



- NOTES**
- HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 1, NAD83, IN U.S. SURVEY FEET. HOLDING USAGE SBC 'CRB-1, 2001' AS N 191213125, E 234771610 AND 'CRB-2, 2001' AS N 191213125, E 2347758165.
  - VERTICAL CONTROL IS IN FEET BASED ON MEAN LOWER LOW WATER (MLLW) = 0.07.
  - HOLDING 'CRB-1, 2001' AT 16.93.
  - SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
  - THE EXISTING PROJECT CONSISTS OF CHANNEL ROCK BREAKWATERS AND THE SURROUNDING AREA LOCATED IN SITKA, ALASKA.
  - BATHYMETRY WAS COLLECTED MAY 13-14, 2005. SOUNDINGS WERE COLLECTED USING A SONAR SYSTEM. THE SONAR SYSTEM WAS CALIBRATED WITH AN OCEAN DEEPER PRO SOUND VELOCITY PROBE, AND VERIFIED WITH A MANUAL BARE CHECK AT 10' MEASURED USING A TRIMBLE 5700 RTK SYSTEM AND TSS MOTION REFERENCE UNIT. RTK CORRECTIONS WERE BROADCAST FROM A LOCAL BASE STATION OCCUPYING THE SAME LOCATION AS THE SURVEY POINT. THE SONAR SYSTEM WAS VERIFIED THROUGH CONVENTIONAL DIFFERENTIAL LEVELING TECHNIQUES.
  - THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF THE SURVEY.

**CONTROL DATA**

STATION	NORTHING	EASTING	ELEV.	DESCRIPTION
BM 16, 1941	-	-	20.36	USGS SBC
CHAN, 1938	1,914,557.50	2,348,338.20	13.92	RRI STA SBC
TUNGT, 1977	1,911,615.49	2,347,612.01	12.25	NOS SBC
FSH-3, 1974	1,908,971.52	2,352,870.05	18.96	USGT SBC
CRB-1, 2001	1,913,133.96	2,347,128.00	16.93	DOUMB BC
CRB-2, 2001	1,917,051.27	2,350,572.05	16.57	DOUMB BC
WC-4, 2001	1,910,740.86	2,350,124.95	9.21	3.25' DOUMB BC

**NAVIGATION AIDS**

USGS No.	DESCRIPTION	NORTHING	EASTING
25026	SITKA BREAKWATER LIGHT 3	1,912,489.9	2,347,289.0
25025	SITKA BREAKWATER LIGHT 7	1,913,552.1	2,347,892.1
25020	SITKA BREAKWATER LIGHT 8	1,913,502.1	2,347,598.4

REV./DATE	DESCRIPTION	BY	APP'D
CONTRACTOR	CONTRACT NO. W511HG-04-D-0007		
CITY	SITKA, ALASKA		
SURVEYED: BTH/CSH			
DRAWN: BTH/CSH			
CHECKED: JSH			
SUBMITTED: JSH			
APPROVED: [Signature]			
DATE: May 13-14, 2005			

**SURVEY NO.** 2250-05

**SCALE:** 1" = 100'

**SHEET** 1 **OF** 1