STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS

Land Development Division

NOVEMBER 26, 2018
Date

ADDENDUM NO. 3
TO
INVITATION FOR BIDS

IFB-19-HHL-001
ANAHOLA FARM LOTS WATER PROJECT, PHASE II –
WATER TANK REPLACEMENT & FACILITY IMPROVEMENTS

Notice to All Prospective Offerors

This addendum is hereby made a part of the contract documents for IFB-19-HHL-001, and it shall amend the said contract documents as detailed within this Addendum document.

APPROVED:

Norman L. Sakamoto, Administrator
Land Development Division
Department of Hawaiian Home Lands

Please execute and immediately return the receipt below to the Department of Hawaiian Home Lands via facsimile to: **(808) 620-9299, Mr. Wayne Nakamura, Project Manager, Land Development Division.**

Receipt of Addendum No. 3 for: **ANAHOLA FARM LOTS WATER PROJECT, PHASE II- WATER TANK REPLACEMENT & FACILITY IMPROVEMENTS**, Invitation For Bids No.: **IFB-19-HHL-001**, is hereby acknowledged.

Print: _____ _____
(Name) (Title)

_____ _____
Name of Firm/Company Date

ADDENDUM NO. 3

IFB NO.: IFB-19-HHL-001
ANAHOLA FARM LOTS WATER PROJECT, PHASE I –
WATER TANK REPLACEMENT & FACILITY IMPROVEMENTS
PUBLIC WATER SYSTEM NO. 432
ANAHOLA, KAUAI, HAWAII

INCLUSIONS

This Addendum No. 3 shall incorporate the following amendments into IFB-19-HHL-001:

1. Add "**Exhibit 3, Stage III Water Source**" to **Pre-bid Conference Minutes** for the Pre-bid Conference held on November 8, 2018, 9:00 a.m., at DHHL Kauai District Office, 3060 Eiwa Street, State Building Conference room A, Lihue, Kauai. Pre-bid Conference Minutes were incorporated by Addendum No. 2 into IFB-19-HHL-001, however, "**Exhibit 3, State III Water Source**" was missing from the Exhibits.

2. Add DHHL response to **Request For Information (RFI) No.1**, received via email on November 13, 2018 requesting information for electrical and telephone service.

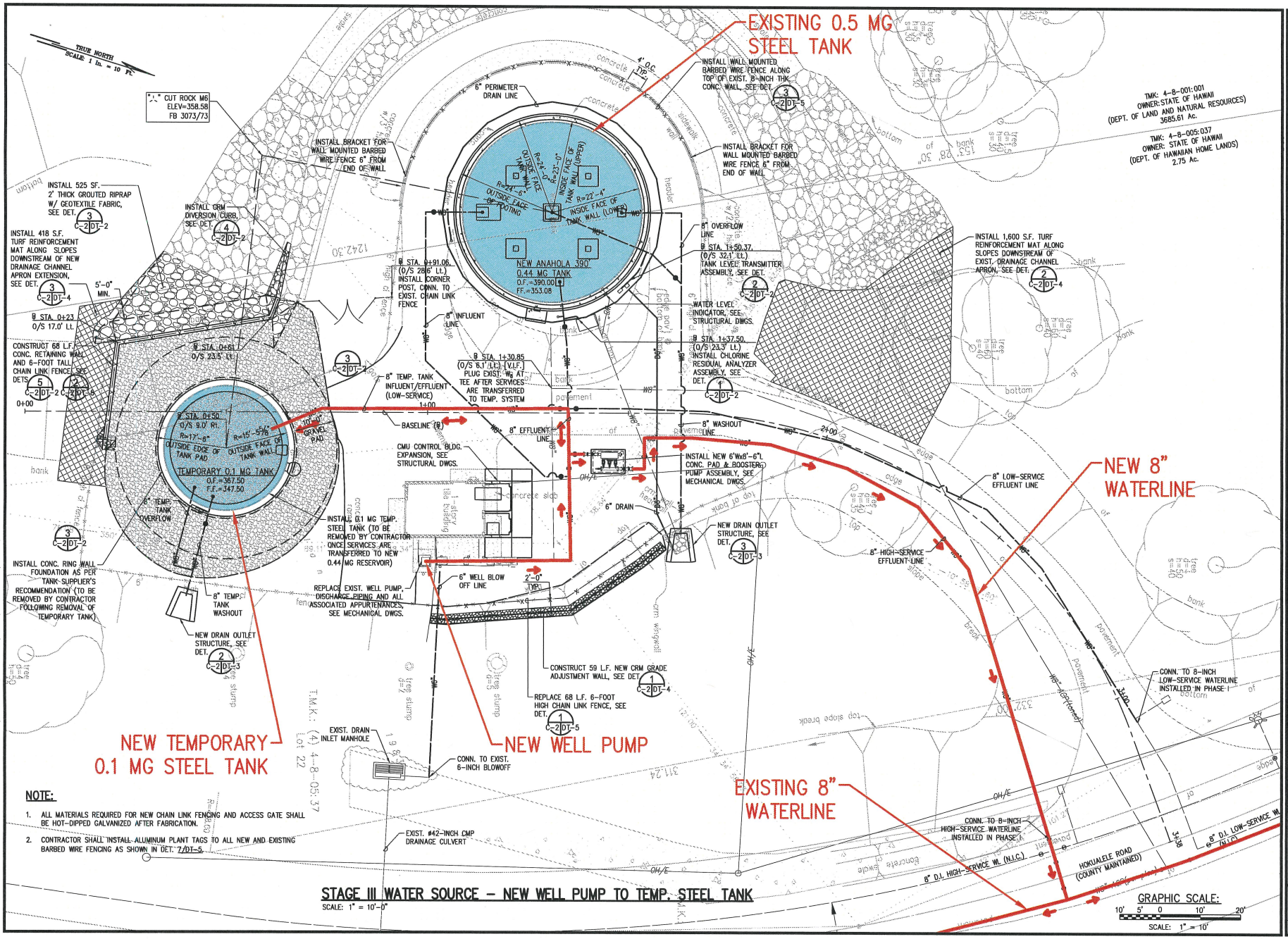
3. Add DHHL response to **Request For Information (RFI) No. 2**, received via email on November 19, 2018 requesting approval for Glenmount Global Systems for SCADA.

4. Add DHHL response to **Request For Information (RFI) No. 3**, received via email on November 20, 2018 requesting information on the chlorine residual analyzer.

5. Add DHHL response to **Request For Substitution** by Klopfenstein's Lighting, Inc., received via U.S.P.S. on November 9, 2018 requesting substitution of lighting fixtures.

6. Add DHHL response to **Request For Substitution** by Engineered Systems, Inc., received via email on November 16, 2018 requesting substitution for packaged line booster pumps system, pump control valve, air/vacuum valve, center-guided check valve.

7. Add DHHL response to **Request For Substitution** by Shearer & Associates, Inc., received via email on November 16, 2018 requesting substitution for temporary water tank.



NOTE:

1. ALL MATERIALS REQUIRED FOR NEW CHAIN LINK FENCING AND ACCESS GATE SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.
2. CONTRACTOR SHALL INSTALL ALUMINUM PLANT TAGS TO ALL NEW AND EXISTING BARBED WIRE FENCING AS SHOWN IN DET. 7/DT-5.

STAGE III WATER SOURCE – NEW WELL PUMP TO TEMP. STEEL TANK

SCALE: 1" = 10'-0"

oceanit

DEPARTMENT OF HAWAIIAN HOME LANDS
91-5420 Kapolei Parkway
Kapolei, Hawai'i 96707

ANAHOLA FARM LOTS WATER PROJECT

Phase II - Water Tank Replacement & Facility Impr.
Anahola, Island of Kaua'i

TMK:
4-8-001:001; 4-8-005:037 & 039

WATER SOURCE PHASING - STAGE III

DESIGNED BY: JM	DRAWING NO. 3
DRAWN BY: JM	
CHECKED BY:	
SURVEYED BY: WT	DATE: AUG. 2018
SHEET NO. N/A OF 79	

FINAL PLANS: ANAHOLA FARM LOTS - PHASE II - WATER TANK REPLACEMENT & FACILITY IMPROVEMENTS

DRAWING NAME: E:\20\725-DHHL_ANAHOLA_PHI_WATER_SYSTEM_IMPROVEMENTS\4_POST DESIGN\BIDDING PHASE\PHASE I\PRE-BID MEETING\GRAPHICS\08_SITE_PLAN WATER SOURCE PHASING.DWG EDIT TIME: 11-07-18, 3:00 PM EDITED BY: JMICHELSON

BOWERS + KUBOTA CONSULTING

• Project Management • Planning • Architectural/Engineering Design • Construction Management

HawaiiBusiness's *2018 Best Places to Work*

94-408 Akoki Street, Suite 201-A
Waipahu, Hawaii 96797
Phone: 808_836_7787
Telefax: 808_834_4833

LETTER OF TRANSMITTAL

TO: Hawaiian Dredging Construction Company
605 Kapiolani Blvd
Honolulu, HI 96813

DATE: November 20, 2018 | PROJ NO.: IFB-19-HHL-001
ATTENTION: **Richard Halle**
RE: Anahola Farm Lots Water Project Ph II
Water Tank Replacement and Facility Improvements
BK Transmittal No. 01

WE ARE SENDING YOU ☑ Attached Via: email the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1	11/20/18	1	RFI No. 1 - Response to sheets E-6, E-8, E-20, E-21, DT-7 (requested by Wasa Electric through HDCC

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval

☑ For your use and info ☐ Approved as noted ☐ Submit _____ copies for distribution

☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints

☐ For review and comment ☑ See Remarks

☐ FOR BIDS DUE _____ 20 _____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS: See comments in blue on the attached in response to the RFI for sheets E-6, E-8, E-20, E-21 and DT-7

COPY TO: Wayne Nakamura, DHHL
Joshua Miyamoto, Wasa Electric
Files

SIGNED for Steve Ientile Bowers + Kubota Consulting

Nakamura, Wayne H

From: Steve Ientile <sientile@bowersandkubota.com>
Sent: Friday, November 23, 2018 1:00 PM
To: 'Richard Halle'
Cc: Nakamura, Wayne H; Charissa Riofta
Subject: RE: Anahola, Phase II: RFI (WASA Electric through HDCC) RESPONSE
Attachments: Response RFI No. 1 Electrical _ sheets E-6, E-8, E-20, E-21, DT-7 requested by Wasa.pdf

Richard; Please see attached B+K Transmittal No. 07; Response - RFI No. 1: Electrical (sheets E-6, E-8, E-20, E-21, DT-7) – as requested by Wasa.

Thanks

Steve Ientile
Bowers + Kubota Consulting
Bowers + Kubota Management
HawaiiBusiness' 2018 Best Places to Work

Mobile: (808) 286-3830
Main Office: (808) 836-7787 / (808) 833-1841
Fax: (808) 834-4833

From: Richard Halle <rhalle@hdcc.com>
Sent: Tuesday, November 13, 2018 12:35 PM
To: Nakamura, Wayne H <wayne.h.nakamura@hawaii.gov>
Subject: FW: Anahola Farm Lots - Electrical RFIs

Rfi's from Wasa Electric

From: Joshua Miyamoto [mailto:jmiyamoto@wasahawaii.com]
Sent: Tuesday, November 13, 2018 12:03 PM
To: Richard Halle <rhalle@hdcc.com>
Subject: Anahola Farm Lots - Electrical RFIs

Richard,
Please see attached for details on RFIs.

- Are the existing Weather heads for Electrical and Telephone services to be reused?
  - If not please provide details on roof penetration, routing, and location
- Details show routing to exterior pump as being underground. Please confirm we need to sawcut and patch.
  - If not please provide details on routing for surface mount
- Fence detail missing info
- HTCO/SIC tie in
  - Please provide information and definition of scope

Thank you,
Joshua Miyamoto

Ronald N. S. Ho & Associates, Inc. *electrical engineers*

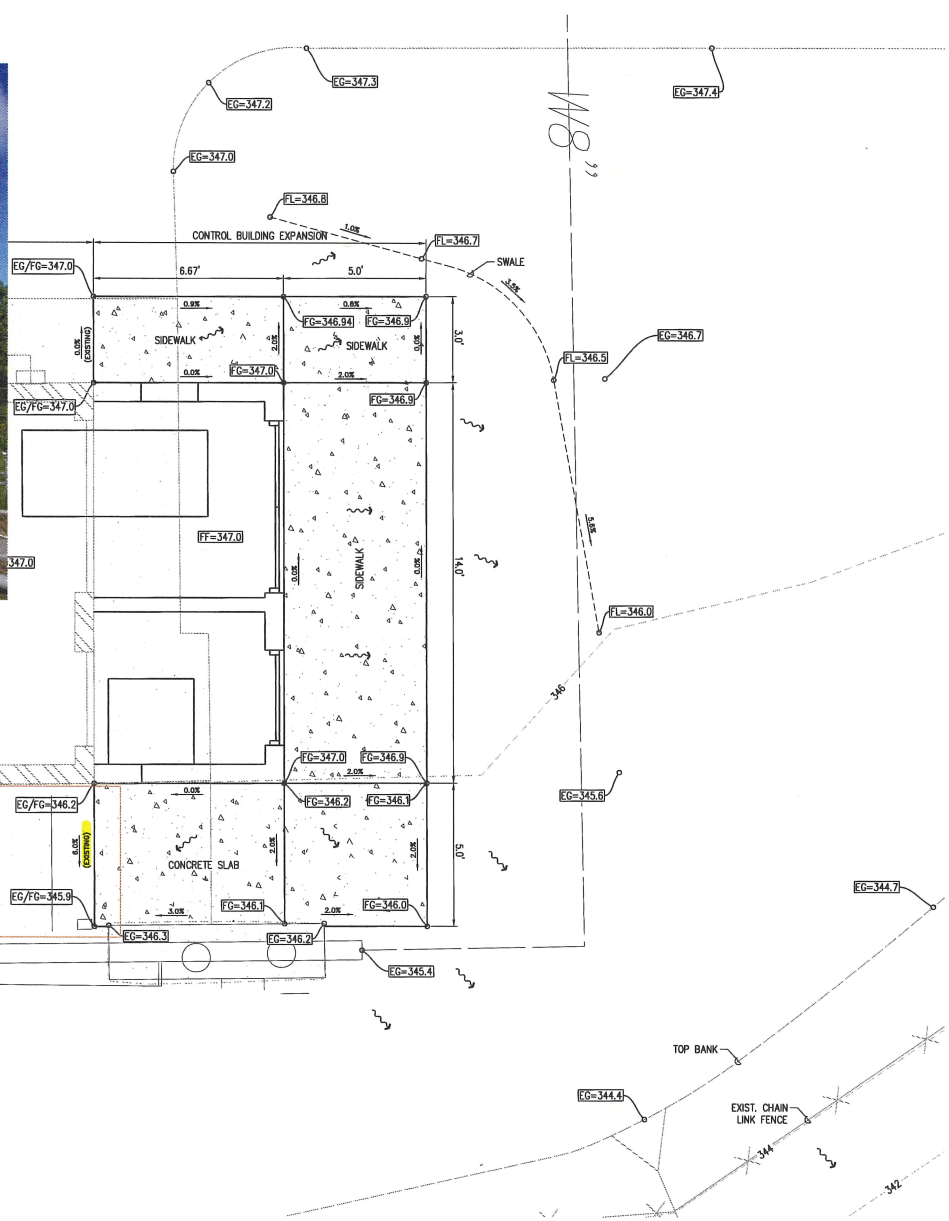
Sean K. Sugai, P.E. • Steven H. Sakai, P.E. • Dennis I. Toba, P.E. • Ronald N. S. Ho, P.E. • Gary I. Funasaki, P.E . • Andrew I. Miyasato, P.E.

November 21, 2018

Project: **DHHL Anahola Farm Lots Water Project**
Subject: **RFI #1**

See comments on RFI in blue.
-
Trey Fernandez
Ronal Ho and Associates

2153 North King Street, Suite 201 • Honolulu, Hawaii 96819 • Tel (808) 941-0577 • Fax (808) 945-2646 • E-mail: postmaster@rnsha.com



CONTROL BUILDING EXTERIOR BUILDING SIDEWALK AND CONCRETE SLAB DETAIL

1 C-4 DT-7 SCALE: 1" = 2'-0"

GRAPHIC SCALE:
2' 1' 0 2' 4'
SCALE: 1" = 2'

NOTE:
SEE STRUCTURAL DRAWINGS FOR DESIGN OF SIDEWALK AND CONTROL BUILDING FOUNDATION AND FLOOR PLAN.

DAYANANDA H. VITHANAGE, LICENSED PROFESSIONAL ENGINEER, NO. C-9348, HAWAII USA

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

oceanit

REVISION	DATE	DESCRIPTION	MADE BY	APPROVED

DEPARTMENT OF HAWAIIAN HOME LANDS
91-5420 Kapolei Parkway
Kapolei, Hawai'i 96707

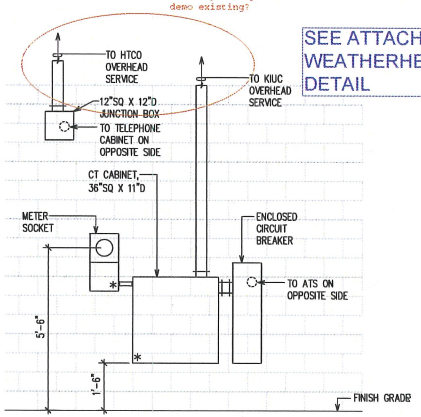
ANAHOLA FARM LOTS WATER PROJECT
Phase II - Water Tank Replacement & Facility Impr.
Anahola, Island of Kaua'i
TMK:
4-8-001:001; 4-8-005:037 & 039

EQUIPMENT BUILDING EXTERIOR SIDEWALK AND CONCRETE SLAB DETAIL

DESIGNED BY: GT
DRAWN BY: GT
CHECKED BY: JM
SURVEYED BY: WT
DRAWING NO. DT-7
DATE: AUG. 2018
SHEET NO. 27 OF 79

existing weather heade?
if new please provide details
demo existing?

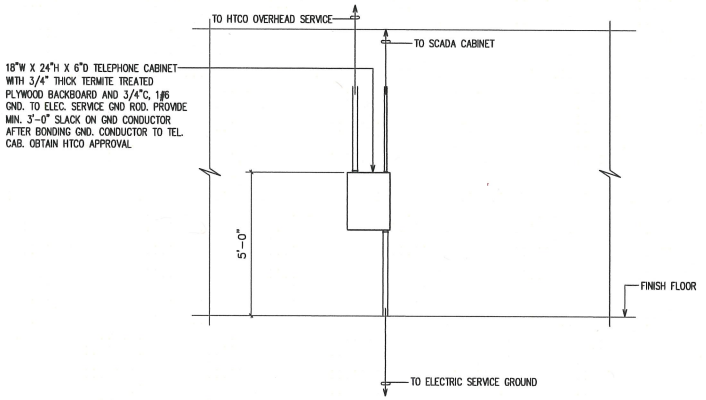
SEE ATTACHED FOR WEATHERHEAD DETAIL



NOTES:

1. "*" INDICATES PROVISIONS FOR KIUC SEAL.
2. OBTAIN KIUC SHOP DRAWING APPROVAL FOR PULLBOX AND METER SOCKETS.
3. GROUND AND BOND PER N.E.C.
4. PROVIDE MIN. 4'-0" CLEAR AND LEVEL WORKSPACE CLEARANCE IN FRONT OF METERING EQUIPMENT.
5. ALL EQUIPMENT ENCLOSURES SHALL BE RATED NEMA 4XSS.
6. PROVIDE A PERMANENT IDENTIFICATION LABELS FOR ALL METER SOCKETS TO IDENTIFY THE UNIT OR SPACE SERVED.
7. AT TIME OF INSTALLATION, PROVIDE AND INSTALL METER SOCKET COVERS (PLASTIC) AND BANDS FOR ALL BLANK METER SOCKETS. IDENTIFY COVERS SO COVERS CAN BE RETURNED.
8. CUSTOMER SHALL COMPLY WITH ALL OF KIUC'S ESIM REQUIREMENTS.

1 METERING EQUIPMENT ELEVATION
E-6 SCALE: 1/2"=1'-0"



2 TELEPHONE CABINET ELEVATION
E-6 SCALE: 1/2"=1'-0"

NOTES:

1. ONCE KIUC SERVICE LINES ARE INSTALLED, CONTACT HTCO AT (808)643-4411 TWO WEEKS PRIOR OR EARLIER OF WHEN TELEPHONE SERVICE IS NEEDED AT SITE AND REQUEST FOR "REROUTE DROP". PROVIDE PHONE NUMBER OF SITE WHEN REQUESTING REROUTING OF TELEPHONE SERVICE.

2' 1' 0 2' 4' 6'
SCALE: 1/2"=1'-0"
GRAPHIC SCALE

CRAIG K. OZAKI
LICENSED PROFESSIONAL ENGINEER
No. 14288-E
HAWAII, U.S.A.
2019.07.26
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION
APRIL 30, 2020
EXPIRATION DATE OF LICENSE

oceanit

NO.	REVISION	DATE	DESCRIPTION	MADE BY	APPROVED

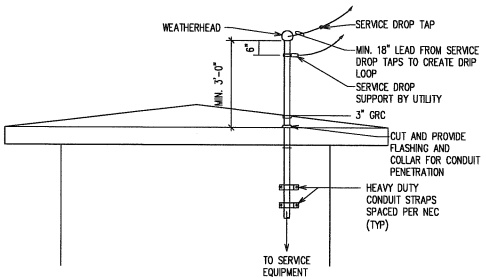
DEPARTMENT OF HAWAIIAN HOME LANDS
91-5420 Kapolei Parkway
Kapolei, Hawai'i 96707

ANAHOLA FARM LOTS WATER PROJECT
Phase II - Water Tank Replacement & Facility Impr.
Anahola, Island of Kaua'i
TMK:
4-8-001:001, 4-8-005:037 & 039

EQUIPMENT ELEVATION

DESIGNED BY: KKO
DRAWN BY: THF
CHECKED BY: KKO
SURVEYED BY:
DRAWING NO. E-6
DATE: AUG 2018
SHEET NO. 63 OF 79

FINAL PLANS: ANAHOLA FARM LOTS - PHASE II - WATER TANK REPLACEMENT & FACILITY IMPROVEMENTS

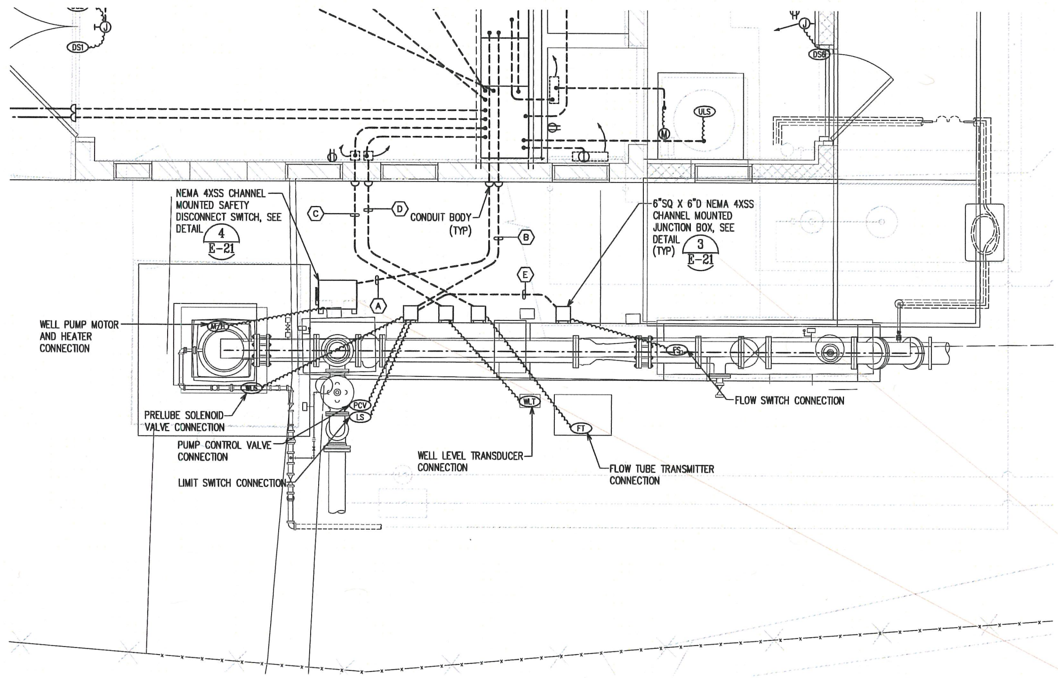


NOTES:

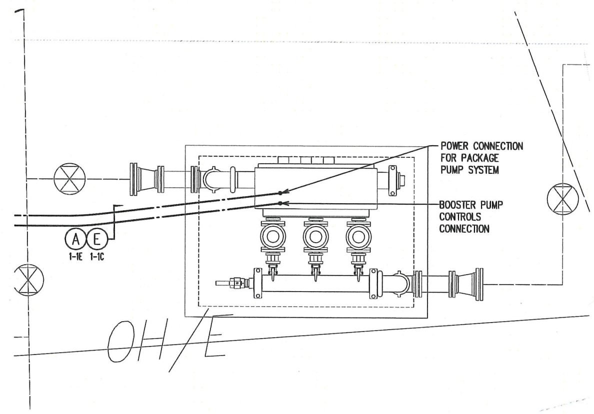
1. PROVIDE MAST GUY AND ACCESSORIES AS REQUIRED.
2. ALL FASTENING BOLTS, NUTS & WASHERS SHALL BE 316 STAINLESS STEEL.
3. * INDICATES PROVISIONS FOR KIUC SEAL.
4. OBTAIN HELCO SHOP DRAWING APPROVAL FOR METER SOCKET.
5. GROUND AND BOND PER N.E.C.
6. PROVIDE MIN. 5'-0" CLEAR AND LEVEL WORKSPACE CLEARANCE IN FRONT OF METERING AND SERVICE EQUIPMENT.
7. ALL EQUIPMENT ENCLOSURES SHALL BE RATED NEMA 4XSS.
8. PROVIDE PERMANENT IDENTIFICATION LABELS FOR ALL METER SOCKETS TO IDENTIFY THE UNIT OR SPACE SERVED.
9. AT TIME OF INSTALLATION, PROVIDE AND INSTALL METER SOCKET COVERS (PLASTIC) AND BANDS FOR ALL BLANK METER SOCKETS. IDENTIFY COVERS SO COVERS CAN BE RETURNED.
10. COMPLY WITH ALL OF KIUC'S CURRENT SERVICE INSTALLATION MANUAL REQUIREMENTS.

ELECTRICAL EQUIPMENT ELEVATIONS – WEATHERHEAD

SCALE: 1/2"=1'-0"



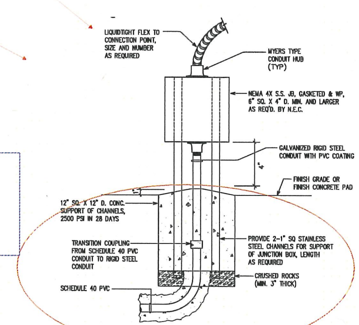
1 E-8 **WELL PUMP ELECTRICAL PLAN PHASE I**
SCALE: 1/2"=1'-0"
NORTH



2 E-8 **BOOSTER PUMP ELECTRICAL PLAN PHASE I**
SCALE: 1/2"=1'-0"
NORTH

similar

CONDUIT SHALL BE ROUTED ALONG SURFACE. PROVIDE STAINLESS STEEL STRUTS AS REQUIRED.



3 E-21 **CHANNEL SUPPORTED JUNCTION BOX DETAIL**
NOT TO SCALE

Cut Concrete?
if not please list conduit type for surface mount
stainless steel strut mounted to concrete with anchors?

CONDUIT AND WIRE SCHEDULE

NO.	CONDUIT SIZE	WIRE SIZE	DESTINATION OR USE
A	2"	SEE ONE-LINE DIAGRAM	POWER FROM MCC TO WELL PUMP MOTOR
B	1"	8#12 CONTROLS,	WELL PUMP CONTROLS
C	1"	1-2/C#14 TWISTED, SHIELDED CABLES, W/GND	INSTRUMENTATION CIRCUIT FROM WELL LEVEL TRANSMITTER TO WELL LEVEL INDICATOR
D	1"	FLOW SENSOR CABLE	INSTRUMENTATION CIRCUIT FROM FLOW TRANSMITTER TO FLOW RATE INDICATOR
E	1"	2#12 CONTROLS	FLOW SWITCH TO WELL CONTROLS

2' 1' 0 2' 4' 6'
SCALE: 1/2"=1'-0"
GRAPHIC SCALE

KRAIG K. OTANI
LICENSED PROFESSIONAL ENGINEER
No. 14288-E
HAWAII, U.S.A.
2018.07.26
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION
APRIL 30, 2020
EXPIRATION DATE OF THE LICENSE

oceanit

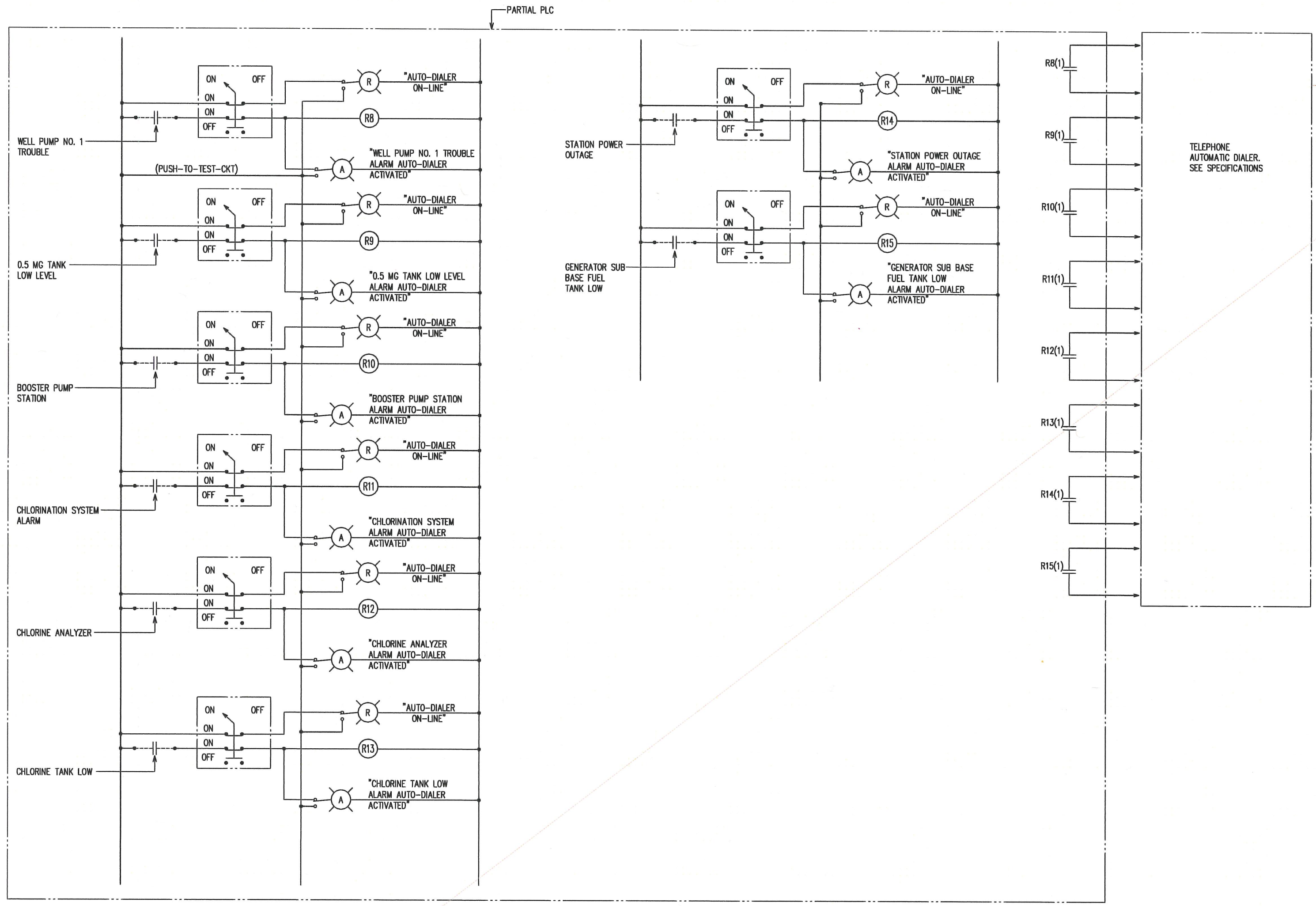
REVISION	DATE	DESCRIPTION	MADE BY	APPROVED

DEPARTMENT OF HAWAIIAN HOME LANDS
91-5420 Kapolei Parkway
Kapolei, Hawai'i 96707

ANAHOLA FARM LOTS WATER PROJECT
Phase II - Water Tank Replacement & Facility Impr.
Anahola, Island of Kaua'i
TMK:
4-8-001:001, 4-8-005:037 & 039

WELL & BOOSTER PUMP ELECTRICAL PLAN PHASE I

DESIGNED BY: KKO
DRAWN BY: TNF
CHECKED BY: KKO
SURVEYED BY:
DRAWING NO. E-8
DATE: AUG 2018
SHEET NO. 65 OF 79



NOTE(S):

1. AUTO-DIALER ALARM CONTROL SYSTEM SHALL BE PART OF SCADA TOUCH PANEL.

please provide details on HTCO/SIC connection to auto dialer system

TELEPHONE SERVICE SHALL RUN FROM TELEPHONE CABINET TO SCADA CABINET. REFER BOX NOTE 8 AND HEXEGON NOTE "U" ON SHEET E-5.

-DIALER ALARM CONTROL DIAGRAM

KRAIG K. OTANI LICENSED PROFESSIONAL ENGINEER No. 14288-E HAWAII, U.S.A.

2018.07.26

APRIL 30, 2020

oceanit

DEPARTMENT OF HAWAIIAN HOME LANDS

91-5420 Kapolei Parkway Kapolei, Hawai'i 96707

ANAHOLA FARM LOTS WATER PROJECT

Phase II - Water Tank Replacement & Facility Impr. Anahola, Island of Kaua'i

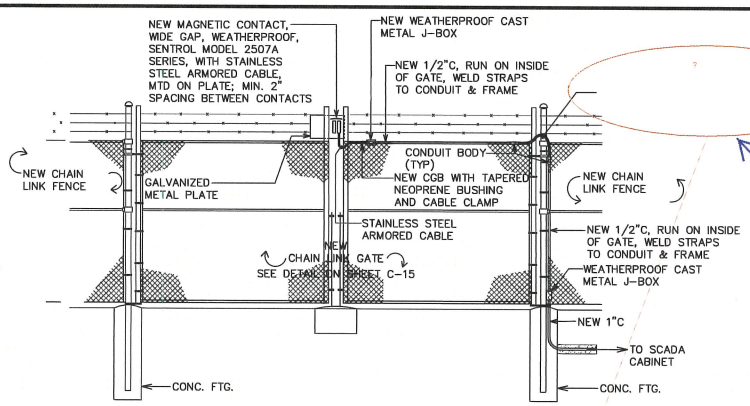
TMK: 4-8-001:001, 4-8-005:037 & 039

AUTO-DIALER ALARM CONTROL DIAGRAM

DESIGNED BY: KKO	DRAWING NO.
DRAWN BY: TNF	E-20
CHECKED BY: KKO	
SURVEYED BY:	DATE: AUG 2018

SHEET NO. 77 OF 79

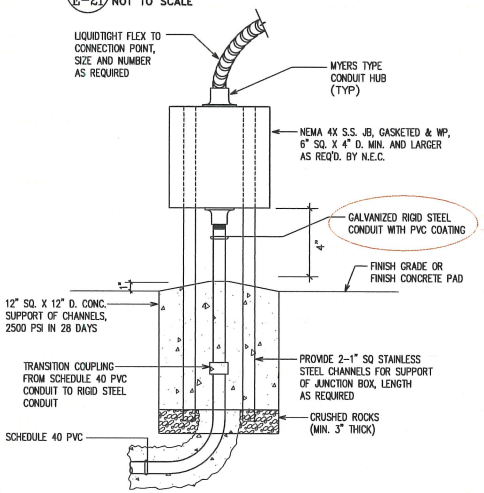
FINAL PLANS: ANAHOLA FARM LOTS - PHASE II - WATER TANK REPLACEMENT & FACILITY IMPROVEMENTS



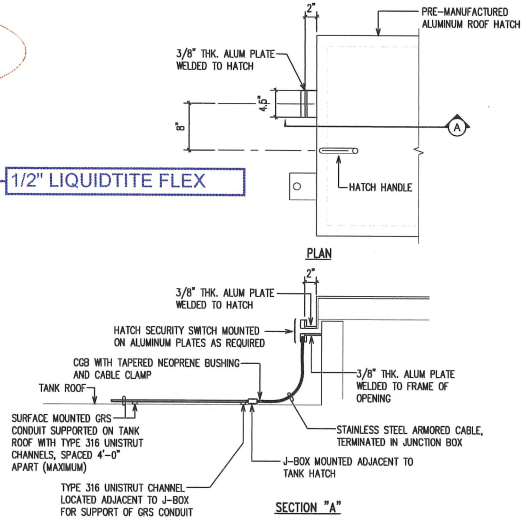
NOTES:

1. REFER TO SHEET C-15 CHAIN LINK DETAIL, (MODIFIED WSS DET F1) AND WATER SYSTEM STANDARD DETAILS F1, F4, & F5 FOR ADDITIONAL ELECTRICAL REQUIREMENTS FOR INSTALLATION OF GATE MAGNETIC SWITCH.
2. ALL MOUNTING HARDWARE SHALL BE STAINLESS STEEL.

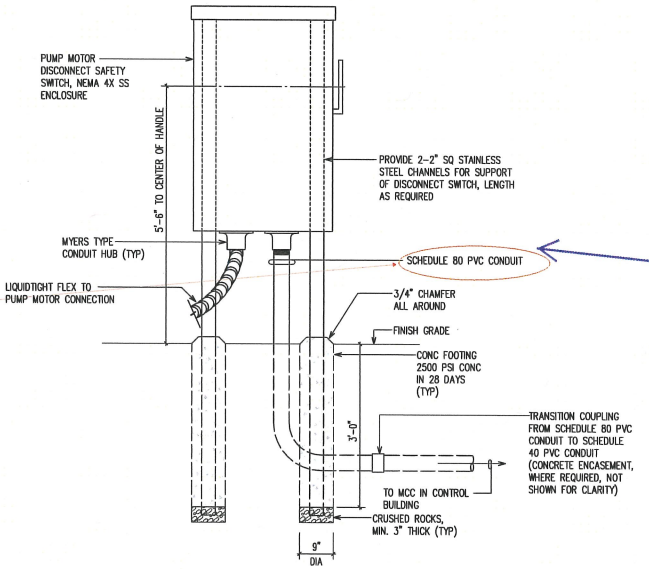
1 E-21 GATE SECURITY ALARM SWITCH DETAIL
NOT TO SCALE



3 E-21 CHANNEL SUPPORTED JUNCTION BOX DETAIL
NOT TO SCALE



2 E-21 TANK HATCH SECURITY SWITCH DETAIL
NOT TO SCALE



CONDUIT SHALL BE GALVANIZED RIGID STEEL WITH PVC COATING

different type of transitions?

4 E-21 PUMP MOTOR DISCONNECT SWITCH MOUNTING DETAIL
NOT TO SCALE

CRAIG K. OTANI
LICENSED PROFESSIONAL ENGINEER
No. 14288-E
HAWAII, U.S.A.

2018.07.26

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

APRIL 30, 2020

EXPIRATION DATE OF THE LICENSE

oceanit

NO.	DESCRIPTION	DATE	MADE BY	APPROVED

DEPARTMENT OF HAWAIIAN HOME LANDS

91-5420 Kapolei Parkway
Kapolei, Hawai'i 96707

ANAHOLA FARM LOTS WATER PROJECT

Phase II - Water Tank Replacement & Facility Impr.
Anahola, Island of Kaua'i

TMK:
4-8-001:001, 4-8-005:037 & 039

MISCELLANEOUS ELECTRICAL DETAILS I

DESIGNED BY: KKO
DRAWN BY: THF
CHECKED BY: KKO
SURVEYED BY:
DATE: AUG. 2018

DRAWING NO. E-21

SHEET NO. 78 OF 79

FINAL PLANS: ANAHOLA FARM LOTS - PHASE II - WATER TANK REPLACEMENT & FACILITY IMPROVEMENTS

BOWERS + KUBOTA CONSULTING

• Project Management • Planning • Architectural/Engineering Design • Construction Management

HawaiiBusiness' *2018 Best Places to Work*

94-408 Akoki Street, Suite 201-A
Waipahu, Hawaii 96797
Phone: 808_836_7787
Telefax: 808_834_4833

LETTER OF TRANSMITTAL

TO: HDCC
605 Kapiolani Blvd.,
Honolulu, HI 96813

cc: Wasa (via email)

DATE:	November 23, 2018	PROJ NO.:	IFB-19-HHL-001
ATTENTION:	**Richard Halle**		
RE:	Anahola Farm Lots Water Project Ph. II		
	Water Tank Replacement and Facility Improvements		
	B+K Transmittal No. 06		

WE ARE SENDING YOU X Attached Via: EMAIL the following items:

Shop drawings Prints Plans Samples Specifications

Copy of letter Change order _____

COPIES	DATE	DESCRIPTION
1	11/23/18	Response - Request For Information (RFI) - Request to for approval of Supplier Glenmount Global Systems

THESE ARE TRANSMITTED as checked below:

For approval Approved as submitted Resubmit _____ copies for approval

X For your use and info Approved as noted Submit _____ copies for distribution

As requested Returned for corrections Return _____ corrected prints

For review and comment _____

FOR BIDS DUE _____ 20 ____ PRINTS RETURNED AFTER LOAN TO US

REMARKS: See attached response for - **Request For Information - Request for approval of Supplier Glenmount Global Systems**

COPY TO: Wayne Nakamura, DHHL
Files

SIGNED _____
Steve Ientile Bowers+Kubota

Nakamura, Wayne H

From: Steve Ientile <sientile@bowersandkubota.com>
Sent: Friday, November 23, 2018 12:36 PM
To: Richard Halle
Cc: Nakamura, Wayne H; Charissa Riofta; 'jmiyamoto@wasahawaii.com'
Subject: RE: Anahola FLWP, Phase II: RFI - Request for approval of supplier GGS - RESPONSE
Attachments: B+K 06 Response RFI - Glenmount Supplier.pdf

Richard; Please see attached B+K Transmittal No. 06; RFI- Request for approval of Supplier Glenmount Global Systems.

Thanks

Steve Ientile
Bowers + Kubota Consulting
Bowers + Kubota Management
HawaiiBusiness' 2018 Best Places to Work

Mobile: (808) 286-3830
Main Office: (808) 836-7787 / (808) 833-1841
Fax: (808) 834-4833

From: Nakamura, Wayne H <wayne.h.nakamura@hawaii.gov>
Sent: Monday, November 19, 2018 7:21 PM
To: Richard Halle <rhalle@hdcc.com>
Cc: Steve Ientile <sientile@bowersandkubota.com>; Charissa Riofta <criofta@bowersandkubota.com>; Jeremy Michelson <JMichelson@OCEANIT.COM>; Nakamura, Wayne H <wayne.h.nakamura@hawaii.gov>
Subject: FW: Anahola FLWP, Phase II: RFI - Request for approval of supplier GGS

Hi Richard,

Project: Anahola Farm Lots Water Project, Phase II- Water Tank Replacment & Facility Improvements
Public Water Systerm No. 432, Anahola, Kauai, Hawaii

RE: **Request For Information (RFI) - Request to for approval of Supplier Glenmount Global Systems**

DHHL has received your **Request For Information (RFI)**. Our Consultants will be reviewing your RFI and a written response will be provided.

Mahalo,

Wayne Nakamura
Project Manager
Land Development Division
Department of Hawaiian Home Lands
Phone: 808-620-9275
Email: wayne.h.nakamura@hawaii.gov

From: Richard Halle <rhalle@hdcc.com>
Sent: Monday, November 19, 2018 11:25 AM

To: Nakamura, Wayne H <wayne.h.nakamura@hawaii.gov>
Subject: FW: Anahola Farm Lots Water Project - GGS Brief Company Resume

See below

From: Joshua Miyamoto [mailto:jmiyamoto@wasahawaii.com]
Sent: Monday, November 19, 2018 11:22 AM
To: Richard Halle <rhalle@hdcc.com>
Subject: FW: Anahola Farm Lots Water Project - GGS Brief Company Resume

Richard,
The spec lists out "Hawaii" only company for the SCADA.

Glenmount Global manages both Kauai DOW and Kauai Wastewater SCADA.
Can you RFI to have them added as acceptable?

Were you able to submit the previous RFIs?

Thank you,
Joshua Miyamoto

From: Svitlana Palona <svitlana.palona@glenmountglobal.com>
Sent: Friday, November 16, 2018 2:03 PM
To: Joshua Miyamoto <jmiyamoto@wasahawaii.com>
Cc: Tom Johnson <tom.johnson@glenmountglobal.com>; Bret Wiscomb <bret.wiscomb@glenmountglobal.com>; Ryan Budd <ryan.budd@glenmountglobal.com>
Subject: Anahola Farm Lots Water Project - GGS Brief Company Resume

Joshua,

Thank you for contacting Glenmount Global Solutions regarding Anahola Farm Lots Water project Phase II Water Tank Replacement & Facility Improvements. Per your request from this morning, please see attached company overview that contains key facts about GGS and references to recent water projects, including two major completed projects on the Island of Kauai.

Please let us know if you have any questions.

Best regards,
Svitlana Palona, MBA
Business Development Manager – West
Glenmount Global Solutions
svitlana.palona@glenmountglobal.com
Cell: 518.860.5990
Office: 707.927.0236
630 Airpark Road, Suite G
Napa, CA 94558
Safety First!
www.glenmountglobal.com

upon the contents of this e-mail is strictly prohibited. If you have received this e-mail transmission in error, please reply to the Sender, so that the Sender can arrange for proper delivery, and then please delete the message and its attachments from your computer, and destroy any hard copies. Thank you.

Ronald N. S. Ho & Associates, Inc. *electrical engineers*

Sean K. Sugai, P.E. • Steven H. Sakai, P.E. • Dennis I. Toba, P.E. • Ronald N. S. Ho, P.E. • Gary I. Funasaki, P.E. • Andrew I. Miyasato, P.E.

November 21, 2018

Project: **DHHL Anahola Farm Lots Water Project**
Subject: **RFI #2**

See comments on RFI in blue.
-
Trey Fernandez
Ronal Ho and Associates

2153 North King Street, Suite 201 • Honolulu, Hawaii 96819 • Tel (808) 941-0577 • Fax (808) 945-2646 • E-mail: postmaster@rnsha.com

SECTION 16100

SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM

PART 1 - GENERAL

1.01 GENERAL CONDITIONS: This section covers the Supervisory Control and Data Acquisition (SCADA) system including equipment, wiring, adjustment and testing as indicated on the plans and specified herein.

A. As specified in Section 16000, Electrical Work. The provisions of these related sections apply to this section and work described in this section shall comply with them.

1.02 SCOPE OF WORK: Provide all articles, materials, equipment, operations, and services herein or on Drawings, including all labor, materials, taxes, fees, insurance, and incidentals required to insure completion.

A. Test Complete Installation: Installation shall be complete in every detail as specified and ready for use. Any item supplied by Contractor developing defects within one year of final acceptance by Owner shall be replaced by such materials, apparatus, or parts to make such defective portion of complete system conform to true intent and meaning of these Drawings and Specifications, at no cost to Owner.

B. System Overview – These specifications are for a distributed SCADA system for a water system, including Programmable Logic Controller (PLC) and Operator Panel. This system shall require but not limited to the following work:

1. Providing one (1) PLC at the Anahola Farm Lots site, including but not limited to the following major equipment:

   a. PLC
   b. UPS
   c. 5-Port Ethernet Hub
   d. 10" HMI Operator Panel
   e. One (1) Power Supply

2. The SCADA communications systems shall be as indicated on the drawings and as follows:

   a. The system shall be used for transmitting alarms, status and telemetry, calculated data, diagnostic and error logging information from the PLC to the Master SCADA station. The PLC shall also be able to upload any portion of their database to a future

Master SCADA station upon request or event.

b. The future Master SCADA station shall be able to send to the PLC, commands and interrogation requests, and to download to the PLC the full Database, Application, Software and Parameters, via the communications channel.

c. The PLC shall be able to communicate and exchange data with hierarchies in the system and to inform the future Master SCADA station about their activity.

d. Contractor shall coordinate the planning and construction of the SCADA system (programming, I/O list, etc.) with the Owner.

C. This system shall be an integrated system of hardware and firmware totally engineered, programmed, assembled and tested. System shall be complete with all appurtenances, whether specifically referenced herein or not, but which may be required for operation.

D. During bidding and construction, Contractor shall coordinate his work with other trades to avoid omissions and overlapping responsibilities. Electrical contractor shall notify other trades and suppliers of project voltages, including control voltages.

E. Work by Others: Instrument transmitters shall be provided by respective sections of this contract. Installation of equipment complete with power wiring and electric controls and interlock wiring shall be part of Electrical Work.

1.03 SUBMITTALS: Submittals shall be made for approval and resubmitted until approval is received for the following:

Provide required copies, according to the Special Provisions Section 1.13 of the specifications, of submittal information to the Engineer for distribution after review.

Furnish submittal information on the following items:

A. Catalog Cuts: Submit for approval catalog cuts of following equipment

1. SCADA system components and equipment.

2. Conductors and Wiring.

3. Wiring and functional or block diagrams.

4. Manufacturer's recommendations for installation.

5. Logic diagrams and ladder diagrams.

6. Manufacturer's recommended list of spare parts for a one-year period of operation.

B. Electrical Installation Drawings: At least 10 days prior to any testing the Contractor shall submit four (4) sets of approved complete electrical installation drawings. The installation drawings shall include the manufacturer's wiring diagrams for the SCADA system and any built-to-order equipment.

C. As-Built Drawings: Upon completion of the final inspection and testing, the Contractor shall provide six (6) copies of as-built installation drawings and manufacturer's wiring diagrams for the SCADA system and any built-to-order equipment.

1.04 LOCAL SUPPORT: The manufacturer of the SCADA system supplied shall be represented by a company with offices in the State of Hawaii. This local office shall be capable of responding to requests for maintenance and repair to the system by having a technician skilled in the repair, maintenance and operation of the system at the job site within 24 hours of being notified. This local representative shall carry all spare parts which are recommended by the manufacturer.

As long as Glenmount Global Solutions is able to meet the requirement of being at the job site within the 24 hour period for maintenance, then Glenmount will be acceptable.

PA

2.01 materials, free
vided. Provide materials approved by UL wherever standards have been established by that agency. Where two or more units of the same class of material or equipment are required, provide products of a single manufacturer. Component parts of materials or equipment need not be products of the same manufacturer.

2.02 STANDARD PRODUCTS: Unless otherwise indicated, provide materials and equipment which are the standard products of manufacturers regularly engaged in the production of such materials and equipment. Provide the manufacturer's latest standard design which conforms to the specifications.

2.03 SCADA SYSTEM CONTROL AND DESCRIPTION: The new system consists of one new SCADA PLC and touchscreen system at the new Anahola Farm Lots site.

2.04 MATERIALS AND EQUIPMENT:

A. SCADA Cabinet: The Contractor's SCADA work shall include terminating all telemetry inputs and outputs to terminal blocks within the SCADA cabinet. Termination shall be maintained tight to top, front of the enclosure's left side. Terminal blocks shall be neatly aligned in a single column. The SCADA enclosure shall also include grounding strip, 120V AC power for connection to 24V DC power supply and UPS.

B. Programmable Logic Controller:

1. Programmable Logic Controller (PLC) shall be microprocessor based, solid-state construction utilizing second source semiconductors, unless otherwise specified. The PLC shall have a serial port and Ethernet ports and be able to communicate using Ethernet/IP protocols. Each PLC shall be supplied with the number and types of I/O points as indicated elsewhere in the plans and specifications. Future expansion shall be possible by simply plugging in additional I/O modules to the rack-less I/O bus. Additional I/O modules shall connect next to each other without requiring a fixed size rack. PLC, I/O, touchscreen, and Ethernet switch components shall use 24VDC and shall be powered through a UPS backup with a minimum 60 minutes of backup time. Digital Outputs shall utilize transistor outputs and use auxiliary relays for controls, and Analog signals shall utilize 4-20maDC based signals. All downloading to the PLC controller and touchscreen shall be over Ethernet. All programming shall utilize ladder logic. Parts shall be off the shelf design and common throughout so as to minimize spare parts requirements. PLC shall be housed in the SCADA cabinet. Unit shall be Siemens Simatic S7-1200 or approved equal.

C. Operator Interface Touchscreen shall be installed in the front of the SCADA cabinet, or other suitable location as required. Touchscreen shall have a basic color screen. Touchscreens shall monitor and control local functions of the PLC. They shall communicate to the PLC using Ethernet communication, through a DIN rail mounted switch in the PLC panel. They shall be rated for NEMA 4X and shall display a minimum of 640x480 resolution. Touchscreens shall be "deployed" remotely over the Ethernet connection for centralized development and quality control. Unit shall be Siemens KTP 10" compact panel or approved equal.

D. Instrumentation System Transmitter Power Supply: The power supply shall be mounted in the SCADA cabinet and deliver regulated 24-36 volts DC power at a maximum current recommended by the analog transmitter supplier. The unit shall operate on 117 volts AC at 50-70 Hz. Load regulation shall be 150 mV maximum from no-load to full-load current. Line regulation shall be 150 mV from 105 to 135 volts AC.

E. See Drawings for additional information on the recommended materials and equipment for the SCADA system.

F. Spare Parts:

1. One (1) HMI Operator Panel

2. One (1) PLC

3. One (1) 8 Digital Input Module

4. One (1) Power Supply

PART 3 - EXECUTION

3.01 CONSTRUCTION METHODS:

A. Flush mount indicators, selector switches, pushbutton switches, and pilot lights in a logical arrangement.

1. Mount devices listed, shown, or required for a complete and operable system in accordance with device manufacturer's instructions, these specifications, and as recommended in NEMA PB1.1.

2. Ground control panel to safety ground of power source.

3. Analog signals must use shielded pairs cabling.

3.02 PROGRAMMING:

A. Contractor shall coordinate all PLC programming with the Owner.

B. The PLC supplier and Contractor shall provide the complete programming and documentation for PLC to comply with the requirements set forth herein.

C. Contractor shall provide Owner with a copy of the implemented software.

3.03 COMMISSIONING: Instruments are to be commissioned under the direct supervision of a qualified representative of the instrument manufacturer. The Owner and or the Owner's representative shall have the right to witness any test, inspection, or calibration or start-up activity.

A. Test and exercise each device to demonstrate correct operation, first individually, then collectively as a functional network. Apply continuously variable analog inputs to verify proper operation and setting of analog devices and discrete devices (i.e. switches, etc.). Make provisional settings on relays and pressure switches.

B. Unless otherwise specified, tests shall be made to cover at least five points: approximately 0 percent, 25 percent, 50 percent, 75 percent, and 100 percent of range. Individual device accuracy requirements shall be as specified by contract requirements or by published manufacturer accuracy specifications whenever contract requirements are not specified.

C. If test results conflict with calibration, the Contractor shall recalibrate and repeat test until test results prove calibration to be correct.

D. The supplier of all equipment shall be an organization which is committed to the provision of ongoing support and development and can show a history which supports this position. In particular, the supplier must so state in writing that they have performed 5 similar projects with this proposed configuration. It must support and use industry standards and be committed to the use of open standards. The supplier must perform all work within the State of Hawaii.

3.04 TEST REPORT: Prepare a test report showing actual value, instrument value, 4-20 mA value (at the PLC) for each test, and range of the instrument. Each test shall bear the signature of the contractor's representative who supervised the tests and the manufacturer's representative. Three copies of these reports in bound sets label "CALIBRATION DATA" are to be furnished to the Owner's Representative.

3.05 ADDITIONAL START-UP SERVICES: The Contractor shall include an additional two days of programming time and the cost for the PLC's programmer to visit the site for one of the days in the bid. This time may be used at the discretion of the Owner for additional programming, changes, and/or training. This time is over and above the work necessary to provide a complete and operable system.

3.06 GUARANTEE: The SCADA system, equipment, materials, and associated items shall be guaranteed against defective parts and operation due to faulty material or workmanship during the period of one year following acceptance and final payment by the Engineer. The Contractor shall make all repairs or replacements necessary to accomplish the required performance within the time specified by the Engineer and agreed to by the Contractor.

3.07 MEASUREMENT AND PAYMENT: The electrical work shall be measured and paid for at the contract lump sum price bid.

Payment for construction of Supervisory Controls and Data Acquisition (SCADA) will be made by Lump Sum. Payment shall represent full compensation for furnishing all materials, labor, tools, equipment and incidentals required to complete the work in accordance with the drawings and specifications.

END OF SECTION

BOWERS + KUBOTA CONSULTING

• Project Management • Planning • Architectural/Engineering Design • Construction Management

HawaiiBusiness' *2018 Best Places to Work*

94-408 Akoki Street, Suite 201-A
Waipahu, Hawaii 96797
Phone: 808_836_7787
Telefax: 808_834_4833

LETTER OF TRANSMITTAL

TO: Goodfellow Bros. Inc
91-476 Komohana Street
Kapolei, HI 96707

billym@goodfellowbros.com

DATE: November 23, 2018	PROJ NO.: IFB-19-HHL-001
ATTENTION: Billy McCosky	
RE: Anahola Farm Lots Water Project Ph. II	
Water Tank Replacement and Facility Improvements	
B+K Transmittal No. 04	

WE ARE SENDING YOU X Attached Via: EMAIL the following items:

Shop drawings Prints Plans Samples Specifications

Copy of letter Change order _____

COPIES	DATE	DESCRIPTION
1	11/23/18	Response to GBI's RFI; 1. Specification and 2. Chlorine Residual Analyzer (RFI #3)

THESE ARE TRANSMITTED as checked below:

For approval Approved as submitted Resubmit _____ copies for approval

X For your use and info Approved as noted Submit _____ copies for distribution

As requested Returned for corrections Return _____ corrected prints

For review and comment _____

FOR BIDS DUE _____ 20____ PRINTS RETURNED AFTER LOAN TO US

REMARKS: See attached responses for the request for information regarding - **Specifications & Chlorine Residual Analyzer**

COPY TO: Wayne Nakamura, DHHL
Files

SIGNED _____
Steve Ientile Bowers+Kubota

Nakamura, Wayne H

From: Steve Ientile <sientile@bowersandkubota.com>
Sent: Friday, November 23, 2018 11:40 AM
To: 'billym@goodfellowbros.com'
Cc: Nakamura, Wayne H; Charissa Riofta
Subject: RFI for Anahola Farm Lots Water Project Ph. II - Water Tank Replacement and Facility Improvements
Attachments: RFI # 3 _ GBI - chlorine and specifications.pdf

Billy; Please see the attached BK Transmittal No. 04 – Response for GBI's RFI regarding (1) Specifications Set & (2) Chlorine Residual Analyzer.

Thanks

Steve Ientile
Bowers + Kubota Consulting
Bowers + Kubota Management
HawaiiBusiness' 2018 Best Places to Work

Mobile: (808) 286-3830
Main Office: (808) 836-7787 / (808) 833-1841
Fax: (808) 834-4833

Phone: 808-620-9275
Email: wayne.h.nakamura@hawaii.gov

From: Billy McCoskey <billym@goodfellowbros.com>
Sent: Tuesday, November 20, 2018 1:20 PM
To: Nakamura, Wayne H <wayne.h.nakamura@hawaii.gov>
Subject: RFI for Anahola Farm Lots Project, Phase II - Water Tank Replacement and Facility Improvements

Wayne,

I have the following questions regarding the subject project:

1. – Will there be a specification set issued for the project? There does not appear to be one with the available bid documents.
2. – Drawing M-6 shows a chlorine residual analyzer located in the control bldg., this unit the water from the 8" main line by the control bldg.. Drawing C-3 shows a chlorine analyzer sampling the same 8" effluent line from the tank. The injection point for chlorine is located off well head piping shown on drawing M-1 , the analyzers are reading the same line. Are both analyzers necessary and if so which analyzer triggers the dosing pump?

Billy McCoskey
Estimator/Project Manager

GOODFELLOW BROS. INC.
ESTABLISHED 1921

91-476 Komohana Street
Kapolei, HI 96707
O 808.676.1523 | M 808.348.3498 | F 808.676.2902
www.goodfellowbros.com

Our Mission: To be the contractor of choice by our Clients, Employees and the Communities in which we live and work

Goodfellow Bros., Inc. is an Equal Opportunity Employer

oceanit
innovation through engineering & scientific excellence

Date: November 20, 2018

To: Bowers + Kubota
Kukui Grove Mall Office
3-2600 Kaumualii Hwy.
Lihue, HI 96766

Attention: Steve Ientile
(808) 286-3830

Project: Anahola Farm Lots Water Project, Phase II – Water Tank Replacement
IFB-19-HHL-001

Subject: RFI 03 – Specifications, Chlorine Residual Analyzer

1. **Will there be a specification set issued for the project? There does not appear to be one with the available bid documents.**

Addendum No 1 added the missing Technical Specifications and was posted on the SPO-HANDS website on October 30, 2018.

2. **Drawing M-6 shows a chlorine residual analyzer located in the control bldg., this unit the water from the 8" main line by the control bldg. Drawing C-3 shows a chlorine analyzer sampling the same 8" effluent line from the tank. The injection point for chlorine is located off well head piping shown on drawing M-1, the analyzers are reading the same line. Are both analyzers necessary and if so which analyzer triggers the dosing pump?**

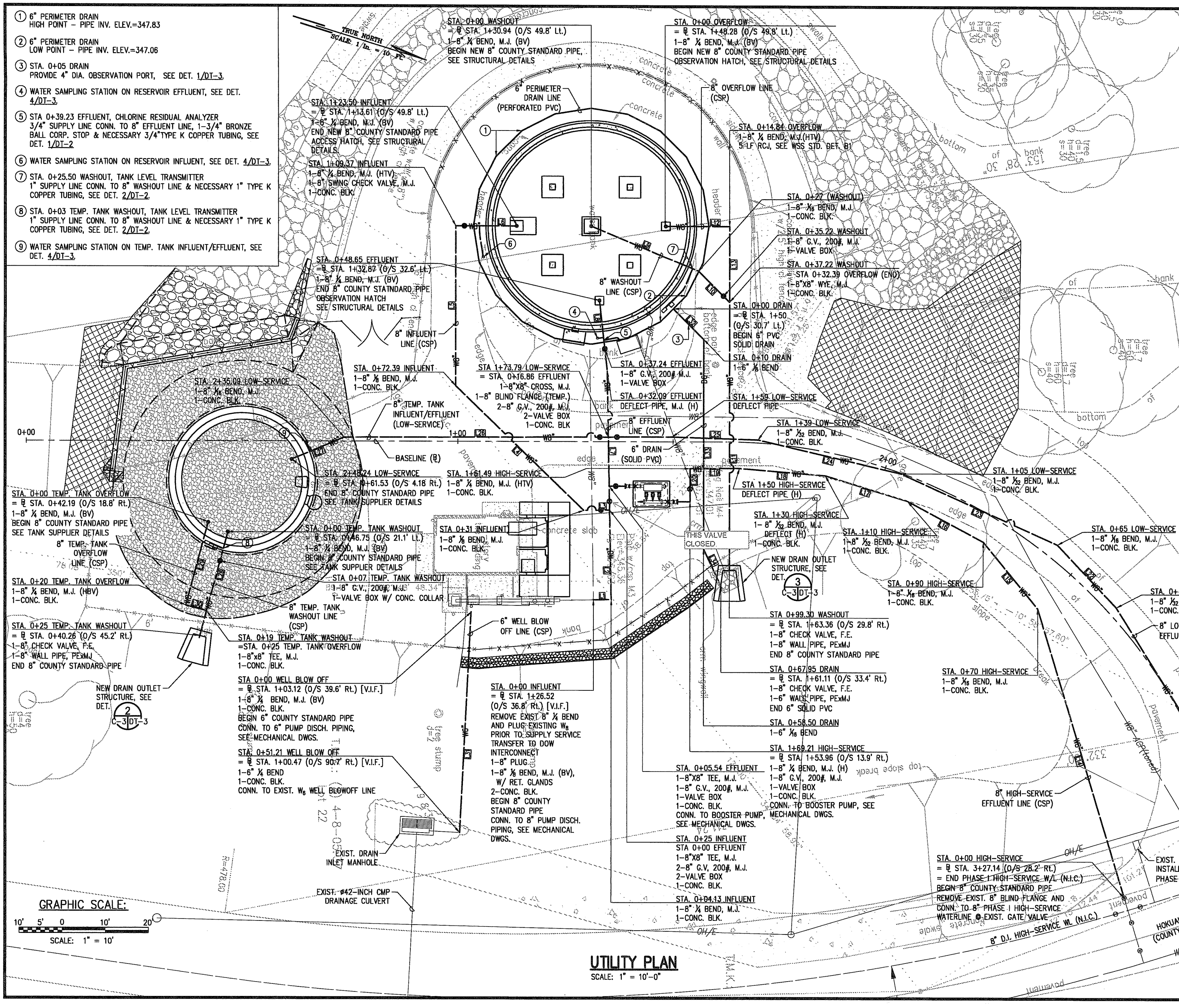
The two analyzers are required. The one in the control building measures the chlorine residual downstream of the injection point as required by DOH. This is off the reservoir influent line. This analyzer controls the metering pump. The analyzer on Drawing C-3 is off the reservoir effluent line and measures chlorine residual before it goes into distribution. There is a valve which will remain in the closed position between the influent and effluent lines. See attached sheet C-3 with the valve identified.

If you have any questions, please call us at 531-3017.

Sincerely,
Oceanit

Jeremy Michelson, PE, PMP, CPESC
Project Manager

1. 6" PERIMETER DRAIN
HIGH POINT – PIPE INV. ELEV.=347.83
2. 6" PERIMETER DRAIN
LOW POINT – PIPE INV. ELEV.=347.06
3. STA. 0+05 DRAIN
PROVIDE 4" DIA. OBSERVATION PORT, SEE DET. 1/DT-3.
4. WATER SAMPLING STATION ON RESERVOIR EFFLUENT, SEE DET. 4/DT-3.
5. STA. 0+39.23 EFFLUENT, CHLORINE RESIDUAL ANALYZER
3/4" SUPPLY LINE CONN. TO 8" EFFLUENT LINE, 1-3/4" BRONZE BALL CORP. STOP & NECESSARY 3/4" TYPE K COPPER TUBING, SEE DET. 1/DT-2
6. WATER SAMPLING STATION ON RESERVOIR INFLUENT, SEE DET. 4/DT-3.
7. STA. 0+25.50 WASHOUT, TANK LEVEL TRANSMITTER
1" SUPPLY LINE CONN. TO 8" WASHOUT LINE & NECESSARY 1" TYPE K COPPER TUBING, SEE DET. 2/DT-2.
8. STA. 0+03 TEMP. TANK WASHOUT, TANK LEVEL TRANSMITTER
1" SUPPLY LINE CONN. TO 8" WASHOUT LINE & NECESSARY 1" TYPE K COPPER TUBING, SEE DET. 2/DT-2.
9. WATER SAMPLING STATION ON TEMP. TANK INFLUENT/EFFLUENT, SEE DET. 4/DT-3.



GRAPHIC SCALE:

10' 5' 0 10' 20'

SCALE: 1" = 10'

UTILITY PLAN

SCALE: 1" = 10'-0"

LINE	℄ ALIGNMENT	AZIMUTH	DISTANCE
L1	INFLUENT	161° 52' 39.60"	4.13'
L2	INFLUENT	71° 44' 18.72"	20.87'
L3	INFLUENT	341° 44' 18.72"	6.00'
L4	INFLUENT	26° 44' 18.72"	41.39'
L5	INFLUENT	72° 46' 09.60"	36.98'
L6	INFLUENT	162° 46' 09.61"	14.13'
L7	EFFLUENT	71° 44' 18.72"	32.09'
L8	EFFLUENT	66° 23' 18.72"	16.40'
L9	WASHOUT	185° 16' 09.60"	27.00'
L10	WASHOUT	207° 46' 09.60"	10.22'
L11	WASHOUT	252° 46' 09.60"	62.08'
L12	OVERFLOW	162° 46' 09.60"	14.84'
L13	OVERFLOW	252° 46' 09.60"	17.56'
L14	HIGH-SERVICE	56° 03' 40.92"	70.00'
L15	HIGH-SERVICE	33° 33' 40.92"	20.00'
L16	HIGH-SERVICE	11° 03' 40.92"	20.00'
L17	HIGH-SERVICE	359° 48' 40.92"	20.00'
L18	HIGH-SERVICE	347° 32' 11.15"	20.00'
L19	HIGH-SERVICE	342° 32' 11.15"	11.49'
L20	HIGH-SERVICE	252° 46' 09.53"	7.72'
L21	LOW-SERVICE	40° 51' 16.44"	45.00'
L22	LOW-SERVICE	29° 36' 16.44"	20.00'
L23	LOW-SERVICE	7° 06' 16.44"	40.00'
L24	LOW-SERVICE	355° 51' 16.44"	34.00'
L25	LOW-SERVICE	344° 36' 16.44"	20.00'
L26	LOW-SERVICE	342° 36' 16.44"	76.09'
L27	LOW-SERVICE	320° 06' 16.44"	13.15'
L28	TEMP. TANK WASHOUT	267° 49' 05.63"	25.00'
L29	TEMP. TANK OVERFLOW	267° 49' 05.63"	20.00'
L30	TEMP. TANK OVERFLOW	177° 49' 05.63"	5.00'
L31	WELL BLOW OFF	255° 43' 54.46"	51.21'
L32	DRAIN	207° 46' 09.60"	10.00'
L33	DRAIN	252° 46' 09.60"	48.50'
L34	DRAIN	227° 40' 28.17"	11.50'

DAYANANDA H. VITHANAGE
LICENSED PROFESSIONAL ENGINEER
NO. C-9348
HAWAII USA

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

oceanit

REVISION	DATE	DESCRIPTION	MADE BY	APPROVED

DEPARTMENT OF HAWAIIAN HOME LANDS
91-5420 Kapolei Parkway
Kapolei, Hawai'i 96707

ANAHOLA FARM LOTS WATER PROJECT
Phase II - Water Tank Replacement & Facility Impr.
Anahola, Island of Kaua'i
TMK:
4-8-001:001; 4-8-005:037 & 039

UTILITY PLAN

DESIGNED BY: JM
DRAWN BY: JM
CHECKED BY: AK
SURVEYED BY: WT
DRAWING NO. C-3
DATE: AUG. 2018
SHEET NO. 10 OF 79

FINAL PLANS: ANAHOLA FARM LOTS - PHASE II - WATER TANK REPLACEMENT & FACILITY IMPROVEMENTS

DRAWING NAME: I:\201705-DHHL_ANAHOLA_PHII_WATER_SYSTEM_IMPROVEMENTS\0 GRAPHICS\DRAWINGS\CONTRACT DOCUMENTS\05_BID DOCS\PHASE II - WATER TANK\10_UTILITY PLAN.DWG EDIT TIME: 08-17-18, 10:29 AM EDITED BY: AKEANE

BOWERS + KUBOTA CONSULTING

• Project Management • Planning • Architectural/Engineering Design • Construction Management

HawaiiBusiness's *2018 Best Places to Work*

94-408 Akoki Street, Suite 201-A
Waipahu, Hawaii 96797
Phone: 808_836_7787
Telefax: 808_834_4833

LETTER OF TRANSMITTAL

TO: Klopfenstein's Lighting Inc
1128 Nuuanu Ave. Suite 101
Honolulu, HI 96817-5195

DATE:	November 20, 2018	PROJ NO.:	IFB-19-HHL-001
ATTENTION:	**Rick Fell**		
RE:	Anahola Farm Lots Water Project Ph II		
	Water Tank Replacement and Facility Improvements		
	BK Transmittal No. 03		

WE ARE SENDING YOU ☑ Attached Via: email the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1	11/20/18	1	Response to substitution request No. 2 - Lighting Fixtures (Klopfenstein's Lighting Inc.)

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval

☑ For your use and info ☐ Approved as noted ☐ Submit _____ copies for distribution

☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints

☐ For review and comment ☑ See remarks below

☐ FOR BIDS DUE _____ 20____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS: See the attached response for the substitution request for lighting fixtures.

COPY TO: Wayne Nakamura, DHHL
File

SIGNED for Marissa Rioto
Steve Ientile Bowers + Kubota Consulting

Nakamura, Wayne H

From: Charissa Riofta <criofta@bowersandkubota.com>
Sent: Tuesday, November 20, 2018 2:07 PM
To: RF@KLI-HI.COM
Cc: Nakamura, Wayne H; Steve Ientile
Subject: Anahola Farm Lots Water Project Ph II - BK Transmittal No. 03 - Response to Substitution Request - Lighting Fixtures
Attachments: Substitution Request - Lighting Fixtures.pdf; BK Transmittal No. 03 - Lighting Fixtures.pdf

Good afternoon Rick,

Please see the attached BK Transmittal No. 03 – Response to Substitution Request for Lighting Fixtures.

Thank you,
Charissa

Charissa Riofta
Bowers + Kubota Consulting
Bowers + Kubota Management
HawaiiBusiness' 2018 Best Places to Work

Mobile: (808) 639-3752
Main Office: (808) 836-7787 / (808) 833-1841
Fax: (808) 834-4833

Ronald N. S. Ho & Associates, Inc. *electrical engineers*

Sean K. Sugai, P.E. • Steven H. Sakai, P.E. • Dennis I. Toba, P.E. • Ronald N. S. Ho, P.E. • Gary I. Funasaki, P.E. • Andrew I. Miyasato, P.E.

November 15, 2018 217163

Anahola Farm Lots Water Project
Phase II - Water Tank Replacement & Facility Improvements
Electrical Supplier: Klopfenstein's Lighting Inc.
Submittal Date: 11/13/18

The Light Fixture Substitution Request was reviewed as indicated below:

- **Approved: Columbia Light**
- **Rejected: Hubble Light - The Hubble light fixture needs to be 3000K as specified in Light Fixture Schedule.**

EQUIPMENT PREQUALIFICATION

X Approved X Rejected

___ Approved as modified ___ Submit sample

"Approval is subject to all requirements of the contract documents being met and shall not in any circumstances be construed as an approval for deviations from the contract documents unless the entity seeking such approval has, in writing, specifically called attention to each such deviation at the time of submission. Said entity and/or Contractor shall be responsible for coordination of the work pertinent to affected materials, equipment and labor to insure proper execution of the work as per the intent of the contract documents."

By: Trey Fernandez Date: November 15, 2018
RONALD N. S. Ho & ASSOC. INC.

2153 North King Street, Suite 201 • Honolulu, Hawaii 96819 • Tel (808) 941-0577 • Fax (808) 945-2646 • E-mail: postmaster@rnsha.com

Klopfenstein's Lighting Inc.
1128 Nuuanu Ave. Suite101
Honolulu, HI 96817-5195
Phone: (808) 533-0558
Sales Fx: (808) 526-4085 Quotes Fx: (808) 521-2891
www.kli-hi.com

HAWAII ENERGY ALLIANCE

To: DHHL
91-5420 Kapolei Pkwy
Kapolei, HI 96707

Subject: Request For Substitution (Lighting Fixtures)
Anahola Farm Lots Water Project II Tank Replacement & Improvements
IFB-19-HHL-001

In accordance with the requirement of the Special Provisions, we hereby submit for substitution three (03) sets of technical brochures and statement of variances for your review and approval for the item(s) shown below.

Section/Type	Specified Brand	Substitution or Alternate Brand	Variant Features
A	Columbia	Day-Brite DWAE43L840-4-UNV	38 Watts
B	Hubbel	Maxlite WP-ADS20U-40B	20 Watts, but exceeds lumens

I further certify that my request for substitution of the above item(s) has no other variant features.

Mahalo for your consideration.

Rick Fell, Principal
Klopfenstein's Lighting Inc (KLI)

PHILIPS

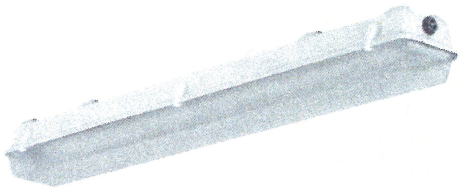
Day-Brite

CFI

Industrial

Vaporlume LED DW

4' sealed industrial, 3500, 4300, 5100 or 7000 lm



Project	ANAHOLA FARM LOT
Location	
Cat No.	
Type	A
Lamps	Qty 06
Notes	

The Philips Day-Brite / Philips CFI Vaporlume LED sealed industrial DW is a specialized wet location, IP rated product designed for use in both indoor and outdoor environments. It is a wet location listed, non-corrosive luminaire available in both fluorescent and LED light sources.

Ordering guide

Example: DWAE51L840-4-UNV-MD360W

Family	Application	Lens	Hubs Installed	Lumen Package	Color Temp.	Length	Voltage	Driver	Options
D	W	A	E	43L	835 –	4	– UNV –		
D Sealed industrial	**W** Wet Location	**A** DR Acrylic **P** Polycarbonate **L** Enhanced LED Acrylic	**E** Ends only	**35L** 3500 nominal lumens **43L** 4300 nominal lumens **51L** 5100 nominal lumens (25°C ambient) **51LH** 5100 nominal lumens (-35°C to 40°C) **70L** 7000 nominal lumens	**830** 80 CRI, 3000K **835** 80 CRI, 3500K **840** 80 CRI, 4000K **850** 80 CRI, 5000K	**4** 4'	**UNV** Universal Voltage, 120-277V **347**[1] 347V **480**[1] 480V	**blank** 0-10V Step dimming to 40% input power **SDIM**[2]	**MD360W** Wet location occupancy sensor, external **WHP** Wide beam optic **EMLED**[3] Integral emergency **IP67** Protection against effects of immersion **GLR** Fusing, fast blow

Footnotes

1 All 347V and 480V models available only for (-20°C to 25°C) ambient. Not available for use with 51LH or SDIM options.
2 Step dim (SDIM) option not available on 51LH.
3 EMLED option not available on 347V or 480V models.

Accessories (order separately)

- **TBK –** Stainless Steel Top Bracket Kit (pair of brackets plus hardware)
- **EBK –** Stainless Steel End Bracket Kit (pair of brackets plus hardware)
- **WBK –** Stainless Steel Wraparound Bracket Kit (pair of brackets)
- **FKR-126 –** Chain Hanger Set (requires TBK)

DW Vaporlume LED sealed industrial

4', 3500, 4300, 5100, or 7000 lumens

Application

- Ideally suited for use in refrigerated cold storage, industrial, parking garage, and canopy applications.
- Acceptable for outdoor as well as indoor installations.
- Can be surface (wall/ceiling) or suspended mounted unless otherwise specified.
- Wet Location – Areas of high humidity, water vapor, rain, incidental water spray, or other non-corrosive or nonflammable liquid.
- Excellent for applications such as garages, stairwells, storage areas, horizontal shelf-mount refrigerated cases, and cold storage.
- Mounting brackets available, order separately.
- IP65 rating standard. IP67 configuration available.
- LED sources provide excellent low temperature performance. This product can replace a fluorescent model in cold environments with significant energy savings.
- 51LH model listed for use in -35°C to 40°C ambient. 50,000 hour L70 lumen maintenance.
- 35L/43L models listed for use in -20°C to 40°C ambient. 100,000 hour L70 lumen maintenance.
- 51L/70L models listed for use in -20°C to 25°C ambient. L70 lumen maintenance is 100,000 hours for 51L model, and 50,000 hours for 70L.
- NSF Certified for Non-Food Zone Installations.
- EMLED 1100lm nominal in DC mode
- WHP wide optic is an acrylic lens factory installed on the LED arrays, provides compliance to DLC requirements for parking garage luminaires
- Vaporlume LED luminaires are Designlights Consortium qualified. Please see the DLC QPL list for exact catalog numbers (http://www.designlights.org/QPL.

Construction/Finish

- Non-conductive, non-corrosive housing.
- Smooth exterior surface for easy cleaning.
- White one piece, molded fiberglass reinforced polyester body. No rusting, no oxidation, and no corrosion.
- Standard acrylic lens (A) is stippled sheet of .130" nominal thickness.
- Optional LED lens (L) designed specifically to further reduce pixilated glare from LED's. Linear rib profile.
- Optional polycarbonate lens (P) will not be yellowed by LED sources because they do not produce UV.
- Continuous compressible closed cell gasket provides tight seal between plastic enclosure and luminaire body.
- White ABS cam action latches standard.
- Pre-painted steel lighting channel.
- Two gasketed threaded (½" trade size) wet location hubs installed on ends.

Electrical

- High efficiency LEDs provide up to 100,000 hour rated life (L70, defined as 70% lumen maintenance @ rated maximum ambient).
- Dimming to 5% on 0–10V controls standard. Step dim (SDIM) option available, 100/40% levels.
- Driver and LED boards are accessible from below. LED boards are individually replaceable if required.
- Combinations are available providing as much as 117 delivered lumens per Watt.
- Nominal lumen packages range from 3,500 to 7,000 lumens, providing flexibility to optimize light levels for a specific application.
- LED sources provide full illumination in low temperature applications, unlike fluorescent sources that provide reduced light levels in very cold environments.
- LED sources can be frequently switched with no negative impact on life.
- Minimum 80 CRI provides smooth color rendering that rivals or exceeds performance of fluorescent lamps.
- Light output from the luminaire contains no infrared or ultraviolet energy, so the light won't heat or fade the objects being lit.
- Available motion sensor further increases energy savings in areas where occupancy is not continuous.

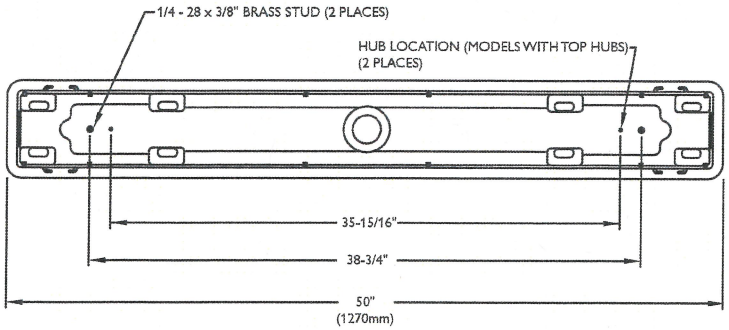
Labels

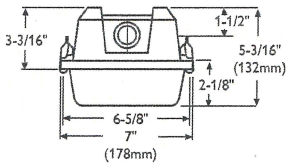
- cETLus listed to UL 1598. Suitable for use in wet locations.
- Five year luminaire limited warranty including LED boards and driver.
- Certain luminaire components may be adversely affected by contaminants. If sulfur, chlorine, or petroleum based solutions, or other contaminants will be in the area of operation, please consult factory as damage caused by these contaminants are not covered under our limited warranty.

DW Vaporlume LED sealed industrial

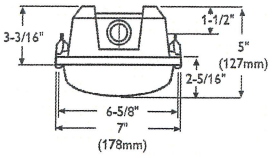
4', 3500, 4300, 5100, or 7000 lumens

Dimensions





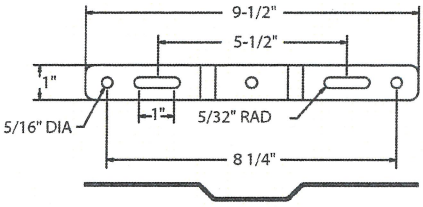
Shallow acrylic (A) and polycarbonate (P) lens



Enhanced LED acrylic lens (L)

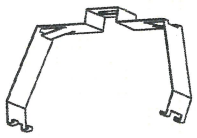
Mounting Brackets

TBK - Top Mounting Bracket

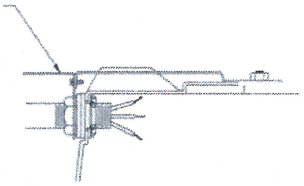


EBK - End Mounting Bracket

WBK - Wraparound Mounting Bracket



EBK - End Mounting Bracket



DW Vaporlume LED sealed industrial

4', 3500, 4300, 5100, or 7000 lumens

4' Vaporlume LED DW, 3500 nominal lumens — LER-117

Catalog No.	DWAE35L840-4
Test No.	32643
S/MH	1.2
Source	LED
Input Watts	32
Delivered Lumens	3699

Comparative yearly lighting energy cost per 1000 lumens – **$2.03** based on 3000 hrs. and $.08 pwr KWH.

Photometric values based upon tests performed in compliance with LM-79.

Candlepower

Angle	End	45	Cross	Back-45
0	1250	1250	1250	1250
5	1244	1239	1243	1239
15	1204	1201	1199	1201
25	1112	1114	1106	1114
35	966	964	949	964
45	778	777	841	777
55	576	685	708	685
65	371	509	472	509
75	193	250	271	250
85	49	91	96	91
95	19	36	28	36
105	17	30	20	30
115	10	28	20	28
125	4	19	19	19
135	2	10	17	10
145	1	3	9	3
155	1	1	2	1
165	1	1	1	1
175	1	1	1	1

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

pcc	80			70			50	
pw	70	50	30	70	50	30	50	30
RCR								
0	117	117	117	114	114	114	110	110
1	108	103	97	105	100	95	94	92
2	97	89	81	94	86	80	82	77
3	89	78	69	85	76	68	72	66
4	81	68	59	79	68	58	65	56
5	75	61	53	71	59	52	57	50
6	68	55	46	67	54	46	52	45
7	64	50	40	61	48	40	46	40
8	58	46	36	57	45	36	42	35
9	56	41	34	54	40	33	40	33
10	52	39	30	51	38	30	36	29

Light Distribution

Degrees	Lumens	% Luminaire
0-30	969	26.1
0-40	1569	42.3
0-60	2772	74.8
0-90	3602	97.1
90-120	81	2.2
90-130	95	2.6
90-150	105	2.8
90-180	106	2.9
0-180	3708	100.0

Average Luminance

Angle	End	45°	Cross
45	5069	4222	4360
55	4543	4228	4105
65	865	3770	3222
75	3096	2402	2333
85	1821	1312	1164

4' Vaporlume LED DW, 4300 nominal lumens — LER-116

Catalog No.	DWAE43L840-4
Test No.	32642
S/MH	1.2
Source	LED
Input Watts	38
Delivered Lumens	4431

Comparative yearly lighting energy cost per 1000 lumens – **$2.07** based on 3000 hrs. and $.08 pwr KWH.

Photometric values based upon tests performed in compliance with LM-79.

Candlepower

Angle	End	45	Cross	Back-45
0	1496	1496	1496	1496
5	1491	1487	1485	1487
15	1443	1439	1441	1439
25	1332	1338	1323	1338
35	1158	1151	1132	1151
45	933	926	1000	926
55	688	819	854	819
65	444	611	566	611
75	231	300	324	300
85	58	110	118	110
95	23	43	35	43
105	20	36	25	36
115	12	34	24	34
125	5	24	24	24
135	3	12	21	12
145	2	4	11	4
155	1	1	3	1
165	1	1	1	1
175	1	1	1	1

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

pcc	80			70			50	
pw	70	50	30	70	50	30	50	30
RCR								
0	117	117	117	114	114	114	109	109
1	108	103	97	104	100	95	94	92
2	97	89	81	94	86	80	82	77
3	89	78	69	85	76	68	72	66
4	81	68	59	79	67	58	65	56
5	75	61	53	71	59	52	57	50
6	68	55	46	67	54	46	52	45
7	64	50	40	61	48	40	46	40
8	58	46	36	57	45	36	42	35
9	56	41	34	54	40	33	40	33
10	52	39	30	51	38	30	36	29

Light Distribution

Degrees	Lumens	% Luminaire
0-30	1161	26.1
0-40	1880	42.3
0-60	3318	74.7
0-90	4313	97.1
90-120	99	2.2
90-130	116	2.6
90-150	128	2.9
90-180	129	2.9
0-180	4442	100.0

Average Luminance

Angle	End	45°	Cross
45	6078	5034	5182
55	5434	5059	4955
65	4626	4531	3867
75	3704	2883	2786
85	2173	1578	1433

DW Vaporlume LED sealed industrial

4', 3500, 4300, 5100, or 7000 lumens

4' Vaporlume LED DW, 5100 nominal lumens LER-111

Catalog No.	DWAE51L840-4
Test No.	32640
S/MH	1.2
Source	LED
Input Watts	46
Delivered Lumens	5129

Comparative yearly lighting energy cost per 1000 lumens – **$2.16** based on 3000 hrs. and $.08 pwr KWH.

Photometric values based upon tests performed in compliance with LM-79.

Candlepower

Angle	End	45	Cross	Back-45
0	1729	1729	1729	1729
5	1722	1716	1709	1716
15	1666	1651	1632	1651
25	1542	1523	1494	1523
35	1340	1307	1250	1307
45	1091	1039	1117	1039
55	817	909	884	909
65	533	670	574	670
75	280	309	286	309
85	75	107	86	107
95	26	47	34	47
105	24	42	30	42
115	14	39	29	39
125	6	28	28	28
135	4	16	24	16
145	3	5	12	5
155	2	2	3	2
165	2	2	2	2
175	2	2	2	2

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

pcc	80			70			50	
pw	70	50	30	70	50	30	50	30
RCR								
0	117	117	117	114	114	114	110	110
1	108	103	97	104	100	95	94	92
2	97	89	81	94	86	80	82	77
3	89	78	69	85	76	68	72	66
4	81	68	59	79	68	58	65	56
5	75	61	53	71	59	52	57	50
6	68	55	46	67	54	46	52	45
7	64	50	40	61	48	40	46	40
8	58	46	36	57	45	36	42	35
9	56	41	34	54	40	33	40	33
10	52	39	30	51	38	30	36	29

Light Distribution

Degrees	Lumens	% Luminaire
0-30	1344	26.1
0-40	2176	42.3
0-60	3842	74.7
0-90	4992	97.1
90-120	114	2.2
90-130	133	2.6
90-150	148	2.9
90-180	149	2.9
0-180	5141	100.0

Average Luminance

Angle	End	45°	Cross
45	7103	5648	5790
55	6447	5616	5126
65	5552	4964	3915
75	4486	2974	2465
85	2784	1530	1043

4' Vaporlume LED DW, 7000 nominal lumens LER-107

Catalog No.	DWAE70L840-4
Test No.	32614
S/MH	1.2
Source	LED
Input Watts	65
Delivered Lumens	6985

Comparative yearly lighting energy cost per 1000 lumens – **$2.24** based on 3000 hrs. and $.08 pwr KWH.

Photometric values based upon tests performed in compliance with LM-79.

Candlepower

Angle	End	45	Cross	Back-45
0	2357	2357	2357	2357
5	2351	2342	2345	2342
15	2274	2271	2270	2271
25	2101	2105	2089	2105
35	1818	1814	1784	1814
45	1467	1462	1586	1462
55	1085	1302	1345	1302
65	701	959	891	959
75	365	469	503	469
85	92	170	176	170
95	36	67	53	67
105	33	57	39	57
115	19	53	39	53
125	8	38	38	38
135	4	20	33	20
145	3	6	18	6
155	2	2	4	2
165	2	2	2	2
175	2	2	2	2

Coefficients of Utilization

EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)

pcc	80			70			50	
pw	70	50	30	70	50	30	50	30
RCR								
0	117	117	117	114	114	114	109	109
1	108	103	97	105	100	95	94	92
2	97	89	81	94	86	80	82	77
3	89	78	69	85	76	68	72	66
4	81	68	59	79	67	58	65	56
5	75	61	52	71	59	52	57	50
6	68	55	46	67	54	46	52	45
7	64	50	40	61	48	40	46	40
8	58	46	36	57	45	36	42	35
9	56	41	34	54	40	33	40	33
10	52	39	30	51	38	30	36	29

Light Distribution

Degrees	Lumens	% Luminaire
0-30	1830	26.1
0-40	2961	42.3
0-60	5230	74.7
0-90	6798	97.1
90-120	156	2.2
90-130	183	2.6
90-150	203	2.9
90-180	205	2.9
0-180	7003	100.0

Average Luminance

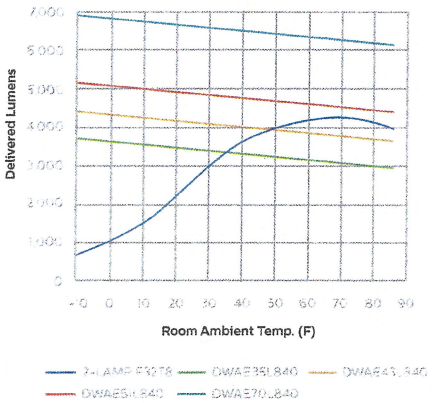
Angle	End	45°	Cross
45	9554	7946	8219
55	8566	8043	7802
65	7304	7108	6080
75	5848	4516	4329
85	3444	2433	2142

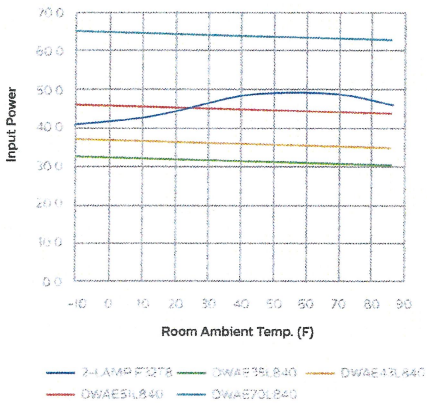
DW Vaporlume LED sealed industrial

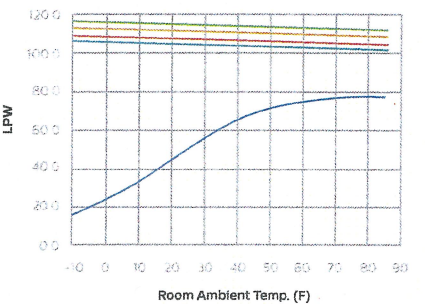
4', 3500, 4300, 5100, or 7000 lumens

Energy Data

Model	Initial Delivered Lumens @ 25°C Ambient	Input Power	Lumens per Watt	Application notes
DWAE35L840-4-UNV	3,699	32W	117 LPW	• Slightly less than 2 lamp F32T8 at room temperature, 35% energy savings. • Equivalent to 2 lamp F32T8 in refrigerator (40°F), 35% energy savings.
DWAE43L840-4-UNV	4,431	38W	116 LPW	• Equivalent to 2 lamp F32T8 at room temperature, 15% energy savings. • Double the output of 2 lamp F32T8 in freezer (25°F) at the SAME energy use.
DWAE51L840-4-UNV	5,129	46W	111 LPW	• Equivalent to high ballast factor 2 lamp F32T8 at room temperature, 15% energy savings.
DWAE70L840-4-UNV	6,985	65W	107 LPW	• Equivalent to 3 lamp F32T8 at room temperature, 30% energy savings.







Philips Lighting North America Corporation
200 Franklin Square Drive, Somerset, NJ 08873
Tel. 855-486-2216

Philips Lighting Canada Ltd.
281 Hillmount Rd, Markham, ON, Canada L6C 2S3
Tel. 800-668-9008

MaxLiTe
A NEW WAVE OF LIGHT

PROJECT NAME:_____ CATALOG NUMBER:_____

NOTES:_____ FIXTURE SCHEDULE:_____

WALLMAX™ THIN CUT OFF

WP-AD SERIES

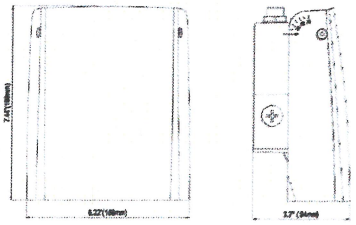
ETL CLASSIFIED

Intertek

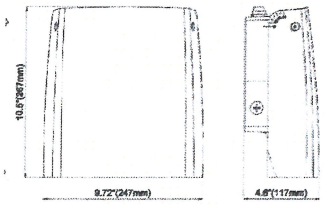
DLC QPL LISTED

2016 T24 PART 6 HIGH EFFICACY LIGHTING REQUIREMENTS

DIMENSIONS (SIZE 1): 15W, 20W & 29W:



DIMENSIONS (SIZE 2): 50W & 70W:



PRODUCT DESCRIPTION:

WallMax™ Thin Cut Off Wall Packs are constructed with pivoting heads that aim light precisely while minimizing glare and backlight. These durable, energy-saving fixtures are perfect for lighting outdoor walkways, landscapes, parking areas and perimeters. Efficacy for the series reaches up to 131 lm/W, translating to 75 percent energy savings over HID luminaires. The fixtures include a variable voltage photocell that provides further energy savings.

FEATURES:

- Fixture can be ordered standard with up to 90 degree adjustability or as a position down only model
- >80 CRI min
- Universal 120-277V power supply
- Power Factor > 0.9; THD < 20%
- 100,000-hour L70 lifetime, TM-21 standards @ 25°C
- Three 1/2 NPD knockouts available for mounting convenience

CONTROLS:

120-277VAC Photocell:

- Power the fixture when light levels reach 20 lux or below
- Turn off the fixture at 30 lux or higher
- Operating temperature: 30ºF-120ºF

Needs to be 3000k

MODEL SELECTION — Typical order example: WP-ADS20U-50B

WP-AD			U	-		B	-	
FAMILY	**HOUSING SIZE**	**WATTAGE**	**VOLTAGE**	-	**CCT**	**FINISH**	-	**CONTROLS**
WP-AD= WallMax™ Thin Cut Off	**S=** Small	**15=** 15W; 100W MH replacement **20=** 20W; 150W MH replacement **29=** 29W; 175W MH replacement	**U=** 120-277V	-	**40=** 4000K **50=** 5000K	**B=** Bronze *Contact Maxlite for additional finishes*	-	**(OMIT)=** None **PC=** 120-277V Photocell
	L= Large	**50=** 50W; 250W MH replacement **70=** 70W; 250W MH replacement						

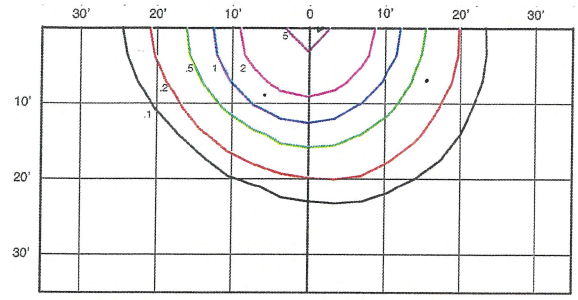
1. Please, contact Maxlite for position down only (not adjustable) models.

SPECIFICATIONS:

ITEM	SPECIFICATION	WP-ADS15	WP-ADS20	WP-ADS29	WP-ADL50	WP-ADL70
		DETAILS				
GENERAL PERFORMANCE	Input Power (W)	15	20	29	50	70
	Lumens Delivered (lm)	1,700	2,110	3,000	5,800	8,000
	Efficacy (lm/W)	up to 105			up to 131	up to 116
	CRI	>80				
	Lumen Maintenance (L70)	≥100,000				
	Color Temperature	4000K, 5000K				
	Spacing Criteria	Available Upon Request				
ELECTRICAL	Power Factor	>.90				
	Input Voltage	120-277V				
	Housing	Die-cast aluminum + Prismatic lens				
CERTIFICATION	Material Usage	RoHS compliant; no mercury				
	Environment	Outdoor, Wet location				
	Qualifications	FCC, ETL, DLC Standard				
	Warranty	5 Years				
	Operating Temperature	-22°F to 131°F (-30°C to 55°C)				

LAYOUTS:

WP-ADS15U-50B:

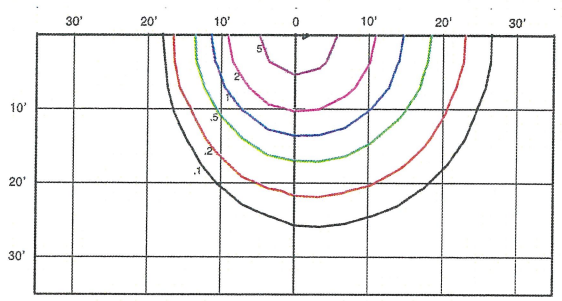


15W
10' MOUNTING HEIGHT

FOOT-CANDLE CORRECTION FACTOR:

NEW HEIGHT:	10'	15'	20'	25'
MULTIPLY BY:	1	0.67	0.50	0.40

WP-ADS20U-50B:

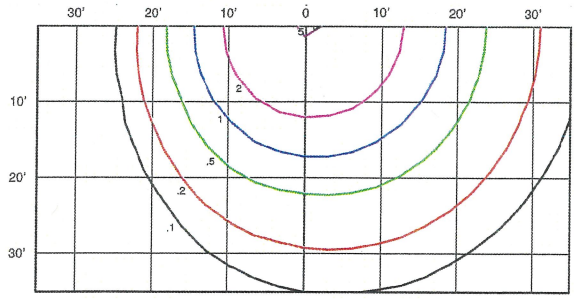


20W
10' MOUNTING HEIGHT

FOOT-CANDLE CORRECTION FACTOR:

NEW HEIGHT:	10'	15'	20'	25'
MULTIPLY BY:	1	0.67	0.50	0.40

WP-ADS29U-50B:

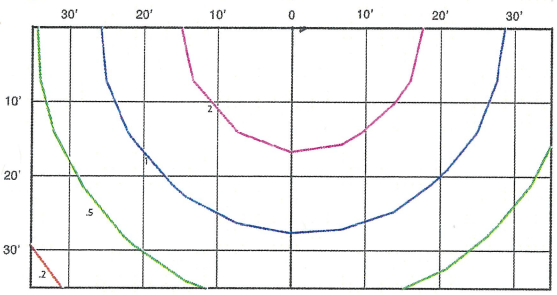


29W
15' MOUNTING HEIGHT

FOOT-CANDLE CORRECTION FACTOR:

NEW HEIGHT:	10'	15'	20'	25'
MULTIPLY BY:	1.50	1	0.75	0.50

WP-ADL70U-50B:



70W
30' MOUNTING HEIGHT

FOOT-CANDLE CORRECTION FACTOR:

NEW HEIGHT:	15'	20'	25'	30'
MULTIPLY BY:	2	1.50	1.20	1

BOWERS + KUBOTA CONSULTING

• Project Management • Planning • Architectural/Engineering Design • Construction Management

HawaiiBusiness' 2018 Best Places to Work

94-408 Akoki Street, Suite 201-A
Waipahu, Hawaii 96797
Phone: 808_836_7787
Telefax: 808_834_4833

LETTER OF TRANSMITTAL

TO: Engineered Systems Inc
P.O. Box 865 / 201 Kapaa Quarry Place #2505
Kailua, HI 96734

DATE:	November 23, 2018	PROJ NO.:	IFB-19-HHL-001
ATTENTION:	**Andrew Lo**		
RE:	Anahola Farm Lots Water Project Ph. II		
	Water Tank Replacement and Facility Improvements		
	B+K Transmittal No. 05		

WE ARE SENDING YOU X Attached Via: EMAIL the following items:

Shop drawings Prints Plans Samples Specifications

Copy of letter Change order

COPIES	DATE	DESCRIPTION
1	11/23/18	Response to Engineered Systems Request for Substitution for;
		1. Air / Vacuum Valve; 2. Center Guided Silent Check Valve; 3. Packaged Line Booster Pump System; 4. Pump Control Valv

THESE ARE TRANSMITTED as checked below:

For approval Approved as submitted Resubmit _____ copies for approval

X For your use and info Approved as noted Submit _____ copies for distribution

As requested Returned for corrections Return _____ corrected prints

For review and comment

FOR BIDS DUE _____ 20____ PRINTS RETURNED AFTER LOAN TO US

REMARKS: See attached responses for request for substitution- **Packaged line booster pump system, Pump Control valve, Air/vacuum va Center-guided check valve (4 total)**

COPY TO: Wayne Nakamura, DHHL
Files

SIGNED _____
Steve Ientile Bowers+Kubota

Nakamura, Wayne H

From: Steve Ientile <sientile@bowersandkubota.com>
Sent: Friday, November 23, 2018 12:06 PM
To: Andrew Lo
Cc: Nakamura, Wayne H; Charissa Riofta; Paul Scott; Dan Murakami
Subject: RE: SUBSTITUTION REQUEST: IFB-19-HHL-001 Anahola FLWP, Phase II: Packaged line booster pump system, valves
Attachments: B+K LOT No.05; Air Vacuum Valve; Center Guided Silent Check Valve; Packaged Line Booster Pump System; Pump Control Valve.pdf

Andrew; Please see the attached BK Transmittal No. 05 – Response to Substitution Request for 1. Air / Vacuum Valve; 2. Center Guided Silent Check Valve; 3. Packaged Line Booster Pump System; 4. Pump Control Valve.

Thanks

Steve Ientile
Bowers + Kubota Consulting
Bowers + Kubota Management
HawaiiBusiness' 2018 Best Places to Work

Mobile: (808) 286-3830
Main Office: (808) 836-7787 / (808) 833-1841
Fax: (808) 834-4833

From: Nakamura, Wayne H <wayne.h.nakamura@hawaii.gov>
Sent: Monday, November 19, 2018 12:00 PM
To: Andrew Lo <andrew@engineeredsystemshawaii.com>; Dan Murakami <dan@engineeredsystemshawaii.com>; Paul Scott <paulscott@engineeredsystemshawaii.com>
Cc: Steve Ientile <sientile@bowersandkubota.com>; Charissa Riofta <criofta@bowersandkubota.com>; Jeremy Michelson <JMichelson@OCEANIT.COM>; Nakamura, Wayne H <wayne.h.nakamura@hawaii.gov>
Subject: FW: SUBSTITUTION REQUEST: IFB-19-HHL-001 Anahola FLWP, Phase II: Packaged line booster pump system, valves

Hi Andrew,

Project: Anahola Farm Lots Water Project, Phase II- Water Tank Replacment & Facility Improvements
Public Water Systerm No. 432, Anahola, Kauai, Hawaii

RE: **Request for Substitution – Packaged line booster pump system, Pump control valve, Air/vacuum valve, Center-guided check valve (4 total)**

DHHL has received your Request for Substitution and our Consultants will be reviewing it. You will be notified after a determination is made.

Mahalo,

Wayne Nakamura
Project Manager
Land Development Division

Department of Hawaiian Home Lands
Phone: 808-620-9275
Email: wayne.h.nakamura@hawaii.gov

From: Andrew Lo <andrew@engineeredsystemshawaii.com>
Sent: Friday, November 16, 2018 12:16 PM
To: Nakamura, Wayne H <wayne.h.nakamura@hawaii.gov>
Cc: Dan Murakami <dan@engineeredsystemshawaii.com>; Paul Scott <paulscott@engineeredsystemshawaii.com>
Subject: SUBSTITUTION REQUEST: IFB-19-HHL-001 Anahola Farm Lot Water Project, Phase II

Good Afternoon Wayne,

Could you please review the attached substitution request? I have attached requests for the Packaged line booster pump system, Pump control valve, Air/vacuum valve, and Center-guided check valve (4 total).

Thank you,
Andrew Lo
Engineered Systems Inc.
P.O. Box 865 / 201 Kapaa Quarry Place #2505
Kailua, Hawaii 96734
Ph: (808) 263-2232
Fax: (808) 263-3928
www.engineeredsystemshawaii.com

Okahara and Associates, Inc.
ENGINEERING CONSULTANTS

SUBSTITUTION REQUEST
REVIEW
(Page 1 of 1)

PROJECT:	Anahola Farm Lots Water Project Phase II – Water Tank Replacement & Facility Improvements
SUBSTITUTION REQUEST:	Air/Vacuum Valve
SPEC NO:	304.04 Pump Station Mechanical Equipment Paragraph 304.04.C.1.c
DRAWING NO:	M-4

Reviewed By: Terrance Nago Date: November 20, 2018

- ☐ Reviewed, No Exceptions Noted
- ☒ Reviewed, Exceptions Noted
- ☐ Submit Specified Item(s)
- ☐ Resubmit
- ☐ Do Not Resubmit
- ☐ Rejected

Reviewed only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor's responsibility includes but is not limited to: dimensions, which shall be confirmed and correlated at the jobsite, fabrication processes, techniques of construction, coordination of his work with all other trades, safety precautions, and the satisfactory performance of his work.

Comments: Recommend approval for the Val-Matic Model 103S A/V Valve subject to the following comments.

1. Since the inlet connection is not flanged, the Contractor shall make the necessary piping modifications to accommodate the threaded inlet of this air valve.

2. The Contractor shall still provide the mushroom cap per the plans and specifications.

200 Kohola Street • Hilo, HI 96720-4323 • (808) 961-5527• fax (808) 961-5529 • email: hilo@okahara.com
677 Ala Moana Blvd., Suite 703 • Honolulu, HI 96813-5415 • (808) 524-1224 • fax (808)521-3151 • email: oahu@okahara.com

Okahara and Associates, Inc.
ENGINEERING CONSULTANTS

SUBSTITUTION REQUEST REVIEW

PROJECT:	Anahola Farm Lots Water Project Phase II – Water Tank Replacement & Facility Improvements
SUBSTITUTION REQUEST:	Center-Guided Silent Check Valve
SPEC NO:	304.04 Pump Station Mechanical Equipment Paragraph 304.04.C.1.b
DRAWING NO:	M-4

Reviewed By: Terrance Nago Date: November 20, 2018

- ☐ Reviewed, No Exceptions Noted
- ☒ Reviewed, Exceptions Noted
- ☐ Submit Specified Item(s)
- ☐ Resubmit
- ☐ Do Not Resubmit
- ☐ Rejected

Reviewed only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor's responsibility includes but is not limited to: dimensions, which shall be confirmed and correlated at the jobsite, fabrication processes, techniques of construction, coordination of his work with all other trades, safety precautions, and the satisfactory performance of his work.

Comments: Recommend approval for the Val-Matic Model 1808A Silent Check Valve subject to the following comments.

1. The body of the valve shall be ductile iron A536 option.
2. The face to face dimension is larger for this valve. The Contractor shall make the necessary adjustments to the discharge piping. Maintain the necessary upstream straight pipe length for the flow tube.
3. Seat shall be stainless steel A351 option.

200 Kohola Street • Hilo, HI 96720-4323 • (808) 961-5527• fax (808) 961-5529 • email: hilo@okahara.com
677 Ala Moana Blvd., Suite 703 • Honolulu, HI 96813-5415 • (808) 524-1224 • fax (808)521-3151 • email: oahu@okahara.com

Okahara and Associates, Inc.
ENGINEERING CONSULTANTS

SUBSTITUTION REQUEST
REVIEW
(Page 1 of 1)

PROJECT:	Anahola Farm Lots Water Project Phase II – Water Tank Replacement & Facility Improvements
SUBSTITUTION REQUEST:	Packaged Line Booster Pump System
SPEC NO:	304.04 Pump Station Mechanical Equipment Paragraph 304.04.K
DRAWING NO:	M-5

Reviewed By: Terrance Nago Date: November 20, 2018

- ☐ Reviewed, No Exceptions Noted
- ☒ Reviewed, Exceptions Noted
- ☐ Submit Specified Item(s)
- ☐ Resubmit
- ☐ Do Not Resubmit
- ☐ Rejected

Reviewed only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor's responsibility includes but is not limited to: dimensions, which shall be confirmed and correlated at the jobsite, fabrication processes, techniques of construction, coordination of his work with all other trades, safety precautions, and the satisfactory performance of his work.

Comments: Recommend approval for the QuantumFlo Genius Triplex Packaged Booster Pump System subject to the following comments.

1. A suitable fiberglass enclosure for this pump system shall still be provided.
2. The specified Premierflo product comes with a premium efficiency motor for each pump. The QuantumFlo supplier shall provide the same.
3. Pipe manifolds shall be type 316 stainless steel.
4. The Contractor shall be responsible for any piping and electrical modifications to suit this substitute product.

200 Kohola Street • Hilo, HI 96720-4323 • (808) 961-5527• fax (808) 961-5529 • email: hilo@okahara.com
677 Ala Moana Blvd., Suite 703 • Honolulu, HI 96813-5415 • (808) 524-1224 • fax (808)521-3151 • email: oahu@okahara.com

Okahara and Associates, Inc.
ENGINEERING CONSULTANTS

SUBSTITUTION REQUEST
REVIEW
(Page 1 of 1)

PROJECT:	Anahola Farm Lots Water Project Phase II – Water Tank Replacement & Facility Improvements
SUBSTITUTION REQUEST:	Pump Control Valve
SPEC NO:	304.04 Pump Station Mechanical Equipment Paragraph 304.04.C.1.a
DRAWING NO:	M-4

Reviewed By: Terrance Nago Date: November 21, 2018

- ☐ Reviewed, No Exceptions Noted
- ☐ Reviewed, Exceptions Noted
- ☐ Submit Specified Item(s)
- ☐ Resubmit
- ☐ Do Not Resubmit
- ☒ Rejected

Reviewed only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor's responsibility includes but is not limited to: dimensions, which shall be confirmed and correlated at the jobsite, fabrication processes, techniques of construction, coordination of his work with all other trades, safety precautions, and the satisfactory performance of his work.

Comments:

Recommend disapproval for the Singer Model 106-DW Pump Control Valve. This valve is not in the Approved Material List of the Water System Standards, dated 2002, as amended. The pump control valve must comply with the Water System Standards per Paragraph 304.04.A.1.

200 Kohola Street • Hilo, HI 96720-4323 • (808) 961-5527• fax (808) 961-5529 • email: hilo@okahara.com
677 Ala Moana Blvd., Suite 703 • Honolulu, HI 96813-5415 • (808) 524-1224 • fax (808)521-3151 • email: oahu@okahara.com

BOWERS + KUBOTA CONSULTING

• Project Management • Planning • Architectural/Engineering Design • Construction Management

HawaiiBusiness' 2018 Best Places to Work

94-408 Akoki Street, Suite 201-A
Waipahu, Hawaii 96797
Phone: 808_836_7787
Telefax: 808_834_4833

LETTER OF TRANSMITTAL

TO: SHEARER & ASSOCIATES

DATE:	November 23, 2018	PROJ NO.:	IFB-19-HHL-001
ATTENTION:	**Tom Shearer**		
RE:	Anahola Farm Lots Water Project Ph. II		
	Water Tank Replacement and Facility Improvements		
	B+K Transmittal No. 08		

WE ARE SENDING YOU X Attached Via: EMAIL the following items:

Shop drawings Prints Plans Samples Specifications

Copy of letter Change order

COPIES	DATE	DESCRIPTION
1	11/23/18	Response - Request for Substitution; Temporary Steel Tank

THESE ARE TRANSMITTED as checked below:

For approval Approved as submitted Resubmit _____ copies for approval

X For your use and info Approved as noted Submit _____ copies for distribution

As requested Returned for corrections Return _____ corrected prints

For review and comment

FOR BIDS DUE _____ 20 _____ PRINTS RETURNED AFTER LOAN TO US

REMARKS: See attached comments on Substitution Request Review.

COPY TO: Wayne Nakamura, DHHL
Files

SIGNED

Steve Ientile Bowers+Kubota

Nakamura, Wayne H

From: Steve Ientile <sientile@bowersandkubota.com>
Sent: Friday, November 23, 2018 1:52 PM
To: Tom Shearer
Cc: Nakamura, Wayne H; Charissa Riofta
Subject: RE: Anahola FLWP, Phase II: Substitution Request- Hydrotec CS bolted chime panel tank - RESPONSE
Attachments: B+K 08 Temp Steel Tank.pdf

Tom: Please see the attached BK Transmittal No. 08 – Response to Substitution Request - CST Hydrotec CS bolted chime panel tank.

Thanks

Steve Ientile
Bowers + Kubota Consulting
Bowers + Kubota Management
HawaiiBusiness' 2018 Best Places to Work

Mobile: (808) 286-3830
Main Office: (808) 836-7787 / (808) 833-1841
Fax: (808) 834-4833

From: Nakamura, Wayne H <wayne.h.nakamura@hawaii.gov>
Sent: Monday, November 19, 2018 5:29 PM
To: Tom Shearer <tshearer@shearerandassociates.com>
Cc: Steve Ientile <sientile@bowersandkubota.com>; Charissa Riofta <criofta@bowersandkubota.com>; Jeremy Michelson <JMichelson@OCEANIT.COM>; Nakamura, Wayne H <wayne.h.nakamura@hawaii.gov>
Subject: FW: Anahola FLWP, Phase II: Substitution Request- Hydrotec CS bolted chim panel tank

Hi Tom,

Project: Anahola Farm Lots Water Project, Phase II- Water Tank Replacment & Facility Improvements
Public Water Systerm No. 432, Anahola, Kauai, Hawaii

RE: Request for Substitution – CST Hydrotec CS bolted chim panel tank

DHHL has received your follow-up **Request for Substitution** and our Consultants will be reviewing it. You will be notified after a determination is made.

Mahalo,

Wayne Nakamura
Project Manager
Land Development Division
Department of Hawaiian Home Lands
Phone: 808-620-9275
Email: wayne.h.nakamura@hawaii.gov

From: Tom Shearer <tshearer@shearerandassociates.com>
Sent: Friday, November 16, 2018 5:48 AM
To: Nakamura, Wayne H <wayne.h.nakamura@hawaii.gov>
Subject: RE: Anahola Farm Lots Water Project - Temporary Steel Water Tank

Wayne, Thank you for your reply. Since my previous email, I have learned that the our galvanized tank is actually more expensive than our standard epoxy painted bolted chim Hydrotec CS tank. Therefore I'd like to change our substitution request to the CST Hydrotec CS bolted chim panel tank. A specification is included as well as a brochure which includes additional information on this tank. Please let me know if any questions. Thank you.

Best Regards,

Tom Shearer

SHEARER & ASSOCIATES, INC
GENERAL CONTRACTOR | DEVELOPMENT

Shearer & Associates, Inc. | tel. 360-666-5600 | fax 360-666-5603 |shearerandassociates.com

From: Nakamura, Wayne H <wayne.h.nakamura@hawaii.gov>
Sent: Thursday, November 15, 2018 6:01 PM
To: Tom Shearer <tshearer@shearerandassociates.com>
Cc: Nakamura, Wayne H <wayne.h.nakamura@hawaii.gov>
Subject: FW: Anahola Farm Lots Water Project - Temporary Steel Water Tank

Hi Tom,

Project: Anahola Farm Lots Water Project, Phase II- Water Tank Replacment & Facility Improvements
Public Water Systerm No. 432, Anahola, Kauai, Hawaii

RE: Request for Substitution – bolted galvanized water storage tank

DHHL has received your Request for Substitution and our Consultants will be reviewing it. You will be notified after a determination is made.

Mahalo,

Wayne Nakamura
Project Manager
Land Development Division
Department of Hawaiian Home Lands
Phone: 808-620-9275
Email: wayne.h.nakamura@hawaii.gov

From: Tom Shearer <tshearer@shearerandassociates.com>
Sent: Thursday, November 15, 2018 12:01 PM

To: Nakamura, Wayne H <wayne.h.nakamura@hawaii.gov>
Subject: Anahola Farm Lots Water Project - Temporary Steel Water Tank

Mr. Nakamura:
I would like to request acceptance of or substitution of a bolted galvanized water storage tank manufactured by CST Storage of Parsons, KS. Our company, Shearer & Associates, Inc is a dealer for CST Storage as well as an authorized erector and General Contractor licensed in the State of Hawaii. I have attached the tank specification, as well as our reference list. These tanks consist of bolted panels with gaskets. They are fully NSF approved and made in the USA. I believe they will meet all requirements of the project and be an excellent selection for a temporary tank. Please let me know any additional documentation that may be required for acceptance. I will await your reply or direction. Thank you.

Best Regards,

Tom Shearer

SHEARER & ASSOCIATES, INC
GENERAL CONTRACTOR | DEVELOPMENT

Shearer & Associates, Inc. | tel. 360-666-5600 | fax 360-666-5603 |shearerandassociates.com

oceanit
innovation through engineering & scientific excellence

SUBSTITUTION REQUEST REVIEW
(Page 1 of 1)

PROJECT:	Anahola Farm Lots Water Project Phase II – Water Tank Replacement & Facility Improvements
SUBSTITUTION REQUEST:	Temporary Steel Tank
SPEC NO:	Section 13201 – Temporary Steel Water Tank Paragraph 13201.1.03 (A)
DRAWING NO:	C-2

Reviewed By: Jeremy Michelson Date: 11/21/2018

☐Reviewed, No Exceptions Noted ☐Resubmit

☒Reviewed, Exceptions Noted ☐Do Not Resubmit

☐Submit Specified Item(s) ☐Rejected

Reviewed only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor's responsibility includes but is not limited to: dimensions, which shall be confirmed and correlated at the jobsite, fabrication processes, techniques of construction, coordination of his work with all other trades, safety precautions, and the satisfactory performance of his work.

Comments: Recommend approval for the CST Hydrotec CS bolted chime panel tank subject to the following comments.

1. The tank manufacturer will provide stamped shop drawings, structural design calculations and tank foundation design by a Hawaii licensed structural engineer.
2. The diameter of the outer edge of the tank foundation/concrete ring wall shall be 35'-0" or less, in order to maintain the 10' wide access road around the tank.

Oceanit Center 828 Fort Street Mall, Suite 600 Honolulu, Hawaii 96813 Phone: 808.531.3017 Fax: 808.531.3177
www.oceanit.com