GENERAL NOTES:

G1. THE BATHYMETRIC DATA SHOWN ON THIS PLAN WAS GATHERED ON NOVEMBER 11, 2019.
G2. SOUNDINGS ARE IN FEET AND TENTHS AND REFER TO DEPTHS BELOW THE VERTICAL REFERENCE PLANE. THE VERTICAL REFERENCE PLANE FOR THIS PROJECT IS MLW.
G3. SOUNDINGS SHOWN AS NEGATIVE ARE ABOVE THE REFERENCE PLANE.
G4. COORDINATES ARE BASED ON NAD 83 STATE PLANE MASSACHUSETTS MAINLAND COORDINATE GRID.
G5. BENCHMARK / RTK TIDES: TIDES ARE RECORDED USING RTK TIDES IN HYPACK. ELEVATIONS FROM ELLIPSOID TO ORTHOMETRIC NAVD88 USE GEOID 12A. THE OFFSET BETWEEN THE ORTHOMETRIC HEIGHT AND THE LOCAL TIDAL DATUM (NAVD88) (K) = −5.28''
G6. RTK CORRECTIONS FOR THIS SURVEY PROVIDED BY KEYNET – VRS.
G7. THE SOUNDING INFORMATION SHOWN ON THIS PLAN REPRESENTS THE 10' MINIMUM VALUE SORTED SOUNDINGS OBTAINED FROM SINGLE BEAM HYDROGRAPHIC SURVEY.
G8. ORTHO–IMAGERY AND SCALED DATA IS APPROXIMATE UNLESS OTHERWISE NOTED AND SHOULD BE USED AS A GENERAL REFERENCE ONLY.
G9. THE INFORMATION DEPICTED ON THIS PLAN REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES SHOWN, AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THAT TIME. INTERPOLATED INFORMATION FROM BETWEEN SOUNDING RUNS IS NOT GUARANTEED. SHOALS, OBSTRUCTIONS OR OTHER DIFFERING CONDITIONS MAY EXIST BETWEEN THESE RUNS. CONSULT WITH CLE ENGINEERING FOR MORE DETAILED INFORMATION.
G10. POSSESSION AND USE OF THE MATERIAL CONTAINED ON THESE DRAWINGS IS GRANTED ONLY IN CONNECTION WITH ITS USE AS IT RELATES TO THE TITLED PROJECT, ANY OTHER USE, REPRODUCTION OR DISCLOSURE OF THE INFORMATION CONTAINED HEREON IS EXPRESSLY PROHIBITED WITHOUT THE WRITTEN CONSENT OF FOTH–CLE ENGINEERING GROUP.

CONSTRUCTION NOTES:

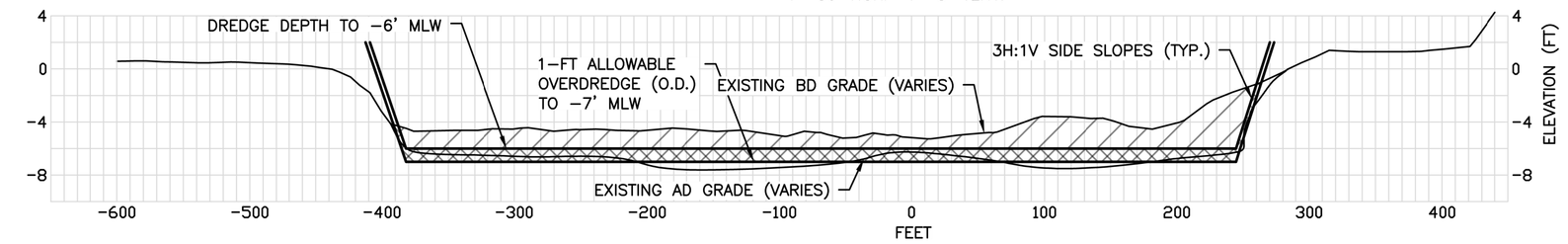
C1. DREDGING WILL BE PERFORMED USING MECHANICAL METHODS WITH SEDIMENT DISPOSAL OFFSHORE AT THE MBDS.
C2. DREDGE VOLUMES AS SHOWN ON THIS PLAN HAVE BEEN CALCULATED BASED UPON THE ENTIRE DATA SET AND INCLUDE 3H:1V SIDE SLOPES.
C3. CONTRACTOR SHALL RESTORE SITE TO ORIGINAL PRE–EXISTING CONDITIONS, AS APPROVED BY OWNER/OWNER'S ENGINEER.
C4. CONTRACTOR SHALL MAINTAIN SITE BENCHMARK, TIDE BOARDS, ETC. THROUGHOUT CONSTRUCTION INCLUDING ESTABLISHING CONTROL OUTSIDE OF THE WORK AREA.
C5. CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION/MAINTAINING ALL REQUIRED IN–WATER SEDIMENTATION CONTROL(S) AS REQUIRED BY ENVIRONMENTAL PERMITS AND THE TECHNICAL SPECIFICATIONS.
C6. CONTRACTOR OPERATIONS SHALL BE CONDUCTED SO AS TO AVOID ANY DAMAGE TO EXISTING STRUCTURES LOCATED AT/WITHIN THE OVERALL PROXIMITY OF THE PROJECT SITE.
C7. 72 HOURS BEFORE DIGGING CALL 1–888–DIG–SAFE PER STATE LAW CHAPTER 502: SEC. 40 (1980). UTILITIES ARE SHOWN PER SURVEY OBSERVATION, RECORD PLAN INFORMATION AND PAROLE EVIDENCE. UTILITIES SHOWN MAY NOT BE WHOLLY ACCURATE AND THERE ARE LIKELY UTILITIES NOT SOWN HEREON. CONTACT DIG–SAFE BEFORE THE START OF CONSTRUCTION. IN ADDITION, CONTRACTOR SHALL ALSO CONTACT ALL PERTINENT UTILITIES AS PER THE CONTRACT SPECIFICATIONS.
C8. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS AND DRAWINGS ISSUED FOR THIS PROJECT.
C9 ALL EXISTING FLOATS TO BE REMOVED BY OWNERS AS NOTED ON THIS PLAN. ALL EXISTING MOORINGS TO BE REMOVED BY OWNERS PRIOR TO OCTOBER 1, 2019.
C10. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL PERMITS ISSUED FOR THE PROJECT. CONTRACTOR TO PROVIDE/INSTALL MADEP SIGN IN ACCORDANCE WITH THE ORDER OF CONDITIONS ISSUED BY THE HINGHAM CONSERVATION COMMISSION.
C11. CONTRACTOR SHALL CONSIDER SECTIONS, ELEVATIONS AND DETAILS SHOWN ON THE DRAWINGS AS TYPICAL FOR SIMILAR LOCATIONS.
C12. SEDIMENT SAMPLES COLLECTED AT THE LOCATIONS SHOWN IN THE DREDGE PLAN WERE COLLECTED ON JANUARY 29, 2019. GRAIN SIZE DATA IS PROVIDED IN ATTACHMENT C OF THE CONTRACT.

SURVEY NOTES:

S1. PROJECT NAME: HINGHAM HARBOR MAINTENANCE DREDGING
S2. PROJECT NUMBER: 18H010.00
S3. PLOT SCALE: AS NOTED
S4. SURVEY DATE: NOVEMBER 11, 2019
S5. SURVEYOR: M.CAMPAGNONE, M.COUNT
S6. VESSEL: OLAF
S7. TRANS./FATH.: ODOM CVM, 200KHZ
RTK KEYNET CORRECTIONS
S8. WEATHER COND: SUNNY, 40 DEGREES, WIND SW 10–15, SEAS CALM
S9. PROJECT DATUM: MLW AS NOTED IN DATUM CONVERSION CHART
S10. COOR. SYSTEM: NAD–83, MASSACHUSETTS MAINLAND
S11. DATA REDUCTION: DATA SORTED 10' MINIMUM
S12. BENCHMARK: NGS PID MY2164 DISK SET IN SEAWALL ELEVATION 9.82 NAVD88 (GEOID 12B)

TYPICAL DREDGE SECTION

1"=80' HOR. 1"=8' VERT.



BASIN COORDINATES		
Point	Northing	Easting
a	2916264.86	822698.81
b	2916728.74	823912.03
c	2916158.17	824064.92
d	2915691.17	823649.93
e	2915328.72	822837.40
f	2915447.14	822430.94
g	2915341.95	822867.14
h	2915455.87	822816.47
i	2915626.19	823127.35
j	2915736.19	823380.35
k	2915598.04	823440.53

GRAPHIC SCALE HORIZONTAL SCALE 0 4 8 16 (IN FEET) 1 INCH = 8 FEET

GRAPHIC SCALE VERTICAL SCALE 0 40 80 160 (IN FEET) 1 INCH = 80FEET

LEGEND

MLW
LIMIT OF AUTHORIZATION BASIN (TOE OF SLOPE)
APPROX. PROPERTY LINE
APPROX. SHORELINE LIMITS

COLOR LEGEND

< 0.00
0.00 - 0.99
1.00 - 1.99
2.00 - 2.99
3.00 - 3.99
4.00 - 4.99
5.00 - 5.99
6.00 - 6.99
7.00 - 7.99
8.00 - 8.99
9.00 - 9.99
>= 10.00

PRE–DREDGE QUANTITIES (CY)*		
DREDGE VOLUME (CY)	DESIGN DEPTH TO EL. −6.0' MLW	27,320
	1–FT ALLOWABLE OVERREDGE EL. −6.0' TO EL. −7.0 MLW	37,035
	TOTAL	64,355

*NOTE: QUANTITIES INCLUDE 3H:1V SIDE SLOPES

POST DREDGE PAYMENT QUANTITIES (CY)*		
DREDGE VOLUME (CY)	DESIGN DEPTH TO EL. −6.0' MLW	26,787
	1–FT ALLOWABLE OVERREDGE EL. −6.0' TO EL. −7.0 MLW	36,165
	TOTAL	62,952

*NOTE: QUANTITIES INCLUDE 3H:1V SIDE SLOPES

DATUM OFFSETS

MLW	NAVD88	
9.96	4.68	MHHW
9.51	4.23	MHW
5.28	0	NAVD88
0.0	−5.28	MLW
−0.35	−5.63	MLLW

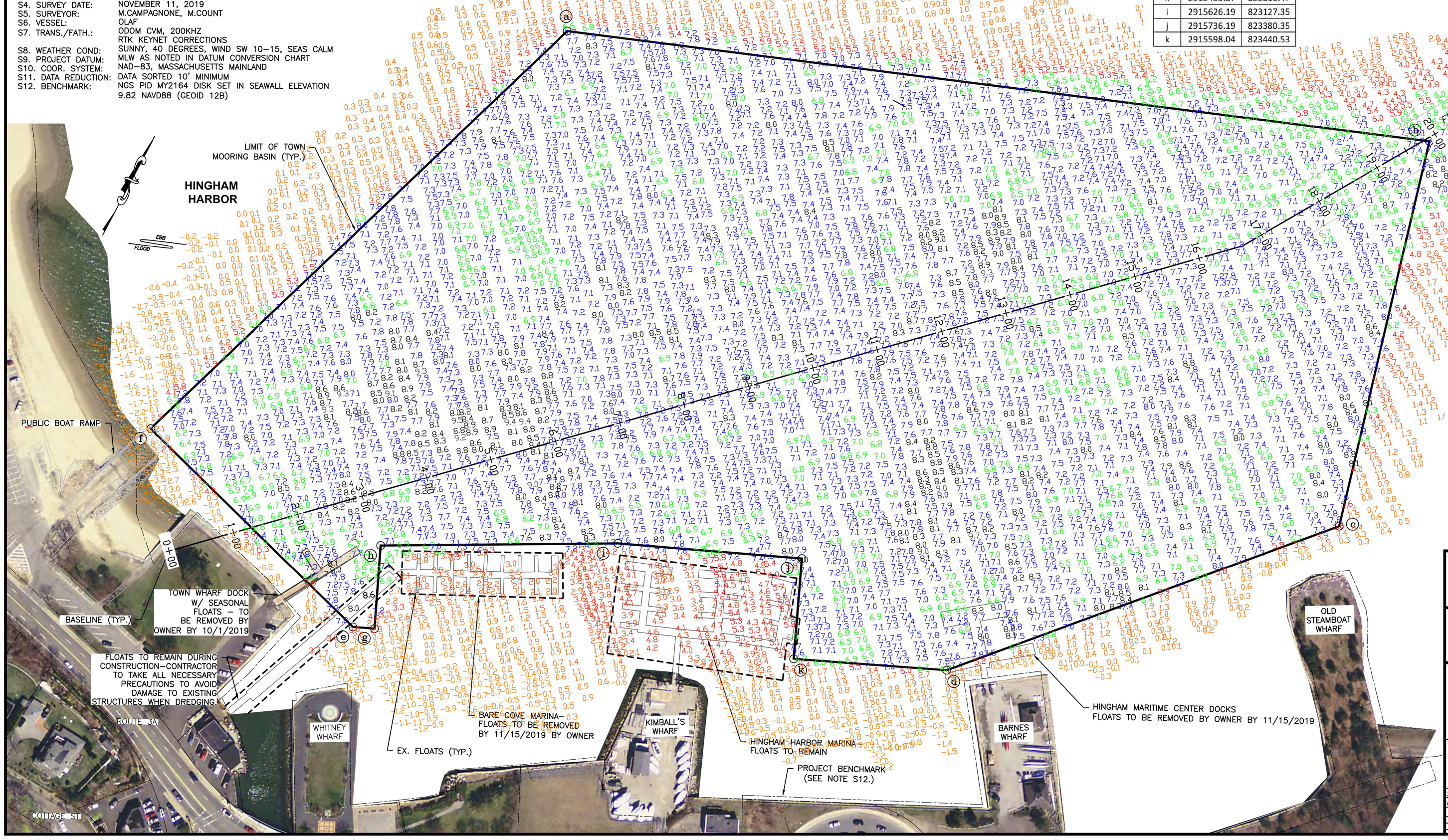
OFFSETS TAKEN FROM VDATUM ONLINE 3/30/18

MICHAEL CAMPAGNONE CIVIL No. 47590 REGISTERED PROFESSIONAL ENGINEER COMMONWEALTH OF MASSACHUSETTS 11/13/19

GRAPHIC SCALE

80 0 40 80 160 320

(IN FEET)
1 inch = 80 ft.



PROJECT:
HINGHAM HARBOR
MAINTENANCE DREDGING PROJECT
TOWN MOORING BASIN

CLIENT:
TOWN OF HINGHAM
210 CENTRAL STREET, HINGHAM, MA 02043

Foth cleengineering
15 Creek Road
Marion, Massachusetts 02738
t: 508.748.0937
www.cleengineering.com

POST–CONSTRUCTION SURVEY

SHEET 1 OF 1

SCALE: AS NOTED	CHECKED	DATE 11/13/19	DRAWING No. 20191113_Hingham Harbor_AD_MLW	
DRAWN BY: M.CAMP/KGK	BY: CMP	REV. ––	COMP.CODE 18H010.00	
REVISION No.	DATE	COMMENT		