



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

PUBLIC NOTICE

Comment Period Begins: 07/14/2020
Comment Period Ends: 08/13/2020
File Number: NAE-2019-02902
In Reply Refer To: Ruth Brien
Phone: (978) 318-8054
E-mail: ruthann.a.brien@usace.army.mil

The District Engineer has received a permit application to conduct work in waters of the United States from The Town of Truro. This work is proposed between East Harbor/Moon Pond and Cape Cod Bay at 299A, 309, 311, 311A, and 315 Shore Road and Route 6 in Truro, Massachusetts. The site coordinates are:

Latitude N 42D 03' 01.11" Longitude W 70D 07' 01.73"

The proposed work would involve the placement of structures below the mean high water line of Cape Cod Bay/East Harbor subject to Corps of Engineers regulation under Section 10 of the Rivers and Harbors Act and the placement of fill below the high tide line subject to Corps regulation under Section 404 of the Clean Water Act. Specifically, the applicant proposes to replace 340 linear feet of an existing damaged 48- inch by 72-inch elliptical culvert with a 48-inch by 72-inch rectangular precast culvert within the existing footprint. The work would occur between the Route 6 and Shore Road junction chambers. Permanent steel sheeting would be used for stabilization and dewatering the site due to the shallow groundwater table. Flow through the culvert would be stopped for 3-6 weeks during construction by installing temporary bulkheads in the junction chambers, installing a plate in place of the safety grate at the outfall end, and installing an inflatable plug or bulkhead at the Moon Pond headwall. The construction staging area would be within the existing parking lot and construction access would be over the embankment to the Town easement through an established access way.

The broken culvert has allowed the tide to flow outside the pipe and has resulted in the incidental formation of 0.71 acre of salt marsh above the pipe in an area formerly consisting of coastal dune habitat. Based on aerial imagery, the applicant estimates that the incidental salt marsh began developing sometime between 2009 and 2014 in response to tidal leakage from the broken pipe. As proposed, the project would cause both direct impacts via fill and indirect impacts via loss of tidal influence. Approximately 6,345 square feet of fill will be placed above the pipe in the incidental salt marsh thus converting this area to uplands. Another approximately 7,065 square feet of salt marsh west of the pipe would be converted to uplands via loss of the leaking tidal water from the pipe replacement. In addition, the applicant estimates that approximately 17,676 square feet of salt marsh to the east of the pipe would be converted back to non-tidal wetlands similar to what existed before the pipe began to leak.

The applicant states that once the pipe is repaired more tidal water will move from Cape Cod Bay to East Harbor/Moon Pond and improve up 19 acres of intertidal habitat. This may be used for mitigation.

The work is shown on the attached plans entitled "PROPOSED CULVERT REPAIR AT EAST HARBOR," on eighteen sheets, and with a revised date of "JUNE 3, 2020."

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.

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.

This project would impact up to 0.71 acre of Essential Fish Habitat (*EFH*). This habitat consists of incidental salt marsh created by a leaking culvert in an area previously typified by coastal dune. Loss of this habitat may adversely affect species that use these waters and substrate. However, due to the incidental nature of the salt marsh and its questionable benefit to fauna, 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

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Service regarding EFH conservation recommendations is being conducted and will be concluded prior to the final decision.

NATIONAL HISTORIC PRESERVATION ACT

Based on his initial review, the District Engineer has determined that the proposed work may impact properties listed in, or eligible for listing in, the National Register of Historic Places. Additional review and consultation to fulfill requirements under Section 106 of the National Historic Preservation Act of 1966, as amended, will be ongoing as part of the permit review process.

ENDANGERED SPECIES CONSULTATION

The Corps is reviewing 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. Our review will be concluded prior to the final decision.

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) Permit from local wetland agency or conservation commission.
- (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 Ruth Brien at (978) 318-8054, (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.

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THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.

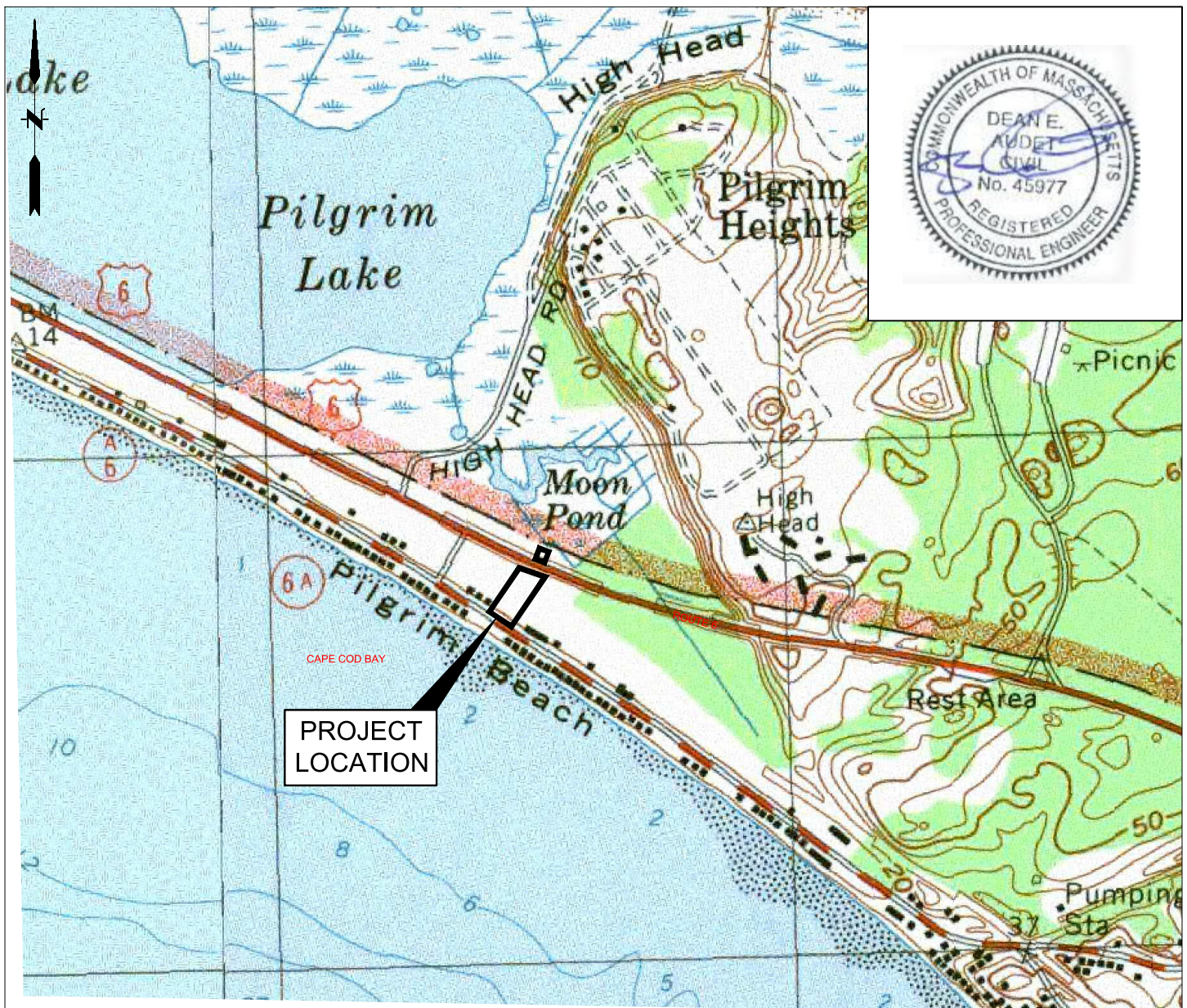
Barbara Newman
Chief, Permits and Enforcement Branch
Regulatory Division

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: _____



MAP REFERENCE

THIS MAP WAS PREPARED FROM USGS TOPOGRAPHIC QUADRANGLE IMAGE ©1995 MASSGIS.

ORIGINAL MAP PUBLICATION DATE: 1982-1985

SOURCE: OFFICE OF GEOGRAPHIC AND ENVIRONMENTAL INFORMATION (MASSGIS), COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS.

SCALE IN FEET
SCALE: 1" = 1000'



PURPOSE: REPAIR EXISTING CULVERT

DATUM: HORZ: NAD83 MA MAINLAND SP(FT)
VERT: NAD88 (FT)

MLW: -4.67 FT
MHW: 4.39 FT
HTL: 5.73 FT
FUSS AND O'NEILL, INC.
317 IRON HORSE WAY
PROVIDENCE, RI 02908

VICINITY MAP

APPLICATION BY:
WOODS HOLE GROUP, INC.
107 WATERHOUSE ROAD
BOURNE, MA 02532

PROPOSED CULVERT REPAIR AT
EAST HARBOR

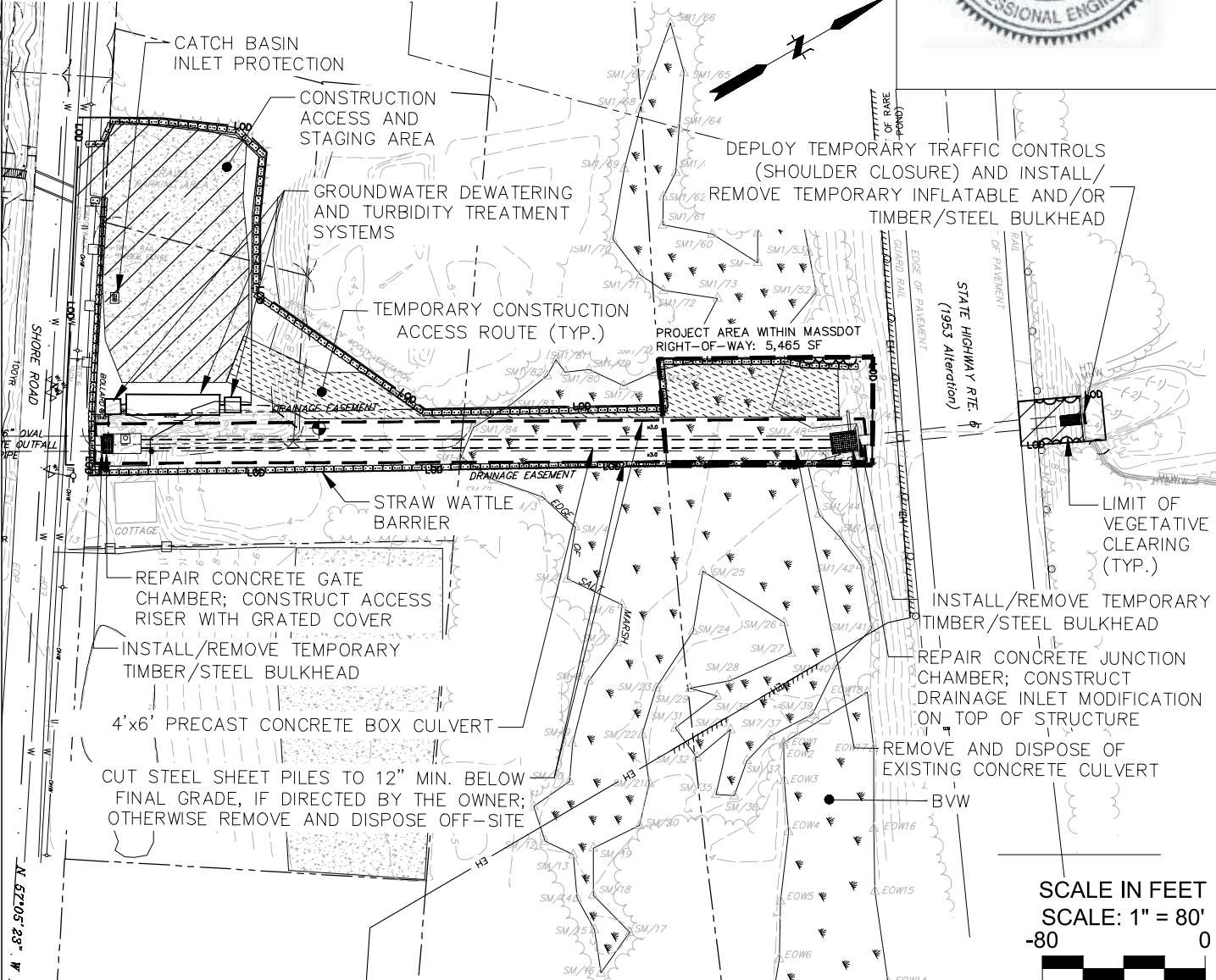
IN: CAPE COD BAY
AT: TRURO, BARNSTABLE, CO.
MASSACHUSETTS

DATE: OCTOBER 22, 2019
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NOTES:

1. PROJECT LOCATION AREA:
NOONS LANDING
TRURO DRAINAGE EASEMENT AND STATE HIGHWAY ROUTE 6 RIGHT-OF-WAY
ASSESSOR MAP NO. 13
TRURO, MASSACHUSETTS
2. EXISTING SITE CONDITIONS INCLUDING SITE FEATURES, WETLAND FLAGGING, TEST PITS, BORING LOCATIONS, PROPERTY BOUNDARIES AND TOPOGRAPHICAL INFORMATION WITHIN THE IMMEDIATE PROJECT AREA ARE BASED UPON AN TOPOGRAPHIC SURVEY BY RYDER & WILCOX, INC., DATED DECEMBER 9, 2017.
3. PROPERTY BOUNDARIES OUTSIDE THE PROJECT AREA SHOWN HEREON WERE OBTAINED FROM MASSGIS PROPERTY LINE DATABASES, ARE NOT TO BE CONSTRUED AS AN ACCURATE BOUNDARY SURVEY, AND ARE SUBJECT TO SUCH CHANGES AS AN ACCURATE BOUNDARY SURVEY MAY DISCLOSE.
4. ALL DISTURBED AREAS WILL BE RESTORED WITH NATIVE VEGETATION FOLLOWING FINAL REGRADING.



SCALE IN FEET
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-80 0

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CULVERT REPAIR
SITE PLAN

APPLICATION BY:
WOODS HOLE GROUP, INC.
107 WATERHOUSE ROAD
BOURNE, MA 02532

PROPOSED CULVERT REPAIR AT
EAST HARBOR

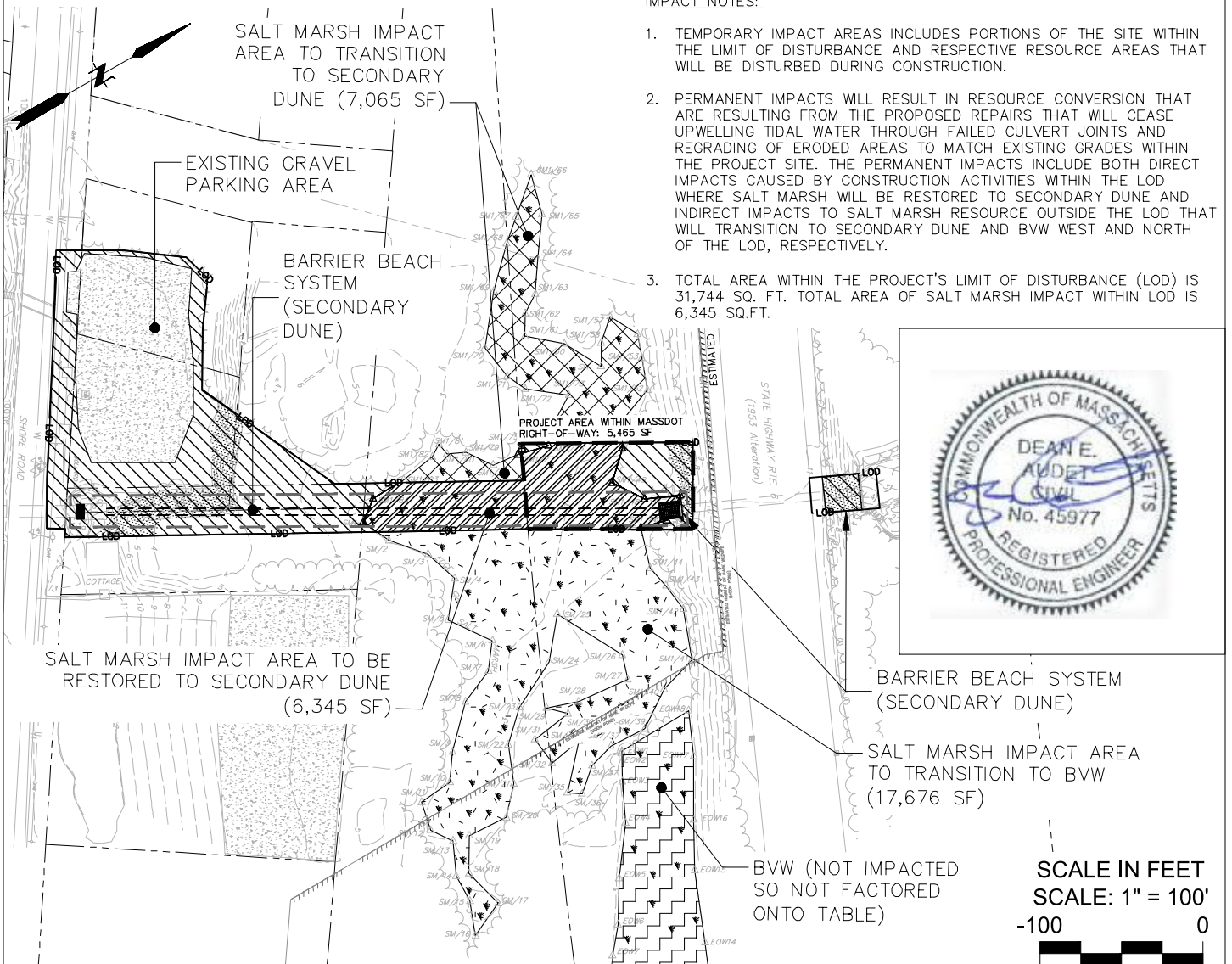
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WETLAND RESOURCE TYPE	TEMPORARY IMPACT AREA (SQ. FT.)	PERMANENT IMPACT AREA (SQ. FT.)
SALT MARSH	0	6,345 (LOSS WITHIN LOD)/31,086 (LOSS TOTAL)
NATURAL HERITAGE ENDANGERED SPECIES PROGRAM	925	0
BARRIER BEACH SYSTEM (SECONDARY DUNE)	15,303	13,410 (GAIN)
BPV	0	17,676 (GAIN)

IMPACT NOTES:

1. TEMPORARY IMPACT AREAS INCLUDES PORTIONS OF THE SITE WITHIN THE LIMIT OF DISTURBANCE AND RESPECTIVE RESOURCE AREAS THAT WILL BE DISTURBED DURING CONSTRUCTION.
2. PERMANENT IMPACTS WILL RESULT IN RESOURCE CONVERSION THAT ARE RESULTING FROM THE PROPOSED REPAIRS THAT WILL CEASE UPWELLING TIDAL WATER THROUGH FAILED CULVERT JOINTS AND REGRADING OF ERODED AREAS TO MATCH EXISTING GRADES WITHIN THE PROJECT SITE. THE PERMANENT IMPACTS INCLUDE BOTH DIRECT IMPACTS CAUSED BY CONSTRUCTION ACTIVITIES WITHIN THE LOD WHERE SALT MARSH WILL BE RESTORED TO SECONDARY DUNE AND INDIRECT IMPACTS TO SALT MARSH RESOURCE OUTSIDE THE LOD THAT WILL TRANSITION TO SECONDARY DUNE AND BPV WEST AND NORTH OF THE LOD, RESPECTIVELY.
3. TOTAL AREA WITHIN THE PROJECT'S LIMIT OF DISTURBANCE (LOD) IS 31,744 SQ. FT. TOTAL AREA OF SALT MARSH IMPACT WITHIN LOD IS 6,345 SQ.FT.



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WETLAND IMPACT PLAN

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107 WATERHOUSE ROAD
BOURNE, MA 02532

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RESTORATION NOTES:

1. ALL DISTURBED AREAS SHALL BE TEMPORARILY STABILIZED WITH BIODEGRADABLE EROSION CONTROL BLANKETING (NO PLASTIC COMPONENTS, JUTE MESH OR EQUIVALENT).
2. RESTORE TIRE RUTS CREATED DURING CONSTRUCTION TO THEIR PRE-CONSTRUCTION CONDITION.
3. A 3-YEAR MONITORING PROGRAM WILL BE IMPLEMENTED TO MONITOR CHANGES TO THE SALT MARSH RESOURCE.

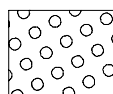


HAND SEEDING NOTES:

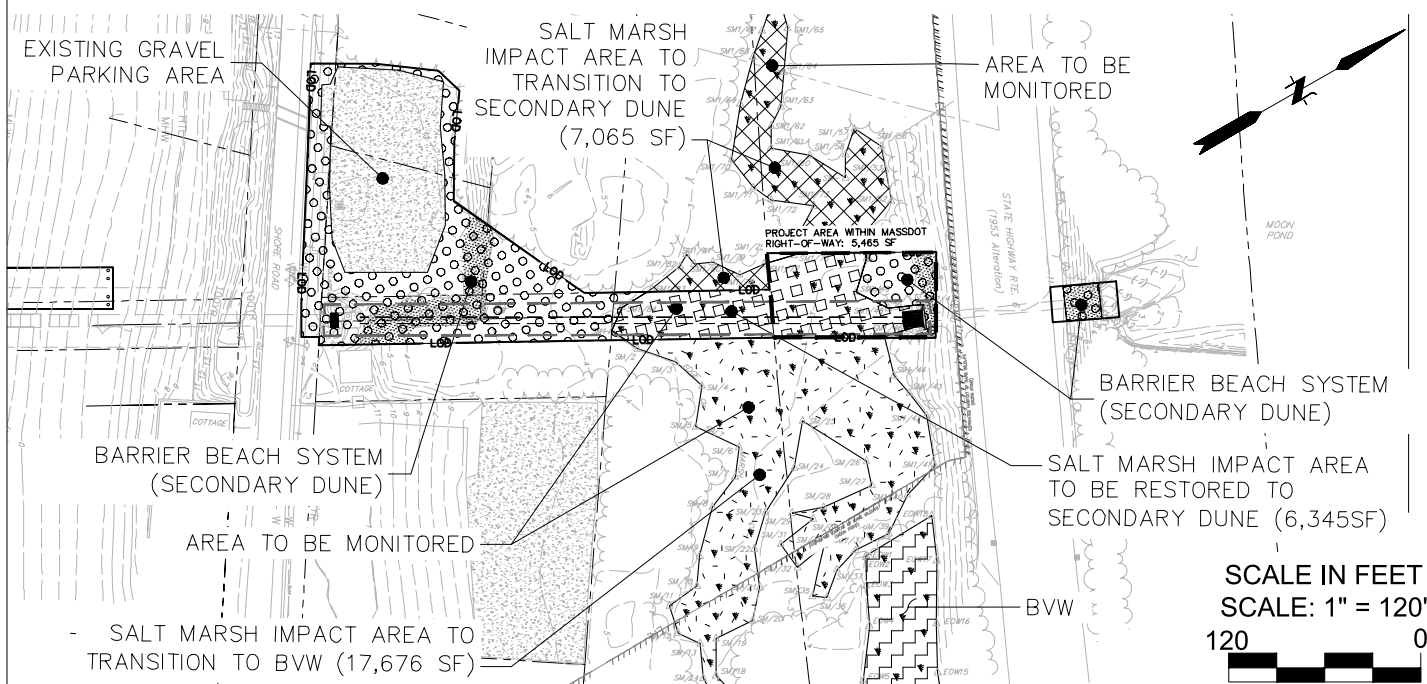
1. APPLY SEED BY HAND AT A RATE OF 35 LB/ACRE TO CLEAN, BARE SOIL, AND THEN LIGHTLY RAKE BY HAND TO ENSURE PROPER SEED TO SOIL CONTACT.
2. COVER SEED BY MULCHING WITH STERILE, WEED-FREE CHOP STRAW.
3. THE RECOMMENDED CONSERVATION SEED MIXTURE IS THE NEW ENGLAND WETLAND PLANTS, INC. "NEW ENGLAND COASTAL SALT TOLERANT SEED MIX" THAT INCLUDES CANADA RYE, RED FESCUE, ATLANTIC COASTAL PANIC GRASS, BIG BLUESTEM, INDIAN GRASS, SWITCH GRASS AND PATH RUSH.
4. ALL SEED MIX SHALL BE FREE OF INVASIVE NON-NATIVE PLANT SPECIES.



PLUG PLANTINGS, HAND SEED
AND MULCH



HAND SEED AND MULCH



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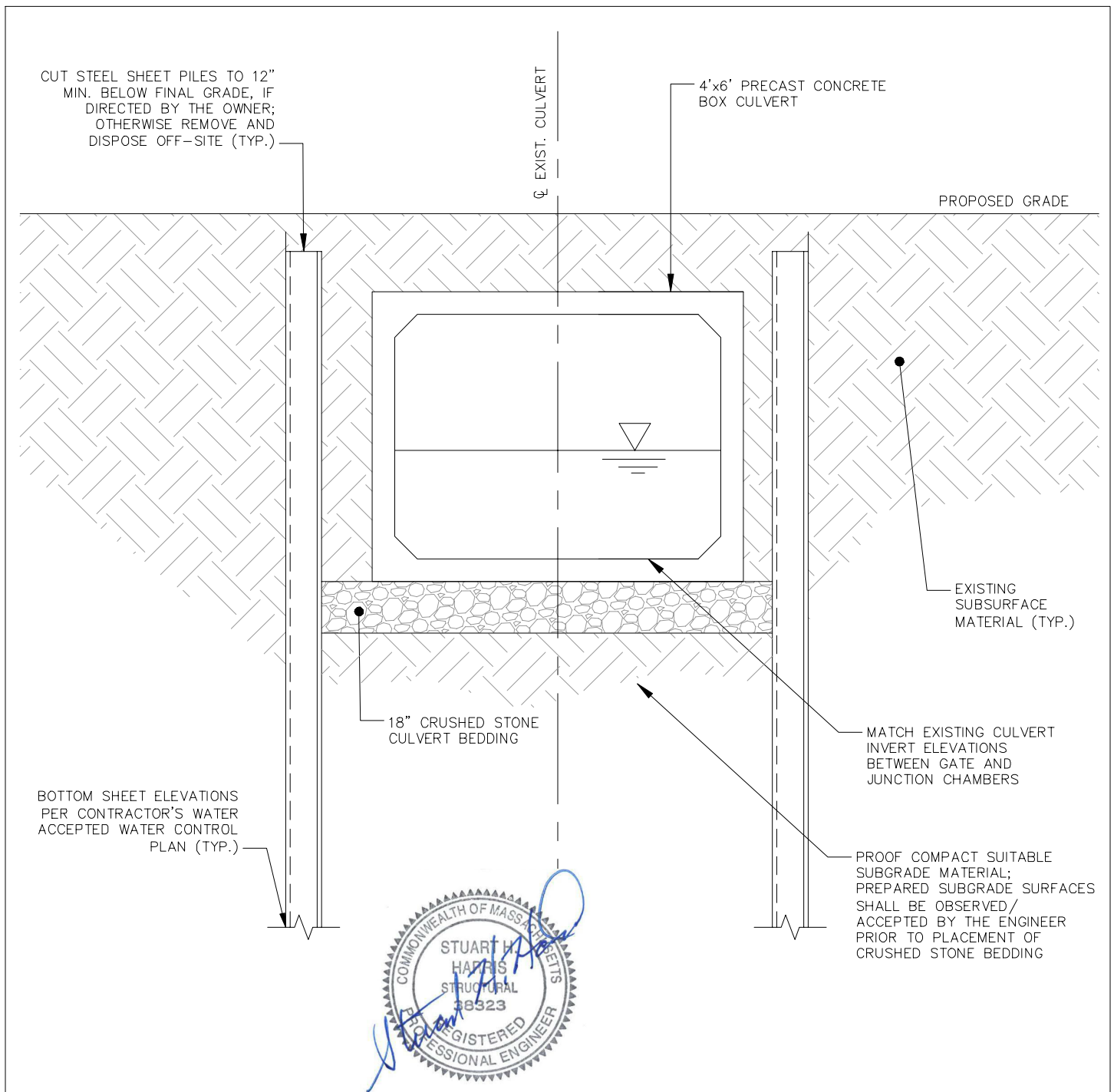
SITE RESTORATION AND
MONITORING PLAN

APPLICATION BY:
WOODS HOLE GROUP, INC.
107 WATERHOUSE ROAD
BOURNE, MA 02532

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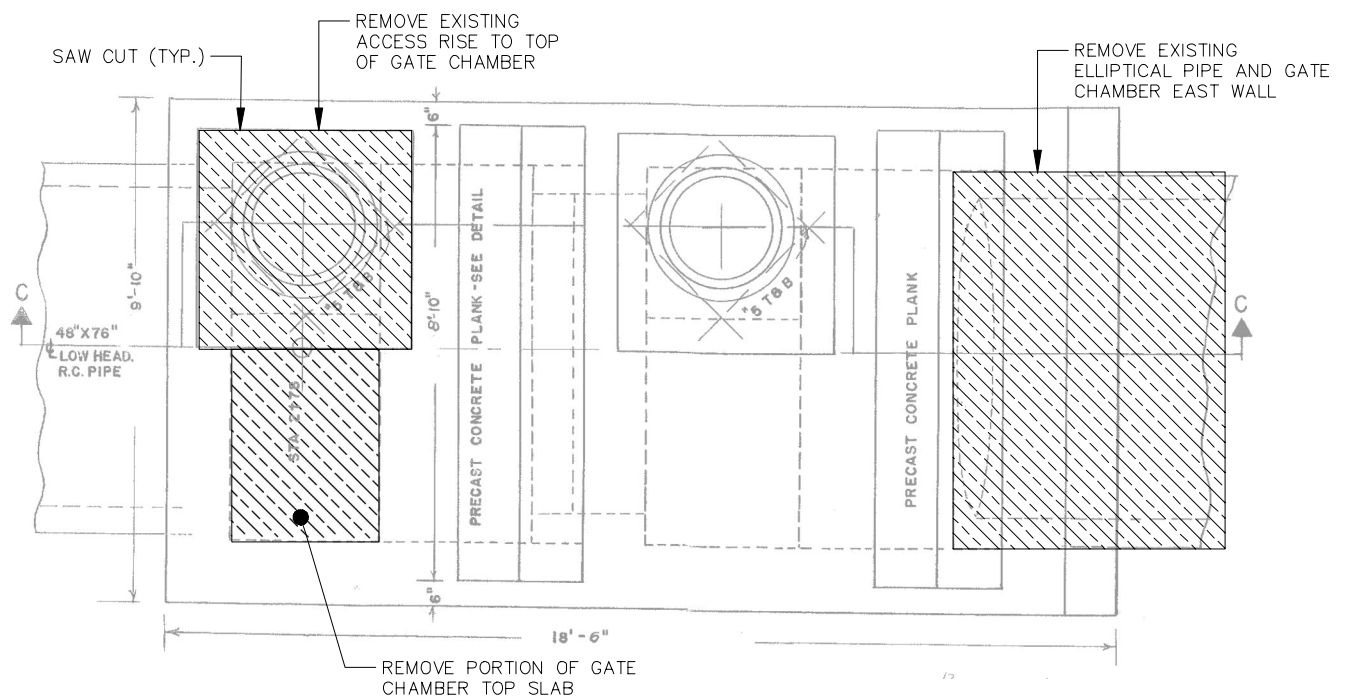
TYPICAL CULVERT AND STEEL
SHEETING CROSS-SECTION

APPLICATION BY:
WOODS HOLE GROUP, INC.
107 WATERHOUSE ROAD
BOURNE, MA 02532

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1A GATE CHAMBER — PLAN VIEW
SCALE: N.T.S.



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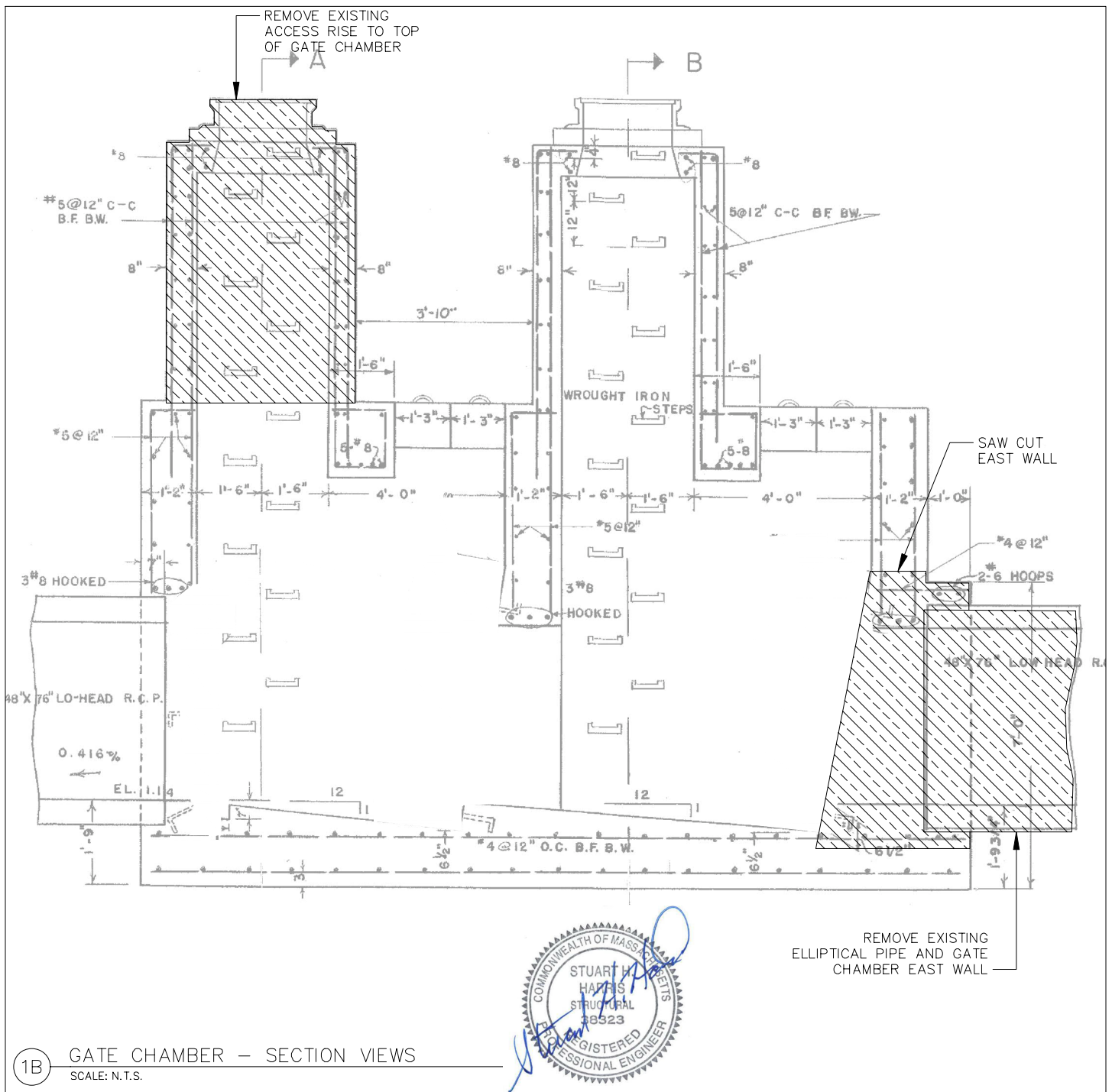
SELECTIVE DEMOLITION DETAILS

APPLICATION BY:
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107 WATERHOUSE ROAD
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1B GATE CHAMBER — SECTION VIEWS

SCALE: N.T.S.

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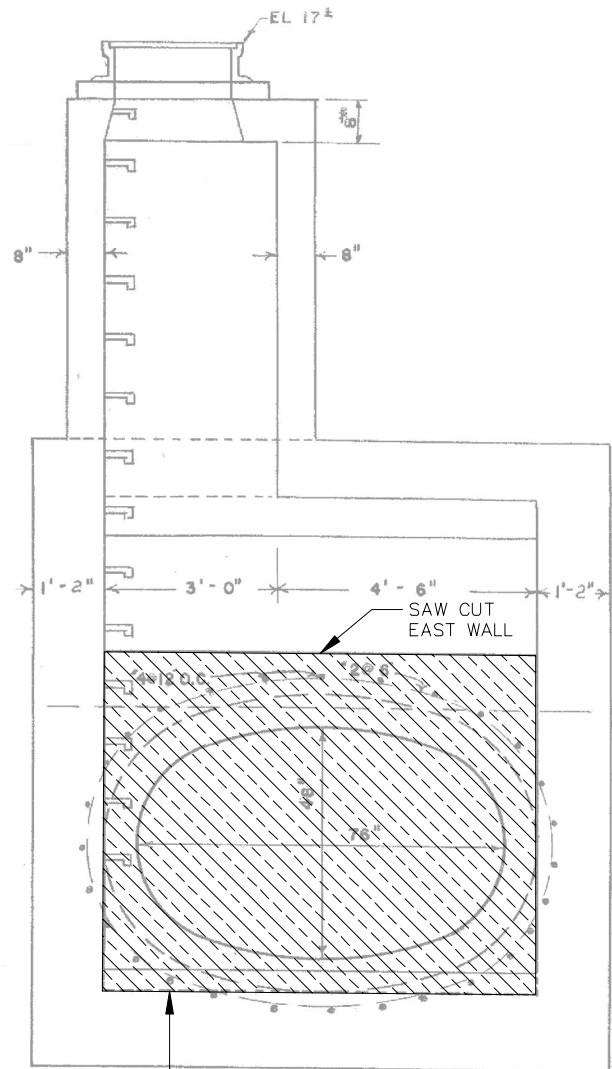
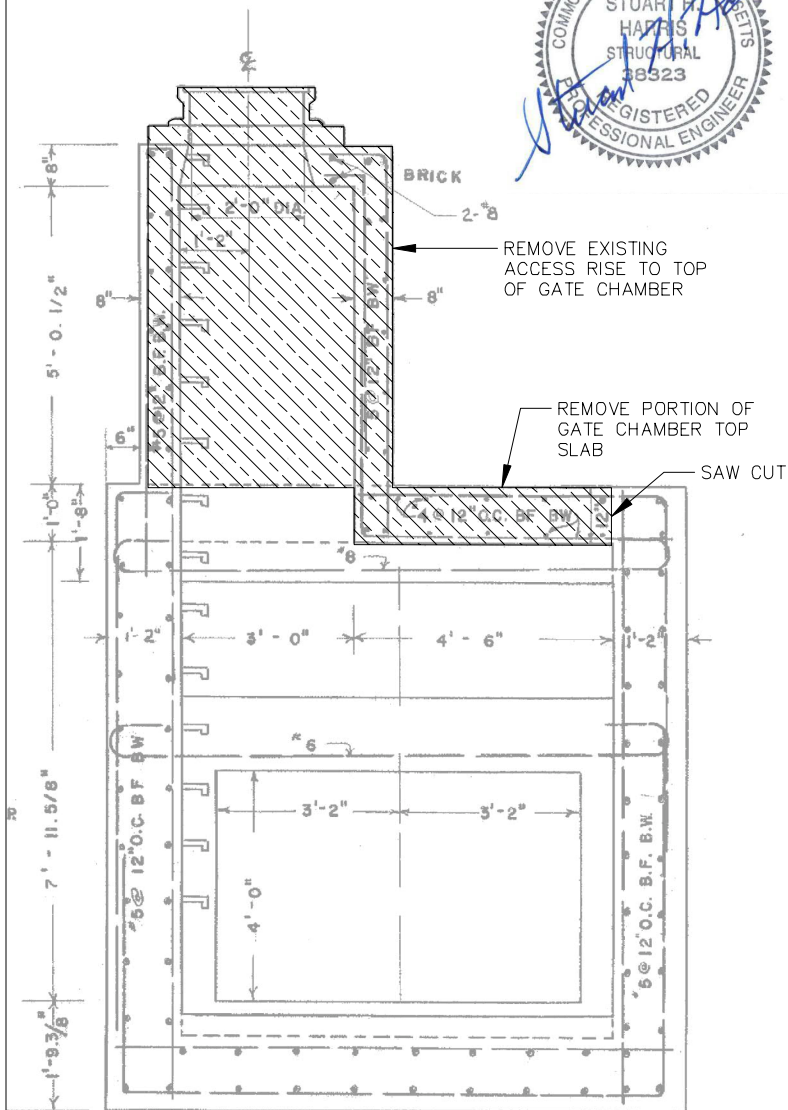
SELECTIVE DEMOLITION DETAILS

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GATE CHAMBER – SECTION VIEWS

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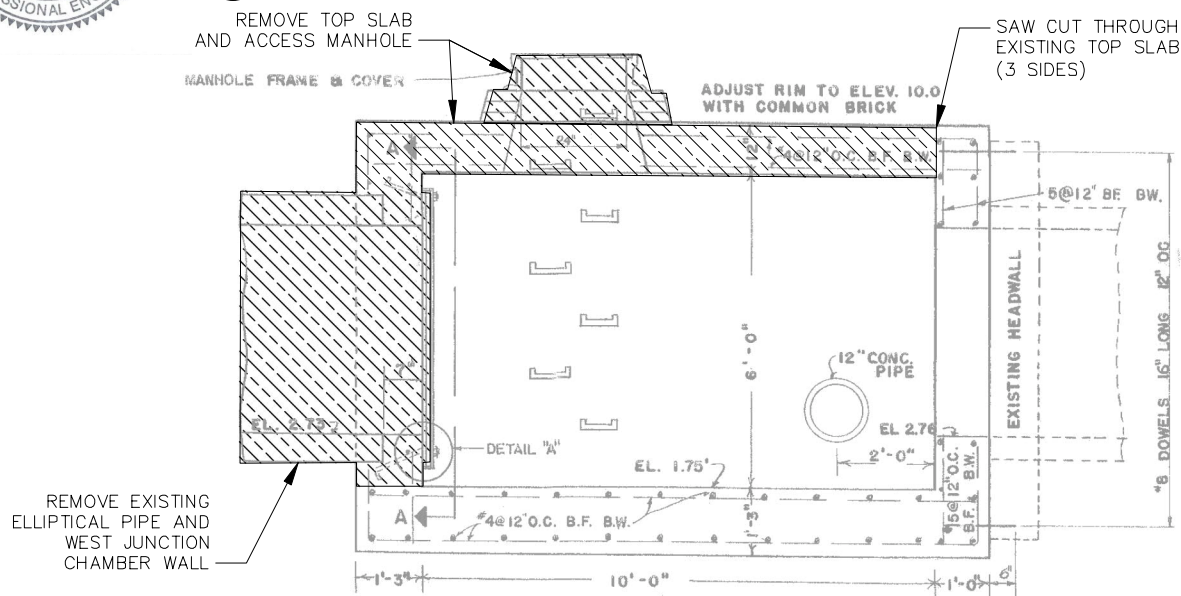
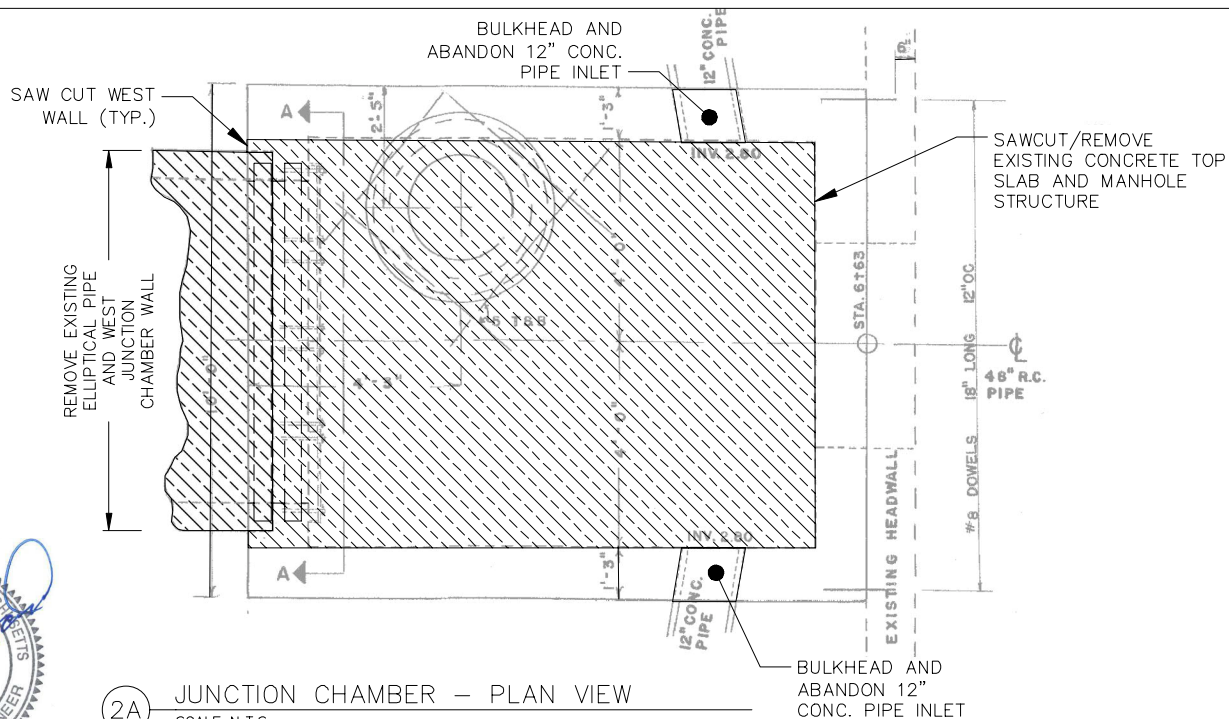
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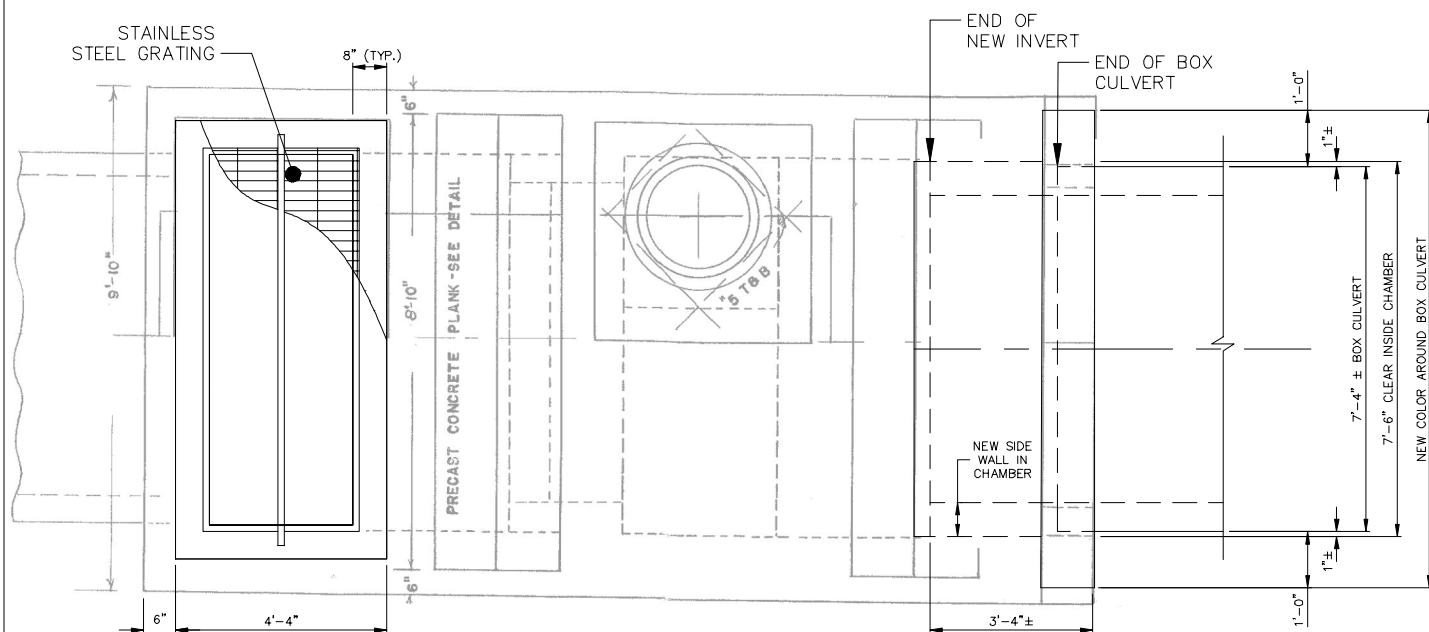
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SELECTIVE DEMOLITION DETAILS
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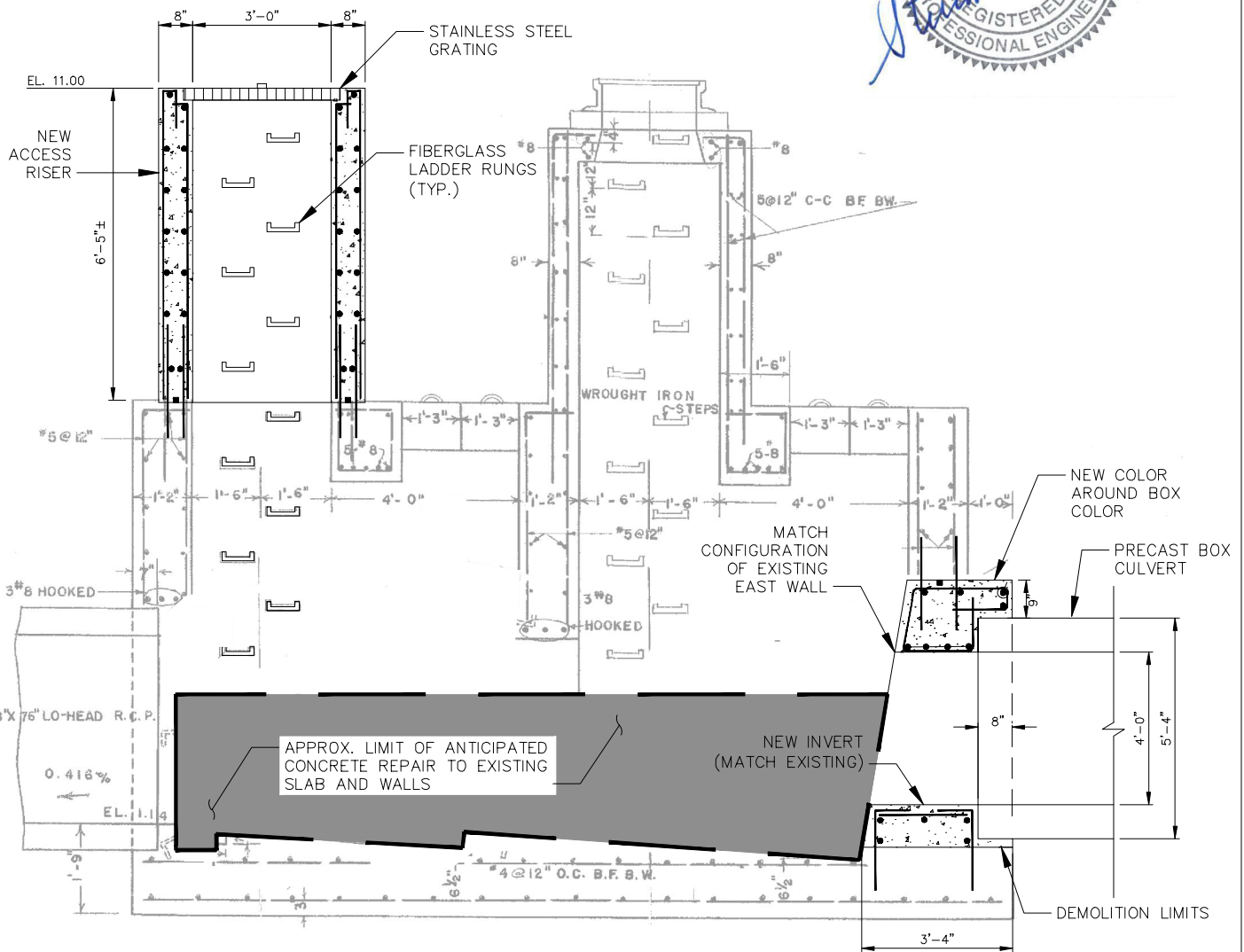
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FUSS AND O'NEILL, INC.
317 IRON HORSE WAY
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GATE CHAMBER REHABILITATION
DETAILS

APPLICATION BY:
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107 WATERHOUSE ROAD
BOURNE, MA 02532

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1B GATE CHAMBER – SECTION VIEW
N.T.S.

NOTES

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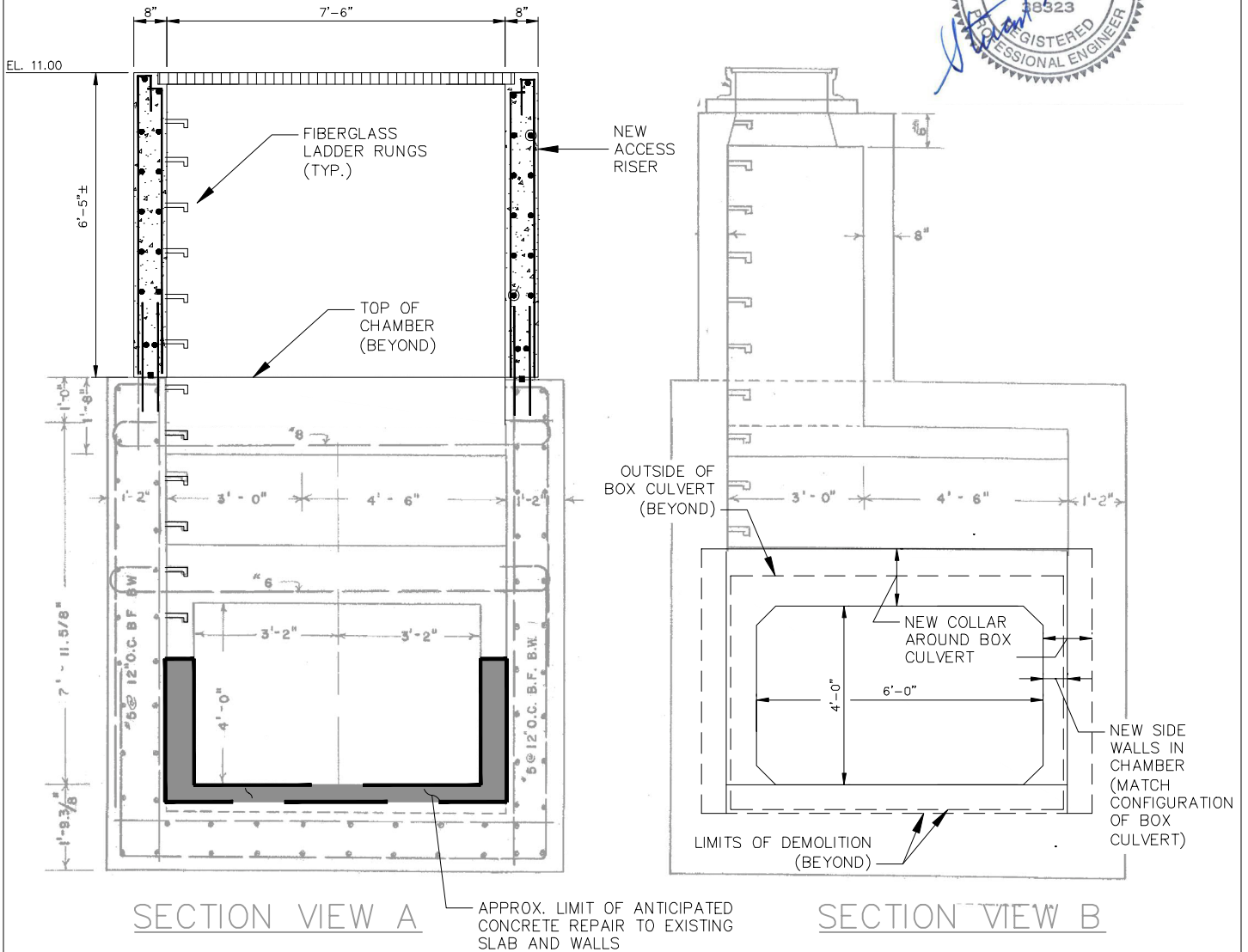
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GATE CHAMBER REHABILITATION
DETAILS

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1C GATE CHAMBER – SECTION VIEW
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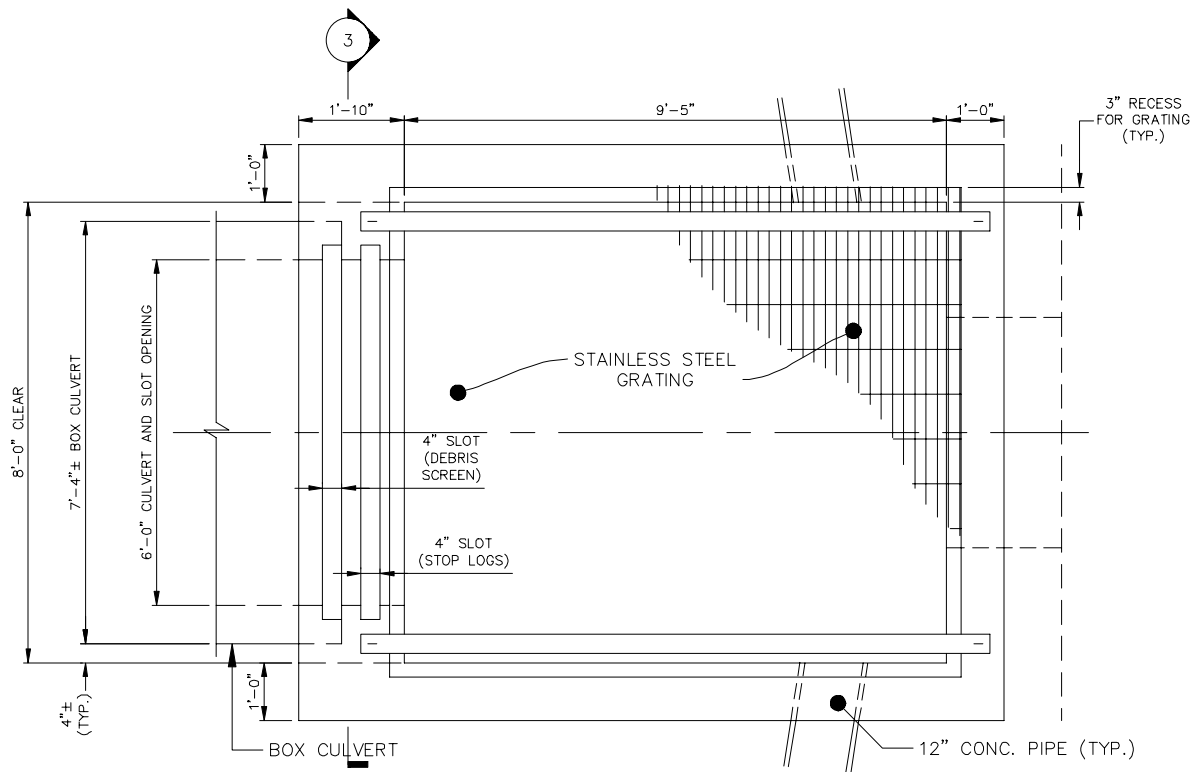
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(2A) JUNCTION CHAMBER – PLAN VIEW
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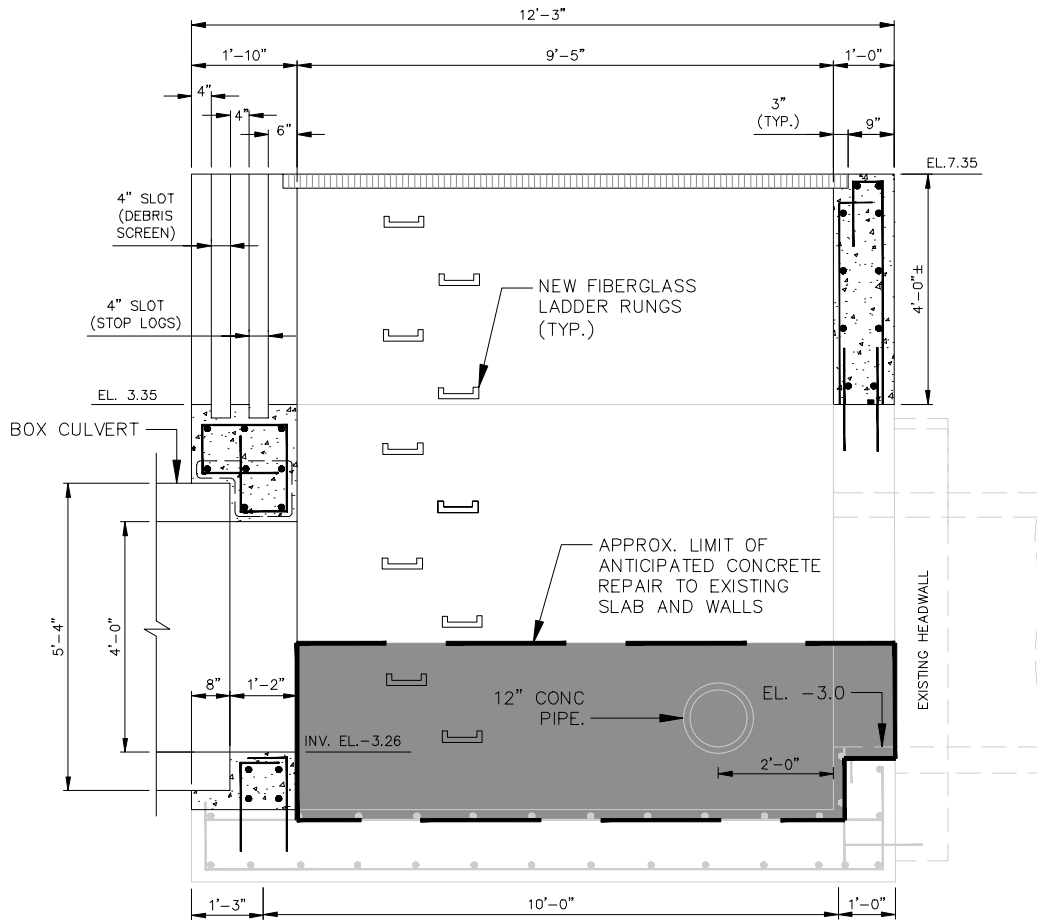
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(2B) JUNCTION CHAMBER – SECTION VIEW
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317 IRON HORSE WAY
PROVIDENCE, RI 02908

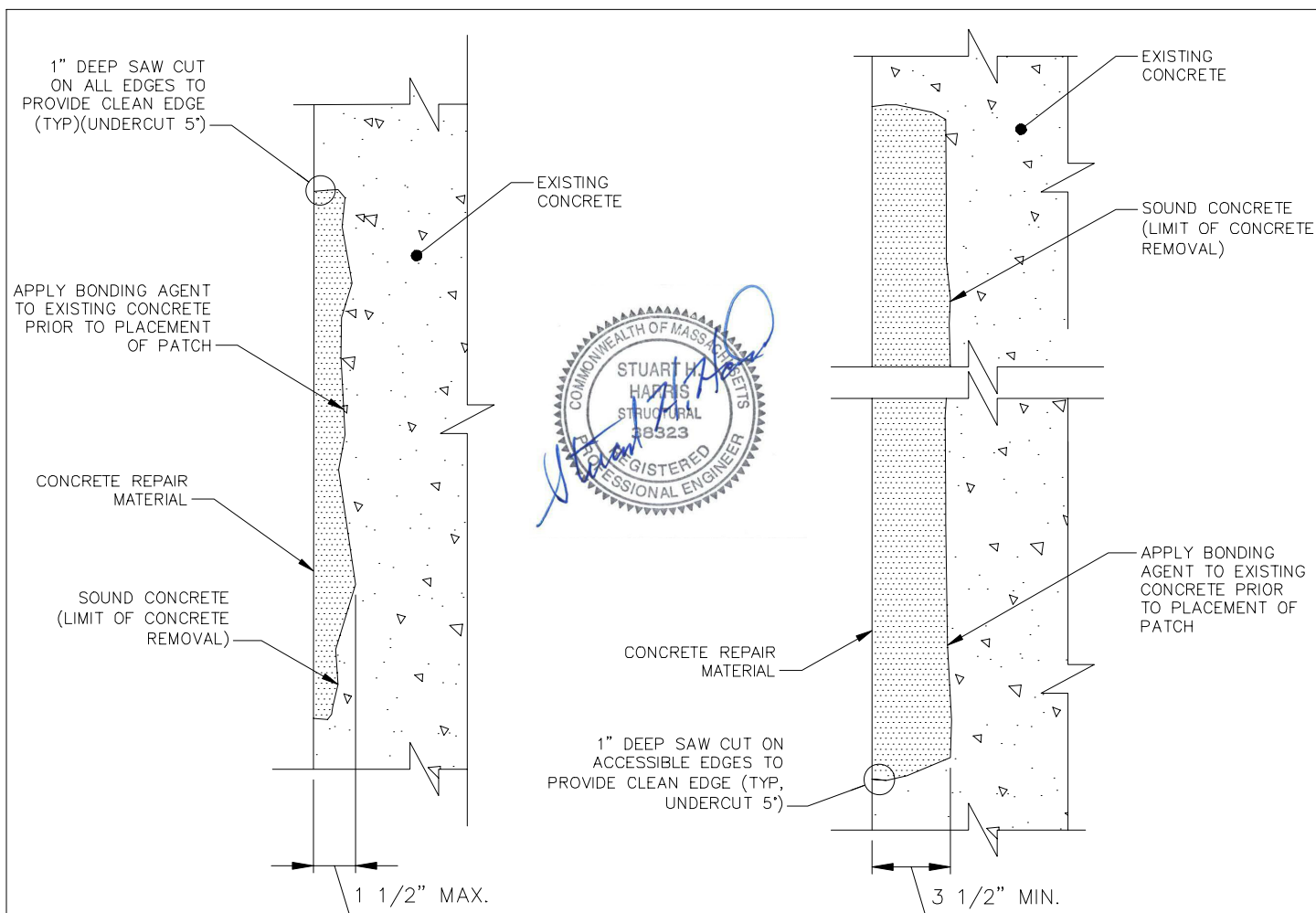
JUNCTION CHAMBER REHABILITATION DETAILS

APPLICATION BY:
WOODS HOLE GROUP, INC.
107 WATERHOUSE ROAD
BOURNE, MA 02532

PROPOSED CULVERT REPAIR AT
EAST HARBOR

IN: CAPE COD BAY
AT: TRURO, BARNSTABLE, CO.
MASSACHUSETTS
DATE: OCTOBER 22, 2019
REVISED: JUNE 3, 2020
SHEET:

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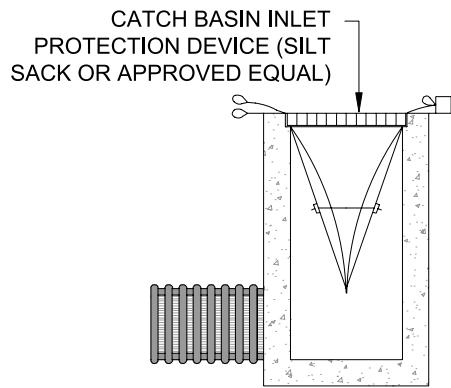


CULVERT CHAMBER REPAIR NOTE

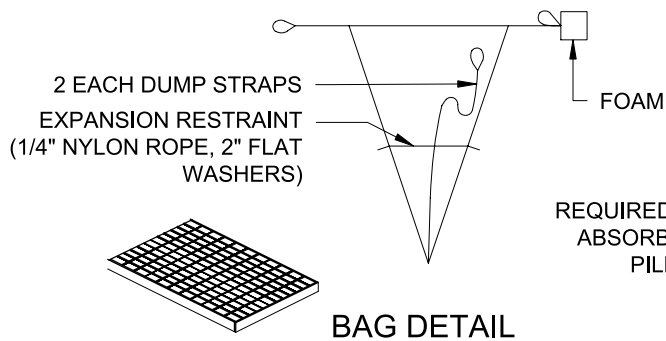
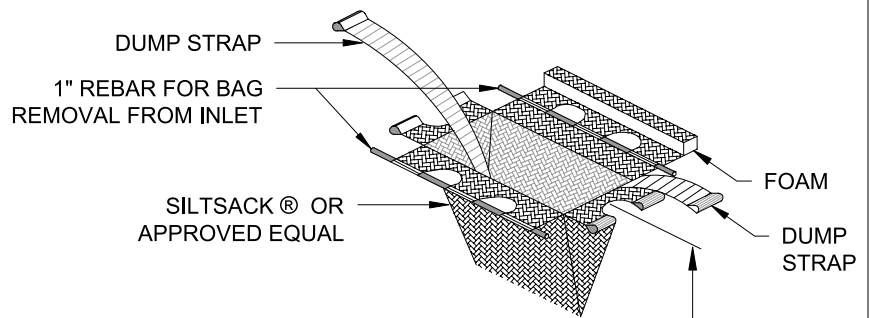
ALL CONCRETE REPAIR TYPES TO BE FIELD-DIRECTED PER ENGINEER'S ON-SITE INSPECTION OF CHAMBER STRUCTURES ONCE WATER CONTROL AND SAFE ACCESS IS ESTABLISHED. OWNER MAINTAINS THE RIGHT TO DIRECT THE REMOVAL/REPLACEMENT OF EXISTING STRUCTURES IN THEIR ENTIRETY, BASED ON THE OBSERVATIONS AND RECOMMENDATIONS OF THE ENGINEER IF DETERIORATED CONDITIONS ARE EXTENSIVE. THE HORIZONTAL LIMITS OF ANY REPAIRED/REPLACEMENT STRUCTURE WILL NOT EXCEED THE LIMITS OF STRUCTURES AS ORIGINALLY CONSTRUCTED.

1 CONCRETE REPAIR – TYPE A AND B N.T.S.

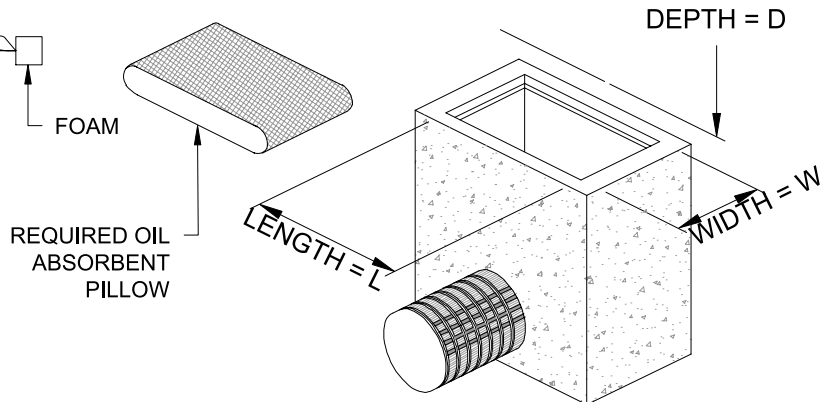
<p>PURPOSE: REPAIR EXISTING CULVERT</p> <p>DATUM: HORZ:NAD83 MA MAINLAND SP(FT) VERT:NAD88 (FT)</p> <p>MLW: -4.67 FT MHW: 4.39 FT HTL: 5.73 FT</p> <p>FUSS AND O'NEILL, INC. 317 IRON HORSE WAY PROVIDENCE, RI 20908</p>	<p>CONCRETE REPAIR DETAILS</p> <p>APPLICATION BY: WOODS HOLE GROUP, INC. 107 WATERHOUSE ROAD BOURNE, MA 02532</p>	<p>PROPOSED CULVERT REPAIR AT EAST HARBOR</p> <p>IN: CAPE COD BAY AT: TRURO, BARNSTABLE, CO. MASSACHUSETTS</p> <p>DATE: OCTOBER 22, 2019 REVISED: JUNE 3, 2020 SHEET: 15 OF 18</p>
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INSTALLATION DETAIL



BAG DETAIL



NOTE:

CONTRACTOR SHALL MEASURE ALL REQUIRED CATCH BASIN DIMENSIONS AND PROVIDE APPROPRIATELY-SIZED DEVICES PER MANUFACTURER'S REQUIREMENTS.

CATCH BASIN INLET PROTECTION

NOT TO SCALE

PURPOSE: REPAIR EXISTING CULVERT

DATUM: HORZ: NAD83 MA MAINLAND SP(FT)
VERT: NAD88 (FT)

MLW: -4.67 FT
MHW: 4.39 FT
HTL: 5.73 FT
FUSS AND O'NEILL, INC.
317 IRON HORSE WAY
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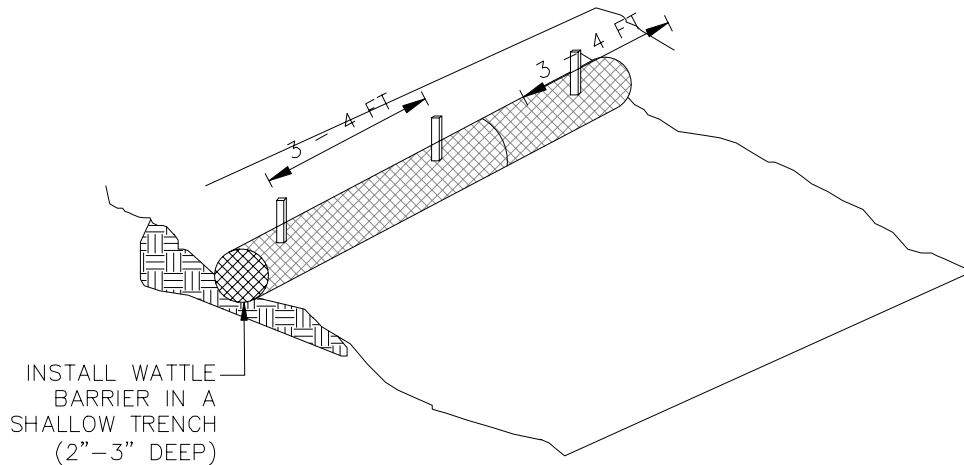
TYPICAL CATCH BASIN
INLET PROTECTION DETAIL

APPLICATION BY:
WOODS HOLE GROUP, INC.
107 WATERHOUSE ROAD
BOURNE, MA 02532

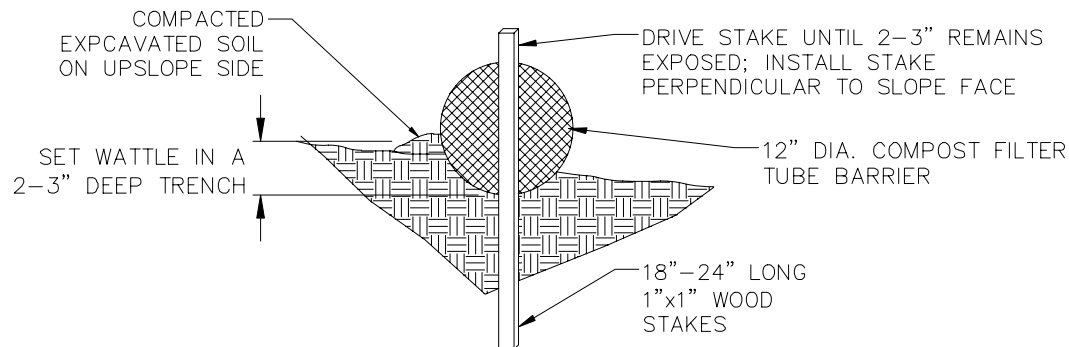
PROPOSED CULVERT REPAIR AT
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IN: CAPE COD BAY
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TYPICAL INSTALLATION GUIDE



ENTRENCHMENT

NOTES:

1. 12-INCH DIAMETER STRAW WATTLE BARRIER SHALL BE INSTALLED WHERE INDICATED ON THE CONTRACT DRAWINGS AND BE CONSTRUCTED OF 100% BIODEGRADABLE MATERIAL. A ROW OF STRAW WATTLE TUBES (WEIGHTED DOWN AND NOT STAKED) SHALL ALSO BE INSTALLED AROUND ANY SOIL STOCKPILE AREAS UTILIZED BY THE CONTRACTOR DURING CONSTRUCTION.
2. STRAW WATTLE BARRIERS SHALL BE TRENCHED APPROXIMATELY 2-3 INCHES DEEP AND STAKED SUCH THAT IT DIRECTLY CONTACTS SOIL AND PRECLUDE UNDERMINING OR BLOWOUTS. THE TRENCH SHALL BE APPROXIMATELY 9 INCHES WIDE. STAKES SHALL BE DRIVEN THROUGH THE CENTER OF THE COMPOST FILTER TUBE AT A SPACING OF 3-4 FEET ON CENTER AND NO GREATER THAN 6" FROM THE EACH END OF THE COMPOST FILTER TUBE. STAKES SHALL BE 1-INCH BY 1-INCH WOODEN STAKES WITH A LENGTH OF 18-24 INCHES. COMPACT SOIL EXCAVATED TO CREATE TRENCH ON UPHILL SIDE SIDE.
3. ENDS OF ADJACENT STRAW WATTLE TUBES SHALL BE TIGHTLY BUTTED OR OVERLAPPED SO THAT NO OPENING EXISTS FOR WATER TO PASS THROUGH. STRAW WATTLE TUBES SHALL BE FREE OF DAMAGE OR DEFECTS WHEN DELIVERED TO THE SHIPPER. NO VEHICLES SHALL BE DRIVEN OVER THE TUBES.

STRAW WATTLE BARRIER

NOT TO SCALE

PURPOSE: REPAIR EXISTING CULVERT

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VERT:NAD88 (FT)

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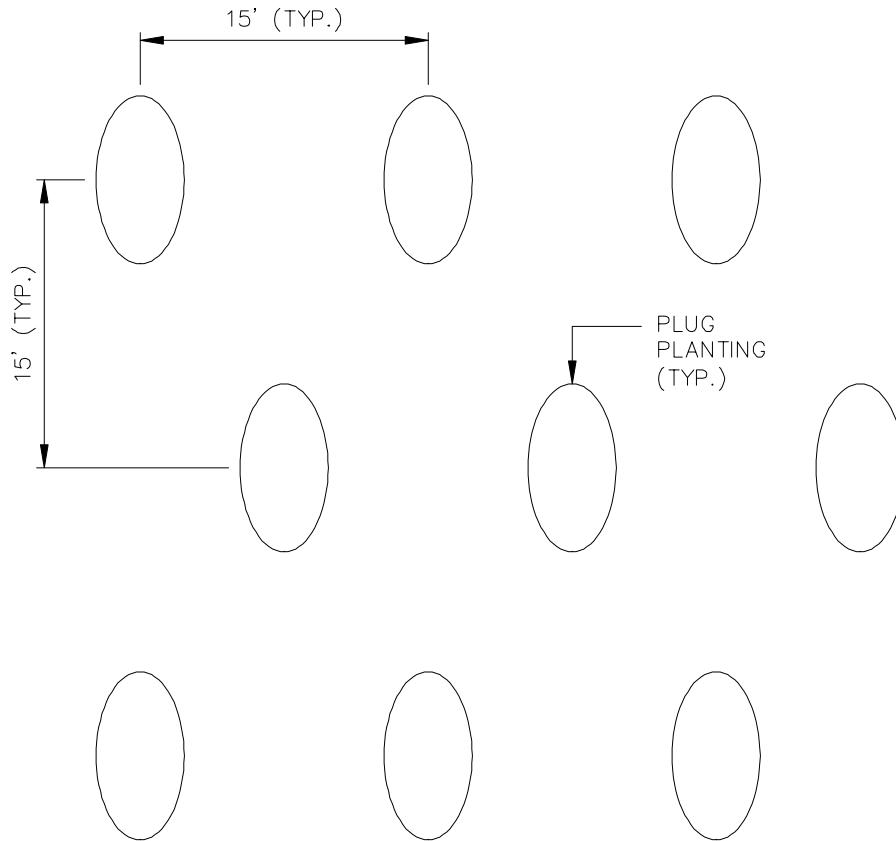
TYPICAL STRAW WATTLE DETAIL

APPLICATION BY:
WOODS HOLE GROUP, INC.
107 WATERHOUSE ROAD
BOURNE, MA 02532

PROPOSED CULVERT REPAIR AT
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1. PLANTS AND ROOTS MUST BE KEPT MOIST BEFORE AND DURING PLANTINGS.
2. PLUGS WILL BE PLANTED 15 FOOT ON CENTER IN STAGGERED ROWS AND PLANTED APPROXIMATELY 7-9 INCHES DEEP.
3. COMPACT SOIL FIRMLY AROUND THE PLANTS FOLLOWING INSTALLATION.
4. PLANT PLUGS WILL INCLUDE SEASIDE GOLDENROD, BUTTERFLY MILKWEED, LITTLE BLUESTEM, AND SWITCH GRASS OR SIMILAR BASED ON AVAILABILITY AND VIABILITY, AS RECOMMENDED BY THE NURSERY PROVIDING PLANT STOCK AND WITH APPROVAL OF THE TRURO CONSERVATION COMMISSION.
5. HAND SEEDING AND MULCHING WILL OCCUR AROUND PLUGS FOLLOWING INSTALLATION.

PLUG PLANTING DETAIL

NOT TO SCALE

PURPOSE: REPAIR EXISTING CULVERT

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PLUG PLANTING DETAIL

APPLICATION BY:
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107 WATERHOUSE ROAD
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