

Connecticut Department of Energy and Environmental Protection License*

Structures, Dredging & Fill and Tidal Wetlands Permit Section 401 Water Quality Certification

Licensee(s):	Connecticut Department of Transportation, c/o Kimberly Lesay
Licensee Address(s):	2800 Berlin Turnpike Newington, CT 06131-7546
License Number(s):	201908108-SDFTWWQC
Municipality:	Town of Old Saybrook
Project Description:	Remove and replace an existing vehicular bridge for infrastructure.
Project Address/Location:	Bridge No. 02708 carrying Route 154 (Plum Bank Road)
Waters:	Plum Bank Creek
Authorizing CT Statute(s) and/or Federal Law:	CGS Section 22a-28 to 35; CGS Section 22a-359 to 363g; CGS Section 22a-90 to 112
Applicable Regulations of CT State Agencies:	22a-30-1 to 17, 22a-426-1 to 9
Agency Contact:	Land & Water Resources Division, Bureau of Water Protection & Land Reuse, 860-424-3019
License Expiration:	Five (5) years from the date of issuance of this license.
Project Site Plan Set:	Seven (7) sheets of plans, Drawings PMT-01, PMT-03 and PMT-07 dated May 3, 2019, Drawings PMT-02, PMT-04, PMT-05 and PMT-06 dated August 22, 2019.
License Enclosures:	Compliance Certification Form, LWRD General Conditions, Site Plan Set, Work Commencement Form

*Connecticut's Uniform Administrative Procedure Act defines License to include, "the whole or part of any agency permit, certificate, approval, registration, charter or similar form of permission required by law . . ."

Authorized Activities:

The Licensee is hereby authorized to conduct the following work as described in application # 201908108-SDFTWWQC and as depicted on any site plan sheets / sets cited herein:

replace the superstructure and repair the substructure of Bridge No. 02708 carrying CT Route 154 (Plum Bank Road) over Plum Bank Creek as shown on the plans attached hereto consisting of:

1. install sediment and erosion control measures;
2. conduct clearing and grubbing around the bridge area;
3. install and maintain a floating debris shield beneath the existing bridge;
4. remove and relocate existing overhead utilities and water main located on the southern bridge fascia and install temporary support structures;
5. construct a temporary dewatering basin on the upland landward of the coastal jurisdiction line and outside of tidal wetland vegetation;
6. remove the tops of the existing abutments, excavate landward of the abutments, construct reinforced concrete barrier walls encased within steel sheeting, construct a new reinforced concrete superstructure with a 40'6" wide span, pre-stressed concrete box beam superstructure with integral abutments constructed landward of the existing abutments, place stone riprap for slope protection between the existing abutments and the proposed abutments and perform roadway work on both approaches;
7. reinstall the utilities identified above; and
8. remove the floating debris shield and the sediment and erosion control measures identified above.

Failure to comply with the terms and conditions of this license shall subject the Licensee and / or the Licensee's contractor(s) to enforcement actions and penalties as provided by law.

This license is subject to the following Terms and Conditions:

1. **License Enclosure(s) and Conditions.** The Licensee shall comply with all applicable terms and conditions as may be stipulated within the License Enclosure(s) listed above.
2. All unconfined in-water work shall be prohibited between May 31st through August 31st, inclusive, of any calendar year in order to protect nesting Saltmarsh sharp-tailed sparrows unless otherwise authorized in writing from the Commissioner.
3. The issuance of this License does not relieve the Licensee of their obligations to obtain any other approvals required by applicable federal, State and local law, including discharge permits for water handling.
4. The Licensee shall ensure that no debris enters Plum Bank Creek during the work authorized herein and shall immediately remove any debris that enters the water.
5. The Licensee shall install and maintain the sedimentation and erosion controls and the floating debris shield in optimal condition during the work authorized herein.
6. The Licensee shall install and maintain the debris containment system on the work float in optimal condition during the work authorized herein and shall not allow the work float to contact the substrate at any time.

7. The Licensee shall install the dewatering basin authorized herein outside of any tidal wetland vegetation and shall maintain the dewatering basin in optimal condition during the work authorized herein.
8. Within one hundred eighty (180) days following issuance of this License, the Licensee shall convey ownership of the property identified on the Town of Old Saybrook Assessors Office as MBL 049/036-0000, Account Number 00533000 to the State of Connecticut, Department of Energy & Environmental Protection for tidal wetland preservation.

Issued under the authority of the Commissioner of Energy and Environmental Protection on:

Date

Betsey Wingfield
Deputy Commissioner
Department of Energy & Environmental Protection

General Conditions for Land & Water Resources Division Licenses

- 1. Land Record Filing (for Structures Dredging & Fill, Tidal Wetlands, Certificate of Permission, and Long Island Sound General Permit Licenses only).** The Licensee shall file the Land Record Filing on the land records of the municipality in which the subject property is located not later than thirty (30) days after license issuance pursuant to Connecticut General Statutes (CGS) Section 22a-363g. A copy of the Notice with a stamp or other such proof of filing with the municipality shall be submitted to the Commissioner no later than sixty (60) days after license issuance. If a Land Record Filing form is not enclosed and the work site is not associated with an upland property, no filing is required.
- 2. Contractor Notification.** The Licensee shall give a copy of the license and its attachments to the contractor(s) who will be carrying out the authorized activities prior to the start of construction and shall receive a written receipt for such copy, signed and dated by such contractor(s). The Licensee's contractor(s) shall conduct all operations at the site in full compliance with the license and, to the extent provided by law, may be held liable for any violation of the terms and conditions of the license. At the work site, the contractor(s) shall, whenever work is being performed, have on site and make available for inspection a copy of the license and the authorized plans.
- 3. Work Commencement¹.** Not later than two (2) weeks prior to the commencement of any work authorized herein, the Licensee shall submit to the Commissioner, on the Work Commencement Form attached hereto, the name(s) and address(es) of all contractor(s) employed to conduct such work and the expected date for commencement and completion of such work, if any.
 - For water diversion activities authorized pursuant to 22a-377(c)-1 of the Regulations of Connecticut State Agencies, the Licensee shall also notify the Commissioner in writing two weeks prior to initiating the authorized diversion.
 - For emergency activities authorized pursuant Connecticut General Statutes Section 22a-6k, the Licensee shall notify the Commissioner, in writing, of activity commencement at least one (1) day prior to construction and of activity completion no later than five (5) days after conclusion.
- 4. For Coastal Licenses Only - License Notice.** The Licensee shall post the first page of the License in a conspicuous place at the work area while the work authorized therein is undertaken.
- 5. Unauthorized Activities.** Except as specifically authorized, no equipment or material, including but not limited to, fill, construction materials, excavated material or debris, shall be

¹ The Work Commencement condition and the need for a Work Commencement Form is not applicable to Flood Management Certification approvals.

deposited, placed or stored in any wetland or watercourse on or off-site. The Licensee may not conduct work within wetlands or watercourses other than as specifically authorized, unless otherwise authorized in writing by the Commissioner. Tidal wetlands means “wetland” as defined by section 22a-29 and “freshwater wetlands and watercourses” means “wetlands” and “watercourses” as defined by section 22a-38.

6. **Unconfined Instream Work.** Unless otherwise noted in a condition of the license, the following conditions apply to projects in non-coastal waters:
 - Unconfined instream work is limited to the period June 1 through September 30.
 - Confinement of a work area by cofferdam techniques using sand bag placement, sheet pile installation (vibratory method only), portadam, or similar confinement devices is allowed any time of the year. The removal of such confinement devices is allowed any time of the year.
 - Once a work area has been confined, in-water work within the confined area is allowed any time of the year.
 - The confinement technique used shall completely isolate and protect the confined area from all flowing water. The use of silt boom/curtain or similar technique as a means for confinement is prohibited.
7. **For State Actions Only - Material or Equipment Storage in the Floodplain.** Unless approved by a Flood Management Exemption, the storage of any materials at the site which are buoyant, hazardous, flammable, explosive, soluble, expansive, radioactive, or which could in the event of a flood be injurious to human, animal or plant life, below the elevation of the five-hundred (500) year flood is prohibited. Any other material or equipment stored at the site below said elevation by the Licensee or the Licensee's contractor must be firmly anchored, restrained or enclosed to prevent flotation. The quantity of fuel stored below such elevation for equipment used at the site shall not exceed the quantity of fuel that is expected to be used by such equipment in one day. In accordance with the licensee's Flood Contingency Plan, the Licensee shall remove equipment and materials from the floodplain during periods when flood warnings have been issued or are anticipated by a responsible federal, state or local agency. It shall be the Licensee's responsibility to obtain such warnings when flooding is anticipated.
8. **Temporary Hydraulic Facilities for Water Handling.** If not reviewed and approved as a part of the license application, temporary hydraulic facilities shall be designed by a qualified professional and in accordance with the *Connecticut Guidelines for Soil Erosion and Sediment Control*, the *2004 Connecticut Stormwater Quality Manual*, or the *Department of Transportation's ConnDOT Drainage Manual*, as applicable. Temporary hydraulic facilities may include channels, culverts or bridges which are required for haul roads, channel relocations, culvert installations, bridge construction, temporary roads, or detours.
9. **Excavated Materials.** Unless otherwise authorized, all excavated material shall be staged and managed in a manner which prevents additional impacts to wetlands and watercourses.
10. **Best Management Practices.** The Licensee shall not cause or allow pollution of any wetlands or watercourses, including pollution resulting from sedimentation and erosion. In constructing

or maintaining any authorized structure or facility or conducting any authorized activity, or in removing any such structure or facility, the Licensee shall employ best management practices to control storm water discharges, to prevent erosion and sedimentation, and to otherwise prevent pollution of wetlands and other waters of the State. For purposes of the license, “pollution” means “pollution” as that term is defined by CGS section 22a-423. Best Management Practices include, but are not limited, to practices identified in the *Connecticut Guidelines for Soil Erosion and Sediment Control* as revised, *2004 Connecticut Stormwater Quality Manual*, Department of Transportation’s *ConnDOT Drainage Manual* as revised, and the Department of Transportation Standard Specifications as revised.

11. Work Site Restoration. Upon completion of any authorized work, the Licensee shall restore all areas impacted by construction, or used as a staging area or accessway in connection with such work, to their condition prior to the commencement of such work.

12. Inspection. The Licensee shall allow any representative of the Commissioner to inspect the project location at reasonable times to ensure that work is being or has been conducted in accordance with the terms and conditions of this license.

13. Change of Use. (Applies only if a use is specified within the License “Project Description”)

- a. The work specified in the license is authorized solely for the purpose set forth in the license. No change in purpose or use of the authorized work or facilities as set forth in the license may occur without the prior written approval of the Commissioner. The Licensee shall, prior to undertaking or allowing any change in use or purpose from that which is authorized by this license, request permission from the Commissioner for such change. Said request shall be in writing and shall describe the proposed change and the reason for the change.
- b. A change in the form of ownership of any structure authorized herein from a rental/lease commercial marina to a wholly-owned common interest community or dockominium may constitute a change in purpose as specified in paragraph (a) above.

14. De Minimis Alteration. The Licensee shall not deviate from the authorized activity without prior written approval from the Commissioner. The Licensee may request a de minimis change to any authorized structure, facility, or activity. A de minimis alteration means a change in the authorized design, construction or operation that individually and cumulatively has minimal additional environmental impact and does not substantively alter the project as authorized.

- For diversion activities authorized pursuant to 22a-377(c)-2 of the Regulations of Connecticut State Agencies, a de minimis alteration means an alteration which does not significantly increase the quantity of water diverted or significantly change the capacity to divert water.

15. Extension Request. The Licensee may request an extension of the license expiration date. Such request shall be in writing and shall be submitted to the Commissioner at least thirty (30) days prior to the license expiration. Such request shall describe the work done to date, what work still needs to be completed, and the reason for such extension. It shall be the Commissioner’s sole discretion to grant or deny such request.

- 16. Compliance Certification.** Not later than 90 days after completion of the authorized work, the Licensee shall prepare and submit to the Commissioner the attached Compliance Certification Form. Such Compliance Certification shall be completed, signed, and sealed by the Licensee and a Connecticut Licensed Design Professional. If non-compliance is indicated on the form, or the Commissioner has reason to believe the activities and/or structures were conducted in non-compliance with the license, the Commissioner may require the Licensee to submit as-built plans as a condition of this license.
- 17. Maintenance.** The Licensee shall maintain all authorized structures or work in optimal condition or shall remove such structures or facility and restore the affected waters to their pre-work condition. Any such maintenance or removal activity shall be conducted in accordance with applicable law and any additional approvals required by law.
- 18. No Work After License Expiration.** Work conducted after the license expiration date is a violation of the license and may subject the licensee to enforcement action, including penalties, as provided by law.
- 19. License Transfer.** The license is not transferable without prior written authorization of the Commissioner. A request to transfer a license shall be submitted in writing and shall describe the proposed transfer and the reason for such transfer. The Licensee's obligations under the license shall not be affected by the passage of title to the license site to any other person or municipality until such time as a transfer is approved by the Commissioner.
- 20. Document Submission.** Any document required to be submitted to the Commissioner under the license or any contact required to be made with the Commissioner shall, unless otherwise specified in writing by the Commissioner, be directed to:
- Regulatory Section
Land & Water Resources Division
Department of Energy and Environmental Protection
79 Elm Street
Hartford, Connecticut 06106-5127
860-424-3019
- 21. Date of Document Submission.** The date of submission to the Commissioner of any document required by the license shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under the license, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three (3) days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in the license, the word "day" as used in the license means calendar day. Any document or action which is required by the license to be submitted or performed by a date which falls on a Saturday, Sunday or a Connecticut or federal holiday shall be submitted or performed on or before the next day which is not a Saturday, Sunday, or a Connecticut or federal holiday.
- 22. Certification of Documents.** Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under the license shall be signed by the Licensee and by the individual or individuals responsible for actually preparing such

document, each of whom shall certify in writing as follows: “I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense.”

23. Accuracy of Documentation. In evaluating the application for the license, the Commissioner has relied on information and data provided by the Licensee and on the Licensee’s representations concerning site conditions, design specifications and the proposed work, including but not limited to representations concerning the commercial, public or private nature of the work or structures, the water-dependency of said work or structures, its availability for access by the general public, and the ownership of regulated structures or filled areas. If such information proves to be false, deceptive, incomplete or inaccurate, the license may be modified, suspended or revoked, and any unauthorized activities may be subject to enforcement action.

24. Limits of Liability. In granting the license, the Commissioner has relied on all representations of the Licensee, including information and data provided in support of the Licensee’s application. Neither the Licensee’s representations nor the issuance of the license shall constitute an assurance by the Commissioner as to the structural integrity, the engineering feasibility or the efficacy of such design.

25. Reporting of Violations. In the event that the Licensee becomes aware that they did not or may not comply, or did not or may not comply on time, with any provision of this license or of any document incorporated into the license, the Licensee shall immediately notify the agency contact specified within the license and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, is minimized to the greatest extent possible. In so notifying the agency contact, the Licensee shall provide, for the agency’s review and written approval, a report including the following information:

- a. the provision(s) of the license that has been violated;
- b. the date and time the violation(s) was first observed and by whom;
- c. the cause of the violation(s), if known;
- d. if the violation(s) has ceased, the duration of the violation(s) and the exact date(s) and times(s) it was corrected;
- e. if the violation(s) has not ceased, the anticipated date when it will be corrected;
- f. steps taken and steps planned to prevent a reoccurrence of the violation(s) and the date(s) such steps were implemented or will be implemented; and
- g. the signatures of the Licensee and of the individual(s) responsible for actually preparing such report.

If the violation occurs outside of normal business hours, the Licensee shall contact the Department of Energy and Environmental Protection Emergency Dispatch at 860-424-3333. The Licensee shall comply with any dates which may be approved in writing by the

Commissioner.

- 26. Revocation/Suspension/Modification.** The license may be revoked, suspended, or modified in accordance with applicable law.
- 27. Other Required Approvals.** License issuance does not relieve the Licensee of their obligations to obtain any other approvals required by applicable federal, state and local law.
- 28. Rights.** The license is subject to and does not derogate any present or future property rights or powers of the State of Connecticut, and conveys no property rights in real estate or material nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the property or activity affected hereby.
- 29. Condition Conflicts.** In the case where a project specific special condition listed on the license differs from, or conflicts with, one of the general conditions listed herein, the project specific special condition language shall prevail. It is the licensee's responsibility to contact the agency contact person listed on the license for clarification if needed prior to conducting any further regulated activities.

Work Commencement Form

To: Regulatory Section
Department of Energy and Environmental Protection
Land & Water Resources Division
79 Elm Street
Hartford, CT 06106-5127

Licensee Name: _____

Licensee Address: _____

License No(s): _____

CONTRACTOR(s):

1 Name: _____

Address: _____

Telephone: _____

E-mail: _____

2 Name: _____

Address: _____

Telephone: _____

E-mail: _____

3 Name: _____

Address: _____

Telephone: _____

E-mail: _____

Date Contractor(s) received a copy
of the license and approved plans: _____

EXPECTED DATE OF COMMENCEMENT OF WORK: _____

EXPECTED DATE OF COMPLETION OF WORK: _____

LICENSEE: _____
(Signature) (Date)



Compliance Certification Form

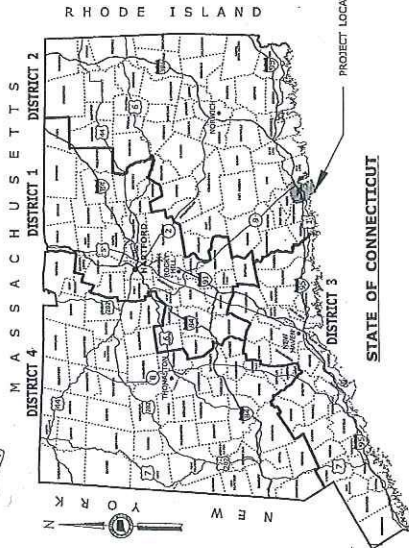
The following certification must be signed by the licensee working in consultation with a Connecticut-licensed design professional and must be submitted to the address indicated at the end of this form within ninety (90) days of completion of the authorized work.

1. Licensee Name: _____ License Number(s): _____ Site Address: _____	
2. Check one: (a) <input type="checkbox"/> "I certify that the final site conditions and / or structures are in general conformance with the approved site plans". Identify and describe any deviations and attach to this form. (b) <input type="checkbox"/> "The final site conditions and / or structures are not in general conformance with the approved site plans. The enclosed "as-built" plans note the modifications".	
3. "I understand that any false statement in this certification is punishable as a criminal offence under section 53a-157b of the General Statutes and under any other applicable law."	
_____ Signature of Licensee	_____ Date
_____ Name of Licensee (print or type)	
_____ Signature of CT-Licensed Design Professional	_____ Date
_____ Name of CT-Licensed Design Professional (print or type)	
_____ Professional License Number (if applicable)	Affix Stamp Here
<ul style="list-style-type: none"> As-built plans shall include: elevations or tidal datums, as applicable, and structures, including any proposed elevation views and cross sections included in the approved license plans. Such as-built plans shall be the original ones and be signed and sealed by an engineer, surveyor or architect, as applicable, who is licensed in the State of Connecticut. The Licensee will be notified by staff of the Land and Water Resources Division (LWRD) if further compliance review is necessary. Lack of response by LWRD staff does not imply compliance. 	
Submit this completed form to : Regulatory Section Department of Energy and Environmental Protection Land & Water Resources Division 79 Elm Street Hartford, CT 06106-5127	

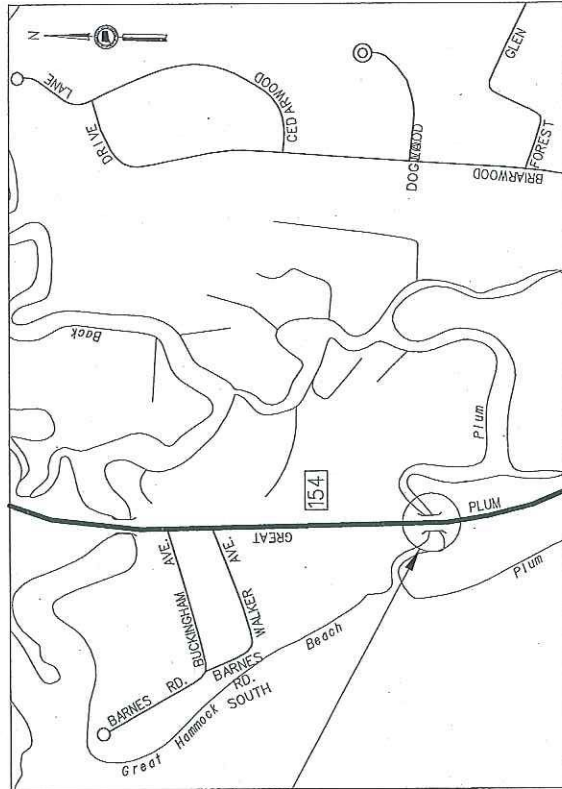


CONNECTICUT DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL PERMIT PLANS STATE PROJECT NO. 105-215 REPLACEMENT OF BRIDGE NO. 02708 ROUTE 154 OVER PLUM BANK CREEK IN THE TOWN OF OLD SAYBROOK



LIST OF DRAWINGS	
SHEET NO.	DRAWING TITLE
PA105-215	TITLE SHEET
PA105-215	WATERCOURSE IMPACT PLAN
PA105-215	ELEVATIONS AND SECTION PLAN
PA105-215	CONSTRUCTION DETAILS
PA105-215	PERMIT PLANTING PLAN

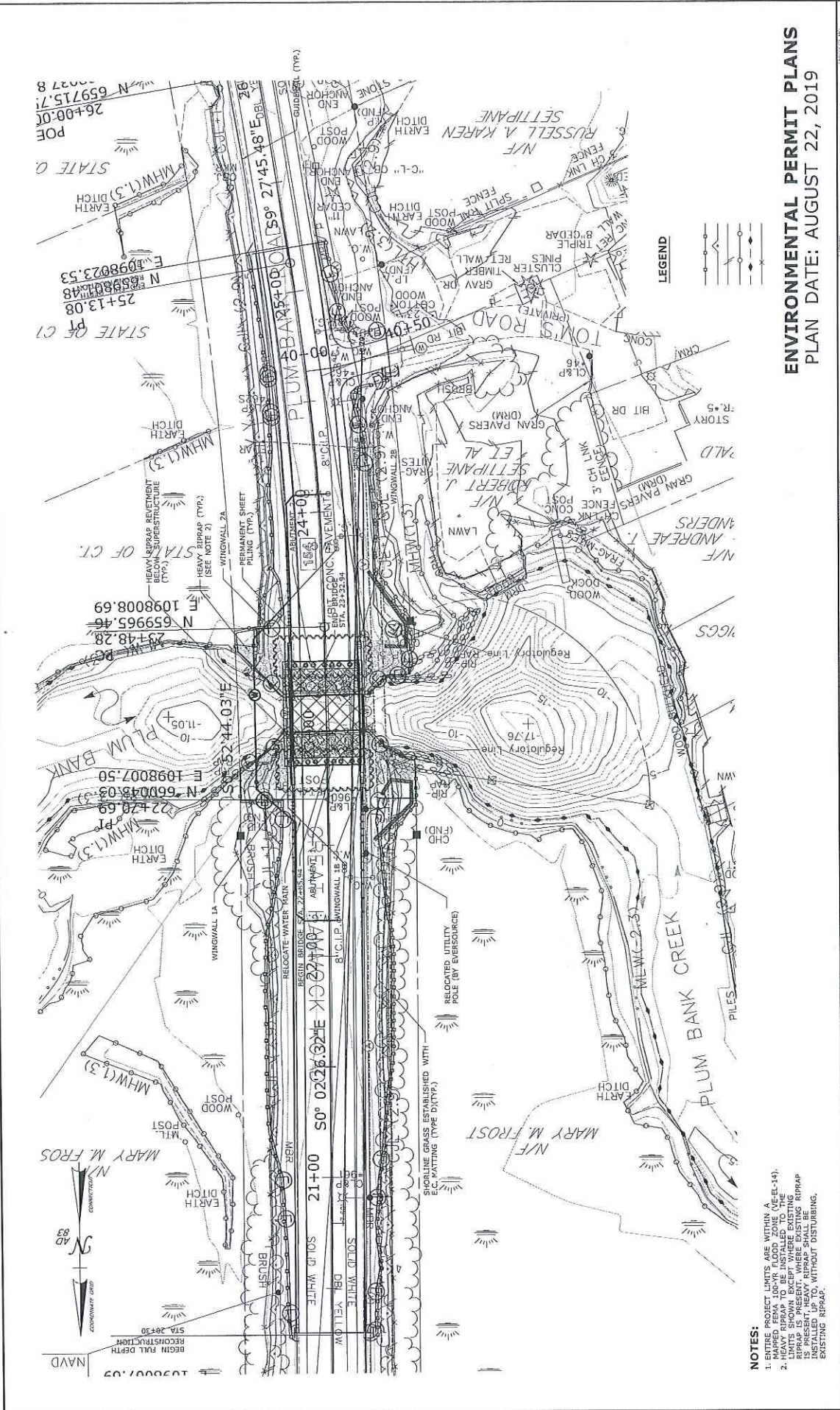


GENERAL NOTES:

1. THESE PLANS ARE INTENDED ONLY FOR ENVIRONMENTAL PERMITTING AND SHALL NOT BE USED FOR ANY OTHER PURPOSE. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR OBTAINING ALL NECESSARY PLANNING AND ENGINEERING INFORMATION AND PAYMENT REFER TO THE APPLICABLE CONTRACT DOCUMENTS.
2. THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO THESE PLANS FOR CHANGES TO THE DESIGN THAT WILL AFFECT REGULATED AREAS.
3. FOR A DESCRIPTION OF THE WATERCOURSES, WETLANDS AND WETLAND SOILS SEE RELEVANT SECTIONS OF THE PERMIT APPLICATION.
4. 400 FOOT GRID BASED ON CONNECTICUT COORDINATE SYSTEM N.A.D. 1983 VERTICAL DATUM BASED ON NAVD OF 1988.
5. ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND STRUCTURES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR OBTAINING ALL NECESSARY PLANNING AND ENGINEERING INFORMATION AND PAYMENT REFER TO THE APPLICABLE CONTRACT DOCUMENTS. REQUIRED BEST MANAGEMENT PRACTICES (BMPs) AND SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH THE 2002 EROSION & SEDIMENTATION CONTROL GUIDELINES AND THE 2004 STORMWATER QUALITY MANUAL.

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: MAY 3, 2019

PROJECT NO.	105-215
PROJECT TITLE	REPLACEMENT OF BRIDGE NO. 02708 ROUTE 154 OVER PLUM BANK CREEK
DESIGNER	OFFICE OF ENGINEERING
DATE	1/22/2019
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DESIGNER	OFFICE OF ENGINEERING
DATE	1/22/2019



NOTES:
 1. BATTER PROJECT LIMITS ARE WITHIN A HAZARDOUS FLOOD FLOOD ZONE (VE-EL-14).
 2. HEAVY RIPRAP TO BE INSTALLED TO THE EXISTING RIPRAP IS PRESENT. WHERE EXISTING RIPRAP IS PRESENT, HEAVY RIPRAP SHOULD BE PLACED WITHIN EXISTING RIPRAP.

PROJECT NO.	105-215
DATE	08/22/2019
PROJECT TITLE	REPLACEMENT OF BRIDGE NO. 02708, ROUTE 154 OVER PLUM BANK CREEK
SCALE	1" = 20'
DESIGNER	OFFICE OF ENGINEERING
APPROVED	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION
PROJECT NO.	PMT-02
DATE	08/22/2019

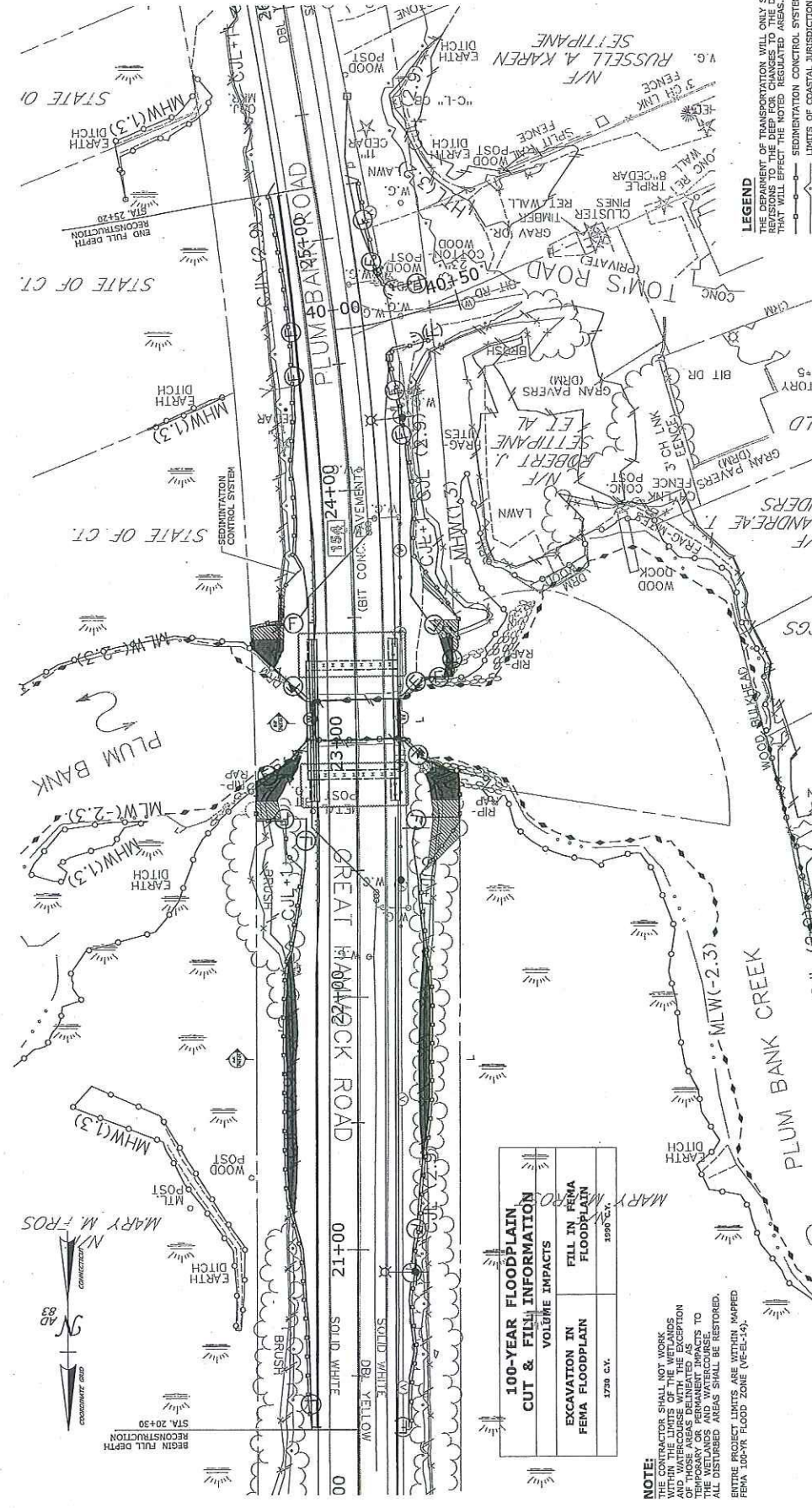
ENVIRONMENTAL PERMIT PLANS

PLAN DATE: AUGUST 22, 2019

GENERAL SITE PLAN

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

PROJECT NO.	105-215
DATE	08/22/2019
PROJECT TITLE	REPLACEMENT OF BRIDGE NO. 02708, ROUTE 154 OVER PLUM BANK CREEK
SCALE	1" = 20'
DESIGNER	OFFICE OF ENGINEERING
APPROVED	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION
PROJECT NO.	PMT-02
DATE	08/22/2019



100-YEAR FLOODPLAIN CUT & FILL INFORMATION

VOLUME IMPACTS	FILL IN FEMA FLOODPLAIN
1739 C.Y.	1592 C.Y.

NOTE:
 THE CONTRACTOR SHALL NOT WORK IN OR ADJACENT TO WETLANDS AND WATERCOURSE WITH THE EXCEPTION OF THOSE AREAS DELINEATED AS PERMITTED BY THE STATE OF CONNECTICUT. ALL DISTURBED AREAS SHALL BE RESTORED. ENTIRE PROJECT LIMITS ARE WITHIN MAPPED FEMA 100-YR FLOOD ZONE (VE-EL-15).

WETLAND IMPACT TABLE (BELOW HTL)

PERMANENT IMPACTS	WATERWAY IMPACTS (BELOW MHW)	TOTAL
605 S.F. (0.014 A.C.)	20 S.F. (0.001 A.C.)	625 S.F. (0.015 A.C.)
305 S.F. (0.007 A.C.)	0 S.F. (0.000 A.C.)	305 S.F. (0.007 A.C.)
910 S.F. (0.021 A.C.)	20 S.F. (0.001 A.C.)	930 S.F. (0.022 A.C.)

WETLAND IMPACT TABLE (BELOW LIMITS OF COASTAL JURISDICTION LINE)

PERMANENT IMPACTS	WATERWAY IMPACTS (BELOW MHW)	TOTAL
1075 S.F. (0.025 A.C.)	20 S.F. (0.001 A.C.)	1095 S.F. (0.026 A.C.)
385 S.F. (0.009 A.C.)	0 S.F. (0.000 A.C.)	385 S.F. (0.009 A.C.)
1460 S.F. (0.033 A.C.)	20 S.F. (0.001 A.C.)	1480 S.F. (0.034 A.C.)

LEGEND
 THE DEPARTMENT WILL ONLY SUBMIT REVISIONS TO THE DEEP FOR CHANGES TO THE DESIGN THAT WILL AFFECT THE REGULATED AREAS.
 SEDIMENTATION CONTROL SYSTEM
 LIMITS OF COASTAL JURISDICTION (COL-1)
 HIGH TIDE LINE
 MEAN HIGH WATER
 MEAN LOW WATER
 PERMANENT WETLAND IMPACT
 TEMPORARY WETLAND IMPACT

ENVIRONMENTAL PERMIT PLANS
 PLAN DATE: MAY 3, 2019

PROJECT NO. 105-215
 DRAWING NO. PMT-03
 SHEET NO.

REPLACEMENT OF BRIDGE NO. 02708, ROUTE 154 OVER PLUM BANK CREEK

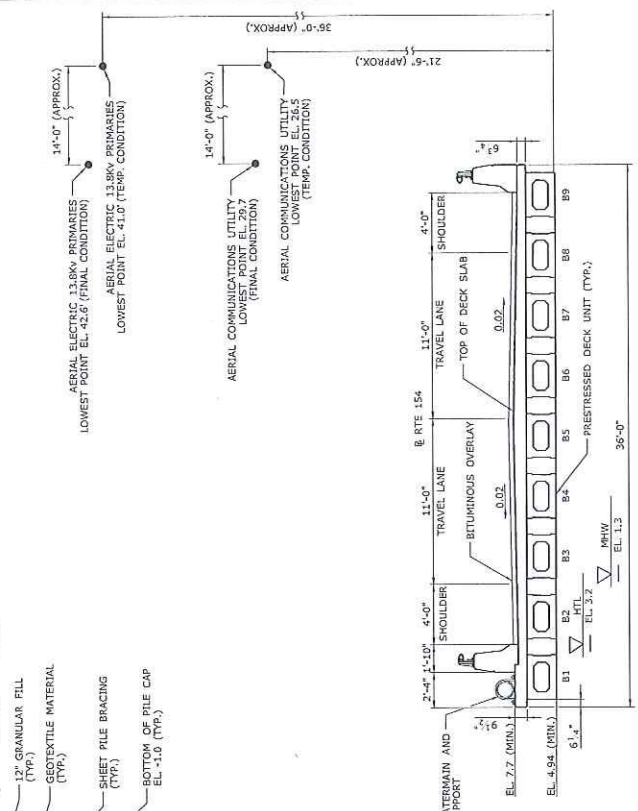
OFFICE OF ENGINEERING
 STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

SCALE: 1"=20'

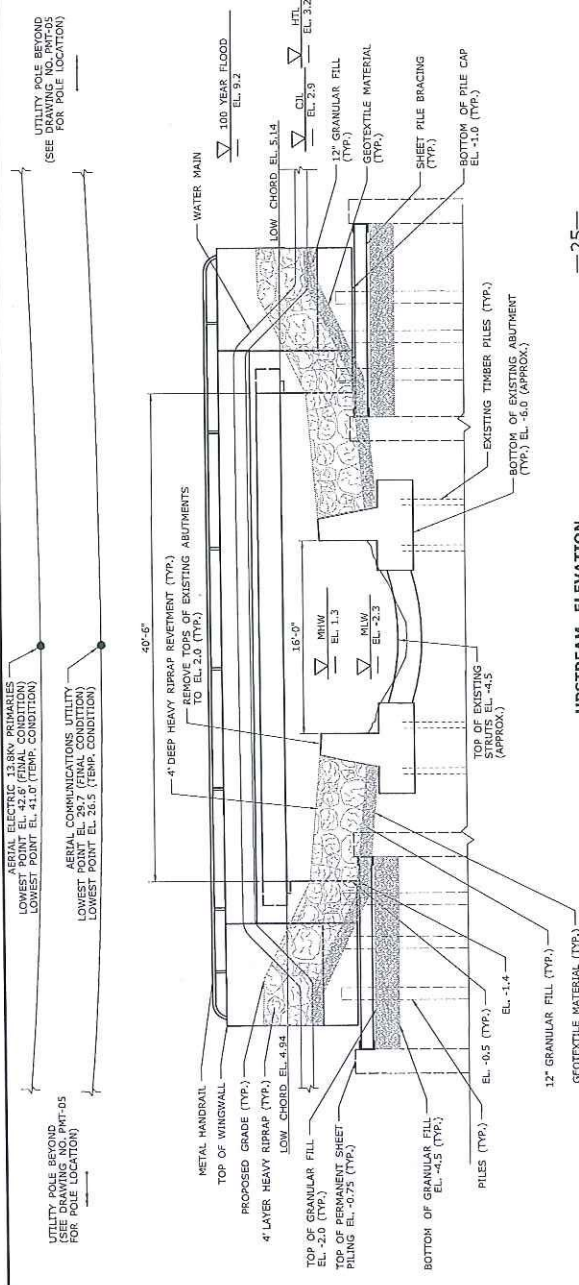
DATE: 05/03/19
 TIME: 12:20:10

HYDRAULIC DATA	
MEAN LOW WATER	-2.3
MEAN HIGH WATER	1.3
HIGH TIDE LINE (1-YEAR TIDE)	3.2
10-YEAR TIDE	5.2
DESIGN FREQUENCY/EVENT	RIVERINE, 100-YEAR
DESIGN DISCHARGE (MAX. EBB FLOW)	1050 CFS
DESIGN WATER SURFACE ELEVATION - EBB DIRECTION	4.7
DESIGN WATER SURFACE ELEVATION - FLOOD DIRECTION	4.0

NOTE: ELEVATION SHOWN, OUTLET ELEVATION IS SIMILAR BUT WITHOUT WATERMAIN.



BRIDGE SECTION B-B'
SCALE: 1/4" = 1'-0"

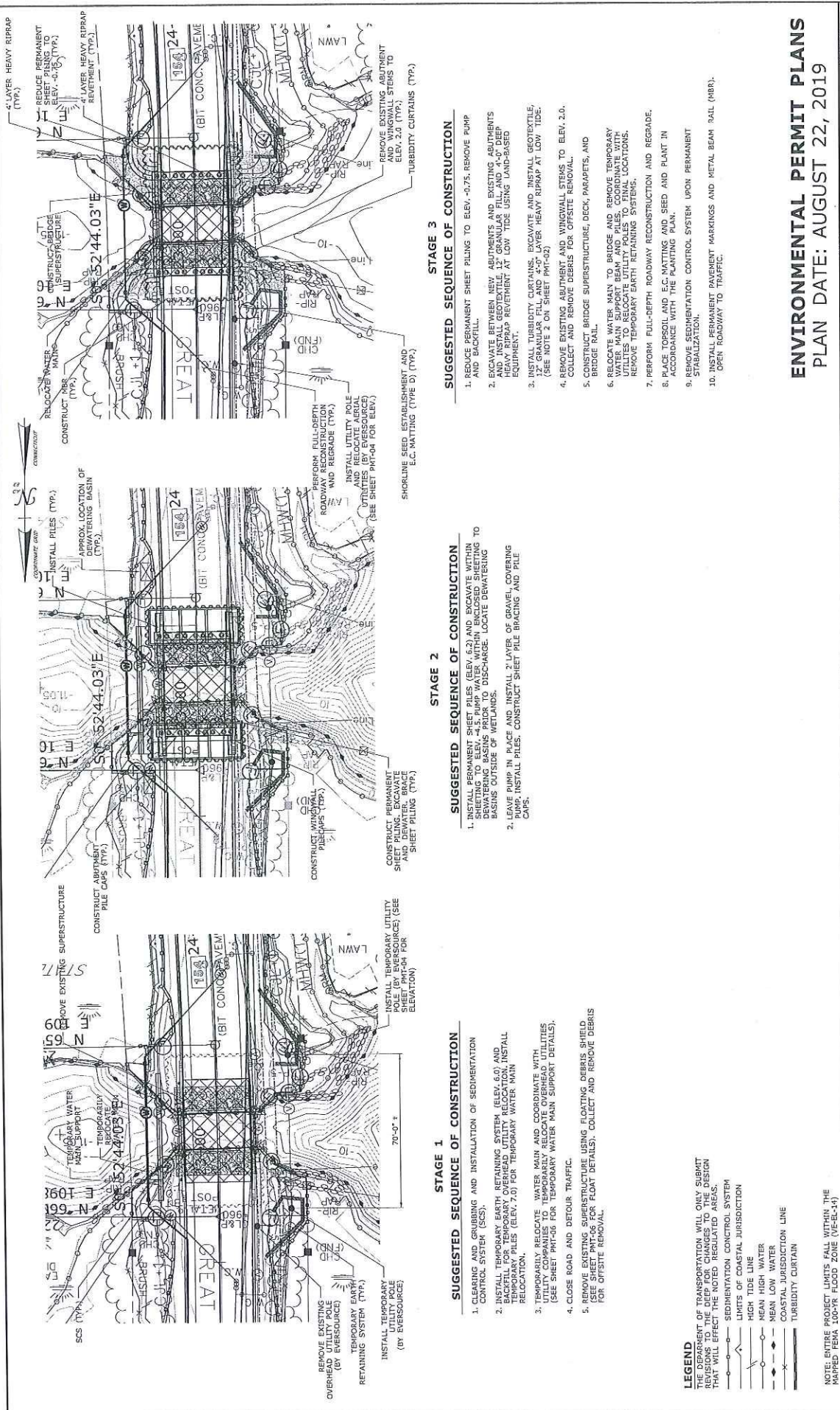


UPSTREAM ELEVATION
SCALE: 1" = 5'

ROADWAY SECTION - STA. 21+75 A-A'
SCALE: 1/4" = 1'-0"

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: AUGUST 22, 2019

PROJECT NO.	105-215
CONTRACT NO.	PMT-04
DATE	
PROJECT TITLE	REPLACEMENT OF BRIDGE NO. 02708, ROUTE 154 OVER PLUM BANK CREEK
ENGINEER	OFFICE OF ENGINEERING
APPROVED BY	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION
SCALE	SCALE AS NOTED
DATE	
DESCRIPTION	
DATE	
DATE	



STAGE 1

SUGGESTED SEQUENCE OF CONSTRUCTION

1. CLEARING AND GRUBBING AND INSTALLATION OF SEDIMENTATION CONTROL SYSTEM (SCS).
2. INSTALL TEMPORARY EARTH RETAINING SYSTEM (ELEV. 6.0) AND BACKFILL FOR TEMPORARY OVERHEAD UTILITY RELOCATION. INSTALL TEMPORARY PILES (ELEV. 7.0) FOR TEMPORARY WATER MAIN RELOCATION.
3. TEMPORARILY RELOCATE WATER MAIN AND COORDINATE WITH UTILITY CONTRACTOR FOR RELOCATION OF OVERHEAD UTILITIES (SEE SHEET PMT-06 FOR TEMPORARY WATER MAIN SUPPORT DETAILS).
4. CLOSE ROAD AND DETOUR TRAFFIC.
5. REMOVE EXISTING SUPERSTRUCTURE USING FLOATING DEBRIS SHIELD (SEE SHEET PMT-06 FOR FLOAT DETAILS). COLLECT AND REMOVE DEBRIS (SEE OFFSITE REMOVAL).

LEGEND

- THE INFORMATION ON TRANSPORTATION WILL ONLY SUBMIT THE WORKS TO THE DEPT FOR CHANGES TO THE DESIGN THAT WILL AFFECT THE NOTED REGULATED AREAS.
- SEDIMENTATION CONTROL SYSTEM
 - LIMITS OF COASTAL JURISDICTION
 - HIGH TIDE LINE
 - MEAN HIGH WATER
 - MEAN LOW WATER
 - COASTAL JURISDICTION LINE
 - TURBIDITY CURTAIN

NOTE: ENTIRE PROJECT LIMITS FALL WITHIN THE MAPPED FEMA 100-YR FLOOD ZONE (VF-BL-1)

STAGE 2

SUGGESTED SEQUENCE OF CONSTRUCTION

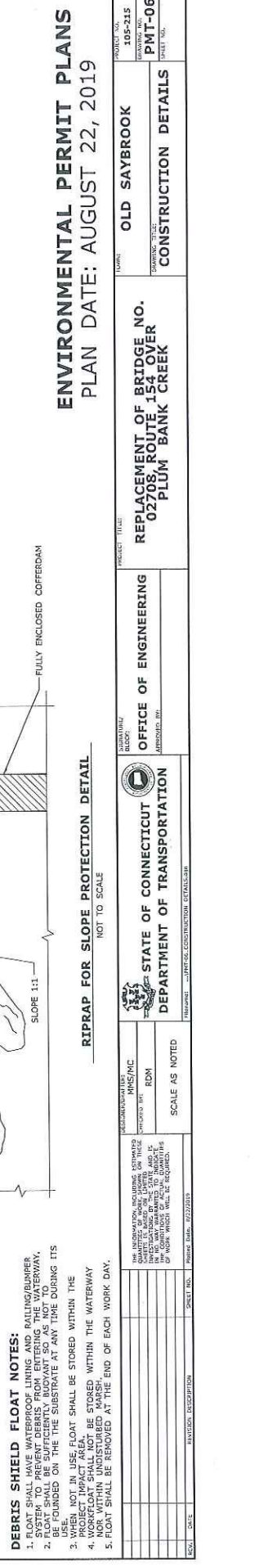
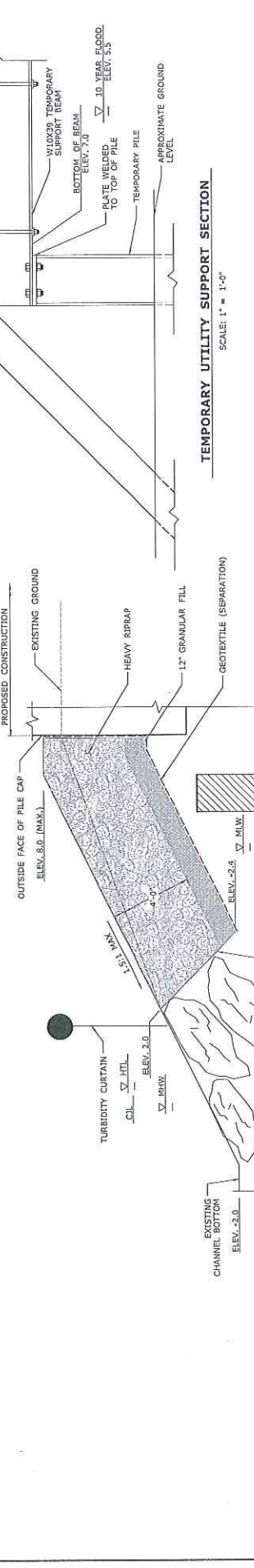
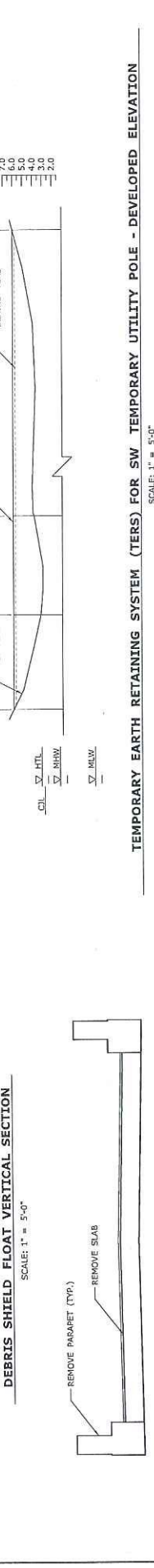
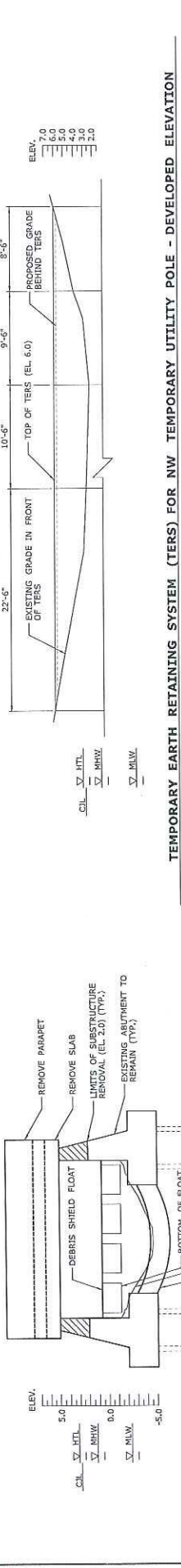
1. INSTALL PERMANENT SHEET PILES (ELEV. 6.2) AND EXCAVATE WITHIN SHEETING TO ELEV. -4.5. PUMP WATER WITHIN ENCLOSED SHEETING TO BASINS OUTSIDE OF WETLANDS.
2. LEAVE PUMP IN PLACE AND INSTALL 21" LAYER OF GRAVEL COVERING PILES. INSTALL PILES. CONSTRUCT SHEET PILE BRACING AND PILE CAPS.

STAGE 3

SUGGESTED SEQUENCE OF CONSTRUCTION

1. REMOVE PERMANENT SHEET PILING TO ELEV. -0.75. REMOVE PUMP AND BACKFILL.
2. EXCAVATE BETWEEN NEW ABUTMENTS AND EXISTING ABUTMENTS TO ELEV. 2.0. REMOVE EXISTING ABUTMENT USING LAND-BASED HEAVY RIPRAP RETENTION AT LOW TIDE USING LAND-BASED EQUIPMENT.
3. INSTALL TURBIDITY CURTAINS. EXCAVATE AND INSTALL GEOTEXTILE. (SEE NOTE 2 ON SHEET PMT-02)
4. REMOVE EXISTING ABUTMENT AND WINGWALL STEMS TO ELEV. 2.0. COLLECT AND REMOVE DEBRIS FOR OFFSITE REMOVAL.
5. CONSTRUCT BRIDGE SUPERSTRUCTURE, DECK, PARAPETS, AND BRIDGE RAIL.
6. RELOCATE WATER MAIN TO BRIDGE AND REMOVE TEMPORARY WATER MAIN SUPPORT BEAM AND PILES TO FINAL LOCATION. REMOVE TEMPORARY EARTH RETAINING SYSTEMS.
7. PERFORM FULL-DEPTH ROADWAY RECONSTRUCTION AND REGRADE.
8. PLACE TOPSOIL AND E.C. MATTING AND SEED AND PLANT IN ACCORDANCE WITH THE PLANTING PLAN.
9. REMOVE SEDIMENTATION CONTROL SYSTEM UPON PERMANENT STABILIZATION.
10. INSTALL PERMANENT PAVEMENT MARKINGS AND METAL BEAM RAIL (MBR). OPEN ROADWAY TO TRAFFIC.

<p>PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 0708 ON ROUTE 154 OVER PLUM BANK CREEK</p>		<p>PROJECT NO.: 105-215</p>
<p>DATE: AUGUST 22, 2019</p>		<p>CONTRACT NO.: PMT-05</p>
<p>DESIGNER: OFFICE OF ENGINEERING</p>		
<p>APPROVED BY: STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>		
<p>SCALE: 1" = 20'</p>		<p>DATE: 08/22/2019</p>
<p>PROJECT NO. 105-215</p>		
<p>CONTRACT NO. PMT-05</p>		
<p>CONSTRUCTION SEQUENCE</p>		



DEBRIS SHIELD FLOAT NOTES:

1. FLOAT SHALL HAVE WATERPROOF LINING AND RAILING/BUMPER SYSTEM TO PREVENT DEBRIS FROM ENTERING THE WATERWAY, AND SHALL BE STORED AT THE LOCATION TO BE USED. NOT TO BE FOUND ON THE SUBSTRATE AT ANY TIME DURING ITS USE.
2. NOT IN USE FLOAT SHALL BE STORED WITHIN THE PROJECT IMPACT AREA.
3. WORKFLOT SHALL NOT BE STORED WITHIN THE WATERWAY.
4. WORKFLOT SHALL BE REMOVED AT THE END OF EACH WORK DAY.
5. FLOAT SHALL BE REMOVED AT THE END OF EACH WORK DAY.

ENVIRONMENTAL PERMIT PLANS
 PLAN DATE: AUGUST 22, 2019

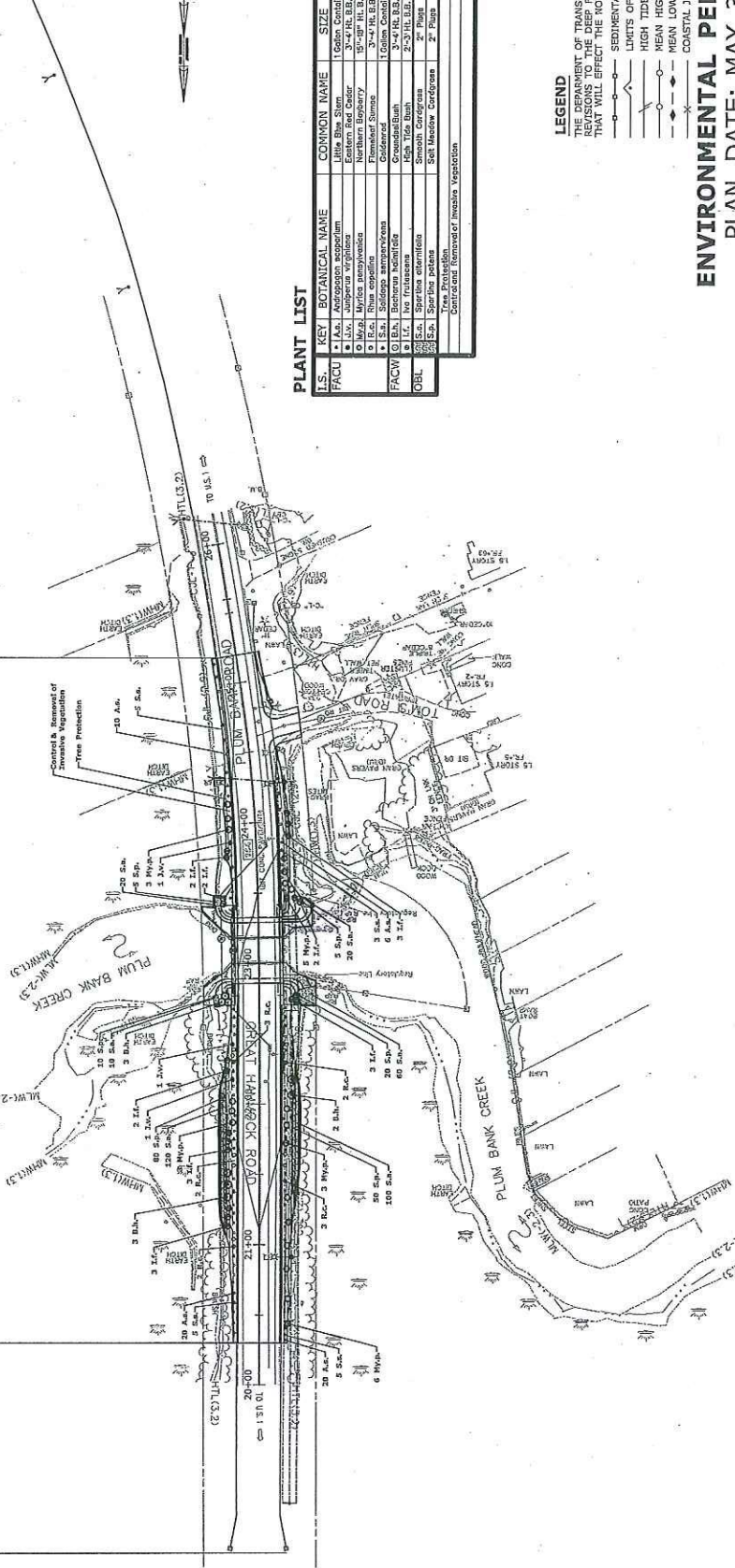
PROJECT NO. 185-215 SHEET NO. PMT-06	PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 02708, ROUTE 154 OVER PLUM BANK CREEK	TOWN: OLD SAYBROOK
PROJECT NO. 185-215 SHEET NO. PMT-06	PROJECT TITLE: CONSTRUCTION DETAILS	TOWN: OLD SAYBROOK
STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	OFFICE OF ENGINEERING	DESIGNED BY: [Signature]
SCALE AS NOTED	APPROVED BY:	DATE: 8/22/2019

END STATE PROJECT 105-209
 PLUM BANK ROAD (RT 154)
 MILE POST 1.315

END GUIDERAIL CONSTRUCTION
 PLUM BANK ROAD (RT 154)
 MILE POST 1.315

BEGIN GUIDERAIL CONSTRUCTION
 GREAT HAMMOCK ROAD (RT 154)
 MILE POST 1.080

END FULL DEPTH RECONSTRUCTION
 PLUM BANK ROAD (RT 154)
 STATION 25+20.00



PLANT LIST

U.S. KEY	BOTANICAL NAME	COMMON NAME	SIZE	QTY.	SPACINGS
■	<i>Ulmus floridus</i>	White Elm	16" S&A	3	30' x 12' x 3'
■	<i>Asplenium virginicum</i>	Common Bracken	3'-4" Ht. B.B.	3	As Shown
■	<i>Lonicera virginiana</i>	Eastern Red Cedar	15"-18" Ht. B.B.	20	As Shown
■	<i>Myrica aspenifolia</i>	Northern Bayberry	3'-4" Ht. B.B.	9	As Shown
○	<i>Panicum capillare</i>	Flower Spurge	15" Ht. B.B.	9	As Shown
○	<i>Phytolacca</i>	Nannyberry	3'-4" Ht. B.B.	9	As Shown
○	<i>Sparganium angustifolium</i>	Cowweed Marsh	15" Ht. B.B.	3	As Shown
○	<i>L. frutescens</i>	15h. Tea Bush	2'-3" Ht. B.B.	18	As Shown
○	<i>Spartina alterniflora</i>	Smooth Cordgrass	2' Plugs	400	Field Located
○	<i>Spartina patens</i>	Scot Newell Cordgrass	2' Plugs	250	Field Located
○	<i>Spartina patens</i>	Scot Newell Cordgrass	2' Plugs	250	Field Located
○	<i>Spartina patens</i>	Scot Newell Cordgrass	2' Plugs	250	Field Located
○	<i>Spartina patens</i>	Scot Newell Cordgrass	2' Plugs	250	Field Located
○	<i>Spartina patens</i>	Scot Newell Cordgrass	2' Plugs	250	Field Located

LEGEND
 THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO THE DEEP FOR CHANGES TO THE DESIGN THAT WILL EFFECT THE NOTED REGULATED AREAS.

— SEDIMENTATION CONTROL SYSTEM
 — LIMITS OF COASTAL JURISDICTION
 — HIGH TIDE LINE
 — MEAN HIGH WATER
 — MEAN LOW WATER
 — COASTAL JURISDICTION LINE

ENVIRONMENTAL PERMIT PLANS
 PLAN DATE: MAY 3, 2019

PROJECT NO. 105-215
 DRAWING NO. PMT-07
 SHEET NO.

CLIENT: OLD SAYBROOK
 PROJECT TITLE: ROUTE 154 B.R. 02708 PERMIT PLANTING PLAN

REPLACEMENT OF BRIDGE NO. 02708
 ROUTE 154 OVER PLUM BANK CREEK
 IN THE TOWN OF OLD SAYBROOK

ENGINEER: OFFICE OF ENGINEERING
 APPROVED BY:

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION ENGINEER: [Signature]

DATE: [Date]

SCALE: 1" = 40'

DESCRIPTION: [Blank]

DATE: [Blank]

NO. [Blank]