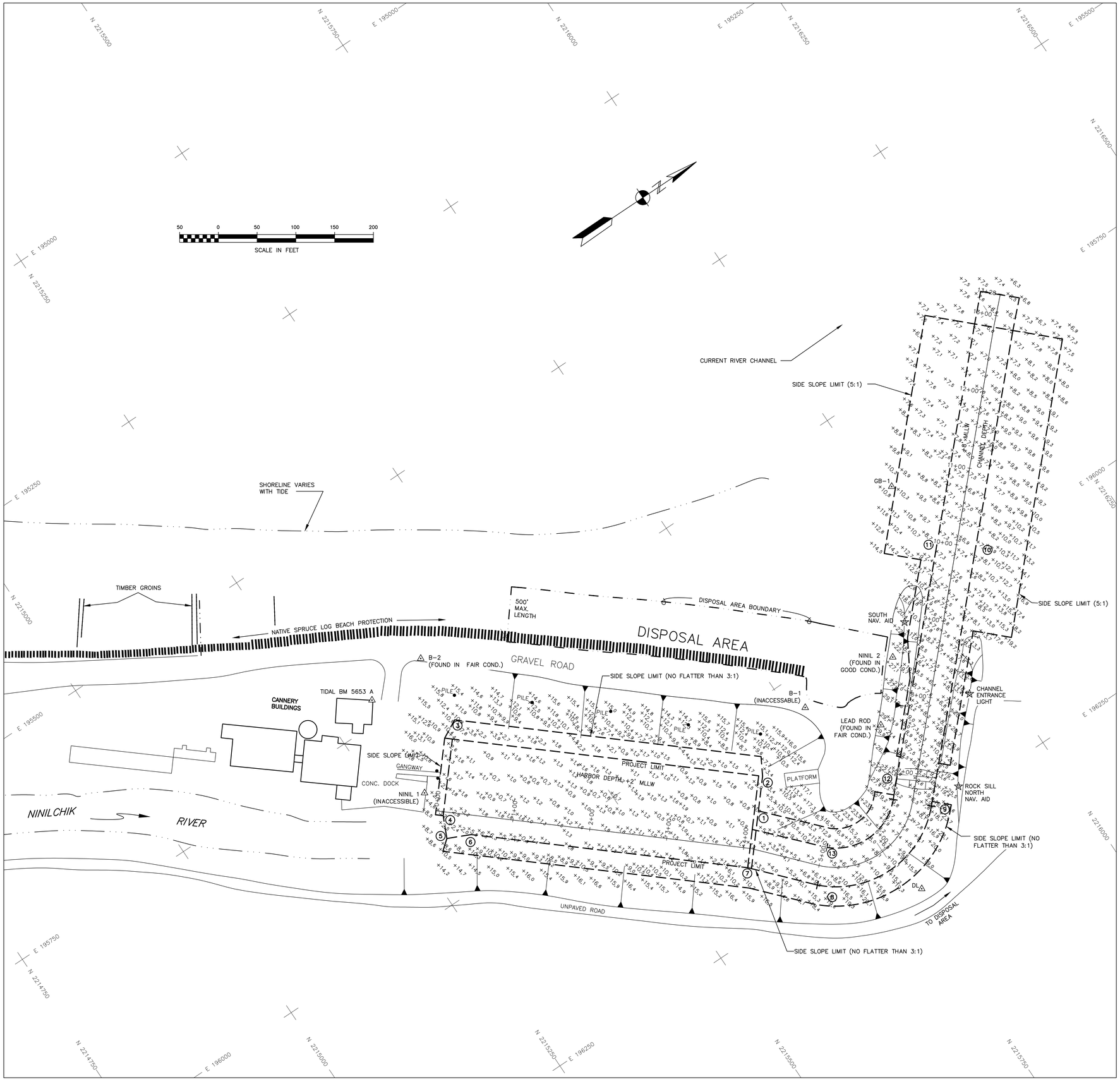
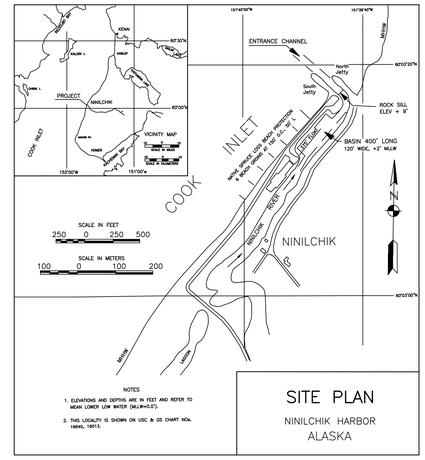




NOTES

1. HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 4, IN FEET, NAD 27, HOLDING SBC "NINIL 2" AS N 2,215,900.33, E 196,050.77 AND USACE SBC "B-2" AS N 2,215,393.19, E 195,713.32.
2. VERTICAL CONTROL IS IN FEET, REFERRING TO MEAN LOWER LOW WATER (MLLW=0.0'), HOLDING SBC "NINIL 2" AT 28.28',
3. SOUNDINGS ARE IN FEET AND ARE NEGATIVE UNLESS OTHERWISE INDICATED.
4. THIS DRAWING IS INDICATIVE OF CONDITIONS AT THE TIME OF SURVEY.
5. THIS POST DREDGE SURVEY WAS CONDUCTED ON MAY 11, 2011 BY HUGHES AND ASSOCIATES, WASILLA, AK. SOUNDINGS WERE COLLECTED USING AN ODOM HYDROTRAC PRECISION DEPTH SOUNDER WITH A 200KHZ, 3-DEGREE BEAM-WIDTH TRANSDUCER. SOUNDER CALIBRATION WAS PERFORMED USING STANDARD BAR CHECK METHODS. POSITIONING AND TIDES WERE PROVIDED IN REAL TIME USING A TRIMBLE R8 RTK GPS RECIEVER OPERATING ON KINEMATIC CORRECTIONS BROADCAST FROM A TRIMBLE 5700 RTK BASE RECEIVER SET AT CONTROL STATION, "NINIL 2". VESSEL NAVIGATION, DATA COLLECTION AND PROCESSING WERE PERFORMED USING HYPACK 2010 INTEGRATED SOFTWARE.
6. TOPOGRAPHIC DATA WAS COLLECTED ON MAY 11 & 12, 2011 USING A PAIR OF TRIMBLE R8 RTK GPS RECEIVERS OPERATING ON KINEMATIC CORRECTIONS BROADCAST FROM A TRIMBLE 5700 RTK BASE RECEIVER SET AT "NINIL 2".

PROJECT LIMITS

CORNER	NORTHING	EASTING	CORNER	NORTHING	EASTING
1	2,215,626.07	196,134.54	9	2,215,835	196,238
2	2,215,671.45	196,081.67	10	2,216,061	196,000
3	2,215,369.31	195,822.37	11	2,216,025	195,966
4	2,215,304.48	195,897.91	12	2,215,799	196,204
5	2,215,292.03	195,925.05	13	2,215,693	196,207
6	2,215,321.04	195,938.36			
7	2,215,593.66	196,172.31			
8	2,215,656	196,241			

CONTROL DATA

STATION	NORTHING	EASTING	ELEV.	DESCRIPTION
B-1	2,215,770.21	196,041.98	32.23	USACE SBC 1979
B-2	2,215,393.19	195,713.32	32.33	USACE SBC 1979
DEEP	2,203,353.41	188,093.31	–	USC & GS SBC 1964
GB-1	2,216,021.69	195,866.98	8.17	–
HAYNES	2,209,664.61	191,151.17	199.29	USC & GS SBC 1979
N. END	2,216,807.77	196,909.70	26.11	1980
S. END	2,211,878.85	193,593.93	25.83	1980
NINIL 1	2,215,300.78	195,860.20	26.29	3" SBC IN CONC. DECK OF DOCK
EL-1	2,214,856.65	195,349.30	29.57	USACE SBC IN HOR. CONC. SHELF
DL	2,215,765.15	196,319.88	–	REBAR W/ ALCAP "DL 1998"
LEAD ROD	2,215,838.87	196,114.88	29.45	LEAD/STEEL ROD IN ROCK
NINIL 2	2,215,900.33	196,050.77	28.28	2" SBC IN ROCK

HARBOR VOLUME COMPUTATIONS

VOLUME REMOVED TO PROJECT DEPTH (+2')	3956 cy
VOLUME REMOVED BETWEEN P.D. (+2') AND MAX-PAY DEPTH (+1')	1200 cy
VOLUME REMOVED TO SIDE-SLOPES	566 cy
TOTAL VOLUME REMOVED IN HARBOR	5722 cy

ENTRANCE CHANNEL VOLUME COMPUTATIONS

VOLUME REMOVED TO PROJECT DEPTH (+8')	1569 cy
VOLUME REMOVED BETWEEN P.D. (+8') AND MAX-PAY DEPTH (+7')	581 cy
VOLUME REMOVED TO SIDE-SLOPES	970 cy
TOTAL REMOVED IN ENTRANCE CHANNEL	3120 cy

STATE OF ALASKA 49TH JACK S. HUGHES LS-4915 REGISTERED PROFESSIONAL LAND SURVEYOR

SURVEY

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. W911KB-10-B-0004
CONTRACTOR NEHALEM RIVER DREDGING
CITY NEHALEM STATE OREGON
Recommended: PRIME CONTRACTOR
Approved: RESIDENT ENGINEER
Date:

Sym	Action	Description	Date	Approv

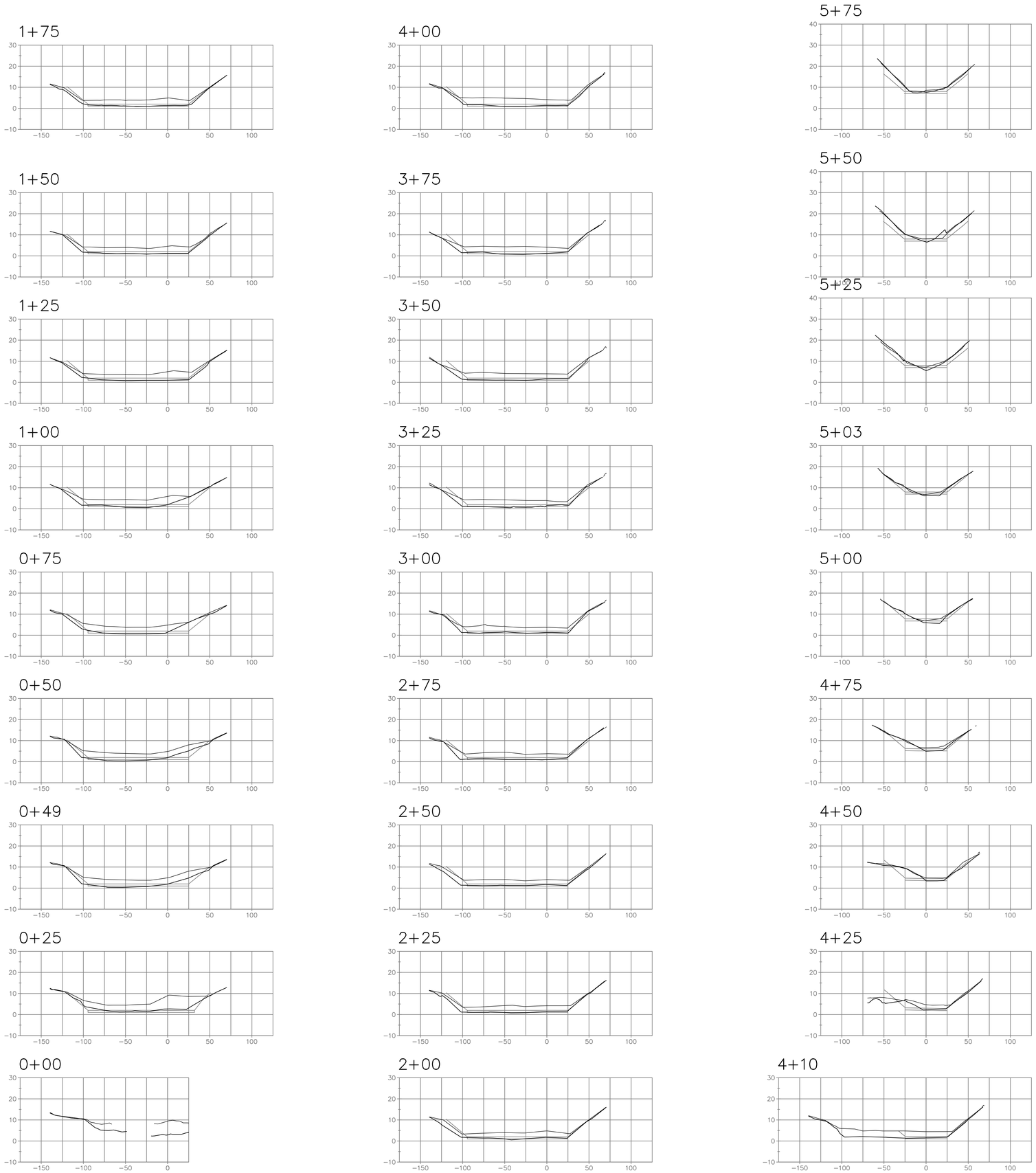
Date: 5/11-12/11
Dwg Scale: 1"=50'
Plot Scale:
File:
Drawing #:
Designed:
Drawn: TNL
Reviewed: C. HUGHES
Chief:
Submitted:
Chief:
Section
Branch
2873-11

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

NINILCHIK, ALASKA
NINILCHIK HARBOR
POST-DREDGE SURVEY
MAY 11-12, 2011

Reference number:

Sheet 1 of 4



PRE-DREDGE SURVEY
MAY 3-4, 2011

POST-DREDGE SURVEY
MAY 11-12, 2011

SCALE
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 20'

STATE OF ALASKA
49TH
JACK S. HUGHES
LS-4915
REGISTERED PROFESSIONAL LAND SURVEYOR

SURVEY

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. W911KB-10-B-0004
CONTRACTOR NEHALEM RIVER DREDGING
CITY NEHALEM STATE OREGON
Recommended: PRIME CONTRACTOR
Approved: RESIDENT ENGINEER
Date:

Sym.	Action	Description	Date	Appvd

Designed:
Drawn: TNL
Reviewed: C. HUGHES
Chief, Section
Submitted:
Chief, Branch
Date: 5/11-12/11
Dwg Scale:
Plot Scale:
File:
Drawing #: 2873-11

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

NINILCHIK, ALASKA
NINILCHIK HARBOR
POST-DREDGE SURVEY
MAY 11-12, 2011

Reference number:

Sheet 2 of 4

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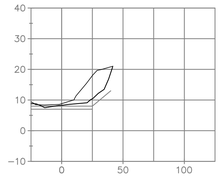

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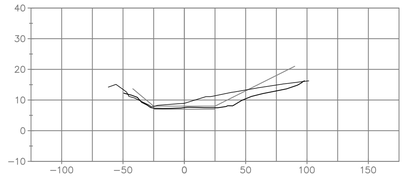

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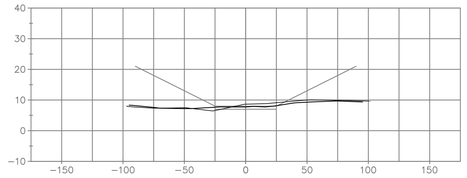

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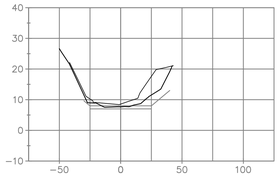

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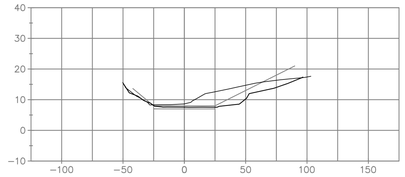

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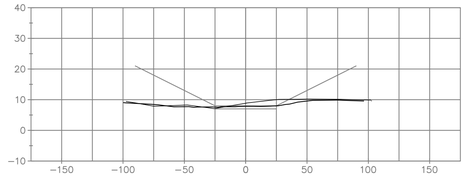

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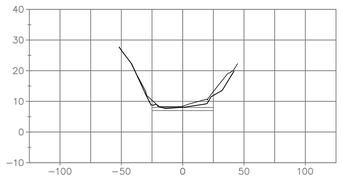

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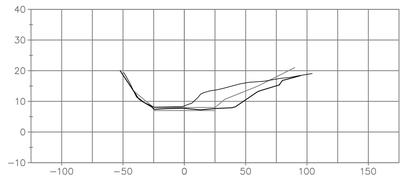

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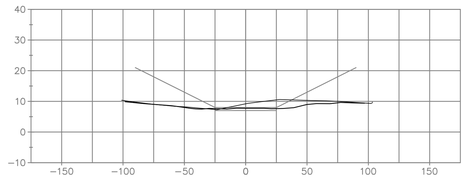

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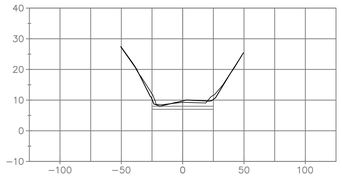

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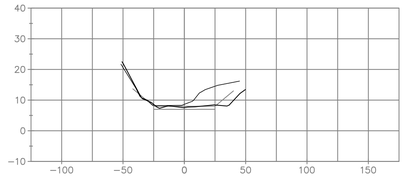

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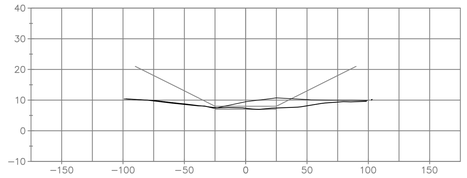

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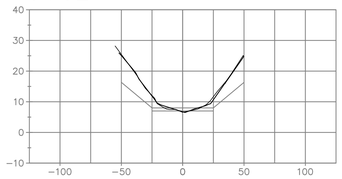

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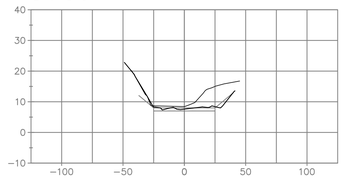

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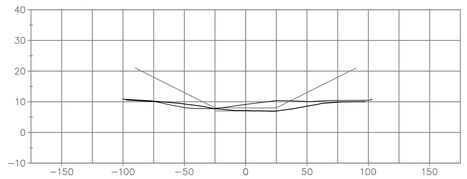

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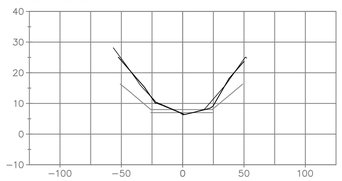

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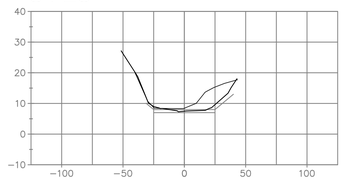

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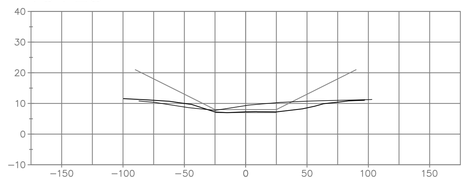

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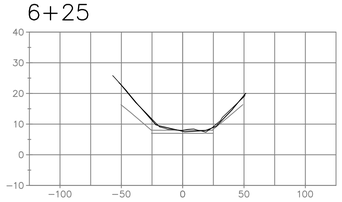

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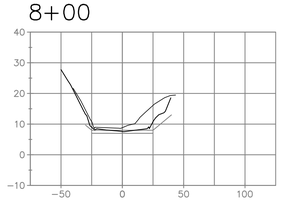

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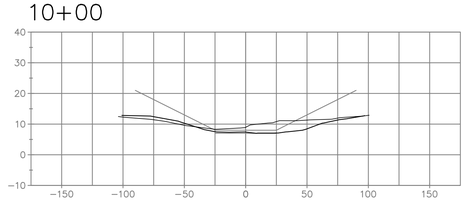

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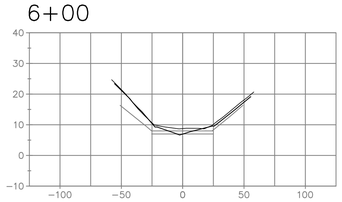

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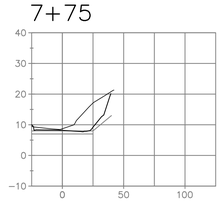

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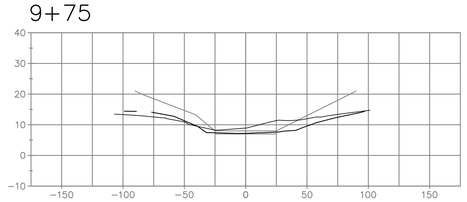


PRE–DREDGE SURVEY
MAY 3–4, 2011

POST–DREDGE SURVEY
MAY 11–12, 2011

SCALE
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 20'

STATE OF ALASKA
49TH
JACK S. HUGHES
LS-4915
REGISTERED PROFESSIONAL LAND SURVEYOR

SURVEY

US ARMY CORPS
OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. W911KB–10–B–0004
CONTRACTOR NEHALEM RIVER DREDGING
CITY NEHALEM STATE OREGON
Recommended: Approved: Date:
PRIME CONTRACTOR RESIDENT ENGINEER

Sym	Action	Description	Date	Approv

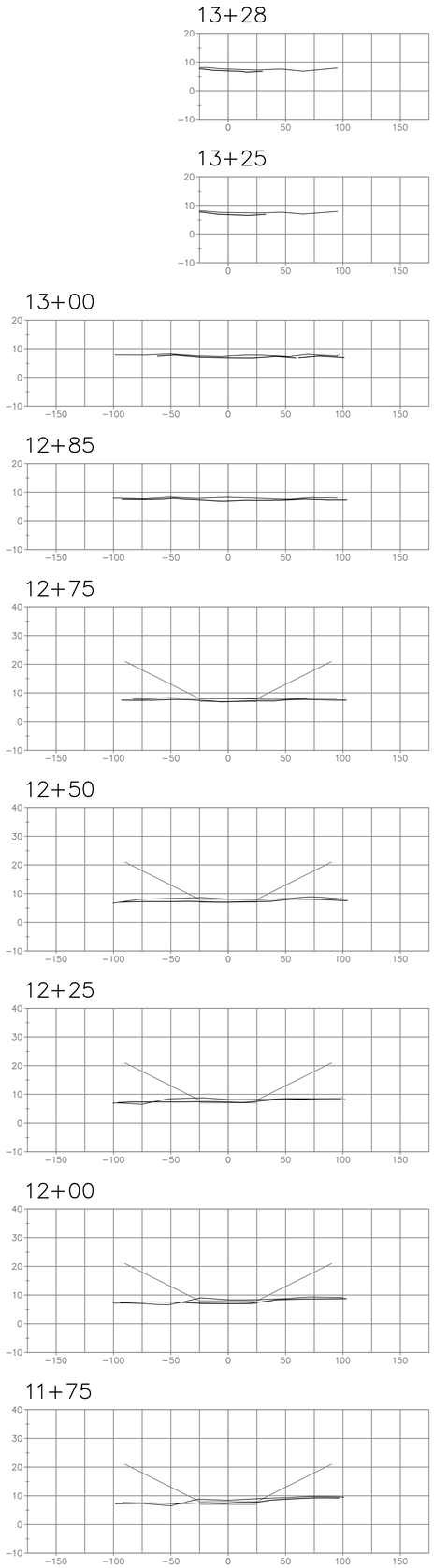
Designed:
Drawn: TNL
Reviewed: C. HUGHES
Chief:
Submitted:
Chief:
Date: 5/11–12/11
Dwg Scale:
Plot Scale:
File:
Drawing #:
Section
Branch
2873–11

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

NINILCHIK, ALASKA
NINILCHIK HARBOR
POST–DREDGE SURVEY
MAY 11–12, 2011

Reference number:

Sheet 3 of 4



PRE-DREDGE SURVEY
MAY 3-4, 2011

POST-DREDGE SURVEY
MAY 11-12, 2011

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STATE OF ALASKA
49TH
JACK S. HUGHES
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SURVEY

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. W911KB-10-B-0004
CONTRACTOR NEHALEM RIVER DREDGING
CITY NEHALEM STATE OREGON
Recommended: PRIME CONTRACTOR
Approved: RESIDENT ENGINEER
Date:

Sym.	Action	Description	Date	Appvd

Date: 5/11-12/11
Dwg Scale:
Plot Scale:
File:
Drawing #: 2873-11

Designed:
Drawn: TNL
Reviewed: C. HUGHES
Chief, Section
Submitted:
Chief, Branch

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

NINILCHIK, ALASKA
NINILCHIK HARBOR
POST-DREDGE SURVEY
MAY 11-12, 2011

Reference number:

Sheet 4 of 4