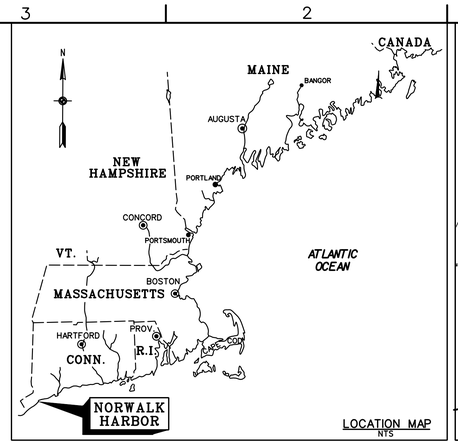
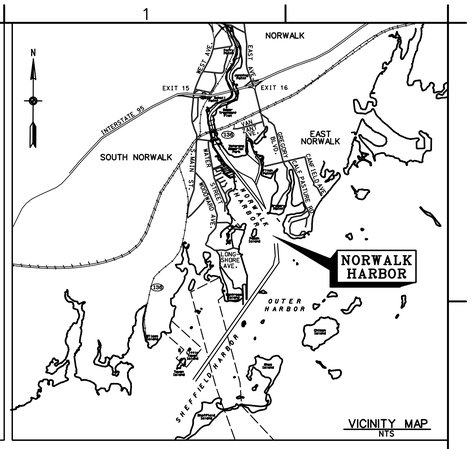
US Army Corps
of Engineers
New England District

MAINTENANCE DREDGING
6, 10 AND 12-FOOT CHANNELS
6 AND 10-FOOT ANCHORAGES
10-FOOT TURNING BASIN
NORWALK HARBOR

NORWALK
CONNECTICUT



LOCATION MAP
NTS



VICINITY MAP
NTS

SEE SPECIFICATIONS FOR DRAWING SIGNATURES

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

APPROVED FUNCTIONAL ADEQUACY
ROBERT MEADER, P.E. /s/
TECHNICAL LEAD ENGINEER DATE:
REVIEWED BY:
ANTHONY T. MACKOS, P.E. /s/
CHIEF, DESIGN BRANCH DATE:

RECOMMENDED BY:
N/A
DEPUTY CHIEF, E/P DIV DATE:
APPROVED BY:
H. FARRELL MCMILLAN /s/ 6/22/05
CHIEF, ENGRG/PLANNING DIV DATE:

REVIEWED BY:
RAIMO ILIAS, P.G. /s/
Ch., HTRW/GEOTECH ENGRG BR DATE:

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

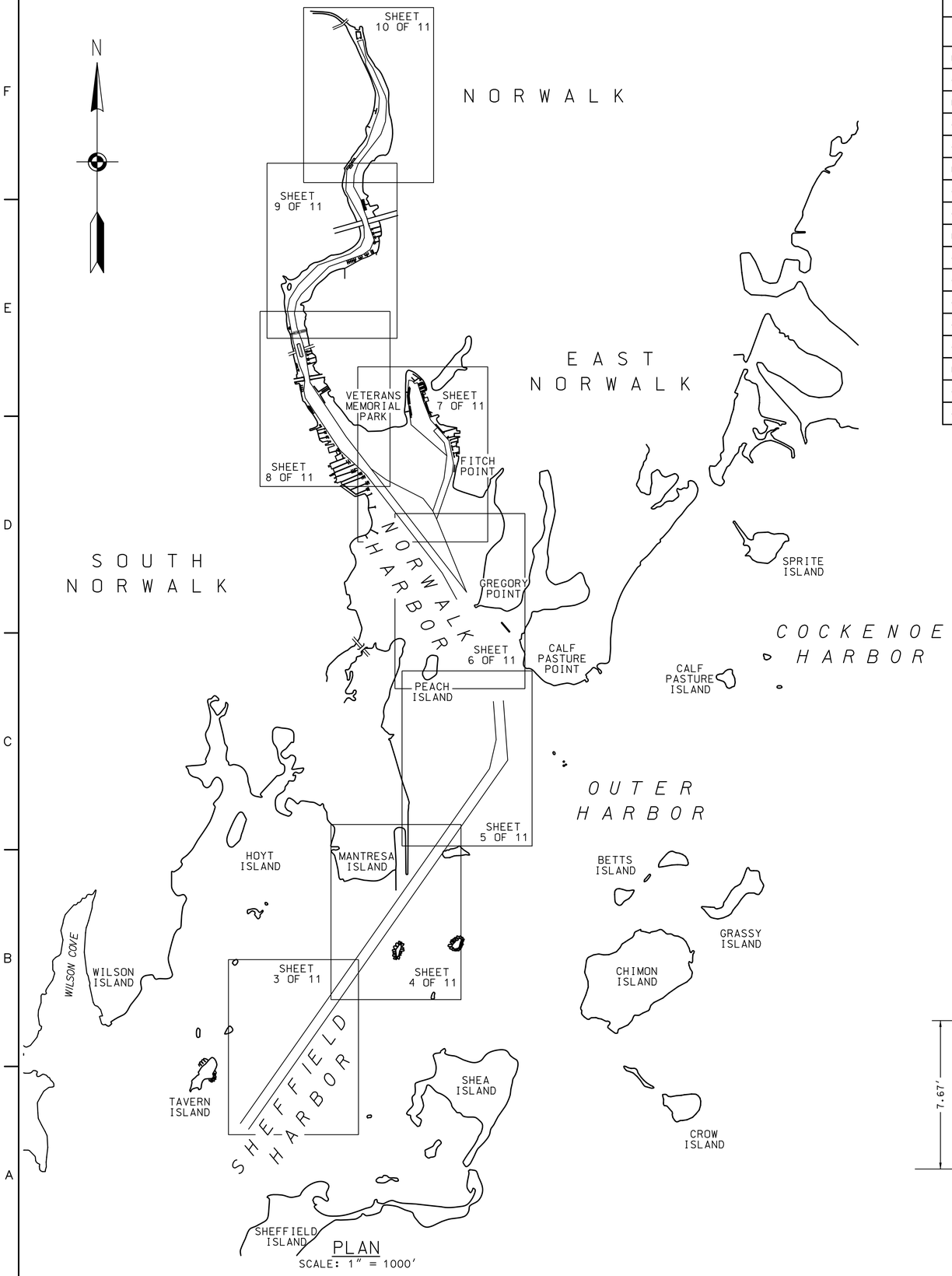
MAINTENANCE DREDGING
6, 10 AND 12-FOOT CHANNELS
6 AND 10-FOOT ANCHORAGES
10-FOOT TURNING BASIN
NORWALK HARBOR
NORWALK, CONNECTICUT
COVER SHEET

Reference number:
G-1
Sheet 1 of 11

VALUE ENGINEERING PAYS DIVIDENDS

SAFETY PAYS

SOLICITATION # W912WJ-05-B-0010



PLAN
SCALE: 1" = 1000'

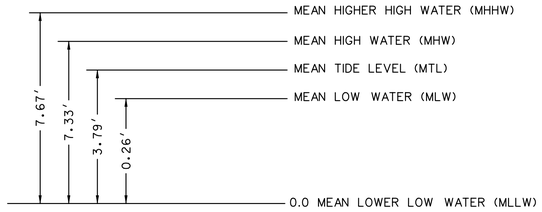
INDEX OF NAVIGATION AIDS			
NO.	DATE	STATE PLANE COORDINATES	GEOGRAPHIC POSITION
FI R-2	03/31/05	N 82704.06 E 415679.03	41° - 03′ - 30.1″N 73° - 25′ - 05.9″W
GC-3	03/31/05	N 82835.43 E 415479.77	41° - 03′ - 31.4″N 73° - 25′ - 08.5″W
FI R-4	03/31/05	N 84233.39 E 416744.70	41° - 03′ - 45.3″N 73° - 24′ - 51.8″W
GC-5	03/31/05	N 84420.79 E 416601.65	41° - 03′ - 47.1″N 73° - 24′ - 54.1″W
GC-7	03/31/05	N 85596.26 E 417405.12	41° - 03′ - 58.8″N 73° - 24′ - 43.7″W
RN-8	03/31/05	N 85746.74 E 417881.82	41° - 04′ - 00.3″N 73° - 24′ - 37.5″W
GC-9	03/31/05	N 86805.80 E 418165.11	41° - 04′ - 10.8″N 73° - 24′ - 33.9″W
GC-11A	03/31/05	N 88149.41 E 419226.49	41° - 04′ - 24.2″N 73° - 24′ - 20.2″W
RN-12	03/31/05	N 89010.44 E 420152.65	41° - 04′ - 32.8″N 73° - 24′ - 08.2″W
GC-13	03/31/05	N 89373.66 E 420070.05	41° - 04′ - 36.3″N 73° - 24′ - 09.3″W
GC-15	03/31/05	N 90194.21 E 420332.98	41° - 04′ - 44.5″N 73° - 24′ - 05.9″W
GC-17	03/31/05	N 91552.72 E 420299.65	41° - 04′ - 57.9″N 73° - 24′ - 06.5″W
GC-19	03/31/05	N 93210.51 E 419519.90	41° - 05′ - 14.2″N 73° - 24′ - 16.8″W
GC-21	03/31/05	N 94430.74 E 418668.35	41° - 05′ - 26.2″N 73° - 24′ - 28.1″W
RN-2	03/31/05	N 94584.83 E 419307.05	41° - 05′ - 27.8″N 73° - 24′ - 19.8″W
GC-3	03/31/05	N 95221.18 E 419368.66	41° - 05′ - 34.1″N 73° - 24′ - 19.0″W
GC-5	03/31/05	N 95807.94 E 419522.92	41° - 05′ - 39.9″N 73° - 24′ - 17.1″W

LEGEND

DESCRIPTION	SYMBOL
6, 10 & 12-FOOT DEPTH CONTOUR	
MATERIAL REQUIRED TO BE DREDGED SHOWN THUS	
ALLOWABLE OVERDEPTH SHOWN THUS (CROSS SECTION ONLY)	
NAVIGATION AIDS	
BORINGS WITH IDENTIFICATIONS	FD-03-A
NO SPUD ZONE	
UNSUITABLE MATERIAL ZONE	

INDEX TO DRAWINGS

SHEET NO.		DESIGN FILE	TITLE
1	G-1	NWHGBS.DGN	COVER SHEET
2	C-1	NWHC101.S01	KEY PLAN, TIDAL DATUM, LEGEND, GENERAL NOTES INDEX TO DRAWINGS & INDEX TO NAVIGATION AIDS
3	C-2	NWHC102.S02	PLAN - STA. 0+00 TO 35+00
4	C-3	NWHC103.S03	PLAN - STA. 35+00 TO 71+00
5	C-4	NWHC104.S04	PLAN AND SECTION A-A - STA. 71+00 TO 105+21
6	C-5	NWHC105.S05	PLAN AND SECTION B-B - STA. 105+21 TO 138+00
7	C-6	NWHC106.S06	PLAN AND SECTION C-C, D-D & J-J ENTRANCE CHANNEL STA. 138+00 TO 155+00 EAST CHANNEL STA. 0+00 TO 30+00
8	C-7	NWHC107.S07	PLAN AND SECTION E-E - STA. 155+00 TO 187+05
9	C-8	NWHC108.S08	PLAN AND SECTION F-F & G-G STA. 187+05 TO 226+19
10	C-9	NWHC109.S09	PLAN AND CROSS SECTIONS - STA. 226+19 TO 256+19
11	B-1	NWHB301.S10	CAD CELL BORING LOGS AND SECTIONS



TIDAL DATUM PLANES

(Based upon National Ocean Survey Tidal datums at South Norwalk, Norwalk River, Connecticut 1983-2001 Tidal Epoch)

GENERAL NOTES:

1. Soundings are in feet and tenths and are referred to the plane of Mean Lower Low Water (MLLW) 1983-2001 Tidal Epoch.
2. Topography from previous surveys and/or NOAA Chart No. 12368. All topography, including shoreline, bridges, piers, etc. is located approximate unless otherwise noted and should be used as a general reference only.
3. Bench Mark Data for Sheets 2-8: BM 8448A (2002) is a NOS disk, stamped "8448 A 2002", set in the concrete access ramp at "The Little Gym", 87 South Water Street 24.6 feet (7.50 m) west of the centerline of South Water Street, 13.7 feet (4.2 m) northwest of the entrance to the shop, 1.0 foot (0.3 m) southwest of the corner of the ramp, and 2.1 feet (0.6 m) above the sidewalk. Elevation is 12.33 feet above MLLW.
4. Bench Mark Data for Sheets 8-10: TBM 95 (2003) is a chiseled square on southwest corner of concrete outfall, on west side of Mullberry Lane, on the east side of Norwalk Harbor and under the north edge of Interstate-95 Bridge. TBM 95 (2003) is 54.10 feet (16.49 m) from the most northeasterly guard rail post on east side of road, also 47.65 feet (14.5 m) from the most northeasterly bridge support east of roadway and is 17.50 feet (5.30 m) from the most northwesterly guard rail post on the west side of roadway. Elevation is 9.63 feet above MLLW.
5. Coordinates are based on the Lambert Grid System for the State of Connecticut (Zone 0600) & NAD 1927.
6. The sounding information depicted on these maps represents the SHOALEST soundings of those obtained from hydrographic surveys conducted during March and April 2005.
7. The sounding information depicted on these maps should NOT be used to determine volumes. Volumes were determined from more sounding information than shown. Sounding information is available in digital format 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. Field Book: R&H 5093
Depthsounder Rolls: 05-768/01-09

GRAPHIC SCALE:
1000 0 1000 2000
1" = 1000'

US Army Corps of Engineers
New England District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

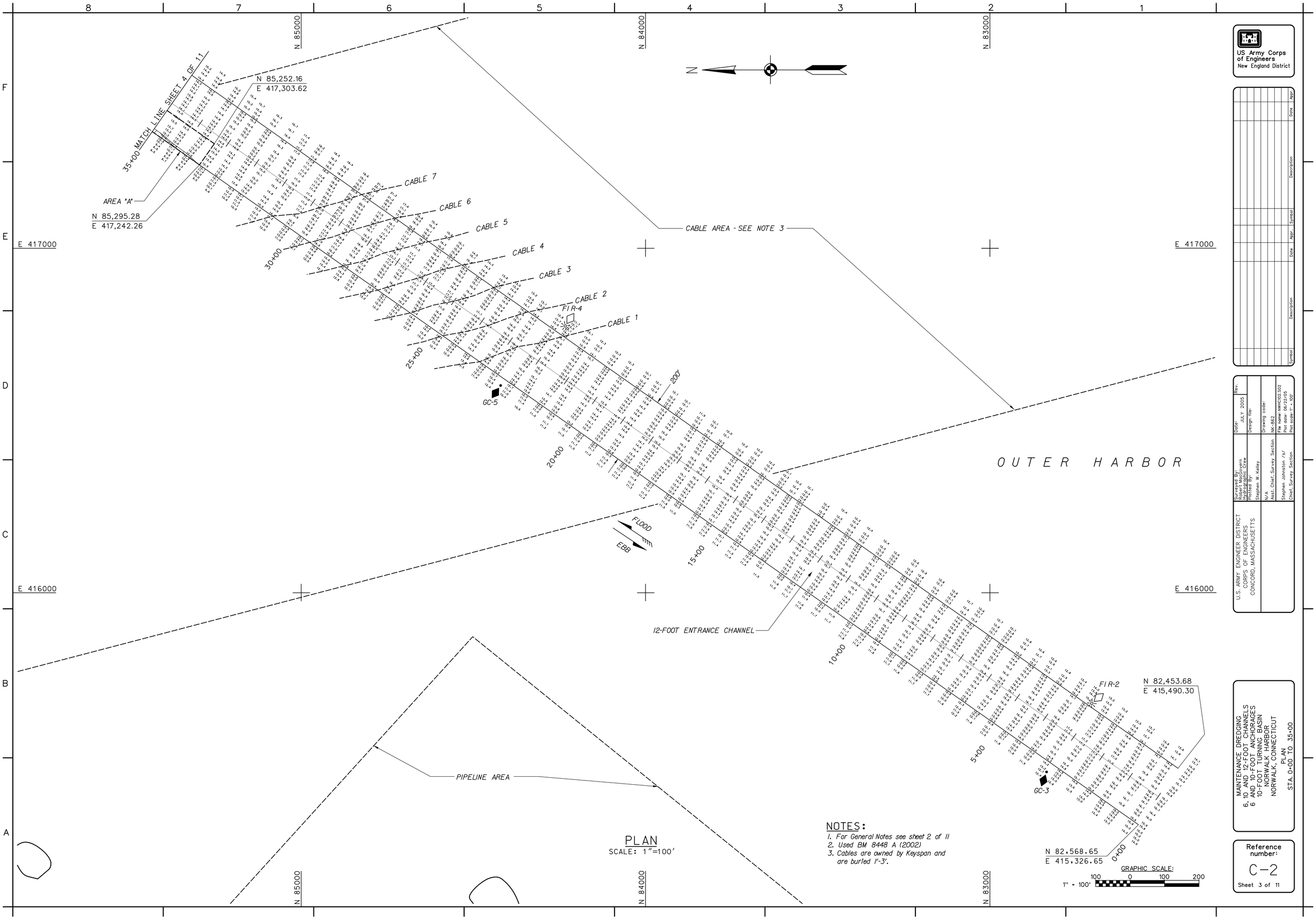
Date: JULY 2005
Rev.
Design file:
Drawing code: NK-862
File name: NWHC101.S01
Plot date: 06/22/05
Plot scale: 1" = 1000'

Surveyed By: Robert MacGovern, Peter Espinosa
Plotted By: Stephen W. Kelley
N/A
Asst. Chief, Survey Section
Stephen Johnston /s/
Chief, Survey Section

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

MAINTENANCE DREDGING
6, 10 AND 12-FOOT CHANNELS
6 AND 10-FOOT ANCHORAGES
10-FOOT TURNING BASIN
NORWALK HARBOR
NORWALK, CONNECTICUT
KEY PLAN, TIDAL DATUM, LEGEND, GENERAL NOTES
INDEX TO DRAWINGS & INDEX TO NAVIGATION AIDS

Reference number:
C-1
Sheet 2 of 11



PLAN
SCALE: 1"=100'

NOTES:
1. For General Notes see sheet 2 of 11
2. Used BM 8448 A (2002)
3. Cables are owned by Keyspan and are buried 1'-3'.

US Army Corps of Engineers
New England District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

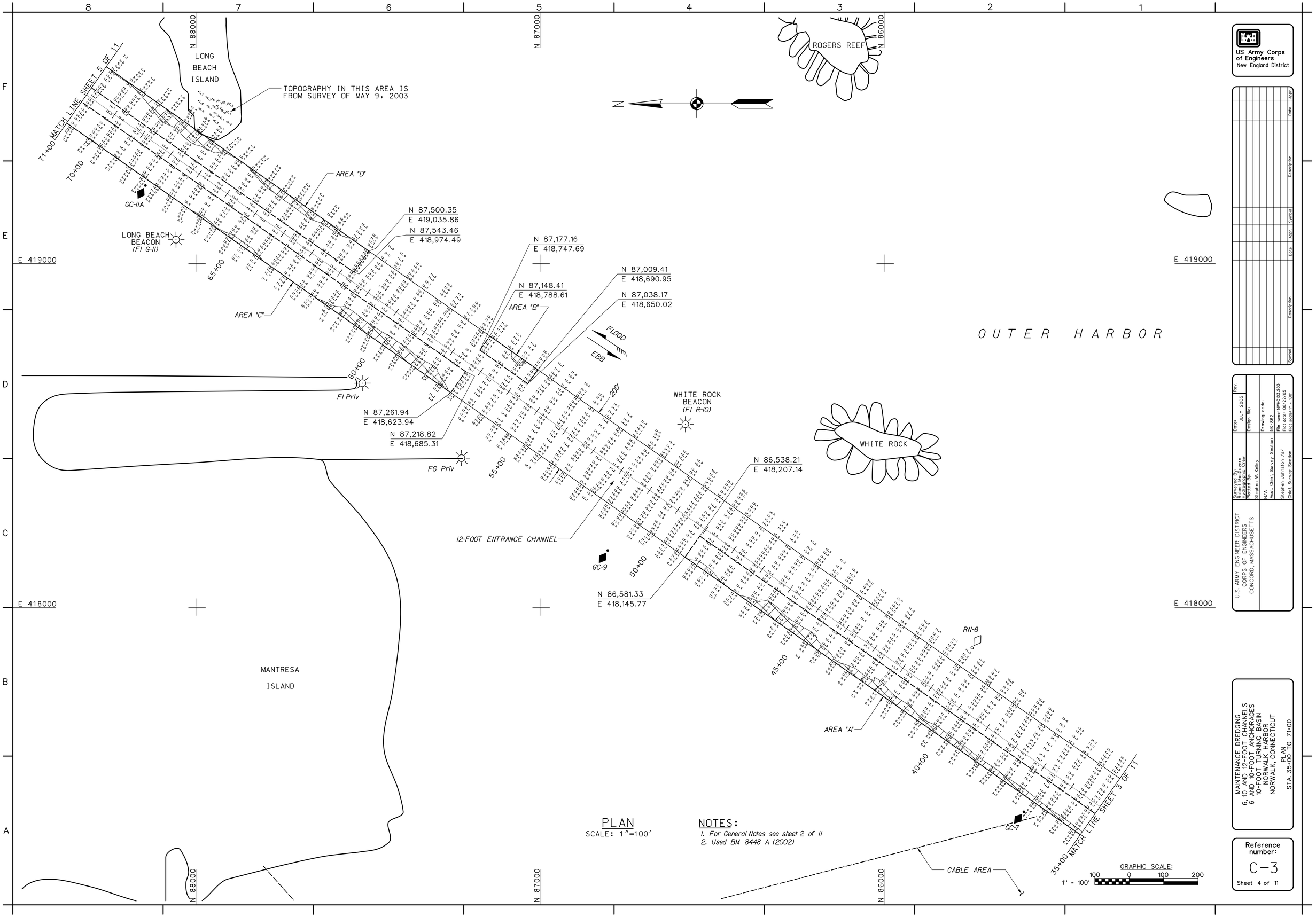
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

Surveyed By: Robert MacSorern / Robert Bergeron
Plotted By: Stephen W. Kelley
N/A
Asst. Chief, Survey Section
Stephen Johnston /s/
Chief, Survey Section

Date: JULY 2005
Rev.
Design file:
Drawing code:
NK-862
File name: NWNC102.502
Plot date: 06/22/05
Plot scale: 1" = 100'

MAINTENANCE DREDGING
6, 10 AND 12-FOOT CHANNELS
6' AND 10-FOOT ANCHORAGES
10-FOOT TURNING BASIN
NORWALK HARBOR
NORWALK, CONNECTICUT
PLAN
STA. 0+00 TO 35+00

Reference number:
C-2
Sheet 3 of 11



PLAN
SCALE: 1"=100'

NOTES:
1. For General Notes see sheet 2 of 11
2. Used BM 8448 A (2002)

US Army Corps of Engineers
New England District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

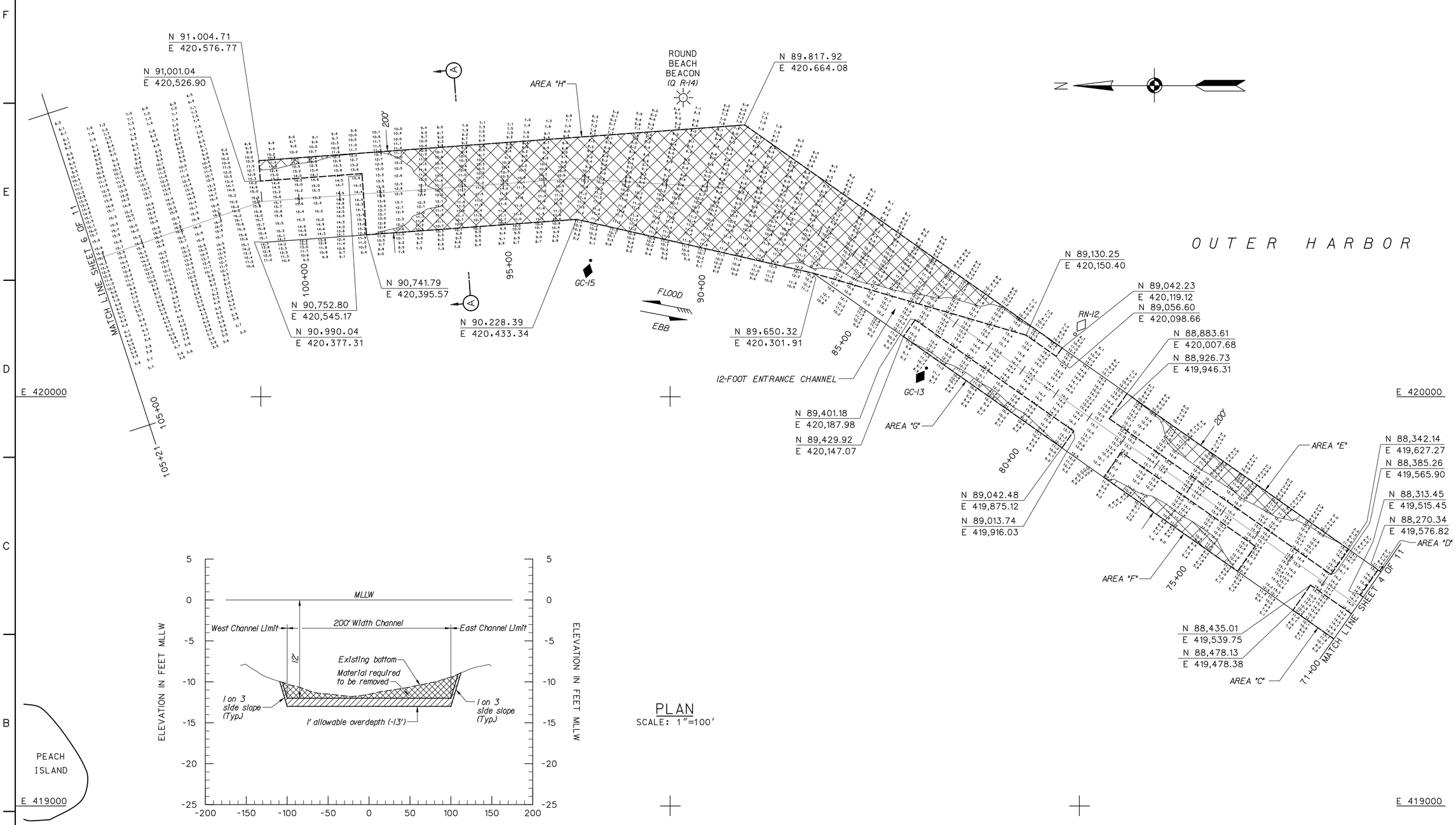
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

Surveyed By: Robert MacGlogorra, Richard Gonsalves
Plotted By: Stephen W. Kelley
N/A
Asst. Chief, Survey Section
Stephen Johnston /s/
Chief, Survey Section

Date: JULY 2005
Rev.
Design file:
Drawing code: NK-862
File name: NWNC103.503
Plot date: 06/22/05
Plot scale: 1" = 100'

MAINTENANCE DREDGING
6, 10 AND 12-FOOT CHANNELS
6 AND 10-FOOT ANCHORAGES
10-FOOT TURNING BASIN
NORWALK HARBOR
NORWALK, CONNECTICUT
PLAN
STA. 35+00 TO 71+00

Reference number:
C-3
Sheet 4 of 11



PLAN
SCALE: 1"=100'

SECTION A-A
SCALES: HOR. 1"= 50'
VER. 1"= 5'

NOTES:
1. For General Notes see sheet 2 of 11
2. Used BM 8448 A (2002)

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	Description	Date	Appr.	Symbol	Description	Date	Appr.

Date: JULY 2005 | Rev.
Design file:
Drawing code:
NK-862
File name: NWNC104.S04
Plot date: 06/22/05
Plot scale: 1" = 100'

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

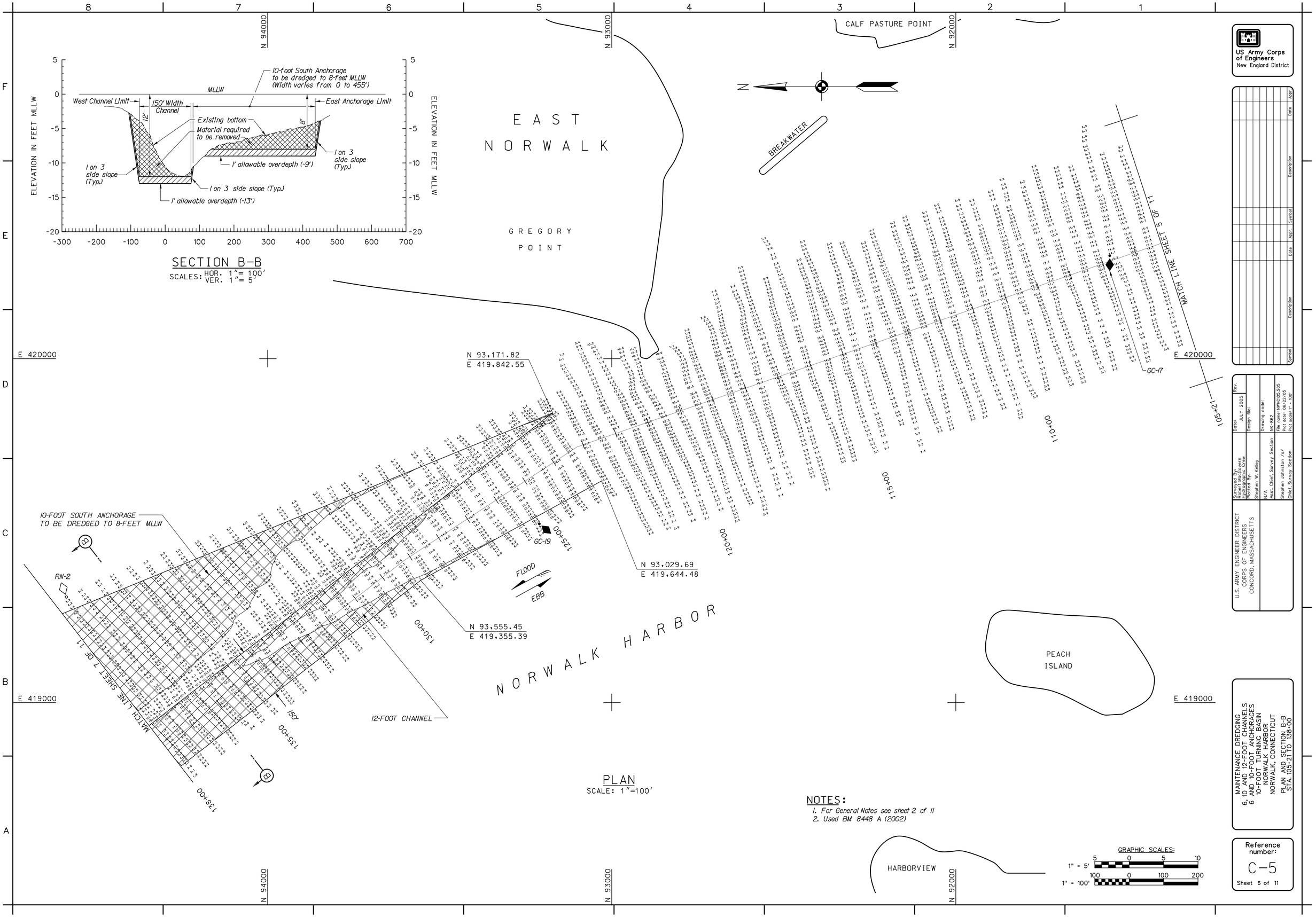
Surveyed By: Robert MacGovern, Robert Bergeron
Plotted By: Stephen W. Kelley
N/A
Asst. Chief, Survey Section
Stephen Johnston /s/
Chief, Survey Section

MAINTENANCE DREDGING
6, 10 AND 12-FOOT CHANNELS
6 AND 10-FOOT ANCHORAGES
10-FOOT TURNING BASIN
NORWALK HARBOR
NORWALK, CONNECTICUT
PLAN AND SECTION A-A
STA. 71+00 TO 105+21

Reference number:
C-4
Sheet 5 of 11

SECTION B-B

SCALES: HOR. 1"= 100' VER. 1"= 5'



PLAN

SCALE: 1"=100'

NOTES:

1. For General Notes see sheet 2 of 11
2. Used BM 8448 A (2002)

US Army Corps of Engineers
New England District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

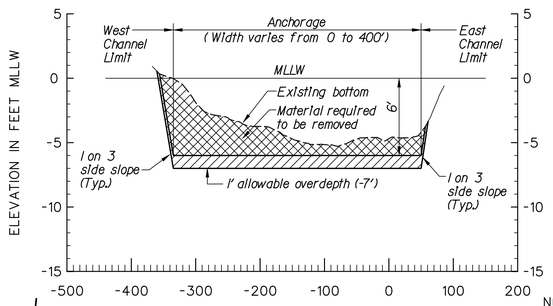
Surveyed By: Robert MacGovern, Richard Gibbs
Plotted By: Stephen W. Kelley
N/A
Asst. Chief, Survey Section
Stephen Johnston /s/
Chief, Survey Section

Date: JULY 2005
Design file:
Drawing code: NK-B62
File name: NWNC105.S05
Plot date: 06/22/05
Plot scale: 1" = 100'
Rev.

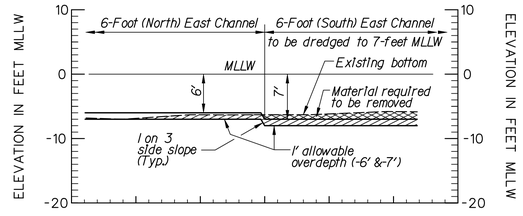
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

MAINTENANCE DREDGING
10' AND 12-FOOT CHANNELS
6' AND 10-FOOT ANCHORAGES
10-FOOT TURNING BASIN
NORWALK HARBOR
NORWALK, CONNECTICUT
PLAN AND SECTION B-B
STA. 105+21 TO 138+00

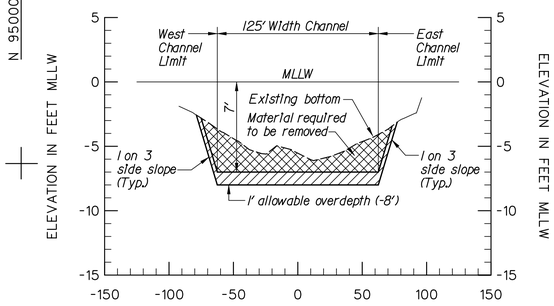
Reference number:
C-5
Sheet 6 of 11



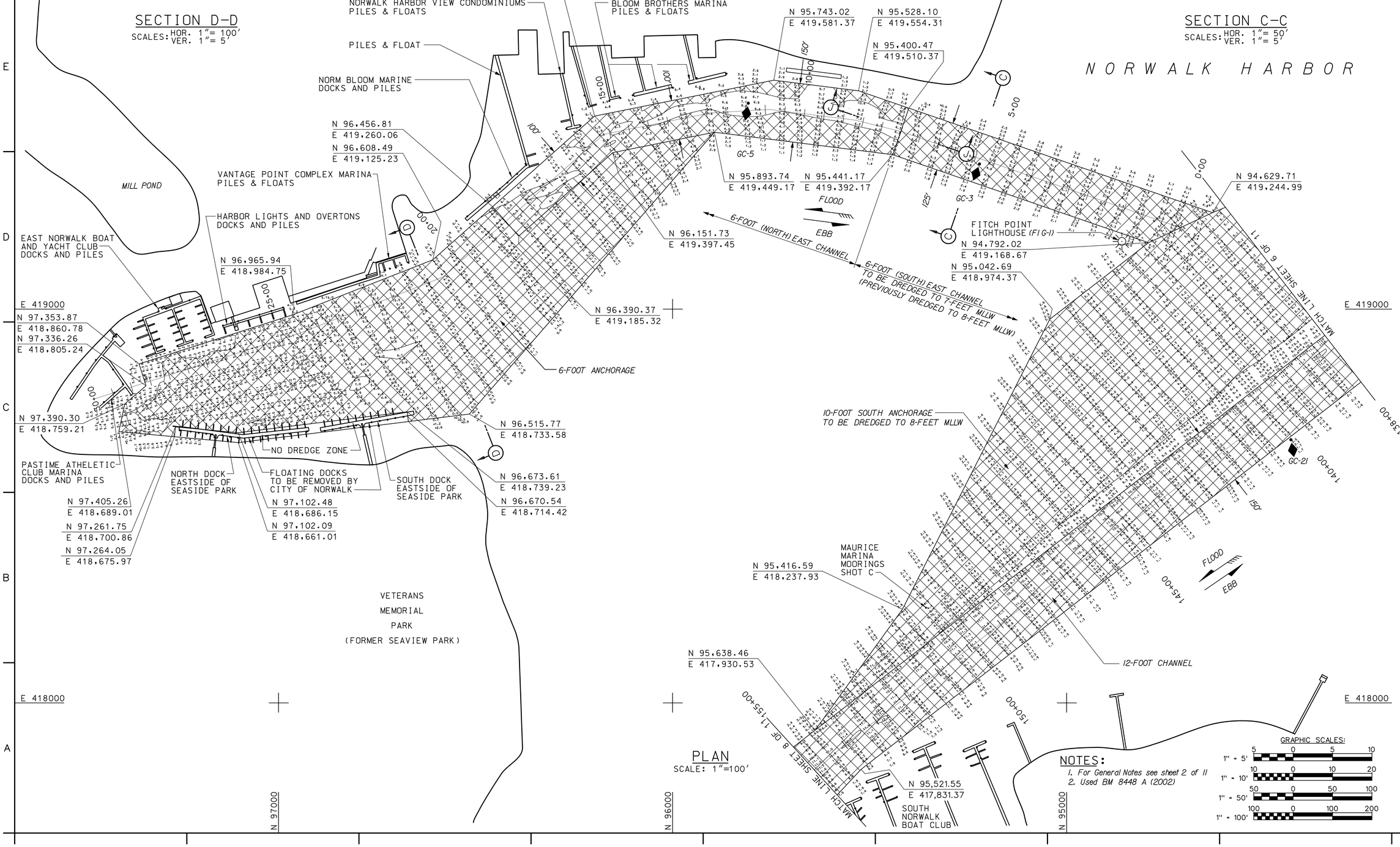
SECTION D-D
SCALES: HOR. 1"= 100' VER. 1"= 5'



SECTION J-J
SCALES: HOR. 1"= 50' VER. 1"= 10'



SECTION C-C
SCALES: HOR. 1"= 50' VER. 1"= 5'



PLAN
SCALE: 1"=100'

NOTES:
1. For General Notes see sheet 2 of 11
2. Used BM 8448 A (2002)

GRAPHIC SCALES:
1" = 5' (5 0 5 10)
1" = 10' (10 0 10 20)
1" = 50' (50 0 50 100)
1" = 100' (100 0 100 200)

US Army Corps of Engineers
New England District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

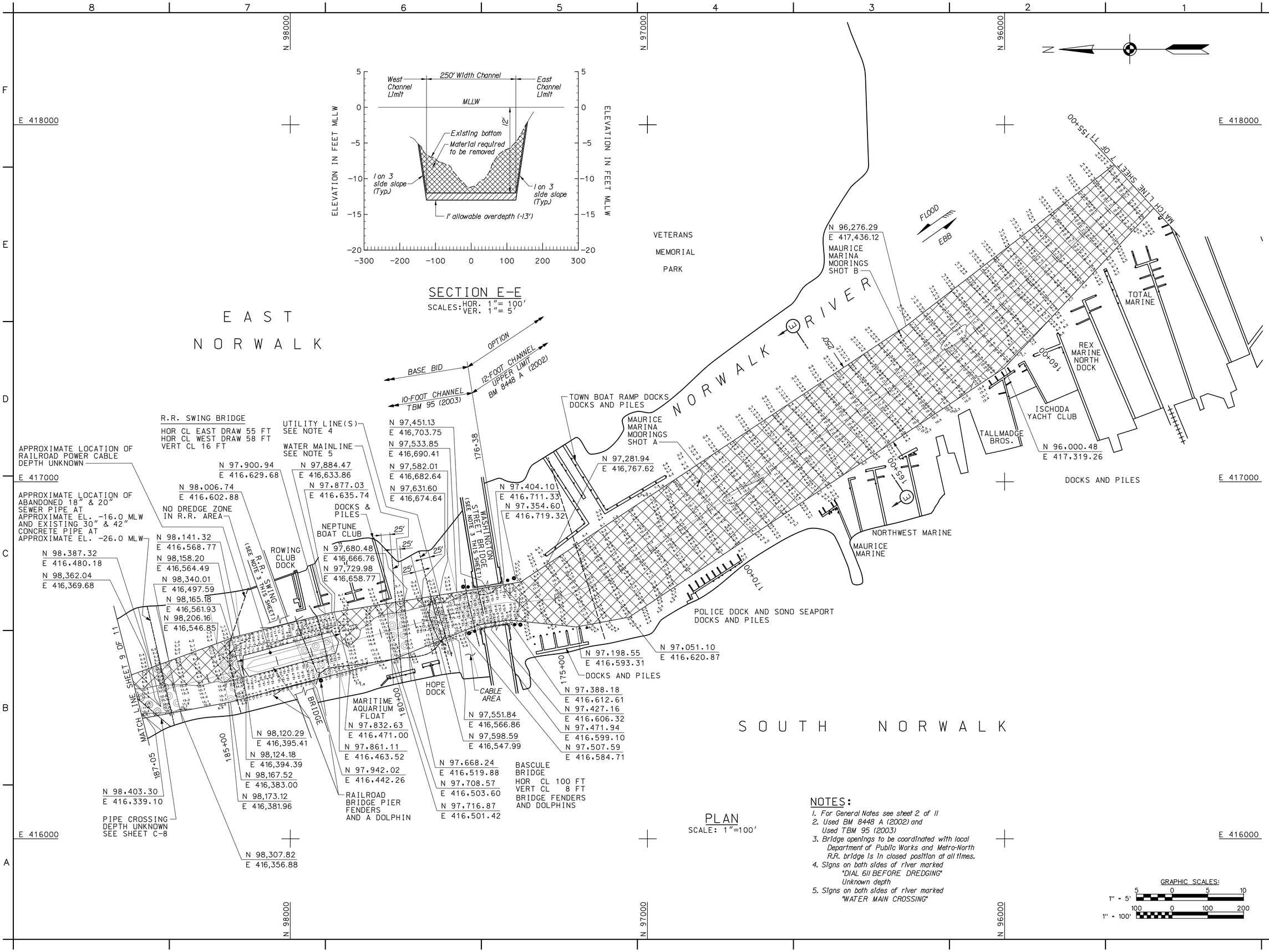
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

Surveyed By: Robert MacLorens, Robert Wooldridge
Plotted By: Stephen W. Kelley
N/A
Asst. Chief, Survey Section
Stephen Johnston /s/
Chief, Survey Section

Date: JULY 2005
Rev.
Design file:
Drawing code: NK-862
File name: NWNC06.S06
Plot date: 06/22/05
Plot scale: 1" = 100'

MAINTENANCE DREDGING
6, 10 AND 12-FOOT CHANNELS
6 AND 10-FOOT ANCHORAGES
10-FOOT TURNING BASIN
NORWALK HARBOR
NORWALK, CONNECTICUT
PLAN AND SECTION C-C, D-D & J-J
ENTRANCE CHANNEL - STA. 138+00 TO 155+00
EAST CHANNEL - STA. 0+00 TO 30+00

Reference number:
C-6
Sheet 7 of 11



US Army Corps of Engineers
New England District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

Surveyed By: Robert MacGovern, Eugene Lee
Plotted By: Stephen W. Kelley
Date: JULY 2005
Design file:
Drawing code: NK-862
File name: NWNC107.507
Plot date: 06/22/05
Plot scale: 1" = 100'
Rev.

N/A
Asst. Chief, Survey Section
Stephen Johnston /s/
Chief, Survey Section

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

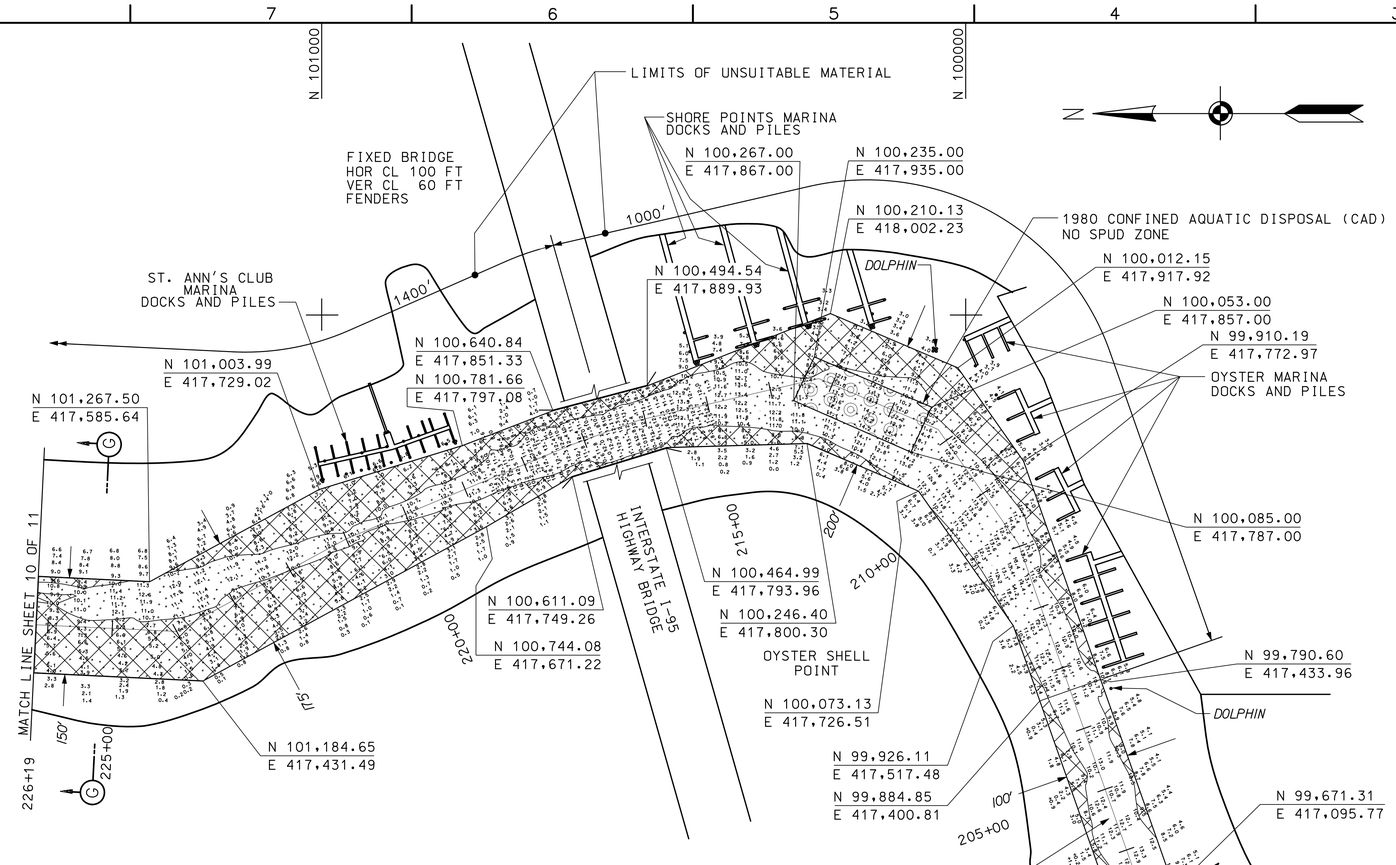
MAINTENANCE DREDGING
6, 10 AND 12-FOOT CHANNELS
6 AND 10-FOOT ANCHORAGES
10-FOOT TURNING BASIN
NORWALK HARBOR
NORWALK, CONNECTICUT

PLAN AND SECTION E-E
STA. 155+00 TO 187+05

Reference number:
C-7
Sheet 8 of 11

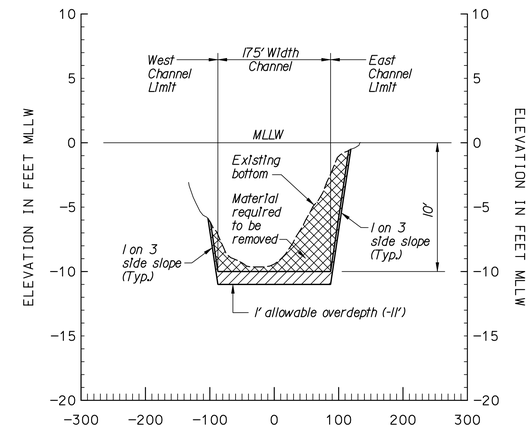
PLAN
SCALE: 1"=100'

NOTES:
1. For General Notes see sheet 2 of 11
2. Used BM 8448 A (2002) and Used TBM 95 (2003)
3. Bridge openings to be coordinated with local Department of Public Works and Metro-North R.R. bridge is in closed position at all times.
4. Signs on both sides of river marked "DIAL 911 BEFORE DREDGING" Unknown depth
5. Signs on both sides of river marked "WATER MAIN CROSSING"



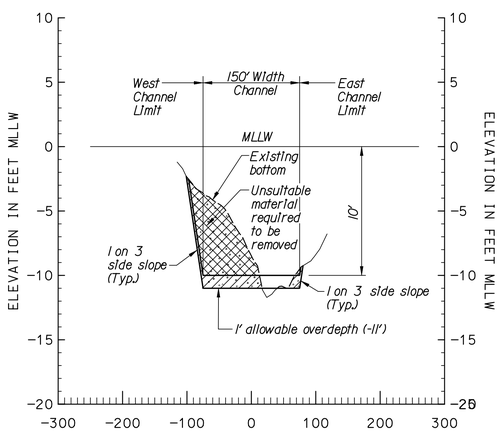
PLAN

SCALE: 1"=100'



SECTION F-F

SCALES: HOR. 1"= 100'
VER. 1"= 5'



SECTION G-G

SCALES: HOR. 1"= 100'
VER. 1"= 5'

NOTES:

1. For General Notes see sheet 2 of 11
2. Used TBM 95 (2003)
3. One yellow sign on east bank of river marked "PIPE CROSSING" with sign angled toward southwest shoreline
4. No signs on both sides of river

GRAPHIC SCALES:
1" = 5' (5 0 5 10)
1" = 100' (100 0 100 200)

US Army Corps of Engineers
New England District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

Date: JULY 2005
Rev.
Design file:
Drawing code: NK-862
File name: NWNC108.S08
Plot date: 06/22/05
Plot scale: F = 100'

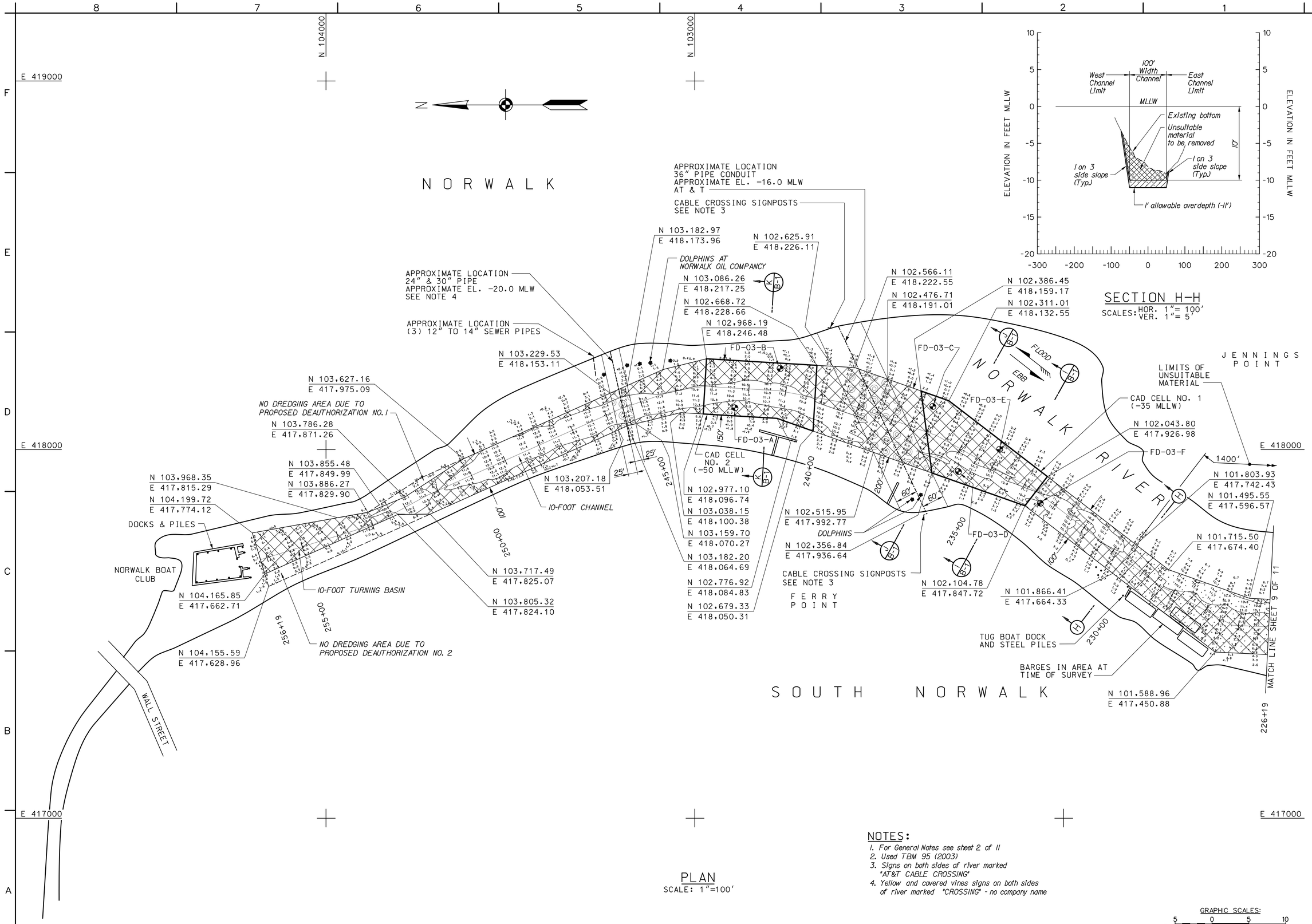
Surveyed By: Robert MacGovern, Robert Bonadonna
Plotted By: Stephen W Kelley
N/A
Asst. Chief, Survey Section
Stephen Johnston /s/
Chief, Survey Section

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

MAINTENANCE DREDGING
10 AND 12-FOOT CHANNELS
6 AND 10-FOOT ANCHORAGES
10-FOOT TURNING BASIN
NORWALK HARBOR
NORWALK, CONNECTICUT

PLAN AND SECTION F-F & G-G
STA. 187+05 TO 226+19

Reference number:
C-8
Sheet 9 of 11



SECTION H-H

SCALES: HOR. 1"= 100' VER. 1"= 5'

PLAN

SCALE: 1"=100'

NOTES:

1. For General Notes see sheet 2 of 11
2. Used TBM 95 (2003)
3. Signs on both sides of river marked "AT&T CABLE CROSSING"
4. Yellow and covered vines signs on both sides of river marked "CROSSING" - no company name

GRAPHIC SCALES:
1" = 5' (5 0 5 10)
1" = 100' (100 0 100 200)

US Army Corps of Engineers
New England District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

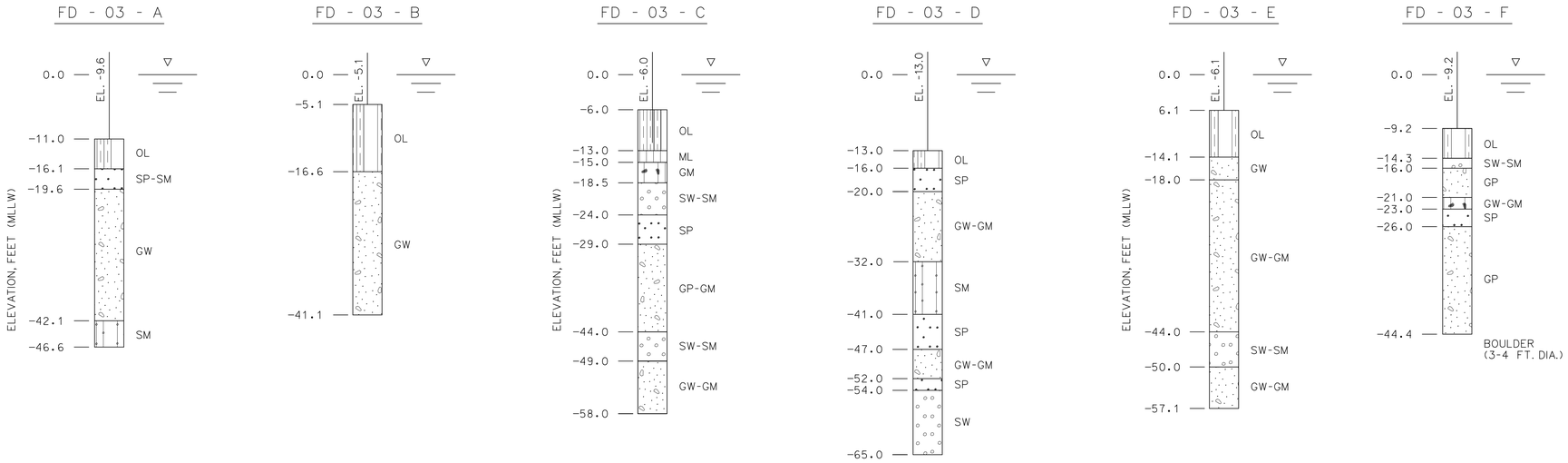
Date: JULY 2005 | Rev.
Design file:
Drawing code: NK-862
File name: NWNC109.S09
Plot date: 06/22/05
Plot scale: 1" = 100'

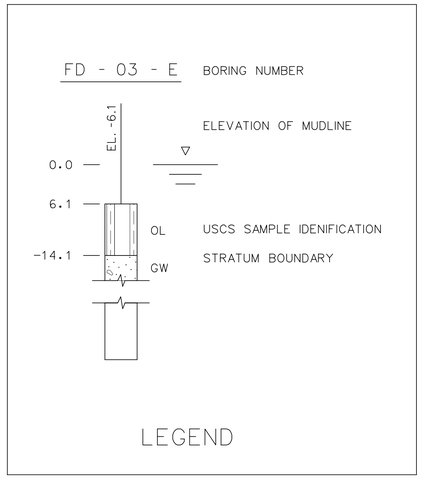
Surveyed By: Robert MacGovern, Richard Bergeron
Plotted By: Stephen W. Kelley
N/A
Asst. Chief, Survey Section: Stephen Johnston /s/
Chief, Survey Section: Stephen Johnston /s/

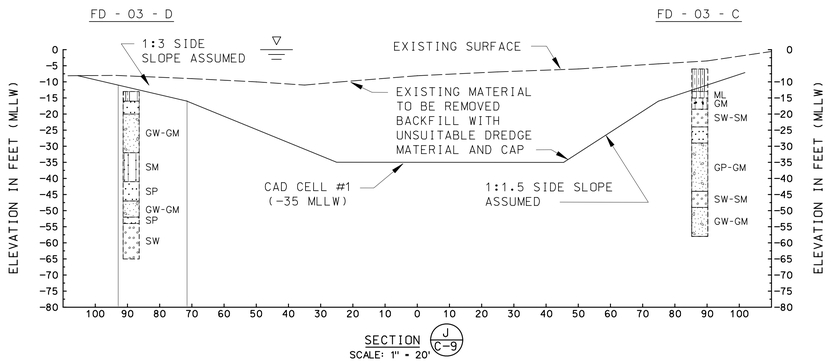
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

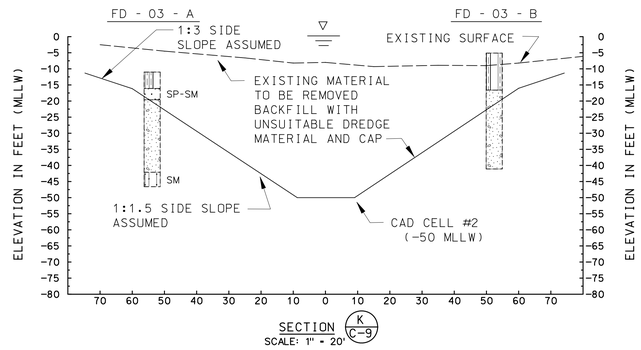
MAINTENANCE DREDGING
6, 10 AND 12-FOOT CHANNELS
6, AND 10-FOOT ANCHORAGES
10-FOOT TURNING BASIN
NORWALK HARBOR
NORWALK, CONNECTICUT
PLAN AND CROSS SECTIONS
STA. 226+19 TO 256+19

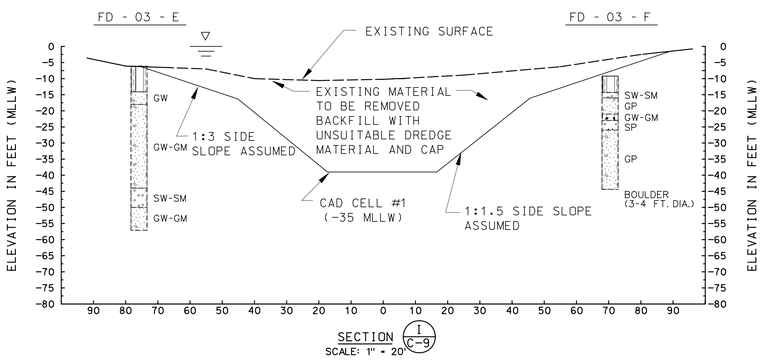
Reference number:
C-9
Sheet 10 of 11

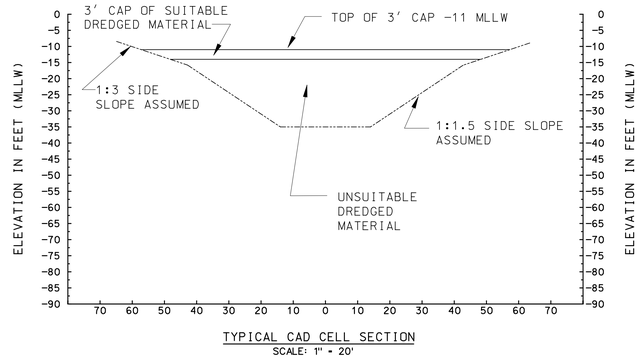












GRAPHIC SCALE:
1" = 20'
20 0 20 40

US Army Corps of Engineers
New England District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

Designed By: Robert Patev
Drawn By: Robert Holt
Reviewed By: Siamac Vaghar /s/
Submitted By: Anthony Finizione /s/
Ch. Geotechnical Engrg. Sect.
Date: JULY 2005
Design file:
Drawing code: NK-862
File name: NWNC301.S10
Plot date: 06/22/05
Plot scale: 1" = 20'
Rev.

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

MAINTENANCE DREDGING
6, 10 AND 12-FOOT CHANNELS
6' AND 10-FOOT ANCHORAGES
10-FOOT TURNING BASIN
NORWALK HARBOR
NORWALK, CONNECTICUT

CAD CELL BORING LOGS AND SECTIONS

Reference number:
B-1
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