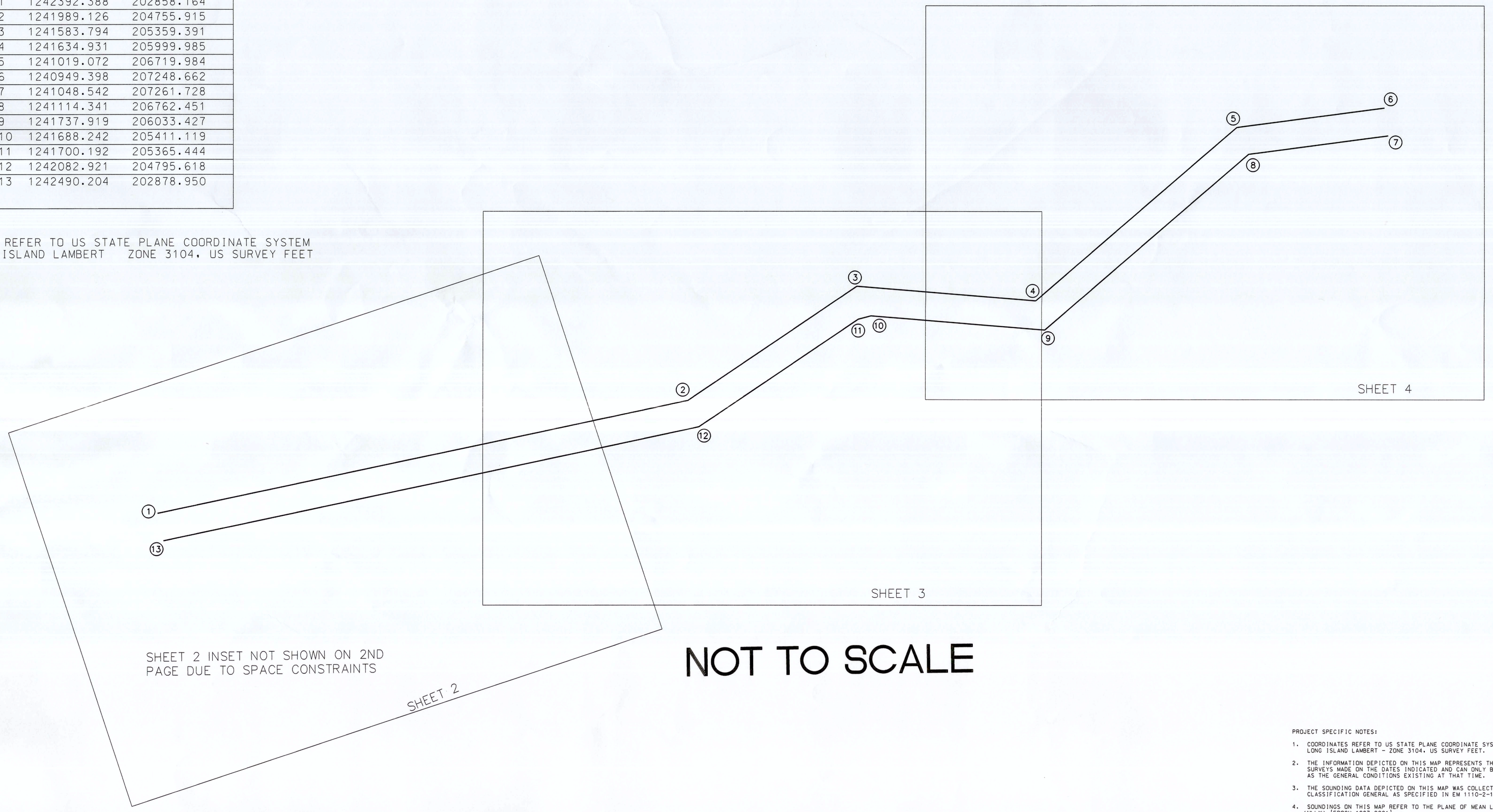
US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

NY GRID NAD83 (2011)

CHANNEL COORDINATES

POINT	X	Y
1	1242392.388	202858.164
2	1241989.126	204755.915
3	1241583.794	205359.391
4	1241634.931	205999.985
5	1241019.072	206719.984
6	1240949.398	207248.662
7	1241048.542	207261.728
8	1241114.341	206762.451
9	1241737.919	206033.427
10	1241688.242	205411.119
11	1241700.192	205365.444
12	1242082.921	204795.618
13	1242490.204	202878.950

COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM
NAD83, LONG ISLAND LAMBERT ZONE 3104, US SURVEY FEET



SHEET 2 INSET NOT SHOWN ON 2ND PAGE DUE TO SPACE CONSTRAINTS

NOT TO SCALE

NSRS/NGS CONTROL DATA
BENCHMARK: F-376 PID# KU0772 NORTHING: 206,582.52 EASTING: 1,240,024.08 ELEVATION: 6.78' NAVD 88

LOCAL CONTROL DATA
BENCHMARK: RTK BROWNS COE PID# ACV 261 NORTHING: 206,851.18 EASTING: 1,240,866.19 ELEVATION: 3.91' NAVD 88

SCALE 1" = 50'
0 50 100 150 200

STATE OF NEW YORK
RAYMOND B. DANIELS
PROFESSIONAL LAND SURVEYOR

PROJECT SPECIFIC NOTES:

1. COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983, LONG ISLAND LAMBERT - ZONE 3104, 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 SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING PROJECT CLASSIFICATION GENERAL AS SPECIFIED IN EM 1110-2-1003.
4. SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPOCH 1983-2001].
5. MEAN LOWER LOW WATER IS 0.7 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 2.2.5).
6. SOUNDINGS DEPICTED ON THIS MAP HAVE BEEN THINNED TO A 5' INTERVAL USING THE FULL DATA SET.
7. CONTOURS ON THIS MAP WERE GENERATED USING THE MAP DATA SET.
8. THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
9. BACKGROUND IMAGERY PROVIDED BY OTHERS.
10. THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY, AND PROVIDED BY OTHERS.
11. THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "RTK BROWNS ACV 261".
12. THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.
13. THE SURVEY WAS CONDUCTED BY MCKIM AND CREED USING THE FOLLOWING:
    SURVEY VESSELS: SV THE CLOCK/ SV ZEIGO
    ECHOSOUNDER: SINGLE BEAM ODOM CV100 200KHZ
    NAVIGATION SYSTEMS: TRIMBLE 5700, IN REAL TIME KINEMATIC (RTK)MODE.
    SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2014
    SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2014
    ATTITUDE CORRECTIONS FOR HEAVE, ROLL, PITCH AND HEADING WERE APPLIED USING AN INTERNAL MOTION UNIT AND GYRO. CTD CAST WERE TAKEN DURING ACQUISITION FOR ACCURATE SPEED OF SOUND PROFILES.
14. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY MCKIM AND CREED ON JULY 15-18 AND ONLY BE CONDISERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. BECAUSE THESE CONDITIONS ARE SUBJECT TO RAPID CHANGE DUE TO SHOALING 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 MCKIM AND CREED.

DATES OF SURVEY:
JULY 15-18, 2014

FILE NO.: 52
REQUEST NO.: 4169

SCALE:
1 INCH = 50'

FIELD BOOKS:
W-1149/29-36
W-1449/12-14

APPROVED: RAYMOND B. DANIELS
PROJ. CADASTRAL/HYDROGRAPHIC SURVEYOR
APPROVED: REGINALD SMITH
PROJECT MANAGER
APPROVED: D. CLARKE
CEIR CARTOGRAPHER
APPROVED: J. MIRAJ
MCKIM/CREED SURVEY CHIEF OF SURVEY
DATE:

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

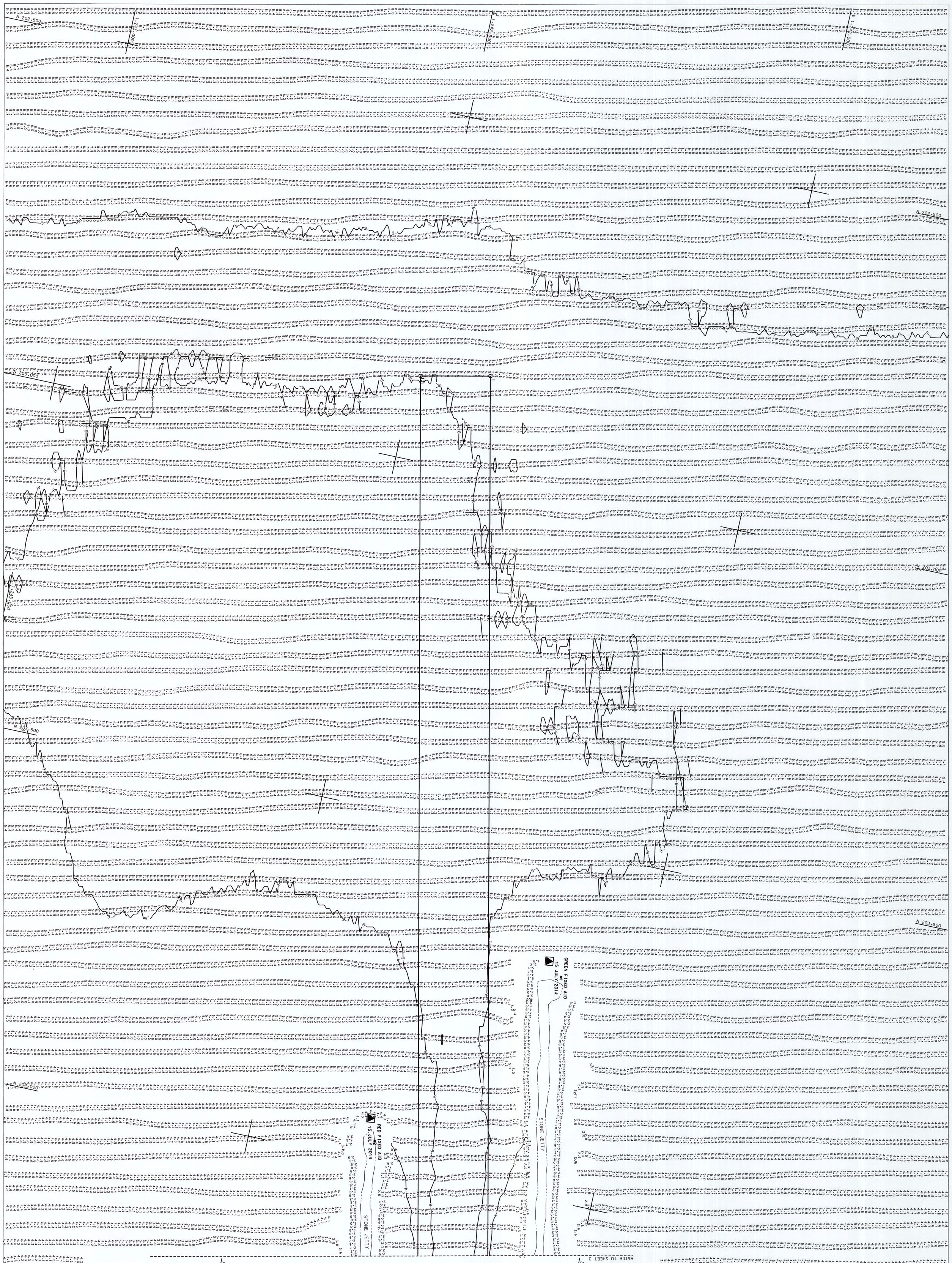
MCKIM&CREED
243 NORTH FRONT STREET
WILMINGTON, NORTH CAROLINA 28401
TELEPHONE: (910) 343-1048
FAX: (910) 251-8282

HYDROGRAPHIC SURVEY
BROWNS CREEK, NEW YORK

STATUS SURVEY

VH-101

SHEET 1 OF 4



VH-102

SHEET 2 OF 4

HYDROGRAPHIC SURVEY

BROWNS CREEK, NEW YORK

STATUS SURVEY

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

McKIM&CREED
243 NORTH FRONT STREET
WILMINGTON, NORTH CAROLINA 28401
TELEPHONE: (910) 343-1048
FAX: (910) 251-8282

APPROVED: RAYMOND B. DAWBER
FIELD CARTOGRAPHER/LICENSED SURVEYOR

APPROVED: REGINALD SMITH
PROJECT MANAGER

APPROVED: D. CLARKE
LEAD CARTOGRAPHER

APPROVED: J. MRAZ
DEPUTY CHIEF OF SURVEY

DATE:

SCALE:
1 INCH = 50'

FIELD BOOKS:
W-1149/29-36
W-1449/12-14

DATES OF SURVEY:
JULY 15-18, 2014

FILE NO.: 52
REQUEST NO.: 4169

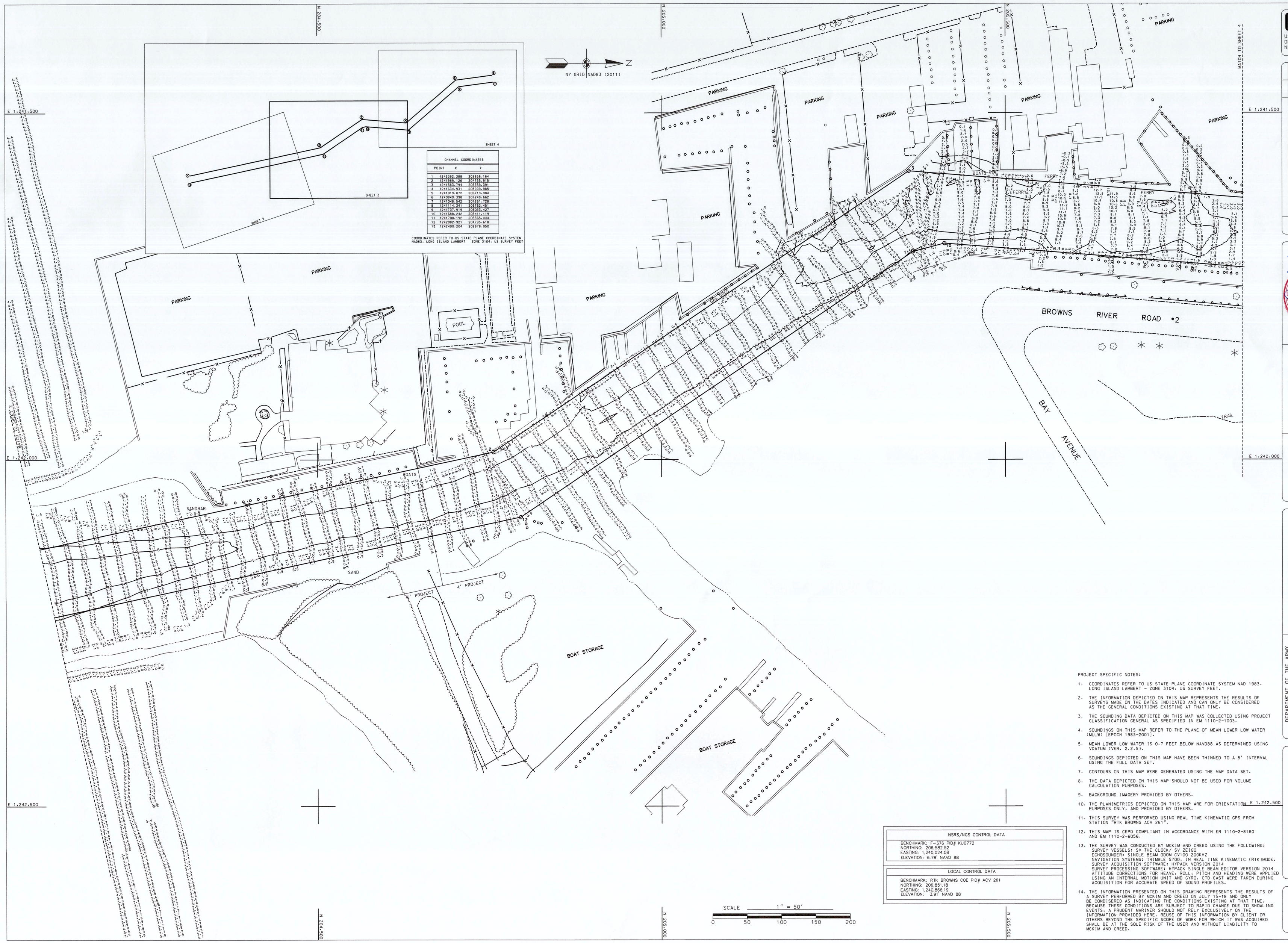
STATE OF NEW YORK
RAYMOND B. DAWBER
049350
LICENSED LAND SURVEYOR

US ARMY CORPS
OF ENGINEERS
NEW YORK DISTRICT

U. S. ARMY

CORPS OF ENGINEERS

FILE NO.: 52
REQ NO.: 4169



CHANNEL COORDINATES		
POINT	X	Y
1	1242392.388	202858.164
2	1241989.126	204755.915
3	1241583.754	205359.391
4	1241634.931	205999.985
5	1241019.072	206119.984
6	1240949.358	207248.662
7	1241048.542	207261.728
8	1241114.341	206762.451
9	1241337.919	206033.421
10	1241688.242	205411.119
11	1241700.192	205365.444
12	1242082.921	204795.618
13	1242490.204	202878.950

COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD83, LONG ISLAND LAMBERT ZONE 3104, US SURVEY FEET

NSRS/NGS CONTROL DATA
BENCHMARK: F-376 PID# KU0772 NORTHING: 206,582.52 EASTING: 1,240,024.08 ELEVATION: 6.78' NAVD 88

LOCAL CONTROL DATA
BENCHMARK: RTK BROWNS COE PID# ACV 261 NORTHING: 206,851.18 EASTING: 1,240,866.19 ELEVATION: 3.91' NAVD 88

SCALE 1" = 50'

0 50 100 150 200

PROJECT SPECIFIC NOTES:

1. COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983, LONG ISLAND LAMBERT - ZONE 3104, 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 SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING PROJECT CLASSIFICATION GENERAL AS SPECIFIED IN EM 1110-2-1003.
4. SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPOCH 1983-2001].
5. MEAN LOWER LOW WATER IS 0.7 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 2.2.5).
6. SOUNDINGS DEPICTED ON THIS MAP HAVE BEEN THINNED TO A 5' INTERVAL USING THE FULL DATA SET.
7. CONTOURS ON THIS MAP WERE GENERATED USING THE MAP DATA SET.
8. THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
9. BACKGROUND IMAGERY PROVIDED BY OTHERS.
10. THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY. AND PROVIDED BY OTHERS.
11. THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "RTK BROWNS ACV 261".
12. THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.
13. THE SURVEY WAS CONDUCTED BY MCKIM AND CREED USING THE FOLLOWING:
    SURVEY VESSELS: SV THE CLOCK/ SV ZEIGO
    ECHOSOUNDER: SINGLE BEAM ODOM CV100 200KHZ
    NAVIGATION SYSTEMS: TRIMBLE 5700. IN REAL TIME KINEMATIC (RTK)MODE.
    SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2014
    SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2014
    ATTITUDE CORRECTIONS FOR HEAVE, ROLL, PITCH AND HEADING WERE APPLIED USING AN INTERNAL MOTION UNIT AND GYRO. CTD CAST WERE TAKEN DURING ACQUISITION FOR ACCURATE SPEED OF SOUND PROFILES.
14. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY MCKIM AND CREED ON JULY 15-18 AND ONLY BE CONDISERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. BECAUSE THESE CONDITIONS ARE SUBJECT TO RAPID CHANGE DUE TO SHOALING 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 MCKIM AND CREED.

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

DATES OF SURVEY:
JULY 15-18, 2014

FILE NO.: 52
REQ NO.: 4169

SCALE:
1 INCH = 50'

FIELD BOOKS:
W-1149/29-36
W-1449/12-14

APPROVED: RAYMOND D. DANNER
FIELD OPERATIONS MANAGER
APPROVED: REGINALD SMITH
PROJECT MANAGER
APPROVED: D. CLARKE
CADD CARTOGRAPHER
APPROVED: J. MRAZ
DEPUTY CHIEF OF SURVEY
DATE:

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

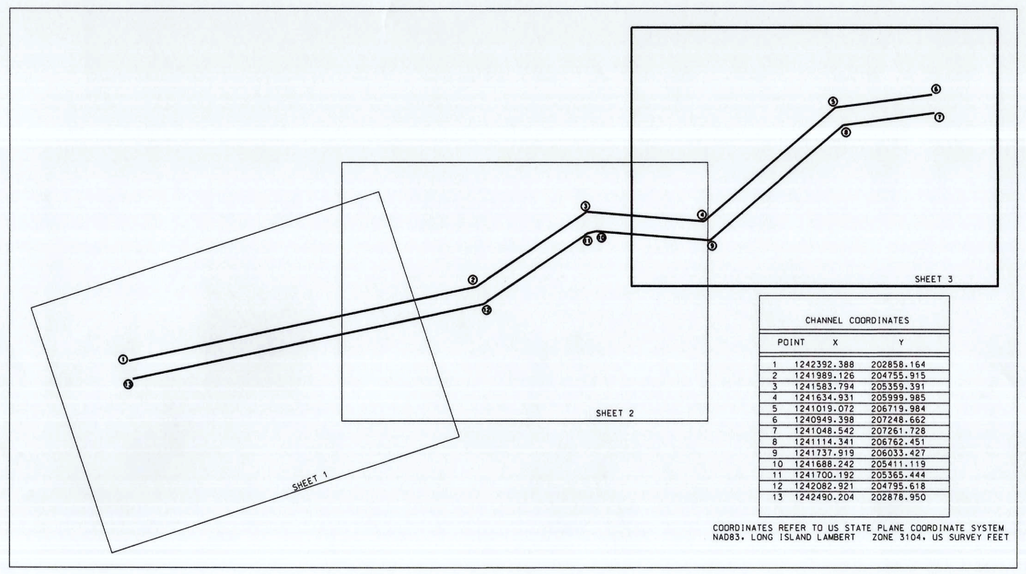
MCKIM&CREED
243 NORTH FRONT STREET
WILMINGTON, NORTH CAROLINA 28401
TELEPHONE: (910) 343-1948
FAX: (910) 251-8282

HYDROGRAPHIC SURVEY
BROWNS CREEK, NEW YORK

STATUS SURVEY

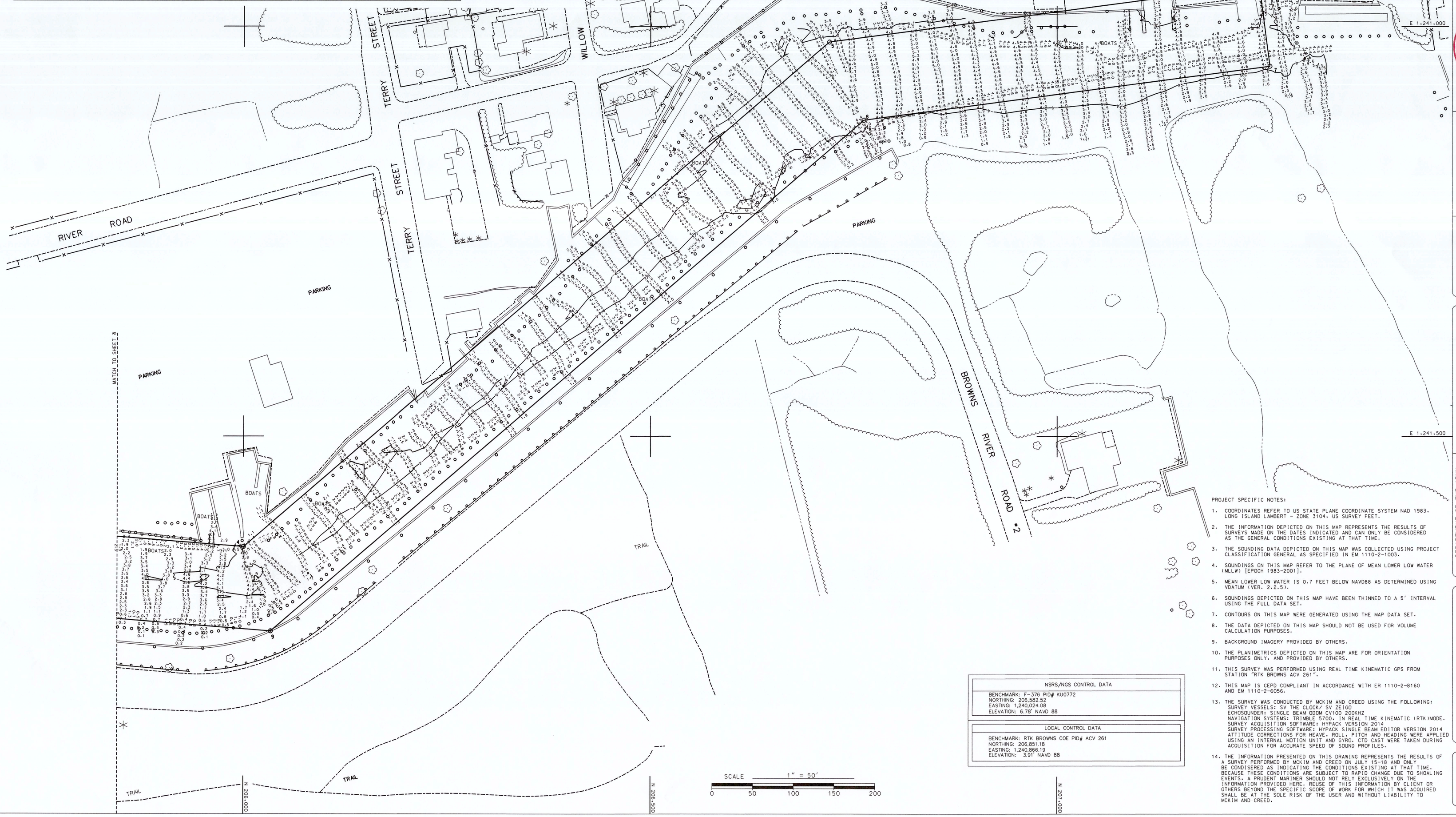
VH-103

SHEET 3 OF 4



CHANNEL COORDINATES		
POINT	X	Y
1	1242392.388	202858.164
2	1241989.126	204755.915
3	1241583.794	205359.391
4	1241634.931	205999.985
5	1241019.072	206719.984
6	1240949.398	207248.662
7	1241048.542	207261.728
8	1241114.341	206762.451
9	1241737.519	206033.427
10	1241688.242	205411.119
11	1241700.192	205365.444
12	1242082.921	204795.618
13	1242490.204	202878.950

COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM, NAD83, LONG ISLAND LAMBERT ZONE 3104, US SURVEY FEET



PROJECT SPECIFIC NOTES:

1. COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983, LONG ISLAND LAMBERT - ZONE 3104, 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 SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING PROJECT CLASSIFICATION GENERAL AS SPECIFIED IN EM 1110-2-1003.
4. SOUNDINGS ON THIS MAP REFER TO THE PLANE OF MEAN LOWER LOW WATER (MLLW) [EPOCH 1983-2001].
5. MEAN LOWER LOW WATER IS 0.7 FEET BELOW NAVD88 AS DETERMINED USING VDATUM (VER. 2.2.5).
6. SOUNDINGS DEPICTED ON THIS MAP HAVE BEEN THINNED TO A 5' INTERVAL USING THE FULL DATA SET.
7. CONTOURS ON THIS MAP WERE GENERATED USING THE MAP DATA SET.
8. THE DATA DEPICTED ON THIS MAP SHOULD NOT BE USED FOR VOLUME CALCULATION PURPOSES.
9. BACKGROUND IMAGERY PROVIDED BY OTHERS.
10. THE PLANIMETRICS DEPICTED ON THIS MAP ARE FOR ORIENTATION PURPOSES ONLY, AND PROVIDED BY OTHERS.
11. THIS SURVEY WAS PERFORMED USING REAL TIME KINEMATIC GPS FROM STATION "RTK BROWNS ACV 261".
12. THIS MAP IS CEPD COMPLIANT IN ACCORDANCE WITH ER 1110-2-8160 AND EM 1110-2-6056.
13. THE SURVEY WAS CONDUCTED BY MCKIM AND CREED USING THE FOLLOWING:
    SURVEY VESSELS: SV THE CLOCK/ SV ZEIGO
    ECHOSOUNDER: SINGLE BEAM ODOM CV100 200KHZ
    NAVIGATION SYSTEMS: TRIMBLE 5700, IN REAL TIME KINEMATIC (RTK)MODE.
    SURVEY ACQUISITION SOFTWARE: HYPACK VERSION 2014
    SURVEY PROCESSING SOFTWARE: HYPACK SINGLE BEAM EDITOR VERSION 2014
    ATTITUDE CORRECTIONS FOR HEAVE, ROLL, PITCH AND HEADING WERE APPLIED USING AN INTERNAL MOTION UNIT AND GYRO. CTD CAST WERE TAKEN DURING ACQUISITION FOR ACCURATE SPEED OF SOUND PROFILES.
14. THE INFORMATION PRESENTED ON THIS DRAWING REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY MCKIM AND CREED ON JULY 15-18 AND ONLY BE CONDISERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. BECAUSE THESE CONDITIONS ARE SUBJECT TO RAPID CHANGE DUE TO SHOALING 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 MCKIM AND CREED.

NSRS/NGS CONTROL DATA
BENCHMARK: F-376 PID# KU0772 NORTHING: 206,582.52 EASTING: 1,240,024.08 ELEVATION: 6.78' NAVD 88

LOCAL CONTROL DATA
BENCHMARK: RTK BROWNS COE PID# ACV 261 NORTHING: 206,851.18 EASTING: 1,240,866.19 ELEVATION: 3.91' NAVD 88

US ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT

STATE OF NEW YORK
RAYMOND B. DANKER
LICENSED LAND SURVEYOR

DATES OF SURVEY:
JULY 15-18, 2014

FILE NO.: 52
REQUEST NO.: 4169

SCALE:
1 INCH = 50'

FIELD BOOKS:
W-1149/29-36
W-1449/12-14

APPROVED: RAYMOND B. DANKER — FIELD CHIEF/LICENSED SURVEYOR
APPROVED: REGINALD SMITH — PROJECT MANAGER
APPROVED: D. CLARKE — CADD COORDINATOR
APPROVED: J. MERAZ — DEPUTY CHIEF OF SURVEY
DATE:

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

MCKIM&CREED
243 NORTH FRONT STREET
WILMINGTON, NORTH CAROLINA 28401
TELEPHONE: (910) 343-1646
FAX: (910) 251-8282

HYDROGRAPHIC SURVEY
BROWNS CREEK, NEW YORK
STATUS SURVEY

VH-104

SHEET 4 OF 4