as to diverting or warning traffic.

When indicated in the Proposal, the Contractor shall provide a project sign, size 4'-0" x 7'-0" to be placed as directed by the Engineer. The sign shall be constructed in accordance with Section 01581 - Project Sign of these specifications and approved by the Engineer. All wording, type and size of lettering and color selection shall be as specified in these specifications or as approved by the Engineer.

All signs shall be kept neat and clean, and properly erected at all times.

- CC. QUANTITIES: All bids will be compared on the basis of quantities of work to be done as shown in the Proposal; the quantities shown in the Unit Price items are estimated, being given as a basis for comparison of bids. The Board reserves the right to increase or decrease the quantities given under the items or delete items entirely as may be required during the progress of the work.

- DD. OTHER HEALTH MEASURES: Forms of work site exposure or conditions which may be detrimental to the health or welfare of workers or of the general public shall be eliminated or reduced to safe levels as required by the DOH codes, standards, and regulations. Suitable first aid kits and a person qualified to render first aid, as specified in the DOH regulations, shall be provided at all times when work is scheduled.

- EE. HAWAII BUSINESS OR COMPLIANT NON-HAWAII BUSINESS REQUIREMENT: Bidders (Contractors) shall be incorporated or organized under the laws of the State or be registered to do business in the State as a separate branch or division that is capable of fully performing under the contract, as stipulated in §3-122-112 HAR.

- FF. COMPLIANCE WITH §3-122-112 HAR:
As a condition for award of the contract and as proof of compliance with the requirements of 103D-310(c) HRS, the apparent low bidder shall furnish the required documents to the Department. If the valid required certificates are not submitted on a timely basis for award of a contract, a bidder otherwise responsive and responsible may not receive the award. Bidder is responsible to apply for and submit the following documents to the Department.

- A. **TAX CLEARANCE REQUIREMENTS (HRS Chapter 237)**: Bidder shall obtain a tax clearance certificate from the Hawaii State Department of Taxation (DOTAX) and the Internal Revenue Service (IRS). The certificate is valid for six months from the most recently approved stamp date on the certificate; the certificate must be valid on the date received by the Department.

- B. Department of Labor (DLIR) **“Certificate of Compliance”**. (HRS Chapter 383 -

Unemployment Insurance, Chapter 386 - Workers' Compensation, Chapter 392 - Temporary Disability Insurance, and 393 – Prepaid Health Care): Bidder shall obtain a certificate of compliance from the Hawaii State Department of Labor and Industrial relations (DLIR). The certificate is valid for six months from the date of issue; certificates must be valid on the date received by the Department.

- C. Department of Commerce and Consumer Affairs (DCCA), Business Registration Division (BREG) “**Certificate of Good Standing**”. Bidder shall obtain a certificate of good standing issued by the Department of Commerce and Consumer Affairs (DCCA), Business Registration Division (BREG). The certificate of good standing is valid for six months from the date of issue; certificates must be valid on the date received by the Department.

Alternately, instead of separately applying for these certificates at the various state agencies, bidder may choose to use the Hawaii Compliance Express (HCE), which allows businesses to register online through a simple wizard interface at <http://vendors.ehawaii.gov> to acquire a “Certificate of Vendor Compliance” indicating the bidder’s status is compliant with the requirements of §103D-310(c), HRS, and shall be accepted for contracting and final payment purposes. Bidders that elect to use the new HCE services will be required to pay an annual fee of \$15.00 to the Hawaii Information Consortium, LLC (HIC). Bidders choosing not to participate in the HCE program will be required to provide the paper certificates as instructed in the previous paragraphs.

P R O P O S A L

FOR

Department of Agriculture
Agricultural Resource Management Division
State of Hawaii

Job No. DOAH29
Maintenance of Mechanical and Electrical Equipment
Island of Hawaii, Hawaii

_____, 2022

Administrator and Chief Engineer
Agricultural Resource Management Division
Department of Agriculture
State of Hawaii
Honolulu, Hawaii

Dear Sir:

The undersigned, having carefully examined the local conditions and all available records and information covering conditions which may affect the cost of the work to be performed, and having carefully examined the Plans and Specifications, and other contract documents, hereby proposes to furnish and pay for all materials, tools, equipment, labor and other incidental work necessary to complete the work, as required or called for in this Proposal, all according to the true intent and meaning of the Notice to Bidders, Information and Instructions to Bidders, Proposal, Special Provisions, Technical Specifications, Interim General Conditions, Plans, and any and all addenda for:

Job No. DOAH29
Maintenance of Mechanical and Electrical Equipment
Island of Hawaii, Hawaii

on file with HlePro, State of Hawaii eProcurement site for the TOTAL BASE BID (Items 1 to 4) of:

_____ Dollars (\$ _____)

and will fully complete all work under this contract within 12 months from the date of written notice to proceed for Term 1, and 12 months from the date of written notice to proceed for Term 2, including date of said order, the total sum being itemized on the following pages.

PROPOSAL

Item No.	Quantity	Unit	Description	Unit Price	Total
<u>BASE BID</u>					
1.	10	Cycle	Term 1 Tasks - Inspections, maintenance, minor repairs, replacing, adjustments, corrections, trouble shooting, and reports.	\$ _____	\$ _____
2.	10	Cycle	Term 2 Tasks - Inspections, maintenance, minor repairs, replacing, adjustments, corrections, trouble shooting, and reports.	\$ _____	\$ _____
3.	2	annual	Annual tasks, inspection, maintenance, and reports. The first Annual task/report to be completed three (3) months from the NTP. The next task/reports shall be completed one year thereafter.	\$ _____	\$ _____
4.	1	Allow.	Repairs to the mechanical and electrical components, or system, as approved by the State.		\$ 25,000.00
Total Base Bid (Items 1-4)					\$ _____
One (1) cycle = five (5) weeks					
Labor Cost = _____ % of Total Base Bid					

The undersigned further understands and agrees that by submitting this bid, (1) they are declaring their bid is not in violation of Chapter 84, HRS, concerning prohibited State contracts, and (2) they are certifying that the bid prices submitted were independently arrived at without collusion.

Bidder shall furnish the following information below:

1. Service Facility

Address: _____

Contact Person: _____

Telephone Number: _____

Business Hours: _____

2. Service Personnel

Name: _____

Years of experience: _____

Name: _____

Years of experience: _____

3. References

Listed below are names and addresses of two companies or government agencies for whom the bidder has provided mechanical and/or electrical maintenance services:

Name of firm: (1) _____, (2) _____

Address: (1) _____, (2) _____

Contact person: (1) _____, (2) _____

Telephone: (1) _____, (2) _____

APPRENTICESHIP AGREEMENT PREFERENCE

1. If applicable to this project, any bidder seeking the preference must be a party to an apprenticeship agreement registered with the State Department of Labor and Industrial Relations (DLIR) at the time the bid is submitted for each apprenticeable trade the bidder will employ to construct the project. “Employ” means the employment of a person in an employer-employee relationship.
 - a. The apprenticeship agreement shall be registered with the DLIR and conform to the requirements of Hawaii Revised Statutes Chapter 372.
 - b. Subcontractors do not have to be a party to an apprenticeship agreement for the bidder to obtain preference.
 - c. The bidder is not required to have apprentices in its employ at the time the bid is submitted to qualify for the preference.
2. A bidder seeking the preference must state the apprenticeable trade the bidder will employ for each trade to be employed to perform the work by submitting a completed signed original Certification Form 1 verifying participation in an apprenticeship program registered with DLIR. “Apprenticeable trade” shall have the same meaning as “apprenticeable occupation” pursuant to Hawaii Administrative Rules (HAR) §12-30-5.
 - a. The *Certification Form 1* shall be authorized by an apprenticeship sponsor listed on the DLIR list of registered apprenticeship programs. “Sponsor” means an operator of an apprenticeship program and in whose name the program is approved and registered with the DLIR pursuant to HAR §12-30-1.
 - b. The authorization shall be an original signature by an authorized official of the apprenticeship sponsor.
 - c. The completed signed original Certification Form 1 for each trade must be submitted with the bid. Previous certifications shall not apply.

- d. When filling out the *Certification Form 1*, the name of Apprenticeable Trade and Apprenticeship Sponsor must be the same as recorded in the List of Construction Trades in Registered Apprenticeship Programs that is posted on the DLIR website. “Registered apprenticeship program” means a construction trade program approved by the DLIR pursuant to HAR §12-301 and §12-30-4.
 - e. The *Certificate Form 1* and the List of Construction Trades in Registered Apprenticeship Programs is available on the DLIR website at: <http://hawaii.gov/labor/wdd>.
3. Upon receiving the *Certification Form 1*, the Procurement Officer will verify that the apprenticeship program is on the List of Construction Trades in Registered Apprenticeship Programs and that the form is signed by an authorized official of the Apprenticeship Program Sponsor. If the programs and signature are not confirmed by the DLIR, the bidder will not qualify for the preference.
 4. If the bidder is certified to participate in an apprenticeship program for each trade which will be employed by the bidder for the project, a preference will be applied to decrease the bidder’s bid amount by five percent (5%) for evaluation purposes.
 5. Should the bidder qualify for other preferences (e.g. Hawaii Products), all applicable preferences shall be applied to the bid price.

CONTRIBUTIONS BY STATE AND COUNTY CONTRACTORS PROHIBITED

Contractors are hereby notified of the applicability of Section 11-355, HRS, which states that campaign contributions are prohibited from specified State or county government contractors during the term of the contract if the contractors are paid with funds appropriated by a legislative body.

CONDITION OF AWARD

It is understood that the award of the contract will be made on the basis of the lowest responsible Total Base Bid (Items 1 to 4) selected by the Board of Agriculture. Write the total of bid items 1 to 4 on page P-1.

In the event the low bid is below the available funds certified by the appropriate fiscal officer, the head of the purchasing agency responsible for the procurement in question is authorized to award Additives to the lowest bidder. The award of Additives may be in any order or combination such that the Base Bid plus Additives do not exceed the available funds.

It is understood and agreed that the Board of Agriculture reserves the right to reject any and/or all bids and waive any defects when, in the Board's opinion, such rejection or waiver will be for the best interest of the State of Hawaii.

In the event all bids exceed available funds certified by the appropriate fiscal officer, the head of the purchasing agency responsible for the procurement in question is authorized in situations where time or economic considerations preclude resolicitation of work of a reduced scope to negotiate an adjustment of the bid price, including changes in the bid requirements, with the low responsible and responsive bidder, in order to bring the bid within the amount of available funds. It is understood and agreed upon that the head of the purchasing agency may delete a portion or all of any item(s) in the proposal at the stated unit or lump sum price as necessary to stay within the available funding. The bidder is responsible to make an earnest effort to represent the actual cost of each item, including

all materials, labor, equipment, overhead and profit in their bid proposal to preclude claims of anticipated profit or loss of profit because of an unbalanced bid proposal.

It is also understood that if a mutually agreeable cost for the reduced scope of work necessitated by a lack of available funds cannot be agreed upon between the bidder and the head of the purchasing agency within 14 calendar days after the bid opening, then the bid may be rejected in the best interest of the purchasing agency, and the head of the purchasing agency may negotiate in progressive order (lowest to highest) with the next lowest responsible and responsive bidder.

It is also understood and agreed that the award of the contract shall be conditioned upon funds being made available for this project and further upon the right of the Board of Agriculture to hold all bids received for a period of sixty (60) days from the date of the opening thereof, unless otherwise required by law, during which time no bid may be withdrawn.

It is also understood that Notice to Proceed may be delayed up to one (1) year after the bid opening date, and that no additional compensation will be provided for any claim for escalation or delay for issuance of Notice to Proceed on or before that date.

It is also understood and agreed that the quantities given herewith are approximate only and are subject to increase or decrease, and that the undersigned will perform all quantities of work as either increased or decreased, in accordance with the provisions of the Contract Specifications.

It is also understood and agreed that the estimated quantities shown for the items for which a UNIT PRICE is asked in this Proposal are only for the purpose of comparing on a uniform basis, bids offered for the work under this contract, and the undersigned agrees that he is satisfied with and will at no time, dispute said estimated quantities as a means of claims for anticipated profit or loss of profit, because of a difference between the quantities of the various classes of work done or the materials and equipment installed, and the said estimated quantities. On UNIT PRICE bids, payment will be made only for the actual number of units incorporated into the finished project at the contract UNIT PRICE.

After the proposals are opened and read, the figures will be extended and/or totaled in accordance with the bid prices of the acceptable proposals and the totals will be compared. In the comparison of bids, words written in the proposal shall govern over figures and unit prices will govern over totals. Until the award of the contract, however, the right will be reserved to reject any and all proposals and to waive any defects or technicalities as may be deemed best for the interest of the State.

It is also understood and agreed that liquidated damages in the amount of ONE HUNDRED AND NO/100 DOLLARS (\$100.00) for each and every calendar day in excess thereof prior to completion of the contract shall be withheld from payments due to the Contractor.

It is also understood and agreed that if this bid is accepted, the successful bidder must enter into and execute a contract with the Board of Agriculture and furnish a Performance and Payment Bond, as required by law. These bonds shall conform to provisions of Section 103D-324 and 325, Hawaii Revised Statutes and any law applicable hereto.

It is also understood and agreed that the successful bidder will provide all necessary labor, materials, tools, equipment, and other incidentals necessary to do all the work and furnish all the materials specified in the contract in the manner and time herein prescribed, and according to the requirements of the Engineer as therein set forth.

It is understood that by submitting this proposal, the undersigned is declaring that his firm has not been assisted or represented on this matter by an individual who has, in a State capacity, been involved in the subject matter of this contract in the past two years.

It is understood that by submitting this proposal in accordance with HAR 3-122-192, the undersigned is declaring that the price submitted is independently arrived without collusion.

It is also understood that by submitting this proposal, a Certification for Safety and Health Programs for bids in excess of \$100,000 (in accordance with HRS 396-18), the undersigned certifies that his organization will have a written safety and health plan for this project that will be available and implemented by the Notice to Proceed date of this project. Details of the requirements of this plan may be obtained from the Department of Labor and Industrial Relations, Occupational, Safety and Health Division (HIOSH).

It is further understood and agreed that the successful bidder shall comply with paragraph 3.1.a "SUBCONTRACTING" of the General Provisions which requires that the contractor shall perform with his own organization and with the assistance of workmen under his immediate superintendence, work of a value not less than twenty percent (20%) of the value of all work embraced in the Contract, except that certain contract items of work, if specifically referred to in the special provisions, will be exempted from said twenty percent requirement.

Compliance with §103-310 HRS. As a condition of award all bidders shall comply with all laws governing entities doing business in the State, including Chapter 237 HRS (general excise tax); Chapter 383 HRS (employment security – unemployment insurance); Chapter 386 HRS (workers compensation); Chapter 392 HRS (temporary disability insurance); and Chapter 393 HRS (pre-paid health care), and shall produce all documents to the State (DLNR, Engineering Division) required to demonstrate compliance with these subsections. Any bidder making a false affirmation or certification under this subsection shall be suspended and may be debarred from further offerings or awards pursuant to §103D-702 HRS.

JOINT CONTRACTORS OR SUBCONTRACTORS TO BE ENGAGED ON THIS PROJECT

The Bidder agrees that the following is a complete listing of all joint contractors or subcontractors covered under Chapter 444, Hawaii Revised Statutes (HRS), who will be engaged by the Bidder on this project to perform the required work indicated pursuant to Section 103D-302, HRS. It is the sole responsibility of the contractor to review the requirements of this Project and determine the appropriate licenses that are required to complete the Project. The Bidder certifies that the completed listing of joint contractors or subcontractors fulfills the requirements for the project and the Bidder, together with the listed subcontractors or joint contractors have all the specialty contractor's licenses to complete the work, except as provided for in HRS §103D-302(b). Failure of the Bidder to comply with this requirement may be just cause for rejection of the bid.

"A" General Engineering Contractors and "B" General Building Contractors are reminded that due to the Hawaii Supreme Court's January 28, 2002 decision in Okada Trucking Co., Ltd. v. Board of Water Supply, et al., 97 Haw. 450 (2002), they are prohibited from undertaking any work, solely or as part of a larger project, which would require the general contractor to act as a specialty contractor in any area in which the general contractor has no license. Although the "A" and "B" contractor may still bid on and act as the "prime" contractor on an "A" or "B" project (See, HRS §444-7 for the definitions of an "A" and "B" project.), respectively, the "A" and "B" contractor may only perform work in the areas in which they have the appropriate contractor's license (*An "A" or "B" contractor obtains "C" specialty contractor's licenses either on its own, or automatically under HAR § 16-77-*

32). The remaining work must be performed by appropriately licensed entities.

General Engineering “A” Contractors automatically have these “C” specialty contractor’s licenses: C-3, C-9, C-10, C-17, C-24, C-31a, C-32, C-35, C-37a, C-37b, C-38, C-43, C-49, C-56, C-57a, C-57b and C-61.

General Building “B” Contractors automatically have these “C” specialty contractor’s licenses: C-5, C-6, C-10, C-12, C-24, C-25, C-31a, C-32a, C-42a and C-42b.

In completing the Joint Contractors or Subcontractors List, describe the specialty contractor’s nature and scope of work to be performed for this project and provide the complete firm name of the joint contractor or subcontractor in the respective columns. If the Bidder is a general contractor and providing the work of the required specialty contractor, fill in the Bidder’s (general contractor’s) name and nature and scope of work to be performed on this project.

List only one joint contractor or subcontractor per required specialty contractor’s classification, unless within the same specialty, the work of each joint contractor or subcontractor can be described so that there is no overlap in work descriptions.

If a contractor’s license is required by law for the performance of the work which is called for in this bid, the bidder and all subcontractors must have the required license before the submission of the bidder’s proposal in the case of a non-federal aid project, and for federal-aid projects, the bidder must have the required license prior to the award of the project and all subcontractors prior to the start of the subcontracted work.

COMPLETE FIRM NAME OF JOINT CONTRACTOR OR SUBCONTRACTOR	NATURE AND SCOPE OF WORK TO BE PERFORMED

Enclosed herewith is a:

- 1. Surety Bond (*1))
- 2. Certificate of Deposit (*2))
- 3. Cashier's Check (*2))
- 4. Certified Check (*2)) in the
- 5. Official Check (*2)) amount
- 6. Share Certificate (*2)) of
- 7. Teller's Check (*2))
- 8. Treasurer's Check (*2))

(Cross Out Those Not Applicable)

Dollars (\$ _____)

as required by law.

Respectfully submitted,

Name of Company, Joint Venture
or Partnership

Contractor's License No.

By _____
Signature (*4)

Title _____

Print Name _____

Date _____

Address _____

Telephone No. _____

E-Mail Address _____

NOTES:

1. Surety bond underwritten by a company licensed to issue bonds in this State;
2. A certificate of deposit; share certificate; or cashier's, treasurer's, teller's, or official check drawn by, or a certified check accepted by, and payable on demand to the State by a bank, a savings institution, or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration.
 - A. These instruments may be utilized only to a maximum of \$100,000.
 - B. If the required security or bond amount totals over \$100,000, more than one instrument not exceeding \$100,000 each and issued by different financial institutions shall be accepted.
3. Please attach to this page evidence of the authority of this officer to submit bids on behalf of the Company and also the names and residence addresses of all officers of the Company.
4. Fill in all blank spaces with information asked for or bid may be invalidated. PROPOSAL MUST BE INTACT, MISSING PAGES MAY INVALIDATE YOUR BID.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

The prospective participant certifies to the best of its knowledge and belief that it and the principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction: violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated or cause or default.

I understand that a false statement on this certification may be ground for rejection of this proposal or termination of the award. In addition, under 18 U SC Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

Typed Name of Business

Typed Name & Title of Authorized Representative

Signature of Authorized Representative

Date

I am unable to certify to the above statements. My explanation is attached.

End of Proposal

SPECIAL PROVISIONS

Amend INTERIM GENERAL CONDITIONS, dated October 1994, as follows:

Section 2 – Proposal Requirements and Conditions

1. **AMEND** Section 2.1 Qualification of Bidder with the following:

Written Notice of Intent to Bid or Offer: A written Notice of Intent to Bid is not required for the Solicitation.

Standard Qualification Questionnaire: Bidders may be required to complete a standard qualifications questionnaire. When requested, the information shall be furnished within two working days or longer at the discretion of the Engineer. Failure to furnish the requested information within the time allowed may be grounds for a determination of non-responsibility, in accordance with HRS Section 103D-310 and HAR Section 3-122-108.

Hawaii Business or Compliant Non-Hawaii Business Requirement: Bidders shall be incorporated or organized under the laws of the State or be registered to do business in the State as a separate branch or division that is capable of fully performing under the contract, as stipulated in §3-122-112 HAR. A certified letter is not required prior to bid opening.

Compliance with §3-122-112 HAR: As a condition for award of the contract and as proof of compliance with the requirements of 103D-310(c) HRS, the apparent low bidder shall furnish the required documents to the Department. If the valid required certificates are not submitted on a timely basis for award of a contract, a bidder otherwise responsive and responsible may not receive the award. Bidder is responsible to apply for and submit the following documents to the Department.

- A. Tax Clearance (HRS Chapter 237): Bidder shall obtain a tax clearance certificate from the Hawaii State Department of Taxation (DOTAX) and the Internal Revenue Service (IRS). The certificate is valid for six months from the most recently approved stamp date on the certificate; the certificate must be valid on the date received by the Department.
- B. Department of Labor (DLIR) “Certificate of Compliance”. (HRS Chapter 383 - Unemployment Insurance, Chapter 386 - Workers’ Compensation, Chapter 392 - Temporary Disability Insurance, and 393 – Prepaid Health Care): Bidder shall obtain a certificate of compliance from the Hawaii State Department of Labor and Industrial relations (DLIR). The certificate is valid for six months from the date of issue; certificates must be valid on the date received by the Department.
- C. Department of Commerce and Consumer Affairs (DCCA), Business Registration Division (BREG) “Certificate of Good Standing”. Bidder shall obtain a certificate of good standing issued by the Department of Commerce and Consumer Affairs (DCCA), Business Registration Division (BREG). The certificate of good standing is valid for six months from the date of issue; certificates must be valid on the date received by the Department.

Hawaii Compliance Express. Alternately, instead of separately applying for these certificates at the various state agencies, bidder may choose to use the Hawaii Compliance Express (HCE), which allows businesses to register online through a simple wizard interface at <http://vendors.hawaii.gov> to acquire a “Certificate of Vendor compliance” indicating that bidder’s status is compliant with requirements of §103D-310(c), HRS, shall be accepted for contracting and final payment purposes.

Bidders that elect to use the new HCE services will be required to pay an annual fee of \$15.00 to the Hawaii Information Consortium, LLC (HIC). Bidders choosing not to participate in the HCE program will be

required to provide the paper certificates as instructed in the previous paragraphs.

2. **ADD** Section 2.4a, Pre-Bid Conferences

Required Pre-bid Conferences: For construction and design-build projects with an estimated value of \$500,000 or more and solicited under the competitive sealed bid method (103D-302 HRS); and for construction and design-build projects with an estimated value of \$100,000 or more and solicited under the competitive sealed proposal method (103D-303 HRS); a pre-bid conference is required.

Other Pre-Bid Conferences: The Department may require a pre-bid conference for construction or design-build projects that are below the dollar threshold listed in above or when projects have special or unusual requirements.

Other Conditions: The Department may require the prospective Bidders to make a physical inspection of the project site and make attendance at the pre-bid conference a condition for submitting an offer.

Nothing stated at the pre-bid conference shall change the solicitation unless a change is made by written addendum.

3. **DELETE** Section 2.5, Addenda and Interpretations, in its entirety and replace with the following:

“Discrepancies, omissions, or doubts as to the meaning of drawings and specifications should be communicated using the question and answer section on the HlePRO solicitation for interpretation and must be received in the time frame set in the HlePRO solicitation. Any interpretation, if made and any supplemental instructions will be in the form of written addenda to the plans and specifications and made available prior to the offer due date. It shall be the prospective bidder’s sole responsibility to verify and obtain any said addenda. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the contract documents.”

Section 3 – Award and Execution of Contract

1. **AMEND** Section 3.3, Award of Contract, by deleting “sixty (60)” and replacing with “ninety (90)” in the first paragraph.

2. **AMEND** Section 3.3, Award of Contract, by adding the following after the first paragraph:

“If the contract is not awarded within the ninety (90) days, the Department may request the successful Bidder to extend the time for the acceptance of its bid. The Bidder may reject such a request without penalty; and in such case, the Department may at its sole discretion make a similar offer to the next lowest responsive and responsible bidder and so on until a bid is duly accepted or until the Department elects to stop making such requests.”

3. **AMEND** Section 3.9, Notice to Proceed, by deleting “180 days” and replacing with “one (1) year” in the last paragraph.

4. **ADD** Section 3.10, Protests:

“3.10 PROTESTS—Pursuant to Section 103D-701, Hawaii Revised Statutes, an actual or prospective offeror who is aggrieved in connection with the solicitation or award may submit a protest. Any protest shall be submitting in writing to the Chairperson, Department of Agriculture, 1428 South King Street,

Honolulu, Hawaii 96814, or designee as specified in the solicitation.

A protest shall be submitted in writing within five (5) working days after the aggrieved person knows or should have known the facts giving rise thereto; provided that a protest based upon the content of the solicitation shall be submitted in writing prior to the date set for receipt of offers. Further provided that a protest of an award or proposed award shall be submitted within five (5) working days after the posting of the award of the contract.

Section 5 – Control of Work

AMEND Section 5.8 Value Engineering Incentive by deleting “\$100,000” and replacing with “\$250,000” in the first paragraph.

Section 6 – Substitution of Materials and Equipment

ADD the following to Section 6.3 Sub-paragraph b:

4. If the substitution meets all the requirements of the specifications and plans.

Section 7 – Prosecution and Progress

1. **DELETE** Section 7.2d in its entirety and replace with the following:

“d. Insurance Requirements

1. Obligation of Contractor

The Contractor shall not commence any work until it obtains, at its own expense, all required insurance. Such insurance must have the approval of the Department as to limit, form and amount and must be maintained with a company authorized by law to issue such insurance in the State of Hawaii.

All insurance described herein will be maintained by the Contractor for the full period of the contract and in no event will be terminated or otherwise allowed to lapse prior to written certification of final acceptance of the work by the Department.

Certificate(s) of Insurance acceptable to the Department shall be filed with the Engineer prior to commencement of the work. These certificates shall contain a provision that coverages afforded under the policies will not be canceled or changed until at least thirty days written notice has been given to the Engineer by registered mail. The insurance policies shall name the State of Hawaii, its officers and employees as an additional insured and such coverage shall be noted on the Certificate. Should any policy be canceled before final acceptance of the work by the Department, and the Contractor fails to immediately procure replacement insurance as specified, the Department, in addition to all other remedies it may have for such breach, reserves the right to procure such insurance and deduct the cost thereof from any money due to the Contractor.

Nothing contained in these insurance requirements is to be construed as limiting the extent of Contractor’s responsibility for payment of damages resulting from its operations under this contract, including the Contractor’s obligation to pay liquidated damages, nor shall it affect the Contractor’s separate and independent duty to defend, indemnify and hold the Department

harmless pursuant to other provisions of this contract. In no instance will the Department's exercise of an option to occupy and use completed portions of the work relieve the Contractor of its obligation to maintain the required insurance until the date of final acceptance of the work.

All insurance described herein shall cover the insured for all work to be performed under the contract, all work performed incidental thereto or directly or indirectly connected therewith, including traffic detour work or other work performed outside the work area, and all change order work.

The Contractor shall, from time to time, furnish the Engineer, when requested, satisfactory proof of coverage of each type of insurance required or a copy of the actual policies covering the work. Failure to comply with the Engineer's request may result in suspension of the work, and shall be sufficient grounds to withhold future payments due the Contractor and to terminate the contract for Contractor's default.

2. Types of Insurance

The Contractor shall purchase and maintain insurance described below which shall provide coverage against claims arising out of the Contractor's operations under the contract, whether such operations be by the Contractor itself or by the subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable.

- (a) Worker's Compensation. The Contractor and all subcontractors shall obtain full worker's compensation insurance coverage for all persons whom they employ or may employ in carrying out the work under this contract. This insurance shall be in strict conformity with the requirements of the most current and applicable State of Hawaii Worker's Compensation Insurance laws in effect on the date of the execution of this contract and as modified during the duration of the contract.
- (b) Commercial General Liability Insurance and Automobile Insurance. Contractor's commercial general liability insurance and automobile liability insurance shall both be obtained in a combined, single limit of not less than \$1,000,000 per occurrence that shall include coverage for bodily injury, sickness, disease or death of any person, arising directly or indirectly out of, or in connection with, the performance of work under this contract.

The Contractor's property damage liability insurance shall provide for a single combined limit of not less than \$1,000,000 for all damages arising out of injury to or destruction of property of others including the Department's, arising directly or indirectly out of or in connection with the performance of the work under this contract including explosion or collapse.

The Contractor shall either:

- i. Require each of its subcontractors to procure and to maintain during the life of its subcontract, subcontractors' comprehensive general liability, automobile liability and property damage liability insurance of the type and in the same amounts specified herein; or
- ii. Insure the activities of its subcontractors in its own policy.

The Contractor will be permitted, in cooperation with insurers, to maintain a self insured

retention for up to 25% of the per occurrence combined single limits of the commercial general liability and the automobile liability policies. The existence of the self insured retention must be noted on the certificate of insurance coverage submitted to the Department or else it will be understood that the insurer is providing first dollar coverage for all claims. For all claims within the self-insured retention amount, the rights, duties and obligations between the Contractor and the Department shall be identical to that between a liability insurer and the Department, as an additional insured, as if there was no self-insured retention.

- (c) **Builder's Risk Insurance.** Unless included in the Specifications of this project, the Contractor shall not be required to provide builder's risk insurance. If required as noted in the Specifications, builder's risk insurance shall be provided during the progress of work and until final acceptance by the Department upon completion of the contract. It shall be "All Risk" (including but not limited to earthquake, windstorm and flood damage) completed value insurance coverage on all completed work and work in progress to the full replacement value thereof. Such insurance shall include the Department as additional name insured. The Contractor shall submit to the Engineer for its approval all items deemed to be uninsurable. The policy may provide for a deductible in an amount of up to 25% of the amount insured by the policy. With respect to all losses up to any deductible amount, the relationship between the Contractor and the Department shall be that of insurer and additional insured as if no deductible existed".

2. DELETE Section 7.16 in its entirety and replace with the following:

"RESPONSIBILITY FOR DAMAGE CLAIMS; INDEMNITY – The Contractor shall indemnify the State and the Department against all loss of or damage to the State's or the Department's existing property and facilities arising out of any act or omission committed in the performance of the work by the Contractor, any subcontractor or their employees and agents. Contractor shall defend, hold harmless and indemnify the Department and the State, their employees, officers and agents against all losses, claims, suits, liability and expense, including but not limited to attorneys' fees, arising out of injury to or death of persons (including employees of the State and the Department, the Contractor or any subcontractor) or damage to property resulting from or in connection with performance of the work and not caused solely by the negligence of the State or the Department, their agents, officers and employees. The State or the Department may participate in the defense of any claim or suit without relieving the Contractor of any obligation hereunder. The purchase of liability insurance shall not relieve the Contractor of the obligations described herein.

The Contractor agrees that it will not attempt to hold the State and its Departments and Agencies and their officers, representatives, employees or agents, liable or responsible for any losses or damages to third parties from the action of the elements, the nature of the work to be done under these specifications or from any unforeseen obstructions, acts of God, vandalism, fires or encumbrances which may be encountered in the prosecution of the work.

The Contractor shall pay all just claims for materials, supplies, tools, labor and other just claims against the Contractor or any subcontractor in connection with this contract and the surety bond will not be released by final acceptance and payment by the Department unless all such claims are paid or released. The Department may, but is not obligated to, withhold or retain as much of the monies due or to become due the Contractor under this contract considered necessary by the Engineer to cover such just claims until satisfactory proof of payment or the establishment of a payment plan is presented.

The Contractor shall defend, indemnify and hold harmless the State and its Departments and Agencies and

their officers, representatives, employees or agents from all suits, actions or claims of any character brought on account of any claims or amounts arising or recovered under the Worker's Compensation Laws or any other law, by-law, ordinance, order or decree.

Section 8 – Measurement and Payment

1. **DELETE** Section 8.7a in its entirety and replace with the following:

- a. Tax Clearances from the State of Hawaii Department of Taxation and Internal Revenue Service, subject to section 103D-328, HRS, current within two months of issuance date indicating that all delinquent taxes levied or accrued under State Statutes against the contractor have been paid.

2. **ADD** Section 8.7d, Certificate of Compliance:

- d. A Certification from the Contractor affirming that the Contractor has, as applicable, remained in compliance with all laws as required by Section 103D-310, HRS, and Section 3-122-112, HAR. A contractor making a false affirmation shall be suspended and may be debarred pursuant to section 103D-702, HRS.

1. Certification of Compliance for Final Payment, State Procurement Office Form-22. Must be Signed Original.

3. **ADD** Section 8.7e, Hawaii Compliance Express:

- e. In lieu of submitting the tax clearances from Taxation and IRS, and SPO Form -22, the Contractor may choose to use the Hawaii Compliance Express as described on page SP-1 of this Special Provisions.

SECTION 00101

SCOPE OF WORK TASKS

PART 1 - GENERAL

1.1 General Requirements

All receipts, new equipment catalog cuts, waybills, detailed descriptions of materials, etc. shall be attached to the reports as applicable to that cycle. Each of the attachments shall be dated and legible.

1.2 Electrical Safety

All electrical work shall be performed in accordance with NFPA 70E. All workers performing work on the electrical system shall submit arc flash and electrical safety training certificates. All electrical work shall be done with the system de-energized. Submit energized work permits for approval if the work to be performed requires the system to be energized as allowed by NFPA 70E.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 Tasks for each Cycle (a Cycle is once every five (5) weeks)

- 3.1.a. Check for excessive noise and pump/motor vibrations (should be within 1 to 3 mils peak to peak displacement at rotational cycles 1,770 rpm). If excessive, determine the cause.
- 3.1.b. Test individual pump safeties, including low suction and motor overload.
- 3.1.c. Test pump control including tank level switches, pump lead/lag, valve control, and pump start circuit.
- 3.1.d. Test system safeties and alarms including incoming power faults, pump house flooding, tank overflow, tank low level, and phase failure protective circuit.
- 3.1.e. Visually inspect all electrical contacts and clean off corrosion from contacts. Check for corrosion on grounding lugs/bolts/nuts/clamps and wire. If loose, tighten.
- 3.1.f. Look for moisture in junction boxes/conduits and replace light bulbs if burnt out. Identify source of moisture and correct as necessary.
- 3.1.g. Clean any accumulation of oil, dirt, dust, and moisture from all mechanical surfaces.
- 3.1.h. Check all valves for proper operation and correct as necessary. Including any pressure reducing, diaphragm operated butterfly, check, and butterfly valves.
- 3.1.i. Check motor to pump coupling for alignment and secure connection to shaft. Check pump/motor shafts for usual wear and tear or nicks/cuts, and record observations.
- 3.1.j. Lubricate motor bearings per manufacturer's recommendation, and apply lubricant or protective coating to exposed corrosive sites, especially metal to metal connections or contacts of all kinds.
- 3.1.k. Check mounting bolts of all equipment for loose connections and tighten as required.
- 3.1.l. Replace fuses, switches, or bulbs as needed.

- 3.1.m. Open all electrical cabinets and check for moisture. If moisture is present, determine where moisture/leak is coming from and stop moisture/leak by performing repairs (replace torn gasket, reconnect loose conduits, re-apply or replace conduit seals, etc.) as necessary. Replace and add more desiccants.
- 3.1.n. Clean all sensors, gauges, monitors, valves, flow meters, and other control devices, and check for correct calibration and proper operation.
- 3.1.o. Inspect pump packing glands and mechanical seals and correct as needed.
- 3.1.p. Check status of SCADA system and connectivity and controls of all connected elements. Troubleshoot any problems and correct as necessary.
- 3.1.q. Check all lighting systems and replace lamps and ballasts as necessary.
- 3.1.r. Check signal cable from pump station to reservoir. Repair as required, or re-install if fallen.
- 3.1.s. Check the manual gage of the reservoir, to see if it is reasonably accurate.
- 3.1.t. Take pictures of overall system, and details of pumps, motor, valves, controls, reservoir, etc.
- 3.1.u. Clean basket strainers and/or Y-Type strainers.
- 3.1.v. Check reduced pressure backflow preventer.
- 3.1.w. Clean pump control valve inlets and outlet strainers and replace/repair appurtenances as needed.
- 3.1.x. Remove and clean spin-clean filter.
- 3.1.y. Take current and voltage readings with a combination clamp-on amp/volt meter on motors and record to analyze monthly changes.
- 3.1.z. Read and record operating pump flow and discharge pressure for each pump and include this data in the report.
- 3.1.aa. Read and record pumping station flow totalizer reading and include this data into the report.

3.2 Annual Tasks (once every 12 months)

- 3.2.a. Check concrete pipe foundations for cracks or settling. Repair if needed and report analysis for pipe movement or settlement.
- 3.2.b. Check condition of all wiring to mechanical equipment, including conduits, and record.
- 3.2.c. Open and clean pressure regulating and automatic control valves.
- 3.2.d. Check and repack suction ball bearing with lubricant as per manufacturer's recommendation.
- 3.2.e. Determine desired torque at initial Annual Inspection. Remove bonnet of motors and check ratchet assemblies if torque is acceptable; if not, correct to desired torque.
- 3.2.f. Replace desiccants with new, within all the electrical cabinets.
- 3.2.g. Test all motor connections to equipment with "megger" insulation tester.
- 3.2.h. Exercise each circuit breaker (with the power de-energized) as recommended by the manufacturer.

3.3 Reports – Sample report forms are included herein, the Contractor shall edit the forms to reflect all required tests and submit for approval of the Engineer, prior to beginning work. The Contractor shall use attachments whenever more space for the narrative is required. Each report shall be completed and submitted within two (2) weeks from on-set of the field work.

PART 4 – MEASUREMENT AND PAYMENT

The work shall be measured and paid at the unit bid price bid as scheduled in the Proposal and shall include all labor, equipment and tools necessary to complete the work.

END OF SECTION

CHECK MECHANICAL:

Pump Control Valve, strainers

Check Valve

Gate Valve

Pressure relief

Air relief

Sensors, gauges, monitors

If Pump/Motor Found Inoperable - Was it returned to Service? Describe Cause(s) and Repair(s) Needed:

Describe Follow-Up Repair Work Completed from previous Inspection, Dates of these repair(s):

Adjustments and Repair Work Completed From Today's Inspection:

List of Equipment (Model No's) and Parts (Part No's) Replaced:

Larger Repair Work, Potential Failure(s) Reported to ARMD:

ANNUAL REPORT FORM

Pump Number:

Date(s) of Inspection:

For cycle No.:

Name of Inspector(s):

Comments:

Voltage Readings:

AB
AC
BC
AG
BG
CG

Running Amps:

AB
AC
BC
AG
BG
CG

A
B
C

Vibration Reading:

Motor

Pump

Temperature Reading:

Motor

Test the Safety Switches:

Voltage Overload

No Flow

Insulation Resistance:

Primary

Secondary

Primary to Secondary

Megger

Mechanical:

Clean control valve/pressure regulators

Spin-clean filter

Pipe foundations

Paint

Electrical:

Wiring and conduits

Check motor ratchet assembly

Describe Potential Repair Work Required:

Describe Follow-Up Repair Work completed, Date(s) of Repair:

SECTION 00102

MAINTENANCE MATERIALS AND LUBRICATION

PART 1 - GENERAL

1.1 This section covers the requirements for the furnishing and servicing of pumps, motors, electric transformers, and other appurtenances as shown specified.

PART 2 – PRODUCTS

2.1 Lubricating Oil

A. Table 1 - Recommended Oils

TABLE 1 — RECOMMENDED OILS

AMBIENT TEMPERATURE RANGE	ANGULAR CONTACT THRUST BEARINGS		SPHERICAL ROLLER THRUST BEARINGS	
	UP TO 100°F	ABOVE 100°F TO A MAX. OF 140°F	UP TO 40°F	ABOVE 40°F TO A MAX. OF 140°F
ISO GRADE	32	68	68	150
OIL VISCOSITY	130 — 165 SUS @ 100°F	284 — 347 SUS @ 100°F	284 — 347 SUS @ 100°F	620 — 785 SUS @ 100°F
MANUFACTURERS' SPECIFICATIONS				
CONOCO OIL	CONOCO DECTOL 15 R&O OIL	CONOCO DECTOL 33 R&O OIL	CONOCO DECTOL 33 R&O OIL	CONOCO DECTOL 51 R&O OIL
EXXON CO., USA	TERRESSTIC 33	TERRESSTIC 68	TERRESSTIC 68	TERRESSTIC 150
MOBIL OIL CO.	DTE OIL LIGHT	DTE OIL HEAVY MEDIUM	DTE OIL HEAVY MEDIUM	DTE OIL HEAVY
PENNZOIL CO., INC.	AW HYD. OIL 32	AW HYD. OIL 68	AW HYD. OIL 68	AW HYD. OIL 150
SHELL OIL CO.	TELLUS 32	TELLUS 68	TELLUS 68	TELLUS 150
CHEVRON USA, INC.	CHEVRON OC TURBINE OIL 32	CHEVRON OC TURBINE OIL 68	CHEVRON OC TURBINE OIL 68	CHEVRON OC TURBINE OIL 150
TEXACO, INC.	REGAL 32	REGAL 68	REGAL 68	REGAL 150
UNION OIL CO. OF CALIFORNIA	UNAX AW 32	UNAX AW 68	UNAX AW 68	UNAX AW 150
SYNTHETIC OIL SPECIFICATIONS				
MOBIL OIL CO.	SHC 624	SHC 626	SHC 626	SHC 629
EXXON OIL	SYNESSTIC 32	SYNESSTIC 68	SYNESSTIC 68	SYNESSTIC 150

Refer to motor lubrication plate for specific type and grade of lubricant to be used. If motor lubrication plate specifies synthetic oil, other oil is NOT to be substituted.

WARNING:

If unit is provided with water cooling coils they must be hooked up or oil viscosity could drop below the requirement for safe bearing operation.

B. Table 3 -- Oil Capacity in Quarts

Below in table 3 is a general list of oil capacities.

TABLE 3 — OIL CAPACITY IN QUARTS

FRAME	TYPES	UPPER BEARINGS	LOWER BEARINGS
324TP, TPH; 326TP, TPH	RU	3	GREASE
364TP, TPA; 365TP, TPA	RV-4		
404TP, TPA; 405TP, TPA	RU, RV-4	5	GREASE
444TP, TPA	RU	5-1/2 •	GREASE
445TP, TPA	RV-4	3-1/2 ■	
404TP, 405TP, A444TP	TU, TV-4, LU, LV-4	5-1/2 ¹	GREASE
	TU, LU, TV-4, LV-4	4-5/8	GREASE
440T	TU, LU, TV-4, LV-4	4-5/8	2
	(SPECIAL CONSTRUCTION)		
449T	JU, JV-4 (4-POLE & SLOWER)	22	GREASE
	JV-4 (2-POLE)	22	2
5006P, PH; 5008P, PH	HU, HV-4	12	2-1/2
5009P, PH	HV-4 (2 POLE)	20	2-1/2
5008P, PH	EU, EV-4, JU, JV-4	22-1/4	4-1/2
5808P, PH; 5809P, PH	HU, HV-4	24	3
5807P, PH; 5809P, PH; 5811P, PH	EU, EV-4, JU, JV-4	37	4
6808P, PH; 6810P, PH	HU, HV-4	70	3
7000	HU, HV-4 (W/CASE IRON 6800 UPPER BRACKET)	70	6
	HU, HV-4 (W/FABRICATED STEEL UPPER BRACKET)	40	6
8000	HU, HV-4 (29344 OR SMALLER UPPER BEARING)	64	12-1/2
	HU-5, HV-5	139	14-1/2

- With ball bearings
- With spherical roller thrust bearings.

20

2.2 Lubricating Grease

- A. Use NLGI grade 2 grease.
- B. Greases with different bases (lithium, polyurea, or clay) may not be compatible. Do not mix and to prevent intermixing, completely purge the motor or pump bearings of old greases before applying new grease.
- C. Table 2 – Recommended Regreasing Intervals

Recommended Greases.

Relubricate with a good quality NLGI grade 2 grease. Units with grease lubricated bearings are prelubricated at the factory with a polyurea based grease (Chevron SRI or Shell Dolium R) unless lubrication plate on motor indicates otherwise.

CAUTION

Greases of different bases (lithium, polyurea, clay) may not be compatible when mixed. Prevent such intermixing by completely purging the bearing of old greases as explained in part 2 of this section. Refer to grease manufacturer for compatibility of specific greases.

TABLE 2 — RECOMMENDED REGREASING INTERVALS

INTERVAL	TYPES OF SERVICE
2 YEARS	INFREQUENT OPERATION OR LIGHT DUTY IN CLEAN ATMOSPHERE
1 TO 1-1/2 YEARS	8 TO 16 HOURS PER DAY IN CLEAN, RELATIVELY DRY ATMOSPHERE
6 MONTHS	12 TO 24 HOURS PER DAY HEAVY DUTY OR IN MOIST ENVIRONMENT
3 MONTHS	HEAVY DUTY IN DIRTY, DUSTY LOCATIONS, HIGH VIBRATION, HIGH AMBIENTS, OR MOIST ENVIRONMENT

Oil capacity

Oil capacity is stamped on motor nameplate.

PART 3 – EXECUTION

3.1 LUBRICATION –

- A. General. The contractor shall take the following steps before lubricating equipment: (1) All equipment shall be stopped and at rest; and (2) Electric controls to the equipment to be lubricated shall be locked at an open position to assure prevention of energizing while being serviced. Unless otherwise specified, servicing shall be in accordance with the manufacturer's standards if available or specified.
- B. Oil lubricated bearings. All bearings shall be lubricated and oil changed annually; however, with frequent start-stop operations, damp or severe service conditions, more frequent oil changes shall be required. Fax conditions to (314) 553-1101 US Motor, Emerson Motor Co. for recommendation on frequency.

Add oil into pre-set oil fill hole at each bearing housing until oil level reaches between minimum and maximum marks located on the sight gauge window.

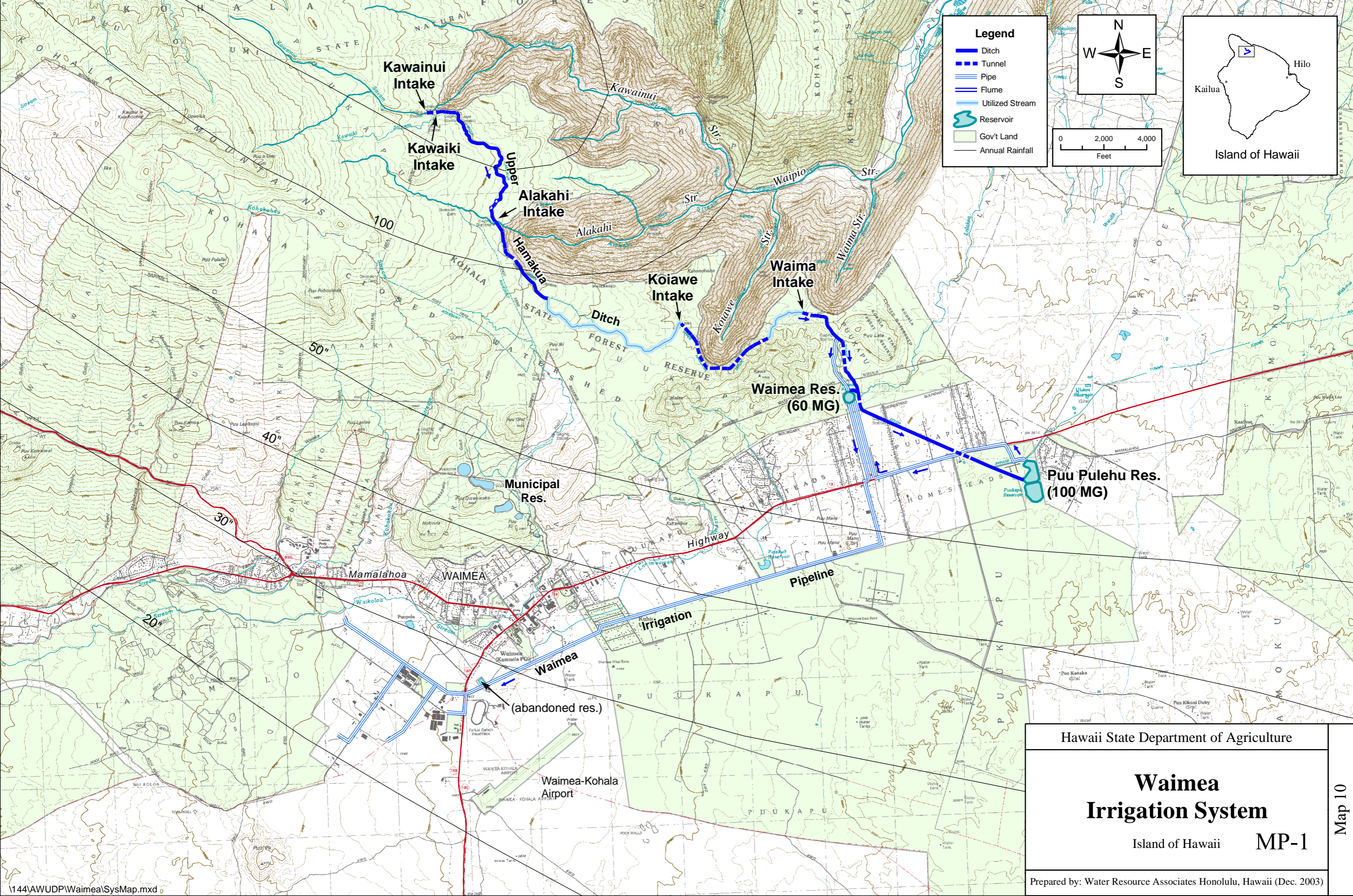
- C. Grease lubricated bearings. The contractor shall service the bearings with grease as recommended in Table 2 for regreasing intervals. Relubricate bearings by removing the drain plug and inserting new grease until clean grease is released at the drain. Operate motor for approximately ten (10) minutes with the drain plug removed to allow purging of excess grease before closing the drain plug. Remove and clear old or excess grease. If grease insert is blocked, use a mechanical probe or scavenger to clear and dislodge blockage (usually caked grease or foreign particles). Check the greasing cavity for purging of approximately 60% to 70% capacity.

The contractor shall assure that over greasing is prevented by checking after the ten (10) minute motor run and inspecting the drain plug area for grease.

PART 4 – MEASUREMENT AND PAYMENT

Unless indicated otherwise, payment for valves and appurtenances shall be included in the lump sum or unit price bid for the various items of which it is a part as scheduled in the Proposal.

END OF SECTION



Legend

- Ditch
- - - Tunnel
- ||| Pipe
- Flume
- Utilized Stream
- Reservoir
- Gov't Land
- Annual Rainfall

North Arrow

Scale: 0, 2,000, 4,000 Feet

Island of Hawaii

Kailua

Hilo

Hawaii State Department of Agriculture







Waimea Irrigation System

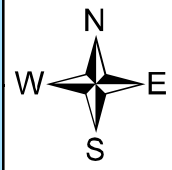
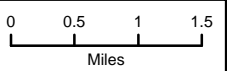
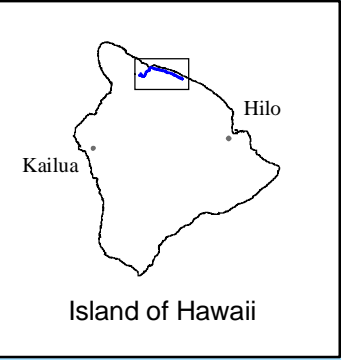
Island of Hawaii MP-1

Map 10

Prepared by: Water Resource Associates Honolulu, Hawaii (Dec. 2003)

Legend

-  Ditch
-  Tunnel
-  Flume
-  Reservoir
-  Gov't Land
-  Annual Rainfall

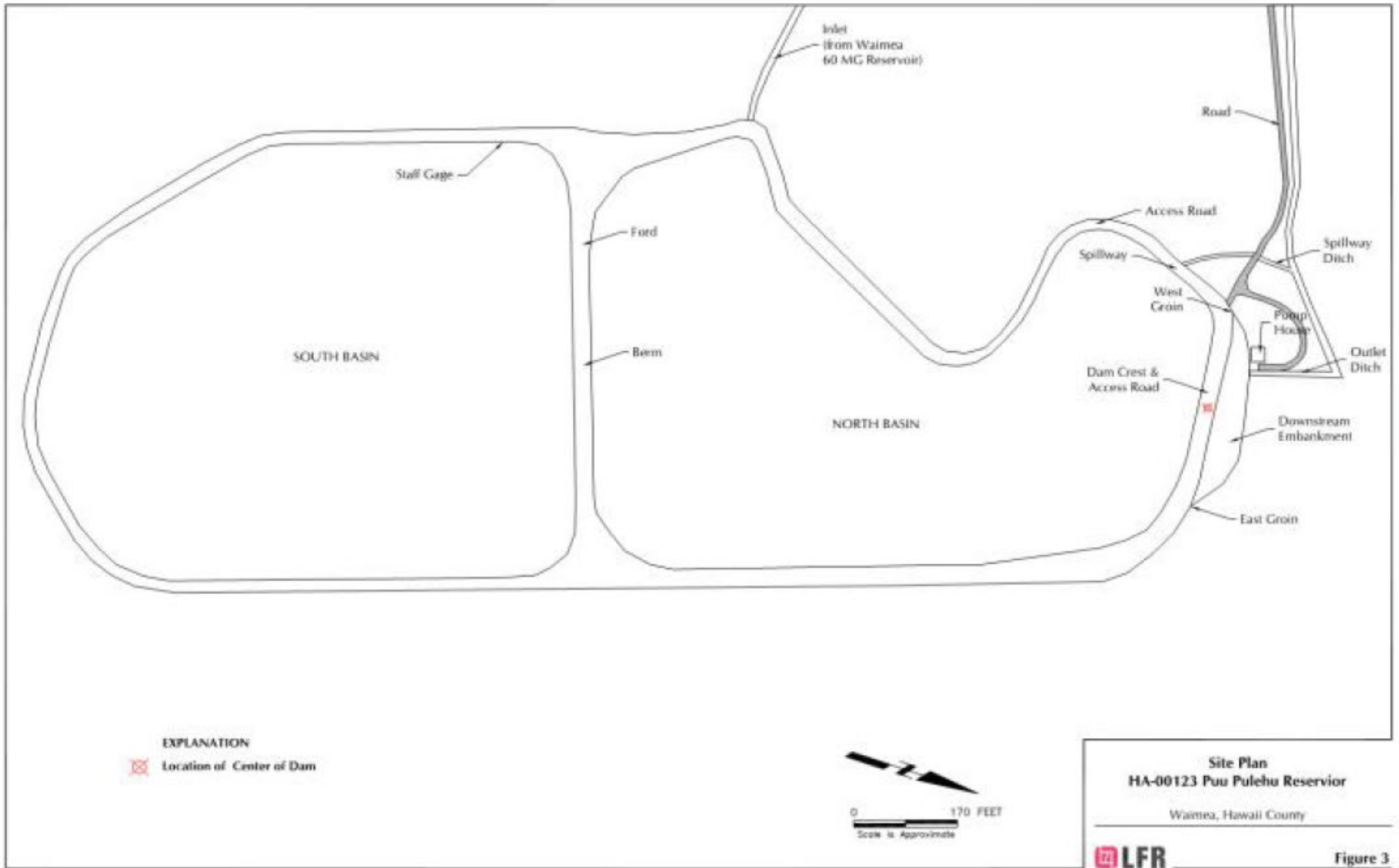
Hawaii State Department of Agriculture

Lower Hamakua Ditch Irrigation System

Island of Hawaii MP-2

Map 6

Prepared by: Water Resource Associates Honolulu, Hawaii (Dec. 2003)



Puu Pulehu Reservoir



PAD MOUNTED TRANSFORMER
500KVA, 12470-480/277Y

WATER PUMP

460V, 3Ø, 1770 RPM, 231A, 200 H.P.

TYPE - HSRG

FRAME - 445TP

KVA CODE G

CLASS - B

NEMA - B



LEFT- CONTROL PANEL
CENTER- 400 AMP DISCONNECT SWITCH
RIGHT- METERING CABINET