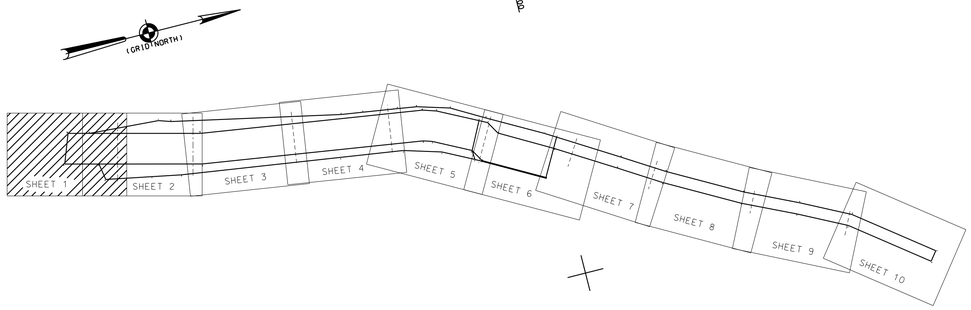

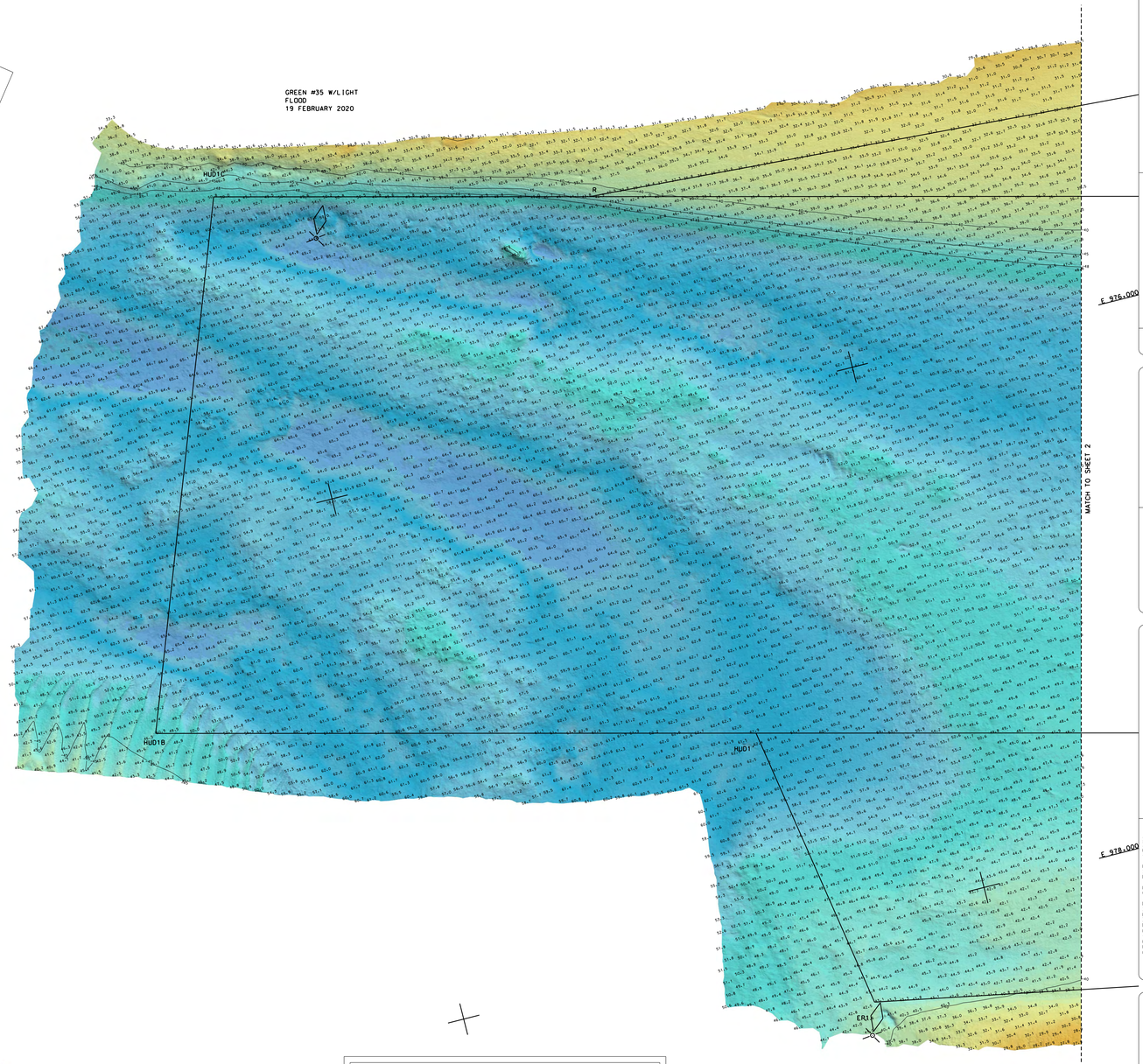

PROJECT SPECIFIC NOTES:

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-THE SOUNDINGS ON THIS MAP MEET EM 1110-2-1003 ACCURACY STANDARDS.
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-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.



LOCAL CONTROL DATA
BENCHMARK: AJD 10020
ELEVATION: 5.68' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: HIGHWOOD 3 1932 (PID: KV4023)
ELEVATION: 167.14' (NAVD 88)

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

CSG	PR
JE	MP

DATES OF SURVEY:
16-17,21-22,31 JANUARY 2020
3-6,12,14-15,18-19 FEBRUARY 2020

REQ. NO./FILE NO.: 4906/D/N1/N2/N3

SCALE:
ONE INCH = 200 FEET

FIELD BOOKS:

APPROVED: J. MCKELVEY
FIELD CARTOGRAPHER

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: D. CLARKE
LEAD CARTOGRAPHER

APPROVED: J. MRAZ
DEPUTY CHIEF OF SURVEY

DATE: 28 FEBRUARY 2020

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

HUDSON RIVER CHANNEL
NEW YORK
CONDITION SURVEY

VH-101

SHEET 1 OF 10

REG. NO./FILE NO.: 4906/0/N1/N2/N3

HUDSON RIVER CHANNEL
NEW YORK
CONDITION SURVEY

VH-102
SHEET 2 OF 10

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
GENERAL-OPS

APPROVED: J.P. MCKELVEY, P.E., D.WRE
CHIEF, OPERATIONS DIVISION

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: D. CLARKE
CHIEF, CONDITION SURVEY

APPROVED: J.T. MEAZ
DEPUTY CHIEF OF SURVEY

DATE: 28 FEBRUARY 2020

SCALE:
ONE INCH = 200 FEET

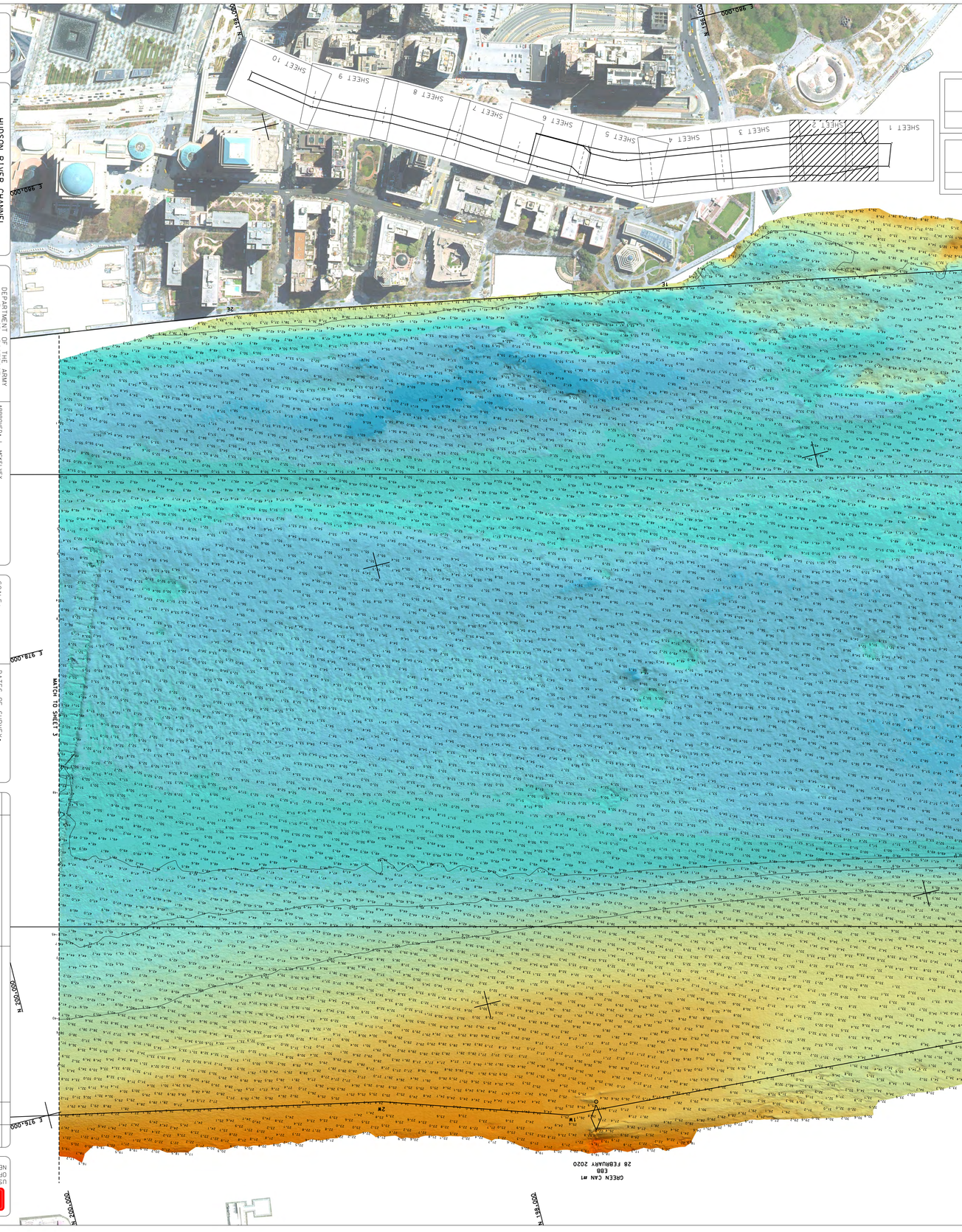
FIELD BOOKS:

DATES OF SURVEY:
16, 17, 21, 22 & 31 JANUARY 2020
3, 4, 12, 13, 14, 18 & 19
FEBRUARY 2020

REG. NO./FILE NO.'S 4906/0/N1/N2/N3

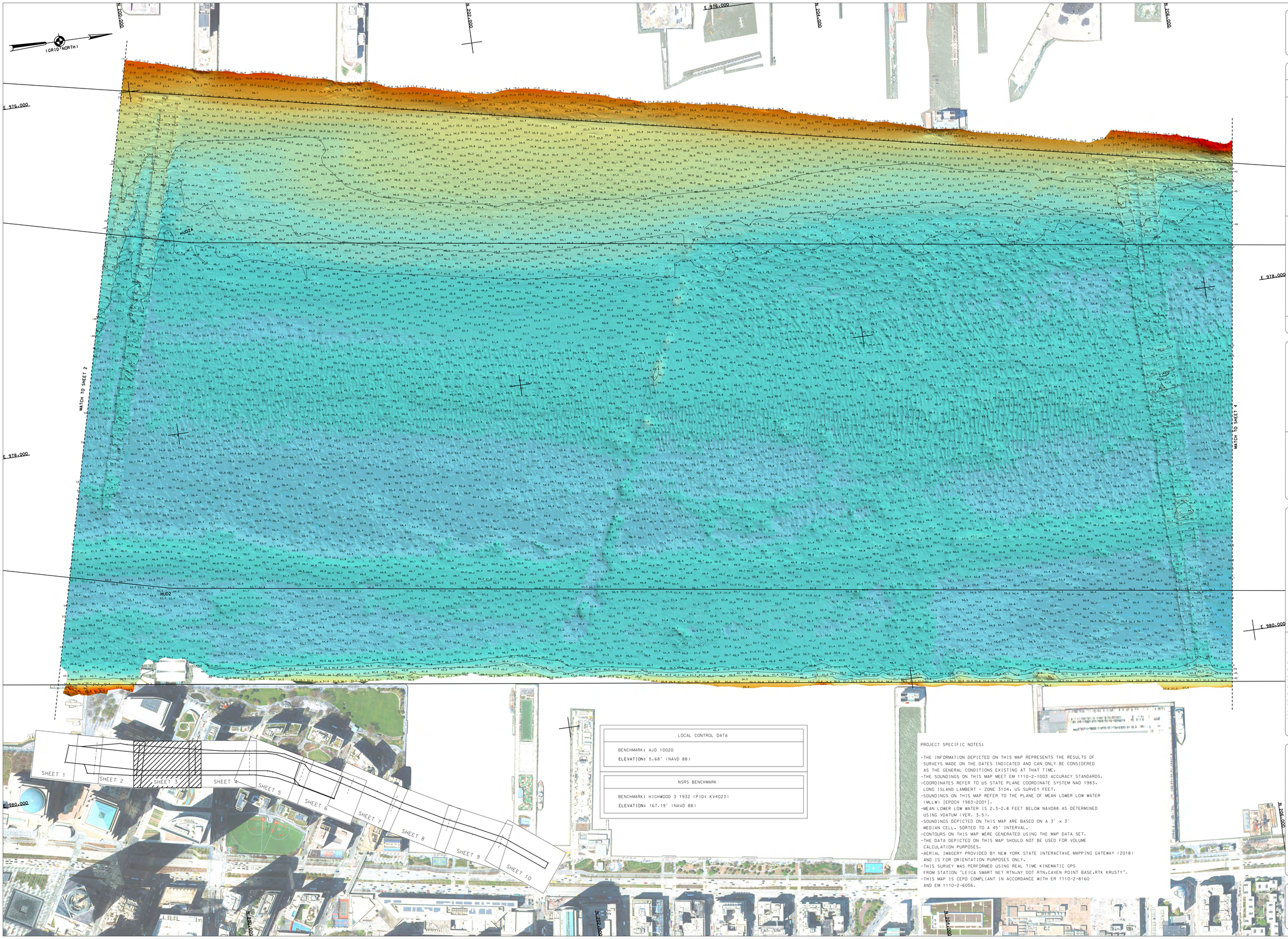
BY	ESS	PM	JT

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT



CORPS OF ENGINEERS

U. S. ARMY



LOCAL CONTROL DATA
BENCHMARK: AJD 10020 ELEVATION: 5.68' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: HIGHWOOD 3 1932 (PID: KV4023) ELEVATION: 167.19' (NAVD 88)

PROJECT SPECIFIC NOTES:

-THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS THE GENERAL CONDITIONS EXISTING AT THAT TIME.
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-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

ESD PR
JC WP

DATES OF SURVEY:
16-17,22-23,31 JANUARY 2020
3-6,12-14,18-19
2 FEBRUARY 2020

SCALE: ONE INCH = 200 FEET

FIELD BOOKS:

REQ. NO./FILE NO.: 4906/D/N1/N2/N3

APPROVED: J. MCKELVEY, FIELD SURVEYANCE
APPROVED: M. FORTE, CIVIL ENGINEERING TECHNICIAN
APPROVED: D. CLARKE, LEAD SURVEYANCE
APPROVED: J. MRAZ, BRANCH CHIEF OF SURVEY
DATE: 28 FEBRUARY 2020

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

HUDSON RIVER CHANNEL
NEW YORK
CONDITION SURVEY

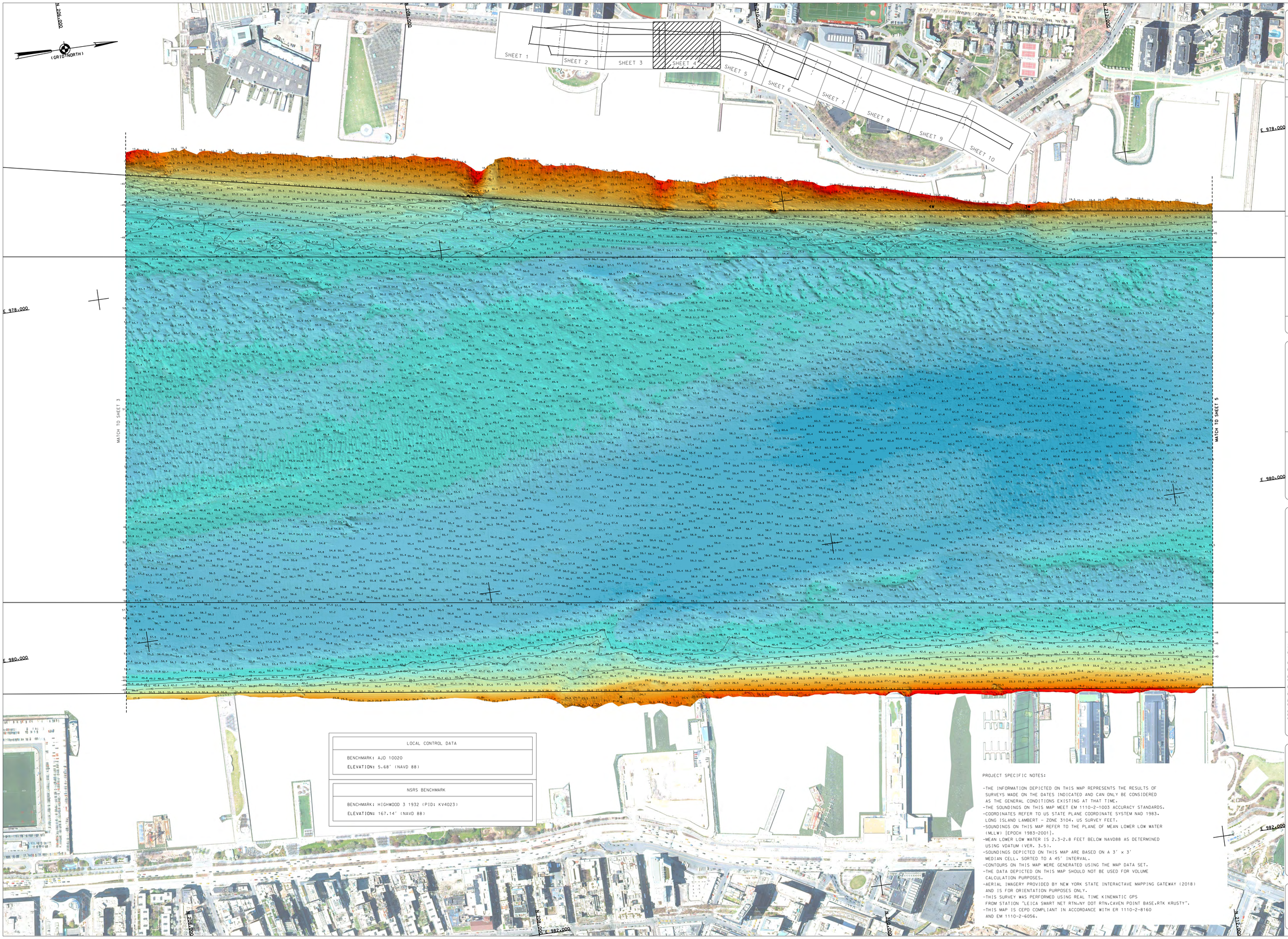
VH-103

SHEET 3 OF 10

REQ. NO./FILE NO.: 4906/D/N1/N2/N3

CORPS OF ENGINEERS

U. S. ARMY



LOCAL CONTROL DATA
BENCHMARK: AJD 10020
ELEVATION: 5.68' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: HIGHWOOD 3 1932 (PID: KV4023)
ELEVATION: 167.14' (NAVD 88)

PROJECT SPECIFIC NOTES:

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-THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

	ESG	PR
	JE	MP

DATES OF SURVEY:
16-17,22-23,31 JANUARY 2020
3-6,12,14-15,18-19 FEBRUARY 2020

REQUEST NO./FILE NO.: 4906/D/N1/N2/N3

SCALE: ONE INCH = 200 FEET

FIELD BOOKS:

APPROVED: J. MICKELVEY, FIELD SURVEILLANCE
APPROVED: M. FORTE, CIVIL ENGINEERING TECHNICIAN
APPROVED: D. CLARKE, CHIEF SURVEILLANCE
APPROVED: J. MRAZ, CHIEF, CHIEF OF SURVEY
DATE: 28 FEBRUARY 2020

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OPS

HUDSON RIVER CHANNEL
NEW YORK
CONDITION SURVEY

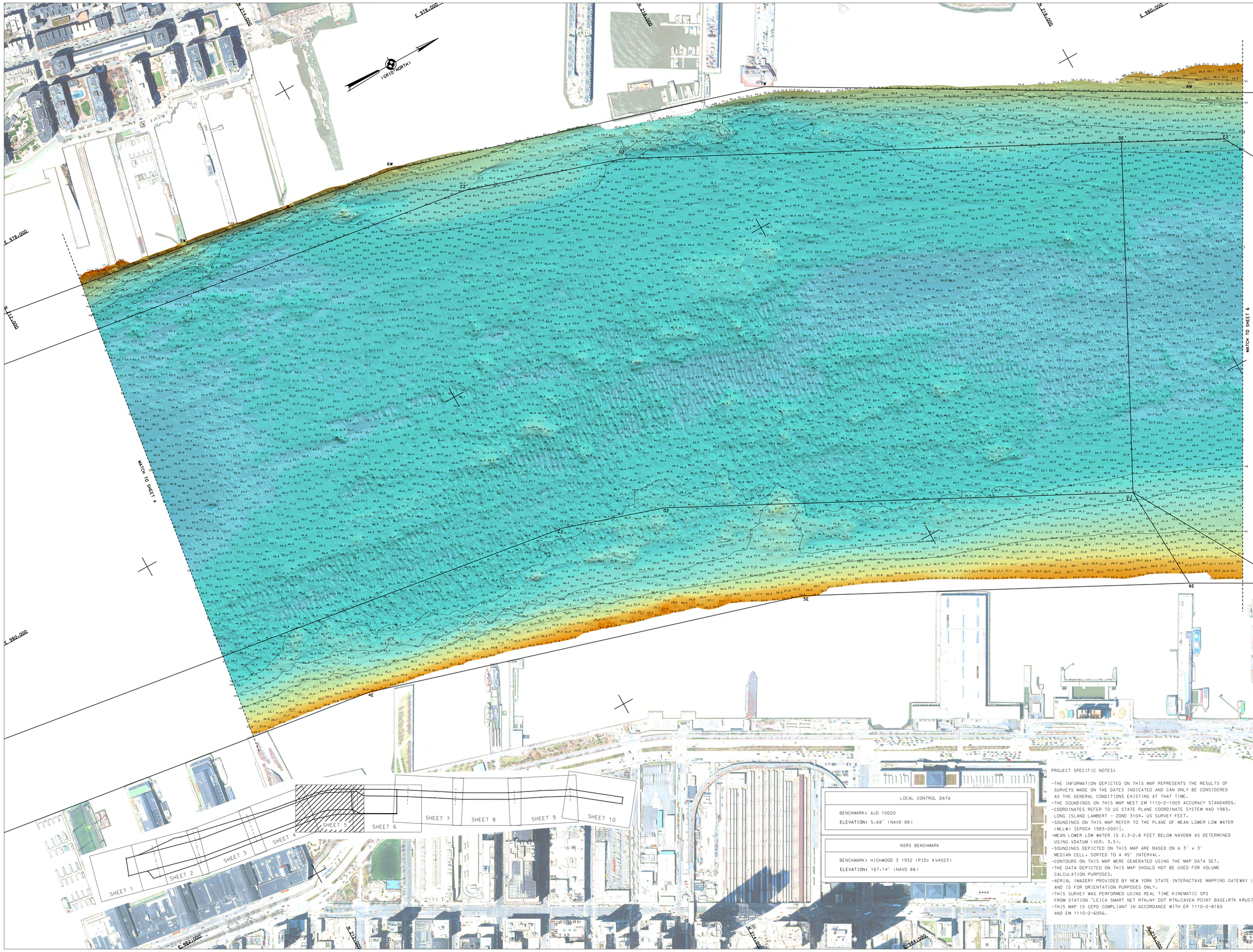
VH-104

SHEET 4 OF 10

REQ. NO./FILE NO.: 4906/D/N1/N2/N3

CORPS OF ENGINEERS

U. S. ARMY



US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

	ESG	PR
		JE

DATES OF SURVEY:
16-17,22-23,31 JANUARY 2020
3-6,10,14-15,18-19 FEBRUARY 2020

REQ. NO./FILE NO.: 4906/D/N1/N2/N3

SCALE:
ONE INCH = 200 FEET

FIELD BOOKS:

APPROVED: J.C. MCGELVEY	FIELD CARTOGRAPHER
APPROVED: M. FORTE	CHIEF, ENGINEERING DIVISION
APPROVED: D. CLARKE	CHIEF CARTOGRAPHER
APPROVED: J. MRAZ	CHIEF, SURVEY SECTION OF SHEET
DATE: 28 FEBRUARY 2020	

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OPS

LOCAL CONTROL DATA

BENCHMARK: AJD 10020
ELEVATION: 5.68' (NAVD 88)

NSRS BENCHMARK

BENCHMARK: HIGHWOOD 3 1932 (PID: KV4023)
ELEVATION: 167.14' (NAVD 88)

PROJECT SPECIFIC NOTES:

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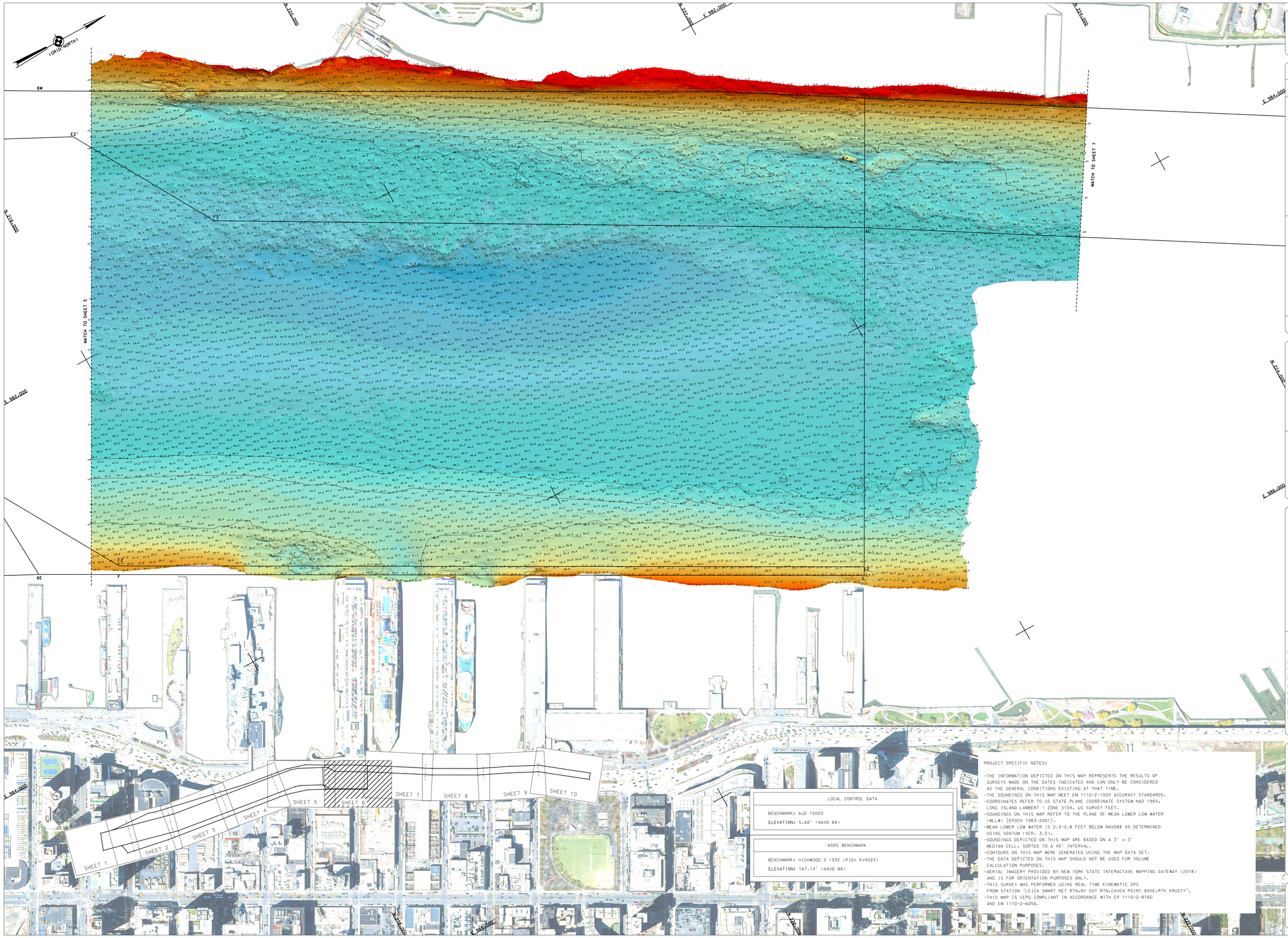
HUDSON RIVER CHANNEL
NEW YORK
CONDITION SURVEY

VH-105

SHEET 5 OF 10



LOCAL CONTROL DATA

BENCHMARK: AJD 10020

ELEVATION: 5.68' (NAVD 88)

NSRS BENCHMARK

BENCHMARK: HIGHWOOD 3 1932 (PID: KV4023)

ELEVATION: 167.14' (NAVD 88)

PROJECT SPECIFIC NOTES:

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

ESG	PR
JE	MP

DATES OF SURVEY:
16-17,21-22,31 JANUARY 2020
3-6,12,14-15,18-19 FEBRUARY 2020

REQ. NO./FILE NO.: 4906/D/N1/N2/N3

SCALE:
ONE INCH = 200 FEET

FIELD BOOKS:
858

APPROVED: D. SMITH — FIELD CARTOGRAPHER
APPROVED: M. FORTE — CIVIL ENGINEERING TECHNICIAN
APPROVED: D. CLARKE — LEAD CARTOGRAPHER
APPROVED: J. MRAZ — SURVEY CHIEF OF SURVEY
DATE:23 APRIL, 2014

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

HUDSON RIVER CHANNEL
NEW YORK
CONDITION SURVEY

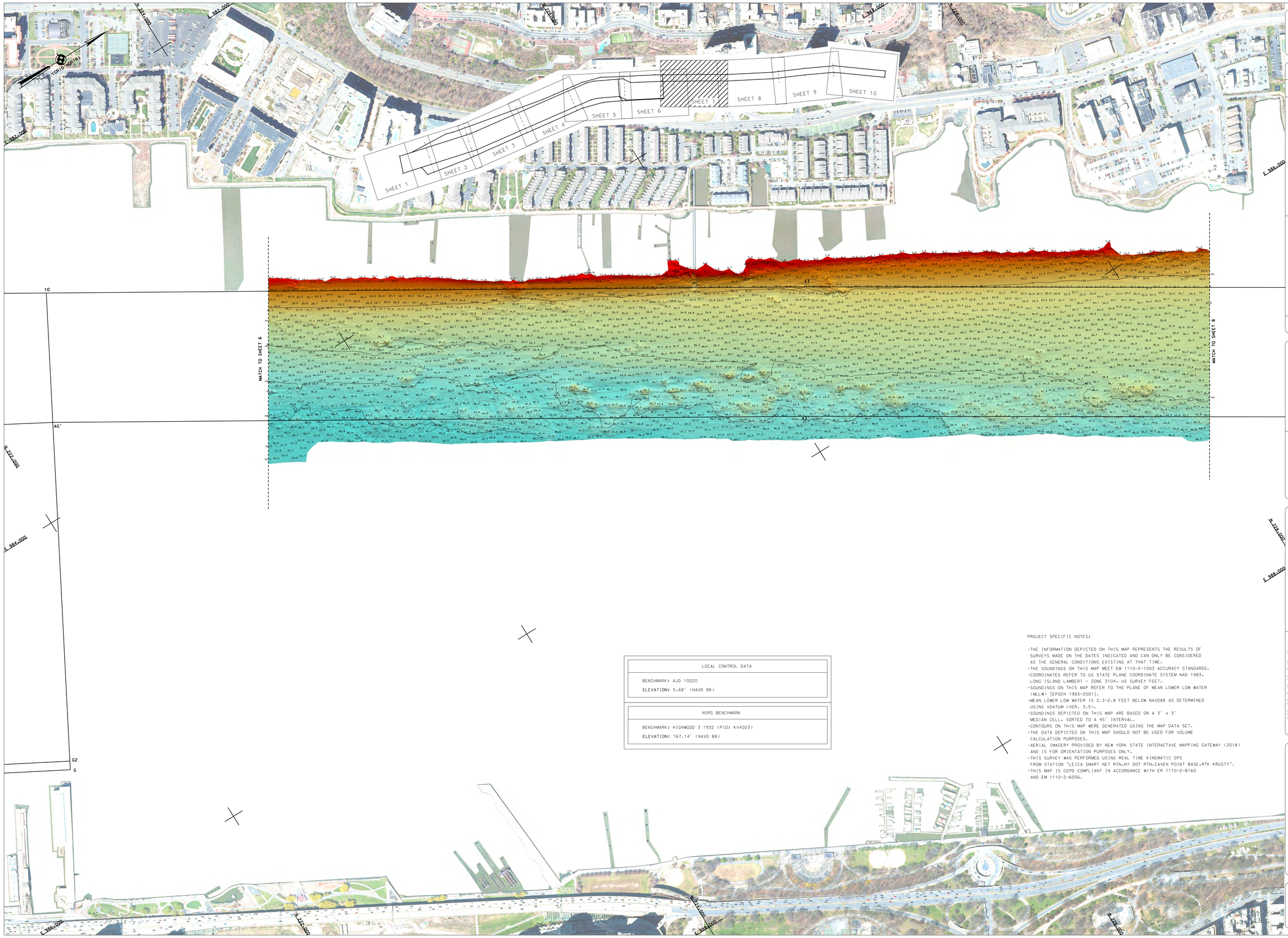
VH-106

SHEET 6 OF 10

REQ. NO./FILE NO.: 4906/D/N1/N2/N3

CORPS OF ENGINEERS

U. S. ARMY



LOCAL CONTROL DATA
BENCHMARK: AJD 10020
ELEVATION: 5.68' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: HIGHWOOD 3 1932 (PID: KV4023)
ELEVATION: 167.14' (NAVD 88)

PROJECT SPECIFIC NOTES:

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

	ESG	PR
		JC
		MP

DATES OF SURVEY:
16-17,22-24,31 JANUARY 2020
3-6,11,14-15,18-19 FEBRUARY 2020

REQ. NO./FILE NOS.: 4906/D/N1/N2/N3

SCALE: ONE INCH = 200 FEET

FIELD BOOKS:

APPROVED: J. MCKELVEY — FIELD SURVEYANCE
APPROVED: M. FORTE — CIVIL ENGINEERING TECHNICIAN
APPROVED: D. CLARKE — LEAD CARTOGRAPHER
APPROVED: J. MRAZ — BRANCH CHIEF OF SURVEY
DATE: 28 FEBRUARY 2020

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-HS

HUDSON RIVER CHANNEL
NEW YORK
CONDITION SURVEY

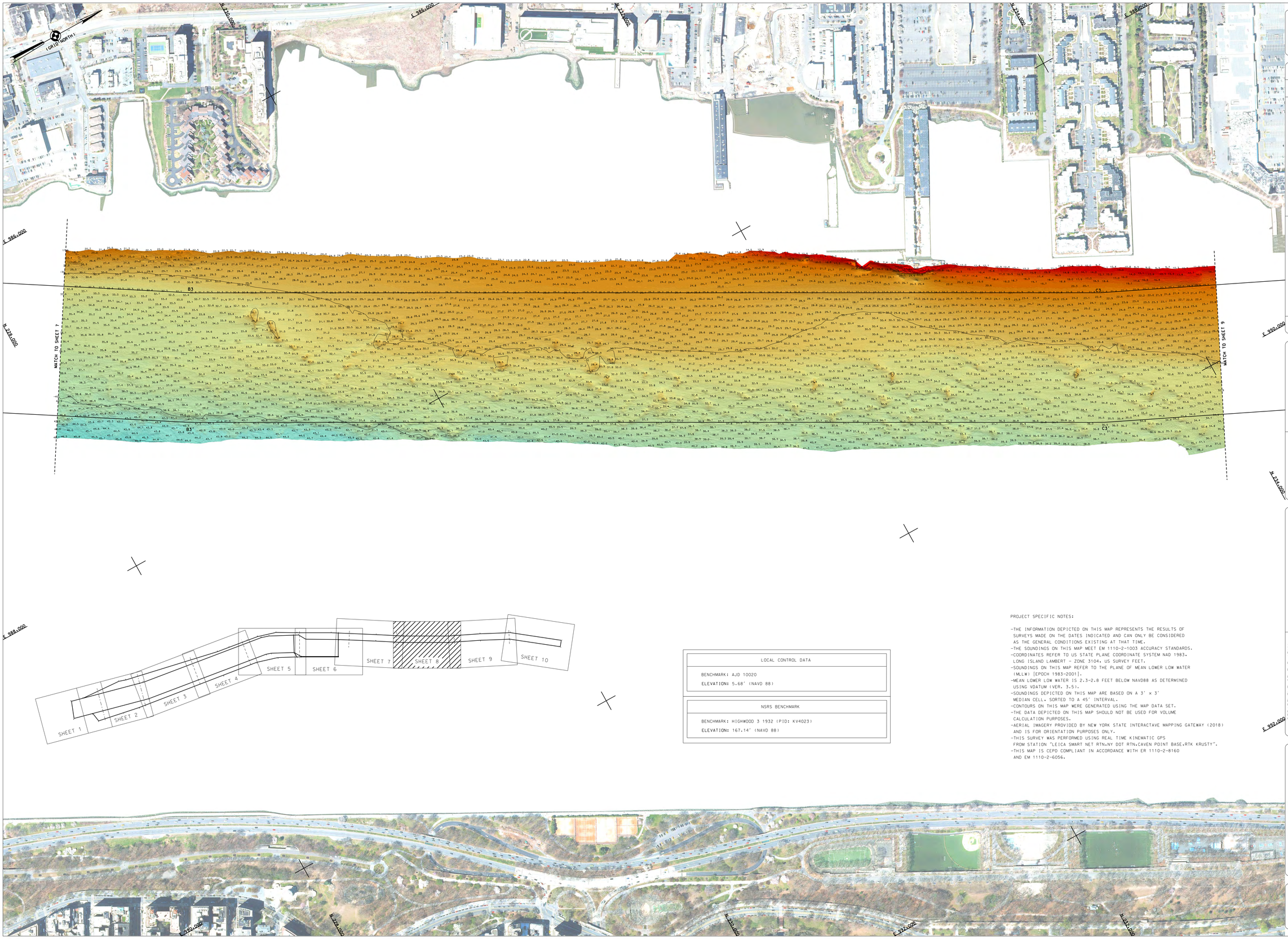
VH-107

SHEET 7 OF 10

REQ. NO./FILE NO.: 4906/D/N1/N2/N3

CORPS OF ENGINEERS

U. S. ARMY



LOCAL CONTROL DATA
BENCHMARK: AJD 10020
ELEVATION: 5.68' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: HIGHWOOD 3 1932 (PID: KV4023)
ELEVATION: 167.14' (NAVD 88)

PROJECT SPECIFIC NOTES:

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US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

ESG PR
JE MP

DATES OF SURVEY:
16-17,24-26,31 JANUARY 2020
3-6,10,14-15,18-19 FEBRUARY 2020

SCALE: ONE INCH = 200 FEET

FIELD BOOKS:

REQ. NO./FILE NOs.: 4906/D/N1/N2/N3

APPROVED: J. MCKELVEY — FIELD SURVEYANCE
APPROVED: M. FORTE — CIVIL ENGINEERING TECHNICIAN
APPROVED: D. CLARKE — CHIEF SURVEYANCE
APPROVED: J. MRAZ — BRANCH CHIEF OF SURVEY
DATE: 28 FEBRUARY 2020

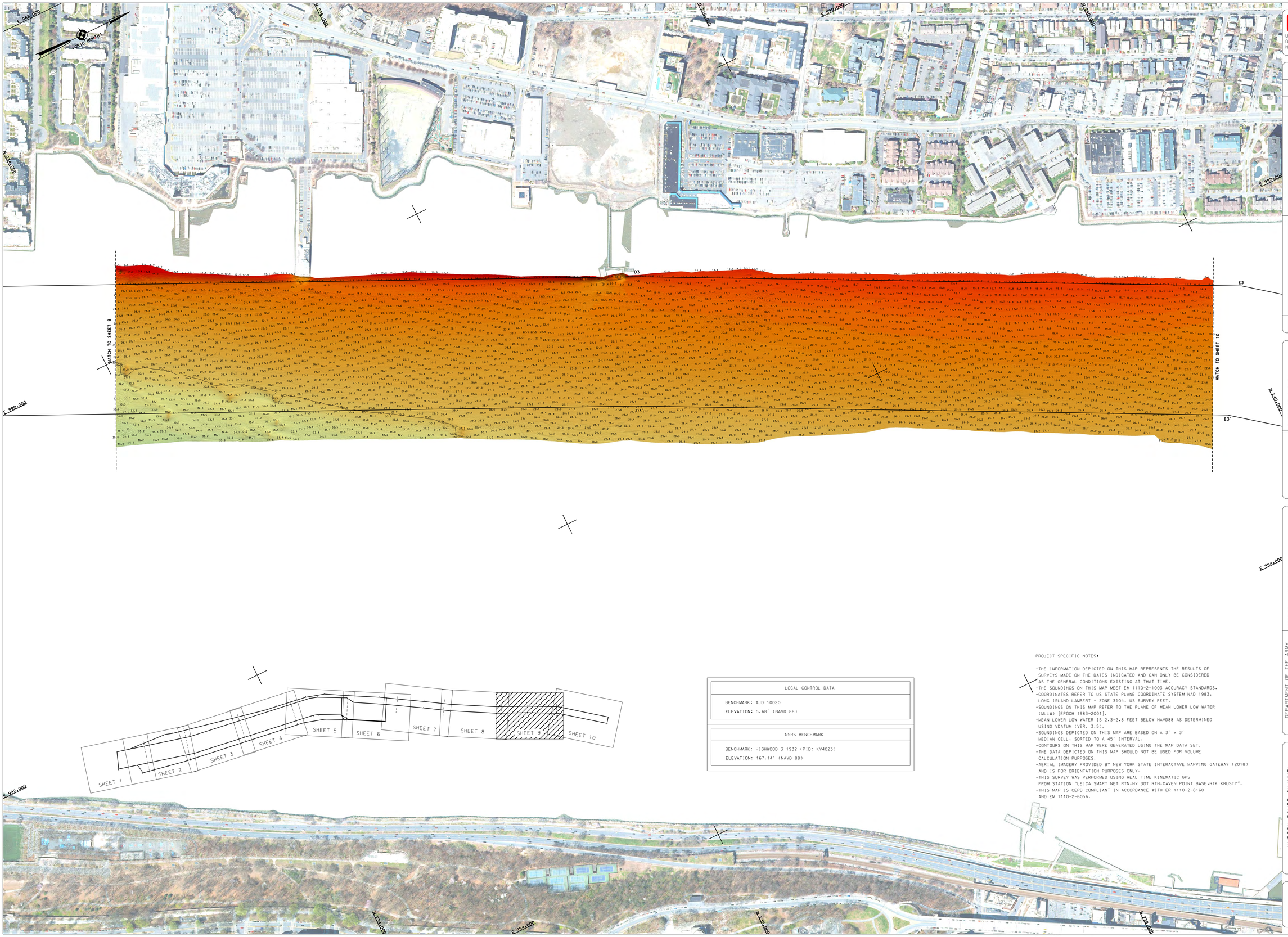
DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-HS

HUDSON RIVER CHANNEL
NEW YORK
CONDITION SURVEY

VH-108

SHEET 8 OF 10



LOCAL CONTROL DATA
BENCHMARK: AJD 10020
ELEVATION: 5.68' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: HIGHWOOD 3 1932 (PID: KV4023)
ELEVATION: 167.14' (NAVD 88)

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US ARMY CORPS OF ENGINEERS NEW YORK DISTRICT

A	ESG	PR
	JE	MP

DATES OF SURVEY:
1-6:12-12-25:13 JANUARY 2020
3-6:12,14-15:18-19 FEBRUARY 2020

REQ. NO./FILE NO.: 4906/D/N1/N2/N3

SCALE:
ONE INCH = 200 FEET

FIELD BOOKS:

APPROVED: J. MCKELVEY FIELD CARTOGRAPHER
APPROVED: M. FORTE CIVIL ENGINEERING TECHNICIAN
APPROVED: D. CLARKE LEAD CARTOGRAPHER
APPROVED: J. MRAZ CHIEF, SURVEY OF SURVEY
DATE: 28 FEBRUARY 2020

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT
CORPS OF ENGINEERS
NEW YORK, NEW YORK 10278

OPERATIONS DIVISION
SURVEY SECTION
CENAN-OP-S

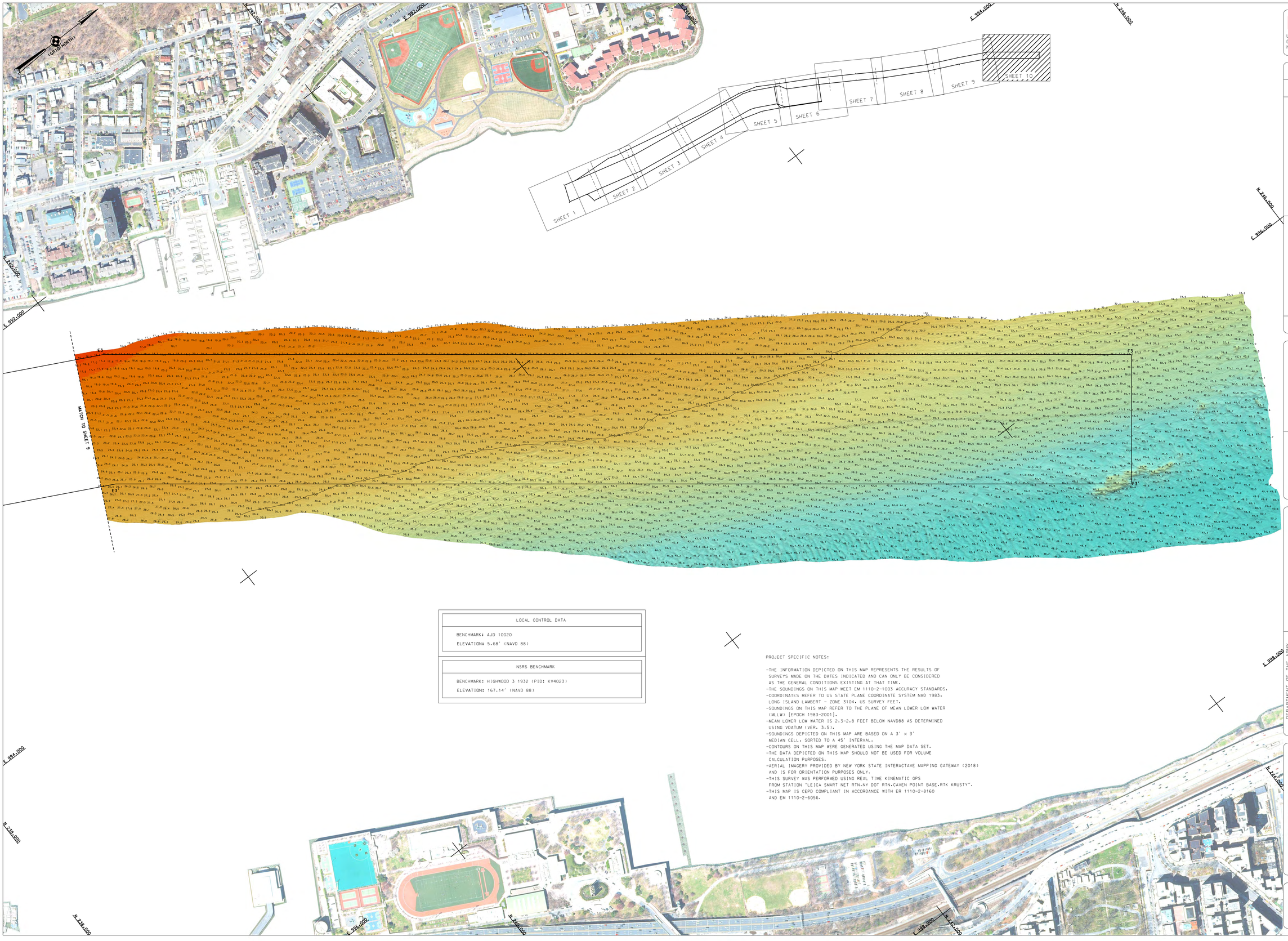
HUDSON RIVER CHANNEL
NEW YORK
CONDITION SURVEY

VH-109

SHEET 9 OF 10

CORPS OF ENGINEERS

U. S. ARMY



LOCAL CONTROL DATA
BENCHMARK: AJD 10020
ELEVATION: 5.68' (NAVD 88)

NSRS BENCHMARK
BENCHMARK: HIGHWOOD 3 1932 (PID: KV4023)
ELEVATION: 167.14' (NAVD 88)

PROJECT SPECIFIC NOTES:

- THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS THE GENERAL CONDITIONS EXISTING AT THAT TIME.
- THE SOUNDINGS ON THIS MAP MEET EM 1110-2-1003 ACCURACY STANDARDS.
- COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983. LONG ISLAND LAMBERT - ZONE 3104. US SURVEY FEET.
- SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPOCH 1983-2001].
- MEAN LOWER LOW WATER IS 2.3-2.8 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 3.5).
- SOUNDINGS DEPICTED ON THIS MAP ARE BASED ON A 3' x 3' MEDIAN CELL. SORTED TO A 45' INTERVAL.
- CONTOURS ON THIS MAP WERE GENERATED USING THE MAP DATA SET.
- THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
- AERIAL IMAGERY PROVIDED BY NEW YORK STATE INTERACTAVE MAPPING GATEWAY (2018) AND IS FOR ORIENTATION PURPOSES ONLY.
- THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "LEICA SMART NET RTN.NY DOT RTN.CAVEN POINT BASE.RTK KRUSTY".
- THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

ESG	PR	
JE	MP	

DATES OF SURVEY:
16-17,21-22,31 JANUARY 2020
3-6,12,14-15,18-19 FEBRUARY 2020

REQUEST NO./FILE NO.: 4906

SCALE:
ONE INCH = 200 FEET

FIELD BOOKS:

APPROVED: J. MCKELVEY
FIELD CARTOGRAPHER

APPROVED: M. FORTE
CIVIL ENGINEERING TECHNICIAN

APPROVED: D. CLARKE
LEAD CARTOGRAPHER

APPROVED: J. MRAZ
DEPUTY CHIEF OF SURVEY

DATE: 28 FEBRUARY 2020

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SHEET 10 OF 10

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