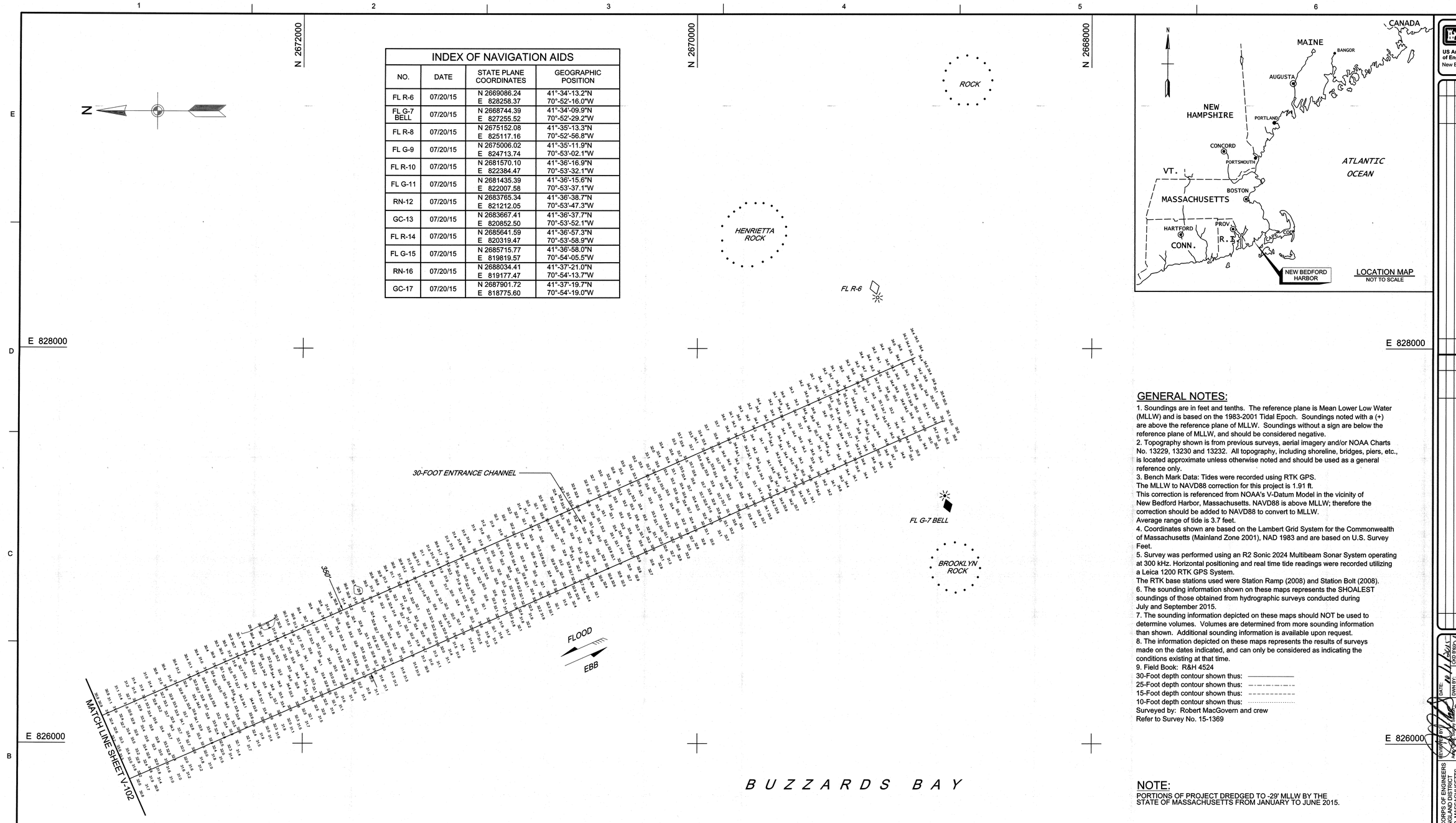
INDEX OF NAVIGATION AIDS

NO.	DATE	STATE PLANE COORDINATES	GEOGRAPHIC POSITION
FL R-6	07/20/15	N 2669086.24 E 828258.37	41°-34'-13.2"N 70°-52'-16.0"W
FL G-7 BELL	07/20/15	N 2668744.39 E 827255.52	41°-34'-09.9"N 70°-52'-29.2"W
FL R-8	07/20/15	N 2675152.08 E 825117.16	41°-35'-13.3"N 70°-52'-56.8"W
FL G-9	07/20/15	N 2675006.02 E 824713.74	41°-35'-11.9"N 70°-53'-02.1"W
FL R-10	07/20/15	N 2681570.10 E 822384.47	41°-36'-16.9"N 70°-53'-32.1"W
FL G-11	07/20/15	N 2681435.39 E 822007.58	41°-36'-15.6"N 70°-53'-37.1"W
RN-12	07/20/15	N 2683765.34 E 821212.05	41°-36'-38.7"N 70°-53'-47.3"W
GC-13	07/20/15	N 2683667.41 E 820852.50	41°-36'-37.7"N 70°-53'-52.1"W
FL R-14	07/20/15	N 2685641.59 E 820319.47	41°-36'-57.3"N 70°-53'-58.9"W
FL G-15	07/20/15	N 2685715.77 E 819819.57	41°-36'-58.0"N 70°-54'-05.5"W
RN-16	07/20/15	N 2688034.41 E 819177.47	41°-37'-21.0"N 70°-54'-13.7"W
GC-17	07/20/15	N 2687901.72 E 818775.60	41°-37'-19.7"N 70°-54'-19.0"W



GENERAL NOTES:

1. Soundings are in feet and tenths. The reference plane is Mean Lower Low Water (MLLW) and is based on the 1983-2001 Tidal Epoch. Soundings noted with a (+) are above the reference plane of MLLW. Soundings without a sign are below the reference plane of MLLW, and should be considered negative.
2. Topography shown is from previous surveys, aerial imagery and/or NOAA Charts No. 13229, 13230 and 13232. 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: Tides were recorded using RTK GPS.
The MLLW to NAVD88 correction for this project is 1.91 ft.
This correction is referenced from NOAA's V-Datum Model in the vicinity of New Bedford Harbor, Massachusetts. NAVD88 is above MLLW; therefore the correction should be added to NAVD88 to convert to MLLW.
Average range of tide is 3.7 feet.
4. Coordinates shown are based on the Lambert Grid System for the Commonwealth of Massachusetts (Mainland Zone 2001), NAD 1983 and are based on U.S. Survey Feet.
5. Survey was performed using an R2 Sonic 2024 Multibeam Sonar System operating at 300 kHz. Horizontal positioning and real time tide readings were recorded utilizing a Leica 1200 RTK GPS System.
The RTK base stations used were Station Ramp (2008) and Station Bolt (2008).
6. The sounding information shown on these maps represents the SHOALEST soundings of those obtained from hydrographic surveys conducted during July and September 2015.
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 conditions existing at that time.
9. Field Book: R&H 4524
30-Foot depth contour shown thus: ————————
25-Foot depth contour shown thus: — — — — — — —
15-Foot depth contour shown thus: - - - - - - - - - -
10-Foot depth contour shown thus: ·····
Surveyed by: Robert MacGovern and crew
Refer to Survey No. 15-1369

NOTE:

PORTIONS OF PROJECT DREDGED TO -29' MLLW BY THE STATE OF MASSACHUSETTS FROM JANUARY TO JUNE 2015.

PLAN

SCALE: 1"= 200'

GRAPHIC SCALE:

1" = 200' 200' 0 200' 400'

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New England District

MARK	DESCRIPTION	DATE	APPR.	MARK	DESCRIPTION	DATE	APPR.

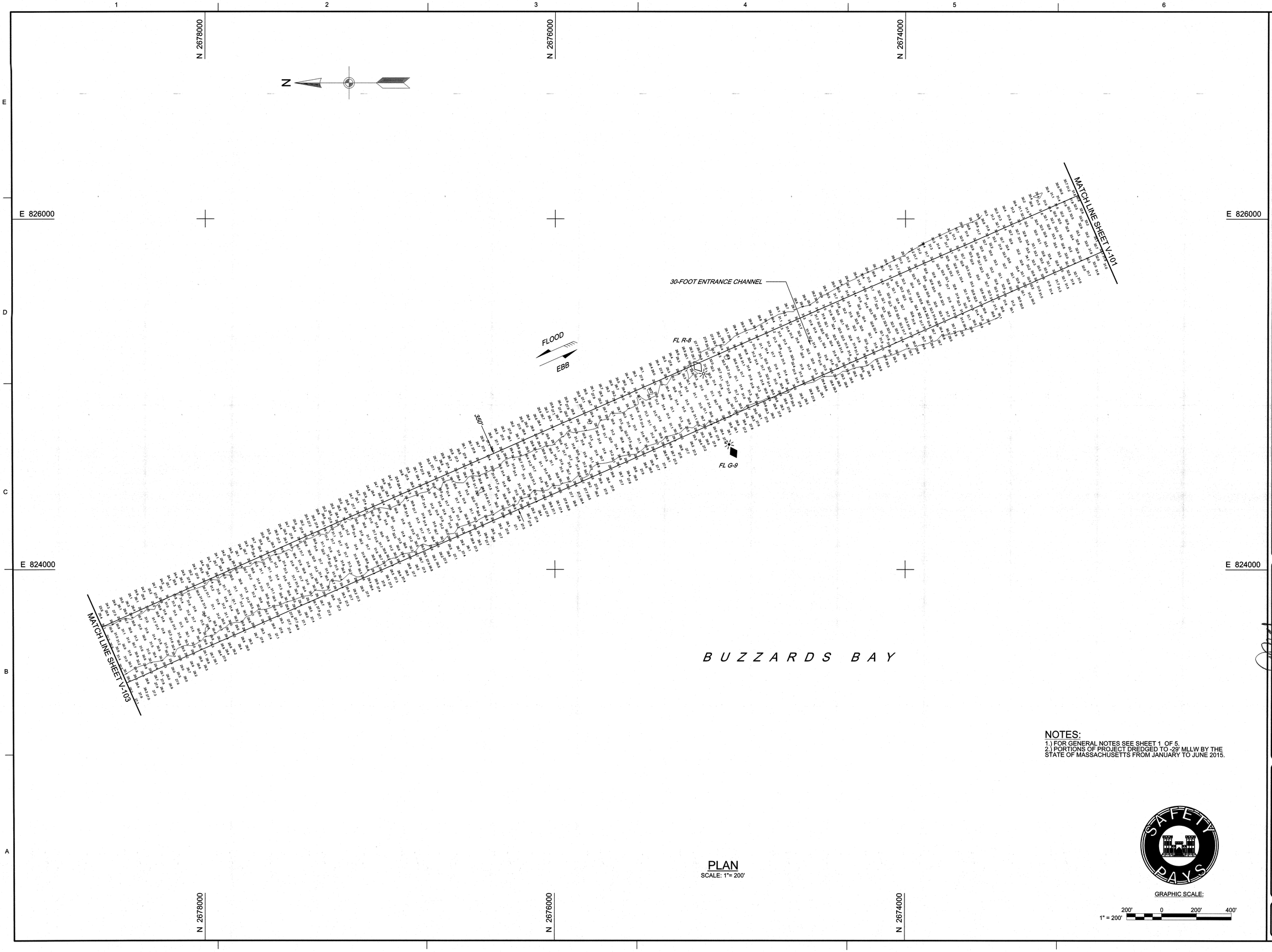
U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
CONCORD, MASSACHUSETTS
www.nae.usace.army.mil

REVIEWED BY: DATE:
DWN BY: CKD BY:
DESIGN FILE: NBH-I-54_HP-MAS.dgn
PLOT SCALE: PLOT DATE:
DESIGN SCALE: DRAWING CODE: HYDRO
FILE NAME: NBH-I-54_V-101.dgn
SIZE: ANSI F

NEW BEDFORD HARBOR
NEW BEDFORD AND FAIRHAVEN, MA
CONDITION SURVEY

10, 15, 25 AND 30-FOOT CHANNELS
25-FOOT ANCHORAGE AND
30-FOOT MANEUVERING AREA

SHEET IDENTIFICATION
V-101
SHEET 1 OF 5



NOTES:

1.) FOR GENERAL NOTES SEE SHEET 1 OF 5.
2.) PORTIONS OF PROJECT DREDGED TO -29' MLLW BY THE STATE OF MASSACHUSETTS FROM JANUARY TO JUNE 2015.

PLAN

SCALE: 1"= 200'

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MARK	DESCRIPTION	DATE	APPR.

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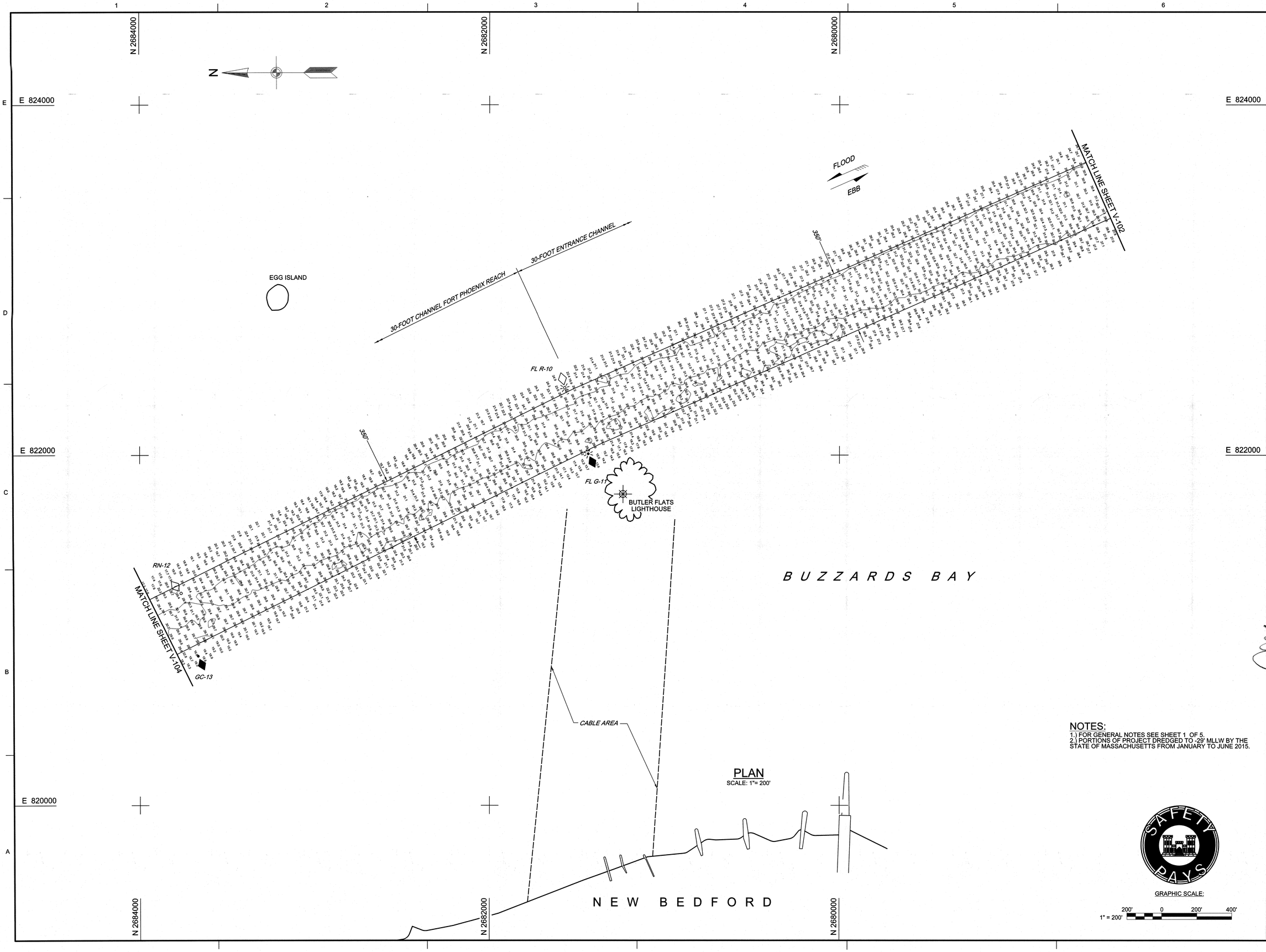
REVIEWED BY: [illegible]
DATE: 10/1/2015
DWN BY: AEB
CKD BY: DJB
SUBMITTED BY: [illegible]
DESIGN FILE: NBH-354_HP-MAS.dgn
DRAWING CODE: NBH-354
PLOT SCALE: 1:1
PLOT DATE: 10/01/2015
SIZE: ANSI F
FILE NAME: NBH-354_V-102.dgn

NEW BEDFORD HARBOR
NEW BEDFORD AND FAIRHAVEN, MA
CONDITION SURVEY

10, 15, 25 AND 30-FOOT CHANNELS
25-FOOT ANCHORAGE AND
30-FOOT MANEUVERING AREA

SHEET IDENTIFICATION
V-102
SHEET 2 OF 5



PLAN
SCALE: 1"= 200'

NOTES:
1.) FOR GENERAL NOTES SEE SHEET 1 OF 5.
2.) PORTIONS OF PROJECT DREDGED TO -29' MLLW BY THE STATE OF MASSACHUSETTS FROM JANUARY TO JUNE 2015.

SAFETY PAYS

GRAPHIC SCALE:
1" = 200'
200' 0 200' 400'

US Army Corps of Engineers®
New England District

MARK	DESCRIPTION	DATE	APPR

MARK	DESCRIPTION	DATE	APPR

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
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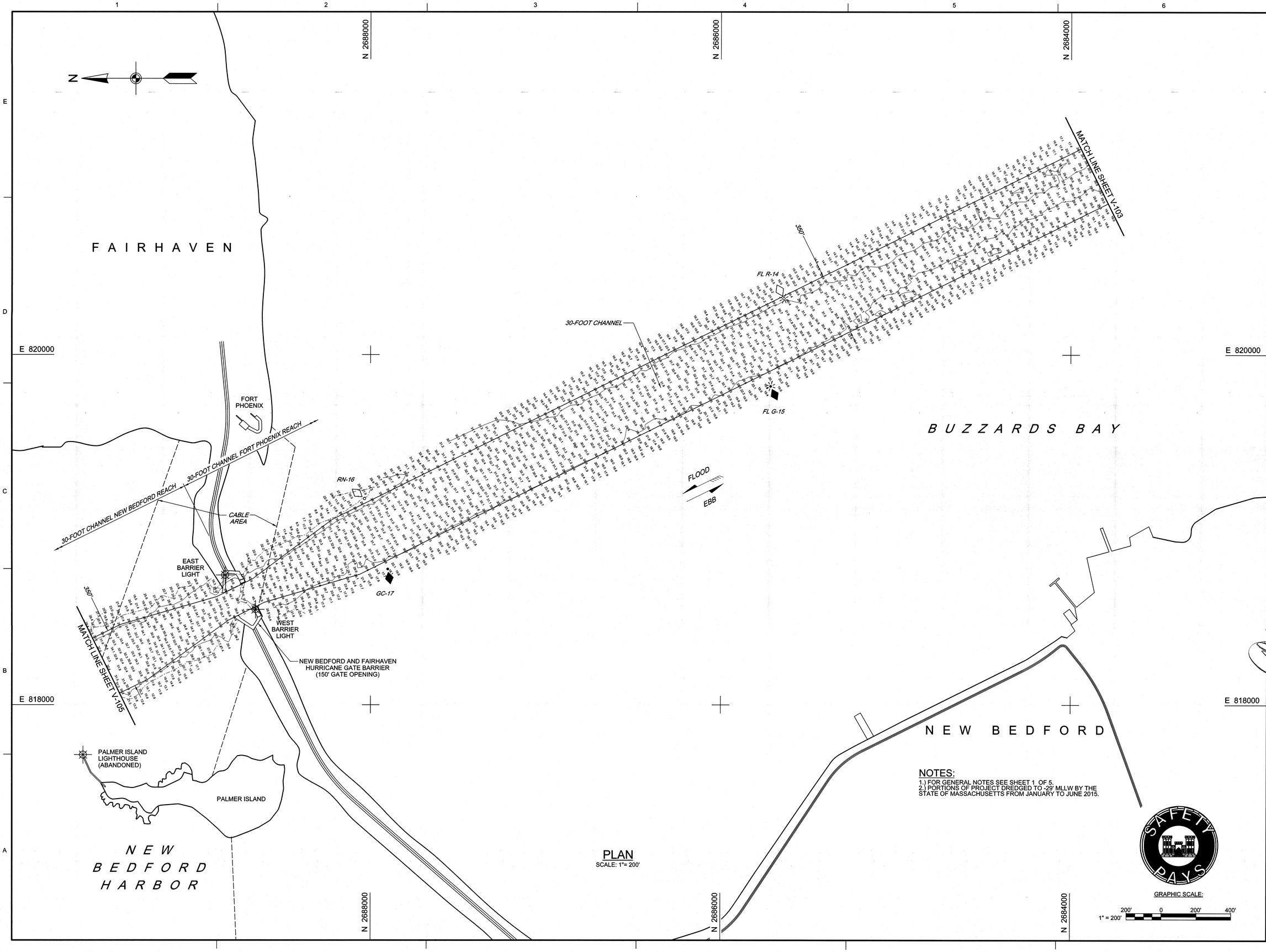
REVIEWED BY: Alexander Bridge, Section 3
SUBMITTED BY: Kaiser Sarwar, Section 3
DATE: 10/1/2015
DWN BY: AEB
CKD BY: DJB
DESIGN FILE: NBH-354_HP-MAS.dgn
DRAWING CODE: NBH-354
PLOT SCALE: 1:1
PLOT DATE: 10/01/2015
SIZE: ANSI F
FILE NAME: NBH-354_V-103.dgn

NEW BEDFORD HARBOR
NEW BEDFORD AND FAIRHAVEN, MA
CONDITION SURVEY

10, 15, 25 AND 30-FOOT CHANNELS
25-FOOT ANCHORAGE AND
30-FOOT MANEUVERING AREA

SHEET IDENTIFICATION
V-103
SHEET 3 OF 5



PLAN
SCALE: 1"= 200'

NOTES:
1.) FOR GENERAL NOTES SEE SHEET 1 OF 5.
2.) PORTIONS OF PROJECT DREDGED TO -29' MLLW BY THE STATE OF MASSACHUSETTS FROM JANUARY TO JUNE 2015.

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MARK	DESCRIPTION	DATE	APPR.

MARK	DESCRIPTION	DATE	APPR.

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
CONCORD, MASSACHUSETTS
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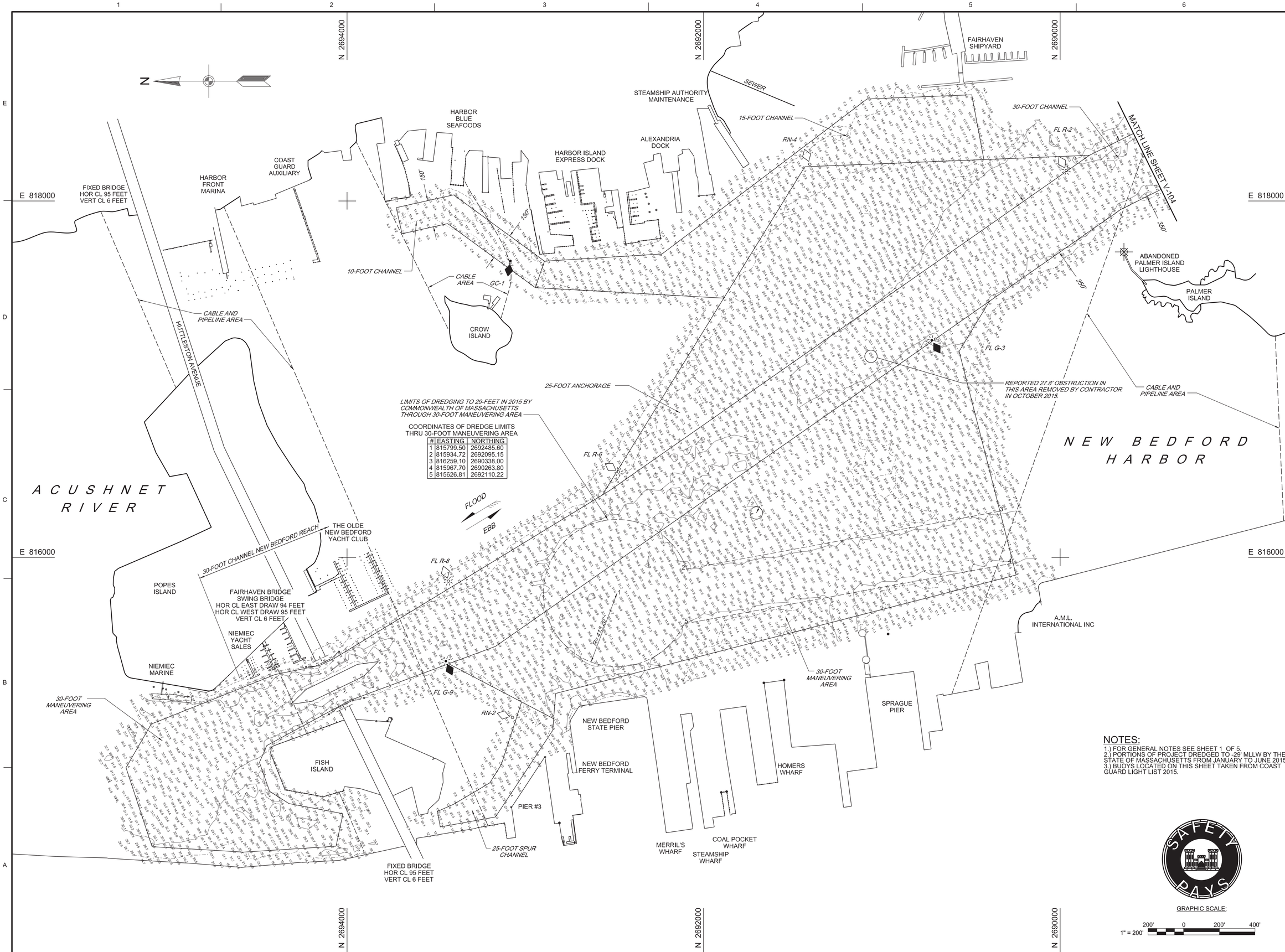
REVIEWED BY: Alan Chesley, Sergeant
SUBMITTED BY: Chris Cowan, Sergeant
DATE: 10/1/2015
DWN BY: AEB
CKD BY: DJE
DESIGN FILE: NBH-354_HP-MAS.dgn
DRAWING CODE: NBH-354
PLOT SCALE: 1:1
PLOT DATE: 10/01/2015
SIZE: ANSI F
FILE NAME: NBH-354_V-104.dgn

NEW BEDFORD HARBOR
NEW BEDFORD AND FAIRHAVEN, MA
CONDITION SURVEY

10, 15, 25 AND 30-FOOT CHANNELS
25-FOOT ANCHORAGE AND
30-FOOT MANEUVERING AREA

SHEET IDENTIFICATION
V-104
SHEET 4 OF 5



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2	815934.72	2692095.15
3	816259.10	2690338.00
4	815967.70	2690263.80
5	815626.81	2692110.22

COORDINATES OF DREDGE LIMITS
THRU 30-FOOT MANEUVERING AREA

NOTES:

1.) FOR GENERAL NOTES SEE SHEET 1 OF 5.
2.) PORTIONS OF PROJECT DREDGED TO -29' MLLW BY THE STATE OF MASSACHUSETTS FROM JANUARY TO JUNE 2015.
3.) BUOYS LOCATED ON THIS SHEET TAKEN FROM COAST GUARD LIGHT LIST 2015.

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MARK	DESCRIPTION	DATE	APPR.
1	ERRONEOUS DATA REMOVED.		
2	REPORTED 27.8' OBSTRUCTION REMOVED BY CONTRACTOR IN OCTOBER 2015.		

REVIEWED BY:
DAVID A. MANNING
Asst. Chief, Survey Section

SUBMITTED BY:
DAVID J. MOLLOY
(FOR) Chief, Survey Section

DATE:
DECEMBER 1, 2015

DWN BY: JAMIE
CKD BY: DWM

DESIGN FILE:
NBH-SH_HPUAS.dgn

DRAWING CODE:
NBH-SH

PLOT SCALE: 1" = 200'
PLOT DATE: 1/12/2015

SIZE: ANSI F
FILE NAME: NBH-SH_V-105.dgn

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CONDITION SURVEY

10, 15, 25 AND 30-FOOT CHANNELS
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SAFETY PAYS

SHEET IDENTIFICATION
V-105
SHEET 5 OF 5