

Connecticut Department of Energy and Environmental Protection License*

Inland Wetlands & Watercourses Permit

Licensee(s): Connecticut Department of Transportation

Licensee Address(s): 2800 Berlin Turnpike
Newington, CT 06131-7546

License Number(s): 202504729-IW

Municipality: Wethersfield and Glastonbury

Project Description: Rehabilitation of Bridge No. 00417 (Putnam Memorial Bridge) over the Connecticut River

Project Address/Location: State Route 3 on the Putnam Memorial Bridge over the Connecticut River, Wethersfield and Glastonbury, CT 06109/06033

Waters: Connecticut River

Authorizing CT Statute(s) and/or Federal Law: CGS Section 22a-36 to 45

Applicable Regulations of CT State Agencies:

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: *Environmental Permit Plans State Project No. 0053-0199 Rehabilitation of Bridge No. 00417 The Putnam Memorial Bridge over the Connecticut River, Towns of Wethersfield and Glastonbury, CT*, 21 sheets, dated April 29, 2025, and prepared by the State of Connecticut Department of Transportation.

*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 . . ."

License Enclosures: LWRD General Conditions; Site Plan Set; LWRD Work Commencement Form; LWRD Compliance Certification Form; Conceptual State-Listed Plant Protection and Incidental Take Plan; CTDOT 1.10 Best Management Practices for Northern leopard frog

Authorized Activities:

The Licensee is hereby authorized to conduct the following work as described in application # 202504729-IW and as depicted on any site plan sheets / sets cited herein:

Temporarily impact 9,350 square feet (sf) and 11,930 sf of state-only wetlands (no permanent impacts) in Wethersfield and Glastonbury, respectively, due to the proposed superstructure rehabilitation of the Putnam Memorial Bridge which includes:

- Installing two, 16 ft wide, 8 inch deep temporary gravel access roads, one on the Wethersfield side of the Connecticut River (540 ft total length, 250 ft within state-only wetlands) and one on the Glastonbury (1350 ft total length, 360 ft within state-only wetlands) side of the Connecticut River as depicted on plan sheets PMT-06-11 on the site plan set.

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. **Time of Year Restriction.** The following activities shall be restricted to the period of July 1 to March 31, inclusive, for the protection of diadromous fish migrations;
 - Unconfined in-water work.
 - Loud construction activities from sunset to sunrise (loud construction noises are defined as those exceeding 90 decibels, as measured at the water's surface at the point closest to the source of the noise).
3. **Containment System.** The Licensee shall ensure that a containment system is installed and maintained below the superstructure throughout construction, as depicted on plan sheet PMT-04. The Licensee shall prevent any debris from entering the Connecticut River.
4. **Artificial Lighting.** In the case that artificial lighting must be directed over the water during the diadromous spring migration period from April 1 to June 30, inclusive, the Licensee shall follow the precautionary measures as stated in Note 10 on sheet PMT-05 of the site plan set, attached hereto.
5. **State-Listed Plant Protection.** The Licensee shall follow the protocols listed within the Conceptual State-Listed Plant Protection and Incidental Take Plan (attached hereto) for the

protection of the State Endangered and Special Concern species: Davis' sedge (*Carex davisii*), Cattail sedge (*Carex typhina*), Wiegand's wild rye (*Elymus wiegandii*), and Hoary plantain (*Plantago virginica*).

6. **State-Listed Amphibian Protection.** The Licensee shall follow the protocols listed within the Section 1.10 Environmental Compliance Required Best Management Practices for the protection of State Special Concern species Northern leopard frog (*Lithobates pipiens*) attached hereto.
7. **Invasive Species Management.** The Licensee shall manage invasive species, including but not limited to multiflora rose (*Rosa multiflora*), Japanese knotweed (*Reynoutria japonica*), tree of heaven (*Ailanthus altissima*), garlic mustard (*Alliaria petiolata*), and Oriental bittersweet (*Celastrus orbiculatus*), and restore all impacted areas with native plantings and seeding in accordance with plan sheets PMT-20 and PMT-21 on the site plan set.

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

Date

Emma Cimino
Deputy Commissioner
Environmental Quality Branch

LWRD General Conditions

- 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 DEEP.LWRDRegulatory@ct.gov 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 DEEP.LWRDRegulatory@ct.gov, 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 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 deposited, placed or stored in any wetland or watercourse on or off-site. The Licensee may not

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

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. Management of Materials.** Any materials removed from the site shall be managed in accordance with all federal, state, and local requirements, including Chapter 446K Water Pollution Control, Chapter 445 Hazardous Waste, and Chapter 446d Solid Waste of the Connecticut General Statutes.
- 7. 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.
- 8. 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.
- 9. 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.
- 10. Excavated Materials.** Unless otherwise authorized, all excavated material shall be staged and

managed in a manner which prevents additional impacts to wetlands and watercourses.

11. 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.

12. In-Water Work Vessel Staging and Storage. (for Structures Dredging & Fill, Tidal Wetlands, Certificate of Permission, and Long Island Sound General Permit Licenses only). For any barge, vessel, skiff or floating work platform (“work vessels”) utilized in the execution of the work authorized herein, the Licensee shall ensure that such work vessels:

- do not rest on, or come in contact with, the substrate at any time, unless specifically authorized in the license.
- are not stored over intertidal flats, submerged aquatic vegetation or tidal wetland vegetation or in a location that interferes with navigation. In the event any work vessel is grounded, no dragging or prop dredging shall occur to free it.

13. Work Site Restoration. Upon completion of any authorized work, the Licensee shall restore all areas temporarily 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.

14. 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.

15. 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.

16. 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.

17. Extension Request. The Licensee may request an extension of the license expiration date. Such request shall be in writing and shall be submitted to DEEP.LWRDRegulatory@ct.gov 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. The Commissioner may extend the expiration date of this license for a period of up to one year, in order for the Licensee to complete the authorized activities. It shall be at the Commissioner's sole discretion to grant or deny such request. No more than three (3) one-year extensions will be granted under this license.

18. Compliance Certification². Not later than 90 days after completion of the authorized work, the Licensee shall prepare and submit to DEEP.LWRDRegulatory@ct.gov, 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.

19. 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.

20. 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.

21. 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.

22. 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:

DEEP.LWRDRegulatory@ct.gov or

² The Work Commencement condition and the need for a Work Commencement Form is not applicable to Flood Management Certification approvals.

Regulatory Section
Land & Water Resources Division
Department of Energy and Environmental Protection
79 Elm Street
Hartford, Connecticut 06106-5127
860-424-3019

23. 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.

24. 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."

25. 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.

26. 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.

27. 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.

28. Revocation/Suspension/Modification. The license may be revoked, suspended, or modified in accordance with applicable law.

29. 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.

30. 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.

31. 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.

ENVIRONMENTAL PERMIT PLANS

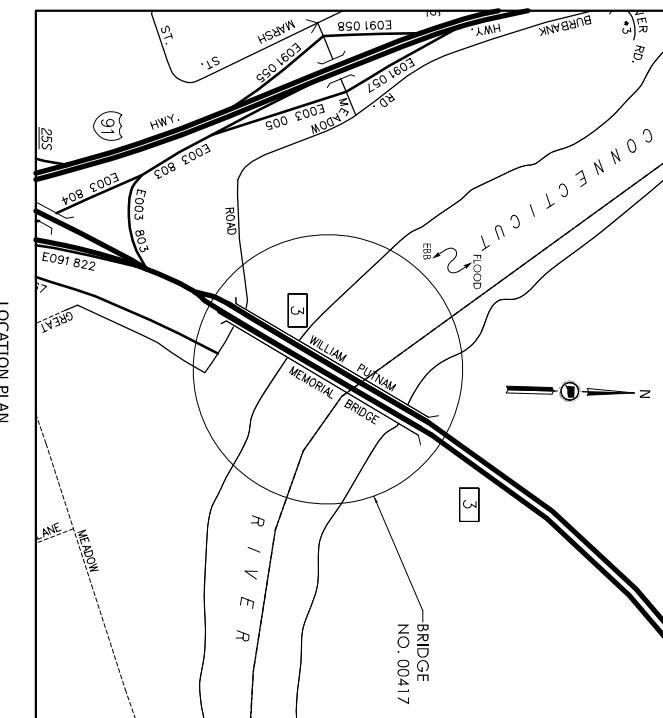
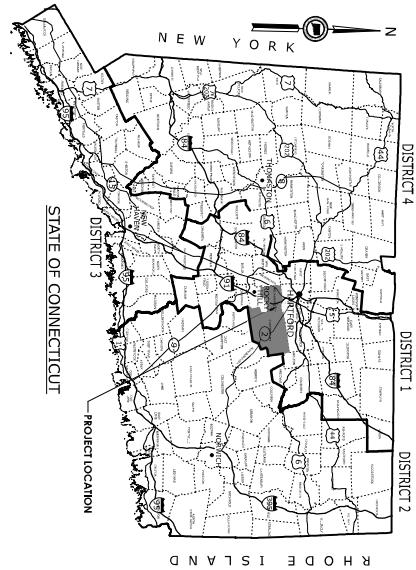
STATE PROJECT NO. 0053-0199
REHABILITATION OF BRIDGE NO. 00417 THE
PUTNAM MEMORIAL BRIDGE OVER THE CONNECTICUT RIVER

WETHERSFIELD & GLASTONBURY, CT

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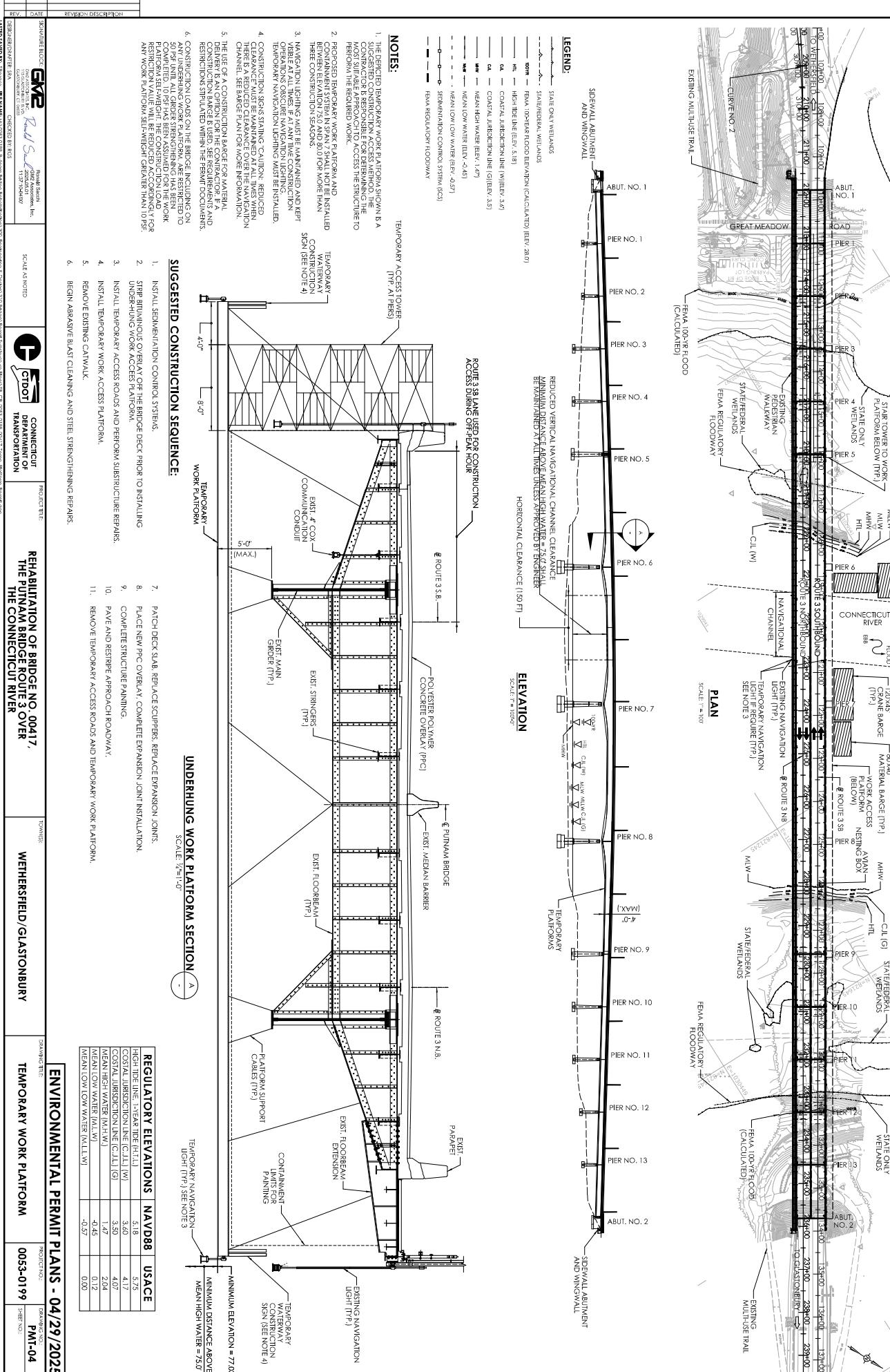
LIST OF DRAWING.

DRAWING NO.	DRAWING TITLE
PMI-01	TITLE SHEET
PMI-02	EXISTING CONDITIONS PLAN
PMI-03	GENERAL PLAN AND ELEVATION
PMI-04	TEMPORARY WORK PLATFORM
PMI-05	BARGE PLAN
PMI-06 TO PMI-07	ACCESS ROAD SITE PLANS
PMI-08 TO PMI-09	WETLANDS
PMI-10 TO PMI-11	FLOODPLAIN IMPACT PLANS
PMI-12 TO PMI-14	STRUCTURE REPAIR PLANS
PMI-15	CAVALIER REMOVAL PLAN
PMI-16 TO PMI-18	STEEL REPAIR PLANS
PMI-19	AVIAN NESTING BOX DETAILS
PMI-20 TO PMI-21	WETLAND RESTORATION PLANS



1. THESE PLANS ARE NOT INTENDED FOR CONSTRUCTION AND ARE INTENDED ONLY FOR REVIEW AND COMMENTING PURPOSES. FOR REGULATORY AND ADMINISTRATIVE INFORMATION AND PAYMENT REFER TO THE APPLICABLE CONTRACT DOCUMENTS.
2. THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT MODIFICATIONS TO DEEP AND USAGE FOR CHANGES TO THE DESIGN THAT WILL AFFECT REGULATED ARBORS, STREAMS, FOR A DESCRIPTION OF THE WATERCOURSES, WETLANDS, AND WETLAND SOILS. SEE RELEVANT SECTIONS OF THE PERMIT APPLICATION.
3. FOR A DESCRIPTION OF THE WATERCOURSES, WETLANDS, AND WETLAND SOILS.
4. 400 FOOT GRID ON CONNECTICUT COORDINATE SYSTEM NAD 1983
5. ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH THE CONNECTICUT STATE WILDLIFE CONSTRUCTION CONTRACTOR REGISTRATION, BEST MANAGEMENT PRACTICES (BMP) AND SEDIMENT AND EROSION CONTROL REGULATIONS, IN ACCORDANCE WITH THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, AND THE CONNECTICUT STORMWATER QUALITY MANUAL.

ENVIRONMENTAL PERMIT PLANS - 04/29/2025		REVISION DESCRIPTION	
PROJECT NO.:	0053-0199	PERMIT NO.:	
PROJECT NAME:	REHABILITATION OF BRIDGE NO. 00417, PUTNAM BRIDGE OVER CONNECTICUT RIVER	PERMIT TYPE:	
LOCATION:	WETHERSFIELD & GLASTONBURY	TOWNS:	
DESIGNER/OWNER:	ROBERT BROWN INC. 1150 BROADWAY NEW YORK, NY 10036 11/10/2014	NOT TO SCALE:	
REVIEWER/CHIEF:	 P. S. S. 2020-01-01 11/10/2014 CHECKED BY: P. S. S.	 CT DOT DEPARTMENT OF TRANSPORTATION	
REV.:	1	DATE:	04/29/2025
DESIGNER/CHIEF:	ROBERT BROWN INC. 1150 BROADWAY NEW YORK, NY 10036 11/10/2014	REVIEWER/CHIEF:	
CHIEF:		CHIEF:	
TITLE SHEET		PROJECT NO.:	0053-0199
TITLE SHEET		PERMIT NO.:	PMI-01
TITLE SHEET		LOCATION:	WETHERSFIELD & GLASTONBURY
TITLE SHEET		PERMIT TYPE:	REHABILITATION OF BRIDGE NO. 00417, PUTNAM BRIDGE OVER CONNECTICUT RIVER
TITLE SHEET		DESIGNER/OWNER:	ROBERT BROWN INC. 1150 BROADWAY NEW YORK, NY 10036 11/10/2014
TITLE SHEET		REVIEWER/CHIEF:	
TITLE SHEET		CHIEF:	
TITLE SHEET		CHIEF:	



REGULATORY ELEVATIONS	NAVD88	USACE
HIGH DENE (H.D.) [H.D.]	5.18	5.75
COASTAL JUDISCTON LINE (C.J.L.) (W)	3.60	4.17
COASTAL JUDISCTON LINE (C.J.L.) (G)	3.60	4.07
MEAN HIGH WATER (M.H.W.)	1.47	2.04
MEAN LOW WATER (M.L.W.)	-0.45	0.12
MEAN LOW WATER (M.L.W.)	-0.57	0.00

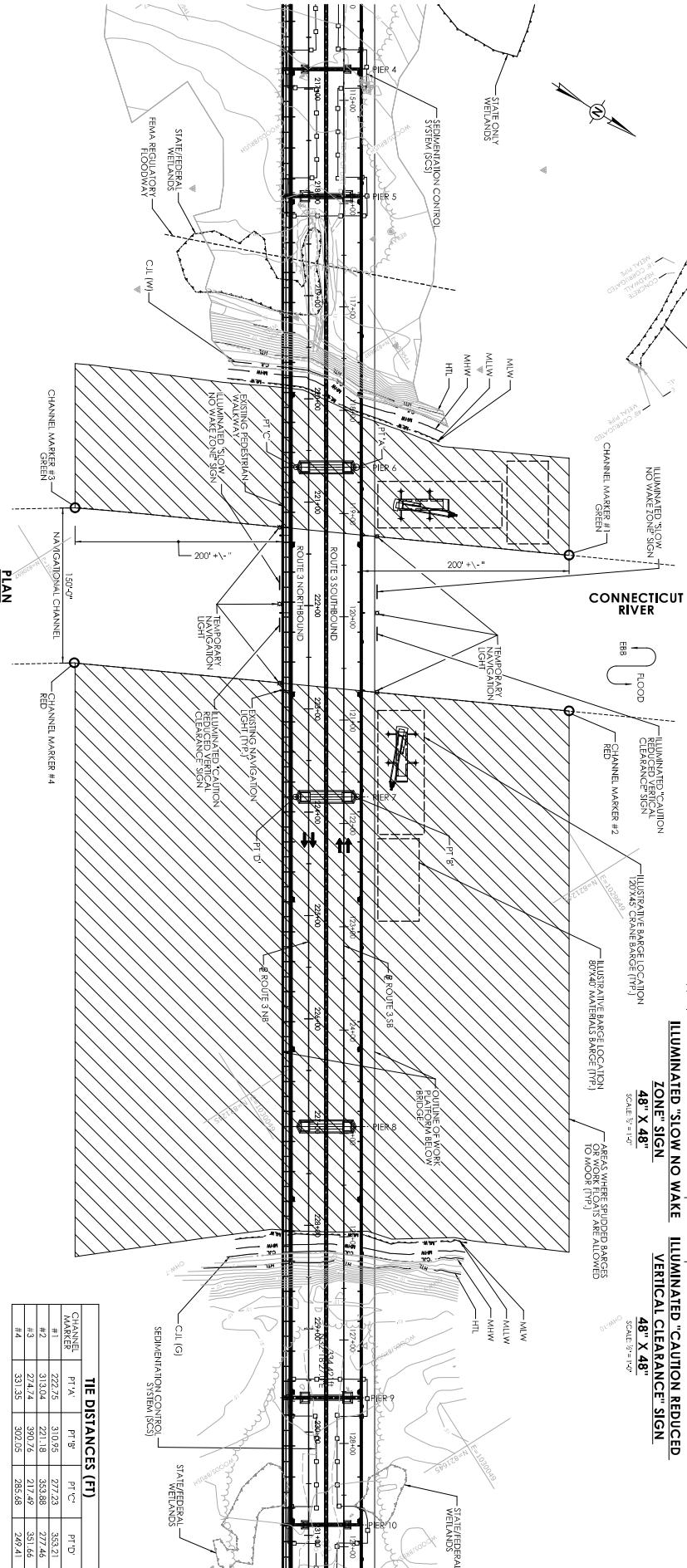
STATE/FEDERAL
WETLANDS



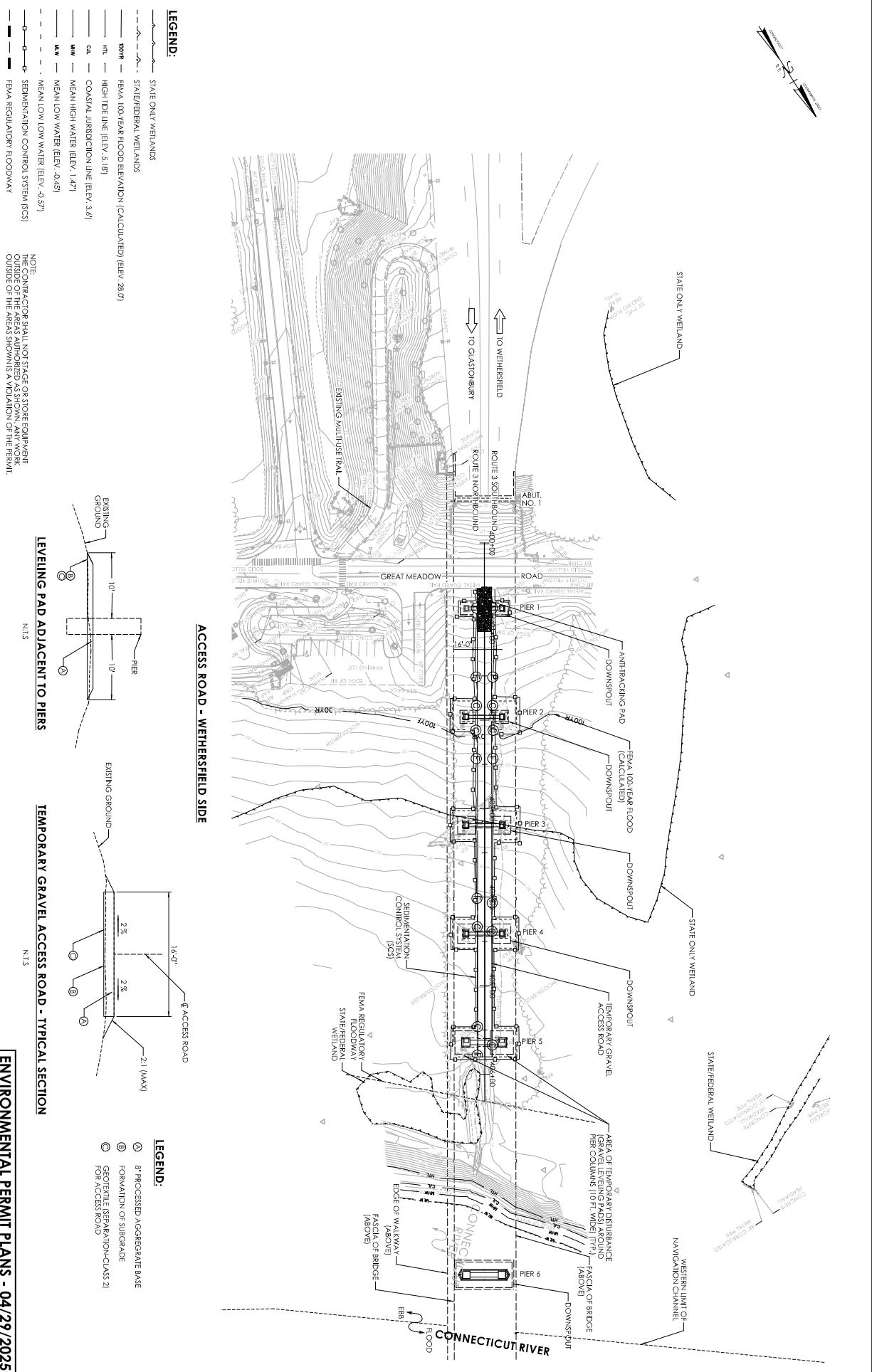
A rectangular sign with a black border and diagonal black and white stripes. The text is in black, sans-serif capital letters. The sign reads: "TEMPORARY WATERWAY CONSTRICKTION SIGN", "NOTE: ALL WORDS MUST BE THE SAME HEIGHT", "WHITE BACKGROUND", "LETTERS (OR ALL LARGE AS POSSIBLE) (TOP)", and "YOU ARE IN A SLOW NOW ZONE".

CAUTION
REDUCED
VERTICAL
CLEARANCE
75.0' MIN

(TYP.)
TEMPORARY WATERWAY
CONSTRUCTION SIGN
NOTE:
ALL LETTERING ON SIGNS MUST
BE IN BLOCK STYLE AND
IN HIGH-SIGN BACKGROUND
BE WHITE.



ENVIRONMENTAL PERMIT PLANS - 04/29/2025



LEVELING PAD ADJACENT TO PIERS

N.T.S.

FED. EDITION
REHABILITATION OF BRIDGE NO. 00417, THE PUTNAM
MEMORIAL BRIDGE OVER THE CONNECTICUT RIVER

WORK
PERMIT.

TEMPORARY GRAVEL ACC
N
WEATHERFIELD/GLASTON
TUNING

ENVIRONMENTAL PERMIT PLANS - 04/29/2025

ACCESS ROAD PLAN - WEIHERSFIELD

PROJECT NO. 00033-0199 PERMIT NO. PMT-06

SUBPROJECT NO. 00000000000000000000000000000000

T.S.

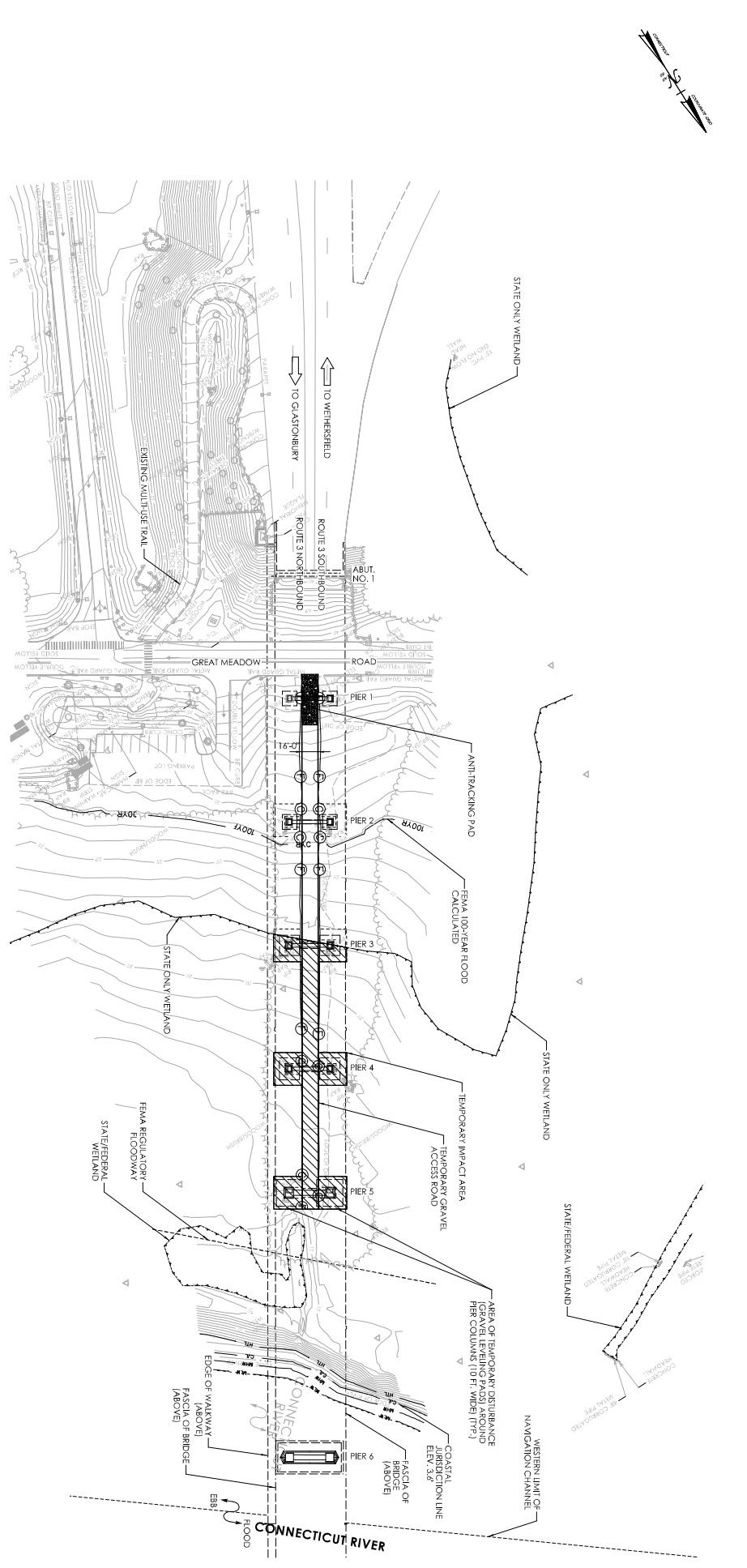
ENVIRONMENTAL PERMIT PLANS - 04/29/2025

ACCESS ROAD PLAN - WEIHERSFIELD

PROJECT NO. 00033-0199 PERMIT NO. PMT-06

SUBPROJECT NO. 00000000000000000000000000000000

T.S.

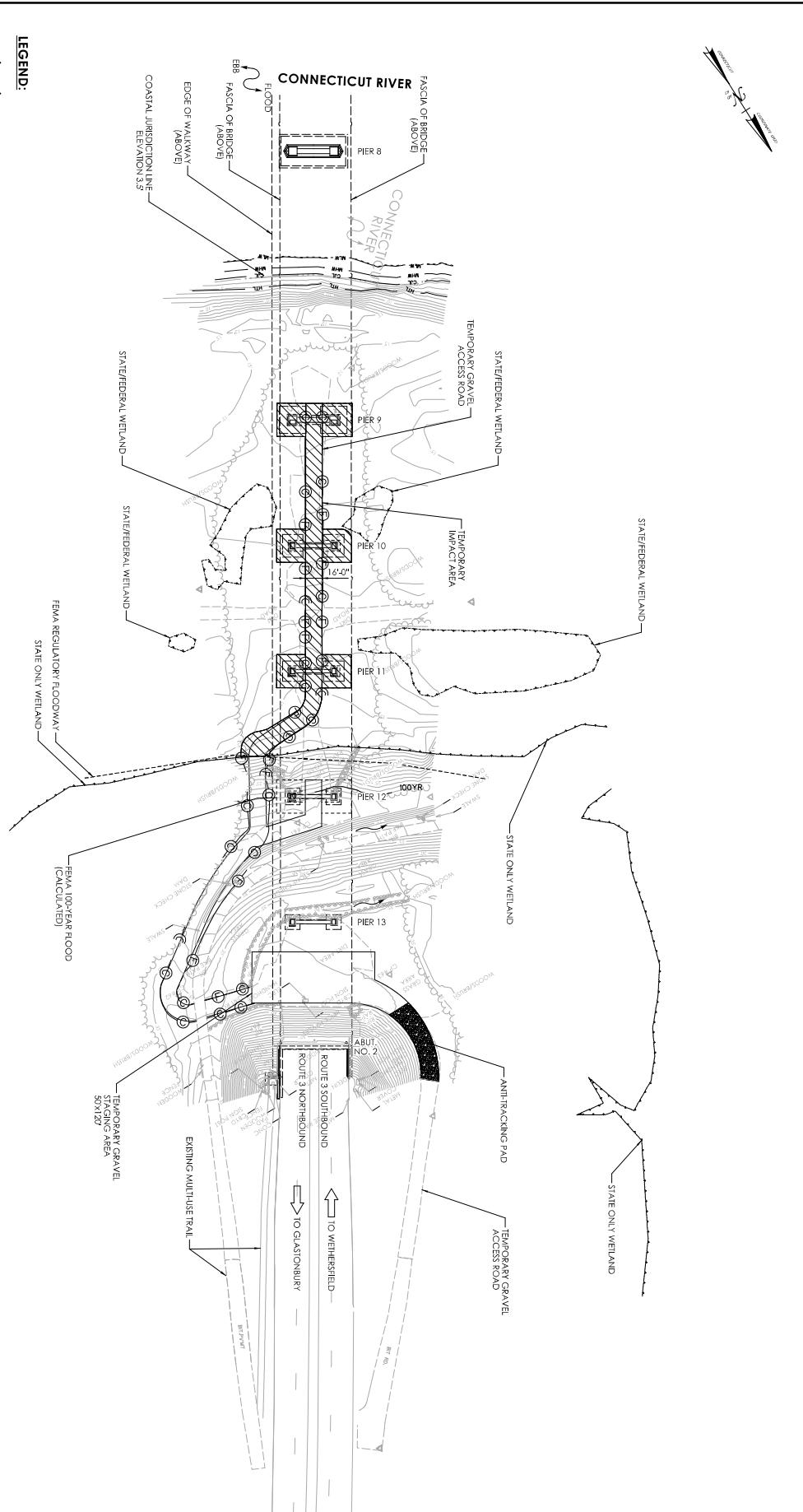


STATE WETLAND IMPACT TABLE			
TEMPORARY		PERMANENT	
LOCATIONS	Acre	Acre	Acre
WEIRFIELD	9350	0.215	0
GLASTONBURY	11930	0.274	0
TOTAL	21280	0.489	0

NOTE: USE STATE WETLAND IMPACTS

ENVIRONMENTAL PERMIT PLANS - 04/29/2025

ENVIRONMENTAL PERMIT PLANS - 04/29/2025		REVISION DESCRIPTION	
 <i>P. S. S.</i> Project Manager GMA Construction Inc. 1128 Main Street Glastonbury, CT 06033 860.654.0000 CHECKED BY: [Signature]		 CONNECTICUT DEPARTMENT OF TRANSPORTATION PROJECT #: REHABILITATION OF BRIDGE NO. 00417, THE PUTNAM MEMORIAL BRIDGE OVER THE CONNECTICUT RIVER TOWNS: WETHERSFIELD/GLASTONBURY WETHERSFIELD WETHERSFIELD DRAFT DATE: 04/29/2025 PROJECT NO.: 0053-0199 DOCUMENT NO.: PMI-03 SHEET NO.: 1 DRAWING NO.: 1 REV. NO.: 0 DATE: 04/29/2025 DRAWN BY: [Signature] CHECKED BY: [Signature]	
 - - - - - TEMPORARY IMPACT FLOODWAY		 - - - - - MEAN HIGH WATER (ELEV. 1.47')	
 - - - - - MEAN LOW WATER (ELEV. -0.45')		 - - - - - MEAN LOW WATER (ELEV. -0.57')	

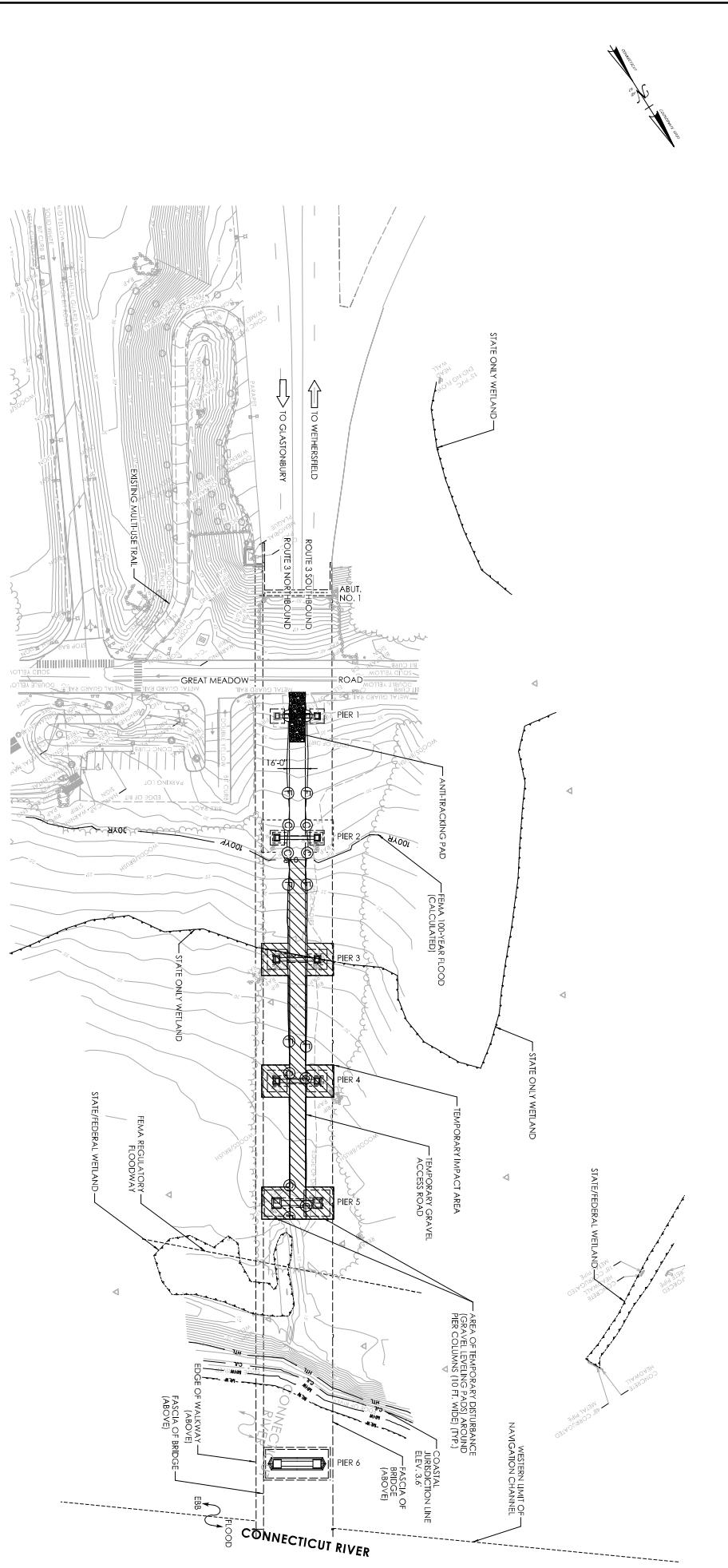


STATE WELAND IMPACTABLE		TEMPORARY		PERMANENT	
LOCATIONS	AREA [SF]	AREA [AC]	AREA [SF]	AREA [AC]	
WETHERFIELD SIDE	9350	0.215	0	0	
GASTONSBURY SIDE	11930	0.274	0	0	
TOTAL	21280	0.489	0	0	

ENVIRONMENTAL PERMIT PLANS - 04/29/2025

— — — MEAN LOW WATER (ELEV.-0.57)
 TEMPORARY IMPACT
 FEMA REGULATORY FLOODWAY
 3. EROSION CONTROL MATTING (TYPE 1) SHALL BE USED ON SLOPES 3:1 OR STEEPER.
 4. ALL DISTURBED SOIL BELOW THE BRIDGE SHALL BE SCARIFIED FOR PREPARATION OF SEED PLACEMENT.

PLATED DATE: 4/26/2015
PLATED BY: TONYOU



LEGEND:

- ▲— STATE ONLY WETLANDS
- ▲— STATE/FEDERAL WETLANDS
- ~— 100YR — FEMA 100-YEAR FLOOD (CALCULATED) [LEV. 28.00]
- ~— HTL — HIGH-TIDE LINE [LEV. 3.83]
- ~— CLA — COASTAL JURISDICTION LINE [LEV. 3.6]
- ~— MW — MEAN HIGH WATER [LEV. 1.47]
- ~— MLW — MEAN LOW WATER [LEV. -0.45]
- ~— MLW — MEAN LOW WATER [LEV. -0.57]
- ~— TEMPORARY IMPACT
- ~— FEMA REGULATORY FLOODWAY

NOTES:

1. THE CONTRACTOR SHALL NOT WORK WITHIN THE LIMITS OF THE WETLANDS AND/OR WATERCOURSES WITH THE EXCEPTION OF THOSE Delineated AS TEMPORARY OR PERMANENT IMPACTS.
2. ALL DISTURBED AREAS BELOW THE WETLAND LIMIT SHALL BE RESEED WITH WETLAND GRASS ESTABLISHMENT. ALL DISTURBED AREAS ABOVE THE WETLAND LIMIT SHALL BE RESEED WITH CONSERVATION SEEDING.
3. EROSION CONTROL MATTING/TYED STREEF SHALL BE USED ON SLOPES 3:1 OR STEEPER.
4. ALL DISTURBED SOIL BELOW THE BRIDGE SHALL BE SCARIFIED FOR PREPARATION OF SEED PLACEMENT.

ACCESS ROAD - WETHERSFIELD SIDE

FLOODPLAIN IMPACTABLE		
EXCAVATION IN FLOODPLAIN (CY)	FILL IN FLOODPLAIN (CY)	NET TOTAL (CY)
77	77	0

ENVIRONMENTAL PERMIT PLANS - 04/29/2025

REVISION: 04/29/2025

MADE AVAILABLE: REVISION: **THE NAME & ADDRESS** of the permitting authority, permit number, and date of issuance

REVISION DATE: 04/29/2025

REVISION NUMBER: 04/29/2025

REVISION DESCRIPTION: **REVISION**

REVISION NUMBER: 04/29/2025

LEGEND OF ANTICIPATED CONCRETE REPAIRS

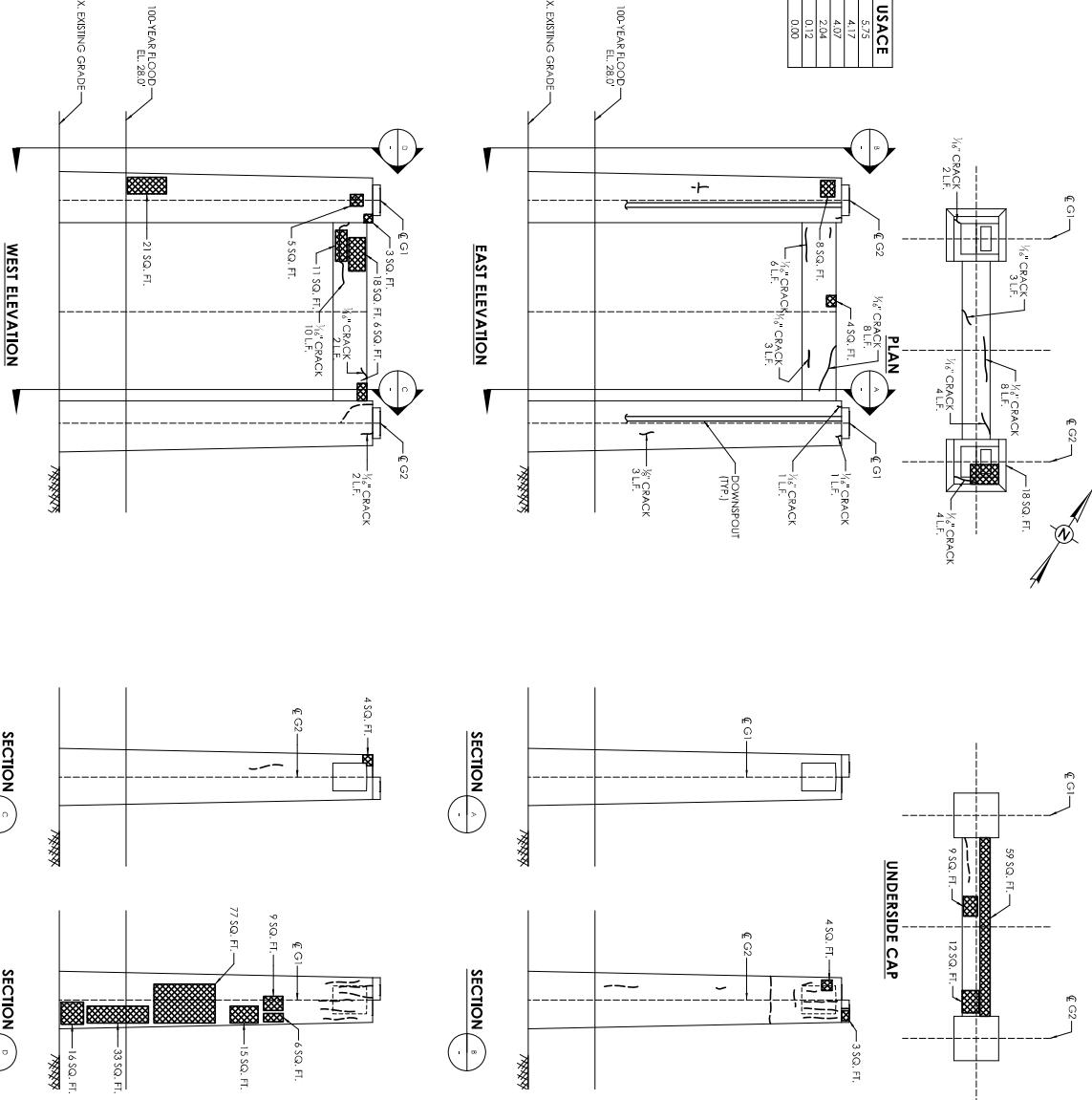
CONCRETE REPAIRS

STRUCTURAL REPAIR CONCRETE

EXISTING CRACKS TO BE REPAIRED

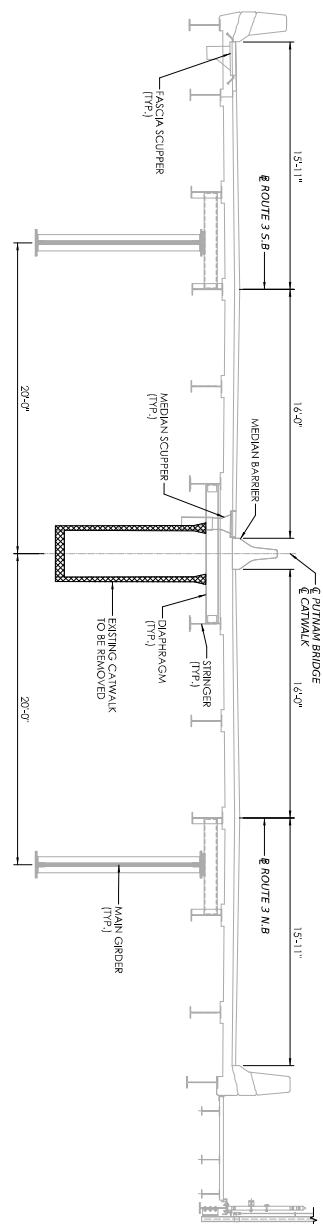
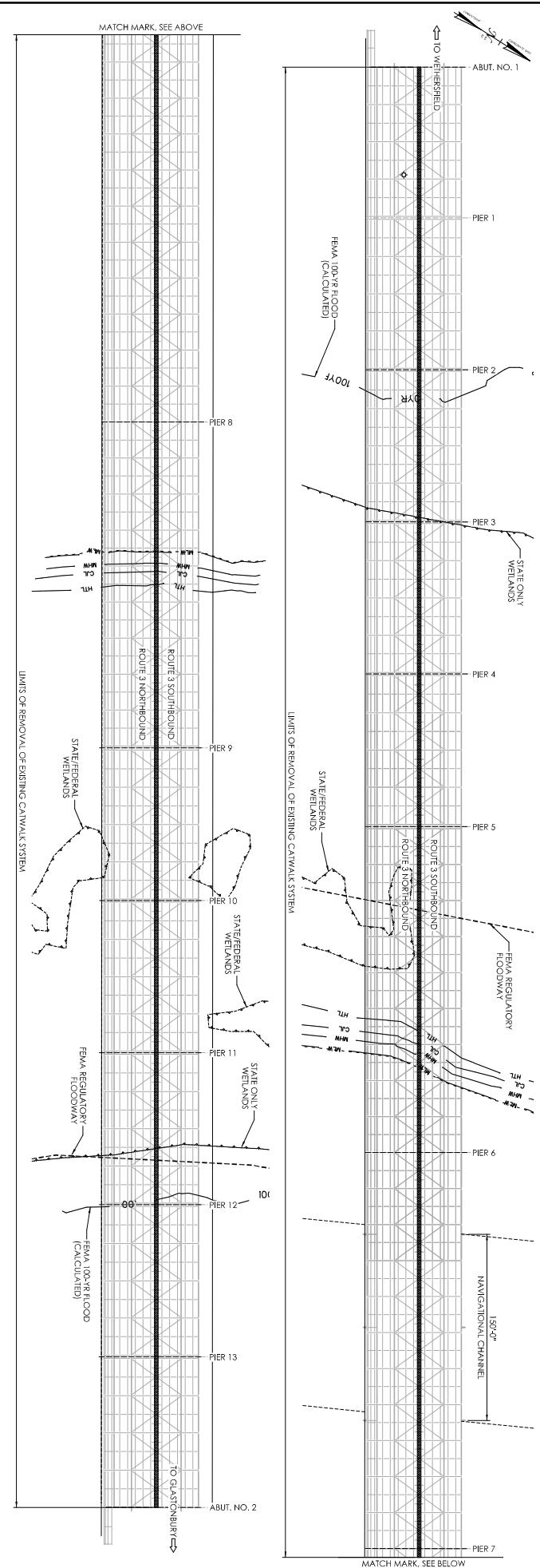
EXISTING HAIRLINE CRACK

REGULATORY ELEVATIONS	NAVIBB	USACE
HIGH TIDE (IN) - 2 YEAR TIDE (HLL)	5.75	
COSTAL JURISDICTION LINE (C.J.L.) (IN)	3.60	4.17
COSTAL JURISDICTION LINE (C.J.L.) (G)	3.50	
MEAN HIGH WATER (M.H.W.)	1.47	2.04
MEAN LOW WATER (M.L.W.)	0.45	0.12
MEAN LOW WATER (M.L.W.)	-0.57	0.00



ENVIRONMENTAL PERMIT PLANS - 04/29/2025

REV	DATE	REVISION DESCRIPTION



NOTES:

WORK TO BE PERFORMED:

REMOVAL AND DISPOSAL (R&D) OF EXISTING CATWALK SYSTEM, WHICH INCLUDES THE PLATFORMS, HANGERS, HANDRAILS, RAILPOSTS, LADDERS AND ASSOCIATED HARDWARES.

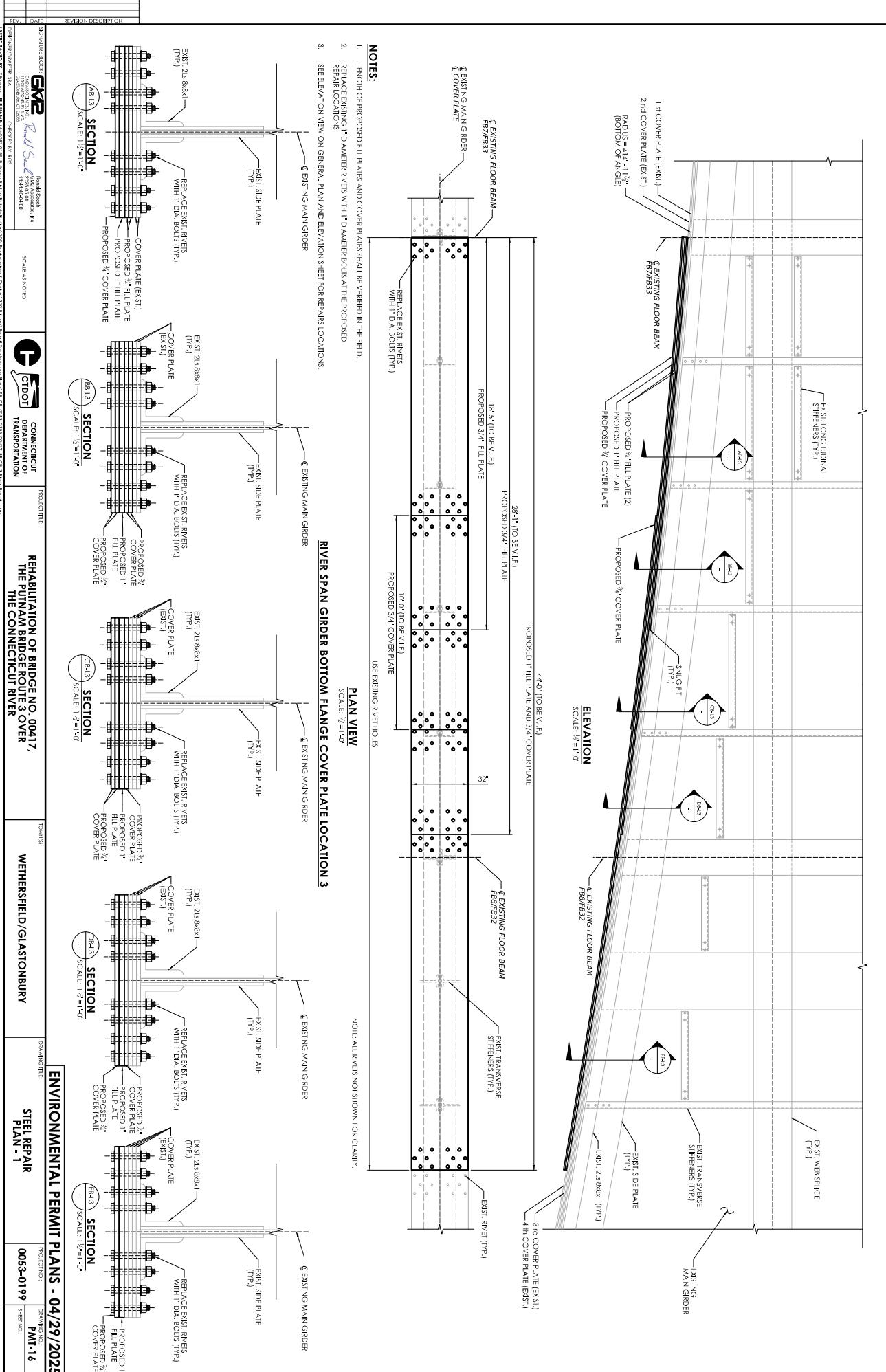
3. THE CONTRACTOR SHALL SUBMIT A PROPOSED DEMOLITION PROCEDURE TO THE ENGINEER FOR REVIEW AND APPROVAL.

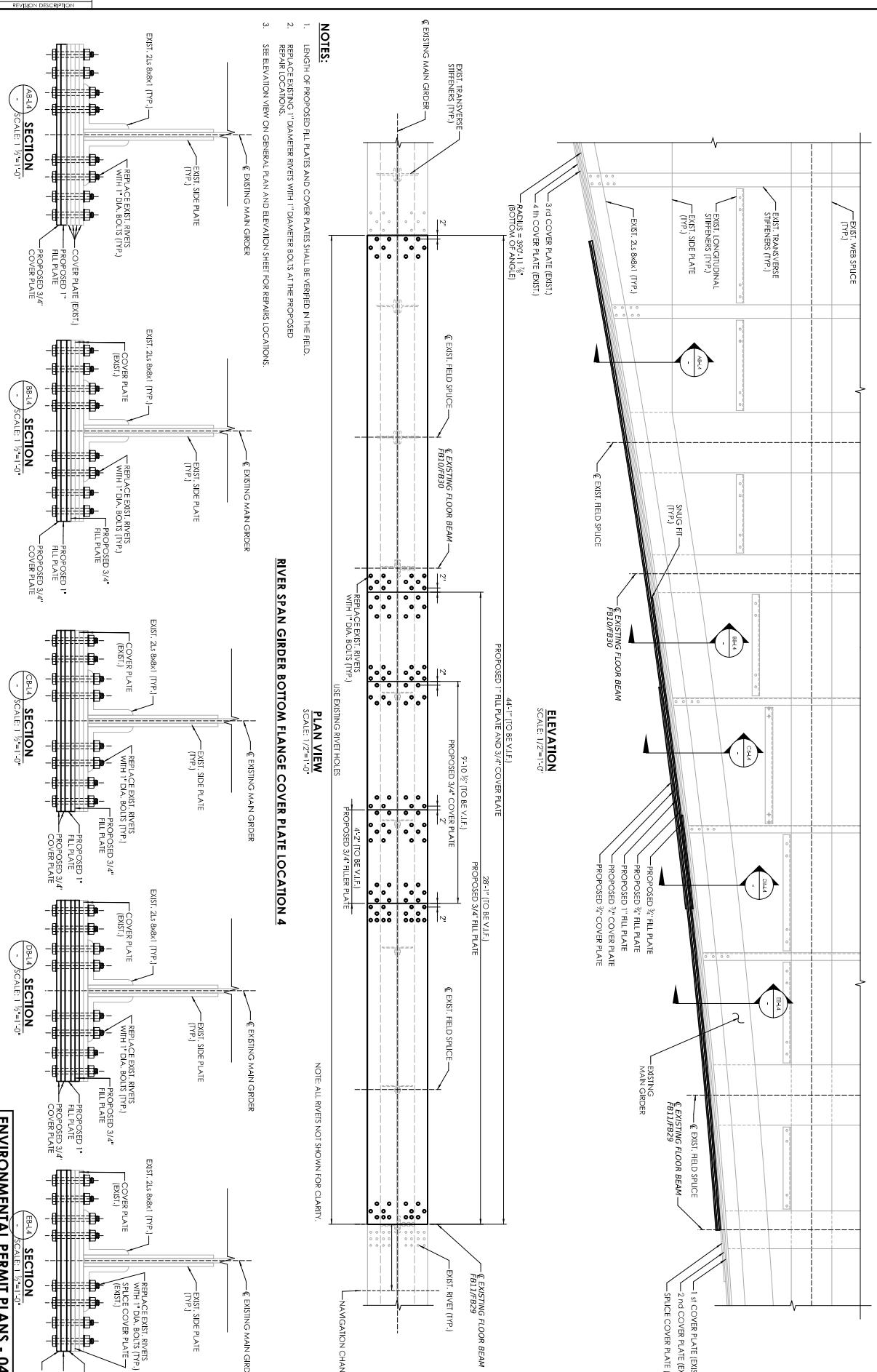
THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROMULGATING PROTECTIVE MEASURES TO THE AREA BELOW THE ENGINEER-CATWALK SUCH THAT NO DEBRIS FALLS AND THAT NO DAMAGE OCCURS TO THE AREA BELOW.

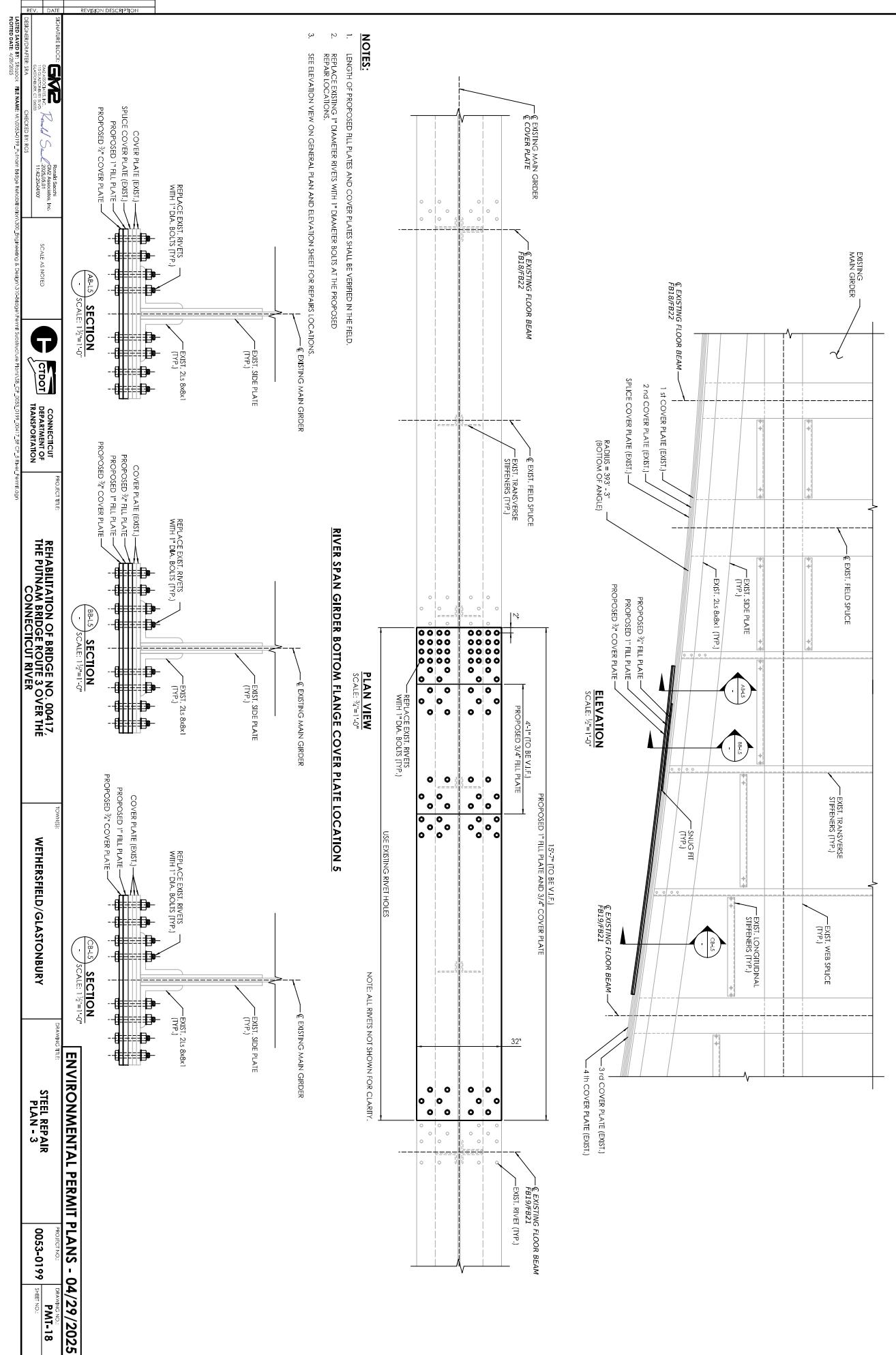
FLOOR BEAMS NOT SHOWN FOR CLARITY

FLOOR BEAMS NOT SHOWN FOR CLARITY

TYPICAL SECTION	
SQUARE BLOCK GME  Ronald Saks, P.E. 1000 Connecticut Avenue, N.W. Washington, D.C. 20004 (202) 342-0400 checked by P.E.	P.M.A. Associates, Inc. 1000 Connecticut Avenue, N.W. Washington, D.C. 20004 (202) 342-0400 checked by P.E.
SCALE: 1/8" = 1-0"	SCALE AS NOTED
 CONNECTICUT DEPARTMENT OF TRANSPORTATION	F T C D O T R P A R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S T C O N T R E S</







REVISION DESCRIPTION

MADE AND DRAWN BY: **RENAME & DESIGN, Putnam Bridge Rehabilitation & Construction, General Planning, Construction, and Engineering, Inc.** SHEET NO. 1 OF 1
DATE: 04/29/2025
REV: 04/29/2025
DESIGNER/CHIEF EFC: **John P. Murphy**
CHECKED BY PUB: **John P. Murphy**
PROJECT NO: 04-0417-0001
MAP NUMBER: 04-0417-0001

E&E
Engineering & Environmental Services, Inc.
2005 Connecticut Avenue, Suite 1000
Washington, D.C. 20006
1143-00007

RENAME & DESIGN, Putnam Bridge Rehabilitation & Construction, General Planning, Construction, and Engineering, Inc.

1143-00007

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REVISION DESCRIPTION

MADE AND BY: REHAB. HENRY M. ODSKJELV, P.E. (Putnam Bridge Rehabilitation & Design) LLC
REVIEWED BY: EFC CHECKED BY: PUB
REVISION DATE: 07/27/2025

LEGEND: <ul style="list-style-type: none"> STATE ONLY WELANDS STATE/FEDERAL WELANDS NOFR — FEMA 100-YEAR FLOOD CALCULATED (ELEV. 28.0) HFL — HIGH FLOOD LINE (ELEV. 5.18) CA — COASTAL JURISDICTION LINE (ELEV. 3.5) MHW — MEAN HIGH-WATER (ELEV. 1.47) M.L.W. — MEAN LOW-WATER (ELEV. -0.57) FEMA REGULATORY FLOODWAY FLOODPLAIN ESTABLISHMENT SEED MIX INVASIVE SPECIES TREATMENT 	
WETLAND RESTORATION PLAN - GLASTONBURY SIDE	
<p>NOTE:</p> <p>1. PLANTINGS ON THE SHEET ARE FOR ENVIRONMENTAL PERMITTING. ANY SUBSTITUTIONS TO THE PERMIT (OEP) PLANTINGS SHALL BE COORDINATED WITH THE DEPARTMENT'S OFFICE OF ENVIRONMENTAL PLANNING (OEP).</p> <p>2. PROPOSED PLANTINGS TO BE HELD LOCATED BY CTDOT OR THEIR DESIGNATED REPRESENTATIVE.</p> <p>3. WOOD CHIP MULCH SHALL NOT BE PLACED IN THE WELAND AREA.</p> <p>4. DISTURBED AREAS BELOW THE COOPRIUM LIMIT SHALL BE REPAVED WITH FLOODPLAIN ESTABLISHMENT SEED MIX. DISTURBED AREA ABOVE THE WELAND LIMIT SHALL BE SEEDED WITH CONSERVATION SEEDING.</p> <p>5. ALL PLANT MATERIAL SHALL BE NURSERY GRADE STRAIGHT SPECIES, CONFORMING TO SECTION OF THE AMERICAN STANDARDS FOR NURSERY STOCK. CTDOT OEP SHALL REVIEW AND APPROVE PROPOSED PLANTINGS.</p> <p>6. NO PLANTINGS TO BE PLACED IN NOW AREA.</p>	
ENVIRONMENTAL PERMIT PLANS - 04/29/2025	
PROJECT: REHABILITATION OF BRIDGE NO. 00417, THE PUTNAM MEMORIAL BRIDGE OVER THE CONNECTICUT RIVER	TOWN(S): WETHERSFIELD/GLASTONBURY
DRAWING NO.: WETLAND RESTORATION PLAN - GLASTONBURY	PERIODIC: 0053-0199 PMI-21 SHEET NO.:
REVISION BLOCK	
DATE: 5/26/2025	SCALE: 1" = 50'
DESIGNER/CHIEF CIVIL ENGINEER: R. W. S. REV. 04/29/2025 CHIEF CHECKER: EFC CHIEF DRAWER: PUTNAM REVIEWER: PUTNAM APPROVING OFFICER: PUTNAM REVIEWED BY: EFC CHIEF DRAWER: PUTNAM CHIEF CHECKER: EFC REVIEWER: PUTNAM	



**Conceptual State-Listed Plant
Protection and Incidental Take
Plan: Rehabilitation of the Putnam
Bridge (Bridge No. 00417) over
the Connecticut River**

Wethersfield and Glastonbury,
Connecticut

State Project: 0053-0199

NDDB Preliminary Assessment No:
202411094
December 10, 2024

Prepared for:

Connecticut Department of
Transportation

Prepared by:

Stantec Consulting Services Inc.

Conceptual State-Listed Plant Protection and Incidental Take Plan: Rehabilitation of the Putnam Bridge (Bridge No. 00417) over the Connecticut River

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Appendix A Draft Project Plans



Conceptual State-Listed Plant Protection and Incidental Take Plan: Rehabilitation of the Putnam Bridge (Bridge No. 00417) over the Connecticut River

1.0 INTRODUCTION

The Connecticut Department of Transportation (CDOT) is proposing to rehabilitate the Putnam Bridge (bridge no. 00417) carrying Route 3 over the Connecticut River in Wethersfield and Glastonbury, Connecticut (State Project no. 0053-0199; hereafter, Project). The work will include rehabilitation structural support components and will require temporary construction access across riparian areas associated with the Connecticut River (draft Project plans are provided in Appendix A). A November 18, 2024, Preliminary Assessment received from the Connecticut Department of Energy and Environmental Protection (CTDEEP) Natural Diversity Data Base (NDDB) indicated the potential presence of four state-listed plants within the vicinity of the Project. These species include:

- Davis' sedge (*Carex davisii*), State-Threatened
- Cattail sedge (*Carex typhina*), State Special Concern
- Wiegand's wild-rye (*Elymus wiegandii*), State Special Concern
- Hoary plantain (*Plantago virginica*), State Special Concern.

Field surveys for the above species have been requested by NDDB prior to the start of Project construction. CDOT intends to conduct seasonally appropriate surveys in 2025 in areas of potentially suitable habitat and undertake measures to avoid and minimize impacts to state-listed plants if observed. However, due to the accelerated Project schedule and CDOT's need to continue to advance CTDEEP natural resource permitting and the NDDB consultation process for the Project, this document has been prepared to provide preemptive conceptual plant protection measures and a plan to compensate for potential incidental take of state-listed plants if impacts to state-listed plants are determined to be unavoidable following the results of forthcoming habitat assessments and field surveys.

2.0 TARGET SPECIES IDENTIFICATION AND ECOLOGY

2.1 DAVIS' SEDGE

Identification of Davis' sedge must be made while the species is fruiting, which typically occurs in late May to early to mid-July in Connecticut (M. Arsenault, personal observations). Davis' sedge is a perennial sedge and is a member of the sedge (*Carex*) section *Hymenochlanae*. This section is recognized by its generally tall plants (e.g., up to 1 meter tall), with long-narrow drooping flowering spikes with perigynia that are typically smooth and beaked with 3 stigmas. Within section *Hymenochlanae*, Davis' sedge can be distinguished by the following characteristics: terminal spike gynecandrous (i.e., with carpellate flowers borne in the distal portion of the spike and above the staminate flowers), carpellate scales with a 2.5–3 millimeter (mm) long awn, perigynia with several evident veins, and perigynia turning orangish brown in maturity (Haines 2011). Based on information provided by NDDB, Davis' sedge is associated with rich, well drained to moderately well-drained (possibly including hydric), alluvial soil on the floodplains of larger streams and rivers, rarely just outside the active floodplain; high and low floodplain forests, openings, and meadows; and often along trails.



Conceptual State-Listed Plant Protection and Incidental Take Plan: Rehabilitation of the Putnam Bridge (Bridge No. 00417) over the Connecticut River

From a distance, Davis' sedge is most likely to be confused with inflated narrow-leaved sedge (*Carex grisea*), a common species of floodplain forests with which Davis' sedge often occurs. Like Davis' sedge, inflated narrow-leaved sedge has similarly shape ellipsoid-ovoid perigynia with several evident veins. However, unlike Davis' sedge, inflated narrow-leaved sedge does not turn orangish brown at maturity, has perigynia that gradually taper to the apex (versus an abruptly tapering apex in Davis' sedge), and has a terminal spike that is entirely staminate.

2.2 CATTAIL SEDGE

Like Davis' sedge, identification of cattail sedge must be made when the species is fruiting, which typically occurs from mid-June through late summer / early fall in southern and central New England (M. Arsenault, personal observations). Cattail sedge is a member of the sedge section *Squarrosae*. Species within this section are recognized by their tufted wetland growth habit; dense cylindrical, bristly looking spikes with tightly congested perigynia; carpellate lateral spikes and gynecandrous terminal spikes; weakly inflated perigynia that taper abruptly to a beak over 2 mm long; and trigonous achenes with 3 stigmas. Cattail sedge is a perennial sedge associated with floodplain forest habitats including backwater sloughs and oxbows (Arsenault et al. 2013); NDDB notes that associated habitat in Connecticut includes low and high floodplain forests and meadows, riverbanks and levees, vernal pools on traprock ridges.

The dense cylindrical gynecandrous terminal spike and weakly-inflated perigynia help to readily distinguish cattail sedge from many other wetland-associated sedge species with thick cylindrical spikes such as hop sedge (*Carex lupulina*) or sallow sedge (*Carex lurida*). Within Connecticut, cattail sedge could be confused with squarrose sedge (*Carex squarrosa*). The two species can be differentiated by morphological characteristics of the spikes as well as habitat preferences. Squarrose sedge typically has spikes with widely spreading to reflexed perigynia and occurs in palustrine marshes and wetlands (less commonly in floodplains) whereas cattail sedge has spikes with ascending perigynia and strong affinities for riverine and lacustrine floodplain forests (Haines 2011).

2.3 WIEGAND'S WILD-RYE

Wiegand's wild-rye is a robust perennial grass and is generally distinct due to its conspicuously pendulous inflorescence and broad, lax leaves compared to other wild-rye species. It is associated with riparian forests and banks (Haines 2011); information provided by NDDB notes that alluvial forests and thickets on riverbanks and floodplain levees of larger rivers, and banks and levees of their tributary creeks and streams on the larger river floodplains are associated habitats in Connecticut. It produces fruit in late summer (e.g., August and September) although persistent remnant inflorescences often remain evident through fall and early winter and occasionally into the following spring (M. Arsenault, personal observations).

Eastern riverbank wild-rye (*Elymus riparius*), which commonly occur in the floodplains of the Connecticut River, could be confused with Wiegand's wild-rye. The combination of the following characteristics are used to differentiate Wiegand's wild-rye: robust plant often exceeding 1 meter tall, flowering spikes strongly pendulous and drooping from the base of the rachis, leaves along stem numbering 10 or more and 15 mm wide or more, glumes flattened in cross-section at the base, and awns of lemma often



Conceptual State-Listed Plant Protection and Incidental Take Plan: Rehabilitation of the Putnam Bridge (Bridge No. 00417) over the Connecticut River

curving. Eastern riverbank wild-rye have arching to somewhat drooping inflorescences that are not evidently pendulous and drooping from the base of rachis, fewer than 10 leaves per stem (generally 8–9 leaves 12–18 mm wide), and glumes that are terete for 1–2 mm at their base (Mittelhauser et al 2019).

2.4 HOARY PLANTAIN

Hoary plantain is a tufted annual and inhabits open dry-mesic habitats such as fields, roadsides, and waste areas. NDDB notes that associated habitats in Connecticut include those with dry acidic or basic, rocky, sandy, or gravelly soil such as pastures, fields, grasslands, floodplain levee and stream bank forests and forest edges, roadsides and lesser-used unpaved roadbeds that support some vegetation, low traprock outcrops in old fields, calcareous (high-pH) open woodlands, dry fields, gravel banks, and traprock ridges. The plants consist of a basal rosette of ovate to oblanceolate leaves with several raised parallel veins, entire margins, and small hairs across the leaf surfaces. Flowering stalks are 30–240 mm tall and covered with evident hairs on the bracts and sepals. The flowering spikes bear small greenish to yellowish flowers that become erect in maturity with the petals converging over the fruit (Haines 2011). The evidently hairy flowering stalks and leaves help to readily separate hoary plantain from other plantain species with ovate to oblanceolate leaves such as English plantain (*Plantago lanceolata*). Hoary plantain is identifiable from May through approximately the third week of June in Connecticut based on information provided by NDDB.

3.0 PLANNED FIELD STUDIES

CTDOT plans to conduct field surveys for the above target plant species beginning in June 2025. The surveys will be conducted by a qualified botanist (e.g., Matt Arsenault of Stantec Consulting Services Inc.). The surveys are anticipated to be conducted during the second or third week of June and will target Davis' sedge, cattail sedge, and hoary plantain. A Scientific Collection Permit application will be submitted to CTDEEP prior to conducting surveys in the event handling or collection of specimens is necessary to confirm identification or implement mitigation measures (e.g., transplanting or seed collection). CTDOT will not mow the survey area within eight weeks prior to the anticipated start of the field surveys. The surveys will consist of a meander survey within habitats observed to be potentially suitable for the target species in and adjacent to the proposed Project disturbance limits within terrestrial areas as shown on the attached Project plans (Appendix A). Observed locations of state-listed plants will be flagged in the field and located with a GPS receiver capable of achieving submeter horizontal accuracy. Data will be recorded on population size, condition, associated habitat, and other metrics using NDDB's Rare Plant Survey Form and observational data will be submitted to NDDB in accordance with the Scientific Collection Permit. Any incidental state-listed species observations will be documented as appropriate.

Concurrent with the June survey, a habitat assessment for Wiegand's wild-rye will be conducted to evaluate areas with potential suitability for Wiegand's wild-rye. If areas of potential Wiegand's wild-rye habitat are observed within or adjacent to the Project disturbance limits, a follow-up survey will be conducted beginning in late summer (e.g., August or September) to target Wiegand's wild-rye. The methodology of the follow-up survey will be consistent with that of the June survey. Any remnants or



Conceptual State-Listed Plant Protection and Incidental Take Plan: Rehabilitation of the Putnam Bridge (Bridge No. 00417) over the Connecticut River

suspected remnants of Wiegand's wild-rye specimens observed during the June survey will be documented appropriately.

The planned field surveys will also assess potential nearby unaffected habitats that could be utilized for state-listed plants mitigation implementation measures such transplanting or seed sowing as a result of unavoidable Project impacts. Data will be recorded on existing natural community characteristics including dominant vegetation, hydrology, canopy cover, and invasive species diversity and abundance.

A summary report will be prepared following the field surveys and will contain information required by NDDB including:

1. Survey date(s) and duration
2. Site habitat descriptions and photographs
3. Descriptions of the identifying characters of the target state listed plants.
4. List of component vascular plants within the survey area (including scientific binomials).
5. Data regarding population numbers and/or area occupied by state-listed species
6. Detailed maps of the area surveyed including the survey route and locations of state listed species
7. Conservation strategies or protection plans that indicate how impacts may be avoided for all state listed species present on the site.
8. Statement/résumé indicating the surveyor's qualifications.

4.0 POTENTIAL PLANT PROTECTION AND MITIGATION MEASURES

The final plant protection and mitigation measures will be determined following the results of the field surveys planned in 2025 and will be finalized in consultation between CTDOT and NDDB. However, the following presents conceptual measures that may be implemented to avoid, minimize, and mitigate take of state-listed plants:

- Following the field surveys, the spatial data of observed state-listed plant species locations will be overlaid on Project plans to evaluate potential impacts. Project plans and/or construction methods will be revised to the extent feasible to avoid state-listed plant species locations.
- Beginning approximately 2 weeks prior to the start of construction, occurrences of state-listed plants outside of but within approximately 75 feet of Project disturbance limits will be demarcated with high visibility flagging, fencing, and/or staking to establish a visual barrier around these locations to prevent inadvertent impacts during construction. The demarcations around state-listed plants will be maintained during the construction period and areas of state-listed plant avoidance will be indicated on construction plan sheets.
- If state-listed plants occur in proposed disturbance areas and take is expected to occur, transplanting of affected state-listed plants, if appropriate, will be conducted to relocate affected plants to nearby unaffected habitats. If feasible, transplantation may be conducted concurrent with or immediately after the planned 2025 surveys if state-listed plants are observed within proposed Project disturbance areas. Further details of the transplantation measures will be provided in the survey report following the 2025 surveys, including a selected transplantation location, approximate quantities of plants that



Conceptual State-Listed Plant Protection and Incidental Take Plan: Rehabilitation of the Putnam Bridge (Bridge No. 00417) over the Connecticut River

were or are anticipated to be transplanted, methodologies for transplanting based up site-specific characteristics, and other considerations, as appropriate, for transplantation (e.g., transplant site preparation or measures for minimizing invasive species spread during transplanting). In general, transplanting is likely to consist of hand-transplanting of affected specimens and will be conducted at an appropriate time of year to minimize undue stress on the plants during the transplant process such as avoiding transplanting during mid-summer months or during periods of drought or otherwise excessively warm temperatures. Davis' sedge and/or cattail sedge are expected to be transplanted by late June or mid-September (cattail sedge only) based on past transplantation data collected by Stantec for these species in Connecticut. Wiegand's wild-rye is expected to be transplanted in mid- to late September. Transplanted plants will be promptly watered. Because hoary plantain is an annual, transplanting of affected individuals will be conducted only during its flowering period in the spring prior to mid-June and before the seeds mature and dehisce from the plant. If individual plants are not able to be transplanted before mid-June and the seeds have matured and dehisced from the plants, the upper approximately 2 inches of topsoil will be collected within an approximate 18-inch radius around each affected plant and spread as a thin layer within the identified transplant area that has been prepared to receive the topsoil containing potential hoary plantain seeds.

- For transplanted specimens, monitoring will be conducted by a qualified botanist within 7 days following transplanting and again at approximately 30 days following transplanting. Supplemental watering of transplanted specimens may be done at more frequent intervals during their initial establishment period, if necessary. A brief email report will be submitted to NDDB summarizing the post-transplant monitoring observations along with representative photographs.
- Three years of consecutive annual monitoring will be conducted starting the first growing season following transplanting and/or hoary plantain topsoil installation. The timing of the monitoring will depend on the associated species: monitoring will occur between approximately June 7 and June 21 for cattail sedge, Davis' sedge, and/or hoary plantain and in August or September for Wiegand's wild-rye. Monitoring will include data collection on the status of the transplanted population including quantification of survivorship and qualitative observations of overall health and vigor; similar observations and quantification of hoary plantain recruitment and establishment will be made within topsoil installation areas. Characteristics of the associated habitat, including presence of non-native invasive species will be noted. Photographs will be taken from fixed locations to allow for annual comparisons. Control of invasive species that may pose a threat to the survivorship of translocated state-listed plants will be conducted during the three-year monitoring period. Target non-native invasive species includes those listed on the most recent version of the Connecticut Invasive Plant List as available from the Connecticut Invasive Species Council.¹ Herbicide control will be conducted by a licensed herbicide applicator. Hand-removal will be conducted to the extent feasible within 25 feet of state-listed plants. If herbicide control is necessary within 25 feet of state-listed plants, it will consist only of direct hand application and there will be no broadcast spraying of herbicide. The herbicide applicators will be trained in the identification of Davis' sedge, cattail sedge, Wiegand's wild-rye, and/or hoary plantain. The selected methods and herbicides to be used will be identified by the selected herbicide control contractor. An annual report will be provided to NDDB by December 31 of

¹ https://cipwg.uconn.edu/invasive_plant_list/



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- each monitoring year; a summary of the invasive control efforts will be included in the annual monitoring report.
- Additional long-term monitoring beyond the initial three-year period will be conducted by CTDOT, as appropriate, through consultation with NDDB.

5.0 ADAPTIVE MANAGEMENT

Forthcoming surveys in 2025 will confirm whether implementation of the mitigation measures presented herein will be necessary for the Project. Modifications to the conceptual plant protection and mitigation measures may be necessary depending on the findings of the 2025 field surveys.

CTDOT will continue to coordinate with NDDB regarding mitigation measures and potential monitoring plan modifications regarding state-listed plants.

6.0 REFERENCES

Arsenault, M. G.H. Mittelhauser, D. Cameron, A. C. Dibble, A. Haines, S.C. Rooney, and J.E. Weber. 2013. *Sedges of Maine – A Field Guide to Cyperaceae*. University of Maine Press. Orono, ME.

Haines, A. 2011. *Flora Novae Angliae: A Manual for the Identification of Native and Naturalized Higher Vascular Plants of New England*. Yale University Press. New Haven, CT.

Mittelhauser, G.H., M. Arsenault, D. Cameron, and E. Doucette. 2019. *Grasses and Rushes of Maine*. University of Maine Press, Orono, ME.



SECTION 1.10 ENVIRONMENTAL COMPLIANCE

In Article 1.10.03-Water Pollution Control: REQUIRED BEST MANAGEMENT PRACTICES

Add the following after Required Best Management Practice Number 13:

14. The Contractor is hereby notified that the State listed species of Special Concern Northern leopard frog (*Lithobates pipiens*) formerly (*Rana pipiens*), is present within the Project limits. In Connecticut, Northern leopard frogs are restricted to seasonal wet meadows, forests associated with floodplains or large river systems and along lake edges. Northern leopard frogs often breed in depressions inundated by flood waters. These frogs hibernate below water in the winter and spend the winter buried in the mud on the bottom of well-oxygenated waterbodies. They emerge from hibernation in late winter or early spring.

All construction activities taking place within the Project limits will need to be coordinated with the Office of Environmental Planning (OEP) through the Engineer. At least 10 days prior to the commencement of any construction activities, the Contractor shall, through the Engineer, arrange for a CTDOT Environmental Inspector from the OEP or their authorized delegate to meet and discuss proper protocol for maintaining environmental commitments made for the protection of this species and habitat. OEP will provide oversight through the Engineer to ensure that the following protocols are followed and maintained during the course of the Project.

For any work done during the Northern leopard frog's active period (March 1 to October 31), the CTDOT will require the following precautionary measures to protect the Northern leopard frog and Northern leopard frog habitat:

- a. All areas with the Project limits must be surveyed to verify the presence of any active Northern leopard frog activity prior to commencement of the initial clearing and grubbing activities.
- b. All construction personnel working within Northern leopard frog habitat must be apprised of the species description and the possible presence of this listed species.
- c. Exclusionary practices will be required in order to prevent any Northern leopard frog access to construction areas. These measures will need to be installed at the limits of disturbance as shown on the plans.
- d. Exclusionary fencing shall be at least 20" tall and must be secured to and remain in contact with the ground. The Contractor shall regularly inspect and maintain the fencing to prevent any gaps or openings at ground level. Silt fence with netting shall not be used.
- e. The Contractor must search the work area each morning for the presence of this listed species prior to any work being done.

- f. Any Northern leopard frog encountered within the Project shall be carefully moved outside of the excluded work area and the Engineer shall be immediately informed in order to contact OEP with the location.

When a species is found, the OEP will be responsible for completing and submitting the Natural Diversity Data Base (NDDB) Vertebrate Sheet (<https://portal.ct.gov/DEEP/Endangered-Species/Contributing-Data>). This completed document allows CTDEEP to update their database.

- g. All staging and storage areas within the vicinity of the Project limits of the Northern leopard frog habitat must be reviewed by and receive written approval from the OEP.
- h. The Contractor shall not park heavy machinery or vehicles within the Northern leopard frog without written approval and authorization by the OEP.
- i. Exclusionary fencing shall be removed at the completion of the Project and when final stabilization has occurred to allow for reptile and amphibian passage to resume.

Work may take place during the during the Northern leopard frog inactive (hibernation) period (November 1 to April 31) with the following additional precautionary measure:

- a. Construction activities will be allowed in upland areas.
- b. Exclusionary fencing must be installed and the area inspected for frogs by the Engineer or Engineer's approved representative prior to October 31.
- c. Work is not allowed in wetland/watercourse areas unless these areas were in active construction prior to November 1, and additionally, do not contain any areas of Northern leopard frog habitat (no open water with mud bottom).

These practices will be applied to the entire Project unless a sketch is attached, which identifies specific areas of concern.

This species is protected by State laws, which prohibit killing, harming, taking, or keeping them in your possession. Fact sheet of the Northern leopard frog shall be posted in the Contractor's and Inspection field offices.

If any Northern leopard frog are observed in or around the Project area, the OEP must be notified at Andrew.Piraneo@ct.gov or at Marilyn.Gould@ct.gov. If OEP staff cannot be reached at either of the above referenced emails, the District environmental coordinator will need to be contacted to facilitate further coordination with OEP's Water Resources Compliance Unit.

Fact Sheet for the Northern Leopard Frog:
[Northern Leopard Frog \(wildlifeofct.com\)](http://wildlifeofct.com)



LWRD Work Commencement Form

To: DEEP.LWRDRegulatory@ct.gov or
Regulatory Section
Department of Energy and Environmental Protection
Land & Water Resources Division
79 Elm Street
Hartford, CT 06106-5127

Licensee Name: CT Department of Transportation

Municipality in which the project is occurring: Wethersfield and Glastonbury

DEEP License No(s): 202504729-IW

CONTRACTOR(s):

1 Name: _____
Address: _____
Telephone: _____
E-mail: _____

2 Name: _____
Address: _____
Telephone: _____
E-mail: _____

3 Name: _____
Address: _____

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:	CT Department of Transportation
DEEP License Number(s):	202504729-IW
Municipality in which project is occurring:	Wethersfield and Glastonbury
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 : DEEP.LWRDRegulatory@ct.gov or	
Regulatory Section Department of Energy and Environmental Protection Land & Water Resources Division 79 Elm Street Hartford, CT 06106-5127	