STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ADDENDUM NO. 1

FOR

Kula Highway Pavement Preventive Maintenance
Thompson Road towards Ulupalakua

PROJECT NO. 37E-01-12M

DISTRICT OF MAKAWAO

ISLAND OF MAUI

FY 2012

Amend the bid documents as follows:

A. NOTICE TO BIDDERS

1. Revise the third paragraph on page NB-1 to read as follows:

   "The project includes cold planning, reconstruction weakened pavement areas, resurfacing of existing pavement, striping and installing pavement markings and signing, application of longitudinal joint stabilizer and adjusting survey monuments. Estimated construction cost is $ 1 million and $ 5 million."

B. TABLE OF CONTENTS

1. Replace entire TOC dated 8/22/11 with the attached TOC dated r3/12/12.

C. PROPOSAL SCHEDULE

1. Replace page P-10 thru P-12 dated 12/1/11 with the attached page P-10 thru P-12 dated r3/12/12

D. SPECIFICATIONS

1. Add pages 412-1a thru 412-4a dated 3/16/12

E. PLANS

1. Replace Plan Sheet No.7 with attached Plan Sheet No. ADD 7.

E. PRE-BID MEETING

1. Sign-in sheet (attached)

2 .Meeting minutes (attached)

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.

GLENN M. OKIMOTO, Ph.D.
Director of Transportation

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PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
209.1000	Installation, Maintenance, Monitoring, and Removal of BMP	L.S.	L.S.	L.S.	$
209.2000	Additional Water Pollution, Dust, and Erosion Control	F.A.	F.A.	F.A.	$ 5,000.00
312.0100	Hot Mix Glassphalt Base Course	100	Tons	$	$
401.0100	Hot Mix Asphalt (HMA) Pavement, Mix No. IV	4,827	Tons	$	$
412.0100	Longitudinal Joint Stabilizer	43,296	Sq. Ft.	$	$
414.0100	Excavation of Weakened Pavement	45	C.Y.	$	$
415.0100	Cold Planing	L.S.	L.S.	L.S.	$
613.0100	Adjusting Reference Survey Monument	1	Each	$	$
629.1010	4 - Inch Pavement Striping (Tape, Type II or Thermo-plastic Extrusion) White	L.S.	L.S.	L.S.	$
629.1012	12 - Inch Pavement Striping (Tape, Type II or Thermo-plastic Extrusion) White	L.S.	L.S.	L.S.	$
629.1013	4 - Inch Double Solid Yellow Pavement Striping (Tape, Type I or Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$
629.2010	Type "C" Pavement Marker	L.S.	L.S.	L.S.	$
629.2020	Type "D" Pavement Marker	L.S.	L.S.	L.S.	$

Addendum No. 1

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
630.0200	Type "A" Route Marker Assembly with Post	L.S.	L.S.	L.S.	$ _____
630.0300	Type "A" Route Marker Assembly without Post	L.S.	L.S.	L.S.	$ _____
631.3000	Regulatory Sign (10 Sq. Ft. or Less) with post (12 Each)	L.S.	L.S.	L.S.	$ _____
631.3100	Regulatory Sign (more than 10 Sq. Ft.) with post (1 Each)	L.S.	L.S.	L.S.	$ _____
631.3200	Warning Sign (10 Sq. Ft. or less) with post (119 Each)	L.S.	L.S.	L.S.	$ _____
631.3300	Warning Sign (10 Sq. Ft. or less) without post (14 Each)	L.S.	L.S.	L.S.	$ _____
631.4000	Reflector Marker (RM-3) with post (44 Each)	L.S.	L.S.	L.S.	$ _____
631.4100	Reflector Marker (RM-4) with post (8 Each)	L.S.	L.S.	L.S.	$ _____
631.4200	Reflector Marker (Type II Object Marker)with post (42 Each)	L.S.	L.S.	L.S.	$ _____
631.4300	Reflector Marker (Type II Object Marker)without post(264 Each)	L.S.	L.S.	L.S.	$ _____
631.4400	Reflector Marker (RM-5) with post (379 Each)	L.S.	L.S.	L.S.	$ _____
632.7610	Mile Post Marker and Supplemental Route Number Plate (Bi-Directional) with post (7 Each)	L.S.	L.S.	L.S.	$ _____
632.7620	Mile Post Marker and Supplemental Route Number Plate (Bi-Directional) without post(2 Each)	L.S.	L.S.	L.S.	$ _____

Addendum No. 1

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
643.0100	Maintenance of Existing Landscaped Areas	F.A.	F.A.	F.A.	$ 32,000.00
645.0200	Traffic Control	L.S.	L.S.	L.S.	$
645.2100	Additional Police Officers, Additional Traffic Control Devices, And Advertisement	F.A.	F.A.	F.A.	$ 20,000.00
648.0100	Field-Posted Drawings	L.S.	L.S.	L.S.	$
696.0000	Field Office Trailer (Not to Exceed $32,000.00)	L.S.	L.S.	L.S.	$
696.2000	Maintenance of Trailers	F.A.	F.A.	F.A.	$ 10,000.00
699.1000	Mobilization (Not to exceed 6% of the Sum of all items excluding the bid price of this item)	L.S.	L.S.	L.S.	$

Sum of All Items $ _____

NOTE: Bidders must complete all unit prices and amounts. Failure to do so may be grounds for rejection of bid.

Add Section 412 – Longitudinal Joint Stabilization:

"**SECTION 412 – LONGITUDINAL JOINT STABILIZATION**

412.01 Description. This work includes furnishing and placing longitudinal joint stabilizer on hot mix asphalt concrete pavements.

412.02 Material. The longitudinal joint stabilizer shall meet the following:

The longitudinal joint stabilizer shall be polymerized cationic emulsion composed of a maltene petroleum resin oil base and SBR co-polymer uniformly emulsified with water.

Emulsion	Test Method	Requirements Min	Max
Residue, % W[1]	ASTM D 244 (Mod)	39	44
Miscibility[2]	ASTM D 244 (Mod)	No Coagulation	
Particle Charge	ASTM D 244	Positive	
Residue from Distillation			
Flash Point, COC °C	ASTM D 92	200	-
Viscosity @ 60°C, cSt	ASTM D 445	100	200
Asphaltenes, %w	ASTM D 2006-70	-	1.00
Maltene Dist. Ratio	ASTM D 2006-70	0.2	0.8
$\frac{PC + A_1}{S + A_2}$[5]			
PC/S Ratio[5]	D 2006-70	0.5	-
Saturated Hydrocarbons, S[5]	D 2006-70	21	28
Polymer			
Charge		Positive	
Monomer Ratio, Butadiene/Styrene		76/24	
Solids Content, percent by weight		63	
Coagulum on 80 mesh screen			
Maximum percent by weight		0.1	
Mooney Viscosity of Polymer			
(ML 4 @ 212°F) minimum		100	
pH of Polymer		5.0	
Weight per gallon			
Wet pounds @ 63% solids content		7.94	

[1] ASTM D 244 Evaporation test for percent of residue is made by heating 100 gram sample to 149°C (300°F) until foaming ceases, then cool immediately and calculate results.

[2] Test procedure identical with ASTM D 244 except that .02 Normal Calcium

Chloride solution shall be used in place of distilled water.

[5] Chemical composition by ASTM D 2006-70
PC = Polar Compounds A_1 = First Acidaffins A_2 = Second Acidaffins
S = Saturated Hydrocarbons

Submit certificate of compliance for longitudinal joint stabilizer accompanied by substantiating test data.

412.03 Construction.

(A) Test Strip. Prior to production, spread longitudinal joint stabilizer at various application rates between 0.07 to 0.25 gallons per square yard to determine the rate of application where the longitudinal joint stabilizer has the capability to fully penetrate the asphalt pavement surface and be absorbed within 30 minutes of application. No surface coating shall remain within 30 minutes of application. Apply longitudinal joint stabilizer under typical project environmental conditions at a test strip location determined by the Engineer. Manufacturer's representative shall be present for determination of application rate.

(B) Weather Limitations. Application of longitudinal joint stabilizer will not be allowed under the following conditions:

(1) On wet surfaces, as determined by the Engineer.

(2) When surface temperature is below 40 degrees Fahrenheit.

(3) When weather conditions prevent proper method of construction.

(C) Equipment.

(1) General. Keep equipment, tools, and machinery clean and maintained in satisfactory condition.

(2) Longitudinal Joint Stabilizer Application Equipment. Use a self-propelled distributor truck with pneumatic tires or other approved applicator to spread the longitudinal joint stabilizer. The distributor truck or applicator shall be designed and equipped to distribute the longitudinal joint stabilizer uniformly on variable widths of surface at readily determined and controlled rates from 0.07 to 0.25 gallons per square yard of surface. Variation from any specified rate shall not exceed five percent.

Distributor truck or applicator shall include full circulation spray bars, pump tachometer, volume measuring device and a hand hose attachment suitable for applying longitudinal joint stabilizer manually

to cover areas inaccessible to the distributor. The application of the longitudinal joint stabilizer shall be controlled by a computerized control system that maintains a constant application rate regardless of the forward speed of the distributor unit. The distributor truck or applicator shall be equipped to circulate and agitate the joint stabilizer within the tank.

Check distributor equipment, accuracy of application rate and distribution uniformity when directed by the Engineer.

(3) Sand Application Equipment. Use a truck equipped with a spreader that allows the sand to be uniformly distributed on the pavement. The spreader shall be adjustable so as to accommodate various treatment widths.

(D) Application of Longitudinal Joint Stabilizer. Whenever practical, apply the longitudinal joint stabilizer within 24 hours of completion of the pavement section and before the pavement is opened to traffic. Apply the longitudinal joint stabilizer at the temperature recommended by the manufacturer and at the pressure required for proper distribution so all points of the area to be treated receive uniform distribution. Commence distribution with a running start to ensure full rate of spread over the entire area to be treated. Areas inaccessible to the distributor or inadvertently missed shall receive additional treatment by hand sprayer application.

Grades or super elevations that may cause excessive runoff shall have the required amounts of longitudinal joint stabilizer applied in two applications. Where more than one application is to be made, apply succeeding applications as directed by the Engineer once penetration of the preceding application is complete.

(E) Application of Sand. If a significant amount of longitudinal joint stabilizer residue remains on the surface of the treated area after a 30 minute period or if blotting of misapplied joint stabilizer is required, apply a light coating of dry sand to the surface. Sweep and remove sand prior to opening the area to traffic.

412.04 Measurement. The Engineer will measure longitudinal joint stabilizer per square foot in accordance with the contract documents.

412.05 Payment. The Engineer will pay for the accepted longitudinal joint stabilizer at the contract unit price basis, 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 the following pay item when included in the proposal schedule:

Pay Item	Pay Unit
Longitudinal Joint Stabilizer	Square Foot

The Engineer will pay 100 percent of the contract bid price upon completion of the longitudinal joint stabilizer application."

END OF SECTION 412

Minutes of Pre-bid Meeting

Project: **Kula Highway Pavement Preventive Maintenance Thompson Road Thompson Road towards Ulupalakua**

Project No. 37E-01-12M

1. Pre-Bid meeting was held on March 12, 2012 at 11:00 AM at the Maui District Conference Room at 650 Palapala Drive, Kahului. The participants were:
   Alejandro Reboron – DOT
   Crisanto Ragasa – DOT
   David Ortega – Maui Paving
   Brett Ueno – Maui Master Builders
   Imelda Mawae – JMPaving

2. Scope of work was discussed and then opened floor for discussions.

3. Informed the contractors that there will be an additional item in the proposal and a typical section will be added in the project plans for "Longitudinal JointStabilizer". This will be included in **Addendum No.1**

4. Meeting was adjourned @ 11:15 AM.

Respectfully Submitted,

Alejandro Reboron
Design Engineer

SIGN IN SHEET – PRE-BID MEETING

March 12, 2012, @11:00 AM
MAUI DISTRICT OFFICE

Project: Kula Highway Pavement Preventive Maintenance,
Thompson Road towards Ulupalakua
Project No. 37E-01-12M

NAME	COMPANY	PH. NO./FAX	E-MAIL
1. Alejandro Reboron	DOT	873-3535/873-3544	Alejandro.S.Reboron @hawaii.gov.
2. David Ortega	Maui Paving,	877-2755	dortega@grayspielbiz.corp.com
3. Brett Uno	Maui Master Builders	269-2207	brettuno@gmail.com
4. Imelda Manae	JM Paving	870-4098	awljag@gmail.com.
5. CRIS RAGASA	DOT	873-3374	CRISMID.RAGASA@HAWAII.COM
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