

HORIZONTAL REFERENCE - NAD 83, NEW JERSEY STATE PLANE, ZONE 2900, U.S. FOOT.

VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS 2.47' BELOW N.A.V.D. 88.

GEOID 12B AND NOAA TIDAL EPOCH: 1983 - 2001 WERE USED. SOUNDINGS ARE EXPRESSED IN FEET AND TENTHS AND REFER TO MEAN LOWER LOW WATER.

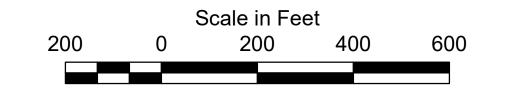
THE INFORMATION DEPICTED ON THIS MAP REPRESENT THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED

THE POSITIONS OF THE AIDS TO NAVIGATION ARE PROVIDED FOR

THE LIMITS OF THE FEDERAL CHANNEL DEPICT THE MOST CURRENT CHANNEL FRAMEWORK AVAILABLE WHICH CAN ALSO BE DOWNLOADED HERE:

http://navigation.usace.army.mil/Survey/Framework

BASE MAPPING LINEWORK OR ORTHOPHOTOGRAPHY HAS BEEN COMPILED FROM A VARIETY OF SOURCES AND DATES AND IS INTENDED TO PORTRAY GENERAL CHARACTERISTICS OF THE SHORELINE AND OTHER FEATURES. TEMPORAL CHANGES MAY HAVE OCCURRED SINCE THIS DATA SET WAS COLLECTED AND SOME PARTS OF THE DATA MAY NO LONGER BE AN ACCURATE REPRESENTATION OF THE SURFACE CONDITIONS.

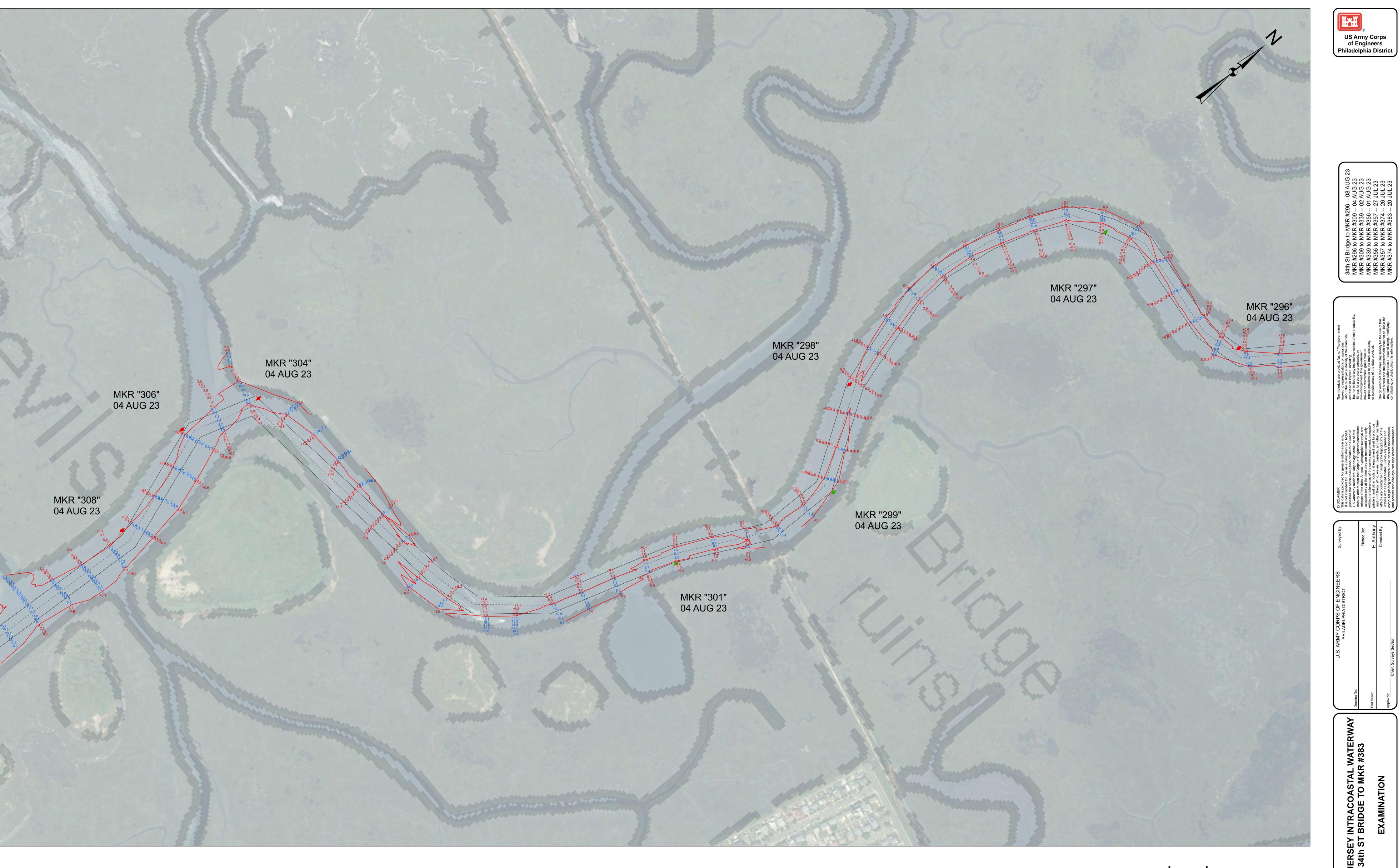


Legend

- ♦ Green Buoy
- Red Buoy
- Shoalest Sounding per Quarter
- —— 6 ' Curve of Depth
- ----- Centerline
- ChannelFramework

US Army Corps of Engineers Philadelphia District

JERSEY 34th ST





HORIZONTAL REFERENCE - NAD 83, NEW JERSEY STATE PLANE, ZONE 2900, U.S. FOOT.

VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS 2.47' BELOW N.A.V.D. 88.

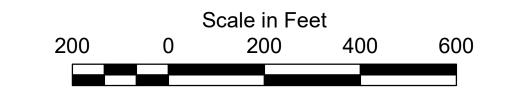
GEOID 12B AND NOAA TIDAL EPOCH: 1983 – 2001 WERE USED. SOUNDINGS ARE EXPRESSED IN FEET AND TENTHS AND REFER TO MEAN LOWER LOW WATER.

THE INFORMATION DEPICTED ON THIS MAP REPRESENT THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME. THE POSITIONS OF THE AIDS TO NAVIGATION ARE PROVIDED FOR

THE LIMITS OF THE FEDERAL CHANNEL DEPICT THE MOST CURRENT CHANNEL FRAMEWORK AVAILABLE WHICH CAN ALSO BE DOWNLOADED HERE:

http://navigation.usace.army.mil/Survey/Framework

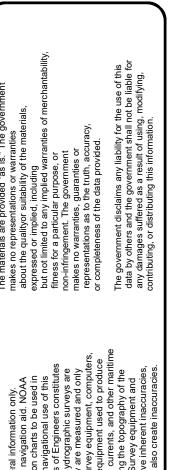
BASE MAPPING LINEWORK OR ORTHOPHOTOGRAPHY HAS BEEN COMPILED FROM A VARIETY OF SOURCES AND DATES AND IS INTENDED TO PORTRAY GENERAL CHARACTERISTICS OF THE SHORELINE AND OTHER FEATURES. TEMPORAL CHANGES MAY HAVE OCCURRED SINCE THIS DATA SET WAS COLLECTED AND SOME PARTS OF THE DATA MAY NO LONGER BE AN ACCURATE REPRESENTATION OF THE SURFACE CONDITIONS.

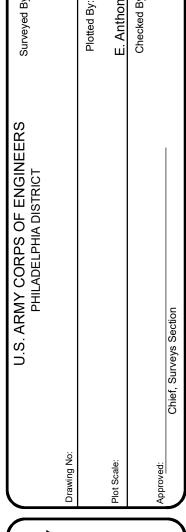


Legend

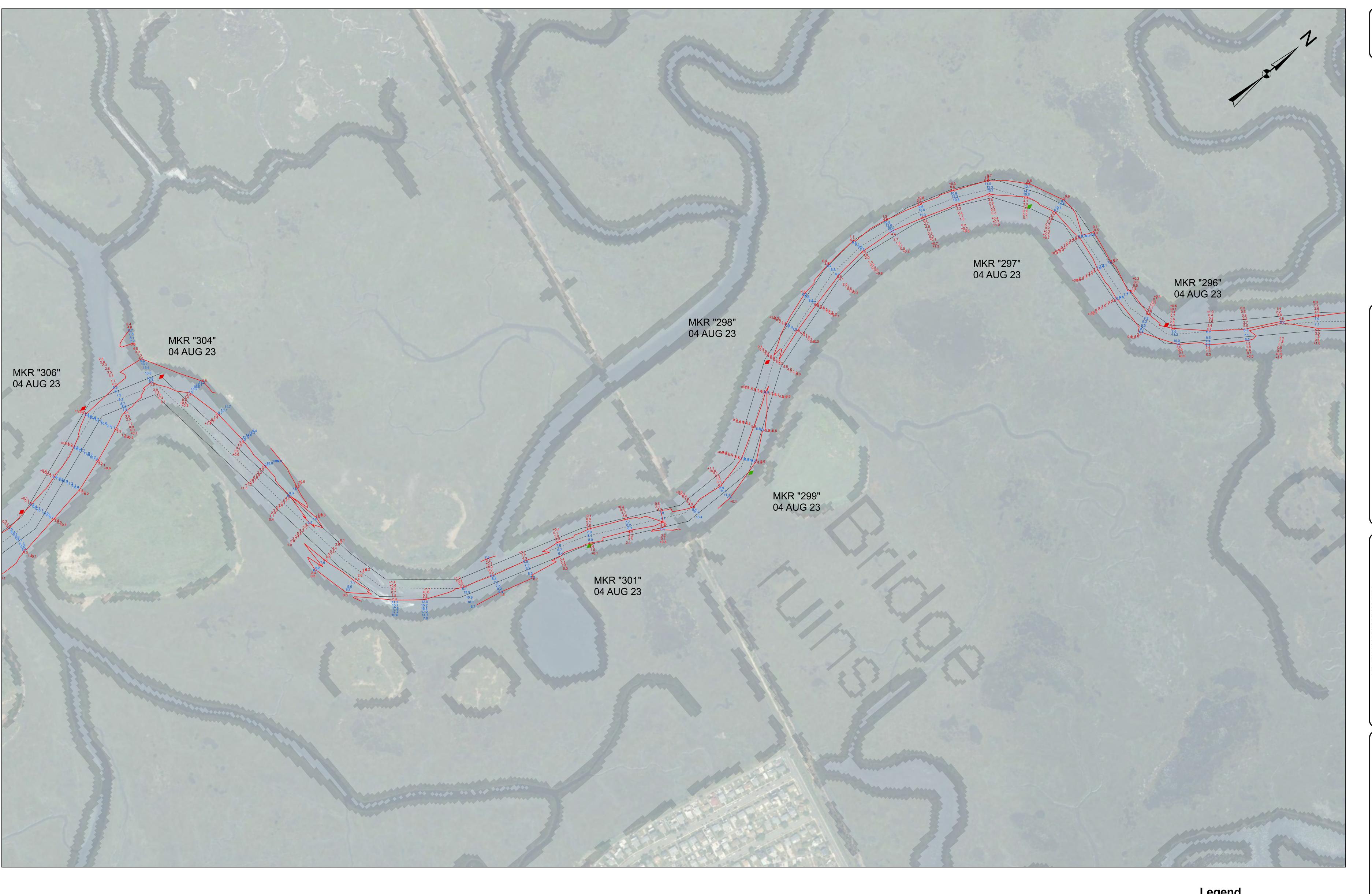
- Green Buoy
- Red Buoy
- Shoalest Sounding per Quarter
- —— 6 ' Curve of Depth
- ----- Centerline ChannelFramework

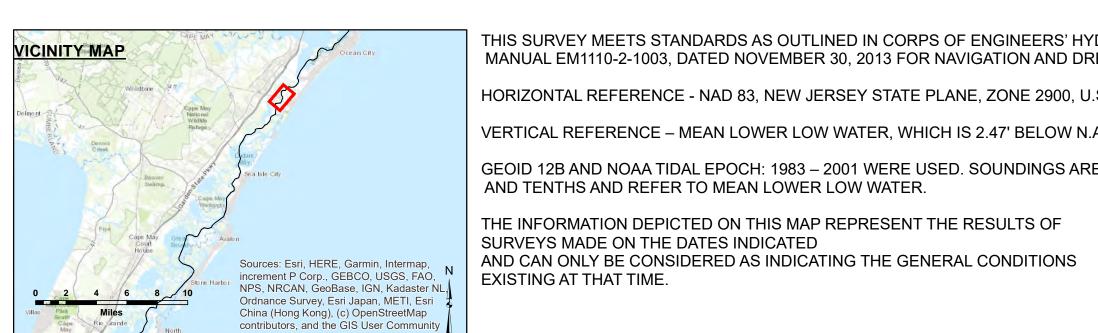
IW-19





JERSEY 34th ST





HORIZONTAL REFERENCE - NAD 83, NEW JERSEY STATE PLANE, ZONE 2900, U.S. FOOT.

VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS 2.47' BELOW N.A.V.D. 88.

GEOID 12B AND NOAA TIDAL EPOCH: 1983 - 2001 WERE USED. SOUNDINGS ARE EXPRESSED IN FEET AND TENTHS AND REFER TO MEAN LOWER LOW WATER.

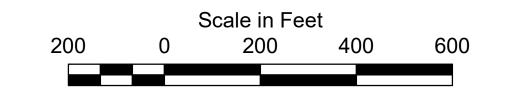
THE INFORMATION DEPICTED ON THIS MAP REPRESENT THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED

THE POSITIONS OF THE AIDS TO NAVIGATION ARE PROVIDED FOR

THE LIMITS OF THE FEDERAL CHANNEL DEPICT THE MOST CURRENT CHANNEL FRAMEWORK AVAILABLE WHICH CAN ALSO BE DOWNLOADED HERE:

http://navigation.usace.army.mil/Survey/Framework

BASE MAPPING LINEWORK OR ORTHOPHOTOGRAPHY HAS BEEN COMPILED FROM A VARIETY OF SOURCES AND DATES AND IS INTENDED TO PORTRAY GENERAL CHARACTERISTICS OF THE SHORELINE AND OTHER FEATURES. TEMPORAL CHANGES MAY HAVE OCCURRED SINCE THIS DATA SET WAS COLLECTED AND SOME PARTS OF THE DATA MAY NO LONGER BE AN ACCURATE REPRESENTATION OF THE SURFACE CONDITIONS.



Legend

- Green Buoy
- Red Buoy
- Shoalest Sounding per Quarter
- —— 6 ' Curve of Depth
- ----- Centerline
 - ChannelFramework

US Army Corps of Engineers Philadelphia District

JERSEY 34th ST





HORIZONTAL REFERENCE - NAD 83, NEW JERSEY STATE PLANE, ZONE 2900, U.S. FOOT.

VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS 2.47' BELOW N.A.V.D. 88.

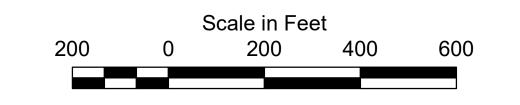
GEOID 12B AND NOAA TIDAL EPOCH: 1983 – 2001 WERE USED. SOUNDINGS ARE EXPRESSED IN FEET AND TENTHS AND REFER TO MEAN LOWER LOW WATER.

THE INFORMATION DEPICTED ON THIS MAP REPRESENT THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME. THE POSITIONS OF THE AIDS TO NAVIGATION ARE PROVIDED FOR

THE LIMITS OF THE FEDERAL CHANNEL DEPICT THE MOST CURRENT CHANNEL FRAMEWORK AVAILABLE WHICH CAN ALSO BE DOWNLOADED HERE:

http://navigation.usace.army.mil/Survey/Framework

BASE MAPPING LINEWORK OR ORTHOPHOTOGRAPHY HAS BEEN COMPILED FROM A VARIETY OF SOURCES AND DATES AND IS INTENDED TO PORTRAY GENERAL CHARACTERISTICS OF THE SHORELINE AND OTHER FEATURES. TEMPORAL CHANGES MAY HAVE OCCURRED SINCE THIS DATA SET WAS COLLECTED AND SOME PARTS OF THE DATA MAY NO LONGER BE AN ACCURATE REPRESENTATION OF THE SURFACE CONDITIONS.

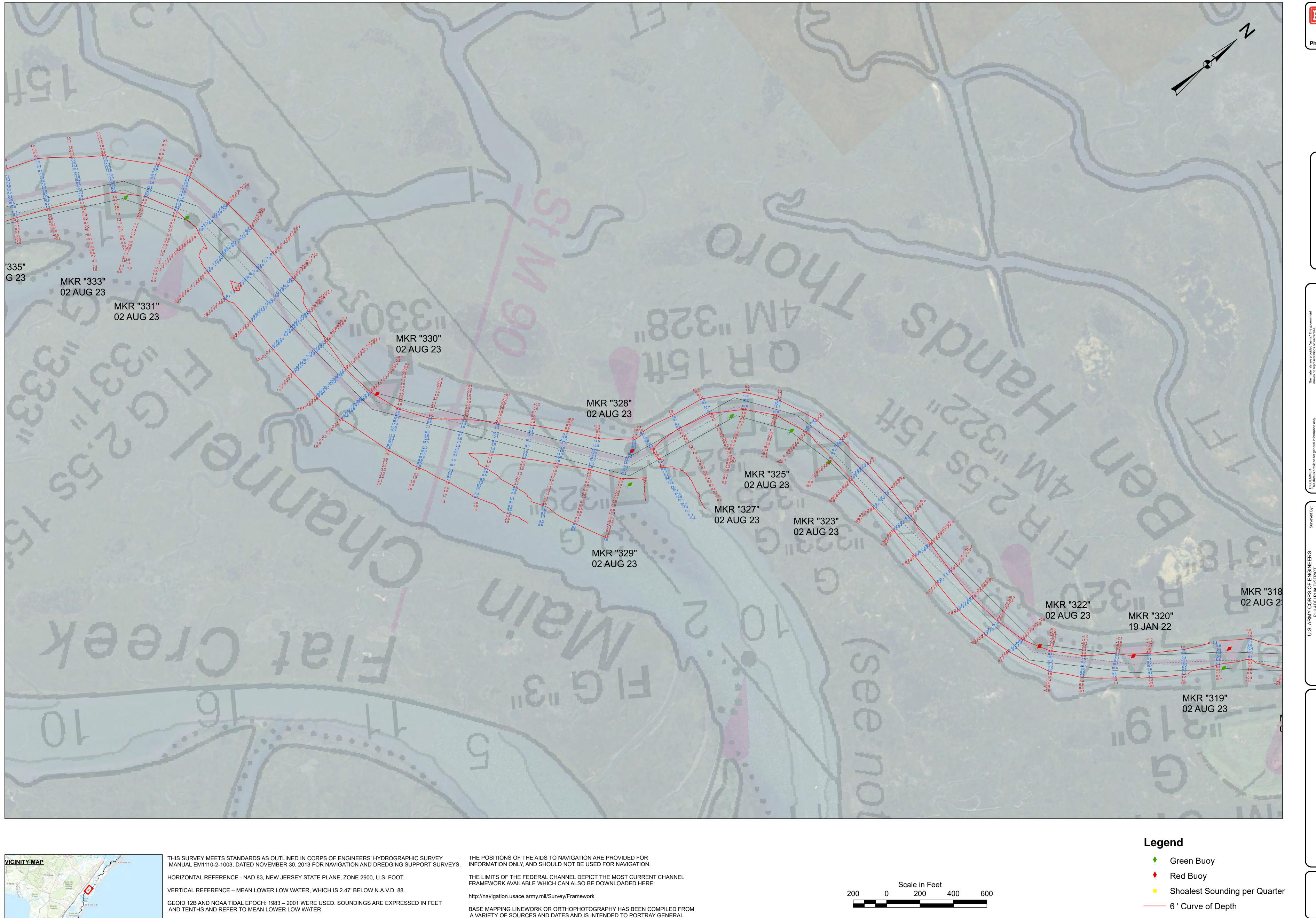


Legend

- ♦ Green Buoy
- Red Buoy Shoalest Sounding per Quarter
- —— 6 ' Curve of Depth
- ----- Centerline
- ChannelFramework

US Army Corps of Engineers Philadelphia District

JERSEY 34th ST



CHARACTERISTICS OF THE SHORELINE AND OTHER FEATURES.

SURFACE CONDITIONS.

TEMPORAL CHANGES MAY HAVE OCCURRED SINCE THIS DATA SET WAS COLLECTED AND

SOME PARTS OF THE DATA MAY NO LONGER BE AN ACCURATE REPRESENTATION OF THE

THE INFORMATION DEPICTED ON THIS MAP REPRESENT THE RESULTS OF

AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

SURVEYS MADE ON THE DATES INDICATED

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL

Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

0 2 4 6 8 10

US Army Corps of Engineers Philadelphia District

> St Bridge to MKR #296 -- 08 AUG 23 2 #296 to MKR #309 -- 04 AUG 23 2 #309 to MKR #339 -- 02 AUG 23 2 #339 to MKR #356 -- 01 AUG 23 3 #356 to MKR #357 -- 27 JUL 23 3 #357 to MKR #374 -- 26 JUL 23 3 #374 to MKR #383 -- 20 JUL 23

about the quality of the materials, expressed or implied, including but not limited to any implied warranties of merchantability, fitness for a particular purpose, or non-infingement. The government makes no warranties, guaranties or representations as to the truth, accuracy, or completeness of the data provided.

The government disclaims any liability for the use of this data by others and the government shall not be liable for any damages suffered as a result of using, modifying, contributing, or distributing this information.

It is not intended for use as a navigation aid. NOAA publishes the official navigation charts to be used in US waters by mariners. Any navigational use of this data by others than the Corps of Engineers constitutes fifth data by others than the Corps of Engineers constitutes fifth misuse of the data. At best, hydrographic surveys are accurate only at the time they are measured and only within the tolerances of the survey equipment, computers, printers, and other tools and equipment used to produce and print them. Wind, waves, currents, and other maritime effects are constantly changing the topography of the waters of the United States. Survey equipment and computer plotting software have inherent inaccuracies, contained printers and displays can also create inaccuracies.

Drawing No:

PHILADELPHIA DISTRICT

Protect B

Plotted B

Approved:

Chief, Surveys Section

Chief, Surveys Section

IEW JERSEY INTRACOASTAL WATERWAN 34th ST BRIDGE TO MKR #383 EXAMINATION

IW-19

----- Centerline

ChannelFramework





MANUAL EM1110-2-1003, DATED NOVEMBER 30, 2013 FOR NAVIGATION AND DREDGING SUPPORT SURVEYS. INFORMATION ONLY, AND SHOULD NOT BE USED FOR NAVIGATION.

HORIZONTAL REFERENCE - NAD 83, NEW JERSEY STATE PLANE, ZONE 2900, U.S. FOOT.

VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS 2.47' BELOW N.A.V.D. 88.

GEOID 12B AND NOAA TIDAL EPOCH: 1983 – 2001 WERE USED. SOUNDINGS ARE EXPRESSED IN FEET

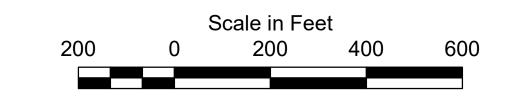
THE INFORMATION DEPICTED ON THIS MAP REPRESENT THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

AND TENTHS AND REFER TO MEAN LOWER LOW WATER.

THE LIMITS OF THE FEDERAL CHANNEL DEPICT THE MOST CURRENT CHANNEL FRAMEWORK AVAILABLE WHICH CAN ALSO BE DOWNLOADED HERE:

http://navigation.usace.army.mil/Survey/Framework

BASE MAPPING LINEWORK OR ORTHOPHOTOGRAPHY HAS BEEN COMPILED FROM A VARIETY OF SOURCES AND DATES AND IS INTENDED TO PORTRAY GENERAL CHARACTERISTICS OF THE SHORELINE AND OTHER FEATURES. TEMPORAL CHANGES MAY HAVE OCCURRED SINCE THIS DATA SET WAS COLLECTED AND SOME PARTS OF THE DATA MAY NO LONGER BE AN ACCURATE REPRESENTATION OF THE SURFACE CONDITIONS.

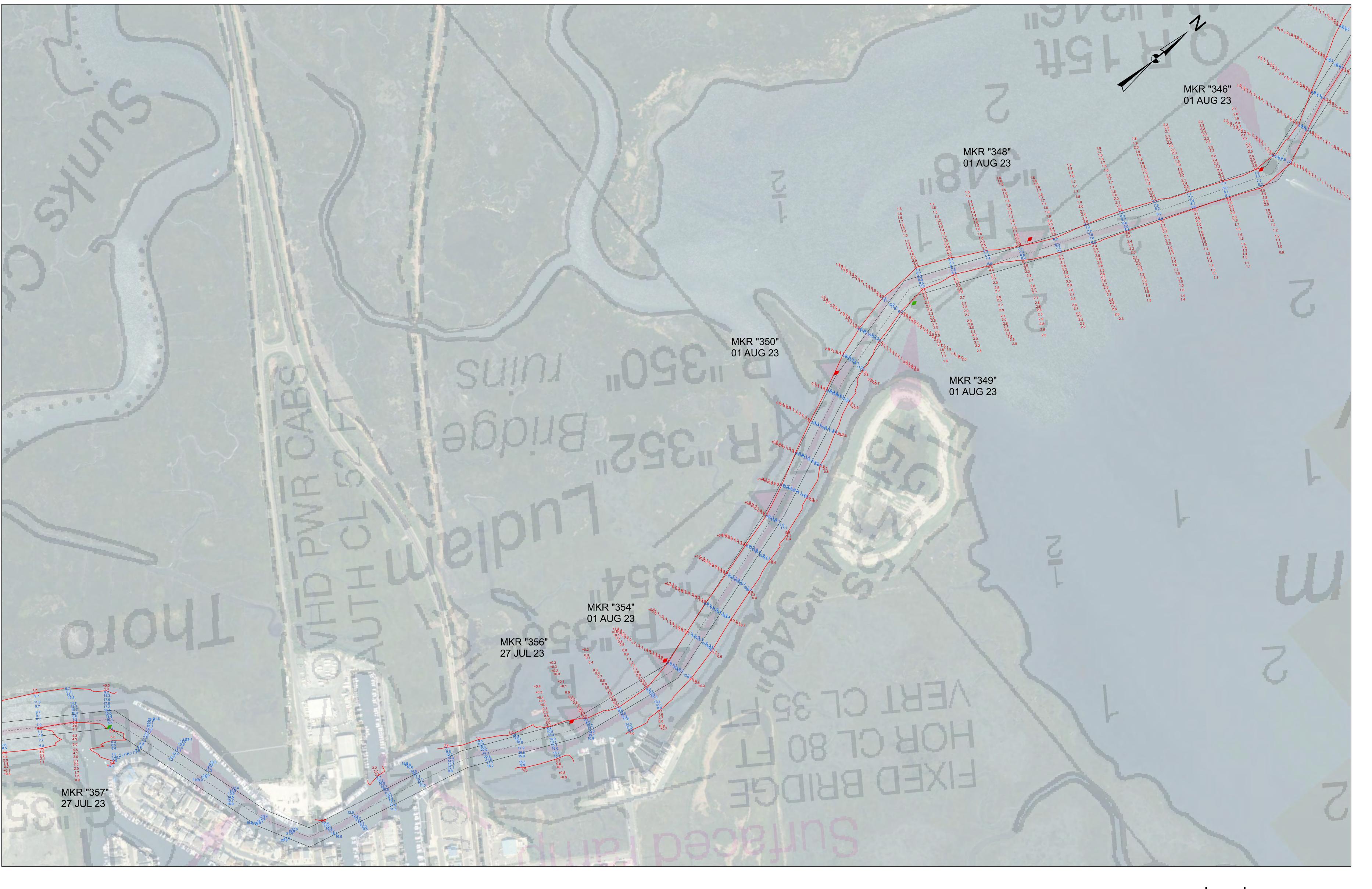


- ♦ Green Buoy
- Red Buoy Shoalest Sounding per Quarter
- —— 6 ' Curve of Depth
- ----- Centerline ChannelFramework

IW-19

US Army Corps of Engineers Philadelphia District

JERSEY 34th ST





HORIZONTAL REFERENCE - NAD 83, NEW JERSEY STATE PLANE, ZONE 2900, U.S. FOOT.

VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS 2.47' BELOW N.A.V.D. 88.

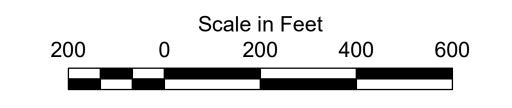
GEOID 12B AND NOAA TIDAL EPOCH: 1983 – 2001 WERE USED. SOUNDINGS ARE EXPRESSED IN FEET AND TENTHS AND REFER TO MEAN LOWER LOW WATER.

THE INFORMATION DEPICTED ON THIS MAP REPRESENT THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME. THE POSITIONS OF THE AIDS TO NAVIGATION ARE PROVIDED FOR

THE LIMITS OF THE FEDERAL CHANNEL DEPICT THE MOST CURRENT CHANNEL FRAMEWORK AVAILABLE WHICH CAN ALSO BE DOWNLOADED HERE:

http://navigation.usace.army.mil/Survey/Framework

BASE MAPPING LINEWORK OR ORTHOPHOTOGRAPHY HAS BEEN COMPILED FROM A VARIETY OF SOURCES AND DATES AND IS INTENDED TO PORTRAY GENERAL CHARACTERISTICS OF THE SHORELINE AND OTHER FEATURES. TEMPORAL CHANGES MAY HAVE OCCURRED SINCE THIS DATA SET WAS COLLECTED AND SOME PARTS OF THE DATA MAY NO LONGER BE AN ACCURATE REPRESENTATION OF THE SURFACE CONDITIONS.

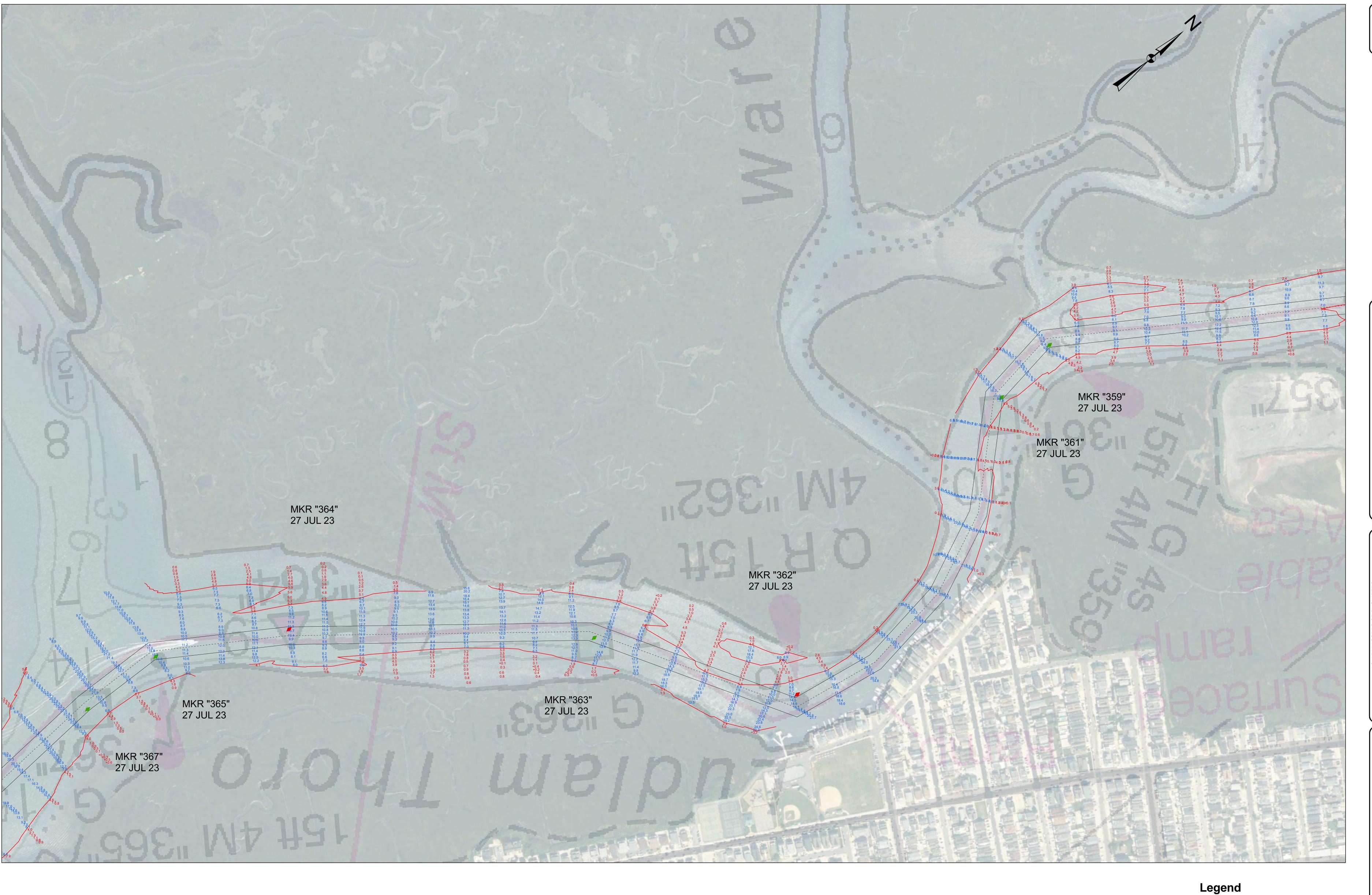


Legend

- Green Buoy
- Red Buoy
- Shoalest Sounding per Quarter
- —— 6 ' Curve of Depth
- ----- Centerline ChannelFramework

US Army Corps of Engineers Philadelphia District

JERSEY 34th ST





HORIZONTAL REFERENCE - NAD 83, NEW JERSEY STATE PLANE, ZONE 2900, U.S. FOOT.

VERTICAL REFERENCE - MEAN LOWER LOW WATER, WHICH IS 2.47' BELOW N.A.V.D. 88.

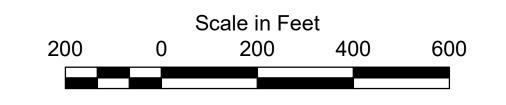
GEOID 12B AND NOAA TIDAL EPOCH: 1983 – 2001 WERE USED. SOUNDINGS ARE EXPRESSED IN FEET AND TENTHS AND REFER TO MEAN LOWER LOW WATER.

THE INFORMATION DEPICTED ON THIS MAP REPRESENT THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordenses Synger Syng THE POSITIONS OF THE AIDS TO NAVIGATION ARE PROVIDED FOR

THE LIMITS OF THE FEDERAL CHANNEL DEPICT THE MOST CURRENT CHANNEL FRAMEWORK AVAILABLE WHICH CAN ALSO BE DOWNLOADED HERE:

http://navigation.usace.army.mil/Survey/Framework

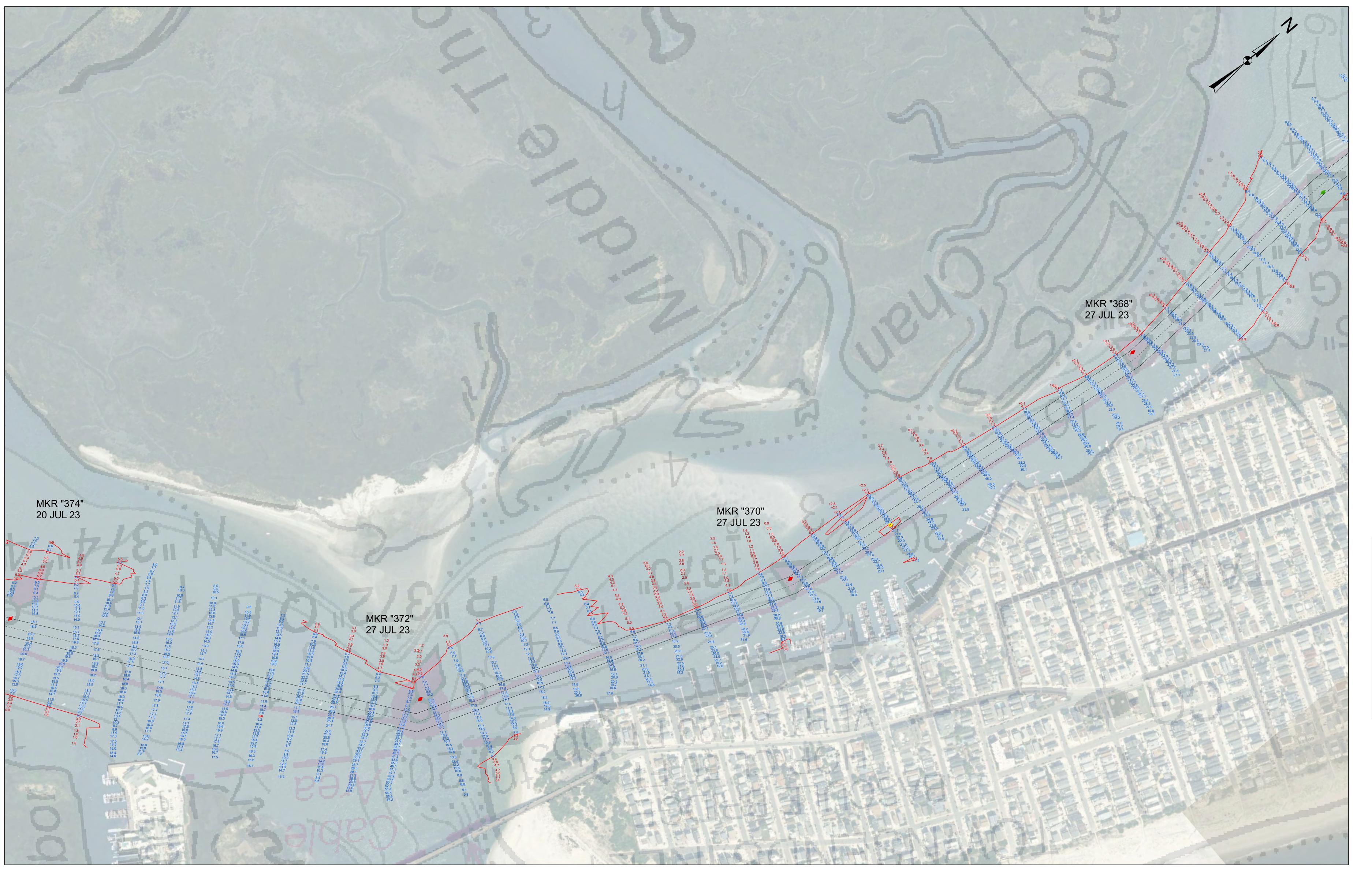
BASE MAPPING LINEWORK OR ORTHOPHOTOGRAPHY HAS BEEN COMPILED FROM A VARIETY OF SOURCES AND DATES AND IS INTENDED TO PORTRAY GENERAL CHARACTERISTICS OF THE SHORELINE AND OTHER FEATURES. TEMPORAL CHANGES MAY HAVE OCCURRED SINCE THIS DATA SET WAS COLLECTED AND SOME PARTS OF THE DATA MAY NO LONGER BE AN ACCURATE REPRESENTATION OF THE SURFACE CONDITIONS.



- Green Buoy
- Red Buoy
- Shoalest Sounding per Quarter
- —— 6 ' Curve of Depth
- ----- Centerline
 - ChannelFramework

US Army Corps of Engineers Philadelphia District

JERSEY 34th ST





HORIZONTAL REFERENCE - NAD 83, NEW JERSEY STATE PLANE, ZONE 2900, U.S. FOOT.

VERTICAL REFERENCE - MEAN LOWER LOW WATER, WHICH IS 2.47' BELOW N.A.V.D. 88.

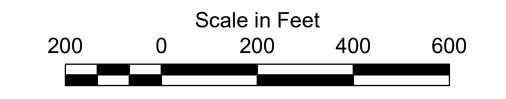
GEOID 12B AND NOAA TIDAL EPOCH: 1983 – 2001 WERE USED. SOUNDINGS ARE EXPRESSED IN FEET AND TENTHS AND REFER TO MEAN LOWER LOW WATER.

THE INFORMATION DEPICTED ON THIS MAP REPRESENT THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordenses Synger Syng THE POSITIONS OF THE AIDS TO NAVIGATION ARE PROVIDED FOR

THE LIMITS OF THE FEDERAL CHANNEL DEPICT THE MOST CURRENT CHANNEL FRAMEWORK AVAILABLE WHICH CAN ALSO BE DOWNLOADED HERE:

http://navigation.usace.army.mil/Survey/Framework

BASE MAPPING LINEWORK OR ORTHOPHOTOGRAPHY HAS BEEN COMPILED FROM A VARIETY OF SOURCES AND DATES AND IS INTENDED TO PORTRAY GENERAL CHARACTERISTICS OF THE SHORELINE AND OTHER FEATURES. TEMPORAL CHANGES MAY HAVE OCCURRED SINCE THIS DATA SET WAS COLLECTED AND SOME PARTS OF THE DATA MAY NO LONGER BE AN ACCURATE REPRESENTATION OF THE SURFACE CONDITIONS.

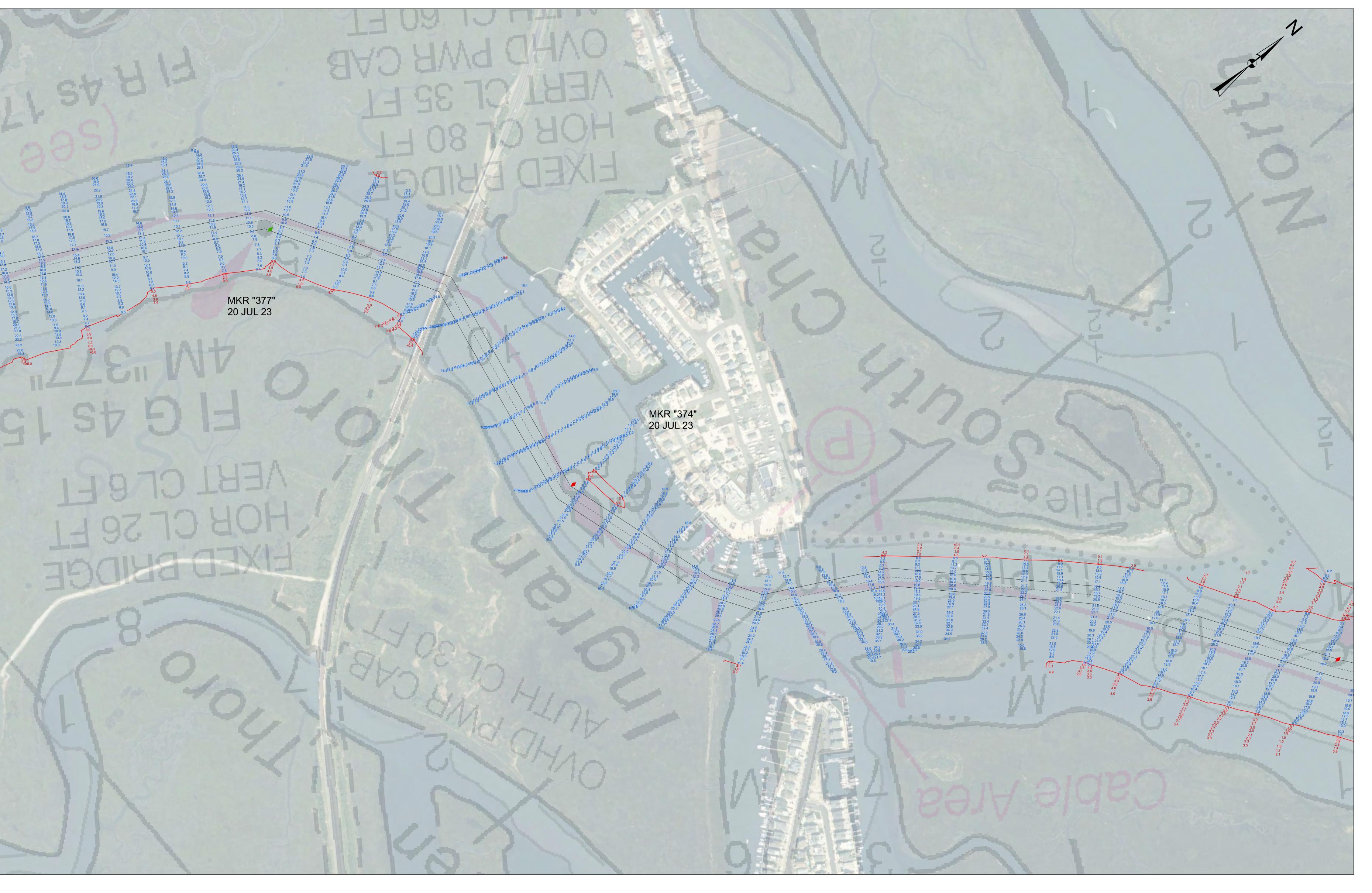


Legend

- Green Buoy
- Red Buoy
- Shoalest Sounding per Quarter
- —— 6 ' Curve of Depth
- ----- Centerline
- ChannelFramework

US Army Corps of Engineers Philadelphia District

JERSEY 34th ST





HORIZONTAL REFERENCE - NAD 83, NEW JERSEY STATE PLANE, ZONE 2900, U.S. FOOT.

VERTICAL REFERENCE – MEAN LOWER LOW WATER, WHICH IS 2.47' BELOW N.A.V.D. 88.

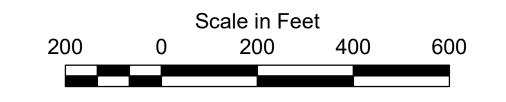
GEOID 12B AND NOAA TIDAL EPOCH: 1983 – 2001 WERE USED. SOUNDINGS ARE EXPRESSED IN FEET AND TENTHS AND REFER TO MEAN LOWER LOW WATER.

THE INFORMATION DEPICTED ON THIS MAP REPRESENT THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME. THE POSITIONS OF THE AIDS TO NAVIGATION ARE PROVIDED FOR

THE LIMITS OF THE FEDERAL CHANNEL DEPICT THE MOST CURRENT CHANNEL FRAMEWORK AVAILABLE WHICH CAN ALSO BE DOWNLOADED HERE:

http://navigation.usace.army.mil/Survey/Framework

BASE MAPPING LINEWORK OR ORTHOPHOTOGRAPHY HAS BEEN COMPILED FROM A VARIETY OF SOURCES AND DATES AND IS INTENDED TO PORTRAY GENERAL CHARACTERISTICS OF THE SHORELINE AND OTHER FEATURES. TEMPORAL CHANGES MAY HAVE OCCURRED SINCE THIS DATA SET WAS COLLECTED AND SOME PARTS OF THE DATA MAY NO LONGER BE AN ACCURATE REPRESENTATION OF THE SURFACE CONDITIONS.



Legend

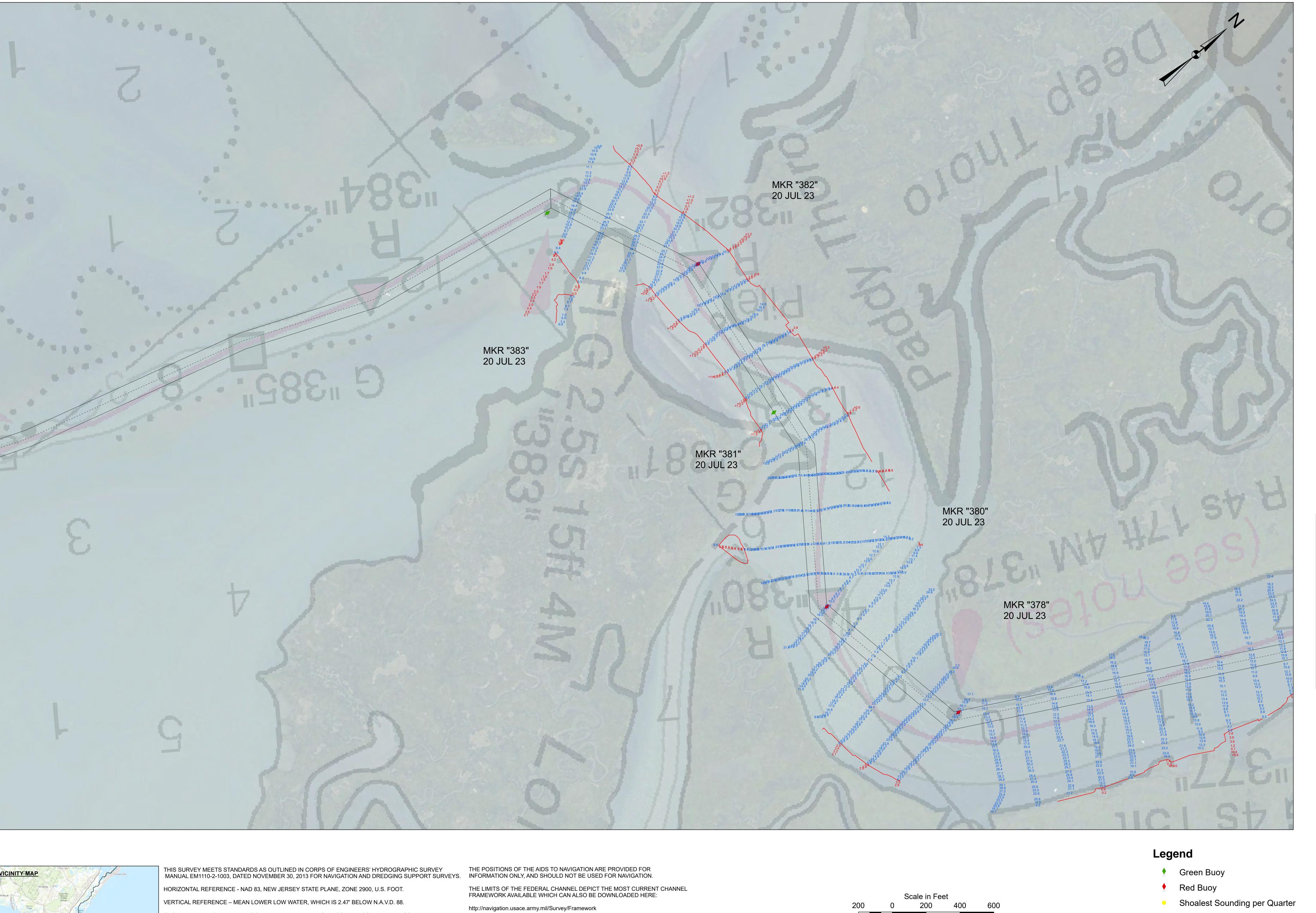
- Red Buoy
- —— 6 ' Curve of Depth
- ----- Centerline
 - ChannelFramework

• Green Buoy

Shoalest Sounding per Quarter

JERSEY 34th ST

US Army Corps of Engineers Philadelphia District





h St Bridge to MKR #296 -- 08 AUG 23 R #296 to MKR #309 -- 04 AUG 23 R #309 to MKR #339 -- 02 AUG 23 R #339 to MKR #356 -- 01 AUG 23 R #356 to MKR #357 -- 27 JUL 23 R #357 to MKR #374 -- 26 JUL 23 R #374 to MKR #383 -- 20 JUL 23

wkk #296 to Mk MKR #309 to Mk MKR #339 to Mk MKR #339 to Mk MKR #355 to Mk MKR #357 to Mk MKR #357 to Mk MKR #357 to Mk MKR #357 to Mk MKR #374 to Mk

an analygation aid. NOAA wigation charts to be used in Any navigational use of this Any navigational use of this Corps of Engineers constitutes for particular purpose, or finess for a particular purpose, or fines for a particular purpose, or fire for a partic

ig No:
PHILADELPHIA DISTRICT
PHILADELPHIA DISTRICT
Plotted By:
ed:
Checked By:

W JERSEY INTRACOASTAL WATERWAY 34th ST BRIDGE TO MKR #383 EXAMINATION

IW-19

—— 6 ' Curve of Depth

Centerline
ChannelFramework

GEOID 12B AND NOAA TIDAL EPOCH: 1983 – 2001 WERE USED. SOUNDINGS ARE EXPRESSED IN FEET AND TENTHS AND REFER TO MEAN LOWER LOW WATER.

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

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL,

Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

0 2 4 6 8 10

BASE MAPPING LINEWORK OR ORTHOPHOTOGRAPHY HAS BEEN COMPILED FROM A VARIETY OF SOURCES AND DATES AND IS INTENDED TO PORTRAY GENERAL CHARACTERISTICS OF THE SHORELINE AND OTHER FEATURES.

TEMPORAL CHANGES MAY HAVE OCCURRED SINCE THIS DATA SET WAS COLLECTED AND SOME PARTS OF THE DATA MAY NO LONGER BE AN ACCURATE REPRESENTATION OF THE SURFACE CONDITIONS.