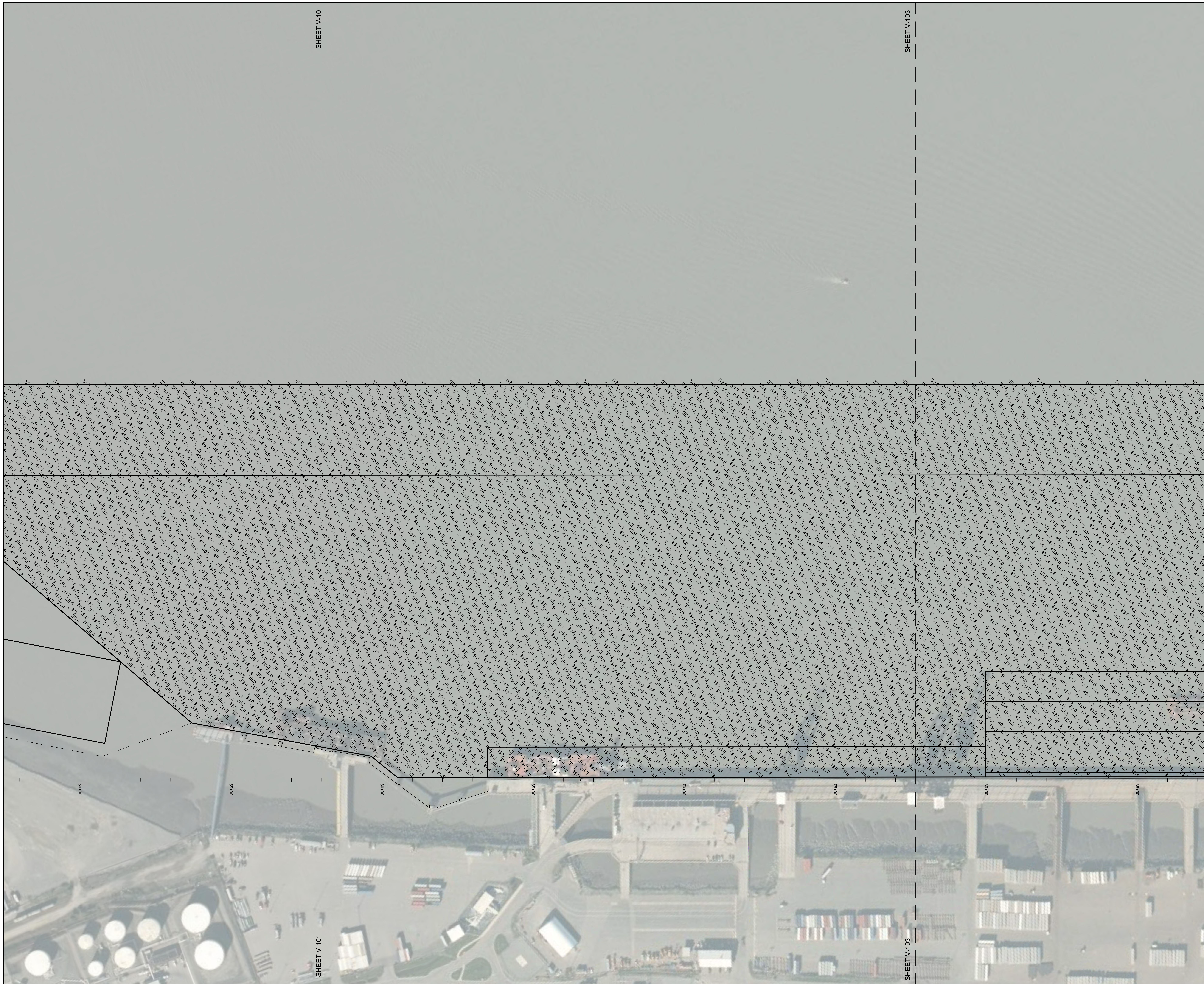


SHEET V-102

SHEET V-102

<p>US Army Corps of Engineers ALASKA DISTRICT</p>	
CONTRACT NO. W19HLE-0006 CONTINUATION: MANSION CONSTRUCTION CO. CITY: SEATTLE STATE: WASHINGTON Approved: _____ Date: _____	CONTRACT NO. W19HLE-0006 CONTINUATION: MANSION CONSTRUCTION CO. CITY: SEATTLE STATE: WASHINGTON Approved: _____ Date: _____
CHECKED BY: _____ DRAWN BY: _____ DESIGNED BY: _____ DATE: _____	FILE NAME: _____ SIZE: _____ DATE: _____
U.S. ARMY CORPS OF ENGINEERS ALASKA DISTRICT JBER, ALASKA 99506-0888	U.S. ARMY CORPS OF ENGINEERS ALASKA DISTRICT JBER, ALASKA 99506-0888
ANCHORAGE, ALASKA 2018-2020 MAINTENANCE DREDGING, PORT OF ALASKA HYDROGRAPHIC SURVEY POST_20191101_POA_FINAL	
SHEET IDENTIFICATION V-101 Sheet 1 of 5	



SHEET V-101

SHEET V-103

SHEET V-101

SHEET V-103



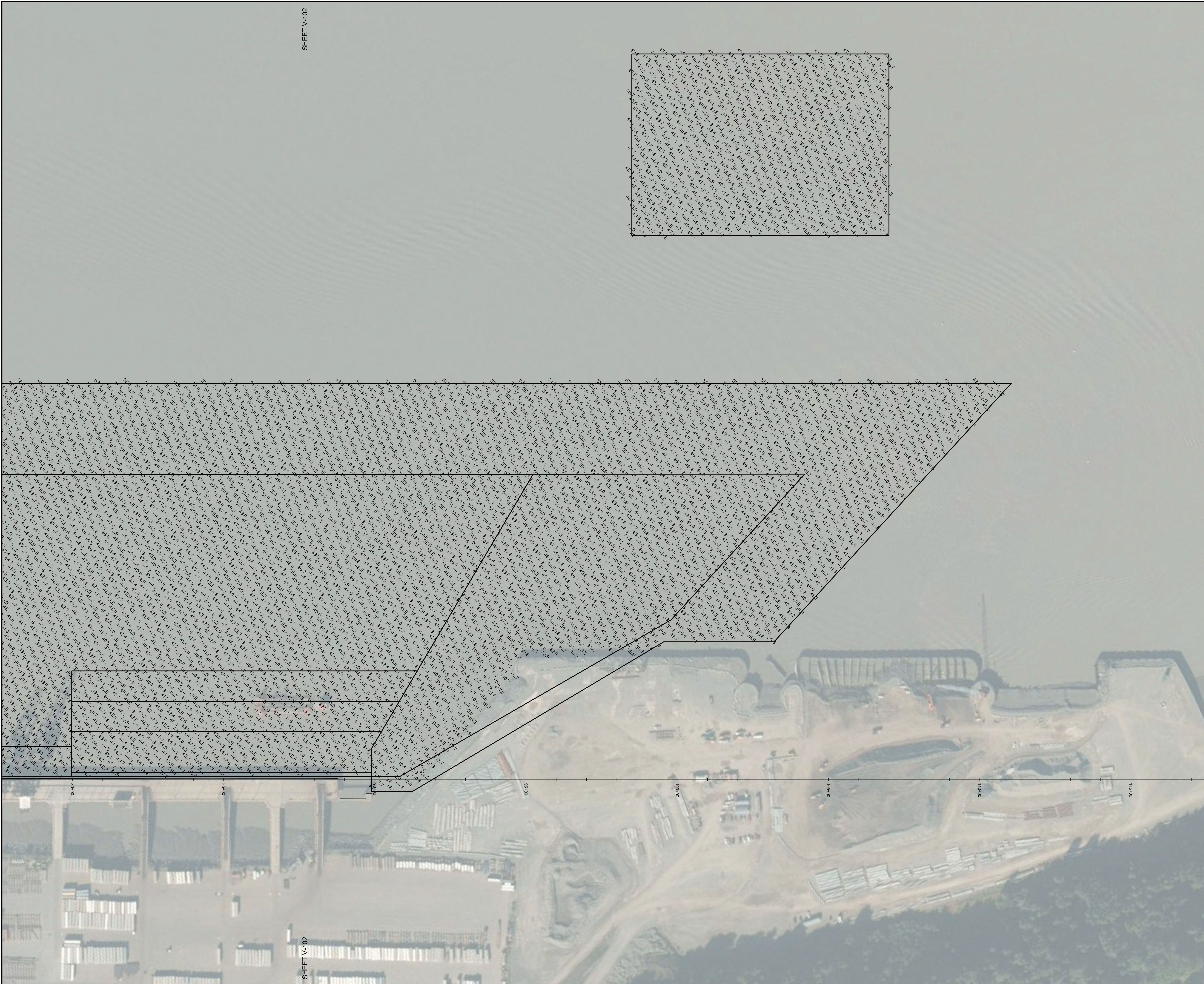
US Army Corps of Engineers
ALASKA DISTRICT

CONTRACT NO.	WTR16L-C-0008
CONTINUATION	MANASO CONSTRUCTION CO.
CITY/STATE	SEATTLE, WASHINGTON
RECOMMENDATION	Approved
DATE	1/19/19

NO.	DESCRIPTION	DATE	BY


U.S. ARMY CORPS OF ENGINEERS
ALASKA DISTRICT
JBER, ALASKA 99506-9898
DRAWN BY: JBER
CHECKED BY: JBER
DATE: 1/19/19

ANCHORAGE, ALASKA
2018-2020 MAINTENANCE DREDGING, PORT OF ALASKA
HYDROGRAPHIC SURVEY
POST_20191101_POA_FINAL
SHEET IDENTIFICATION
V-102
Sheet 2 of 5



SHEET V-102

SHEET V-102



US Army Corps of Engineers
ALASKA DISTRICT

CONTRACT NO. W19HLE-C0006	DRAWN BY: W19HLE-C0006	DATE: 11/19/2019
CONTINUATION: MAMMOET CONSTRUCTION CO.	CHECKED BY: ALBUSHOFF	DATE: 11/19/2019
CITY: SEATTLE	APPROVED BY: J. ANDERSON	DATE: 11/19/2019
RECOMMENDATION:	FILE NAME: POST_20191101_POA_FINAL.DWG	SCALE: 1"=100'

ANCHORAGE, ALASKA
2018-2020 MAINTENANCE DREDGING, PORT OF ALASKA
HYDROGRAPHIC SURVEY
POST_20191101_POA_FINAL

U.S. ARMY CORPS OF ENGINEERS
ALASKA DISTRICT
JBER, ALASKA 99506-9998

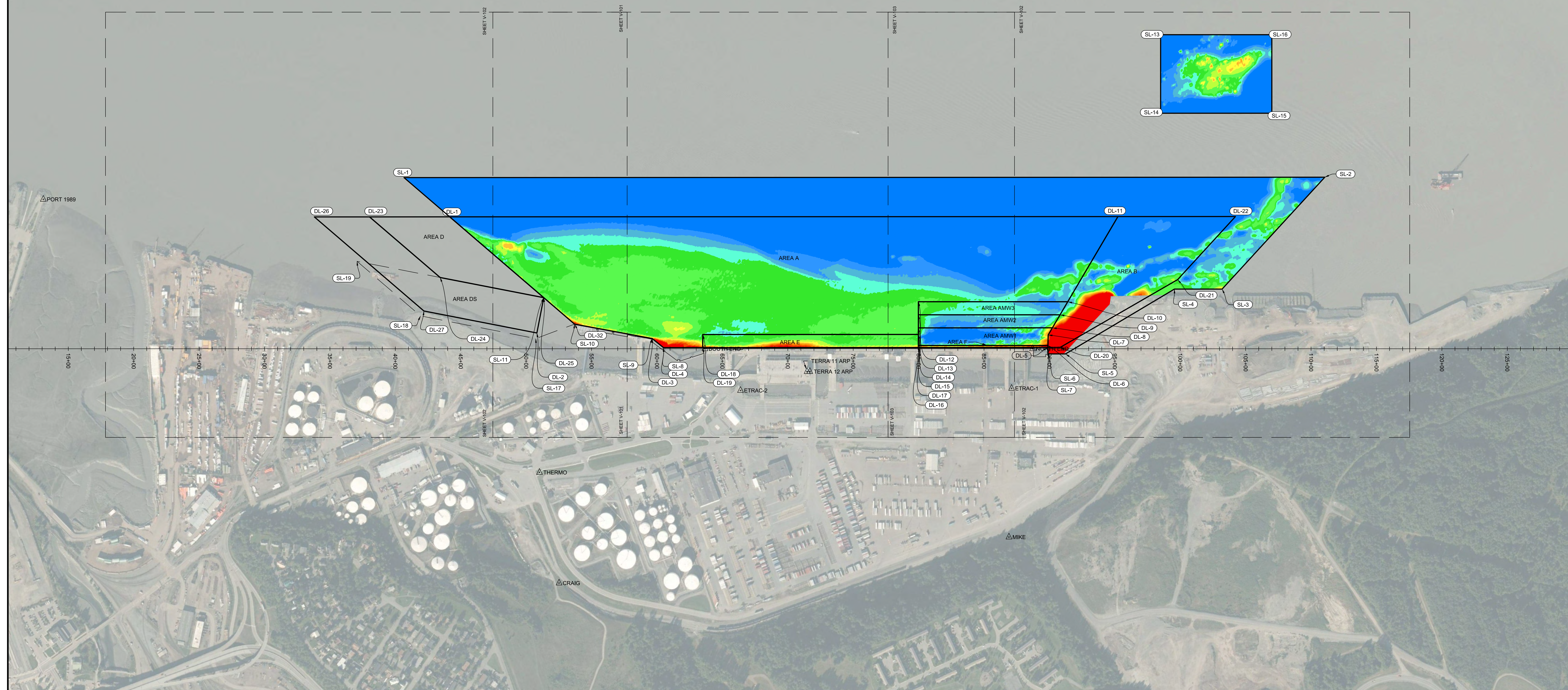
NO.	REVISION	DATE	BY	DESCRIPTION

SHEET IDENTIFICATION
V-103
 Sheet 3 of 5

NOTES

1. PRIMARY HORIZONTAL CONTROL IS ALASKA STATE PLANE, NAD 83 (2011) EPOCH 2010.00, ZONE 4. IN U.S. SURVEY FEET DERIVED FROM STATIC GPS MEASUREMENTS ORIGINATING FROM AND HOLDING NGS STATIONS "VAN DUSEN" (PID T14676), "LOOP2 RMS" (PID U4446), AND NGS CORS STATIONS "ANC2" (PID DL6498), "TBN" (PID DK4055), "TSEA" (PID A10952), "ZAN1" (PID DE9153).
2. LOCAL HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 4, NAD83. US SURVEY FEET. HOLDING USACE SBC "S END 1978" AS N 2,646,649.84', E 1,660,584.80' AND USACE SBC "S END 1978" AS N 2,644,286.27', E 1,659,728.03'.
3. VERTICAL CONTROL: ELEVATIONS ARE MEAN LOWER LOW WATER (MLLW) BASED ON THE 1983-2001 TIDAL EPOCH EXPRESSED IN US FEET. THE BASIS OF ELEVATIONS IS NOAA NOS TIDE STATION 9455920 "ANCHORAGE, KNIK ARM, COOK INLET, ALASKA" PUBLISHED 10/24/2011 HOLDING "NO 15 RESET 1966" (VM# 1332) AS 37.14'.
4. VERTICAL TIES TO THE NATIONAL SPATIAL REFERENCE SYSTEM ARE BASED ON PUBLISHED NAVD83 (GEOID 12B) ELEVATIONS HOLDING NOAA/USACE TIDAL BENCHMARK "9455920 TIDAL 16" (PID TT0713 VM# 1335) AS 29.79'.
5. SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
6. BATHYMETRY WAS COLLECTED NOVEMBER 01, 2019. SOUNDINGS WERE COLLECTED USING AN RESONIC 2024 MULTIBeam ECHOSOUNDER OPERATING AT 200 KHZ. SURFACE SOUND VELOCITY WAS MEASURED USING A VALPORT SV-PLUS MOUNTED TO THE SONAR HEAD. SOUND VELOCITY THROUGH THE WATER COLUMN WAS DETERMINED WITH AN AML BASE X SOUND VELOCITY PROBE. POSITION AND VESSEL ORIENTATION WERE MEASURED USING AN APPLANIX POSMV WAVEMASTER V5 SYSTEM RECEIVING RTK CORRECTIONS FROM A TRIMBLE SPSS5 GNSS RECEIVER SET AT CONTROL STATION "TERRA 11", LOCATED ATOP THE PORT OFFICE BUILDING. SURVEY DATA WAS COLLECTED USING QINSY 8.1 SOFTWARE AND PROCESSED USING QIMERA 1.5 SOFTWARE.
7. HORIZONTAL AND VERTICAL CONTROL SURVEY WAS PERFORMED BY USACE IN 2013 AND VERIFIED BY ETRAC INC IN APRIL, 2018 AS PART OF THE PREDREDGE SURVEY.
8. THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF THE SURVEY.
9. MAP SOUNDINGS ARE BINNED AT 30 FEET (SHOAL-BIASED) AND COLOR ELEVATIONS ARE BINNED AT 12 FEET AND ARE SHOAL-BIASED.

SOUNDING ELEVATIONS TABLE			
#	MIN. ELEV.	MAX. ELEV.	COLOR
1	-100.0	-43.0	Blue
2	-43.0	-42.0	Light Blue
3	-42.0	-41.0	Light Cyan
4	-41.0	-40.0	Cyan
5	-40.0	-39.0	Green
6	-39.0	-38.0	Light Green
7	-38.0	-37.0	Yellow-Green
8	-37.0	-36.0	Yellow
9	-36.0	-35.0	Orange
10	-35.0	-34.0	Light Orange
11	-34.0	-33.0	Orange-Red
12	-33.0	-32.0	Red-Orange
13	-32.0	-31.0	Red
14	-31.0	20.0	Dark Red



**U.S. Army Corps of Engineers
ALASKA DISTRICT**

CONTRACT NO. W19HLE-C-0004
 CONTINUATION: MAINTENANCE DREDGING, PORT OF ALASKA
 CITY: SEATTLE STATE: WASHINGTON
 Recommended: Approved:

DRAWN BY: J. ANDERSON
 CHECKED BY: J. ANDERSON
 DATE: 11/01/2019
 FILE NAME: POST_20191101_POA_FINAL.DWG
 SIZE: 1"=50'
 SCALE: 11/01/2019

ANCHORAGE, ALASKA
2018-2020 MAINTENANCE DREDGING, PORT OF ALASKA
HYDROGRAPHIC SURVEY
POST_20191101_POA_FINAL

SHEET IDENTIFICATION
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