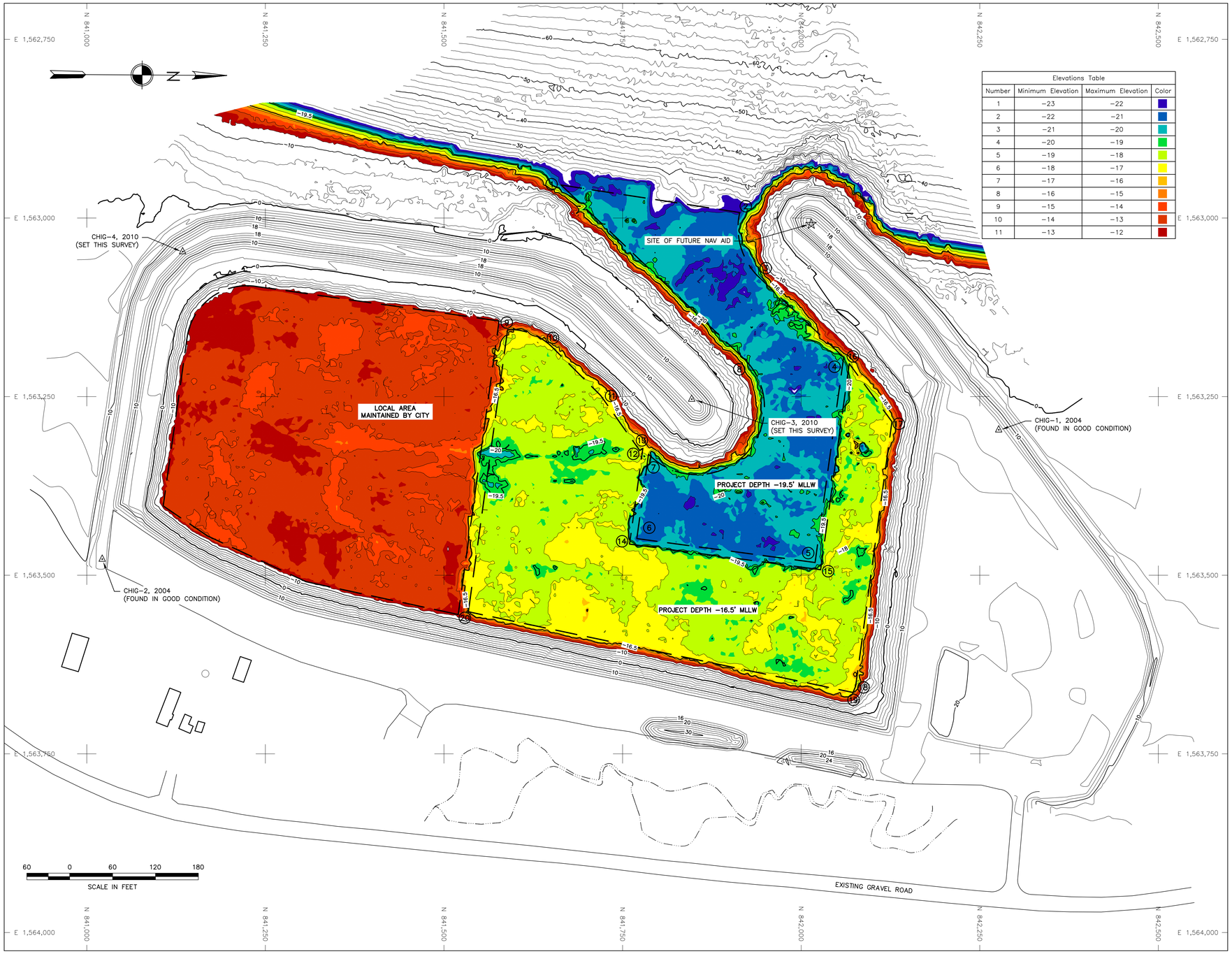
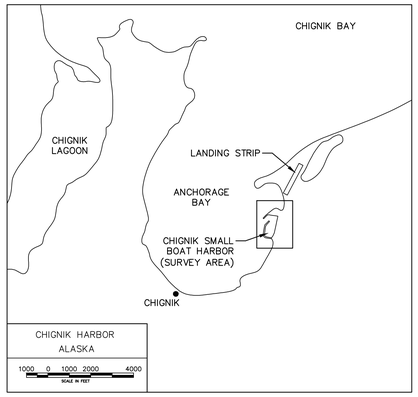


Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	-23	-22	
2	-22	-21	
3	-21	-20	
4	-20	-19	
5	-19	-18	
6	-18	-17	
7	-17	-16	
8	-16	-15	
9	-15	-14	
10	-14	-13	
11	-13	-12	



NOTES

1. HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 6, NAD83, IN US SURVEY FEET, HOLDING USACE SBC "CHIG-1" AS N 842,276.72, E 1,563,296.54 AND USACE SBC "CHIG-2" AS N 841,021.81, E 1,563,477.47.
2. VERTICAL CONTROL IS MEAN LOWER LOW WATER DATUM, IN US SURVEY FEET (MLLW=0.0') HOLDING NOS TIDAL BENCH MARKS "8917 G 1996" AS 19.58' AND "8917 H 1996" AS 20.56'. TIDAL DATUM IS BASED ON THE 1983-2001 TIDAL EPOCH FROM NOAA/NOS TIDAL BENCH MARK LIST: "9458917 CHIGNIK, ANCHORAGE BAY, ALASKA", PUBLISHED 3/22/2005.
3. SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
4. THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF SURVEY.
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6. HORIZONTAL CONTROL WAS UPDATED THROUGH A STATIC GPS NETWORK AND A LEAST SQUARES ADJUSTMENT. ADJUSTMENT WAS COMPLETED HOLDING USACE SBC "CHIG-1" AS N 842,276.72, E 1,563,296.54 AND USACE SBC "CHIG-2" AS N 841,021.81, E 1,563,477.47.
7. VERTICAL CONTROL WAS UPDATED THROUGH DIFFERENTIAL LEVELING USING A DIGITAL LEVEL AND HOLDING NOAA BENCHMARKS "8917 G 1996" AS 19.58' AND "8917 H 1996" AS 20.56'.

CONTROL DATA				
STATION	NORTHING	EASTING	ELEV.	DESCRIPTION
CHIG-1, 2004	842,276.72	1,563,296.54	16.66	USACE SBC
CHIG-2, 2004	841,021.81	1,563,477.47	17.15	USACE SBC
CHIG-3, 2010	841,846.98	1,563,253.62	18.31	3.25" SBC, SET THIS SURVEY
CHIG-4, 2010	841,134.45	1,563,047.13	18.86	3.25" SBC, SET THIS SURVEY

PROJECT LIMITS					
CORNER	NORTHING	EASTING	CORNER	NORTHING	EASTING
1	841,663.97	1,562,953.88	11	841,719.38	1,563,248.43
2	841,913.99	1,562,992.29	12	841,774.04	1,563,325.43
3	841,937.96	1,563,079.92	13	841,778.46	1,563,322.29
4	842,059.51	1,563,195.02	14	841,759.76	1,563,456.41
5	842,019.53	1,563,482.15	15	842,027.21	1,563,492.26
6	841,769.92	1,553,448.69	16	842,067.35	1,563,203.95
7	841,786.39	1,563,330.57	17	842,127.10	1,563,285.08
8	841,920.19	1,563,197.07	18	842,076.32	1,563,655.08
9	841,589.15	1,563,156.07	19	842,072.63	1,563,664.07
10	841,651.54	1,563,180.76	20	841,534.11	1,563,551.12

NAVIGATION AIDS			
DESCRIPTION	USCG NO.	NORTHING	EASTING
FUTURE NAVIGATION AID*	XX	842,014.06	1,563,008.49

*NOTE: NAVIGATION AID NOT INSTALLED, COORDINATES DERIVED FROM THE CONCRETE FOUNDATION.

VOLUME COMPUTATIONS	
-19.5 PROJECT DEPTH AREA	
AVAILABLE TO PROJECT DEPTH (-19.5')	29 cy
AVAILABLE BETWEEN PROJECT DEPTH (19.5') AND REQUIRED OVER DREDGE (-20.0')	42 cy
AVAILABLE BETWEEN REQUIRED OVER DREDGE (-20.0') AND MAX PAY DEPTH (-20.5')	160 cy
TOTAL MATERIAL AVAILABLE IN -19.5 AREA	231 cy
-16.5 PROJECT DEPTH AREA	
AVAILABLE TO PROJECT DEPTH (-16.5')	1 cy
AVAILABLE BETWEEN PROJECT DEPTH (16.5') AND REQUIRED OVER DREDGE (-17.0')	7 cy
AVAILABLE BETWEEN REQUIRED OVER DREDGE (-17.0') AND MAX PAY DEPTH (-17.5')	69 cy
TOTAL MATERIAL AVAILABLE IN -16.5 AREA	77 cy
TOTAL MATERIAL AVAILABLE IN SIDE SLOPES	40 cy

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

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. W911KB-10-D-0005
CONTRACTOR HUGHES AND ASSOCIATES
CITY WASILLA STATE AK
Recommended: Approved: Date:
PRIME CONTRACTOR RESIDENT ENGINEER

Sym	Action	Description	Date	Approv

Date: 8/22/10
Dwg Scale: 1" = 60'
Plot Scale:
Section:
File:
Drawing #:
Branch:
Designed:
Drawn: TNL
Reviewed: CSH
Chief:
Submitted:
Chief:

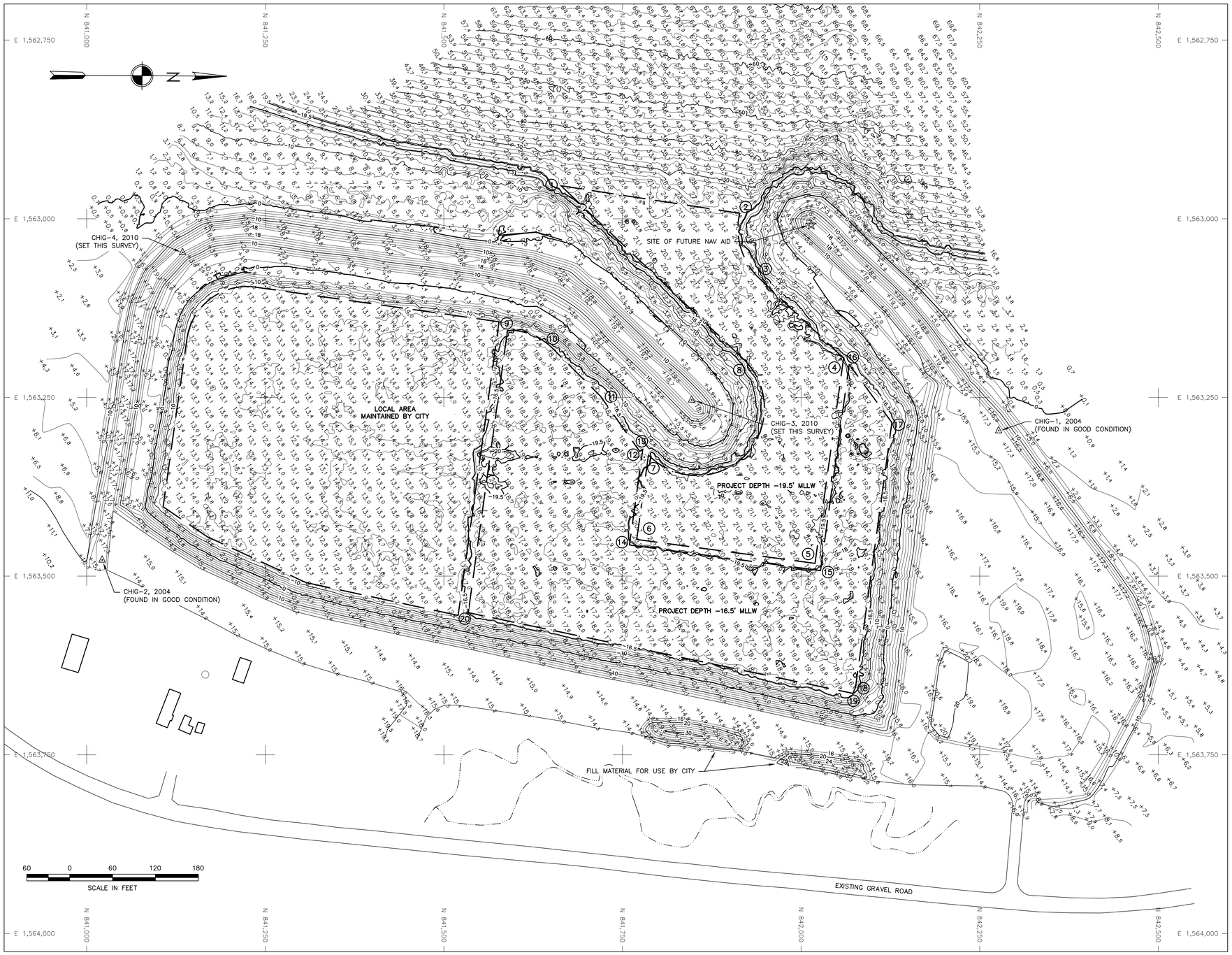
2820-10

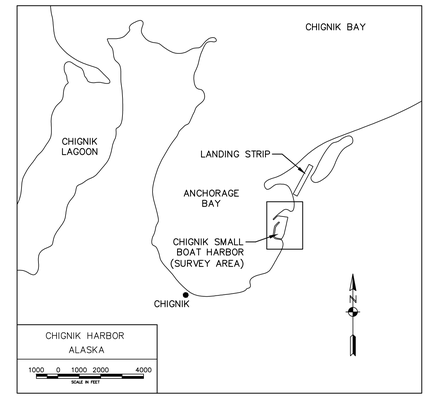
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

CHIGNIK BAY, ALASKA
CHIGNIK HARBOR
CONDITION SURVEY
JULY 20-25, 2010

Reference number:
V-701
Sheet 2 of 2

CORPS OF ENGINEERS





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Dwg Scale: 1" = 60'
Plot Scale:
File:
Drawing #:
Designed:
Drawn: TNL
Reviewed: CSH
Chief Section
Submitted Branch
Chief
2820-10

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

CHIGNIK BAY, ALASKA
CHIGNIK HARBOR
CONDITION SURVEY
JULY 20-25, 2010

Reference number:
V-101
Sheet 1 of 2