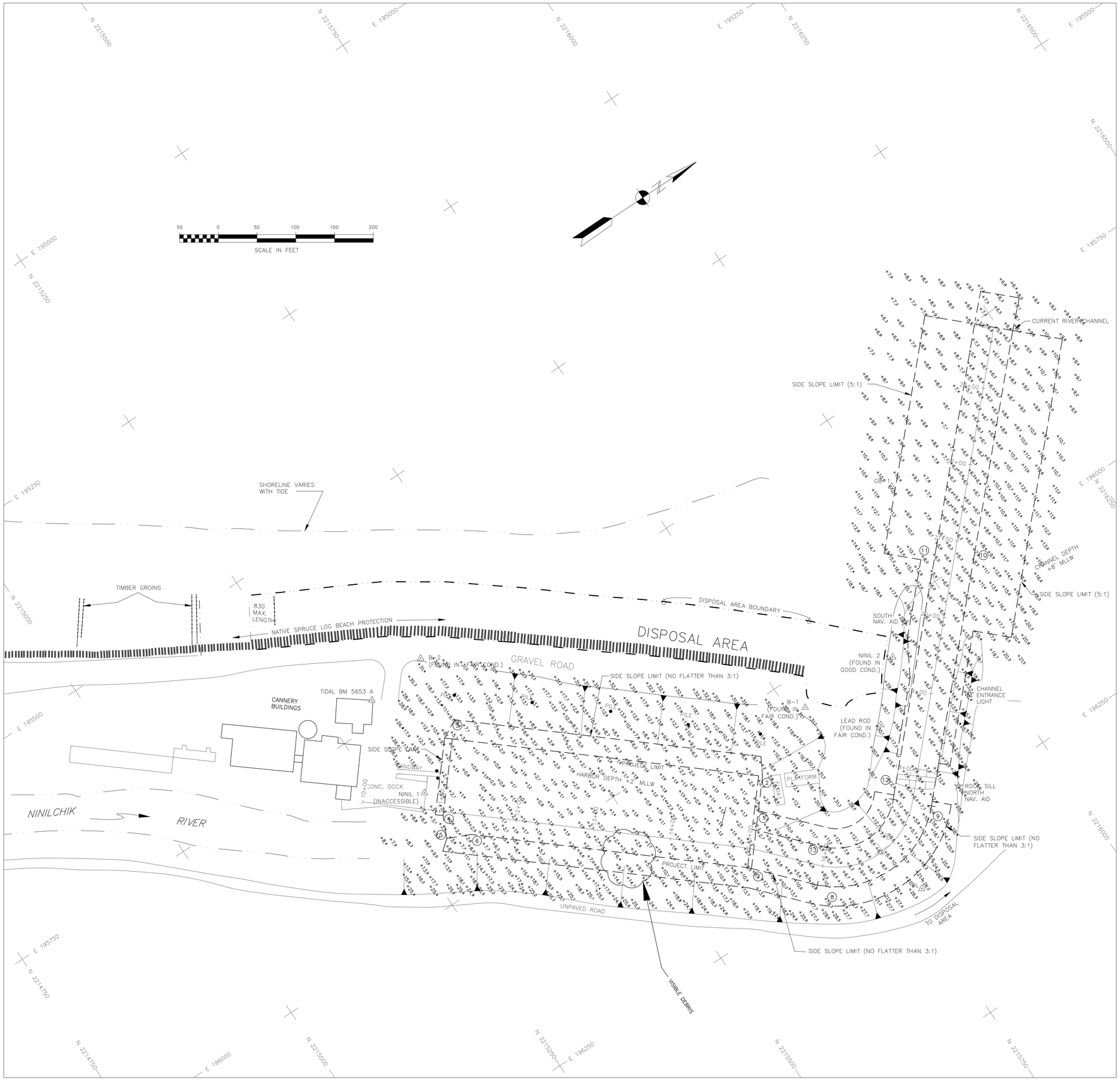


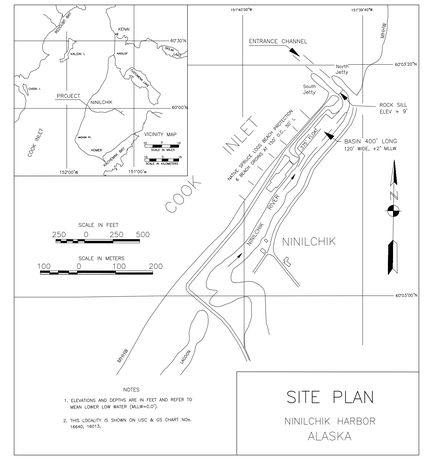


SITE PLAN
NINILCHIK HARBOR
ALASKA

## 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 NOAA BENCHMARK "945 5653 E" (LEAD ROD) AT 29.45'.
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 APRIL 26 & MAY 1, 2014 BY HUGHES & ASSOCIATES, WASILLA, AK. SOUNDINGS WERE COLLECTED USING AN RESON NAVISOUND 210 PRECISION DEPTH SOUNDER WITH A 200KHZ, 3-DEGREE BEAM-WIDTH TRANSDUCER. SOUNDER CALIBRATION WAS PERFORMED USING A DIGIBAR PRO SOUND VELOCITY PROBE. POSITIONING AND TIDES WERE PROVIDED IN REAL TIME USING A TRIMBLE R8 RTK GPS RECEIVER OPERATING ON KINEMATIC CORRECTIONS BROADCAST FROM A TRIMBLE R8 RTK BASE RECEIVER SET AT CONTROL STATION, "NINIL 2". VESSEL NAVIGATION, DATA COLLECTION AND PROCESSING WERE PERFORMED USING HYPACK 2013A INTEGRATED SOFTWARE.
6. TOPOGRAPHIC DATA WAS COLLECTED ON APRIL 26 AND MAY 1, 2014 USING A TRIMBLE R8 RTK GPS RECEIVER OPERATING ON KINEMATIC CORRECTIONS BROADCAST FROM A TRIMBLE R8 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') | 3,558 cy |
| VOLUME REMOVED BETWEEN P.D. (+2') AND MAX-PAY DEPTH (+1') | 888 cy |
| VOLUME REMOVED TO SIDE-SLOPES | 577 cy |
| TOTAL REMOVED AVAILABLE IN HARBOR | 5022 cy |

ENTRANCE CHANNEL VOLUME COMPUTATIONS

| | |
|---|---|
| VOLUME REMOVED TO PROJECT DEPTH (+8') | 774 cy |
| VOLUME REMOVED BETWEEN P.D. (+8') AND MAX-PAY DEPTH (+7') | 618 cy |
| VOLUME REMOVED TO SIDE-SLOPES | 450 cy |
| TOTAL REMOVED IN ENTRANCE CHANNEL | 1842 cy |

OVERDREDGE VOLUME COMPUTATION

| | |
|---|---|
| TOTAL OVERDREDGE VOLUME REMOVED | 2,642 cy |

STATE OF ALASKA 49TH
COREY S. HUGHES
LS-13809
REGISTERED PROFESSIONAL LAND SURVEYOR

SURVEY

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. W911KB-12-C-0005
CONTRACTOR ALASKA MARINE EXCAVATION
CITY ANCHOR POINT STATE ALASKA
Recommended: PRIME CONTRACTOR
Approved: RESIDENT ENGINEER
Date:

| Sym. | Action | Description | Date | Appvd |
|---|---|---|---|---|

Date: 5-1-2014
Dwg Scale: 1" = 50'
Plot Scale:
File:
Drawing #:
Section:
Branch:
3178-14

Designed:
Drawn: BTH
Reviewed: CSH
Chief:
Submitted:
Chief:

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

NINILCHIK, ALASKA
NINILCHIK HARBOR
POST DREDGE SURVEY
APRIL 26 & MAY 1, 2014

Reference number:

Sheet 1 of 4

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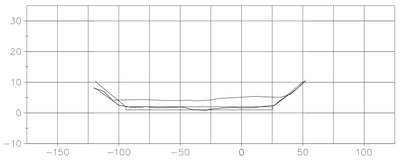

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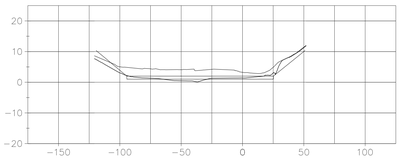

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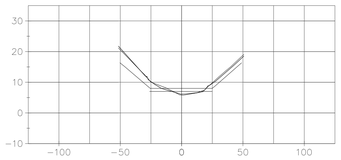

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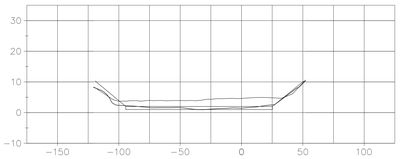

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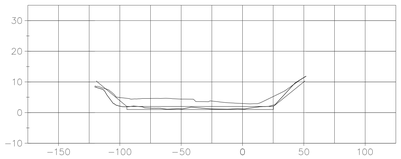

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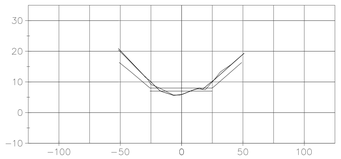

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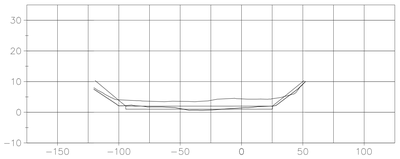

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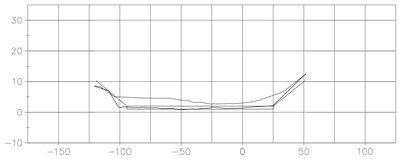

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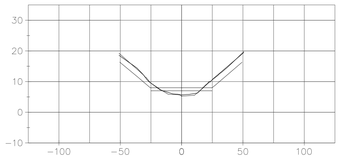

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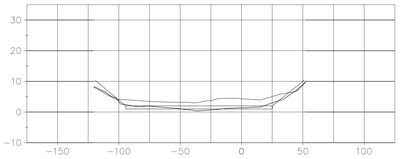

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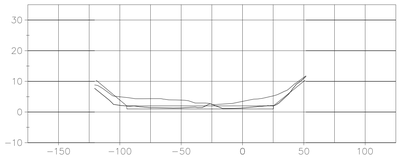

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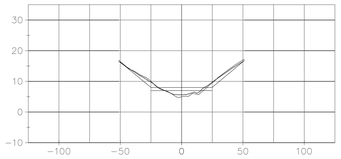

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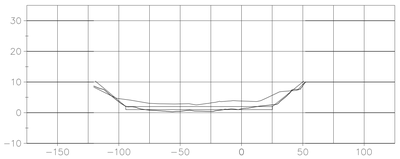

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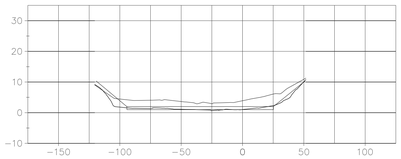

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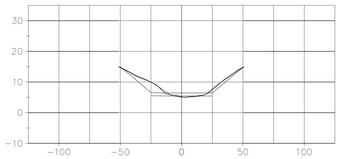

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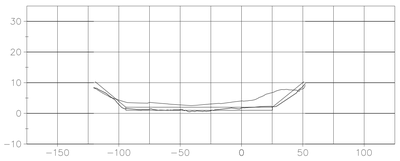

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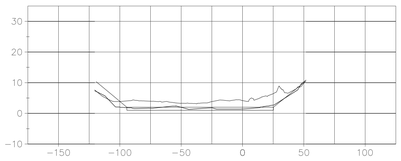

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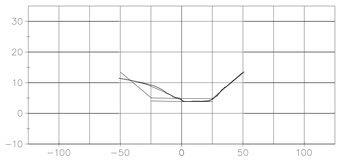

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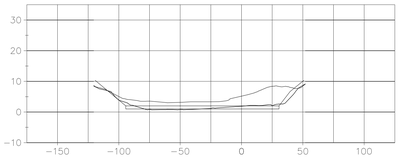

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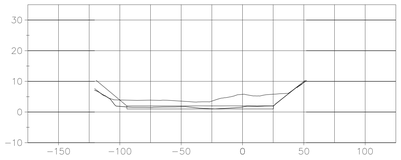

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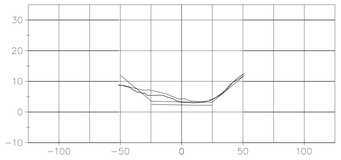

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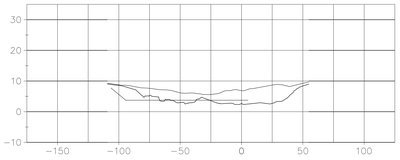

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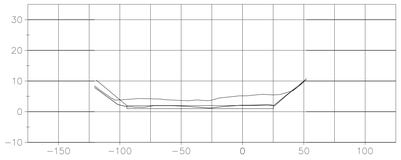

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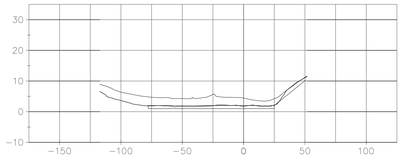

PRE-DREDGE SURVEY
APRIL 25, 2014

POST-DREDGE SURVEY
APRIL 26 & MAY 1, 2014

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

STATE OF ALASKA
49TH
CORY S. HUGHES
LS-13089
REGISTERED PROFESSIONAL LAND SURVEYOR

SURVEY

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. W911KB-12-C-0005
CONTRACTOR ALASKA MARINE EXCAVATION
CITY ANCHOR POINT STATE ALASKA
Recommended: PRIME CONTRACTOR
Approved: RESIDENT ENGINEER
Date:

| Sym. | Action | Description | Date | Appvd |
|---|---|---|---|---|

Date 5-1-2014
Dwg Scale:
Plot Scale:
File:
Drawing #:
Section
Branch
3178-14

Designed:
Drawn: BTH
Reviewed: CSH
Chief:
Submitted:
Chief:

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

NINILCHIK, ALASKA
NINILCHIK HARBOR
POST DREDGE SURVEY
APRIL 26 & MAY 1, 2014

Reference number:

Sheet 2 of 4

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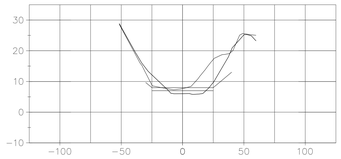

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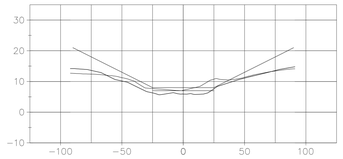

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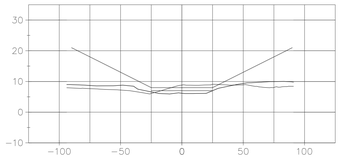

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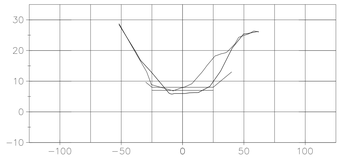

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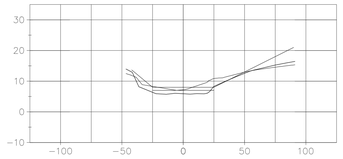

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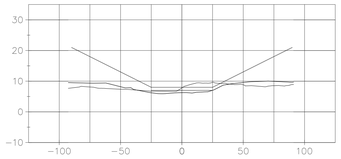

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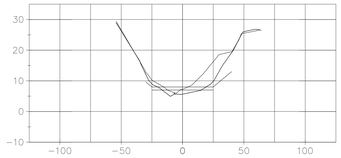

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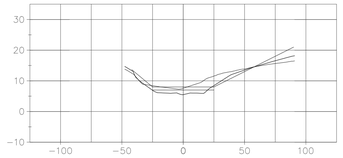

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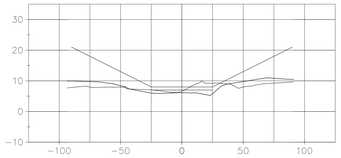

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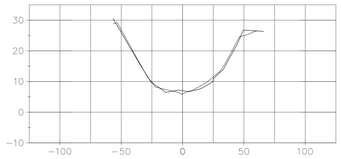

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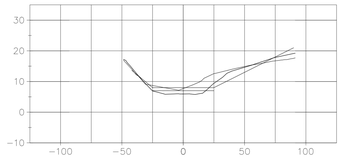

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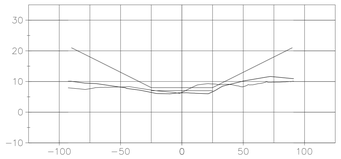

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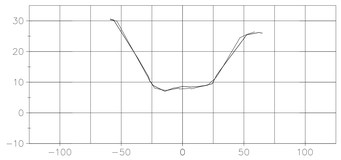

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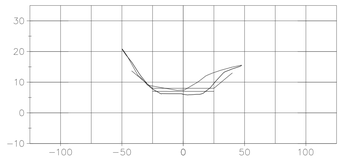

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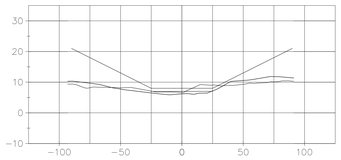

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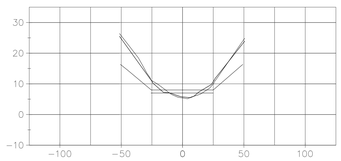

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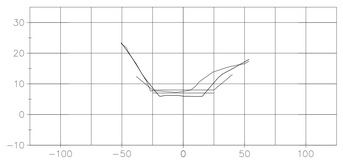

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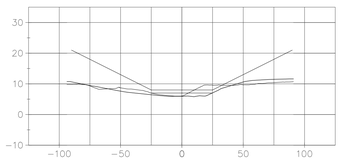

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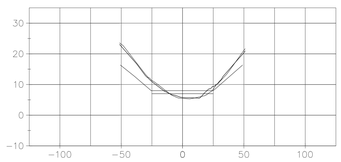

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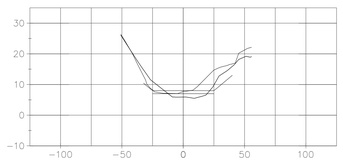

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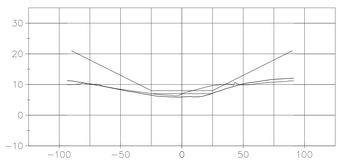

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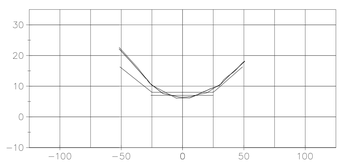

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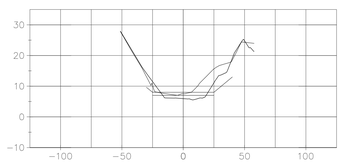

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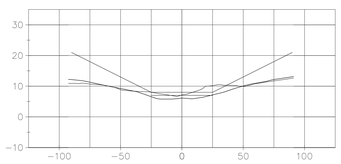


PRE-DREDGE SURVEY
APRIL 25, 2014

POST-DREDGE SURVEY
APRIL 26 & MAY 1, 2014

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

STATE OF ALASKA
49TH
COREY S. HUGHES
LS-13069
REGISTERED PROFESSIONAL LAND SURVEYOR

SURVEY

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. W911KB-12-C-0005
CONTRACTOR ALASKA MARINE EXCAVATION
CITY ANCHOR POINT STATE ALASKA
Recommended: Approved: Date:
PRIME CONTRACTOR RESIDENT ENGINEER

| Sym. | Action | Description | Date | Appvd |
|---|---|---|---|---|

Date 5-1-2014
Dwg Scale:
Plot Scale:
File:
Drawing #:
Section
Branch
3178-14

Designed:
Drawn: BTH
Reviewed: CSH
Chief:
Submitted:
Chief:

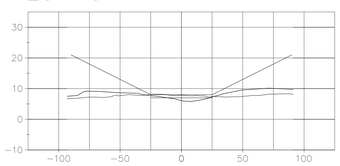
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

NINILCHIK, ALASKA
NINILCHIK HARBOR
POST DREDGE SURVEY
APRIL 26 & MAY 1, 2014

Reference number:

Sheet 3 of 4

23+75

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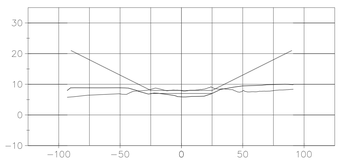


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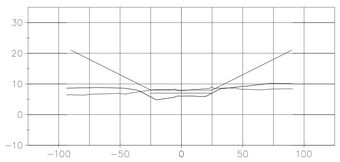
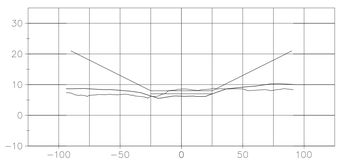



23+00




PRE-DREDGE SURVEY
APRIL 25, 2014

POST-DREDGE SURVEY
APRIL 26 & MAY 1, 2014

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

STATE OF ALASKA
49TH
CORY S. HUGHES
LS-13089
REGISTERED PROFESSIONAL LAND SURVEYOR

SURVEY

US ARMY CORPS
OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. W911KB-12-C-0005
CONTRACTOR ALASKA MARINE EXCAVATION
CITY ANCHOR POINT STATE ALASKA
Recommended: PRIME CONTRACTOR
Approved: RESIDENT ENGINEER
Date:

| Sym. | Action | Description | Date | Appvd |
|---|---|---|---|---|

Designed:
Drawn: BTH
Reviewed: CSH
Chief, Section
Submitted: Chief, Branch
Date: 5-1-2014
Dwg Scale:
Plot Scale:
File:
Drawing #: 3178-14

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

NINILCHIK, ALASKA
NINILCHIK HARBOR
POST DREDGE SURVEY
APRIL 26 & MAY 1, 2014

Reference number:

Sheet 4 of 4