1 SECTION 623 – TRAFFIC SIGNAL SYSTEM 2 3 Make the following amendment to said Section: 4 5 (I) Amend Section 623.04 - Measurement by replacing lines 578 to 579 to read: 6 7 "623.04 The Engineer will not measure software for Measurement. 8 controller, interconnect, or electrical risers for payment. 9 10 (A) The Engineer will measure the controller assembly, foundation for traffic signal controller, traffic signal standard, foundation for traffic signal 11 12 standard, pedestrian or traffic signal assembly, retroreflective backplate 13 on existing traffic signal assembly, pedestrian pushbutton, pullbox, loop detector sensing unit, emergency vehicle preemption optical receiver, 14 15 service and metering equipment assembly, reinforced concrete jacket 16 over drain line, and advance warning beacon assembly per each in 17 accordance with the contract documents. 18 19 (B) The Engineer will measure camera cable, traffic signal interconnect 20 subduct, traffic signal ductline, secondary electrical ductline and 21 conductors per linear foot in accordance with the contract documents. 22 23 (C) The Engineer will measure Hawaiian Electric Company service 24 connection fees and transformer installation on a force account basis 25 according to Subsection 109.06 - Force Account Provisions and 26 Compensation." 27 28 (II) Amend Section 623.05 – Payment by replacing lines 581 to 594 to read: 29 30 "623.05 **Payment.** The Engineer will pay for the controller assembly at the contract unit price per each complete in place. 31 The price includes full 32 compensation for submitting the equipment list and drawing; furnishing and 33 mounting the controller cabinet; furnishing, assembling, wiring, software, and 34 housing the controller and auxiliary equipment; painting the controller cabinet; 35 testing; providing turn-on service; submitting warranty; and furnishing equipment, 36 tools, labor, materials and other incidentals necessary to complete the work. 37 38 The Engineer will pay for the traffic signal standard at the contract unit price 39 per each complete in place. The price includes full compensation for submitting 40 the equipment list and drawing; furnishing and installing the traffic signal standard; wiring; bonding and grounding; testing; providing turn-on service; submitting 41 42 warranty; and furnishing equipment, tools, labor, materials; and other incidentals necessary to complete the work. 43 44

The Engineer will pay for the foundation for controller cabinet and traffic signal standard at the contract unit price per each complete in place. The price includes full compensation for excavating and backfilling; forming; furnishing and placing the reinforcing steel; mixing, placing, and curing the concrete; furnishing
and setting the anchor bolts; restoring the pavement; and furnishing equipment,
tools, materials and other incidentals necessary to complete the work.

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The Engineer will pay for the pedestrian and traffic signal assembly at the contract unit price per each complete in place. The price includes full compensation for submitting the equipment list and drawing; assembling the signal heads; wiring; bonding and grounding; painting the signal head mounting; testing; providing turn-on service; submitting warranty; and furnishing equipment, tools, labor, materials and other incidentals necessary to complete the work.

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59 The Engineer will pay for the install retroreflective backplate on existing traffic 60 signal assembly at the contract unit price per each complete in place. The price 61 includes full compensation for submitting the equipment list and drawing; 62 assembling to the signal heads; submitting warranty; and furnishing equipment, 63 tools, labor, materials and other incidentals necessary to complete the work.

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The Engineer will pay for the pedestrian pushbutton with instruction sign at the contract unit price per each complete in place. The price includes full compensation for submitting the equipment list and drawing; furnishing and installing the pedestrian pushbutton with the instruction sign; wiring; bonding and grounding; testing; providing turn-on service; submitting warranty; and furnishing equipment, tools, labor, materials; and other incidentals necessary to complete the work.

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The Engineer will pay for the pullbox at the contract unit price per each complete in place. The price includes full compensation for submitting the equipment list and drawing; furnishing and installing the pullbox at the designated locations; saw cutting; excavating and backfilling; restoration of concrete sidewalks, asphalt concrete pavement and landscaping; coating the frames and covers; and furnishing equipment, tools, labor, materials and other incidentals necessary to complete the work.

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The Engineer will pay for the loop detector sensing unit at the contract unit price per each complete in place. The price includes full compensation for saw cutting; cleaning and blowing the saw cut areas; furnishing and inserting the loop cable; splicing in the pullbox; filling the saw cut groove with epoxy sealer or hot applied rubberized sealant; and furnishing equipment, tools, labor, materials and other incidentals necessary to complete the work.

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The Engineer will not pay for the interconnect or electrical risers. The work includes furnishing and installing the riser; and furnishing equipment, tools, labor, materials, and other incidentals necessary to complete the work. The Engineer will consider the cost for risers as included in the contract price for the various contract items.

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The Engineer will pay for the emergency vehicle preemption (EVP) optical receiver at the contract unit price per each complete in place. The price includes full compensation for submitting the equipment list and drawing; furnishing and installing the EVP; wiring; bonding and grounding; testing; providing turn-on service; submitting warranty; and furnishing equipment, tools, labor, materials; and other incidentals necessary to complete the work.

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101 The Engineer will pay for the camera cable at the contract unit price per 102 linear foot complete in place. The price includes full compensation for furnishing 103 and installing the preemption detector cable from the detector to the cabinet; and 104 furnishing equipment, tools, labor, materials and other incidentals necessary to 105 complete the work.

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107 The Engineer will pay for the traffic signal ductlines at the contract unit price 108 per linear foot complete in place. The price includes full compensation for saw 109 cutting; trenching; excavating and backfilling, including asphalt concrete pavement, hot mix asphalt base course, aggregate base course and aggregate 110 subbase course for trench repair; concrete curb and/or gutter and concrete 111 112 sidewalk repair; furnishing and placing the reinforcing steel for concrete encasement; mixing, placing, and curing the concrete for encasement; furnishing, 113 installing, bonding, and grounding the conduits and interconnect subducts; and 114 115 furnishing equipment, tools, labor, materials and other incidentals necessary to 116 complete the work. The price does not include P.C.C. pavement restoration. The 117 Engineer will measure and pay for P.C.C. pavement restoration according to 118 Section 411 – Portland Cement Concrete Pavement.

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120 The Engineer will pay for the reinforced concrete jacket over drain line at 121 the contract unit price per each complete in place. The price includes full 122 compensation for saw cutting; trenching; furnishing and placing the reinforcing steel, mixing, placing, and curing the concrete; excavating and backfilling, 123 including asphalt concrete pavement, hot mix asphalt base course, aggregate 124 125 base course and aggregate subbase course for trench repair; furnishing and installing Rapid Repair PG100 or approved equal; and furnishing equipment, tools, 126 127 labor, materials and other incidentals necessary to complete the work.

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129 The Engineer will pay for the traffic signal interconnect subduct at the 130 contract unit price per linear foot complete in place. The price includes full 131 compensation for furnishing and installing; and furnishing equipment, tools, labor, 132 materials and other incidentals necessary to complete the work.

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The Engineer will pay for the traffic signal cables at the contract unit price per linear foot complete in place. The price includes full compensation for furnishing, installing, splicing, and taping the cable; furnishing and installing interconnect fabric subducts; making the connections; providing turn-on service; and furnishing equipment, tools, labor, materials and other incidentals necessary to complete the work.

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141 The Engineer will pay for the service and metering equipment assembly at 142 the contract unit price per each complete in place. The price includes full 143 compensation for furnishing and installing the meter/main safety socket box, 144 pullbox, support structure, ground rod, conduit, conductors; and furnishing 145 equipment, tools, labor, materials and other incidentals necessary to complete the 146 work.

148 The Engineer will pay for Hawaiian Electric Company service connection 149 fees and transformer installation on a force account basis according to Subsection 150 109.06 – Force Account Provisions and Compensation. An estimate amount for the force account is allocated in the proposal schedule under Hawaiian Electric 151 152 Company Service Connection Fees and Transformer Installation Fees. The actual 153 amount to be paid will be the sum shown on the accepted force account records 154 whether this sum be more or less than the estimated amount allocated in the 155 proposal schedule.

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157 The Engineer will pay for the accepted advance warning beacon assembly 158 at the contract unit price per each complete in place. The price includes full 159 compensation for furnishing and installing the advance warning beacon from the 160 beacon to the meter, and furnishing equipment, tools, labor, materials and other 161 incidentals necessary to complete the work.

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163 The Engineer will pay for the secondary electrical ductline at the contract 164 price per linear foot complete in place. The price includes full compensation for 165 saw cutting, excavating and backfilling; furnishing, installing, grounding, 166 terminating conductors; and furnishing equipment, tools, labor, materials and other 167 incidentals necessary to complete the work.

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169 The Engineer will consider full compensation for additional materials and 170 labor not shown in the contract that are necessary to complete the installation of 171 the various systems incidental to the various contract items. The Engineer will not 172 allow additional compensation.

174 The Engineer will pay for the following pay items when included in the 175 proposal schedule:

177	Pay Item	Pay Unit
178 179	Controller Assembly with Software	Each
180 181	Type Traffic Signal Standard	Each
182 183	Foundation for	Each
184 185	Signal Assembly	Each
186 187		

208 209	END OF SECTION 623	
207	Reinforced Concrete Jacket Over Drain Line	Each"
205 206	Hawaiian Electric Company service connection fees	Force Account
203 204	No, Cable	Lin. Ft.
202		
200 201	EVP Cable	Lin. Ft.
198 199	Traffic Signal Ductline	Lin. Ft.
197	EVP Optical Receiver with	Each
194 195 196	Loop Detector Sensing Unit (6 Ft. x 6 Ft.) Loops	Each
192 193 194	Type Pullbox	Each
190 191 192	Pedestrian Pushbutton with Instruction Sign	Each
188 189	Install Retroreflective Backplate on Existing Traffic Signal Assembly	Each