

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ADDENDUM NO. 3

FOR

**INTERSTATE ROUTE H-1, INSTALLATION OF ACCESS CONTROL
MAKAKILO INTERCHANGE TO VICINITY OF H-1/H-2 INTERCHANGE**

FEDERAL-AID PROJECT NO. IM-H1-1(259)

Amend the Bid Documents as follows:

A. SPECIAL PROVISIONS

Replace pages 607-1a thru 607-7a dated r01/05/12 with the attached pages 607-1a thru 607-7a dated r01/23/12.

B. STANDARD SPECIFICATIONS

Delete the first sentence from lines 19 thru 21 in Section 722 - Chain Link Fence Materials of the 2005 Hawaii Standard Specifications For Road and Bridge Construction.

Please acknowledge receipt of this Addendum No. 3 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

Make the following amendment to the said Section.

"SECTION 607 - CHAIN LINK FENCES AND GATES

607.01 Description. This section describes constructing chain link fences and gates.

607.02 Materials.

Structural Concrete 601

Chain Link Fence Materials 722

607.03 Construction Requirements.

(A) General. Adjust post spacing at fence breaks or at intersections with existing fences to conform to required closure.

For concrete embedded posts, braces, or anchors, install temporary guys or braces to secure posts until concrete sets. Do not install materials on posts, or strain guys and braces until 7 days after concrete placement. Crown top of concrete fence footings to shed water.

Set top of posts to required grade and alignment. Do not cut top of posts unless accepted.

Attach wire or fencing firmly to posts and braces. Stretch taut and install to required height.

Provide electrical ground conforming to Section 9 of the National Electric Safety Code at each crossing of electric transmission, distribution, or secondary line.

(B) Posts. Furnish posts from pipes conforming to Table 607.03 - 1 - Schedule of Chain Link Fence Posts, ASTM F-1083 (schedule 40 steel pipe). All posts, brace, and rails, shall be hot dipped galvanized per ASTM F-1083. Space the line posts 10 feet maximum intervals, measured from center to center of posts. Measure post spacing parallel to slope of the natural ground. Install posts in vertical position.

TABLE 607.03-1 - SCHEDULE OF CHAIN LINK FENCE POST
ZINC-COATED PIPE - NOMINAL

Fence Height (Feet)	Line Post		End, Corner & Pull Post		Brace		Top Rail	
	OD Inch	Wt lbs/ft	OD Inch	Wt lbs/ft	OD Inch	Wt lbs/ft	OD Inch	Wt Lbs/ft
6	2.375	3.65	2.875	5.79	1.66	2.27	1.66	2.27

Conform footing depths to Table 607.03-2 - Footing Depths:

TABLE 607.03-2 - FOOTING DEPTHS		
Type of Post	Fabric Height Inches	Footing Depth (Minimum) Foot
Line Post	36	2
End, Corner, and Gate Post	36	2.5
Line Post	48	2.5
Other Post	--	3

Use minimum footing diameter of 8-inches, or three times the diameter of post, whichever is greater.

Brace end, corner, and gate posts to nearest line post with horizontal braces as compression members, and truss rods with turnbuckles as tension members. Provide brace and truss pull post at intervals of 300 feet in both directions.

Install corner posts when fence line changes 30 degrees or more.

Pass top rail through the base of line post tops or extension arms and form continuous brace from end to end of each fence section.

Furnish top rails in approximately 20-foot lengths. Provide top rails with accepted outside couplings or expansion sleeves. Fasten top rail securely to terminal posts with rail ends and brace bands.

Furnish brace rails in required lengths.

(C) Fence Fabric. Fasten chain link fabric on designated side of posts. Position fabric to follow ground contour with bottom of fabric 2 inches above ground.

Provide knuckled finish on bottom edge of chain link fabric. For chain link fabric widths greater than 60 inches, provide twisted and barbed finish on top edge. For chain link fabric widths of 60 inches or less, provide knuckled finish on the top edge.

Fasten top edge of chain link fabric to top rail between posts. Excavate high points of ground to install bottom tension wire on straight grade between posts. Do not fill depressions.

Fasten chain link fabric to end, corner, and gate posts with stretcher bars and stretcher bar bands spaced at 12 inches. Fasten chain link fabric to line posts and tension wires with tie wires or metal bands. Space tie wires or metal bands on line posts at approximately 14 inches, and on top rails at approximately 24 inches.

(D) Gates. Furnish gate frames and posts from pipes conforming to Table 607.03-3 - Gates (3 Feet to 6 Feet Height), or from accepted shapes of equivalent structural strength. Cross-truss drive gates with accepted adjustable truss rods. Assemble by using properly designed fittings, or by accepted welding techniques.

Use chain link fabric for gate. Attach fabric to gate frame by stretcher bars and tie wires, as specified for fence construction, and suitable tension connectors spaced at approximately 12 inches..

For gate heights up to 60 inches, hang gate with two hinges. For gate heights greater than 60 inches, hang gate with three hinges. Provide hinges designed to clamp securely to gate post, and permit gate to swing back against fence.

Provide gates with combination catch and locking attachment of acceptable design. Provide stops to hold gates open and center rest with catch where required.

TABLE 607.03-3 - GATES (3 FEET TO 6 FEET HEIGHT)				
ZINC-COATED PIPE				
GATE FRAMES		GATE OPENING	GATE POSTS	
O.D. Inch	Nominal Weight lbs/ft		O.D. Inch	Nominal Weight lbs/ft
1 -7/8	2.72	Single to 6' or Double to 12'	3	5.79
1 -7/8	2.72	Single over 6' to 13' or Double over 12' to 26' inclusive	4	9.11
1 -7/8	2.72	Single over 13' to 18' or Double over 26' to 36' inclusive	6 -5/8	18.97
1 -7/8	2.72	Single over 18' or Double over 36'	8-5/8	24.70

ALUMINUM PIPE						
GATE FRAMES			GATE OPENING	GATE POSTS		
Nominal Size Inch	Nominal O.D. Inch	Wt. lbs/ft		Nominal Size Inch	Nominal O.D. Inch	Wt. lbs/ft
1-1/2	1.9	0.94	Single to 6' or Double to 12'	3	3-1/2	2.621
1-1/2	1.9	0.94	Single over 6' to 13' or Double over 12' to 26' inclusive	3 1/2	4	3.151
1-1/2	1.9	0.94	Single over 13' to 18' or Double over 26' to 36' inclusive	6	6-5/8	6.564
1 1/2	1.9	0.94	Single over 18' or Double over 36'	8	8-5/8	9.878

(E) Clearing. Clearing is defined as removing and disposing of all unwanted surface material such as trees, logs, brush, grass, weeds, downed trees and its roots, residue of agricultural crops, asphalt and concrete masonry, and other materials or obstructions within the limits specified in the contract documents or as ordered by the Engineer.

Preserve shrubs, plants, and other objects to remain within the established limits. Preserve trees of a minimum 6 inches in diameter measured 4-1/2 feet maximum from top of existing ground unless removal is approved by the Engineer.

Protect remaining trees and shrubbery from injury or damage. Cut trees to be removed without injuring trees and shrubbery that are to remain.

Cut close to the trunks, in accordance with recognized standards of good arboricultural practices, tree branches that extend over roadway within 20 feet of finished grade. Remove additional branches, as required, to give trees a balanced appearance.

Do not exceed total erosion control exposure area limits described in Subsection 209.03(B) - Construction Requirements.

Protect land monuments, property markers, or official datum points until the Engineer authorizes their removal and until re-establishment survey data has been obtained.

137 **(F) Grubbing.** Grubbing is defined as removing and disposing of all
138 unwanted vegetative matter from underground, such as stumps, roots,
139 and other unwanted materials or obstruction within the limits specified in
140 the contract documents or as ordered by the Engineer.
141

142 Grub areas below natural ground surface, within limits specified,
143 of vegetative and unwanted material interfering with the proposed work.
144 Do not leave unsuitable material under embankments and dikes. The
145 disturbed limits shall be restored by spreading at a rate of 40 pounds per
146 acre with Buffel Grass hulled seed variety T4464 (*Cenchrus ciliaris*) and
147 raked into the disturbed soil before proceeding to another area.
148

149 Leave all undisturbed and sound stumps and nonperishable solid
150 objects more than 3 feet below subgrade and embankment slopes.
151 Leave stumps and nonperishable solid objects that extend less than 3
152 inches above the ground line or low water level when they are outside the
153 excavation and embankment areas. Cut stumps 6 inches below the
154 existing grade line.
155

156 Backfill stump holes and other holes with embankment material
157 and compact according to Subsection 203.03(C) - Embankment
158 Construction except in areas to be excavated.
159

160 **(G) Removal and Disposal of Material.** Remove material and
161 debris, and dispose of at an authorized disposal site. Obtain written
162 authorization from property owners and governmental authorities for
163 disposal locations outside highway right-of-way limits.
164

165 When accepted by the Engineer, reduce degradable materials to
166 mulch or chips of a maximum size of 1/4 inch and disposed of in areas
167 enclosed by interchange loops and ramps or between the slope lines and
168 right-of-way lines. Spread mulch and chips uniformly on the ground
169 surface, and mix one to one with underlying earth so that they will not
170 support combustion.
171

172 Leave project limits and adjacent areas with a neat and finished
173 appearance. Dispose of slashings, flammable material, and other
174 debris within or adjacent to highway Right-of-Way. Do not burn material
175 and debris.
176

177 **(H) Best Management Practices (BMP).** Ensure that all BMP
178 measures are in place before clearing and grubbing starts. If BMP
179 measure is removed, reinstall before end of workday.
180

181 **(I) Limits.** The limits shall be along the right-of-way line to clear and
182 grub as necessary to install the chain link fence within entire length of the
183 project.
184

(J) **Coordination With Adjacent Property Owners.** The Contractor shall coordinate with the adjacent property owners, either verbally or in writing, one month prior to working next to the affected property.

607.04 Method of Measurement.

(1) The Engineer will measure the chain link fence with top rail and concrete footings per linear foot in accordance with the contract documents.

(2) The Engineer will measure the top rail per linear foot in accordance with the contract documents.

607.05 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 the following pay items when included in the proposal schedule:

Pay Item	Pay Unit
6 Feet High Chain Link Fence with Top Rail And Concrete Footings	Linear Foot

The Engineer will pay for:

(1) 30 percent of the contract bid price upon completion of clearing, grubbing, excavating to the depth of the concrete footings and coordination with adjacent property owners; and delivery of the necessary materials to the site.

(2) 50 percent of the contract bid price upon completion of constructing the chain link fence and backfilling around the concrete footings.

(3) 20 percent of the contract bid price upon removing and disposing of materials and debris, and restoring the disturbed site.

Top Rail	Linear Foot
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The Engineer will pay for:

(1) 10 percent of the contract bid price upon removing of the top tension cable; completion of clearing and grubbing, and coordination with adjacent property owners.

(2) 70 percent of the contract price completion of installation of the top rail.

(3) 20 percent of the contract bid price upon removing and disposing of materials and debris, and restoring the disturbed site.

The Engineer will pay for BMP in accordance with Section 209 - Temporary Water Pollution, Dust, and Erosion Control.”

END OF SECTION 607