

**STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION**

**ADDENDUM NO. 1**

**FOR**

**FREEWAY MANAGEMENT SYSTEM  
PHASE 3, UNIT 1  
PROJECT NO. NH-0300(152)**

**DISTRICTS OF HONOLULU & EWA  
ISLAND OF OAHU  
2021**

Amend the Bid Documents as follows:

**1. SPECIFICATIONS:**

- A. Remove "Section 681 – CCTV Pole and Lowering System," dated 5/12/21 and replace it with the attached "Section 681 – CCTV Pole and Lowering System" dated 9/27/2021.
- B. On Page 683-2a, Section 683.02(A)(5), line 88, "e. Serial interface to support RS-422 / RS-485" shall be deleted.

**2. PROPOSAL SCHEDULE:**

Remove PROPOSAL SCHEDULE pages P-8 to P-13 dated 8/23/21 and replace it with the attached PROPOSAL SCHEDULE pages P-8 to P-13 dated 9/27/21.

**3. PLANS:**

Remove Sheet No. E-11 dated 6/25/21 and replace it with the attached Sheet No. E-11 dated 9/27/21.

**4. PRE-BID MEETING MINUTES:**

Attached are the September 23, 2021 Pre-bid Meeting minutes.

The following questions were asked prior to/after the Pre-Bid meeting on September 23, 2021:

Addendum No. 1  
9/28/2021

- Q1: Bid item 621.0016 – Please advise what plan(s) this work is shown on?  
A1: Sheet E-14, Sheets E-15 and E-16 (excluding the work to the east of the “Start of Waiawa Road Stub” call-out), and Sheets E-17 to E-20.
- Q2: Reference Sheet E9-14. Please confirm exposed conduit at Bridge Construction Joint is seal-tite flexible metal conduit per note and not a PVC coated expansion fitting. Provide detail.  
A2: Confirming it is flexible metal conduit.
- Q3: Reference Spec 683.02. Per paragraph “C”, please confirm that all cameras will be provided by owner.  
A3: CCTV Cameras are not Government Furnished Equipment and therefore will not be supplied by the owner.
- Q4: Please confirm the note on the enlarged plan of sheet E-7. Is the callout for detail A/E-30 correct?  
A4: Detail A/E-30 is correct for the new meter installation.
- Q5: Is detail D/E-30 not to be used?  
A5: D/E-30 should not be used as it is for H-2 South.
- Q6: Why is one meter being fed through the other meter as drawn; is this the intent?  
A6: The new meter is being fed by HECO service from the existing utility pole that the existing meter is on. The existing meter will not feed the new meter.
- Q7: Confirm note 3 on sheet E11 is not used.  
A7: The crossing between “Nimitz Connector Westbound” and “Nimitz Connector Eastbound” should have notes “3” and “4”, not “2” and “4” that is currently shown.
- Q8: Confirm that the note on top of page E9 stating “Riser Up Existing Viaduct Column” refers to detail B of sheet E-32.  
A8: Yes, detail B/E-32 to be used for the Riser.
- Q9: Are there other locations where concrete encasements of conduits per detail B on sheet E-32 applies?  
A9: No, this is the only location for concrete encasing.
- Q10: Section 681.04(B) Measurement for the Camera Lowering System mentions a CLS on “the existing pole described in Section 681.03(G). However, there is no Section 681.03(G) in the specs. Please clarify.  
A10: See the attached “Section 681 – CCTV Pole and Lowering System” dated 9/27/2021.

Q11: In addition, the section mentions 1 spare CLS unit. That appears to be a total of 6 CLS. Bid item 681.0101 states 4. Which is correct?

A11: See the attached "Section 681 – CCTV Pole and Lowering System" dated 9/27/2021, as well as, the attached PROPOSAL SCHEDULE dated 9/27/21.

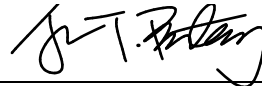
Q12: Spec states to provide a total of two (2) lowering tool winches with the camera lowering system. Please advise.

A12: See the attached "Section 681 – CCTV Pole and Lowering System" dated 9/27/2021. On page 6881-18a, Section 681.04(B), changed "2 lowering winches (total)" to "3 lowering tools (1 per new pole and 1 spare unit)".

**5. FEDERAL WAGE RATES:**

Replace Federal Wage Rates dated 9/3/21 with the attached Federal Wage Rates dated 9/24/21.

Please acknowledge receipt of this Addendum No. 1 by recording the date of its receipt in the space provided on page P-4 of the Proposal.



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JADE T. BUTAY  
Director of Transportation

1 Make this Section a part of the Standard Specifications:

2  
3 **“SECTION 681 – CCTV POLE AND LOWERING SYSTEM**

4  
5 **681.01 Description.** This project involves the installation of closed circuit  
6 television (CCTV) cameras with lowering systems on the H-1 and H-201  
7 freeways on the Island of Oahu.

8  
9 In general, this installation consists of the following components:

- 10  
11 (A) CCTV poles and foundations,  
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13 (B) Camera lowering devices on the top of the poles,  
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15 (C) CCTV cabinet on the ground, and equipment pad,  
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17 (D) CCTV camera attached to camera lowering device, power supply in  
18 the CCTV cabinet,  
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20 (E) Installation of encased conduits from the pole to the CCTV cabinet,  
21 (F) Electrical power supply and distribution, and  
22  
23 (G) Testing and checkout of equipment.  
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25 Contractor shall be responsible for physically installing the equipment on  
26 the pole, or in the CCTV cabinet, connecting power and communications cables,  
27 and the testing the equipment and communications network and providing a fully  
28 operational CCTV system.  
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30 **Compliance with Other Specifications and Standards.** All electrical  
31 equipment must conform to the standards *NEMA Standards Publication TS 1-*  
32 *1989*), the Underwriters' Laboratories, Inc. UL, and the EIA, wherever applicable.  
33 All materials and workmanship must conform to the requirements of the MUTCD;  
34 NEC; NESC; *Standard Specifications For Structural Supports For Highway*  
35 *Signs, Luminaires And Traffic Signals*, a publication of AASHTO, and any State  
36 of Hawaii legislation, codes and ordinances which may apply. Wherever  
37 reference is made to any such specification, manual, code, or standard, the  
38 reference is construed to mean the version, as revised, that is in effect on the  
39 date of advertising for bids for this project.  
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41 **Definition of Terms.**

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43 (A) **Abbreviations.** Wherever the following abbreviations are used  
44 in these Special Provisions or on the Plans, they shall have the following

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meaning:

SBW System Bond Wire

FM Factory Mutual

IEEE Institute of Electrical and Electronics Engineers

City City and County of Honolulu

**(B) Provide.** Where used in these Special Provisions, unless otherwise indicated, this shall mean "furnish and install, complete, including any required electrical connection and testing."

**681.02 Materials.** The design of traffic signal standards and appurtenances shall conform to AASHTO publication *Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 2009* and all applicable interims.

**(A) CCTV Camera.** See Section 683 - CCTV Camera.

**(B) CCTV Pole.** The 50-foot CCTV pole's tubular member cross-section shall have a constant linear taper as indicated on the contract drawings. It shall conform to the requirements of ASTM A572 Grade 65. The CCTV pole shall be equipped with base plate, hand holes, cable entry holes and pole cap as shown in the contract documents.

**(1) Welding.** All welding shall be performed by qualified welding operators and shall conform to the requirements of Sections 1 through 8 of the American Welding Society (AWS) D1.1, Structural Welding Code. Longitudinal seam welds shall be performed with automatic processes, be free of cracks and excessive undercut, and be visually inspected. All circumferential butt-welded pole and arm splices shall be ultrasonically and radiographically inspected. If, in the evaluation of the Engineer, any welds are of questionable quality, all such welds shall be tested radiographically as directed by the Engineer.

**(2) Handholes.** Handholes shall have steel reinforcing frame securely welded into the shaft, complete with gasketed aluminum covers and captive stainless steel attachment screws. Finish handholes smoothly and neatly without rough edges and with a reinforcing frame and cover designed to maintain the required pole strength. Handhole covers shall be connected to the

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pole with rustproof chain that connects the inside of the cover to an attachment point inside the pole, just below the handhole. The chain shall be long enough to permit the cover to dangle 3 inches below the handhole opening.

**(3) Weatherhead.** Weatherhead shall be galvanized 2 inch weather head compatible with the threaded nipple and coupling on the pole.

**(4) Galvanizing.** The entire pole assembly shall be galvanized inside and outside in accordance with ASTM A123. No double dipping will be allowed. All miscellaneous hardware shall be galvanized per ASTM A153. Prior to galvanizing, all weld flux shall be mechanically removed and the surface shall be prepared by immersion in a series of baths: caustic; sulfuric acid; water; and zinc ammonium chloride flux. After drying, the pole shall be galvanized by dipping in molten zinc, with the pole totally immersed. Flux ash shall be skimmed from the bath prior to immersion and again prior to extraction from the bath. Repair damage to galvanized coatings using ASTM A780 zinc rich paint for galvanizing damage including but not limited to handling, transportation, cutting, welding, or bolting. Do not heat surface to which repair paint has been applied.

**(5) Identification Tag.** The pole shall have an identification tag permanently attached. The tag shall state the length of the pole.

**(6) Grounding.** The Contractor shall bond the bottom of the pole to one or more ground rods, using exothermic welding at each end of the ground wire (unless the pole has a suitable grounding lug). The Contractor shall use a device that measures resistance to ground using the three-point fall-of-potential method to ensure that the resistance from the sign's ground bar to ground does not exceed 10 ohms. The Contractor shall add more ground rods if necessary to achieve this requirement.

**(7) Anchor Bolt Assembly.** Anchor bolt material shall conform to the requirements of ASTM F1554 Grade 55. The bolts shall be galvanized in accordance with ASTM A153. Anchor plates shall match the hole pattern for each type standard and be clearly marked. The strength of the nuts shall equal or exceed the proof load of the bolts. Anchor bolt assembly shall be delivered partly assembled. The anchor bolts or rods shall come with all nuts, flat

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washers and split washers on each rod with templates. The six anchors bolts shall then be matched with two plates and delivered as a bundled unit.

**(8) Material Certifications.** All materials shall comply with the American Society for Testing and Materials (ASTM) specifications. The supplier shall furnish two copies of mill certificates reflecting the physical and chemical properties of the base metal of the pole, mast arm shafts, base plates and anchor bolts. Two certified copies of the galvanizing test report shall be furnished.

**(9) Certification and Mill Test Reports.** Certification and mill test reports shall be submitted with the following information:

- (a)** List of component parts including the following:
  - 1. Description of each part.
  - 2. Material manufacturing location (including ASTM number where applicable).
  - 3. Certificate of compliance.
- (b)** Shop drawings, accompanied by complete and detailed engineering computations that justify selection of dimensions and material. Hawaii Licensed Professional Engineer (Structural) shall certify computations.
- (c)** Copy of mill test report for structural members (posts), including physical and chemical descriptions of material incorporated.

**(10) Construction.** Perform work in accordance with requirements of the contract documents and the following: General Order Nos. 6 and 10 of the 82 Hawaii Public Utilities Commission; ASTM; ANSI; local utility company rules; and 83 local ordinances that may apply.

**(11) Equipment List and Drawings.** Submit within seven days following contract award, 10 copies of materials and equipment list. Include name of manufacturer, size and identifying number of each item, detailed scale drawings, wiring diagrams of special equipment, and proposed deviations from the contract. If required, submit samples of materials. Upon completion and acceptance of

177 work, submit construction as-built drawings showing detailed  
178 construction changes. See section 648 – Field Posted Drawings.

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180 **(12) Painting.** Paint CCTV pole and exposed anchor bolt assembly  
181 per Section 708 – Paints. Color shall be “Aluminum” or “Silver” to  
182 match light poles. Submit color sample for review.

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184 **(C) Camera Lowering System.** The Camera Lowering System  
185 (CLS) shall include the following components:

- 186 • Contact unit
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- 188 • Self-aligning divided support arm, two per pole
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- 190 • Adapter for attachment to pole
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- 192 • CCTV Control Cable junction box at the top of the pole

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194 **(1) General.** The CLS shall be designed to support and  
195 lower a standard closed circuit television camera, lens, housing,  
196 pan-tilt-zoom (PTZ) mechanism, cabling, connectors, and other  
197 supporting components without damage or causing degradation of  
198 camera operations. The CLS shall consist of a contact unit, self-  
199 aligning divided support arm, an adapter for attachment to a pole,  
200 and a camera connection box. The divided support arm and  
201 receiver brackets shall be designed to self-align the contact unit  
202 during installation and ensure the contact unit cannot twist under  
203 high wind conditions. The CLS shall withstand wind forces of 100  
204 mph with a 30 percent gust factor using a 1.65 safety factor. The  
205 CLS shall effectively operate within a temperature range of –40°F  
206 to 191°F. The CLS manufacturer shall furnish independent  
207 laboratory testing documents certifying adherence to the stated  
208 wind force criteria utilizing, as a minimum effective projected area  
209 EPA, the actual EPA or an EPA greater than that of the camera  
210 system to be attached. The CLS to be furnished shall be the  
211 product of manufacturers with a minimum of 2 years experience in  
212 the successful manufacturing of such systems. The lowering  
213 device provider shall be able to identify a minimum of 3 previous  
214 projects where the purposed system has been installed  
215 successfully.

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217 The CLS manufacturer shall furnish a factory representative  
218 to assist the installation Contractor with the assembly and testing of  
219 the first lowering system onto the pole. Arrange for the Engineer to  
220 witness this installation and testing. The Contractor shall ensure the



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CLS vendor coordinates with the camera pole vendor to ensure proper integration of the CLS and camera pole. At the time of installation of the CLS, the manufacturer shall furnish the Department documentation certifying that the Contractor has been instructed on the installation, operation and safety features of the CLS.

All pulleys for the CLS and portable lowering tool shall have sealed, self lubricated bearings, oil tight bronze bearing, or sintered bronze bushings. The lowering cable shall be a minimum 1/8 in. diameter stainless steel aircraft cable with a minimum breaking strength of 1700 pounds.

All electrical and video connections between the fixed and lowerable portion of the contact block shall be protected from exposure to the weather by a waterproof seal to prevent degradation of the electrical contacts. The electrical connections between the fixed and movable lowering device components shall be designed to conduct 100BaseT Ethernet communications as well as the power requirements for operation of dome environmental controls.

The interface and locking components shall be made of stainless steel and/or aluminum. All external components of the CLS shall be made of corrosion resistant materials, powder coated, galvanized, or otherwise protected from the environment by industry-accepted coatings to withstand exposure to a corrosive environment. A weep hole with screen shall be included on the underside of the weight box. A composite cable assembly shall be included for each CLS.

**(2) Suspension Contact Unit and Contact Block.**

The suspension contact unit shall have a load capacity 600 lbs. with a 4 to 1 safety factor. There shall be a locking mechanism between the fixed and moveable components of the lowering device. The movable assembly shall have a minimum of 2 latches. This latching mechanism shall securely hold the device and its mounted equipment. The latching mechanism shall operate by alternately raising and lowering the assembly using the winch and lowering cable. When latched, all weight shall be removed from the lowering cable. The fixed unit shall have a heavy duty cast tracking guide and means to allow latching in the same position each time. The contact unit housing shall be weatherproof with a gasket provided to seal the interior from dust and moisture. The entire

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unit shall have a minimum temperature rating of -40 degrees F to +190 degrees F (-40C to 90C).

The prefabricated components of the lift unit support system shall be designed to preclude the lifting cable from contacting the power or video cabling. The lowering device manufacturer shall provide a conduit mount adapter for housing the lowering cable. This adapter shall have an interface to allow the connection of a contractor provided 1.25 inch PVC conduit and be located just below the cable stop block at the back of the lowering device. The Contractor shall supply internal conduit in the pole as directed by the Lowering Device provider. The only cable permitted to move within the pole or lowering device during lowering or raising shall be the stainless steel lowering cable. All other cables must remain stable and secure during lowering and raising operations.

The Lowering Device must be specifically equipped with electrical contacts connectors designed for simultaneous Analog (Coax) and video transmission along with PTZ control. The Contact Connectors shall be designed for extreme environmental outdoor use.

The female and male socket contact halves of the connector block shall be made of a UL94, V-0 rated thermosetting synthetic rubber. The female barrel contacts and the male pin contacts shall be permanently and integrally encased in this rubber material to ensure optimum protection from moisture and the environment.

All current carrying male pin and female socket/barrel contacts shall be Gold-plated per ASTM B-488 over Nickel plated CA 360 per QQ-N-290m.

The configuration contact connector shall include:

Seven (7) specifically designed Male contacts sized a minimum of 0.125 inches while the female contacts shall be at least 0.125 inches I.D. at the contact area. All seven (7) contacts shall be soldered to #18/1 UL lead wire and affixed with numbered tags. Two of these wires shall be equipped with a factory installed BNC connector for video transmission/connection from the CCTV.

Thirteen (13) specifically designed Male contacts sized a minimum of 0.09 inches while the female contacts shall be at

309 least 0.09 inches I.D. at the contact area. Eight of the  
310 thirteen contacts shall be soldered to CAT5e Wire end  
311 terminated with an RJ45-Male connector. Five of the  
312 thirteen contacts shall be soldered to #18/1 UL lead wire and  
313 affixed with numbered tags, which may be used for  
314 additional camera requirements including but not limited to  
315 power, control, alarms or grounds.  
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317 All current carrying male pin and female socket/barrel contacts shall  
318 be Gold-plated per ASTM B-488 over Nickel plated CA 360 per  
319 QQ-N-290m. Each individual female barrel contact shall have a  
320 Nickel plated CA 360 sleeve which prevents foreign matter from  
321 entering the contact area as well as preclude the possibility of the  
322 leaves of the female contact from opening beyond allowable limits  
323 and ensure a snug fit around the respective male pins. There shall  
324 be at least one contact that is positioned in a manner which will  
325 allow it to make first and break last providing optimum grounding  
326 performance.  
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328 All soldering shall be per IPC J STD-001E. Each individual  
329 contact shall be rated for up to 600v and 7A but de-rated according  
330 to the wire used in the application. For optimum weatherproofing,  
331 each male shall be self-wiping with a shoulder at the base of each  
332 male contact so that it will recess into the female block, thereby  
333 giving a rain-tight seal to each individual contact when mated.  
334 Further, the wire leads from both the male and female rubber  
335 contact blocks shall be permanently and integrally molded in the  
336 synthetic rubber body. The facility manufacturing the electrical  
337 contact connector must comply with Mil Spec Q-9858 and Mil Spec  
338 I-45208.  
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340 **(3) Lowering Tool.** The CLS shall be operated by use of a  
341 portable lowering tool. The tool shall consist of a lightweight metal  
342 frame and winch assembly with cable as described herein, a quick  
343 release cable connector, an adjustable safety clutch and a variable  
344 speed industrial duty electric drill motor. When attached to the  
345 assembly, the tool shall support itself and the load assuring  
346 lowering operations and provide a means to prevent freewheeling  
347 when loaded. The lowering tool shall be delivered to the  
348 Department upon project completion. The lowering tool shall have  
349 a reduction gear to reduce the manual effort required to operate the  
350 lifting handle to raise and lower a capacity load. The lowering tool  
351 shall be provided with an adapter for operating the lowering device  
352 by a portable drill using a clutch mechanism. The lowering tool

353 shall be equipped with a positive locking mechanism to secure the  
354 cable reel during raising and lowering operations. The  
355 manufacturer shall provide a variable speed, heavy-duty reversible  
356 drill motor and a minimum of two lowering tools. The lowering tool  
357 shall be made of durable and corrosion resistant materials, powder  
358 coated, galvanized, or otherwise protected from the environment by  
359 industry-accepted coating to withstand exposure to a corrosive  
360 environment.

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362 **(D) Cable and Hardware.**

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364 **(1) CCTV Cable.** The Contractor shall provide a CCTV  
365 control cable between the cabinet and the contact unit on the  
366 lowering device.

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368 CCTV control cables shall be composite cables  
369 consisting of one outdoor rated cables as recommended by  
370 the CCTV manufacturer. On the cabinet end, the video  
371 cable shall be terminated compatible with the interface on  
372 the CCTV camera, and the power shall be terminated and  
373 connected to the camera power supply. On the camera end,  
374 all wires shall be terminated on an MS style connector with  
375 gold pins. The Contractor shall coordinate with the camera  
376 manufacturer to ensure proper connectivity.

377  
378 Applicable Specifications: UL/NEC/CEC CATV or CM.  
379 Flame Resistance: UL 1581 Vertical Tray.

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381 Connectors shall be installed as necessary, and shall  
382 match the connector interface requirements for the  
383 equipment being connected. Adapters are not acceptable.

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385 **(2) CCTV Camera.** See Section 683 – CCTV Camera.

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387 **(3) Cable Attachment Hardware.** Cable attachment  
388 hardware and strandvices shall be hot-dipped galvanized, shall be  
389 new, and shall be approved by the Engineer.

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391 **(E) Air Terminal.** Furnish a solid aluminum rod,  $\frac{3}{4}$  inch in  
392 diameter. The length of the rod shall be such that it projects 5 feet above  
393 the top of the lowering device. Attachment hardware shall not interfere  
394 with the lowering device cables within the pole.  
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**(F) Cabinets.** Furnish a cabinet meeting the requirements for a Model 334 cabinet in the latest edition of Traffic Signal Control Equipment Specifications published by Caltrans, except as specified below:

- (1)** Cabinets shall be fabricated from 0.125-inch-thick anodized aluminum.
- (2)** Power supply surge protector shall be furnished.
- (3)** Front and back fluorescent lights shall be activated upon opening either door.
- (4)** Convenience ground-fault circuit interrupter (GFCI) receptacles shall be provided.
- (5)** Door locks shall be of solid brass rim Best Lock Series 516RL3XA7559-606 and include two keys.
- (6)** Labeling shall be by silk screening only.
- (7)** One each 24-inch by 36-inch cabinet print shall be attached in weatherproof plastic jacket to front and back cabinet doors.

The manufacturer must be on the list of the Department-Accepted manufacturers of controller cabinets and racks.

The following components are required:

- (1) Sunshields.** On southward facing side and the top.
- (2) Housing.** 1A or 1B, Mounting Cage 1, and Service Panel # 1.
- (3) Rack-mounted,** slide out shelf with storage tray.
- (4) Mounting panel.** For terminal blocks, surge protectors, and other small items on a side wall.
- (5) Terminal blocks.** For all conductors entering the cabinet. The blocks shall be the barrier type with nickel-plated brass screw terminals and solid backs. Each terminal shall be clearly and permanently labeled on a contiguous surface using silk screening or other approved method. Terminal blocks for conductors carrying more than 60 volts must be covered by a clear acrylic

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shield.

**(6) Two interior fluorescent lights.** One above each door switch. Each door shall have a door switch. When either door is opened, both lights shall light.

**(7) Door switch.** If this is the same switch used to control the lights, then there must be separate, electrically isolated contacts for detecting an open door.

**(8) Duplex ground fault interrupt outlet.** For use by technicians.

**(9) Thermostatically controlled fan.** The fan shall move 100 CFM through vents at the top of the cabinet. The air intake shall be through louvers in the door, and the air shall pass through a replaceable filter as it enters the cabinet.

**(10) Anchor Bolts, Nuts, and Washers.** Shall be as specified in the contract documents.

**(11) Electrical Distribution System.** Provide breaker panels for all cabinets. The circuit breaker panel shall be 120/240 volt, split phase, equipped with a solid neutral. The panel shall be UL listed.

Equip the panel with 30 amp main breakers and two 15 amp branch circuit breakers. Connect one branch circuit to the second stage of the surge suppressor and to at least eight outlets for the equipment. A second branch circuit shall power auxiliary devices in the cabinet, such as the fan, light, and GFCI outlet.

All cabinets shall include a grounding system. Connection to ground must be bare, solid AWG 1 #6 copper wire or equivalent bonding strap.

Provide a lightning arrestor designed to protect 120/240 VAC split phase breaker panels. The protector shall use metal oxide varistors as the protective elements. The response time shall be under five nanoseconds and the maximum surge current shall be at least 40,000 amps. The clamping voltage shall not exceed 400 volts. The device shall protect line-to-line and line-to-neutral.

484 **(12) Miscellaneous.** All doors shall have cabinet identification  
485 labels displaying the cabinet identifier. The Engineer will provide  
486 a list of the identifiers for each location, as well as the format for the  
487 labels.

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489 All seams shall be continuously welded and ground smooth.

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491 All fasteners must be stainless steel.

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493 All cabinets shall have an unfinished anodized aluminum  
494 finish, free from blemishes.

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496 **(G) Drilled Shaft and Pile Cap Foundation.**

497  
498 The drilled shaft and pile cap installation shall be in accordance  
499 with Section 511 - Drilled Shafts.

500  
501 **(H) Ethernet Switch.** See Section 682 - Ethernet Switch.

502  
503 **(I) Conduit.** Provide conduit from CCTV cabinet to CCTV pole.  
504 Lay polyvinyl chloride (PVC) conduits carefully in trenches prepared to  
505 receive conduits. Concrete encase PVC Schedule 40 conduits.

506  
507 **(J) Tracer Cable.** Tracer cable shall conform to Section 623 –  
508 Traffic Signal System. Tracer cable shall be No. 14 AWG bare, stranded  
509 copper wire.

510 **(K) CCTV Camera.** See Section 683 – CCTV Camera.

511  
512 **681.03 Construction Requirements**

513  
514 **(A) Submittals**

515  
516 **(1) Submittal Data.** Prior to the purchase or  
517 fabrication of any equipment or material for use on this project,  
518 submit for review by the Engineer catalog cut sheets and  
519 specifications for all standard, off-the-shelf items, and shop  
520 drawings for all custom items. These documents shall contain  
521 sufficient technical data for the Engineer to evaluate the system  
522 proposed. The quality, function, and capability of each deliverable  
523 item shall be described. Documents shall be originals or copies  
524 equal to originals. Shop drawings for each fabricated item shall also  
525 be submitted. These drawings shall contain all information required  
526 for complete fabrication in accordance with the Contract  
527 Documents, such as: materials, welds, finish, etc. Shop drawings

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shall be on sheets 24 inches in height and 36 inches long.

Furnish four copies of 8 ½-inch x 11-inch submittals, and four copies of shop drawings. One of these will be returned to the Contractor with appropriate notations within 30 calendar days.

The purpose of the submittal data is to show specifically and in detail how the Contractor intends to satisfy the requirements of the Contract Documents. If preprinted literature is utilized to satisfy some or all of these requirements, no statements on the literature should conflict with the Contract Documents. Cross off and initial any such statements and attach an appropriate statement clearly indicating how the requirements of the Contract Documents will be fulfilled. Clearly label each item of submittal data with the bid item number or other description of the item(s) to which it applies.

Each submittal must contain sufficient information and details to permit the Engineer to fully evaluate the particular component. Submittals which are, in the judgment of the Engineer, insufficient to permit proper evaluation will not be reviewed. Do not deviate from submittals marked "Review Completed" or "Correct as Noted" without the prior written consent of the Engineer. The Department will not be liable for any material purchased, labor performed, or delay to the work prior to the approval of the equipment.

Because of the nature of this work, unusually detailed submittal data is required prior to approval of most of the items in order to avoid nonconformance, which does not become apparent until it is too late to correct without serious consequences. In addition, because certain groups of items as set forth below are closely interrelated, it is required that the submittals be made in groups. If more than one submittal is required, complete information from the entire group must be resubmitted. Plan the submittal data effort accordingly.

In order to expedite the submittal data process and equipment review, take care to address all of the requirements of the Contract Documents in the submittal data, leaving nothing to assumption, and clearly addressing the functional and technical interrelationships among the various items. In general, detailed wiring diagrams are not required as part of the submittal data, nor will they be reviewed unless specifically required by these Project Special Provisions or by the Engineer's request.



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Plan for any given package of submittal data to be in the possession of the Engineer for 30 calendar days. The Engineer will date stamp the letters of transmittal for all such data and return a copy of the stamped letters to the Contractor with the submittal data for his records. Following review of the submittal data, the Engineer will return to the Contractor one copy of the submittal marked "No Exceptions Taken", "Correct as Noted", "Correct and Resubmit", or "Rejected". Proceed with any items marked "Review Completed" and items marked "Correct as Noted". Do not proceed with any items which are marked "Rejected" or "Correct and Resubmit", but proceed immediately to correct said items and resubmit them for review. No time extensions will be granted to the Contractor as a result of the need to resubmit items for review.

Develop a submittal data transmittal form and submit same to the Engineer for approval as to format. Assign a submittal number to each submittal package, to be transmitted under the cover of the approved form. The numbering system must be logical and ascending. Specifically list on the transmittal sheet each item or element included and the bid item and Special Provision section to which that element belongs. (An element is one part of several parts of information related to the same bid item.) When drawings are submitted, list each separately. Completely fill out all portions of the transmittal sheet except those reserved for use by the Engineer. The transmittal sheet will be used by the Engineer to indicate the action taken on the submittal package, and a copy of the transmittal sheet showing these actions will be returned to the Contractor. Transmit only clearly related items under the same transmittal sheet.

Approval by the Engineer of a catalog cut sheet and/or shop drawing does not relieve the Contractor of any of his responsibility under the contract for the successful completion of the work in conformity with the requirements of the Contract Documents in providing a fully integrated operational system.

**(2) Equipment Manuals** Two manuals for each individual component of the system. The manuals supplied for the off-the-shelf items shall be those supplied by the equipment manufacturer.

**(B) Documentation.** Provide two types of documentation for this project: submittal data and field-posted documentation. All documentation, except as specifically approved by the Engineer, shall be no smaller than 8 ½-inches x 11- inches and no larger than 24-inches x 36-inches.

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Electronic documentation shall be provided on a CD-ROM.

All 8 1/2 x 11-inch documentation, except standard bound manuals, shall be bound in logical groupings in 3-ring loose-leaf binders or plastic slide-ring, loose-leaf binders. Such binders may also include 11-inch x 17-inch documentation, if "Z-folded". Each bound grouping of documentation shall be permanently and appropriately labeled.

Electronic documentation shall conform to the following file formats: tables shall be provided in current versions of Microsoft Excel or Microsoft Word file format; manuals, reports and other narrative text documents shall be provided in Microsoft Word file format; and drawings shall be provided as CAD files in data exchange (.DXF) file format compatible with the most recent version of Microstation.

All literature from manufacturers shall be original documents provided by the manufacturers or copies equal to originals. All documentation will be paid for under the item Field-Posted Drawings, as described in Section 648 of the Standard Specifications.

**(1) Field-Posted Drawings.** Provide the field-posted drawings in accordance with Section 648 – Field-Posted Drawings.

**(C) Training.** Provide one training course covering operation and maintenance of the CLS. Contractor’s representative, who is familiar with the installation, operation and maintenance of the CLS shall conduct the training course.

At least 30 days prior to the training course, submit an outline of the course, draft manuals and handouts, and resume of the instructor. The Engineer shall review and request modifications of the material.

Up to eight (8) individuals designated by the Department will be trained. Each individual shall control the lowering of the camera, removal of the camera from the lowering device, reinstallation of the camera on the lowering device, raising the camera, and testing the camera for correct operation. Each individual shall receive a three-ring binder with complete documentation for installing, operating and maintaining the CLS. The documentation shall provided by manufacturer of the CLS, supplemented by material based upon the Contractor’s experience with installation of the CLSs.

Take video the training course, using acceptable video format, and deliver the files to the Department at the conclusion of the training on a

660 USB thumb drive or equivalent.

661

662 **(D) Installation.** Connect equipment to power, communication,  
663 and ground cables, and test the completed installation and report any  
664 problems to the Engineer.

665

666 **(1) Ethernet Switch.** See Section 682 – Ethernet Switch.

667

668 **(2) CCTV Camera.** See Section 683 – CCTV Camera.

669

670 **(3) Camera Pole.** Connect the bottom of the pole to one or  
671 more ground rods using a bare, solid AWG # 6 copper wire. Use  
672 exothermic welding for all ground wire connections, except the  
673 connection to the pole, which shall use the pole's grounding lug.  
674 Use a device that measures resistance to ground using the three-  
675 point fall-of-potential method to ensure that the resistance from the  
676 air terminal to ground does not exceed 8 ohms. Add more ground  
677 rods if necessary to achieve this requirement. Perform all work  
678 related to the installation of the air terminal in accordance with NFPA  
679 780.

680

681 Flatten the bottom 6 inches of the air terminal so that it  
682 makes good electrical contact when bolted to the pole. If the  
683 lowering device includes a junction box above the camera lowering  
684 device, bend the air terminal so that comes no closer than 2 inches  
685 to the box. Taper the top of the rod to a point. Bolt the rod to the  
686 pole 90 degrees from the arm supporting the camera. Use at least  
687 two stainless steel bolts passing through the rod and pole wall.  
688 Use a sealant on the inside of the pole to prevent the entry of  
689 moisture, but do not use any nonconductive material between the  
690 rod and pole. Perform all work related to the installation of the air  
691 terminal in accordance with NFPA 78.

692

693 **(4) Camera Lowering System.** Refer to the camera  
694 orientation details that depict the approximate mounting positions to  
695 ensure the lowering system has an adequate field of view.

696

697 Attach the CLS to the top of the pole per the manufacturer's  
698 installation details. Route the CLS lowering cable inside the pole.  
699 Connect the composite power/data cable from the CLS connector  
700 to the 'J'-hook inside the pole top, using a cable grip. Tension the  
701 CLS composite cable against the inside of the pole to prevent it  
702 from interfering with the CLS lowering cable. Route the CLS  
703 composite cable from the pole base to the CCTV cabinet. Plug a  
704 test cable into the CLS connector, and test camera power and data  
705 connectivity between the CCTV cabinet and the CLS connector.

706  
707 **(5) Cabinets.** Prior to bolting the cabinet to the foundation,  
708 apply silicone sealant to the mating surface of the cabinet to  
709 prevent water from seeping between the cabinet and foundation.  
710 The silicone sealant shall be guaranteed by the manufacturer to  
711 last the lifetime of the cabinet without peeling or cracking. Ensure  
712 that the cabinet is plumb, using shims if necessary, and ensure that  
713 it is properly seated on the foundation.

714  
715 **(E) Testing.** Testing of all equipment, cables and materials  
716 purchased by the Contractor under this contract shall be the responsibility  
717 of the Contractor and shall be conducted in the presence of the Engineer.  
718 Document all testing, and provide the results to the Engineer in hard copy  
719 and electronic format. The Engineer reserves the right to perform any  
720 inspections deemed necessary to assure that the equipment, cables and  
721 materials conform to the requirements specified herein.

722  
723 **(1) Camera Lowering System Testing.** Prior to attaching the CLS  
724 to the pole, the composite cabling and CLS connector shall be  
725 tested by plugging a test cable into the CCTV camera connector.  
726 Power shall be checked with a voltmeter. Ethernet connectivity will  
727 be tested by plugging the RJ-45 connectors on the test cable and  
728 the composite cable into two laptops, and transferring data between  
729 the two laptops using a "ping" test, file transfer, or other method of  
730 communicating between the two laptops.

731  
732 After the CLS is attached to the pole, and the pole erected,  
733 the tests in the paragraph above shall be repeated.

734  
735 Once installed, the Contractor shall exercise each CLS once  
736 per month and perform maintenance per manufacturer's  
737 instructions until the project is complete.

738  
739 **(1) Ethernet Switch Testing.** See Section 682 –  
740 Ethernet Switch.

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**(2) CCTV Camera Testing.** See Section 683 – CCTV Camera.

**(3) Cabinet Testing.** The Contractor shall develop a proposed test procedure for the cabinets and submit it to the Engineer for approval. It shall include visual inspection, testing of lights, fan, heater, air conditioner, power outlets and alarm sensors. It shall also include a test in which each branch circuit is shorted to the cabinet wall to confirm that the breaker trips. The Contractor shall revise the proposed test procedure until it is acceptable to the Engineer.

The Contractor shall provide all equipment and personnel needed to safely conduct the tests, arrange for the Engineer’s representative to witness the tests, and give the Engineer a report documenting the result of every visual inspection and test. The Contractor shall include a summary indicating whether the cabinet passed every test. The cabinet must pass every test to be accepted.

If the cabinet fails, the Contractor shall correct the problems and arrange for a new test. If the test of the breakers reveals breakers that do not trip, the resistance to ground is too high; lower the resistance by adding more ground rods and improving the connections in the ground system.

**(F) Warranty.** See Subsection 108.17 – Guarantee of Work.

**681.04 Measurement.** Measurement for payment of equipment and materials in this contract will be made as follows.

**(A) CCTV Pole** of the height specified, will be measured by each pole furnished and installed. The Contractor shall provide all necessary mounting hardware and communication, power, air terminal and grounding cable and conduit installed in the pole and painting of pole.

**(B) Camera Lowering System** will be measured by each unit installed on pole (2 per new pole and 1 spare unit) to provide a fully operational system installed and tested with an installed CCTV camera, which will include all necessary mounting hardware, 3 lowering tools (1 per new pole and 1 spare unit), cabling, CCTV cables, and monthly CLS maintenance.

**(C) CLS Training** will be paid as a lump sum and shall include preparing and duplicating all documentation and materials, instructor, and

785 taking video of the training. Measurement for payment will not apply.

786

787 **(D) CCTV Cabinet** will be measured by each cabinet fully installed and  
788 wired for internal power and communications, including necessary circuit  
789 breakers and surge protectors.

790

791 **(E) Cabinet Foundation** will be measured and paid for in units of  
792 each. This price shall include concrete, reinforcing steel, anchor bolts,  
793 bolt circle templates, stub poles, grounding equipment, conduits and any  
794 miscellaneous hardware necessary for mounting a cabinet, excavating,  
795 backfilling, compacting, disposing of surplus and unsuitable material, and  
796 restoring existing areas.

797

798 **(F) Conduit Concrete Encased**, of the type and size specified, will be  
799 measured as a lump sum, which will include all trenching and backfill, and  
800 landscaping restoration, conduit couplers, and elbows, and end bushings,  
801 and concrete between the CCTV cabinet and CCTV pole and will include  
802 all conduit couplers, and elbows, and end bushings.

803

804 **(G) Testing**, the Engineer will not pay for testing separately. The  
805 Engineer shall consider the cost for all of the accepted testing as included  
806 in the contract price of the various contract items.

807

808 Measurement for pile cap and drilled shafts will be in accordance  
809 and under Section 511 – Drilled Shafts.

810

811 Measurement for electrical and communication systems including VMS  
812 cabinets, VMS cabinet foundation, fiber splice cabinets, fiber splice  
813 cabinet foundation, conduit and innerduct will be in accordance and under  
814 Section 621 – Electric and Communication Systems.

815

816 Measurement for fiber optic cable will be in accordance and under  
817 Section 647 – Fiber Optic Cable.

818

819 Measurement for CCTV camera will be in accordance and under  
820 Section 683 – CCTV Camera.

821

822 Measurement for Ethernet Switch will be in accordance and under  
823 Section 682 – Ethernet Switch.

824

825 Measurement for, Fiber Optic Pigtail, Fiber optic Jumper, Fiber  
826 Optic Splice, Rack Mounted Interconnect Center, Additional Testing,  
827 Splicing and Equipment will be in accordance and under Section 687 –  
828 Fiber Optic Communications System.

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**681.05 Payment.** The Engineer will pay for the accepted pay items listed below at the contract price per pay unit. Payment will be full compensation for work prescribed in this section and the contract documents.

The Engineer will pay for the following pay items when included in the proposal schedule:

<b>Pay Item</b>	<b>Pay Unit</b>
CCTV Pole, 50-Foot	Each
Camera Lowering System	Each
CLS Training	Lump Sum
CCTV Cabinet	Each
Cabinet Foundation	Each
Two 2-Inch Conduit, SCH 40 PVC, Concrete Encased	Lump Sum

The Engineer will pay for drilled shafts and pile caps in accordance and under Section 511 – Drilled Shafts.

The Engineer will pay for electrical and communication systems modifications and VMS cabinets, VMS cabinet foundation, fiber splice cabinets, fiber splice cabinet foundation, conduit and innerduct in accordance and under Section 621 – Electric and Communication Systems.

The Engineer will pay for fiber optic cable in accordance and under Section 647 – Fiber Optic Cable.

The Engineer will pay for fiber optic pigtail, fiber optic jumper, fiber optic splice, rack mounted interconnect center, modifications in existing cabinets, additional testing, splicing and equipment in accordance and under Section 687 – Fiber Optic Communications System.

The Engineer will pay for Ethernet Switch in accordance and under Section 682 – Ethernet Switch.

The Engineer will pay for CCTV Camera in accordance and under Section 683 – CCTV Camera.”

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**END OF SECTION 681**



PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY (a)	UNIT	UNIT PRICE (c)	AMOUNT (a) x (c)
<b>BASE BID PROPOSAL SCHEDULE</b>					
201.0100	CLEARING AND GRUBBING	72,000	S.F.	\$ _____	\$ _____
209.0100	INSTALLATION, MAINTENANCE, MONITORING, AND REMOVAL OF BMP	38	MONTHS	\$ _____	\$ _____
209.0200	ADDITIONAL WATER POLLUTION, DUST, AND EROSION CONTROL	F.A.	F.A.	F.A.	\$ 46,000.00
212.0100	ARCHAEOLOGICAL MONITORING	F.A.	F.A.	F.A.	\$ 25,000.00
511.0100	H2 SOUTH CCTV DRILLED SHAFT AND PILE CAP (1)	13	LIN. FT.	\$ _____	\$ _____
511.0200	WAIKELE CCTV DRILLED SHAFT AND PILE CAP (1)	15	LIN. FT.	\$ _____	\$ _____
621.0001	MIDDLE STREET TO AHUA STREET, TRENCH EXCAVATION	370	LIN. FT.	\$ _____	\$ _____
621.0002	MIDDLE STREET TO AHUA STREET, CONCRETE	11	C.Y	\$ _____	\$ _____
621.0003	MIDDLE STREET TO AHUA STREET, 2"C PVC SCHEDULE 40	780	LIN. FT.	\$ _____	\$ _____
621.0004	MIDDLE STREET TO AHUA STREET, 2"C PVC COATED GRC	17,000	LIN. FT.	\$ _____	\$ _____
621.0005	MIDDLE STREET TO AHUA STREET, SPLICE CABINET	2	EACH	\$ _____	\$ _____
621.0006	MIDDLE STREET TO AHUA STREET, ELECTRICAL CABLE	20	LIN. FT.	\$ _____	\$ _____
621.0007	MIDDLE STREET TO AHUA STREET, 24"X36" TRAFFIC SIGNAL PULLBOX	2	EACH	\$ _____	\$ _____
621.0008	MIDDLE STREET TO AHUA STREET, 32"X32"X8" STAINLESS STEEL PULLBOX	15	EACH	\$ _____	\$ _____

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY (a)	UNIT	UNIT PRICE (c)	AMOUNT (a) x (c)
<b>BASE BID PROPOSAL SCHEDULE</b>					
621.0009	MIDDLE STREET TO AHUA STREET, 32"X36"X8" STAINLESS STEEL PULLBOX	13	EACH	\$ _____	\$ _____
621.0010	MIDDLE STREET TO AHUA STREET, HECO METER PEDESTAL	1	EACH	\$ _____	\$ _____
621.0011	MIDDLE STREET TO AHUA STREET, HECO CHARGES	F.A.	F.A.	F.A.	\$ 2,000.00
621.0012	WAIAWA ROAD STUB, TRENCH EXCAVATION	350	LIN. FT.	\$ _____	\$ _____
621.0013	WAIAWA ROAD STUB, CONCRETE	9	C.Y	\$ _____	\$ _____
621.0014	WAIAWA ROAD STUB, 2"C PVC SCHEDULE 40	1600	LIN. FT.	\$ _____	\$ _____
621.0015	WAIAWA ROAD STUB, SPLICE CABINET	1	EACH	\$ _____	\$ _____
621.0016	WAIAWA ROAD STUB, 24"X36" TRAFFIC SIGNAL PULLBOX	2	EACH	\$ _____	\$ _____
621.0017	FARRINGTON/KAMEHAMEHA CABINET TO H2 SOUTH CCTV TO H2 VMS CABINET, TRENCH EXCAVATION	4350	LIN. FT.	\$ _____	\$ _____
621.0018	FARRINGTON/KAMEHAMEHA CABINET TO H2 SOUTH CCTV TO H2 VMS CABINET, CONCRETE	105	C.Y	\$ _____	\$ _____
621.0019	FARRINGTON/KAMEHAMEHA CABINET TO H2 SOUTH CCTV TO H2 VMS CABINET, 2"C PVC SCHEDULE 40	11,360	LIN. FT.	\$ _____	\$ _____
621.0020	FARRINGTON/KAMEHAMEHA CABINET TO H2 SOUTH CCTV TO H2 VMS CABINET, 2"C PVC COATED GRC	3560	LIN. FT.	\$ _____	\$ _____
621.0021	FARRINGTON/KAMEHAMEHA CABINET TO H2 SOUTH CCTV TO H2 VMS CABINET, ELECTRICAL CABLE	4520	LIN. FT.	\$ _____	\$ _____

**ADDENDUM NO. 1**

**NH-0300(152)**

**9/27/2021**

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY (a)	UNIT	UNIT PRICE (c)	AMOUNT (a) x (c)
<b>BASE BID PROPOSAL SCHEDULE</b>					
621.0022	FARRINGTON/KAMEHAMEHA CABINET TO H2 SOUTH CCTV TO H2 VMS CABINET, 24"X36" TRAFFIC SIGNAL BOX	21	EACH	\$ _____	\$ _____
621.0023	FARRINGTON/KAMEHAMEHA CABINET TO H2 SOUTH CCTV TO H2 VMS CABINET, TYPE "A" TRAFFIC RATED TRAFFIC SIGNAL BOX	2	EACH	\$ _____	\$ _____
621.0024	FARRINGTON/KAMEHAMEHA CABINET TO H2 SOUTH CCTV TO H2 VMS CABINET, SPLICE CABINET	2	EACH	\$ _____	\$ _____
621.0025	FARRINGTON/KAMEHAMEHA CABINET TO H2 SOUTH CCTV TO H2 VMS CABINET, 32"X32"X8" STAINLESS STEEL JUNCTION BOX	15	EACH	\$ _____	\$ _____
621.0026	FARRINGTON/KAMEHAMEHA CABINET TO H2 SOUTH CCTV TO H2 VMS CABINET, ENCLOSED CIRCUIT BREAKER	1	EACH	\$ _____	\$ _____
621.0027	FARRINGTON/KAMEHAMEHA CABINET TO H2 SOUTH CCTV TO H2 VMS CABINET, STEPDOWN TRANSFORMER 2KVA PEDESTAL	1	EACH	\$ _____	\$ _____
621.0028	WAIHONA STREET STUB, TRENCH EXCAVATION	430	LIN. FT.	\$ _____	\$ _____
621.0029	WAIHONA STREET STUB, CONCRETE	15	C.Y	\$ _____	\$ _____
621.0030	WAIHONA STREET STUB, 2"C PVC SCHEDULE 40	1290	LIN. FT.	\$ _____	\$ _____
621.0031	WAIHONA STREET STUB, SPLICE CABINET	1	EACH	\$ _____	\$ _____
621.0032	WAIHONA STREET STUB, 24"X36" TRAFFIC SIGNAL PULLBOX	2	EACH	\$ _____	\$ _____
621.0033	WAIKELE CCTV, TRENCH EXCAVATION	2370	LIN. FT.	\$ _____	\$ _____
621.0034	WAIKELE CCTV, CONCRETE	81	C.Y.	\$ _____	\$ _____

**ADDENDUM NO. 1**

**NH-0300(152)**

**9/27/2021**

**P-10**

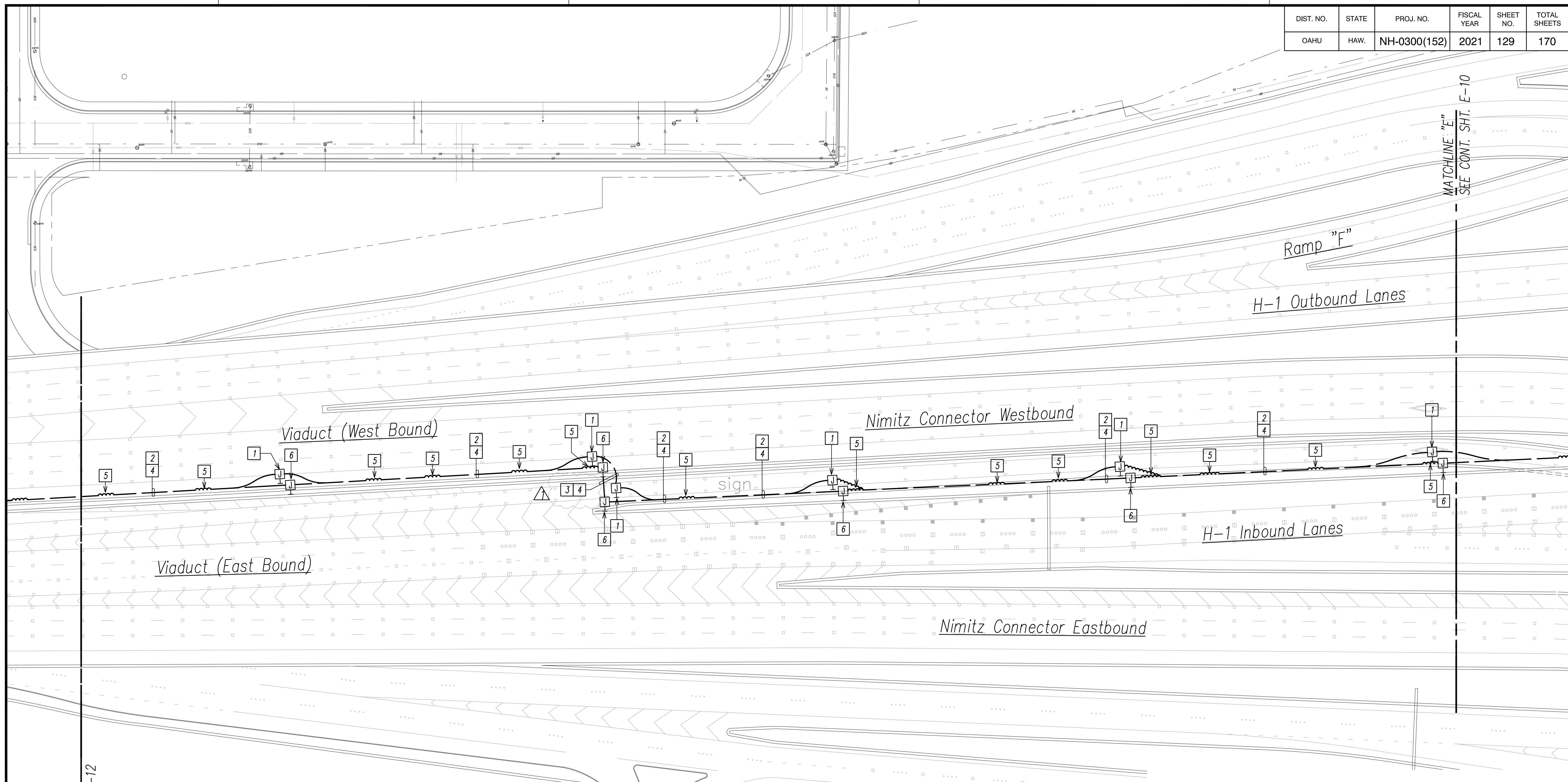
PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY (a)	UNIT	UNIT PRICE (c)	AMOUNT (a) x (c)
<b>BASE BID PROPOSAL SCHEDULE</b>					
621.0035	WAIKELE CCTV, 2"C PVC SCHEDULE 40	9400	LIN. FT.	\$ _____	\$ _____
621.0036	WAIKELE CCTV, ELECTRICAL CABLE	3260	LIN. FT.	\$ _____	\$ _____
621.0037	WAIKELE CCTV, 24"X36" TRAFFIC SIGNAL PULLBOX	23	EACH	\$ _____	\$ _____
621.0038	WAIKELE CCTV, ENCLOSED CIRCUIT BREAKER	1	EACH	\$ _____	\$ _____
621.0039	WAIKELE CCTV, STEPDOWN TRANSFORMER 2KVA PEDESTAL	1	EACH	\$ _____	\$ _____
636.0100	E-CONSTRUCTION LICENSE	F.A.	F.A.	F.A.	\$ 178,000.00
645.0100	TRAFFIC CONTROL H2 SOUTH SITE	45	DAYS	\$ _____	\$ _____
645.0200	TRAFFIC CONTROL H1/WAIKELE CCTV SITE	31	DAYS	\$ _____	\$ _____
645.0300	TRAFFIC CONTROL AALA TO PALI SITE	3	DAYS	\$ _____	\$ _____
645.0400	TRAFFIC CONTROL KEEHI IC SITE	33	DAYS	\$ _____	\$ _____
645.0500	TRAFFIC CONTROL WAIAWA IC SITE	48	DAYS	\$ _____	\$ _____
645.0600	ADDITIONAL POLICE OFFICERS, ADDITIONAL TRAFFIC CONTROL DEVICES, AND ADVERTISEMENT	F.A.	F.A.	F.A.	\$ 105,000.00
647.0001	AALA STREET TO PALI HWY, FIBER OPTIC CABLE IN CONDUIT	2500	LIN. FT.	\$ _____	\$ _____
647.0002	MIDDLE STREET TO AHUA STREET, FIBER OPTIC CABLE IN CONDUIT	7250	LIN. FT.	\$ _____	\$ _____
647.0003	WAIAWA ROAD STUB, FIBER OPTIC CABLE IN CONDUIT	800	LIN. FT.	\$ _____	\$ _____

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY (a)	UNIT	UNIT PRICE (c)	AMOUNT (a) x (c)
<b>BASE BID PROPOSAL SCHEDULE</b>					
647.0004	FARRINGTON/KAMEHAMEHA CABINET TO H2 SOUTH CCTV TO H2 VMS CABINET, FIBER OPTIC CABLE IN CONDUIT	11,810	LIN. FT.	\$ _____	\$ _____
647.0005	WAIHONA STREET STUB, FIBER OPTIC CABLE IN CONDUIT	430	LIN. FT.	\$ _____	\$ _____
647.0006	WAIKELE CCTV, FIBER OPTIC CABLE IN CONDUIT	3410	LIN. FT.	\$ _____	\$ _____
648.0100	FIELD POSTED DRAWINGS	L.S.	L.S.	L.S.	\$ _____
652.0100	HDD (DUCTLINE 1 – STA. 0+00 TO STA. 4+50.00)	450	LIN. FT.	\$ _____	\$ _____
652.0200	HDD (DUCTLINE 1 – STA. 4+50.00 TO STA. 9+50.00)	500	LIN. FT.	\$ _____	\$ _____
652.0300	HDD (DUCTLINE 1 – STA. 9+50.00 TO STA. 10+73.49)	125	LIN. FT.	\$ _____	\$ _____
652.0400	HDD (DUCTLINE 2 – STA. 0+00 TO STA. 2+93.93)	300	LIN. FT.	\$ _____	\$ _____
652.0500	HDD (DUCTLINE 3 – STA. 0+00 TO STA. 1+97.48)	200	LIN. FT.	\$ _____	\$ _____
652.0600	HDD (DUCTLINE 4 – STATION 0+00 TO STATION 7+39.96)	750	LIN. FT.	\$ _____	\$ _____
681.0100	CCTV POLE, 50 - FOOT	2	EACH	\$ _____	\$ _____
681.0101	CAMERA LOWERING SYSTEM	5	EACH	\$ _____	\$ _____
681.0102	CLS TRAINING	L.S.	L.S.	L.S.	\$ _____
681.0103	CCTV CABINET	2	EACH	\$ _____	\$ _____
681.0104	CABINET FOUNDATION	2	EACH	\$ _____	\$ _____
681.0105	TWO 2-INCH CONDUIT, SCH 40 PVC, CONCRETE ENCASED	L.S.	L.S.	L.S.	\$ _____

**ADDENDUM NO. 1**  
**NH-0300(152)**  
**9/27/2021**  
**P-12**

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY (a)	UNIT	UNIT PRICE (c)	AMOUNT (a) x (c)
<b>BASE BID PROPOSAL SCHEDULE</b>					
682.0100	INSTALL GFE ETHERNET SWITCH	8	EACH	\$ _____	\$ _____
683.0100	CCTV CAMERA ON CLS	4	EACH	\$ _____	\$ _____
687.0100	FIBER OPTIC PIGTAIL	228	EACH	\$ _____	\$ _____
687.0101	FIBER OPTIC SPLICE	702	EACH	\$ _____	\$ _____
687.0102	FIBER OPTIC JUMPER	110	EACH	\$ _____	\$ _____
687.0103	RACK MOUNTED INTERCONNECT CENTER	7	EACH	\$ _____	\$ _____
687.0104	ADDITIONAL TESTING, SPLICING AND EQUIPMENT	F.A.	F.A.	F.A.	\$ 95,000.00
695.0100	PROJECT VEHICLES (1 VEHICLE)	38	VEH/MON	\$ _____	\$ _____
696.0000	MAINTENANCE OF FIELD OFFICE	F.A.	F.A.	F.A.	\$ 50,000.00
699.1000	MOBILIZATION (NOT TO EXCEED 6 PERCENT OF THE SUM OF ALL ITEMS EXCLUDING BID PRICE OF THIS ITEM AND FORCE ACCOUNT ITEMS)	L.S.	L.S.	L.S.	\$ _____
Sum of All Items .....					\$ _____
NOTE:					
1. Bidders must complete all unit prices and amounts. Failure to do so may be grounds for rejection of bid.					
2. Bids shall include all Federal, State, County and other applicable taxes and fees.					
3. The Sum of all Items will be used to determine the lowest responsible bidder.					
4. If a discrepancy occurs between unit bid price and the bid price, the unit bid price shall govern.					

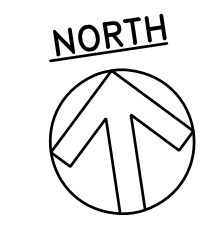
DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
OAHU	HAW.	NH-0300(152)	2021	129	170



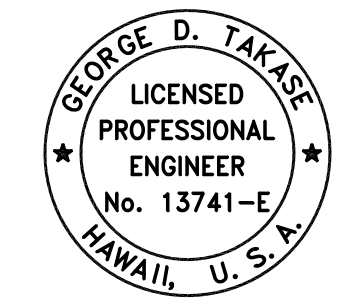
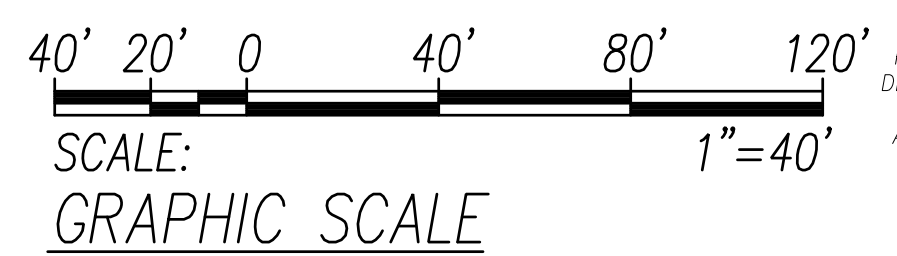
- NOTE(S):**
- 1 New 32" X 32" X 8" SS Communication Junction Box. See Detail C/E-32.
  - 2 3-2" Electrical and 2-2" Communication PVC Coated GRC Conduit, Surface Mounted on Viaduct Barrier.
  - 3 3-2" Electrical PVC Coated GRC Conduit, Mounted to Concrete Pier Below. Do Not Mount to Prestressed Concrete Beams.
  - 4 Pull New 72-Strand Single Mode Fiber Optic Cable and Innerduct in New/Existing Conduit.
  - 5 Provide Flex Conduit at Viaduct Construction Joint.
  - 6 New 36" X 36" X 8" SS Electrical Junction Box. See Detail C/E-32.

NO.	DATE	REVISION
△	9/27/21	Revised note reference.

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	



Keahi Electrical Distribution Plan 5  
SCALE: 1"=40'



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN H.A.R. TITLE 16, CHAPTER 115, RULES OF THE BOARD OF PROFESSIONAL ENGINEERS, ARCHITECTS AND SURVEYORS, STATE OF HAWAII

APRIL 30, 2022  
LIC. EXP. DATE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**KEEHI ELECTRICAL DISTRIBUTION**  
**PLAN 5**  
Freeway Management System,  
Phase 3, Unit 1  
Federal Aid Project No.  
NH-0300(152)  
Scale: As Noted Date: September 27, 2021  
SHEET No. **E-11** OF 32 SHEETS

**ADD. NO.1 129**

## **PRE-BID MEETING MINUTES**

**Project:** Freeway Management System, Phase 3 Unit 1  
Fed Aid Project No. NH-0300(152)  
Solicitation No. B22000411

**Subject:** Non-mandatory Pre-Offer Conference

**Date/Time:** September 23, 2021 / 11:00 AM – 11:15 AM

**Held:** Via Microsoft Teams (Invites were sent to all interested bidders that submitted a request by phone or email)

**Present:** Neal Honma, DOT  
Eric Imada, Austin Tsutsumi & Associates (ATA)  
Chad Kadokawa, ATA  
Jeffery Ding, ATA  
George Takase, Ronald NS Ho & Associates  
Jon Okunaga, Nagamine Okawa Engineers  
Gerald Seki, Geolabs  
Glenn Barut, Geolabs  
Justin Apa, Northern Powerline Constructors  
Erwin Mateo, Wasa Electrical Services  
Kawai Marr, Kiewit Corporation  
Eric Olson, Kiewit Corporation  
Keola Rosario, Island Mechanical Corporation

### **Discussed:**

A. Neal Honma opens meeting at 11:00 A.M.:

1. Pre-bid meeting is non-mandatory and is intended for clarification prior to bidding.
2. Any discrepancies will be addressed by addendum.
3. The minutes to this meeting will be distributed prior to bid opening.
4. Bidders have until September 24, 2021 at 2:00 P.M. to submit any questions.
5. Bid opening is scheduled for 2:00 P.M., October 8, 2021
6. To be eligible for award, bidders must complete all unit prices and amounts in the Base Bid Proposal Schedule.
7. Please note that the ethernet switches are Govt Furnished Equipment (GFE).
8. The Proposal Schedule will be updated and it will be provided in Addendum No. 1.



B. Open discussion to prospective bidders:

1. No questions were asked.

Meeting Adjourned at 11:15 A.M.

Prepared by: Neal Honma

"General Decision Number: HI20210001 09/24/2021

Superseded General Decision Number: HI20200001

State: Hawaii

Construction Types: Building, Heavy (Heavy and Dredging), Highway and Residential

Counties: Hawaii Statewide.

BUILDING CONSTRUCTION PROJECTS; RESIDENTIAL CONSTRUCTION PROJECTS (consisting of single family homes and apartments up to and including 4 stories); HEAVY AND HIGHWAY CONSTRUCTION PROJECTS AND DREDGING

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/01/2021
1	01/08/2021
2	01/22/2021
3	02/12/2021
4	02/19/2021
5	03/19/2021
6	05/07/2021
7	07/02/2021
8	07/09/2021
9	07/16/2021
10	09/03/2021
11	09/10/2021
12	09/24/2021

ASBE0132-001 08/30/2020

Rates Fringes

Asbestos Workers/Insulator  
Includes application of

all insulating materials,  
 protective coverings,  
 coatings and finishes to  
 all types of mechanical  
 systems. Also the  
 application of  
 firestopping material for  
 wall openings and  
 penetrations in walls,  
 floors, ceilings and  
 curtain walls.....\$ 41.90                      25.65

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 \* BOIL0627-005 01/01/2021

	Rates	Fringes
BOILERMAKER.....	\$ 37.25	31.25

-----  
 BRHI0001-001 08/31/2020

	Rates	Fringes
BRICKLAYER		
Bricklayers and Stonemasons.....	\$ 45.95	29.59
Pointers, Caulkers and Weatherproofers.....	\$ 46.21	29.59

-----  
 BRHI0001-002 08/31/2020

	Rates	Fringes
Tile, Marble & Terrazzo Worker		
Terrazzo Base Grinders.....	\$ 41.69	28.11
Terrazzo Floor Grinders and Tenders.....	\$ 40.14	28.11
Tile, Marble and Terrazzo Workers.....	\$ 43.50	28.11

-----  
 CARP0745-001 08/31/2020

	Rates	Fringes
Carpenters:		
Carpenters; Hardwood Floor Layers; Patent Scaffold Erectors (14 ft. and over); Piledrivers; Pneumatic Nailers; Wood Shinglers and Transit and/or Layout Man.....	\$ 50.50	23.59
Millwrights and Machine Erectors.....	\$ 50.75	23.59
Power Saw Operators (2 h.p. and over).....	\$ 50.65	23.59

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 CARP0745-002 08/31/2020

	Rates	Fringes
Drywall and Acoustical Workers and Lathers.....	\$ 50.50	23.59

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 ELEC1186-001 08/23/2020

Rates	Fringes
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Electricians:

Cable Splicers.....	\$ 56.71	31.16
Electricians.....	\$ 51.55	29.58
Telecommunication worker....	\$ 32.69	12.96

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ELEC1186-002 08/23/2020

Rates Fringes

Line Construction:

Cable Splicers.....	\$ 56.71	31.16
Groundmen/Truck Drivers....	\$ 38.66	25.63
Heavy Equipment Operators...	\$ 46.40	28.00
Linemen.....	\$ 51.55	29.58
Telecommunication worker....	\$ 32.69	12.96

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ELEV0126-001 01/01/2021

Rates Fringes

ELEVATOR MECHANIC.....	\$ 63.18	35.825+a+b
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a. VACATION: Employer contributes 8% of basic hourly rate for 5 years service and 6% of basic hourly rate for 6 months to 5 years service as vacation pay credit.

b. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the Friday after Thanksgiving Day and Christmas Day.

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ENGI0003-002 09/03/2018

Rates Fringes

Diver (Aqua Lung) (Scuba))

Diver (Aqua Lung) (Scuba) (over a depth of 30 feet)...	\$ 66.00	31.26
Diver (Aqua Lung) (Scuba) (up to a depth of 30 feet)..	\$ 56.63	31.26
Stand-by Diver (Aqua Lung) (Scuba).....	\$ 47.25	31.26

Diver (Other than Aqua Lung)

Diver (Other than Aqua Lung).....	\$ 66.00	31.26
Diver Tender (Other than Aqua Lung).....	\$ 44.22	31.26
Stand-by Diver (Other than Aqua Lung).....	\$ 47.25	31.26

Helicopter Work

Airborne Hoist Operator for Helicopter.....	\$ 45.80	31.26
Co-Pilot of Helicopter.....	\$ 45.98	31.26
Pilot of Helicopter.....	\$ 46.11	31.26

Power equipment operator -  
tunnel work

GROUP 1.....	\$ 42.24	31.26
GROUP 2.....	\$ 42.35	31.26
GROUP 3.....	\$ 42.52	31.26
GROUP 4.....	\$ 42.79	31.26
GROUP 5.....	\$ 43.10	31.26
GROUP 6.....	\$ 43.75	31.26
GROUP 7.....	\$ 44.07	31.26
GROUP 8.....	\$ 44.18	31.26

GROUP 9.....	\$ 44.29	31.26
GROUP 9A.....	\$ 44.52	31.26
GROUP 10.....	\$ 44.58	31.26
GROUP 10A.....	\$ 44.73	31.26
GROUP 11.....	\$ 44.88	31.26
GROUP 12.....	\$ 45.24	31.26
GROUP 12A.....	\$ 45.60	31.26
Power equipment operators:		
GROUP 1.....	\$ 41.94	31.26
GROUP 2.....	\$ 42.05	31.26
GROUP 3.....	\$ 42.22	31.26
GROUP 4.....	\$ 42.49	31.26
GROUP 5.....	\$ 42.80	31.26
GROUP 6.....	\$ 43.45	31.26
GROUP 7.....	\$ 43.77	31.26
GROUP 8.....	\$ 43.88	31.26
GROUP 9.....	\$ 43.99	31.26
GROUP 9A.....	\$ 44.22	31.26
GROUP 10.....	\$ 44.28	31.26
GROUP 10A.....	\$ 44.43	31.26
GROUP 11.....	\$ 44.58	31.26
GROUP 12.....	\$ 44.94	31.26
GROUP 12A.....	\$ 45.30	31.26
GROUP 13.....	\$ 42.22	31.26
GROUP 13A.....	\$ 42.49	31.26
GROUP 13B.....	\$ 42.80	31.26
GROUP 13C.....	\$ 43.45	31.26
GROUP 13D.....	\$ 43.77	31.26
GROUP 13E.....	\$ 43.88	31.26

#### POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Fork Lift (up to and including 10 tons); Partsman (heavy duty repair shop parts room when needed).

GROUP 2: Conveyor Operator (Handling building material); Hydraulic Monitor; Mixer Box Operator (Concrete Plant).

GROUP 3: Brakeman; Deckhand; Fireman; Oiler; Oiler/Gradechecker; Signalman; Switchman; Highline Cableway Signalman; Bargeman; Bunkerman; Concrete Curing Machine (self-propelled, automatically applied unit on streets, highways, airports and canals); Leveeman; Roller (5 tons and under); Tugger Hoist.

GROUP 4: Boom Truck or dual purpose "A" Frame Truck (5 tons or less); Concrete Placing Boom (Building Construction); Dinky Operator; Elevator Operator; Hoist and/or Winch (one drum); Straddle Truck (Ross Carrier, Hyster and similar).

GROUP 5: Asphalt Plant Fireman; Compressors, Pumps, Generators and Welding Machines ("Bank" of 9 or more, individually or collectively); Concrete Pumps or Pumpcrete Guns; Lubrication and Service Engineer (Grease Rack); Screedman.

GROUP 6: Boom Truck or Dual Purpose "A" Frame Truck (over 5 tons); Combination Loader/Backhoe (up to and including 3/4 cu. yd.); Concrete Batch Plants (wet or dry); Concrete Cutter, Groover and/or Grinder (self-propelled unit on streets, highways, airports, and canals); Conveyor or Concrete Pump (Truck or Equipment Mounted); Drilling Machinery (not to apply to waterliners, wagon drills or jack hammers); Fork Lift (over 10 tons); Loader (up to and including 3 and 1/2 cu. yds); Lull High Lift (under 40

feet); Lubrication and Service Engineer (Mobile); Maginnis Internal Full Slab Vibrator (on airports, highways, canals and warehouses); Man or Material Hoist; Mechanical Concrete Finisher (Large Clary, Johnson Bidwell, Bridge Deck and similar); Mobile Truck Crane Driver; Portable Shotblast Concrete Cleaning Machine; Portable Boring Machine (under streets, highways, etc.); Portable Crusher; Power Jumbo Operator (setting slip forms, etc., in tunnels); Rollers (over 5 tons); Self-propelled Compactor (single engine); Self-propelled Pavement Breaker; Skidsteer Loader with attachments; Slip Form Pumps (Power driven by hydraulic, electric, air, gas, etc., lifting device for concrete forms); Small Rubber Tired Tractors; Trencher (up to and including 6 feet); Underbridge Personnel Aerial Platform (50 feet of platform or less).

GROUP 7: Crusher Plant Engineer, Dozer (D-4, Case 450, John Deere 450, and similar); Dual Drum Mixer, Extend Lift; Hoist and/or Winch (2 drums); Loader (over 3 and 1/2 cu. yds. up to and including 6 yards.); Mechanical Finisher or Spreader Machine (asphalt), (Barber Greene and similar) (Screedman required); Mine or Shaft Hoist; Mobile Concrete Mixer (over 5 tons); Pipe Bending Machine (pipelines only); Pipe Cleaning Machine (tractor propelled and supported); Pipe Wrapping Machine (tractor propelled and supported); Roller Operator (Asphalt); Self-Propelled Elevating Grade Plane; Slusher Operator; Tractor (with boom) (D-6, or similar); Trencher (over 6 feet and less than 200 h.p.); Water Tanker (pulled by Euclids, T-Pulls, DW-10, 20 or 21, or similar); Winchman (Stern Winch on Dredge).

GROUP 8: Asphalt Plant Operator; Barge Mate (Seagoing); Cast-in-Place Pipe Laying Machine; Concrete Batch Plant (multiple units); Conveyor Operator (tunnel); Deckmate; Dozer (D-6 and similar); Finishing Machine Operator (airports and highways); Gradesetter; Kolman Loader (and similar); Mucking Machine (Crawler-type); Mucking Machine (Conveyor-type); No-Joint Pipe Laying Machine; Portable Crushing and Screening Plant; Power Blade Operator (under 12); Saurman Type Dragline (up to and including 5 yds.); Stationary Pipe Wrapping, Cleaning and Bending Machine; Surface Heater and Planer Operator, Tractor (D-6 and similar); Tri-Batch Paver; Tunnel Badger; Tunnel Mole and/or Boring Machine Operator Underbridge Personnel Aerial Platform (over 50 feet of platform).

GROUP 9: Combination Mixer and Compressor (gunite); Do-Mor Loader and Adams Elegrader; Dozer (D-7 or equal); Wheel and/or Ladder Trencher (over 6 feet and 200 to 749 h.p.).

GROUP 9A: Dozer (D-8 and similar); Gradesetter (when required by the Contractor to work from drawings, plans or specifications without the direct supervision of a foreman or superintendent); Push Cat; Scrapers (up to and including 20 cu. yds); Self-propelled Compactor with Dozer; Self-Propelled, Rubber-Tired Earthmoving Equipment (up to and including 20 cu. yds) (621 Band and similar); Sheep's Foot; Tractor (D-8 and similar); Tractors with boom (larger than D-6, and similar).

GROUP 10: Chicago Boom; Cold Planers; Heavy Duty Repairman or Welder; Hoist and/or Winch (3 drums); Hydraulic Skooper (Koehring and similar); Loader (over 6 cu. yds. up to and including 12 cu. yds.); Saurman type Dragline (over 5 cu. yds.); Self-propelled, rubber-tired Earthmoving Equipment

(over 20 cu. yds. up to and including 31 cu. yds.) (637D and similar); Soil Stabilizer (P & H or equal); Sub-Grader (Gurries or other automatic type); Tractors (D-9 or equivalent, all attachments); Tractor (Tandem Scraper); Watch Engineer.

GROUP 10A: Boat Operator; Cable-operated Crawler Crane (up to and including 25 tons); Cable-operated Power Shovel, Clamshell, Dragline and Backhoe (up to and including 1 cu. yd.); Dozer D9-L; Dozer (D-10, HD41 and similar) (all attachments); Gradall (up to and including 1 cu. yd.); Hydraulic Backhoe (over 3/4 cu. yds. up to and including 2 cu. yds.); Mobile Truck Crane Operator (up to and including 25 tons) (Mobile Truck Crane Driver Required); Self-propelled Boom Type Lifting Device (Center Mount) (up to and including 25 tons) (Grove, Drott, P&H, Pettibone and similar); Trencher (over 6 feet and 750 h.p. or more); Watch Engineer (steam or electric).

GROUP 11: Automatic Slip Form Paver (concrete or asphalt); Band Wagon (in conjunction with Wheel Excavator); Cable-operated Crawler Cranes (over 25 tons but less than 50 tons); Cable-operated Power Shovel, Clamshell, Dragline and Backhoe (over 1 cu. yd. up to 7 cu. yds.); Gradall (over 1 cu. yds. up to 7 cu. yds.); DW-10, 20, etc. (Tandem); Earthmoving Machines (multiple propulsion power units and 2 or more Scrapers) (up to and including 35 cu. yds., "struck" m.r.c.); Highline Cableway; Hydraulic Backhoe (over 2 cu. yds. up to and including 4 cu. yds.); Leverman; Lift Slab Machine; Loader (over 12 cu. yds); Master Boat Operator; Mobile Truck Crane Operator (over 25 tons but less than 50 tons); (Mobile Truck Crane Driver required); Pre-stress Wire Wrapping Machine; Self-propelled Boom-type Lifting Device (Center Mount) (over 25 tons m.r.c); Self-propelled Compactor (with multiple-propulsion power units); Single Engine Rubber Tired Earthmoving Machine (with Tandem Scraper); Tandem Cats; Trencher (pulling attached shield).

GROUP 12: Clamshell or Dipper Operator; Derricks; Drill Rigs; Multi-Propulsion Earthmoving Machines (2 or more Scrapers) (over 35 cu. yds "struck"m.r.c.); Operators (Derricks, Piledrivers and Cranes); Power Shovels and Draglines (7 cu. yds. m.r.c. and over); Self-propelled rubber-tired Earthmoving equipment (over 31 cu. yds.) (657B and similar); Wheel Excavator (up to and including 750 cu. yds. per hour); Wheel Excavator (over 750 cu. yds. per hour).

GROUP 12A: Dozer (D-11 or similar or larger); Hydraulic Excavators (over 4 cu. yds.); Lifting cranes (50 tons and over); Pioneering Dozer/Backhoe (initial clearing and excavation for the purpose of providing access for other equipment where the terrain worked involves 1-to-1 slopes that are 50 feet in height or depth, the scope of this work does not include normal clearing and grubbing on usual hilly terrain nor the excavation work once the access is provided); Power Blade Operator (Cat 12 or equivalent or over); Straddle Lifts (over 50 tons); Tower Crane, Mobile; Traveling Truss Cranes; Universal, Liebherr, Linden, and similar types of Tower Cranes (in the erection, dismantling, and moving of equipment there shall be an additional Operating Engineer or Heavy Duty Repairman); Yo-Yo Cat or Dozer.

GROUP 13: Truck Driver (Utility, Flatbed, etc.)

GROUP 13A: Dump Truck, 8 cu.yds. and under (water level); Water Truck (up to and including 2,000 gallons).

GROUP 13B: Water Truck (over 2,000 gallons); Tandem Dump Truck, over 8 cu. yds. (water level).

GROUP 13C: Truck Driver (Semi-trailer. Rock Cans, Semi-Dump or Roll-Offs).

GROUP 13D: Truck Driver (Slip-In or Pup).

GROUP 13E: End Dumps, Unlicensed (Euclid, Mack, Caterpillar or similar); Tractor Trailer (Hauling Equipment); Tandem Trucks hooked up to Trailer (Hauling Equipment)

BOOMS AND/OR LEADS (HOURLY PREMIUMS):

The Operator of a crane (under 50 tons) with a boom of 80 feet or more (including jib), or of a crane (under 50 tons) with leads of 100 feet or more, shall receive a per hour premium for each hour worked on said crane (under 50 tons) in accordance with the following schedule:

Booms of 80 feet up to but not including 130 feet or Leads of 100 feet up to but not including 130 feet	0.50
Booms and/or Leads of 130 feet up to but not including 180 feet	0.75
Booms and/or Leads of 180 feet up to and including 250 feet	1.15
Booms and/or Leads over 250 feet	1.50

The Operator of a crane (50 tons and over) with a boom of 180 feet or more (including jib) shall receive a per hour premium for each hour worked on said crane (50 tons and over) in accordance with the following schedule:

Booms of 180 feet up to and including 250 feet	1.25
Booms over 250 feet	1.75

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ENGI0003-004 09/04/2017

	Rates	Fringes
Dredging: (Boat Operators)		
Boat Deckhand.....	\$ 41.22	30.93
Boat Operator.....	\$ 43.43	30.93
Master Boat Operator.....	\$ 43.58	30.93
Dredging: (Clamshell or Dipper Dredging)		
GROUP 1.....	\$ 43.94	30.93
GROUP 2.....	\$ 43.28	30.93
GROUP 3.....	\$ 42.88	30.93
GROUP 4.....	\$ 41.22	30.93
Dredging: (Derricks)		
GROUP 1.....	\$ 43.94	30.93
GROUP 2.....	\$ 43.28	30.93
GROUP 3.....	\$ 42.88	30.93
GROUP 4.....	\$ 41.22	30.93
Dredging: (Hydraulic Suction)		



Dredges)

GROUP 1.....	\$ 43.58	30.93
GROUP 2.....	\$ 43.43	30.93
GROUP 3.....	\$ 43.28	30.93
GROUP 4.....	\$ 43.22	30.93
GROUP 5.....	\$ 37.88	26.76
Group 5.....	\$ 42.88	30.93
GROUP 6.....	\$ 37.77	26.76
Group 6.....	\$ 42.77	30.93
GROUP 7.....	\$ 36.22	26.76
Group 7.....	\$ 41.22	30.93

CLAMSHELL OR DIPPER DREDGING CLASSIFICATIONS

- GROUP 1: Clamshell or Dipper Operator.
- GROUP 2: Mechanic or Welder; Watch Engineer.
- GROUP 3: Barge Mate; Deckmate.
- GROUP 4: Bargeman; Deckhand; Fireman; Oiler.

HYDRAULIC SUCTION DREDGING CLASSIFICATIONS

- GROUP 1: Leverman.
- GROUP 2: Watch Engineer (steam or electric).
- GROUP 3: Mechanic or Welder.
- GROUP 4: Dozer Operator.
- GROUP 5: Deckmate.
- GROUP 6: Winchman (Stern Winch on Dredge)
- GROUP 7: Deckhand (can operate anchor scow under direction of Deckmate); Fireman; Leveeman; Oiler.

DERRICK CLASSIFICATIONS

- GROUP 1: Operators (Derricks, Piledrivers and Cranes).
- GROUP 2: Saurman Type Dragline (over 5 cubic yards).
- GROUP 3: Deckmate; Saurman Type Dragline (up to and including 5 yards).
- GROUP 4: Deckhand, Fireman, Oiler.

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 ENGI0003-044 09/03/2018

Rates                      Fringes

Power Equipment Operators  
 (PAVING)

Asphalt Concrete Material Transfer.....	\$ 42.92	32.08
Asphalt Plant Operator.....	\$ 43.35	32.08
Asphalt Raker.....	\$ 41.96	32.08
Asphalt Spreader Operator...\$	43.44	32.08
Cold Planer.....	\$ 43.75	32.08
Combination Loader/Backhoe (over 3/4 cu.yd.).....	\$ 41.96	32.08
Combination Loader/Backhoe (up to 3/4 cu.yd.).....	\$ 40.98	32.08
Concrete Saws and/or Grinder (self-propelled unit on streets, highways, airports and canals).....	\$ 42.92	32.08
Grader.....	\$ 43.75	32.08
Laborer, Hand Roller.....	\$ 41.46	32.08
Loader (2 1/2 cu. yds. and under).....	\$ 42.92	32.08
Loader (over 2 1/2 cu. yds. to and including 5		

cu. yds.).....	\$ 43.24	32.08
Roller Operator (five tons and under).....	\$ 41.69	32.08
Roller Operator (over five tons).....	\$ 43.12	32.08
Screed Person.....	\$ 42.92	32.08
Soil Stabilizer.....	\$ 43.75	32.08

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\* IRON0625-001 09/01/2021

	Rates	Fringes
Ironworkers:.....	\$ 43.50	36.84
a. Employees will be paid \$.50 per hour more while working in tunnels and coffer dams; \$1.00 per hour more when required to work under or are covered with water (submerged) and when they are required to work on the summit of Mauna Kea, Mauna Loa or Haleakala.		

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LABO0368-001 09/02/2020

	Rates	Fringes
Laborers:		
Driller.....	\$ 39.70	22.68
Final Clean Up.....	\$ 29.65	18.17
Gunite/Shotcrete Operator and High Scaler.....	\$ 39.20	22.68
Laborer I.....	\$ 38.70	22.68
Laborer II.....	\$ 36.10	22.68
Mason Tender/Hod Carrier....	\$ 39.20	22.68
Powderman.....	\$ 39.70	22.68
Window Washer (bosun chair).\$	38.20	22.68

LABORERS CLASSIFICATIONS

Laborer I: Air Blasting run by electric or pneumatic compressor; Asphalt Laborer, Ironer, Raker, Luteman, and Handroller, and all types of Asphalt Spreader Boxes; Asphalt Shoveler; Assembly and Installation of Multiplates, Liner Plates, Rings, Mesh, Mats; Batching Plant (portable and temporary); Boring Machine Operator (under streets and sidewalks); Buggymobile; Burning and Welding; Chainsaw, Faller, Logloader, and Bucker; Compactors (Jackson Jumping Jack and similar); Concrete Bucket Dumpman; Concrete Chipping; Concrete Chuteman/Hoseman (pouring concrete) (the handling of the chute from ready-mix trucks for such jobs as walls, slabs, decks, floors, foundations, footings, curbs, gutters, and sidewalks); Concrete Core Cutter (Walls, Floors, and Ceiling); Concrete Grinding or Sanding; Concrete: Hooking on, signaling, dumping of concrete for treme work over water on caissons, pilings, abutments, etc.; Concrete: Mixing, handling, conveying, pouring, vibrating, otherwise placing of concrete or aggregates or by any other process; Concrete: Operation of motorized wheelbarrows or buggies or machines of similar character, whether run by gas, diesel, or electric power; Concrete Placement Machine Operator: operation of Somero Hammerhead, Copperheads, or similar machines; Concrete Pump Machine (laying, coupling, uncoupling of all connections and cleaning of equipment); Concrete and/or Asphalt Saw (Walking or Handtype) (cutting walls or flatwork) (scoring old or new concrete and/or asphalt) (cutting for expansion joints) (streets and ways for laying of pipe, cable or conduit for all purposes); Concrete Shovelers/Laborers (Wet

or Dry); Concrete Screeding for Rough Strike-Off: Rodding or striking-off, by hand or mechanical means prior to finishing; Concrete Vibrator Operator; Coring Holes: Walls, footings, piers or other obstructions for passage of pipes or conduits for any purpose and the pouring of concrete to secure the hole; Cribbers, Shorer, Lagging, Sheeting, and Trench Jacking and Bracing, Hand-Guided Lagging Hammer Whaling Bracing; Curbing (Concrete and Asphalt); Curing of Concrete (impervious membrane and form oiler) mortar and other materials by any mode or method; Cut Granite Curb Setter (setting, leveling and grouting of all precast concrete or stone curbs); Cutting and Burning Torch (demolition); Dri Pak-It Machine; Environmental Abatement: removal of asbestos, lead, and bio hazardous materials (EPA and/or OSHA certified); Falling, bucking, yarding, loading or burning of all trees or timber on construction site; Forklift (9 ft. and under); Gas, Pneumatic, and Electric tools; Grating and Grill work for drains or other purposes; Green Cutter of concrete or aggregate in any form, by hand, mechanical means, grindstone or air and/or water; Grout: Spreading for any purpose; Guinea Chaser (Grade Checker) for general utility trenches, sitework, and excavation; Headerboard Man (Asphalt or Concrete); Heat Welder of Plastic (Laborers' AGC certified workers) (when work involves waterproofing for waterponds, artificial lakes and reservoir) heat welding for sewer pipes and fusion of HDPE pipes; Heavy Highway Laborer (Rigging, signaling, handling, and installation of pre-cast catch basins, manholes, curbs and gutters); High Pressure Nozzleman - Hydraulic Monitor (over 100# pressure); Jackhammer Operator; Jacking of slip forms: All semi and unskilled work connected therewithin; Laying of all multi-cell conduit or multi-purpose pipe; Magnesite and Mastic Workers (Wet or Dry)(including mixer operator);Mortar Man; Mortar Mixer (Block, Brick, Masonry, and Plastering); Nozzleman (Sandblasting and/or Water Blasting): handling, placing and operation of nozzle; Operation, Manual or Hydraulic jacking of shields and the use of such other mechanical equipment as may be necessary; Pavement Breakers; Paving, curbing and surfacing of streets, ways, courts, under and overpasses, bridges, approaches, slope walls, and all other labor connected therewith; Pilecutters; Pipe Accessment in place, bolting and lining up of sectional metal or other pipe including corrugated pipe; Pipelayer performing all services in the laying and installation of pipe from the point of receiving pipe in the ditch until completion of operation, including any and all forms of tubular material, whether pipe, HDPE, metallic or non-metallic, conduit, and any other stationary-type of tubular device used for conveying of any substance or element, whether water, sewage, solid, gas, air, or other product whatsoever and without regard to the nature of material from which tubular material is fabricated; No-joint pipe and stripping of same, Pipewrapper, Caulker, Bander, Kettleman, and men applying asphalt, Laykold, treating Creosote and similar-type materials (6-inch) pipe and over); Piping: resurfacing and paving of all ditches in preparation for laying of all pipes; Pipe laying of lateral sewer pipe from main or side sewer to buildings or structure (except Contactor may direct work be done under proper supervision); Pipe laying, leveling and marking of the joint used for main or side sewers and storm sewers; Laying of all clay, terra cotta, ironstone, vitrified concrete, HDPE or other pipe for drainage; Placing and setting of water mains, gas mains and all pipe including removal of skids; Plaster Mortar

Mixer/Pump; Pneumatic Impact Wrench; Portable Sawmill  
Operation: Choker setters, off bearers, and lumber handlers  
connected with clearing; Posthole Digger (Hand Held, Gas,  
Air and Electric); Powderman's Tender; Power Broom Sweepers  
(Small); Preparation and Compaction of roadbeds for  
railroad track laying, highway construction, and the  
preparation of trenches, footings, etc., for cross-country  
transmission by pipelines, electrical transmission or  
underground lines or cables (by mechanical means); Raising  
of structure by manual or hydraulic jacks or other methods  
and resetting of structure in new locations, including all  
concrete work; Ramming or compaction; Rigging in connection  
with Laborers' work (except demolition), Signaling  
(including the use of walkie talkie) Choke Setting, tag  
line usage; Tagging and Signaling of building materials  
into high rise units; Riprap, Stonepaver, and Rock Slinger  
(includes placement of stacked concrete, wet or dry and  
loading, unloading, signaling, slinging and setting of  
other similar materials); Rotary Scarifier (including  
multiple head concrete chipping Scarifier); Salamander  
Heater, Drying of plaster, concrete mortar or other  
aggregate; Scaffold Erector Leadman; Scaffolds: (Swing and  
hanging) including maintenance thereof; Scaler; Septic  
Tank/Cesspool and Drain Fields Digger and Installer;  
Shredder/Chipper (tree branches, brush, etc.); Stripping  
and Setting Forms; Stripping of Forms: Other than panel  
forms which are to be re-used in their original form, and  
stripping of forms on all flat arch work; Tampers (Barko,  
Wacker, and similar type); Tank Scaler and Cleaners;  
Tarman; Tree Climbers and Trimmers; Trencher (includes  
hand-held, Davis T-66 and similar type); Trucks (flatbed up  
to and including 2 1/2 tons when used in connection with  
on-site Laborers' work); Trucks (Refuse and Garbage Disposal)  
(from job site to dump); Vibra-Screed (Bull Float in  
connection with Laborers' work); Well Points, Installation  
of or any other dewatering system.

Laborer II: Asphalt Plant Laborer; Boring Machine Tender;  
Bridge Laborer; Burning of all debris (crates, boxes,  
packaging waste materials); Chainman, Rodmen, and Grade  
Markers; Cleaning, clearing, grading and/or removal for  
streets, highways, roadways, aprons, runways, sidewalks,  
parking areas, airports, approaches, and other similar  
installations; Cleaning or reconditioning of streets, ways,  
sewers and waterlines, all maintenance work and work of an  
unskilled and semi-skilled nature; Concrete Bucket Tender  
(Groundman) hooking and unhooking of bucket; Concrete  
Forms; moving, cleaning, oiling and carrying to the next  
point of erection of all forms; Concrete Products Plant  
Laborers; Conveyor Tender (conveying of building  
materials); Crushed Stone Yards and Gravel and Sand Pit  
Laborers and all other similar plants; Demolition, Wrecking  
and Salvage Laborers: Wrecking and dismantling of buildings  
and all structures, with use of cutting or wrecking tools,  
breaking away, cleaning and removal of all fixtures, All  
hooking, unhooking, signaling of materials for salvage or  
scrap removed by crane or derrick; Digging under streets,  
roadways, aprons or other paved surfaces; Driller's Tender;  
Chuck Tender, Outside Nipper; Dry-packing of concrete  
(plugging and filling of she-bolt holes); Fence and/or  
Guardrail Erector: Dismantling and/or re-installation of  
all fence; Finegrader; Firewatcher; Flagman (Coning,  
preparing, stablishing and removing portable roadway  
barricade devices); Signal Men on all construction work  
defined herein, including Traffic Control Signal Men at

construction site; General Excavation; Backfilling, Grading and all other labor connected therewith; Digging of trenches, ditches and manholes and the leveling, grading and other preparation prior to laying pipe or conduit for any purpose; Excavations and foundations for buildings, piers, foundations and holes, and all other construction. Preparation of street ways and bridges; General Laborer: Cleaning and Clearing of all debris and surplus material. Clean-up of right-of-way. Clearing and slashing of brush or trees by hand or mechanical cutting. General Clean up: sweeping, cleaning, wash-down, wiping of construction facility and equipment (other than "Light Clean up (Janitorial) Laborer. Garbage and Debris Handlers and Cleaners. Appliance Handling (job site) (after delivery unloading in storage area); Ground and Soil Treatment Work (Pest Control); Gunite/Shotcrete Operator Tender; Junk Yard Laborers (same as Salvage Yard); Laser Beam "Target Man" in connection with Laborers' work; Layout Person for Plastic (when work involves waterproofing for waterponds, artificial lakes and reservoirs); Limbers, Brush Loaders, and Pilers; Loading, Unloading, carrying, distributing and handling of all rods and material for use in reinforcing concrete construction (except when a derrick or outrigger operated by other than hand power is used); Loading, unloading, sorting, stockpiling, handling and distribution of water mains, gas mains and all pipes; Loading and unloading of all materials, fixtures, furnishings and appliances from point of delivery to stockpile to point of installation; hooking and signaling from truck, conveyance or stockpile; Material Yard Laborers; Pipelayer Tender; Pipewrapper, Caulker, Bander, Kettlemen, and men applying asphalt, Laykold, Creosote, and similar-type materials (pipe under 6 inches); Plasterer Laborer; Preparation, construction and maintenance of roadbeds and sub-grade for all paving, including excavation, dumping, and spreading of sub-grade material; Prestressed or precast concrete slabs, walls, or sections: all loading, unloading, stockpiling, hooking on of such slabs, walls or sections; Quarry Laborers; Railroad, Streetcar, and Rail Transit Maintenance and Repair; Roustabout; Rubbish Trucks in connection with Building Construction Projects (excluding clearing, grubbing, and excavating); Salvage Yard: All work connected with cutting, cleaning, storing, stockpiling or handling of materials, all cleanup, removal of debris, burning, back-filling and landscaping of the site; Sandblasting Tender (Pot Tender): Hoses and pots or markers; Scaffolds: Erection, planking and removal of all scaffolds used for support for lathers, plasters, brick layers, masons, and other construction trades crafts; Scaffolds: (Specially designed by carpenters) laborers shall tend said carpenter on erection and dismantling thereof, preparation for foundation or mudsills, maintenance; Scraping of floors; Screeds: Handling of all screeds to be reused; handling, dismantling and conveyance of screeds; Setting, leveling and securing or bracing of metal or other road forms and expansion joints; Sheet Piling/trench shoring (handling and placing of skip sheet or wood plank trench shoring); Ship Scalers; Shipwright Tender; Sign Erector (subdivision traffic, regulatory, and street-name signs); Sloper; Slurry Seal Crews (Mixer Operator, Applicator, Squeegee Man, Shuttle Man, Top Man); Snapping of wall ties and removal of tie rods; Soil Test operations of semi and unskilled labor such as filling sand bags; Stripper (Asphalt, Concrete or other Paved Surfaces); Tool Room Attendant (Job Site); Traffic Delineating Device Applicator; Underpinning,

lagging, bracing, propping and shoring, loading, signaling, right-of-way clearance along the route of movement, The clearance of new site, excavation of foundation when moving a house or structure from old site to new site; Utilities employees; Water Man; Waterscape/Hardscape Laborers; Wire Mesh Pulling (all concrete pouring operations); Wrecking, stripping, dismantling and handling concrete forms an false work.

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 LAB00368-002 09/01/2020

	Rates	Fringes
Landscape & Irrigation Laborers		
GROUP 1.....	\$ 26.40	14.25
GROUP 2.....	\$ 27.40	14.25
GROUP 3.....	\$ 21.70	14.25

LABORERS CLASSIFICATIONS

GROUP 1: Installation of non-potable permanent or temporary irrigation water systems performed for the purposes of Landscaping and Irrigation architectural horticultural work; the installation of drinking fountains and permanent or temporary irrigation systems using potable water for Landscaping and Irrigation architectural horticultural purposes only. This work includes (a) the installation of all heads, risers, valves, valve boxes, vacuum breakers (pressure and non-pressure), low voltage electrical lines and, provided such work involves electrical wiring that will carry 24 volts or less, the installation of sensors, master control panels, display boards, junction boxes, conductors, including all other components for controllers, (b) and metallic (copper, brass, galvanized, or similar) pipe, as well as PVC or other plastic pipe including all work incidental thereto, i.e., unloading, handling and distribution of all pipes fittings, tools, materials and equipment, (c) all soldering work in connection with the above whether done by torch, soldering iron, or other means; (d) tie-in to main lines, thrust blocks (both precast and poured in place), pipe hangers and supports incidental to installation of the entire irrigation system, (e) making of pressure tests, start-up testing, flushing, purging, water balancing, placing into operation all irrigation equipment, fixtures and appurtenances installed under this agreement, and (f) the fabrication, replacement, repair and servicing of landscaping and irrigation systems. Operation of hand-held gas, air, electric, or self-powered tools and equipment used in the performance of Landscape and Irrigation work in connection with architectural horticulture; Choke-setting, signaling, and rigging for equipment operators on job-site in the performance of such Landscaping and Irrigation work; Concrete work (wet or dry) performed in connection with such Landscaping and Irrigation work. This work shall also include the setting of rock, stone, or riprap in connection with such Landscape, Waterscape, Rockscape, and Irrigation work; Grubbing, pick and shovel excavation, and hand rolling or tamping in connection with the performance of such Landscaping and Irrigation work; Sprigging, handseeding, and planting of trees, shrubs, ground covers, and other plantings and the performance of all types of gardening and horticultural work relating to said planting; Operation of

flat bed trucks (up to and including 2 1/2 tons).:

GROUP 2. Layout of irrigation and other non-potable irrigation water systems and the layout of drinking fountains and other potable irrigation water systems in connection with such Landscaping and Irrigation work. This includes the layout of all heads, risers, valves, valve boxes, vacuum breakers, low voltage electrical lines, hydraulic and electrical controllers, and metallic (coppers, brass, galvanized, or similar) pipe, as well as PVC or other plastic pipe. This work also includes the reading and interpretation of plans and specifications in connection with the layout of Landscaping, Rockscape, Waterscape, and Irrigation work; Operation of Hydro-Mulching machines (sprayman and driver), Drillers, Trenchers (riding type, Davis T-66, and similar) and fork lifts used in connection with the performance of such Landscaping and Irrigation work; Tree climbers and chain saw tree trimmers, Sporadic operation (when used in connection with Landscaping, Rockscape, Waterscape, and Irrigation work) of Skid-Steer Loaders (Bobcat and similar), Cranes (Bantam, Grove, and similar), Hoptos, Backhoes, Loaders, Rollers, and Dozers (Case, John Deere, and similar), Water Trucks, Trucks requiring a State of Hawaii Public Utilities Commission Type 5 and/or type 7 license, sit-down type and "gang" mowers, and other self-propelled, sit-down operated machines not listed under Landscape & Irrigation Maintenance Laborer; Chemical spraying using self-propelled power spraying equipment (200 gallon capacity or more).

GROUP 3: Maintenance of trees, shrubs, ground covers, lawns and other planted areas, including the replanting of trees, shrubs, ground covers, and other plantings that did not "take" or which are damaged; provided, however, that re-planting that requires the use of equipment, machinery, or power tools shall be paid for at the rate of pay specified under Landscape and Irrigation Laborer, Group 1; Raking, mowing, trimming, and runing, including the use of "weed eaters", hedge trimmers, vacuums, blowers, and other hand-held gas, air, electric, or self-powered tools, and the operation of lawn mowers (Note: The operation of sit-down type and "gang" mowers shall be paid for at the rate of pay specified under Landscape & Irrigation Laborer, Group 2); Guywiring, staking, propping, and supporting trees; Fertilizing, Chemical spraying using spray equipment with less than 200 gallon capacity, Maintaining irrigation and sprinkler systems, including the staking, clamping, and adjustment of risers, and the adjustment and/or replacement of sprinkler heads, (Note: the cleaning and gluing of pipe and fittings shall be paid for at the rate of pay specified under Landscape & Irrigation Laborer(Group 1); Watering by hand or sprinkler system and the performance of other types of gardening, yardman, and horticultural-related work.

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LAB00368-003 09/02/2020

	Rates	Fringes
Underground Laborer		
GROUP 1.....	\$ 39.30	22.68
GROUP 2.....	\$ 40.80	22.68
GROUP 3.....	\$ 41.30	22.68
GROUP 4.....	\$ 42.30	22.68

GROUP 5.....	\$ 42.65	22.68
GROUP 6.....	\$ 42.90	22.68
GROUP 7.....	\$ 43.35	22.68

GROUP 1: Watchmen; Change House Attendant.

GROUP 2: Swamper; Brakeman; Bull Gang-Muckers, Trackmen; Dumpmen (any method); Concrete Crew (includes rodding and spreading); Grout Crew; Reboundmen

GROUP 3: Chucktenders and Cabetenders; Powderman (Prime House); Vibratorman, Pavement Breakers

GROUP 4: Miners - Tunnel (including top and bottom man on shaft and raise work); Timberman, Retimberman (wood or steel or substitute materials thereof); Blasters, Drillers, Powderman (in heading); Microtunnel Laborer; Headman; Cherry Pickerman (where car is lifted); Nipper; Grout Gunmen; Grout Pumpman & Potman; Gunite, Shotcrete Gunmen & Potmen; Concrete Finisher (in tunnel); Concrete Screed Man; Bit Grinder; Steel Form Raisers & Setters; High Pressure Nozzleman; Nozzleman (on slick line); Sandblaster-Potman (combination work assignment interchangeable); Tugger

GROUP 5: Shaft Work & Raise (below actual or excavated ground level); Diamond Driller; Gunite or Shotcrete Nozzleman; Rodman; Groundman

GROUP 6: Shifter

GROUP 7: Shifter (Shaft Work & Raiser)

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PAIN1791-001 07/01/2021

	Rates	Fringes
Painters:		
Brush.....	\$ 38.90	30.09
Sandblaster; Spray.....	\$ 38.90	30.09

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PAIN1889-001 07/01/2021

	Rates	Fringes
Glaziers.....	\$ 40.50	36.18

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PAIN1926-001 02/28/2021

	Rates	Fringes
Soft Floor Layers.....	\$ 37.77	32.07

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PAIN1944-001 01/05/2020

	Rates	Fringes
Taper.....	\$ 43.10	29.90

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PLAS0630-001 08/30/2021

	Rates	Fringes
PLASTERER.....	\$ 44.21	32.83

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PLAS0630-002 08/31/2020

	Rates	Fringes
Cement Masons:		
Cement Masons.....	\$ 42.65	32.29
Trowel Machine Operators....	\$ 42.80	32.29

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 PLUM0675-001 07/04/2021

	Rates	Fringes
Plumber, Pipefitter, Steamfitter & Sprinkler Fitter...	\$ 48.63	28.40

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 ROOF0221-001 09/05/2021

	Rates	Fringes
Roofers (Including Built Up, Composition and Single Ply).....	\$ 42.55	20.78

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 SHEE0293-001 09/02/2018

	Rates	Fringes
Sheet metal worker.....	\$ 42.55	27.44

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 SUHI1997-002 09/15/1997

	Rates	Fringes
Drapery Installer.....	\$ 13.60	1.20
FENCE ERECTOR (Chain Link Fence).....	\$ 9.33	1.65

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 WELDERS - Receive rate prescribed for craft performing  
 operation to which welding is incidental.

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 Note: Executive Order (EO) 13706, Establishing Paid Sick Leave  
 for Federal Contractors applies to all contracts subject to the  
 Davis-Bacon Act for which the contract is awarded (and any  
 solicitation was issued) on or after January 1, 2017. If this  
 contract is covered by the EO, the contractor must provide  
 employees with 1 hour of paid sick leave for every 30 hours  
 they work, up to 56 hours of paid sick leave each year.  
 Employees must be permitted to use paid sick leave for their  
 own illness, injury or other health-related needs, including  
 preventive care; to assist a family member (or person who is  
 like family to the employee) who is ill, injured, or has other  
 health-related needs, including preventive care; or for reasons  
 resulting from, or to assist a family member (or person who is  
 like family to the employee) who is a victim of, domestic  
 violence, sexual assault, or stalking. Additional information  
 on contractor requirements and worker protections under the EO  
 is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within  
 the scope of the classifications listed may be added after  
 award only as provided in the labor standards contract clauses  
 (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"