



- ## NOTES
1. PRIMARY PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 1, NAD83 (2011), IN US SURVEY FEET BASED ON A FULLY CONSTRAINED STATIC GPS NETWORK HOLDING THE PUBLISHED NAD83 2011 EPOCH VALUES OF NGC CORS STATIONS: "JNU TIDAL PTCP" (PID A0480) NS 2,362,232.94 E, 2,541,120.78; "JNU C" (PID A0405) NS 2,352,651.51 E, 2,511,618.67
- LOCAL PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 1, NAD83 (2011), IN US SURVEY FEET HOLDING "JA-1 RESET 1989" (PID B0F52) NS 2,353,834.54 E, 2,538,567.82
2. VERTICAL CONTROL IS MEAN LOWER LOW WATER (MLLW) BASED ON TIDAL DATA FROM THE NOAA/NOOS TIDAL BENCH MARK 2010 CHANNEL, STEPHENS PASS, ALASKA, PUBLISHED 08/02/2014. THIS TIDAL DATUM IS BASED ON THE 2007-2011 TIDAL EPOCH AND IS REFERENCED BY HOLDING NOAA/NOOS TIDAL BENCH MARK "Z210 C 1982" (WMM1961) AS 29.96 FT.
3. VERTICAL TIES TO THE NATIONAL SPATIAL REFERENCE SYSTEM ARE BASED ON AN OPUS SOLUTION IN NAD83 (128) ELEVATIONS HOLDING PRIMARY PROJECT HORIZONTAL CONTROL POINT "JA-1 RESET 1989" (PID B0F52) AS 20.89 FT.
4. SOUNDINGS ARE IN US SURVEY FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
5. BATHYMETRY WAS COLLECTED JUNE 6, 2017. SOUNDINGS WERE COLLECTED USING AN "NOBIT-WBMS" SOUNDER WITH A 400KHZ+1 MULTIBEAM TRANSDUCER, SOUND VELOCITY THROUGH THE WATER COLUMN WAS DETERMINED WITH AN SONTEK CASTING SOUND VELOCITY PROBE, AND VERIFIED WITH A MANUAL BACKSIGHT AND FORESIGHT TO THE PROJECT POSITIONING AND VESSEL ATTITUDE WERE MEASURED USING A "TRIMBLE R10 RTK" SYSTEM AN APPLIX WAVEMASTER II GNSS/INTEGRAL NAVIGATION SYSTEM. RTK CORRECTIONS WERE BROADCAST FROM A LOCAL BASE STATION OCCUPYING "JA-1 RESET 1989" DATA WAS COLLECTED AND FIELD PROCESSED USING "HYDRAC 17" SOFTWARE. TIDE ELEVATIONS WERE MEASURED USING A "TRIMBLE R10 RTK" SYSTEM AND VERIFIED THROUGH CONVENTIONAL DIFFERENTIAL LEVELING TECHNIQUES.
6. THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF THE SURVEY.
7. MAP SOUNDINGS ARE BINNED AT 24 FEET AND ARE SHOAL BIASED. CONTOURS ARE BINNED AT 12 FEET AND ARE SHOAL BIASED. VOLUME SOUNDINGS ARE BINNED AT 3 FEET AND ARE MEAN-VALUE.

SURVEY CONTROL DATA				
STATION	NORTHING	EASTING	MLLW	DESCRIPTION
AH-1	2,365,661.84	2,537,898.62	26.48	ALMON
AH-2	2,365,313.33	2,537,134.22	25.46	2 1/2 IN ALCAP ON ALUM ROD
AH-3	2,364,254.94	2,538,981.69	26.10	3 1/4 IN DOMED BRASS CAP
AH-B	2,364,796.15	2,538,662.34	23.64	BRASS CAP
AH-D	2,365,796.47	2,537,505.55	23.76	3 1/4 INCH DOMED BC IN CAST IRON MONUMENT CASING
AH-E	2,365,619.00	2,537,231.20	26.29	3 1/4 INCH DOMED BC
AH-F	2,364,062.04	2,538,950.90	24.70	BRASS CAP
JA-1 RESET 1989	2,363,834.84	2,538,657.82	24.41	USACE SBC
JNU TIDAL	2,362,232.94	2,541,120.78	29.36	3 1/4 INCH NOS DOMED BC
LENA POINT	2,365,512.06	2,537,213.59	26.38	4 INCH DOMED BC

PROJECT LIMITS		
CORNER#	NORTHING	EASTING
1	2,365,201.80	2,537,241.60
2	2,365,473.80	2,537,350.60
3	2,365,730.80	2,537,640.60
4	2,364,912.80	2,538,455.80
5	2,364,904.80	2,538,455.60
6	2,364,711.80	2,538,647.60
7	2,364,325.80	2,538,841.60
8	2,364,138.80	2,538,826.60

PROJECT LIMITS		
CORNER#	NORTHING	EASTING
9	2,363,849.80	2,538,535.60
10	2,364,082.80	2,538,387.60
11	2,364,261.80	2,538,566.60
12	2,364,639.80	2,538,190.60
13	2,364,639.80	2,538,181.60
14	2,365,396.80	2,537,427.60
15	2,365,164.80	2,537,334.60

NAVIGATION AIDS			
USCG NO.	NORTHING	EASTING	DESCRIPTION
23710	2,364,232	2,538,487	AURORA BASIN LIGHT A
23720	2,365,296	2,537,127	AURORA BASIN LIGHT B

