

DREDGE LIMITS		
CORNER#	NORTHING	EASTING
DL-01	1,840,930.19	1,550,305.22
DL-02	1,841,318.54	1,550,184.21
DL-03	1,841,364.89	1,550,571.44
DL-04	1,840,669.87	1,550,654.63
DL-05	1,840,645.10	1,550,447.69
DL-06	1,840,656.89	1,550,430.66

DREDGE LIMITS		
CORNER#	NORTHING	EASTING
DL-07	1,840,653.73	1,550,376.57
DL-08	1,840,531.77	1,550,369.82
DL-09	1,840,377.05	1,550,402.65
DL-10	1,840,377.05	1,550,363.75
DL-11	1,840,535.05	1,550,329.96
DL-12	1,840,662.40	1,550,337.15

DISPOSAL SITE LIMITS		
CORNER#	NORTHING	EASTING
DS-01	1,839,502.58	1,551,238.87
DS-02	1,839,739.66	1,551,159.55
DS-03	1,839,644.47	1,550,875.05
DS-04	1,839,407.39	1,550,954.38

VOLUME COMPUTATIONS		
AREA A: MOORING BASIN & ENTRANCE CHANNEL	MLLW=0	CU. YD.
AVAILABLE TO PROJECT DEPTH (PD)	0.0	69,224
AVAILABLE TO MAX PAY DEPTH (MP)	-2.0	86,939
AVAILABLE SIDE SLOPES (SS)	VARIES	32,802
AREA B: EXTENDED ENTRANCE CHANNEL		
AVAILABLE TO PD	+8.0	24
AVAILABLE TO MP	+7.0	76
AVAILABLE SS	VARIES	84
TOTAL MAXIMUM VOLUME AVAILABLE (MP + SS)		119,901



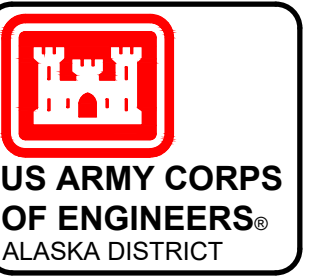
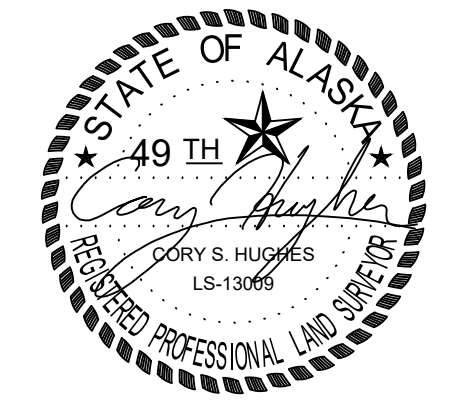
- ### NOTES
- PRIMARY PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 6, NAD83 (2011), IN US SURVEY FEET BASED ON NGS PUBLISHED VALUES, HOLDING US&GS STATION "DILLINGHAM 1947" (PID UV7691) AS N 1,849,383.08", E 1,551,809.45" AND US&GS AZIMUTH MARK "DILLINGHAM AZ MK 1947" (PID UV7690) AS N 1,841,347.21", E 1,553,844.91".

LOCAL PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 6, NAD83 (2011), IN US SURVEY FEET HOLDING USACE DOMED BC "1277-3 1984" AS N 1,840,427.98", E 1,550,887.60".
 - VERTICAL CONTROL IS MEAN LOWER LOW WATER (MLLW=0.0'), BASED ON NOAA/NOS TIDAL BENCH MARK LIST: "946 5374, SNAG POINT, NUSHAGAK BAY, DILLINGHAM, ALASKA" PUBLISHED 04/29/2013. THIS TIDAL DATUM IS BASED ON THE 1983-2001 TIDAL EPOCH AND IS REFERENCED BY HOLDING HOLDING NOAA/NOS TIDAL BENCHMARK "5374 B 2007" (VM 18352 / PID BBBF17) AS 24.87".
 - VERTICAL TIES TO THE NATIONAL SPATIAL REFERENCE SYSTEM ARE BASED ON PUBLISHED NAVD88 (GEOID 12B) ELEVATION HOLDING NOAA SS DRIVE ROD "5374 B 2007" (PID BBBF17 / VM 18352) AS 18.46".
 - SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
 - BATHYMETRY WAS COLLECTED MAY 11, 2020. SOUNDINGS WERE COLLECTED USING A CEESCOPE ECHO SOUNDER OPERATING AT 200 KHZ. SOUND VELOCITY THROUGH THE WATER COLUMN WAS DETERMINED WITH AN AML BASE X2 SOUND VELOCITY PROBE. POSITION AND TIDES WERE PROVIDED IN REAL TIME USING A TRIMBLE R8 RTK GPS RECEIVER OPERATING ON KINEMATICS CORRECTIONS BROADCAST FROM A TRIMBLE R8 RTK BASE RECEIVER SET AT CONTROL STATION, "1277-3 1984". DATA WAS COLLECTED AND PROCESSED USING HYPACK 2020 SOFTWARE. HORIZONTAL AND VERTICAL CONTROL WAS SURVEYED USING STATIC GNSS EQUIPMENT AND TECHNIQUES.
 - THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF THE SURVEY.
 - MAP SOUNDINGS, CONTOURS, COLOR RELIEF AND VOLUME COMPUTATIONS ARE BASED ON A 10 FOOT SORT.

SURVEY CONTROL DATA					
STATION	NORTHING	EASTING	MLLW	DESCRIPTION	
1277-1 1984	1,841,622.39	1,550,745.71	32.1	3.25 IN. USACE SBC	
1277-2 1984	1,840,494.00	1,550,879.74	30.9	3.25 IN. USACE SBC	
1277-3 1984	1,840,427.98	1,550,887.60	30.21	3.25 IN. USACE SBC	
5374 A 2007	1,840,570.45	1,553,897.99	25.6	STAINLESS STEEL ROD	
5374 B 2007	1,840,590.75	1,553,629.48	24.9	STAINLESS STEEL ROD	
DIL 1998	1,840,505.33	1,550,674.26	29.8	3.25 IN. AL CAP	
DILLINGHAM 1947	1,849,383.08	1,551,809.45		3.5 IN. USCGS SBC	
DILLINGHAM AZ MK	1,841,347.21	1,553,844.91		USCGS 2 IN. IRON PIPE	
PICKEL 1998	1,841,509.51	1,550,437.81	28.8	3.25 IN. AL CAP	
WDS-2 2001	1,841,419.33	1,549,910.66	22.8	3.25 IN. AL CAP	

THIS HYDROGRAPHIC SURVEY WAS COMPLETED UNDER THE OVERSIGHT OF AN ACSM/THOSDA CERTIFIED HYDROGRAPHER

Cory Hughes
CORY S. HUGHES C.H. (245)

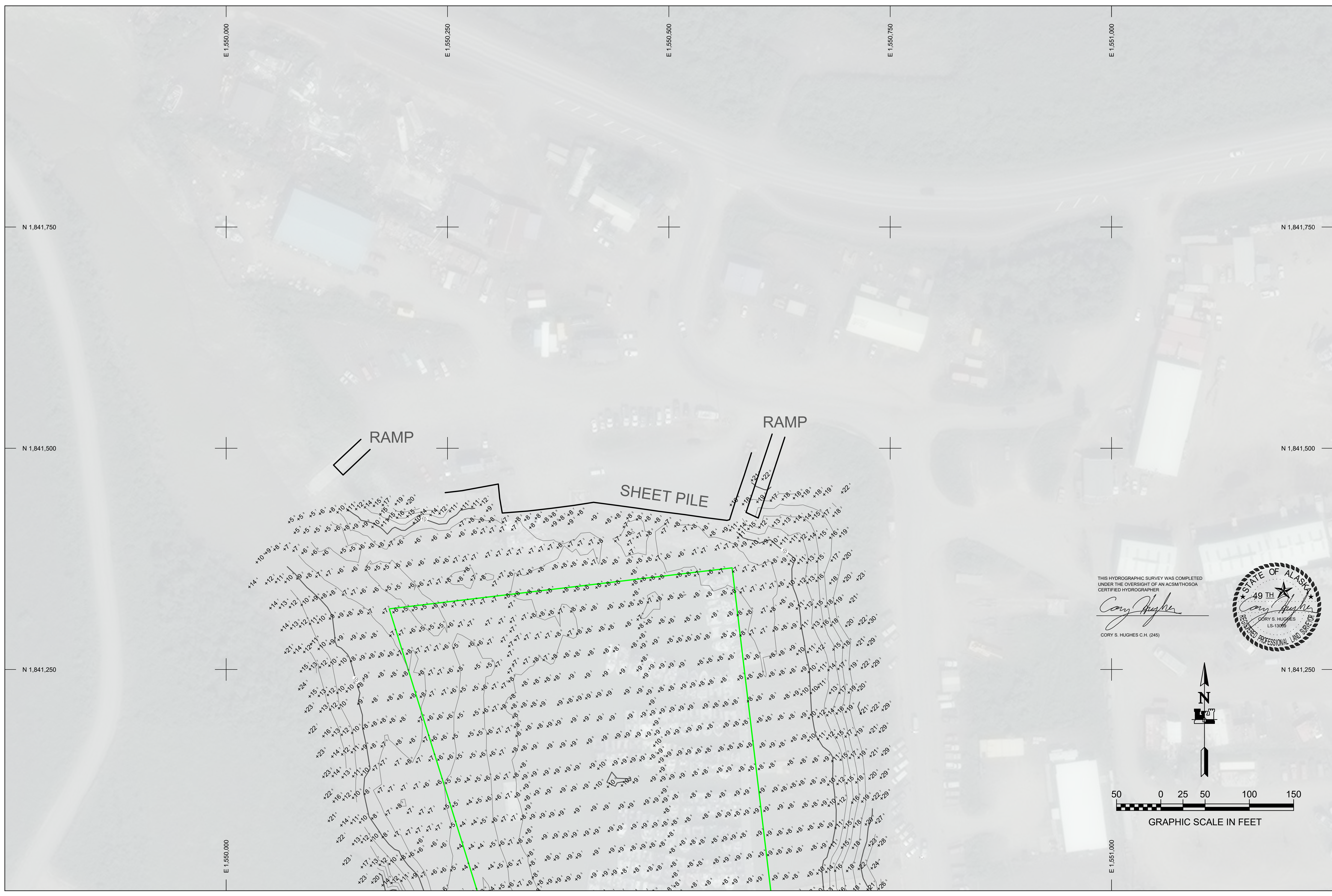


REV.	DATE	BY	APPR.	DESCRIPTION

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PLANNED BY: DCA	TASK ORDER NO.:
DRAWN BY: DCA	JOB NO.:
CHECKED BY: CSH	SCALE: 1" = 200'
DESIGNED BY: THOMAS SLOAN	CONTRACTOR: ALASKA MARINE EXCAVATION
FILE: DILLINGHAM PRE DREDGE 20200511.DWG	CITY: STATE: ANCHORAGE ALASKA

DILLINGHAM, ALASKA
DILLINGHAM HARBOR
PRE-DREDGE SURVEY
MAY 10 - 11, 2020

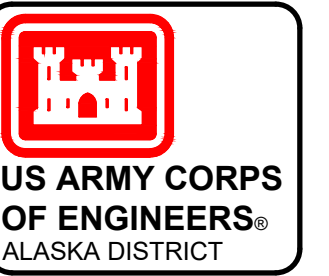
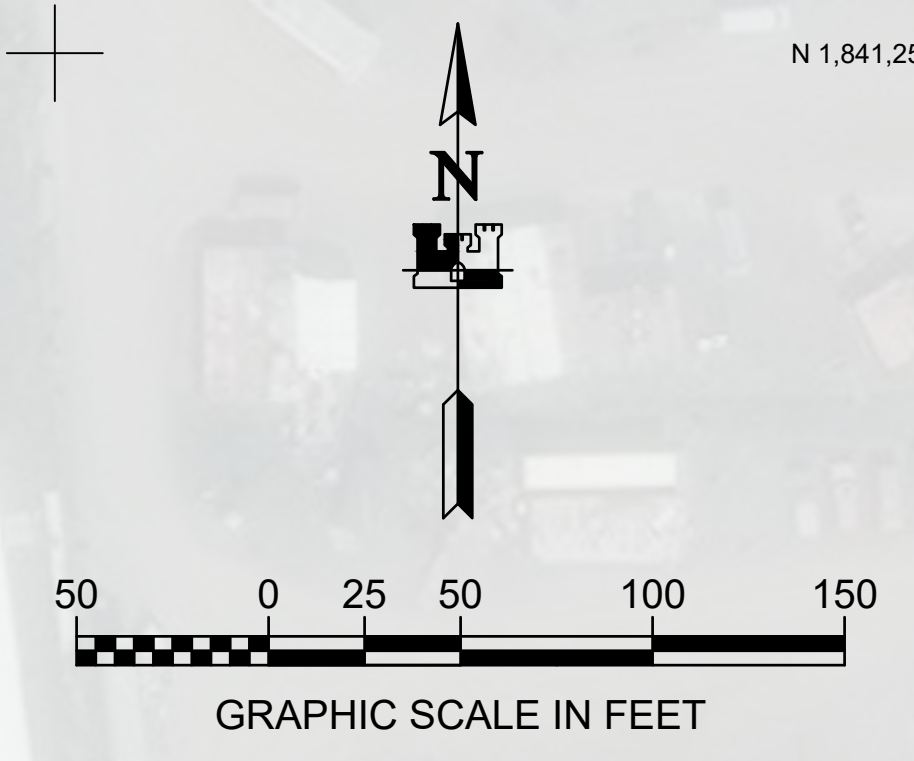
REFERENCE NUMBER:
5-DIL-92-07-51
SHEET 1 OF 5



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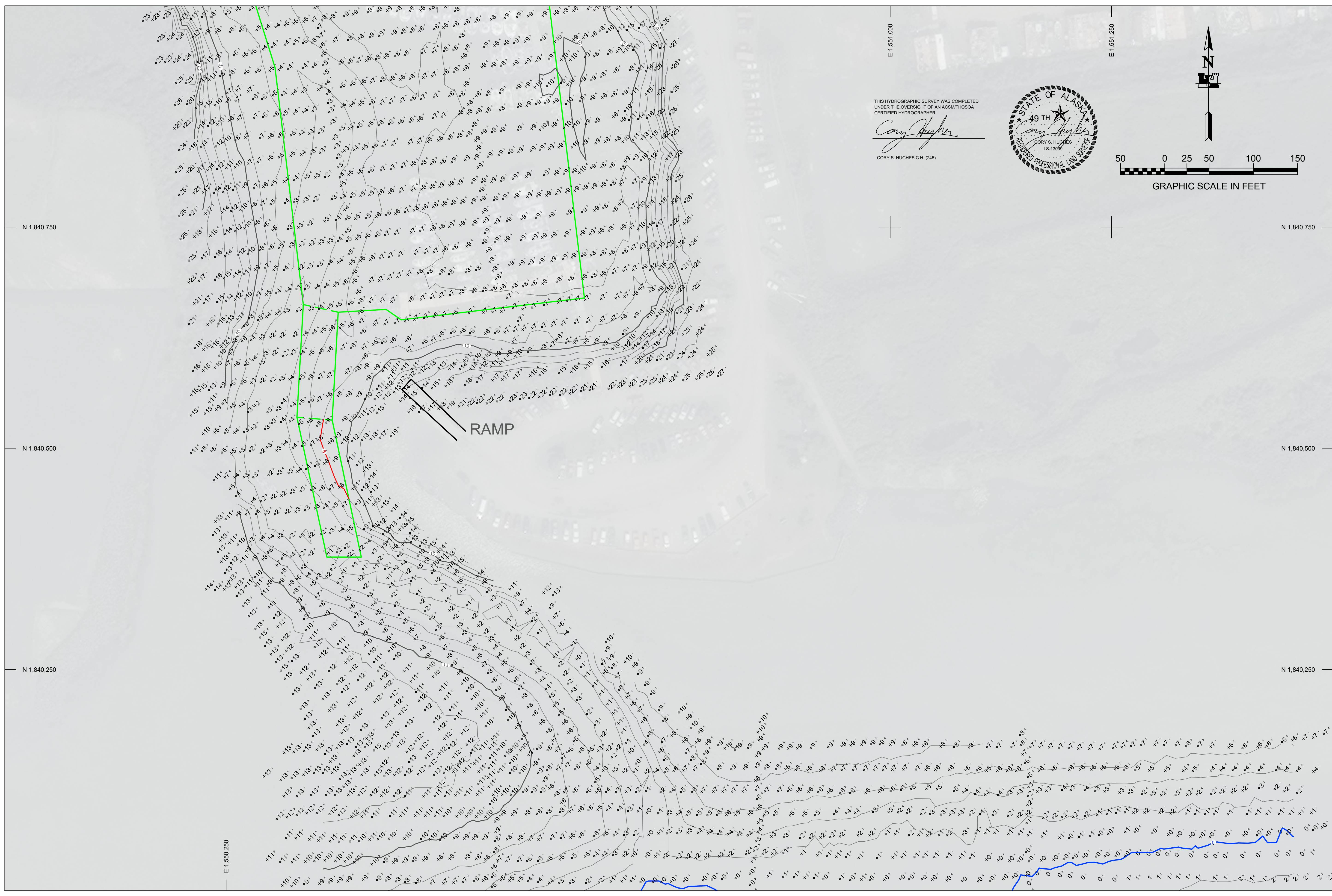


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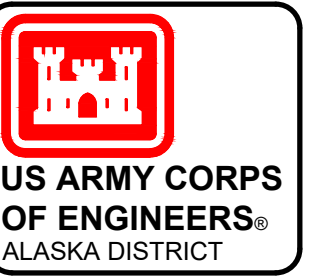
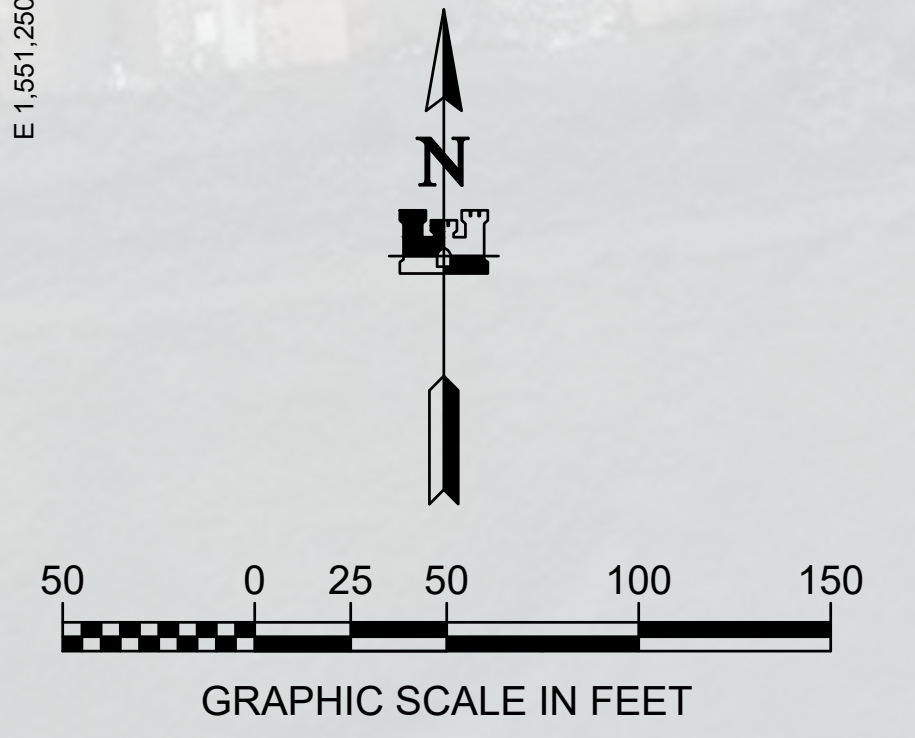
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PLOT DATE: 06/25/2020	TASK ORDER NO.:
CHECKED BY: DCA	JOB NO.:
CHECKED BY: CSH	CONTRACTOR: ALASKA MARINE EXCAVATION
FILE: DILLINGHAM PRE DREDGE 20200511.DWG	CITY: STATE: ANCHOR POINT/ALASKA

DILLINGHAM, ALASKA
 DILLINGHAM HARBOR
 PRE-DREDGE SURVEY
 MAY 10 - 11, 2020

REFERENCE NUMBER:
 5-DIL-92-07-51
 SHEET 2 OF 5



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 CERTIFIED HYDROGRAPHER
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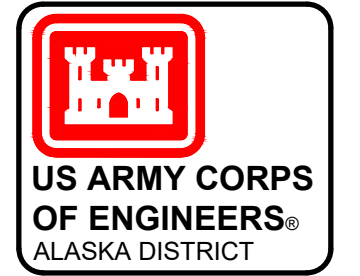
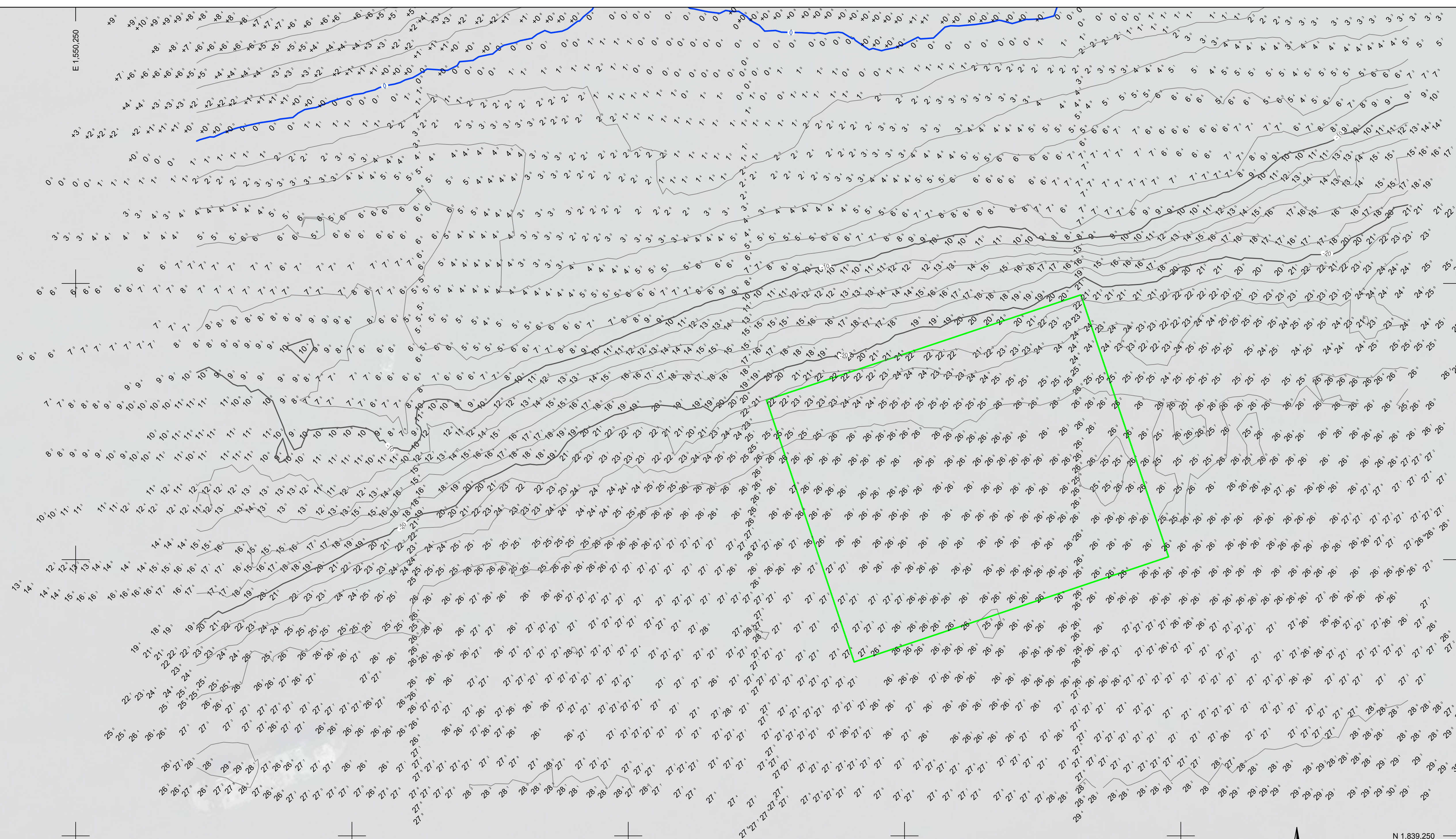


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PLANT DATE: 06/25/2020	TASK ORDER NO.:
CHECKED BY: CSH	JOB NO.:
DRAWN BY: DCA	CONTRACTOR: ALASKA MARINE EXCAVATION
SURVEYED BY: CSH & DCA	CITY: ANCHORAGE, ALASKA
COVERED BY: THOMAS SLOAN, CHIEF GEOMATICS SECTION	STATE: ALASKA
FILE: DILLINGHAM PRE DREDGE 20200511.DWG	ANCHOR POINT: ALASKA

DILLINGHAM, ALASKA
DILLINGHAM HARBOR
 PRE-DREDGE SURVEY
 MAY 10 - 11, 2020

REFERENCE NUMBER:
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 SHEET 3 OF 5



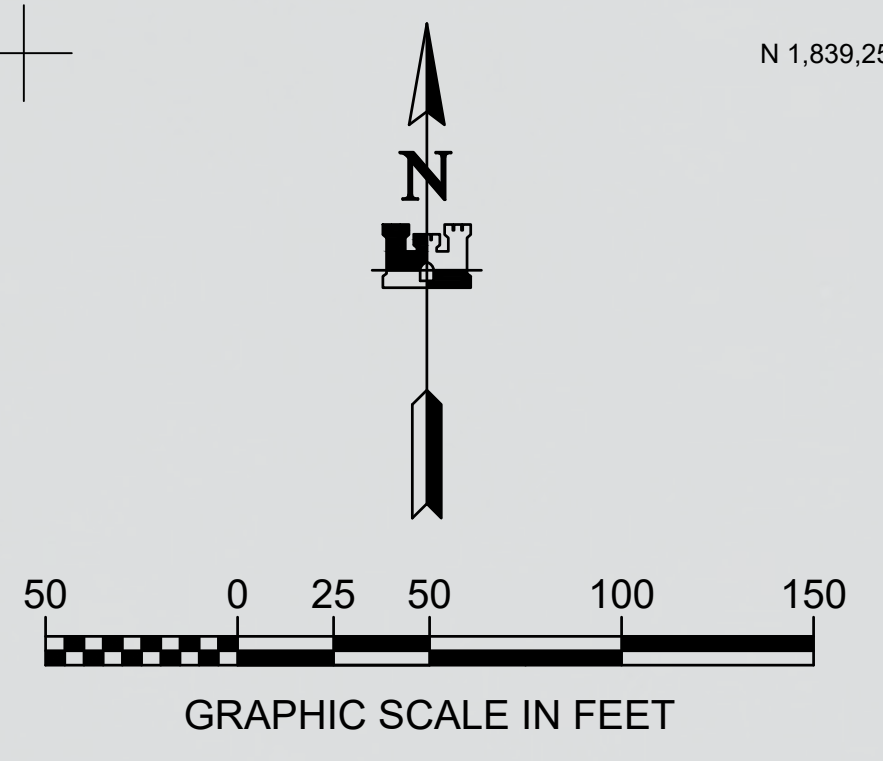
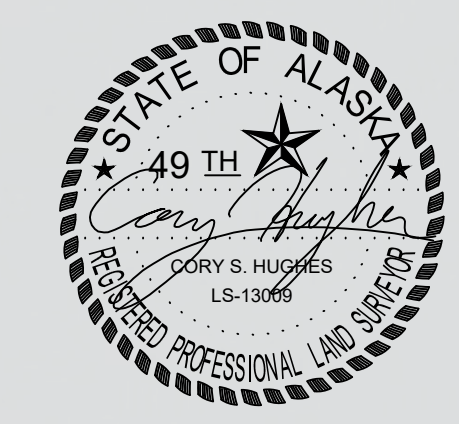
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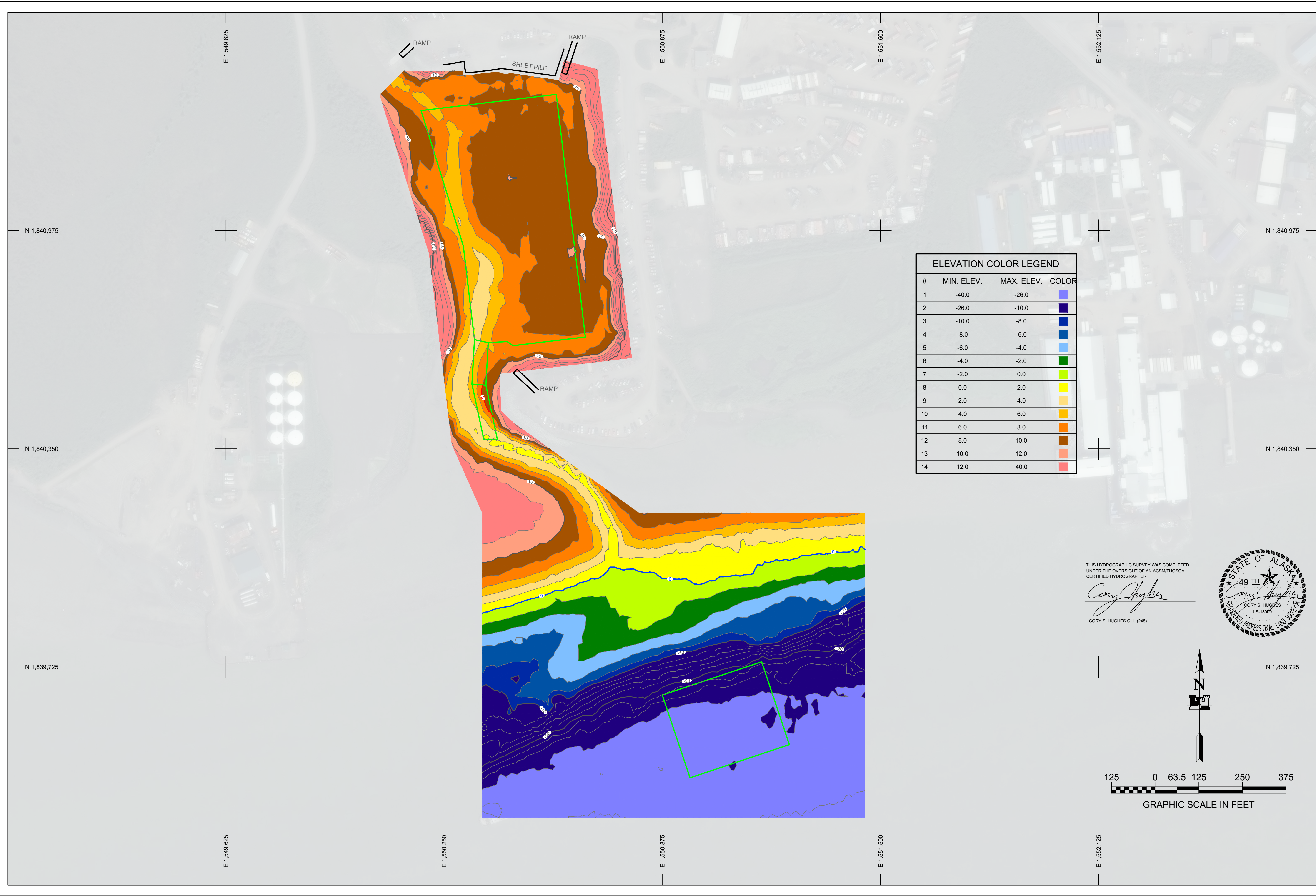
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SURVEYED BY: CSH & DCA	CITY: ANCHORAGE, ALASKA
FILE: DILLINGHAM PRE DREDGE 20200511.DWG	ANCHOR POINT: ALASKA

DILLINGHAM, ALASKA
DILLINGHAM HARBOR
 PRE-DREDGE SURVEY
 MAY 10 - 11, 2020

REFERENCE NUMBER:
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 SHEET 4 OF 5

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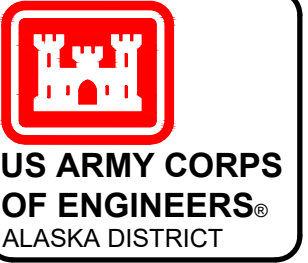
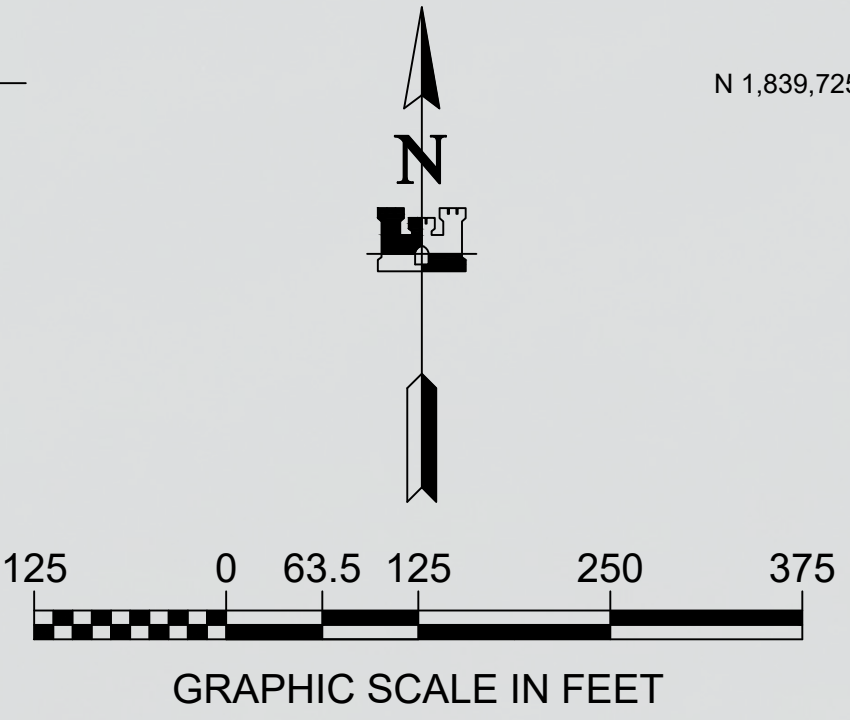




ELEVATION COLOR LEGEND			
#	MIN. ELEV.	MAX. ELEV.	COLOR
1	-40.0	-26.0	Light Blue
2	-26.0	-10.0	Dark Blue
3	-10.0	-8.0	Blue
4	-8.0	-6.0	Light Blue
5	-6.0	-4.0	Light Blue
6	-4.0	-2.0	Green
7	-2.0	0.0	Light Green
8	0.0	2.0	Yellow
9	2.0	4.0	Light Orange
10	4.0	6.0	Orange
11	6.0	8.0	Dark Orange
12	8.0	10.0	Brown
13	10.0	12.0	Light Brown
14	12.0	40.0	Red

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SHEET 5 OF 5