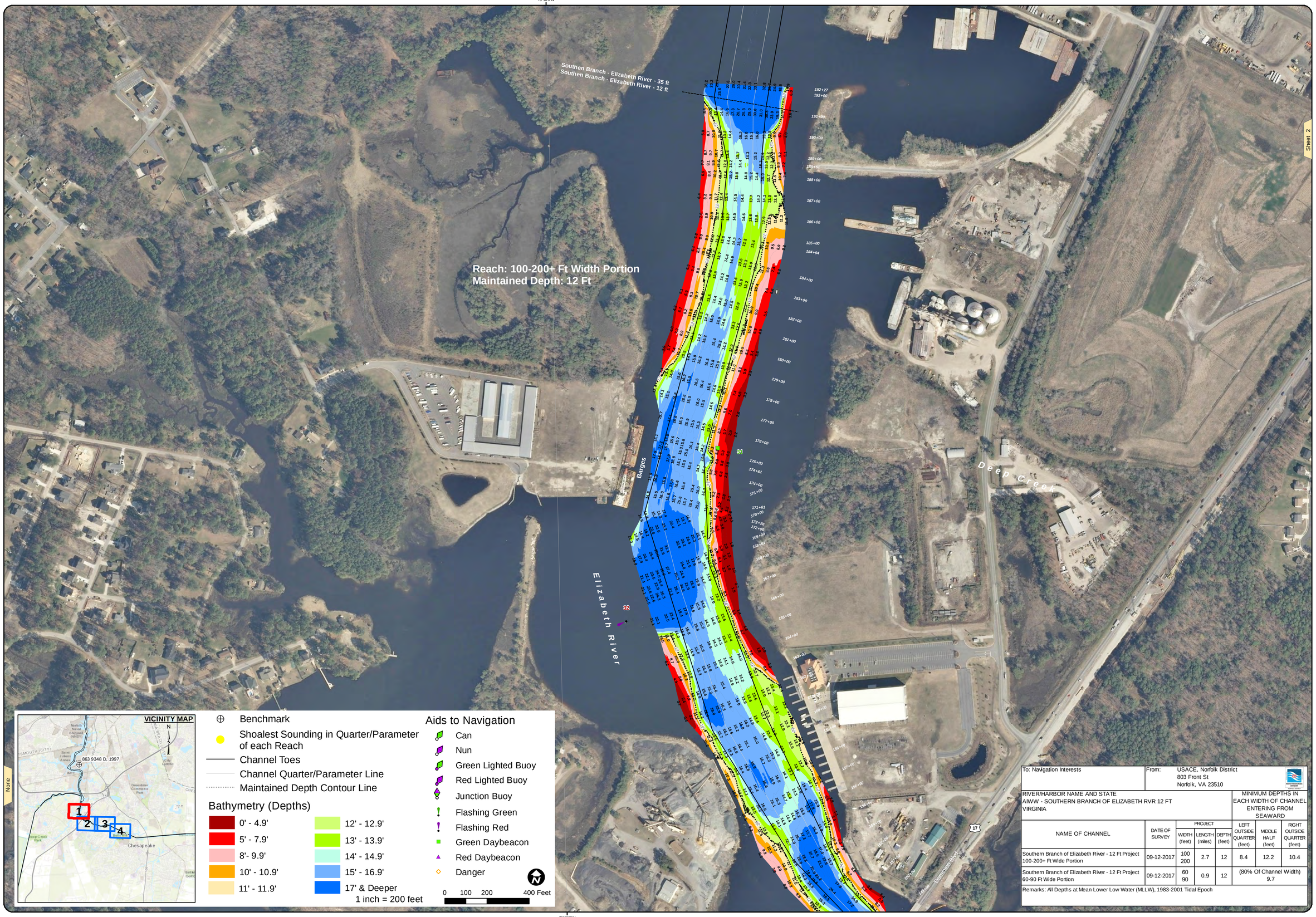


To: Navigation Interests	From: USACE, Norfolk District 803 Front St Norfolk, VA 23510					
RIVER/HARBOR NAME AND STATE AIWW - SOUTHERN BRANCH OF ELIZABETH RVR 12 FT VIRGINIA				MINIMUM DEPTHS IN EACH WIDTH OF CHANNEL ENTERING FROM SEAWARD		
NAME OF CHANNEL	DATE OF SURVEY	PROJECT				
		WIDTH (feet)	LENGTH (miles)	DEPTH (feet)	LEFT OUTSIDE QUARTER (feet)	MIDDLE HALF (feet)	RIGHT OUTSIDE QUARTER (feet)
Southern Branch of Elizabeth River - 12 Ft Project 100-200+ Ft Wide Portion	09-12-2017	100 200	2.7	12	8.4	12.2	10.4
Southern Branch of Elizabeth River - 12 Ft Project 60-90 Ft Wide Portion	09-12-2017	60 90	0.9	12	(80% Of Channel Width) 9.7		
Remarks: All Depths at Mean Lower Low Water (MLLW), 1983-2001 Tidal Epoch							

US Army Corps of Engineers
Norfolk District

NOTES:

1. PROJECT: A CHANNEL 12 FEET DEEP, 60 to 200 FEET WIDE.
2. NOT FOR NAVIGATION USE. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEY(S) MADE ON THE DATE(S) INDICATED & CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
3. SOUNDINGS: SHOWN IN FEET CENTERED ON POINT OF SHOALEST DEPTH IN 25 FT RADIUS.
4. BACKGROUND: VIRGINIA BASE MAPPING PROGRAM 2013 IMAGERY
5. AIDS TO NAVIGATION LOCATED WITH SURVEY VESSEL +/- 10 FEET ON DATE OF SURVEY.
6. SURVEY XYZ (* XYZ) AND METADATA (*.MET) FILE NAME REFERENCED BY FILE NO.

PROJECTED COORDINATE SYSTEM: STATE PLANE DATUM: NAD83 HORIZONTAL ZONE: VIRGINIA SOUTH ZONE PROJECTED COORDINATE UNITS: US SURVEY FEET HORIZONTAL COORDINATES: NAD83 - 2011 HORIZONTAL CONTROL MONUMENTS: USCG DGPS		VERTICAL REFERENCE DATUM: NOS MLLW VERTICAL COORDINATES: NAVD88 IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET SYSTEM/METHOD: SINGLE-BEAM IHO SE: N/A BIN SELECTION METHOD: N/A	
GAUGE INFORMATION - VERTICAL CONTROL MONUMENTS NOS MLLW NTDE TIDAL EPOCH: 1983-2001			
MONUMENT NOS 863 9348 D. 1997"	MLLW 6.60'	NAVD88 4.87'(GEOID12B)	MEAN RANGE OF TIDE 2.86'
		TIDE APPLICATION Zoning: NOAA	AREA 00+00 to 192+27

ATLANTIC INTRACOASTAL WATERWAY
SOUTHERN BRANCH OF ELIZABETH RIVER 12 FT
PROJECT CONDITION SURVEY

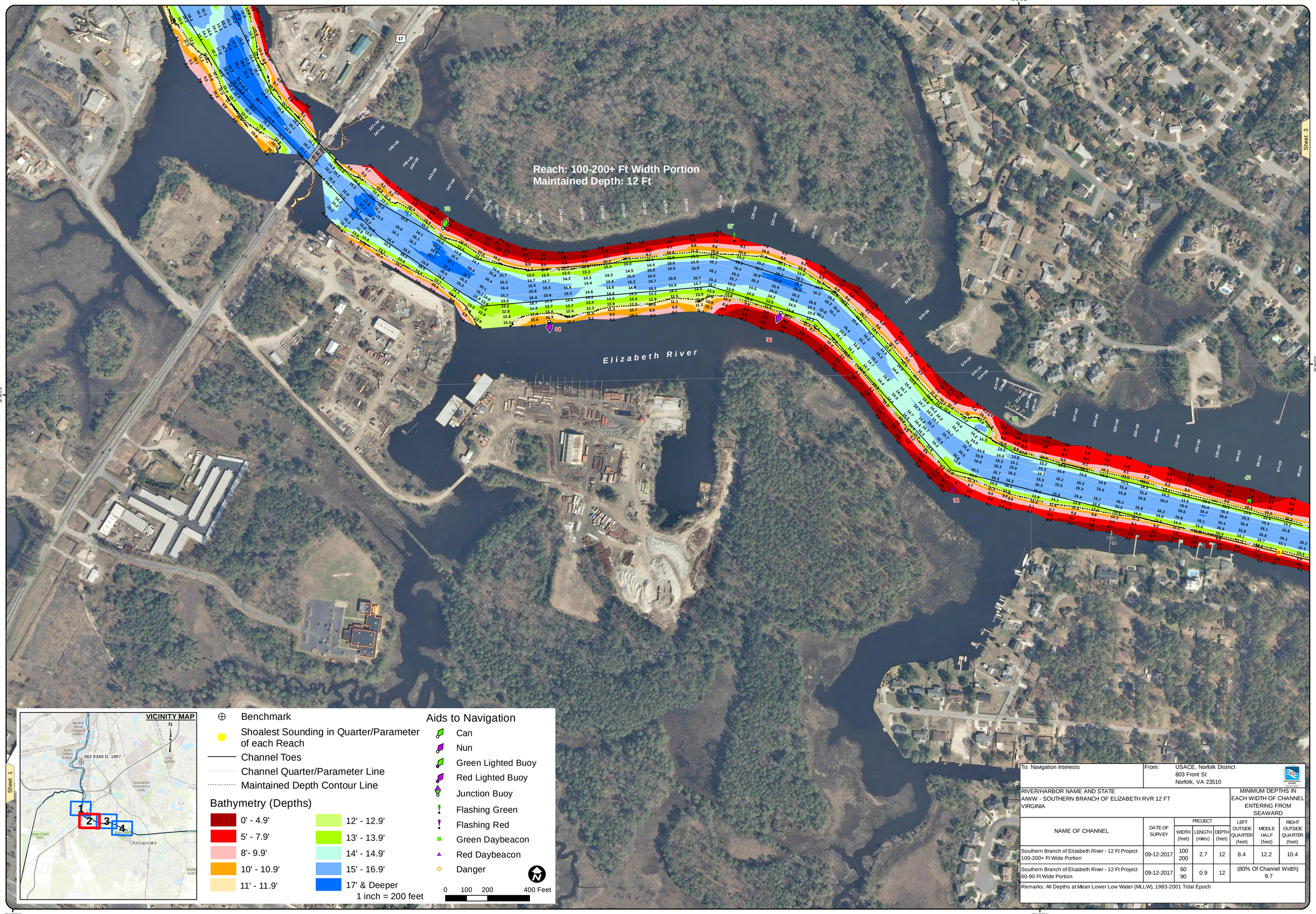
SURVEY DATE:
September 12, 2017

SURVEY BY: USACE Team Lead: Joseph N. Moore Jr.
eHYDRO FILE: W_01_512_20170912_CS

SHEET 1 of 4
Map Produced: 9/21/2017

APPROVED:
SWALLOW.JEFFREY.A.1129776611
Digitally signed by SWALLOW.JEFFREY.A.1129776611
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=SWALLOW.JEFFREY.A.1129776611
Date: 2017.09.21 15:41:00 -04'00'
Chief, Navigation Analysis Section

APPROVED:
LEGASPI.ERIC.C.1174258277
Digitally signed by LEGASPI.ERIC.C.1174258277
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=LEGASPI.ERIC.C.1174258277
Date: 2017.09.21 15:41:00 -04'00'
Chief, Navigation Support and Survey Section



US Army Corps of Engineers
Norfolk District

NOTES:

1. PROJECT: A CHANNEL 12 FEET DEEP, 60 to 200 FEET WIDE.
2. NOT FOR NAVIGATION USE. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATE(S) INDICATED & CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
3. SOUNDINGS: SHOWN IN FEET CENTERED ON POINT OF SHOALEST DEPTH IN 25 FT RADIUS.
4. BACKGROUND: VIRGINIA BASE MAPPING PROGRAM 2013 IMAGERY
5. AIDS TO NAVIGATION LOCATED WITH SURVEY VESSEL +/- 10 FEET ON DATE OF SURVEY.
6. SURVEY XYZ (*.XYZ) AND METADATA (*.MET) FILE NAME REFERENCED BY FILE NO.

PROJECTED COORDINATE SYSTEM: STATE PLANE
DATUM/ELLIPSOID: NAD83
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
HORIZONTAL DATUM ACCURACY: +/- 1.0 METER
HORIZONTAL CONTROL MONUMENTS: USCG DGPS

VERTICAL REFERENCE DATUM: NOS MLLW
VERTICAL DATUM ACCURACY: +/- 0.2 FEET
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
SYSTEM/METHOD: SINGLE-BEAM
TIDE CORRECTION: N/A
BIN SELECTION METHOD: N/A

GAUGE INFORMATION - VERTICAL CONTROL MONUMENTS NOS MLLW NTDE TIDAL EPOCH: 1983-2001

MONUMENT	MLLW	NAVD88	MEAN RANGE OF TIDE	TIDE APPLICATION	AREA
NOS 863 9348 D, 1997"	6.69'	4.87'(GEOID12B)	2.86	Zoning - NOAA	00+00 to 192+27

To: Navigation Interests

From: USACE, Norfolk District
803 Front St
Norfolk, VA 23510

RIVER/HARBOR NAME AND STATE
AIWW - SOUTHERN BRANCH OF ELIZABETH RVR 12 FT
VIRGINIA

MINIMUM DEPTHS IN EACH WIDTH OF CHANNEL ENTERING FROM SEAWARD

NAME OF CHANNEL	DATE OF SURVEY	PROJECT WIDTH (feet)	PROJECT LENGTH (miles)	PROJECT DEPTH (feet)	LEFT OUTSIDE QUARTER (feet)	MIDDLE HALF (feet)	RIGHT OUTSIDE QUARTER (feet)
Southern Branch of Elizabeth River - 12 Ft Project 100-200+ Ft Wide Portion	09-12-2017	100 200	2.7	12	8.4	12.2	10.4
Southern Branch of Elizabeth River - 12 Ft Project 60-90 Ft Wide Portion	09-12-2017	60 90	0.9	12	(80% Of Channel Width) 9.7		

Remarks: All Depths at Mean Lower Low Water (MLLW), 1983-2001 Tidal Epoch

ATLANTIC INTRACOASTAL WATERWAY
SOUTHERN BRANCH OF ELIZABETH RIVER 12 FT
PROJECT CONDITION SURVEY

SURVEY DATE:
September 12, 2017

SURVEY BY: USACE Team Lead: Joseph N. Moore Jr.
eHYDRO FILE: W_01_512_20170912_CS

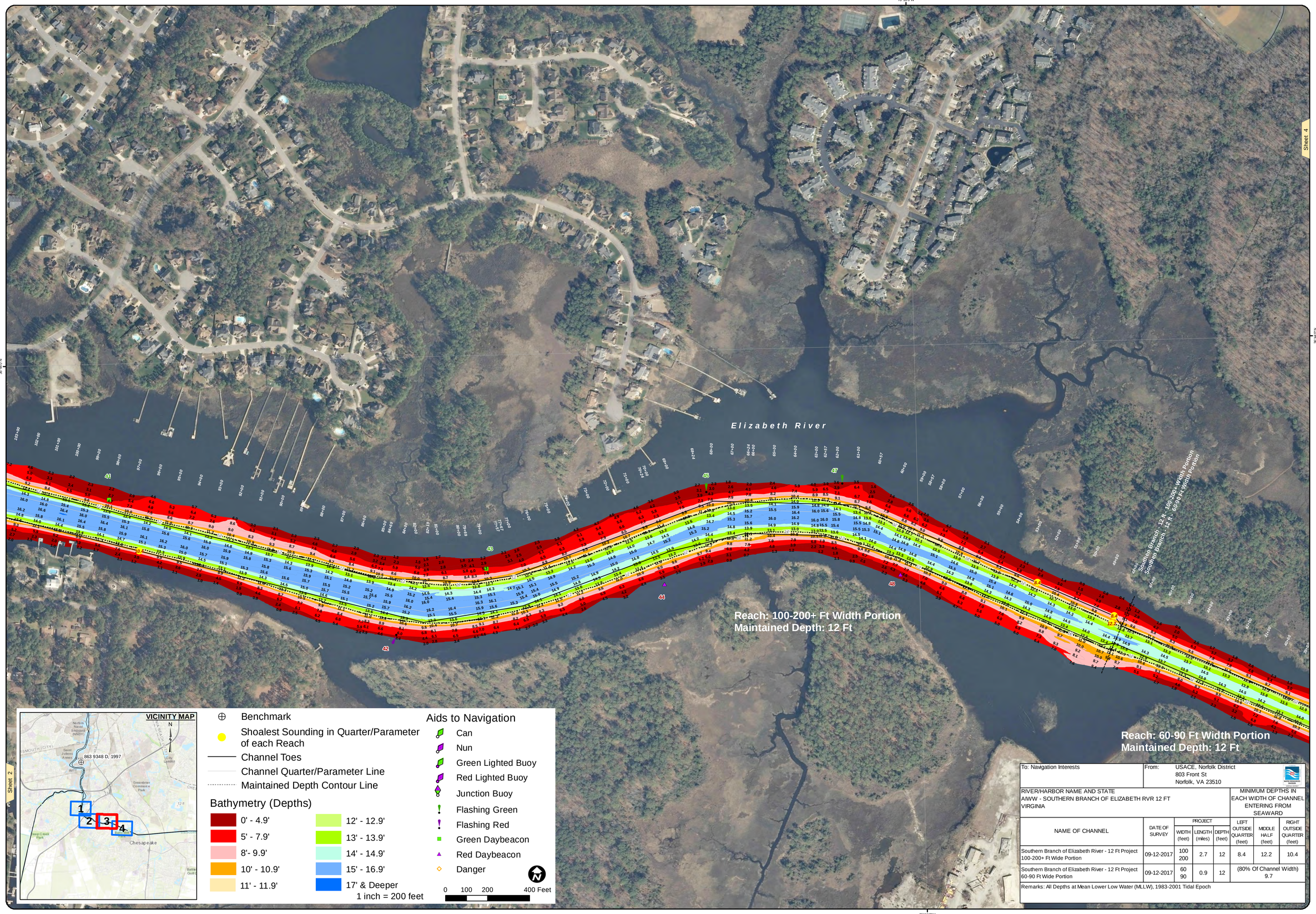
SHEET 2 of 4
Map Produced: 9/21/2017

APPROVED:

Chief, Navigation Analysis Section

APPROVED:

Chief, Navigation Support and Survey Section



To: Navigation Interests	From:	USACE, Norfolk District 803 Front St Norfolk, VA 23510

RIVER/HARBOR NAME AND STATE AIWW - SOUTHERN BRANCH OF ELIZABETH RVR 12 FT VIRGINIA				MINIMUM DEPTHS IN EACH WIDTH OF CHANNEL ENTERING FROM SEAWARD		
NAME OF CHANNEL	DATE OF SURVEY	PROJECT WIDTH (feet)	PROJECT LENGTH (miles)	PROJECT DEPTH (feet)	LEFT OUTSIDE QUARTER (feet)	MIDDLE HALF (feet)	RIGHT OUTSIDE QUARTER (feet)
Southern Branch of Elizabeth River - 12 Ft Project 100-200+ Ft Wide Portion	09-12-2017	100 200	2.7	12	8.4	12.2	10.4
Southern Branch of Elizabeth River - 12 Ft Project 60-90 Ft Wide Portion	09-12-2017	60 90	0.9	12	(80% Of Channel Width) 9.7		
Remarks: All Depths at Mean Lower Low Water (MLLW), 1983-2001 Tidal Epoch							

US Army Corps of Engineers
Norfolk District

NOTES:

1. PROJECT: A CHANNEL 12 FEET DEEP, 60 to 200 FEET WIDE.
2. NOT FOR NAVIGATION USE. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATE(S) INDICATED & CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
3. SOUNDINGS: SHOWN IN FEET CENTERED ON POINT OF SHOALEST DEPTH IN 25 FT RADIUS.
4. BACKGROUND: VIRGINIA BASE MAPPING PROGRAM 2013 IMAGERY
5. AIDS TO NAVIGATION LOCATED WITH SURVEY VESSEL +/- 10 FEET ON DATE OF SURVEY.
6. SURVEY XYZ (*.XYZ) AND METADATA (*.MET) FILE NAME REFERENCED BY FILE NO.

PROJECTED COORDINATE SYSTEM: STATE PLANE
NAD 1983 (2011)
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
HORIZONTAL DATUM: NAD 1983 (2011)
HORIZONTAL CONTROL MONUMENTS: USCG DGPS

VERTICAL REFERENCE DATUM: NOS MLLW
VERTICAL DATUM: NAVD88 (2001)
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
SYSTEM/METHOD: SINGLE-BEAM
DATA TYPE: N/A
BIN SELECTION METHOD: N/A

NOS MLLW NTDE TIDAL EPOCH: 1983-2001

GAUGE INFORMATION - VERTICAL CONTROL MONUMENTS

MONUMENT	MLLW	NAVD88	MEAN RANGE OF TIDE	TIDE APPLICATION	AREA
NOS 863 9348 D, 1997	6.69'	4.87' (GEOID12B)	2.86	Zoning - NOAA	00+00 to 192+27

ATLANTIC INTRACOASTAL WATERWAY
SOUTHERN BRANCH OF ELIZABETH RIVER 12 FT
PROJECT CONDITION SURVEY

SURVEY DATE:
September 12, 2017

SURVEY BY: USACE Team Lead, Joseph N. Moore Jr.
eHYDRO FILE: IW_01_S12_20170912_CS

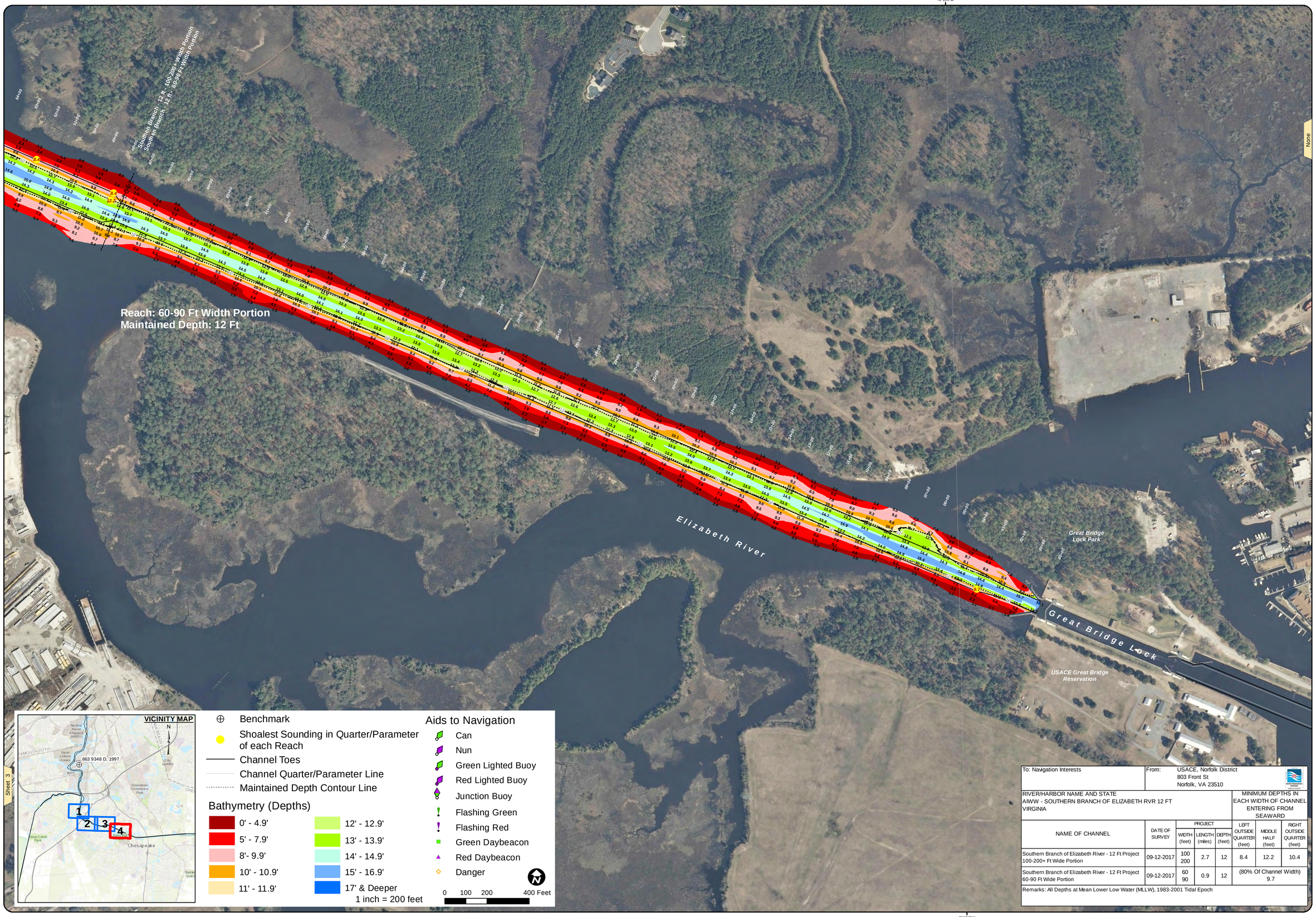
SHEET 3 of 4
Map Produced: 9/21/2017

APPROVED:

Chief, Navigation Analysis Section

APPROVED:

Chief, Navigation Support and Survey Section



To: Navigation Interests	From: USACE, Norfolk District 803 Front St Norfolk, VA 23510
RIVER/HARBOR NAME AND STATE AIWW - SOUTHERN BRANCH OF ELIZABETH RVR 12 FT VIRGINIA	MINIMUM DEPTHS IN EACH WIDTH OF CHANNEL ENTERING FROM SEAWARD

NAME OF CHANNEL	DATE OF SURVEY	PROJECT WIDTH (feet)	PROJECT LENGTH (miles)	PROJECT DEPTH (feet)	LEFT OUTSIDE QUARTER (feet)	MIDDLE HALF (feet)	RIGHT OUTSIDE QUARTER (feet)
Southern Branch of Elizabeth River - 12 Ft Project 100-200+ Ft Wide Portion	09-12-2017	100 200	2.7	12	8.4	12.2	10.4
Southern Branch of Elizabeth River - 12 Ft Project 60-90 Ft Wide Portion	09-12-2017	60 90	0.9	12	(80% Of Channel Width) 9.7		

Remarks: All Depths at Mean Lower Low Water (MLLW), 1983-2001 Tidal Epoch

US Army Corps of Engineers Norfolk District

NOTES:

1. PROJECT: A CHANNEL 12 FEET DEEP, 60 to 200 FEET WIDE.
2. NOT FOR NAVIGATION USE. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATE(S) INDICATED & CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
3. SOUNDINGS: SHOWN IN FEET CENTERED ON POINT OF SHOALEST DEPTH IN 25 FT RADIUS.
4. BACKGROUND: VIRGINIA BASE MAPPING PROGRAM 2013 IMAGERY
5. AIDS TO NAVIGATION LOCATED WITH SURVEY VESSEL +/- 10 FEET ON DATE OF SURVEY.
6. SURVEY XYZ (*.XYZ) AND METADATA (*.MET) FILE NAME REFERENCED BY FILE NO.

PROJECTED COORDINATE SYSTEM: STATE PLANE
DATUM: NAD83
HORIZONTAL ZONE: VIRGINIA SOUTH ZONE
PROJECTED COORDINATE UNITS: US SURVEY FEET
MAPPING VERTICAL DATUM: MLLW
HORIZONTAL CONTROL MONUMENTS: USCS DGPS

VERTICAL REFERENCE DATUM: NOS MLLW
TIDAL DATUM: NOS 1983-2001
IMPLIED VERTICAL ACCURACY: +/- 0.5 FEET
SYSTEM/METHOD: SINGLE-BEAM
BIN SIZE: N/A
BIN SELECTION METHOD: N/A

GAUGE INFORMATION - VERTICAL CONTROL MONUMENTS NOS MLLW NTDE TIDAL EPOCH: 1983-2001

MONUMENT	MLLW	NAVD88	MEAN RANGE OF TIDE	TIDE APPLICATION	AREA
NOS 863 9348 D. 1997	6.69'	4.97'(GEOID12B)	2.90'	Zoning - NOAA	00+00 to 192+27

ATLANTIC INTRACOASTAL WATERWAY
SOUTHERN BRANCH OF ELIZABETH RIVER 12 FT
PROJECT CONDITION SURVEY

SURVEY DATE: September 12, 2017

SURVEY BY: USACE Team Lead, Joseph N. Moore Jr.
eHYDRO FILE: W_01_512_20170912_CS

SHEET 4 of 4
Map Produced: 9/21/2017

APPROVED:

Chief, Navigation Analysis Section

APPROVED:

Chief, Navigation Support and Survey Section