STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ADDENDUM NO. 1

FOR

KALANIANAOLE HIGHWAY DRAINAGE IMPROVEMENTS

VICINITY OF KEOLU HILLS

FEDERAL-AID PROJECT NO. DE-072-1(48)R

DISTRICT OF KOOLAUPOKO

ISLAND OF OAHU

FY 2006

Amend the bid documents as follows:

A. SPECIAL PROVISIONS

1. Replace Section 653 – Concrete Culvert Lining dated 4/22/05 with the attached Section 653 – Concrete Culvert Lining dated 8/15/05.

B. PLANS

1. Replace Plan Sheet No. 12 with the attached Plan Sheet No. ADD 12.

C. PRE-BID MEETING

Attached are the "Minutes for Pre-Bid Meeting" and Pre-Bid Meeting Attendance Sheet for your information.

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.

for RODNEY K. HARAGA
Director of Transportation

Make the following Section a part of the Standard Specifications

"SECTION 653 – CONCRETE CULVERT LINING

653.01 Description. This section describes repairing damaged culvert surface; grouting voids beneath existing culvert invert; and constructing reinforced concrete lining.

653.02 Materials.

(A) Portland Cement Concrete. Concrete for concrete culvert lining shall have a minimum 28-day strength, f_c of 4,000 psi and shall conform to the requirements of Section 601 - Structural Concrete. The Contractor shall proportion the concrete lining mix to provide a workable mix of uniform composition and consistency. Use coarse aggregate no. 67 (3/4 inch to No. 4). The total free water shall not exceed 285 pounds per cubic yard of concrete and the water cement ratio shall not exceed 0.45. The slump of concrete shall be 3 to 5 inches. Use water-reducing, water-reducing and retarding, or high range water reducing admixtures as needed to achieve the desired slump and workability. No water shall be added at the jobsite.

B) Other Materials. Other materials shall conform to the following:

Portland Cement	701.01
Fine Aggregate for Concrete	703.01
Water	712.01
Angle Iron	713.01
Welded Wire Fabric Reinforcement	709.01 (C)
Emulsified Asphalt Coating	ASTM D 1227 Type IV
Epoxy	ASTM C881, Type II or V, Grade 2, Class C

653.03 Construction Requirements. Work shall be done in increments of 50 linear feet or less.

Consult with a Geotechnical Engineer, licensed to practice in the State of Hawaii, to determine the bracing required and ensure stability of the culvert. Install the increment's bracing prior to commencing culvert cleaning within the increment. The bracing shall remain in place for not less than 72 hours after the concrete lining has been poured.

Remove and dispose of dirt, rust, scale, and other loose materials from

interior of culvert. Cut, remove, and dispose of corroded sections as ordered by the Engineer.

Weld 3/16-inch thick, 2-inches in height by 2-inches in width by 1-foot long angle irons to the crest of the corrugations of the culvert at two-feet on-center, longitudinally.

Place the welded wire fabric steel reinforcement, two-inches above the crest of the corrugations by laying on the angle irons. Lap welded wire fabric a minimum of six-inches.

Prior to installing angle irons and welded wire fabric, the Engineer will inspect and accept the prepared culvert surface.

Apply epoxy-bonding agent after cleaning metal surface, just before concrete placement. Clean culvert surface 12 inches above limits of epoxy bonding agent by hydrowashing with minimum water pressure of 5,000 pounds per square inch. Remove excess bonding agent that collects in the pockets. Epoxy bonding agent shall be tacky when concrete is placed.

Repair damage to welded wire fabric and angle irons that occur during concrete placement at no increase in contract price and contract time. Trowel concrete to form a smooth, dense surface finish. Fill voids beneath culvert invert with concrete. Score concrete culvert lining 1/8-inch wide, 1-inch deep laterally, at 10 feet on-center. If the Contractor chooses to score by sawcutting, sawcut between four to eight hours after concrete is placed.

Cure concrete in accordance with Subsection 503.03 (L) - Curing Methods. Allow concrete placed in the culvert to cure for a minimum of 48 hours before allowing water to flow through culvert.

After concrete has cured and has been scored laterally, apply two coats of emulsified asphalt to both edges of lining and to the 3/4-inch scores. Clean metal and concrete surfaces to be coated. Asphalt coating at edge of lining shall be 6-inches wide along length of culvert lining. Finished coating shall be a continuous film, free of voids, gaps, or pin holes.

653.04 Method of Measurement.

(1) Concrete culvert lining will be paid on a lump sum basis. Measurement for payment will not apply.

(2) The Engineer will measure removal of damaged culvert sections per square yard in accordance with the contract documents.

(3) The Engineer will measure concrete placed beneath culvert invert per cubic yard in accordance with the contract documents.

653.05 Basis of Payment. The Engineer will pay for the accepted pay items listed below at the contract price per pay unit, as shown in the proposal schedule. Payment will be full compensation for the work prescribed in this section and the contract documents.

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

Pay Item	Pay Unit
Concrete Culvert Lining for _____ - Inch Culvert	Lump Sum
Removal of Damaged Culvert Sections	Square Yard

The Engineer will pay for:

(1) 80 percent of the contract bid price upon completion of removing the damaged culvert sections

(2) 20 percent of the contract bid price upon completion of disposing the damaged culvert sections.

Concrete Placed Beneath Culvert Invert	Cubic Yard

The Engineer will pay for:

(1) 80 percent of the contract bid price upon completion of placing the concrete.

(2) 20 percent of the contract bid price when tests of the material are found acceptable.

END OF SECTION 653

MINUTES FOR PRE-BID MEETING

PROJECT: Kalanianaole Highway Drainage Improvements, Vicinity of Keolu Hills

PROJECT NO.: DE-072-1(48)R

LOCATION: 601 Kamokila Blvd. Room #611
DATE & TIME: August 17, 2005 at 9:00 A.M.

IN ATTENDANCE:

Bryan Toda	DOT, Hydraulic Design
Kevin Kasamoto	DOT, Hydraulic Design
James Fu	DOT, Bridge Design
Bruce Shimokawa	DOT, Rights-of-Way
Wes Nakamura	Okada Trucking
Kristen Lee	Hawaiian Dredging
Wayne Okimoto	Hawaiian Dredging
Liza Pope	Thurston - Pacific

The meeting began with introductions. A brief overview of the scope of work was given by Project Engineer Bryan Toda.

It was noted that there will be an addendum to the plans and specifications. Plan sheet No. 12 and Section 653 – Concrete Culvert Lining of the Special Provisions will be replaced to reflect revisions.

The following questions were asked at the meeting:

Question #1: Are there any special requirements regarding the existing overhead utility line along Kalanianaole Highway near the location of the proposed spillway?
Response: Contractor shall be responsible for locating all existing utilities in the field and bidding accordingly. (See Plan Sheet No. 6, Drainage Note No. 2)

Question #2: Can the existing guardrail be removed for construction?
Response: Contractor is responsible for submitting a Traffic Control Plan to be approved by the Engineer. The plan shall address protection of areas exposed by removal of guardrail.

The meeting was adjourned with no further questions.

The following questions were submitted separately by phone:

Question #1: Can guardrail be removed and shoulder be used for construction staging?
Response: Construction parcels as shown on the plans shall be used.

Question #2: Is the Contractor responsible for removing existing trees in the path of the proposed concrete spillway?
Response: Concrete spillway shall be constructed to avoid disturbance of existing trees.

HIGHWAYS DIVISION
PRE-BID MEETING ATTENDANCE

PROJECT: Kalanianaole Highway Drainage Improvements, Vicinity of Keolu Hills

PROJECT NO.: DE-072-1(48)R

LOCATION: 601 Kamokila Blvd. Room #611
DATE & TIME: August 16, 2005 at 9:00 A.M.

NAME	COMPANY	BUSINESS #	FAX #
KRISTEN LEE	HDCC	483-4270	483-4274
Wayne Okimoto	HDCC	483-4270	483-4274
WESLEY NAKAMURA	OKADA TRUCKING	841-0138	847-4993
Bruce Shimokawa	HWY-R	692-7333	
JAMES FU	HWY-DB	692-7613	692-7617
KAIN KAGAWA	HWY-DH	692-7563	" "
Bryan Toda	HWY-DH	692-7565	" "
Lize Pope	Thurston-Pacific	8418585	8431517