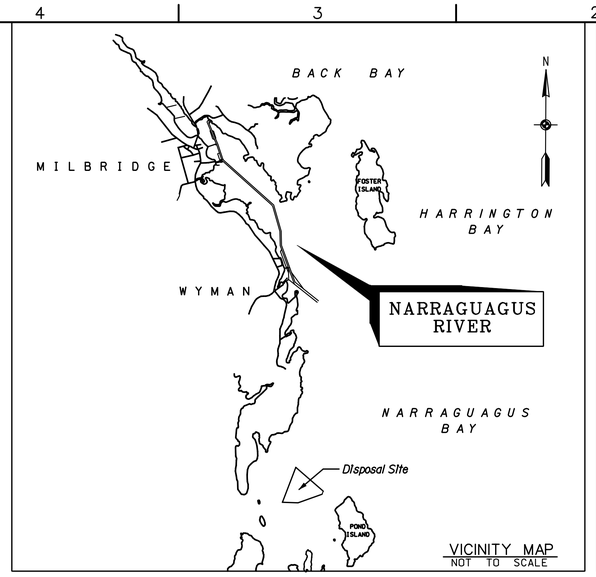
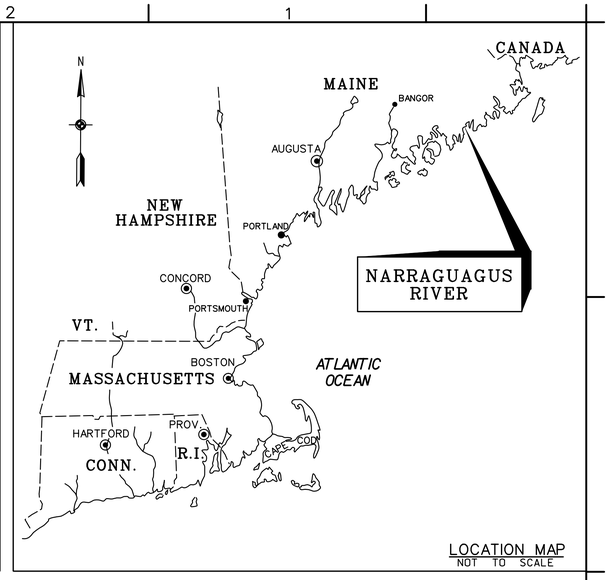
US Army Corps
of Engineers
New England District



VICINITY MAP
NOT TO SCALE



LOCATION MAP
NOT TO SCALE

MAINTENANCE DREDGING
11-FT, 9FT, AND 6-FT CHANNELS
11-FT, 9FT, AND 6-FT ANCHORAGES
6-FT TURNING BASIN

NARRAGUAGUS RIVER
MILBRIDGE, MAINE

VALUE ENGINEERING PAYS DIVIDENDS

SAFETY PAYS

SOLICITATION # W912WJ-04-B-0001

SEE SPECIFICATIONS FOR DRAWING SIGNATURES

APPROVED FUNCTIONAL ADEQUACY		RECOMMENDED BY:	
TECHNICAL LEAD ENGINEER	DATE:	DEPUTY CHIEF, E/P DIV	DATE:
REVIEWED BY:		APPROVED BY:	
CHIEF, DESIGN BRANCH	DATE:	CHIEF, ENGRG/PLANNING DIV	DATE:
REVIEWED BY:			
CH. HTRW/GEOTECH ENGRG BR	DATE:		

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

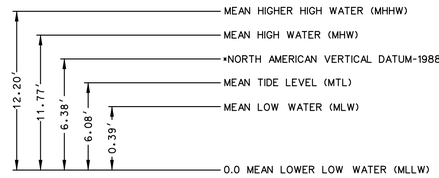
This project was designed by the New England District of the U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear on these project documents, within the scope of their employment as required by ER 1110-1-8152.

NARRAGUAGUS RIVER
MILBRIDGE, MAINE
MAINTENANCE DREDGING
11-FT, 9-FT, AND 6-FT CHANNELS
11-FT, 9-FT, AND 6-FT ANCHORAGES
6-FT TURNING BASIN
COVER SHEET

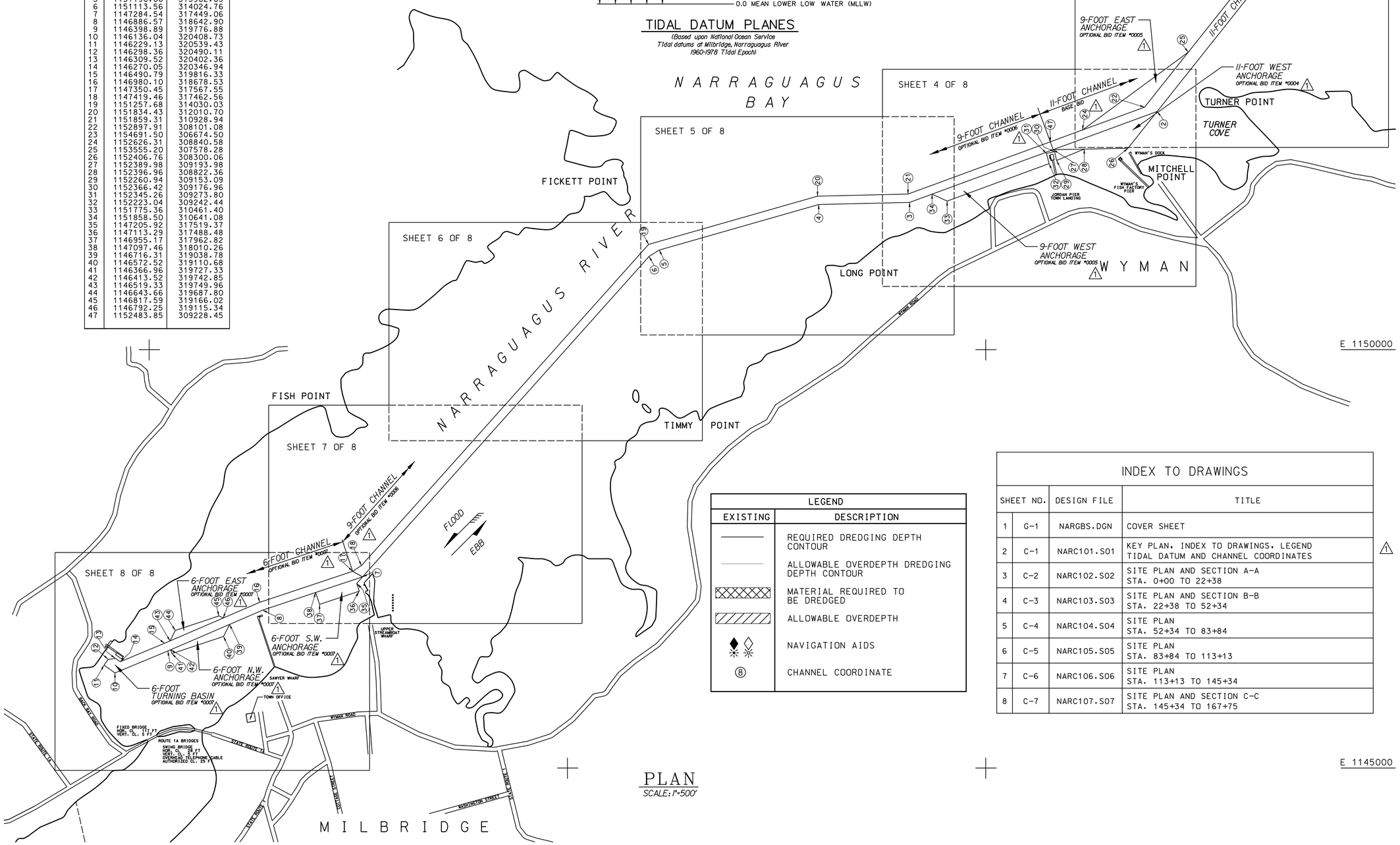
Reference number:
G-1
Sheet 1 of 8

CHANNEL COORDINATES
NARRAGUAGUS RIVER - MILBRIDGE, MAINE
6-FT, 9-FT, AND 11-FT CHANNELS
6-FT, 9-FT, AND 11-FT ANCHORAGES
6-FOOT TURNING BASIN
STATE PLANE (EAST ZONE) NAD 1983

#	EASTING	NORTHING
1	1154598.13	306557.10
2	1152846.85	307950.02
3	1151759.72	310910.04
4	1151734.76	311995.55
5	1151190.06	313902.65
6	1151113.56	314024.76
7	1147284.54	317449.06
8	1146886.57	318642.90
9	1146398.89	319776.88
10	1146136.04	320408.73
11	1146229.13	320539.43
12	1146298.36	320490.11
13	1146309.52	320402.36
14	1146270.05	320346.94
15	1146490.79	319816.33
16	1146980.10	318678.53
17	1147350.45	317567.55
18	1147419.46	317462.56
19	1151257.68	314030.03
20	1151834.43	312010.70
21	1151859.31	310928.94
22	1152897.91	308101.08
23	1154691.50	306674.50
24	1152626.31	308840.58
25	1153555.20	307578.28
26	1152406.76	308300.06
27	1152389.98	309193.98
28	1152396.86	308822.36
29	1152260.94	309153.09
30	1152366.42	309176.96
31	1152345.26	309273.80
32	1152223.04	309242.44
33	1151775.36	310461.40
34	1151858.50	310641.08
35	1147205.92	317519.37
36	1147113.29	317488.48
37	1146955.17	317962.82
38	1147097.46	318010.26
39	1146716.31	319038.78
40	1146572.52	319110.68
41	1146366.96	319727.33
42	1146413.52	319742.85
43	1146519.33	319749.96
44	1146643.66	319687.80
45	1146817.59	319166.02
46	1146792.25	319115.34
47	1152483.85	309228.45



TIDAL DATUM PLANES
(Based upon National Ocean Service Tidal datums at Millbridge, Narraguagus River 1960-1978 Tidal Epoch)



PLAN
SCALE: 1"=500'

LEGEND	
EXISTING	DESCRIPTION
	REQUIRED DREDGING DEPTH CONTOUR
	ALLOWABLE OVERDEPTH DREDGING DEPTH CONTOUR
	MATERIAL REQUIRED TO BE DREDGED
	ALLOWABLE OVERDEPTH
	NAVIGATION AIDS
8	CHANNEL COORDINATE

INDEX TO DRAWINGS

SHEET NO.		DESIGN FILE	TITLE
1	G-1	NARGBS.DGN	COVER SHEET
2	C-1	NARC101.S01	KEY PLAN, INDEX TO DRAWINGS, LEGEND TIDAL DATUM AND CHANNEL COORDINATES
3	C-2	NARC102.S02	SITE PLAN AND SECTION A-A STA. 0+00 TO 22+38
4	C-3	NARC103.S03	SITE PLAN AND SECTION B-B STA. 22+38 TO 52+34
5	C-4	NARC104.S04	SITE PLAN STA. 52+34 TO 83+84
6	C-5	NARC105.S05	SITE PLAN STA. 83+84 TO 113+13
7	C-6	NARC106.S06	SITE PLAN STA. 113+13 TO 145+34
8	C-7	NARC107.S07	SITE PLAN AND SECTION C-C STA. 145+34 TO 167+75

GRAPHIC SCALE:
1" = 500'
500 0 500 1000

US Army Corps of Engineers
New England District

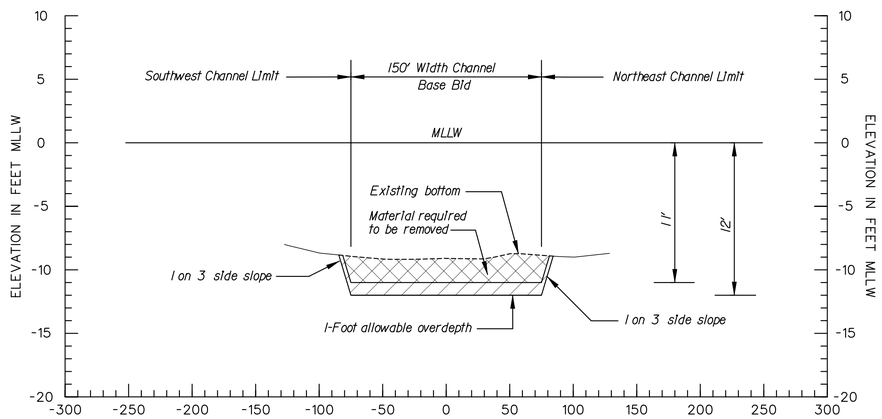
Symbol	Description	Date	Appr.
1	Vertical datum revised and misc. changes	1/14/04	ATM

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

Surveyed By: R. Macgovern, Hydrographic Crew — Date: 12/17/03 — Rev.
Plotted By: William H. Walker — Design file:
/S/ Maureen T. Murray, Asst. Chief, Survey Section — Drawing code: 2571
/S/ Stephen A. Johnston, Chief, Survey Section — File name: NARC101.S01; Plot date: 01/14/04; Plot scale: 1"=500'

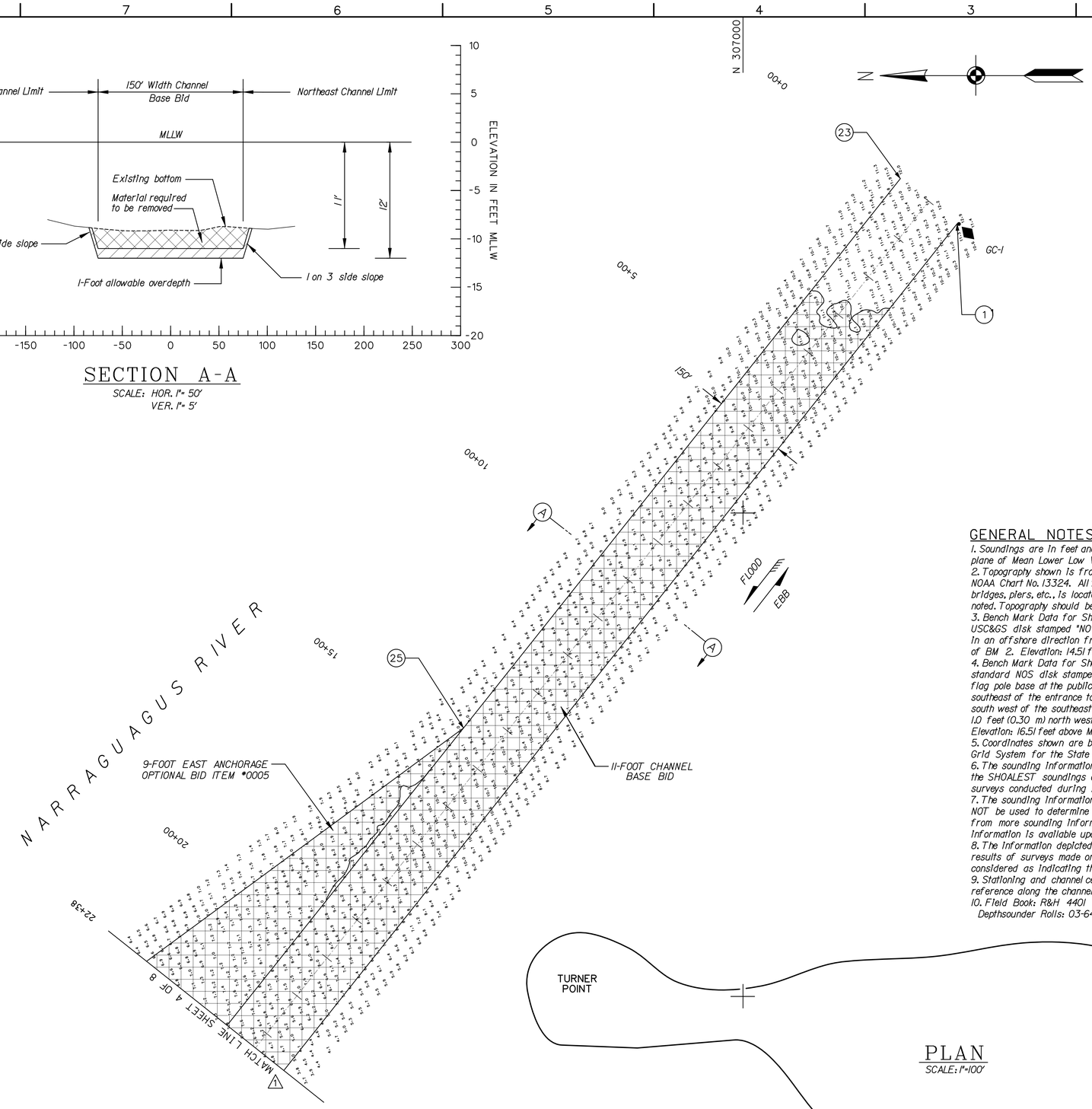
NARRAGUAGUS RIVER
MILBRIDGE, MAINE
MAINTENANCE DREDGING
11-FT, 9-FT, AND 6-FT CHANNELS
11-FT, 9-FT, AND 6-FT ANCHORAGES
6-FT TURNING BASIN
KEY PLAN, INDEX TO DRAWINGS, LEGEND
TIDAL DATUM AND CHANNEL COORDINATES

Reference number:
C-1
Sheet 2 of 8



SECTION A-A

SCALE: HOR. 1"= 50'
VER. 1"= 5'



PLAN

SCALE: 1"=100'

INDEX OF NAVIGATION AIDS			
NO.	DATE	STATE PLANE COORDINATES	GEOGRAPHIC POSITION
GC-1	04/03/03	N 306553.28 E 1154597.77	44° - 30′- 20.9"N 67° - 50′- 49.2"W
RN-2	04/03/03	N 308113.68 E 1152944.12	44° - 30′- 36.4"N 67° - 51′- 11.9"W
GC-3	04/03/03	N 309129.49 E 1152465.62	44° - 30′- 46.5"N 67° - 51′- 18.4"W
RN-4	04/03/03	N 310847.18 E 1151929.75	44° - 31′- 03.5"N 67° - 51′- 25.6"W
GC-5	04/03/03	N 312033.03 E 1151756.19	44° - 31′- 15.2"N 67° - 51′- 27.9"W
GC-7	04/03/03	N 313867.11 E 1151221.05	44° - 31′- 33.4"N 67° - 51′- 35.0"W
RN-8	04/03/03	N 314854.52 E 1150405.51	44° - 31′- 43.2"N 67° - 51′- 46.2"W
GC-9	04/03/03	N 315708.74 E 1149243.96	44° - 31′- 51.7"N 67° - 52′- 02.1"W
RN-10	04/03/03	N 316271.90 E 1148770.71	44° - 31′- 57.3"N 67° - 52′- 08.6"W
RN-12	04/03/03	N 317116.73 E 1147800.82	44° - 32′- 05.7"N 67° - 52′- 21.9"W
GC-13	04/03/03	N 317465.45 E 1147301.54	44° - 32′- 09.2"N 67° - 52′- 28.7"W
GC-15	04/03/03	N 318685.96 E 1146865.23	44° - 32′- 21.3"N 67° - 52′- 34.6"W
GC-17	04/03/03	N 319811.45 E 1146411.94	44° - 32′- 32.4"N 67° - 52′- 40.8"W

GENERAL NOTES:

1. Soundings are in feet and tenths and refer to the plane of Mean Lower Low Water (MLLW).
2. Topography shown is from previous surveys and/or NOAA Chart No. 13324. All topography, including shoreline, bridges, piers, etc., is located approximate unless otherwise noted. Topography should be used as a general reference only.
3. Bench Mark Data for Sheets 3-6: BM 3 (1948) is a standard USC&GS disk stamped "NO 3 1948", set in rock ledge, 10 feet in an offshore direction from base of bluff and 215 feet south of BM 2. Elevation: 14.51 feet above MLLW.
4. Bench Mark Data for Sheets 6-8: BM 2581 A (1999) is a standard NOS disk stamped "2581 A 1999", set in the concrete flag pole base at the public boat access, 184 feet (56 m) south southeast of the entrance to the public pier, 93.5 feet (28.50 m) south west of the southeast corner of the dirt parking area, and 1.0 feet (0.30 m) north west of the center of the flag pole. Elevation: 16.51 feet above MLLW.
5. Coordinates shown are based on the Transverse Mercator Grid System for the State of Maine East Zone & NAD 1983.
6. The sounding information shown on these maps represents the SHOALEST soundings of those obtained from hydrographic surveys conducted during April 2003.
7. The sounding information depicted on these maps should NOT be used to determine volumes. Volumes are determined from more sounding information than shown. Additional sounding information is available upon request.
8. The information depicted on these maps represents the results of surveys made on the dates indicated, and can only be considered as indicating the general conditions existing at that time.
9. Stationing and channel centerline used as an approximate reference along the channel.
10. Field Book: R&H 4401
Depthsounder Rolls: 03-647/01-07

GRAPHIC SCALES:

1" = 5' (5 0 5 10)
1" = 50' (50 0 50 100)
1" = 100' (100 0 100 200)

US Army Corps of Engineers
New England District

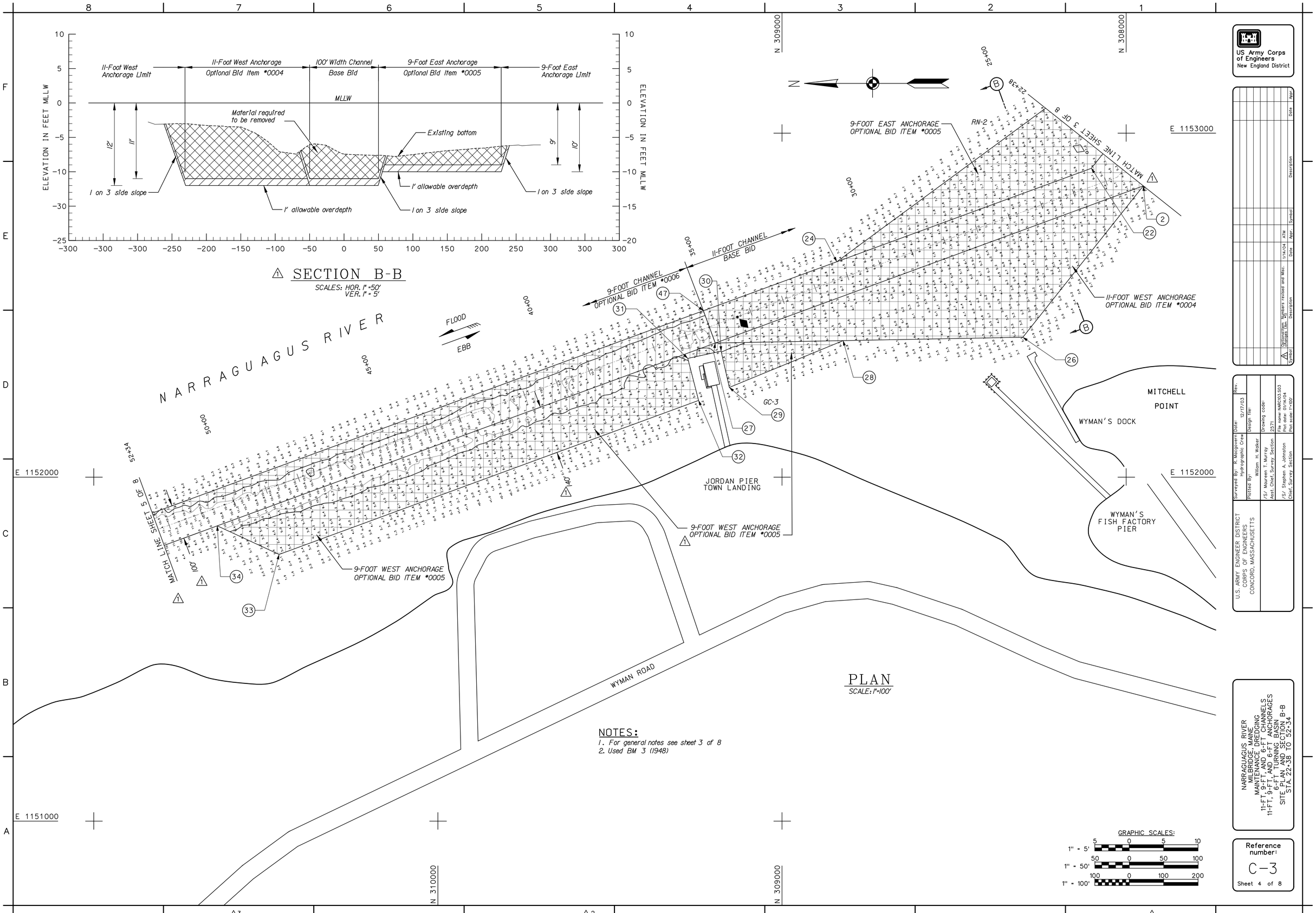
Symbol	Misc. Changes (Apr. 11)	1/14/04	ATM	Symbol	Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

Surveyed By: R. Macgovern, Hydrographic Crew — Date: 12/17/03 — Rev.
Plotted By: William H. Walker — Design file:
/S/ Maureen T. Murray, Asst. Chief, Survey Section — Drawing code: 2571
/S/ Stephen A. Johnston, Chief, Survey Section — File name: NARV02.S02; Plot date: 01/14/04; Plot scale: 1"=100'

NARRAGUAGUS RIVER
MILBRIDGE, MAINE
MAINTENANCE DREDGING
11-FT, 9-FT, AND 6-FT CHANNELS
11-FT, 9-FT, AND 6-FT ANCHORAGES
AND TURNING BASIN
SITE PLAN AND SECTION A-A
STA. 0+00 TO 22+38

Reference number:
C-2
Sheet 3 of 8



NOTES:
1. For general notes see sheet 3 of 8
2. Used BM 3 (1948)

US Army Corps of Engineers
New England District

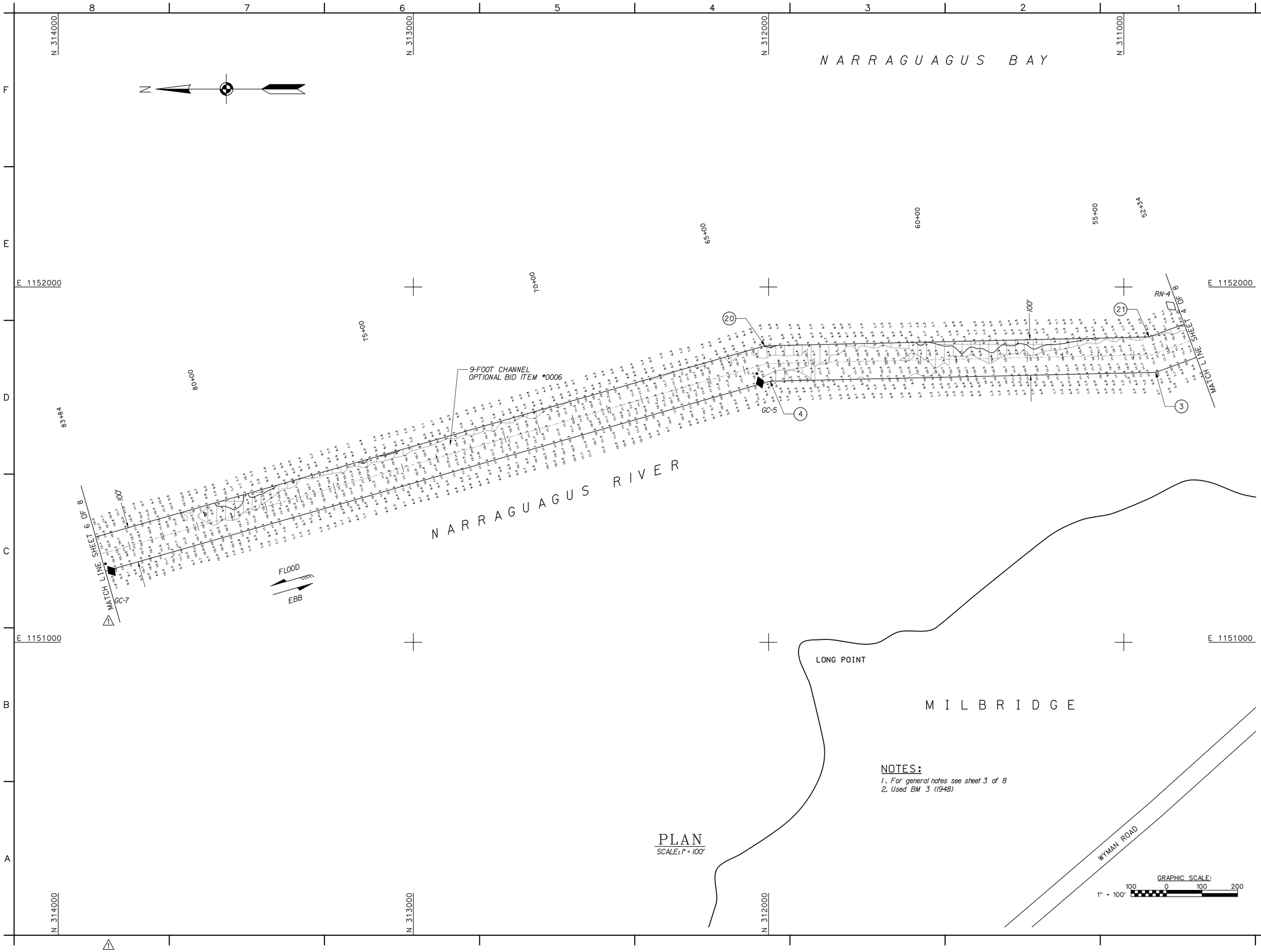
Symbol	Description	Date	Appr.
1	Optional item Numbers revised and Misc. changes (Am. #1)	1/14/04	ATM

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

Surveyed By: R. Macgovern, Hydrographic Crew
Plotted By: William H. Walker
/S/ Maureen T. Murray, Asst. Chief, Survey Section
/S/ Stephen A. Johnston, Chief, Survey Section
Date: 12/17/03
Design file:
Drawing code: 2571
File name: NARC103.S03
Plot date: 01/14/04
Plot scale: 1"=100'
Rev.

NARRAGUAGUS RIVER
MILBRIDGE, MAINE
MAINTENANCE DREDGING
11-FT, 9-FT, AND 6-FT CHANNELS
11-FT, 9-FT, AND 6-FT ANCHORAGES
6-FT TURNING BASIN
SITE PLAN AND SECTION B-B
STA. 22+38 TO 52+34

Reference number:
C-3
Sheet 4 of 8



PLAN

SCALE: 1" = 100'

NOTES:

1. For general notes see sheet 3 of 8
2. Used BM 3 (1948)

US Army Corps of Engineers
New England District

Symbol	Description	Date	Appr.
1	Misc. Changes (Am. #3)	1/14/04	ATM

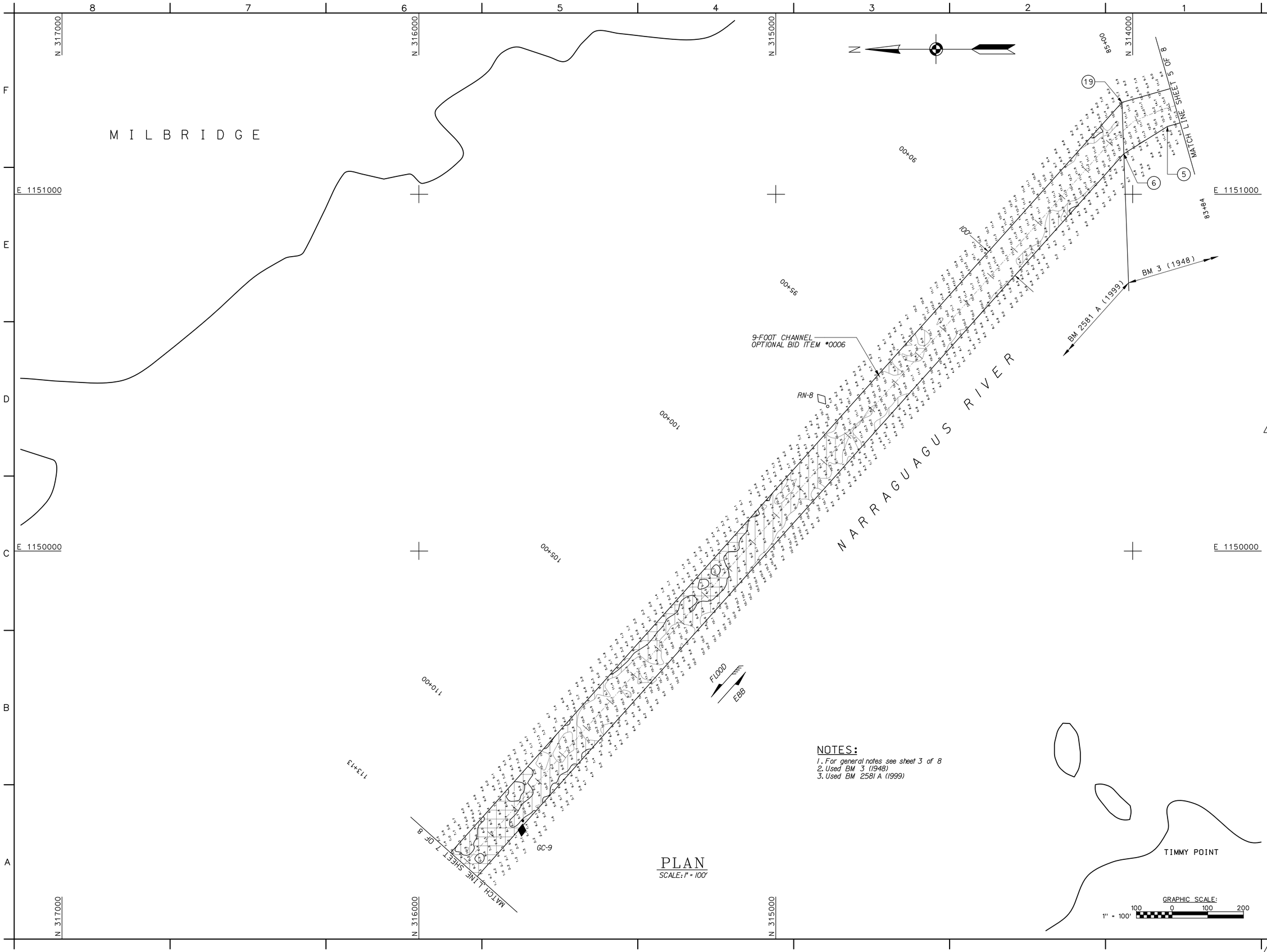
Symbol	Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

Surveyed By: R. Macgovern, Hydrographic Crew
Plotted By: William H. Walker
/S/ Maureen T. Murray, Asst. Chief, Survey Section
/S/ Stephen A. Johnston, Chief, Survey Section
Date: 12/17/03
Rev.
Design file:
Drawing code: 2571
File name: NARC04.S04
Plot date: 01/14/04
Plot scale: 1"=100'

NARRAGUAGUS RIVER
MILBRIDGE, MAINTENANCE DREDGING
11-FT, 9-FT, AND 6-FT CHANNELS
11-FT, 9-FT, AND 6-FT ANCHORAGES
6-FT TURNING BASIN
SITE PLAN
STA. 52+34 TO 83+84

Reference number:
C-4
Sheet 5 of 8



PLAN
SCALE: 1" = 100'

NOTES:
1. For general notes see sheet 3 of 8
2. Used BM 3 (1948)
3. Used BM 2581 A (1999)

US Army Corps of Engineers
New England District

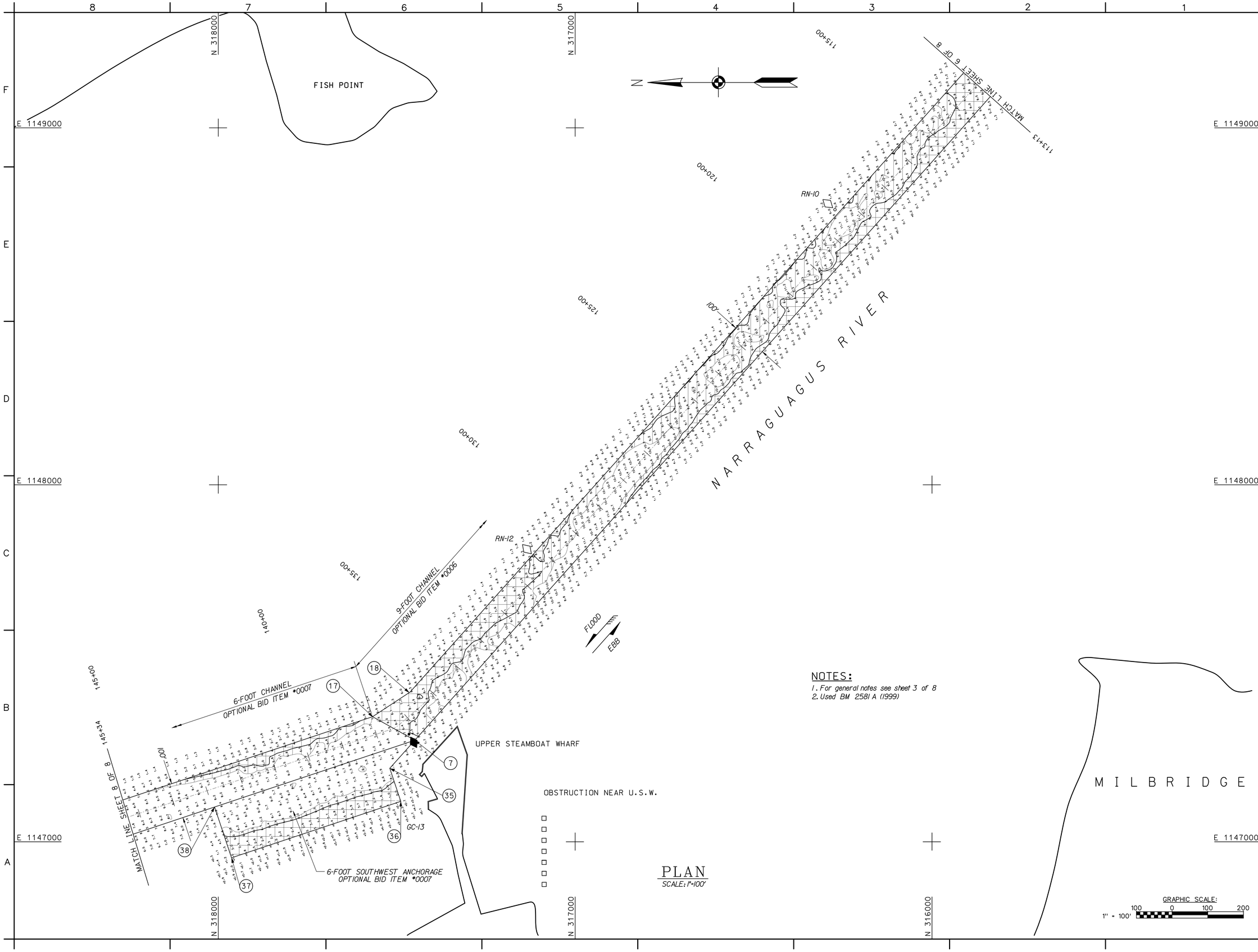
Symbol	Drawing approved date added Description	Date	Appr.	Symbol	Description	Date	Appr.
		1/14/04	ATM				

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

Surveyed By: R. Macpovern, Hydrographic Crew
Plotted By: William H. Walker
/S/ Maureen T. Murray, Asst. Chief, Survey Section
/S/ Stephen A. Johnston, Chief, Survey Section
Date: 12/17/03
Design file:
Drawing code: 2571
File name: NARC05.505
Plot date: 01/09/03
Plot scale: 1"=100'
Rev.

NARRAGUAGUS RIVER
MILBRIDGE, MAINE
MAINTENANCE DREDGING
11-FT, 9-FT, AND 6-FT CHANNELS
11-FT, 9-FT, AND 6-FT ANCHORAGES
6-FT TURNING BASIN
SITE PLAN
STA. 83+84 TO 113+13

Reference number:
C-5
Sheet 6 of 8



NOTES:

1. For general notes see sheet 3 of 8
2. Used BM 2581 A (1999)

PLAN

SCALE: 1"=100'

US Army Corps of Engineers
New England District

Symbol	Drawing approximate added	1/14/04	ATM	
	Description	Date	Appr.	Symbol

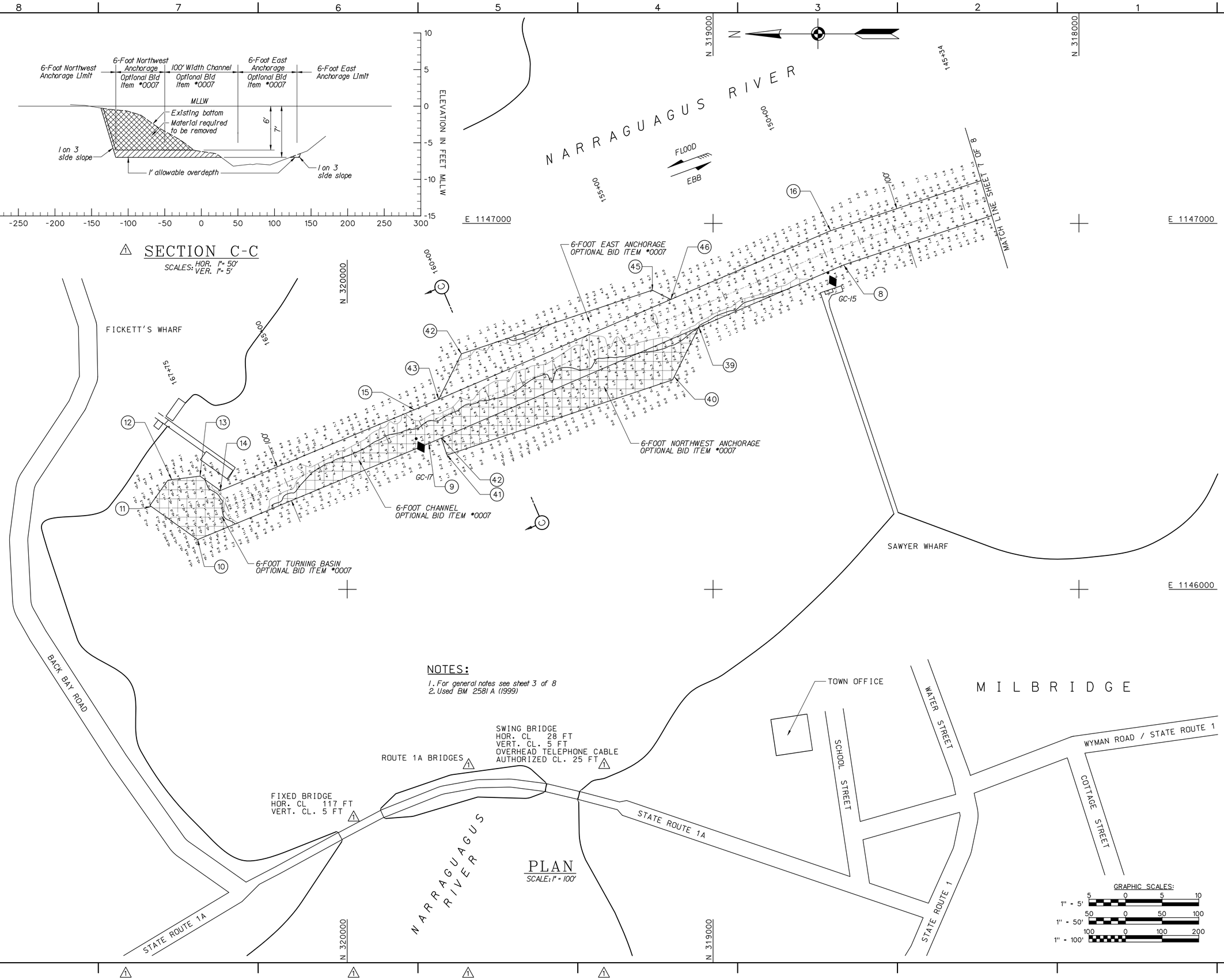
Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

Surveyed By: R. Macpovern, Hydrographic Crew — Date: 12/17/03 — Rev:
Plotted By: William H. Walker — Design file:
/S/ Maureen T. Murray, Asst. Chief, Survey Section — Drawing code: 2571
/S/ Stephen A. Johnston, Chief, Survey Section — File name: NARC06.506; Plot date: 01/20/03; Plot scale: 1"=100'

NARRAGUAGUS RIVER
MILBRIDGE, MAINE
MAINTENANCE DREDGING
11-FT, 9-FT, AND 6-FT CHANNELS
11-FT, 9-FT, AND 6-FT ANCHORAGES
6-FT TURNING BASIN
SITE PLAN
STA. 113+13 TO 145+34

Reference number:
C-6
Sheet 7 of 8



NOTES:

1. For general notes see sheet 3 of 8
2. Used BM 2581 A (1999)

US Army Corps of Engineers
New England District

Symbol	Description	Date	Appr.
1	Optional Item Numbers revised and Misc. changes (Am. #1)	1/14/04	ATM

Surveyed By: R. Macgovern
Hydrographic Crew
Date: 12/17/03
Rev.
Plotted By: William H. Walker
Design file:
Drawing code: 2571
/S/ Maureen T. Murray
Asst. Chief, Survey Section
File name: NARC107.S07
Plot date: 01/14/04
Plot scale: 1"=100'
/S/ Stephen A. Johnston
Chief, Survey Section

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

NARRAGUAGUS RIVER
MILBRIDGE, MAINE
MAINTENANCE DREDGING
11-FT, 9-FT, AND 6-FT CHANNELS
11-FT, 9-FT, AND 6-FT ANCHORAGES
6-FT TURNING BASIN
SITE PLAN AND SECTION C-C
STA. 145+34 TO 167+75

Reference number:
C-7
Sheet 8 of 8