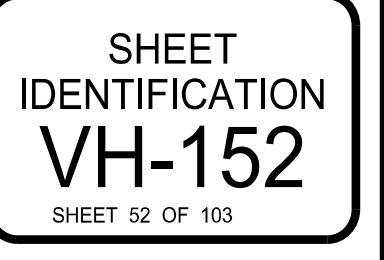
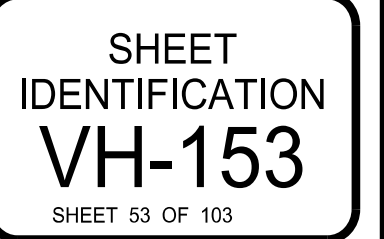


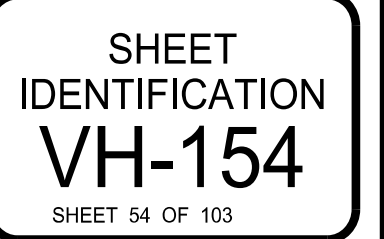
U.S. ARMY CORPS OF ENGINEERS	DESIGNED BY: 000	DATE: DECEMBER 1, 2019
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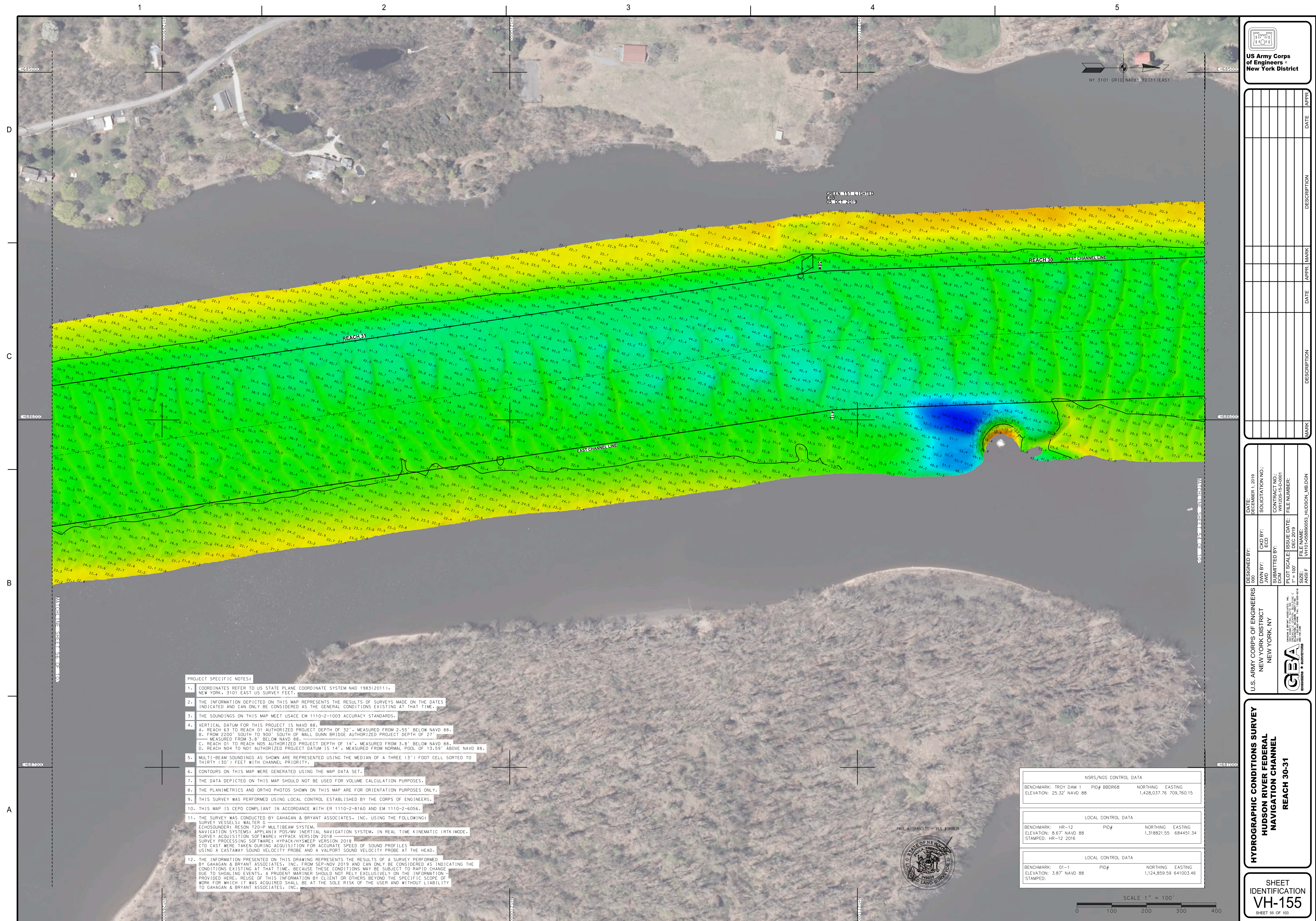
**HYDROGRAPHIC CONDITIONS SURVEY
HUDSON RIVER FEDERAL
NAVIGATION CHANNEL**

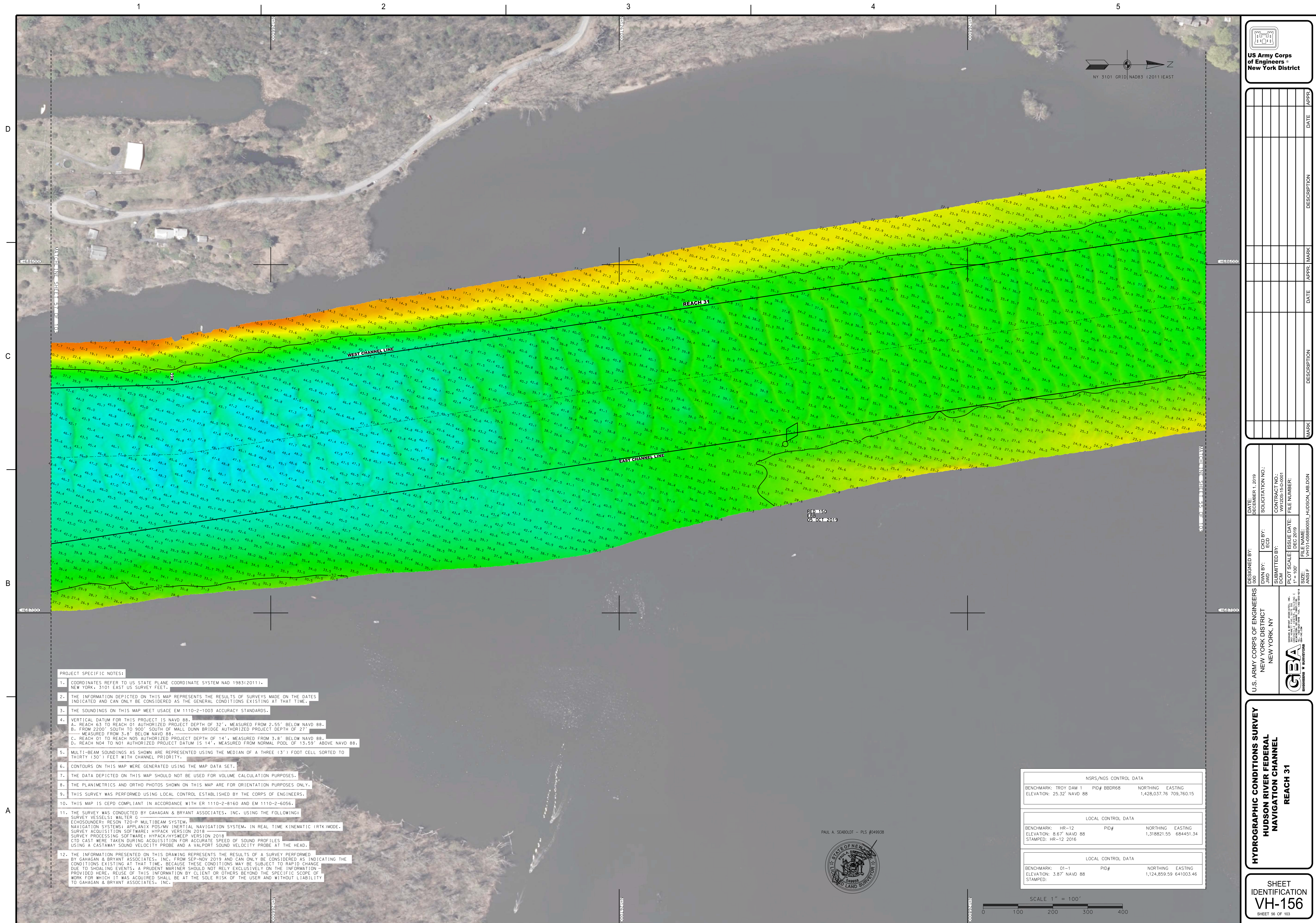
SHEET
IDENTIFICATION
VH-151
SHEET 51 OF 103

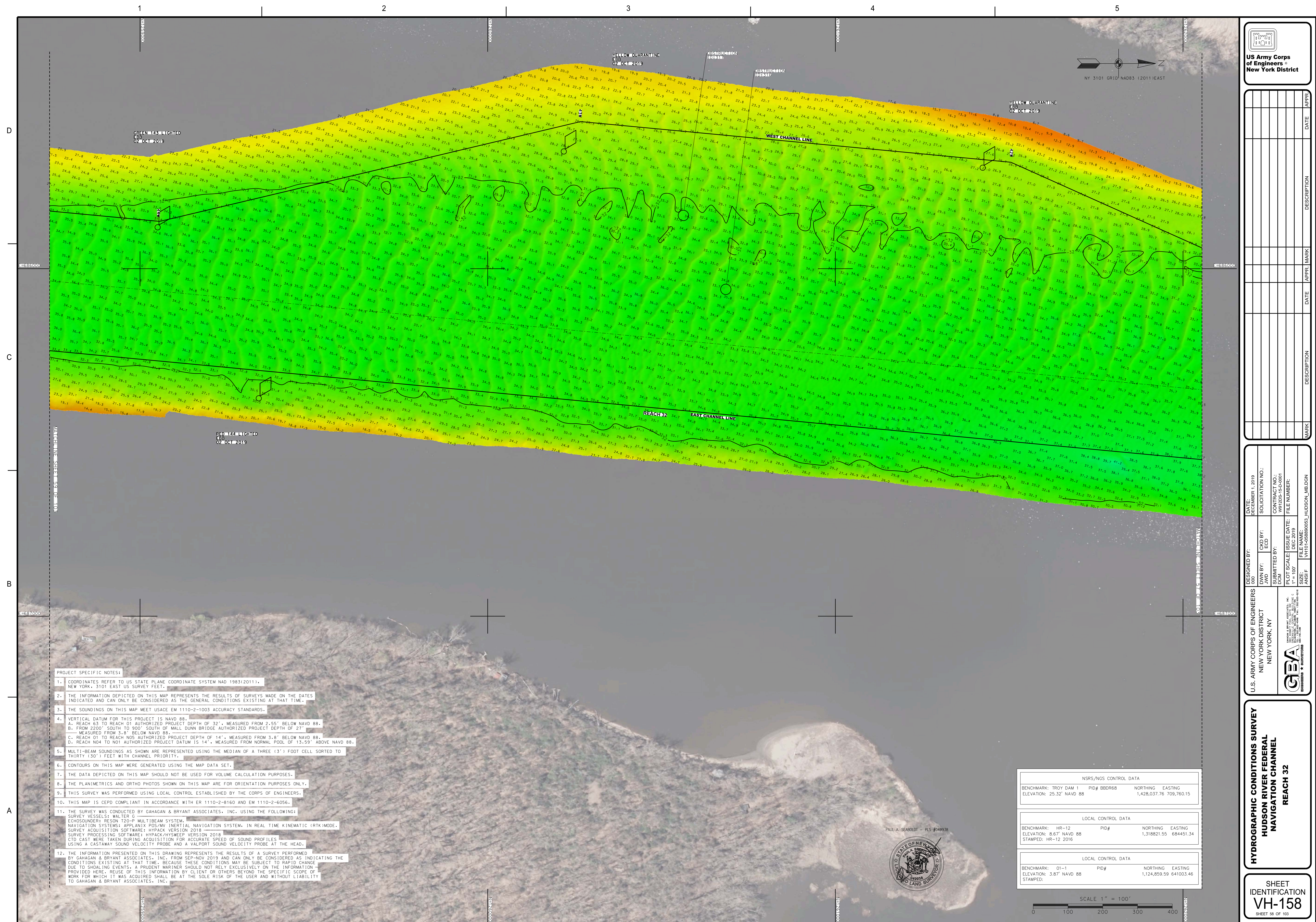


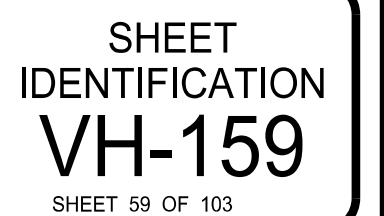


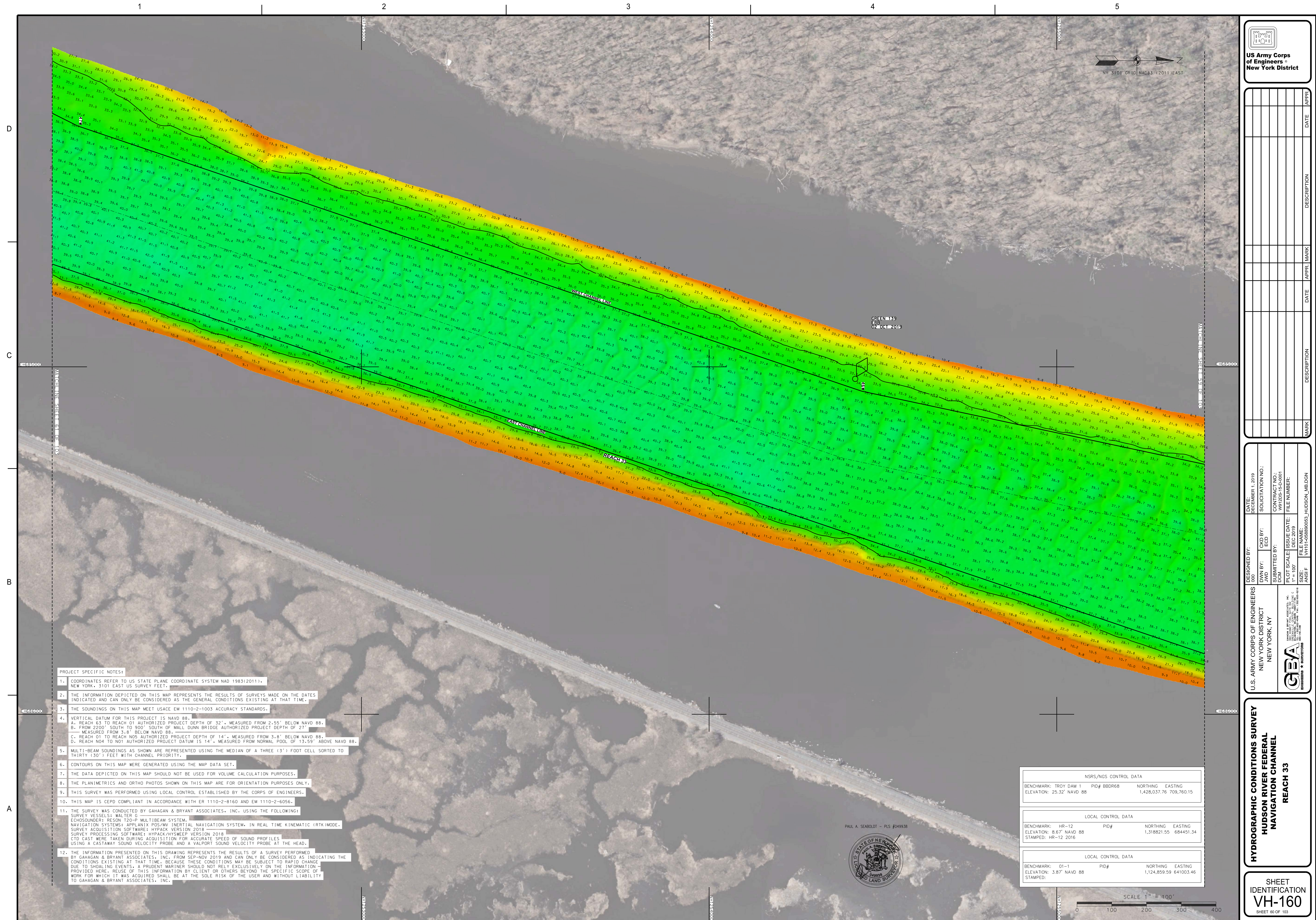


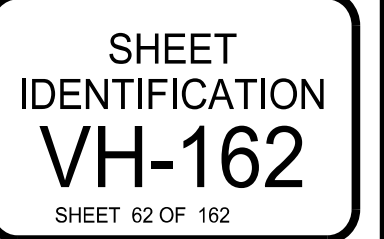




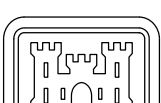
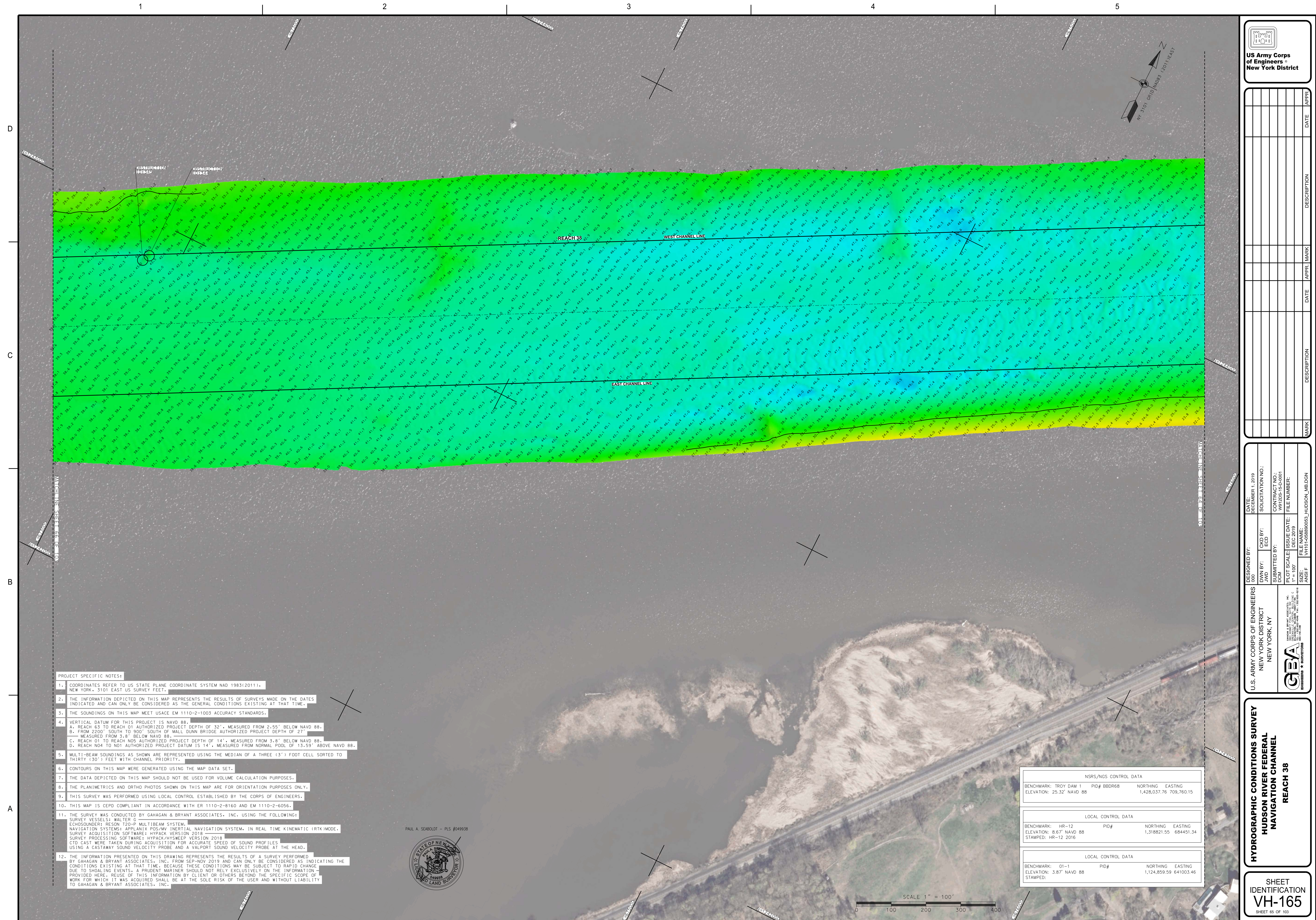






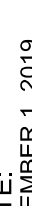







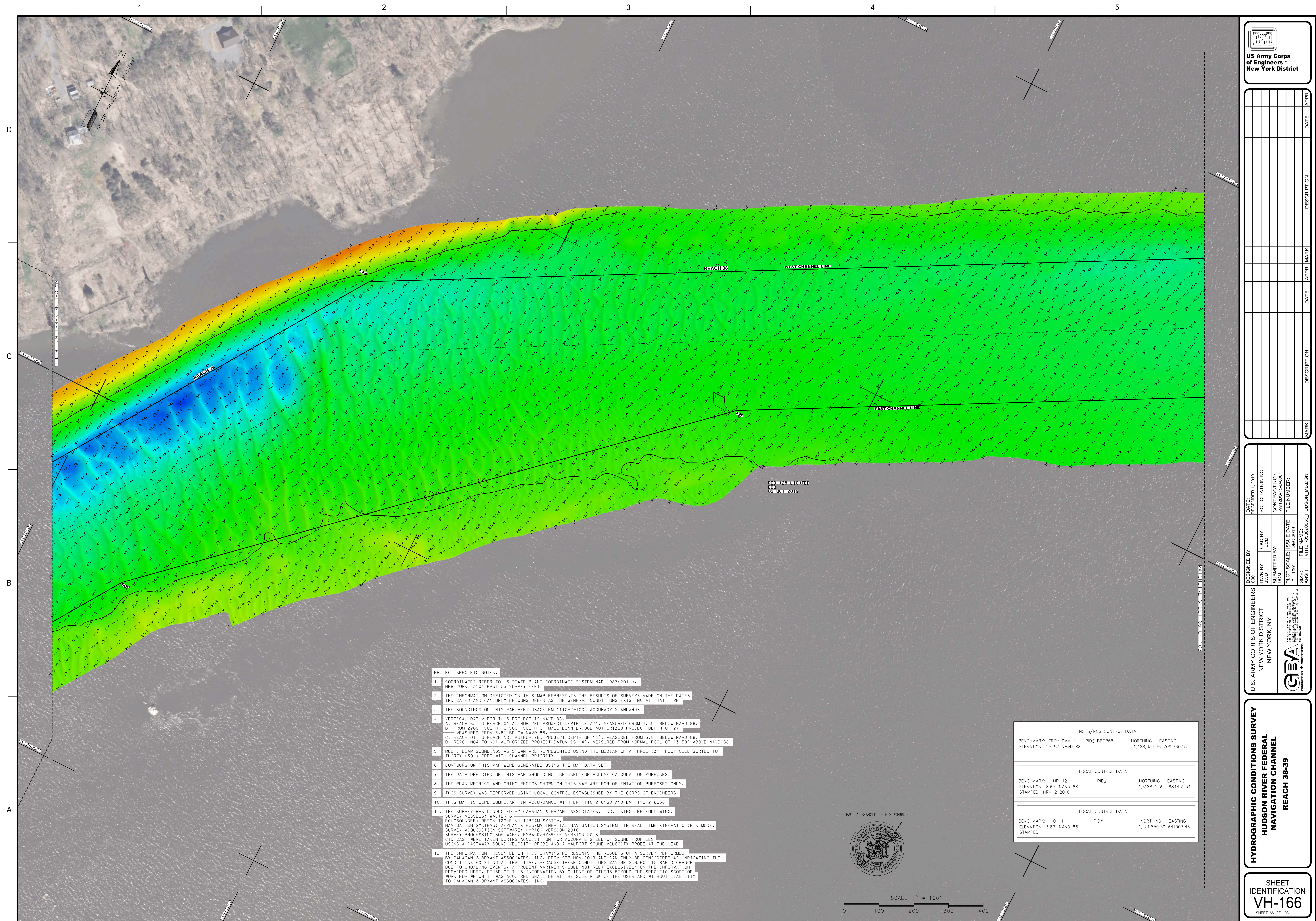
**US Army Corps
of Engineers ®
New York District**

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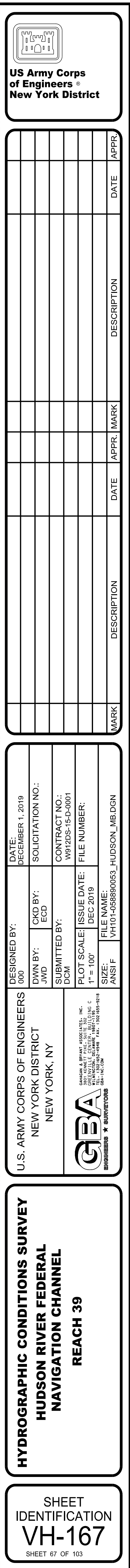
 GPA <small>GOVERNMENT</small> * <small>CONTRACTORS</small>	U.S. ARMY CORPS OF ENGINEERS NEW YORK DISTRICT NEW YORK, NY	DESIGNED BY: 000	DATE: DECEMBER 1, 2019
	DWN BY: CSD	SOLICITATION NO.: 000	CONTRACT NO.: W19D35-15-D-0001
SUBMITTED BY: 000	PLOT SCALE: 1" = 100'	ISSUE DATE: 11/15/2019	FILE NUMBER: V10-045850003, HUDSON, MS.DGN




**HYDROGRAPHIC CONDITIONS SURVEY
HUDSON RIVER FEDERAL
NAVIGATION CHANNEL**

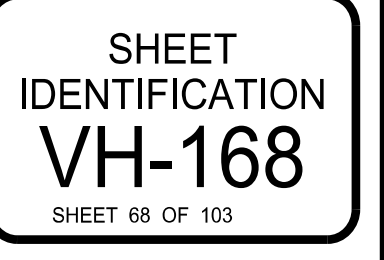
SHEET
IDENTIFICATION
VH-165
SHEET 65 OF 103

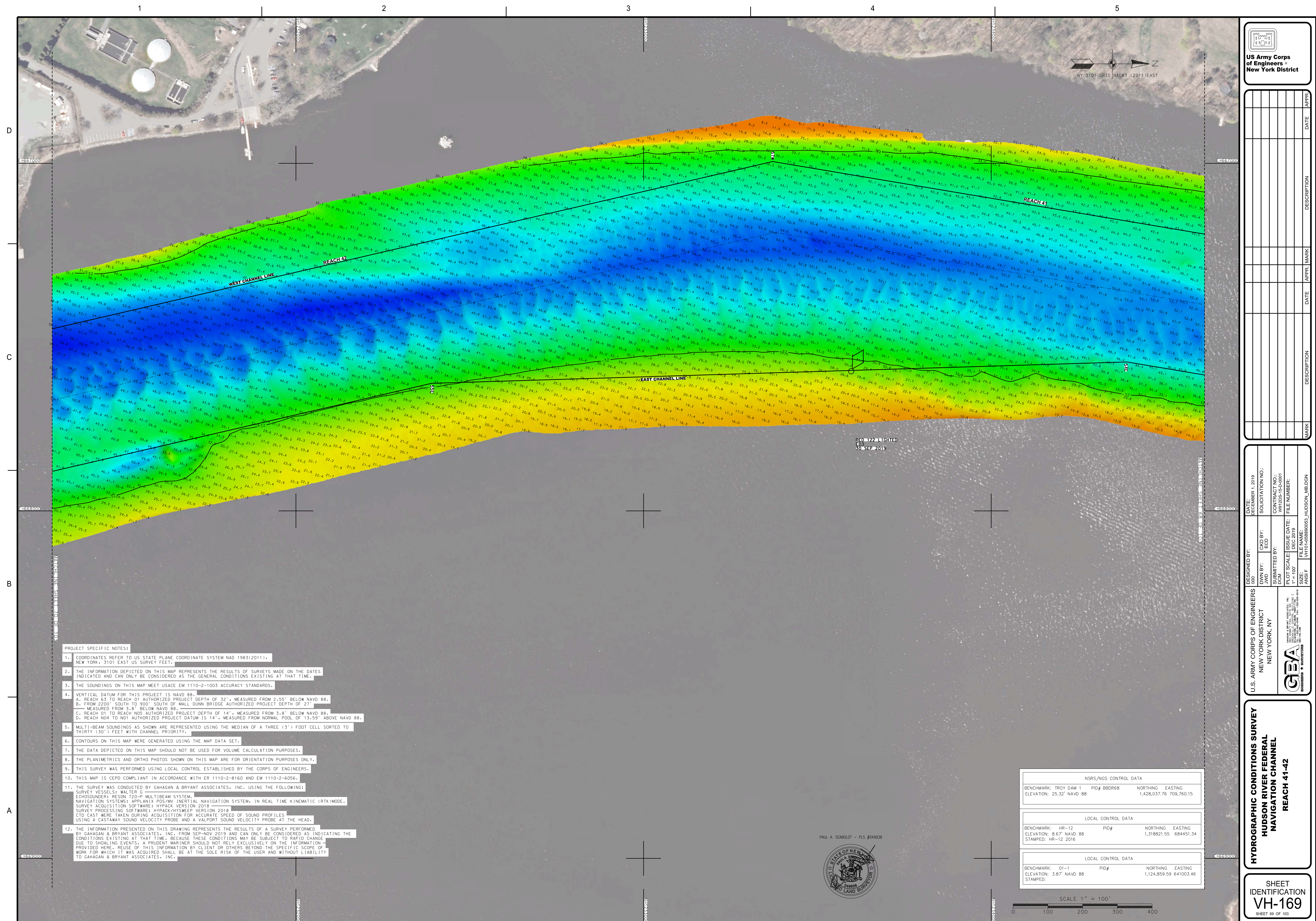



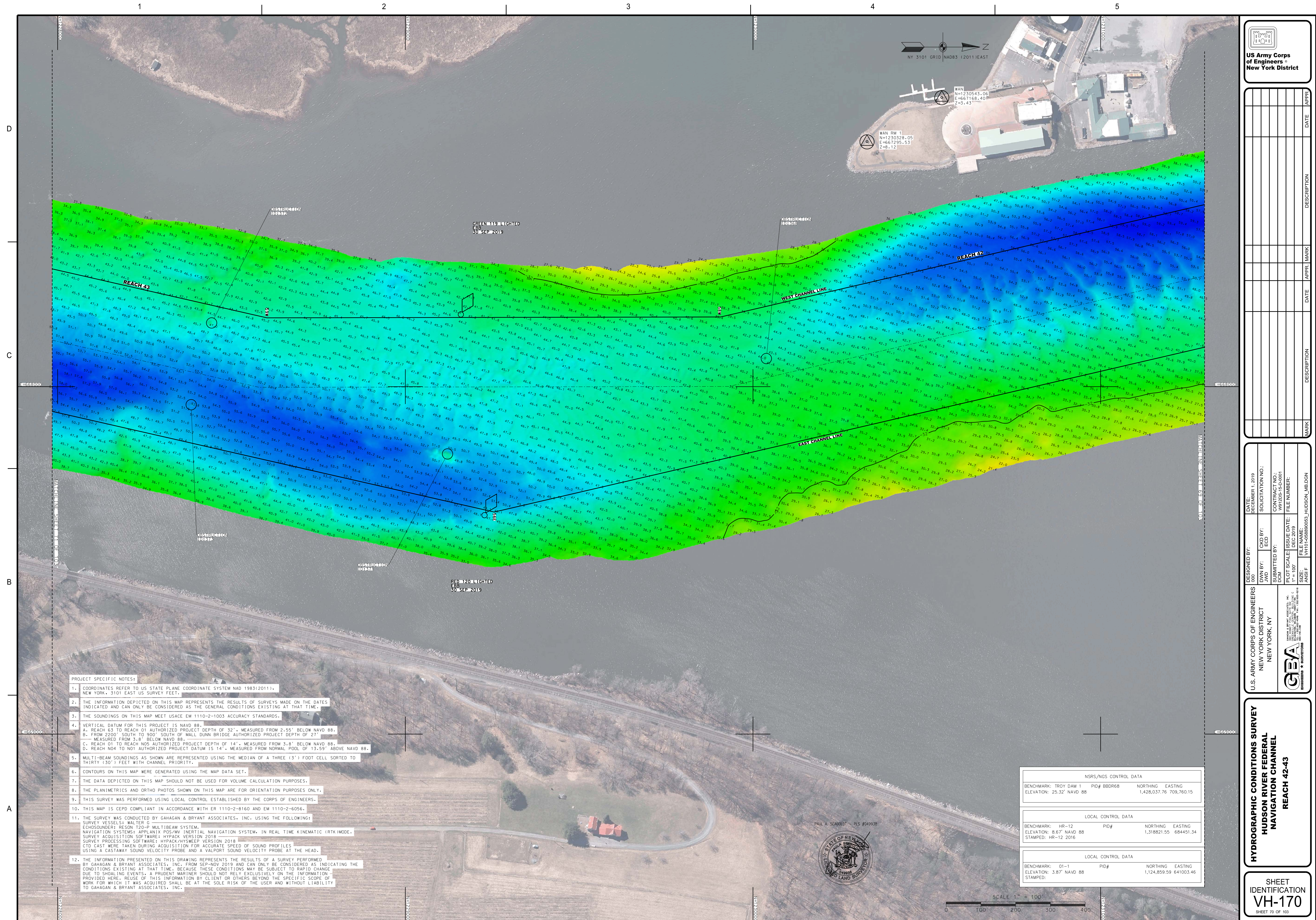
**US Army Corps
of Engineers®
New York District**



 US Army Corps of Engineers New York District			
HYDROGRAPHIC CONDITIONS SURVEY HUDSON RIVER FEDERAL NAVIGATION CHANNEL REACH 39 NAVIGATION		DESIGNED BY: DWN BY: CKO BY: ECD JWD BY: ECD SUBMITTED BY:	
U.S. ARMY CORPS OF ENGINEERS NEW YORK DISTRICT NEW YORK, NY		DATE: DECEMBER 1, 2019 SOLICITATION NO.: CONTRACT NO.: W912D8-15-D-0001	
 CONTRACTING BY AGREEMENT TO: CBA 1000 ROUTE 92 SUITE 200 FORT MONMOUTH, NJ 08055-1000 732-326-7200 732-326-7201 732-326-7202 732-326-7203 732-326-7204 732-326-7205 732-326-7206 732-326-7207 732-326-7208 732-326-7209 732-326-7210 732-326-7211 732-326-7212 732-326-7213 732-326-7214 732-326-7215 732-326-7216 732-326-7217 732-326-7218 732-326-7219 732-326-7220 732-326-7221 732-326-7222 732-326-7223 732-326-7224 732-326-7225 732-326-7226 732-326-7227 732-326-7228 732-326-7229 732-326-7230 732-326-7231 732-326-7232 732-326-7233 732-326-7234 732-326-7235 732-326-7236 732-326-7237 732-326-7238 732-326-7239 732-326-7240 732-326-7241 732-326-7242 732-326-7243 732-326-7244 732-326-7245 732-326-7246 732-326-7247 732-326-7248 732-326-7249 732-326-7250 732-326-7251 732-326-7252 732-326-7253 732-326-7254 732-326-7255 732-326-7256 732-326-7257 732-326-7258 732-326-7259 732-326-7260 732-326-7261 732-326-7262 732-326-7263 732-326-7264 732-326-7265 732-326-7266 732-326-7267 732-326-7268 732-326-7269 732-326-7270 732-326-7271 732-326-7272 732-326-7273 732-326-7274 732-326-7275 732-326-7276 732-326-7277 732-326-7278 732-326-7279 732-326-7280 732-326-7281 732-326-7282 732-326-7283 732-326-7284 732-326-7285 732-326-7286 732-326-7287 732-326-7288 732-326-7289 732-326-7290 732-326-7291 732-326-7292 732-326-7293 732-326-7294 732-326-7295 732-326-7296 732-326-7297 732-326-7298 732-326-7299 732-326-7300 732-326-7301 732-326-7302 732-326-7303 732-326-7304 732-326-7305 732-326-7306 732-326-7307 732-326-7308 732-326-7309 732-326-7310 732-326-7311 732-326-7312 732-326-7313 732-326-7314 732-326-7315 732-326-7316 732-326-7317 732-326-7318 732-326-7319 732-326-7320 732-326-7321 732-326-7322 732-326-7323 732-326-7324 732-326-7325 732-326-7326 732-326-7327 732-326-7328 732-326-7329 732-326-7330 732-326-7331 732-326-7332 732-326-7333 732-326-7334 732-326-7335 732-326-7336 732-326-7337 732-326-7338 732-326-7339 732-326-7340 732-326-7341 732-326-7342 732-326-7343 732-326-7344 732-326-7345 732-326-7346 732-326-7347 732-326-7348 732-326-7349 732-326-7350 732-326-7351 732-326-7352 732-326-7353 732-326-7354 732-326-7355 732-326-7356 732-326-7357 732-326-7358 732-326-7359 732-326-7360 732-326-7361 732-326-7362 732-326-7363 732-326-7364 732-326-7365 732-326-7366 732-326-7367 732-326-7368 732-326-7369 732-326-7370 732-326-7371 732-326-7372 732-326-7373 732-326-7374 732-326-7375 732-326-7376 732-326-7377 732-326-7378 732-326-7379 732-326-7380 732-326-7381 732-326-7382 732-326-7383 732-326-7384 732-326-7385 732-326-7386 732-326-7387 732-326-7388 732-326-7389 732-326-7390 732-326-7391 732-326-7392 732-326-7393 732-326-7394 732-326-7395 732-326-7396 732-326-7397 732-326-7398 732-326-7399 732-326-7400 732-326-7401 732-326-7402 732-326-7403 732-326-7404 732-326-7405 732-326-7406 732-326-7407 732-326-7408 732-326-7409 732-326-7410 732-326-7411			








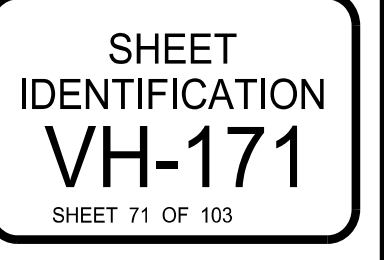
**US Army Corps
of Engineers®
New York District**

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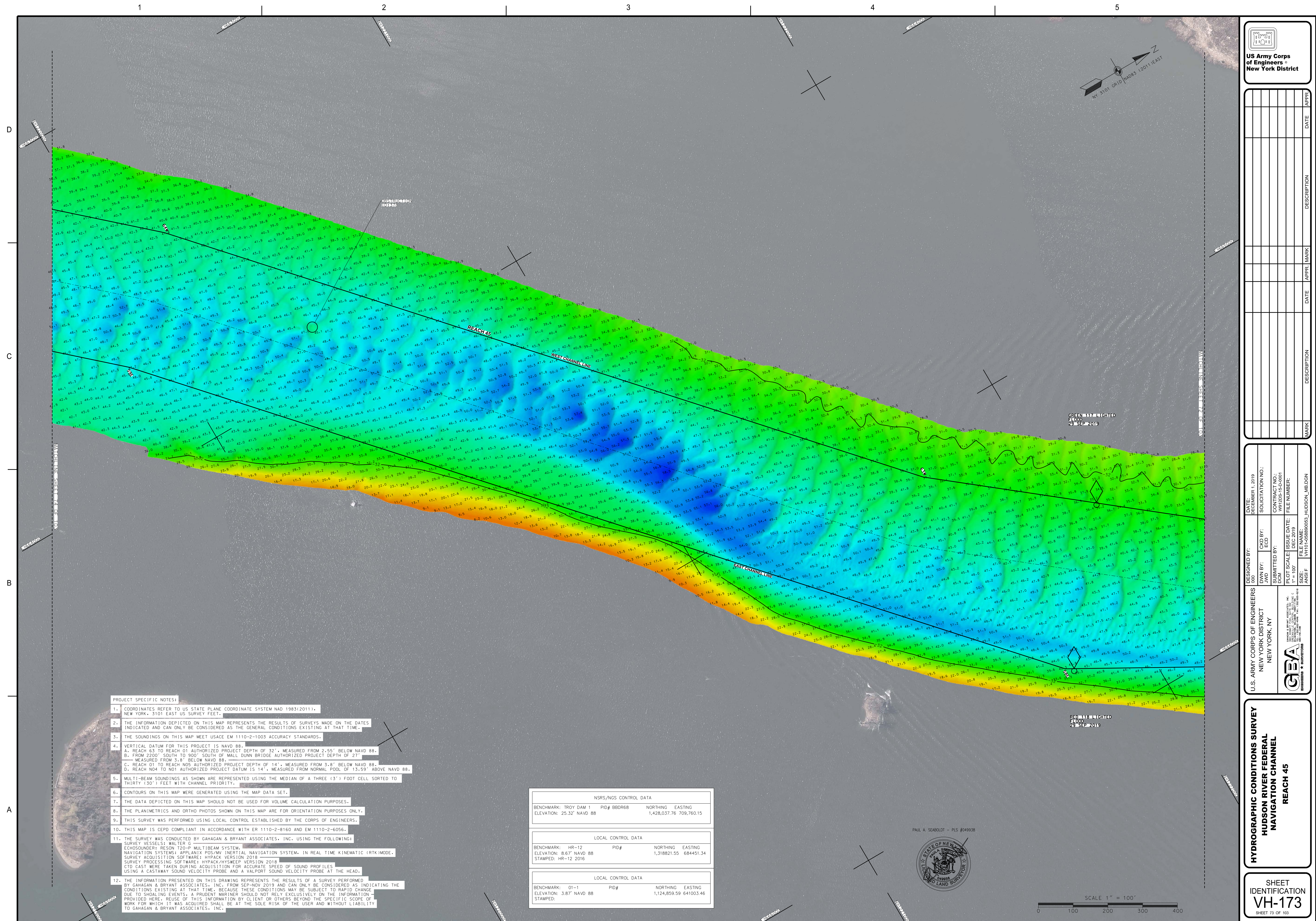
 GENERAL SERVICES ADMINISTRATION U.S. DEPARTMENT OF COMMERCE	SPECIAL AGENT, INVESTIGATIVE DIVISION, INC. 1000 NEW YORK AVENUE, SUITE 1000 NEW YORK, NEW YORK 10020-1000 TEL: 212-512-2000 FAX: 212-512-2001		ORDERED BY: DECEMBER 1, 1919	
	U.S. ARMY CORPS OF ENGINEERS NEW YORK DISTRICT NEW YORK, NY		SOLICITATION NO.: DOW BY: JWD ECD	
			CONTRACT NO.: ORDER NO.: SUBMITTED BY:	
			PILOT SCALE: ISSUE DATE: DEC 2019	
			SIZE: T = 100"	
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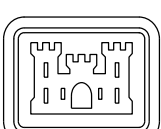
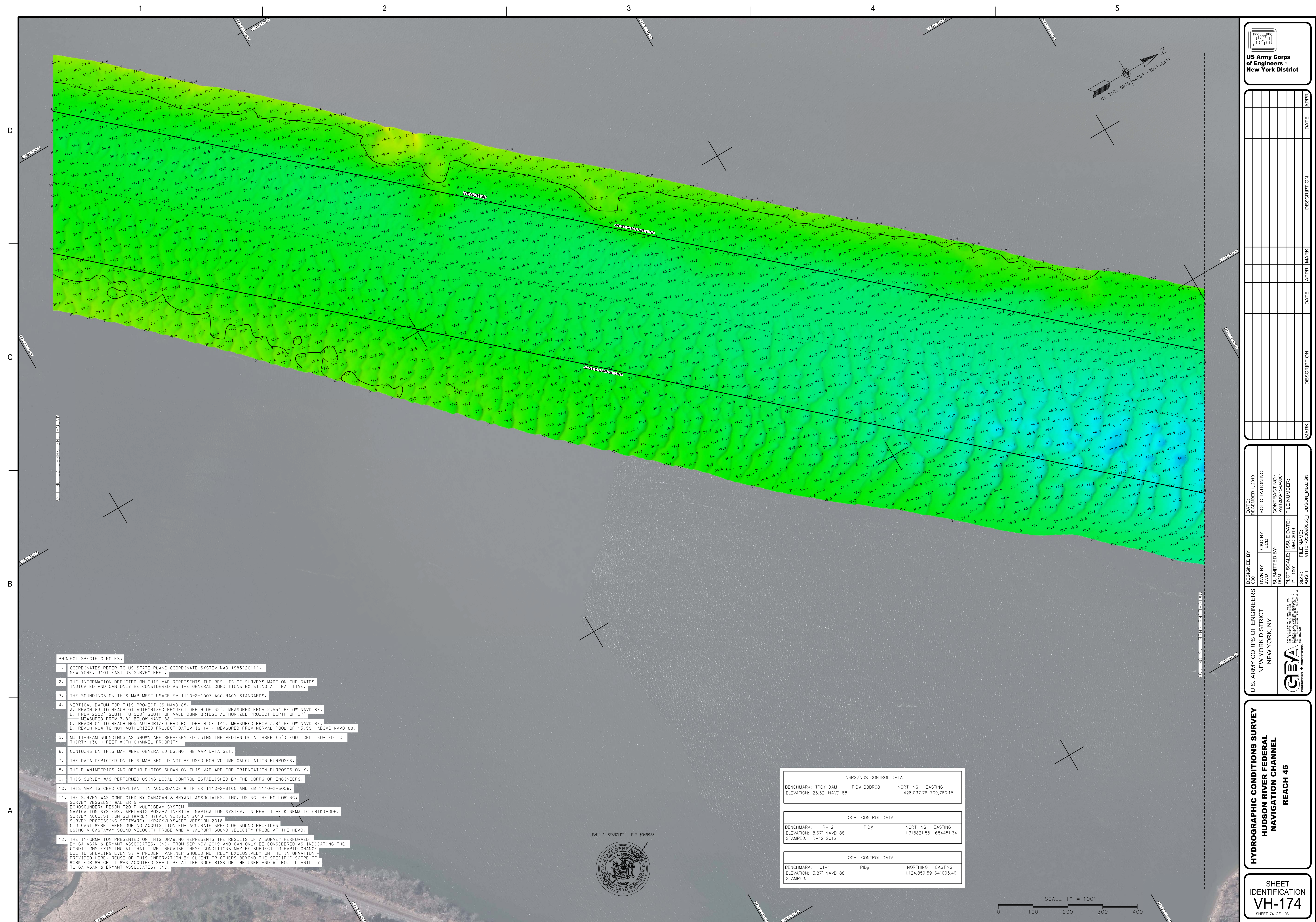
**HYDROGRAPHIC CONDITIONS SURVEY
HUDSON RIVER FEDERAL
NAVIGATION CHANNEL
REACH 42-43**

SHEET
IDENTIFICATION
VH-170
SHEET 70 OF 103









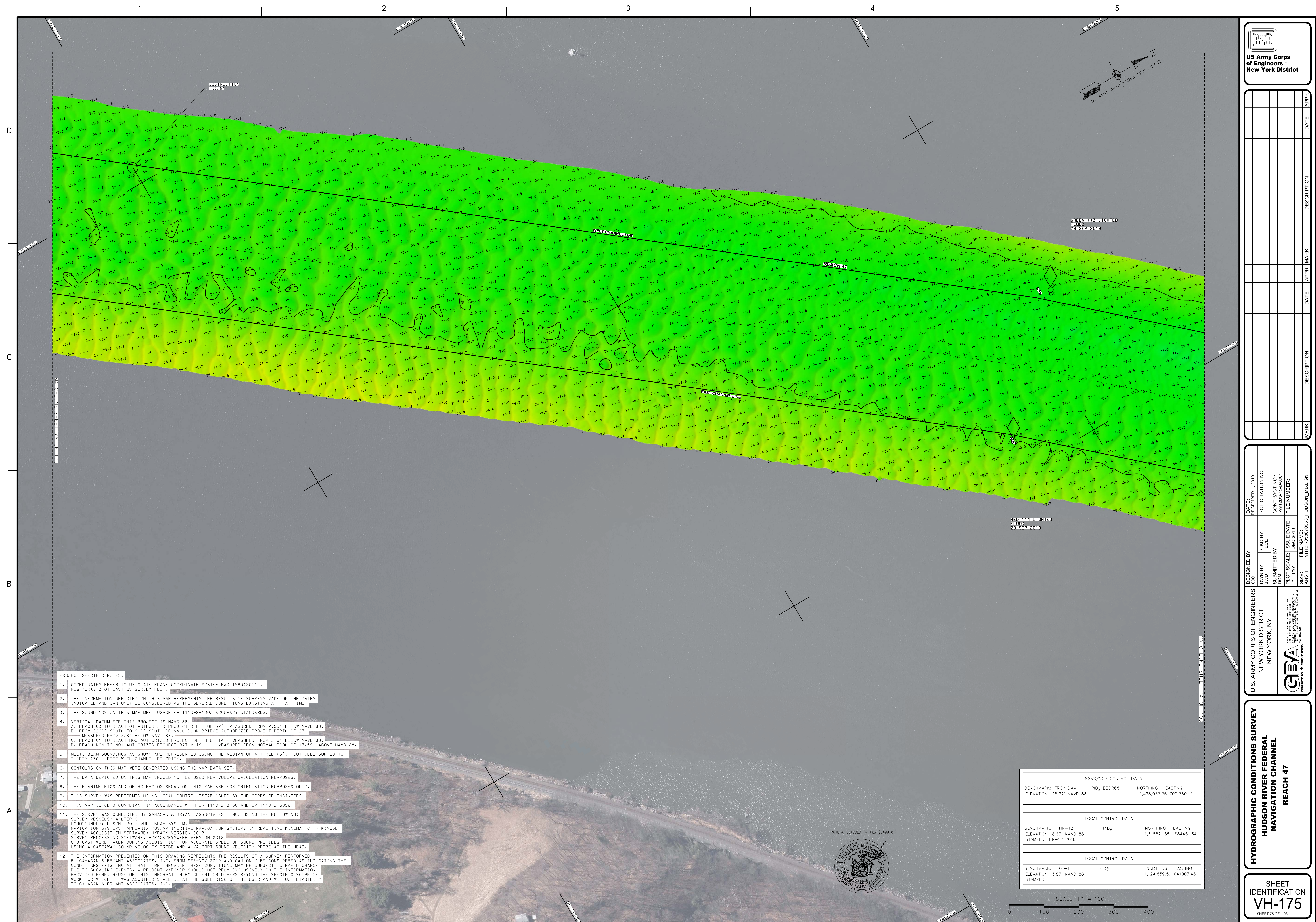
**US Army Corps
of Engineers ®
New York District**

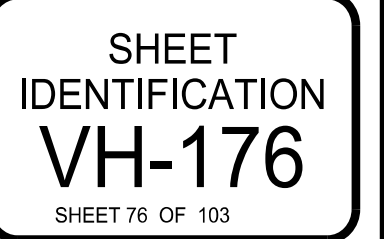
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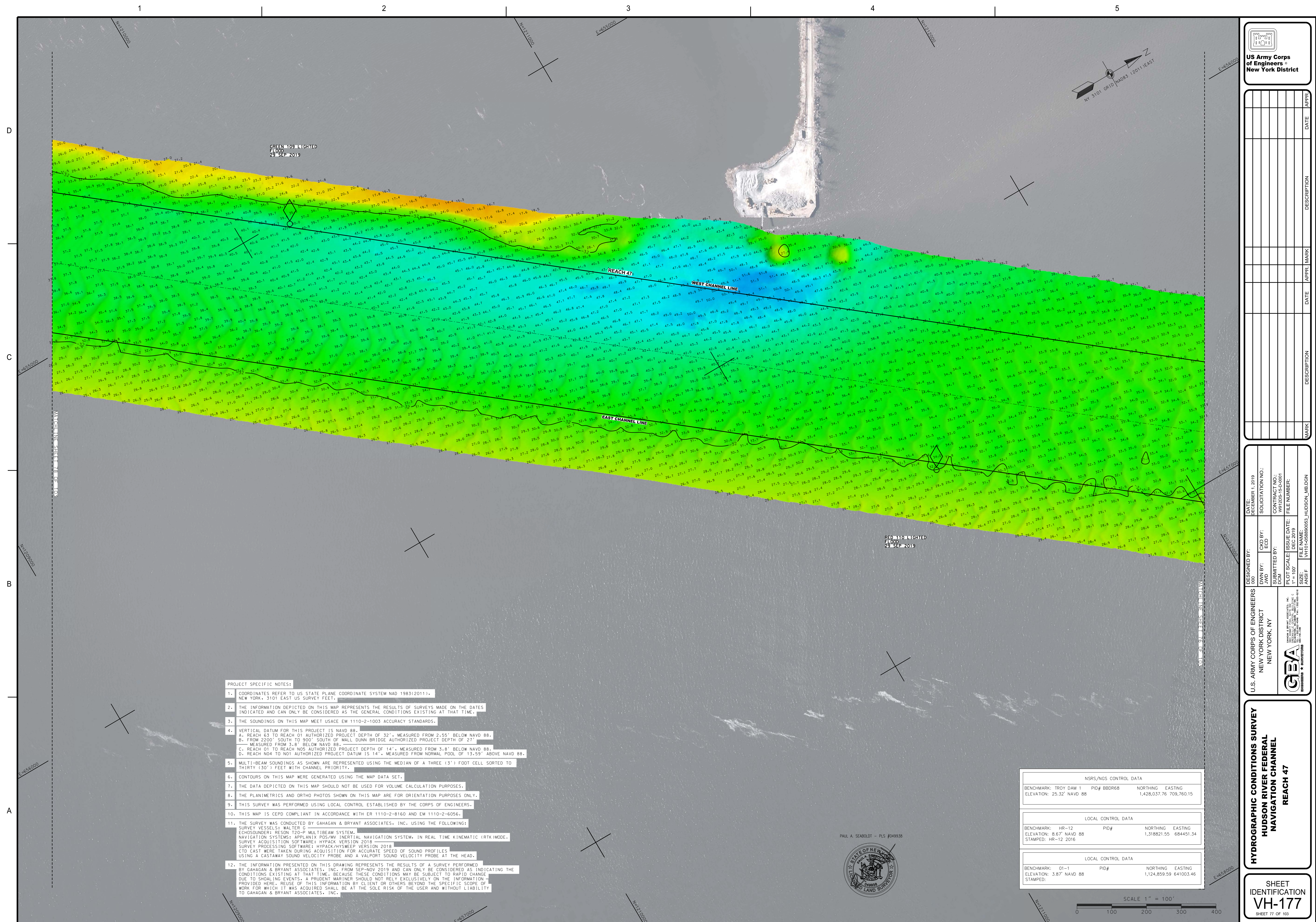
GBA CONSTRUCTION • SURVEYING <small>ESTABLISHED IN 1987 AND GROWING FOR THE FUTURE OF CONSTRUCTION</small>	U.S. ARMY CORPS OF ENGINEERS NEW YORK DISTRICT NEW YORK, NY		ISSUED BY: DWM BY: JWD ECD		SOLICITATION NO.: DECEMBER 1, 2019
	SUBMITTED BY:		CONTRACT NO. NYC-19-001	FILE NUMBER:	
	PLOT SCALE:		ISSUE DATE:		
	SIZE: 1" = 100'		FILE NAME:		
			PAGE#:		
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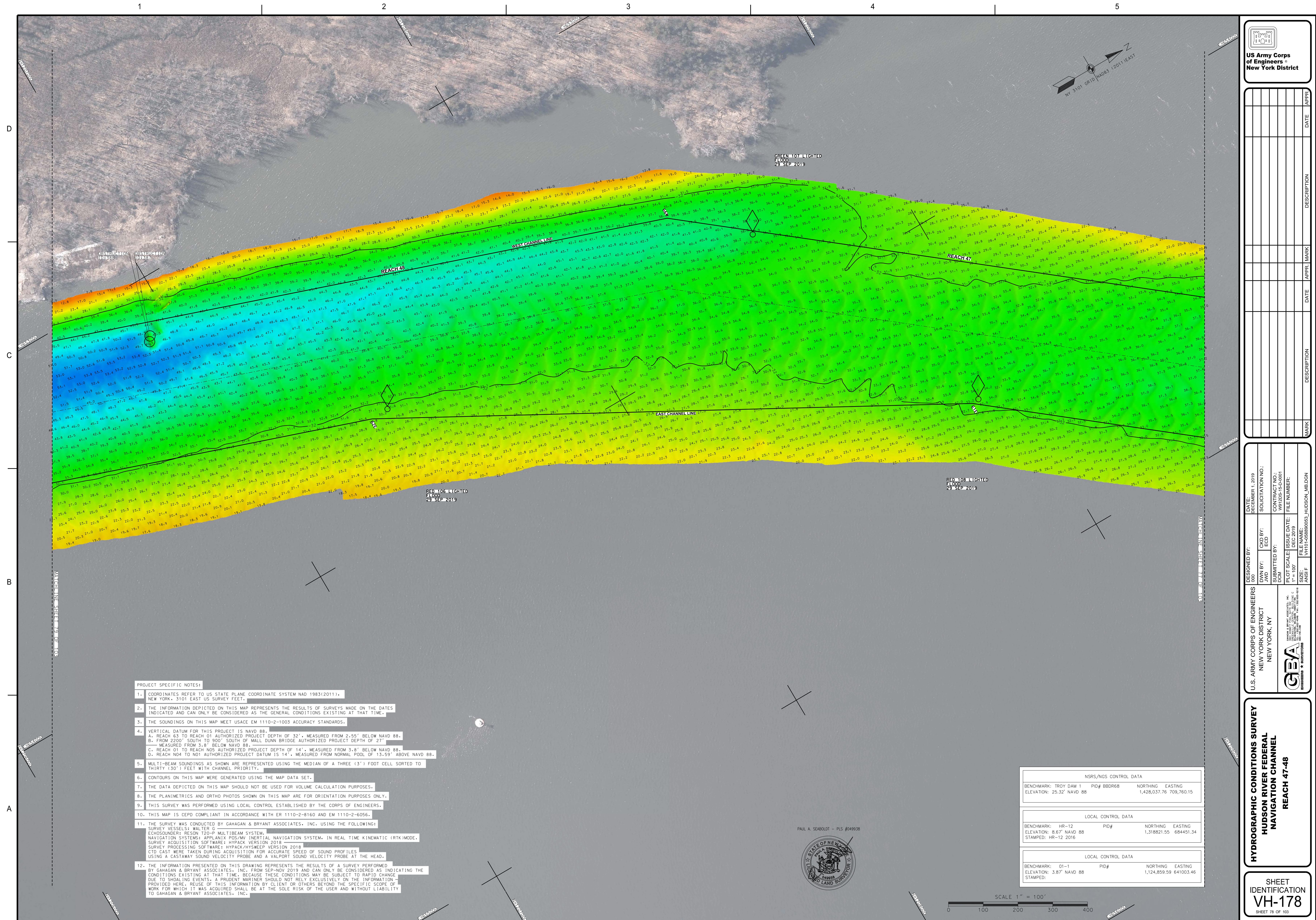
**HYDROGRAPHIC CONDITIONS SURVEY
HUDSON RIVER FEDERAL
NAVIGATION CHANNEL
REACH 46**

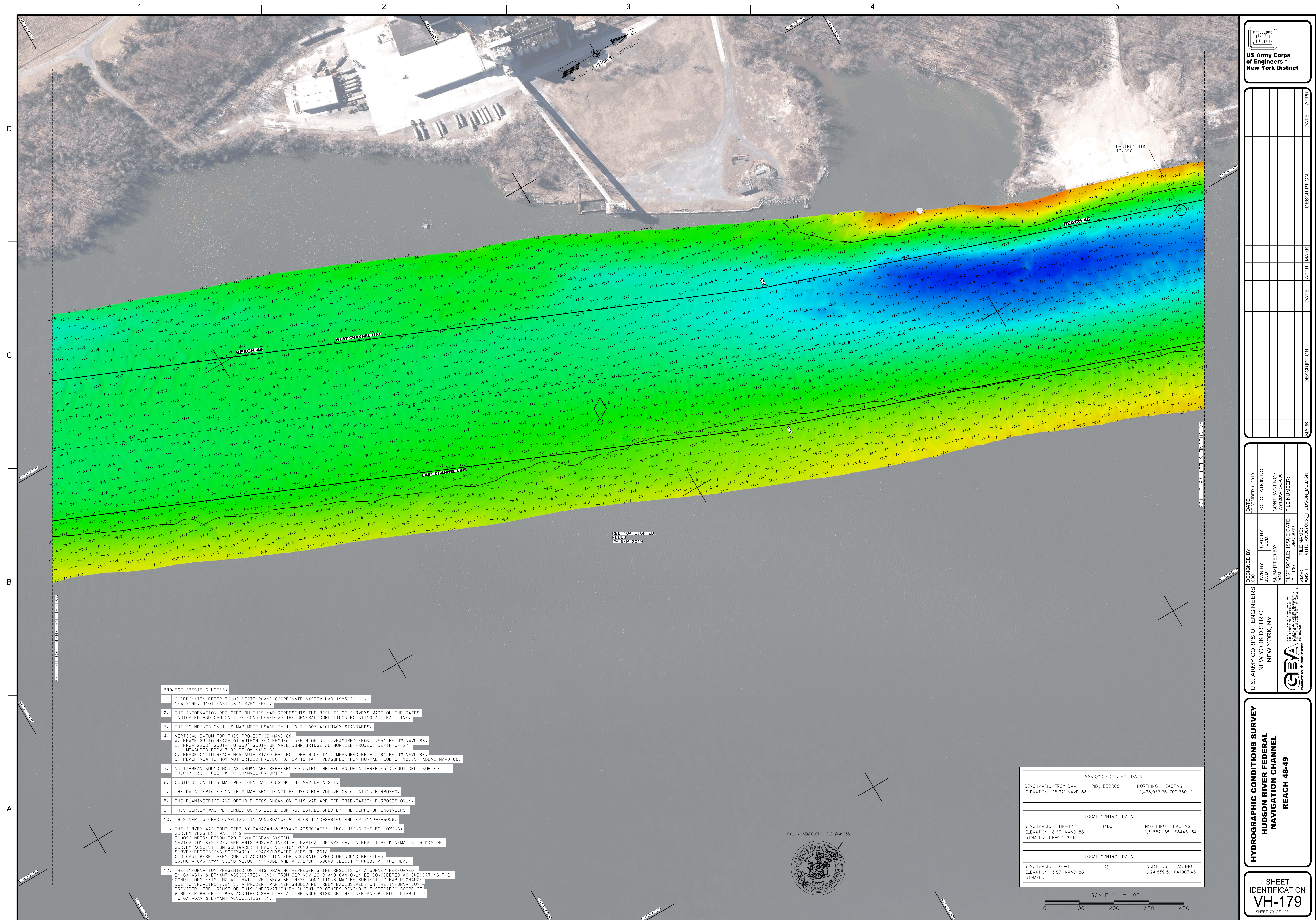
SHEET
IDENTIFICATION
VH-174
SHEET 74 OF 103


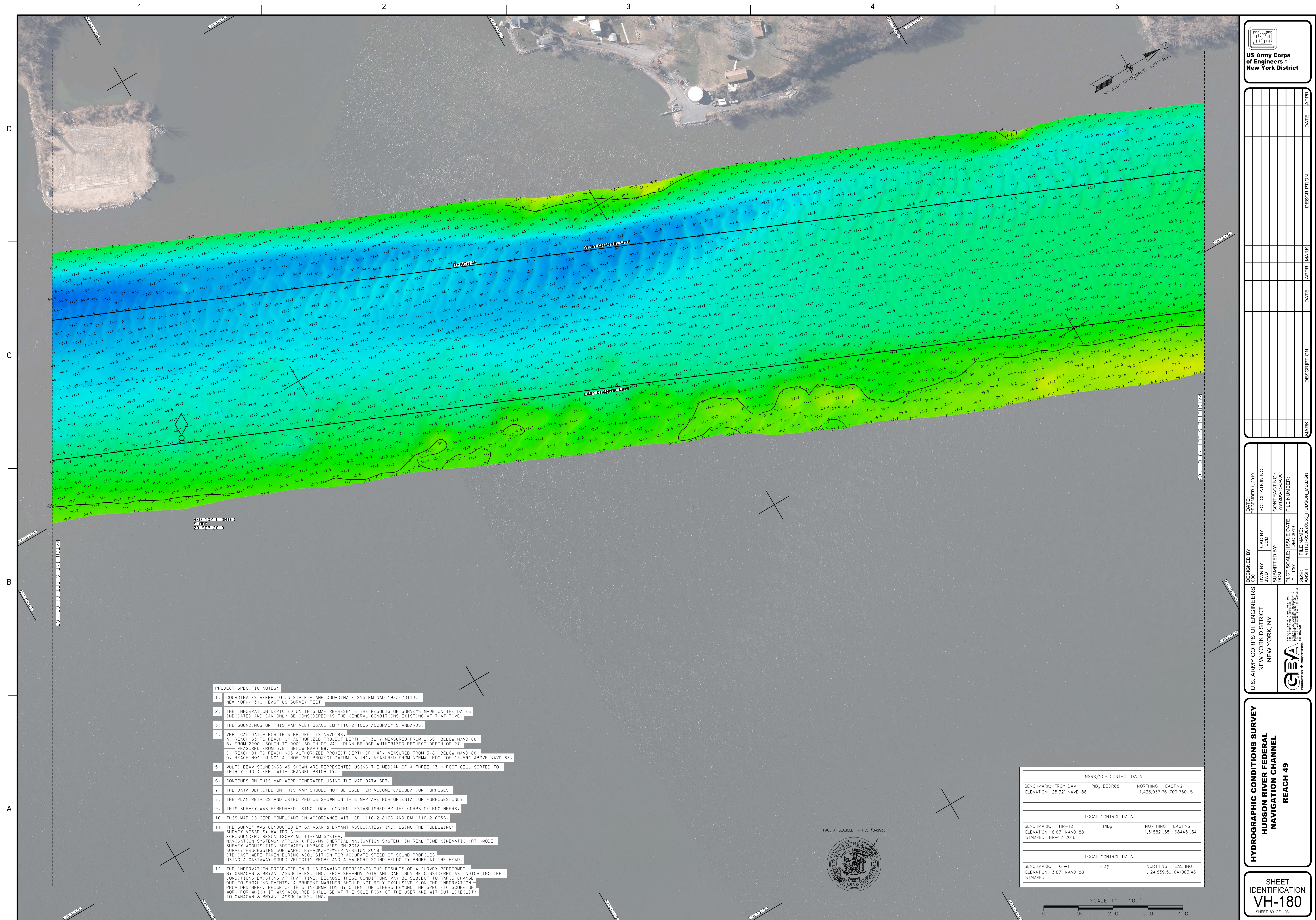




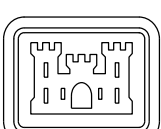
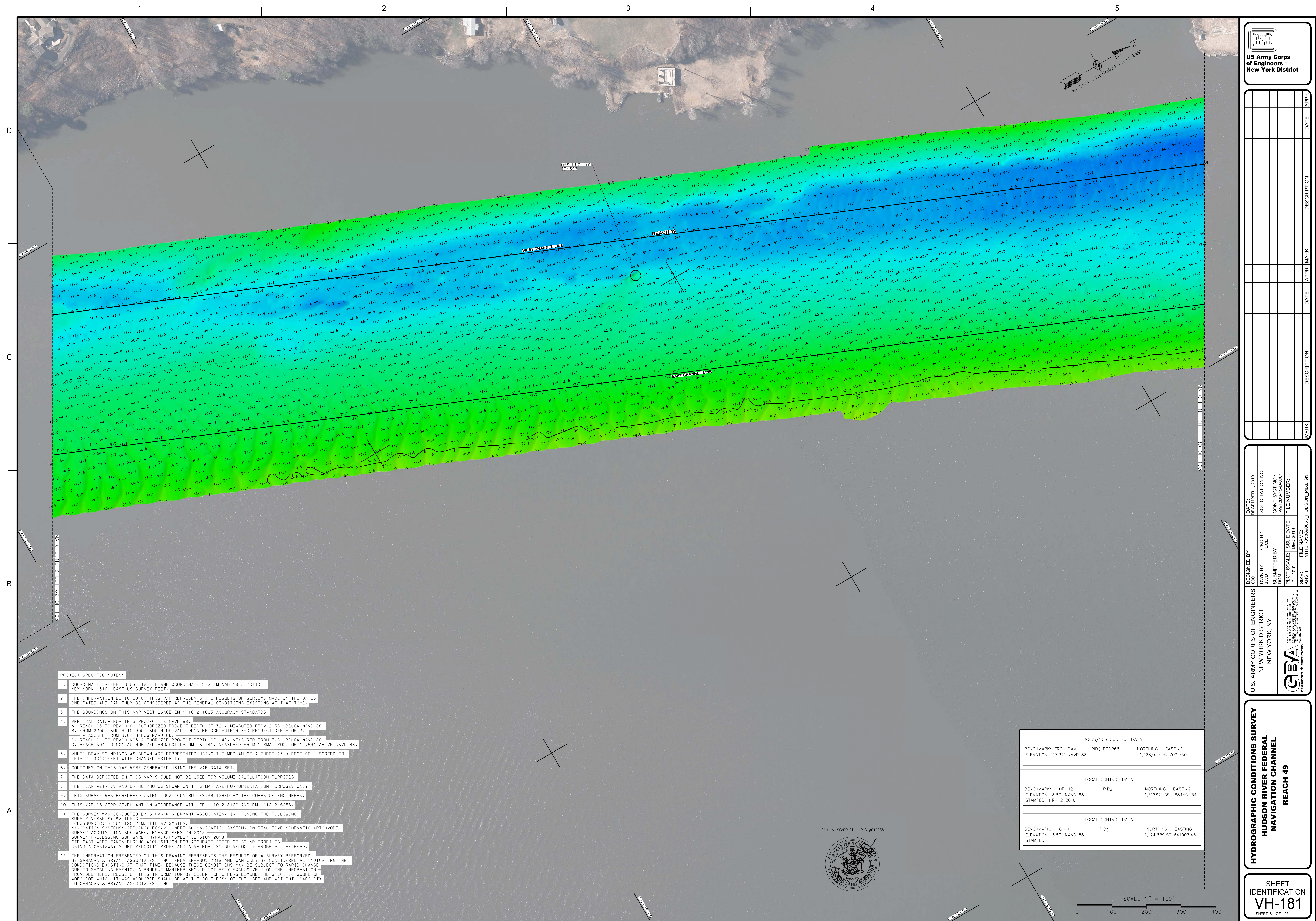








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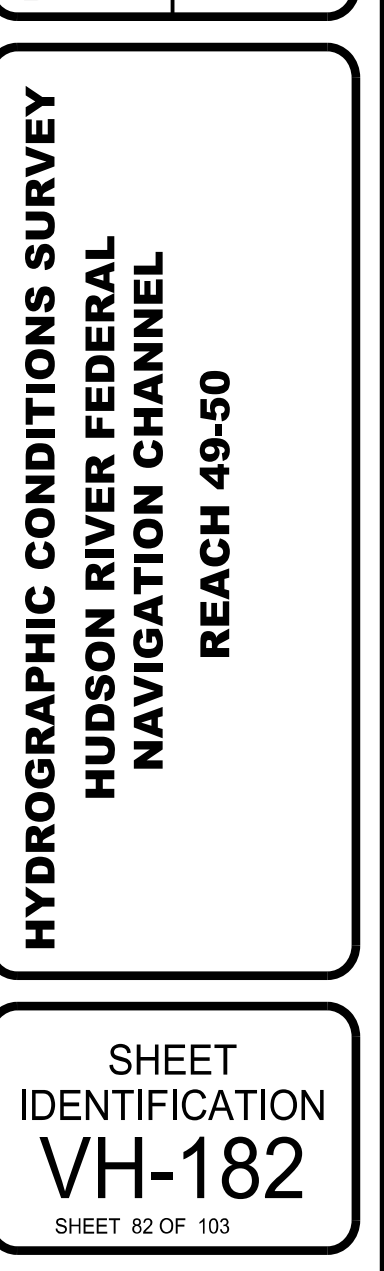
**US Army Corps
of Engineers ®
New York District**

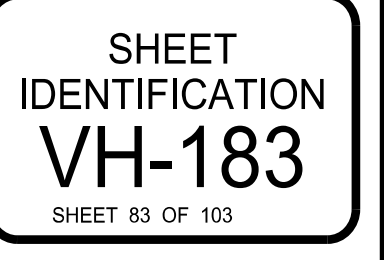
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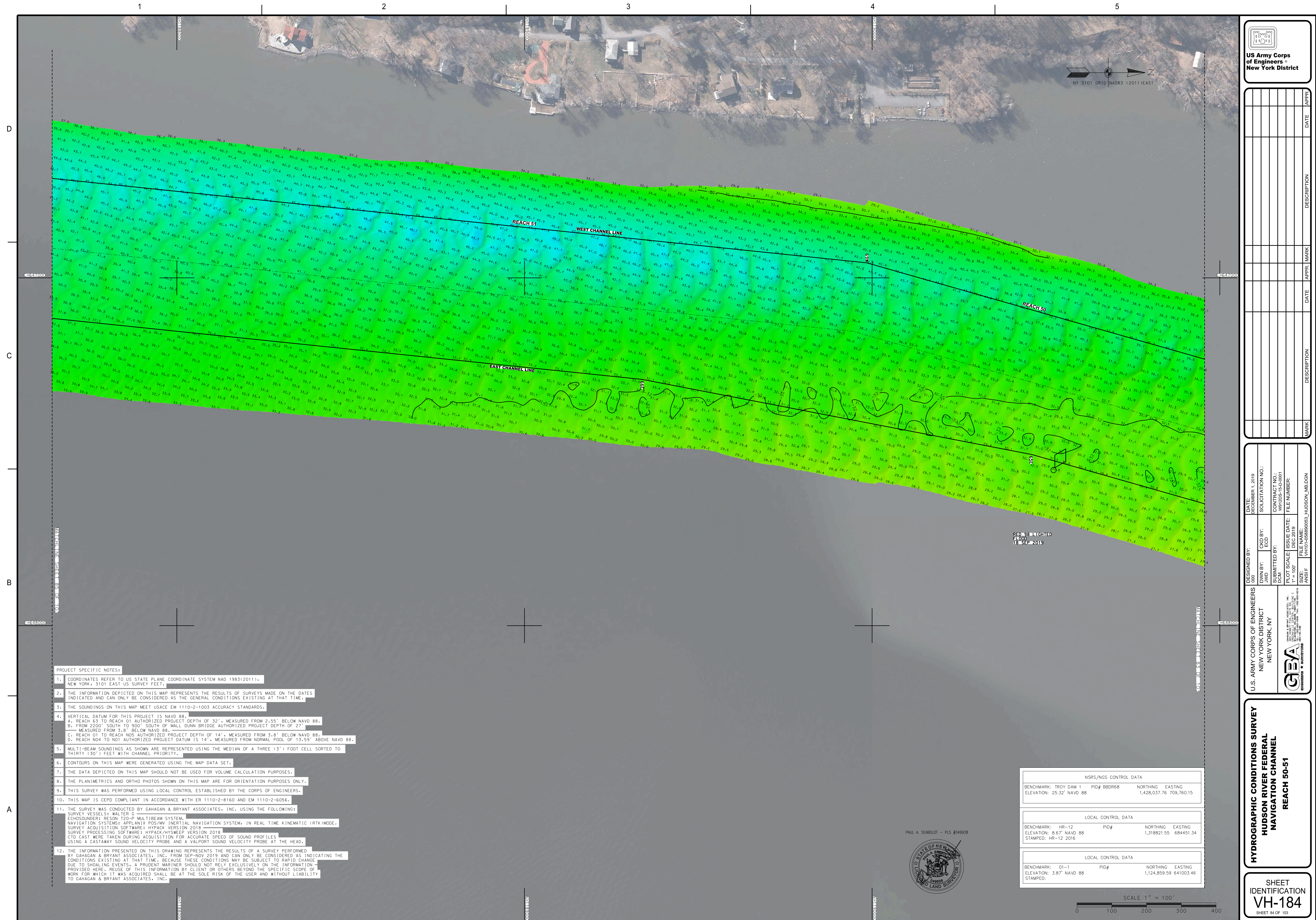
U.S. ARMY CORPS OF ENGINEERS NEW YORK DISTRICT NEW YORK, NY	DESIGNED BY:	DATE:
	DWN BY:	DECEMBER 1, 2019
	OKD BY:	SOLICITATION NO.:
	ECD	
	SUBMITTED BY:	CONTRACT NO.:
	DCM	WH9205-15-D-0001
	PLOT SCALE:	FILE NUMBER:
	1" = 100'	
	ISSUE DATE:	
	DEC 2019	
	BY:	
	ANSEIF	
	WH1042880053 - HUDSON, MB DGN	

**HYDROGRAPHIC CONDITIONS SURVEY
HUDSON RIVER FEDERAL
NAVIGATION CHANNEL
REACH 49**

SHEET
IDENTIFICATION
VH-181
SHEET 81 OF 103





[illegible]

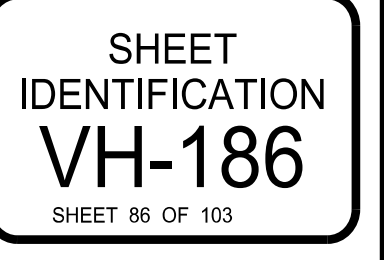
GPA GENERAL PAPER ASSOCIATION MEMBERSHIP * BUYERS CLUB	U.S. ARMY CORPS OF ENGINEERS NEW YORK DISTRICT NEW YORK, NY		DRAWN BY: JWD	CAD BY: ECD	SOLICITATION NO.: DECEMBER 1, 2019
			SUBMITTED BY:	CONTRACT NO.: CPA-001	FILE NUMBER:
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			ANSI		

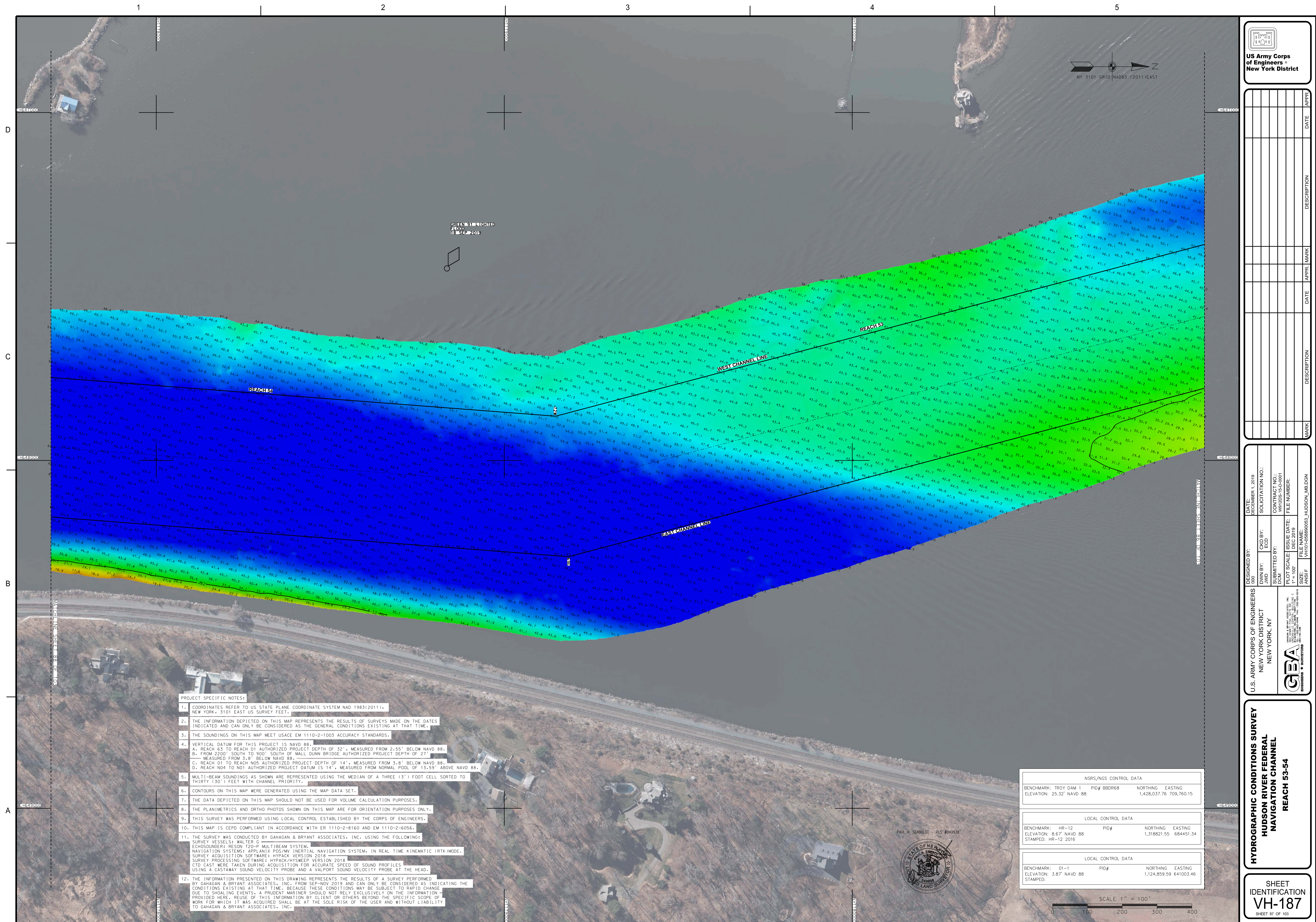
**HYDROGRAPHIC CONDITIONS SURVEY
HUDSON RIVER FEDERAL
NAVIGATION CHANNEL
REACH 50-51**

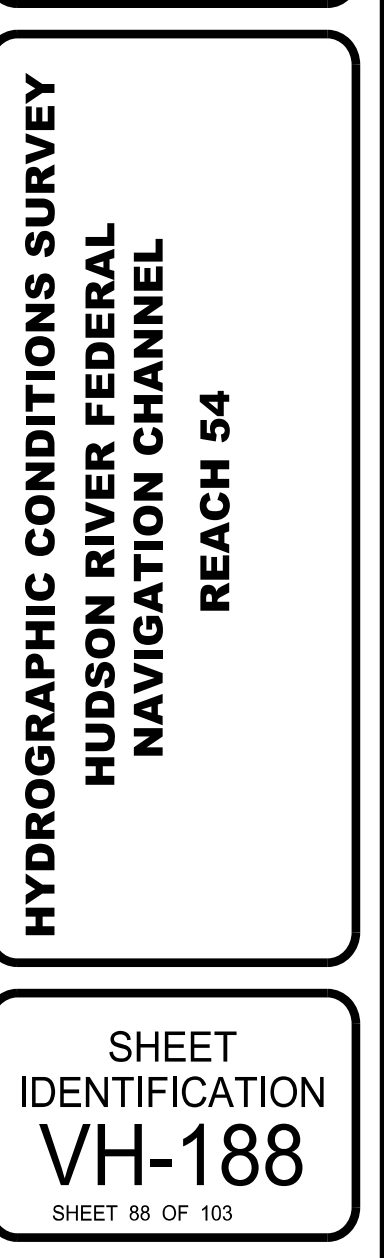
SHEET
IDENTIFICATION
VH-184
SHEET 84 OF 103

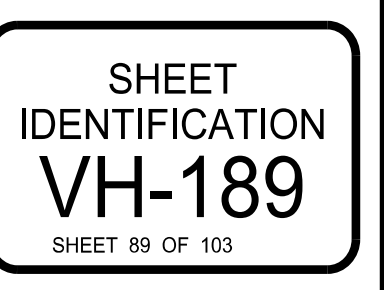



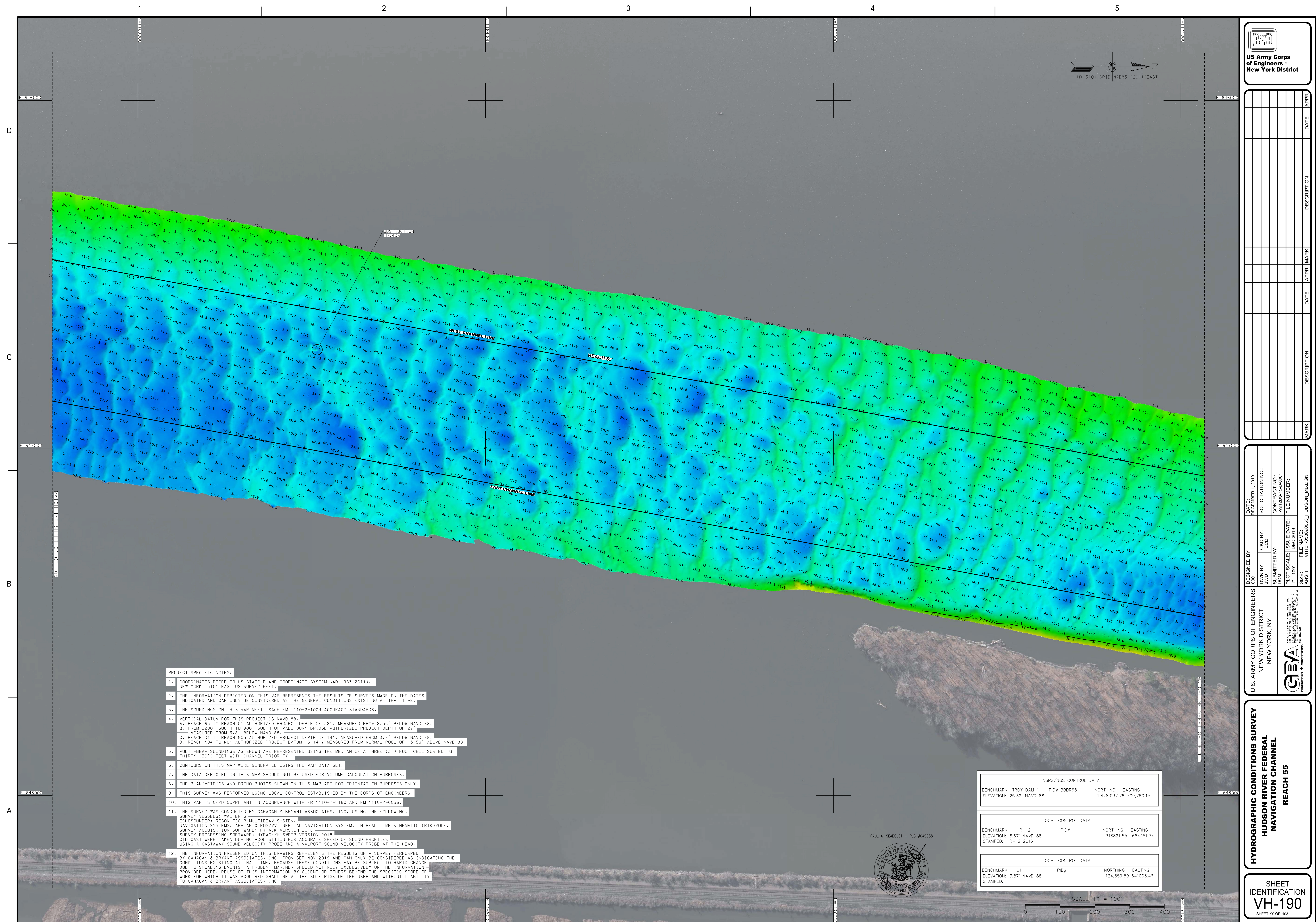
SHEET
IDENTIFICATION
VH-185
SHEET 85 OF 103











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New York District**

[illegible][illegible]

**HYDROGRAPHIC CONDITIONS SURVEY
HUDSON RIVER FEDERAL
NAVIGATION CHANNEL
REACH 55**

SHEET
IDENTIFICATION
VH-190
SHEET 90 OF 103



GREEN 87
EBB
16 SEP 2019

1. COORDINATES REFER TO U.S. STATE PLANE COORDINATE SYSTEM NAD 1983(2011). NEW YORK, 3101 EAST US SURVEY FEET.
2. 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.
3. THE SOUNDINGS ON THIS MAP MEET USACE EM 1110-2-1003 ACCURACY STANDARDS.
4. VERTICAL DATUM FOR THIS PROJECT IS NAVD 88.
A. REACH 63 TO REACH 01 AUTHORIZED PROJECT DEPTH OF 32' , MEASURED FROM 2.55' BELOW NAVD 88.
B. MEASURED FROM 3.5' BELOW NAVD 88.
C. REACH 01 TO REACH N03 AUTHORIZED PROJECT DEPTH OF 14' , MEASURED FROM 3.8' BELOW NAVD 88.
D. REACH N04 TO NOT AUTHORIZED PROJECT DATUM IS 14' , MEASURED FROM NORMAL POOL OF 13.59' ABOVE NAVD 88.
5. MULTI-BEAM SOUNDINGS AS SHOWN ARE REPRESENTED USING THE MEDIAN OF A THREE (3') FOOT CELL SORTED TO THIRTY (30') FEET WITH CHANNEL PRIORITY.
6. CONTOURS ON THIS MAP WERE GENERATED USING THE MAP DATA SET.
7. THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
8. THE PLANIMETRICS AND ORTHO PHOTOS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
9. THIS SURVEY WAS PERFORMED USING LOCAL CONTROL ESTABLISHED BY THE CORPS OF ENGINEERS.
10. THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.
11. THE SURVEY WAS CONDUCTED BY GAHAHAN & BRYANT ASSOCIATES, INC. USING THE FOLLOWING:
SURVEY GEAR/SENSORS: MALCOLM COLSON, INC. SONAR 1000
ECOSOUNDER: RESON T20-P MULTIBEAM SYSTEM
NAVIGATION SYSTEMS: APPLANIX POS/MV (INTEGRAL NAVIGATION SYSTEM, IN REAL TIME KINEMATIC (RTK) MODE.
SURVEY ACQUISITION/ PROCESSING: SURVEY 2018
SURVEY PROCESSING SOFTWARE: HYPAACK/HYPACK VERSION 2018
C/O DATA WERE TAKEN DURING ACQUISITION FOR ACCURATE SPEED OF SOUND PROFILES
USING A CASTAWAY SOUND VELOCITY PROBE AND A VAPORPOINT SOUND VELOCITY PROBE AT THE HEAD.
12. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY GAHAHAN & BRYANT ASSOCIATES, INC. FROM SEP-NOV 2019 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME, BECAUSE THESE CONDITIONS MAY BE SUBJECT TO RAPID CHANGE. THE DRAWING AND EVERYTHING THEREON SHOULD NOT RELY EXCLUSIVELY ON THE INFORMATION PROVIDED HERE. REUSE OF THIS INFORMATION BY CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY.

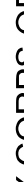
BENCHMARK: 01-1	PID#	NORTHING	EASTING
ELEVATION: 3.87' NAVD 88		1,124,859.59	641003.4
STAMPED:			

PAUL A. SEABOLDT - PLS #049936



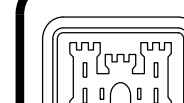
SCALE 1" = 100'

A horizontal graphic scale bar with tick marks at 0, 200, 300, and 400 feet. The text "SCALE 1" = 100'" is positioned above the bar.[illegible]

 GOVERNMENT OF ARIZONA DEPARTMENT OF TRANSPORTATION		U.S. ARMY CORPS OF ENGINEERS NEW YORK DISTRICT NEW YORK, NY	
DESIGNED BY:		DATE: DECEMBER 1, 2019	
DWN BY:		CKD BY:	
ECD		SOLICITATION NO.:	
SUBMITTED BY:		CONTRACT NO.:	
CCA		W912DS-15-2-0001	
PLOT SCALE:		ISSUE DATE:	
1" = 100'		DEC 2019	
ANSIF		FILE NUMBER:	
V110-1458R0003		HUDSON, MBDON	

HYDROGRAPHIC CONDITIONS SURVEY
HUDSON RIVER FEDERAL
NAVIGATION CHANNEL

SHEET
IDENTIFICATION
VH-191
SHEET 81 OF 103

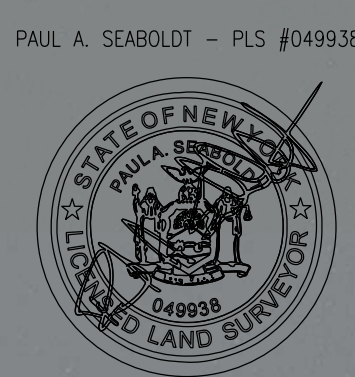


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New York District**



PROJECT SPECIFIC NOTES:

1. COORDINATES REFER TO STATE PLANE COORDINATE SYSTEM NAD 1983/2011, NEW YORK, 3101 EAST US SURVEY FEET.
2. 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.
3. THE SOUNDINGS ON THIS MAP MEET U.S. NAVY 1110-2-1003 ACCURACY STANDARDS.
4. VERTICAL DATUM FOR THIS PROJECT IS NAVD 88:
 - A. REACH 63 TO REACH 01 AUTHORIZED PROJECT DEPTH OF 32' , MEASURED FROM 2.55' BELOW NAVD 88.
 - B. FROM 2200' SOUTH TO 900' SOUTH OF WALL DUNN BRIDGE AUTHORIZED PROJECT DEPTH OF 27' , MEASURED FROM 1.5' BELOW NAVD 88.
 - C. REACH 01 TO REACH N05 AUTHORIZED PROJECT DEPTH OF 14' , MEASURED FROM 3.8' BELOW NAVD 88.
 - D. REACH N04 TO NOT AUTHORIZED PROJECT DATUM IS 14' , MEASURED FROM NORMAL POB OF 13.59' ABOVE NAVD 88.
5. MULTI-BEAM SOUNDINGS AS SHOWN ARE REPRESENTED USING THE MEDIAN OF A THREE (3)' FOOT CELL SORTED TO THIRTY (30)' FEET WITH CHANNEL PRIORITY.
6. CONTOURS ON THIS MAP WERE GENERATED USING THE MAP DATA SET.
7. THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
8. THE PLANIMETRICS AND ORTHO PHOTOS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
9. THIS SURVEY WAS PERFORMED USING LOCAL CONTROL ESTABLISHED BY THE CORPS OF ENGINEERS.
10. THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-816D AND EM 1110-2-6056.
11. THE SURVEY WAS CONDUCTED BY GAHAGAN & BRYANT ASSOCIATES, INC. USING THE FOLLOWING:
 - SURVEY VESSELS: WALL DUNN BRIDGE, HYPERION 2018
 - ECHOSOUNDER: RESON T20-P MULTIBEAM SYSTEM
 - NAVIGATION SYSTEMS: APPLANIX POS/MV INERTIAL NAVIGATION SYSTEM, IN REAL TIME KINEMATIC (RTK/MODE, SURVEY ACQUISITION SOFTWARE: HYPERION 2018
 - SURVEY PROCESSING SOFTWARE: HYPAACK/HYPSWEP VERSION 2018
 - C/O DATA WERE TAKEN FROM THE SURVEY ACQUISITION FOR ACCURATE USE OF SOUND PROFILES USING A CASTWAY SOUND VELOCITY PROBE AND A VALPURT SOUND VELOCITY PROBE AT THE HEAD.
12. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY GAHAGAN & BRYANT ASSOCIATES, INC. FROM SEP-NOV 2019 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. BECAUSE THESE CONDITIONS MAY BE SUBJECT TO RAPID CHANGE, FROM 2019 TO 2024, ANY INFORMATION SHOULD NOT BE RELIED EXCLUSIVELY ON THE INFORMATION PROVIDED HERE. REUSE OF THIS INFORMATION BY CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS PROVIDED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO GAHAGAN & BRYANT ASSOCIATES, INC.




NSRS/NGS CONTROL DATA				
BENCHMARK: TROY DAM 1	PID# BDR68	NORTHING	EASTING	
ELEVATION: 25.32' NAVD 88		1,428,037.76	709,760.15	
LOCAL CONTROL DATA				
BENCHMARK: HR-12	PID#	NORTHING	EASTING	
ELEVATION: 8.67' NAVD 88		1,318821.55	684451.34	
STAMPED: HR-12 2016				
LOCAL CONTROL DATA				
BENCHMARK: 01-1	PID#	NORTHING	EASTING	
ELEVATION: 3.87' NAVD 88		1,124,859.59	641003.46	
STAMPED:				

SCALE 1" = 100'

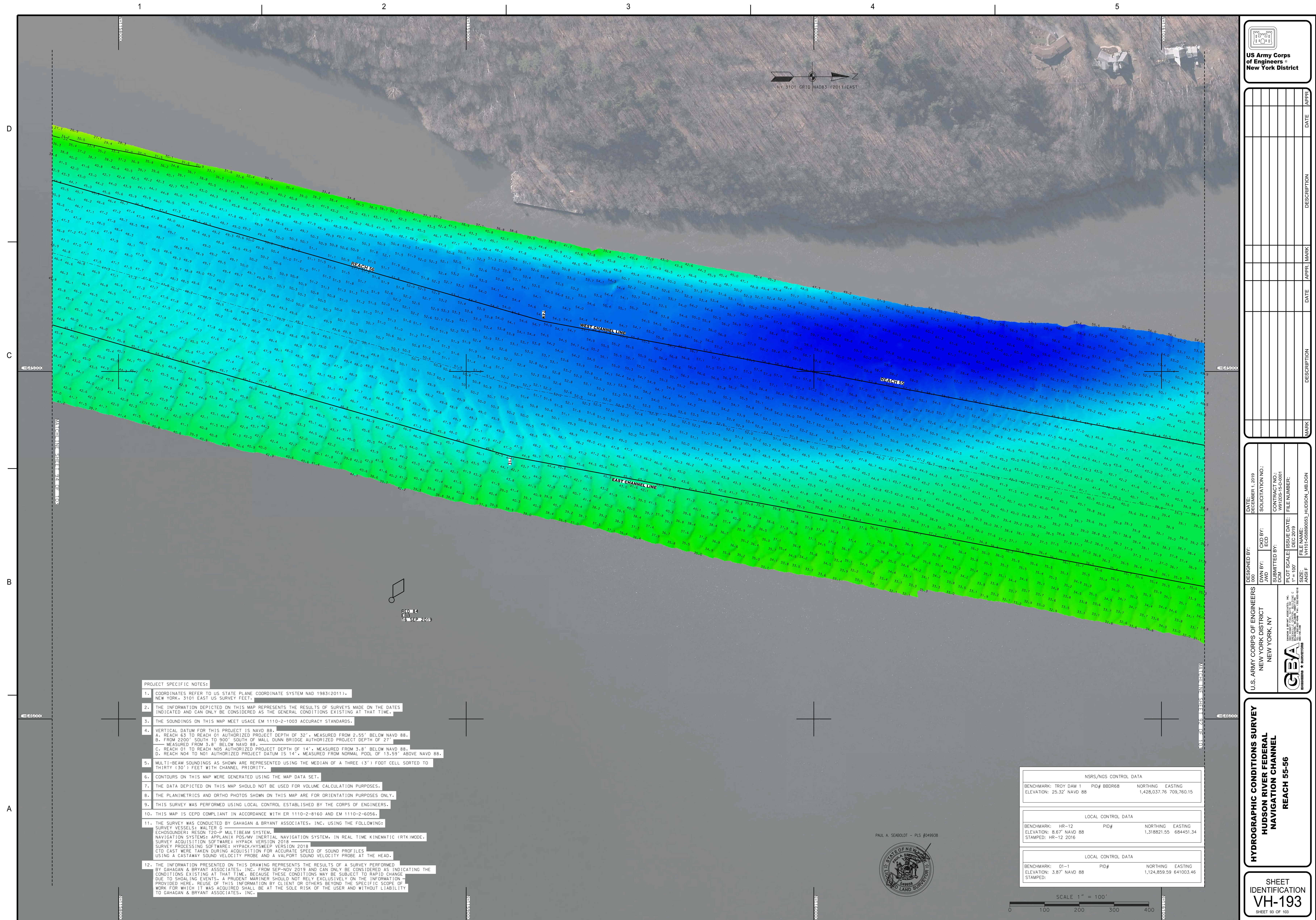
HYDROGRAPHIC CONDITIONS SURVEY
HUDSON RIVER FEDERAL
NAVIGATION CHANNEL

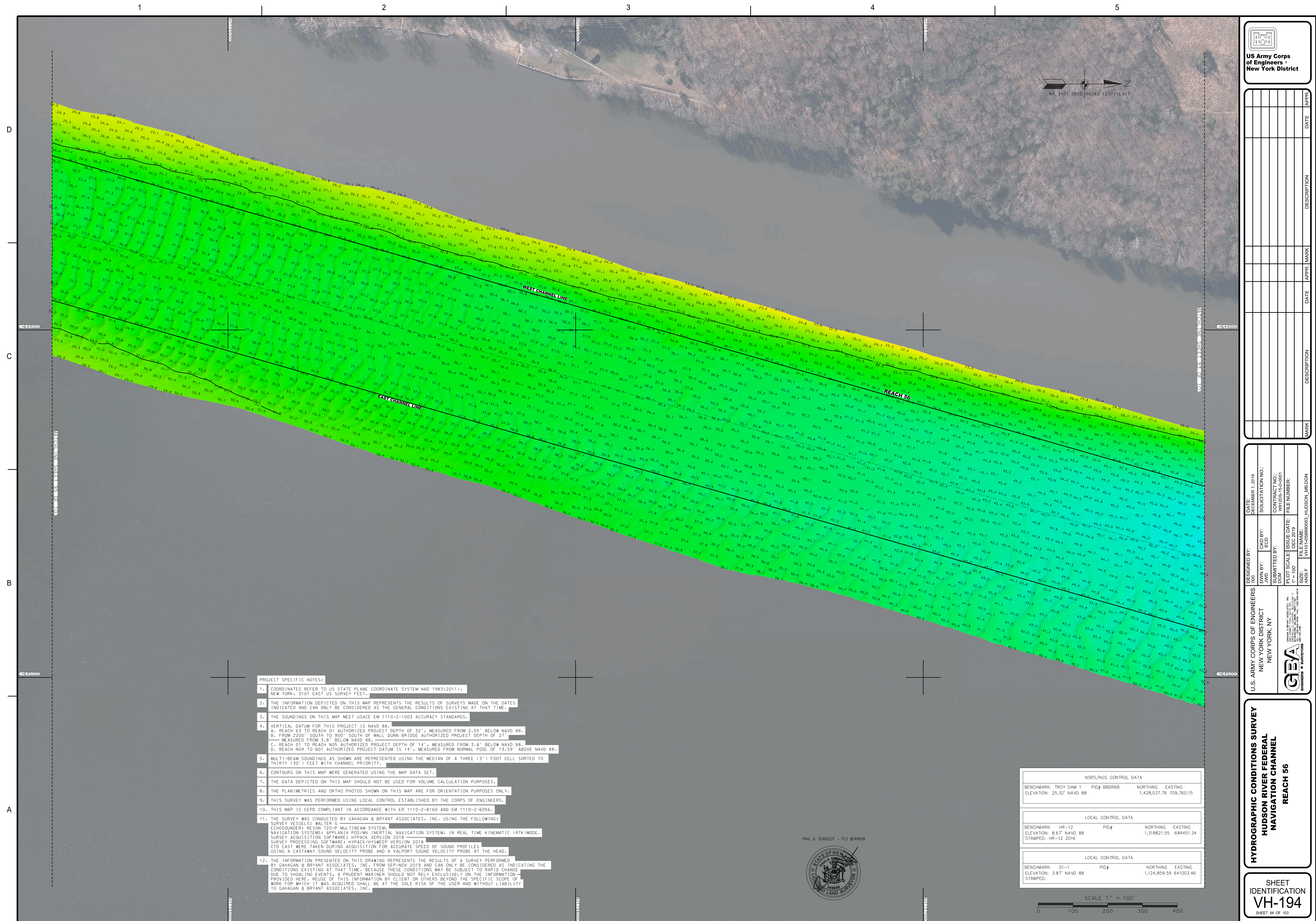
SHEET
IDENTIFICATION
VH-192
SHEET 92 OF 103

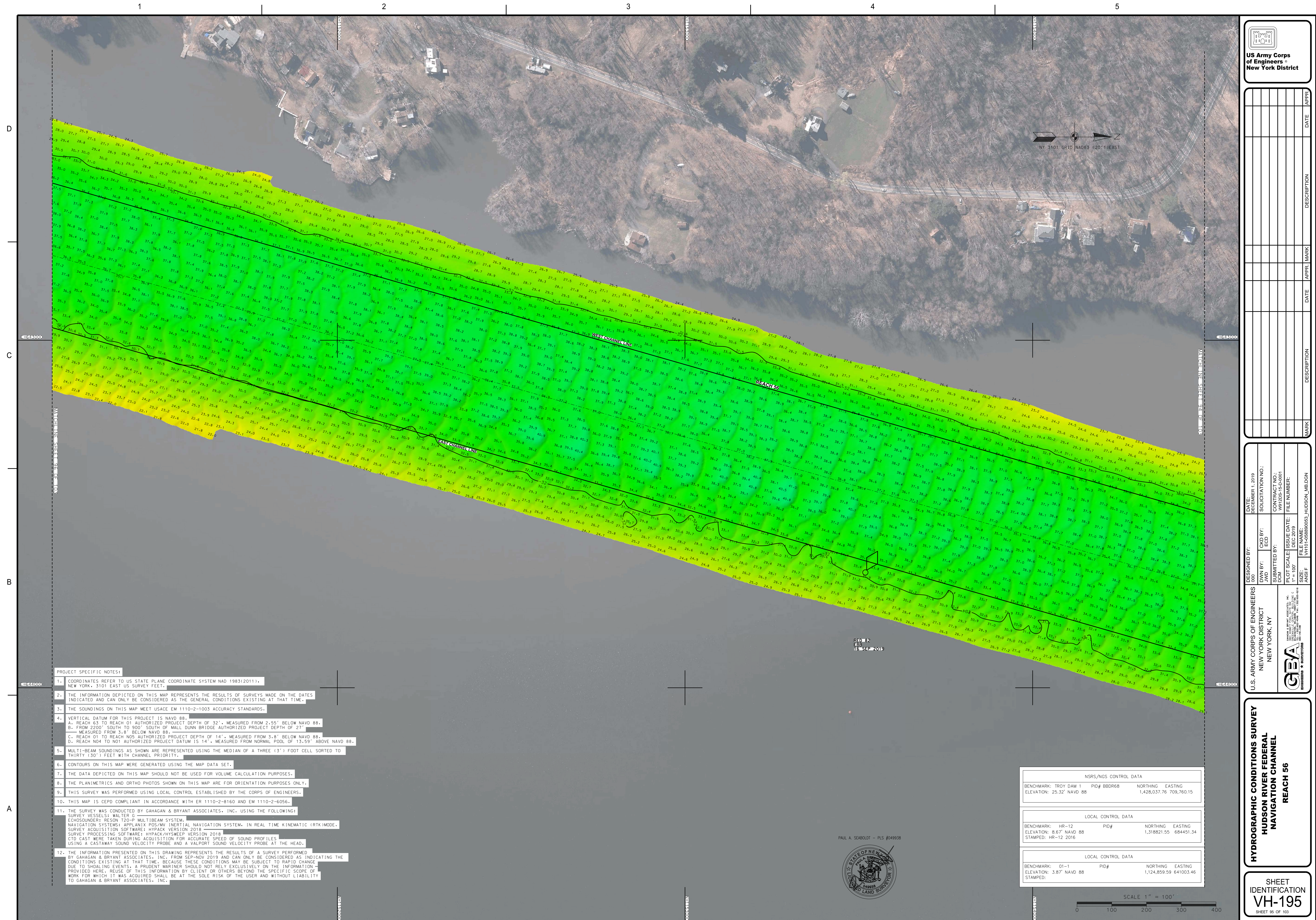
U.S. ARMY CORPS OF ENGINEERS NEW YORK DISTRICT NEW YORK, NY		DESIGNED BY: 050 DATE: DECEMBER 1, 2019	
DWN BY: JWD CHKD BY: EJD SUBMITTED BY: JWD		SOLICITATION NO.: CONTRACT NO.: W7-205-15-0001 FILE NUMBER: ISSUE DATE: DEC 2019	
PLOT SCALE: 1" = 100' SIZE:		FILE NAME:	

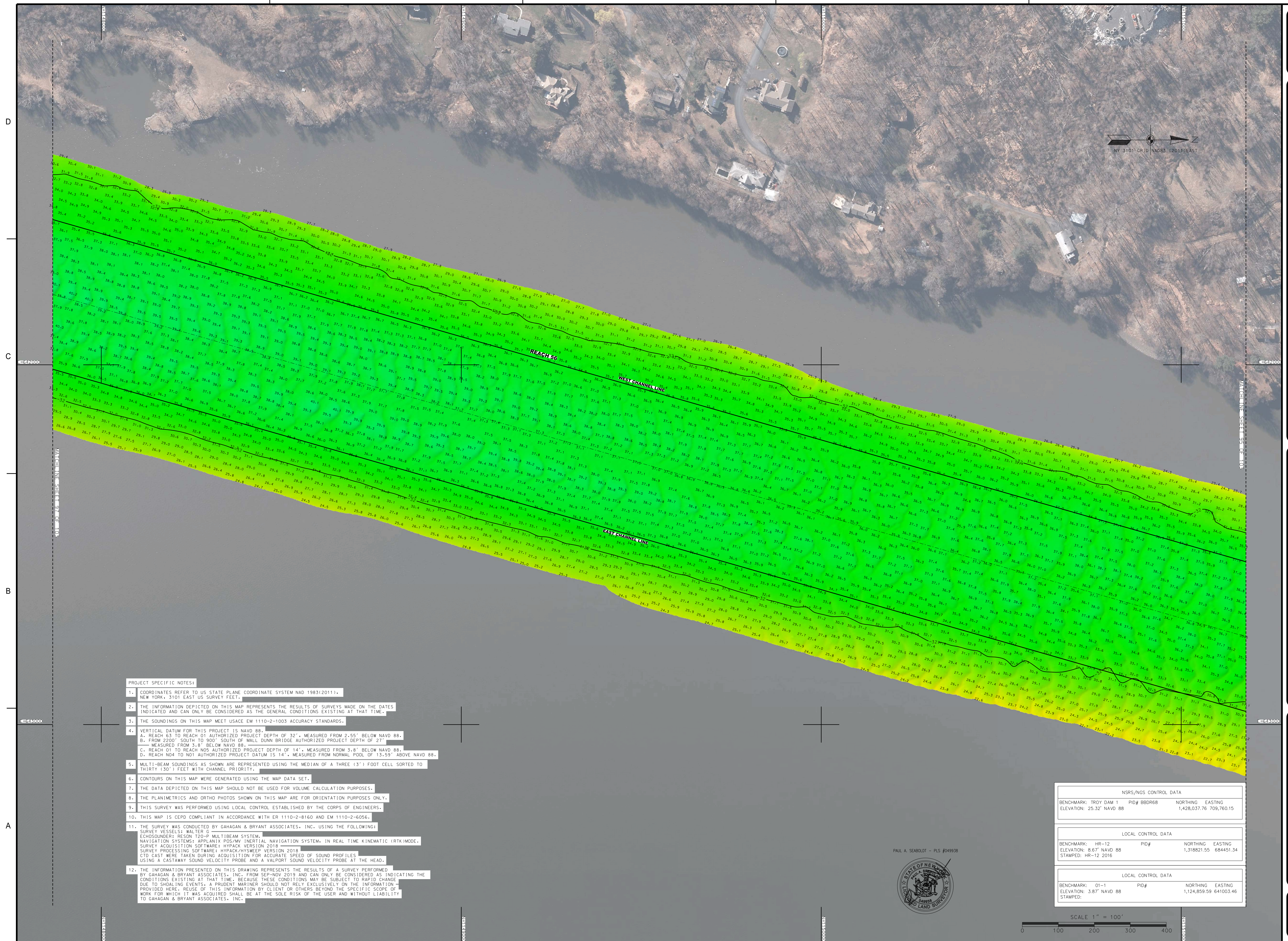


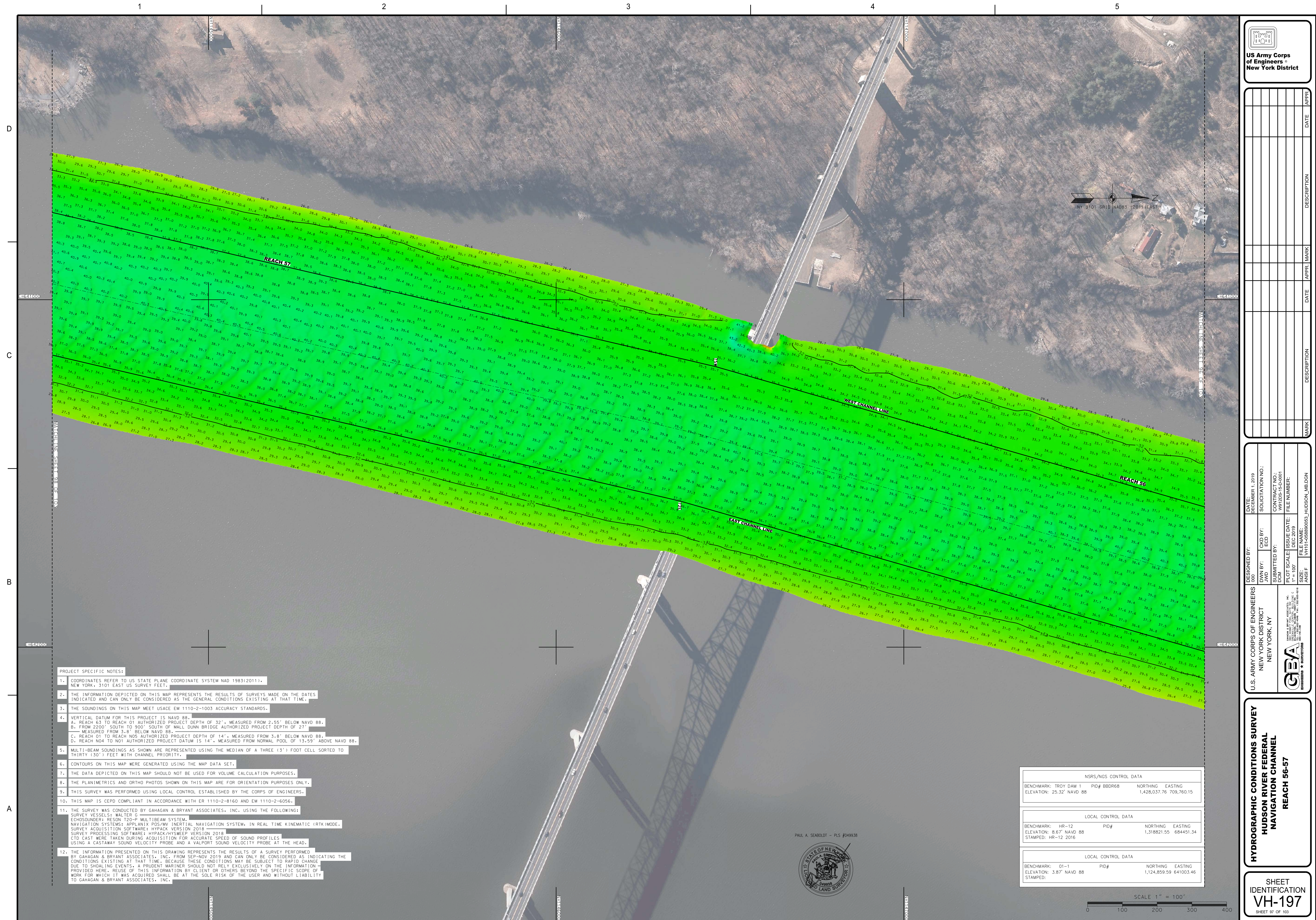
GSA is an Equal Opportunity Employer
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 U.S. GOVERNMENT PRINTING OFFICE: 2012-100-000-001
 GSA GEN. REG. NO. 272, 100-106-000-001

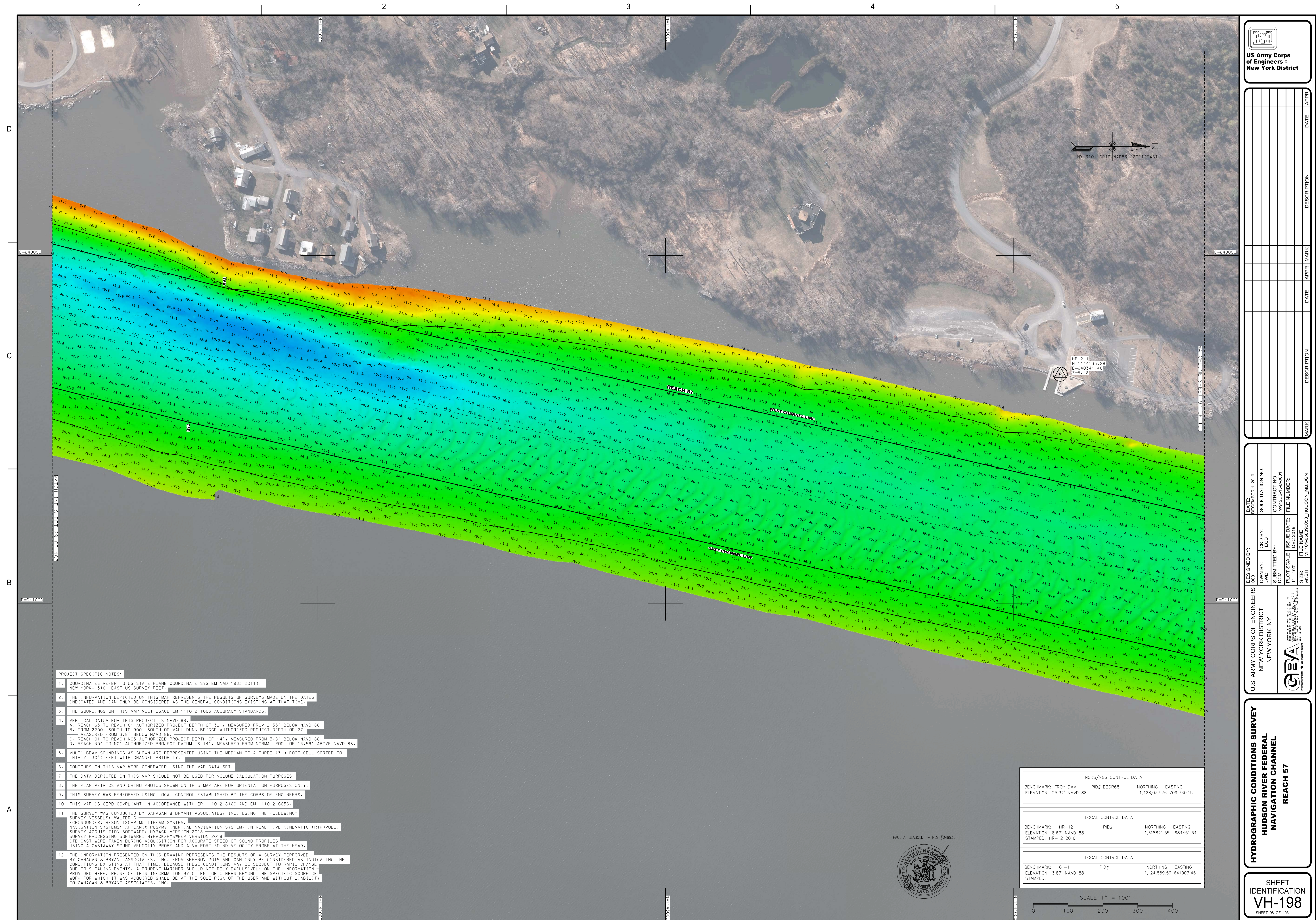


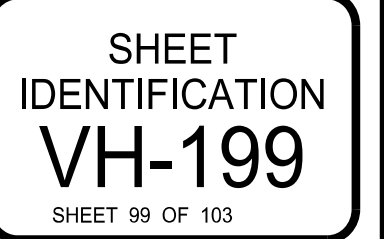


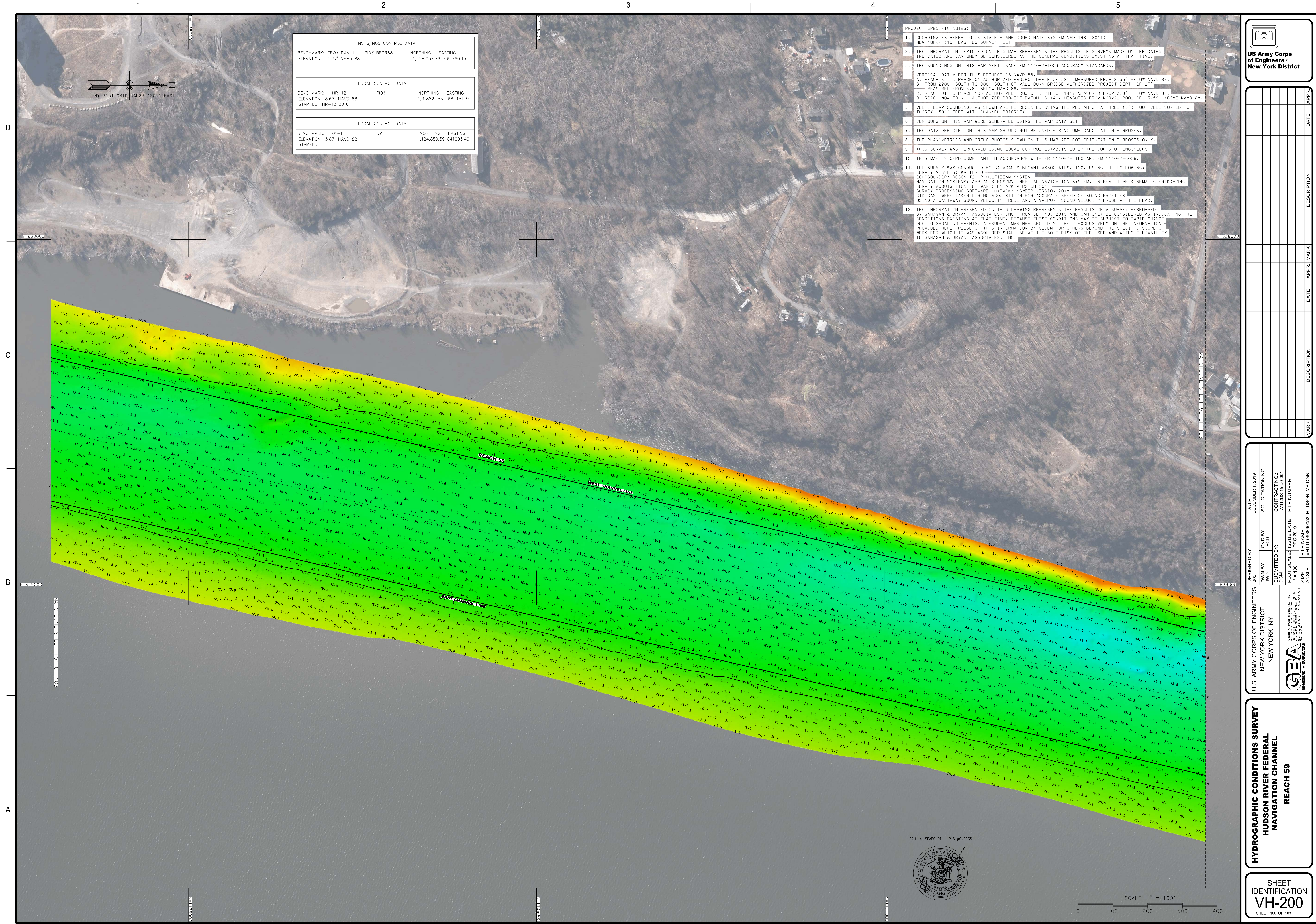


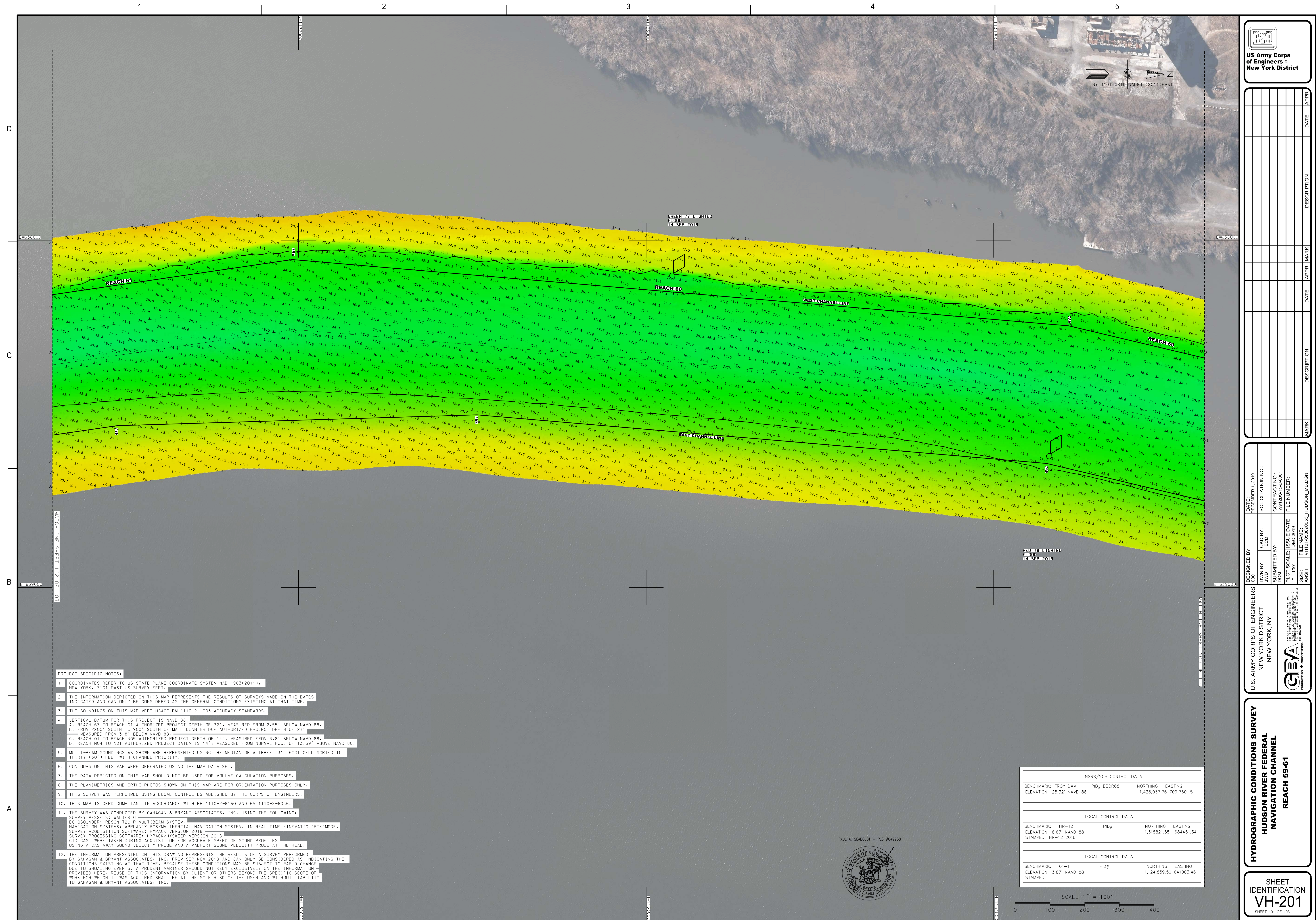


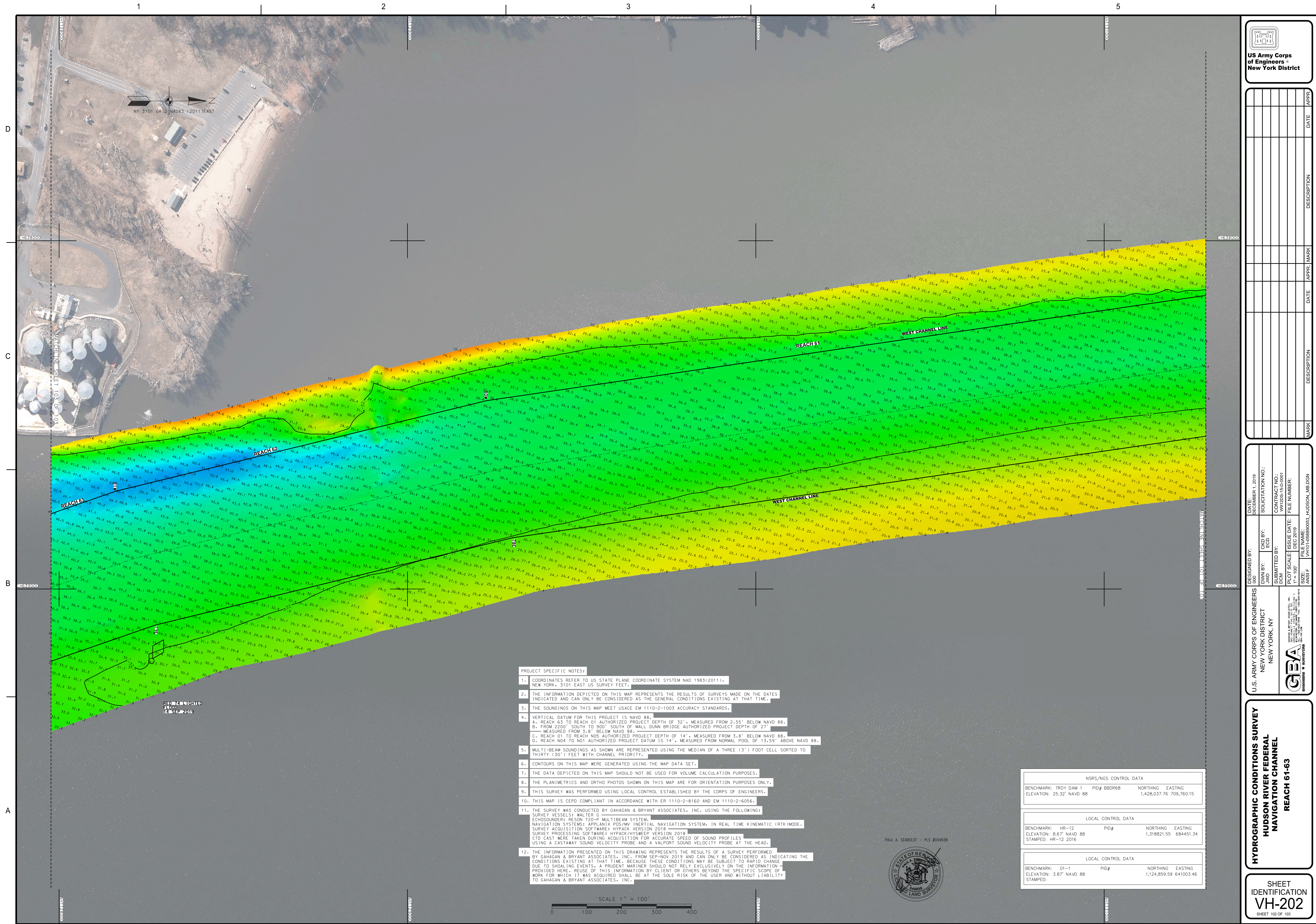












PROJECT SPECIFIC NOTES:

- COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983(2011), NEW YORK, 3101 EAST US SURVEY FEET.
- 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 USACE EM 1110-2-1003 ACCURACY STANDARDS.
- VERTICAL DATUM FOR THIS PROJECT IS NAVD 88.
 - A. REACH 63 TO REACH 01 AUTHORIZED PROJECT DEPTH OF 32', MEASURED FROM 2.25' BELOW NAVD 88.
 - B. FROM 2200' SOUTH TO 500' SOUTH OF WALL DUNE BRIDGE AUTHORIZED PROJECT DEPTH OF 27' MEASURED FROM 3.8' BELOW NAVD 88.
 - C. REACH 01 TO REACH NOS AUTHORIZED PROJECT DEPTH OF 14', MEASURED FROM 3.8' BELOW NAVD 88.
 - D. REACH NO4 TO NOT AUTHORIZED PROJECT DATUM IS 14', MEASURED FROM NORMAL POOL OF 13.59' ABOVE NAVD 88.
- MULTI-BEAM SOUNDINGS AS SHOWN ARE REPRESENTED USING THE MEDIAN OF A THREE (3') FOOT CELL SORTED TO THIRTY (30') FEET WITH CHANNEL PRIORITY.
- 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.
- THE PLANIMETRICS AND DRTHO PHOTOS SHOWN ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY.
- THIS SURVEY WAS PERFORMED USING LOCAL CONTROL ESTABLISHED BY THE CORPS OF ENGINEERS.
- THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.
- THE SURVEY WAS CONDUCTED BY GAGHAN & BRYANT ASSOCIATES, INC. USING THE FOLLOWING:
 - SURVEY VESSELS: WALTER C
 - ECHOSOUNDER: RESON T20-P MULTIBEAM SYSTEM.
 - NAVIGATION SYSTEMS: APPLANIX POS/MV INERTIAL NAVIGATION SYSTEM, IN REAL TIME KINEMATIC (RTK) MODE.
 - SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2018
 - SURVEY PROCESSING SOFTWARE: HYPACK/HYSWEEP VERSION 2018
 - CTD CASTS WERE TAKEN DURING ACQUISITION FOR ACCURATE SPEED OF SOUND PROFILES
 - USING A CASTAWAY SOUND VELOCITY PROBE AND A VALPRO SOUND VELOCITY PROBE AT THE HEAD.
- THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY GAGHAN & BRYANT ASSOCIATES, INC. FROM SEP-NOV 2019 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. BECAUSE THESE CONDITIONS MAY BE SUBJECT TO RAPID CHANGE DUE TO SHALING EVENTS, A PRUDENT MARINER SHOULD NOT RELY EXCLUSIVELY ON THE INFORMATION PROVIDED HERE. REUSE OF THIS INFORMATION BY CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO GAGHAN & BRYANT ASSOCIATES, INC.

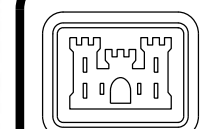
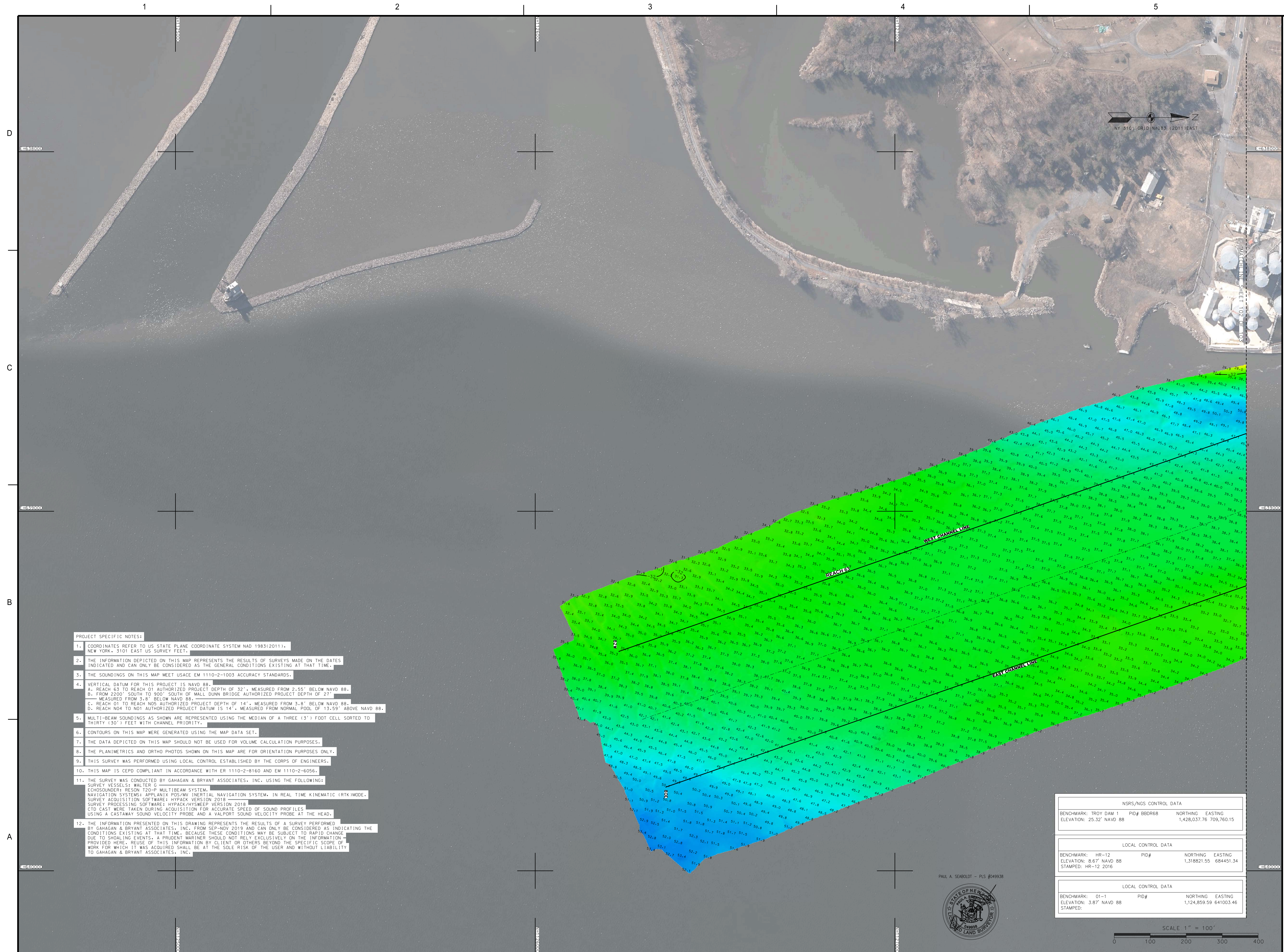
NRS/NGS CONTROL DATA			
BENCHMARK: TROY DAM 1	PID# BBDR68	NORTHING	EASTING
ELEVATION: 25.32' NAVD 88		1,426,037.76	709,760.15

LOCAL CONTROL DATA			
BENCHMARK: HR-12	PID#	NORTHING	EASTING
ELEVATION: 8.67' NAVD 88		1,318,821.55	684,451.34
STAMPED: HR-12 2016			

LOCAL CONTROL DATA			
BENCHMARK: 01-1	PID#	NORTHING	EASTING
ELEVATION: 3.87' NAVD 88		1,124,859.59	641,003.46
STAMPED:			

HYDROGRAPHIC CONDITIONS SURVEY
HUDSON RIVER FEDERAL
NAVIGATION CHANNEL
REACH 61-63

SHEET
IDENTIFICATION
VH-202
SHEET 102 OF 103



**US Army Corps
of Engineers ®
New York District**

[illegible]

U.S. ARMY CORPS OF ENGINEERS		DESIGNED BY:		DATE:	
NEW YORK DISTRICT		1001		DECEMBER 1, 2019	
NEW YORK, NY		DRAWN BY:		CHECK BY:	
		CLO		CLO	
		SUBMITTED BY:		CONTRACT NO.:	
		DLO		W91205-19-D-0001	
		PROJECT SCALE:		FILE NUMBER:	
		1" = 100'		100	
		ISSUE DATE:		FILED:	
		DEC 2019		DEC 2019	
		ANSI:		PROJECT:	
		V10		V10-HUDSONR005-HUDSON_MB.DGN	

HYDROGRAPHIC CONDITIONS SURVEY
HUDSON RIVER FEDERAL
NAVIGATION CHANNEL

SHEET
IDENTIFICATION
VH-203
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