NOTES

1. HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 10, NAD 83 (EPOCH 1986) IN U.S. FEET. HOLDING USCGS SBC "GRAVE RESET" AS N 1,183,516.91, E 5,320,228.11.
2. VERTICAL CONTROL IS IN FEET. REFERING TO MEAN LOWER LOW WATER (MLLW=0.0'), HOLDING USCGS SBC "NO. 19, 1973" AS 16.42' FROM NOAA/NOS TIDAL BENCH MARK LIST 9462620, UNALASKA, DUTCH HARBOR, ALASKA, DATED SEPTEMBER 11, 2000.
3. SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
4. DATA ACQUISITION WAS CONDUCTED ON JULY 19-21, 2002. SOUNDINGS WERE OBTAINED WITH AN ODOM HYDROTRAC DEPTH SOUNDER WITH A 200KHZ, 3° BEAM WIDTH, SINGLE BEAM TRANSDUCER. POSITIONING WAS PROVIDED BY A TRIMBLE 4000SSE RECEIVER OPERATING ON CORRECTIONS BROADCAST FROM A TRIMBLE 4000SSE LOCAL BASE STATION SET AT NOS SBC "2620M, 1982". DEPTHS WERE CORRECTED FOR TIDE USING READINGS TAKEN FROM AN ENDECO TYPE 1029 WATER LEVEL RECORDER SET BY TERRA SURVEYS, LLC. NAVIGATION AND DATA COLLECTION WERE PERFORMED USING HYPACK MAX INTEGRATED SOFTWARE. HORIZONTAL CONTROL WAS SURVEYED UTILIZING STATIC GPS TECHNIQUES. VERTICAL CONTROL WAS SURVEYED USING OPTICAL INSTRUMENTS AND DIFFERENTIAL LEVELING TECHNIQUES.
5. THIS SURVEY INDICATES GENERAL CONDITIONS AT THE TIME OF SURVEY.
6. THIS SURVEY WAS CONVERTED FROM NAD27 TO ALASKA STATE PLANE ZONE 10, NAD83 USING CORPSCON DESIGN 5.11.01. THE CONVERSION WAS FURTHER REFINED USING A POST-PROCESSED STATIC GPS NETWORK HOLDING USCGS SBC "GRAVE RESET" BASED ON PUBLISHED NGS NAD83 (EPOCH 1986) COORDINATES. GPS POST PROCESSING WAS PERFORMED USING TRIMBLE GEOMATICS OFFICE SOFTWARE.

CONTROL DATA

STATION	NORTHING	EASTING	ELEV.	DESCRIPTION
GRAVE RESET	1,183,516.91	5,320,228.11	59.05'	USCGS SBC (TRI STA)
NO. 19, 1973	1,183,699.56	5,317,915.56	16.42'	USCGS SBC (BENCH MARK)
2620M, 1982	1,184,144.50	5,317,084.36	10.97'	NOS SBC
2620N, 1990	----	----	11.81'	NOS SBC
IC-1, 2002	1,185,564.85	5,316,778.95	14.63'	3.25" DOMED BC

PROJECT LIMITS

CORNER	NORTHING	EASTING	CORNER	NORTHING	EASTING
1	1,184,672.87	5,317,588.33	3	1,184,872.40	5,316,534.03
2	1,184,401.44	5,317,357.95	4	1,185,132.08	5,316,784.98

NAVIGATION AIDS

DESCRIPTION	USCG NO.	NORTHING	EASTING
UNALASKA CHANNEL LIGHTED BUOY 5 (FL GREEN)	22470	1,184,391	5,317,400
ILIULIUK REEF LIGHTED BUOY 6 (FL RED)	22475	1,184,614	5,317,608
ENTRANCE BUOY 8 (RED NUN)	22480	1,185,011	5,316,904

VOLUME COMPUTATIONS

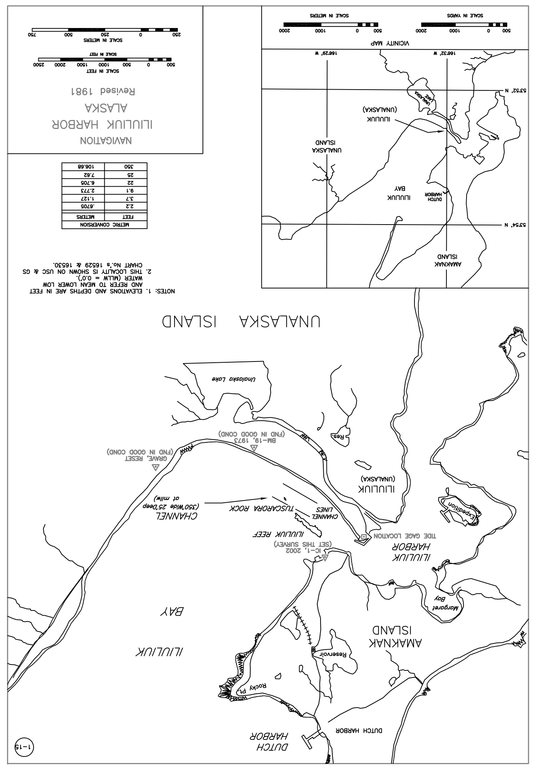
Project Depth -25' MLLW

MINIMUM PAY LINE (-25' MLLW)	939	(cubic yards)
Between MINIMUM PAY LINE and MAXIMUM PAY LINE (-26' MLLW)	624	(cubic yards)
VOLUME AVAILABLE ALONG SIDE SLOPE (3:1, H:V)	903	(cubic yards)
TOTAL	2466	(cubic yards)

CONTRACTOR TERRA SURVEYS, LLC — CONTRACT NO. DACW85-01-D-0001
CITY PALMER — STATE AK

ALASKA DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

SURVEYED: CDK/SGB
DRAWN: LES/DBM
CHECKED: TSN
SUBMITTED:
RECOMMENDED: APPROVED:
DATE:
PROJECT MANAGER — CHIEF ORDNANCE-HAZARDS BRANCH

DUTCH HARBOR, ALASKA
ILIULIUK ACCESS CHANNEL
CONDITION SURVEY
JULY 19-21, 2002

SURVEY NO. 1987-02
SCALE: 1" = 50'
SHEET 1 OF 1