

1. THE LOCALITY IS SHOWN ON USGS 7.5' QUARTS NO. 1666A, 1666B, 16013 AND 2001.
 2. DEPTHS ARE IN FEET REFERENCED TO MEAN LOWER LOW WATER (MLLW) (1987).

ANCHORAGE HARBOR ALASKA
 REVISION: 2012

- ### NOTES
- HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 4, NAD83. US SURVEY FEET, HOLDING USACE SBC "N END 1978" AS N 2,646,649.75', E 1,660,584.91' AND USACE SBC "S END 1978" AS N 2,644,296.16', E 1,659,728.14'.
 - VERTICAL CONTROL IS IN FEET REFERRING TO MEAN LOWER LOW WATER (MLLW=0.0), BASED ON NOAA NOS 1983-2001 TIDAL EPOCH BENCH MARK LIST "9455920 ANCHORAGE, KNIK ARM, COOK INLET, ALASKA" PUBLISHED 4/21/2003, HOLDING USACE SBC "TIDAL 16 1966" AS 40.53', USACE SBC "B 75 1964" AS 36.81'.
 - BASE MAP AND PROJECT LIMITS WERE TRANSFORMED USING EXISTING BASELINE ("N END 1978" TO "S END 1978") PROVIDED BY USACE. TRANSLATED, ROTATED, AND SCALED TO 2012 BASELINE ("N END 1978" TO "S END 1978").
 - BASE MAP FEATURES INCLUDING BUT NOT LIMITED TO DOCK FACES, BUILDINGS, PILING, AND ROADS ARE PROVIDED BY USACE AND ARE NOT VERIFIED BY ETRAC ENGINEERING.
 - THIS SURVEY WAS PERFORMED BY ETRAC ENGINEERING, ON 20 & 23 APRIL, 2012.
 - SOUNDINGS WERE COLLECTED USING A RZSONIC 2024 MULTIBEAM ECHO SOUNDER OPERATING AT 200KHz. SURFACE VELOCITY WAS MEASURED USING A VALEPORT SV-PLUS MOUNTED TO THE SONAR HEAD.
 - SOUND VELOCITY PROFILES WERE COLLECTED USING A TELEDYNE ODOM DIGIBAR-S SVP UNIT.
 - VESSEL POSITION, HEADING, ATTITUDE, AND RTK TIDES WERE ACQUIRED USING AN APPLANIX POSMV WAVEMASTER GPS/INERTIAL POSITIONING SYSTEM RECEIVING RTK CORRECTIONS FROM A TIMBLE 750 GPS RECEIVER SET AT CONTROL STATION "TERRA 11 2012", LOCATED ATOP THE PORT OFFICE BUILDING.
 - SURVEY NAVIGATION AND DATA COLLECTION WERE PERFORMED USING QPS QINSY (V8.0). DATA PROCESSING WAS PERFORMED IN QPS QLOUD (V2.0.0.0).
 - SOUNDING MINUS AND IN FEET UNLESS OTHERWISE INDICATED.
 - SURVEY DATA IS VALID ONLY WITHIN THE TIMEFRAME IN WHICH THE SURVEY WAS CONDUCTED.

PROJECT AREA LIMITS			
CORNER	NORTHING	EASTING	DESCRIPTION
DL-A01	2,644,010.53	1,659,632.55	
DL-A02	2,643,952.51	1,659,524.59	
DL-A03	2,643,880.57	1,659,524.59	
DL-A04	2,642,519.80	1,657,318.67	
DL-A05	2,642,395.68	1,657,218.18	
DL-A06	2,648,342.15	1,659,254.03	
DL-B01	2,649,256.22	1,659,566.97	
DL-B04	2,648,432.26	1,659,566.97	
DL-B05	2,651,604.46	1,659,885.47	
DL-B06	2,650,882.07	1,660,981.32	
DL-B07	2,649,939.07	1,661,124.29	
DL-PN01	2,649,498.45	1,661,136.91	
DL-PN02	2,649,322.61	1,661,000.09	
DL-PN03	2,647,312.20	1,660,267.74	
DL-A07	2,647,067.43	1,660,304.63	
DL-A08	2,646,798.05	1,660,526.51	
DL-A09	2,646,763.43	1,660,615.09	
DL-Arm01	2,646,829.41	1,660,500.79	
DL-Arm04	2,645,833.07	1,660,276.28	
DL-Arm05	2,645,877.55	1,660,134.15	
DL-WB01	2,649,024.93	1,661,012.37	
DL-WB02	2,650,663.91	1,660,728.64	

SUMMER SURVEY LIMIT			
CORNER	NORTHING	EASTING	DESCRIPTION
DL-A01	2,644,010.53	1,659,632.55	
DL-A03	2,643,880.57	1,659,524.59	
DL-A07	2,647,067.43	1,660,304.63	
DL-A08	2,646,798.05	1,660,526.51	
DL-A09	2,646,763.43	1,660,615.09	
SL-01	2,650,726.25	1,661,637.83	
SL-03	2,642,986.41	1,658,664.60	
SL-04	2,641,055.81	1,658,114.10	
SL-05	2,641,052.18	1,656,617.62	

CONTROL DATA			
POINT ID	NORTHING	EASTING	DESCRIPTION
SPRO D 1980	2,640,284.57	1,659,986.34	44.89 34.2
SPRO TREATY 1988	2,642,784.44	1,660,186.98	37.38 26.7
945 500T04M18	2,644,294.93	1,659,725.88	40.53 30.04
ANCL	2,623,462.07	1,643,344.12	176.66 366.17
ANDERSON DOCK	2,639,890.80	1,657,147.53	46.56 36.07
B 75 1964	2,644,192.40	1,660,096.71	36.81 26.32
ETRAC-1	2,646,895.45	1,660,818.83	38.38 27.89
ETRAC-2	2,644,442.91	1,660,120.79	36.52 25.83
N END 1978	2,646,649.75	1,660,584.91	41.56 31.07
S END 1978	2,644,296.16	1,659,728.14	40.53 30.03
NO 15 KESET 1966	2,644,993.32	1,660,198.28	37.34 26.65
POINT 1989	2,639,934.24	1,656,923.53	39.27 28.78
TERRA 11 2012	2,644,869.74	1,660,136.36	80.43 69.94
TERRA 12 2012	2,644,990.00	1,660,166.65	81.36 70.67
TERRA 13 2012	2,645,889.97	1,658,613.12	128.44 127.95
UAAG	2,627,295.76	1,671,456.72	205.75 195.26
ZAN1	2,641,258.26	1,679,145.49	251.77 241.28

SCALE IN FEET
 HORIZONTAL SCALE: 1"=100'

BATHYMETRY



CONTRACT NO. W911KB-12-C-0004
 CONTRACTOR: MANSON CONSTRUCTION CO.
 CITY: SEATTLE STATE: WASHINGTON
 Recommended: [Signature] DATE: [Date]
 Approved: [Signature] DATE: [Date]

Date	Revision	Description

Date: 05/15/12
 Drawn: S. OLSON
 Checked: J. ANDERSON
 Submitted: A. CHURCHILL
 USACE Survey No.: 2987-12

U.S. ARMY ENGINEER DISTRICT
 CORPS OF ENGINEERS
 ANCHORAGE, ALASKA

PREDREDGED SURVEY

ANCHORAGE, ALASKA
 PORT OF ANCHORAGE
 2012-2014
 MAINTENANCE DREDGING
 20 & 23 APRIL 2012
 PREDREDGE SURVEY

Reference number:
V-101
 Sheet 1 of 6



CONTRACT NO. W911KB-12-C-0004
 CONTRACTOR MAISON CONSTRUCTION CO.
 CITY SEATTLE STATE WASHINGTON
 Recommended: Approved: Date:

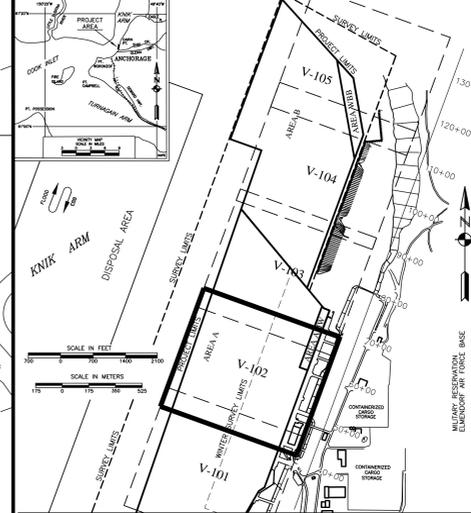
Scale	Notes
1"=100'	Horizontal Scale
1"=100'	Vertical Scale
1"=100'	Plan Scale
1"=100'	Profile Scale

Date: 05/15/12
 Drawn: S. OLSON
 Checked: J. ANDERSON
 Submitted: A. CHURCHILL
 USACE Survey No.: 2987-12

U.S. ARMY ENGINEER DISTRICT
 CORPS OF ENGINEERS
 ANCHORAGE, ALASKA
 PREDREDGE SURVEY

ANCHORAGE, ALASKA
 PORT OF ANCHORAGE
 2012-2014
 MAINTENANCE DREDGING
 20 & 23 APRIL 2012
 PREDREDGE SURVEY

Reference number:
V-102
 Sheet 2 of 6



1. THE LOCALITY IS SHOWN ON USCG 22 CHARTS NO. 1666A, 1666B, 16013 AND 500.
 2. DEPTHS ARE IN FEET REFERENCED TO MEAN LOWER LOW WATER (MLLW) (LWS-02).
 ANCHORAGE HARBOR ALASKA
 REVISION: 2012

- NOTES**
- HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 4, NAD83, US SURVEY FEET, HOLDING USACE SBC "N END 1978" AS N 2,646,649.75', E 1,660,584.91' AND USACE SBC "S END 1978" AS N 2,644,296.16', E 1,659,728.14'.
 - VERTICAL CONTROL IS IN FEET REFERRING TO MEAN LOWER LOW WATER (MLLW-00), BASED ON NOAA NOS 1983-2001 TIDAL EPOCH BENCH MARK LIST "9455920 ANCHORAGE, KNIK ARM, COOK INLET, ALASKA" PUBLISHED 4/21/2003, HOLDING USCGS SBC "TIDAL 16 1966" AS 40.53', USCGS SBC "B 75 1964" AS 36.81'.
 - BASE MAP AND PROJECT LIMITS WERE TRANSFORMED USING EXISTING BASELINE (S END 1978) PROVIDED BY USACE TRANSLATED, ROTATED, AND SCALED TO 2012 BASELINE ("N END 1978" TO "S END 1978").
 - BASE MAP FEATURES INCLUDING BUT NOT LIMITED TO DOCK FACES, BUILDINGS, PILING, AND ROADS ARE PROVIDED BY USACE AND ARE NOT VERIFIED BY ETRAC ENGINEERING.
 - THIS SURVEY WAS PERFORMED BY ETRAC ENGINEERING, ON 20 & 23 APRIL, 2012.
 - SOUNDINGS WERE COLLECTED USING A RZSONIC 2024 MULTIBEAM ECHO SOUNDER OPERATING AT 200kHz. SURFACE VELOCITY WAS MEASURED USING A VALEPORT SV-PLUS MOUNTED TO THE SONAR HEAD.
 - SOUD VELOCITY PROFILES WERE COLLECTED USING A TELEDYNE ODOM DIGIBAR-S SVP UNIT.
 - VESSEL POSITION, HEADING, ATTITUDE, AND RTK TIDES WERE ACQUIRED USING AN APPLANIX POSMV WAVEMASTER GPS/INERTIAL POSITIONING SYSTEM RECEIVING RTK CORRECTIONS FROM A TIMBLE 750 GPS RECEIVER SET AT CONTROL STATION "TERRA 11 2012", LOCATED ATOP THE PORT OFFICE BUILDING.
 - SURVEY NAVIGATION AND DATA COLLECTION WERE PERFORMED USING QPS QINSY (V8.0). DATA PROCESSING WAS PERFORMED IN QPS QLOUD (V2.0.0.0).
 - SOUNDING MINUS AND IN FEET UNLESS OTHERWISE INDICATED.
 - SURVEY DATA IS VALID ONLY WITHIN THE TIMEFRAME IN WHICH THE SURVEY WAS CONDUCTED.

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

W. Mel Saunders
 W MEL SAUNDERS CH(152)

PROJECT AREA LIMITS	
CORNER	NORTHING EASTING
DL-A01	2,644,010.53 1,659,612.55
DL-A02	2,643,952.31 1,659,524.59
DL-A03	2,642,519.80 1,657,316.67
DL-A04	2,642,352.15 1,657,254.03
DL-A05	2,642,342.15 1,659,254.03
DL-B01	2,649,256.22 1,659,566.97
DL-B04	2,648,432.26 1,659,046.40
DL-B05	2,651,604.46 1,659,885.47
DL-B06	2,650,982.02 1,660,981.30
DL-B07	2,649,939.07 1,661,244.25
DL-PN01	2,649,498.45 1,661,136.91
DL-PN02	2,649,322.61 1,661,000.09
DL-PN03	2,647,312.20 1,660,267.74
DL-A08	2,646,788.05 1,660,526.57
DL-A09	2,646,783.43 1,660,413.09
DL-A04d1	2,646,829.41 1,660,535.79
DL-A04d2	2,645,833.07 1,660,276.28
DL-A04d3	2,645,877.55 1,660,134.55
DL-WB01	2,648,024.53 1,661,012.37
DL-WB02	2,650,663.91 1,660,728.64

DISPOSAL AREA LIMITS	
DESCRIPTION	NORTHING EASTING
S-01	2,650,725.25 1,661,637.83
S-02	2,642,198.24 1,658,668.23
S-03	2,642,354.11 1,653,700.50
S-04	2,641,055.81 1,658,114.10
S-05	2,641,052.28 1,656,021.62

CONTROL DATA			
POINT ID	NORTHING	EASTING	DESCRIPTION
SPD D 1980	2,640,284.57	1,659,986.34	44.89 34.2
SPD TREATY 1982	2,642,784.84	1,660,598.96	37.39 26.7
9455920TIDAL16	2,644,294.93	1,659,725.84	40.53 30.04
ANC	2,623,862.07	1,643,344.12	176.66 166.17
ANDERSON DOCK	2,639,890.80	1,657,157.13	46.56 36.07
B 75 1964	2,644,192.40	1,660,096.71	36.81 26.32
ETRAC-1	2,646,895.45	1,660,813.83	38.38 27.89
ETRAC-2	2,644,442.91	1,660,120.79	36.52 25.83
N END 1978	2,646,649.75	1,660,584.91	41.56 31.07
S END 1978	2,644,296.16	1,659,728.14	40.53 30.04
NO 15 KESET 1966	2,644,993.32	1,660,198.28	37.34 26.65
POINT 1989	2,639,934.24	1,656,923.53	39.27 28.78
TERRA 11 2012	2,644,969.93	1,660,570.39	40.43 29.94
TERRA 12 2012	2,644,990.00	1,660,166.65	41.36 30.67
TEA	2,625,899.69	1,658,613.12	128.44 127.55
UAAG	2,627,295.76	1,671,456.72	205.75 195.26
ZANI	2,641,238.26	1,679,145.49	251.77 241.28

SCALE IN FEET
 HORIZONTAL SCALE: 1"=100'
BATHYMETRY



MINIMUM SURVEY LIMITS

NO SURVEY DATA BETWEEN PROJECT LIMITS AND MINIMUM SURVEY LIMITS DUE TO EARLY SEASON ICE.

PROJECT LIMITS

WINTER SURVEY LIMITS

USACE CONTROL POINT

ETRAC-2

S END 1978 STA 63+67.98

9455920TIDAL16

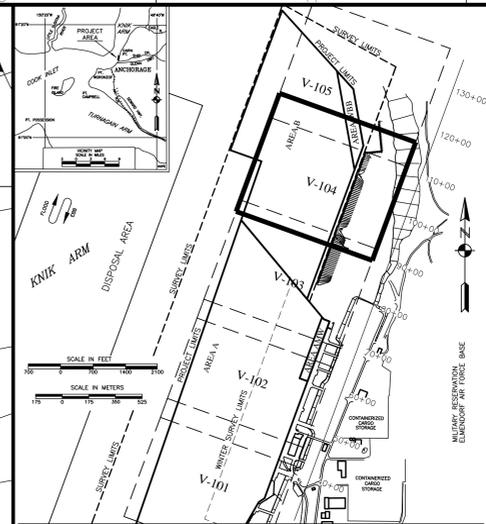
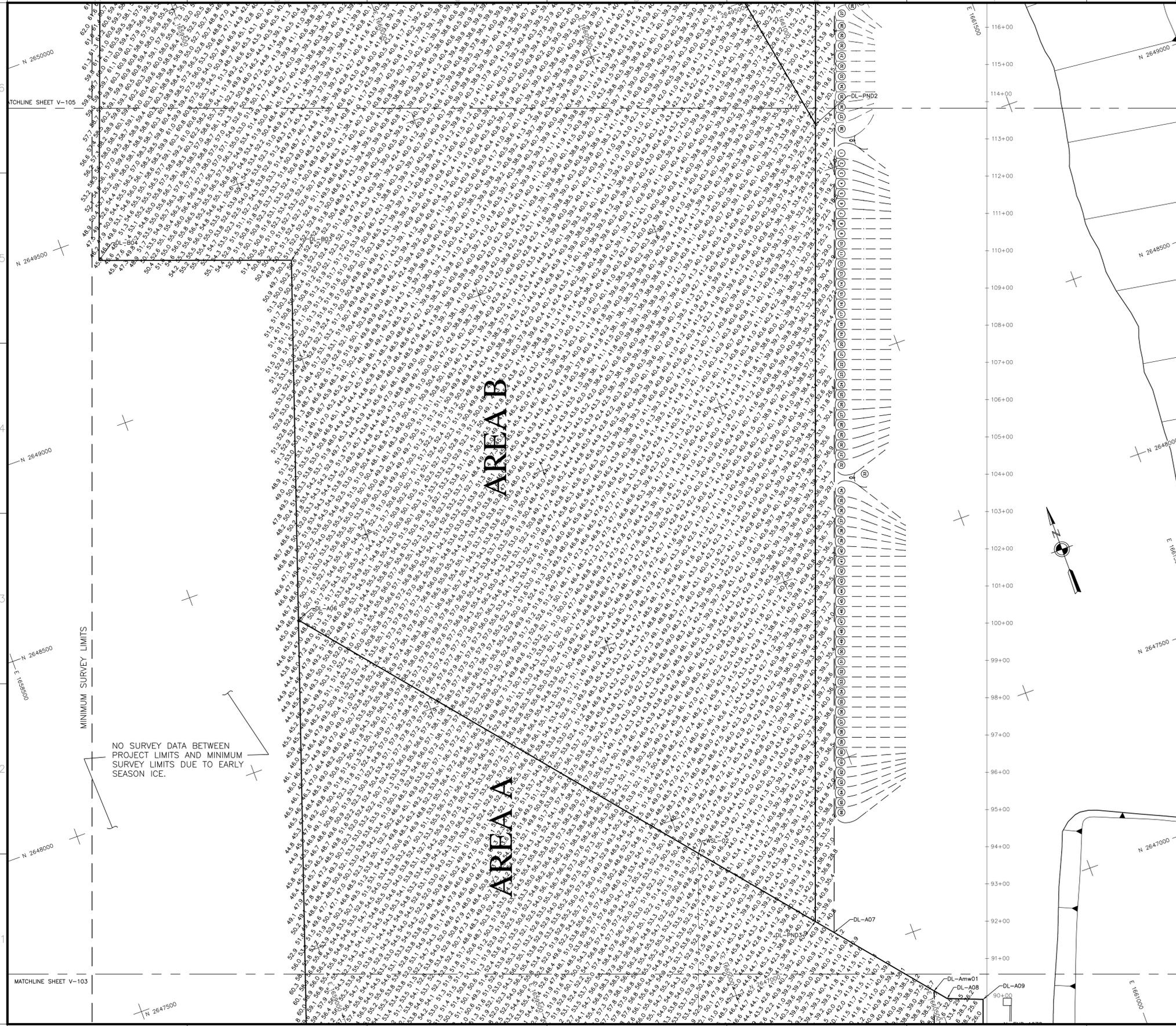
DL-A01

DL-A02

DL-A03

SL-03

ANCHORAGE HARBOR ALASKA



ANCHORAGE HARBOR ALASKA

1. THE LOCALITY IS SHOWN ON USCG 22 CHARTS NO. 1666A, 1666B, 16013 AND 200.

2. DEPTHS ARE IN FEET REFERENCED TO MEAN LOWER LOW WATER (M.L.L.W.-0).

- NOTES**
- HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 4, NAD83. US SURVEY FEET, HOLDING USACE SBC "N END 1978" AS N 2,644,649.75', E 1,660,584.91' AND USACE SBC "S END 1978" AS N 2,644,296.16', E 1,659,728.14'.
 - VERTICAL CONTROL IS IN FEET REFERRING TO MEAN LOWER LOW WATER (M.L.L.W.-0), BASED ON NOAA NOS 1983-2001 TIDAL EPOCH BENCH MARK LIST "945520 ANCHORAGE, KNIK ARM, COOK INLET, ALASKA" PUBLISHED 4/21/2003, HOLDING USCGS SBC "TIDAL 16 1966" AS 40.53', USCGS SBC "B 75 1964" AS 36.81'.
 - BASE MAP AND PROJECT LIMITS WERE TRANSFORMED USING EXISTING BASELINE (IN END 1978 TO "S END 1978" PROVIDED BY USACE TRANSLATED, ROTATED, AND SCALED TO 2012 BASELINE ("N END 1978" TO "S END 1978").
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 - THIS SURVEY WAS PERFORMED BY ETRAC ENGINEERING, ON 20 & 23 APRIL, 2012.
 - SOUNDINGS WERE COLLECTED USING A RZSONIC 2024 MULTIBEAM ECHO SOUNDER OPERATING AT 200KHz. SURFACE VELOCITY WAS MEASURED USING A VALEPORT SV-PLUS MOUNTED TO THE SONAR HEAD.
 - SOUND VELOCITY PROFILES WERE COLLECTED USING A TELEDYNE ODOM DIGIBAR-S SVP UNIT.
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 - SURVEY NAVIGATION AND DATA COLLECTION WERE PERFORMED USING QPS QINSY (V8.0). DATA PROCESSING WAS PERFORMED IN QPS QLOUD (V2.2.0.0).
 - SOUNDING MINUS AND IN FEET UNLESS OTHERWISE INDICATED.
 - SURVEY DATA IS VALID ONLY WITHIN THE TIMEFRAME IN WHICH THE SURVEY WAS CONDUCTED.

PROJECT AREA LIMITS

CORNER	NORTHING	EASTING
DL-A01	2,644,010.53	1,659,632.55
DL-A02	2,643,952.31	1,659,524.59
DL-A03	2,643,880.57	1,659,254.35
DL-A04	2,642,519.80	1,657,316.67
DL-A05	2,642,955.80	1,657,218.18
DL-A06	2,648,342.15	1,659,254.03
DL-B01	2,649,256.22	1,659,566.97
DL-B04	2,648,432.26	1,660,000.00
DL-B05	2,651,604.46	1,659,885.47
DL-B06	2,650,382.07	1,660,981.32
DL-B07	2,649,397.07	1,661,214.25
DL-PND1	2,649,498.45	1,661,136.93
DL-PND2	2,649,322.63	1,661,000.00
DL-PND3	2,647,312.20	1,660,267.74
DL-A08	2,646,788.05	1,660,525.57
DL-A09	2,646,763.43	1,660,613.09
DL-A04a	2,646,829.41	1,660,500.79
DL-A04b	2,645,833.07	1,660,276.28
DL-A04c	2,645,877.55	1,660,134.53
DL-WB01	2,648,024.53	1,661,012.37
DL-WB02	2,650,663.91	1,660,728.64

Summer Survey Limit

CORNER	NORTHING	EASTING
DL-A01	2,644,010.53	1,659,632.55
DL-A03	2,643,880.57	1,659,254.35
DL-A07	2,647,907.43	1,660,304.63
DL-A08	2,646,788.05	1,660,525.57
DL-A09	2,646,763.43	1,660,613.09
DL-A04a	2,646,829.41	1,660,500.79
DL-A04b	2,645,833.07	1,660,276.28
DL-A04c	2,645,877.55	1,660,134.53
DL-WB01	2,648,024.53	1,661,012.37
DL-WB02	2,650,663.91	1,660,728.64

DISPOSAL AREA LIMITS

DESCRIPTION	NORTHING	EASTING
S-01	2,651,702.73	1,659,893.33
S-02	2,650,726.25	1,661,637.31
S-03	2,642,986.41	1,658,600.63
S-04	2,641,055.81	1,658,114.13
S-05	2,641,052.28	1,656,021.62

CONTROL DATA

POINT ID	NORTHING	EASTING	LEVY (MVDMS)	LEVY (NAVD83)	DESCRIPTION
SPD D 1980	2,640,284.24	1,659,966.34	48.89	34.2	
SPD TRENK 1988	2,642,784.44	1,660,580.96	37.39	26.7	
945 500TH/MLB	2,644,294.93	1,659,725.88	40.53	30.04	
ANC	2,623,462.07	1,643,344.12	176.66	166.17	
ANDERSON DOCK	2,639,896.07	1,657,147.33	46.56	36.07	
B 75 1964	2,648,192.40	1,660,096.71	36.81	26.32	
ETRAC-1	2,646,395.45	1,660,814.83	38.38	27.89	
ETRAC-2	2,644,442.51	1,660,120.79	36.52	25.83	
N END 1978	2,646,449.75	1,660,584.91	41.56	31.07	USACE SBC 1978
S END 1978	2,644,296.16	1,659,728.14	40.53	30.03	USACE SBC 1978
NO 15 KEET 1966	2,644,993.32	1,660,198.28	37.34	26.65	
POINT 1989	2,639,934.24	1,656,923.53	39.27	28.78	
TERRA 11 2012	2,644,669.79	1,660,120.79	40.43	29.94	ALL THREAD ON ROOF POA BLDG
TERRA 12 2012	2,644,990.00	1,660,166.65	41.36	30.67	ALL THREAD ON ROOF POA BLDG
TERRA 13 2012	2,645,889.97	1,658,613.12	42.64	31.55	
HAAG	2,627,255.76	1,671,456.72	205.75	195.26	
ZANI	2,641,258.26	1,679,145.49	251.77	241.28	

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

W. Mel Saunders
W MEL SAUNDERS CH(152)

ANCHORAGE, ALASKA
PORT OF ANCHORAGE
2012-2014
MAINTENANCE, DREDGING
20 & 23 APRIL 2012
PREDREDGE SURVEY

Reference number:
V-104
Sheet 4 of 6

BATHYMETRY

SCALE IN FEET
HORIZONTAL SCALE: 1"=100'

US ARMY CORPS OF ENGINEERS ALASKA DISTRICT

CONTRACT NO. W911KB-12-C-0004

CONTRACTOR: MANSON CONSTRUCTION CO.

CITY: SEATTLE STATE: WASHINGTON

Recommended: [Signature] DATE: [Date]

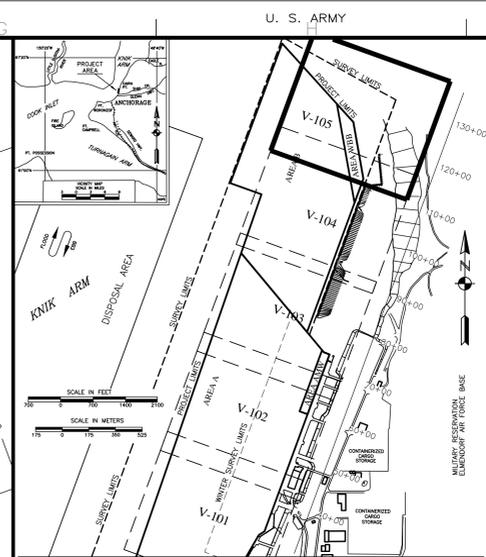
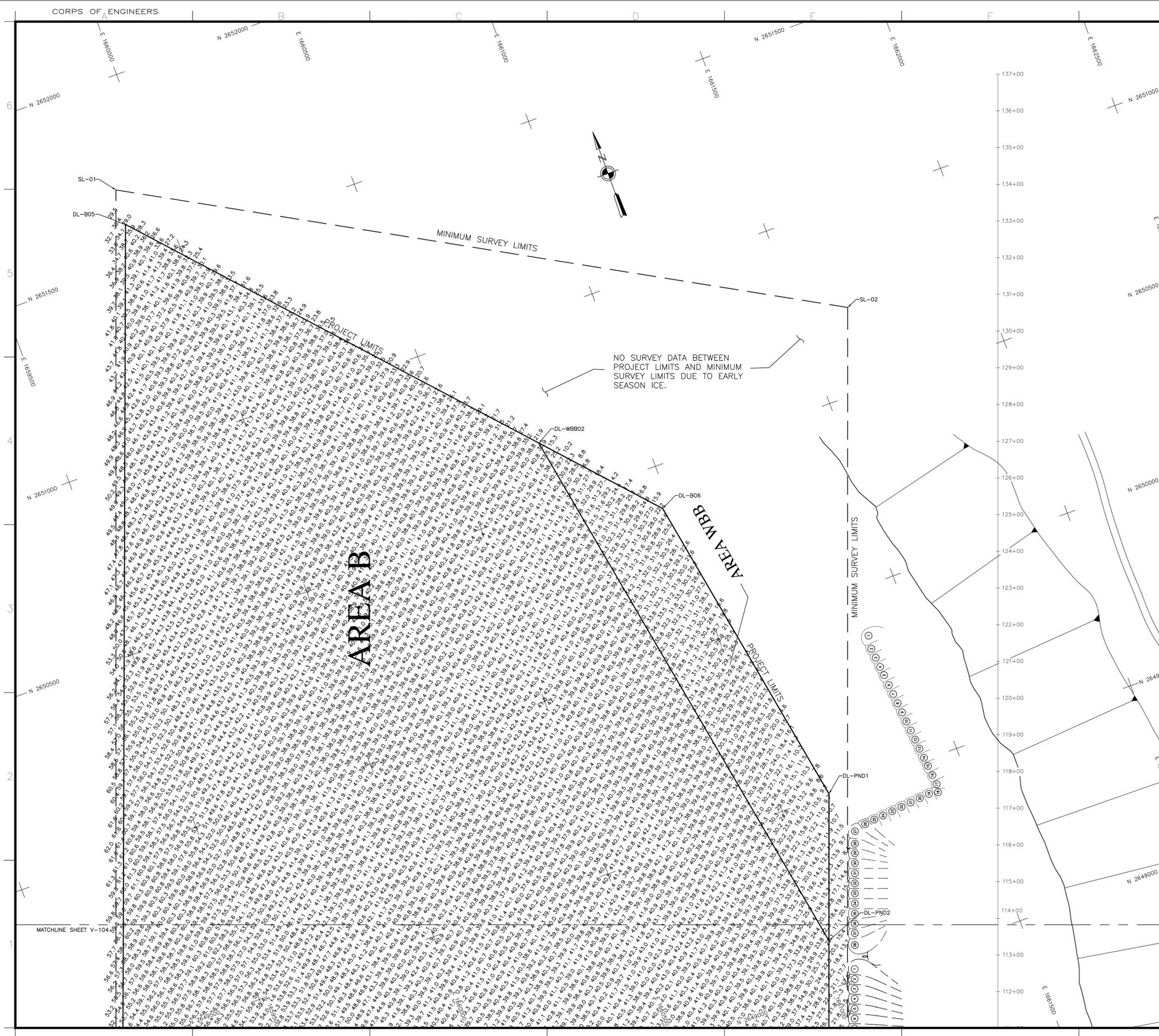
Approved: [Signature] DATE: [Date]

DATE: 05/15/12
DESIGN SCALE: 1"=100'
PLOT SCALE: 1:1
FILE: P:\Projects\2012\04\20120409

Supervisor: S. OLSON
Designer: S. OLSON
Reviewer: J. ANDERSON
Quantity: A. CHURCHILL

USACE Survey No.: 2987-12

PREDREDGE SURVEY



ANCHORAGE HARBOR ALASKA
 NAVIGATION
 REVISIONS: 2012

- NOTES**
- HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 4, NAD83, US SURVEY FEET, HOLDING USACE SBC "N END 1978" AS N 2,646,649.75', E 1,660,584.91' AND USACE SBC "S END 1978" AS N 2,644,296.16', E 1,659,728.14'.
 - VERTICAL CONTROL IS IN FEET REFERRING TO MEAN LOWER LOW WATER (MLLW=0.0), BASED ON NOAA'S 1983-2001 TIDAL EPOCH BENCH MARK LIST "9455920 ANCHORAGE, KNIK ARM, COOK INLET, ALASKA" PUBLISHED 4/21/2003, HOLDING USACE SBC "TIDAL 16 1966" AS 40.53', USACE SBC "B 75 1964" AS 36.81'.
 - BASE MAP AND PROJECT LIMITS WERE TRANSFORMED USING EXISTING BASELINE ("N END 1978" TO "S END 1978") PROVIDED BY USACE. TRANSLATED, ROTATED, AND SCALED TO 2012 BASELINE ("N END 1978" TO "S END 1978").
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 - SOUND VELOCITY PROFILES WERE COLLECTED USING A TELEDYNE ODOM DIGIBAR-S SVP UNIT.
 - VESSEL POSITION, HEADING, ATTITUDE, AND RTK TIDES WERE ACQUIRED USING AN APPLANIX POSMV WAVEMASTER GPS/INERTIAL POSITIONING SYSTEM RECEIVING RTK CORRECTIONS FROM A TIMBLE 750 GPS RECEIVER SET AT CONTROL STATION "TERRA 11 2012", LOCATED ATOP THE PORT OFFICE BUILDING.
 - SURVEY NAVIGATION AND DATA COLLECTION WERE PERFORMED USING QPS QINSY (V8.0). DATA PROCESSING WAS PERFORMED IN QPS QLOUD (V2.0.0.0).
 - SOUNDING MINUS AND IN FEET UNLESS OTHERWISE INDICATED.
 - SURVEY DATA IS VALID ONLY WITHIN THE TIMEFRAME IN WHICH THE SURVEY WAS CONDUCTED.

PROJECT AREA LIMITS

CORNER	NORTHING	EASTING
DL-A01	2,644,010.53	1,659,632.55
DL-A02	2,643,952.62	1,659,524.59
DL-A03	2,644,480.27	1,659,524.59
DL-A04	2,642,559.80	1,657,316.67
DL-A05	2,642,955.80	1,657,218.18
DL-A06	2,648,342.15	1,659,254.03
DL-B01	2,649,256.22	1,659,566.97
DL-B04	2,648,432.26	1,659,666.40
DL-B05	2,651,604.46	1,659,885.47
DL-B06	2,650,882.00	1,660,981.30
DL-B07	2,649,939.07	1,661,244.29
DL-PND1	2,649,498.45	1,661,136.93
DL-PND2	2,649,322.63	1,661,000.09
DL-PND3	2,647,312.20	1,660,267.74
DL-A07	2,647,067.43	1,660,304.63
DL-A08	2,646,798.05	1,660,526.57
DL-A09	2,646,763.43	1,660,615.09
DL-A04a	2,646,829.42	1,660,505.79
DL-A04b	2,645,833.07	1,660,276.29
DL-A04c	2,645,877.55	1,660,134.55
DL-WB01	2,649,024.53	1,661,012.37
DL-WB02	2,650,663.91	1,660,728.64

Summer Survey Limit

CORNER	NORTHING	EASTING
DL-A01	2,644,010.53	1,659,632.55
DL-A02	2,643,989.57	1,659,254.35
DL-A07	2,647,907.83	1,660,304.63
DL-A08	2,646,798.05	1,660,526.57
DL-A09	2,646,763.43	1,660,615.09
S-01	2,651,702.31	1,659,893.33
S-02	2,650,726.25	1,661,637.83
S-03	2,642,986.41	1,658,608.96
S-04	2,641,055.81	1,658,114.10
S-05	2,641,052.28	1,656,021.62

DISPOSAL AREA LIMITS

DESCRIPTION	NORTHING	EASTING
D001	2,650,125.73	1,658,658.23
D002	2,650,809.80	1,656,779.24
D003	2,642,364.11	1,663,700.50
D004	2,641,670.05	1,655,579.94

CONTROL DATA

POINT ID	NORTHING	EASTING	LEVY (MILLI)	LEVY (NAVD83)	DESCRIPTION
SP02 D 1980	2,640,284.57	1,659,986.34	44.89	34.2	
SP02 TRENCH 1982	2,642,784.44	1,660,598.96	37.39	26.7	
945 500TH/ML18	2,644,294.93	1,659,725.86	40.53	30.04	
ANC	2,623,462.02	1,643,344.12	176.66	166.17	
ANDERSON DOCK	2,639,890.80	1,657,512.33	46.56	36.07	
B 75 1964	2,648,192.40	1,660,096.71	36.81	26.32	
ETRAC-1	2,646,495.45	1,660,814.83	38.38	27.89	
ETRAC-2	2,648,442.51	1,660,120.79	36.52	25.83	
N END 1978	2,646,449.25	1,660,584.91	41.56	31.07	USACE SBC 1978
S END 1978	2,644,296.16	1,659,728.14	40.53	30.03	USACE SBC 1978
NO 15 KESET 1966	2,644,993.12	1,660,198.28	37.34	26.65	
POINT 1989	2,639,934.24	1,656,923.53	29.27	28.78	
TERRA 11 2012	2,644,869.21	1,660,519.39	40.43	29.94	ALL THREAD ON ROOF POA BLDG
TERRA 12 2012	2,644,990.00	1,660,166.65	41.36	30.67	ALL THREAD ON ROOF POA BLDG
TCR	2,625,899.64	1,658,612.12	128.44	117.55	
UAAG	2,627,255.76	1,671,456.72	205.75	195.26	
ZANI	2,641,258.26	1,679,145.49	251.77	241.28	

THIS HYDROGRAPHIC SURVEY WAS COMPLETED UNDER THE OVERSIGHT OF AN ACNM/THOSAA CERTIFIED HYDROGRAPHER

W. MEL SAUNDERS CH(152)

STATE OF ALASKA
 DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF GEODESY
 05/15/2012
 No. 3511

ANCHORAGE, ALASKA
 PORT OF ANCHORAGE
 2012-2014
 MAINTENANCE DREDGING
 20 & 23 APRIL 2012
 PREDREDGE SURVEY

Reference number:
V-105
 Sheet 5 of 6

U.S. ARMY
 CORPS OF ENGINEERS
 ALASKA DISTRICT

CONTRACT NO. W911KB-12-C-0004
 CONTRACTOR: MANSON CONSTRUCTION CO.
 CITY: SEATTLE, STATE: WASHINGTON
 Recommended: [Signature] Date: [Date]
 Approved: [Signature] Date: [Date]

DATE: 05/15/12
 Dwg. Scale: 1"=100'
 Plot Scale: 1:1
 File: Predredge_2012.dwg

Author: S. OLSON
 Designer: S. OLSON
 Checker: J. ANDERSON
 Surveyor: A. CHURCHILL
 USACE Survey No.: 2987-12

PREDREDGE SURVEY

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

W MEL SAUNDERS CH(152)



NOTES

- 1. HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 4, NAD83, US SURVEY FEET... 2. VERTICAL CONTROL IS IN FEET REFERRING TO MEAN LOWER LOW WATER... 3. BASE MAP AND PROJECT LIMITS WERE TRANSFORMED USING EXISTING BASELINE... 4. BASE MAP FEATURES INCLUDING BUT NOT LIMITED TO DOCK FACES, BUILDINGS, PILINGS, AND ROADS ARE PROVIDED BY USACE AND ARE NOT VERIFIED BY ETRAC ENGINEERING... 5. THIS SURVEY WAS PERFORMED BY ETRAC ENGINEERING, ON 20 & 23 APRIL, 2012... 6. SOUNDINGS WERE COLLECTED USING A RESONIC 2024 MULTIBEAM ECHO SOUNDER OPERATING AT 200kHz... 7. SOUND VELOCITY PROFILES WERE COLLECTED USING A TELEDYNE ODOM DIGIBAR-S SVP UNIT... 8. VESSEL POSITION, HEADING, ATTITUDE, AND RTK TIDES WERE ACQUIRED USING AN APPLIXIX POSMV WAVEMASTER GPS-INERTIAL POSITIONING SYSTEM... 9. SURVEY NAVIGATION AND DATA COLLECTION WERE PERFORMED USING QPS QINSY (V8.0)... 10. SOUNDING MINUS AND IN FEET UNLESS OTHERWISE INDICATED... 11. SURVEY DATA IS VALID ONLY WITHIN THE TIMEFRAME IN WHICH THE SURVEY WAS CONDUCTED.

SOUNDING ELEVATIONS TABLE with columns for MINIMUM ELEVATION, MAXIMUM ELEVATION, and COLOR. Values range from -44 & BELOW to +10.



CONTRACT NO. W911KB-12-C-0004, CONTRACTOR MAISON CONSTRUCTION CO., CITY SEATTLE, STATE WASHINGTON

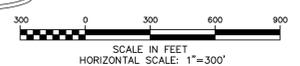
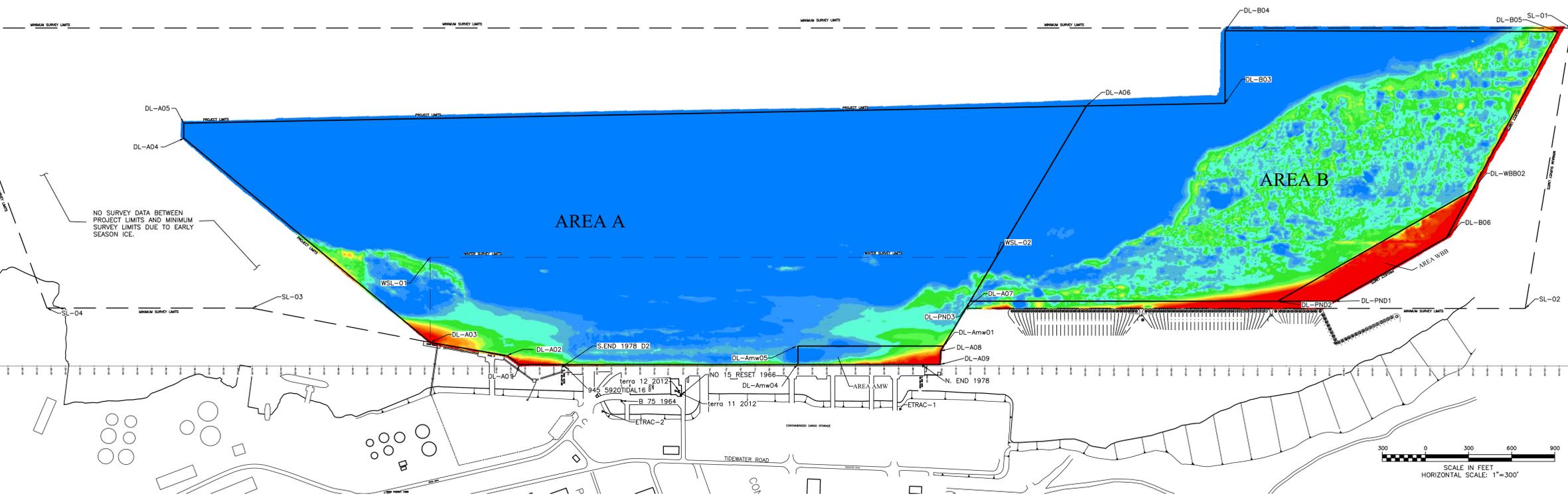
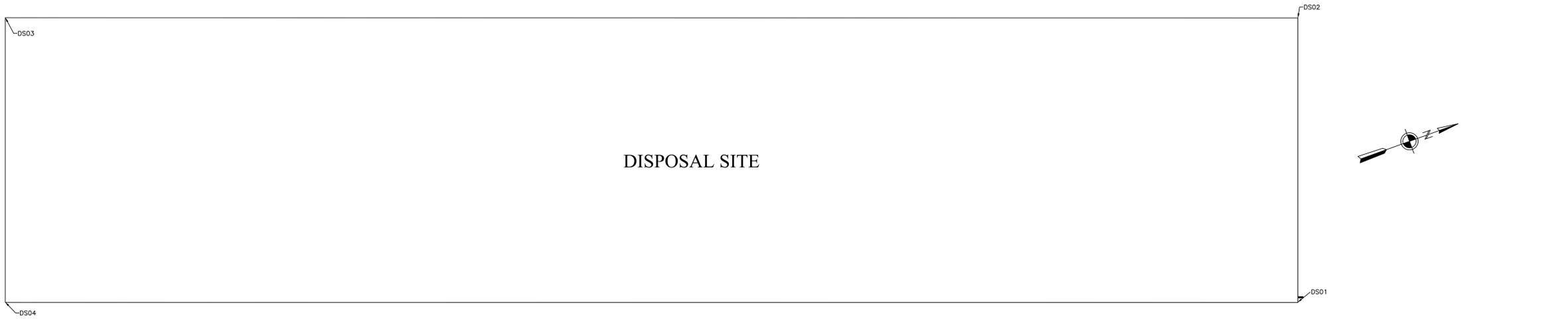
Table with columns for Description, Station, and Remarks.

Date: 05/15/12, Drawn: S. OLSON, Checked: J. ANDERSON, Submitted: A. CHURCHILL, USACE Survey No.: 2987-12

ANCHORAGE, ALASKA PORT OF ANCHORAGE 2012-2014 MAINTENANCE DREDGING 20 & 23 APRIL 2012 PREDREDGE SURVEY

Reference number: V-106, Sheet 6 of 6

DISPOSAL SITE



BATHYMETRY