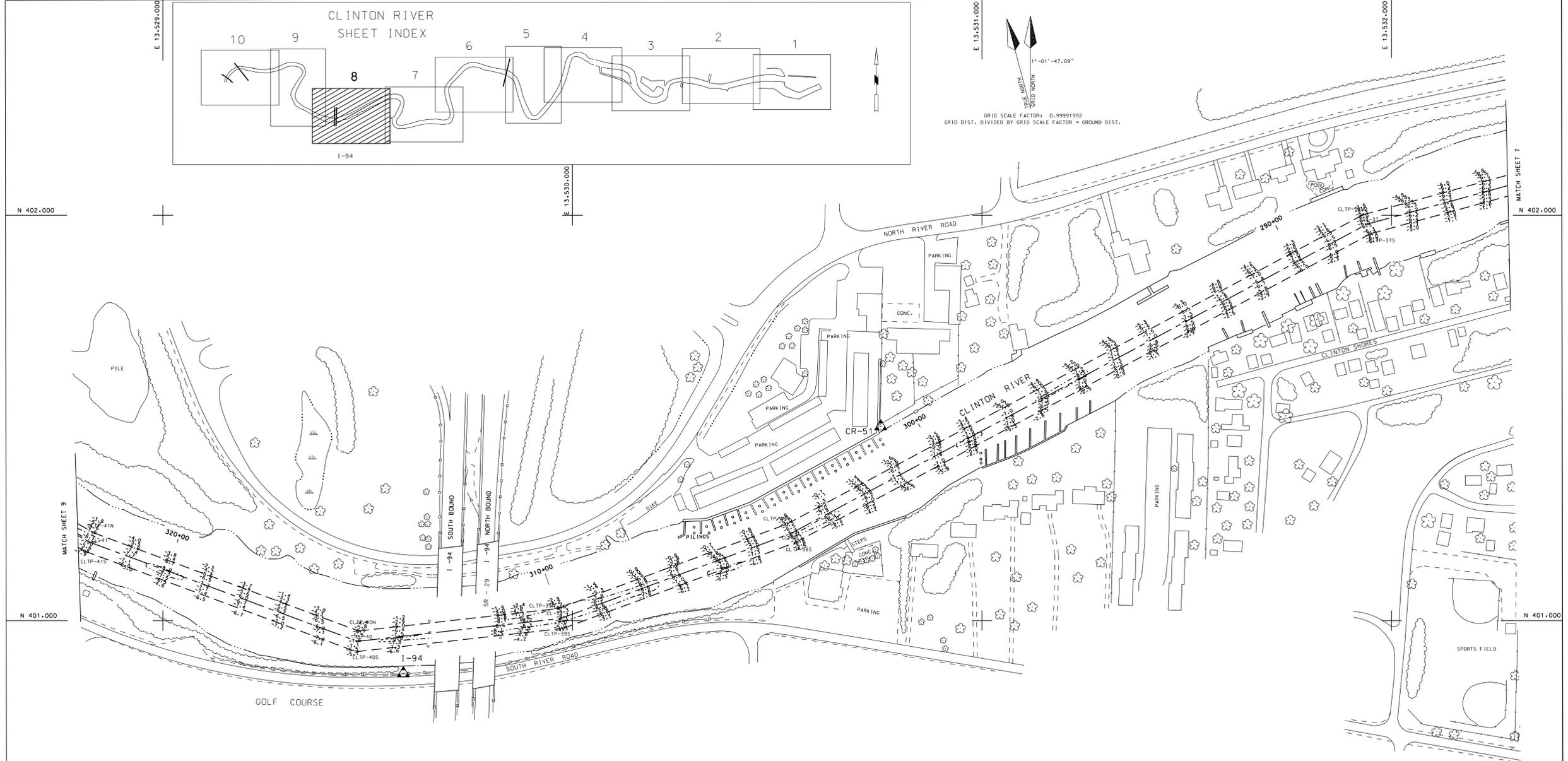


GRID SCALE FACTOR: 0.99991992  
 GRID DIST. DIVIDED BY GRID SCALE FACTOR = GROUND DIST.



- NOTES:**
- GAGES USED WERE TAKEN FROM A GAGE BOARD SET ON THE WEST SIDE OF A PILING, ON THE SOUTH SIDE OF THE CLINTON RIVER, AT OR ABOUT CS 371+00, AND A 4.0 FT. MARK ON THE HEADWALL OF THE STORM SEWER OUTLET BETWEEN THE FEDERAL OFF-LOADING FACILITY AND THE BRIDGEVIEW BRIDGE, ON THE NORTH SIDE OF CLINTON RIVER.
  - POSITIONS WERE DETERMINED BY GPS REFERENCE BEACON 838, LOCATED AT HISTORIC FORT WAYNE, DETROIT, MICHIGAN -- FREQUENCY 319 KHZ, 200 BPS.
  - TRANSDUCER FREQUENCY USED TO MEASURE DEPTH DATA WAS 208 KHZ AND THE BEAM ANGLE WAS 3.0 DEGREES.

CENTER LINE T.P.			CHANNEL LINE T.P.		
T.P.	EAST X	NORTH Y	T.P.	EAST X	NORTH Y
37	13,531,939.91	401,978.13	37N	13,531,930.50	402,001.46
38	13,530,533.67	401,215.26	37S	13,531,949.33	401,954.80
39	13,529,971.64	401,005.36	38N	13,530,523.28	401,238.07
40	13,529,474.88	400,348.94	38S	13,530,544.05	401,192.45
41	13,528,819.34	401,194.30	39N	13,529,965.77	401,029.86
			39S	13,529,977.51	400,980.87
			40N	13,529,478.02	400,974.46
			40S	13,529,471.33	400,923.43
			41N	13,528,830.15	401,216.95
			41S	13,528,808.53	401,171.65

**LEGEND**

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THE TIME.

**LOW WATER DATUM**

ELEVATIONS AND PROJECT DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM (1985) THE LOW WATER DATUM FOR THE CLINTON RIVER IS 572.3 FT. ABOVE MEAN SEA LEVEL.

**GRID COORDINATES**

GRIDS SHOWN ARE BASED ON NATIONAL GEODETIC SURVEY PROJECTION TABLES, STATE OF MICHIGAN, SOUTH ZONE (2113), LAMBERT PROJECTION, 1983 NORTH AMERICAN DATUM.

HORIZONTAL CONTROL		
STATION	COORDINATES	
	EAST X	NORTH Y
CR-51	13,530,752.80	401,475.05
I-94	13,529,587.15	400,869.70

**DIRECTIONS**

ALL DIRECTIONS ARE GRID AZIMUTH AS REFERRED BY NORTH ZERO.

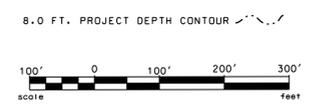
**PROJECT DEPTHS**

PROJECT DEPTHS ARE AS INDICATED.

THE AUTOMATED ELECTRONIC SURVEY WAS CONDUCTED BY RICHARD V. DELESTOWICZ AND ROBERT W. POLAK, ABOARD THE USACOE SMALL BOAT.

**AUTOMATED EQUIPMENT USED**

POSITIONING: TRIMBLE DGPS  
 SOFTWARE: COASTAL OCEANOGRAPHICS  
 SONIC SOUNDER: INNSPACE 448



NO.	DATE	REVISION	BY
<b>U.S. ARMY ENGINEER DISTRICT, DETROIT</b> <b>CORPS OF ENGINEERS</b> <b>DETROIT, MICHIGAN</b>			
DRAWN BY	<b>CLINTON RIVER, MICH.</b> <b>CONDITION SOUNDINGS</b>		
DESIGNED BY	C.S. 314+00W TO C.S. 322+00W -- 16 JAN 2008 C.S. 285+00W TO C.S. 312+00W -- 3 APR 2008 <b>DETROIT AREA OFFICE</b>		
CHECKED BY	APPROVAL RECOMMENDED:		
REVIEWED:	DATE		
SUBMITTED:	SCALE 1" = 100'		
CHIEF, PROJ. OPS. SELECT	CHIEF, OPS. BRANCH		DRAWING NUMBER
APPROVED	SHEET 8 OF 10		c110808c.dgn
CHIEF, CONST. OPS. DIVISION			