STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ADDENDUM NO. 1

FOR

MOANALUA FREEWAY, HIGHWAY LIGHTING IMPROVMENTS
HALAWA HEIGHTS OFF-RAMP TO MIDDLE STREET OVERPASS, PHASE 2
FEDERAL-AID PROJECT NO. NH-H201(005) PHASE 2

DISTRICT OF HONOLULU
ISLAND OF OAHU
FY 2020

Amend the Bid Documents as follows:

A. SPECIAL PROVISIONS

Replace Special Provision Section 652 – Horizontal Directional Drilling with the attached Special Provision Section 652 – Horizontal Directional Drilling dated 02/17/21.

B. PROPOSAL

Replace Page P-1 with the attached page P-1 dated 2.17.21.

C. PLANS

1. Replace plan sheets 87**, 97, 102,** and **103** with the attached plan sheets **ADD. 87, ADD. 97, ADD. 102,** and **ADD. 103.**
2. Add attached plan sheets **ADD. 98A** and **ADD. 98B**.

ATTACHMENTS

Attached for your information:

1. Meeting minutes and attendance list from February 10, 2021 non-mandatory pre-bid conference.

2. HDOT Responses to Bidder Questions received as of February 15, 2021.

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.

JADE T. BUTAY
Director of Transportation

Make this section a part of the Standard Specifications:

"SECTION 652 – HORIZONTAL DIRECTIONAL DRILLING

652.01 Description. This work shall consist of furnishing and installing underground pipelines using the horizontal directional drilling (HDD) method of installation, also commonly referred to as directional boring or guided horizontal boring.

652.02 Materials. Materials shall be approved by the Engineer prior to use.

(A) HDD Pipe. HDD pipe shall be high density polyethylene (HDPE) pipe meeting the requirements of Subsection 706.10 High Density Polyethylene Pipe.

652.03 Construction The requirements set forth herein specify a wide range of procedural precautions necessary to ensure that the very basic, essential aspects of a proper directional bore installation are adequately controlled. Strict adherence is required under specifically covered conditions outlined in this specification. Adherence to the specifications contained herein, or the Engineer's approval of any aspect of any directional bore operation covered by this specifications, shall in no way relieve the Contractor of their ultimate responsibility for the satisfactory completion of the work authorized under the Contract**.**

(A) Qualification. HDD installer shall have demonstrated by previous experience ability to do the work. The required previous experience of the Contractor shall consist of having performed a minimum of five horizontal directional drill installations of 200 feet or more using 6" or greater diameter pipe. The Supervisor must have at least two years directional drilling experience. A competent and experienced supervisor representing the Drilling Contractor shall be present at all times during the drilling operations.

(B) Submittals

(1) Work Plan. Prior to beginning work, the Contractor shall submit to the Engineer a general work plan outlining the procedure and schedule to be used to execute the work. The work plan shall include a list of subcontractors, a safety plan, a traffic control plan, an environmental protection plan and contingency plans for possible problems.

(2) Equipment. The contractor shall submit specifications on all directional drilling equipment to be used to ensure that the equipment will be adequate to complete the work.

(3) Materials. Specifications on material to be used, including pipe and method(s) for joining pipe, shall be submitted to the Engineer.

(4) Qualifications. The Contractor shall submit information to verify that the HDD installer meets the required qualifications specified in

CONSTRUCTION – QUALIFICATION 652.03(A) of this Section. As part of the bid submission, include contact information of the responsible party for each installation listed.

(5) Detailed Bore Plan. Following completion of the required field exploratory work and prior to HDD installation, the Contractor shall submit for approval a detailed bore plan. At a minimum, the bore plan shall include pipe bell and barrel diameters, bore path inside diameter, entry and exit points of tangent and curvature, vertical radii, and the depth of the bore along the alignment.

(6) All submittals shall be in accordance with Section 105 Control of Work.

(C) Equipment Requirements.

(1) Work Included. The directional drilling equipment shall consist of a directional drilling rig of sufficient capacity to perform the bore and pull-back the pipe, a drilling fluid mixing and delivery system of sufficient capacity to successfully complete the work, a guidance system to accurately guide boring operations, and trained and competent personnel to operate the system. Equipment shall include a vacuum trailer to withdraw excess drilling fluid and a drilling fluid cleaning system truck for mixing and recycling bentonite. All equipment shall be in good, safe, operating condition with sufficient supplies, materials, and spare parts on hand to maintain the system in good working order for the duration of the work.

(2) Drilling System.

(a) Drilling Rig. The directional drilling machine shall consist of a hydraulically powered system to rotate, push, and pull hollow drill pipe into the ground at a variable angle while delivering a pressurized fluid mixture to a guidable drill (bore) head. The machine shall be anchored to the ground to withstand the pulling, pushing, and rotating pressure required to complete the crossing. The hydraulic power system shall be self-contained with sufficient pressure and volume to power drilling operations. The hydraulic system shall be free of leaks. The rig shall have a system to monitor and record maximum pull-back pressure during pull-back operations, and shall be grounded during drilling and pull back operations. There shall be a system to detect electrical current from the drill string and an audible alarm, which automatically sounds when an electrical current is detected.

(b) Drill Head. The drill head shall be steerable by changing its rotation and shall provide the necessary cutting surfaces and drilling fluid jets.

(c) Mud Motors. Mud motors (where required) shall be of adequate power to turn the required drilling tools.

(d) Drill Pipe. Drill pipe shall be constructed of high quality 4130 seamless tubing, Grade D or better, with threaded box and pins. Tool joints should be hardened to 32-36 RC. Submit certified statement that the drill pipe has been inspected and is in satisfactory condition for its intended use.

(3) Guidance System. The guidance system shall be of a proven type (walkover guidance systems are not acceptable for this project) and shall be set up and operated by personnel trained and experienced with the system. If using a magnetic system, the operator shall be aware of any magnetic anomalies and shall consider such influences in the operation of the guidance system. The guidance system shall be capable of knowing, at all times during the drilling operations, the exact location (vertical, horizontal, and degree of inclination) of the drill head. The guidance system shall be accurate to 2% of the vertical depth of the borehole at sensing position at depths up to one hundred feet and accurate within 1.5 meters horizontally.

(4) Drilling Fluid (Mud) System.

(a) Mixing System. A self-contained, closed, drilling fluid mixing system shall be of sufficient size to mix and deliver drilling fluid composed of bentonite clay, potable water, and appropriate additives. The mixing system shall be able to molecularly shear individual bentonite particles from the dry powder to avoid clumping and ensure thorough mixing. The drilling fluid reservoir tank shall be of sufficient size for the work. The mixing system shall continually agitate the drilling fluid during drilling operations.

(b) Drilling Fluid. Drilling fluid shall be composed of clean water and an appropriate additive. Water shall be from a clean source with a pH of 8.5-10. Water of lower pH or with excessive calcium shall be treated with the appropriate amount of sodium carbonate or equal. The water and additives shall be mixed thoroughly and be absent of any clumps or clods. No hazardous additives may be used. Drilling fluid shall be maintained at a viscosity sufficient to suspend cuttings and maintain the integrity of the bore wall. All materials, including any additives used to make up the drilling fluid, shall be approved by the Engineer prior to use.

(c) Delivery System. The mud pumping system shall have sufficient capacity and be capable of delivering the drilling fluid at a constant pressure to meet the needs of the work. The delivery system shall have filters in-line to prevent solids from being pumped into the drill pipe. Connections between the pump and drill pipe shall be relatively leak-free. Used drilling fluid and drilling fluid spilled during drilling operation shall be contained and properly disposed of. A berm, minimum of 12” high, shall be constructed and shall be maintained around drill rigs, drilling fluid mixing system, entry and exit pits, drilling fluid recycling system, and environment. Pumps and/or vacuum truck(s) or sufficient size shall be in

place to convey excess drilling fluid from containment areas to storage facilities.

(5) Other Equipment.

(a) Pipe Rollers. Pipe rollers, if required, shall be of sufficient size to fully support the weight of the pipe while being hydro-tested and during pull-back operations. Sufficient number of rollers shall be used to prevent excess sagging of pipe.

(b) Pipe Rammers. Hydraulic or pneumatic pipe rammers may only be used if necessary and with the authorization of Engineer.

(c) Restrictions. Other devices or utility placement systems for providing horizontal thrust other than those previously defined shall not be used unless approved by the Engineer prior to commencement of the work. Consideration for approval will be made on an individual basis for each specified location. The proposed device or system will be evaluated prior to approval or rejection on its potential ability to complete the utility placement satisfactorily without undue stoppage and to maintain line and grade within the tolerances prescribed by the particular conditions of the project.

(D) Construction Requirements.

(1) General. The Engineer must be notified 48 hours in advance of starting work. The directional bore shall not begin until the Engineer is present at the job site and agrees that proper preparations for the operation have been made. The Engineer approval for beginning the installation shall in no way relieve the Contractor of the ultimate responsibility for the satisfactory completion of the work as authorized under the Contract. The Contractor is responsible for damages to utilities and repairs for such damages, at no cost to the State.

(2) Personnel. All personnel shall be fully trained in their respective duties as part of the directional drilling crew and in safety.

(3) Drilling Procedure.

(a) Site Preparation. Prior to any alterations to the work site, the Contractor shall photograph or video the entire work area, including entry and exit points, one copy of which shall be provided to the Engineer and one copy to remain with the Contractor for a period of 1 year following the completion of the project.

Work site, as indicated on the Plans, within right-of-way, shall be graded or filled to provide a level working area. The Contractor is responsible for design and construction of the drill entrance and exit pits. No alterations

beyond what is required for operations are to be made. The Contractor shall confine all activities to designated work areas.

Prior to anchoring the drill rig to the ground, the Contractor shall confirm locations of all underground utilities in the area of the drilling rig.

(b) Drill Path Survey. The entire drill path shall be accurately surveyed, with entry and exit stakes placed in the appropriate locations within the areas indicated on the Plans. If the Contractor is using a magnetic guidance system, the drill path will be surveyed for any surface geo-magnetic variations or anomalies.

(c) Environmental Protection. The Contractor shall place silt fence between all drilling operations and any drainage, wetland, waterway, or other area designated for such protection by the Contract Documents or state, federal, and local regulations. Additional environmental protection necessary to contain any hydraulic or drilling fluid spills shall be put in place, including berms, liners, turbidity curtains, and other measures. Disposal of fluids is the responsibility of the Contractor. The Contractor shall adhere to all applicable environmental regulations. Fuel or oil may not be stored in bulk containers within 200 feet of any water body or wetland.

(d) Safety. The Contractor shall adhere to all applicable state, federal, and local safety regulations and all operations shall be conducted in a safe manner. Safety meetings shall be conducted at least weekly written record of attendance and topic submitted to the Engineer.

(e) Pilot Hole. The pilot hole shall be drilled on the bore path with no deviations greater than 5% of depth over a length of 100 feet. In the event the pilot hole does deviate from the bore path more than 5% of depth in 100', the Contractor will notify the Engineer and the Engineer may require the Contractor to pull-back and re-drill from the location along the bore path before deviation.

In the event that a drilling fluid fracture, inadvertent returns, or returns loss occurs during pilot hole drilling operations, the Contractor shall cease drilling, wait at least 30 minutes, inject a quantity of drilling fluid with a viscosity exceeding 120 seconds as measured by a March funnel, and then wait another 30 minutes. If mud fracture or returns loss continues, the Contractor will cease operations and notify the Engineer. The Engineer and the Contractor will discuss additional options and work will then proceed accordingly. Return the surface area to its original condition.

(f) Reaming. Upon successful completion of the pilot hole, the Contractor will ream the bore hole to a minimum of 25% greater than the outside diameter of the pipe using the appropriate tools. The Contractor

will not attempt to ream at one time more than the drilling equipment and mud system are designed to safely handle.

(g) Pull-Back. After successfully reaming the bore hole to the required diameter, the Contractor will pull the pipe through the bore hole. Pipe lengths shall be connected together in one length, if space permits. Pipe shall be placed on rollers with rollers spaced close enough to prevent excessive sagging of pipe. In front of the pipe will be a swivel. Once pull-back operations have commenced, operations must continue without interruption until the pipe is completely pulled into the bore hole. During pull-back operations, the Contractor will not apply more than the pipe manufacturer's maximum safe pipe pull pressure at any time. In the event that the pipe becomes stuck, the Contractor will cease pulling operations to allow any potential hydro-lock to subside and will commence pulling operations. If the pipe remains stuck, the Contractor will notify the Engineer. The Engineer and the Contractor will discuss options and then work will proceed accordingly.

(h) Inlet Grouting. Upon completion of installation, the excess pipe shall be removed, and the bore hole shall be filled with flowable fill or cement grout as directed by the Engineer.

(E) Site Restoration. Following drilling operations, the Contractor will de-mobilize equipment and restore the work-site to original condition. All excavations will be backfilled and compacted to 95% of the maximum dry unit weight determined in accordance with AASHTO T 180. Landscaping will be restored to original to the satisfaction of the Engineer.

(F) Record Keeping, As-Builts. The Contractor shall maintain a daily project log of drill operations and a guidance system log with a copy given to the Engineer at completion of the work. As-built drawings shall be certified as to accuracy by the Contractor.

652.04 Method of Measurement. The Engineer will measure Horizontal Directional Drilling per linear foot of pipe installed, as measured along the flow line of the pipe in accordance with the contract documents.

652.05 Basis of Payment. The Engineer will pay for Horizontal Directional Drilling per linear foot. Payment shall be full compensation for furnishing all labor, tools, equipment, and materials; for excavation, sheeting and bracing, de-watering, and back-fulling; for furnishing and installing the HDD pipe and carrier pipe utilizing horizontal directional boring method of installation; for furnishing and installing pipe spacers and end seals; for restoration of physical features; and for all work required for a complete installation of the highway crossing including clearing, grubbing, erosion control, excavation, excavation support, dewatering, drilling, removal of tailings, backfilling, compaction, and flushing; for preparing and furnishing required submittals, reports, and as-built drawings; and for furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the work.

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

Pay Item	**Pay Unit**
Horizontal Directional Drilling	Linear Feet”

END OF SECTION 652

PROPOSAL TO THE

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

PROJECT: **Moanalua Freeway**
Highway Lighting Improvements
Halawa Heights On-ramp to Middle Street Overpass

PROJECT NO.: **NH-H201(005) PHASE 2**

COMPLETION TIME:
(Base Bid + Additive Alternate #1)
275 Working days from the date indicated in the Start Work from the Department (Includes 80 working days for Startup, Mobilization, Shop Drawing Submittals, Planning, and Permitting). No night work allowed between September 15 through December 15.

DBE PROJECT GOAL: **12.8%**

DESIGN PROJECT MANAGER:

NAME: **Steven Yoshida**
ADDRESS: **601 Kamokila Boulevard, Room 602**
Kapolei, Hawaii 96707
PHONE NO.: **(808) 692-7679**
FAX NO.: **(808) 692-7690**

PRE-BID CONFERENCE MINUTES

Project: Moanalua Freeway, Highway Lighting Improvements, Halawa Heights Off-ramp to Middle Street Overpass, Phase 2
Federal-aid Project No. NH-H201(005) Phase 2

Subject: Non-mandatory Pre-bid Conference

Date/Time: February 10, 2021 at 10:00 AM

Held: Virtual Meeting via Microsoft Teams

Present: See attached lists of attendees

Discussed:

A. Steven Yoshida introduced himself as the design project manager.

B. Steven Yoshida opens meeting at 10:05 A.M. after waiting to see of others will show. The following is to be announced once the meeting began:

   1. Pre-bid conference is non-mandatory and is intended for clarification prior to bidding.

   2. Announcement: “Anything said at this meeting is for clarification only, the bid documents shall govern over anything said today and discrepancies shall be clarified by addendum.”

   3. All requests for information (RFI) shall be received in writing via HIePRO no less than 14 calendar days before bid opening, which is on February 15, 2021 at 2:00 PM. Questions received after the deadline will not be addressed. Verbal requests for information will not receive a response.

   4. The minutes to this meeting and the attendance sheet will be distributed by addendum prior to bid opening.

   5. A Community Noise Control Variances is being secured for this project from the Department of Health.

C. Deadline to submit bids is - Bid Opening Day, until 2:00 P.M. Hawaii Standard Time (HST), March 2, 2021. Bids received after said due date and time shall not be considered.

D. State of Hawaii, Department of Transportation, (HDOT) DBE Program announcements. See attached.

E. Open discussion with prospective bidder:

   No questions received from the attending perspective bidders.

F. Added comment from the designer:

Pre-bid RFI received regarding reducing the directional drilling qualifications requirement from 500 ft to 200 ft because all the drilling distances in these projects are between 100 and 150 ft. HDOT is considering the request.

Meeting Adjourned at 10:20 A.M.

Prepared by: Steven Yoshida

State of Hawaii, Dept. of Transportation – Administration Division (HDOT OCR)
Disadvantaged Business Enterprises (DBE) Program

Pre – Bid Meeting – 2-10-21
Moanalua Freeway, Highway Lighting Improvements, Halawa Heights Off-ramp to Middle Street Overpass, Phase 2Project No. NH-H201(005)

Policy of the State of Hawaii, Department of Transportation's (HDOT) DBE Program:

To ensure equal opportunity and non-discrimination in the award and administration of United States DOT-assisted contracts. Contractors shall take all necessary and reasonable steps in accordance with the regulations (49 CFR, Part 26) to ensure that DBE's have an equal opportunity to compete for and perform on contracts.

DBE Goal for this project: **12.8%**

- ❒ Document every discussion, phone call, fax or memo relating to your efforts in meeting the DBE goal.

Responsible bidder must provide – refer to DBE Requirements

- Copies or faxes of all "Confirmation by DBE" forms signed by each DBE listed in the proposal shall be submitted to the Project Manager listed in the proposal five (5) days after bid opening. Information to be provided on the form shall include the name of the DBE, address, project name and number, prime contractor name, appropriate NAICS code and description of the type of work the DBE is certified to perform under this contract.

- The dollar amount of each subcontract (both DBE and non-DBE firms) for all subcontractors, manufacturers and suppliers listed in the proposal shall be submitted within five (5) calendar days of bid opening. Please note that once a DBE subcontractor, manufacturer, supplier, trucking firm/company and/or service provider is listed in your proposal, you are committed to those firms for the project. The Office of Civil Rights will monitor these commitments.

- If the contract goal is not met, documentation of good faith efforts including quotations for both DBE and non-DBE subcontractors when a non-DBE is selected over a DBE for the project, shall be submitted five (5) calendar days after bid opening. Even if you feel you may have met the DBE goal, a best practice you may want to consider is to submit your good faith efforts within five (5) calendar dates after bid opening, in case there was an error in goal calculation. This preventative measure will ensure your bid will be reviewed.

- Refer to DBE Requirements section in the bid documents and pay special attention to VIII. Demonstration of Good Faith Efforts for Contract Award, which summarizes the kinds of efforts that will be considered demonstrative of good faith efforts.

- DBE contract goal percentage = Contract Dollar Value of the work to be performed by DBE subcontractors and manufacturers, plus 60% of the contract dollar value of DBE suppliers (less mobilization, force account items, and allowance items), divided by the sum of all contract items (sum of all contract items is the total amount for comparison of bids less mobilization, force account items, and allowance items).

- All federally funded projects awarded after October 1, 2017 are required to use the B2GNow program, an online payment tracking system. This project will be required to use the B2GNow program. HDOT OCR will work with the Project Engineer and selected prime to get the contract information to create a contract record for the project.

- BIDDER REGISTRATION FORM. All firms bidding or quoting on DOT projects, including vendors, subcontractors, manufacturers, truckers, etc., must register as a bidder. Certified DBEs are automatically registered as a bidder with the HDOT.
  Bidder Registration Form can be found at:
  https://hidot.hawaii.gov/administration/files/2019/03/Bidder-Registration-Fillable-Form.pdf

- Checking the DBE Directory online at: https://hdot.dbesystem.com/or calling Daniel Williams, DBE Program Supervisor at (808) 831-7914 or email: daniel.k.williams@hawaii.gov.

- ❒ Questions regarding HDOT DBE requirements, may be referred to Daniel Williams, DBE Program Supervisor, at (808) 831-7914 or email: daniel.k.williams@hawaii.gov.

PRE-BID CONFERENCE ATTENDANCE LIST

PROJECT NO.: NH-H201(005) Phase 2 PROJECT NAME: MOANALUA FREEWAY, HIGHWAY LIGHTING IMPROVEMENTS, HALAWA HEIGHTS OFF-RAMP TO MIDDLE STREET OVERPASS, PHASE 2

DATE: FEBRUARY 10, 2021 TIME: 10:00 AM LOCATION: VIRTUAL VIA MICROSOFT TEAMS

CALLED BY: STEVEN YOSHIDA, HDOT DESIGN PROJECT MANAGER

PLEASE PRINT

PARTICIPANTS	COMPANY / ORGANIZATION
1. Steven Yoshida	State of Hawaii, Department of Transportation
2. Daniel Williams	State of Hawaii, Department of Transportation
3. Karen Awana	State of Hawaii, Department of Transportation
4. William Rapisura	State of Hawaii, Department of Transportation
5. Calvin Hisatake	State of Hawaii, Department of Transportation
6. Glenn Oyama	Nakamura, Oyama and Associates
7. Craig Oyama	Nakamura, Oyama and Associates
8. Brett Kuamoo	Wilson Okamoto Corporation
9. Mike Hunneman	Kai Hawaii
10. Bryan Lum	Kai Hawaii
11. Gafatasi Muafono	Aloha Roadway Services
12. Ed Shukri	Nan Inc.

Questions from Bidders with HDOT Reponses for solicitation: B21001223 Moanalua Freeway, Highway Lighting Improvements, Halawa Heights Off-Ramp to Middle Street Overpass FAP No. NH-H201(005) Phase 2

Question 1. Under Qualification for the HDD installer: Can the requirement of a minimum of five horizontal directional drill installations of 500 feet or more be changed to 200 feet or more. The drill installations are very short for this project.

HDOT Response: The Special Provisions, Subsection 652.03, has been revised has been revised to address this request.

Question 2. Due to the numerous bids we have at this time would it be possible to postpone the bid a week or two?

HDOT Response: Due to scheduling commitments, HDOT does not intend to postpone the bid opening.

Question 3. Please confirm all ITS conduit is to be installed for future use as empty conduit only.

HDOT Response: All ITS conduits are installed for future use only and each conduit to provide a pull string.

Question 4. Please confirm SL and comm. pullboxes in bridge barrier rail referenced on Sheet 3.1 are to be paid for under BI 503.0130.

HDOT Response: Yes, that is correct.

Question 5. Per Detail 5 on Sheet S6.1, please confirm all existing light pole foundations are to remain.

HDOT Response: Yes, that is correct.

Question 6. The contract drawings (Sheet S1.2 and E-12) call out LP58 as a Type 4A median barrier reconstruction. The Proposal Schedule calls for LP58 to be paid for as a sign post median barrier reconstruction under BI 503.0140. Please advise what detail LP58 should be constructed as and what bid item LP58 should be paid for under.

HDOT Response: Added Section detail 5 on ADD. 97 (S5.6) and new sheets ADD. 98A (S5.8) and ADD. 98B (S5.9)have been added to aid in the construction of LP58. Bid Item 503.0140 includes the cost for only the median work around the sign pole and new LP58. The cost for LP58 will still need the drilled shaft (511.0200) and related work (i.e. 511.0300, 511.0400, etc.) per Plan Sheet 84 (S1.6).

Questions from Bidders with HDOT Reponses for solicitation: B21001223
Moanalua Freeway, Highway Lighting Improvements, Halawa Heights Off-Ramp to Middle Street Overpass
FAP No. NH-H201(005) Phase 2

Question 7. Please confirm the concrete sidewalk planter cap (Sheet E-1, Note 19) is to be constructed as 4" of Class A concrete with welded wire fabric on 4" of base course per Standard Specification 634.

HDOT Response: Yes, that is correct. Sheet E-1 Note 19 will be revised to call for the welded wire fabric per Standard Specification 634.