

1 Make this section a part of the Standard Specifications:

2  
3 **“SECTION 697 – SURVEYING**

4  
5 **697.01 Description.** This section describes performing pre-construction and  
6 post-construction surveying in accordance with the contract documents.

7  
8 **697.02 Materials.** Not applicable.

9  
10 **697.03 Construction.**

11  
12 **(A)Boundary survey.** As directed by the Engineer, the Contractor shall  
13 complete a boundary survey within the project limits on the State right of  
14 way. Survey shall be performed, stamped, and signed by a Hawaii  
15 Licensed Land Surveyor.

16  
17 **(1)** Survey shall include, but is not limited to, the following  
18 elements:

- 19  
20 i. Property lines for the State right of way and adjacent  
21 property lines and side roads to the project. Contactor  
22 shall submit boundary map and boundary study to the  
23 State for review and acceptance.  
24 ii. State baseline information and existing monuments and  
25 benchmarks.

26  
27 **(2)** Submit the survey to the Engineer in a CAD format as directed  
28 by the Engineer, for the Engineer’s review. Make any  
29 changes that the Engineer recommends.

30  
31 **(3)** Submit the final survey in a PDF and CAD format as directed  
32 by the Engineer, prior to construction affecting the existing  
33 condition of the project area.

34  
35 **(B)Pre-construction survey.** As directed by the Engineer, the  
36 Contractor shall complete a pre-construction survey within the project  
37 limits on the State right of way. Survey shall be performed, stamped, and  
38 signed by a Hawaii Licensed Land Surveyor.

39  
40 **(1)** Survey shall include, but is not limited to, the following  
41 elements:

- 42  
43 i. Property lines for the State right of way and adjacent  
44 property lines and side roads to the project. Contactor  
45 shall submit boundary map and boundary study to the  
46 State for review and acceptance.

- ii. State baseline information and existing monuments and benchmarks.
- iii. All structures within the right of way (curb, gutter, guardrail, end treatments, poles, lights, fences, walls, sidewalk, driveways, signs, signals, pavement, buildings, etc.)
- iv. All pavement markings, raised pavement markers, delineators, and rumble strips within the right of way (pavement striping, symbols, arrows, words, crosswalks, yield and stop lines, etc.)
- v. Topographic surveying providing 2' contour intervals. Identify grade break points and other topographic features.
- vi. Location of all storm drain facilities and invert elevations, size, and material type for all storm drain pipes (manholes, culverts, inlets, etc.).
- vii. Location of all above ground facilities and record information for underground facilities, including pipe inverts, size, and material for all other utilities (sewer, water, power, communications, etc.). Correlate above ground information with existing utility records.

(2) Submit the survey to the Engineer in a CAD format as directed by the Engineer, for the Engineer's review. Make any changes that the Engineer recommends.

(3) Submit the final survey in a PDF and CAD format as directed by the Engineer, prior to construction affecting the existing condition of the project area.

**(C) Construction Staking.** As directed by the Engineer, any reconstruction, pavement marking installation, or monument installations shall be staked out by a Hawaii Licensed Land Surveyor.

**(D) Post-construction survey.** As directed by the Engineer, following completion of construction, the Contactor shall conduct a survey to modify the pre-construction survey to reflect the post construction condition of the project limits. Survey shall be performed, stamped, and signed by a Hawaii Licensed Land Surveyor.

(1) Submit the survey to the Engineer in a CAD format as directed by the Engineer, for the Engineer's review. Make any changes that the Engineer recommends.

(2) Submit the final survey in a PDF and CAD format as directed by the Engineer, before or during pre-final inspection.

94 **697.04 Measurement.** The Engineer will measure Surveying as ordered by  
95 the Engineer on a force account basis in accordance with Subsection 109.06 –  
96 Force Account Provisions and Compensation.”  
97

98 **645.05 Payment.** The Engineer will pay for the accepted Surveying at the  
99 contract price on a force account basis in accordance with the contract  
100 documents. Payment will be full compensation for the work prescribed in this  
101 section and the contract documents.  
102

103 The Engineer will compute the actual amount paid to the Contractor for  
104 force account work according to Subsection 109.06 – Force Account Provisions  
105 and Compensation.  
106

107 The Engineer will pay for the following pay items when included in the  
108 proposal schedule:  
109

110 <b>Pay Item</b>	<b>Pay Unit</b>
111	
112 Surveying	Force Account
113	

114 An estimated amount for force account is allocated in the proposal schedule  
115 under ‘Surveying’, but actual amount to be paid will be the sum shown on  
116 accepted force account records, whether this sum be more or less than the  
117 estimated amount allocated in the proposal schedule. The Engineer will pay for  
118 surveying requested by the Engineer on a force account basis.”  
119

120 **END OF SECTION 697**