SURVEY NOTES:

1) HORIZONTAL DATUM:
NAD83 (2011) MISSOURI EAST 2401, US SURVEY FOOT

2) VERTICAL DATUM:
NAVD88 (GEOID18), FOOT

3) DEPTHS SHOWN ARE BELOW LWRP2014 SURFACE.

4) SURVEY INFORMATION:
SURVEY VESSEL: BOWEN1 (24' SCULLY'S WORK BOAT)
ECHO SOUNDER: TELEDYNE ECHOTRAC E20
TRANSDUCER: ODOM SMSW200-4 (4° BEAM, 200 kHz)
SOUND VELOCITY SOURCE: VALEPORT SWIFT SVP
INS: SBG ELLIPSE2-E-G4A2-B1
GNSS RECEIVER: TRIMBLE MPS865 WITH DUAL ANTENNAS
GNSS SOURCE: TRIMBLE CENTERPOINT RTX
TIDE METHOD: REAL-TIME KINEMATIC
TIDE SOURCE: TRIMBLE CENTERPOINT RTX

5) THE SURVEY WAS COMPLETED IN ACCORDANCE WITH QUALITY CONTROL PLAN PROCEDURES.

JUNE 23, 2023
INTERPOLATED WATER SURFACE ELEVATIONS

MILE	WSE @ 9:00	WSE @ 12:00	LWRP 2014	LWRP DIF @ 9:00	LWRP DIF @ 12:00
36	304.08	304.06	298.62	5.46	5.44
37	304.73	304.71	299.32	5.41	5.39
38	305.38	305.36	300.08	5.30	5.28
39	306.03	306.01	300.72	5.31	5.29
40	306.66	306.64	301.29	5.37	5.35
41	307.26	307.24	301.84	5.42	5.40

GAGE RECORD

River Mile	River Gage	Zero NAVD88	Time 1	Stage 1	Time 2	Stage 2
28.2	Price Landing, MO	298.95	9:00	0.04	12:00	0.03
39.5	Commerce, MO	301.60	9:00	4.76	12:00	4.74
43.7	Thebes, IL	299.71	9:00	9.17	12:00	9.14

ILLINOIS
MISSOURI
Santa Fe Chute
Burnham Island
Burnham Island RP (39.0)
Commerce
40
39
38
32
N
Scale: 1 Inch = 800.00 Feet
500 1000 2000 3000 4000 Feet

St. Louis District

DATES OF SURVEY: JUNE 23, 2023

FILE NO.: 041_038F2323
REQUEST NO.: W912P923R0086

SCALE: 1" = 800' (ANSI B)

FIELD BOOKS:

Approved: FIELD CARTOGRAPHER
Approved: CIVIL ENGINEERING TECHNICIAN
Approved: ASST. CHIEF OF SURVEY
Approved: CHIEF OF SURVEY
Date:

U.S. ARMY CORPS OF ENGINEERS
ST. LOUIS DISTRICT
ST. LOUIS, MISSOURI

SURVEYED BY:
BOWEN ENGINEERING AND SURVEYING, P.C.
2121 MEGAN DRIVE
CAPE GIRARDEAU, MO 63701

UPPER MISSISSIPPI RIVER BASIN
MISSISSIPPI RIVER
PRE DREDGE SURVEY
RIVER MILES 40.2 - 36.9

SHEET NO.
1 OF 2

Santa Fe Chute

Burnham Island

ILLINOIS

Little Island

Goose Island

MISSOURI

Allen Towhead

Allen Towhead Lt. (37.2)

FIG 4s

37

38

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Scale: 1 Inch = 800.00 Feet

500 1000 2000 3000 4000 Feet

E 1,132,000 E 1,134,000 E 1,136,000 E 1,138,000 E 1,140,000

N 482,000 N 480,000 N 478,000 N 476,000 N 474,000 N 472,000 N 470,000

St. Louis District

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UPPER MISSISSIPPI RIVER BASIN
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PRE DREDGE SURVEY
RIVER MILES 40.2 - 36.9

SHEET NO.
2 OF 2