

IN THE MATTER OF : ***APPLICATION NO. 202010786 –
SDF, 202010780-FM***

DEPARTMENT OF TRANSPORTATION: ***May 6, 2022***
(Old Saybrook, Back River)

PROPOSED FINAL DECISION

I. SUMMARY

The Connecticut Department of Transportation (“Applicant”) has filed an application with the Department of Energy and Environmental Protection (“DEEP” or “Department”) seeking a permit for regulated activities under the Structures, Dredging and Fill provisions of the General Statutes §§22a-359 through 22a-363f, the Tidal Wetlands Act and regulations, §§22a-28 through 22a-35 of the General Statutes and §§22a-30-1 through 22a-30-17 of the Regulations of Connecticut State Agencies, and in accordance with the relevant provisions of the Connecticut Coastal Management Act, §§22a-90 through 22a-112 of the General Statutes.¹

The parties to this matter are the Applicant, DEEP Staff,² and Mr. Thomas Armstrong as an intervening party (“Armstrong” or “Intervening party”).

I have reviewed the entire administrative record in this proceeding, including the documents and testimony in the record as evidence. The parties’ briefs have been evaluated in light of the relevant statutes and regulations. I have considered public concerns, comments and

¹ The Applicant applied for a Water Quality Certification under Section 401 of the Federal Clean Water Act, as noted in the Notice of Tentative Determination. This hearing did not consider this application, as there was no right to a hearing on that decision at the time this matter was initiated.

²Bureau of Water Protection and Land Reuse, Land and Water Resources Division

questions made throughout this hearing process and the responses of the Applicant and DEEP Staff to that public input.

Based on substantial evidence submitted in the record, I find that the environmental impacts associated with the proposed activities have been minimized to the greatest extent possible and, coupled with the associated mitigation, are acceptable. I also find that the proposed project as conditioned by the proposed Draft Permit (Attachment I) meets the applicable statutory and regulatory standards cited above and I recommend the requested permit be issued.

II. DECISION

A. FINDINGS OF FACT

The Applicant and DEEP Staff presented joint proposed finding of facts and the Intervening party offered his own proposed findings of facts. The facts found below incorporate those facts that are relevant to my decision.³

1. Procedural History

1. This application is regarding the proposed replacement of bridge No. 01386 (“the bridge”), which carries Route 154 over the Back River in Old Saybrook. The Department determined that the application was complete and, following its sufficiency and technical review, determined that the application complied with the relevant statutes and regulations. (Ex. DEEP-17.)
2. The Applicant submitted its application on September 10, 2020, with notice of that submission published in the Hartford Courant on July 31, 2020. The Applicant provided notice to the First

³ Documents not listed as an exhibit in these findings are part of the docket file for this proceeding, which is part of the administrative record of this matter.

Selectman of the Town of Old Saybrook and to every landowner of record located within five hundred feet from the property on which the proposed activity will occur. (Exs. APP-1A, 1B p. 30-43, DEEP-6B.)

3. Following DEEP's review of the application, which included the submittal of additional information, the Notice of Tentative Determination to approve the application and the Draft Permit were published on August 4, 2021. A petition for hearing was filed; the parties and the petitioner agreed to stay the start of the hearing to continue their ongoing discussions related to the project, and the hearing process commenced with a Pre-Hearing Conference on December 21, 2021. (Exs. APP-5-7, DEEP-6, 19.)
4. Mr. Armstrong filed a Petition to Intervene on December 28, 2021, under General Statutes §22a-19.
5. The Applicant objected to the Petition to Intervene on January 4, 2022.
6. The Petition to Intervene was granted in part and denied in part on January 7, 2022. Armstrong filed a Motion for Clarification on January 14, 2022. A ruling was issued on January 21, 2022, affirming the January 7 ruling. This ruling restated that the Petition raised issues outside the scope of this hearing and that the intervention was limited in scope to the allegations permitted under §22a-19, i.e., the proposed structure will or is reasonably likely to cause unreasonable pollution, impairment, or destruction of the air, water, or other natural resources of the state.
7. The following allegations are the basis for Armstrong's intervention under §22a-19:
 - a. The design of the existing bridge has resulted in substantial non-natural erosion of the Marsh resulting in the siltation of the Back River.
 - b. The erosion has also resulted in additional suspended solids in the waters of the Back River in the vicinity of the bridge and resulted in the reduction of the ability of the Marsh to filter and remove pollutants as well as sustain the ecosystem for fish and wildlife.

- c. The limited opening of the Existing bridge creates a backup of waters during tidal cycles resulting in additional flooding on both sides of the bridge, which will continue and worsen once the proposed bridge is installed.
8. A site visit occurred on January 13, 2022. The Applicant and DEEP attended the site visit, as well as members of the public. The site visit was for the Hearing Officer to observe the surrounding area, the location of the proposed bridge and the environmental conditions surrounding the proposed regulated activities.
9. A Pre-Hearing Conference was held on February 7, 2022, where evidentiary and prehearing matters were reviewed, including proposed witnesses and exhibits submitted by all parties. There were several objections raised to exhibits proposed by the Intervening party. The objections were granted in part and denied in part, as demonstrated in the administrative record.
10. The following individuals were recognized as expert witnesses for DOT and subsequently testified at the evidentiary hearing: Kevin Blasi, P.E., DOT Bridge Design; Mary Baker, P.E., DOT Bridge Safety; Dominic Antonio, P.E., DOT Hydraulics and Drainage; Michael Hogan, P.E., DOT Hydraulics and Drainage and Soils and Foundation; Azure Dee Sleicher, P.E., RACE Coastal Engineering, Inc (“RACE”); and Amanda Saul, DOT Office of Environmental Planning. (Exs. APP-18-29.)
11. DEEP offered two expert witnesses who presented testimony at the Evidentiary Hearing, Eimy Quispe, DEEP Land & Water Resource Division, and Alexander Ericson, DEEP Land & Water Resources Division. (Exs. DEEP-17-20.)
12. The Intervening party presented expert testimony from Daniel Stapleton, P.E. and testimony from one lay witness, Mr. Thomas Armstrong. (Exs. INT-1-2.)
13. A hearing for public comment was held on February 15, 2022. The record contains over a dozen written public comments received from members of the Old Saybrook community.

14. The evidentiary hearing was held and concluded on February 17, 2022. The Applicant and DEEP Staff presented evidence on the application and its review, including the details of the final project plans and the proposed Draft Permit as assurance that the proposed activity complies with the applicable statutes and regulations, as noted above. The Intervening party offered evidence regarding his contention that the proposed activity violates standards within the statutes and regulations and that the proposed project will or is reasonably likely to cause unreasonable pollution, impairment, or destruction of the air, water, or other natural resources of the state.

2.
The Proposed Project

15. Project 105-209 (the “proposed project”), located in Old Saybrook, involves the reconstruction of the bridge, which carries Route 154 over the Back River, a tidally influenced waterway which discharges to Long Island Sound approximately 2,000 feet downstream. (Exs. APP-1A, 1B p. 45, DEEP-6.)
16. The Back River is tidally driven, originating from the Long Island Sound, and is also influenced by the runoff and storage of water within Plum Bank Marsh. Upstream and downstream of the bridge, the Back River bends sharply to the north and continues to meander throughout the marsh. (Ex. APP-19.)
17. The bridge has been evaluated in the “serious” category, with the abutments, wingwalls and beams having cracks and deterioration and the footing of the bridge is exposed due to scour. It has been determined that it requires repair. (Exs. APP-1B, 2.)
18. The proposed project will accommodate the transportation needs of the State of Connecticut and minimizes the area of impact, the duration of the project and the nature of the impacts. (Exs. APP-1B p. 368, 27, DEEP-6Q.)

19. In 2013, the Applicant inspected the bridge and found it to be in poor condition, corresponding to a rating of “4” in accordance with the Federal Highway Administration Rating Scale. It has remained in poor condition through its most recent inspection in the Fall of 2021. (Ex. APP-21, p. 1.)
20. The bridge, built in 1935, consists of a concrete slab set on concrete abutments and has a span opening of twenty eight feet. (Exs. APP-1B p. 6, 45, DEEP-6A.)
21. The proposed project includes the construction of a 54.5-foot span structure that will be comprised of adjacent box beams set on integral abutments and wingwalls founded on piles. The abutments will be constructed on the uplands behind the existing abutments, and the abutments and wingwalls of the existing bridge will be left in place and cut down to elevation two. (Exs. APP-1B pp. 6, 365, 6A, 27, DEEP-6Q.)
22. The proposed project increases the depth of the superstructure because the reinforced concrete box beams are subject to larger forces, stresses and deflections as a result of the increase in the span length. (Ex. APP-21.)
23. The proposed 54.5-foot span design is the minimum span length that would provide an adequate area behind the existing structure to enable the contractor to install cofferdam sheeting around the area of the proposed substructure and install the concrete cast-in place piles and concrete pile cap substructure. (Exs. APP-1B p. 6, 21, DEEP-6A.)
24. The proposed project’s pile supported concrete pile cap will be constructed inside a steel cofferdam to permit the work to be completed “in the dry.” Upon completion of the pile cap, the steel sheets will be cut down behind the existing abutments and left in place as a component of the scour counter measures. Riprap will be placed between the existing abutments and the

new abutments and will also be placed at the four corners of the bridge to supplement existing riprap. (Exs. APP-1B p. 6, 21, DEEP-6A.)

25. The proposed project includes small impacts to the wetlands on the eastern side of the bridge as a result of the slight raise in the roadway profile and a minor shift of the toe of the new embankment on the eastern side of the roadway. (Ex. APP-1B p. 45.)

26. The proposed work will maintain the bridge's existing low chord elevation of five (NAVD88). As the proposed superstructure is deeper than the existing due to the longer span, the roadway profile will be raised six inches greater than the existing roadway. As the road is raised, fill and roadway reconstruction limits are extended laterally from the roadway median. Due to the proposed construction, the project includes minor amounts of fill at the four corners of the bridge as a result of the riprap replacement for slope stability around the wingwalls, and a small amount of fill along the eastern roadway embankments to support the installation of a guiderail. (Exs. APP-1B, p.6, 21, DEEP-6A.)

27. The environmental impacts for the proposed project are limited in scale and scope. All disturbed areas will be replanted with native coastal and tidal wetland vegetation. (Exs. APP-1B pp. 45, 368, APP-27, DEEP-6Q.)

28. Lands at three quadrants of the bridge are undeveloped, and just beyond the Southwest quadrant is a local road, Buckingham Avenue. This road services the Great Hammock Beach Association neighborhood. (Ex. APP-1B p. 45.)

3. The Draft Permit

29. The Draft Permit incorporates several requirements related to this project, including:

- a. Installation of sediment and erosion controls;
- b. Clearing and grubbing around the existing bridge area;
- c. Install and maintain a floating debris shield to remove existing superstructure;

- d. Install permanent sheet piles and excavate within sheeting and reduce sheet piling behind existing abutments and wingwalls;
- e. Use of land-based equipment to excavate between the new abutments and existing abutments and install heavy riprap revetment during periods of low tide;
- f. Remove existing abutments and wingwalls to elevation +2’;
- g. Construct and install new bridge superstructure with a 54.5’ wide span per site plans;
- h. Relocate utilities from temporary location to the final proposed location;
- i. Reconstruct existing roadway include regarding and replacing existing riprap; and
- j. Upon completion of construction remove erosion and sedimentation protections and restore disturbed areas to preexisting conditions. (Ex. DEEP-12.)

30. The Draft Permit further requires that all unconfined in water work shall be prohibited between May 31 through August 31 inclusive of any calendar year to protect nesting Saltmarsh sharp tailed sparrows, and unconfined in water excavation, dredging, filling or removal of debris or other material is prohibited between July 1 and August 30, inclusive of any year in order to protect spawning shellfish in the area. (Ex. DEEP-12.)

31. The Applicant must install and maintain sedimentation and erosion controls and the Draft Permit requires that the floating debris shield be in optimal condition during the work authorized. The Applicant must install and maintain the debris containment system on the work float in optimal condition during the authorized work and cannot allow the work float to contact the substrate at any time. The Draft Permit includes the mitigation plan for this project, which includes the transfer of custody and control of a one-acre parcel to DEEP. (Ex. DEEP-12.)

4. Alternatives

32. The Applicant considered several alternatives in the replacement of the bridge and several different analytical approaches were used to evaluate the replacement of the structure in relation to flows, velocities, and the surrounding marsh areas. The Applicant demonstrated that several considerations drove the selection of the proposed plan, including constructability and

construction timeframe, environmental impacts, duration of impacts to the local community, and function of the proposed structure. (Exs. APP-1B pp.359-360, -21, DEEP-6Q.)

33. The following replacement alternatives were considered or evaluated: galvanized steel girder, Hillman composite beams, bulb tee beams, and concrete box girders. The first three structure types were rejected due to the bridge's presence in a marine environment and the difficulty of inspection of the Hillman beams. A precast concrete box beam with concrete deck and bituminous overlay was selected as the best superstructure option because of the shallow depth relative to other options and for its resistance to the corrosive saltwater environment. The shallow box beam and deck superstructure was selected as the best choice to meet the existing low chord five-foot elevation and minimize the rise in the roadway profile. (Exs. APP-1B, pp. 359-360, APP-21, DEEP-6Q.)
34. The Applicant considered other alternatives which included the removal of the existing abutments and strut system. These alternatives were found inappropriate because the removal posed constructability concerns. Further, the removal of the strut system has potential environmental impacts. Currently, the struts are holding the channel bottom through the bridge structure at a constant elevation between five and one-half and seven feet. If the Applicant removed the struts, this would result in a deeper channel, with an approximate nine-foot elevation at the removal area, which would then be expected to degrade further over time. Without the protection of the struts, the channel bottom would erode further, would send sediment downstream and could potentially destabilize the ends of the causeway. (Exs. APP-1B, p. 361, DEEP-6Q.)
35. Different size variations were considered for the removal of the existing abutment and strut system: a 54.5-foot span bridge with 28-foot abutment span and a 54.5-foot bridge span with

a 54.5 abutment span. An additional evaluation of a hypothetical 100 foot span with old abutments/struts removed was made in order to understand the potential changes to velocities and flows which may result from such a span. The preferred alternative which was selected was the 54.5 foot span with existing abutments cut down to elevation two and struts left in place. (Ex. APP-1B p. 359.)

36. As the bridge and abutment span increase through the alternatives, the average velocity decreases, and the average velocity in the channel outside of the bridge increases. The increase span of the bridge to a hypothetical 100- foot span would not significantly decrease the velocity of the Back River enough to prevent erosion from occurring at the adjacent sites and bank. RACE concluded that erosion would still occur within the Back River, even if the bridge span was increased to 100 feet. An additional span length beyond that which is proposed would result in additional environmental impacts because increasing the span of a superstructure corresponds to an increase in the depth of the superstructure. (Exs. APP-1B pp. 271-2, 2, 19, 21, 25, DEEP-6I.)

37. The Applicant considered an alternative to re-use the existing eighty-seven-year-old substructure to support the new superstructure and it was determined that this was not acceptable due to the age and condition of the existing abutment and the timber pile substructure. It also considered a no build alternative, which was rejected due to the age and condition of the existing bridge. The bridge serves as an important travel route through this portion of the Town of Old Saybrook, and the possibility of closing the bridge permanently due to increased deterioration would have substantial impacts to the local community and emergency services. (Exs. APP-1B, p. 359, 21, 29, DEEP-6Q.)

38. The proposed project includes the installation of a new substructure to support the superstructure and the superstructure will be integral with a substructure comprised of a concrete pile cap and cast in place concrete piles encased in galvanized steel pipe. The integral connection of the box beam superstructure to the pile cap substructure eliminates the infiltration of water to the interface of the superstructure and substructure, resulting in a cost-efficient low maintenance structure. (Exs. APP-1B, p. 359, 21, DEEP-6Q.)
39. The Intervening party claimed in its post hearing filings that DEEP did not consider the alternatives, but the evidence in the record does not support such an assertion. Eimy Quispe, an Environmental Analyst with DEEP, testified of her review of the application and established how the Land and Water Resources Division carefully applies the relevant statutory standards in its consideration of all permit applications in order to protect coastal and aquatic resources and the many competing uses of Long Island Sound. She further testified of her specific review for this matter and outlined the alternatives considered, specifically, the three different spans as described herein. (Exs. DEEP-9, DEEP-17.)

5. Mitigation

40. Mitigation is being provided via the preservation of a one-acre parcel of tidal wetland located at the mouth of Ragged Rock Creek in Old Saybrook. The Applicant was assisted by the Old Saybrook Planning Department, Old Saybrook Land Trust, and DEEP Wildlife Habitat and Mosquito Management in its attempt to identify a suitable restoration area. The Applicant, in consultation with DEEP, proposed that the parcel serve as mitigation for the project and as mitigation for another bridge, located south of this subject bridge. (Exs. APP-1B, pp.45, 367, 27, DEEP-6Q, DEEP-12.)

41. The proposed mitigation is an opportunity to preserve the last parcel of privately held land surrounded by 250 acres of adjacent preserved land in the Ragged Rock Creek wildlife area and in addition will contribute to the Connecticut In-Lieu Fee mitigation fund. (Ex. APP 1B pp. 368-369.)
42. The parcel proposed by the Applicant is sufficient to mitigate the impacts resulting from the proposed project. The Applicant acquired this parcel and turned over custody and control of the property to DEEP on March 5, 2021. (Exs. APP-1B, p. 368, Attachment 43, 4, 27, DEEP-6Q.)
43. The construction for the project will last one construction season. The construction is scheduled in the off season, both at the request of the Town of Old Saybrook and at the recommendation of the Department of Agriculture Bureau of Aquaculture. The work will be completed between Labor Day and Memorial Day of the construction year. This schedule will ensure protection from sedimentation of the local oyster resource area and wildlife. (Exs. APP-1B, pp. 45-46, Attachment 24; 27, DEEP-6M.)
44. The in-water work is limited to the use of a non-motorized work float during the superstructure removal/installation and the cutting of the abutments as debris control. The work float will be watertight to ensure that no debris enters the waterway from the work float, and when not in use will be stored in the uplands. (Exs. APP-1B, pp. 6, 368; 27, DEEP-6A, 6Q.)
45. Silt fencing will be used along the roadway for the reconstruction work. Turbidity curtains will be utilized in the water at the four corners of the bridge during the placement of the riprap to control any turbidity which may be produced from the activity. (Exs. APP-1B p. 368, 27, DEEP-6Q.)

46. The application indicates that the Applicant's contractor will follow the DOT Form 818, Standard Specification for Roads, Bridges, Facilities and Incidental Construction, which provides guidance for the protection of water quality during construction. (Exs. APP-1B p. 368, 27, DEEP-6Q.)
47. Permanent impacts have been limited to those necessary for the stability of the four corners of the bridge and small areas related to the new toe of the embankment on the east side of the roadway. Temporary impacts will be restored using a robust native planting plan. (Exs. APP-1B pp. 368-369, APP-27, DEEP-6Q.)

6.
Hydraulics, Velocity and Erosion

48. Based on the published FEMA Flood Hazard Zone elevations, a 100-year frequency coastal storm event can be anticipated to produce a storm surge and wave activity that will be six to nine feet above the Route 154 roadway elevations. The proposed project will not raise Route 154 and the associated bridge structure above the 100-year coastal storm elevation. (Ex. APP-1B.)
49. As indicated in the application, the proposed project provides a bridge structure that will be resilient to sea level rise and increased storm frequencies and intensity by providing a structure that has been designed to remain stable and resistant to storm forces. (Exs. APP-1B, Attachment 43, 27, DEEP-6Q.)
50. The DOT Drainage Manual has design standards for replacement structures that require replacement bridges to be designed to pass the 100-year storm event through the bridge opening and for the roadway to be elevated above the 100-year floodplain elevation. Section 9.3.9 of the DOT Drainage Manual permits design exceptions when it can be demonstrated

that satisfying the required criteria would be impractical or inappropriate due to site conditions or other facts. (Exs. 1B p. 83, APP-10, APP-23, APP-25, DEEP-6H, DEEP-10.)

51. The existing roadway surface elevation at the bridge is approximately nine feet and the 100-year FEMA Base Flood elevation is thirteen to fourteen feet at the project site. The roadway through this portion of Old Saybrook is essentially an elevated causeway that was built on the marsh prior to the late 1930s. The entirety of the surrounding marshlands, residences and roadway north and south all fall below the 100-year flood elevation. For this reason, it would not be feasible or practical to raise the bridge above the 100-year elevation because all the surrounding areas would still experience significant inundation and the roadway leading up to and away from the bridge would be impassable. Raising this bridge to accommodate the 100-year coastal storm event to an elevation of fourteen feet would require raising Route 154 for at least 1.3 miles. (Exs. APP-1B, p. 359, 23.)

52. The Applicant prepared 1-D and 2-D hydraulic models, which were then peer reviewed by RACE. (Exs. APP-1B pp. 66-276, 19, 25, DEEP-6H, 6I.)

53. The Intervening party's expert, Daniel Stapleton, relied on the Applicant's hydrologic analysis and models and stated that he believed the modeling results were done well and he did not disagree with the findings of the reports. He believed the Applicant's use of 1-D and 2-D modeling was appropriate, and that it had used industry standard models that resulted in reliable data. He further noted that it was his opinion that the Applicant did a good job and "went beyond" when it retained RACE to conduct a peer review. (Test. Stapleton 2/17/22, 2:26-2:28.)⁴

⁴ This identification is in reference to the timestamp of the witness' testimony as indicated on the Zoom recording.

54. As shown by the Applicant's 1-D model, the proposed project will not cause a significant impact or alteration to the hydraulic conditions of the tidal river as velocity outputs did not increase between the existing and proposed conditions. (Exs. APP-1B p. 271, 19, 25, DEEP-6I.)
55. The 1-D hydraulic modeling demonstrated that the proposed project will not have a significant impact on the movement of sediments on or along the shoreline or erosion of adjacent or downdrift areas. The modeling shows that the velocity under the bridge is large enough to cause particle movement within the Back River, even with the 100-foot span alternative. The 100-foot alternative will not significantly decrease the velocity enough to prevent erosion occurring at the adjacent sites, which would be expected to naturally occur considering the location along the outer bank of the channel bend. (Exs. APP-1B p. 271, 2, 19, 23, 25, DEEP-6I.)
56. The 1-D hydraulic model examined the flow and average velocities inside and outside of the bridge for the existing bridge and for the DOT's selected design and the other bridge alternatives. These modeling results demonstrated that as the bridge and abutment span increase, the average velocity decreases, and the average velocity in the channel outside of the bridge increases. (Exs. APP-1B p. 271, 19, 25, DEEP-6I.)
57. The Applicant's 2-D model shows that the proposed project will not cause significant adverse alteration of patterns of tidal exchange or flushing rates, water stagnation will neither be caused nor contributed to, and the ability of wetlands and adjacent water bodies to flush themselves will not be adversely affected. (Exs. APP-11A, 11B, 23.)
58. The 2-D hydraulic model demonstrated that the proposed project, as compared to the existing condition, with the overall larger waterway area would slightly decrease the maximum water

surface elevation in the marsh east of Route 154 for the storm surge and upland runoff scenarios reviewed. The 2-D model further indicated that the maximum flow through the proposed bridge design would increase by a maximum of two percent for the storm surge events analyzed; however, velocities would be less than or equal to the current conditions. (Exs. APP-23, 25.)

59. As demonstrated from the testimony of DOT's expert witnesses, Michael Hogan and Azure Dee Sleicher, the construction of the proposed bridges will not pose a significant impact or alteration to the hydraulic conditions compared to the existing bridge. (Exs. APP-19, APP-26.)

60. The proposed bridge span length is the longest that can be accomplished for the project site without the need for a central pier to support the bridge superstructure. The need for a pier introduces additional concerns for the constructability of such a structure due to the extensive water handling that would be required to not only remove the existing abutment and strut system, but also to install the proposed center pier. A central pier could also change the flow dynamics of the waterway through the crossing. A longer span would neither reduce the roadway overtopping, nor would it significantly alter the velocities of water moving through the bridge opening because this is a tidal river system, and the water surface elevation is controlled by the tide and surge elevations. (Ex. APP 1B – pp. 360-361.)

61. The hydraulic modeling results of the existing and three alternative dimensions of the bridge show:

- a. The velocity under the bridge is large enough to cause particle movement within Back River even when the bridge and abutments have a 100-foot span. Thus, increasing the span of the bridge will not significantly decrease the velocity enough to prevent erosion from occurring at the adjacent sites.

- b. The proposed project meets the permit requirements and does not increase erosion or sedimentation. The proposed bridge does not alter the circulation and quality of coastal and tidal waters, or adversely impact protection of life and property from hurricanes or natural disasters.
 - c. The construction of the proposed project will not pose a significant impact or alteration to the hydraulic conditions of the existing bridge. (Exs. APP-1B p. 271, APP-19, APP-25, DEEP-6I.)
62. The counterclockwise flow pattern that currently exists in the vicinity of the nearby boat ramp is not changed by the project and would remain as such for all bridge configurations analyzed. (Exs. APP-2, 19, 23, 25.)
63. The proposed project will not obstruct flood flow or result in an adverse increase in flood elevations, significantly affect the flood control value of the floodplain, cause an adverse increase in flood velocities, hydraulic flow, or an adverse impact on upstream, downstream or abutting properties. (Exs. APP-1B p. 17, 23, 25, DEEP-6A.)
64. The bridge acts as a tide balancing structure that accommodates the tidal fluctuations of Long Island Sound in addition to riverine flows. The predominate source of flow through the bridge is the fluctuating tide and storm surge elevations. (Exs. APP-1B p. 77, 23, 25, DEEP-6H.)
65. There is a low point on Route 154, approximately 3,500 feet south of the bridge which has a controlling effect on the flow through the bridge. This will not change regardless of the span length chosen for the project. (Exs. APP-1B p. 360, 23, DEEP-6Q.)
66. There are several contributing factors to the erosion that is occurring at the site, which include the geographical formation of the tidal waterway, such as the bend of the Back River, as well as vegetation dieback, which DEEP has recognized is occurring within the vicinity of this

proposed project. As far back as 1988, DEEP noted that the erosion occurring at the marsh edge near the bridge did not appear to be caused primarily by the subject bridge, but rather the natural process associated with the tidal river, as well as the construction of boat docks, power boat operations, foot traffic and small boat storage. (Exs. App-15-17, 27.)

67. The Applicant completed a Scour Report in October 2020. There are scour holes present outside of the bridge area. The Applicant's report indicated that the existing and proposed conditions result in similar scour results. The report looked at a maximum scour of approximately forty-five feet and forty-six feet respectively for the existing and proposed bridges occurring during a 100-year storm surge, well below bottom strut and footing elevations. The report indicated both the existing and proposed structures are protected against this. (Ex. INT-32.)

68. The Intervening party proposed "alternative mitigation" for this site, such as a living shoreline, scour matts and wing deflectors. Information provided by the Intervening party indicated that wing deflectors would not be appropriate in higher flow areas. Daniel Stapleton testified that if scour mating was to be used at this site, additional fill and in water work would be required, and it was a "trade off." He further noted that scour mating would not impact bank erosion. (Exs. INT-1, 2, 19, Test. 2/17/22, 3:10-3:13, 3:17-3:23.)

69. The proposed project will not increase the potential for flood or hurricane damage on adjacent or adjoining properties, and will not increase exposure of any property, land or structures to damage from storm waves and erosion. Additionally, the proposed project will not significantly reduce the capacity of the Back River to convey flood waters generated by hurricanes or other storm events and will not result in significantly increased flooding either up or downstream of its location. The proposed project does not adversely impact protection

of life and property from hurricanes or natural disasters. (Exs. APP-1B, p.4, 23, 25, DEEP-6A.)

70. The proposed project will not have permanent impacts to navigation as the existing low chord elevation of the bridge will be maintained by the proposed structure. Temporary impacts to navigation will be announced through signage posted above the bridge on the upstream and downstream faces and coordinated through the DEEP Boating Division. The proposed project is not located in proximity to a federal navigation channel. (Exs. APP-1B, p. 8, 367, APP-8, APP-27, DEEP-6A, 6Q.)

71. There are two temporary aerial utility relocations on the western side of the roadway which will impact regulated areas. A watermain will be temporarily relocated on a separate support system upstream of the bridge during the reconstruction and will be moved to the east fascia of the bridge in the final condition. (Exs. APP-1B p. 6, 27, 6A.)

7.

Wetlands, Wildlife, and Fisheries

72. The proposed activities are in an area defined as a “tidal wetlands” as described in by General Statutes §§ 22a-29 and 22a-93(7)(E).

73. Total impacts below the limits of the Coastal Jurisdiction Line (“CJL”), defined in General Statutes §22a-359(c), are 2,465 square feet. Of the total impacts, 1,055 square feet are permanent impacts to vegetated tidal wetlands and 185 square feet are permanent impacts between the CJL and mean high water (“MHW”). These permanent impacts are mainly due to the placement of supplemental riprap at the corners of the Bridge to minimize erosion in high energy areas and a slight increase in the toe of the slope, to accommodate installation of a guiderail along the eastern side of the roadway. (Exs. APP-1B p. 56, 27, DEEP-6G.)

74. The temporary impacts to both tidal wetlands and areas below MHW will be restored/stabilized upon completion of the construction. (Ex. APP-27, DEEP-12).
75. The tidal wetlands provide habitat for a diverse assemblage of upland and aquatic species. There is an osprey platform approximately 250 feet southeast of the bridge in the upstream marsh. Osprey have been observed on the platform as recent as May 2021. Numerous shore birds have been observed in the marsh surrounding the bridge including great blue heron, egrets, and willets as well as various waterfowl and gull species working the marshes and tidal channels. DEEP's Natural Diversity Database ("NDDB") review indicates the presence of nesting saltmarsh sharp-tailed sparrow in the marshes upstream of the bridge but finds that the timing of the construction activity outside of the nesting season will have no adverse effects to the species. Diamondback terrapin are known to occur in the vicinity of Harvey's Beach, to the south of the bridge crossing, but DEEP's NDDB review finds that there are no anticipated impacts to the species from the project. (Ex. APP-1B, p. 364.)
76. The fish community identified within the marshes and the Back River by DEEP Fisheries Division include mummichog, Atlantic silverside, stickleback, killifish and sheepshead minnow. A recreational blue crab fishery also exists within the marsh during summer months. DEEP Fisheries also notes in its review that neither winter flounder nor anadromous species are known from the Back River or the marshes. DEEP Fisheries consented to the proposed project. (Exs. APP-1B, Attachment 23, 27, DEEP-6L.)
77. The proposed project has been reviewed by the National Oceanic and Atmospheric Administration and the Greater Atlantic Fisheries Office Protected Resources Division and it was determined to be not likely to adversely affect any federally listed marine mammals or

fish species and not likely to have any effects on Essential Fish Habitat as it may occur in the vicinity of the bridge. (Exs. APP 1B, p. 365, APP-27, DEEP-6Q.)

78. Shell fishing is prohibited within the Back River and tidal channels of the marsh system (Exs. APP 1B – p. 365, APP-7, APP-27, DEEP-6Q.)
79. The permit application was analyzed for impacts to endangered species. Although threatened or endangered species or species of special concern, including short nose sturgeon, Atlantic sturgeon, and blueback herring, were identified in the vicinity of the project, the proposed activities will have no impact on them. (Exs. APP-1B p. 278, DEEP-6J.)
80. There will be no blockage to fish passage through the bridge during construction. (Exs. APP-1B p. 365, 27, DEEP-6Q.)
81. The site is located in an oyster resource area. The application included a consultation with the Connecticut Department of Agriculture Bureau of Aquaculture. The Bureau found there would be no impacts of concern. (Exs. APP-1B p. 356, 27, DEEP-6M, 6Q.)
82. There are no mapped or managed state or town shellfish beds within the project limits, or the Back River, nor are they any mapped, natural beds within the project limits or the River. (Ex. APP- 27.)
83. Because of the limited footprint of impacts and the off-season construction timing there are no anticipated impacts to any wildlife or aquatic species. The construction season timing between Labor Day and Memorial Day of the construction year minimizes impacts to breeding and/or nesting species in the adjacent marsh communities. (Ex. APP 1B- p. 366.)

B. CONCLUSIONS OF LAW

1. SUMMARY

The activity proposed in the application is regulated by the Tidal Wetlands Act, General Statutes §§ 22a-28 through 22a-35, and its implementing regulations at Regs., Conn. State Agencies §§ 22a-30-1 through 30-17; what is commonly known as the “the Structures Dredging and Fill Act,” §§ 22a-359 through 22a-363; and the applicable portions of the Coastal Management Act, §§ 22a-90 through 22a-112. The overall regulatory framework requires a balancing of interests and requires the Applicant to minimize impacts to coastal resources. Overall, the proposed project meets the requirements of the relevant statutes and implementing regulations. The evidence, including documents and testimony, support approving the application and issuing the proposed Draft Permit. The record supports the factual findings and conclusions based on those findings that the potential environmental impacts from the proposed project have been sufficiently minimized and the proposed project is consistent with the applicable policies regarding coastal resources management. There was no evidence to demonstrate the proposed activity would violate or is reasonably likely to violate the relevant statutory and regulatory scheme identified in the preceding paragraphs. The Intervening party did not meet his burden to show that this regulated activity will or is reasonably likely to result in unreasonable pollution, impairment, or destruction of the air, water or other natural resources of the state. See *City of Waterbury v. Town of Washington*, 260 Conn. 506, 549-551 (2002).

The Applicant and DEEP offered testimony from nine expert witnesses during the evidentiary hearing. The witnesses’ testimony that was presented on behalf of the Applicant and DEEP were credible and persuasive. Reliance on DEEP staff is appropriate when determining the information and studies required through the permit process; the Department may rely on its own expertise. See *MacDermid v. Dep’t of Environmental Protection*, 257 Conn. 128, 139 (2001) (“when the application of agency regulations requires technical, case by case review, that is

precisely the type of situation that calls for agency expertise.”) Additionally, “an administrative agency is not required to believe any of the witnesses, including expert witnesses....” *Bain v. Inland Wetlands Commission*, 78 Conn. App. 808, 817 (2003). “The trier of fact is not required to believe un rebutted expert testimony, but may believe all, part or none of such un rebutted expert evidence.” *Bancroft v. Commissioner of Motor Vehicles*, 48 Conn. App. 391, 405 (1998). The case at hand requires significant technical and specific review, and the experts put forth by the Applicant and DEEP demonstrated a great depth of understanding of the regulatory and statutory requirements in this matter, with each expert respectively agreeing that the application met the statutory requirements.

The Intervening party presented an expert witness, Mr. Daniel Stapleton. While I found Mr. Stapleton to be well versed on this matter, he did not provide any independent studies or reports related to this matter, other than a review of historical photographs. Instead, he testified extensively that he relied on the information produced by the Applicant and RACE, its consultant. While he testified regarding erosion in general, he admitted throughout his testimony that he could not opine on alternative bridge designs, could not speak on ecological concerns or wildlife and could not speak to the overall performance of the marsh. He did not provide persuasive evidence to contradict the findings of the Applicant or DEEP’s expert witnesses and the substantial evidence in the record. Mr. Armstrong testified as a lay witness, and while he provided observational information, his testimony further did not provide persuasive evidence to contradict the factual information presented throughout the hearing process. Neither the expert nor lay witness for the Intervening party were persuasive.

2.
STATUTORY COMPLIANCE

a.
Tidal Wetlands Act

General Statutes §§22a-28 through 22a-35 are commonly referred to as the Tidal Wetlands Act. Section 22a-28 declares that it is the public policy of the State to preserve the tidal wetlands and prevent their despoliation and destruction. Section 22a-32 requires that no activity be conducted on any wetland without a permit from DEEP and 22a-33 provides the factors that the Commissioner must consider when deciding to grant any such permit.

The Act requires the consideration of “the effect of the proposed work with reference to the public health and welfare, marine fisheries, wildlife, the protection of life and property from flood, hurricane and other natural disasters, and the public policy as set forth in sections 22a-28 to 22a-35, inclusive.” §22a-33. As will be demonstrated in the specific descriptions of compliance with the implementing regulations for the Act, below, the the State’s policy to protect its wetlands is preserved.

b.
Structures Dredging and Fill Act

General Statutes §22a-359(a) provides that the Commissioner shall regulate dredging and the erection of structures and the placement of fill, and work related to that fill, in the tidal, coastal or navigable waters of the state waterward of the coastal jurisdiction line. Section 22a-361 (3) (c) outlines the factors that could be impacted by a regulated activity and that must be given due regard by the Commissioner or her designees in granting, denying, modifying or limiting a permit.⁵

⁵ “[I]mpact of regulated activities and their use on the tidal, coastal or navigable waters of the state, adjoining coastal and tidal resources, tidal wetlands, navigation, recreation, erosion, sedimentation, water quality and circulation, fisheries, shellfisheries, wildlife, flooding and other natural disasters and water dependent use opportunities....: §22a-361(c).

The Draft Permit complies with the requirements of §22a-359(a). The record contains substantial evidence to demonstrate that the Applicant will take the necessary steps to minimize impacts, as required by the Draft Permit.

Indigenous fish and wildlife will be protected both through sediment control measures to be implemented during the construction activities, as well as the time of year conditions established in the Draft Permit. The record demonstrates that temporary impacts will be minimized by best management practices and permit conditions, which include the use of a work float and turbidity curtains to prevent sedimentation and debris from entering the resources. The substantial information in the record demonstrates that the proposed work to replace the bridge will not contribute to shore erosion or coastal flooding during and after the construction.

Coastal access and navigation will be impacted by a temporary closure of the channel during construction. This closure will be communicated through signage posted above the bridge on the upstream and downstream faces and will be completed in coordination with the DEEP Boating Division. These navigation impacts are temporary and will be minimal. The proposed bridge will remain within the existing right of way and will not impact the use of adjacent properties.

The application and the Draft Permit establish the balance of preventing water pollution and maintaining water quality, while permitting the activity to occur. This activity is the reconstruction of bridge that has been rated as “poor” and is a bridge which is vital to the transportation needs of the State. The Applicant has demonstrated an appropriate sedimentation control plan and construction methods to protect the interest of the State and its wetland resources.

The Intervening party raised arguments that the current bridge causes unnatural erosion, and therefore, the proposed bridge will continue to do so. The findings of the Applicant and its

consultant RACE demonstrate that the velocity outputs which currently exist and the proposed conditions are substantially the same and therefore would not result in a significant increase in erosion. Notably, this hearing is only about the proposed conditions, and while the Intervening party focused much of his arguments on the current bridge, the Applicant and DEEP can only look at the current conditions of the site and how the activities to be regulated, i.e., the construction of the replacement bridge, will impact the State's natural resources. The existing velocities are currently high enough to cause erosion along the bank of the marsh and the proposed project will not cause significant changes to the current pattern of flow water or its velocity. While erosion is occurring in this vicinity, there is no evidence to demonstrate that the proposed bridge will be the source of this erosion nor is there evidence to demonstrate that the proposed activities will increase erosion, other than to say erosion is currently occurring and therefore, will continue. This administrative process cannot order an Applicant or any other party to mitigate erosion when there is no evidence the proposed activity is the source of such erosion. The Applicant is taking best practice measures to ensure that the construction process does not increase erosion in the water as required by the Draft Permit.

c.
The Coastal Management Act

The proposed activity to be governed by the Draft Permit complies with the following provisions of General Statutes 22a-90 through 113, the Coastal Management Act.

i.

Structures in tidal wetlands and coastal waters be designed, constructed, and maintained to minimize adverse impacts on coastal resources and sedimentation patterns, water quality, and flooding and erosion, to reduce to the maximum extent practicable the use of fill and to reduce conflicts with the riparian rights of adjacent landowners. § 22a-92(b)(1)(D).

The Draft Permit and the proposed project are designed to minimize adverse impacts on coastal resources and sedimentation patterns, water quality, and flooding and erosion. The Draft

Permit contains language in regard to sedimentation and debris control. While the Intervening party has asserted that the proposed bridge is not designed to minimize adverse impacts on coastal resources, given that its design will “directly contribute to increased scouring, sedimentation, and erosion of the adjacent Plum Bank Marsh,” they failed to provide evidence, aside from mere speculation or observational comments, that the proposed project is directly contributing to increased scouring, sedimentation or erosion of the adjacent Plum Bank Marsh. Evidence of general environmental impacts, mere speculation or general concerns do not qualify as substantial evidence. *River Bend Associates v. Conservation & Inland Wetlands Commission*, 269 Conn. 57, 71 (2004). See also *Estate of Casimir Machowski v Inland Wetlands Commission*, 137 Conn. App. 830, 836 (2012). The Intervening party further ignored the mitigation aspects imbedded within the design construction of the proposed project to protect against scour, sedimentation or erosion. The Intervening party asserted throughout the evidentiary hearing that a wider bridge span would reduce the velocity and erosion, no such evidence was produced to prove this. In fact, the evidence submitted by the Applicant proved that such a statement was not correct when looking at a 100 foot span with a 100 foot abutment. Further, the evidence shows that there are significantly more environmental impacts with larger spans, including more impacts to wetlands, impacts to the stability of the river bottom and would cause more erosion within the area. The proposed project considered such alternatives, and rejected them, to balance both the need to reconstruct this bridge, with the environmental conditions of the area.⁶

ii.

To encourage recreational boating. § 22a-92(b)(1)(G).

⁶ Conn. Gen. Stat. § 22a-92(b)(2)(D) states “To encourage the enhancement of degraded intertidal flats.” Notably, there are no degraded intertidal flats within the Project Limit.

The proposed work and the replaced bridge will have no permanent impacts on recreational boating. While the proposed activity will prevent temporary use of the channel during construction, by maintaining the low chord of the existing bridge, the Project will not have a negative impact on recreational boating. Additionally, the current velocity and flow patterns will remain substantially unchanged. This is a tidal body of water and will continue to be so. There is a low point on Route 154, approximately 3,500 feet south of the bridge which has a controlling effect on the flow through the bridge. This will not change regardless of the span length chosen for the project. Therefore, the proposed project will not have a permanent impact on recreational boating, and the conditions will remain as they are currently.

iii.

To preserve tidal wetlands and prevent the destruction and despoliation thereof to maintain their vital natural functions and enhance degraded tidal wetlands and create tidal wetlands where possible for habitat creation. Conn. Gen. Stat. § 22a-92(b)(2)(E).

The proposed project and Draft Permit are designed to preserve tidal wetlands to the greatest extent possible and will prevent the destruction and despoliation thereof to maintain their vital natural functions and enhance tidal wetlands and create tidal wetlands where possible for habitat creation. To mitigate the permanent impacts to the wetlands, the Applicant has obtained one acre of wetlands to preserve, which is in far excess to any possible permanent impact to the surrounding wetlands of the bridge, as discussed more fully above.

iv.

To require that coastal highway improvements, including bridges, be designed and constructed so as to minimize adverse impacts on coastal resources and where possible enhance and in no case decrease coastal access and recreational opportunities. General Statute § 22a-92(c)(1)(G).

There is substantial evidence in the record which demonstrates that this proposed bridge has been designed and will be constructed to minimize adverse impacts on coastal resources. As

discussed in prior sections, the construction methods, as well as the Draft Permit requirements for sedimentation and debris control will minimize adverse impacts to the resource areas. The Intervening party alleges that the proposed project is not “designed to minimize adverse impacts on coastal resources, given that its design will directly contribute to increased scouring, sedimentation, and erosion of the adjacent Plum Bank Marsh.” The Intervening party goes on to recommend that the Applicant should “increase the width” of the Bridge’s opening. While the Intervening party does not provide a specific width that they recommend, they fail to acknowledge that widening the width of the Bridge’s opening will cause *more* permanent environmental impacts, and further the hydrologic studies completed by DOT and RACE indicated that even a hypothetical 100 foot span will not decrease the flow velocity significantly and will cause erosion. Further, a larger span and larger abutment would require the removal of the current strut system. The removal of the strut system has potential environmental impacts. Currently, the struts are holding the channel bottom through the bridge structure at a constant elevation between -5.5 to -7 feet. If the Applicant removed the struts, this would result in a deeper channel, with an approximate elevation of -9 feet at the removal, which would then be expected to degrade further over time. Without the protection of the struts, the channel bottom would erode further, would send sediment downstream and could potentially destabilize the ends of the causeway. The Applicant and DEEP have to balance all of the factors when evaluating the proposed activities, and they appropriately did so in this matter.

3. **REGULATORY COMPLIANCE**

The proposed project and the Draft Permit comply with Regs., Conn. State Agencies §22a-30-10, the implementing regulations of the Tidal Wetlands Act.

a.
Criteria, §22a-30-10(b)

Section 22a-30-10 establishes the criteria for the consideration of the impact of regulated activities on the tidal wetlands of the state, adjoining coastal and tidal resources, navigation, recreation, erosion, sedimentation, water quality and circulation, fisheries, shellfisheries, wildlife, flooding and other natural disasters and water-dependent use opportunities.

b.
Alternatives, §22a-30-10(b)(1)

Section § 22a-30-10(b)(1) provides that “there is no alternative for accomplishing the applicant's objectives which is technically feasible and would further minimize adverse impacts.” Contrary to the assertions of the Intervening party, the Applicant considered alternatives to determine if they were technically feasible and would further minimize adverse impacts.⁷ The Applicant noted throughout the hearing process that a no-build alternative is not an option. This bridge has been rated in the “poor” condition and serves as an important travel route. If the bridge had to be permanently closed due to failing conditions, it would have significant impacts to the local community and emergency services. Further, due to the condition and age of the existing abutment and timber pile substructure it is not a feasible option to re-use the existing eighty-seven-year-old bridge. The Applicant evaluated several different bridge span alternatives to determine the effect of the span length on the Plum Bank Marsh System. The Applicant determined that increasing the structure span would not result in a significant reduction in velocity at the bank as the reduction is negated by an increased flow. Additionally, the alternatives were rejected in part because of the increased environmental impact of the larger spans, which would increase the

⁷A feasible alternative is defined as one that is “able to be constructed or implemented consistent with sound engineering principles.” General Statutes § 22a-38(17). A prudent alternative is “economically and otherwise reasonable in light of the social benefits to be derived from the proposed regulated activity....” §22a-38(18).

impact to the surrounding wetlands and require additional fill. The proposed design maintains the low chord elevation of five-foot elevation of the existing bridge, limiting the amount of fill required to impacted areas. The use of the current abutments and strut system will also minimize impacts associated with construction by preventing further erosion of the channel bottom, which could send sediment downstream and potentially destabilize the ends of the causeway. In light of the information provided through the DOT and RACE's reports, as well as the increased environmental impacts, it was determined that the alternatives were not technically feasible.

Subparagraph (4) of this regulation provides that “[a]ll reasonable measures which would minimize the adverse impacts of the proposed activity on the wetlands of the state and adjoining coastal and tidal resources are incorporated as limitations on or conditions to the permit.”

The Draft Permit requires that the Applicant take measures to minimize the impacts of the proposed activities. There will be temporary and permanent impacts to the wetlands surrounding the four quadrants of the bridge and edge of the eastern roadway. The temporary impacts will be restored and stabilized following the completion of the construction. There are no impacts to broad areas of the established marsh community beyond the toe of slope and there is no anticipated adverse impact to any wildlife or aquatic species. Additionally, because the low chord of the existing bridge is being maintained, there are no permanent impacts to navigation.

While the Intervening party claims that neither the Applicant nor DEEP considered mitigation measures to address the “adverse impact of the Replacement bridge surrounding tidal wetlands...” the Applicant and DEEP have agreed on the mitigation plan, related to the permanent impacts to the tidal wetlands.

c.

Recreation, Navigation, Regs. Conn. State Agencies 22a-30-10(c)

Section 22-30-10(c) provides the following relevant criteria:

(1) The proposed activity will not unreasonably interfere with established public rights of access to and use of wetlands, or with access to the portion of the shoreline below the mean high tide elevation that is held in public trust by the state, or with access to and use of public recreational facilities, both in operation and planned; and

(2) The proposed activity will not be located in a way which unreasonably interferes with a navigable channel or small craft navigation; and

(3) The proposed activity will not cause or contribute to sedimentation problems in adjacent or nearby navigable waters, navigation channels, anchorages or turning basins.

There is substantial evidence in the record to demonstrate that the proposed activity will not impede navigation on the Back River. During the removal of the superstructure, the cutting down of the existing abutments and wingwalls and the placement of the new superstructure the channel will be closed. While this is a temporary interference with the passage, it is not unreasonable and is in place to protect recreational boaters during the construction process. While the proposed bridge may temporarily affect adjacent navigational uses by recreational watercraft, the proposed project's construction schedule is to occur outside of the Memorial Day to Labor Day season, thereby likely limiting the impact of the temporary navigational affects. The Application requires the Applicant to use signage to ensure channel users are aware of the project. Additionally, the proposed project will maintain the current bridge's existing low chord at elevation five feet and recreational navigation under the bridge will be restored to its pre-construction condition upon completion. After the proposed activity is completed, the reconstructed bridge will not unreasonably interfere with access to and use of the marsh or Long Island Sound.

d.

No erosion and sedimentation, Regs., Conn. State Agencies §22a-30-10.⁸

The proposed project as conducted under the Draft Permit will not cause or produce unreasonable erosion or sedimentation. There has been substantial consideration of the current flow patterns, water velocity and exposure during storm conditions and the impact of these conditions on erosion and sedimentation patterns in this matter. The Intervening party has argued that the velocity is high volume and will have impacts on erosion and sedimentation patterns. In raising these arguments, the Intervening party admits that the proposed activity will not cause significant changes in current patterns and water velocity, but thinks the current levels are not appropriate. Notably, the requirements of this regulation only look to see if there will be significant change to the *current* patterns. Studies conducted by the Applicant compared the anticipated flows and velocities during and after construction to current flows and velocity and the evidence demonstrated that the flow pattern will remain substantially unchanged.

The Draft Permit requires a sediment control plan to address any erosion of sediment into the Back River during construction. Ms. Sleicher testified that in her expert opinion RACE has determined that erosion rates will not be negatively impacted because of the proposed project. The existing rate of embankment erosion will remain unchanged with the proposed condition. I accept

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1. ⁸ The proposed activity will not cause significant changes in current patterns, water velocity or exposure to storm or wave conditions which result in adverse effects on erosion or sedimentation patterns;
 2. Temporary erosion control measures will be utilized on the project site both during and after construction;
 3. When permanent erosion control measures are proposed, non-structural alternatives are utilized unless structural alternatives are demonstrated to be unavoidable and necessary to protect infrastructural facilities, water-dependent uses and existing inhabited structures;
 4. Any structure or fill shall:
 - A. Not cause a significant adverse impact on the movement of sediments on or along the shoreline;
 - B. Not cause erosion of adjacent or downdrift areas;
 - C. If necessary, include provision for the transfer of sediment to downdrift areas to prevent those areas from being deprived of sediments;
 5. The perimeter of all areas proposed to be filled, dredged or excavated are suitably stabilized to prevent spillover or erosion of material into adjoining wetland or watercourse areas; ...

the conclusions of this witness. The proposed project will not result in an increase in velocities through the bridge and will not result in a significant increase in velocity or volume of flood water flow within the marsh from current levels.

e.

No impacts to marine fisheries, shellfisheries, and wildlife, 22a-30-10(e).⁹

The proposed project will not adversely affect marine fisheries or habitats. The construction of new abutments behind the existing abutments means that there will be no blockage to fish passage through the bridge during construction. Any impact to fisheries associated with the construction will be temporary and minimized due to the conditions in the Draft Permit. The Draft Permit includes conditions for the protection of fisheries and shellfish, and the off-season construction schedule should limit any potential impact to a nearby osprey nesting platform.

The permit application was analyzed for impacts to endangered species. The threatened or endangered species or species of special concern will be protected by the Applicant's efforts, including the seasonal limitation on construction activities, to minimize any temporary impacts. Additionally, there are no shellfish beds within the project limits or the Back River. Potential

⁹ Conn. Agencies Regs. § 22a-30-10(e) states:

1. The existing biological productivity of any wetland will not be unreasonably affected;
2. Habitat areas, such as habitat of rare and endangered wildlife and fish species, will not be destroyed, filled, or otherwise unreasonably affected;
3. Wildlife and their nesting, breeding or feeding habitats will not be unreasonably reduced or altered;
4. Erosion from the proposed activity will not result in the formation of deposits harmful to any fish, shellfish or wildlife habitat;
5. Shellfish beds will not be adversely affected by changes in:
 - A. Water circulation and depth patterns around and over the shellfish beds;
 - B. Natural relief of shellfish beds;
 - C. Grain size and distribution of sediment in shellfish beds;
2. The timing of construction activities takes into consideration the movements and life stages of fish, shellfish, and wildlife;
3. The proposed activity will not unreasonably interfere with the harvesting or maintenance of leased, franchised or natural shellfish beds.

impacts to shellfish areas, namely spawning shellfish, in the vicinity of the Project are addressed by conditions of the Draft Permit.

f.

No Impact on Circulation and Quality of coastal or tidal waters, Regs. Conn. State Agencies § 22a-30-10(f).¹⁰

The proposed activities as conditioned by the Draft Permit comply with the relevant portions of § 22a-30-10(f). The proposed activity will not have a significant adverse impact on the circulation and quality of tidal waters. The Applicant conducted hydrologic modeling which demonstrated that the proposed project will not cause significant adverse alteration of patterns of tidal exchange or flushing rates, water stagnation will neither be caused nor contributed to and the ability of wetlands and adjacent water bodies to flush themselves will not be adversely affected.

g.

Proposed activity will protect life and property from hurricanes or natural disaster, Regs., Conn. State Agencies §22a-30-10(g).¹¹

¹⁰The Commissioner shall, as applicable, find that: 1. The proposed activity will not cause the significant adverse alteration of patterns of tidal exchange or flushing rates, freshwater input or existing basin characteristics and channel contours; 2. Water stagnation will be neither caused nor contributed to, and the ability of wetlands and adjacent water bodies to flush themselves will not be adversely affected; 3. Pile-supported construction will be utilized to the fullest extent practical; 4. The proposed activity will not result in water pollution which unduly affects: A. The bottom fauna; B. The physical or chemical nature of the bottom; C. The propagation and habitats of shellfish, finfish and wildlife. Conn. Agencies Regs. § 22a-30-10(f).

¹¹ In order to determine that a proposed activity is consistent with the need to protect life and property from natural disasters, including flooding, the Commissioner shall, as applicable, find that

1. The proposed activity will not increase the potential for flood or hurricane damage on adjacent or adjoining properties;
2. The proposed activity will not increase the exposure of any property, land or structures to damage from storm waves and erosion produced thereby;
3. The proposed activity will not result in significant increase in the velocity or volume of flood water flow both in streams and estuaries;
4. The proposed activity will not significantly reduce the capacity of any stream, river, creek or other water course to transmit flood waters generated by hurricanes or other storm events and will not result in significantly increased flooding either up or downstream of its location.

The proposed activities and the Draft Permit are consistent with the applicable requirements of § 22a-30-10(g). The Applicant completed a hydraulic analysis that assessed the impact of the construction activities and post construction conditions on the floodplain. The proposed activities will not affect the regulatory base flood elevations established by the FEMA Flood Insurance Study and will meet the NFIP minimum standards floodplain management criteria for flood prone areas. Therefore, the proposed activities will not increase the potential for flood or hurricane damage on adjacent or adjoining properties, and will not increase exposure of any property, land or structures to damage from storm waves and erosion. Further, the proposed project will not significantly reduce the capacity of the Back River to convey flood waters generated by hurricanes or other storm events and will not result in significantly increased flooding either up or downstream of its location. Additionally, the proposed bridge has been designed to be more resilient than that of the existing structure and therefore, will be less likely to be damaged during a hurricane, which will serve to preserve access to and from the surrounding area for both residents and first responders.

h.
Water dependent use of tidal wetlands, Regs., Conn. State Agencies §22a-30-10(h).¹²

¹² In order to determine that a proposed activity within the coastal boundary is consistent with the state policy that water-dependent uses of the shorefront be given highest priority and preference, the commissioner shall, as applicable, find that:

1. When the proposed activity is not a water-dependent use:
 - i. The wetland is unsuitable for or incapable of supporting a water-dependent use;
 - ii. There is little or no demonstrable demand for water-dependent uses suitable for or capable of being supported by the wetland;
 - iii. A non-water-dependent use has substantially fewer adverse impacts than all water-dependent uses suitable for or capable of being supported by the wetland;
2. All reasonable measures which would minimize adverse impacts on future water-dependent uses are incorporated as limitations on or conditions to the permit;
3. The proposed activity will not unreasonably interfere with the riparian rights of adjacent landowners or claimants of water or shellfish rights in or adjacent to the wetland.

The proposed bridge is not a water dependent use. The evidence in the record demonstrates that the alternatives analysis shows that the existing transportation right of way and the resource areas within it cannot support another use. Further, this area supports an essential piece of transportation infrastructure and there was no alternative but to design a replacement structure. The proposed project minimizes encroachment into regulated areas and stays exclusive within the current transportation right of way. This proposed project will not permanently reduce the potential for water dependent use of adjacent properties.

III. INTERVENING PARTY

A. Allegations Under General Statutes § 22a-19

Mr. Armstrong’s intervention under §22a-19 was limited to his allegations of unreasonable environmental impacts to air, water and other natural resources of the state from the proposed activity. General Statutes §22a-19(a)(1). *Pond View, LLC v. Planning & Zoning Commission*, 288 Conn. 143 (2008) (standing under §22a-19 permitted where conduct at issue application would cause harm to environment.) An intervening party has the affirmative burden to prove these allegations of environmental harm it asserted to gain party status under General Statutes §22a-19. It must show that the unreasonable environmental impacts it alleges will or are reasonably likely to occur if the proposed activity is approved. An intervening party “must first come forward and show that the [proposed regulated activities] are reasonably likely to unreasonably pollute, impair, or destroy a natural resource.” *Manchester Env’tl. Coal v. Stockton*, 184 Conn. 51, 58 (1981), overturned on other grounds by *City of Waterbury v. Town of Washington*, 260 Conn. 506 (2002). A party intervening pursuant to §22a-19 “has the burden of proving not just the fact that pollution

[or impairment] has or is about to occur. He must prove that the pollution complained of is unreasonable and unavoidable.” (Internal citations omitted) Id., 551.

Mr. Armstrong has not met his burden to show that the approval of this permit is reasonably likely to result in unreasonable pollution, impairment or destruction of natural resources as required by General Statutes §22a-19 pursuant to his allegations allowed as an intervenor under that statute.

1.

The design of the existing bridge has resulted in substantial non-natural erosion of the Marsh resulting in the siltation of the Back River.

The Intervening party did not meet his burden to prove this claim. Mr. Armstrong’s expert, Daniel Stapleton, spent much of his testimony at the hearing discussing erosion, but he testified that there is natural erosion within tidal channels, and he stated that he could not quantify a percentage of natural vs. non-natural erosion at the shoreline. He further indicated that he was not an ecologist wildlife specialist and could not speak to the overall performance of the Marsh or if there was suspended sediment in the channel. This issue was also not addressed in the Intervening party’s post hearing submission. Given this issue was not adequately addressed through the brief, that substantial evidence was not provided, and the Intervening party’s own expert witness could not discuss this issue, the Intervening party did not meet its burden of proof that the design of the bridge that is currently in place has resulted in substantial non-natural erosion of the Marsh resulting in the siltation of the Back River.

2.

The erosion has also resulted in additional suspended solids in the waters of the Back River in the vicinity of the Bridge and resulted in the reduction of the ability of the Marsh to filter and remove pollutants as well as sustain the ecosystem for fish and wildlife.

There is no evidence in the record to demonstrate that the design of the bridge has resulted in suspended solids that will reduce the ability of the Marsh to filter and remove pollutants or

impact the ecosystem for fish and wildlife. DEEP determined that there are no anticipated adverse impacts from this proposed project to any wildlife or aquatic species. The proposed project has been reviewed by the National Oceanic and Atmospheric Administration (“NOAA”) and the Greater Atlantic Fisheries Office Protected Resources Division (“GARFO”) and they determined that the regulated activities were not likely to have an adverse effect to any federally listed marine mammals or fish species. The NOAA and the GARFO Habitat Conservation determined the proposed activities were not likely to have any effects on essential fish habitat as it may occur in the vicinity of the bridge.

The Intervening party’s expert witness admitted that he was not an ecologist wildlife specialist and could not speak to the overall performance of the Marsh or if there was suspended sediment in the channel. Mere speculation or general concerns do not qualify as substantial evidence. *River Bend Associates v. Conservation and Inland Wetlands Commission*, 269 Conn. 57,71 (2004). This claim is also not addressed in the Intervening party’s post-hearing submissions and can be considered moot. See *West Haven v. Norback*, 263 Conn. 155, 177 (2003) (no obligation to consider issues not adequately briefed).

3.

The limited opening of the Existing Bridge creates a backup of waters during tidal cycles resulting in additional flooding on both sides of the bridge, which will continue and worsen once the Proposed Bridge is installed.

The Intervening party did not meet his burden to prove this claim. In fact, the Applicant has provided substantial evidence to demonstrate that the proposed activity is consistent with the need to protect life and property from hurricane or flooding. The Applicant completed a hydraulic analysis to assess the impact of both the construction and post construction conditions on the floodplain. The proposed activities will not result in a significant increase in the velocity or volume

of flood water in both the streams and estuaries. While the Intervening party has claimed that the Applicant did not provide sufficient information for DEEP to find that the replacement bridge will adequately protect life and property from hurricanes, flooding and other natural disasters, there is no evidence in the record to support such a claim. The Intervening party's expert relied on the Applicant's hydrologic analysis and models and stated that he believed the modeling results were done well and he did not disagree with the findings of the reports. He further noted that it was his opinion that the Applicant did a good job and "went beyond" when they retained RACE to conduct a peer review. There is no persuasive evidence in the record to demonstrate that the construction of the permitted activity or the post construction conditions will cause additional flooding or worsen flood conditions in the vicinity. Further, DEEP determined that they had sufficient information to make such a determination, and an agency has the authority to determine when an application is complete, that is, that it has all the information required by the relevant statute or regulations. *Commission on Hospitals and Health Care v. Stamford*, 208 Conn. 663, 668-69 (1988). Therefore, the Intervening party fails to make a viable or convincing claim regarding insufficient information.

B.
Insufficient Information

The Intervening party also claims that the Applicant "failed to provide sufficient information in its application for DEEP to conclude that the bridge replacement activity is consistent with the consideration of alternatives, as the replacement bridge poses two concerns that would threaten water-dependent uses of the Back River: the high velocity it creates through the Replacement Bridge and the low chord elevation." DEEP determined that the Applicant provided the appropriate information to complete the review process, and when required prior to issuing the Notice of Tentative Determination, DEEP requested additional information from the Applicant.

An agency has the authority to determine when an application is complete, that is, that it has all the information required by the relevant statute or regulations. *Commission on Hospitals and Health Care v. Stamford*, 208 Conn. 663, 668-69 (1988). There is no evidence in the record that supports the Intervening party's claim that sufficient information was not provided, as DEEP themselves indicated that they had sufficient information, and that the application complied with the applicable statutory and regulatory requirements.

C. Alternatives

If the Intervening party had met its burden to show that these proposed regulated activities are reasonably likely to result in unreasonable environmental harm, the Applicant would then have the burden to show that there are no feasible and prudent alternatives to its proposed work that would avoid the identified unreasonable environmental harm. General Statutes §22a-19(b). See *City of Waterbury v. Town of Washington*, supra, 260 Conn. 550 (When demonstration of unreasonable pollution, applicant has burden to show activities should still be permitted as are no feasible and prudent alternatives). In this matter, the Intervening party did not meet his burden of proof under §22a-19(a) and therefore, I do not need to consider prudent and feasible alternatives. Even if the Intervening party had met their burden under §22a-19a, the Intervening party did not provide prudent and feasible alternatives to the proposed project, except to raise arguments that the 100-foot span would reduce velocity.¹³ Mr. Stapleton testified that he could not opine as to which bridge option is the prudent and feasible alternative. As fully addressed above, this option also had adverse environmental impacts, and would not significantly reduce the velocity of the water.

¹³ The Intervening party asserted in their post hearing filings that the Applicant should design a bridge that would "span the width of the Back River" but failed to provide evidence how this alternative would reduce erosion, velocity nor did they provide information as to the permanent environmental impacts such a design would entail.

D.

Allegations Beyond the Scope of Intervention under General Statutes § 22a-19

The Intervening party identified numerous allegations of non-compliance with statutory and regulatory standards by the Applicant and claimed other issues would result in adverse impacts as apparent proof that this project and the proposed permit would result in environmental harm. To the extent any of those alleged violations or possible impacts may be encompassed in the specific issues identified above, there is no evidence in the record that requires their consideration. Nevertheless, several matters raised do justify further comment.

1.

Sea Level Rise

The Intervening party attempted throughout the hearing process to broaden the scope of this administrative process by making this hearing about concerns related to rising sea levels and asserting that the Applicant and DEEP have failed to consider this issue in its application or review process, and therefore, have not meet its statutory and regulatory obligations, citing §22a-92 (5). This statutory provision states “to consider in the planning process the potential impact of a rise in sea level, coastal flooding and erosion patterns *on coastal development* so as to minimize damage to and destruction of life and property and minimize the necessity of public expenditure and shoreline armoring to protect future new development from such hazards.” (Emphasis added). The Intervening party has not provided any evidence or arguments that this proposed project to replace an existing bridge, in an area that is already developed and that is within a marsh system, is considered coastal development.¹⁴ While the Applicant was not

¹⁴ Even if the area of the proposed project can be construed to be within a “coastal area” as defined by §22a-93(3) and §22a-94(a), that does not mean this work to replace an already existing bridge is considered as coastal development. As the Intervening party notes in his post hearing brief, “the Replacement Bridge is *Replacement...*.”(Emphasis added). The Bridge is not defined as costal development.

required to consider §22a-92 (5) as it is not applicable to the regulated activities, the Application itself demonstrates that sea level rise and the need for a more resilient structure was a part of the Applicant's consideration. The Applicant and DEEP determined that the proposed project provides a replacement bridge structure which will be resilient in the face of sea level rise and increased storm frequencies and intensity by providing a structure which has been designed to remain stable and resist storm forces. Having a stable structure minimizes future impacts during such storm events and provides a transportation facility that will function following storms and receding flood waters. As indicated in the application, "while the structure is not being made more resilient by lifting the roadway elevation above the 100-year storm elevation, resiliency in the face of sea-level rise and increased storm frequency is achieved by ensuring that the structure resists the forces of these increased storms." Also of note is that for this structure to be raised above the flood levels, 1.3 miles of the road would need to be raised, which is not feasible or prudent. Therefore, this argument provided by the Intervening party is without merit and is not supported by the record.

2. Scour

The Intervening party raised an issue through the evidentiary hearing, and his post hearing submissions related to scour holes, claiming "that the 1935 Bridge has created scour holes in the Back River channel on both sides of the bridge and eroded the banks of the marsh, and this pattern is expected to continue, as the Replacement Bridge is adopting the same failed design characteristics." This argument was not raised in Armstrong's Petition to Intervene and therefore, is outside the scope of his intervention. With that said, even if this issue had been properly raised, the evidence shows that the Applicant did consider the scour holes and

incorporated this information within the design of its proposed bridge to help protect the structure and river bottom against future scour.

The October 2020 Scour Report completed by the Applicant indicated that the existing and proposed conditions would result in similar scour results. The Report looked at a maximum scour of approximately forty-five and forty-six feet, respectively, for the existing and proposed bridges occurring during a 100-year storm surge, well below bottom strut and footing elevations. This would indicate a significant destabilization during the 100-year event. However, both the existing and proposed structures are protected against this. The design of the proposed bridge includes further protection against scour. The first level of protection is the existing structure which will remain in place from an elevation of two feet and below. This structure has remained intact through multiple hurricane events from its construction in 1935 to the present with minimal damage. The second form of protection involves sheet piling and riprap. It was determined by the Applicant that the sheet piling used to construct the proposed bridge could also be used as protection, therefore it will be left in place after construction. The sheet piling and area between the existing and proposed abutments will be capped with heavy riprap to prevent against undermining in the event the existing abutments and struts were washed away. Additionally, the proposed abutments are founded on concrete piers which extend approximately seventy-five feet below the channel bottom and are designed to withstand no support down to the maximum scour of thirty feet. The Scour Report further indicated that the bridge is not classified as “scour critical” but noted that its resistance to scour will be improved further under the proposed conditions.

While the Intervening party asserted that the scour holes were non-natural tidal channel features and a result of the hydrologic conditions, the hydrologic analysis performed as part of the application process indicated that the hydrologic conditions will not substantially change. While

the Intervening party proposed that the Applicant use scour mating to address the scour holes, Mr. Stapleton indicated that practically this would be a very difficult solution and would likely require fill within the water and more construction impact and in water work. He indicated scour mating was a “trade off” and he further noted that scour mating will not reduce flow velocity and will not impact bank erosion. There is no evidence that using scour mating at this site is a feasible option.

3.
1935 Structure

The Intervening party claims “if the Applicant is approved, the Commissioner would create a dangerous precedent by allowing an unpermitted structure (that being the 1935) to be replicated, thereby continuing the environmental damage, contrary to current laws and regulations.” Such a statement fails to acknowledge the statutory and regulatory requirements that are currently in place and the years that the Applicant spent to develop this application and work with DEEP to ensure its compliance with the applicable regulatory schemes. While the Intervening party might like the statutory requirements to be different in this circumstance and might wish for the Applicant to have greater responsibilities at this site than are required through the statutes, I have no such authority to override the legal requirements with which the Applicant has appropriately complied with. There is no question that the 1935 bridge did not require a permit but this proposed project has explicit statutory and regulatory requirements, which have all been considered and the application and the Draft Permit comply with current laws and regulations.

4.
Mitigation Measures

The Intervening party claims that that the Applicant has not proposed any nonstructural mitigation measures for erosion and sedimentation caused by the design of the replacement bridge

and therefore, has failed to satisfy §22a-92(b)(2)(J).¹⁵ The Intervening party has failed to meet its burden to demonstrate how this section of the Coastal Management Act is applicable and why the Applicant would be required to install nonstructural mitigation measures for erosion and sedimentation based on the proposed regulated activities. As fully discussed above, the current velocity of the water causes erosion, and the Intervening party has not produced any persuasive evidence to demonstrate that the proposed bridge will increase erosion. The Intervening party's own expert could not make such a prediction.¹⁶ As noted by the Applicant's expert witnesses, there are several factors that may be contributing to the erosion, including the velocity of the water, geographical conditions of the river, i.e., the bends both at the bridge and the marsh, and vegetation die back. The Intervening party's expert witness could not provide a percentage of contribution related to these different factors, and while he asserted it was non-natural erosion due to the velocity of the water, the only evidence produced of that were aerial photographs, focused solely on the area of the current bridge, without comparison to erosion through the entire tidal waterway. It is not convincing to assert that one can determine the cause of erosion based on aerial photographs taken over a number of years.

The Intervening party proposed "alternative mitigation" suggestions related to this proposed project. While there is no evidence in the record that supports the need for such measures, in addition to the mitigation plan already in place, I will address these suggestions below.

The Intervening party asserted that the Applicant should have included a living shoreline within the application. A living shoreline is an attempt to use natural resources as a form of flood

¹⁵ "to maintain the natural relationship between eroding and depositional coastal landforms and to minimize the adverse impacts of erosion and sedimentation on coastal land uses through the promotion of nonstructural mitigation measures." See § 22a-92(b)(2) (J).

mitigation or shoreline erosion. During the evidentiary hearing, Mr. Stapleton indicated that the Town of Old Saybrook is pursuing a grant for a design of a living shoreline in the area of the proposed bridge. While it is not in dispute that erosion is occurring along the bank of the Marsh, the cause of the erosion is in dispute. Evidence in the record indicates that there are several factors contributing to erosion, specifically in the area where the living shoreline is being proposed. This includes vegetation die back and geographical considerations, like the bend of the Back River and location of the Marsh. Additionally, based on the testimony during the evidentiary hearing and the records in evidence, there was previously a fixed pier around this area, which was subsequently removed at the request of DEEP. There is no convincing evidence to demonstrate that the proposed activities will or are reasonably likely to cause unreasonable pollution, i.e., unnatural erosion, in this area of the Marsh that would require the Applicant to install a living shoreline as a result of its proposed project.

The Intervening party also proposed the idea of Wing Deflectors as an alternative mitigation strategy. The information provided by the Intervening party indicated that “deflectors should be designed to only alter the low flow and bank full stages of the stream. Deflecting higher flows is generally discouraged due to the possibility of aggravated erosion and channel instability.” It is undisputed that this is a high-volume area, and while the Intervening party noted he was providing it as an example of an alternative mitigation measure, it does not appear to be appropriate or feasible for this location.

In summary, the Applicant and DEEP have a proposed mitigation plan within the Draft Permit. Additionally, the design of the bridge, the construction methods and best practices are in place to protect against erosion, sedimentation, and ensure long term resiliency of the bridge itself.

E.
Inadequately Briefed Arguments

The Intervening party has raised many claims that are not briefed, or are inadequately briefed, in his post-hearing submission.¹⁷ The Connecticut Supreme Court has made clear that we are not obligated to consider issues that are not adequately briefed. *West Haven v. Norback*, 263 Conn. 155, 177 (2003). When an issue is merely mentioned, but not briefed beyond a bare assertion of the claim, it is deemed to have been waived. *Bridgeport Hospital v. CHRO*, 232 Conn. 91, 115 (1995). In addition, mere conclusory assertions regarding a claim, with no mention of relevant authority and minimal or no citations from the record, will not suffice. *Celantano v. Rocque*, 282 Conn. 645, 659 (2007). See Practice book §67-4. *CT Coalition Against Millstone v. CT Siting Council*, 286 Conn. 57, 87 (2008). “Analysis, rather than mere abstract assertion, is required in order to avoid abandoning an issue by failure to brief the issue properly... Where a claim receives only cursory attention in the brief without substantive discussion, it is deemed to be abandoned.” (Internal quotation marks omitted.) *Billboards Divinity v. Commissioner of Transportation*, 133 Conn. App. 405, 412, 35 A.3d 395 (2012). *Lane v. Commissioner of Environmental Protection*, 136 Conn. App. 135, 159 (2012).

Many of the Intervening party’s arguments are merely assertions and speculation without evidentiary support, and while Armstrong had the opportunity to do so and was advised in pre-hearing rulings and memoranda, he did not provide substantial evidence or independent reports in

¹⁷ Specifically, the Intervening party alleges that “(2) [t]o preserve and enhance coastal resources in accordance with the policies established by chapters 439, 440, 446i, 446k, 447, 474, and 477; (3) [t]o give high priority and preference to uses and facilities which are dependent upon proximity to the water or the shorelands immediately adjacent to marine and tidal waters; . . . (9) [t]o coordinate planning and regulatory activities of public agencies at all levels of government to ensure maximum protection of coastal resources while minimizing conflicts and disruption of economic development; and (10) [t]o ensure that the state and coastal municipalities provide adequate planning for facilities and resources which are in the national interested as defined in section 22a-93 and to ensure that any restrictions or exclusions of such facilities or uses are reasonable. . . .” See §§ 22a-92(a)(2)-(3), (5), & (9)-(10). The Intervening party further cited §22a-92 (b)(2) (E)-(F), (J), (I) and §22a-92(c)(1)(J). These claims were merely asserted, without evidence, and there is not substantial evidence in the record to support such allegations.

support of any of his claims. “Evidence of general environmental impacts, mere speculation or general concerns do not qualify as substantial evidence.” *River Bend Associates v. Conservation & Inland Wetlands Commission*, 269 Conn. 57, 71 (2004). See also *Estate of Casimir Machowski v. Inland Wetlands Commission*, 137 Conn. App, 830, 836 (2012).

IV. PUBLIC COMMENTS

Throughout the hearing process, public comments were received regarding this matter. While the Intervening party raised most of the same issues as the general public, I want to recognize the participation and concerns of the members of the public. Largely, the public had concerns with the velocity of the waters and the impact this had during tidal changes on small boat navigation in the area of the bridge. While I understand and can sympathize with the concerns of the public regarding these issues, the evidence demonstrates that the proposed bridge will not change the currently velocity and the statutes and regulations require the Applicant and DEEP to look at the current conditions, not conditions which may have been present prior to 1935 when the current bridge was constructed. As a hearing officer in this administrative matter, I can only look as to whether the Applicant has complied with the relevant statutory and regulatory requirements, and in this case, it has. Public comments further raised the belief that the proposed project did not consider the rising sea levels and noted some property loss for those directly on the water. As previously addressed, general environmental concerns related to rising sea levels are outside the scope of this hearing. With that said, it should be noted that the Applicant did consider the resiliency in the design of the proposed bridge and the structure will be resilient in the face of sea level rise and increased storm frequencies and intensity by providing a structure which has been designated to remain stable and resistant to storm forces. Also, if the Applicant where to raise the proposed bridge to accommodate the 100-year coastal storm event elevation of fourteen feet, this

would require raising Route 154 for at least 1.3 miles, which could significantly impact surrounding neighborhoods and private residential properties located along Route 154.

Public comments discussed concerns regarding erosion, which have been fully addressed above, and claims that the Applicant has not considered mitigation for the proposed work. As indicated above, the Applicant worked with the Old Saybrook Land Trust and DEEP to identify a one acre parcel for acquisition at the mouth of Ragged Rock Creek adjacent to the Connecticut River. Additionally, the Applicant considered mitigation measures in the design of the bridge itself, to protect against scour, as well as in limiting erosion at the quadrants of the bridge and has conducted extensive studies and models to look at the velocity and the hydraulic conditions of different bridge options. It was determined that the proposed bridge design that was selected appropriately balances the environmental concerns and conditions at the site.

The Applicant and DOT have demonstrated a history of working with members of the public throughout the application and regulatory process, and particularly, the members of the Great Hammock Beach Association. Specifically, after meeting with members of the public during the application process, DOT hired RACE to conduct a peer analysis of its work regarding this project and completed additional modeling. Finally, the Applicant and DEEP have been responsive to public comments and have engaged with the public throughout this process.

V. CONCLUSION AND RECOMMENDATION

If conducted as proposed and in accordance with the terms and conditions of the Draft Permit, this proposed activity to be regulated will be consistent with all relevant statutes and regulations. I recommend that the Commissioner finalize and issue the requested permit so this project may proceed.

Kathleen W. Reiser

Kathleen W. Reiser
Hearing Officer

Connecticut Department of Energy and Environmental Protection License*

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

Licensee(s): Connecticut Department of
Transportation, c/o Kimberly
Lesay

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

License Number(s): 202010786-SDFTWQ 202010787-FM

Municipality: Old Saybrook

Project Description: Replacement of Bridge No. 01386 for infrastructure improvement

Project Address/Location: Bridge No. 01386 carrying Route 154

Waters: Back River

**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; Section 401 CWA (33 USC 1341); CGS
Section 25-68b to h

**Applicable Regulations of
CT State Agencies:** 22a-30-1 to 17, 22a-426-1 to 9, 25-68h-1 to 3

Agency Contact: Land & Water Resources Division,
Bureau of Water Protection & Land Reuse, 860-424-3019

License Expiration: FM, SDFTW: Five (5) years from the date of issuance of this
license.

WQC: Upon expiration of the U.S. Army Corps of Engineers
Section 404 permit for the same activity.

Project Site Plan Set: *Environmental Permit Plans State Project No. 105-209
Replacement of Bridge No. 01386 Route 154 over Back River in
the Town of Old Saybrook, 7 sheets, last revised May 11, 2021.*

License Enclosures: LWRD Compliance Certification Form; LWRD General
Conditions; Site Plan Set; LWRD 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 # 202010786 and as depicted on any site plan sheets / sets cited herein:

1. Replacement of the existing 28' span bridge with a new 54.4 ft single span bridge comprised of prestressed concrete box beams with concrete abutments, wing walls and deck as follows
 - a. installation of sediment and erosion controls;
 - b. clearing and grubbing around the existing bridge area;
 - c. install and maintain a floating debris shield to remove existing superstructure;
 - d. install permanent sheet piles and excavate within sheet piling and reduce sheet piling behind existing abutments and wingwalls;
 - e. using land-based equipment excavate between the new abutments and existing abutments and install heavy riprap revetment during periods of low tide;
 - f. remove existing abutments and wingwalls to elevation +2' NAVD88;
 - g. construct and install new bridge superstructure with a 54.5' wide span per site plans sited herein;
 - h. relocate utilities from temporary location to the final proposed location per site plans sited herein;
 - i. reconstruct existing roadway including regrading and replacing existing riprap; and
 - j. upon completion of construction remove erosion and sedimentation protections and restore disturbed areas to pre-existing conditions.

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. **Saltmarsh Sharp-tailed Sparrows Protection.** 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. **Shellfish Protection.** Unconfined in-water excavation, dredging, filling or removal of debris or other material is prohibited between July 1st and August 30th, inclusive, of any year in order to protect spawning shellfish in the area unless otherwise authorized in writing by the Commissioner.
4. **Sedimentation and Erosion Controls.** The Licensee shall install and maintain the sedimentation and erosion controls and the floating debris shield in optimal condition during the work authorized herein.

5. **Work Float Maintenance.** 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.
6. **Waste Material.** All waste material generated by the performance of the work authorized herein shall be disposed of by the Licensee at an upland site approved for the disposal of such waste material, as applicable. The Licensee shall not allow any waste to enter Back River.
7. **Other Approvals.** The issuance of this permit does not relieve the Licensee of their obligations to obtain any other approvals required by applicable federal, state and local law.
8. **Mitigation Plan.** Upon the issuance of the subject license the Licensee shall transfer custody and control of a 1 ac. parcel identified by the Town of Old Saybrook Assessors Map as MBL 049/036-0000, Account Number 00533000 to the Connecticut Department of Energy and Environmental Protection, unless otherwise authorized in writing by the Commissioner.

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

Date

Betsey Wingfield
Deputy Commissioner
Department of Energy & Environmental Protection



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.

<p>1. Licensee Name: <u>Connecticut Department of Transportation</u></p> <p>DEEP License Number(s): <u>202010786, 202010787</u></p> <p>Municipality in which project is occurring: <u>Old Saybrook</u></p>	
<p>2. Check one:</p> <p>(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.</p> <p>(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".</p>	
<p>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."</p>	
<p>_____ Signature of Licensee</p> <p>_____ Name of Licensee (print or type)</p> <p>_____ Signature of CT-Licensed Design Professional</p> <p>_____ Name of CT-Licensed Design Professional (print or type)</p> <p>_____ Professional License Number (if applicable)</p>	<p>_____ Date</p> <p>_____ Date</p> <div style="border: 1px solid black; width: 100%; height: 100%; margin-top: 20px;"></div> <p style="text-align: center;">Affix Stamp Here</p>
<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. <p>Submit this completed form to :</p> <p>Regulatory Section Department of Energy and Environmental Protection Land & Water Resources Division 79 Elm Street Hartford, CT 06106-5127</p>	

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 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.

General Conditions for LWRD Licenses

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

General Conditions for LWRD Licenses

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.

General Conditions for LWRD Licenses

- 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

General Conditions for LWRD Licenses

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.

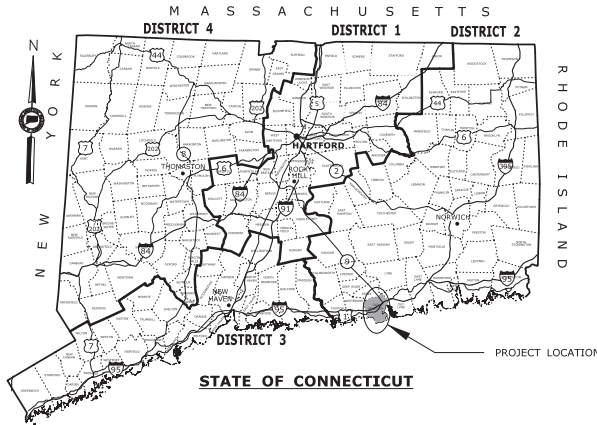
If the violation occurs outside of normal business hours, the Licensee shall contact the Department of Energy and Environmental Protection Emergency Dispatch at 860-424-3333. The Licensee shall comply with any dates which may be approved in writing by the

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.



CONNECTICUT DEPARTMENT OF TRANSPORTATION



ENVIRONMENTAL PERMIT PLANS STATE PROJECT NO. 105-209 REPLACEMENT OF BRIDGE NO. 01386 ROUTE 154 OVER BACK RIVER IN THE TOWN OF OLD SAYBROOK



LIST OF DRAWINGS	
SHEET NO.	DRAWING TITLE
PMT-01	TITLE SHEET
PMT-02	GENERAL PLAN
PMT-03	WETLAND/WATERCOURSE IMPACT PLAN
PMT-04	ELEVATIONS AND SECTION PLAN
PMT-05	CONSTRUCTION SEQUENCE
PMT-06	CONSTRUCTION DETAILS
PMT-07	PLANTING PLAN

GENERAL NOTES:

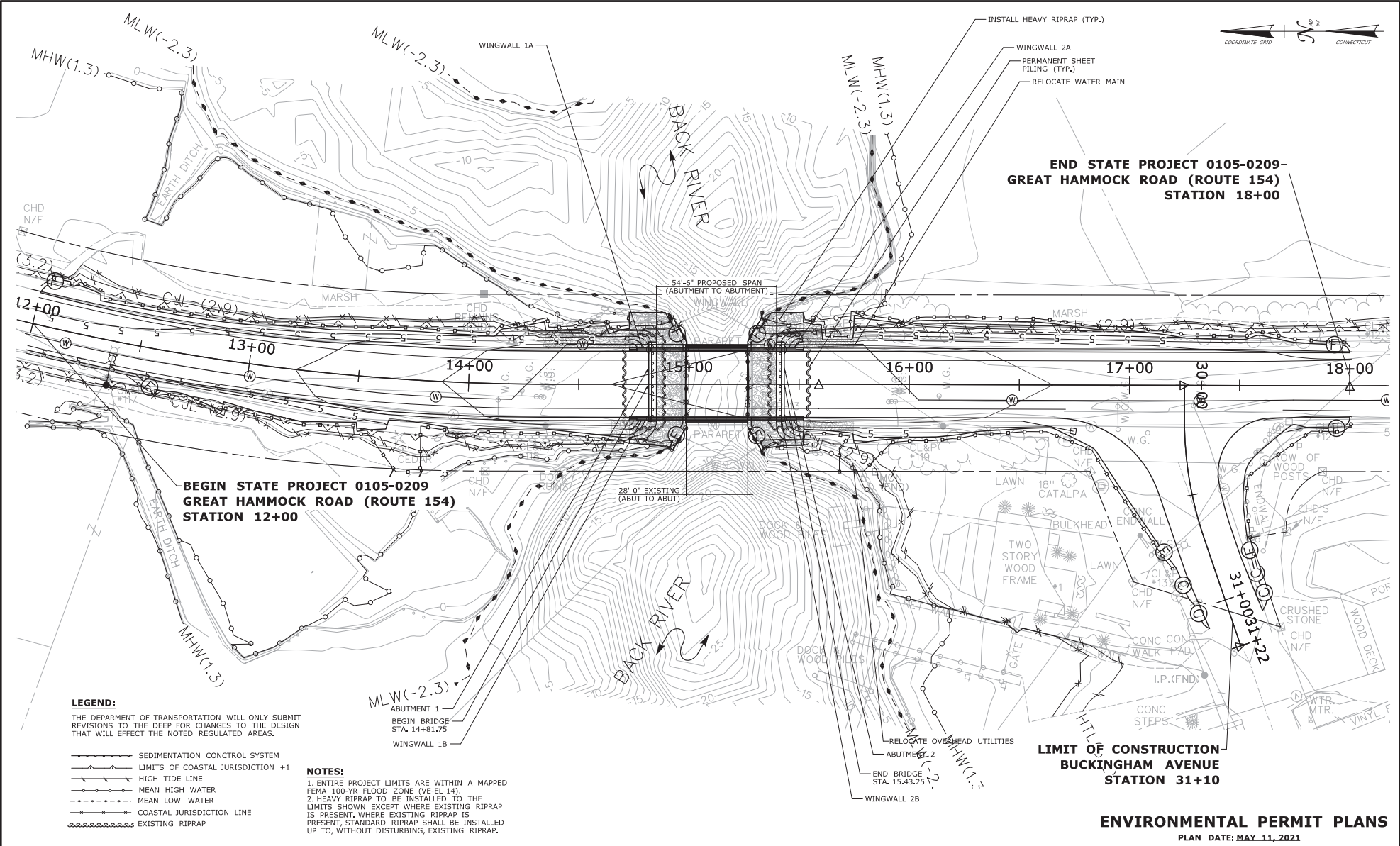
1. THESE PLANS ARE INTENDED ONLY FOR ENVIRONMENTAL PERMITTING PURPOSES, THESE PLANS HOLD AUTHORITY FOR ALL ACTIVITIES CONCERNING THE REGULATED AREA, FOR DETAILED PLANIMETRIC INFORMATION AND PAYMENT REFER TO THE APPLICABLE CONTRACT DOCUMENTS.
2. THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO DEEP AND USACE 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 NGVD OF 1988.
5. ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S STANDARD SPECIFICATIONS FOR ROADS, BRIDGE, AND INCIDENTAL CONSTRUCTION, FORM 917, SECTION 1.10 AND WILL ALSO FOLLOW 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.

LOCATION PLAN
1" = 350'

ENVIRONMENTAL PERMIT PLANS

PLAN DATE: MAY 11, 2021

DESIGNER/DRAFTER: IV	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING	PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 01386, ROUTE 154 OVER BACK RIVER	TOWN: OLD SAYBROOK	PROJECT NO.: 105-209
CHECKED BY: SAB		APPROVED BY:		DRAWING TITLE: TITLE SHEET	DRAWING NO.: PMT-01
SCALE AS NOTED	FILE NAME: ...JPM1-01 - TITLE SHEET.dwg				SHEET NO.:
REV. DATE REVISION DESCRIPTION SHEET NO. Plotted Date: 5/11/2021					



END STATE PROJECT 0105-0209-
GREAT HAMMOCK ROAD (ROUTE 154)
STATION 18+00

BEGIN STATE PROJECT 0105-0209
GREAT HAMMOCK ROAD (ROUTE 154)
STATION 12+00

LIMIT OF CONSTRUCTION
BUCKINGHAM AVENUE
STATION 31+10

LEGEND:

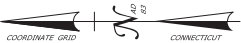
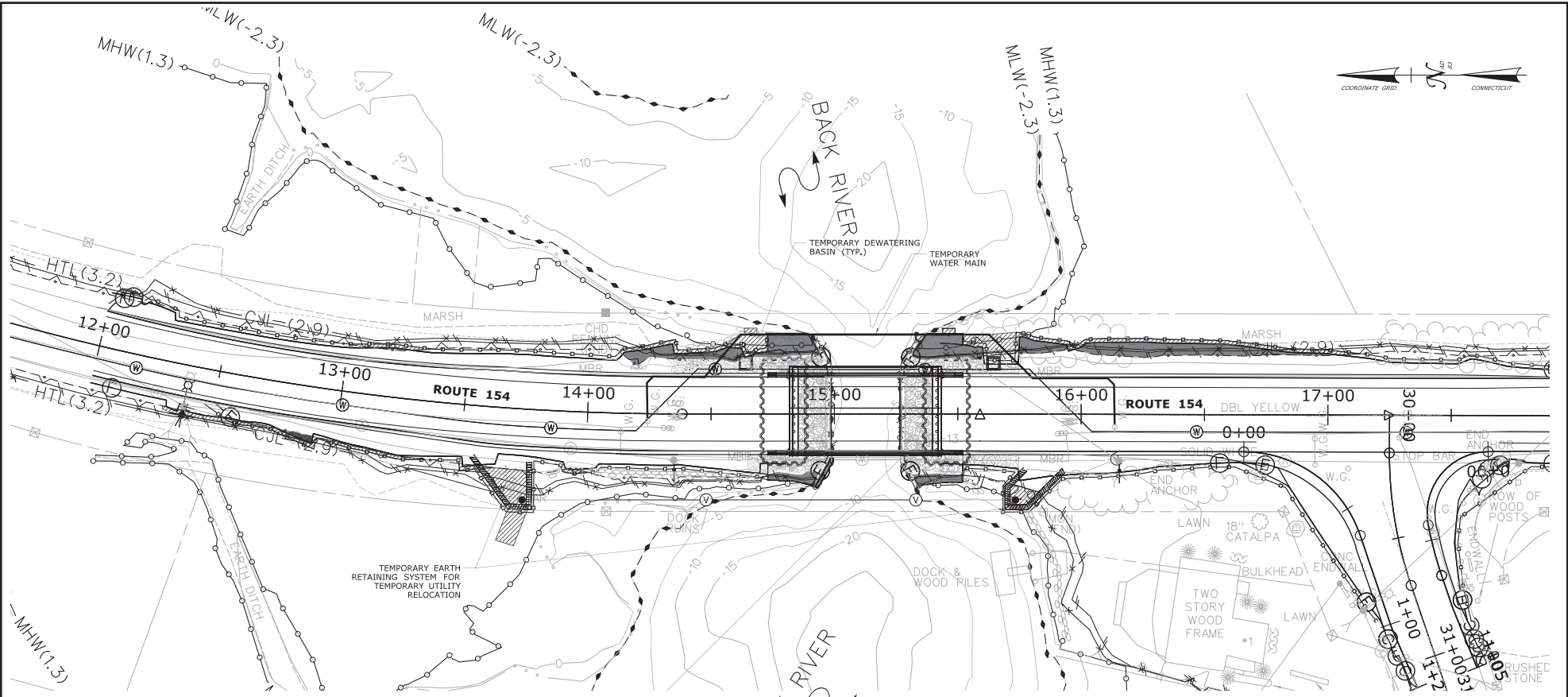
THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO THE DEEP FOR CHANGES TO THE DESIGN THAT WILL EFFECT THE NOTED REGULATED AREAS.

- SEDIMENTATION CONTROL SYSTEM
- LIMITS OF COASTAL JURISDICTION +1
- HIGH TIDE LINE
- MEAN HIGH WATER
- MEAN LOW WATER
- COASTAL JURISDICTION LINE
- EXISTING RIPRAP

NOTES:

1. ENTIRE PROJECT LIMITS ARE WITHIN A MAPPED FEMA 100-YR FLOOD ZONE (VE-EL-14).
2. HEAVY RIPRAP TO BE INSTALLED TO THE LIMITS SHOWN EXCEPT WHERE EXISTING RIPRAP IS PRESENT, WHERE EXISTING RIPRAP IS PRESENT, STANDARD RIPRAP SHALL BE INSTALLED UP TO, WITHOUT DISTURBING, EXISTING RIPRAP.

DESIGNER/DRAFTER: XHZ CHECKED BY: SAB SCALE: 1" = 20' PLOTTED DATE: 5/13/2021		STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION FILE NAME: JPM1-12 - GENERAL PLAN.dgn		SIGNATURE/BLOCK: OFFICE OF ENGINEERING APPROVED BY:		PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 01386 ON ROUTE 154 OVER BACK RIVER		TOWN: OLD SAYBROOK DRAWING TITLE: GENERAL SITE PLAN		PROJECT NO.: 105-209 DRAWING NO.: PMT-02 SHEET NO.:	
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	PLAN DATE: MAY 11, 2021 ENVIRONMENTAL PERMIT PLANS							



100-YEAR FLOODPLAIN CUT & FILL INFORMATION	
VOLUME IMPACTS	
EXCAVATION IN FEMA FLOODPLAIN	FILL IN FEMA FLOODPLAIN
1730 C.Y.	1990 C.Y.

WETLAND IMPACT TABLE (BELOW HTL)			
	WETLAND IMPACTS	WATERWAY IMPACTS (BELOW MHW)	TOTAL
PERMANENT IMPACTS	625 S.F. (0.014 A.C.)	185 S.F. (0.004 A.C.)	810 S.F. (0.018 A.C.)
TEMPORARY IMPACTS	590 S.F. (0.014 A.C.)	160 S.F. (0.004 A.C.)	750 S.F. (0.018 A.C.)
TOTAL IMPACTS	1215 S.F. (0.028 A.C.)	345 S.F. (0.008 A.C.)	1560 S.F. (0.036 A.C.)

WETLAND IMPACT TABLE (BELOW LIMITS OF COASTAL JURISDICTION LINE)			
	WETLAND IMPACTS	WATERWAY IMPACTS (BELOW MHW)	TOTAL
PERMANENT IMPACTS	1055 S.F. (0.024 A.C.)	185 S.F. (0.004 A.C.)	1240 S.F. (0.028 A.C.)
TEMPORARY IMPACTS	1065 S.F. (0.024 A.C.)	160 S.F. (0.004 A.C.)	1225 S.F. (0.028 A.C.)
TOTAL IMPACTS	2120 S.F. (0.048 A.C.)	345 S.F. (0.008 A.C.)	2465 S.F. (0.056 A.C.)

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 +1
- HIGH TIDE LINE
- MEAN HIGH WATER
- MEAN LOW WATER
- COASTAL JURISDICTION
- PERMANENT IMPACT
- TEMPORARY IMPACT

NOTE:
THE CONTRACTOR SHALL NOT WORK WITHIN THE LIMITS OF THE WETLANDS AND WATERCOURSE WITH THE EXCEPTION OF THOSE AREAS DELINEATED AS TEMPORARY OR PERMANENT IMPACTS TO THE WETLANDS AND WATERCOURSE. ALL DISTURBED AREAS SHALL BE RESTORED.

ENTIRE PROJECT LIMITS ARE WITHIN MAPPED FEMA 100-YR FLOOD ZONE (VE-EL-14).

ENVIRONMENTAL PERMIT PLANS
PLAN DATE: MAY 11, 2021

REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Printed Date: 5/12/2021

DESIGNER/DRAFTER: XHZ
CHECKED BY: SAB
SCALE 1"=20'

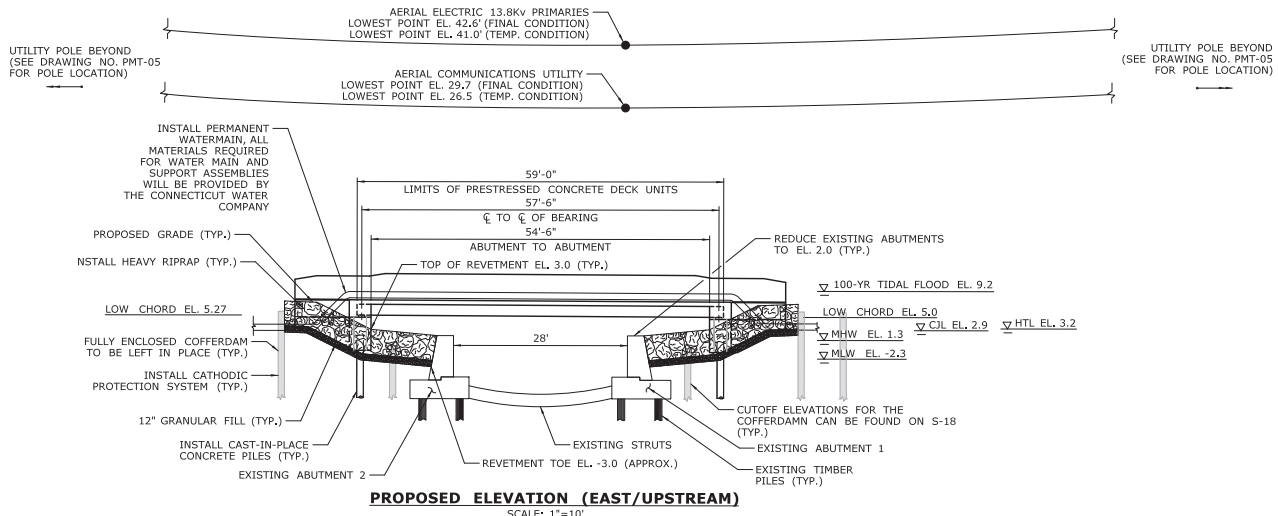


SIGNATURE/BLOCK:
OFFICE OF ENGINEERING
APPROVED BY:

PROJECT TITLE:
REPLACEMENT OF BRIDGE NO. 01386, CARRYING ROUTE 154 OVER BACK RIVER

TOWN:
OLD SAYBROOK
DRAWING TITLE:
WETLAND IMPACT PLAN

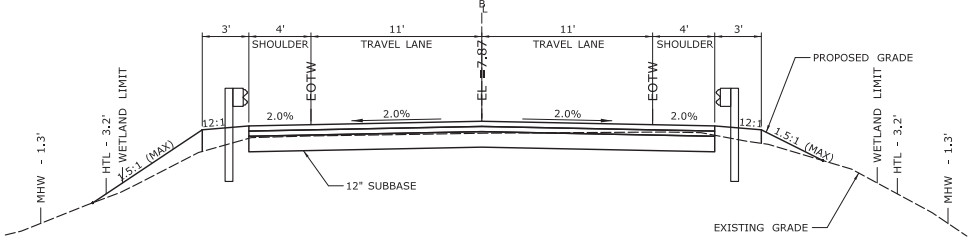
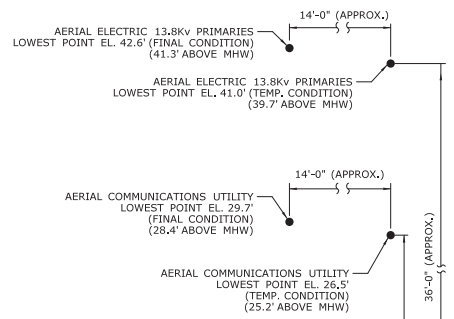
PROJECT NO.: 105-209
DRAWING NO.: PMT-03
SHEET NO.:



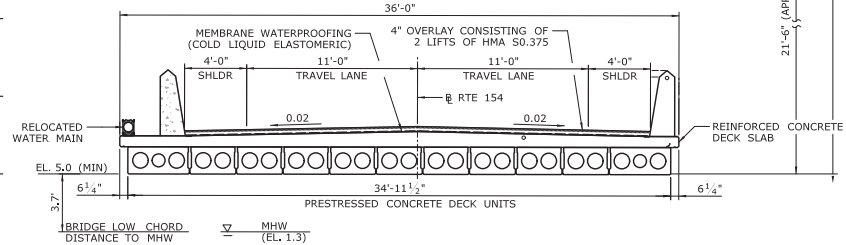
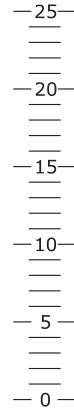
PROPOSED ELEVATION (EAST/UPSTREAM)
SCALE: 1"=10'

HYDRAULIC DATA		
MEAN LOW WATER		-2.3
MEAN HIGH WATER		1.3
HIGH TIDE LINE (1-YEAR TIDE)		3.2
10-YEAR TIDE		5.5
100-YEAR TIDE		9.2
DESIGN FREQUENCY/EVENT	TIDAL: 10-YEAR	RIVERINE: 100-YEAR
DESIGN DISCHARGE (MAX. EBB FLOW)		2018 CFS
DESIGN WATER SURFACE ELEVATION - EBB DIRECTION		3.8
DESIGN WATER SURFACE ELEVATION - FLOOD DIRECTION		4.0

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



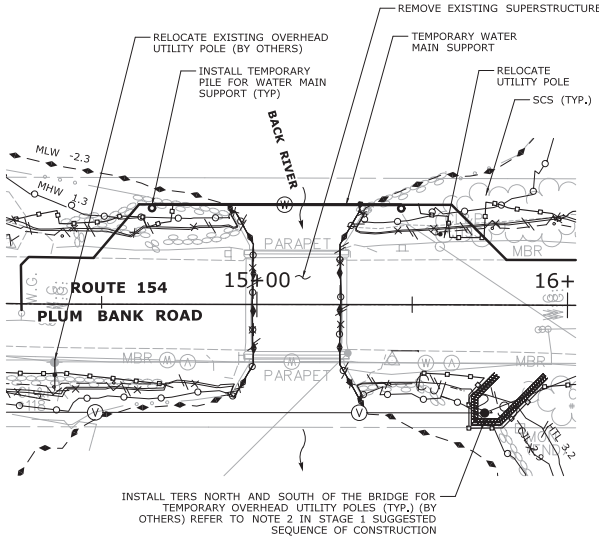
ROUTE 154 NORMAL SECTION (BRIDGE 01386)
FROM STA. 14+35 TO STA. 14+82
AND STA. 15+43 TO STA. 15+75
(NOT TO SCALE)



PROPOSED SECTION
SCALE: 1/4" = 1'-0"

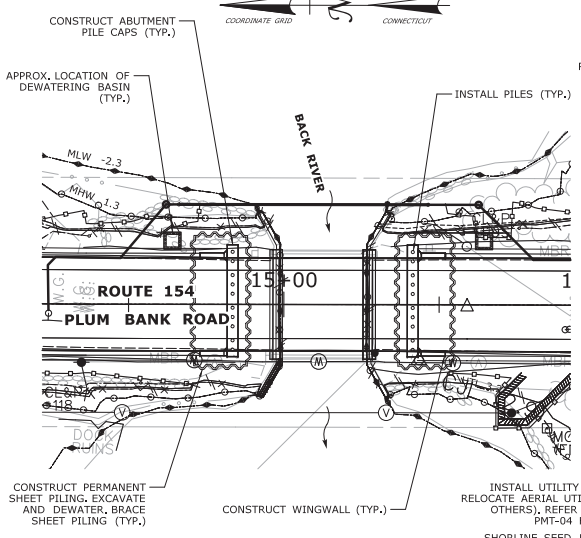
ENVIRONMENTAL PERMIT PLANS
PLAN DATE: MAY 11, 2021

DESIGNER/DRAFTER: XHZ	CHECKED BY: SAB	SCALE AS NOTED	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SIGNATURE/BLOCK: OFFICE OF ENGINEERING	APPROVED BY:	PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 01386, CARRYING ROUTE 154 OVER BACK RIVER	TOWN: OLD SAYBROOK	DRAWING TITLE: ELEVATION AND SECTION	PROJECT NO.: 105-209	DRAWING NO.: PMT-04	SHEET NO.:
REV. DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 5/12/2021	T:\Name: JPMH-D4_ELEVATION AND_SECTION.dwg							



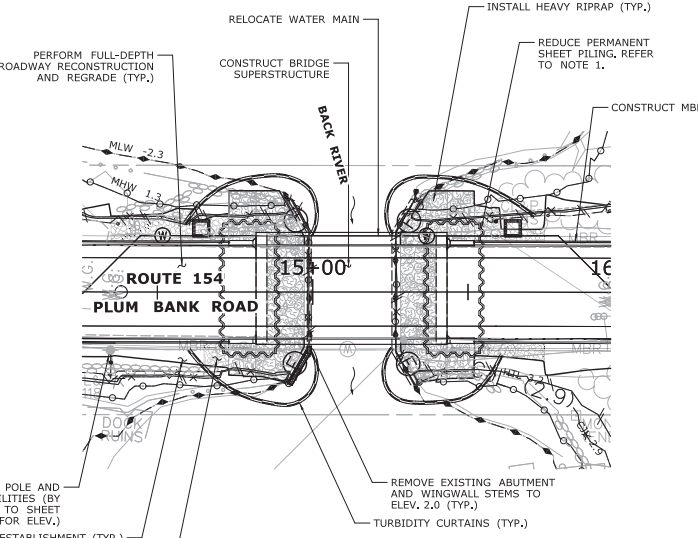
**STAGE 1
SUGGESTED SEQUENCE OF CONSTRUCTION**

- CLEARING AND GRUBBING AND INSTALLATION OF SEDIMENTATION CONTROL SYSTEM (SCS).
- INSTALL TEMPORARY EARTH RETAINING SYSTEM (TO EL. 5.0) AND BACKFILL FOR TEMPORARY OVERHEAD UTILITY RELOCATION, INSTALL TEMPORARY PILES FOR TEMPORARY WATER MAIN RELOCATION, REFER TO DETAILS ON PMT-04 FOR OVERHEAD UTILITY LOCATIONS.
- COORDINATE WITH UTILITY COMPANIES TO TEMPORARILY RELOCATE OVERHEAD UTILITIES AND TEMPORARILY RELOCATE WATER MAIN (SEE SHEET PMT-06 FOR TEMPORARY WATER MAIN SUPPORT DETAILS).
- CLOSE ROAD AND DETOUR TRAFFIC.
- REMOVE EXISTING SUPERSTRUCTURE USING FLOATING DEBRIS SHIELD (SEE SHEET PMT-06 FOR FLOAT DETAILS AND NOTES), COLLECT AND REMOVE DEBRIS FOR OFFSITE REMOVAL.



**STAGE 2
SUGGESTED SEQUENCE OF CONSTRUCTION**

- INSTALL PERMANENT SHEET PILES AND EXCAVATE WITHIN SHEETING TO EL. -1.6. PUMP WATER WITHIN ENCLOSED SHEETING TO DEWATERING BASINS PRIOR TO DISCHARGE. LOCATE DEWATERING BASINS OUTSIDE OF WETLANDS.
- COMPLETE ABUTMENT PILE INSTALLATION.
- INSTALL CATHODIC PROTECTION SYSTEM FOR COFFERDAM LEFT IN PLACE FOR SCOUR PROTECTION.
- PLACE GRANULAR FILL AND INSTALL PRECAST ABUTMENTS AND WINGWALLS, FILL VOIDS AND CONSTRUCT SHEAR KEYS.

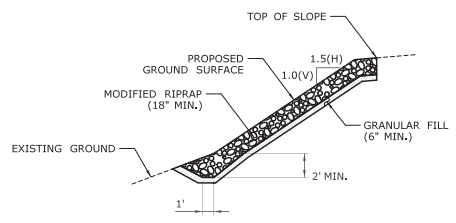


**STAGE 3
SUGGESTED SEQUENCE OF CONSTRUCTION**

- REDUCE PERMANENT SHEET PILING BEHIND ABUTMENTS AND WINGWALLS TO BELOW PROPOSED ROADWAY SUBBASE (EL. A), REDUCE PERMANENT SHEET PILING IN FRONT OF ABUTMENTS TO BOTTOM OF PILE CAP ELEVATIONS (EL. B), AND REDUCE PERMANENT SHEET PILING ON THE SIDES TO TRANSITION SMOOTHLY FROM EL. A TO EL. B, REFER TO DETAIL ON THIS SHEET.
- EXCAVATE BETWEEN NEW ABUTMENTS AND EXISTING ABUTMENTS AND INSTALL GEOTEXTILE, 12" GRANULAR FILL, AND 4'-0" DEEP HEAVY RIPRAP REVETMENT AT LOW TIDE USING LAND-BASED EQUIPMENT.
- INSTALL TURBIDITY CURTAINS, EXCAVATE AND INSTALL GEOTEXTILE, 12" GRANULAR FILL, AND 4'-0" LAYER HEAVY RIPRAP AT LOW TIDE. (SEE NOTE 2 ON SHEET PMT-02).
- REMOVE EXISTING ABUTMENT AND WINGWALL STEMS TO ELEV. 2.0. COLLECT AND REMOVE DEBRIS FOR OFFSITE REMOVAL.
- CONSTRUCT BRIDGE SUPERSTRUCTURE, DECK, PARAPETS, AND BRIDGE RAIL.
- RELOCATE WATER MAIN TO BRIDGE AND REMOVE TEMPORARY WATER MAIN SUPPORT BEAM AND PILES. COORDINATE WITH UTILITIES TO RELOCATE UTILITY POLES TO FINAL LOCATIONS. REMOVE TEMPORARY EARTH RETAINING SYSTEMS.
- RELOCATE AERIAL UTILITIES TO FINAL LOCATIONS, REGRADE AND REPLACE RIPRAP MOVED DURING CONSTRUCTION.
- PERFORM FULL-DEPTH ROADWAY RECONSTRUCTION AND REGRADE.
- PLACE TOPSOIL AND SEED AND PLANT IN ACCORDANCE WITH THE PLANTING PLAN.
- REMOVE SEDIMENTATION CONTROL SYSTEM UPON PERMANENT STABILIZATION.
- INSTALL PERMANENT PAVEMENT MARKINGS AND METAL BEAM RAIL (MBR). OPEN ROADWAY TO TRAFFIC.

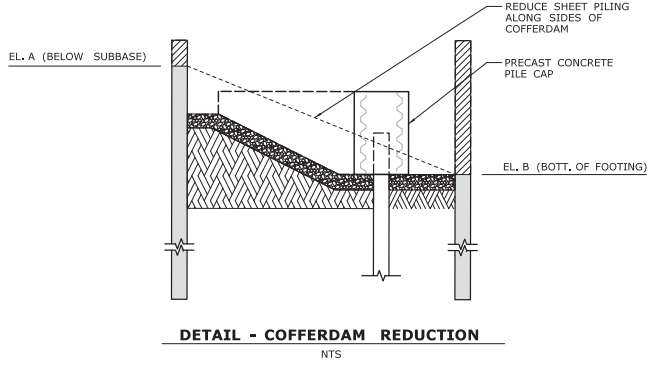
LEGEND
THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO THE DEEP FOR CHANGES TO THE DESIGN THAT WILL AFFECT THE NOTED REGULATED AREAS.

- SEDIMENTATION CONTROL SYSTEM
- LIMITS OF COASTAL JURISDICTION +1
- HIGH TIDE LINE
- MEAN HIGH WATER
- MEAN LOW WATER
- COASTAL JURISDICTION LINE
- TURBIDITY CURTAIN



**STEEPENED SLOPE PROTECTION
(NOT TO SCALE)**

- STEEPENED SLOPE PROTECTION NOTES:
- TO BE PLACED ON ALL SLOPES GREATER THAN 2(H):1(V)
 - STA. 14+35 LT TO 14+82 LT AND 15+43 LT TO 15+75 LT STA. 14+65 RT TO 14+82 RT AND 15+43 RT TO 15+75 RT

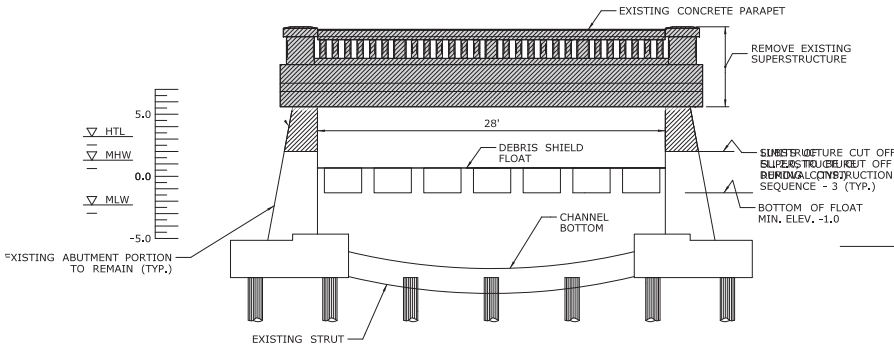


**DETAIL - COFFERDAM REDUCTION
NTS**

NOTE: ENTIRE PROJECT LIMITS FALL WITHIN THE MAPPED FEMA 100-YR FLOOD ZONE (VE-EL-14)

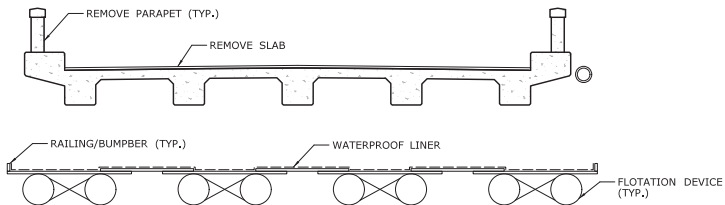
**ENVIRONMENTAL PERMIT PLANS
PLAN DATE: MAY 11, 2021**

DESIGNER/DRAWER: XHZ	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SIGNATURE/ BLOCK: OFFICE OF ENGINEERING	PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 01386 CARRYING ROUTE 154 OVER BACK RIVER	TOWN: OLD SAYBROOK	PROJECT NO.: 105-209
CHECKED BY: SAB		APPROVED BY:	DRAWING NO.: PMT-05	DRAWING TITLE: CONSTRUCTION SEQUENCE	SHEET NO.:
SCALE: 1" = 20'	FILENAME: \\PMT-HS_CONSTRUCTION_SEQUENCE.dgn				
REV. DATE	REVISION DESCRIPTION	SHEET NO.	Printed Date: 5/12/2021		



DEBRIS SHIELD FLOAT VERTICAL SECTION

SCALE: 1" = 5'-0"

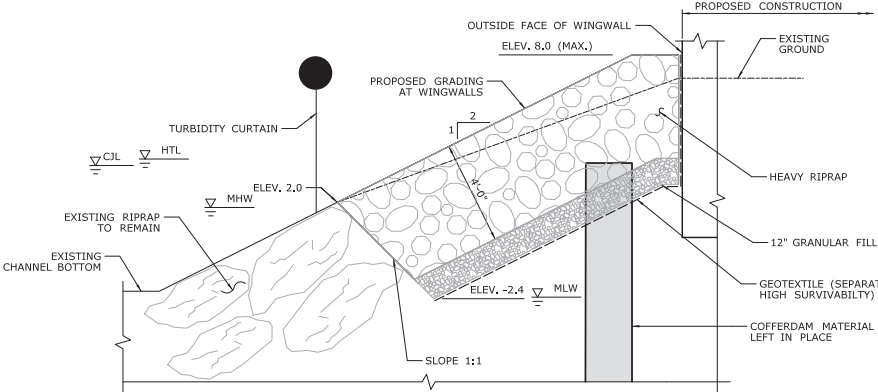


DEBRIS SHIELD FLOAT VERTICAL SECTION

SCALE: 3" = 1'-0"

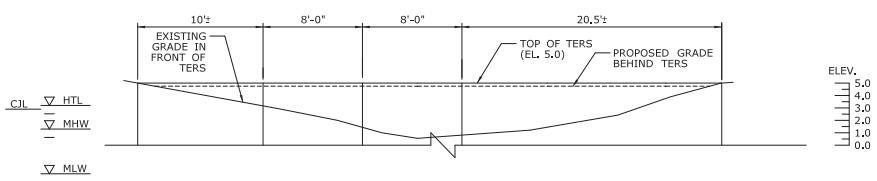
DEBRIS SHIELD FLOAT NOTES:

1. FLOAT SHALL HAVE WATERPROOF LINING AND RAILING/BUMPER SYSTEM TO PREVENT DEBRIS FROM ENTERING THE WATERWAY.
2. FLOAT SHALL BE SUFFICIENTLY BUOYANT SO AS NOT TO BE FOUNDED ON THE SUBSTRATE AT ANY TIME DURING ITS USE.
3. WHEN NOT IN USE, FLOAT SHALL BE STORED WITHIN THE PROJECT IMPACT AREA.
4. WORKFLOAT SHALL NOT BE STORED WITHIN THE WATERWAY NOR WITHIN UNDISTURBED MARSH.
5. FLOAT SHALL BE REMOVED AT THE END OF EACH WORK DAY.



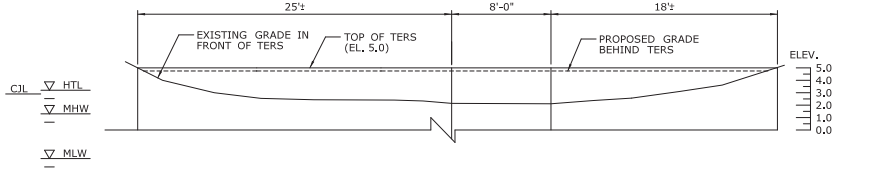
RIPRAP FOR SLOPE PROTECTION DETAIL

NOT TO SCALE



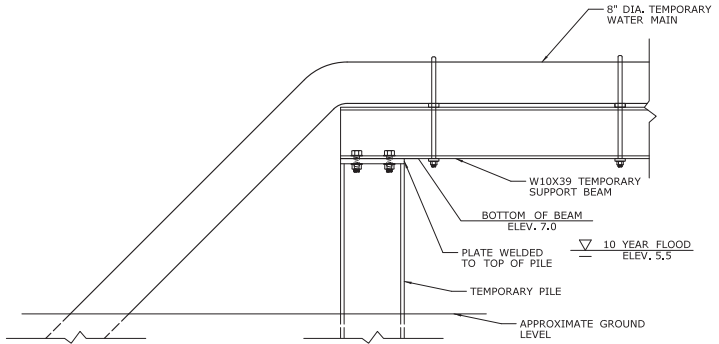
TEMPORARY EARTH RETAINING SYSTEM (TERS) FOR SW TEMPORARY UTILITY POLE - DEVELOPED ELEVATION

N.T.S.



TEMPORARY EARTH RETAINING SYSTEM (TERS) FOR NW TEMPORARY UTILITY POLE - DEVELOPED ELEVATION

N.T.S.



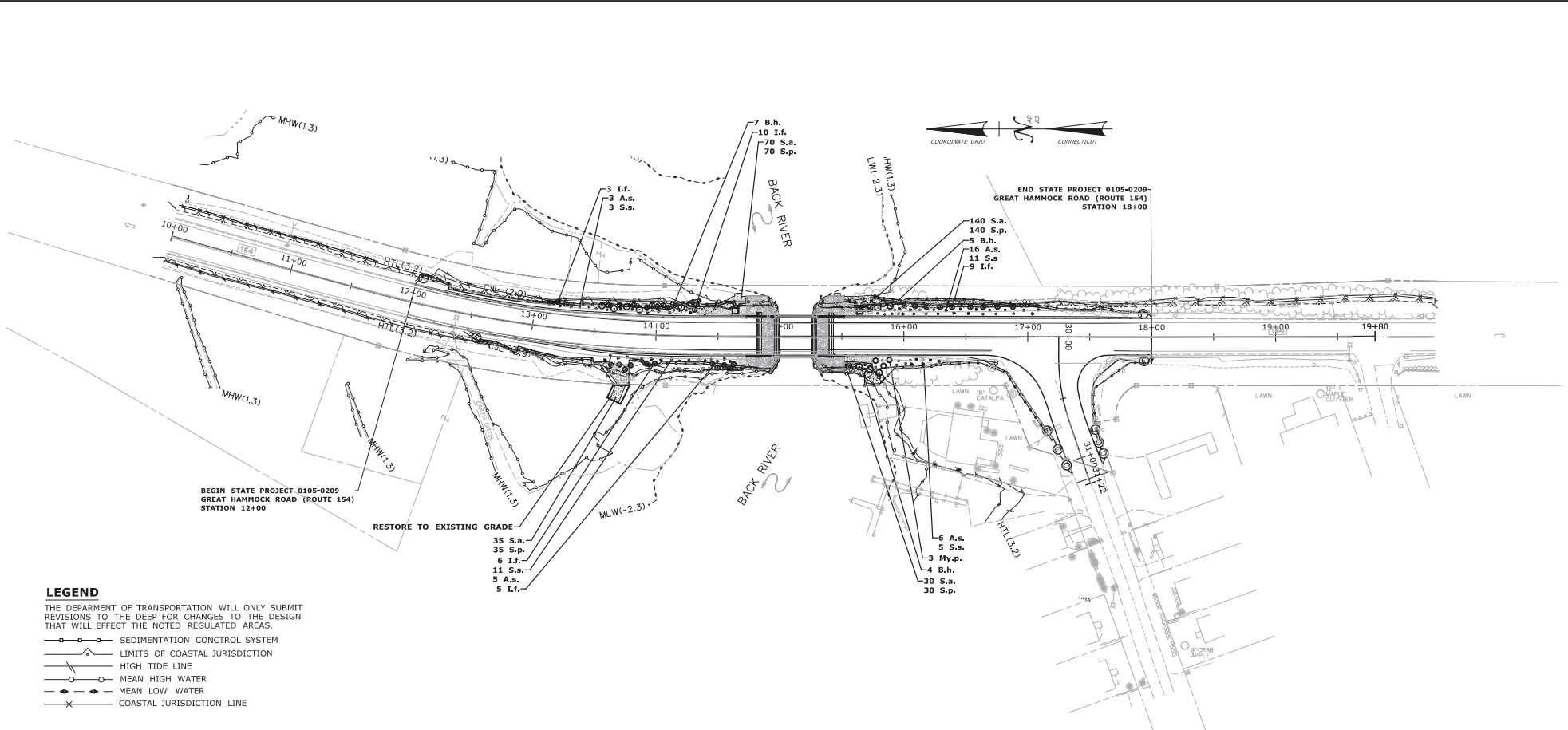
TEMPORARY UTILITY SUPPORT SECTION

SCALE: 1" = 1'-0"

ENVIRONMENTAL PERMIT PLANS

PLAN DATE: MAY 11, 2021

DESIGNER/DRAFTER: XHZ CHECKED BY: SAB SCALE AS NOTED		STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION		SIGNATURE/ BLOCK: OFFICE OF ENGINEERING APPROVED BY:		PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 01386 CARRYING ROUTE 154 OVER BACK RIVER		TOWN: OLD SAYBROOK DRAWING TITLE: CONSTRUCTION DETAILS		PROJECT NO.: 105-209 DRAWING NO.: PMT-06 SHEET NO.:	
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	PLotted Date: 5/12/2021	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.						



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

WETLAND PLANTING NOTES

1. PLANTINGS ON THIS SHEET ARE FOR ENVIRONMENTAL PERMITTING. ANY CHANGES TO PLANTINGS ON THIS SHEET SHALL BE COORDINATED WITH THE OFFICE OF ENVIRONMENTAL PLANNING (OEP).
2. WOOD CHIP MULCH SHALL NOT BE PLACED IN THE WETLAND AREA. ABOVE THE WETLAND AREA THE WOOD CHIP MULCH IS TO BE PLACED AROUND THE PLANTINGS, PER THE STANDARD DETAIL.
3. DISTURBED AREAS SHALL BE SEEDED WITH SHORELINE GRASS ESTABLISHMENT. ALL DISTURBED AREAS SHALL BE RESTORED.
4. ALL PLANT MATERIAL SHALL BE STRAIGHT SPECIES. NO VARIETIES OR CULTIVARS WILL BE ACCEPTED.
5. AREA TO BE TREATED FOR INVASIVES AND PROPERLY PREPARED FOR FINAL PLANTING, SEEDING AND RESTORATION.
6. EACH SYMBOL FOR SOLIDAGO SEMPERVIRENS REPRESENTS FOUR 2" PLUGS.

PLANT LIST

I.S.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	QTY.	SPACING
FACU	A.s.	<i>Andropogon scoparium</i>	Little Blue Stem	1 Gallon Container	30	Field Located
	My.s.	<i>Myrica pensylvanica</i>	Northern Bayberry	15"-18" HL B.B.	3	As Shown
	S.s.	<i>Solidago sempervirens</i>	Goldenrod	2" Plugs	120	Field Located
FACW	B.h.	<i>Baccharus halimifolia</i>	Groundsel Bush	3'-4" HL B.B.	16	As Shown
	I.f.	<i>Iva frutescens</i>	High Tide Bush	2'-3" HL B.B.	33	As Shown
OBL	S.s.	<i>Spartina alterniflora</i>	Smooth Cordgrass	2" Plugs	275	Field Located
	S.p.	<i>Spartina patens</i>	Salt Meadow Cordgrass	2" Plugs	275	Field Located
		Shoreline Grass Establishment			900 S.Y.	
		Control and Removal of Invasive Vegetation			2250 S.Y.	

ENVIRONMENTAL PERMIT PLANS
 PLAN DATE: MAY 17, 2021

REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Printed Date: 5/17/2021

DESIGNER/DRAWER:
MM

CHECKED BY:
SF

SCALE IN FEET
0 20 40 80
SCALE 1"=40'

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

FILENAME: \\HW_MSH_105_0209_BR01386_PMT-07.dgn

SIGNATURE/
BLOCK:
OFFICE OF ENGINEERING

APPROVED BY:

PROJECT TITLE:
REPLACEMENT OF BRIDGE NO. 01386 CARRYING ROUTE 154 OVER BACK RIVER

TOWN:
OLD SAYBROOK

DRAWING TITLE:
PERMIT PLANTING PLAN

PROJECT NO.: 0105-0209
 DRAWING NO.: PMT-07
 SHEET NO.:



LWRD 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: Connecticut Department of Transportation
Municipality in which the project is occurring: Old Saybrook
DEEP License No(s): 202010786, 202010787

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)

SERVICE LIST

In the matter of Department of Transportation, Old Saybrook, Back River.

Applicant – Department of Transportation

Assistant Attorney General John Russo
john.russo@ct.gov

DEEP - Bureau of Water Protection and Land Reuse

William Sigmund
William.Sigmund@ct.gov

Intervening Party – Thomas Armstrong

Attorney Mary Mintel Miller
mmiller@reidandriege.com

Representatives of Petitioner

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sloveland10@gmail.com