



DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAI'I

345 KEKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAI'I 96720

TELEPHONE (808) 961-8050 • FAX (808) 961-8857

DEPARTMENT OF WATER SUPPLY
COUNTY OF HAWAI'I
HILO, HAWAI'I

ADDENDUM NO. 1

JOB NO. 2021-1177

INVITATION FOR BIDS

FOR THE

**HĀWĪ #2 BOOSTER C REPAIR
DISTRICT OF NORTH KOHALA
County of Hawai'i – State of Hawai'i**

The following revisions and changes shall be made a part of the contract bidding documents:

1. Changes to **PROPOSAL**:

- a. Page P-5, **REVISE**, Part "C", Item 1. Change "Chesterton 155" to "Chesterton 280".
- b. Page P-6, **REVISE**, Part "D", Item 5. Change "Toshiba LF654" to "Toshiba GF632".

2. Changes to **SPECIAL PROVISION**:

- a. Page SP-18, **REVISE**, Section 304.05.B.2.e. Change "Chesterton 155" to "Chesterton 280".
- b. **DELETE** Pages SP-26 & SP-27 in their entirety and **REPLACE** with the attached revised pages SP-26A & SP-27A.
- c. **DELETE** Page M-1 in its entirety and **REPLACE** with the attached Page M-1A. Change includes changing curb stop part number from "Ford F81-333-NL" to "Ford B81-333-NL".

3. **CLARIFICATIONS**:

- a. The Department does not have as-built drawings that confirm the dimensions of the existing suction can.

BY AUTHORITY OF THE DEPARTMENT OF
WATER SUPPLY COUNTY OF HAWAI'I

By: 
Keith K. Okamoto, P.E., Manager-Chief Engineer

Date: September 29, 2021

Please sign and return immediately to the Manager-Chief Engineer of the Department of Water Supply.

Receipt of a copy of **ADDENDUM NO. 1** for JOB NO. 2021-1177, HĀWĪ #2 BOOSTER C REPAIR, District of North Kohala, County of Hawai'i, State of Hawai'i, is hereby acknowledged.

NAME OF BIDDER

Date: _____

By: _____

...Water, Our Most Precious Resource...Ka Wai A Kāne...

The Department of Water Supply is an Equal Opportunity provider and employer.

Addendum No. 1 – September 29, 2021

2. Type.
 - a. Flow Meter:
 - i. Detector: Toshiba **GF63210ANBA1** or approved equal.
 - ii. Signal Converter: Toshiba LF622FAC231E or approved equal.
 - b. Magnetic flow meter, operating based on Faraday's Law, using a pulsed DC type coil excitation with high impedance electrodes.
 - c. Remote, wall mounted signal converter; including all interconnection cables required.
3. Parts.
 - a. Flow tube, signal converter, interconnection cables. Meters provided shall be complete for remote-mounting of the signal converter without requiring the purchase of additional parts.

B. SERVICE

1. Magnetic flow meter shall be appropriate for applications in potable water systems on well stations, booster stations and reservoir influent and effluent lines.

C. PERFORMANCE

1. Range:
 - a. 1000:1 for 6" and smaller, 1500:1 for 8" and larger.
2. Accuracy.
 - a. Accuracy shall be:
 - i. 0.3% + 1mm/s at 5x diameter upstream clearance.
3. Repeatability:
 - a. $\pm 0.05\%$ or ± 0.0008 ft/s, whichever is greater.
4. Verification shall be integral to flow meter signal converter.

D. PROCESS CONNECTION

1. Meter Size:
 - a. 4-inch
2. Connection Type:
 - a. Flanged, ASME B16.5 Class 150
3. Flange Material:
 - a. Carbon steel
4. Pressure Rating:
 - a. Meter system shall be fully rated to the same design pressure as the flanges.

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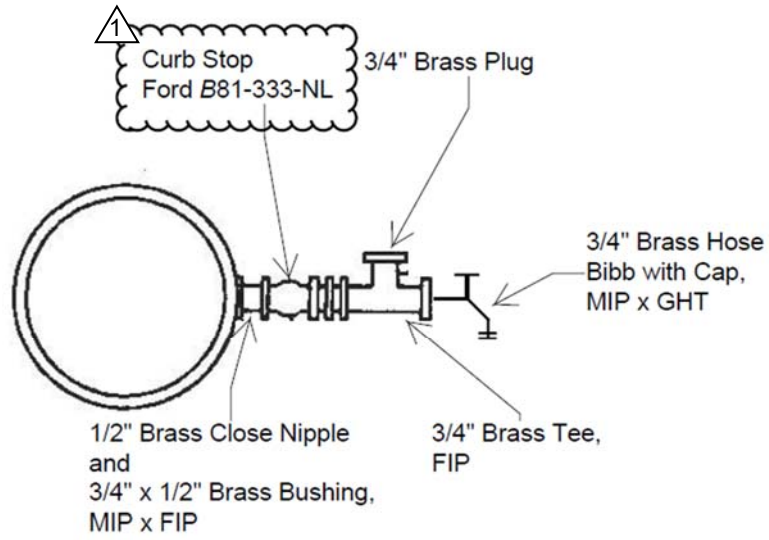
E. FLOW TUBE

1. Measuring Tube Material:
 - a. **304 Stainless steel**
2. Liner Material:
 - a. Polyurethane or as recommended by the manufacturer
3. Electrode Material:
 - a. 316 stainless steel or as recommended by the manufacturer
4. Enclosure Classification:
 - a. **IP67**
5. Sensor Housing Material:
 - a. Polyurethane resin coated carbon steel
6. Connection Box Material:
 - a. **Aluminum or as recommended by the manufacturer**
7. Grounding:
 - a. Grounding rings or grounding electrodes shall be provided per manufacturer's recommendation
8. Detector length shall conform to ISO standards.

F. SIGNAL CONVERTER

1. Power:
 - a. **110 to 240 VAC.**
2. Display:
 - a. Back-lit full dot-matrix 128 x 128 LCD.
3. Bi-Directional Flow:
 - a. Forward and reverse flow indication; total and rate 7-digit user configurable display.
4. Units:
 - a. US Gallons per Minute (Flow Rate), US Gallons (Volume).
5. Totalizers:
 - a. Three 8-digit totalizers for count, volume and net.
6. Enclosure:
 - a. Aluminum.
7. Housing:
 - a. Remote, Wall-Mounted
8. **Modbus**
9. Environmental Classification:
 - a. IP67

SKETCH (M-1)



Pressure Sampling Assembly
 Not to Scale

①	9/29/2021	Addendum #1
Revision	Date	Description