

NSRS BENCHMARK	
BENCHMARK:	TIDAL NO 6 STA 4 (KV0611)
ELEVATION:	7.65' (NAVD 1988)

LOCAL CONTROL DATA	
BENCHMARK:	AJD 10029
ELEVATION:	8.32' (NAVD 1988)

PROJECT SPECIFIC NOTES:

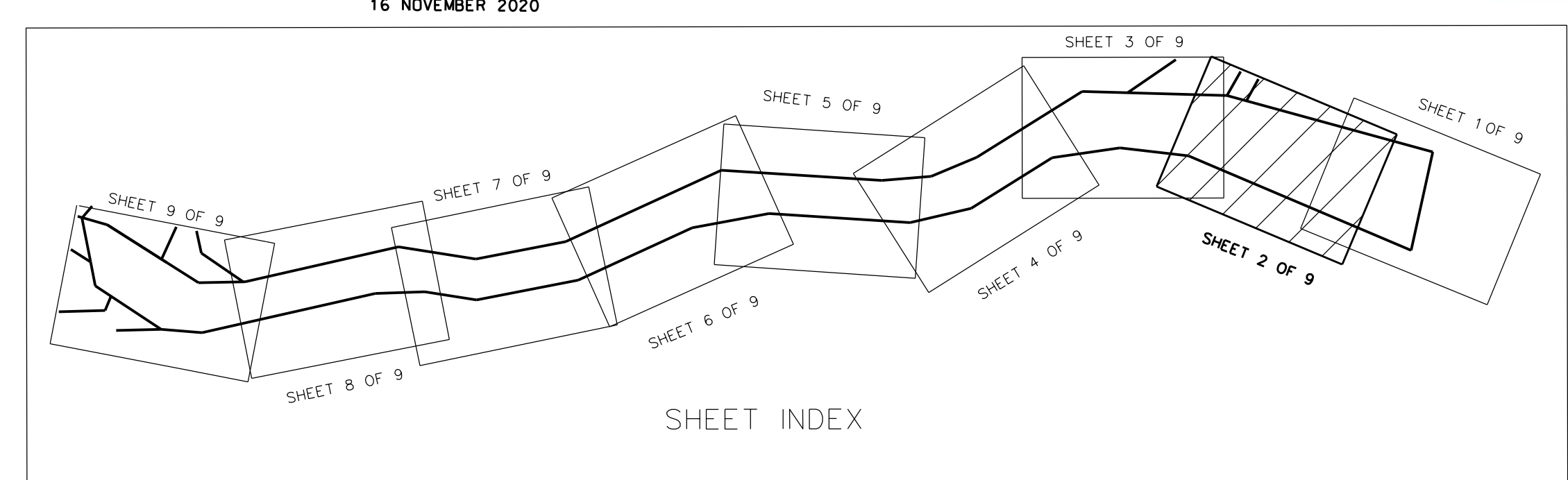
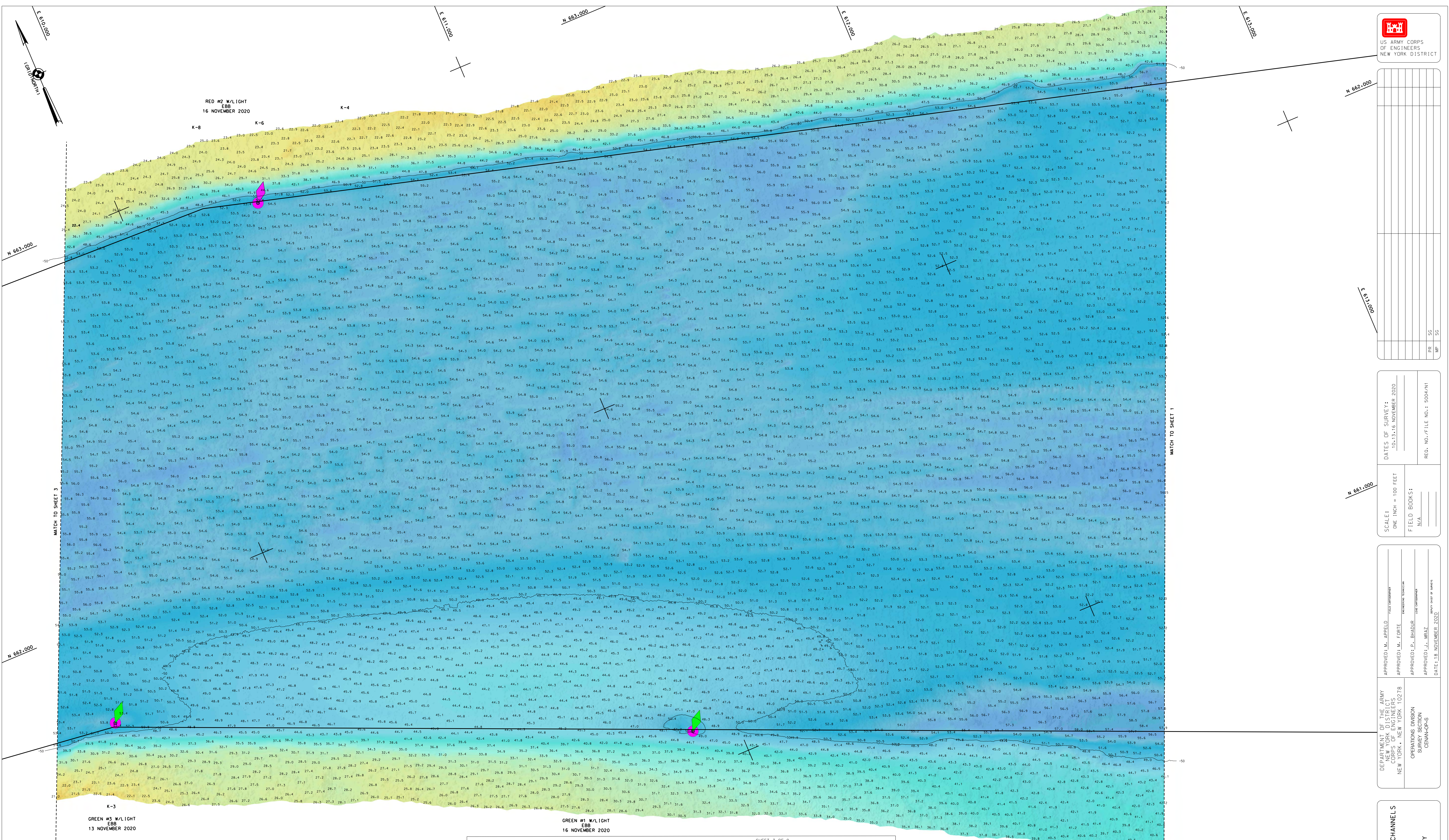
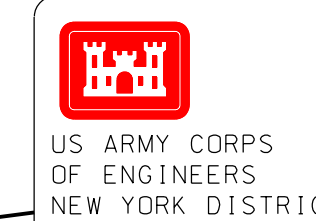
- THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS THE GENERAL CONDITIONS EXISTING AT THAT TIME.
- THE SOUNDINGS ON THIS MAP MEET EM 1110-2-1003 ACCURACY STANDARDS.
- COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983.
- NEW JERSEY MERCATOR - ZONE 2000, US SURVEY FEET.
- SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPOCH 1985-2001].
- MEAN LOWER LOW WATER IS 2.8-3.0 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 4.0.11).
- SOUNDINGS DEPICTED ON THIS MAP ARE BASED ON A 3'x3' MEDIAN CELL, SORTED TO A 30' INTERVAL.
- CONTOURS ON THIS MAP WERE GENERATED USING THE 3'x3' MEDIAN DATA SET.
- THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
- AERIAL IMAGERY PROVIDED BY NGIN WAREHOUSE (2019).
- THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
- THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATIONS CAVEN POINT.
- THIS MAP IS CEED COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

DATE OF SURVEY:	10/13-16 NOVEMBER 2020
SCALE:	ONE INCH = 100 FEET
FIELD BOOKS:	10/24
APPROVED:	REO, NOV./FILE NO.: 5004/NT
OPERATIONS DIVISION	NEW YORK & NEW JERSEY CHANNELS
NEW YORK & NEW JERSEY CHANNELS	KILL VAN KULL
VH-101	SHEET 1 OF 9

APPROVED: M. APPELO	TECH. ENGINEER
APPROVED: M. FORTE	REGISTERED SURVEYOR
APPROVED: J. BHADUR	REGISTERED SURVEYOR
APPROVED: J. BRAZ	REGISTERED SURVEYOR
DATE:	18 NOVEMBER 2020

DEPARTMENT OF THE ARMY	NEW YORK & NEW JERSEY CHANNELS
NEW YORK & NEW JERSEY CHANNELS	KILL VAN KULL
VH-101	SHEET 1 OF 9

OPERATIONS DIVISION	NEW YORK & NEW JERSEY CHANNELS
NEW YORK & NEW JERSEY CHANNELS	KILL VAN KULL
VH-101	SHEET 1 OF 9



NSRS BENCHMARK	
BENCHMARK:	TIDAL NO 6 STA 4 (KV0611)
ELEVATION:	7.65' (NAVD 1988)
LOCAL CONTROL DATA	
BENCHMARK:	AJD 10029
ELEVATION:	8.32' (NAVD 1988)

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 SUCH.
- THE SOUNDINGS ON THIS MAP MEET EM 1110-2-1003 ACCURACY STANDARDS.
- COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983, NEW JERSEY MERCATOR - ZONE 18N, US SURVEY FEET.
- SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) (LEFCHOW 1985-2001).
- MEAN LOWER LOW WATER IS 2.8-3.0 FEET BELOW NAVD88 AS DETERMINED USING WATUM IVER, 4-0-1.
- SOUNDINGS DEPICTED ON THIS MAP ARE BASED ON A 3'x3' MEDIUM CELL, SORTED TO A 90' INTERVAL.
- CONTOURS ON THIS MAP WERE GENERATED USING THE 3'x3' MEDIUM DATA SET. THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
- AERIAL IMAGERY PROVIDED BY NUGIN WAREHOUSE (2019).
- THE PLANNING DEPARTMENT HAS REVIEWED THIS MAP FOR ORIENTATION PURPOSES ONLY.
- THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATIONS (GAVEN POINT).
- THIS MAP IS DEP COMPLIANT IN ACCORDANCE WITH EM 1110-2-8160 AND EM 1110-2-6056.

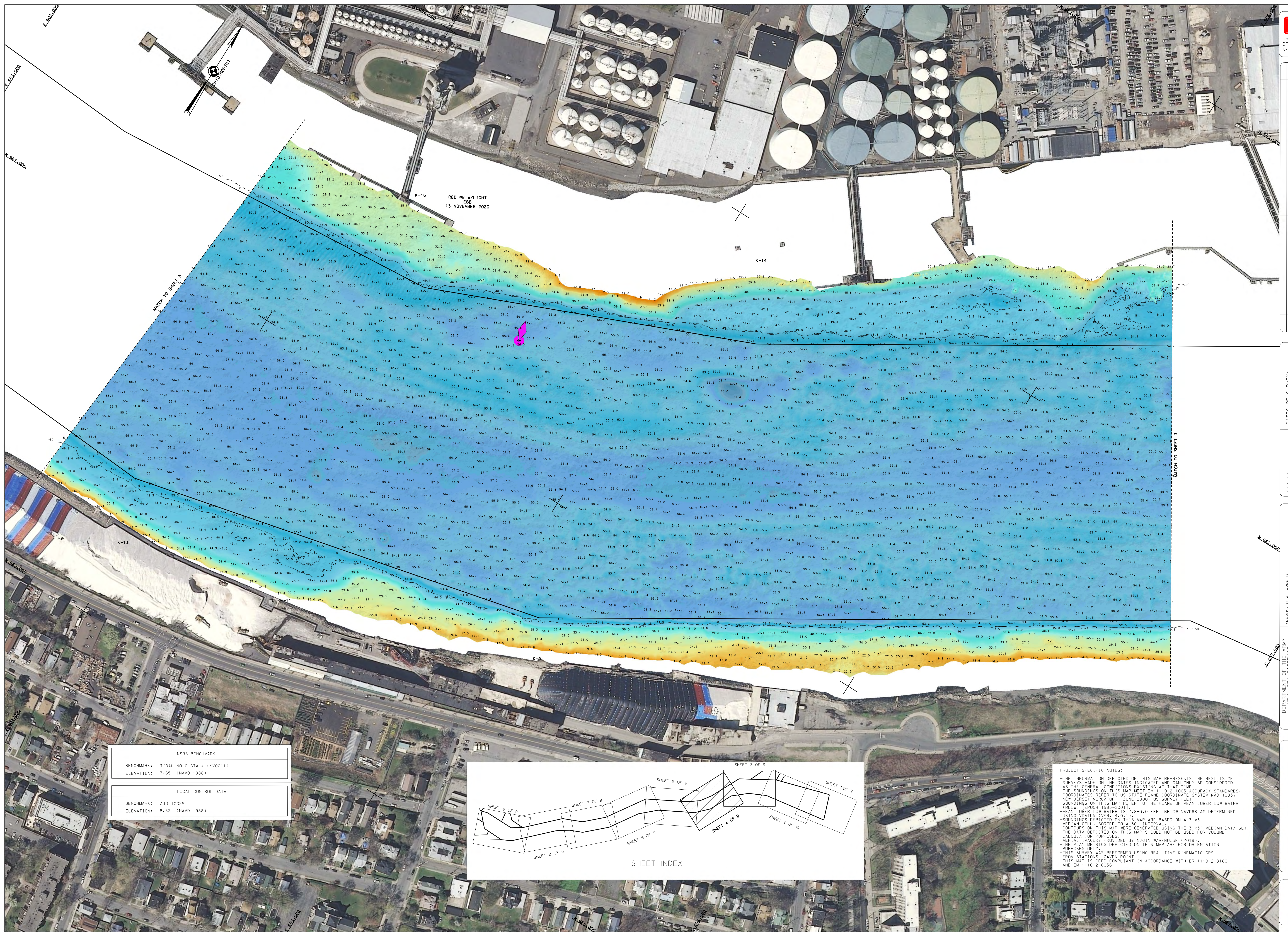
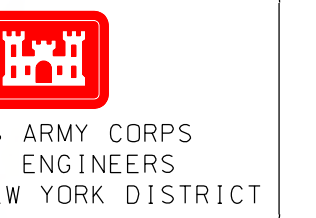
DATE OF SURVEY:	10-13-16 NOVEMBER 2020
SCALE:	ONE INCH = 100 FEET
FIELD BOOKS:	N/A
REVISIONS:	NO. / FILE NO. / DATE
DATE:	18 NOVEMBER 2020

APPROVED:	M. ARPEL	TEST ENGINEER
APPROVED:	M. FORRE	REGISTERED SURVEYOR
APPROVED:	P. BHADUR	REGISTERED SURVEYOR
APPROVED:	J. MRZ	REGISTERED SURVEYOR
DATE:	18 NOVEMBER 2020	BY: NAME OF SURVEY

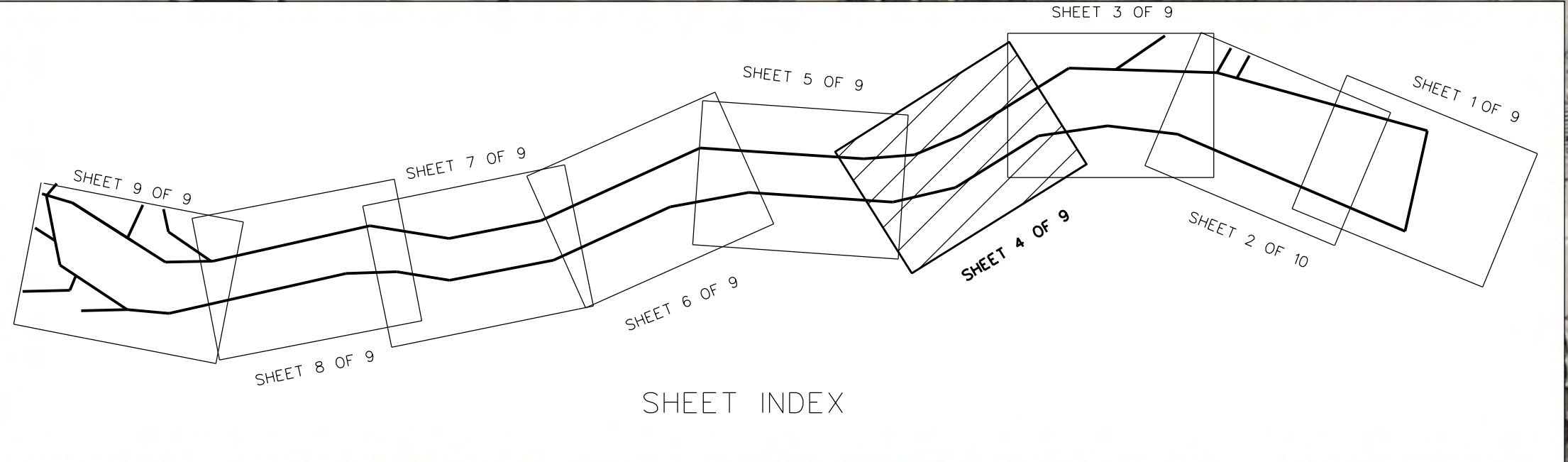
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
NEW YORK - NEW YORK 10278

OPERATIONS DIVISION
SURVEYING BRANCH
CENANOPS

NEW YORK & NEW JERSEY CHANNELS
KILL VAN KULL
CONDITION SURVEY



NSRS BENCHMARK	
BENCHMARK: TIDAL NO 6 STA 4 (KV0611)	
ELEVATION: 7.65' (NAVD 1988)	
LOCAL CONTROL DATA	
BENCHMARK: AJD 10029	
ELEVATION: 8.32' (NAVD 1988)	



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 - NEW JERSEY MERCATOR - ZONE 2900, US SURVEY FEET.
- SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) (PERIOD 1983-2001).
- SOUNDINGS DEPICTED ON THIS MAP ARE BASED ON A 3'x3' MEDIAN CELL, SORTED TO A 30' INTERVAL USING THE KINEMATIC GPS FROM STATIONS 'CAVEN POINT'.
- THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS AND EM 1110-2-6056.

DATE OF SURVEY: 10/15/18, 11/08/2020
SCALE: ONE INCH = 100 FEET
FIELD BOOKS: JVA
REVISION: NO. / FILE NO. 1
DATE: 18, NOVEMBER, 2020

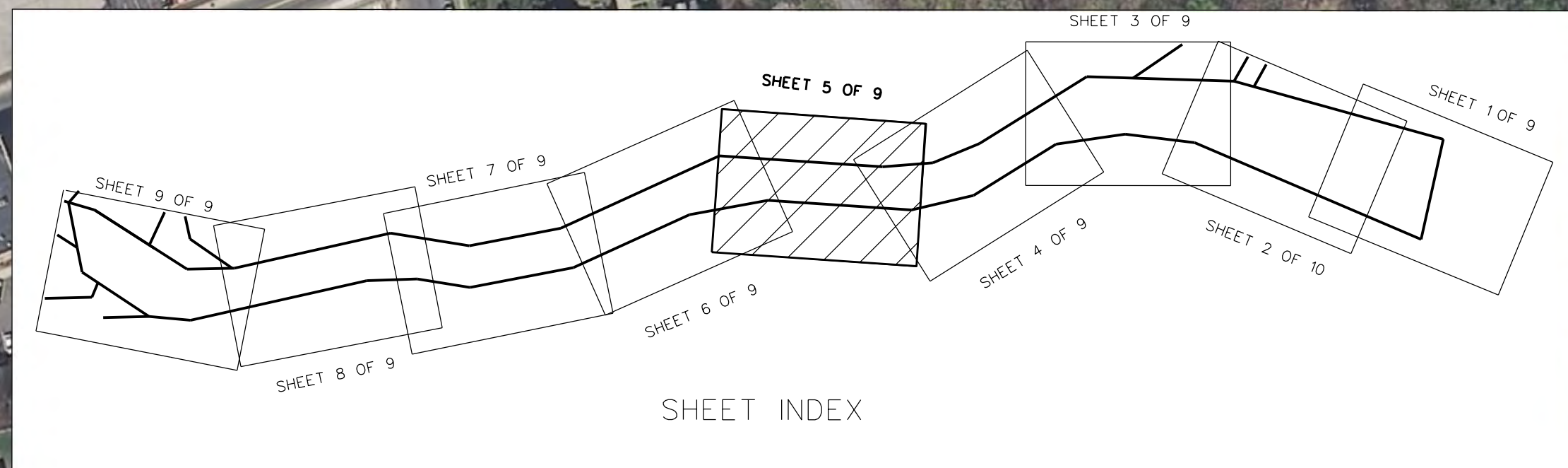
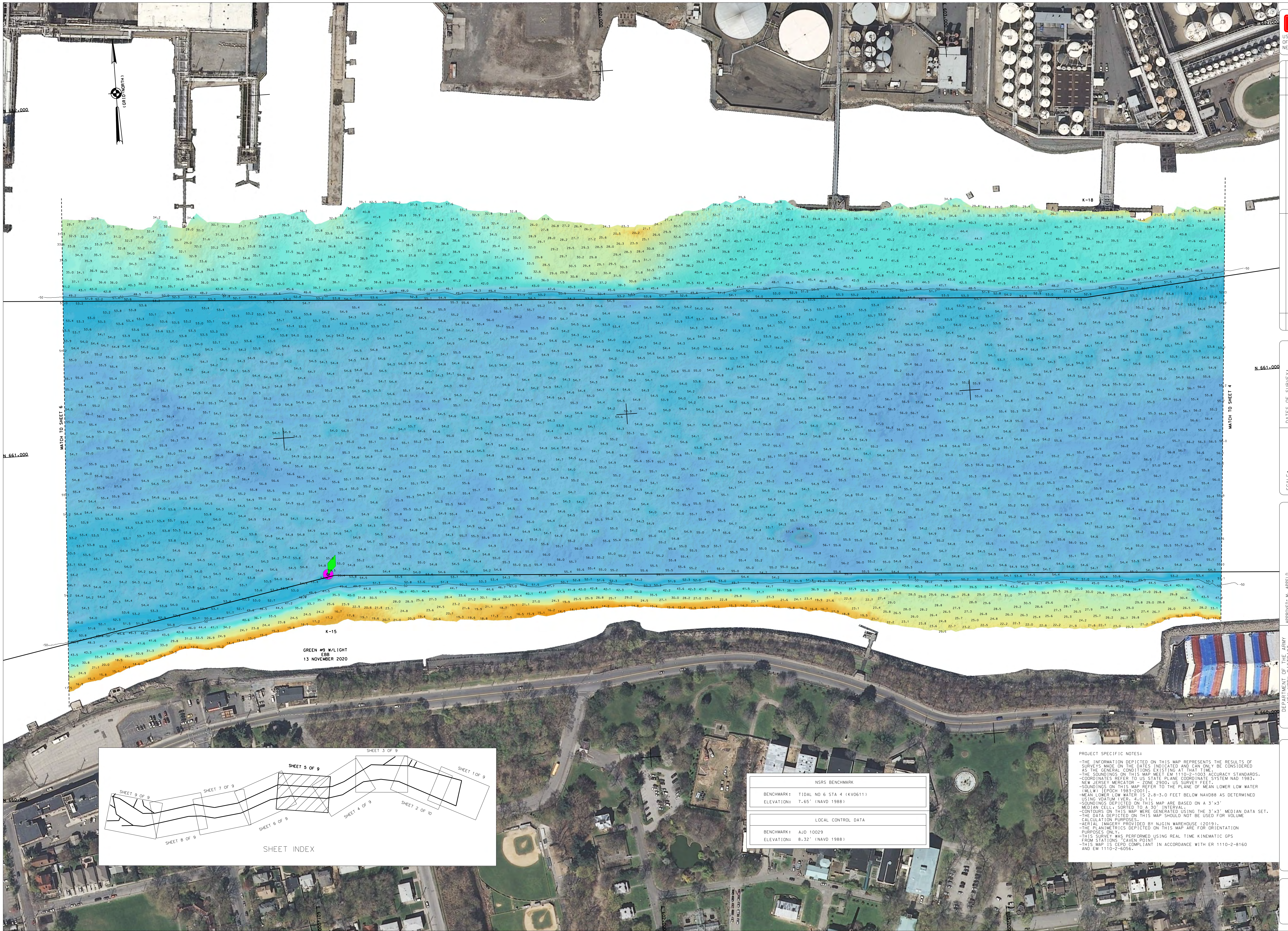
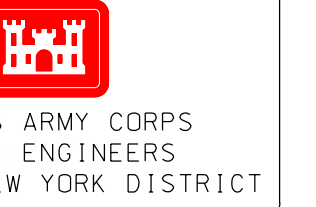
APPROVED: M. APPEL	TECH. COMMENT:
APPROVED: M. FORTE	REVISION NUMBER:
APPROVED: P. BHADUR	DATE:
APPROVED: J. MRAZ	REVISION:

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

OPERATIONS DIVISION
SARASOTA
CENNA-025

NEW YORK & NEW JERSEY CHANNELS
KILL VAN KULL
CONDITION SURVEY

VH-104
SHEET 4 OF 9



NSRS BENCHMARK	
BENCHMARK:	TIDAL NO 6 STA 4 (KVOG11)
ELEVATION:	7.65' (NAVD 1988)
LOCAL CONTROL DATA	
BENCHMARK:	AJD 10029
ELEVATION:	8.32' (NAVD 1988)

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 AND 1983-NEW JERSEY MERCATOR - ZONE 2900, US SURVEY FEET, LOWER LOW WATER (MLLW) (EPDCH 1983-2001)
- MEAN LOWER LOW WATER IS 2.8-3.0 FEET BELOW NAVDARS AS DETERMINED USING DATUM (IVER, 4.0, 11).
- SOUNDINGS DEPICTED ON THIS MAP ARE BASED ON A 3'x3' MEDIAN CELL, SORTED TO A 30' INTERVAL.
- CONTOURS ON THIS MAP WERE GENERATED USING THE 3'x3' MEDIAN DATA SET.
- THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
- ACQUISITION PROVIDED BY NJGIN WAREHOUSE (2019).
- THE PLANNIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
- THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATIONS GIVEN POINT.
- THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH EM 1110-2-8160 AND EM 1110-2-6056.

DATE OF SURVEY:	10-13-16 NOVEMBER 2020
SCALE:	ONE INCH = 100 FEET
FIELD BOOKS:	N/A
REVISIONS:	REQ. NO./FILE NO.: 5004/NT

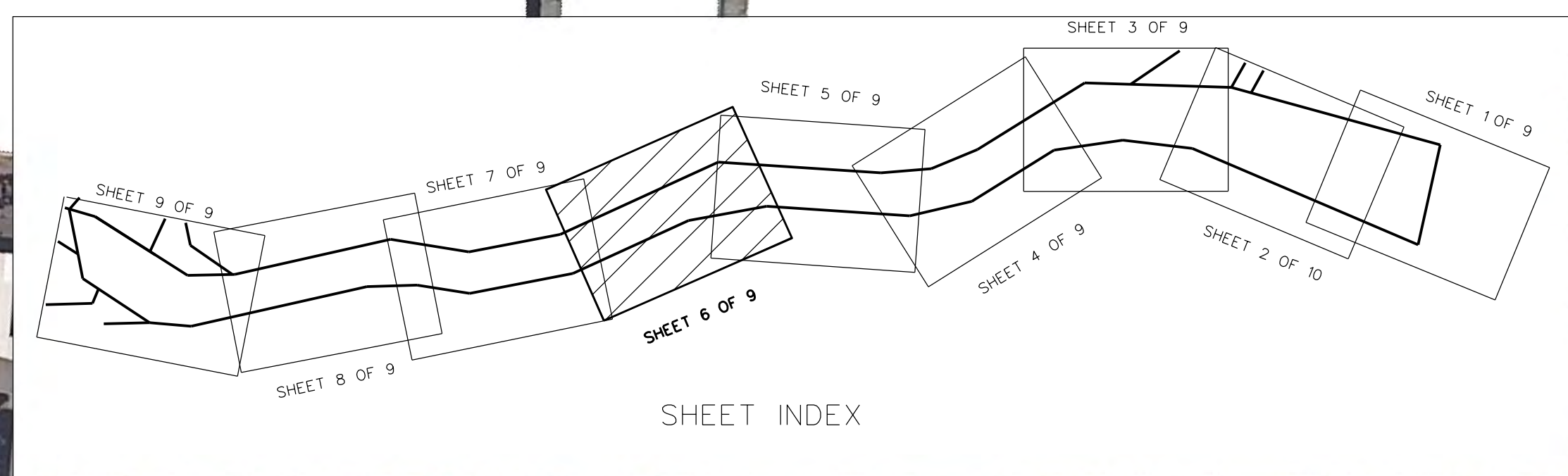
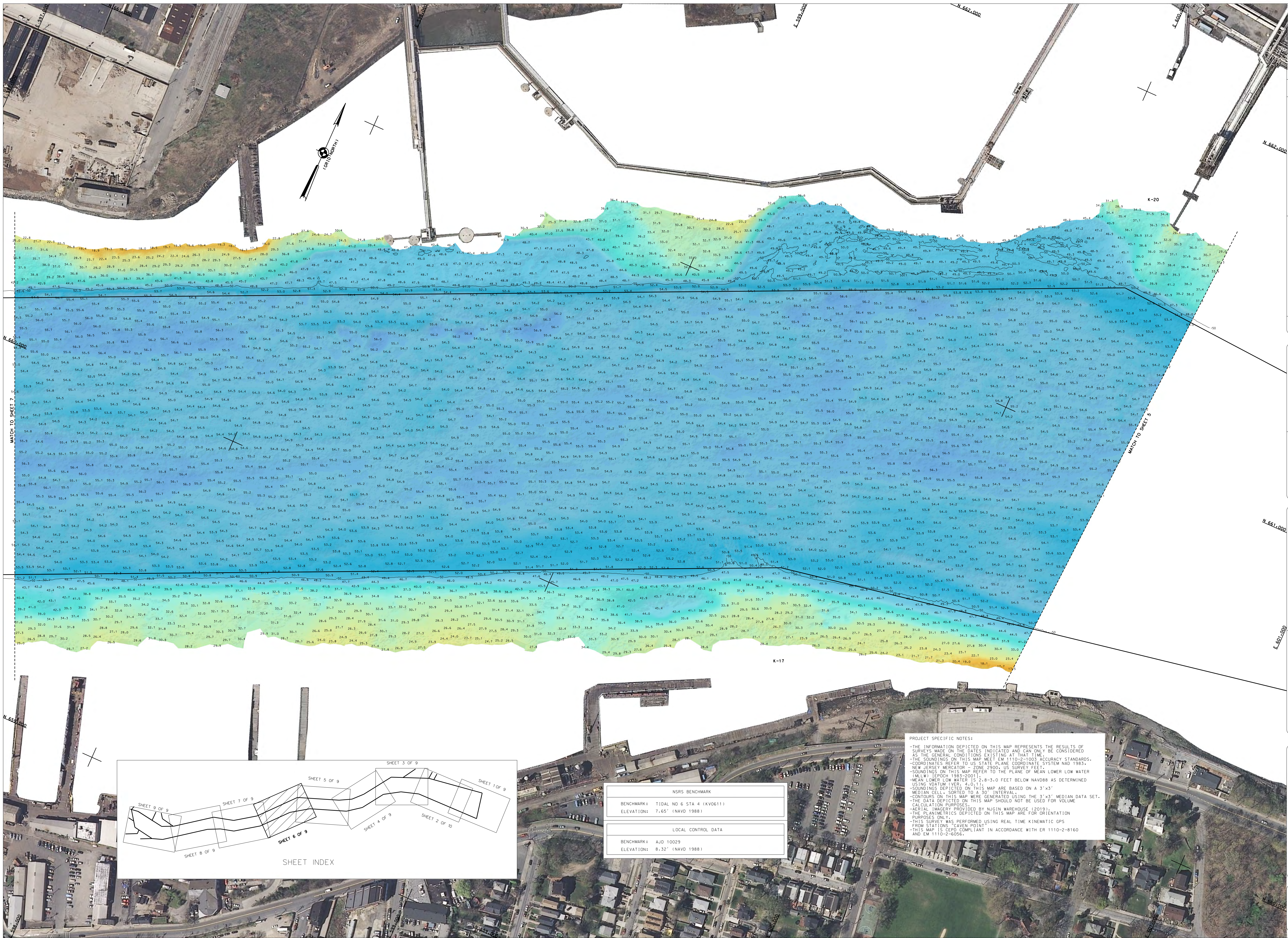
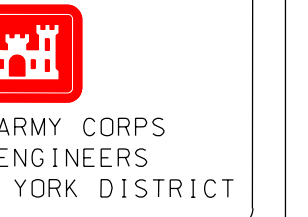
APPROVED: M. ARPEL	DATE: 18 NOVEMBER 2020
APPROVED: M. FORBE	
APPROVED: J. BHADUR	
APPROVED: J. MRZ	

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

OPERATIONS DIVISION
SANITATION
CENANCO-25

NEW YORK & NEW JERSEY CHANNELS
KILL VAN KULL
CONDITION SURVEY

VH-105
SHEET 5 OF 9



NSRS BENCHMARK	
BENCHMARK:	TJAD NO 6 STA 4 (KV0611)
ELEVATION:	7.65' (NAVD 1988)
LOCAL CONTROL DATA	
BENCHMARK:	AJD 10029
ELEVATION:	8.32' (NAVD 1988)

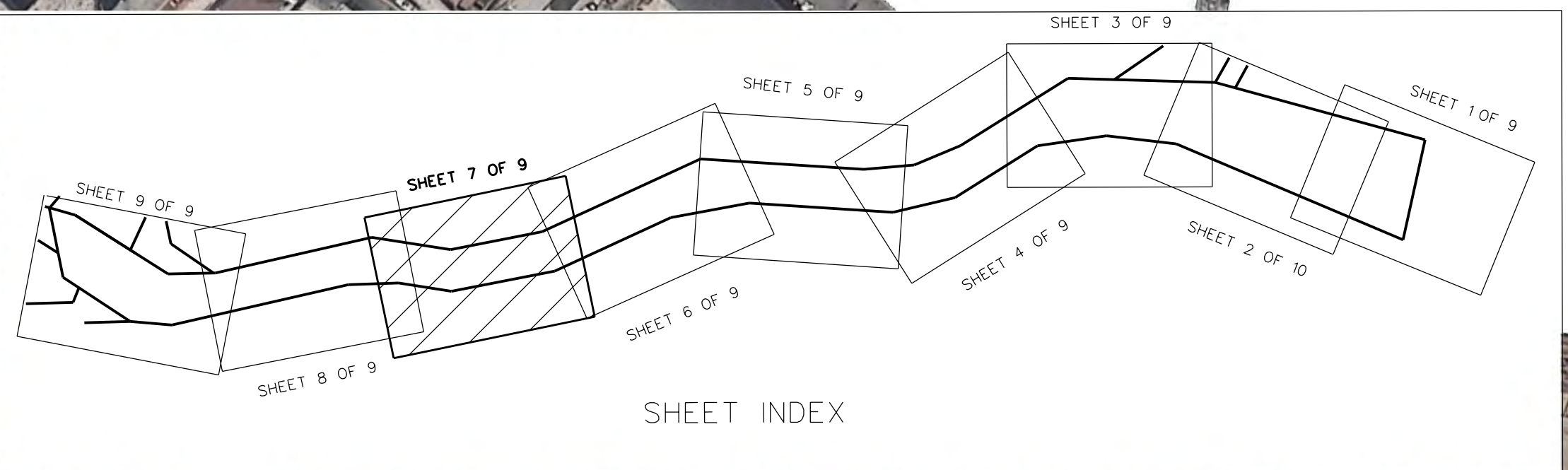
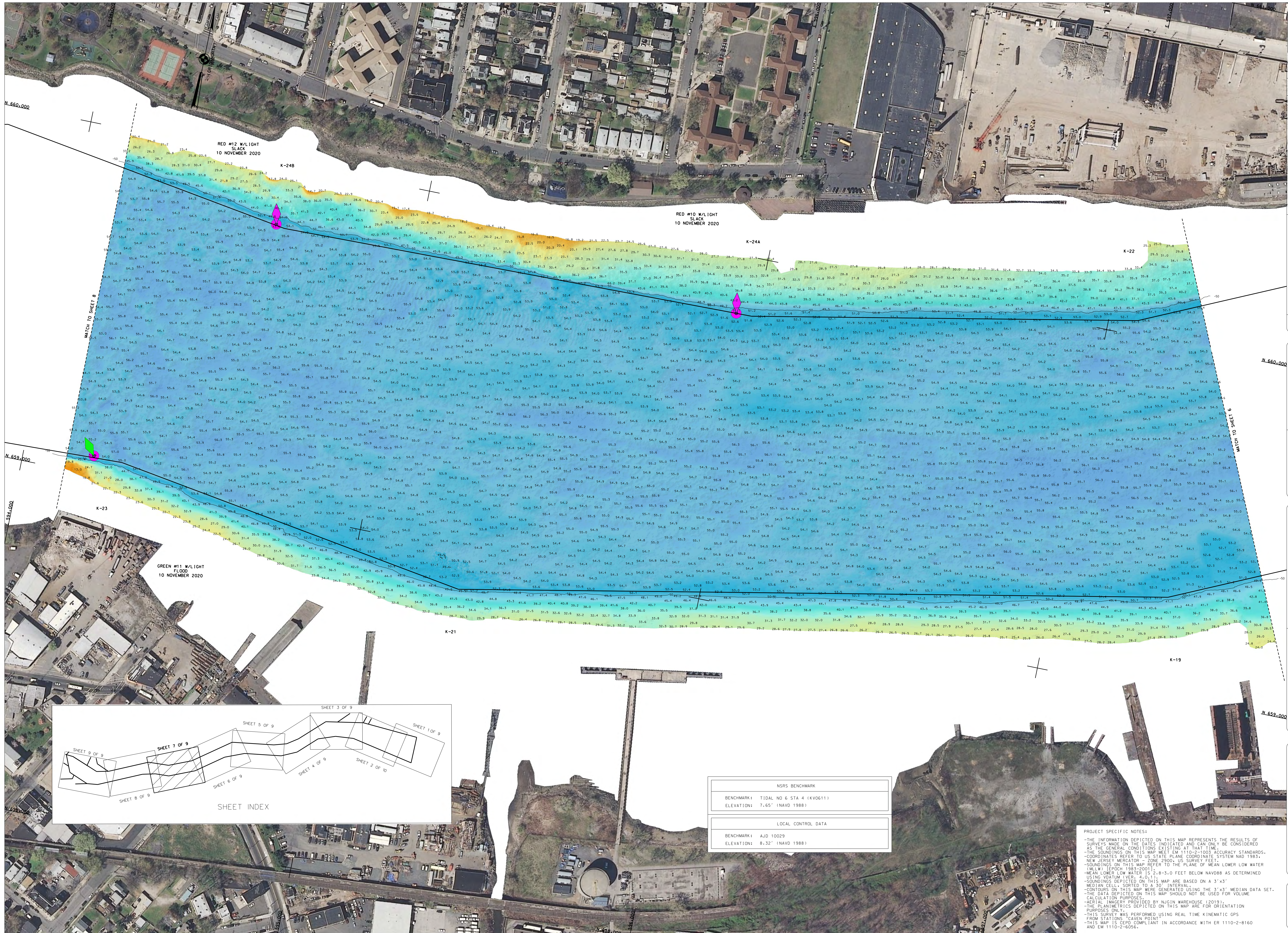
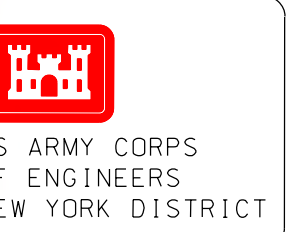
PROJECT SPECIFIC NOTES:

- THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED 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.
- NEW JERSEY MERCATOR - ZONE 2000, US SURVEY FEET.
- SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (M.L.W.) (EPCH 1985-2001).
- MEAN LOWER LOW WATER IS 2.8-3.0 FEET BELOW NAVD8 AS DETERMINED USING DATUM MARKS (D.M.).
- SOUNDINGS DEPICTED ON THIS MAP ARE BASED ON A 3'x3' MEDIAN CELL - SORTED TO A 50' INTERVAL.
- CONTOURS ON THIS MAP WERE GENERATED USING THE 3'x3' MEDIAN DATA SET.
- THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
- AERIAL IMAGERY PROVIDED BY NUGIN WAREHOUSE (2013).
- THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
- THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATIONS "CAVEN POINT"
- THIS MAP IS CEIP COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.

DATES OF SURVEY:	
10/13/16 NOVEMBER 2020	
SCALE:	
ONE INCH = 100 FEET	
FIELD BOOKS:	
N/A	
REQ. NO./FILE NO.: 5004/N/	
REV. NO./REV. DATE:	
REV.	SC.

APPROVED: M. ARPEL	
APPROVED: M. FORBE	
APPROVED: P. BHADUR	
APPROVED: J. WREZ	
DATE: 18 NOVEMBER 2020	

DEPARTMENT OF THE ARMY	
CORPS OF ENGINEERS	
NEW YORK - NEW YORK 10278	
OPERATIONS DIVISION	
SARATOGA COUNTY	
CENANCO-OS	
NEW YORK & NEW JERSEY CHANNELS	
KILL VAN KULL	
CONDITION SURVEY	
VH-106	
SHEET 6 OF 9	

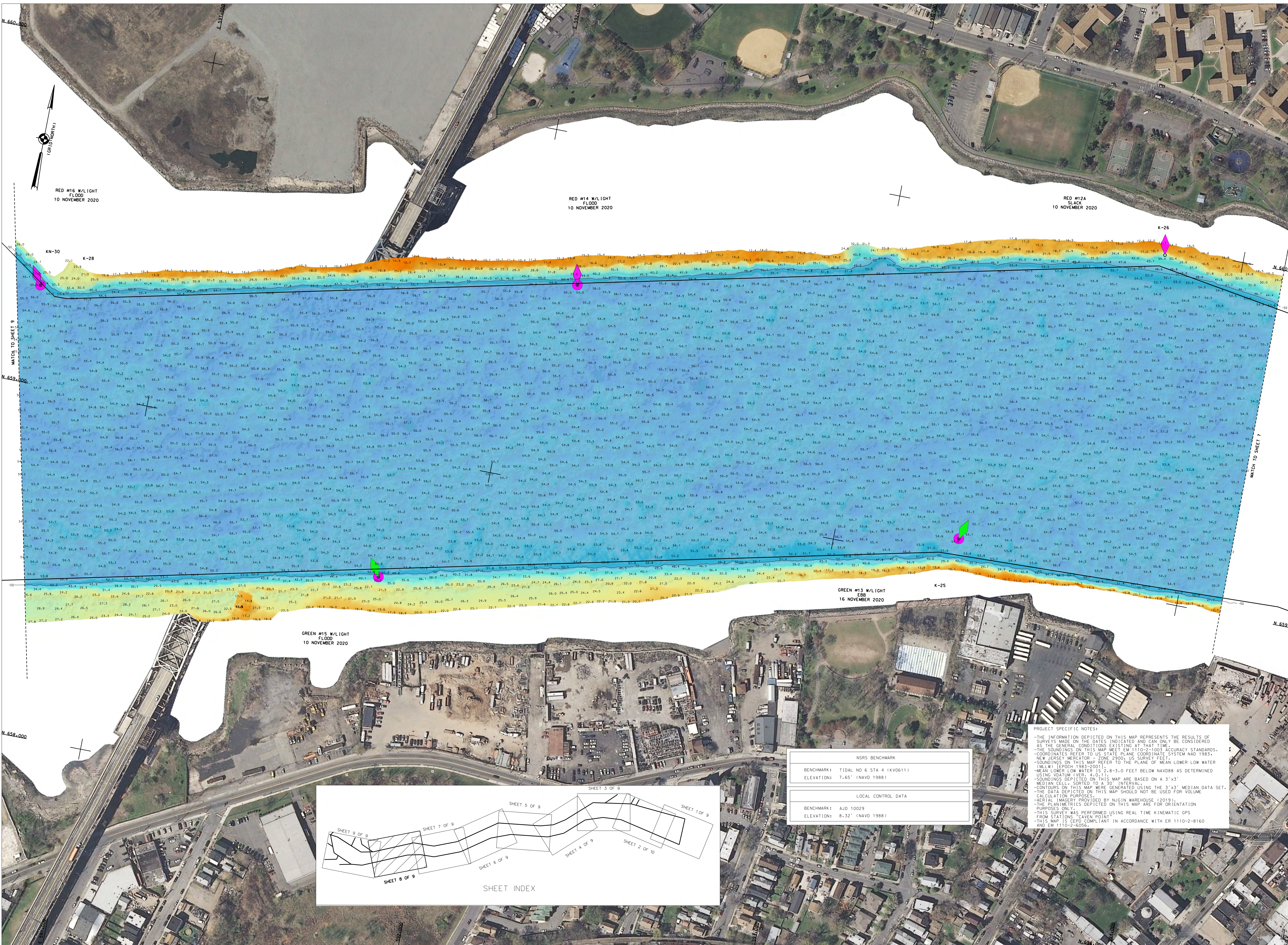
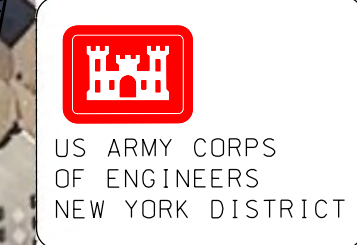


NSRS BENCHMARK	
BENCHMARK:	TIDAL NO 6 STA 4 (KVO611)
ELEVATION:	7.65' (NAVD 1988)
LOCAL CONTROL DATA	
BENCHMARK:	AJD 10029
ELEVATION:	8.32' (NAVD 1988)

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 - NEW JERSEY MERCATOR - ZONE 2000 US SURVEY FEET.
- SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) (EPDCH 1985-2001).
- MEAN LOWER LOW WATER IS 2.8-3.0 FEET BELOW NAVD88 AS DETERMINED USING VDATM (VER. 4.0.1).
- MEAN SEA LEVEL IS 4.0 FEET ABOVE MLLW.
- SOUNDINGS DEPICTED ON THIS MAP ARE BASED ON A 3'x3' MEDIAN DATA SET.
- CONTOURS ON THIS MAP WERE GENERATED USING THE 3'x3' MEDIAN DATA SET. CALCULATION PURPOSES.
- THE DATA OBTAINED FROM THIS SURVEY SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
- AERIAL IMAGES PROVIDED BY AUGIN WAREHOUSE (2018).
- THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
- THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATIONS "AVEN POINT"
- THIS MAP IS CEIP COMPLIANT IN ACCORDANCE WITH EM 1110-2-8160 AND EM 1110-2-6056.

DATE OF SURVEY:	10-13-16 NOVEMBER 2020
SCALE:	ONE INCH = 100 FEET
FIELD BOOKS:	JLZ
REG. NO./FILE NO.:	5004/NT
APPROVED: MAP/PEL	TEXT/INTERVIEW
APPROVED: M. FORBIE	TEXT/INTERVIEW
APPROVED: P. BHADUR	TEXT/INTERVIEW
APPROVED: J. MRZ	TEXT/INTERVIEW
DATE:	18 NOVEMBER 2020
DEPARTMENT OF THE ARMY	OPERATIONS DIVISION
CORPS OF ENGINEERS	SECONDOUS
NEW YORK - NEW YORK 10278	CENAN-05
OPERATIONS DIVISION	
SECONDOUS	
CENAN-05	
NEW YORK & NEW JERSEY CHANNELS	
KILL VAN KULL	
CONDITION SURVEY	
VH-107	
SHEET 7 OF 9	
REG. NO./FILE NO.:	5004/NT



DATE	BY	NO.	REVISION

DATE OF SURVEY: 10-13-16 NOVEMBER 2020
 SCALE: ONE INCH = 100 FEET
 FIELD BOOKS: N/A

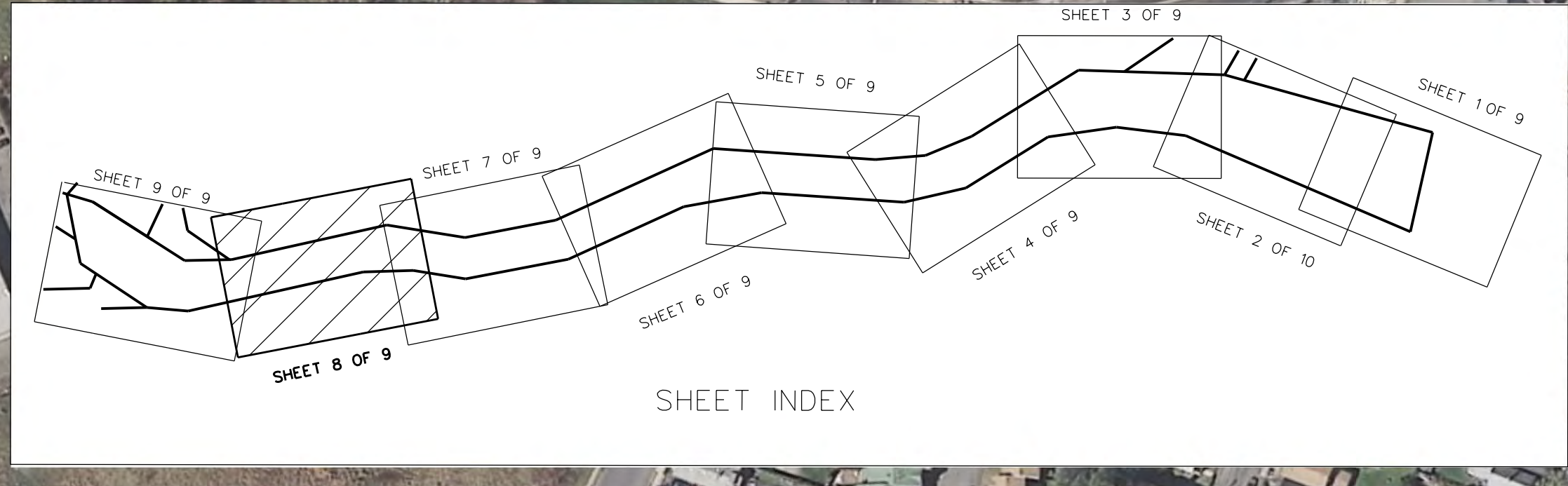
APPROVED: M. APPEL (BY EMPLOYMENT)
 APPROVED: M. FORBIE (REGISTERED SURVEYOR)
 APPROVED: P. BRADSHAW (REGISTERED SURVEYOR)
 APPROVED: J. WREZ (REGISTERED SURVEYOR)
 DATE: 18 NOVEMBER 2020

DEPARTMENT OF THE ARMY
 CORPS OF ENGINEERS
 NEW YORK - NEW YORK DISTRICT
 OPERATIONS DIVISION
 SURVEYING SECTION
 CENAN-COS

NEW YORK & NEW JERSEY CHANNELS
 KILL VAN KULL
 CONDITION SURVEY

VH-108
 SHEET 8 OF 9

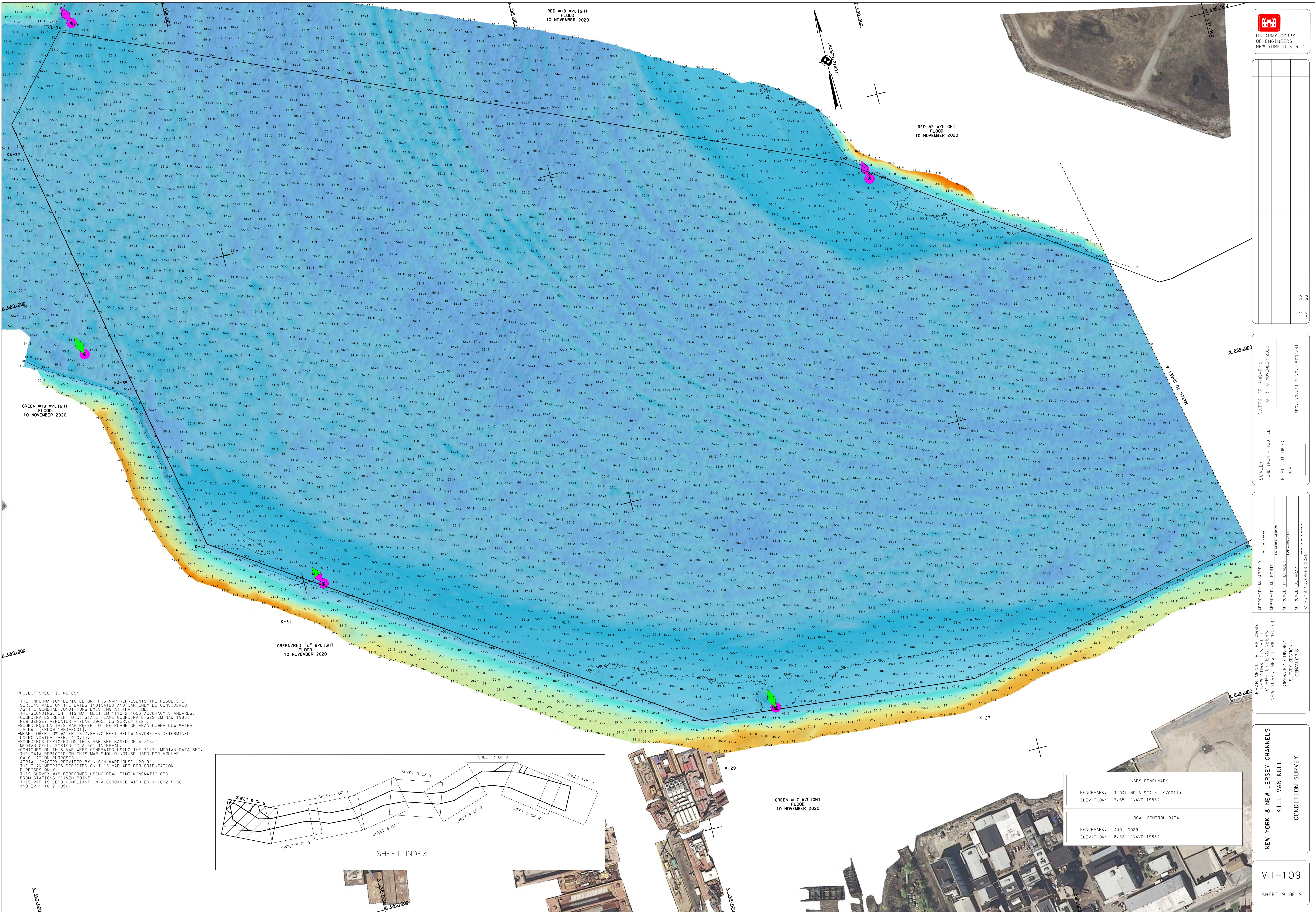
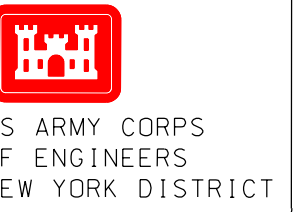
REC. NO./FILE NO.: 5004/NT



NSRS BENCHMARK
 BENCHMARK: TIDAL NO 6 STA 4 (KVO6111)
 ELEVATION: 7.65' (NAVD 1988)

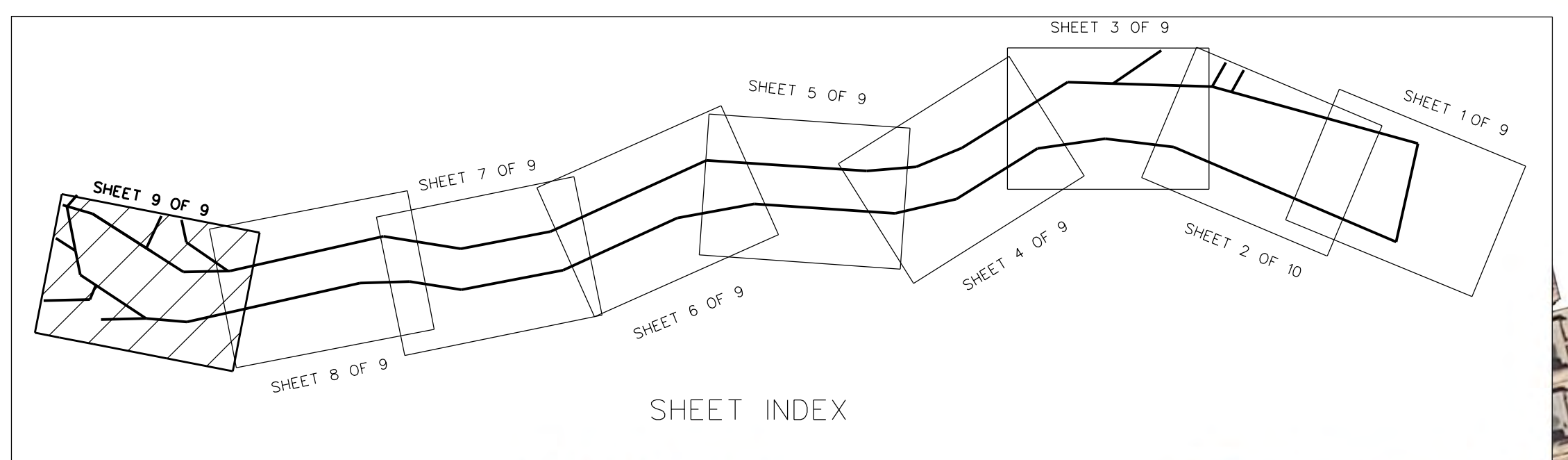
LOCAL CONTROL DATA
 BENCHMARK: AID 10029
 ELEVATION: 8.32' (NAVD 1988)

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, NEW JERSEY MERCATOR - ZONE 2000, US SURVEY FEET.
 -SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) (FPOOH 1983-2001).
 -MEAN LOWER LOW WATER IS 2.6-3.0 FEET BELOW NAVD88 AS DETERMINED USING MDTM (VER. 4.0.1).
 -SOUNDINGS DEPICTED ON THIS MAP ARE BASED ON A 3'X3' MEDIAN CELL, SORTED TO A 3' INTERVAL.
 -CONTOURS ON THIS MAP WERE GENERATED USING THE 3'X3' MEDIAN DATA SET.
 -THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
 -AERIAL IMAGERY PROVIDED BY NUGIN WAREHOUSE (2019).
 -THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
 -THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATIONS "GIVEN POINT".
 -THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.



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 - NEW JERSEY MERCATOR - ZONE 2900, US SURVEY FEET.
- SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) (EPOCH 1985-2001).
- MEAN LOWER LOW WATER IS 2.8-3.0 FEET BELOW NAVD83 AS DETERMINED USING VDATUM IVER 4.0.11.
- SOUNDINGS DEPICTED ON THIS MAP ARE BASED ON A 3"x3" MEDIAN CELL - SORTED TO A 30" INTERVAL.
- CONTOURS ON THIS MAP WERE GENERATED USING THE 3"x3" MEDIAN DATA SET. THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
- AERIAL IMAGERY PROVIDED BY NGJN WAREHOUSE (2019).
- THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
- THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATIONS "CAVEN POINT".
- THIS MAP IS CEIP COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.



NSRS BENCHMARK	
BENCHMARK: TIDAL NO 6 STA 4 (KV0611)	ELEVATION: 7.65' (NAVD 1988)
LOCAL CONTROL DATA	
BENCHMARK: AJD 10029	ELEVATION: 8.32' (NAVD 1988)

DATE OF SURVEY:	10/13/16 NOVEMBER 2020
SCALE:	ONE INCH = 100 FEET
FIELD BOOKS:	N/A
REG. NO./FILE NO.:	5004/PAT
DATE OF SURVEY:	10/13/16 NOVEMBER 2020
SCALE:	ONE INCH = 100 FEET
FIELD BOOKS:	N/A
REG. NO./FILE NO.:	5004/PAT

APPROVED: M. APPEL	TECH. COMMENTARY
APPROVED: M. FORBE	EXERCISES/TERRAIN
APPROVED: J. BHADUR	LOCAL CONTROL DATA
APPROVED: J. BRAZ	REVIEW ONLY BY SURVEY
DATE: 18 NOVEMBER 2020	

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

OPERATIONS DIVISION
SURVEY SECTION
CONVA-COPS

NEW YORK & NEW JERSEY CHANNELS
KILL VAN KULL
CONDITION SURVEY