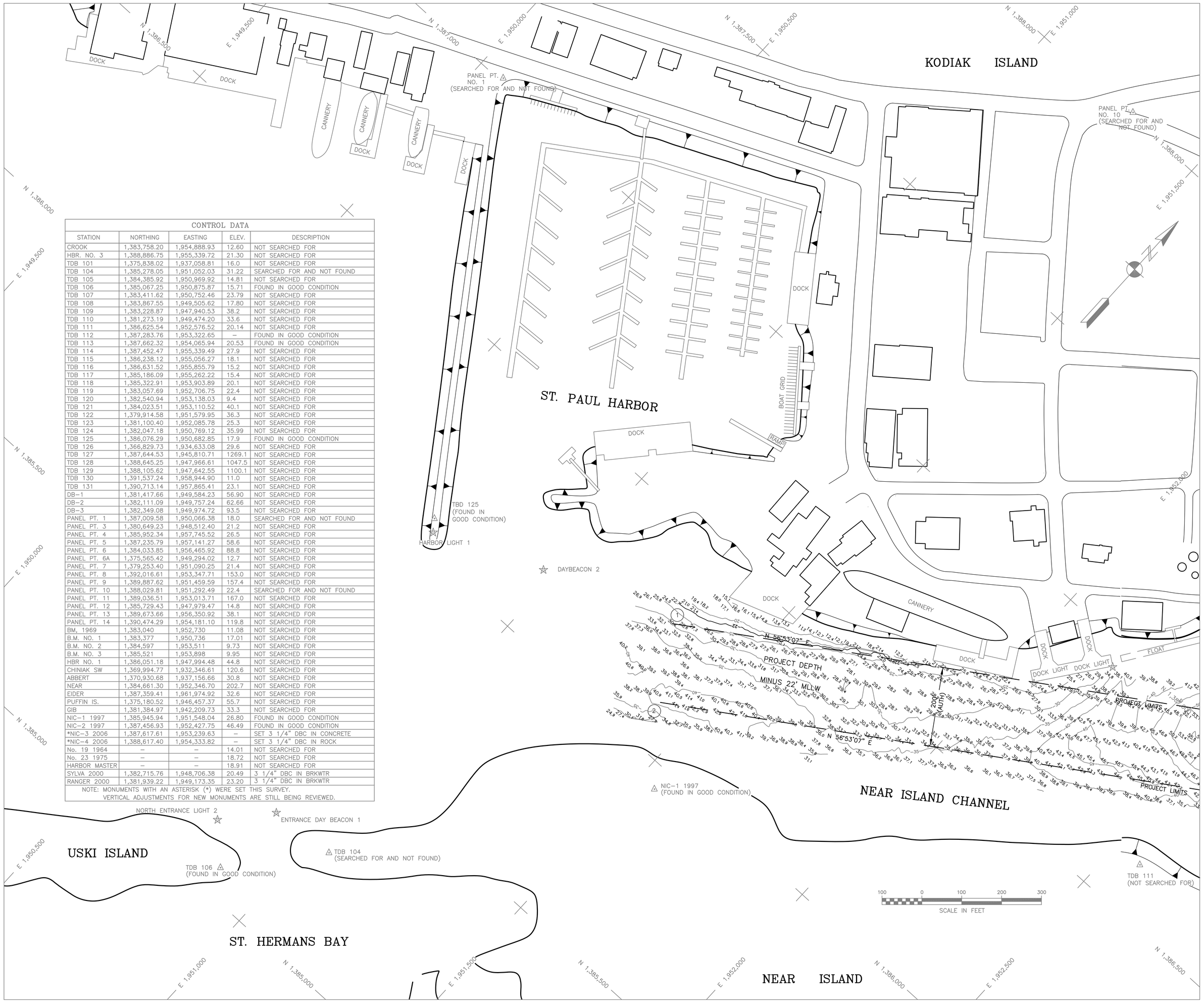
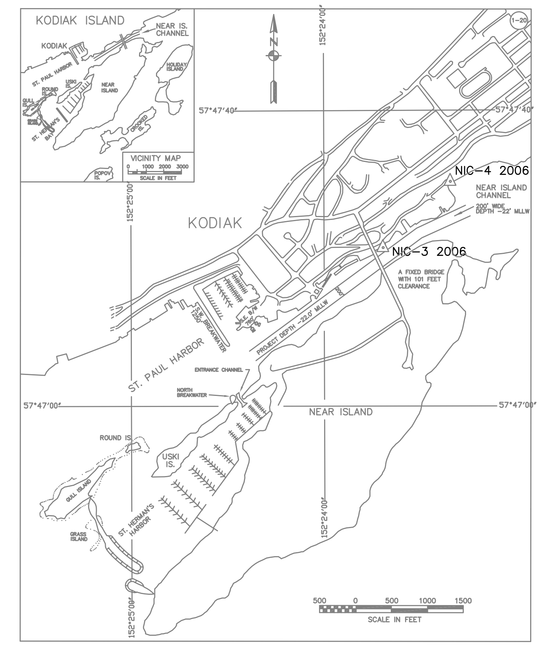




CONTROL DATA

STATION	NORTHING	EASTING	ELEV.	DESCRIPTION
CROOK	1,383,758.20	1,954,888.93	12.60	NOT SEARCHED FOR
HBR. NO. 3	1,388,886.75	1,955,339.72	21.30	NOT SEARCHED FOR
TDB 101	1,375,838.02	1,937,058.81	16.0	NOT SEARCHED FOR
TDB 104	1,385,278.05	1,951,052.03	31.22	SEARCHED FOR AND NOT FOUND
TDB 105	1,384,385.92	1,950,969.92	14.81	NOT SEARCHED FOR
TDB 106	1,385,067.25	1,950,875.87	15.71	FOUND IN GOOD CONDITION
TDB 107	1,383,411.62	1,950,752.46	23.79	NOT SEARCHED FOR
TDB 108	1,383,867.55	1,949,505.62	17.80	NOT SEARCHED FOR
TDB 109	1,383,228.87	1,947,940.53	38.2	NOT SEARCHED FOR
TDB 110	1,381,273.19	1,949,474.20	33.6	NOT SEARCHED FOR
TDB 111	1,386,625.54	1,952,576.52	20.14	NOT SEARCHED FOR
TDB 112	1,387,283.76	1,953,322.65	–	FOUND IN GOOD CONDITION
TDB 113	1,387,662.32	1,954,065.94	20.53	FOUND IN GOOD CONDITION
TDB 114	1,387,452.47	1,955,339.49	27.9	NOT SEARCHED FOR
TDB 115	1,386,238.12	1,955,056.27	18.1	NOT SEARCHED FOR
TDB 116	1,386,631.52	1,955,855.79	15.2	NOT SEARCHED FOR
TDB 117	1,385,186.09	1,955,262.22	15.4	NOT SEARCHED FOR
TDB 118	1,385,322.91	1,953,903.89	20.1	NOT SEARCHED FOR
TDB 119	1,383,057.69	1,952,706.75	22.4	NOT SEARCHED FOR
TDB 120	1,382,540.94	1,953,138.03	9.4	NOT SEARCHED FOR
TDB 121	1,384,023.51	1,953,110.52	40.1	NOT SEARCHED FOR
TDB 122	1,379,914.58	1,951,579.95	36.3	NOT SEARCHED FOR
TDB 123	1,381,100.40	1,952,085.78	25.3	NOT SEARCHED FOR
TDB 124	1,382,047.18	1,950,769.12	35.99	NOT SEARCHED FOR
TDB 125	1,386,076.29	1,950,682.85	17.9	FOUND IN GOOD CONDITION
TDB 126	1,366,829.73	1,934,633.08	29.6	NOT SEARCHED FOR
TDB 127	1,387,644.53	1,945,810.71	1269.1	NOT SEARCHED FOR
TDB 128	1,388,645.25	1,947,966.61	1047.5	NOT SEARCHED FOR
TDB 129	1,388,105.62	1,947,642.55	1100.1	NOT SEARCHED FOR
TDB 130	1,391,537.24	1,958,944.90	11.0	NOT SEARCHED FOR
TDB 131	1,390,713.14	1,957,865.41	23.1	NOT SEARCHED FOR
DB–1	1,381,417.66	1,949,584.23	56.90	NOT SEARCHED FOR
DB–2	1,382,111.09	1,949,757.24	62.66	NOT SEARCHED FOR
DB–3	1,382,349.08	1,949,974.72	93.5	NOT SEARCHED FOR
PANEL PT. 1	1,387,009.58	1,950,066.38	18.0	SEARCHED FOR AND NOT FOUND
PANEL PT. 3	1,380,649.23	1,948,512.40	21.2	NOT SEARCHED FOR
PANEL PT. 4	1,385,952.34	1,957,745.52	26.5	NOT SEARCHED FOR
PANEL PT. 5	1,387,235.79	1,957,141.27	58.6	NOT SEARCHED FOR
PANEL PT. 6	1,384,033.85	1,956,465.92	88.8	NOT SEARCHED FOR
PANEL PT. 6A	1,375,565.42	1,949,294.02	12.7	NOT SEARCHED FOR
PANEL PT. 7	1,379,253.40	1,951,090.25	21.4	NOT SEARCHED FOR
PANEL PT. 8	1,392,016.61	1,953,347.71	153.0	NOT SEARCHED FOR
PANEL PT. 9	1,389,887.62	1,951,459.59	157.4	NOT SEARCHED FOR
PANEL PT. 10	1,388,029.81	1,951,292.49	22.4	SEARCHED FOR AND NOT FOUND
PANEL PT. 11	1,389,036.51	1,953,013.71	167.0	NOT SEARCHED FOR
PANEL PT. 12	1,385,729.43	1,947,979.47	14.8	NOT SEARCHED FOR
PANEL PT. 13	1,389,673.66	1,956,350.92	38.1	NOT SEARCHED FOR
PANEL PT. 14	1,390,474.29	1,954,181.10	119.8	NOT SEARCHED FOR
BM, 1969	1,383,040	1,952,730	11.08	NOT SEARCHED FOR
B.M. NO. 1	1,383,377	1,950,736	17.01	NOT SEARCHED FOR
B.M. NO. 2	1,384,597	1,953,511	9.73	NOT SEARCHED FOR
B.M. NO. 3	1,385,521	1,953,898	9.95	NOT SEARCHED FOR
HBR NO. 1	1,386,051.18	1,947,994.48	44.8	NOT SEARCHED FOR
CHINIAK SW	1,369,994.77	1,932,346.61	120.6	NOT SEARCHED FOR
ABBERT	1,370,930.68	1,937,156.66	30.8	NOT SEARCHED FOR
NEAR	1,384,661.30	1,952,346.70	202.7	NOT SEARCHED FOR
EIDER	1,387,359.41	1,961,974.92	32.6	NOT SEARCHED FOR
PUFFIN IS.	1,375,180.52	1,946,457.37	55.7	NOT SEARCHED FOR
GIB	1,381,384.97	1,942,209.73	33.3	NOT SEARCHED FOR
NIC–1 1997	1,385,945.94	1,951,548.04	26.80	FOUND IN GOOD CONDITION
NIC–2 1997	1,387,456.93	1,952,427.75	46.49	FOUND IN GOOD CONDITION
*NIC–3 2006	1,387,617.61	1,953,239.63	–	SET 3 1/4" DBC IN CONCRETE
*NIC–4 2006	1,388,617.40	1,954,333.82	–	SET 3 1/4" DBC IN ROCK
No. 19 1964	–	–	14.01	NOT SEARCHED FOR
No. 23 1975	–	–	18.72	NOT SEARCHED FOR
HARBOR MASTER	–	–	18.91	NOT SEARCHED FOR
SYLVA 2000	1,382,715.76	1,948,706.38	20.49	3 1/4" DBC IN BRKWTR
RANGER 2000	1,381,939.22	1,949,173.35	23.20	3 1/4" DBC IN BRKWTR

NOTE: MONUMENTS WITH AN ASTERISK (*) WERE SET THIS SURVEY.
VERTICAL ADJUSTMENTS FOR NEW MONUMENTS ARE STILL BEING REVIEWED.

NOTES

1. HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 5, NAD83, IN US SURVEY FEET HOLDING USACE SBC "TBD 125" AS N 1,386,076.29, E 1,950,682.85 AND DOMED BC "NIC–2 1997" AS N 1,387,456.93, E 1,952,427.75.
2. VERTICAL CONTROL IS MEAN LOWER LOW WATER DATUM, IN US SURVEY FEET (MLLW=0.0') HOLDING USCGS TIDAL BENCH MARK "NO 14 1964" AS 15.11'. TIDAL DATUM IS BASED ON THE 1983–2001 TIDAL EPOCH FROM NOAA/NOS TIDAL BENCH MARK LIST: "9457283 KODIAK, ST PAULS HARBOR, ALASKA", PUBLISHED 01/10/2005.
3. SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
4. THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF SURVEY.
5. SOUNDING OPERATIONS WERE CONDUCTED ON MAY 30–31, 2006 USING AN INNERSPACE 448 DEPTH SOUNDER WITH A 200KHZ, 3 DEGREE BEAM–WIDTH, SINGLE–BEAM TRANSDUCER. POSITIONING WAS PROVIDED USING A TRIMBLE 5700 RECEIVER OPERATING ON RTK CORRECTIONS BROADCAST FROM A TRIMBLE 5700 BASE STATION SET AT USACE SBC "TBD 125". NAVIGATION, DATA COLLECTION AND DATA PROCESSING WERE PERFORMED USING HYPACK MAX INTEGRATED SOFTWARE. TIDE CORRECTIONS WERE PROVIDED BY TRIMBLE 5700 RTK GPS RECEIVER AND CHECKED THROUGH CONVENTIONAL METHODS.
6. VERTICAL CONTROL WAS SURVEYED MAY 29, 2006 USING OPTICAL INSTRUMENTS AND DIFFERENTIAL LEVELING TECHNIQUES. HORIZONTAL CONTROL WAS SURVEYED MAY 29–30, 2006 USING BOTH STATIC AND REAL–TIME–KINEMATIC GPS EQUIPMENT AND TECHNIQUES. ALL BREAKWATERS, BASINS, AND SURROUNDING AREAS WERE SURVEYED USING A TRIMBLE 5700 RTK SURVEY ROVER.

VOLUME COMPUTATIONS

Project Depth –22 MLLW

MINIMUM PAY LINE* (–22' MLLW)	32 (cubic yards)
Between MINIMUM PAY LINE and MAXIMUM PAY LINE* (–23' MLLW)	51 (cubic yards)
SIDE SLOPE	426 (cubic yards)
TOTAL	509 (cubic yards)

* Volumes are within Project Limits and do not include SIDE SLOPES.

PROJECT LIMITS

CORNER	NORTHING	EASTING	CORNER	NORTHING	EASTING
CHANNEL 1	1,386,284.33	1,951,303.23	CHANNEL 4	1,387,736.88	1,953,896.52
CHANNEL 2	1,386,116.80	1,951,412.50	CHANNEL 5	1,388,093.89	1,954,252.24
CHANNEL 3	1,387,914.31	1,953,802.43	CHANNEL 6	1,387,916.46	1,954,346.33

NAVIGATION AIDS

USCG No.	DESCRIPTION	NORTHING	EASTING
26615	KODIAK FERRY DOCK LIGHT (SOUTH)	1,386,783	1,952,073
26615	KODIAK FERRY DOCK LIGHT (NORTH)	1,386,947	1,952,191
26620	KODIAK BOAT HARBOR DAYBEACON 2	1,386,158	1,950,971
26630	KODIAK BOAT HARBOR LIGHT 1	1,386,048	1,950,704
26635	ST. HERMAN BAY NORTH ENTRANCE DAYBEACON 1	1,385,263	1,950,886
26640	ST. HERMAN BAY NORTH ENTRANCE LIGHT 2	1,385,151	1,950,789

CONTRACT NO. W911KB–04–D–0007
CONTRACTOR HUGHES & ASSOCIATES
CITY WASILLA STATE ALASKA

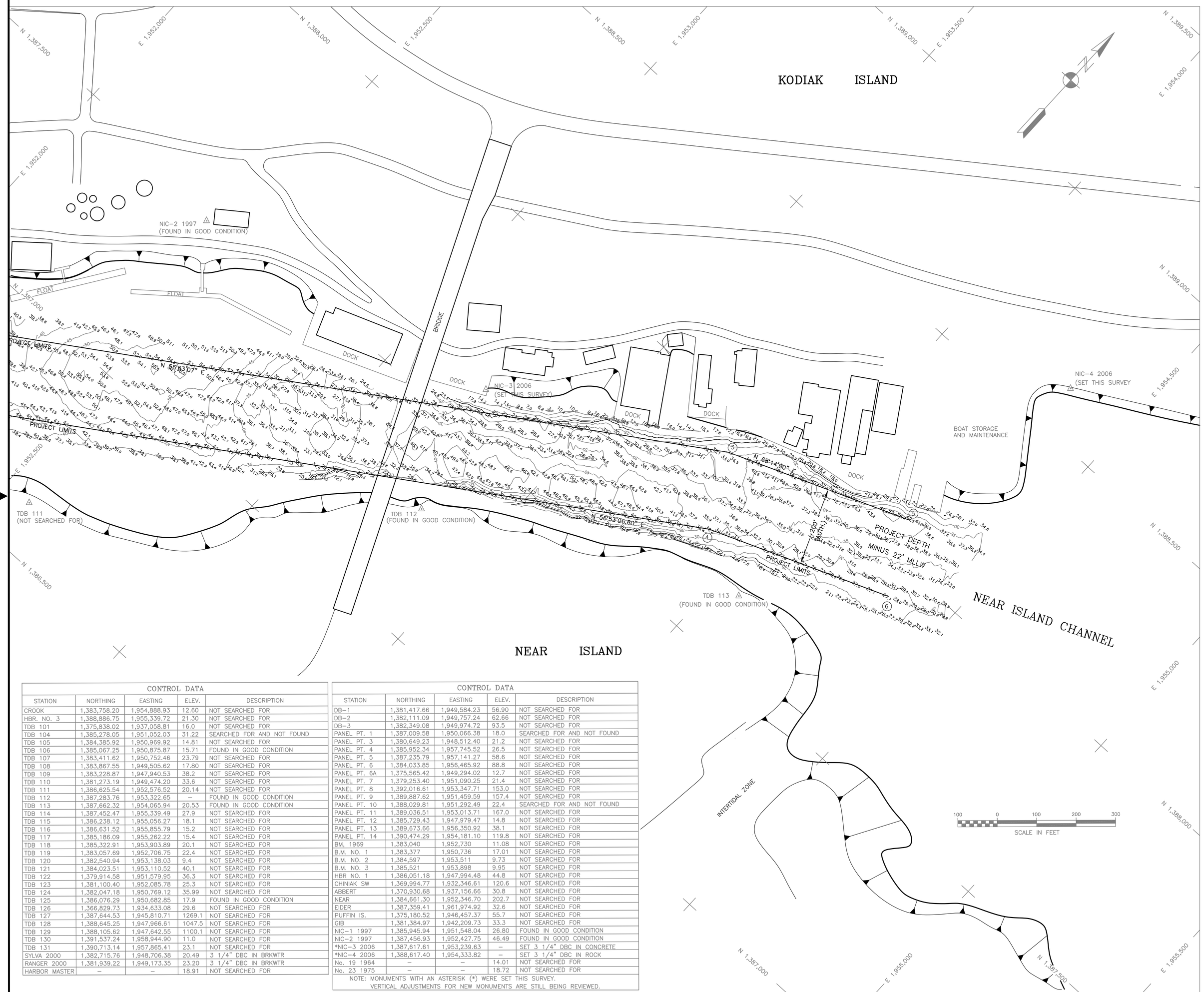
ALASKA DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

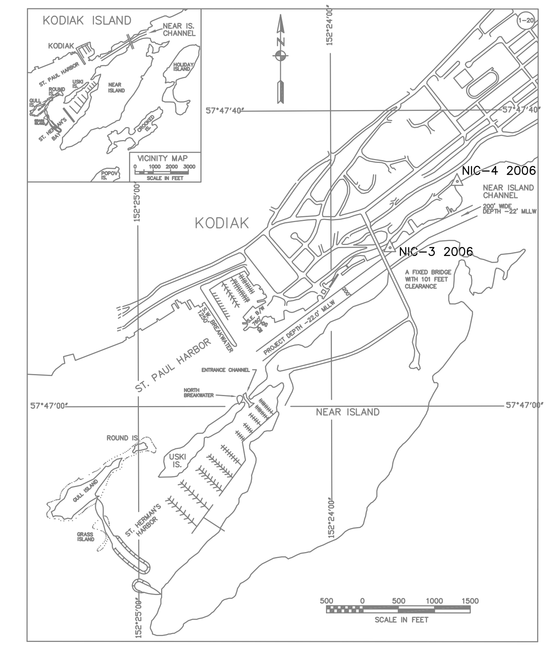
SURVEYED: CSH
DRAWN: REH
CHECKED: JSH
SUBMITTED:

KODIAK, ALASKA
NEAR ISLAND CHANNEL
PROJECT CONDITION SURVEY
MAY 29–31, 2006

RECOMMENDED: PROJECT MANAGER
APPROVED: CHIEF OPERATIONS–READINESS BRANCH
DATE:

SURVEY NO. 1868–06
SCALE: 1" = 100'
SHEET 1 OF 2





NOTES

1. HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 5, NAD83, IN US SURVEY FEET HOLDING USACE SBC "TBD 125" AS N 1,386,076.29, E 1,950,682.85 AND DOMED BC "NIC-2 1997" AS N 1,387,456.93, E 1,952,427.75.
2. VERTICAL CONTROL IS MEAN LOWER LOW WATER DATUM, IN US SURVEY FEET (MLLW=0.0') HOLDING USCGS TIDAL BENCH MARK "NO 14 1964" AS 15.11'. TIDAL DATUM IS BASED ON THE 1983-2001 TIDAL EPOCH FROM NOAA/NOS TIDAL BENCH MARK LIST: "9457283 KODIAK, ST PAULS HARBOR, ALASKA", PUBLISHED 01/10/2005.
3. SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
4. THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF SURVEY.
5. SOUNDING OPERATIONS WERE CONDUCTED ON MAY 30-31, 2006 USING AN INNERSPACE 448 DEPTH SOUNDER WITH A 200KHZ, 3 DEGREE BEAM-WIDTH, SINGLE-BEAM TRANSDUCER. POSITIONING WAS PROVIDED USING A TRIMBLE 5700 RECEIVER OPERATING ON RTK CORRECTIONS BROADCAST FROM A TRIMBLE 5700 BASE STATION SET AT USACE SBC "TBD 125". NAVIGATION, DATA COLLECTION AND DATA PROCESSING WERE PERFORMED USING HYPACK MAX INTEGRATED SOFTWARE. TIDE CORRECTIONS WERE PROVIDED BY TRIMBLE 5700 RTK GPS RECEIVER AND CHECKED THROUGH CONVENTIONAL METHODS.
6. VERTICAL CONTROL WAS SURVEYED MAY 29, 2006 USING OPTICAL INSTRUMENTS AND DIFFERENTIAL LEVELING TECHNIQUES. HORIZONTAL CONTROL WAS SURVEYED MAY 29-30, 2006 USING BOTH STATIC AND REAL-TIME-KINEMATIC GPS EQUIPMENT AND TECHNIQUES. ALL BREAKWATERS, BASINS, AND SURROUNDING AREAS WERE SURVEYED USING A TRIMBLE 5700 RTK SURVEY ROVER.

VOLUME COMPUTATIONS

Project Depth -22 MLLW

MINIMUM PAY LINE*	(-22' MLLW)	32 (cubic yards)
Between MINIMUM PAY LINE and MAXIMUM PAY LINE*	(-23' MLLW)	51 (cubic yards)
SIDE SLOPE		426 (cubic yards)
TOTAL		509 (cubic yards)

* Volumes are within Project Limits and do not include SIDE SLOPES.

PROJECT LIMITS

CORNER	NORTHING	EASTING	CORNER	NORTHING	EASTING
CHANNEL 1	1,386,284.33	1,951,303.23	CHANNEL 4	1,387,736.88	1,953,896.52
CHANNEL 2	1,386,116.80	1,951,412.50	CHANNEL 5	1,388,093.89	1,954,252.24
CHANNEL 3	1,387,914.31	1,953,802.43	CHANNEL 6	1,387,916.46	1,954,346.33

NAVIGATION AIDS

USCG No.	DESCRIPTION	NORTHING	EASTING
26615	KODIAK FERRY DOCK LIGHT (SOUTH)	1,386,783	1,952,073
26615	KODIAK FERRY DOCK LIGHT (NORTH)	1,386,947	1,952,191
26620	KODIAK BOAT HARBOR DAYBEACON 2	1,386,158	1,950,971
26630	KODIAK BOAT HARBOR LIGHT 1	1,386,048	1,950,704
26635	ST. HERMAN BAY NORTH ENTRANCE DAYBEACON 1	1,385,263	1,950,886
26640	ST. HERMAN BAY NORTH ENTRANCE LIGHT 2	1,385,151	1,950,789

CONTROL DATA

STATION	NORTHING	EASTING	ELEV.	DESCRIPTION
CROOK	1,383,758.20	1,954,888.93	12.60	NOT SEARCHED FOR
HBR. NO. 3	1,388,886.75	1,955,339.72	21.30	NOT SEARCHED FOR
TDB 101	1,375,838.02	1,937,058.81	16.0	NOT SEARCHED FOR
TDB 104	1,385,278.05	1,951,052.03	31.22	SEARCHED FOR AND NOT FOUND
TDB 105	1,384,385.92	1,950,969.92	14.81	NOT SEARCHED FOR
TDB 106	1,385,067.25	1,950,875.87	15.71	FOUND IN GOOD CONDITION
TDB 107	1,383,411.62	1,950,752.46	23.79	NOT SEARCHED FOR
TDB 108	1,383,867.55	1,949,505.62	17.80	NOT SEARCHED FOR
TDB 109	1,383,228.87	1,947,940.53	38.2	NOT SEARCHED FOR
TDB 110	1,381,273.19	1,949,474.20	33.6	NOT SEARCHED FOR
TDB 111	1,386,625.54	1,952,576.52	20.14	NOT SEARCHED FOR
TDB 112	1,387,283.76	1,953,322.65	–	FOUND IN GOOD CONDITION
TDB 113	1,387,662.32	1,954,065.94	20.53	FOUND IN GOOD CONDITION
TDB 114	1,387,452.47	1,955,339.49	27.9	NOT SEARCHED FOR
TDB 115	1,386,238.12	1,955,056.27	18.1	NOT SEARCHED FOR
TDB 116	1,386,631.52	1,955,855.79	15.2	NOT SEARCHED FOR
TDB 117	1,385,186.09	1,955,262.22	15.4	NOT SEARCHED FOR
TDB 118	1,385,322.91	1,953,903.89	20.1	NOT SEARCHED FOR
TDB 119	1,383,057.69	1,952,706.75	22.4	NOT SEARCHED FOR
TDB 120	1,382,540.94	1,953,138.03	9.4	NOT SEARCHED FOR
TDB 121	1,384,023.51	1,953,110.52	40.1	NOT SEARCHED FOR
TDB 122	1,379,914.58	1,951,579.95	36.3	NOT SEARCHED FOR
TDB 123	1,381,100.40	1,952,085.78	25.3	NOT SEARCHED FOR
TDB 124	1,382,047.18	1,950,769.12	35.99	NOT SEARCHED FOR
TDB 125	1,386,076.29	1,950,682.85	17.9	FOUND IN GOOD CONDITION
TDB 126	1,366,829.73	1,934,633.08	29.6	NOT SEARCHED FOR
TDB 127	1,387,644.53	1,945,810.71	1269.1	NOT SEARCHED FOR
TDB 128	1,388,645.25	1,947,966.61	1047.5	NOT SEARCHED FOR
TDB 129	1,388,105.62	1,947,642.55	1100.1	NOT SEARCHED FOR
TDB 130	1,391,537.24	1,958,944.90	11.0	NOT SEARCHED FOR
TDB 131	1,390,713.14	1,957,865.41	23.1	NOT SEARCHED FOR
SYLVA 2000	1,382,715.76	1,948,706.38	20.49	3 1/4" DBC IN BRKWTR
RANGER 2000	1,381,939.22	1,949,173.35	23.20	3 1/4" DBC IN BRKWTR
HARBOR MASTER	–	–	18.91	NOT SEARCHED FOR

CONTROL DATA

STATION	NORTHING	EASTING	ELEV.	DESCRIPTION
DB-1	1,381,417.66	1,949,584.23	56.90	NOT SEARCHED FOR
DB-2	1,382,111.09	1,949,757.24	62.66	NOT SEARCHED FOR
DB-3	1,382,349.08	1,949,974.72	93.5	NOT SEARCHED FOR
PANEL PT. 1	1,387,009.58	1,950,066.38	18.0	SEARCHED FOR AND NOT FOUND
PANEL PT. 3	1,380,649.23	1,948,512.40	21.2	NOT SEARCHED FOR
PANEL PT. 4	1,385,952.34	1,957,745.52	26.5	NOT SEARCHED FOR
PANEL PT. 5	1,387,235.79	1,957,141.27	58.6	NOT SEARCHED FOR
PANEL PT. 6	1,384,033.85	1,956,465.92	88.8	NOT SEARCHED FOR
PANEL PT. 6A	1,375,565.42	1,949,294.02	12.7	NOT SEARCHED FOR
PANEL PT. 7	1,379,253.40	1,951,090.25	21.4	NOT SEARCHED FOR
PANEL PT. 8	1,392,016.61	1,953,347.71	153.0	NOT SEARCHED FOR
PANEL PT. 9	1,389,887.62	1,951,459.59	157.4	NOT SEARCHED FOR
PANEL PT. 10	1,388,029.81	1,951,292.49	22.4	SEARCHED FOR AND NOT FOUND
PANEL PT. 11	1,389,036.51	1,953,013.71	167.0	NOT SEARCHED FOR
PANEL PT. 12	1,385,729.43	1,947,979.47	14.8	NOT SEARCHED FOR
PANEL PT. 13	1,389,673.66	1,956,350.92	38.1	NOT SEARCHED FOR
PANEL PT. 14	1,390,474.29	1,954,181.10	119.8	NOT SEARCHED FOR
BM. 1969	1,383,040	1,952,730	11.08	NOT SEARCHED FOR
B.M. NO. 1	1,383,377	1,950,736	17.01	NOT SEARCHED FOR
B.M. NO. 2	1,384,597	1,953,511	9.73	NOT SEARCHED FOR
B.M. NO. 3	1,385,521	1,953,898	9.95	NOT SEARCHED FOR
HBR NO. 1	1,386,051.18	1,947,994.48	44.8	NOT SEARCHED FOR
CHINIAK SW	1,369,994.77	1,932,346.61	120.6	NOT SEARCHED FOR
ABBERT	1,370,930.68	1,937,156.66	30.8	NOT SEARCHED FOR
NEAR	1,384,661.30	1,952,346.70	202.7	NOT SEARCHED FOR
EIDER	1,387,359.41	1,961,974.92	32.6	NOT SEARCHED FOR
PUFFIN IS.	1,375,180.52	1,946,457.37	55.7	NOT SEARCHED FOR
GIB	1,381,384.97	1,942,209.73	33.3	NOT SEARCHED FOR
NIC-1 1997	1,385,945.94	1,951,548.04	26.80	FOUND IN GOOD CONDITION
NIC-2 1997	1,387,456.93	1,952,427.75	46.49	FOUND IN GOOD CONDITION
*NIC-3 2006	1,387,617.61	1,953,239.63	–	SET 3 1/4" DBC IN CONCRETE
*NIC-4 2006	1,388,617.40	1,954,333.82	–	SET 3 1/4" DBC IN ROCK
No. 19 1964	–	–	14.01	NOT SEARCHED FOR
No. 23 1975	–	–	18.72	NOT SEARCHED FOR

NOTE: MONUMENTS WITH AN ASTERISK (*) WERE SET THIS SURVEY.
VERTICAL ADJUSTMENTS FOR NEW MONUMENTS ARE STILL BEING REVIEWED.

CONTRACT NO. DACW85-98-D-0004
CONTRACTOR HUGHES & ASSOCIATES
CITY WASILLA STATE ALASKA

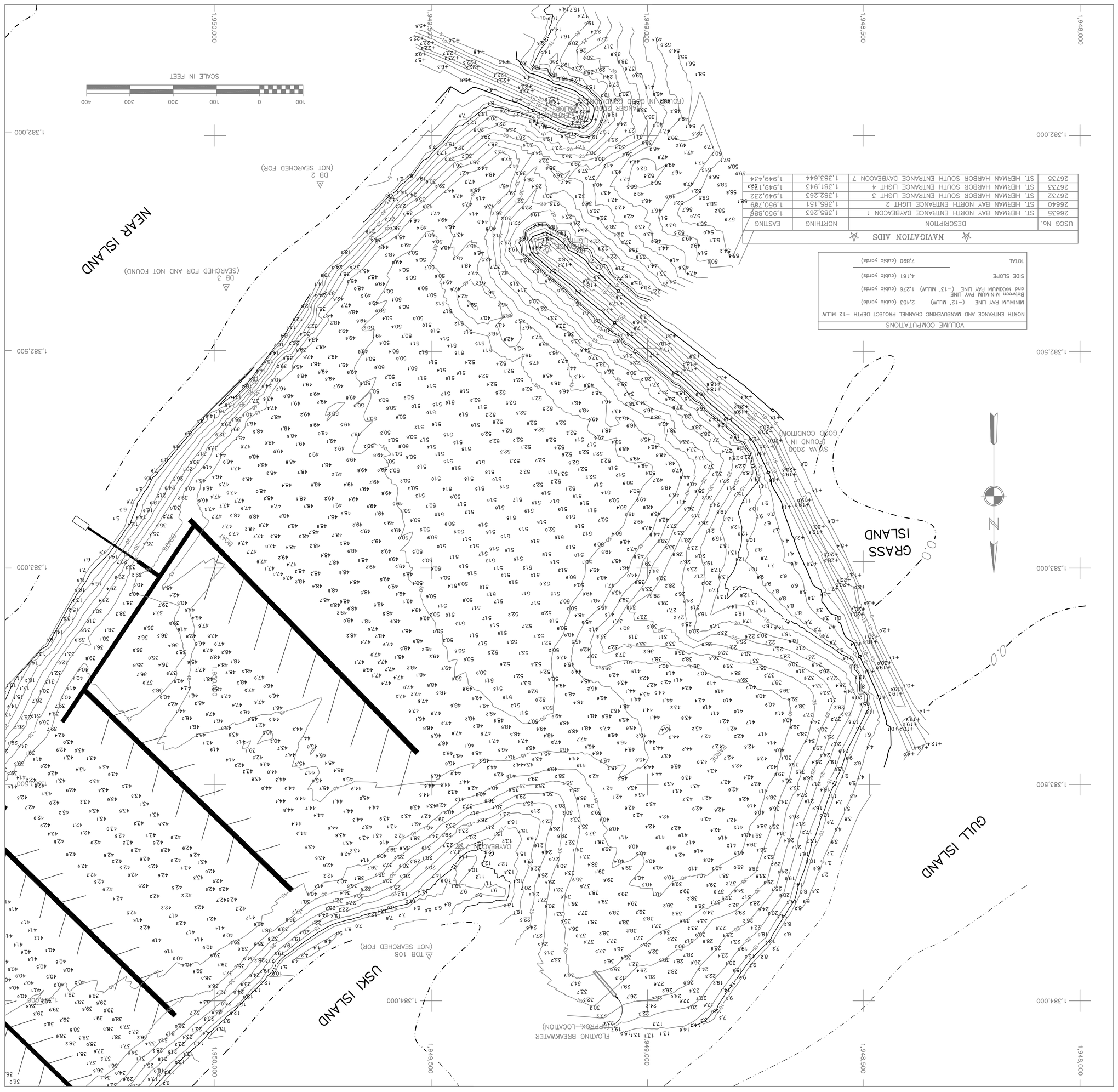
ALASKA DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

SURVEYED: CSH
DRAWN: REH
CHECKED: JSH
SUBMITTED:

KODIAK, ALASKA
NEAR ISLAND CHANNEL
PROJECT CONDITION SURVEY
MAY 29-31, 2006

RECOMMENDED: PROJECT MANAGER
APPROVED: CHIEF OPERATIONS-READINESS BRANCH
DATE:

SURVEY NO. 1868-06
SCALE: 1" = 100'
SHEET 2 OF 2



VOLUME COMPUTATIONS	
NORTH ENTRANCE AND MANEUVERING CHANNEL PROJECT DEPTH -12 MLLW	
MINIMUM PAY LINE (-12' MLLW)	2,453 (cubic yards)
Between MINIMUM PAY LINE and MAXIMUM PAY LINE (-13' MLLW)	1,276 (cubic yards)
SIDE SLOPE	4,161 (cubic yards)
TOTAL	7,890 (cubic yards)

NAVIGATION AIDS			
USCG No.	DESCRIPTION	NORTHING	EASTING
26635	ST. HERMAN BAY NORTH ENTRANCE DAYBEACON 1	1,385,263	1,950,889
26640	ST. HERMAN BAY NORTH ENTRANCE LIGHT 2	1,385,151	1,950,789
26733	ST. HERMAN HARBOR SOUTH ENTRANCE LIGHT 3	1,382,263	1,949,233
26733	ST. HERMAN HARBOR SOUTH ENTRANCE LIGHT 4	1,381,943	1,949,233
26735	ST. HERMAN HARBOR SOUTH ENTRANCE DAYBEACON 7	1,383,644	1,949,434

ALASKA DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

SURVEYED:
DRAWN: CSH
CHECKED: REH
SUBMITTED: JSH

KODIAK HARBOR, ALASKA
ST. HERMAN'S HARBOR
PROJECT CONDITION SURVEY
MAY 24–28, 2006

RECOMMENDED: PROJECT MANAGER
APPROVED: CHIEF OPERATIONS–REAL ESTATE BRANCH
DATE:

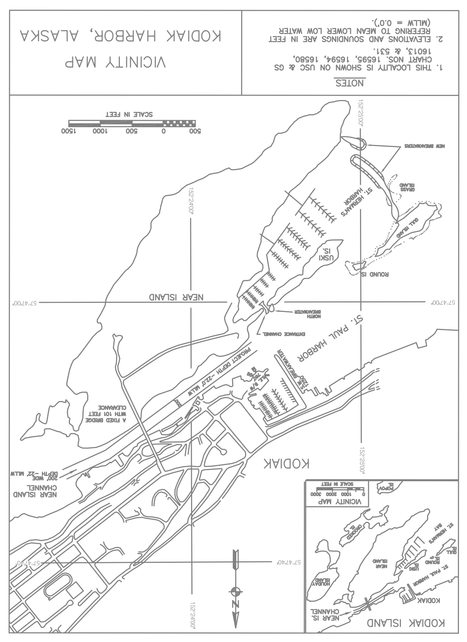
SURVEY NO. 1869–06
SCALE: 1" = 100'
SHEET 1 OF 2

CONTRACTOR: HUGHES & ASSOCIATES
CONTRACT NO. W911KB–04–D–0007
CITY: WASILLA STATE: ALASKA

PROJECT LIMITS					
CORNER	NORTHING	EASTING	CORNER	NORTHING	EASTING
1	1,385,346.97	1,950,927.80	9	1,384,725.54	1,950,725.44
2	1,385,221.88	1,950,905.60	10	1,384,725.54	1,950,775.44
3	1,385,131.21	1,950,992.25	11	1,385,015.44	1,950,908.81
4	1,385,165.53	1,951,046.80	12	1,385,070.13	1,950,912.27
5	1,385,112.94	1,951,146.08	13	1,385,015.33	1,950,838.42
6	1,384,885.03	1,950,623.22	14	1,385,186.33	1,950,844.57
7	1,384,554.03	1,951,412.50	15	1,385,244.31	1,950,789.17
8	1,384,598.83	1,950583.33			

CONTROL DATA				
STATION	NORTHING	EASTING	ELEV.	DESCRIPTION
TDB 103	1,385,578.60	1,951,601.05	17.42	NOT SEARCHED FOR
TDB 104	1,385,278.05	1,951,052.03	31.22	NOT SEARCHED FOR
TDB 105	1,384,138.92	1,950,989.92	14.81	NOT SEARCHED FOR
TDB 106	1,385,067.25	1,950,875.87	15.71	NOT SEARCHED FOR
TDB 107	1,383,411.62	1,950,752.46	23.79	NOT SEARCHED FOR
TDB 108	1,383,867.55	1,949,505.62	17.80	NOT SEARCHED FOR
TDB 109	1,383,228.87	1,947,940.53	38.2	NOT SEARCHED FOR
TDB 110	1,381,273.19	1,949,474.20	33.6	NOT SEARCHED FOR
TBB–112	1,387,283.76	1,953,322.65	–	FOUND IN GOOD CONDITION
TBB–125	1,386,076.29	1,950,682.85	17.90	FOUND IN GOOD CONDITION
SYLVA 2000	1,382,715.76	1,948,706.38	20.49	FOUND IN GOOD CONDITION
B.M. NO. 1	1,383,377.50	1,950,736.04	17.01	NOT SEARCHED FOR
RANGER 2000	1,381,939.22	1,949,113.35	23.20	FOUND IN GOOD CONDITION
NIC–1 1997	1,385,945.94	1,951,548.04	26.80	FOUND IN GOOD CONDITION
NIC–2 1997	1,387,456.93	1,952,427.75	46.49	FOUND IN GOOD CONDITION
*NIC–3 2006	1,387,617.61	1,953,239.63	–	SET 1 1/4" BC IN CONCRETE
NIC–4 2006	1,388,617.40	1,954,733.82	–	SET 3 1/4" BC IN ROCK
DB–2	1,382,111.09	1,949,757.24	62.66	NOT SEARCHED FOR
DB–3	1,382,249.08	1,949,974.72	93.5	NOT SEARCHED FOR
HARBOR MASTER	–	–	18.91	FOUND IN GOOD CONDITION
*SHH–1 2006	1,385,044.66	1,951,418.74	–	SET 3 1/4" BC IN ASPHALT
*SHH–2 2006	1,383,832.56	1,950,860.76	–	SET 3 1/4" BC IN ROCK

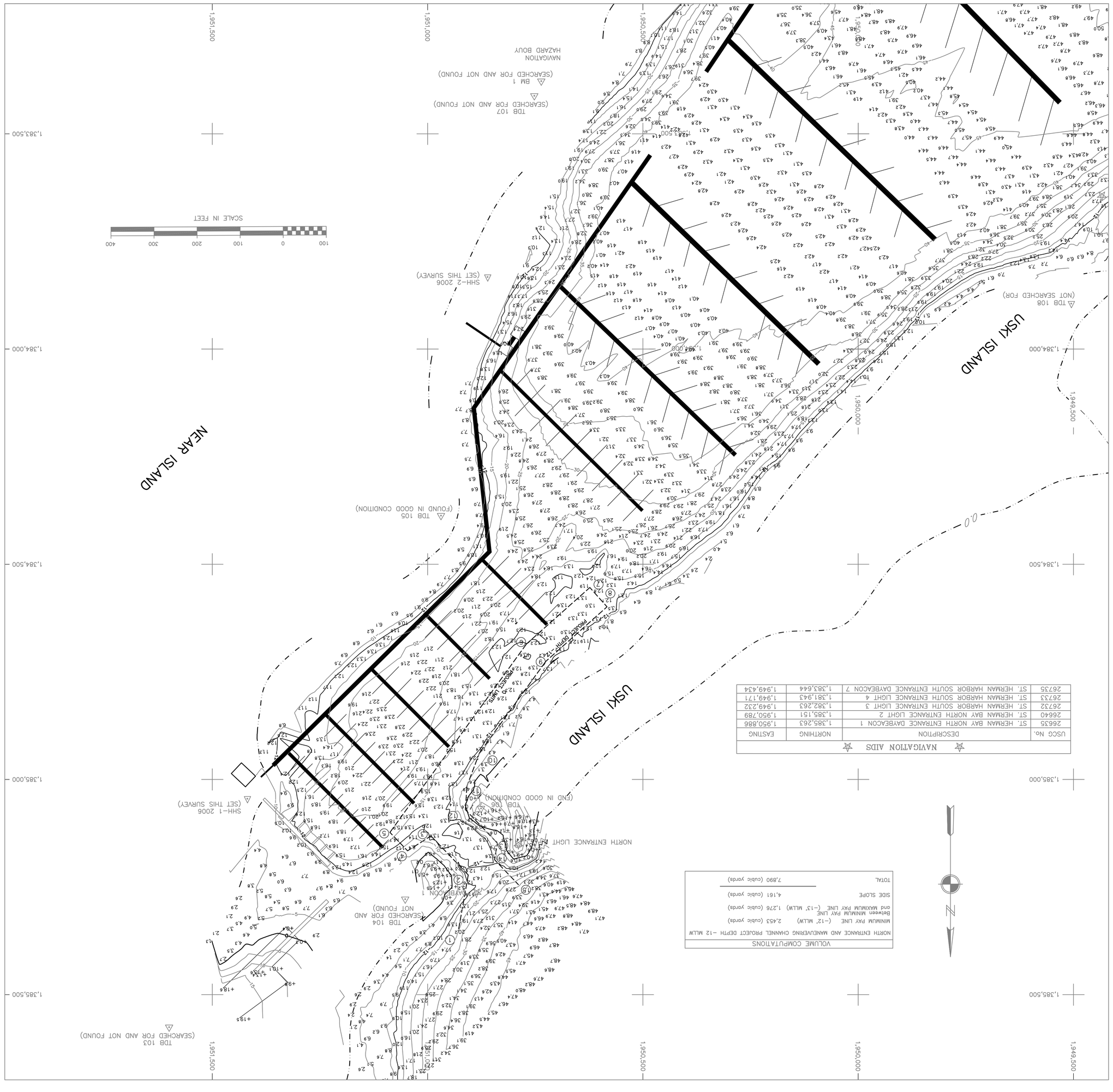
NOTE: MONUMENTS WITH AN ASTERISK (*) WERE SET THIS SURVEY.
VERTICAL ADJUSTMENTS FOR NEW MONUMENTS ARE STILL BEING REVIEWED.



NOTES
1. THIS LOCALITY IS SHOWN ON USC & GS CHART NOS. 16595, 16594, 16580, 16013 & 531.
2. ELEVATIONS AND SOUNDINGS ARE IN FEET REFERING TO MEAN LOWER LOW WATER (MLLW = 0.0')

VICINITY MAP
KODIAK HARBOR, ALASKA

NOTES
1. HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 5, NAD83, IN US SURVEY FEET HOLDING USACE SBC "TBB–125" AS N 1,387,456.93, E 1,952,427.75.
N 1,386,076.29, E 1,950,682.85 AND DOMED BC "NIC–2 1997" AS
2. VERTICAL CONTROL IS MEAN LOWER LOW WATER DATUM, IN US SURVEY FEET (MLLW=0.0') HOLDING USCGS TIDAL BENCH MARK "NO 14 1964" AS 15.11'. TIDAL DATUM IS BASED ON THE 1983–2001 TIDAL EPOCH FROM NOAA/NOS TIDAL BENCH MARK LIST: "9457283 KODIAK, ST PAULS HARBOR, ALASKA", PUBLISHED 01/10/2005.
3. SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
4. THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF SURVEY.
5. SOUNDING OPERATIONS WERE CONDUCTED ON MAY 27–28, 2006 USING AN INNERSPACE 448 DEPTH SOUNDER WITH A 200KHZ, 3 DEGREE BEAM–WIDTH, SINGLE–BEAM TRANSDUCER. POSITIONING WAS PROVIDED USING A TRIMBLE 5700 RECEIVER OPERATING ON RTK CORRECTIONS BROADCAST FROM A TRIMBLE 5700 BASE STATION SET AT USACE SBC "TBB–125". NAVIGATION, DATA COLLECTION AND DATA PROCESSING WERE PERFORMED USING HYPACK MAX INTEGRATED SOFTWARE. TIDE CORRECTIONS WERE PROVIDED BY TRIMBLE 5700 RTK GPS RECEIVER AND CHECKED THROUGH CONVENTIONAL METHODS.
6. VERTICAL CONTROL WAS SURVEYED MAY 24, 2006 USING OPTICAL INSTRUMENTS AND DIFFERENTIAL LEVELING TECHNIQUES. HORIZONTAL CONTROL WAS SURVEYED MAY 25–26, 2006 USING BOTH STATIC AND REAL–TIME–KINEMATIC GPS EQUIPMENT AND TECHNIQUES. ALL BREAKWATERS, BASINS, AND SURROUNDING AREAS WERE SURVEYED USING A TRIMBLE 5700 RTK SURVEY ROVER.



NAVIGATION AIDS

USCG No.	DESCRIPTION	NORTHING	EASTING
26635	ST. HERMAN BAY NORTH ENTRANCE DAYBEACON 1	1,385,263	1,950,886
26640	ST. HERMAN BAY NORTH ENTRANCE LIGHT 2	1,385,151	1,950,789
26732	ST. HERMAN HARBOR SOUTH ENTRANCE LIGHT 3	1,382,263	1,949,232
26733	ST. HERMAN HARBOR SOUTH ENTRANCE LIGHT 4	1,381,943	1,949,171
26735	ST. HERMAN HARBOR SOUTH ENTRANCE DAYBEACON 7	1,383,644	1,949,434

VOLUME COMPUTATIONS

NORTH ENTRANCE AND MANEUVERING CHANNEL PROJECT DEPTH –12 MLLW	
MINIMUM PAY LINE (–12' MLLW)	2,453 (cubic yards)
Between MINIMUM PAY LINE and MAXIMUM PAY LINE (–12' MLLW)	1,276 (cubic yards)
SIDE SLOPE	4,161 (cubic yards)
TOTAL	7,890 (cubic yards)

NOTES

1. HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 5, NAD83, IN US SURVEY FEET HOLDING USACE SBC "TBD–125" AS N 1,386,076.29, E 1,950,682.85 AND DOMED BC "NIC–2 1997" AS N 1,387,456.93, E 1,952,427.75.
2. VERTICAL CONTROL IS MEAN LOWER LOW WATER DATUM, IN US SURVEY FEET (MLLW=0.0') HOLDING USCGS TIDAL BENCH MARK "NO 14 1964" AS 15.11'. TIDAL DATUM IS BASED ON THE 1983–2001 TIDAL EPOCH FROM NOAA/NOS TIDAL BENCH MARK LIST: "9455283 KODIAK, ST PAULS HARBOR, ALASKA", PUBLISHED 01/10/2005.
3. SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
4. THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF SURVEY.
5. SOUNDING OPERATIONS WERE CONDUCTED ON MAY 27–28, 2006 USING AN INNERSPACE 448 DEPTH SOUNDER WITH A 200KHZ, 3 DEGREE BEAM–WIDTH, SINGLE–BEAM TRANSDUCER. POSITIONING WAS PROVIDED USING A TRIMBLE 5700 RECEIVER OPERATING ON RTK CORRECTIONS BROADCAST FROM A TRIMBLE 5700 BASE STATION SET AT USACE SBC "TBD–125". NAVIGATION, DATA COLLECTION AND DATA PROCESSING WERE PERFORMED USING HYPACK MAX INTEGRATED SOFTWARE. TIDE CORRECTIONS WERE PROVIDED BY TRIMBLE 5700 RTK GPS RECEIVER AND CHECKED THROUGH CONVENTIONAL METHODS.
6. VERTICAL CONTROL WAS SURVEYED MAY 24, 2006 USING OPTICAL INSTRUMENTS AND DIFFERENTIAL LEVELING TECHNIQUES. HORIZONTAL CONTROL WAS SURVEYED MAY 25–26, 2006 USING BOTH STATIC AND REAL–TIME–KINEMATIC GPS EQUIPMENT AND TECHNIQUES. ALL BREAKWATERS, BASINS, AND SURROUNDING AREAS WERE SURVEYED USING A TRIMBLE 5700 RTK SURVEY ROVER.

PROJECT LIMITS

CORNER	NORTHING	EASTING	CORNER	NORTHING	EASTING
1	1,385,346.97	1,950,927.80	9	1,384,725.54	1,950,725.44
2	1,385,221.88	1,950,905.60	10	1,384,725.54	1,950,725.44
3	1,385,131.21	1,950,992.25	11	1,385,015.44	1,950,908.81
4	1,385,165.53	1,951,046.80	12	1,385,070.13	1,950,912.27
5	1,385,122.94	1,951,087.50	13	1,385,146.08	1,950,838.42
6	1,384,685.03	1,950,623.22	14	1,385,186.33	1,950,844.57
7	1,384,554.03	1,951,412.50	15	1,385,244.31	1,950,789.17
8	1,384,598.83	1,950583.33			

CONTROL DATA

STATION	NORTHING	EASTING	ELEV.	DESCRIPTION
TDB 103	1,385,576.60	1,951,601.05	17.42	NOT SEARCHED FOR
TDB 104	1,385,278.05	1,951,052.03	31.22	NOT SEARCHED FOR
TDB 105	1,384,385.92	1,950,989.92	14.81	NOT SEARCHED FOR
TDB 106	1,385,067.25	1,950,875.87	15.71	NOT SEARCHED FOR
TDB 107	1,383,411.62	1,950,752.46	23.79	NOT SEARCHED FOR
TDB 108	1,383,867.55	1,949,505.62	17.80	NOT SEARCHED FOR
TDB 109	1,383,228.87	1,947,940.53	38.2	NOT SEARCHED FOR
TDB 110	1,381,273.19	1,949,474.20	33.6	NOT SEARCHED FOR
TDB–112	1,387,283.76	1,953,322.65	–	FOUND IN GOOD CONDITION
TDB–125	1,386,076.29	1,950,682.85	17.90	FOUND IN GOOD CONDITION
B.M. NO. 1	1,383,377.50	1,950,736.04	17.01	NOT SEARCHED FOR
SYLVA 2000	1,382,715.76	1,948,706.38	20.49	FOUND IN GOOD CONDITION
RANGER 2000	1,381,939.22	1,949,117.35	23.20	FOUND IN GOOD CONDITION
NIC–1 1997	1,385,945.94	1,951,548.04	26.80	FOUND IN GOOD CONDITION
NIC–2 1997	1,387,456.93	1,952,427.75	46.49	FOUND IN GOOD CONDITION
*NIC–3 2006	1,387,617.61	1,953,239.63	–	SET 1 1/4" BC IN CONCRETE
NIC–2 1997	1,387,456.93	1,952,427.75	46.49	FOUND IN GOOD CONDITION
*NIC–4 2006	1,388,617.40	1,954,733.82	–	SET 3 1/4" BC IN ROCK
DB–2	1,382,111.09	1,949,757.24	62.66	NOT SEARCHED FOR
DB–3	1,382,249.08	1,949,924.22	93.5	NOT SEARCHED FOR
HARBOR MASTER	–	–	18.91	FOUND IN GOOD CONDITION
*SHH–1 2006	1,385,044.66	1,951,418.74	–	SET 3 1/4" BC IN ASPHALT
*SHH–2 2006	1,383,832.56	1,950,860.76	–	SET 3 1/4" BC IN ROCK

NOTE: MONUMENTS WITH AN ASTERISK (*) WERE SET THIS SURVEY.
VERTICAL ADJUSTMENTS FOR NEW MONUMENTS ARE STILL BEING REVIEWED.

CONTRACTOR: HUGHES & ASSOCIATES
CONTRACT NO. W911KB–04–D–0007
CITY: WASILLA STATE: ALASKA

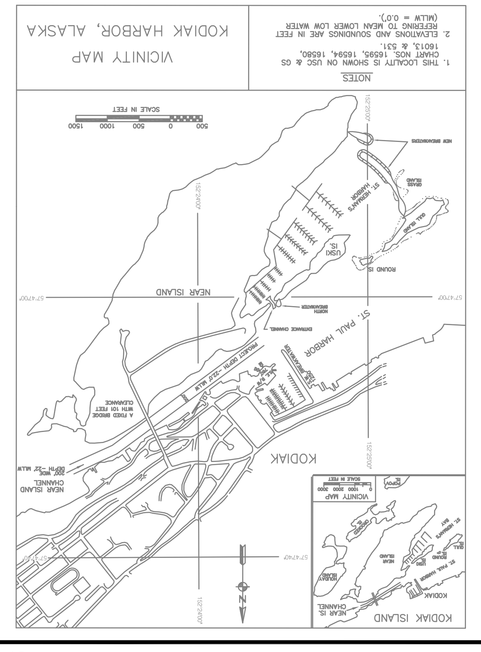
ALASKA DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

SURVEYED: CSH
DRAWN: REH
CHECKED: JSH
SUBMITTED:

KODIAK HARBOR, ALASKA
ST. HERMAN'S HARBOR
PROJECT CONDITION SURVEY
MAY 24–28, 2006

RECOMMENDED: PROJECT MANAGER
APPROVED: CHIEF, OPERATIONS–REAL ESTATE BRANCH
DATE:

SURVEY NO. 1869–06
SCALE: 1" = 100'
SHEET 2 OF 2



NOTES

1. THIS LOCATE IS SHOWN ON USC & GS CHART NOS. 16595, 16594, 16580, 16013, & 531.
2. ELEVATIONS AND SOUNDINGS ARE IN FEET REFERING TO MEAN LOWER LOW WATER (MLLW = 0.0')

VICINITY MAP

KODIAK HARBOR, ALASKA

U. S. ARMY