



**US Army Corps
of Engineers**®
New England District
696 Virginia Road
Concord, MA 01742-2751

PUBLIC NOTICE

Comment Period Begins: December 26, 2018
Comment Period Ends: January 28, 2019
File Number: NAE-2017-02739
In Reply Refer To: Ms. Diane M. Ray
Phone: (978) 318-8831
E-mail: diane.m.ray@usace.army.mil

The District Engineer has received a permit application to conduct work in waters of the United States from Electric Boat Corporation. This work is proposed in the Thames River at 75 Eastern Point Road, Groton, Connecticut 06340. The site coordinates are: Latitude 41.341029 Longitude -72.081974

The purpose of the proposed project is to implement a Facilities Master Plan for Electric Boat that provides the necessary infrastructure at the Groton facility to allow for continued safe and efficient design, construction, and life cycle support of submarines for the U. S. Navy underway currently at the facility and as well as the water-dependent facilities needed to efficiently and safely manage future workload which includes the development of the necessary infrastructure and manufacturing facilities on the Groton site to support the construction of new, large class submarines. Construction of the new facilities is needed and must occur while the current class of submarines is still in production at the facility's North Yard.

Continued and future implementation of the U. S. Navy submarine construction and delivery schedule is vital to national security and supports the U. S. Department of Defence's critical mission of strategic deterrence.

The work involves the following:

1. install sedimentation and erosion controls, including an oil boom/silt curtains during active construction of in-water structures associated with the construction of the assembly building identified below;
2. remove to an approved offsite location, the existing structures as shown on the plans attached hereto consisting of:
 - a. three (3) concrete slabs;
 - b. a 20' wide by 100' long timber pier and a 15' wide by 75' long finger pier;
 - c. five (5) piles;
 - d. a 42" diameter CMP outfall pipe, two (2) 24" diameter CMP outfall pipes and a 10" diameter CMP outfall pipe;
3. remove approximately 3,000 cubic yards of bedrock over an approximately 22,000 square foot area using controlled blasting techniques and remove the bedrock to an approved offsite location using mechanical equipment;
4. place approximately 620 cubic yards of stone riprap over an approximately 11,050 square foot area located beneath the proposed Assembly Building;

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5. construct a 36" by 48" stormwater outfall on the northern side of the project site and a 60" diameter reinforced concrete outfall (RCP) on the southern side of the property with pre-cast concrete headwalls;
6. place fill within 3 freshwater wetlands totalling approximately 1,750 square feet to facilitate the construction of a new access drive;
7. dredge mechanically a total of 984,000 cubic yards of material from the following four areas totalling approximately 923,250 square feet with unconfined disposal of approximately 863,000 cubic yards at Eastern Long Island Sound Disposal Site and unconfined disposal of approximately 121,000 cubic yards at Central Long Island Sound Disposal Site:
 - a. an approximately 550' wide by 1,200' long submersion basin to a depth of -87' NAVD88 (-85.2' MLLW) with a 2' allowable overdredge with an assumed 3.5:1 side slope;
 - b. an approximately 250' wide by 800' long area to a depth of -22' NAVD88 (-20.2' MLLW) for berthing of the floating dry-dock in the resting position along the shoreline;
 - c. an approximately 31,250 square foot area to a depth of -22' NAVD88 (-20.2' MLLW) for the "Sea Shuttle" with a 2' allowable overdredge;
 - d. an approximately 200' wide by 200' long area to a depth of -22' NAVD88 (-20.2' MLLW) with a 2' allowable overdredge for berthing of support and transport vessels along the western side of the proposed Assembly Building;
8. provide for use of a 180' wide by 750' long (95,0000 square foot) floating dry dock by:
 - a. constructing five (5) anchor points consisting of one (1) 12' diameter concrete-filled drilled shafts using a total of approximately 1,180 cubic yards of concrete around the Submerging Basin in the locations shown on the plans attached hereto;
 - b. installing five (5) mooring dolphins, each consisting of four (4) 48" diameter shaft supports drilled into bedrock and filled with concrete;
9. install approximately 850 linear feet of steel sheet pile bulkhead with a top of bulkhead elevation of +12.5' NAVD88 (+14.3' MLLW) with associated tie-back anchors or deadmen and walers and place approximately 5,950 cubic yards of backfill over an approximately 4,410 square foot area behind the bulkhead;
10. construct and maintain two (2) mooring dolphins consisting of four (4) 24" diameter concrete-filled drilled shafts using a total of 90 cubic yards of concrete located northwest of the proposed Assembly Building;
11. construct and maintain three (3) Sea Shuttle bearing plates, each bearing supported by one steel plate cylinder, precast bearing pad, bearing plate block and jack-up system consisting with a total of approximately 1,530 square feet of crushed stone fill;
12. construct and maintain a 317' wide by 624' long pile-support Assembly Building with approximately four hundred and fifty (450) 4' diameter concrete-filled drilled shaft piers. The extend of encroachment beyond the mean high water line will be approximately 400' with a finished first floor elevation of +12.5' NAVD88;
13. sidecast the sediment from the drilled support shafts identified above within the building footprint; and
14. remove the sedimentation and erosion controls measures identified above.

The work is shown on the attached plans entitled “**Proposed Assembly/CCSM/TRADES BUILDINGS, GENERAL DYNAMICS CORPORATION, ELECTRIC BOAT DIVISION, 75 EASTERN POINT ROAD, GROTON, CT,**” on 48 sheets, and dated “**April 25, 2018.**”

The project has been designed using the best available measures to avoid and minimize adverse impacts. The applicant is pursuing mitigation to compensate for unavoidable impacts to aquatic resources.

AUTHORITY

Permits are required pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899
- Section 404 of the Clean Water Act
- Section 103 of the Marine Protection, Research and Sanctuaries Act.

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The U.S. Army Corps of Engineers, New England District (Corps), is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. The Corps will consider all comments received to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Where the activity involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of disposing it in ocean waters, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972, as amended.

Dredged Material Disposal Mitigation Discussion:

The alternatives considered in the dredged material disposal analysis fall into four general categories: beneficial use, upland disposal, confined disposal, and open-water disposal. The feasibility of disposal alternatives was analyzed relative to the physical and chemical quality of the dredged material, the volume of material to be dredged, the availability of suitable disposal and beneficial use sites, and the cost of disposal. When applicable,

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the biological quality of the disposal of the material at the disposal site was also used to evaluate the feasibility of the open-water disposal alternative.

Based on the characteristics of the dredged material, the lack of suitable alternate disposal or beneficial use sites and costs, the most feasible, practical, cost-effective and environmentally acceptable alternative for the disposal of dredged materials from the proposed dredging is disposal at the requested disposal sites.

For projects with disposal of more than 25,000 cubic yards of material, the Ambro Amendment requires the dredged material to comply with the requirements of the Ocean Dumping Act. The dredged material has undergone physical, chemical, and biological testing and has satisfied the criteria for ocean disposal of dredged material as specified in Part 227 of the Ocean Dumping Act regulations. It is our preliminary determination that the material is acceptable for disposal as described above.

Central Long Island Sound Disposal Site

The Central Long Island Sound Disposal Site is frequently used for disposal of bottom sediments from various harbors along the eastern New York, northern Long Island, and central and western Connecticut coasts. An average of approximately 400,000 cubic yards of suitable sediments (the suitability was determined with a project-specific evaluation with an established interagency review process) have been deposited at this site annually. The site has been monitored through the Corps' Disposal Area Monitoring System (DAMOS) program. DAMOS studies show that the site is a low energy environment such that sediment deposited at this location will remain within the site's boundaries. The DAMOS monitoring has also shown that distinct dredged material mounds have been formed at the site. Levels of metals and organics in the sediments within the disposal site are generally above background levels, indicative of the industrial nature of the areas dredged that utilize the site. Areas outside the disposal site have not been found to be affected by sediment deposited within the site.

Eastern Long Island Sound Disposal Site

The Eastern Long Island Sound Disposal Site (ELDS) is one of three regional dredged material disposal sites located in the waters of Long Island Sound. The ELDS is a 1 x 1.5 nautical mile irregularly-shaped polygon, with an area of 1.3 square nautical miles due to the exclusion of boulder and bedrock areas. Water depths in the ELDS range from approximately 59 feet (18 m) in the north to 100 feet (30 m) in the south. The seafloor at the site consists of mostly flat, sandy areas, sloping gradually from north to south. The distance from the northern site boundary to the closest point on land (Harkness Memorial State Park in Waterford, Connecticut) is 1.1 nautical miles. The distance from the southeastern corner to the Connecticut/New York state border is 0.19 nautical miles.

ESSENTIAL FISH HABITAT

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires all federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). Essential Fish Habitat describes waters and substrate necessary for fish for spawning, breeding, feeding or growth to maturity.

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The dredging portion of this project will impact approximately 21.4 acres of EFH. Habitat at this site can be described as sands and silts. Loss of this habitat may adversely affect species that use these waters and substrate. However the District Engineer has made a preliminary determination that the site-specific adverse effect may be substantial. Further consultation with the National Marine Fisheries Service regarding EFH conservation recommendations is being conducted and will be concluded prior to the final decision.

The dredged material disposal is proposed for Eastern Long Island Sound Disposal Site & Central Long Island Sound Disposal Site. These are open water sites, which provide EFH. Habitat at these sites can be described as sand and silt. Loss of this habitat may adversely affect species that use these waters and substrate. However, the District Engineer has made a preliminary determination that the site-specific adverse effect will not be substantial. Further consultation with the National Marine Fisheries Service regarding EFH conservation recommendations is being conducted and will be concluded prior to the final decision.

This project will have an adverse effect on approximately 6.8 acres of EFH. This habitat supports winter flounder and diadromous fish as well as other fisheries resources. Loss of this habitat may adversely affect species that use these waters and substrate. The District Engineer has made a preliminary determination that site-specific impacts may be substantial. Accordingly, the applicant has submitted an expanded EFH assessment to National Marine Fisheries Service, who has provided conservation recommendations to the Corps. The Corps will coordinate with the applicant regarding implementation of these recommendations. The EFH consultation will be concluded prior to the final decision.

NATIONAL HISTORIC PRESERVATION ACT

Based on his initial review, the District Engineer has determined that little likelihood exists for the proposed work to impinge upon properties with cultural or Native American significance, or listed in, or eligible for listing in, the National Register of Historic Places. Therefore, no further consideration of the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended, is necessary. This determination is based upon one or more of the following:

- a. The permit area has been extensively modified by previous work.
- b. The permit area has been recently created.
- c. The proposed activity is of limited nature and scope.
- d. Review of the latest published version of the National Register shows that no presence of registered properties listed as being eligible for inclusion therein are in the permit area or general vicinity.
- e. Coordination with the State Historic Preservation Officer and/or Tribal Historic Preservation Officer(s).

ENDANGERED SPECIES CONSULTATION

The Corps has reviewed the application for the potential impact on Federally-listed threatened or endangered species and their designated critical habitat pursuant to section 7 of the Endangered Species Act as amended. It is our preliminary determination that the proposed activity for which authorization is being sought is designed, situated or will be operated/used in such a manner that it is not likely to adversely affect a listed species or their critical habitat. We have coordinated with the NMFS on listed species under their jurisdiction and the ESA consultation has been concluded.

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OTHER GOVERNMENT AUTHORIZATIONS

The states of Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island have approved Coastal Zone Management Programs. Where applicable, the applicant states that any proposed activity will comply with and will be conducted in a manner that is consistent with the approved Coastal Zone Management Program. By this Public Notice, we are requesting the State concurrence or objection to the applicant's consistency statement.

The following authorizations have been applied for, or have been, or will be obtained:

- (x) Permit, license or assent from State.
- (x) Water Quality Certification in accordance with Section 401 of the Clean Water Act.

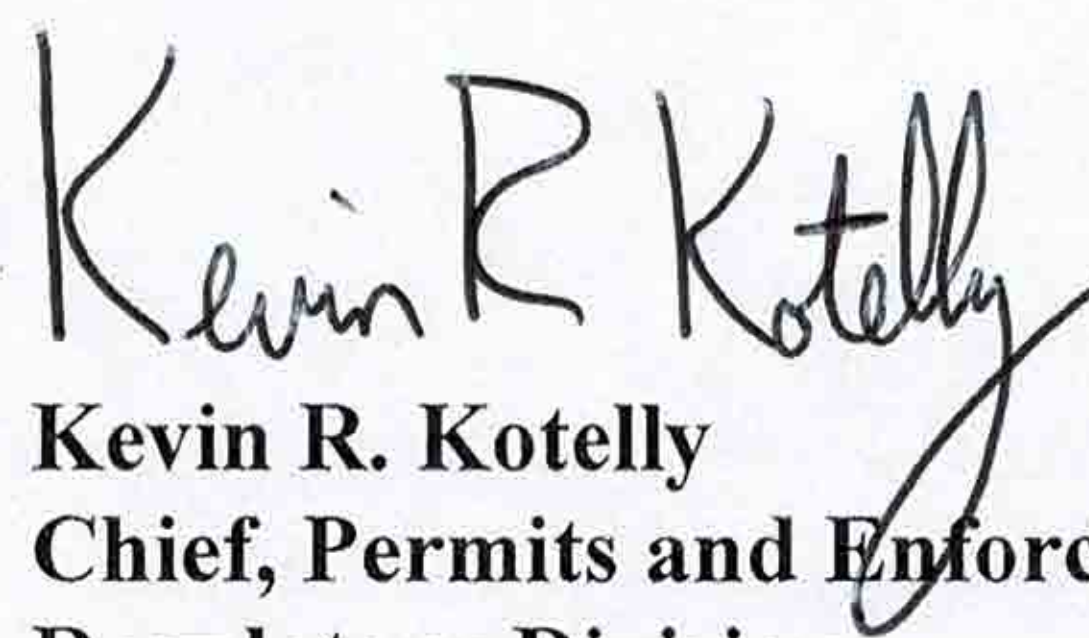
COMMENTS

In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. Comments should be submitted in writing by the above date. If you have any questions, please contact Ms. Diane M. Ray at (978) 318-8831, (800) 343-4789 or (800) 362-4367, if calling from within Massachusetts.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The Corps holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

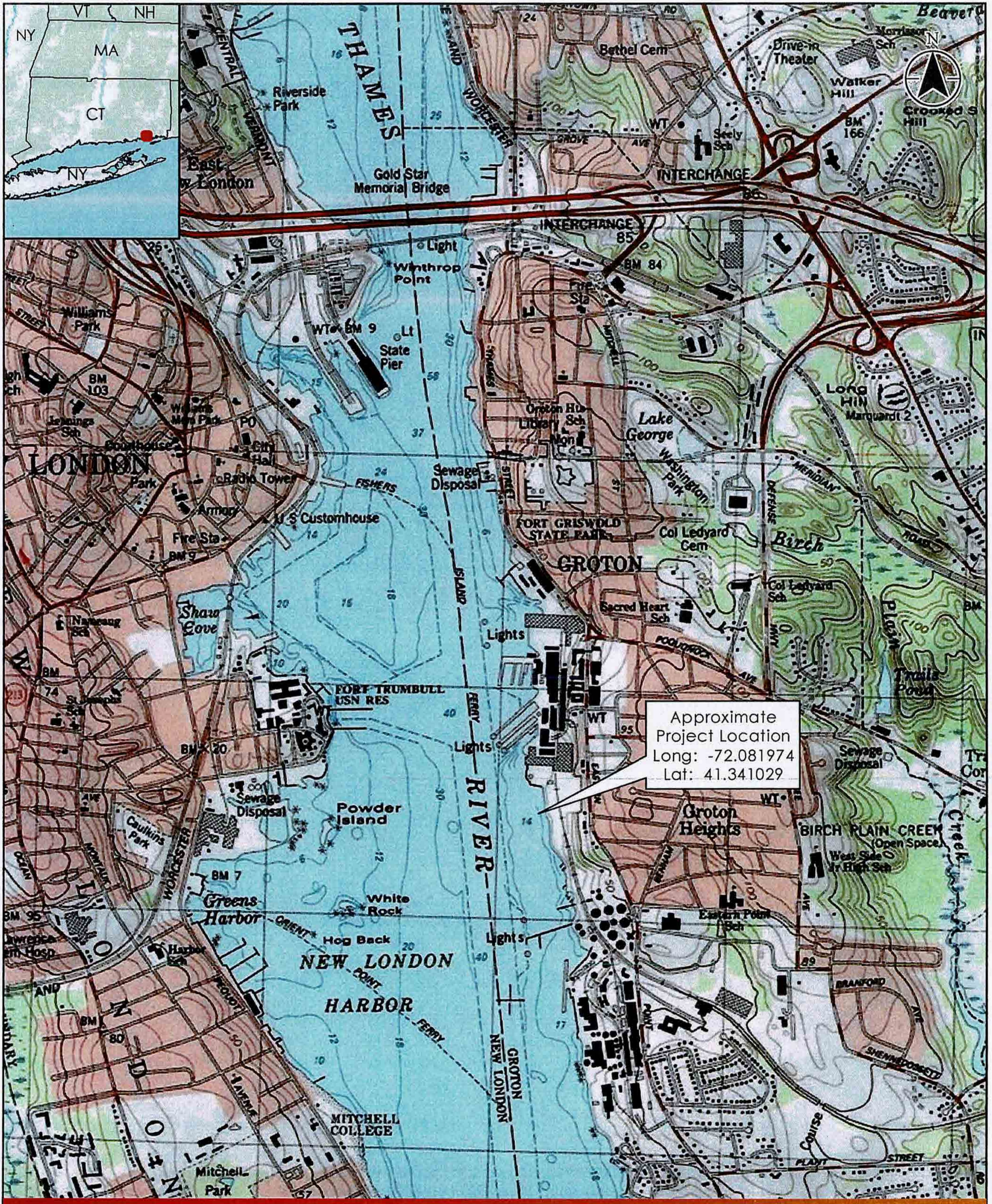
THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.



Kevin R. Kotelly
Chief, Permits and Enforcement Branch
Regulatory Division

If you would prefer not to continue receiving Public Notices by email, please contact Ms. Tina Chaisson at (978) 318-8058 or e-mail her at bettina.m.chaisson@usace.army.mil. You may also check here () and return this portion of the Public Notice to: Bettina Chaisson, Regulatory Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751.

NAME: _____
ADDRESS: _____
PHONE: _____



Approximate
Project Location
Long: -72.081974
Lat: 41.341029

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ORIGINAL SHEET - ANS1A



Figure 1. Site Location



Notes
 1. Coordinate System: NAD 1983 StatePlane Connecticut FIPS 0600 Feet
 2. USGS topo provided by ESRI Web mapping service.

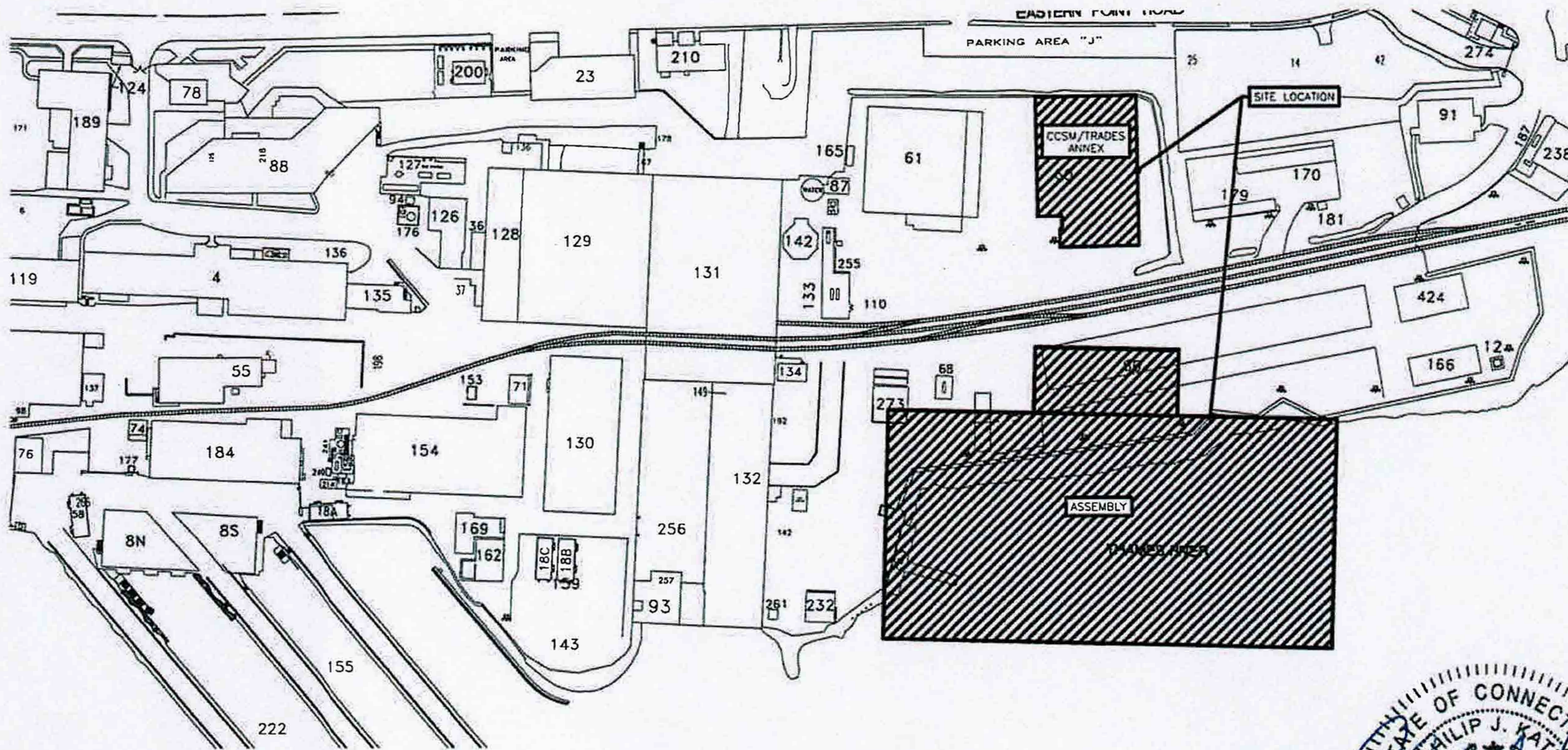
PROPOSED ASSEMBLY/CCSM/TRADES BUILDINGS GENERAL DYNAMICS CORPORATION

ELECTRIC BOAT DIVISION

75 EASTERN POINT ROAD

GROTON, CT

April 25, 2018



DRAWING INDEX

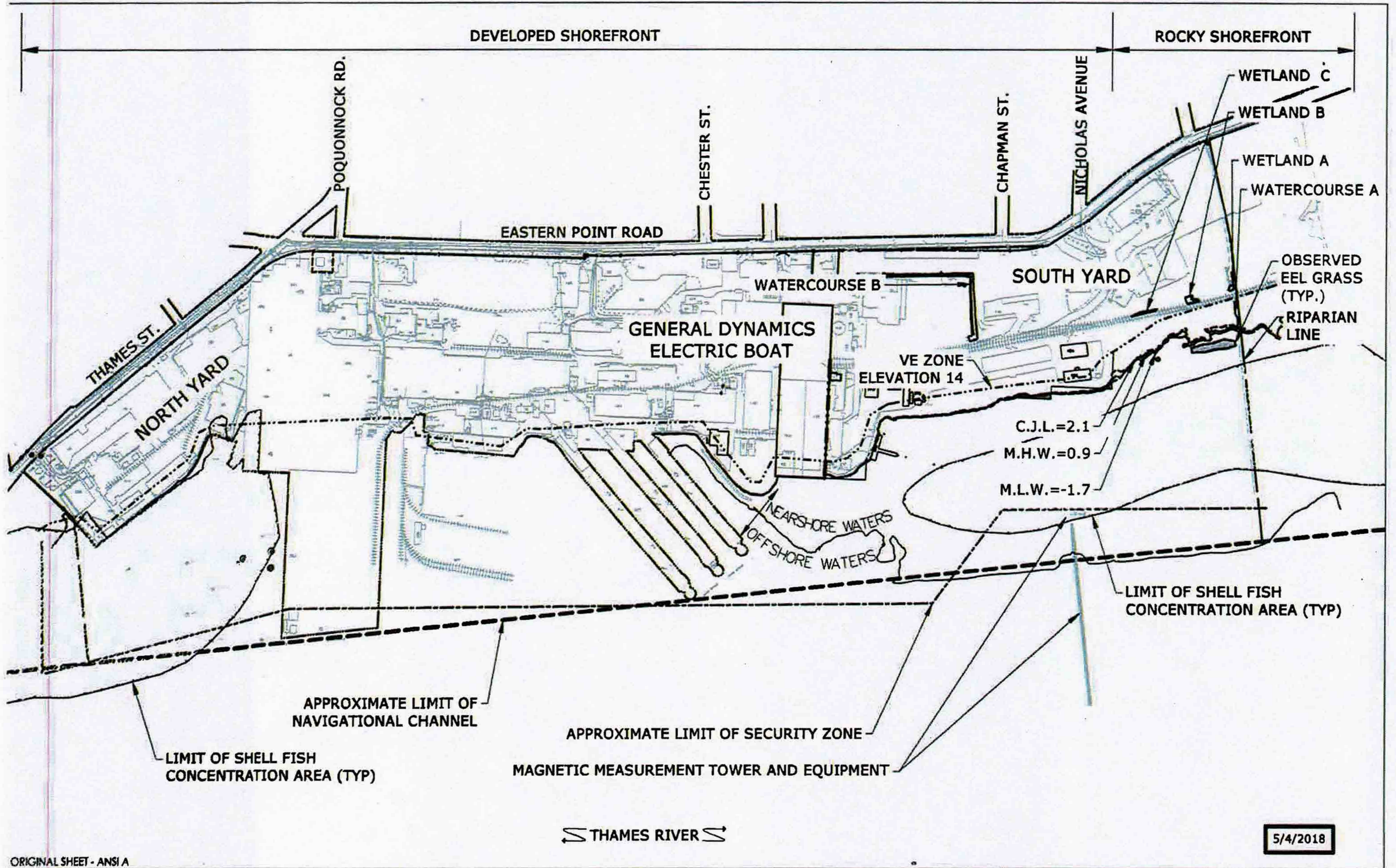
- C101 EXISTING CONDITIONS OVERALL SITE PLAN
- C102 EXISTING CONDITIONS SOUTH YARD
- C103 DEMOLITION PLAN
- C104 RIVER IMPACT SUMMARY
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- C309 MOORING DOLPHINS
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- C401 STAGING PLAN DREDGING
- C402 DRILLING AND DREDGING DETAILS
- C403 CONSTRUCTION NARRATIVE

PREPARED BY:



STANTEC CONSULTING SERVICES INC.
55 CHURCH STREET, SUITE 601
NEW HAVEN, CT





ORIGINAL SHEET - ANSI A

DATUM: NAVD 88

PLAN VIEW

SCALE: 1"=500'



5/4/2018



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Client/Project

ELECTRIC BOAT

SOUTH YARD

75 EASTERN POINT RD, GROTON, CT 06340

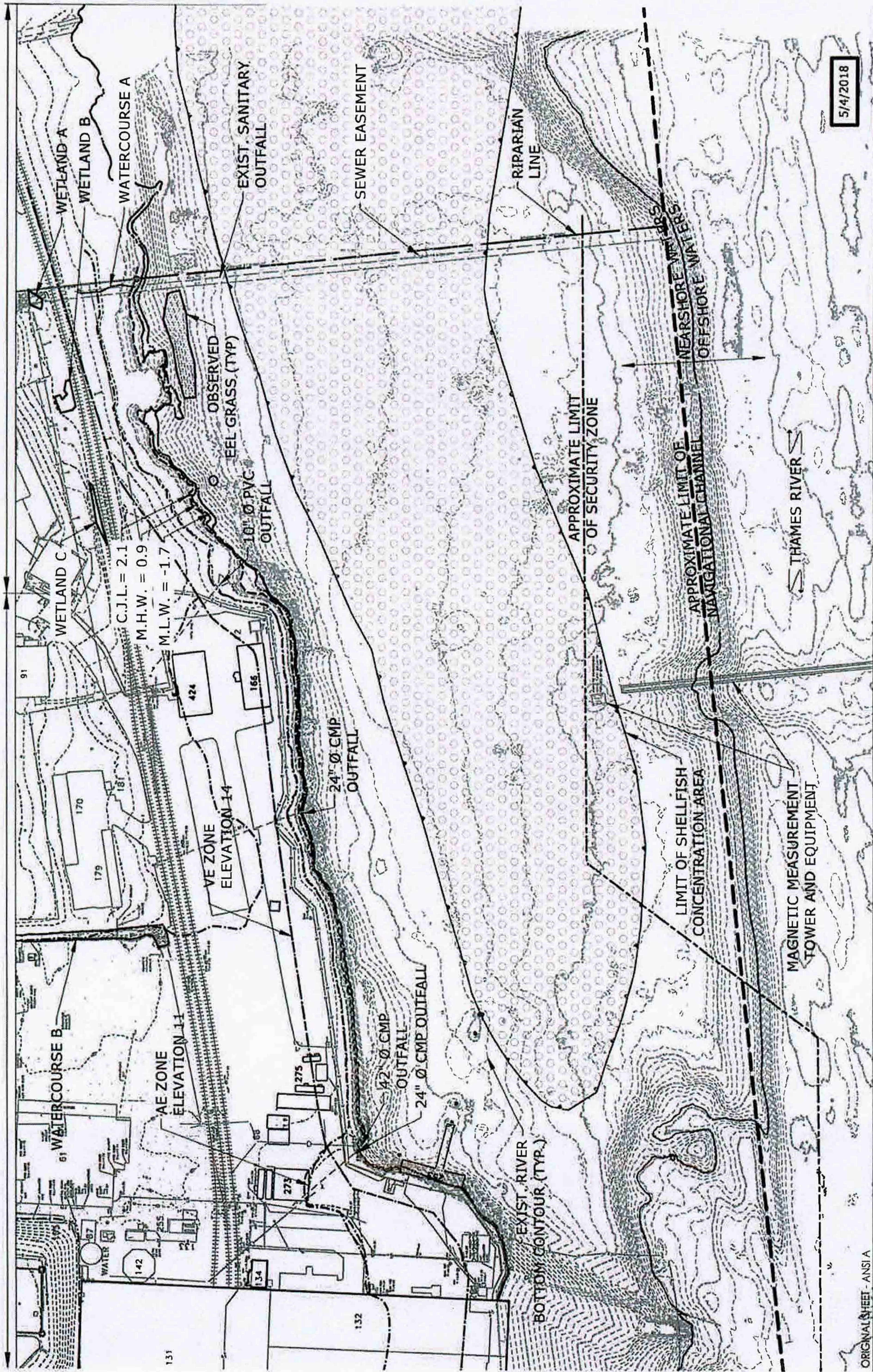
179310250

Figure No.

C-101

Title

EXISTING CONDITIONS OVERALL SITE



ORIGINAL SHEET - ANSI A

179310250

Client/Project

ELECTRIC BOAT

SOUTH YARD

75 EASTERN POINT RD, GROTON, CT 06340

Figure No.

C-102

Title

EXISTING CONDITIONS SOUTH YARD

PLAN VIEW

SCALE: 1" = 200'



5/4/2018

Client/Project

ELECTRIC BOAT

SOUTH YARD

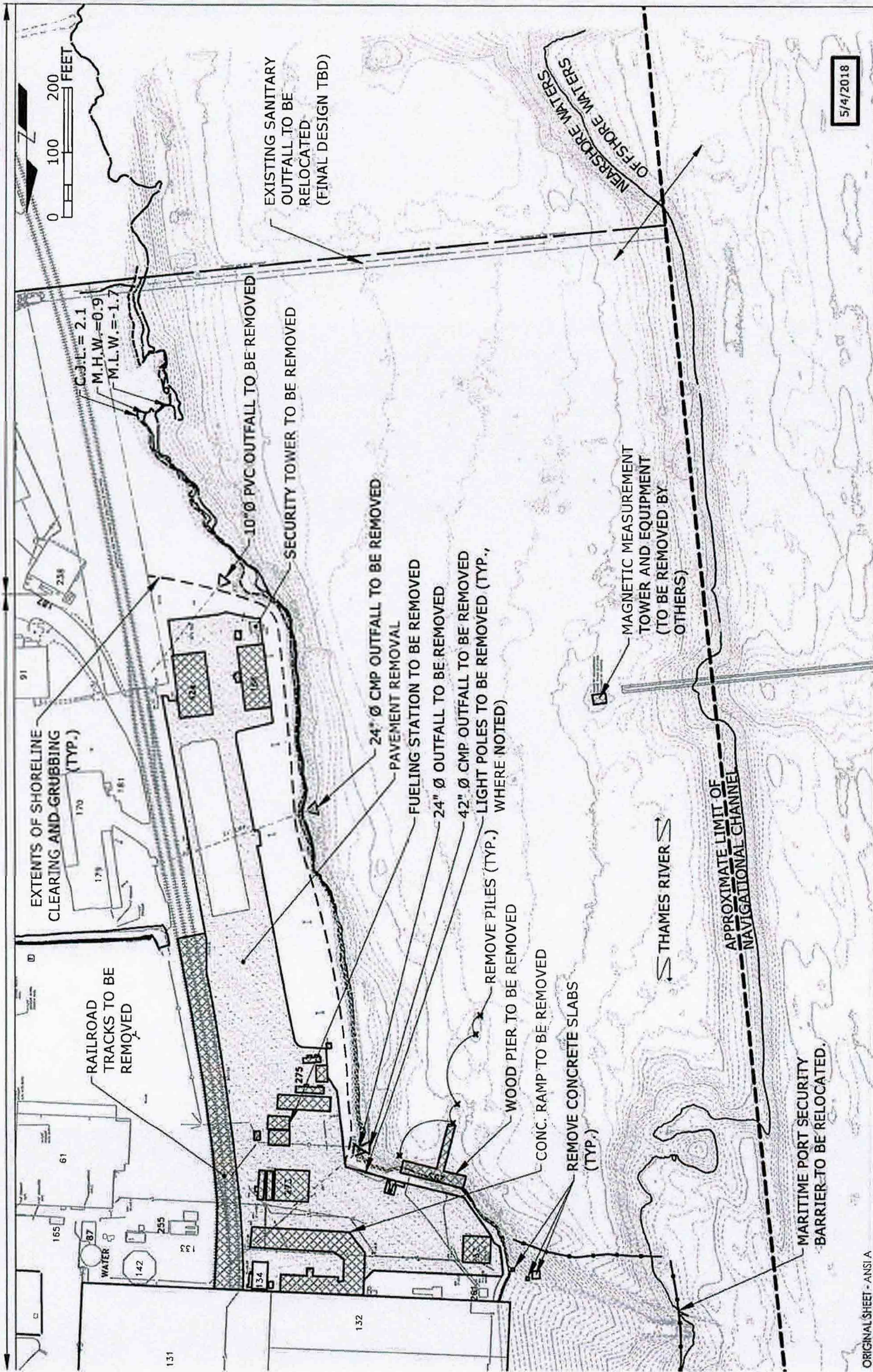
75 EASTERN POINT RD, GROTON, CT 06340

Figure No.

C-102

Title

EXISTING CONDITIONS SOUTH YARD



Client/Project
 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

Figure No.
 C-103

Title
 DEMOLITION PLAN

LEGEND:

STRUCTURES TO BE REMOVED

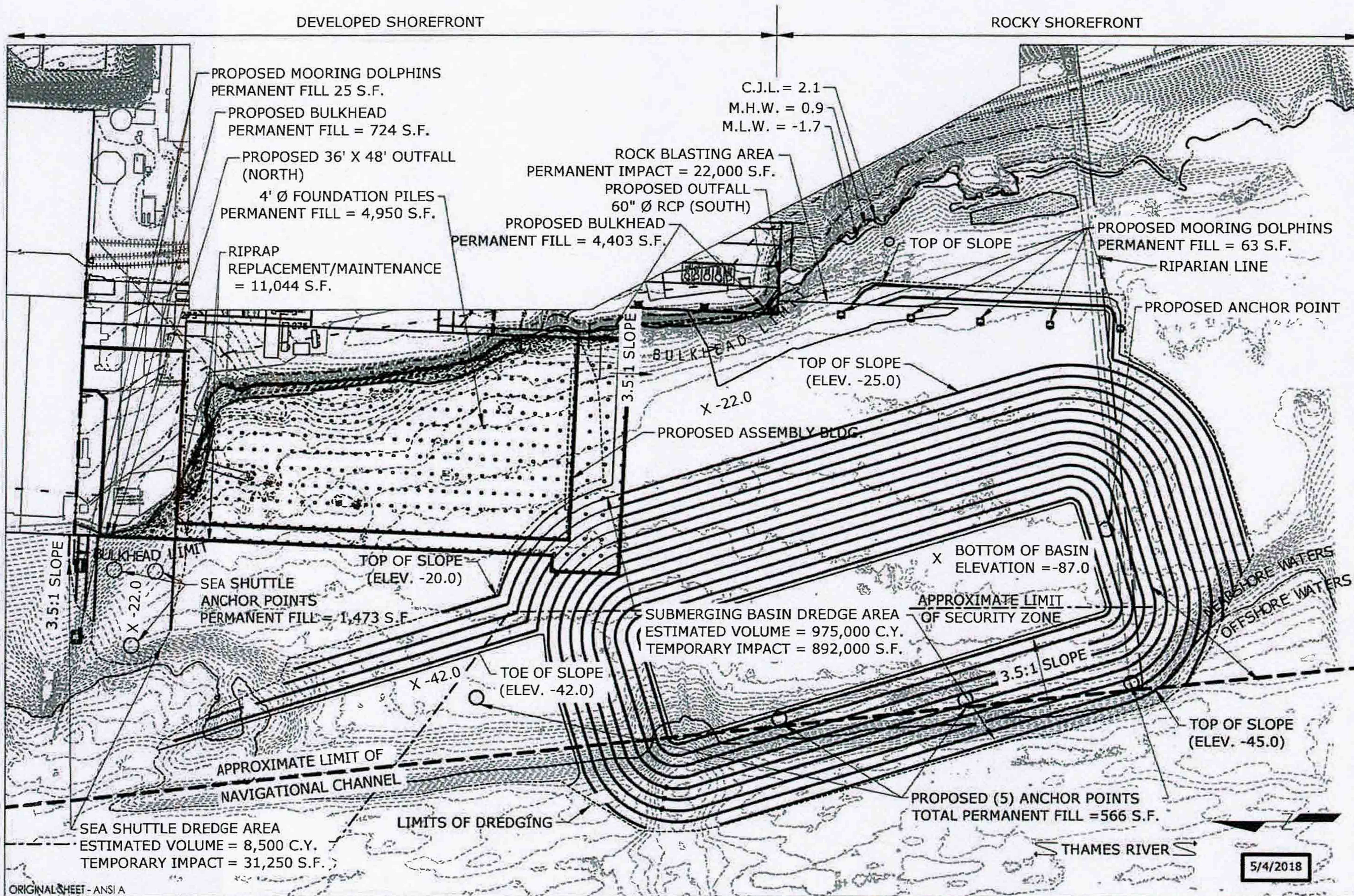
LIMIT OF DREDGING

PAVEMENT TO BE REMOVED

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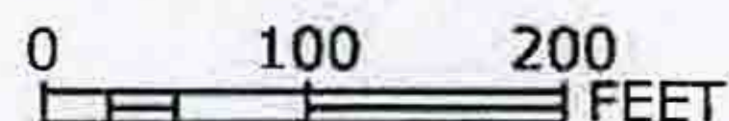
ORIGINAL SHEET - ANSI A



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PLAN VIEW

SCALE: 1"=200'



NOTES:

1. PROPOSED BUILDING REMOVED FOR CLARITY.
2. PROPOSED DREDGING DEPTHS ARE CONTROLLING DEPTH (IN NAVD 88) AND DO NOT DEPICT A 2 FT ALLOWABLE OVERDREDGE DURING CONSTRUCTION.

Client/Project

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ELECTRIC BOAT

SOUTH YARD

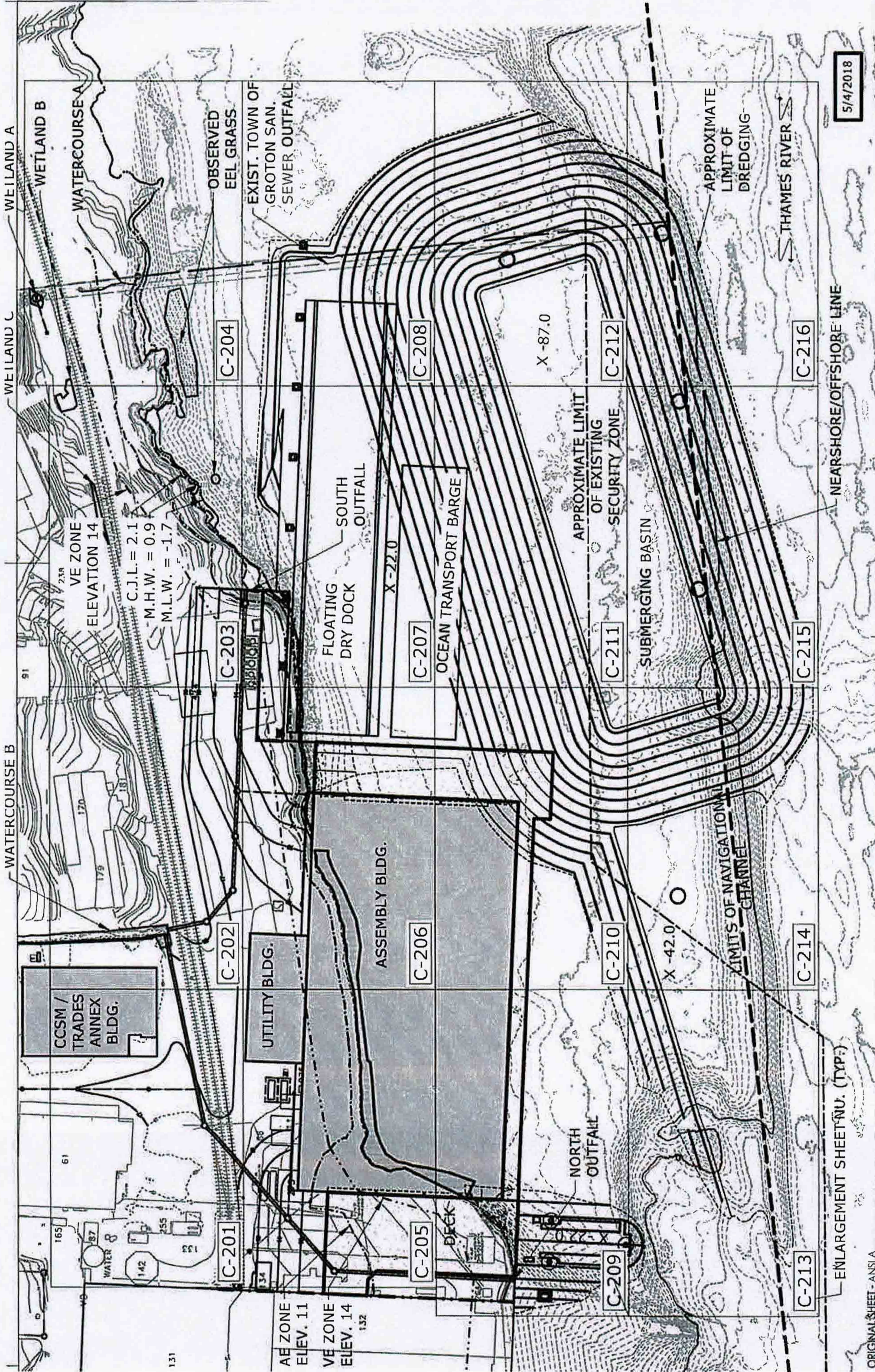
75 EASTERN POINT RD, GROTON, CT 06340

Figure No.

C-104

Title

RIVER IMPACT SUMMARY



5/4/2018

179310250

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ELECTRIC BOAT
SOUTH YARD
75 EASTERN POINT RD, GROTON, CT 06340

Figure No. C-200

Title

PROPOSED OVERALL INDEX PLAN

PLAN VIEW

SCALE: 1"=200'



NOTE: ONLY 5' CONTOURS SHOWN
IN DREDGING AREAS FOR CLARITY

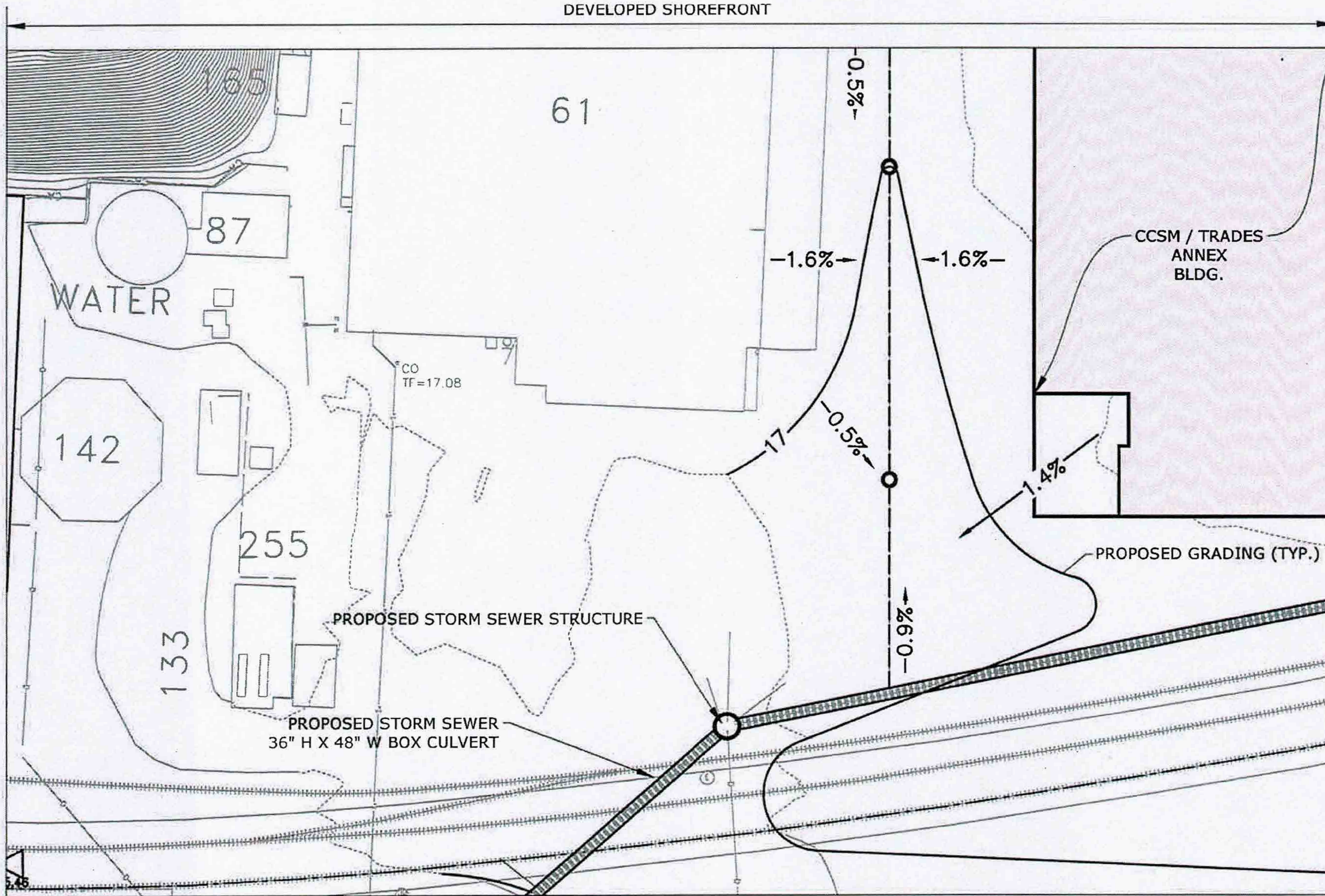


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ENLARGEMENT SHEET NO. (TYP.)

131



C-202

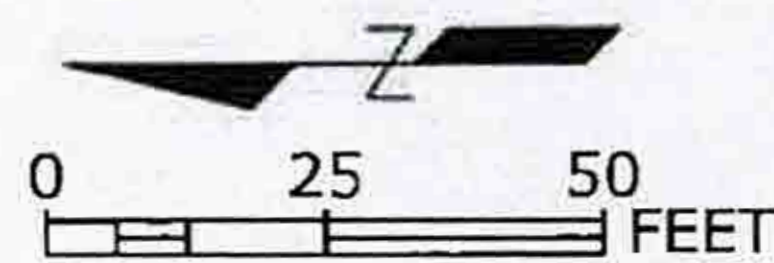
C-205

5/4/2018

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Client/Project
 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

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Figure No.

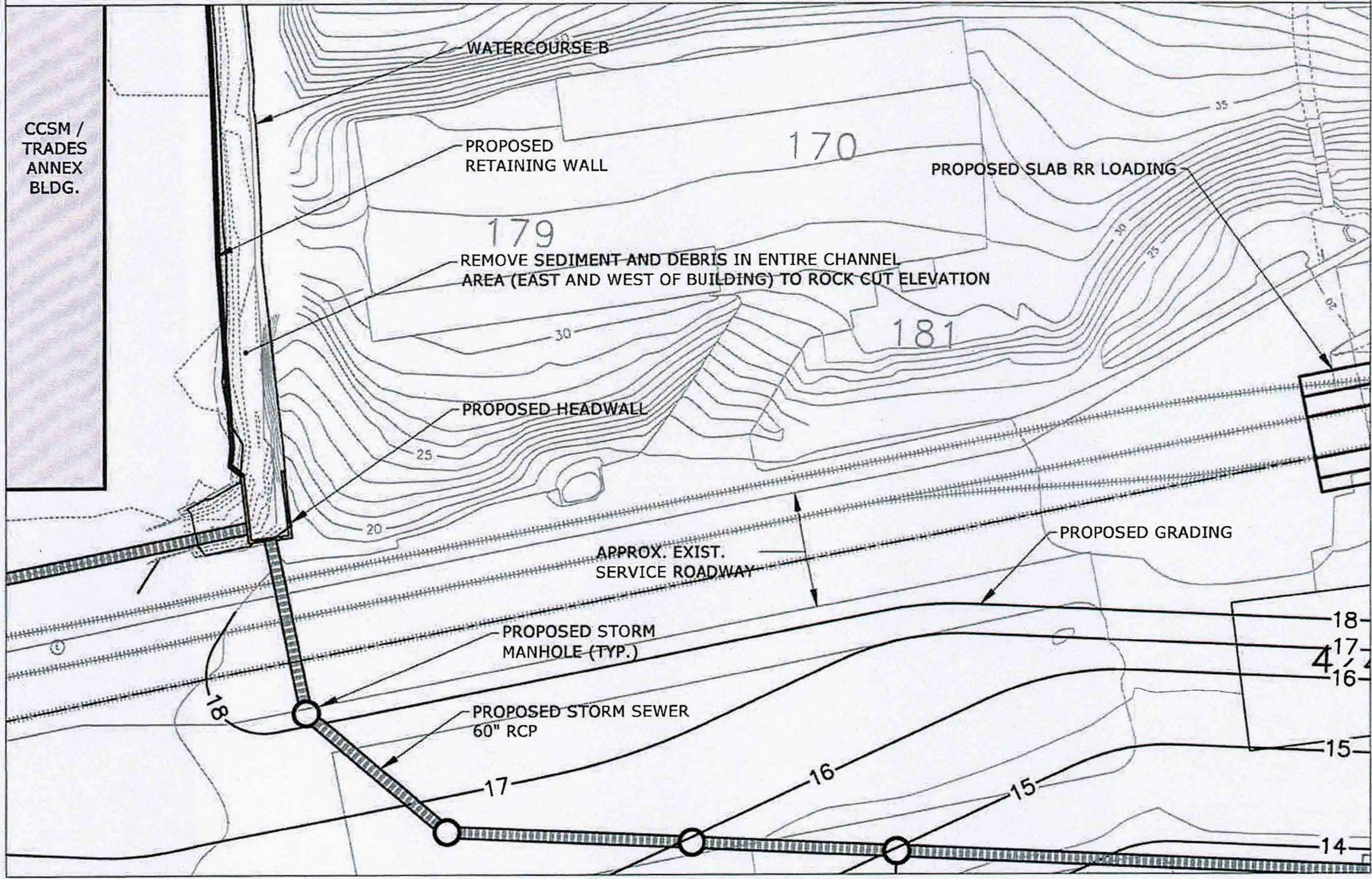
C-201

Title

PROPOSED PLAN

C-201

C-203



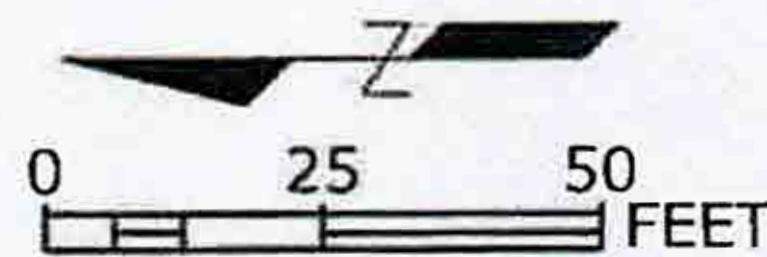
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5/4/2018

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ELECTRIC BOAT
SOUTH YARD
75 EASTERN POINT RD, GROTON, CT 06340

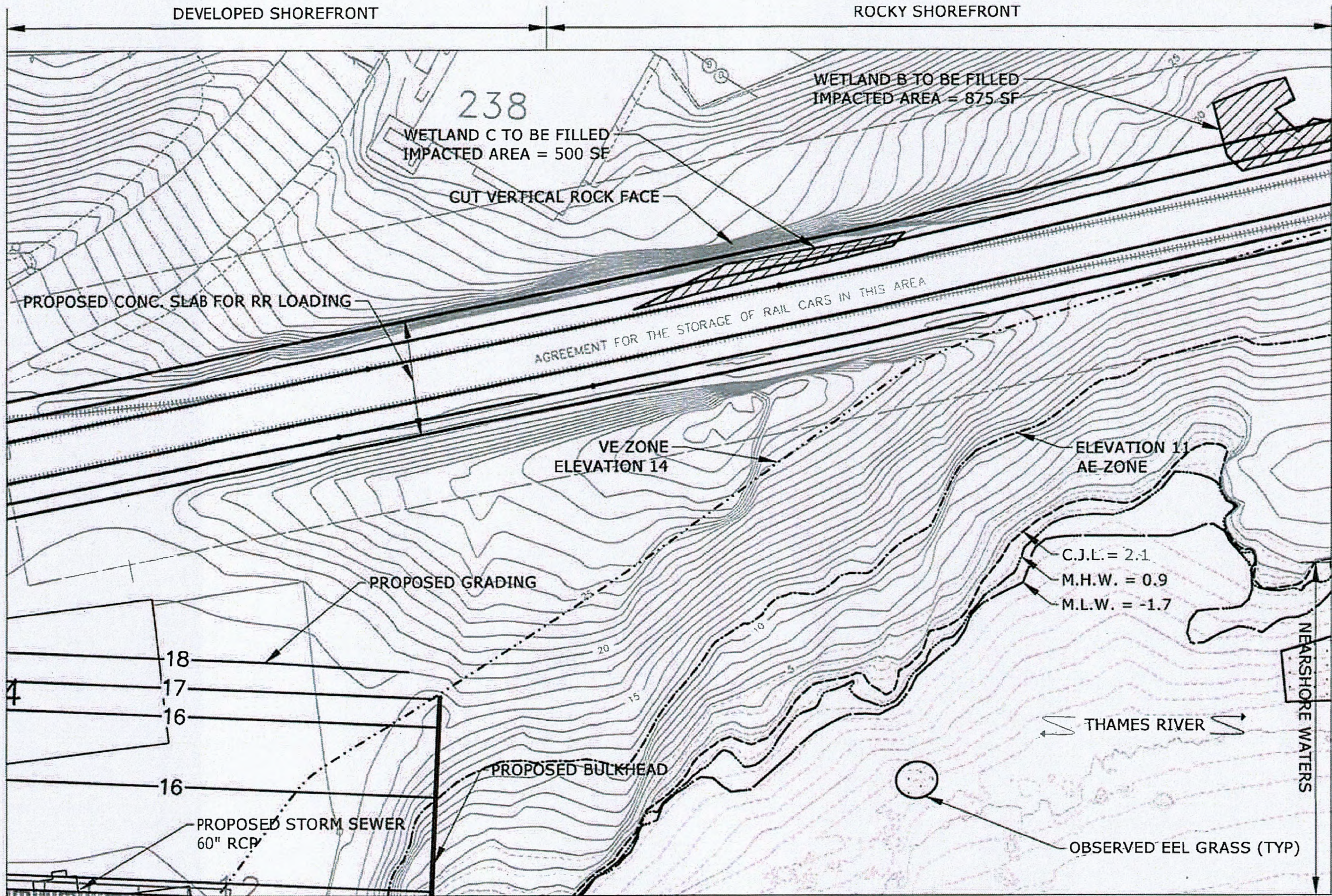
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Figure No.

C-202

Title

PROPOSED PLAN

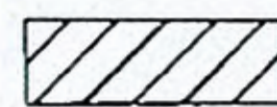


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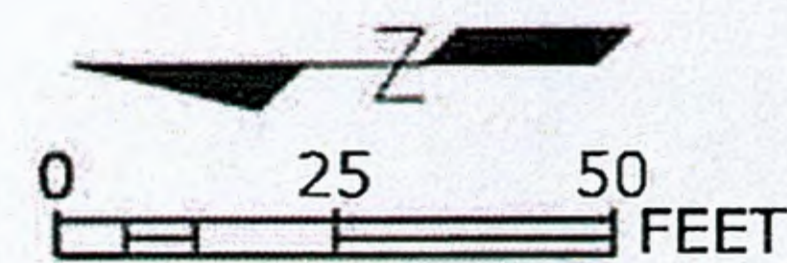
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LEGEND



WETLAND IMPACT AREA

C-207



5/4/2018

Client/Project

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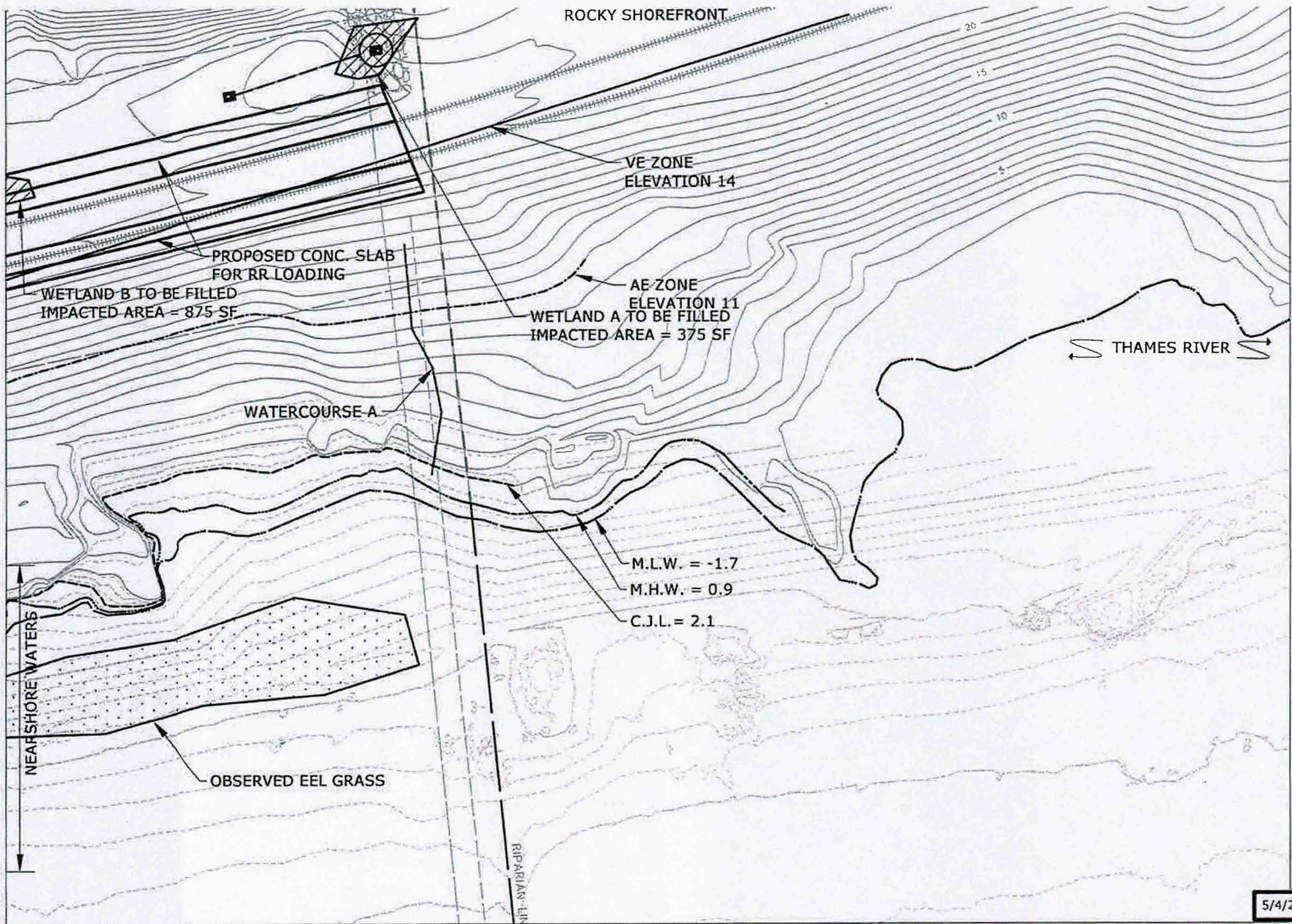
ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

Figure No.

C-203

Title

PROPOSED PLAN



C-203

ORIGINAL SHEET - ANSI A



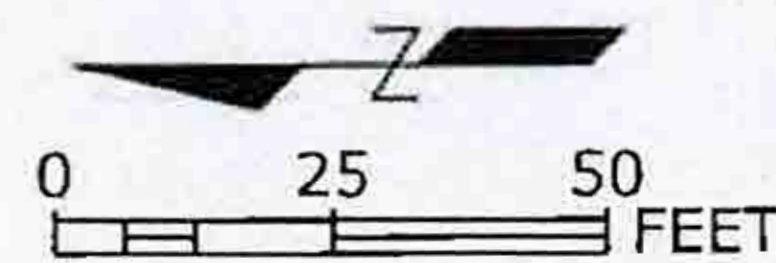
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LEGEND

WETLAND IMPACT AREA

C-208



Client/Project

ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

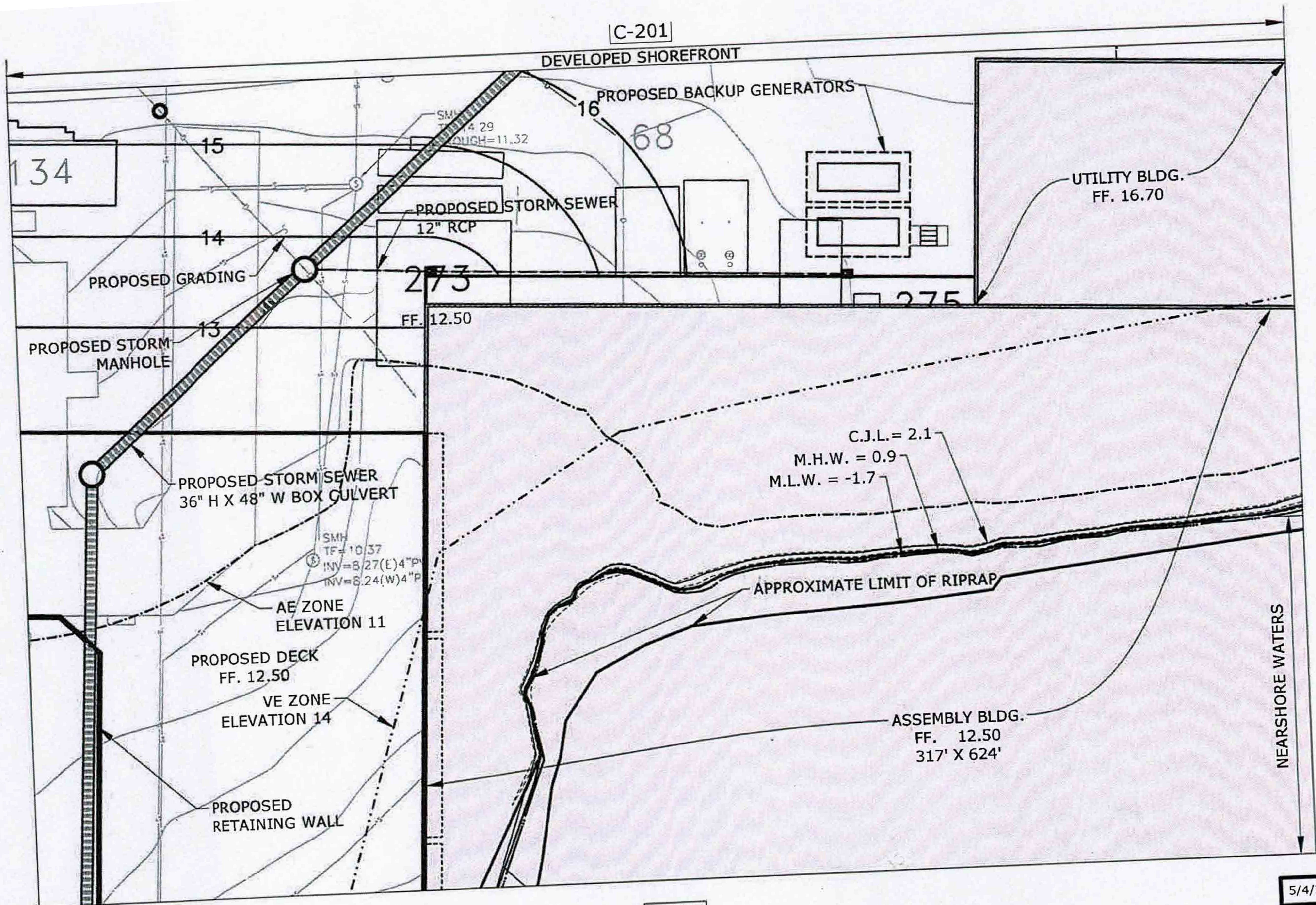
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Figure No.

C-204

Title

PROPOSED PLAN



C-206

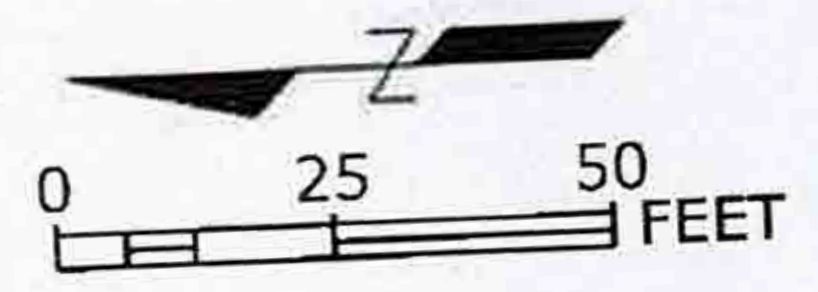
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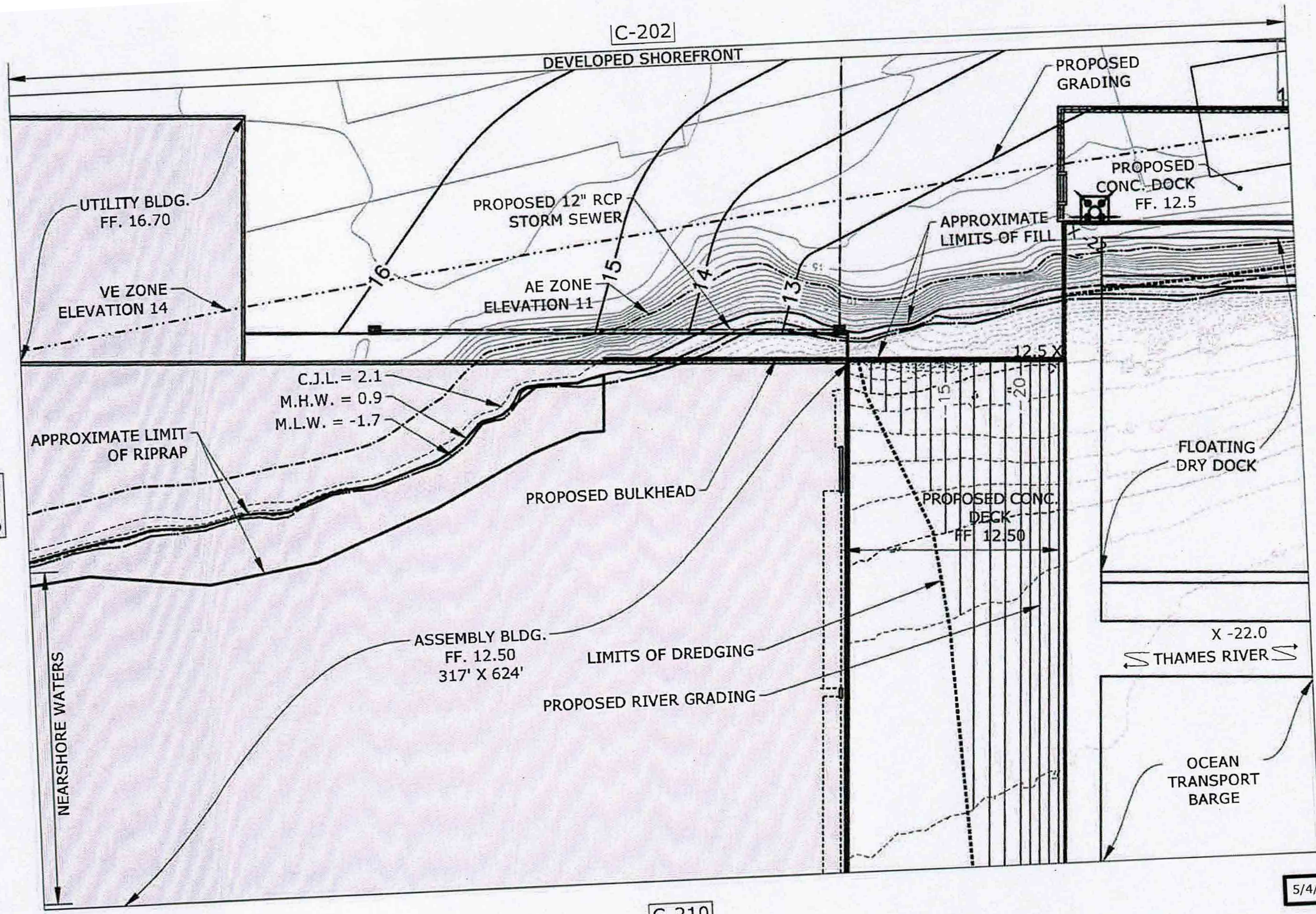


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Client/Project
 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340
 Figure No.
 C-205
 Title
 PROPOSED PLAN

C-209



C-205

C-202

C-207

C-210

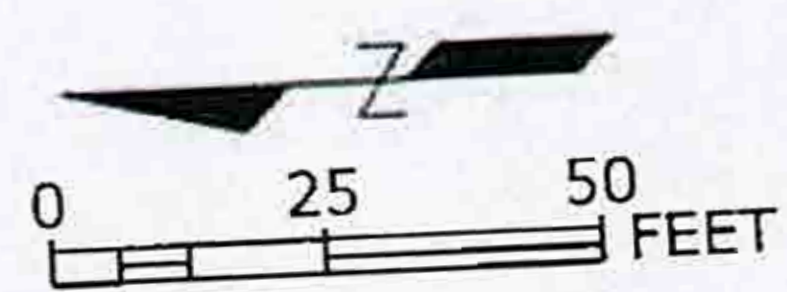
5/4/2018

179310250

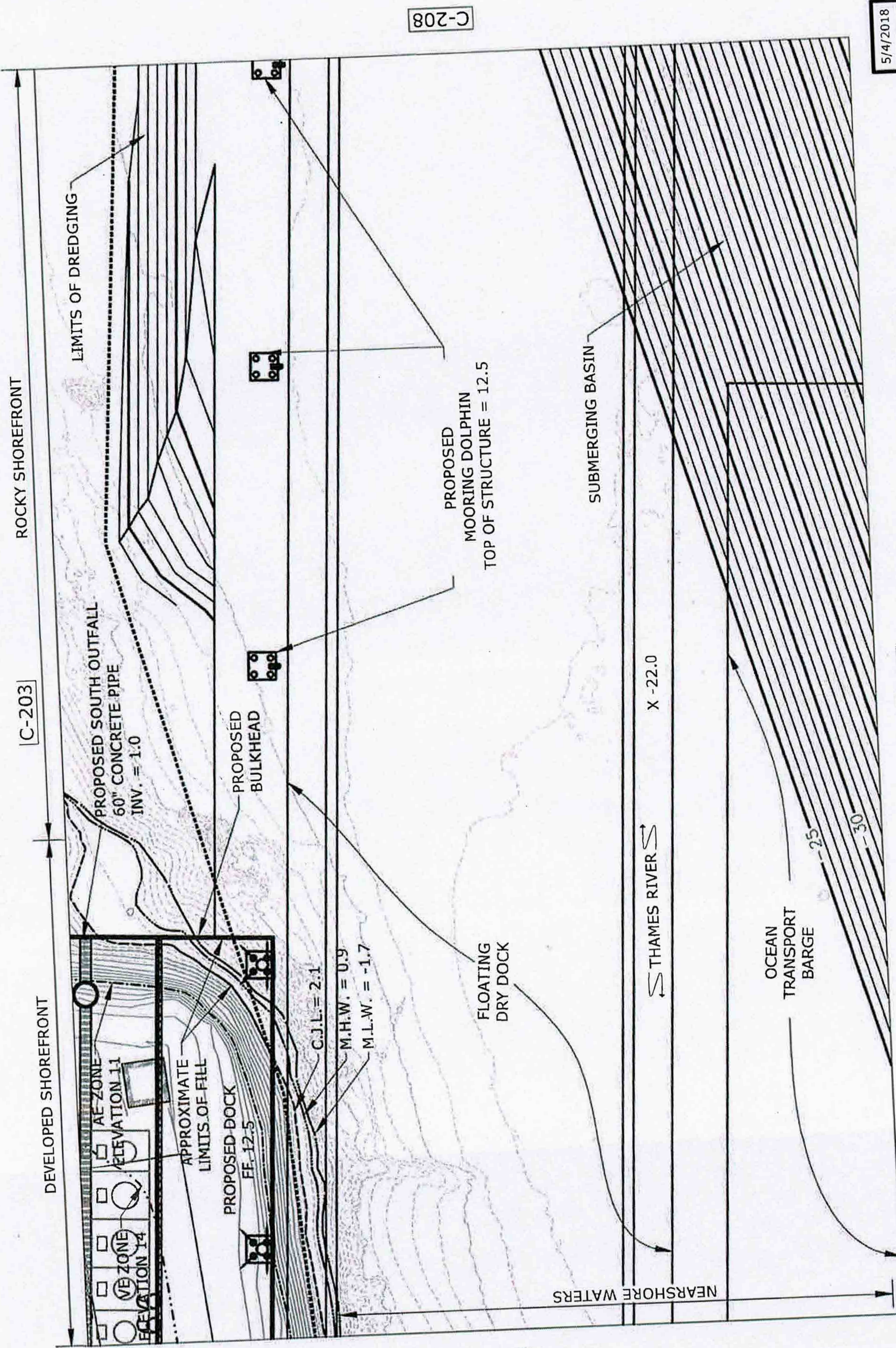
ORIGINAL SHEET - ANSI A



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Client/Project
 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340
 Figure No.
 C-206
 Title
 PROPOSED PLAN



C-203

C-208

C-206

5/4/2018

C-211

179310250

Client/Project
 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

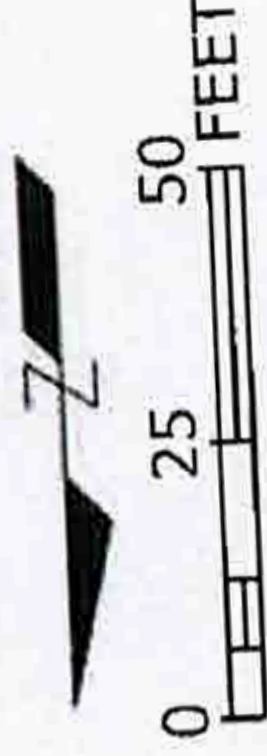


Figure No. C-207
 Title PROPOSED PLAN

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C-207

C-204

ROCKY SHOREFRONT

E BY AGREEMENT

PROPOSED MOORING
DOLPHINS (TYP)
TOP OF STRUCTURE 12.5

LIMITS OF DREDGING

X -22.0

FLOATING
DRY DOCK

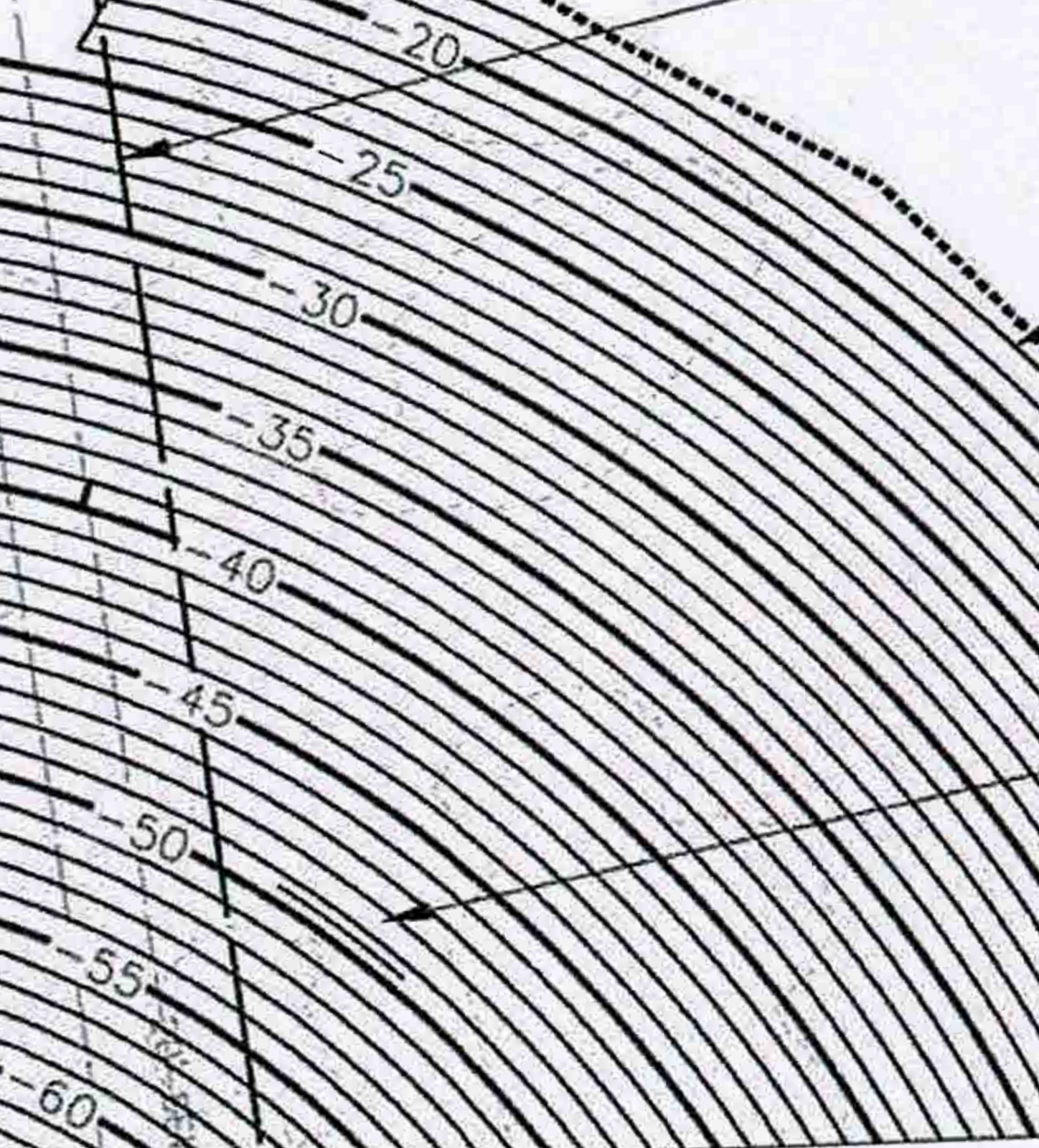
EXISTING RIPARIAN LINE

TOP OF SLOPE
(ELEV. -18.0)

THAMES RIVER

SUBMERGING BASIN

NEARSHORE WATERS



C-212

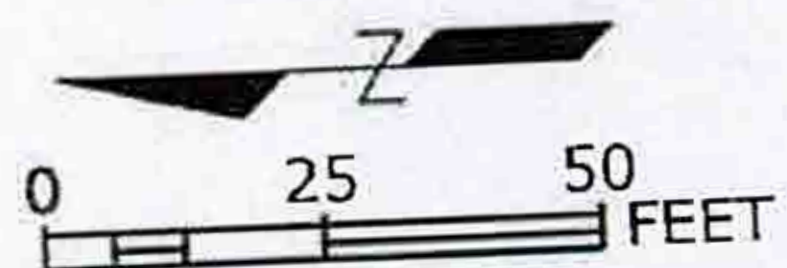
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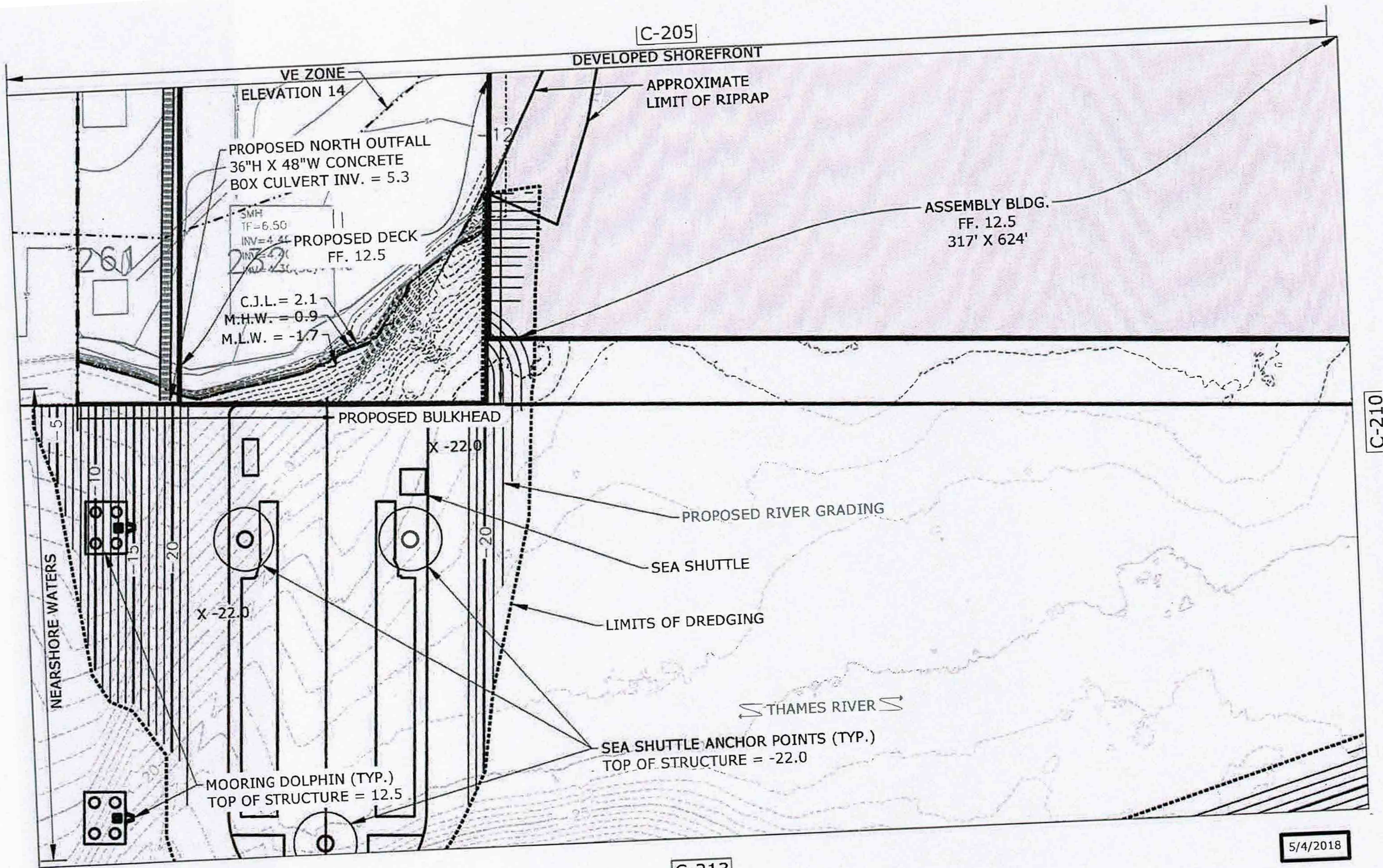
Client/Project
 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

Figure No.

C-208

Title

PROPOSED PLAN



C-205

DEVELOPED SHOREFRONT

VE ZONE
ELEVATION 14

APPROXIMATE
LIMIT OF RIPRAP

PROPOSED NORTH OUTFALL
36"H X 48"W CONCRETE
BOX CULVERT INV. = 5.3

SMH
TF = 6.50
INV = 4.44
CJL = 2.1

PROPOSED DECK
FF. 12.5

M.H.W. = 0.9
M.L.W. = -1.7

ASSEMBLY BLDG.
FF. 12.5
317' X 624'

PROPOSED BULKHEAD

PROPOSED RIVER GRADING

SEA SHUTTLE

LIMITS OF DREDGING

THAMES RIVER

SEA SHUTTLE ANCHOR POINTS (TYP.)
TOP OF STRUCTURE = -22.0

MOORING DOLPHIN (TYP.)
TOP OF STRUCTURE = 12.5

NEARSHORE WATERS

C-210

C-213

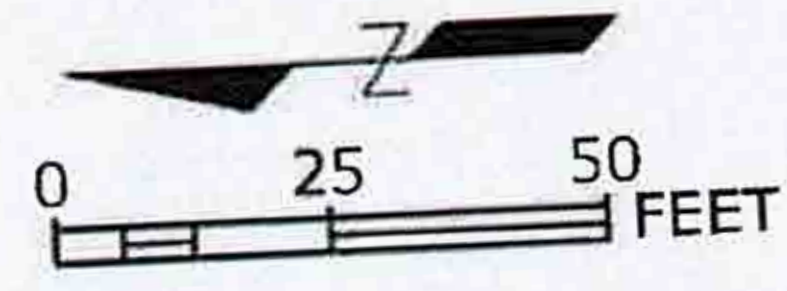
5/4/2018

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ORIGINAL SHEET - ANSI A

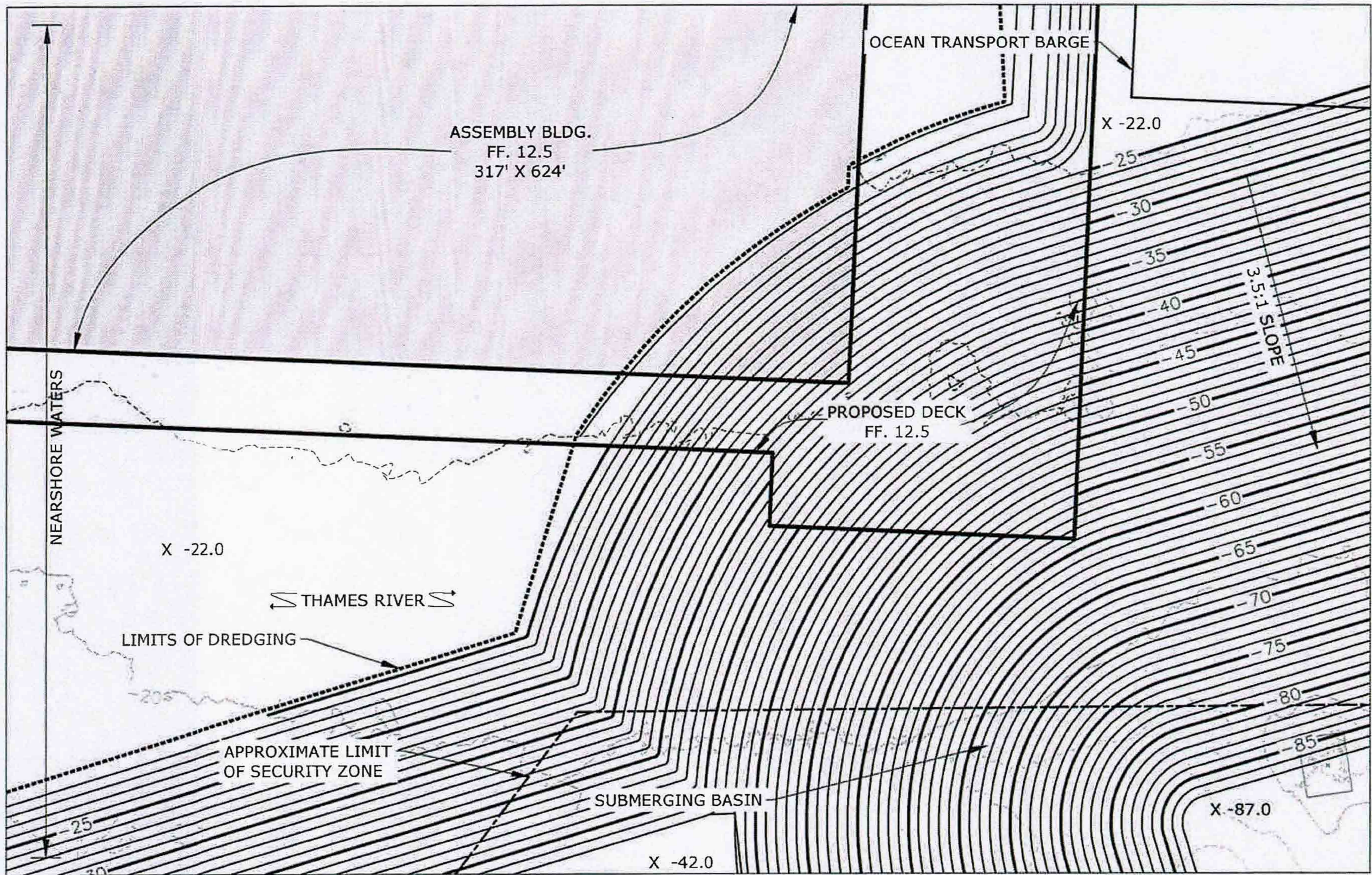


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ELECTRIC BOAT
SOUTH YARD
75 EASTERN POINT RD, GROTON, CT 06340
Figure No.
C-209
Title
PROPOSED PLAN

C-206



C-209

C-211

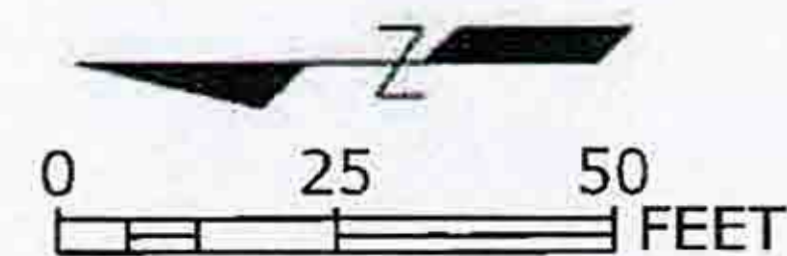
C-214

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Client/Project
 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

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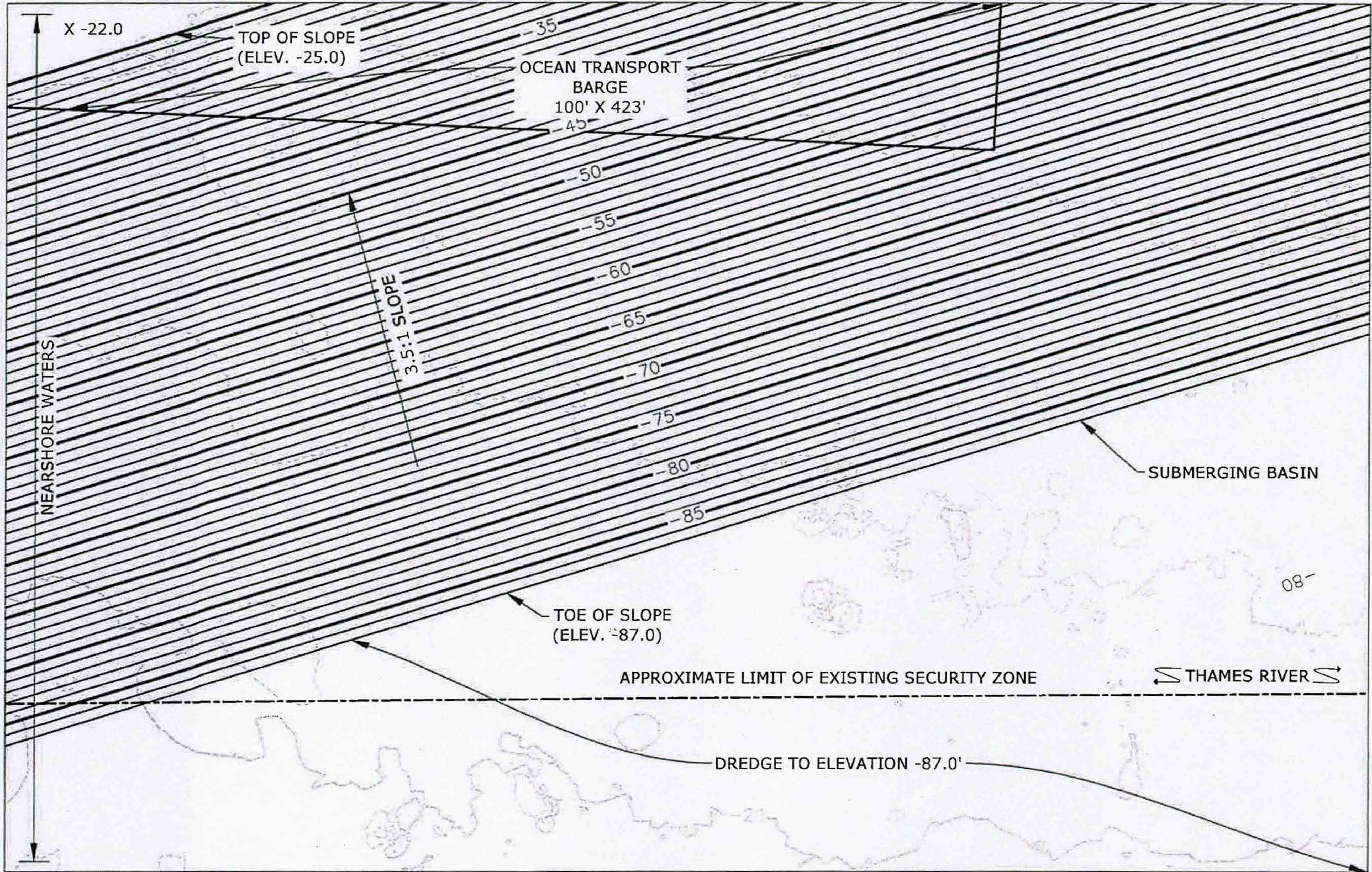
Figure No.

C-210

Title

PROPOSED PLAN

C-207



C-210

C-212

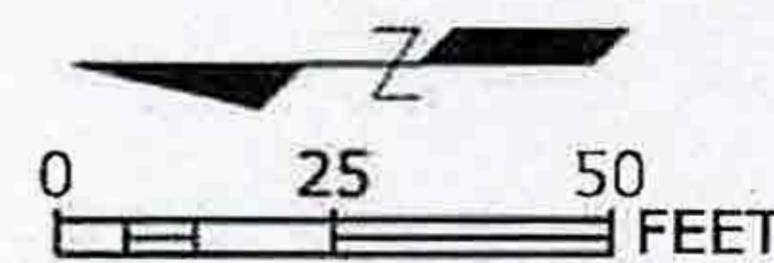
C-215

5/4/2018

ORIGINAL SHEET - ANSI A

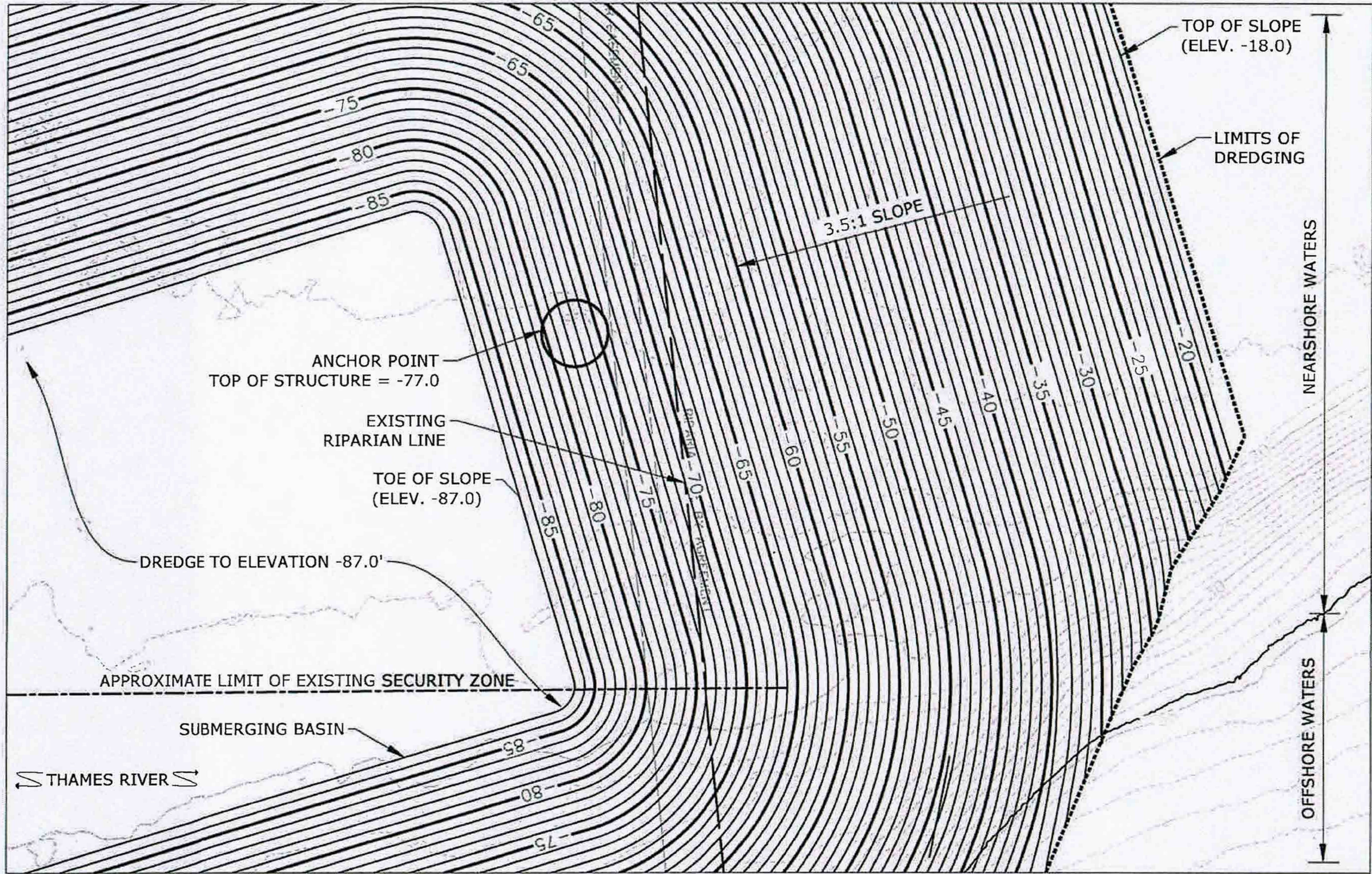


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Client/Project
 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340
 Figure No.
 C-211
 Title
 PROPOSED PLAN

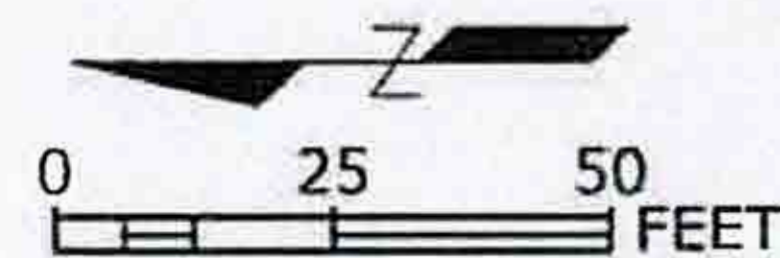
179310250



ORIGINAL SHEET - ANSI A



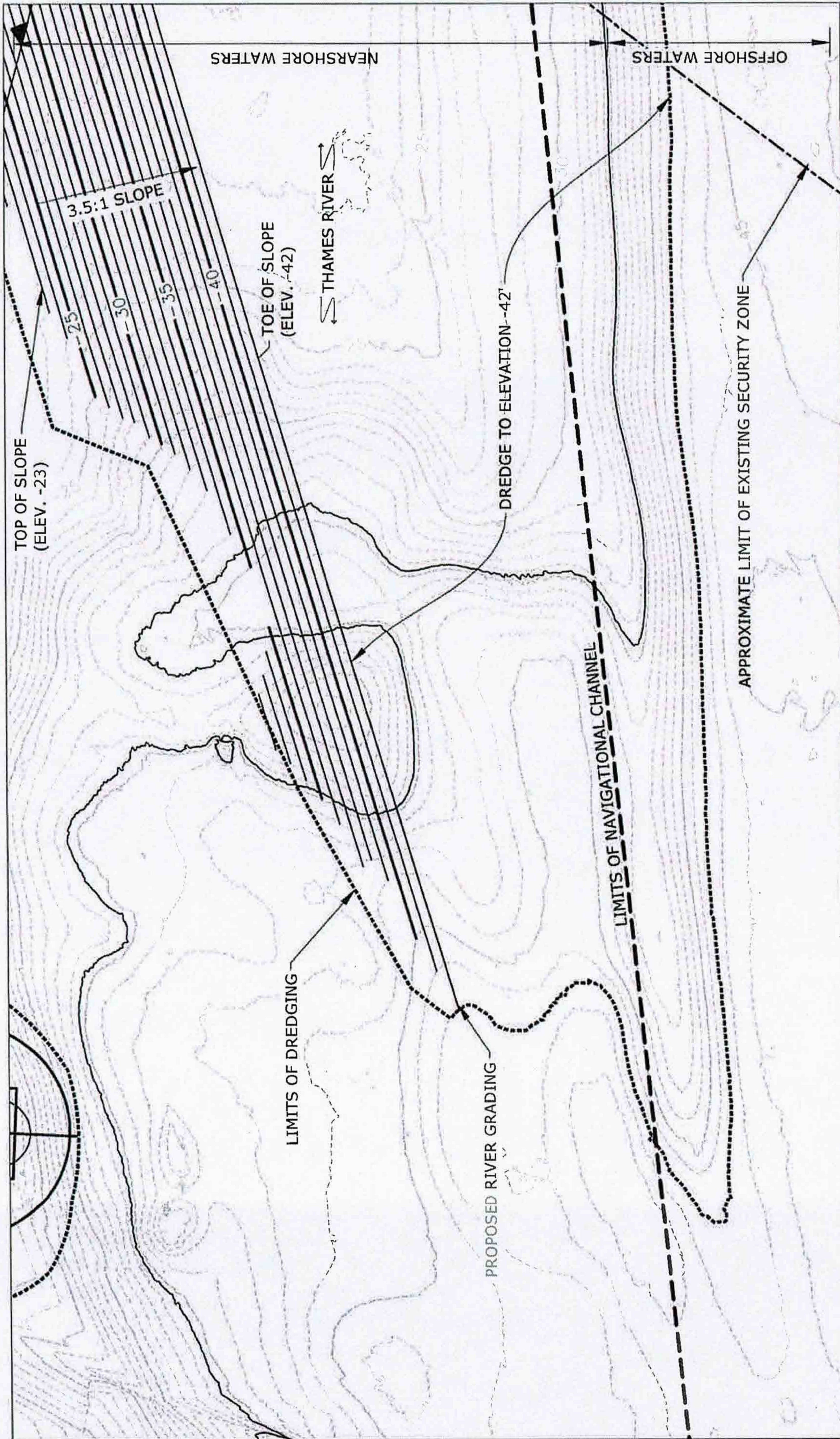
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Client/Project
 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340
 Figure No.
 C-212
 Title
 PROPOSED PLAN

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[C-209]



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Client/Project
 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

Figure No.
 C-213

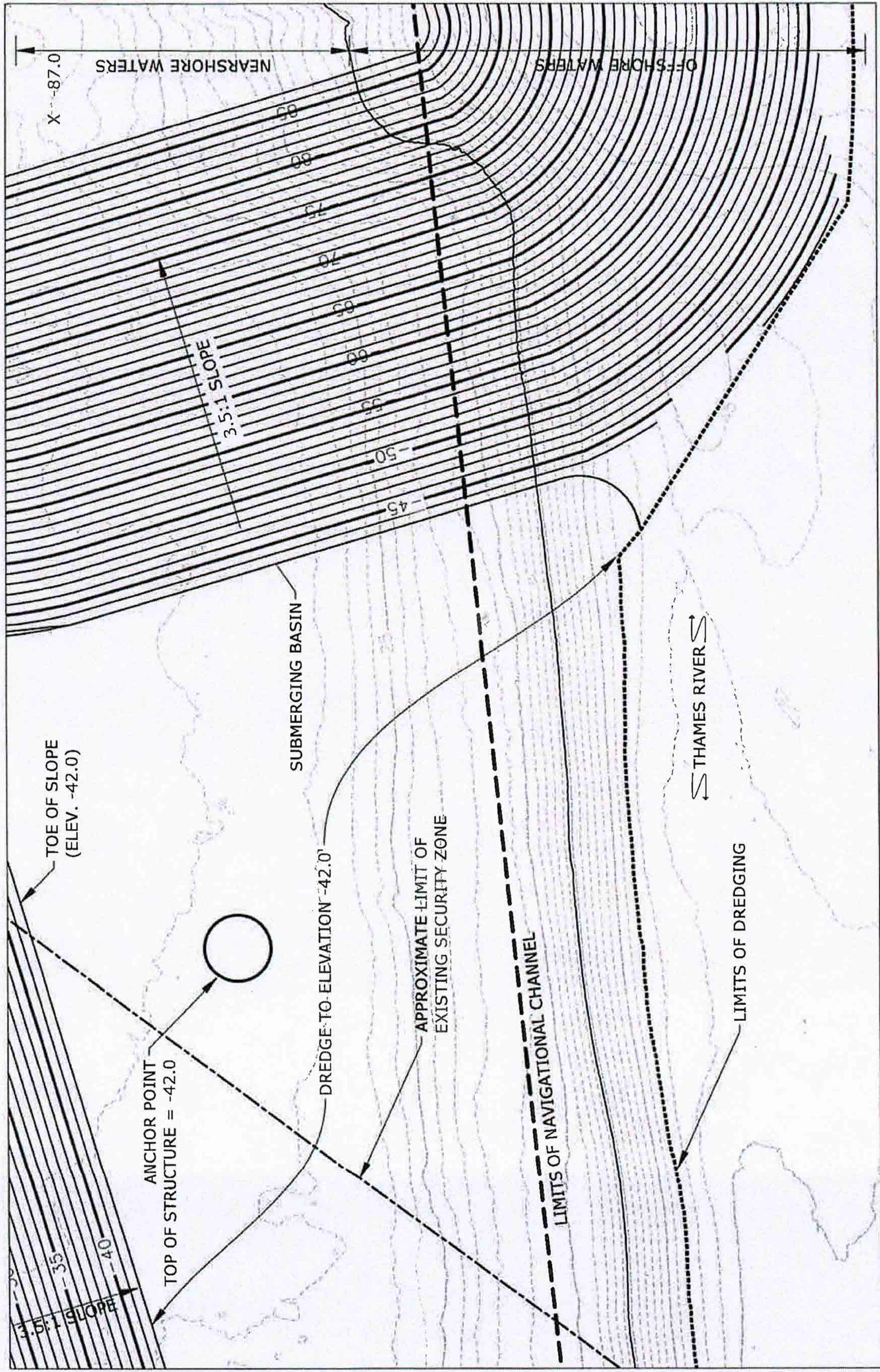
Title
 PROPOSED PLAN

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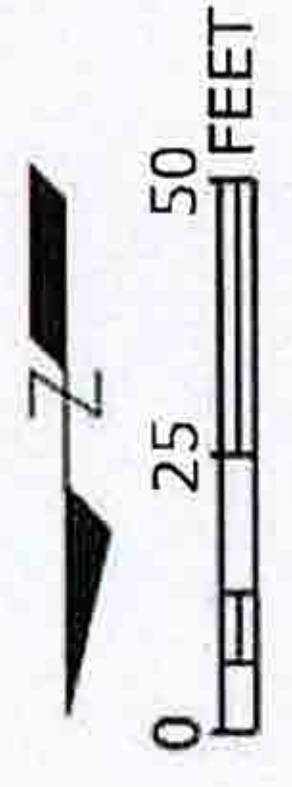
C-210



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Client/Project
 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

Figure No.

C-214

Title

PROPOSED PLAN

5/4/2018

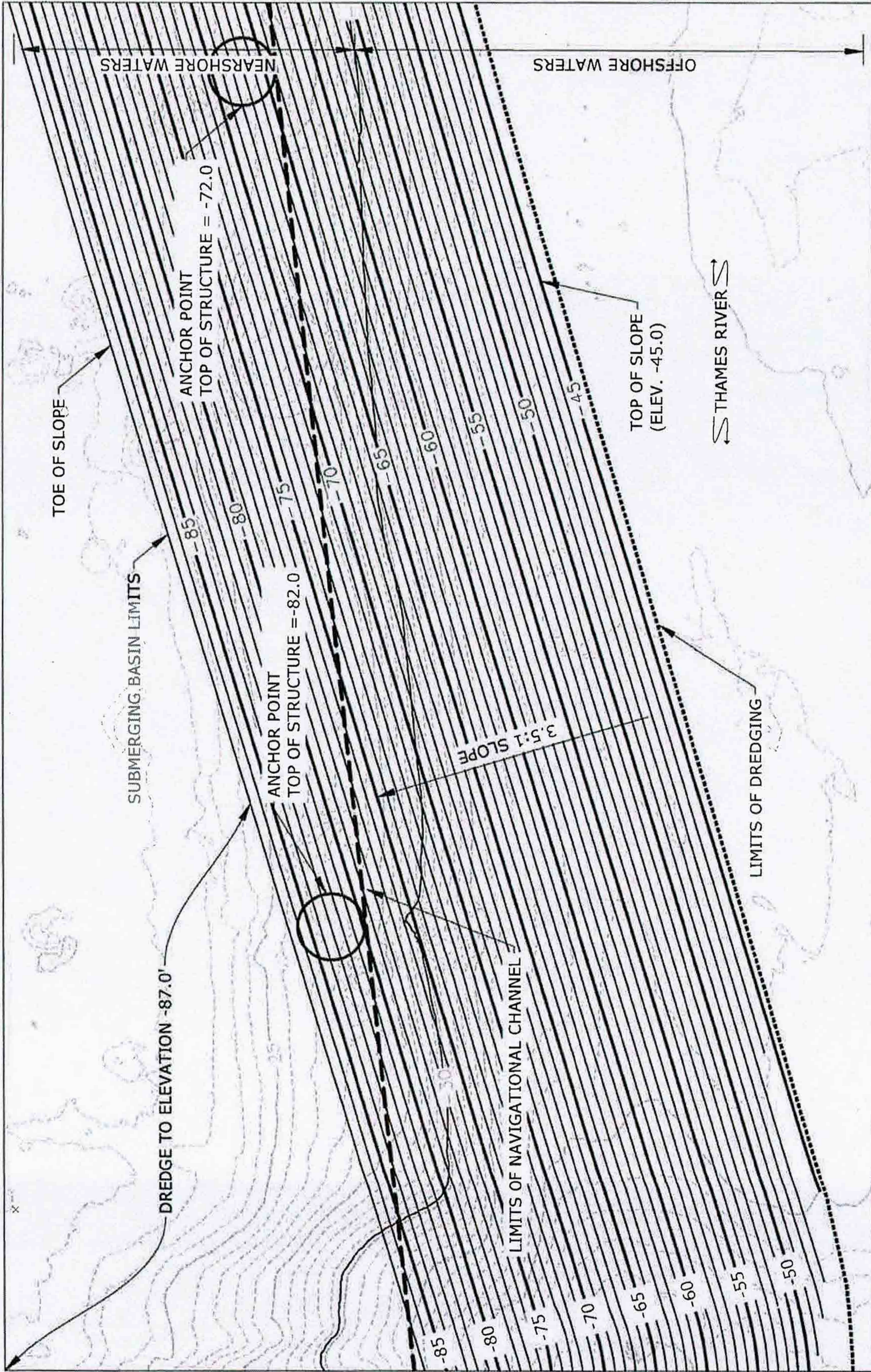
179310250

C-215

C-213

[C-211]

[C-216]



[C-214]

5/4/2018

179310250

Client/Project

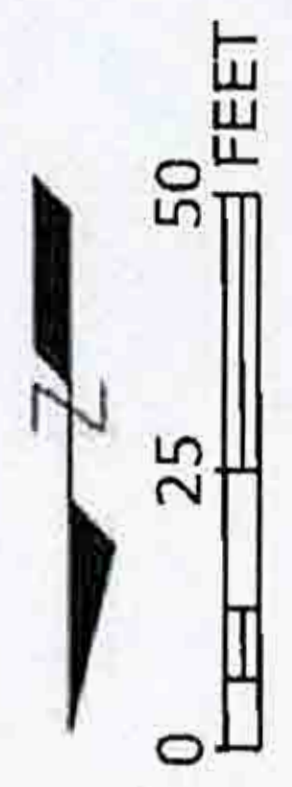
ELECTRIC BOAT
SOUTH YARD
75 EASTERN POINT RD, GROTON, CT 06340

Figure No.

C-215

Title

PROPOSED OVERALL PLAN



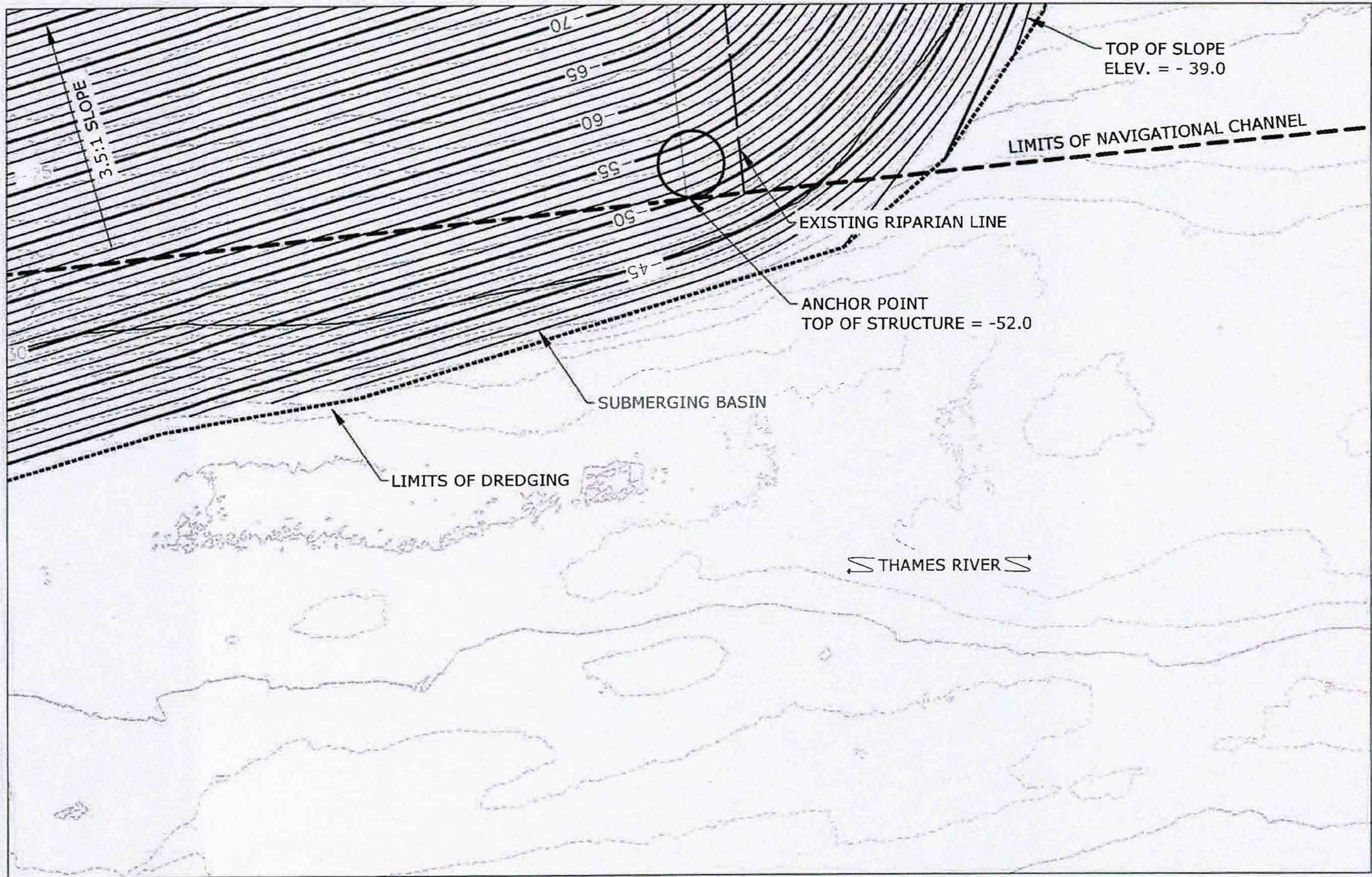
ORIGINAL SHEET - ANSI A



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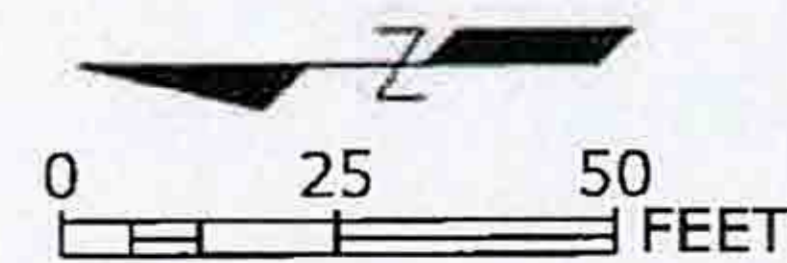


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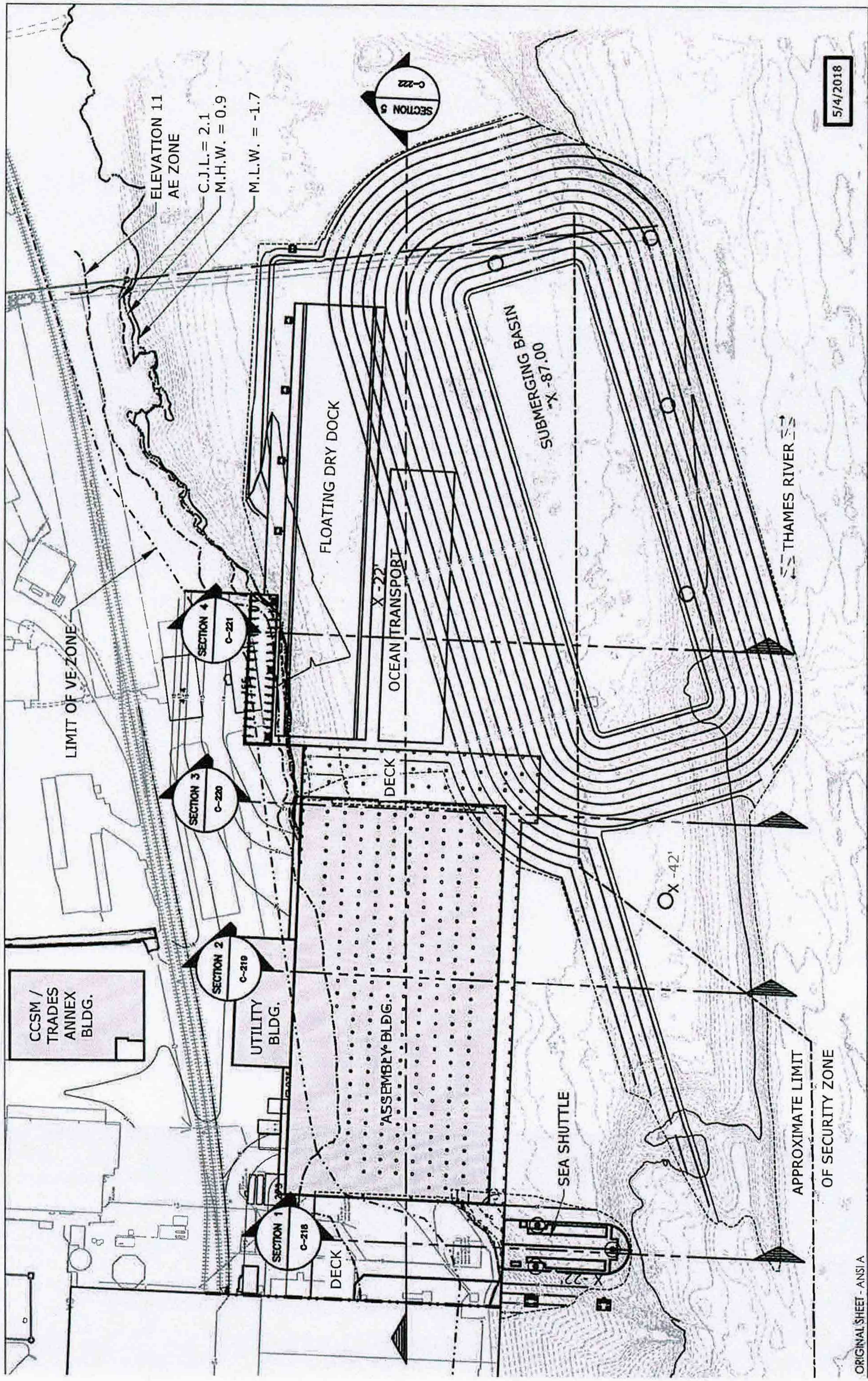


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 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

Figure No.
 C-216

Title
 PROPOSED PLAN

179310250



ELEVATION 11
AE ZONE
C.J.L. = 2.1
M.H.W. = 0.9
M.L.W. = -1.7

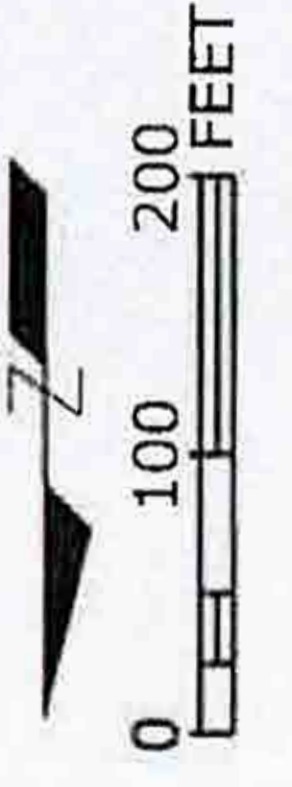
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ELECTRIC BOAT
SOUTH YARD
75 EASTERN POINT RD, GROTON, CT 06340

Figure No.
C-217

Title
SECTION INDEX PLAN

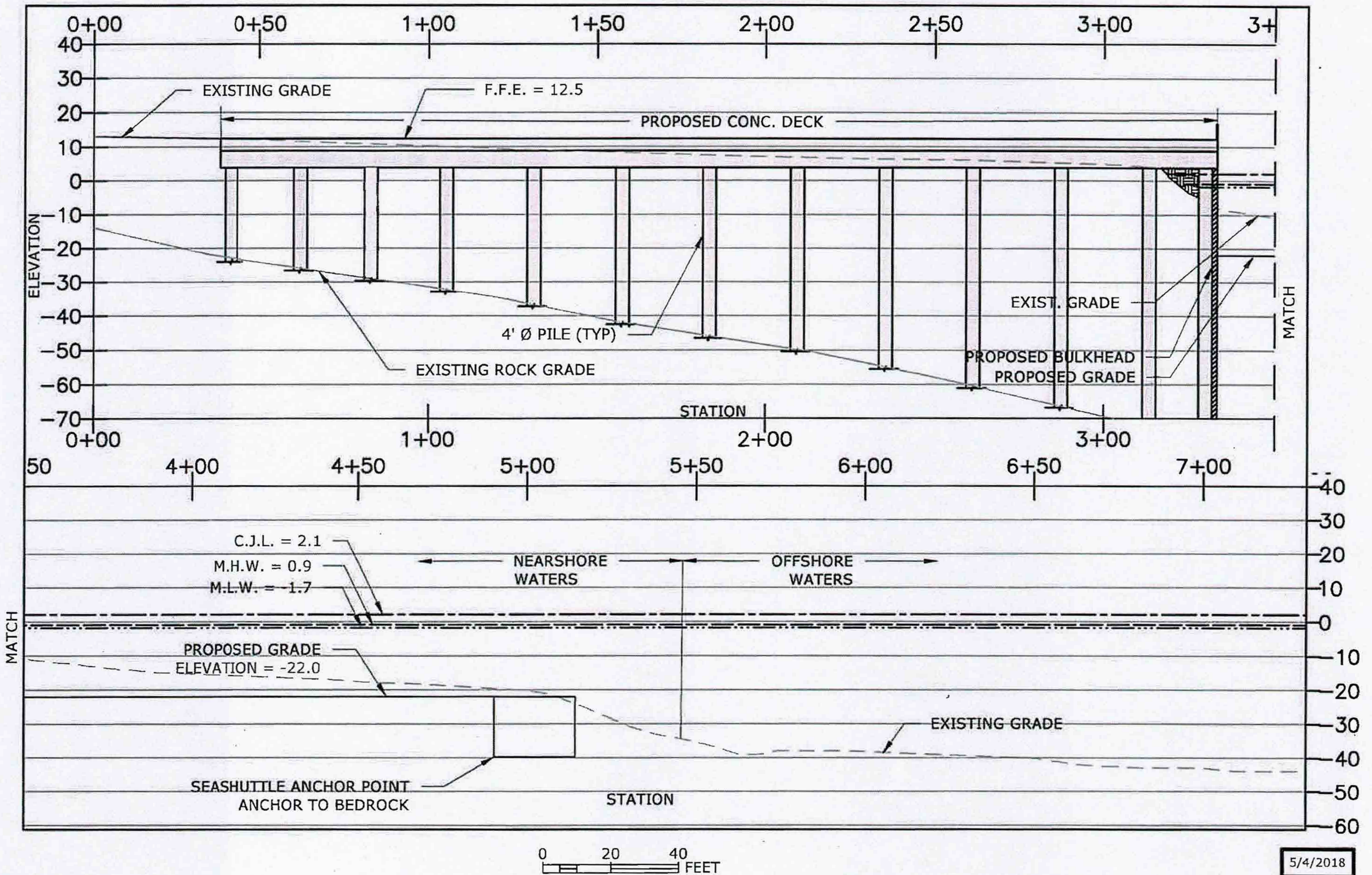


PLAN VIEW
SCALE: 1"=200'



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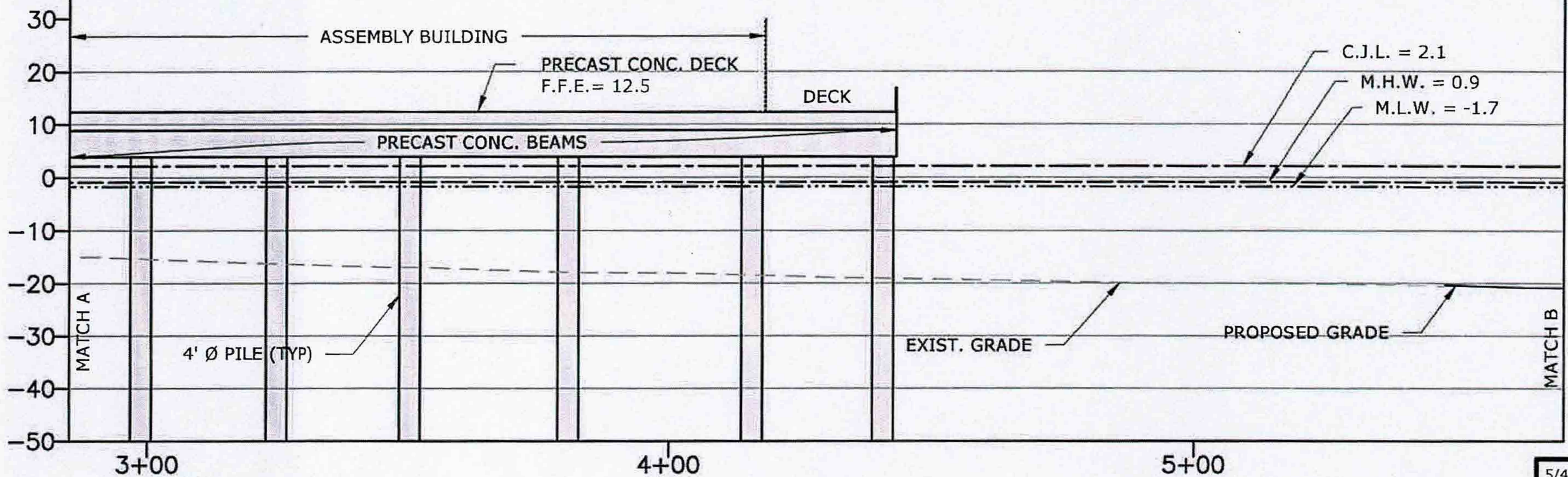
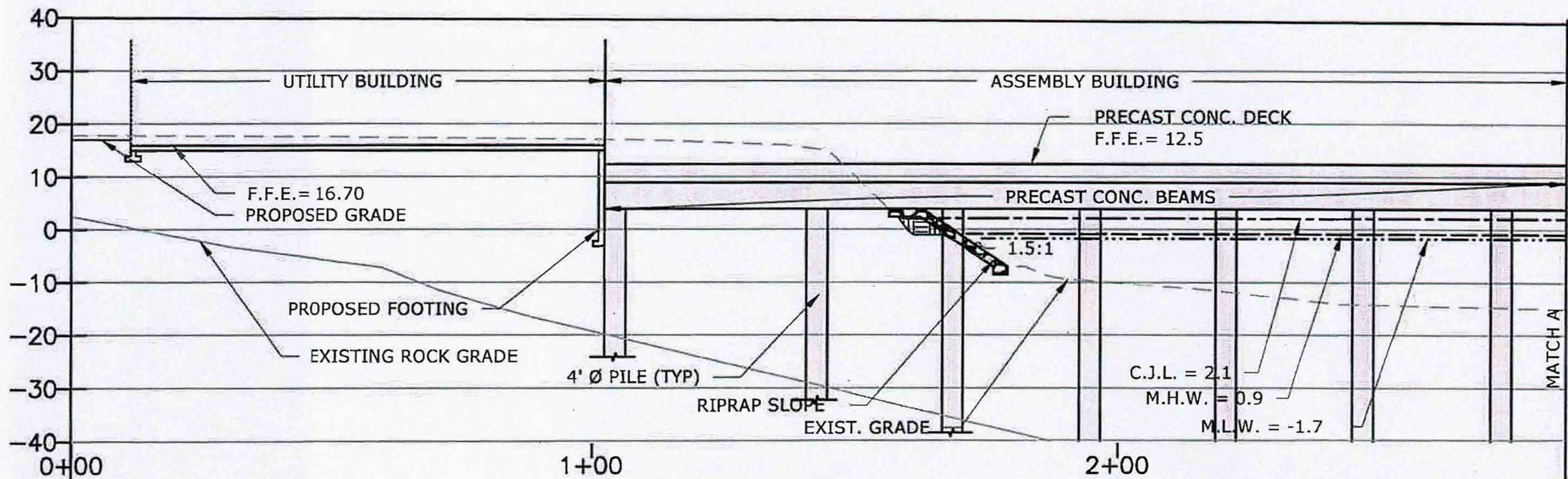
ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

Figure No.

C-218

Title

SECTION 1



ORIGINAL SHEET - ANSI A

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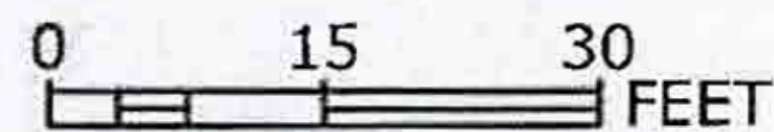
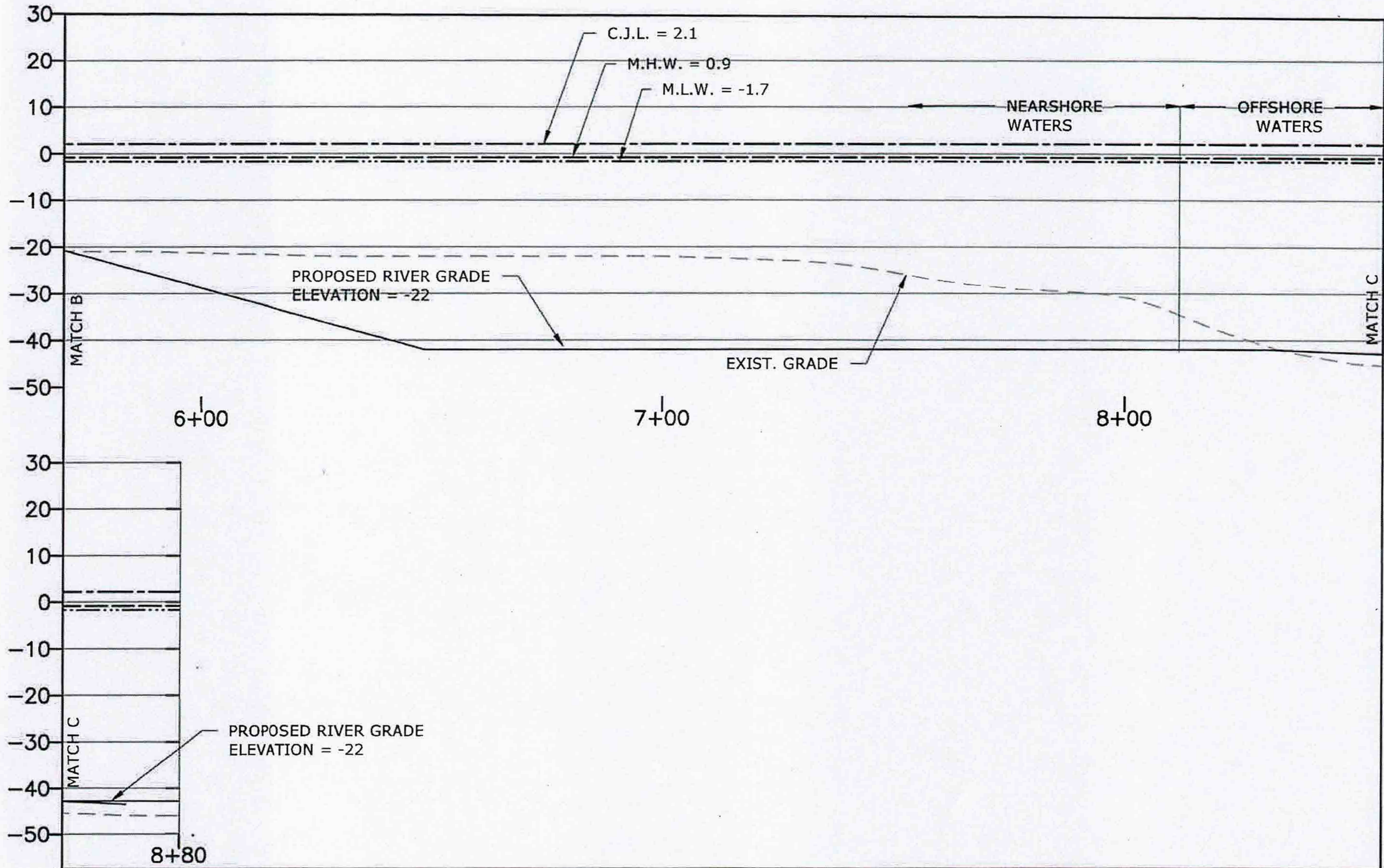


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Figure No.
 C-219A
 Title
 SECTION 2



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ELECTRIC BOAT

SOUTH YARD

75 EASTERN POINT RD, GROTON, CT 06340

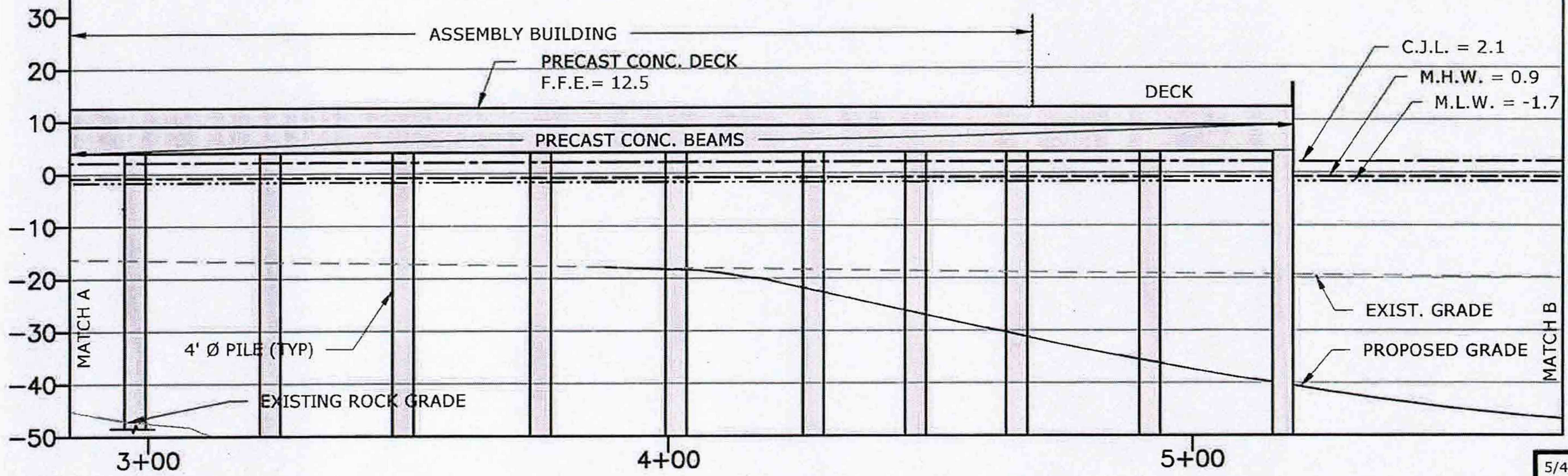
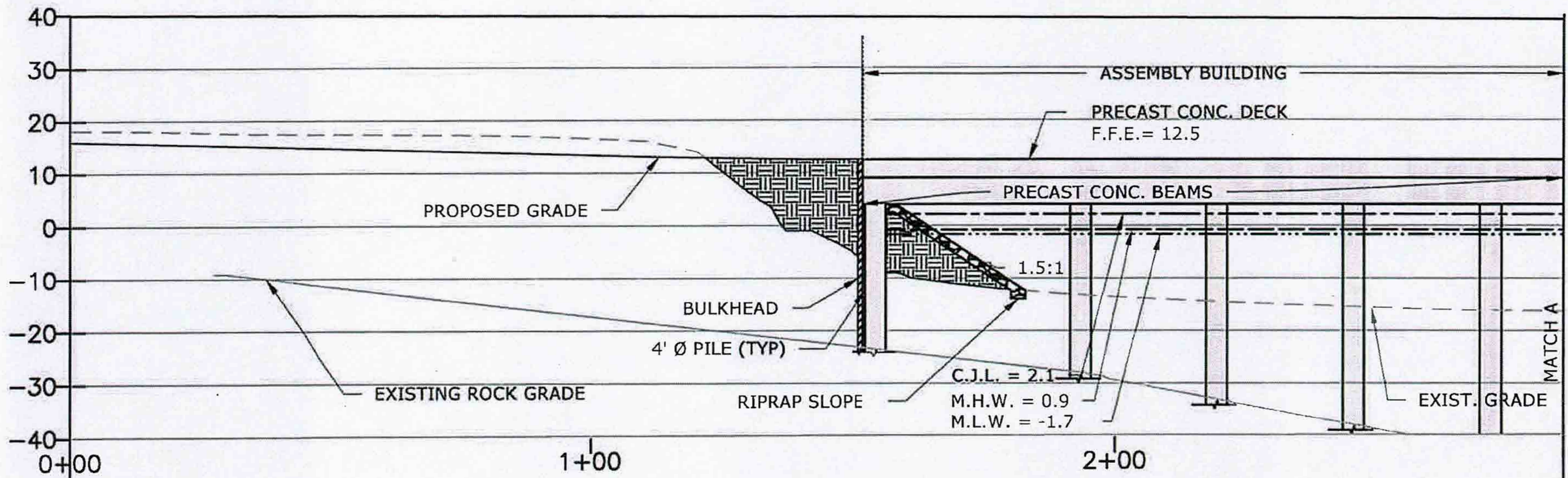
179310250

Figure No.

C-219B

Title

SECTION 2



ORIGINAL SHEET - ANSI A

5/4/2018

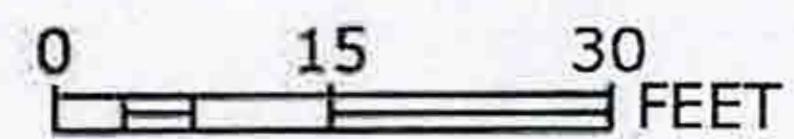
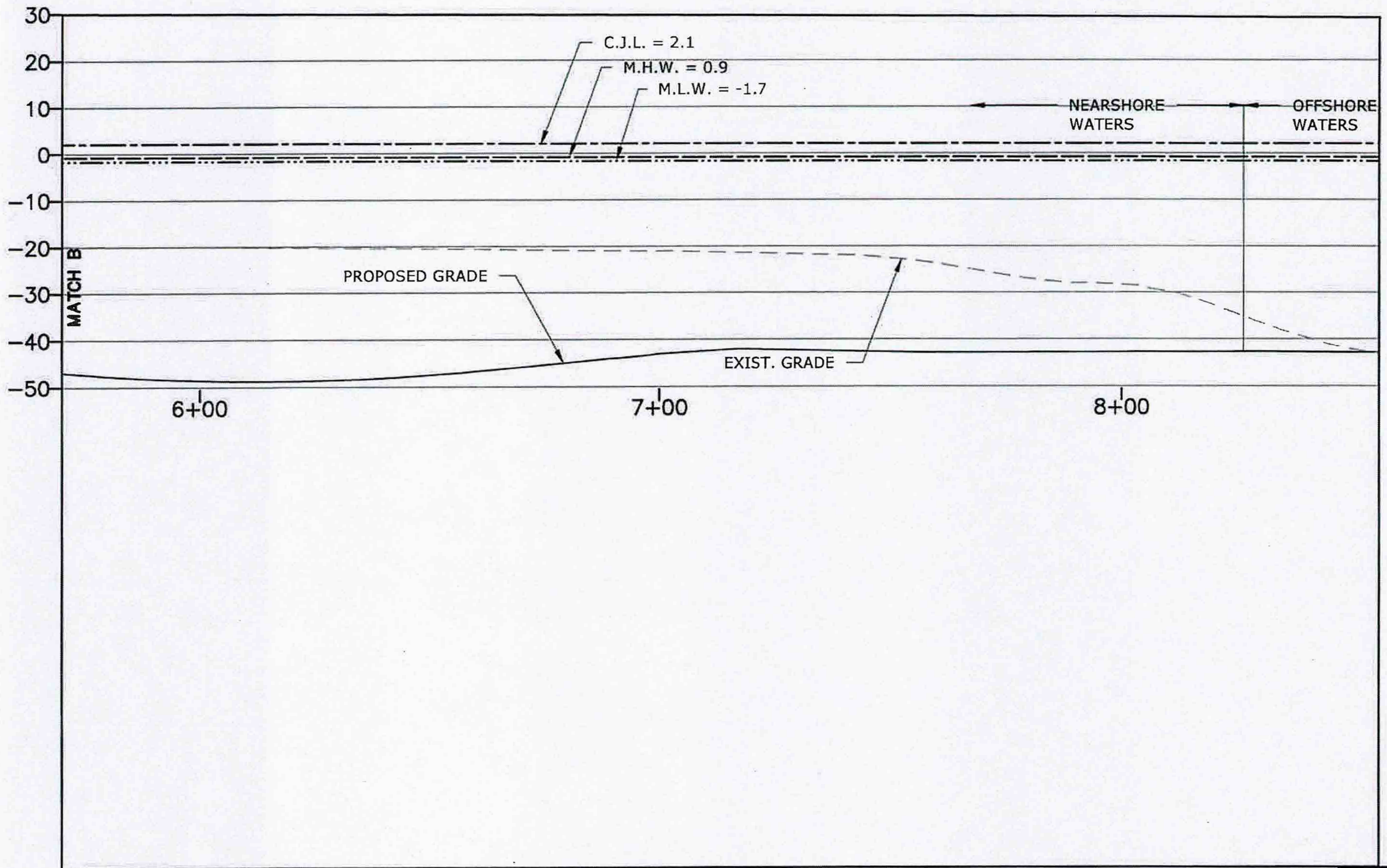


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 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340
 Figure No.
 C-220A
 Title
 SECTION 3

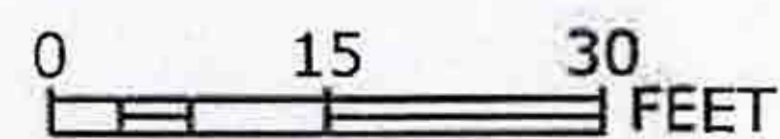
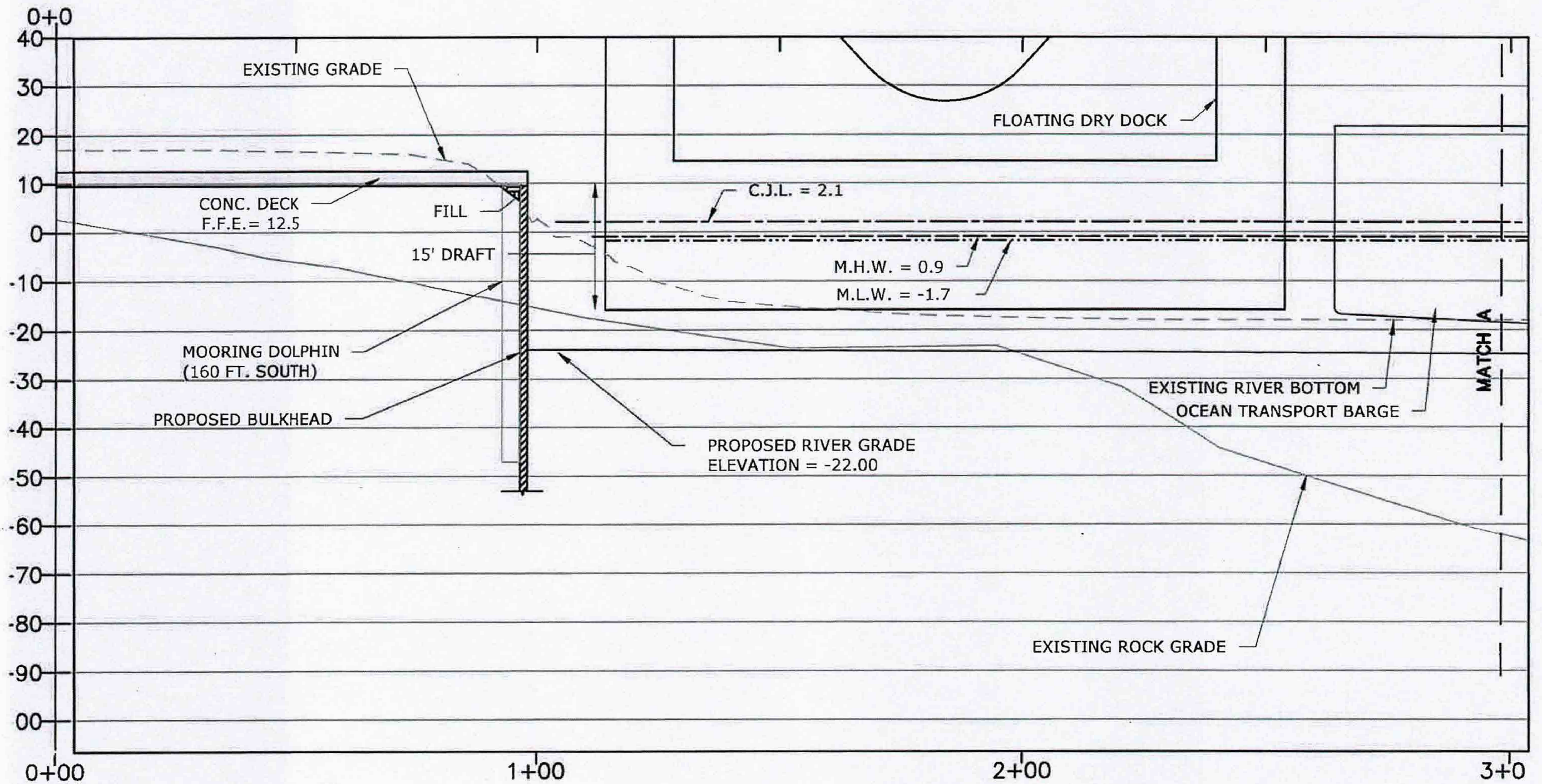


PROGRESS PRINT
 2/14/2018



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Client/Project 179310250
 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340
 Figure No. C-220B
 Title SECTION 3 (CONT.)



5/4/2018

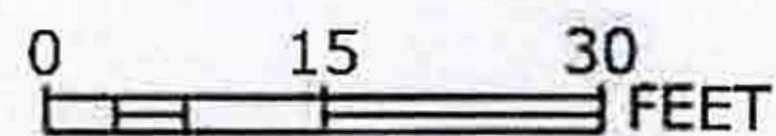
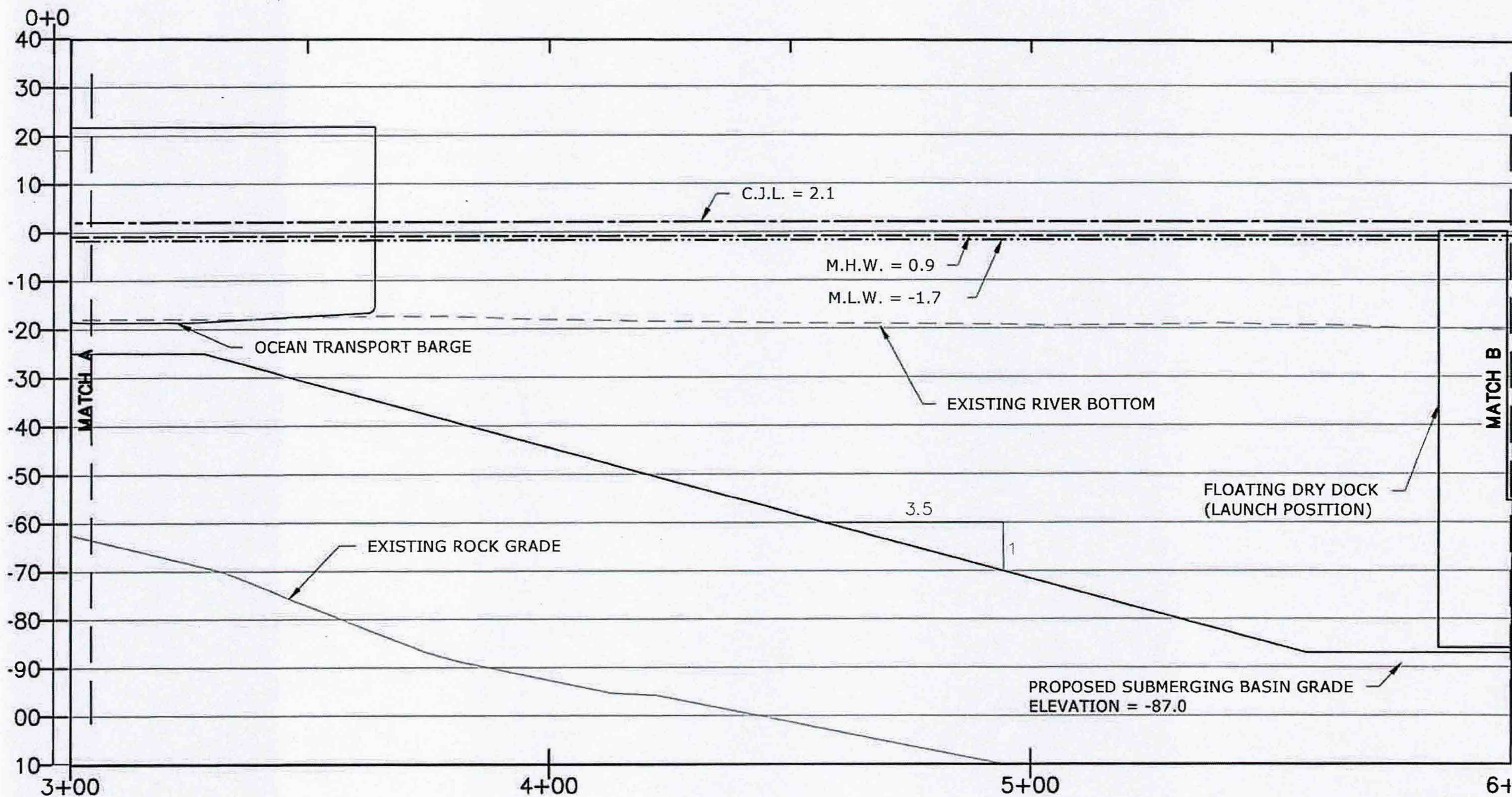
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 ELECTRIC BOAT
 SOUTH YARD
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 Figure No.
 C-221A
 Title
 SECTION 4

179310250



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ORIGINAL SHEET - ANSI A



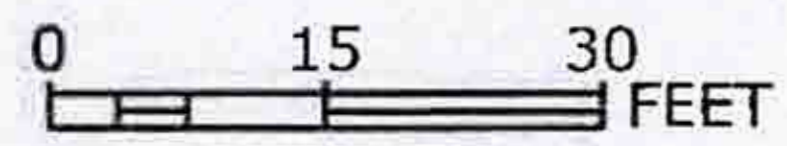
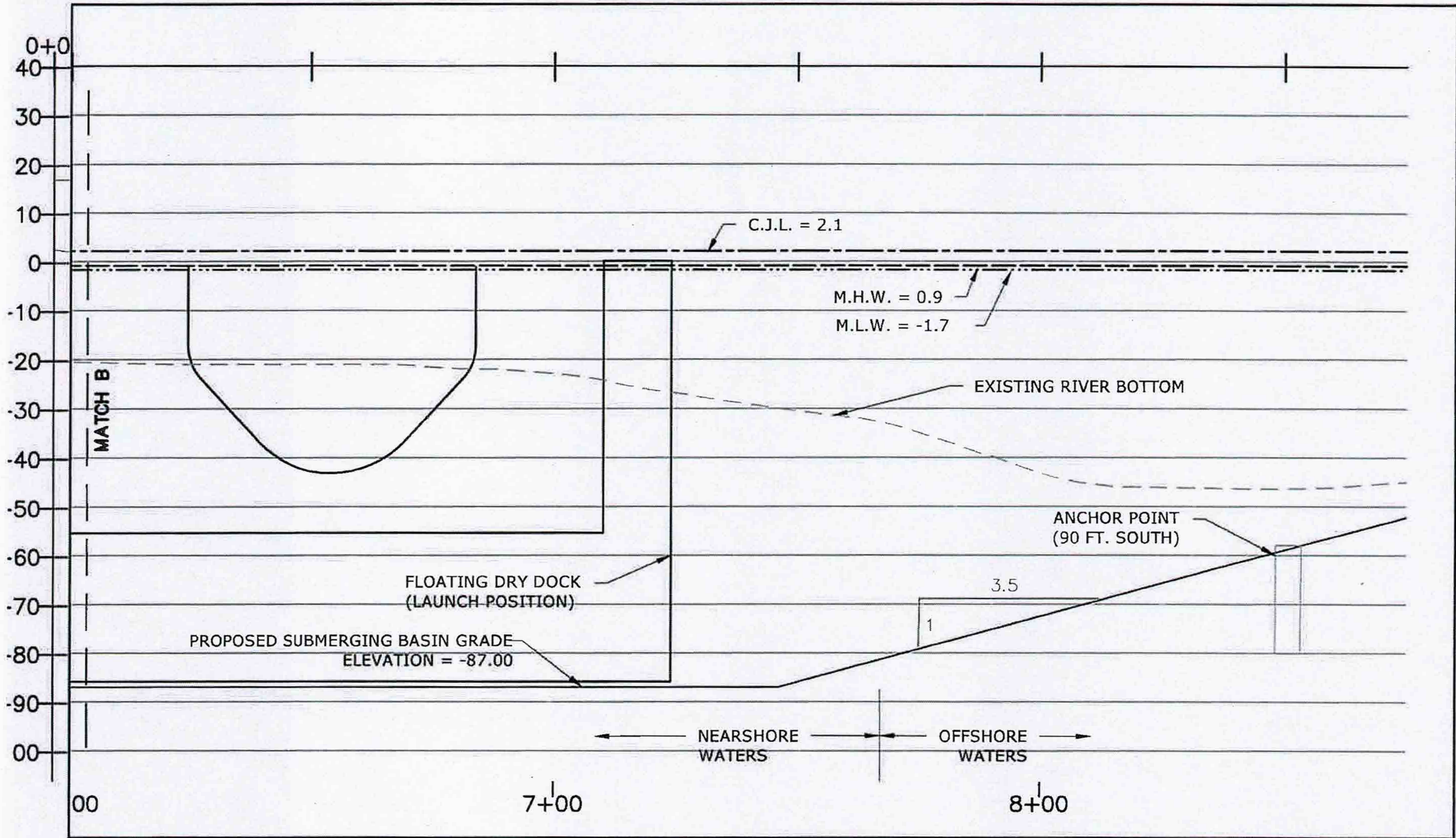
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 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

179310250

Figure No.
 C-221B

Title
 SECTION 4



5/4/2018

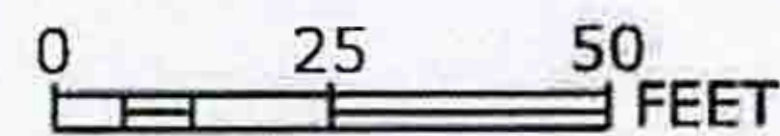
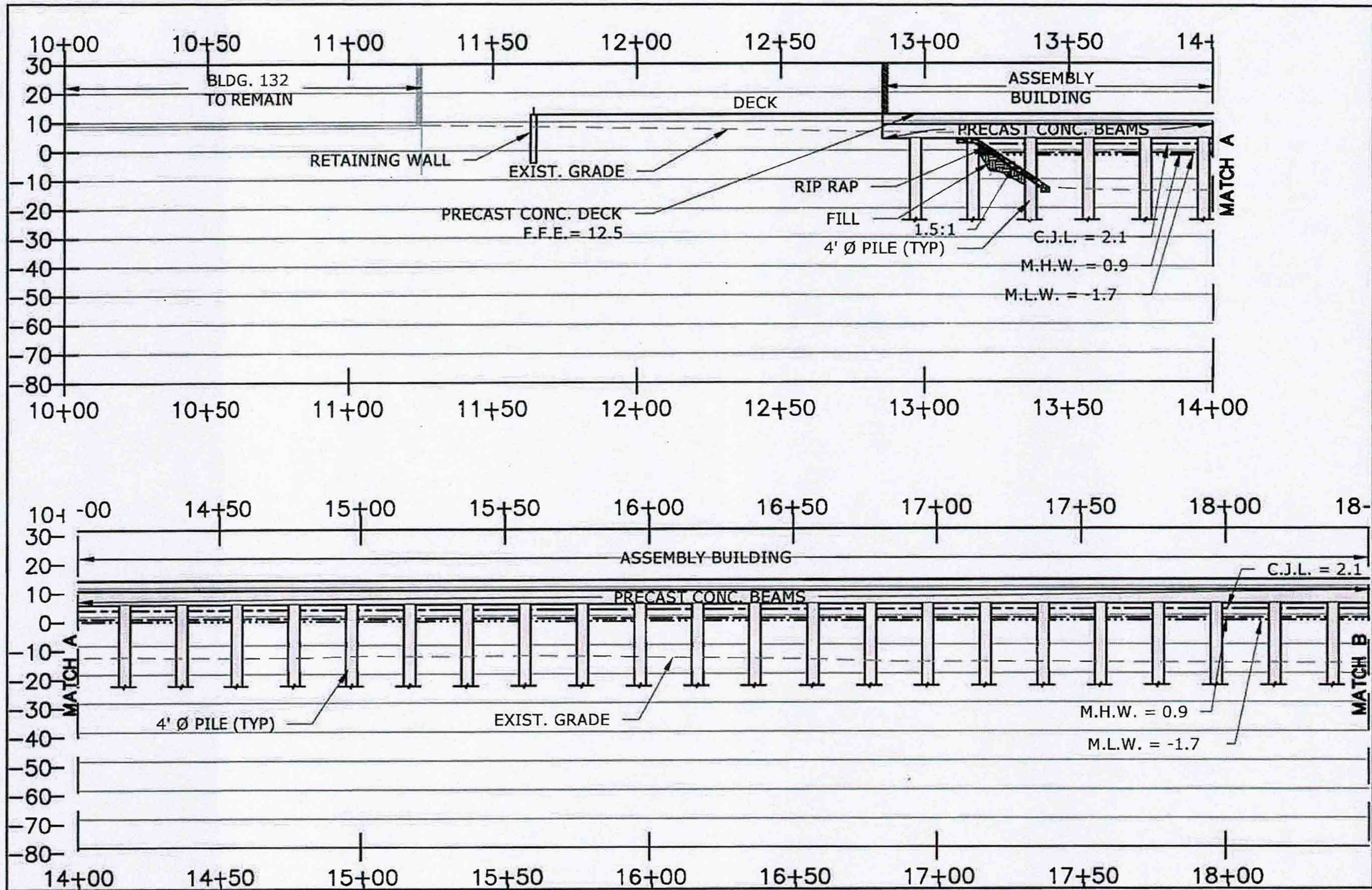
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ELECTRIC BOAT
SOUTH YARD
75 EASTERN POINT RD, GROTON, CT 06340
Figure No.
C-221C
Title
SECTION 4

179310250



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ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

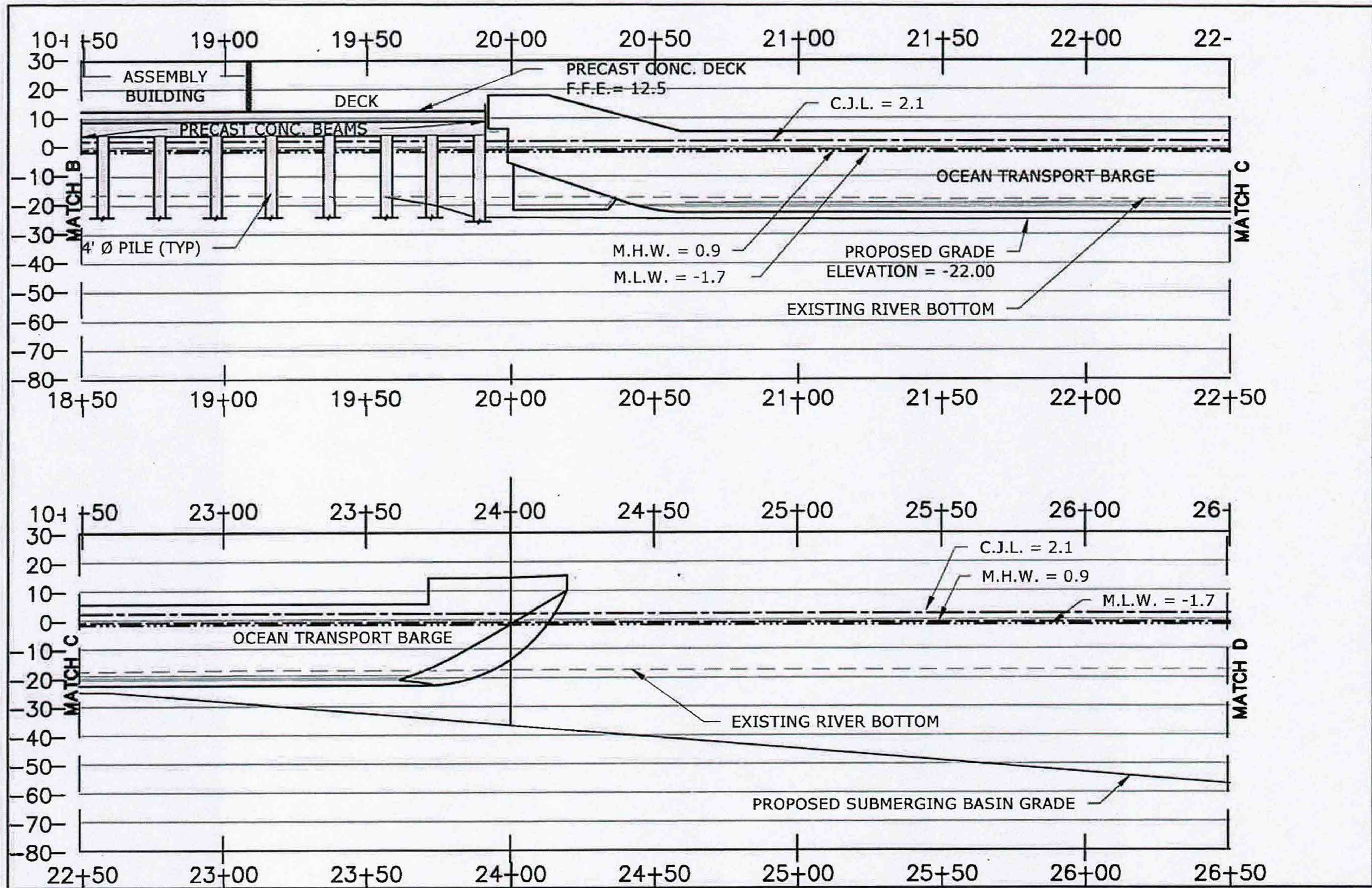
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Figure No.

C-222A

Title

SECTION 5



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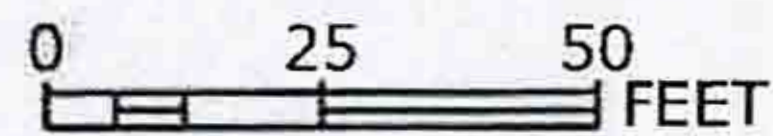
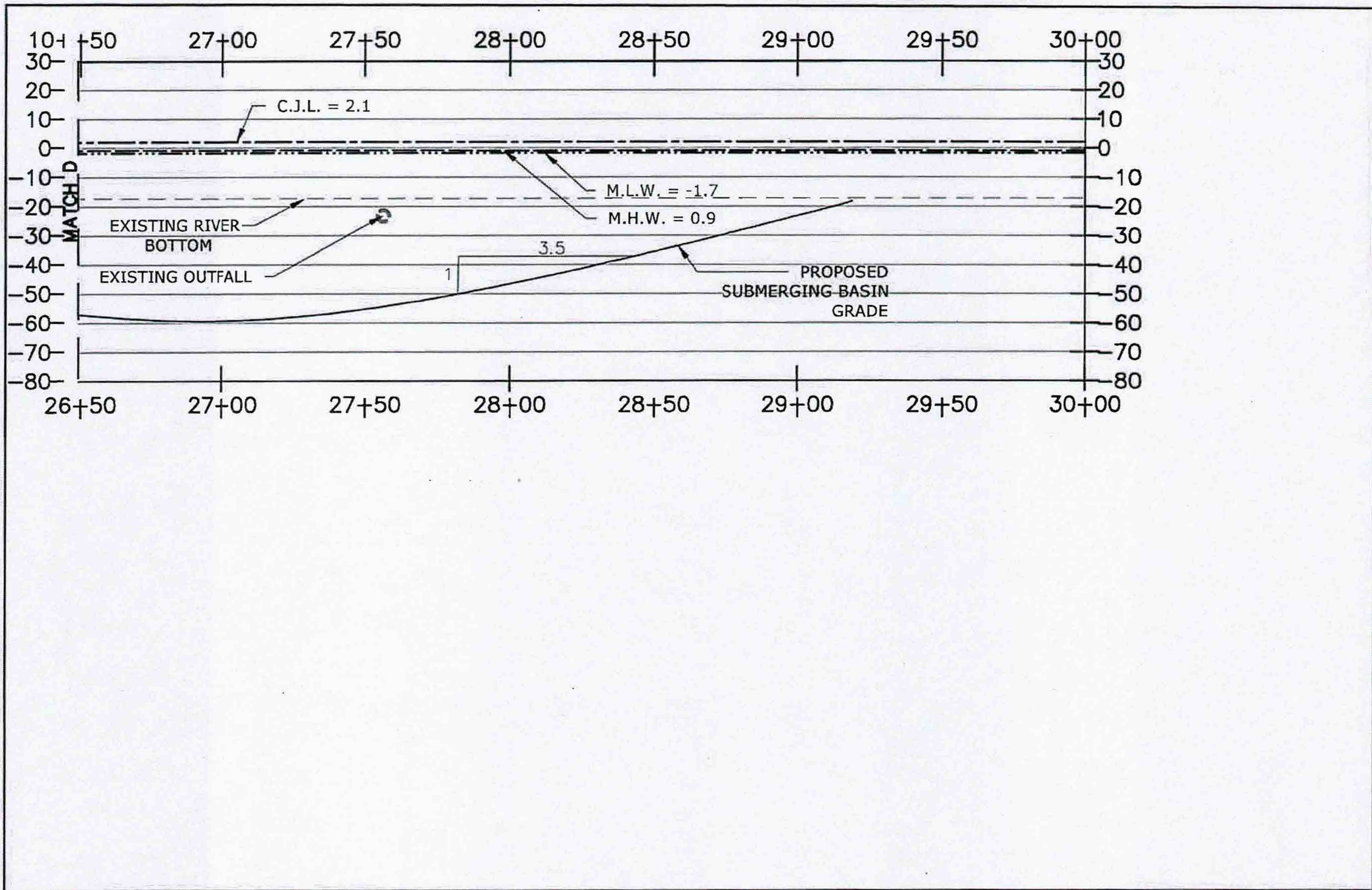
ORIGINAL SHEET - ANSIA



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Client/Project
 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340
 Figure No.
 C-222B
 Title
 SECTION 5

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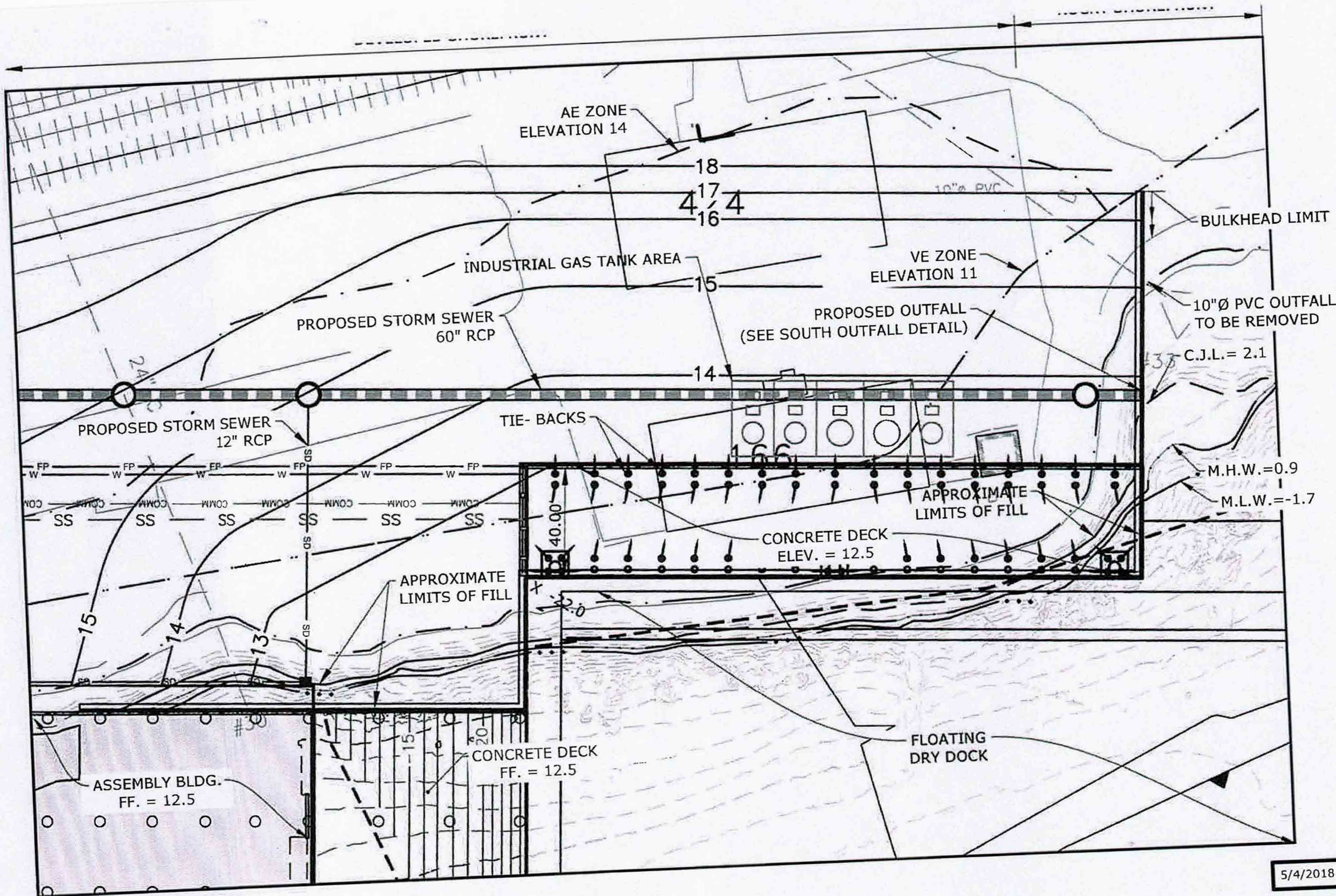
ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

Figure No.

C-222C

Title

SECTION 5



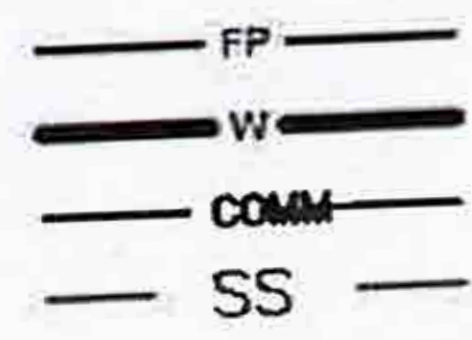
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LEGEND

FP FIRE LINE
W WATER LINE
COMM COMMUNICATION LINE
SS SANITARY LINE



PLAN VIEW

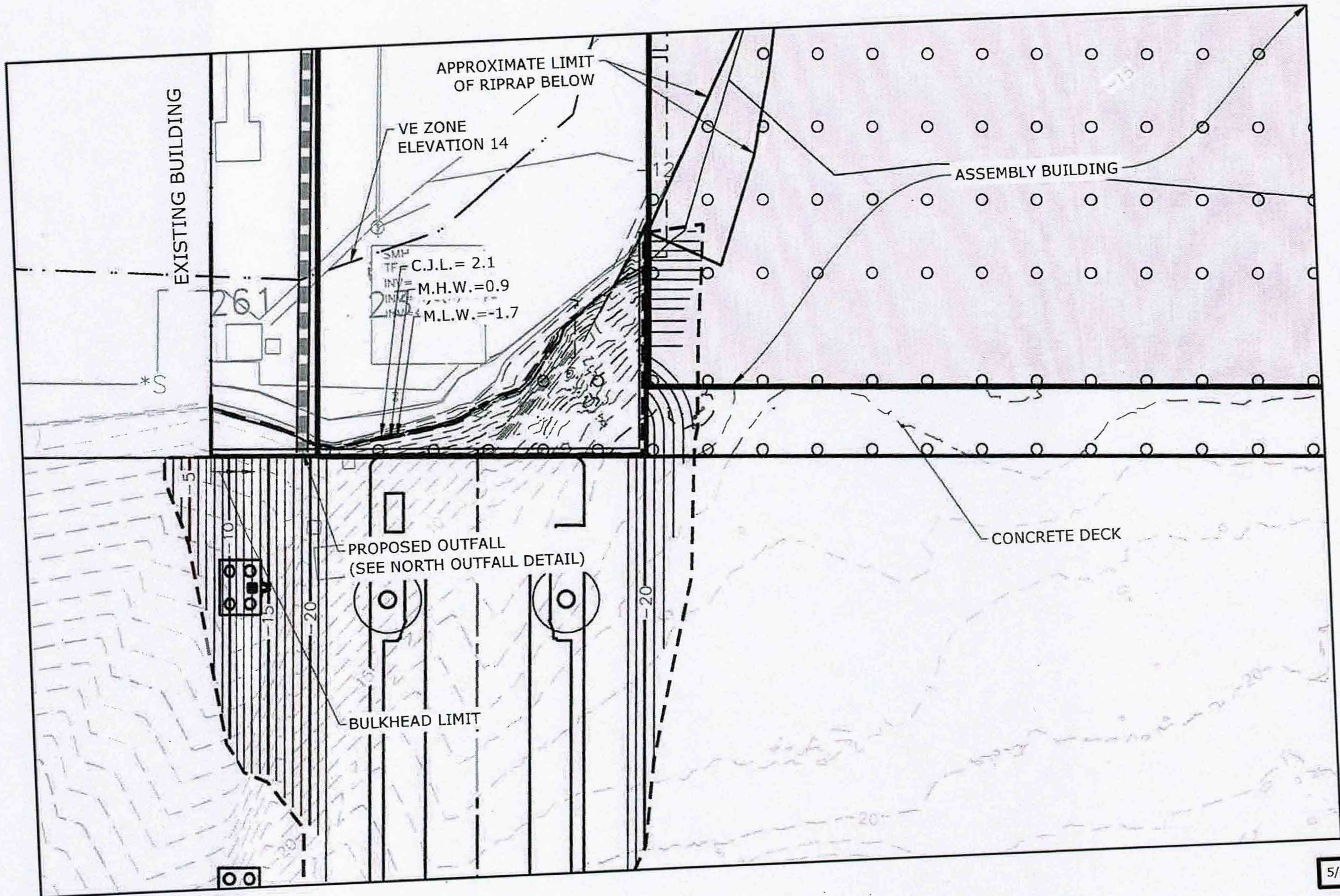
SCALE: 1"=50'



Client/Project
ELECTRIC BOAT
SOUTH YARD
75 EASTERN POINT RD, GROTON, CT 06340

Figure No.
C-300

Title
SOUTH BULKHEAD/OUTFALL PLAN



5/4/2018

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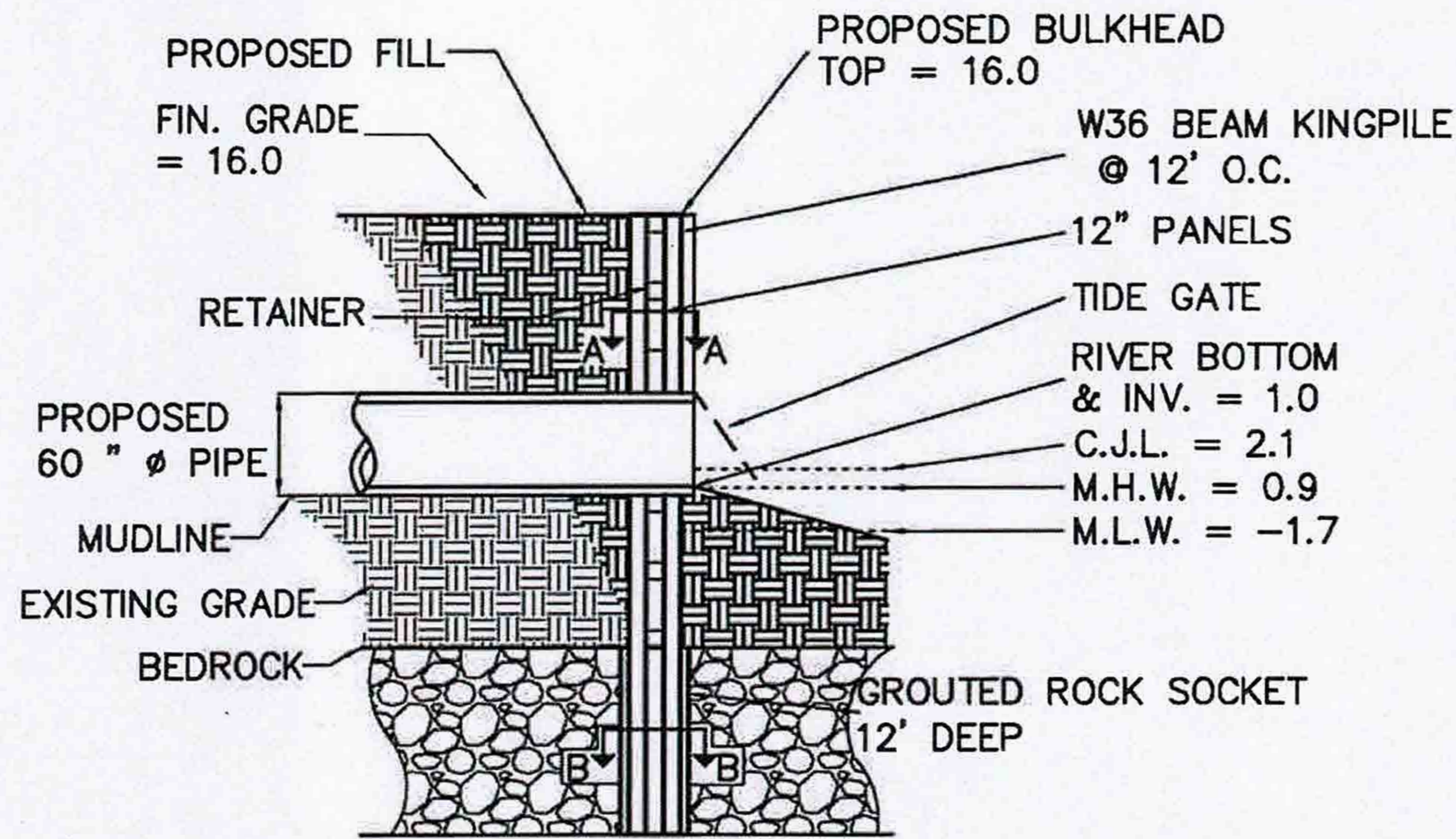


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PLAN VIEW
 SCALE: 1"=50'

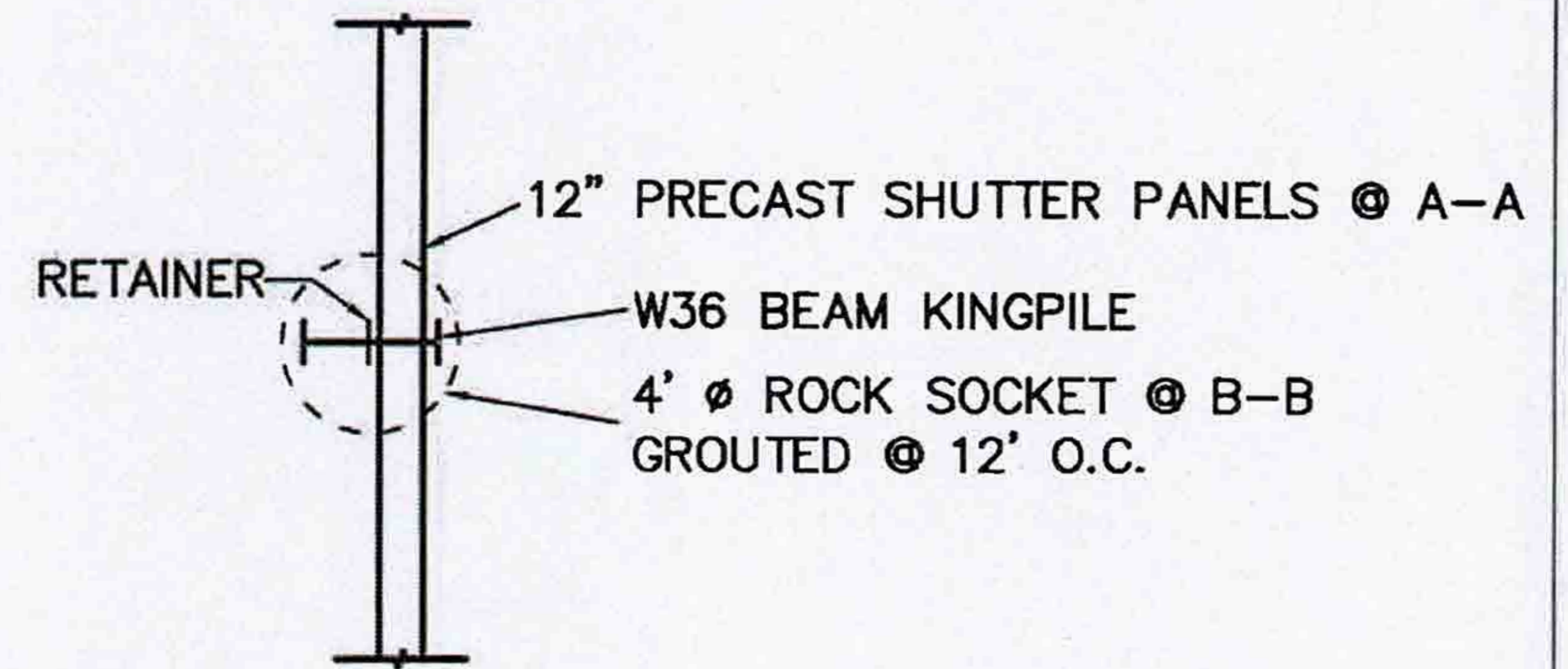
Client/Project
 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

Figure No.
 C-301
 Title
 NORTH BULKHEAD/OUTFALL PLAN



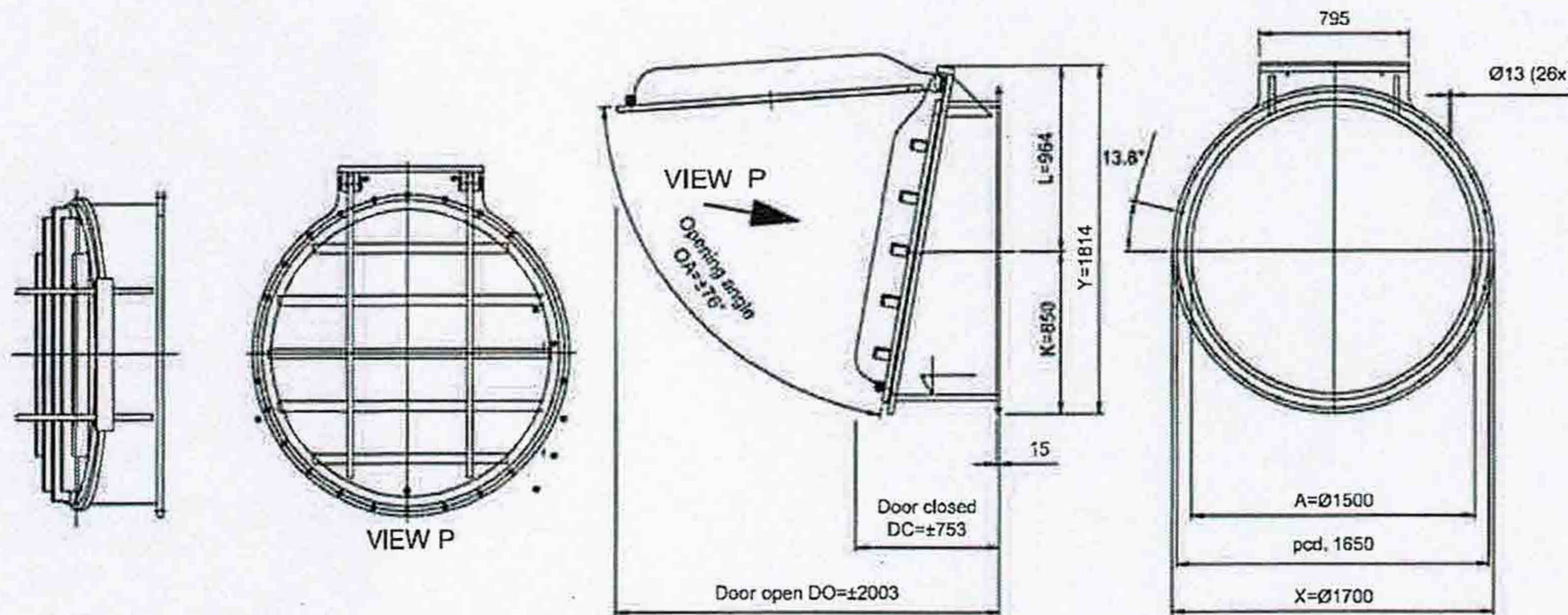
OUTFALL SECTION VIEW

SCALE: 1/16"=1'



BULKHEAD PLAN

SCALE: 1/8"=1'



TIDE GATE DETAIL

NTS SCALE

5/4/2018

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ELECTRIC BOAT

SOUTH YARD

75 EASTERN POINT RD, GROTON, CT 06340

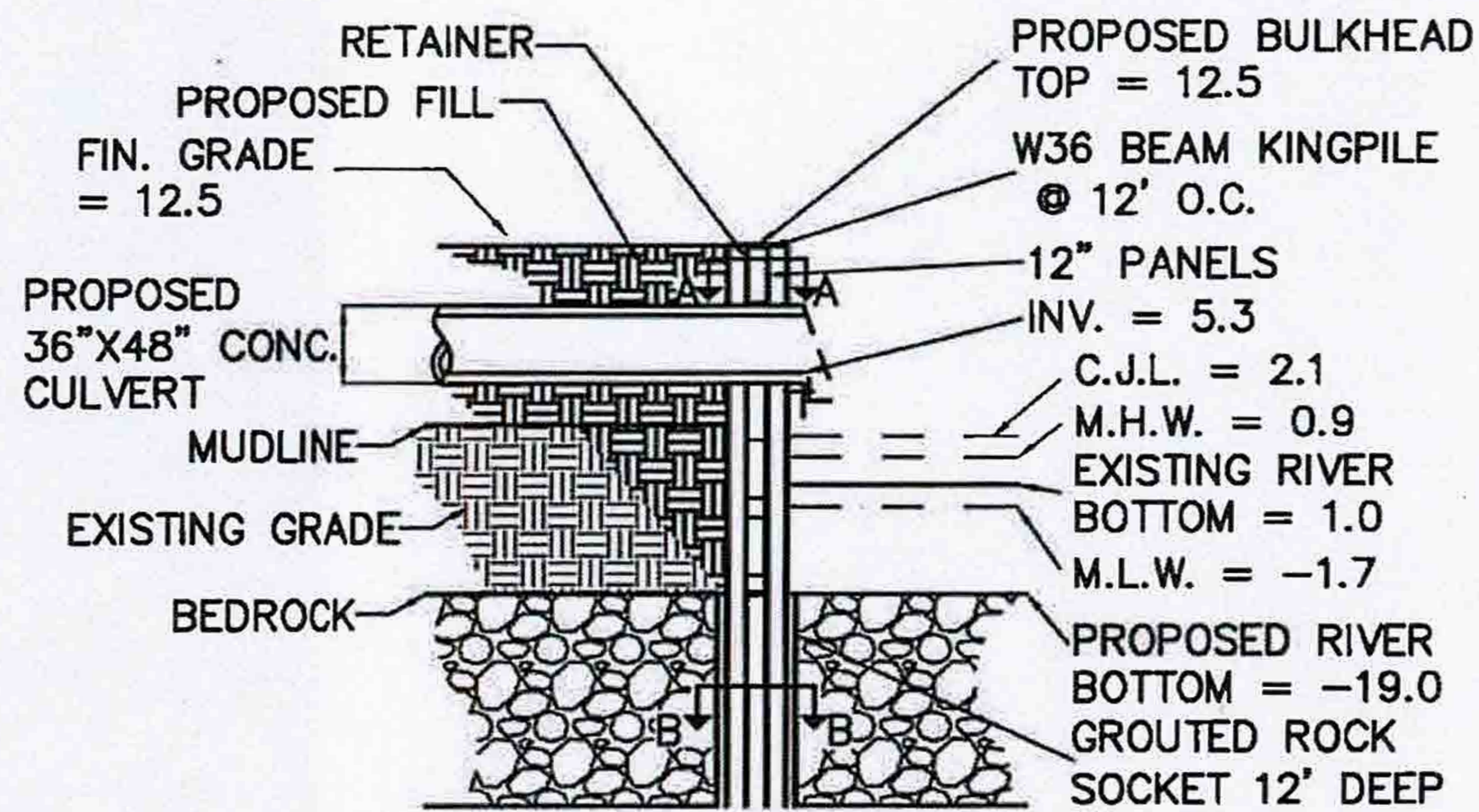
Figure No.

C-302

Title

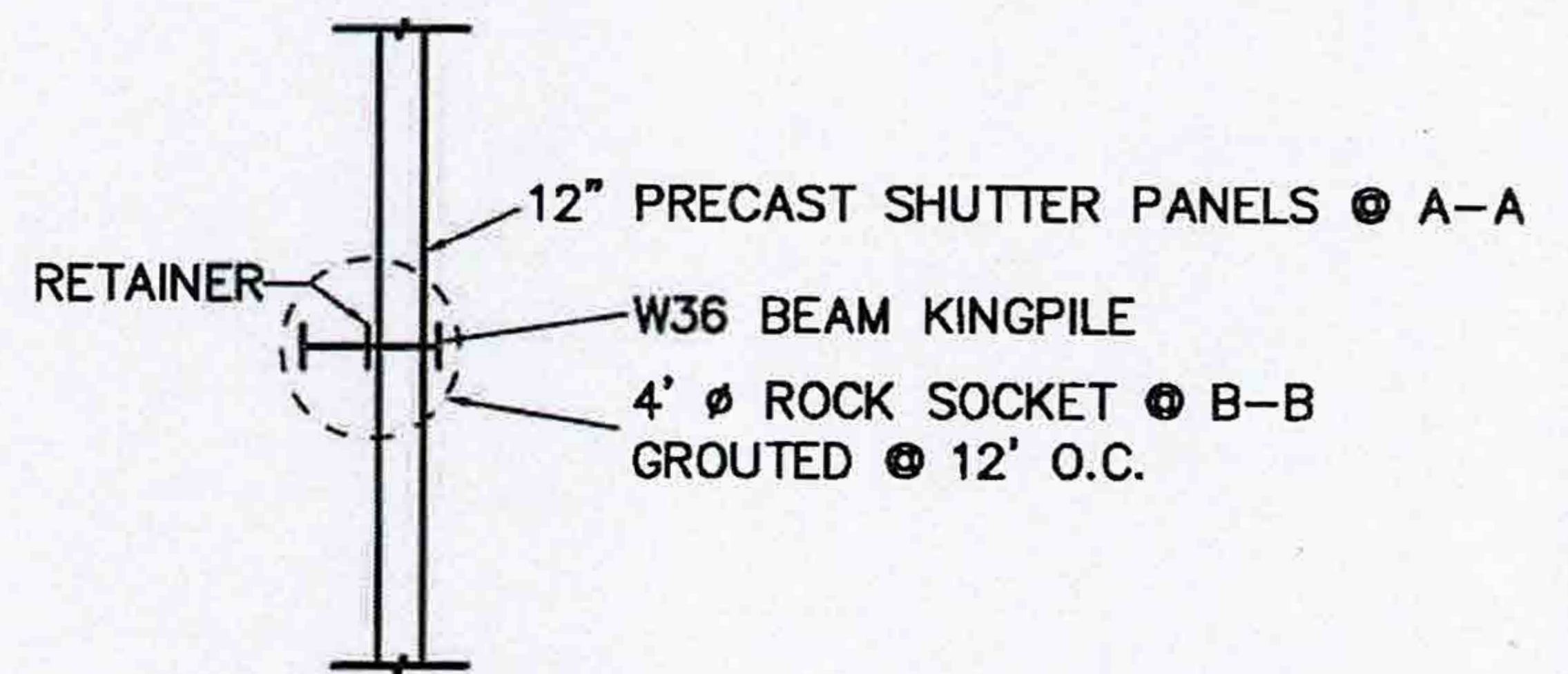
SOUTH BULKHEAD/OUTFALL SECTIONS

179310250



OUTFALL SECTION VIEW

SCALE: 1/16"=1'



BULKHEAD PLAN

SCALE: 1/8"=1'

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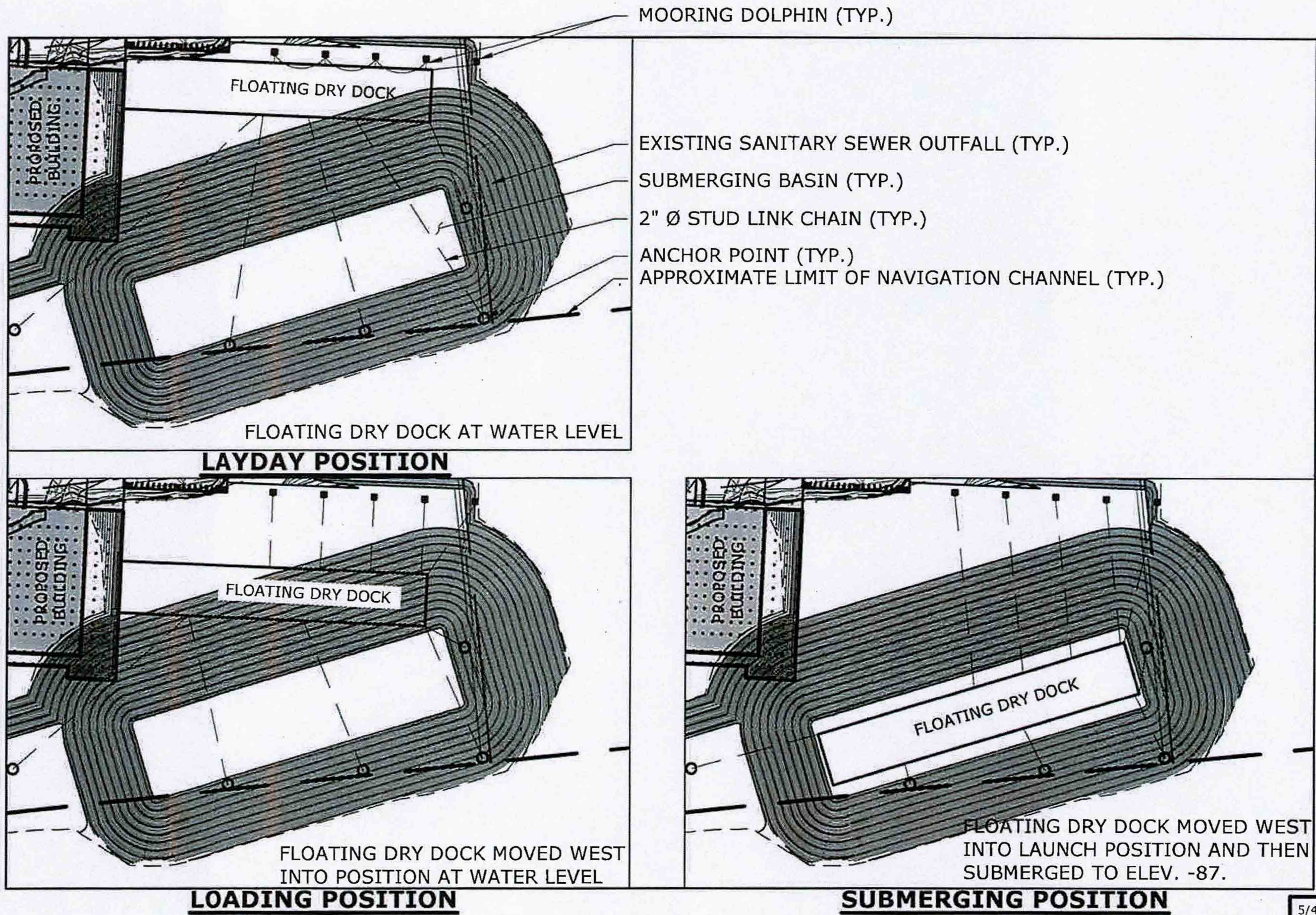
ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

Figure No.

C-303

Title

NORTH BULKHEAD/OUTFALL SECTIONS



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ORIGINAL SHEET - ANSI A



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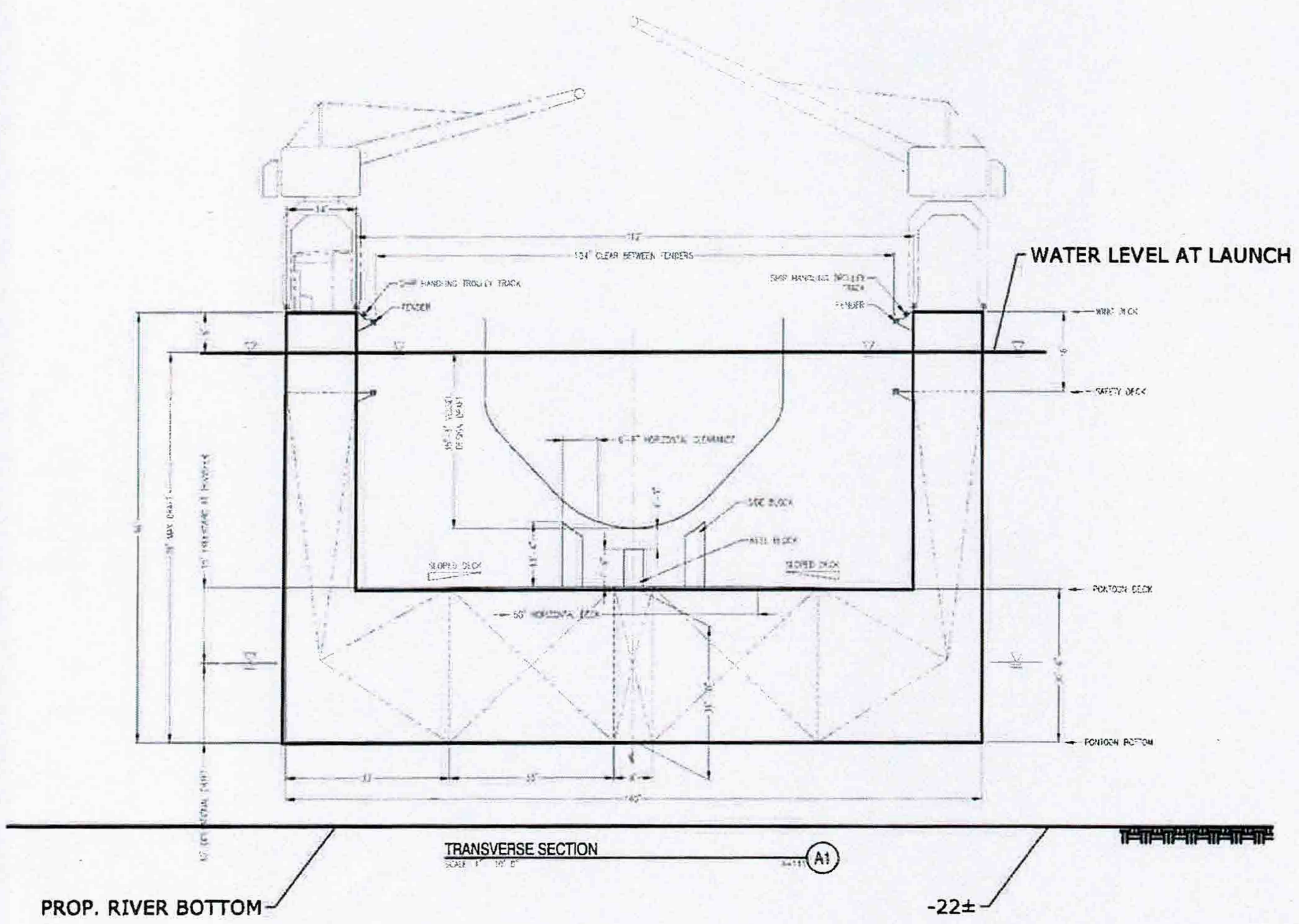
NOTE:
 FLOATING DRY DOCK TO REMAIN TETHERED TO ALL ANCHOR POINTS AND/OR MOORING DOLPHINS AT ALL TIMES.

Client/Project
 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340

179310250

Figure No.
 C-304

Title
 FLOATING DRY DOCK MOORING PLAN



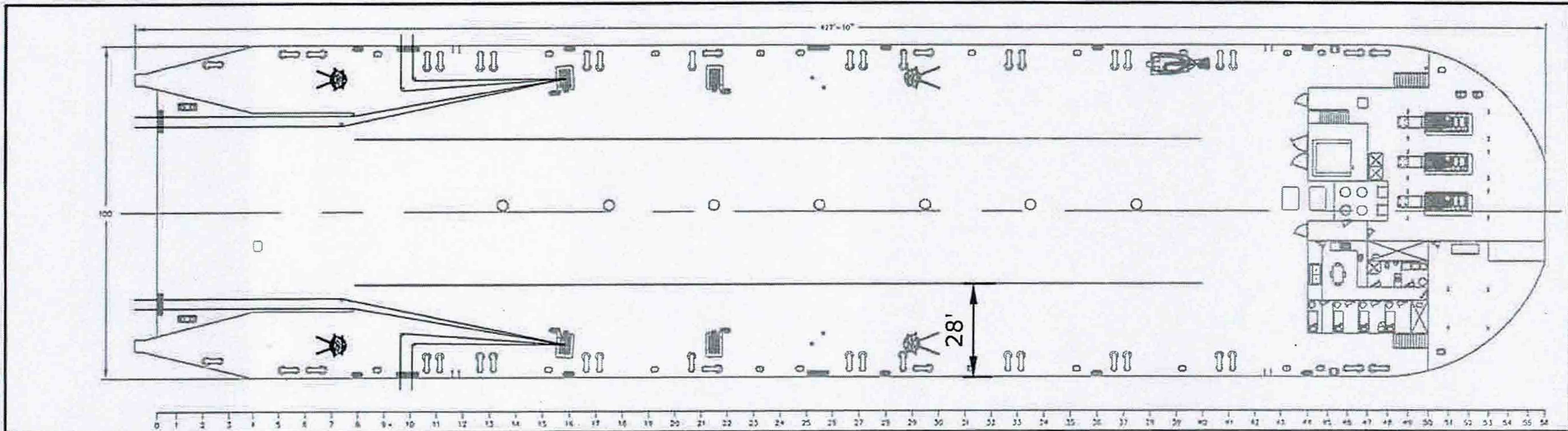
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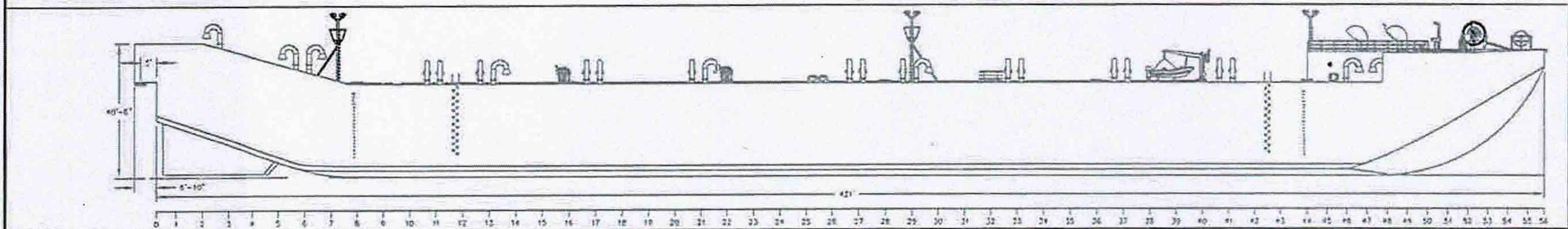


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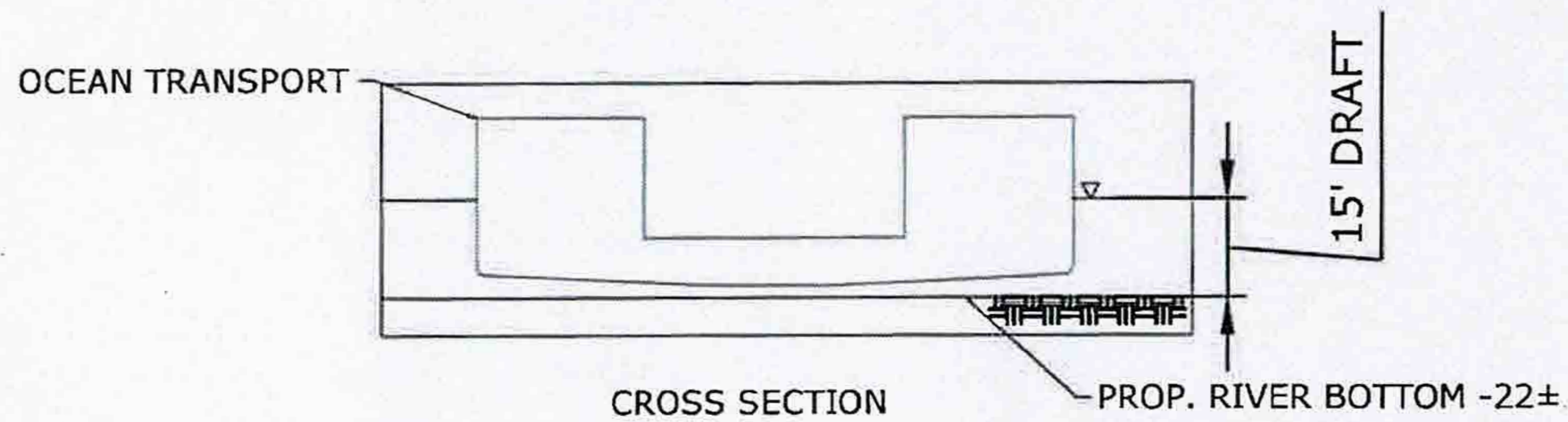
Client/Project 179310250
 ELECTRIC BOAT
 SOUTH YARD
 75 EASTERN POINT RD, GROTON, CT 06340
 Figure No. C-305
 Title FLOATING DRY DOCK



PLAN
SCALE: 1" = 50'



LONGITUDINAL SECTION



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SOUTH YARD

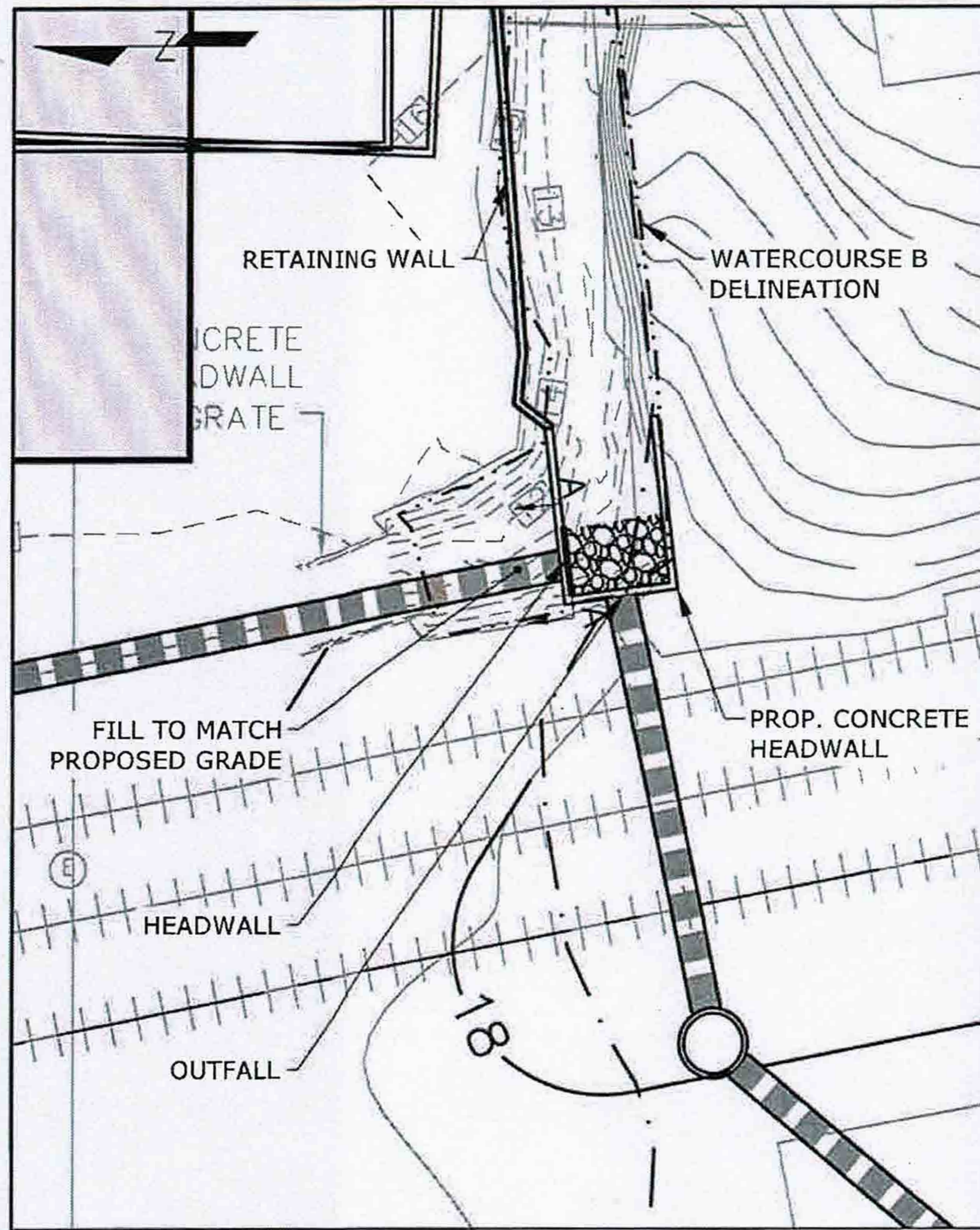
75 EASTERN POINT RD, GROTON, CT 06340

Figure No.

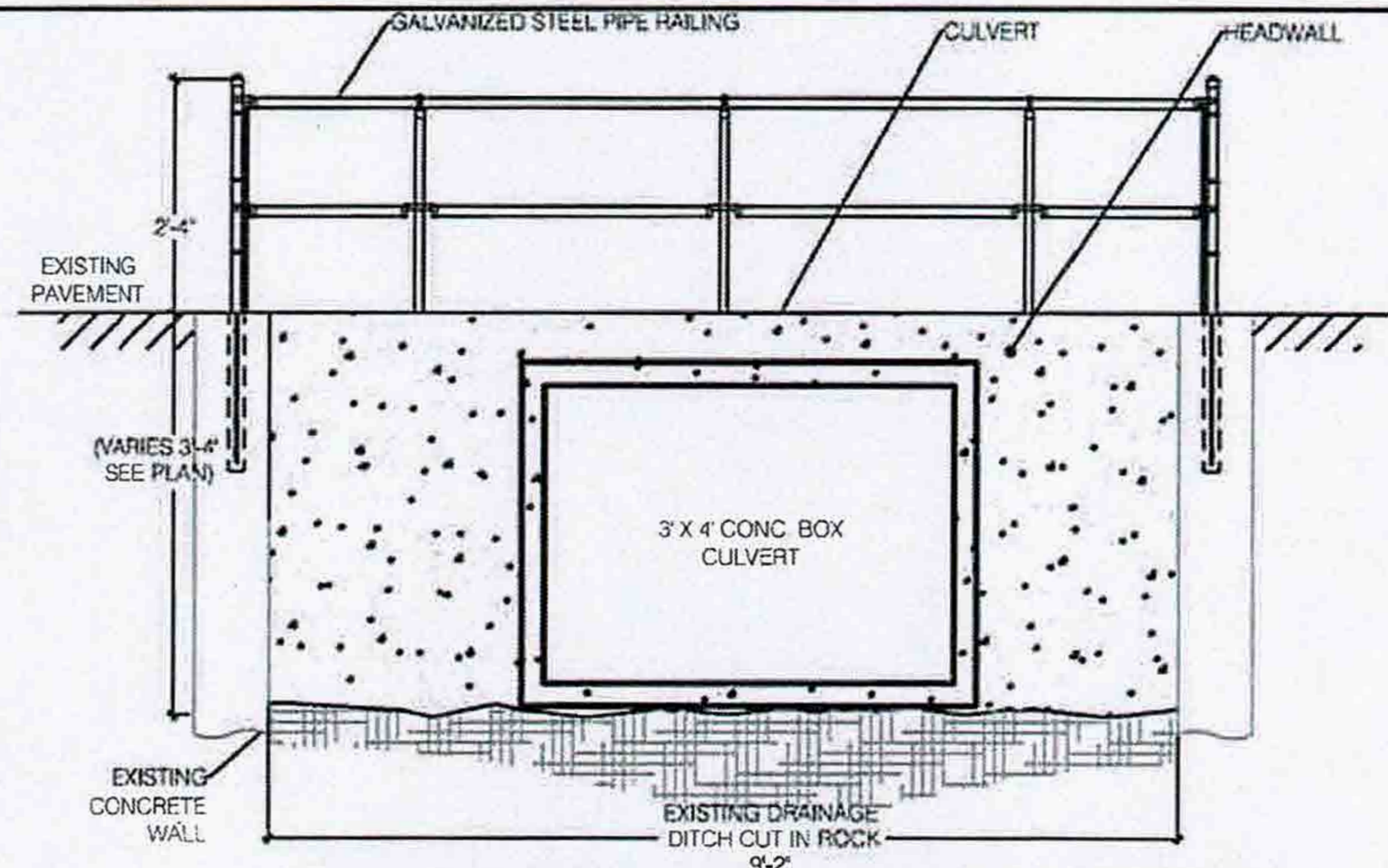
C-306

Title

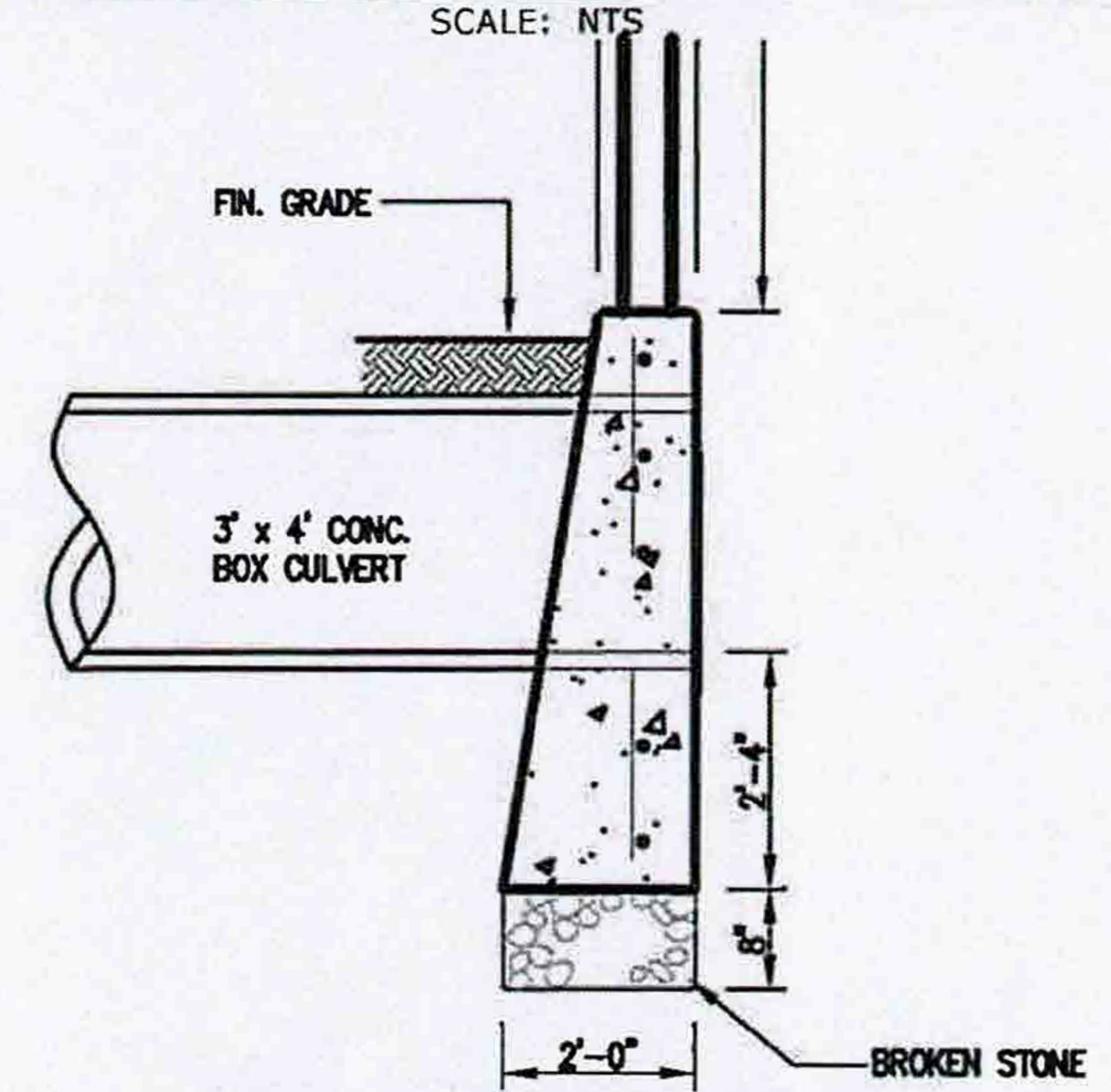
OCEAN TRANSPORT



PLAN VIEW
SCALE: 1"=50'



HEADWALL SOUTH ELEVATION



HEADWALL SECTION
SCALE: NTS

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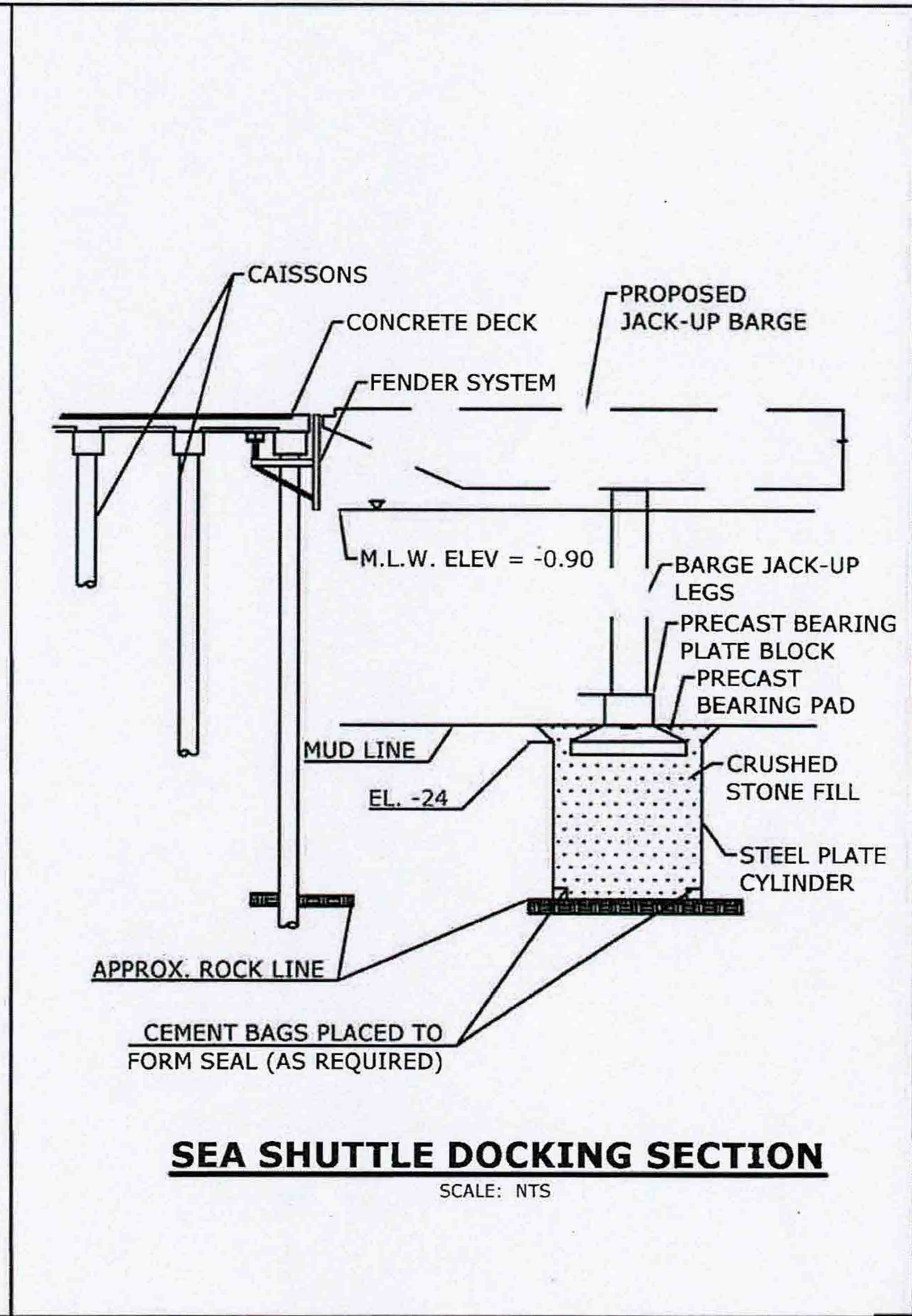
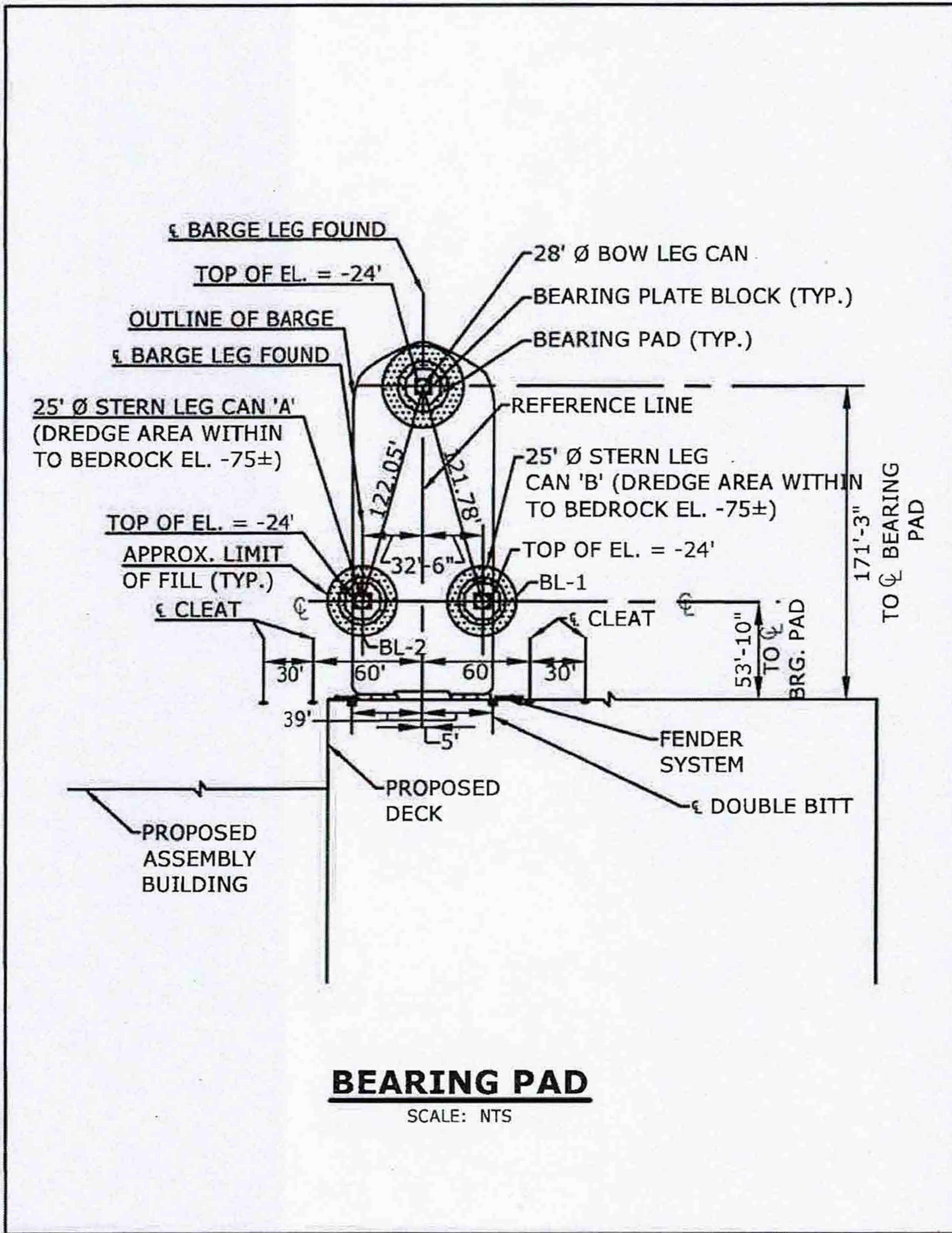
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Figure No.
C-307

Title
PROPOSED HEADWALL



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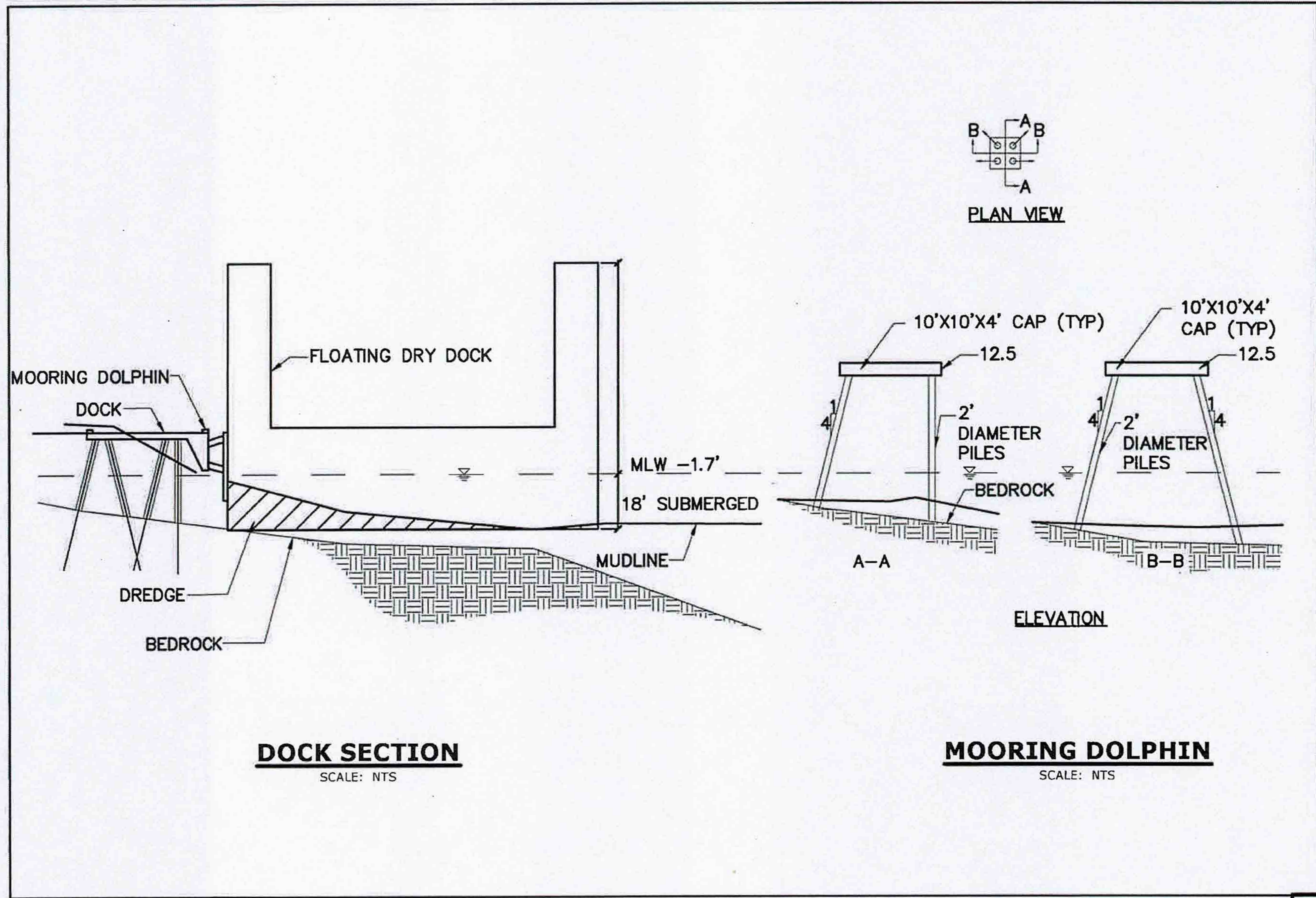
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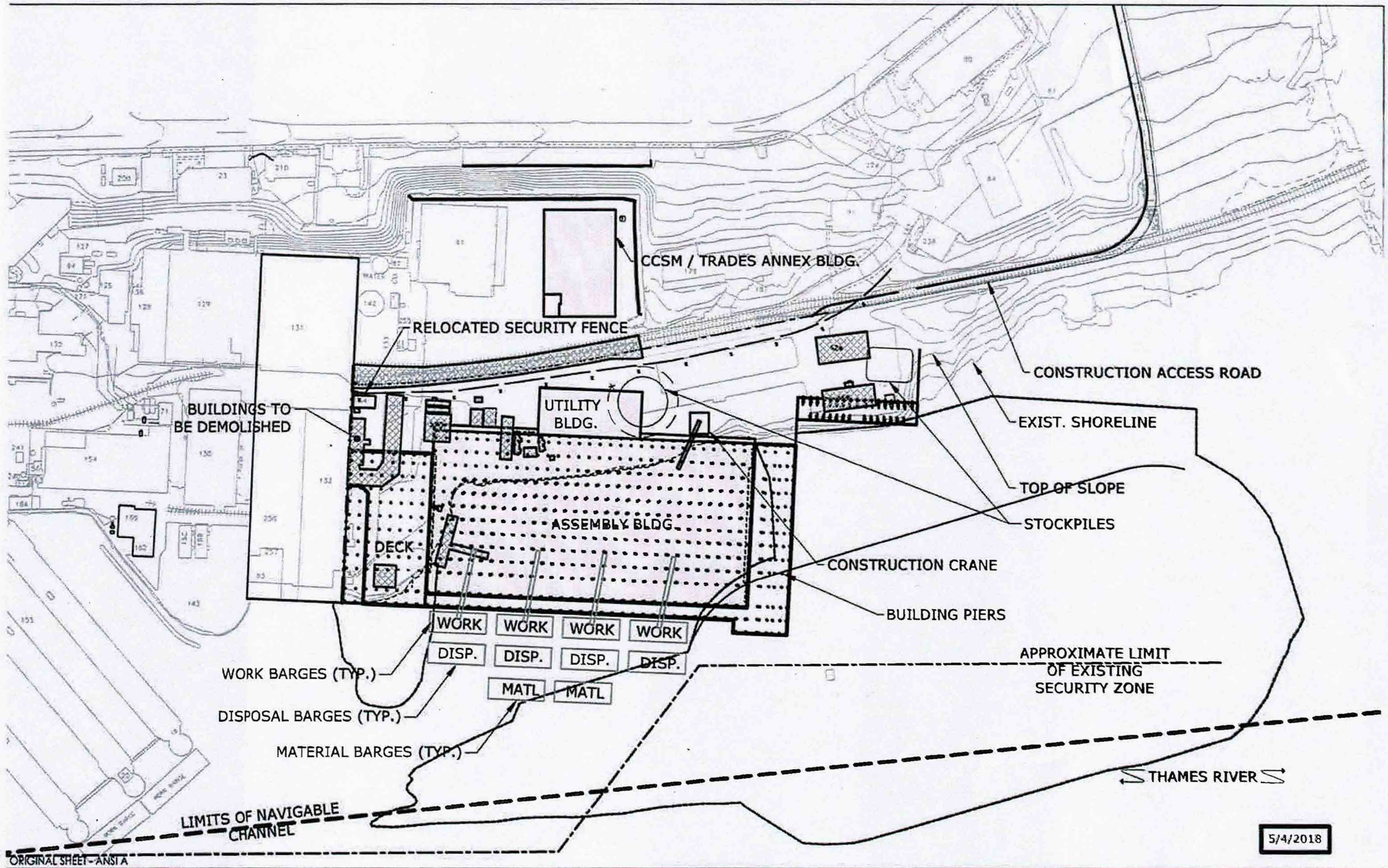


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Figure No.
C-308
Title
SEA SHUTTLE

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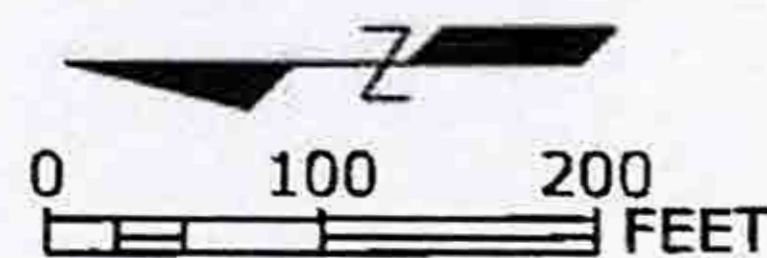
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PLAN VIEW

SCALE: 1" = 200'

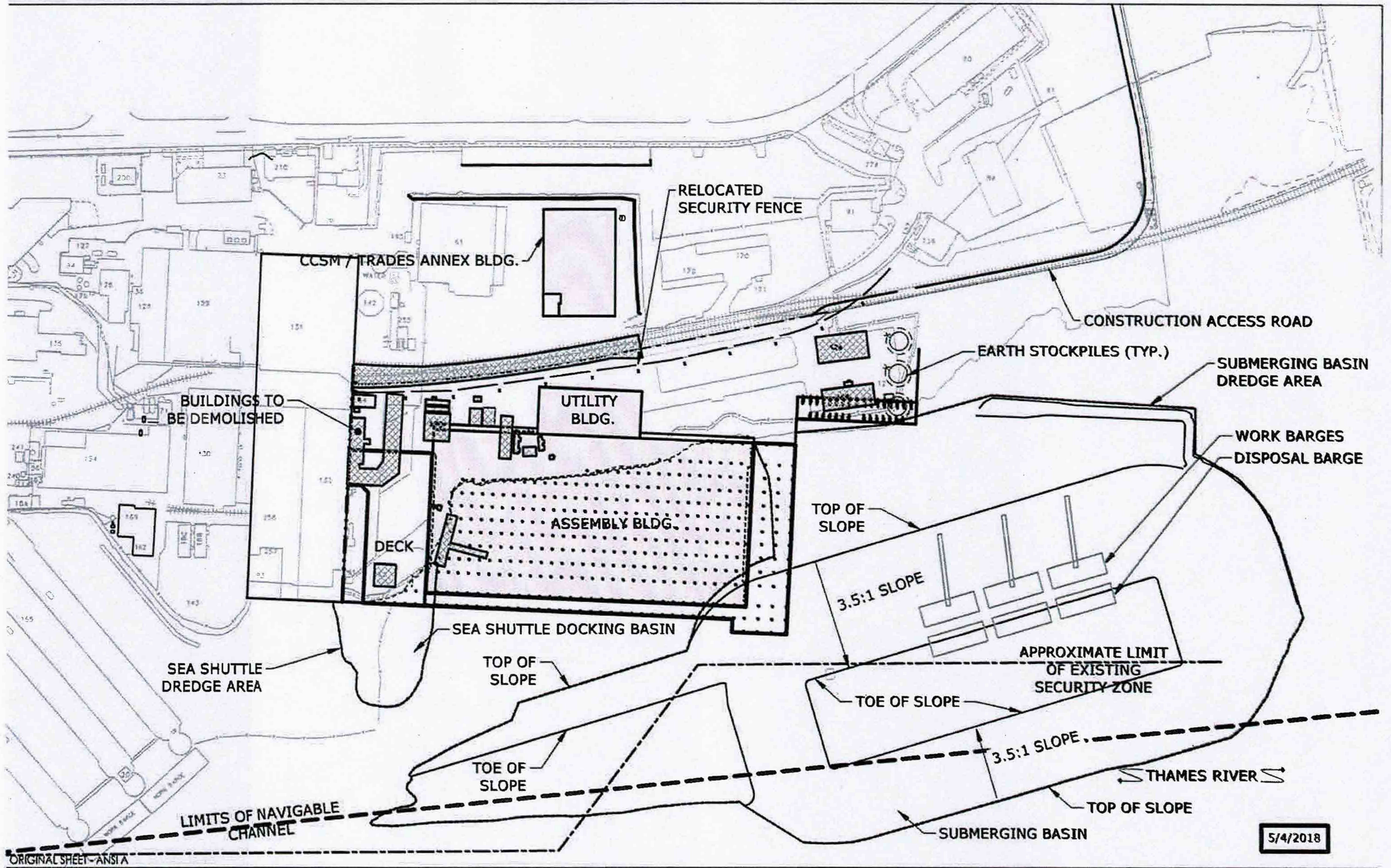


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Figure No.
 C-400

Title
 STAGING PLAN - ASSEMBLY BUILDING

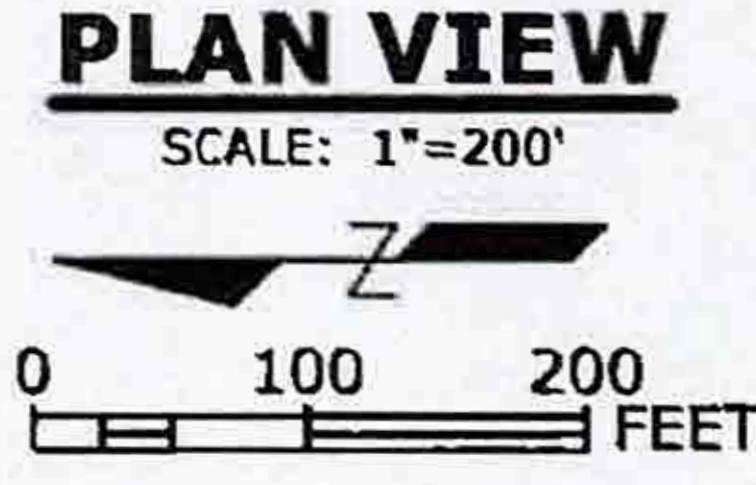


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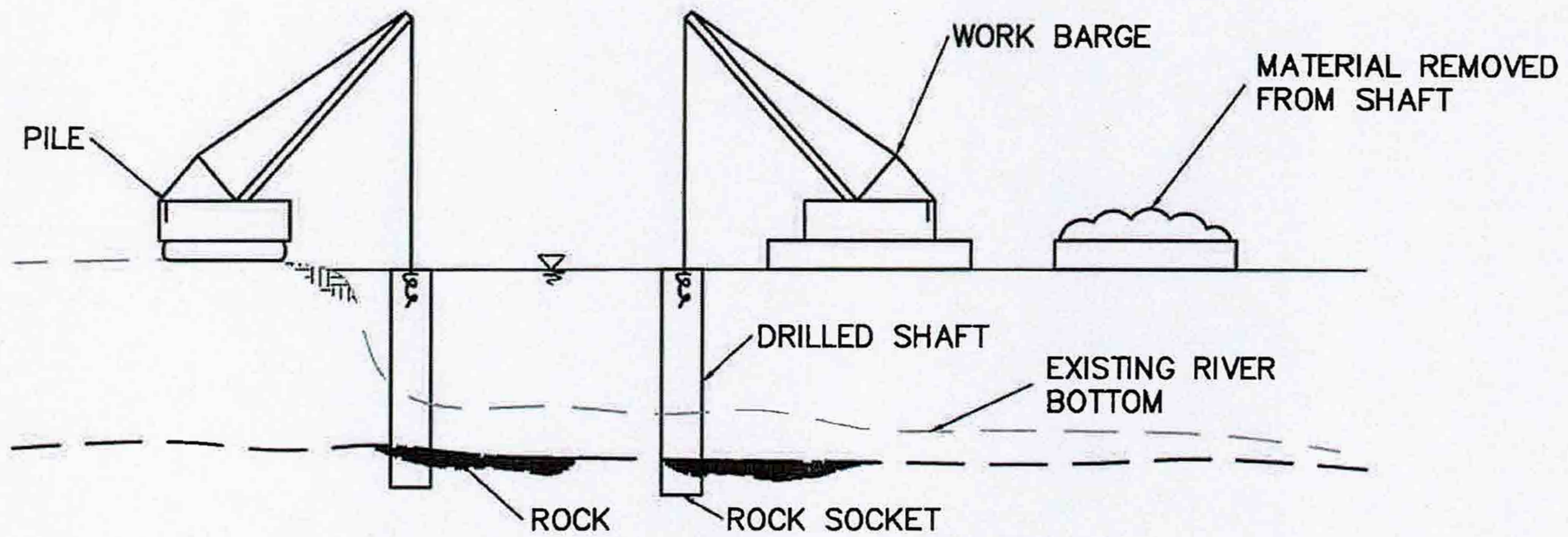


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Figure No.
 C-401

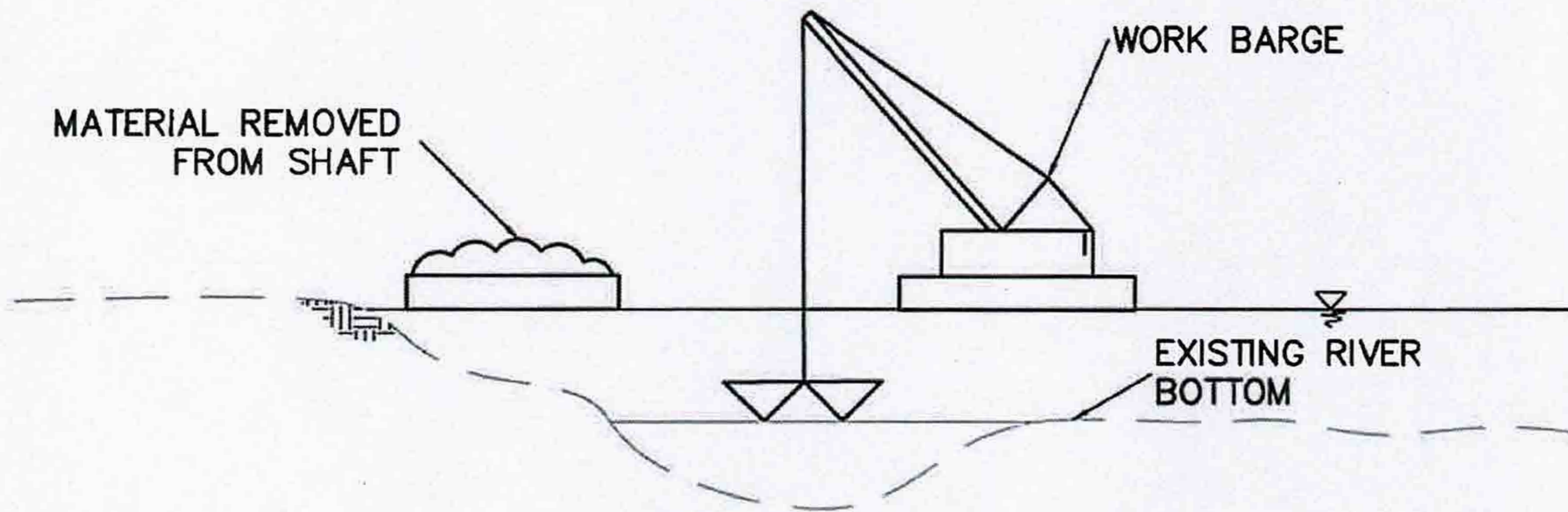
Title
 STAGING PLAN - DREDGING PLAN

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INSTALLATION OF DRILLED SHAFTS

SCALE: NST



DREDGING OPERATION

SCALE: NST

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ELECTRIC BOAT

SOUTH YARD

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Figure No.

C-402

Title

DRILLING AND DREDGING DETAILS

ACTIVITY 1 - PERMANENT FILL

SHORELINE STABILIZATION

SHORELINE STABILIZATION WILL INVOLVE THE CONSTRUCTION OF A BULKHEAD THAT PARALLELS PORTIONS OF THE EXISTING RIPRAP. SHORELINE STABILIZATION ACTIVITIES ARE EXPECTED TO BE COMPLETED IN THE FOLLOWING SEQUENCE:

- REMOVAL OF BEDROCK USING BLASTING METHODS AS PERMITTED.
- INSTALL SHEET PILE BULKHEAD WITHIN EXISTING RIPRAP SHORELINE. SHEET PILES TO BE PLACED USING A CRANE MOUNTED VIBRATORY HAMMER AND/OR OSCILLATING DRILL EQUIPMENT.
- DEWATER BULKHEAD IMPOUNDMENT BY PUMPING AND DISCHARGING INTO A SETTLING BASIN OR OTHER CONFINED STRUCTURE IN UPLAND AREAS PRIOR TO DISCHARGE INTO THAMES RIVER.
- INSTALL FILL BETWEEN BULKHEAD AND SHORE AND COMPLETE GRADING BEHIND BULKHEAD.

DRILLED SHAFT INSTALLATION

THE OVER-WATER PORTIONS OF THE PROPOSED BUILDING/PIER INFRASTRUCTURE WILL BE SUPPORTED BY DRILLED SHAFTS THAT WILL BE FOUNDED ON SUBMERGED BEDROCK BELOW THE SUBSTRATE. DRILLED SHAFTS ARE ANTICIPATED TO BE INSTALLED ACCORDING TO THE FOLLOWING CONSTRUCTION SEQUENCE:

- DRILL SHAFTS THROUGH RIVER SUBSTRATES INTO BEDROCK USING AN OSCILLATING DRILL FROM BARGE-MOUNTED AND LAND-BASED DRILLING EQUIPMENT
- REMOVE SEDIMENT FROM SHAFTS USING AUGER, MECHANICAL AND/OR HYDRAULIC DREDGE METHODS.
- DISPOSE OF SEDIMENT VIA PLACEMENT AS FILL BEHIND THE PROPOSED BULKHEAD AND/OR OTHER APPROVED LOCATIONS.
- PLACE STRUCTURAL STEEL IN SHAFTS AND FILL WITH CONCRETE.

ACTIVITY 2 - CONSTRUCTION OF IN-WATER STRUCTURES

THE CONCRETE DECK WILL BE INSTALLED INCREMENTALLY IN SECTIONS AS THE DRILLED SHAFTS ARE INSTALLED. CONCRETE FOR THE DECK SECTIONS WILL BE PUMPED FROM LAND AND BARGE BASED EQUIPMENT.

SUBMARINE LAUNCHING WILL REQUIRE THAT THE FLOATING DRY DOCK MOVE FROM ITS RESTING POSITION ALONG THE THAMES RIVER SHORELINE TO THE SUBMERSION BASIN FOR A PERIOD OF APPROXIMATELY ONE MONTH PER YEAR UNTIL THE LAUNCH IS COMPLETED. THE DRY DOCK WILL REMAIN TETHERED WHILE IN THE LAUNCHING AND RESTING POSITION.

ACTIVITY 3 - DREDGING

DREDGING WILL BE COMPLETED PRIMARILY BY MECHANICAL METHODS AND WILL BE COMPLETED UTILIZING BEST MANAGEMENT PRACTICES (BMPS) TO MINIMIZE ADVERSE IMPACTS TO AQUATIC SPECIES. DREDGING IS BEING COMPLETED FOR THE FOLLOWING PURPOSES:

- DREDGING TO A CONTROLLING ELEVATION OF -22 FT NAVD88 FOR BERTHING OF THE FLOATING DRY DOCK IN THE RESTING POSITION ALONG THE SHORELINE AND THE SEA SHUTTLE ALONG THE WESTERN SIDE OF THE PROPOSED BUILDING / PIER INFRASTRUCTURE.
- DREDGING TO A CONTROLLING ELEVATION OF -42 FT NAVD88 FOR BERTHING OF SUPPORT AND TRANSPORT VESSEL ALONG THE WESTERN SIDE OF THE PROPOSED BUILDING/PIER.
- CREATION OF A DEEP BASIN FOR THE FLOATING DRY DOCK TO LAUNCH SUBMARINES. THIS WILL REQUIRE DREDGING TO A CONTROLLING DEPTH OF -87 FT NAVD88 TO ACCOMMODATE THE FOOTPRINT OF THE FLOATING DRY DOCK WITH AN ASSUMED 3.5:1 SIDE SLOPE.

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Figure No.

C-403

Title

CONSTRUCTION NARRATIVE

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