STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ADDENDUM NO. 1
FOR
INTERSTATE ROUTE H-1 ZIPPER LANE EXTENSION
RADFORD DRIVE OVERPASS TO KEEHI INTERCHANGE
FEDERAL AID INTERSTATE PROJECT NO. NH-H1-1(246)
DISTRICT OF HONOLULU
ISLAND OF OAHU
FY 2004

Amend the Bid Documents as follows:

1. TABLE OF CONTENTS

a. Replace page 2 dated 3/10/04 with the attached page 2 dated r6/17/04.

2. SPECIAL PROVISIONS

a. Revise the fifth paragraph on page 104-5a to read "The Engineer will permit the Contractor to close only one lane of traffic in each direction during its working hours. For installation of cantilever sign structures, the Contractor will be permitted to close two lanes of traffic in the direction of the cantilever sign structure and one lane in the opposing direction."

b. Add the following at the end of 621.03(D) Expressway and Destination Signs on page 621-6a.

"Assemble and install the blank-out signs for HOV expressway signs DS-1, DS-2 and R-7 according to the requirements in Section 657 – Blank-out signs (LED) and the manufacturer's instructions.

Assemble and install flashing beacon with integral controller for HOV expressway signs WS-6a, WS-6b and WS-6c according to the manufacturer's instructions and requirements."

c. The attached Section 657 – Blank-Out Signs (LED), pages 657-1a to 657-5a dated 6/8/04 shall be incorporated and made a part of the Special Provisions.

3. PROPOSAL SCHEDULE

a. Replace page P-1 dated 1/22/04 with the attached page P-1 dated r6/17/04.

b. Replace page P-9 dated 3/1/04 with the attached page P-9 dated r6/17/04.

4. PLANS

a. Replace Plan Sheet Nos. 49, 50, 51 and 52 with the attached Plan Sheet Nos. ADD.49, ADD.50, ADD.51 and ADD.52.

b. The attached Plan Sheet Nos. ADD.81 S-1, ADD.81 S-2 and ADD.81 S-3 shall be incorporated and made a part of the Plans.

c. Revise General Note 17 on Plan Sheet No. 46 by replacing all instances of "Type I Barricade(s)" with "Type II Barricade(s)".

d. Revise Work Zone Note on Plan Sheet No. 47 to read as following:

i) Note 2 to read "All existing regulatory speed limit signs within the work zone shall be covered and work zone speed limit sign assemblies (R2-1(45)-A and R2-5b(45)-A with "CONSTRUCTION AREA" and "$250 FINE HRS 291C-104" Supplemental Signs) shall be displayed during lane closure hours."

ii) Note 3 to read "Upon removal of the lane closure, all work zone speed limit signs shall be covered and existing speed limit signs within the work zone shall be restored."

iii) Second Sentence of Note 5 to read "Installation of each Type II OM shall be considered incidental to the various contract items."

iv) Note 6 by adding the following to the end of the paragraph.

"Where shoulder width will not permit the use of standard construction sign posts, the Contractor may use collapsible spring mast construction signs. Signs shall be removed during non-work hours."

v) Note 7 to read " The daily covering ad uncovering of existing Regulatory speed limit signs along with the installation, maintenance, removal and daily covering and uncovering of work zone speed limit assemblies shall be considered incidental to the various contract items."

e. Revise the 'Typical Detail for Construction Signs on Freeway' on Plan Sheet. No. 47 by replacing "Begin or End Project Limit" notation with "Begin or End Work Zone".

5. PRE-BID MEETING MINUTES

a) The Memorandum of the June 8, 2004 Pre-bid Meeting Minutes and attendance sheet are attached 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 657 – BLANK-OUT SIGNS (LED)

657.01 Description. This work includes furnishing and installing an operating blank-out system, according to the contract.

657.02 Materials. Blank-out signs shall be AlinGaP LED display panels enclosed in a rain-tight aluminum housing with non-glare, U.V. inhibitor polycarbonate face plates.

These units shall be provided in two sizes: 10-inch character and 24-inch character. The housing for the 10-inch character unit, used with sign R-7, shall be a maximum 18 inches in height. The housing for the 24-inch character units shall be a maximum 30 inches in height.

The units shall be capable of displaying a red "X", an amber "O" or an amber "OPEN" as shown on the plans and shall meet ITE and MUTCD standards, When the message is non-energized the sign will be flat black, showing no message or image.

All display indicators shall be clearly legible and readable under any lighting conditions, from a minimum of 500 feet for the 10-inch character height and 1,200 feet for the 24-inch character height when viewed within a 12-degree cone of vision centered around the optical axis.

Place the LEDs flat and directly upon the display panel.

The signal shall be capable of continuous operation over a range in temperatures from a low of 30° F to a high of 165°F, with relative humidity of up to 95 %.

The 24-inch-character-height signs shall flash at approximately 30 flashes per minute.

(A) Housing. Sign housing for the blank-out signs shall be a rain tight enclosure, of an all welded 1/8 inch thick aluminum construction, conforming to NEMA 3R standards. Furnish AWS standards all welds.

Paint the interior and front face of the housing flat black throughout. Leave the exterior of the housing as a natural finish.

Provide weep holes, with louvers, to allow excess moisture to escape the sign interior. Screen all holes to prevent insects and rodents from entering.

Install and size electric, ball bearing shaft ventilation fan to provide the ventilation required to maintain the interior housing temperature within the range which the LED sign components can operate under normal conditions without failure or degradation. The sign face shall remain free of condensation under humidity levels up to 95%.

Attach the signs to the housing so as to provide front access using a hinged connection. All hinged portions of the sign housing shall be easily opened by one person. There shall be a stop on all hinges allowing the doors to be maintained at 90° from normal operating position. All mounting hardware, including screws and hinges, shall be stainless steel. The sign and mounting hardware shall withstand wind velocities of 80 mph with 30% wind gust factors. The sign and controller shall withstand the corrosive effects of the atmosphere, including sale.

Provide access to terminal boards without the requirement to move any equipment or the use of any special tools. All terminations shall be on terminal strips or boards.

Fabricate the sign face plates of 0.177-inch-thick clear matte finished U.V. resistant polycarbonate. Face plates shall withstand wind velocities of 80 mph with a 30% wind gust factor. Install the face plate such that they reduce interference with legibility to the fullest extent possible and it forms a weather-tight enclosure.

Locate inspection doors to provide easy and complete access for replacement of electrical components and lamps and for servicing. The access doors shall have the two position stops as specified previously. Sign-mounting hardware shall not interfere with the operation of the access doors.

The housing shall fit within a fixed message sign, where required, with no apparent gap between the fixed message portion and the blank-out portion.

(B) Photocell. Install a 3-way photocell adjacent to the sign. Its orientation shall be field adjustable. The sign photocell shall cause the LEDs to be dimmed to enhance sign legibility.

(C) Materials List

Concrete shall conform to the requirements of Section 601-Structural Concrete.

Paint shall conform to Section 708 – Paints.

Other materials shall conform to the following:

Trench Backfill Material	Subsection	703.21
Reinforcing Steel	Subsection	709.01
Traffic Control Signs	Subsection	712.20
Pullboxes	Subsection	712.06
Conduits	Subsection	712.27
Cables, Conductors and Wires	Subsection	712.34
Sign Posts	Subsection	713.11
Fasteners for Signs	Subsection	713.12

657.03 Construction Requirements.

(A) Submittals.

(1) Working Drawings.

- **(a)** Equipment Assembly Drawings
- **(b)** Wiring Diagrams
- **(c)** Block Drawings
- **(d)** Circuit Board Assemblies
- **(e)** Final As-Built Drawings

(2) Materials List.

(3) Functional Hardware System Design Documentation.

(4) Detailed System Design Documentation.

(5) Installation Instructions.

(6) Installation Manual.

(7) Inventory List.

(8) O & M Manuals.

(9) Testing Program Plan.

(10) Test Report.

(11) Component or System Failure Test.

(12) As-Built Documentation for Hardware and Software.

(B) Fixed Signs and Sign Structures. Fixed signs and sign structures shall conform to the applicable requirements of Section 621 – Traffic Control Signs.

(C) Excavation and Backfill. Excavation and backfill shall conform to the applicable requirements of Section 206 – Excavation and Backfill for Conduits and Structures.

(D) Installation.

(1) Blank-out signs. A representative of the factory shall be present when aligning all blank-out signs.

Prior to final acceptance of the signs, adjust the direction of devices as specified by the Engineer.

(2) Controller and Cabinet. Install the controller and cabinet, if required, as specified in the contract.

(E) Field Test. Prior to acceptance of the work, the Contractor shall do the following tests on all equipment and circuits, in the presence of the Engineer.

(1) Test for continuity of each circuit.

(2) Test for grounds in each circuit.

(3) A function test to demonstrate that each and every part of the system functions as specified or as intended herein.

(4) A visual inspection to determine if sign orientation is correct.

Replace or repair any fault in any material or in any part of the installation revealed by these tests according to the contract. Repeat the same tests until no fault appears.

Prototype Test. When the prototype traffic controller and a simple sign housing have been fabricated, the Contractor shall, at no cost to the State, provide for 3 representatives of the Department to visit the site of hardware design or the sign controller plant. During the visit, the Contractor shall demonstrate the functions of the controller, using a prototype, to the Department's personnel and shall present the final controller hardware in detail. The Contractor shall also demonstrate that the visibility and readability requirements of the sign have been met. Upon acceptance from the Engineer, the Contractor may then submit the controllers to an independent laboratory for

environmental testing. If, during this trip, the Department personnel find deficiencies or problems in the hardware or operations of the controller, the Contractor shall be required to make the necessary modification(s) and document the steps taken to solve the problems. Assembly of controllers and signs shall not commence until the Engineer has accepted the prototype of the controller. Acceptance of the traffic controller prototype shall not in any way relieve the Contractor of responsibility to provide work conforming to the requirements of the contract. The dates for these visits shall be submitted to the Engineer for acceptance a minimum of 20 working days prior to the proposed visit.

(F) Miscellaneous Requirements. Various items of construction not specified herein shall conform to Subsection 657.02 – Materials.

657.04 Method of Measurement. The Engineer will not measure blank-out signs.

657.05 Basis of Payment. The Engineer will not pay for blank-out signs but will consider them included in the contract price for the various Electronic Expressway Sign items.

END OF SECTION

PROPOSAL TO THE

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

PROJECT:	**Interstate Route H-1 Zipper Lane Extension Radford Drive Overpass to Keehi Interchange District of Honolulu Island of Oahu**
PROJECT NO.:	**NH-H1-1(246)**
COMPLETION TIME:	**180 Calendar days from the date indicated in the Notice to Proceed from the Department.**
DBE PROJECT GOAL:	**14 %**

DESIGN PROJECT MANAGER:

NAME.	**Li Nah Okita**
ADDRESS	**601 Kamokila Blvd., Room 609, Kapolei, HI 96707**
PHONE NO.	**692-7582**
FAX NO.	**692-7590**

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
606.5400	Median Barrier Transition for Sign Structure at H-1 Baseline Sta. 84+60	L.S.	L.S.	L.S.	$_____
606.5500	Median Barrier Transition for Sign Structure at H-1 Baseline Sta. 77+58	L.S.	L.S.	L.S.	$_____
621.0110	Panel for Expressway Sign (WS)	400	S.F.	$ _____	$_____
621.0300	Electronic Expressway Sign (DS)	2	Each	$ _____	$_____
621.0400	Electronic Expressway Sign (R-7)	1	Each	$ _____	$_____
621.0500	Electronic Expressway Sign (WS-6)	3	Each	$ _____	$_____
621.2600	Cantilever Sign Support and Post	5	Each	$ _____	$_____
621.2700	Median Barrier Mounted Sign Post	4	Each	$ _____	$_____
621.2800	Parapet Mounted Sign Post	6	Each	$ _____	$_____
621.4700	RM-4	2	Each	$ _____	$_____
621.4800	CCOM Crash Cushion Object Marker	2	Each	$ _____	$_____
621.5200	Regulatory and Warning Sign (Greater than 10 Square Feet)	7	Each	$ _____	$_____
621.6000	Relocation of Existing Sign	3	Each	$ _____	$_____
622.5001	Roadway Lighting Standard, Single Arm, with Concrete Base	9	Each	$ _____	$_____

MEMORANDUM

TO: FILE

FROM: PERRY SMALL

DATE: June 8, 2004

SUBJECT: INTERSTATE ROUTE H-1
ZIPPER LANE EXTENSION
RADFORD DRIVE OVERPASS TO KEEHI INTERCHANGE
JUNE 7, 2004 PRE-BID MEETING MINUTES
PROJECT NO. NH-H1-1(246)

ATTENDEES: SEE ATTACHED ATTENDEE LIST

Meeting was chaired by Li Nah Okita, Hwy-DD project manager.

Sun Industries presented a request for clarification of four items. See attached. PB will respond to the State.

The tentative start date of July or August was mentioned in light of the long lead time for sign structures. These items can take up to 120 calendar days to arrive on site. The State will take this request under advisement.

The possibility of an addendum was discussed. The State indicated there will be an addendum.

HDCC brought up the use of positive protection (moveable barriers) at work zones. There appears to be conflict with the existing zipper barrier operation and the work zone barriers. PB will look at that issue.

Work zone speed limits that are shown on plan sheet 47 were discussed. The plan could be interpreted that the entire project will have a reduced speed limit during work hours. The intent as indicated in the notes is for each work zone to have a reduced speed limit during work hours. Placement of these signs is also an issue. Also payment for construction signs is indicated to be paid under Item 621.7100. This item has been deleted. Payment is incidental to other items.

Additional questions posed were:

Q: Specifications indicate that the sign structures are to be painted locally. Can the structures be factory painted after galvanizing in order to provide a better finished product?

A: No. The galvanizing must be inspected prior to painting. Due to fabrication and coating locations off island this could not be accomplished.

Q: Can structural steel be added to the State "short supply" list?

A: No, not at this time.

Encl. List of Attendees

cc: Attendees

6/7/04
8:00 a.m.
Room 333

HIGHWAYS DIVISION
PRE-BID STATUS OF PROJECT

Interstate Route H-1 Zipper Lane Extension
Radford Drive Overpass to Keehi Interchange
District of Honolulu, Island of Oahu
Project No. NH-H1-1(246)

NAME	COMPANY	TELEPHONE	E-MAIL
Lance Wilhelm	Kiewit Pacific Co.	674-1088	lance.wilhelm@kpc.kiewit.com
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Paul Santo	HWY-DB	692-7611	
PETER CHAN	HWY-TD	692-7680	
Perry Small	PB	566-2250	
Li Nah Okita	HWY-DD	692-7582	