



Bethel Harbor

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NOTES:

1. PRIMARY PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 7, NAD83 (2011) EPOCH 2010.00, IN US SURVEY FEET BASED ON A FULLY CONSTRAINED STATIC GPS NETWORK HOLDING THE PUBLISHED NAD83 (2011) 2010.00 EPOCH VALUES OF NGS CORS STATIONS "MEKORYUK AK 2008 CORS ARP" (PID DL6420); "BETHEL WAAS CORS ARP" (PID DK4091); "DILLINGHAM AK 2007 CORS ARP" (PID DL6426).

LOCAL PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 7, NAD83 (2011) EPOCH 2010.00, IN US SURVEY FEET HOLDING 0.5 IN. STAINLESS STEEL ROD "946 6477 B" (VM#19664, PID DR6569) AS N 2,481,197.72'; E 1,684,072.36'.

2. VERTICAL CONTROL IS MEAN LOWER LOW WATER (MLLW=0.0'), BASED ON THE NOAA/NOS TIDAL BENCHMARK LIST "946 6477 BETHEL, KUSKOKWIM RIVER, ALASKA", PUBLISHED 1/14/11. THIS TIDAL DATUM IS BASED ON THE 1983-2001 TIDAL EPOCH AND IS REFERENCED BY HOLDING NOAA/NOS TIDAL BENCHMARK "946 6477 B" (VM#19664, PID DR6569) AS 10.58'.

3. VERTICAL TIES TO THE NATIONAL SPATIAL REFERENCE SYSTEM ARE BASED ON PUBLISHED NAVD88 (GEOID 12B) ELEVATIONS HOLDING NOAA/USACE TIDAL BENCHMARK "946 6477 B" (VM#19664, PID DR6569) AS 17.51'.

4. SOUNDINGS ARE IN US SURVEY FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.

5. BATHYMETRY WAS COLLECTED June 11-14, 2026. SOUNDINGS WERE COLLECTED USING AN R2SONIC 2020 MULTIBEAM ECHOSOUNDER OPERATING AT 400 KHZ. SOUND VELOCITY THROUGH THE WATER COLUMN WAS DETERMINED WITH AN AML BASE X2 SOUND VELOCITY PROBE. POSITION AND VESSEL ORIENTATION WERE MEASURED USING AN APPLANIX POSMV WAVEMASTER V5 SYSTEM RECEIVING RTK CORRECTIONS FROM A TRIMBLE R10 GNSS GPS RECEIVER. DATA WAS COLLECTED AND PROCESSED USING QINSY 9.6 AND QIMERA 2.6 SOFTWARE. HORIZONTAL CONTROL WAS VERIFIED USING RTK GNSS EQUIPMENT AND TECHNIQUES. VERTICAL CONTROL WAS SURVEYED USING 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. (**SEE LEGEND).

IMAGERY/BASEMAPS: USGS COURTESY OF ARCGIS ONLINE, NATIONAL GEOGRAPHIC SOCIETY AND I-CUBED. IMAGERY COURTESY OF DIGITALGLOBE. IMAGERY DATE: 20170828

NOAA/USCG DATA: NO NOAA INFORMATION IS CURRENTLY REFERENCED IN THIS DATA. REFERENCE THE LATEST PUBLICATION OF CHART 16304 AND LOCAL NOTICE TO MARINERS PUBLISHED BY THE USCG FOR INFORMATION INCLUDING, BUT NOT LIMITED TO, NAVIGATION BUOYS, BEACONS, WRECKS, OBSTRUCTION POINTS, MARINE CABLES, ETC.

PROJECT INFORMATION: THIS PROJECT WAS COMPLETED IN 1983. MAINTENANCE DREDGING WAS CONDUCTED IN 1992, 1997, AND 2013. THE PROJECT DEPTH OF THE CHANNEL IS -4 FEET MLLW.

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LEGEND

- Federal Navigation Project Limits
- Federal Navigation Station Line
- Shoalest Sounding(s)**
- Project Depth Contour
- Shoaling Area

50 0 50 100 150 200

GRAPHIC SCALE IN FEET

U.S. ARMY CORPS OF ENGINEERS
ALASKA DISTRICT
617 S NIKK-GOOSE BAY RD
WASILLA, AK 99654

BETHEL HARBOR, ALASKA
BETHEL HARBOR
PROJECT CONDITION SURVEY

10-14, June 2026

Sheet 1 of 1

CONTRACT NO.: W01HE23-D-0020
CONTRACTOR: WOLFERT INC.
CITY: WASILLA
STATE: AK
DATE: 10/14/2026
BY: [Signature]
DATE: 10/14/2026
REVISION: [Blank]
DESCRIPTION: [Blank]

DATE: 10/14/2026
BY: [Signature]
DATE: 10/14/2026
REVISION: [Blank]
DESCRIPTION: [Blank]