

## RESOLUTIONS

(1)

**RESOLVED:** That upon the recommendation of the Board of Finance and a request by the Director of Parks & Recreation, the sum of \$310,000.00 along with bond and note authorization, to the Municipal Improvement Fund Account to replace the field lights at the Greens Farms Elementary Achool field is hereby appropriated.

### BOND RESOLUTION

**RESOLVED:** That upon the recommendation of the Board of Finance, the Town of Westport (the "Town") hereby appropriates the sum of Three Hundred Ten Thousand and 00/100 Dollars (\$310,000) for the costs associated with replacing the field lights at Greens Farms field including the purchase and installation of an LED lighting system, warranty program and a system that allows for remote access, advanced scheduling and monitoring and administrative, engineering, financing, contingency and other related costs (the "Project").

Section 1. As recommended by the Board of Finance and for the purpose of financing Three Hundred Ten Thousand and 00/100 Dollars (\$310,000) of the foregoing appropriation, the Town shall borrow a sum not to exceed Three Hundred Ten Thousand and 00/100 Dollars (\$310,000) and issue general obligation bonds for such indebtedness under its corporate name and seal and upon the full faith and credit of the Town in an amount not to exceed said sum for the purpose of financing the appropriation for the Project.

Section 2. The First Selectman, Selectmen and Finance Director are hereby appointed a committee (the "Committee") with full power and authority to cause said bonds to be sold, issued and delivered; to determine their form, including provision for redemption prior to maturity; to determine the aggregate principal amount thereof within the amount hereby authorized and the denominations and maturities thereof; to fix the time of issue of each series thereof and the rate or rates of interest thereon as herein provided; to designate the bank or trust company to certify the issuance thereof and to act as transfer agent, paying agent and as registrar for the bonds, and to designate bond counsel. The Committee shall have all appropriate powers under the Connecticut General Statutes including Chapter 748 (Registered Public Obligations Act) to issue the bonds and, further, shall have full power and authority to do all that is required under the Internal Revenue Code of 1986, as amended, and other applicable laws and regulations of the United States and the state of Connecticut, to provide for issuance of the bonds in tax exempt form, including the execution of tax compliance and other agreements for the benefit of bondholders, and to meet all requirements which are or may become necessary in and subsequent to the issuance and delivery of the bonds in order that the interest on the bonds be and remain exempt from federal income taxes, including, without limitation, to covenant and agree to restriction on investment yield of bond proceeds, rebate of arbitrage earnings, expenditure of proceeds within required time limitations and the filing of information reports

as and when required and to execute Continuing Disclosure Agreements for the benefit of holders of bonds and notes.

Section 3. The Bonds may be designated "Public Improvement Bonds of the Town of Westport," series of the year of their issuance and may be issued in one or more series, and may be consolidated as part of the same issue with other bonds of the Town; shall be in serial form maturing in not more than twenty (20) annual installments of principal, the first installment to mature not later than three (3) years from the date of issue and the last installment to mature not later than twenty (20) therefrom, or as otherwise provided by statute. The bonds may be sold at not less than par and accrued interest at public sale upon invitation for bids to the responsible bidder submitting the bid resulting in the lowest true interest cost to the Town, provided that nothing herein shall prevent the Town from rejecting all bids submitted in response to any one invitation for bids and the right to so reject all bids is hereby reserved, and further provided that the Committee may sell the bonds, or notes, on a negotiated basis, as provided by statute. Interest on the bonds shall be payable semiannually or annually. The bonds shall be signed on behalf of the Town by the First Selectman and the Finance Director, and shall bear the seal of the Town. The signing, sealing and certification of said bonds may be by facsimile as provided by statute. The Finance Director shall maintain a record of bonds issued pursuant to this resolution and of the face amount thereof outstanding from time to time, and shall certify to the destruction of said bonds after they have been paid and cancelled, and such certification shall be kept on file with the Town Clerk.

Section 4. The Committee is further authorized to make temporary borrowings as permitted by the General Statutes and to issue a temporary note or notes of the Town in anticipation of the receipt of proceeds from the sale of the bonds to be issued pursuant to this resolution. Such notes shall be issued and renewed at such times and with such maturities, requirements and limitations as provided by statute. Notes evidencing such borrowings shall be signed by the First Selectman and the Finance Director, have the seal of the Town affixed, which signing and sealing may be by facsimile as provided by statute, be certified by and payable at a bank or trust company incorporated under the laws of this or any other state, or of the United States, be approved as to their legality by bond counsel, and may be consolidated with the issuance of other Town bond anticipation notes. The Committee shall determine the date, maturity, interest rates, form and manner of sale, including negotiated sale, and other details of said notes consistent with the provisions of this resolution and the General Statutes and shall have all powers and authority as set forth above in connection with the issuance of bonds and especially with respect to compliance with the requirements of the Internal Revenue Code of 1986, as amended, and regulations thereunder in order to obtain and maintain issuance of the notes in tax exempt form.

Section 5. Upon the sale and issuance of the bonds authorized by this resolution, the proceeds thereof, including any premium received upon the sale thereof, accrued interest received at delivery and interest earned on the temporary investment of such proceeds, shall be applied forthwith to the payment of the principal and interest of all notes issued in anticipation thereof or shall be deposited in trust for such purposes with a bank or trust company, or shall be applied or rebated as may be required under the provision of law. The remainder of the proceeds, if any, after the payment of said notes and of the expense of issuing said notes and bonds shall be applied to further finance the appropriation enacted herein.

Section 6. In each fiscal year in which the principal or any installment of interest shall fall due upon any of the bonds or notes herein authorized there shall be included in the appropriation for such fiscal year a sum equivalent to the amount of such principal and interest so falling due, and to the extent that provision is not made for the payment thereof from other revenues, the amount thereof shall be included in the taxes assessed upon the Grand List for such fiscal year and shall not be subject to any limitations of expenditures or taxes that may be imposed by any other Town ordinance or resolution.

Section 7. Pursuant to Section 1.150-2 (as amended) of the federal income tax regulations the Town hereby expresses its official intent to reimburse expenditures paid from the General Fund, or any capital fund for the Project with the proceeds of the bonds or notes to be issued under the provisions hereof. The allocation of such reimbursement bond proceeds to an expenditure shall be made in accordance with the time limitations and other requirements of such regulations. The Finance Director is authorized to pay Project expenses in accordance herewith pending the issuance of the reimbursement bonds or notes.

Section 8. The Town of Westport, or other proper authority of the Town, is authorized to take all necessary action to apply to the State of Connecticut, and accept from the State or other parties, grants, gifts and contributions in aid of further financing the Project. Once the appropriation becomes effective, the First Selectman, or other appropriate official of the town, is hereby authorized to spend a sum not to exceed the aforesaid appropriation for the Project and is specifically authorized to make, execute and deliver any contracts or other documents necessary or convenient to complete the Project and the financing thereof.

Section 9. The Committee is hereby authorized to take all action necessary and proper for the sale, issuance and delivery of the bonds (and notes) in accordance with the provisions of the Town Charter, the Connecticut General Statutes, and the laws of the United States.

(2)

**RESOLVED:** That upon the recommendation of the Conservation Commission and the Flood and Erosion Control Board, pursuant to Section 148-12 of the Town Code, the WPLO application by the Town of Westport for the replacement of Cavalry Road Bridge over Saugatuck River approximately 0.66 miles west of Weston Road (Application IWW-WPL #11047-20) is hereby approved.

(3)

**RESOLVED:** That upon the recommendation of the Conservation Commission and the Flood and Erosion Control Board, pursuant to Section 148-12 of the Town Code, the WPLO application by the Town of Westport for the replacement of the Bayberry Lane Extension Bridge over the Aspetuck River (Application IWW-WPL/E #11049-20) is hereby approved.

(4)

**RESOLVED:** That upon the recommendation of the Board of Finance and a request by the Director of Public Works the sum of \$150,000.00 along with bond and note authorization, to the Municipal Improvement Fund Account for Power Redundancy and IT Security Upgrades at Town Hall and Parks and Recreation is hereby appropriated.

## BOND RESOLUTION

**RESOLVED:** That upon the recommendation of the Board of Finance, the Town of Westport, Connecticut (the "Town") hereby appropriates the sum of One Hundred Fifty Thousand and 00/100 Dollars (\$150,000) to pay costs associated with the Power Redundancy and IT Security Upgrades which costs include the installation of an uninterruptible power supply and secondary transfer switch, access controls to various IT resource areas at both the Town Hall and Parks and Recreation offices, and related equipment controls and connections and related design, engineering, analysis, auditing, administrative, financing, contingency and other soft costs (the "Project").

Section 10. As recommended by the Board of Finance and for the purpose of financing One Hundred Fifty Thousand and 00/100 Dollars (\$150,000) of the foregoing appropriation, the Town shall borrow a sum not to exceed One Hundred Fifty Thousand and 00/100 Dollars (\$150,000) and issue general obligation bonds for such indebtedness under its corporate name and seal and upon the full faith and credit of the Town in an amount not to exceed said sum for the purpose of financing the appropriation for the Project.

Section 11. The First Selectman, Selectmen and Finance Director are hereby appointed a committee (the "Committee") with full power and authority to cause said bonds to be sold, issued and delivered; to determine their form, including provision for redemption prior to maturity; to determine the aggregate principal amount thereof within the amount hereby authorized and the denominations and maturities thereof; to fix the time of issue of each series thereof and the rate or rates of interest thereon as herein provided; to designate the bank or trust company to certify the issuance thereof and to act as transfer agent, paying agent and as registrar for the bonds, and to designate bond counsel. The Committee shall have all appropriate powers under the Connecticut General Statutes including Chapter 748 (Registered Public Obligations Act) to issue the bonds and, further, shall have full power and authority to do all that is required under the Internal Revenue Code of 1986, as amended, and other applicable laws and regulations of the United States and the state of Connecticut, to provide for issuance of the bonds in tax exempt form, including the execution of tax compliance and other agreements for the benefit of bondholders, and to meet all requirements which are or may become necessary in and subsequent to the issuance and delivery of the bonds in order that the interest on the bonds be and remain exempt from federal income taxes, including, without limitation, to covenant and agree to restriction on investment yield of bond proceeds, rebate of arbitrage earnings, expenditure of proceeds within required time limitations and the filing of information reports as and when required and to execute Continuing Disclosure Agreements for the benefit of holders of bonds and notes.

Section 12. The Bonds may be designated "Public Improvement Bonds of the Town of Westport," series of the year of their issuance and may be issued in one or more series, and may be consolidated as part of the same issue with other bonds of the Town; shall be in serial form maturing in not more than twenty (20) annual installments of principal, the first installment to mature not later than three (3) years from the date of issue and the last installment to mature not later than twenty (20) therefrom, or as otherwise provided by statute. The bonds may be sold at not less than par and accrued interest at public sale upon invitation for bids to the responsible bidder submitting the bid resulting in the lowest true interest cost to the Town, provided that nothing herein shall prevent the Town from rejecting all bids submitted in response to any one invitation for bids and the right to so reject all bids is hereby reserved, and further provided that the Committee may sell the bonds, or notes, on a negotiated basis, as provided by statute. Interest on the bonds shall be payable semiannually or annually. The bonds shall be signed on behalf of the Town by the First Selectman and the Finance Director, and shall bear the seal of the Town. The signing, sealing and certification of said bonds may be by facsimile as provided by statute. The Finance Director shall maintain a record of bonds issued pursuant to this resolution and of the face amount thereof outstanding from time to time, and shall certify to the

destruction of said bonds after they have been paid and cancelled, and such certification shall be kept on file with the Town Clerk.

Section 13. The Committee is further authorized to make temporary borrowings as permitted by the General Statutes and to issue a temporary note or notes of the Town in anticipation of the receipt of proceeds from the sale of the bonds to be issued pursuant to this resolution. Such notes shall be issued and renewed at such times and with such maturities, requirements and limitations as provided by statute. Notes evidencing such borrowings shall be signed by the First Selectman and the Finance Director, have the seal of the Town affixed, which signing and sealing may be by facsimile as provided by statute, be certified by and payable at a bank or trust company incorporated under the laws of this or any other state, or of the United States, be approved as to their legality by bond counsel, and may be consolidated with the issuance of other Town bond anticipation notes. The Committee shall determine the date, maturity, interest rates, form and manner of sale, including negotiated sale, and other details of said notes consistent with the provisions of this resolution and the General Statutes and shall have all powers and authority as set forth above in connection with the issuance of bonds and especially with respect to compliance with the requirements of the Internal Revenue Code of 1986, as amended, and regulations thereunder in order to obtain and maintain issuance of the notes in tax exempt form.

Section 14. Upon the sale and issuance of the bonds authorized by this resolution, the proceeds thereof, including any premium received upon the sale thereof, accrued interest received at delivery and interest earned on the temporary investment of such proceeds, shall be applied forthwith to the payment of the principal and interest of all notes issued in anticipation thereof or shall be deposited in trust for such purposes with a bank or trust company, or shall be applied or rebated as may be required under the provision of law. The remainder of the proceeds, if any, after the payment of said notes and of the expense of issuing said notes and bonds shall be applied to further finance the appropriation enacted herein.

Section 15. In each fiscal year in which the principal or any installment of interest shall fall due upon any of the bonds or notes herein authorized there shall be included in the appropriation for such fiscal year a sum equivalent to the amount of such principal and interest so falling due, and to the extent that provision is not made for the payment thereof from other revenues, the amount thereof shall be included in the taxes assessed upon the Grand List for such fiscal year and shall not be subject to any limitations of expenditures or taxes that may be imposed by any other Town ordinance or resolution.

Section 16. Pursuant to Section 1.150-2 (as amended) of the federal income tax regulations the Town hereby expresses its official intent to reimburse expenditures paid from the General Fund, or any capital fund for the Project with the proceeds of the bonds or notes to be issued under the provisions hereof. The allocation of such reimbursement bond proceeds to an expenditure shall be made in accordance with the time limitations and other requirements of such regulations. The Finance Director is authorized to pay Project expenses in accordance herewith pending the issuance of the reimbursement bonds or notes.

Section 17. The Town of Westport, or other proper authority of the Town, is authorized to take all necessary action to apply to the State of Connecticut, and accept from the State or other parties, grants, gifts and contributions in aid of further financing the Project. Once the appropriation becomes effective, the First Selectman, or other appropriate official of the town, is hereby authorized to spend a sum not to exceed the aforesaid appropriation for the Project and is specifically authorized to make, execute and deliver any contracts or other documents necessary or convenient to complete the Project and the financing thereof.

Section 18. The Committee is hereby authorized to take all action necessary and proper for the sale, issuance and delivery of the bonds (and notes) in accordance with the

provisions of the Town Charter, the Connecticut General Statutes, and the laws of the United States.

(5)

**RESOLVED:** That upon the recommendation of the Board of Finance and a request by the Director of Public Works, the sum of \$71,500.00 along with bond and note authorization, to the Municipal Improvement Fund Account to design the replacement of underground fuel tanks, fuel system, and heating oil tanks at Parsell Public Works Center at 300 Sherwood Island Connector is hereby appropriated.

### **BOND RESOLUTION**

**RESOLVED:** That upon the recommendation of the Board of Finance, the Town of Westport, Connecticut (the "Town") hereby appropriates the sum of Seventy-One Thousand Five Hundred and 00/100 Dollars (\$71,500) for the initial costs of replacing the underground fuel tanks, fuel system, and heating oil tanks at the Parsell Public Works Center at 300 Sherwood Island Connector including engineering, design and inspection services, and related consultant, administrative financing and other soft costs (the "Project").

Section 19. As recommended by the Board of Finance and for the purpose of financing Seventy-One Thousand Five Hundred and 00/100 Dollars (\$71,500) of the foregoing appropriation, the Town shall borrow a sum not to exceed Seventy-One Thousand Five Hundred and 00/100 Dollars (\$71,500) and issue general obligation bonds for such indebtedness under its corporate name and seal and upon the full faith and credit of the Town in an amount not to exceed said sum for the purpose of financing the appropriation for the Project.

Section 20. The First Selectman, Selectmen and Finance Director are hereby appointed a committee (the "Committee") with full power and authority to cause said bonds to be sold, issued and delivered; to determine their form, including provision for redemption prior to maturity; to determine the aggregate principal amount thereof within the amount hereby authorized and the denominations and maturities thereof; to fix the time of issue of each series thereof and the rate or rates of interest thereon as herein provided; to designate the bank or trust company to certify the issuance thereof and to act as transfer agent, paying agent and as registrar for the bonds, and to designate bond counsel. The Committee shall have all appropriate powers under the Connecticut General Statutes including Chapter 748 (Registered Public Obligations Act) to issue the bonds and, further, shall have full power and authority to do all that is required under the Internal Revenue Code of 1986, as amended, and other applicable laws and regulations of the United States and the state of Connecticut, to provide for issuance of the bonds in tax exempt form, including the execution of tax compliance and other agreements for the benefit of bondholders, and to meet all requirements which are or may become necessary in and subsequent to the issuance and delivery of the bonds in order that the interest on the bonds be and remain exempt from federal income taxes, including, without limitation, to covenant and agree to restriction on investment yield of bond proceeds, rebate of arbitrage earnings, expenditure of proceeds within required time limitations and the filing of information reports as and when required and to execute Continuing Disclosure Agreements for the benefit of holders of bonds and notes.

Section 21. The Bonds may be designated "Public Improvement Bonds of the Town of Westport," series of the year of their issuance and may be issued in one or more series, and may be consolidated as part of the same issue with other bonds of the Town; shall be in serial form maturing in not more than twenty (20) annual installments of principal, the first installment to mature not later than three (3) years from the date of issue and the last installment to mature not later than twenty (20) therefrom, or as otherwise provided by statute. The bonds may be sold at not less than par and accrued interest at public sale upon invitation for bids to the responsible bidder submitting the bid resulting in the lowest true interest cost to the Town, provided that nothing herein shall prevent the Town from rejecting all bids submitted in response to any one invitation for bids and the right to so reject all bids is hereby reserved, and further provided that the Committee may sell the bonds, or notes, on a negotiated basis, as provided by statute. Interest on the bonds shall be payable semiannually or annually. The bonds shall be signed on behalf of the Town by the First Selectman and the Finance Director, and shall bear the seal of the Town. The signing, sealing and certification of said bonds may be by facsimile as provided by statute. The Finance Director shall maintain a record of bonds issued pursuant to this resolution and of the face amount thereof outstanding from time to time, and shall certify to the destruction of said bonds after they have been paid and cancelled, and such certification shall be kept on file with the Town Clerk.

Section 22. The Committee is further authorized to make temporary borrowings as permitted by the General Statutes and to issue a temporary note or notes of the Town in anticipation of the receipt of proceeds from the sale of the bonds to be issued pursuant to this resolution. Such notes shall be issued and renewed at such times and with such maturities, requirements and limitations as provided by statute. Notes evidencing such borrowings shall be signed by the First Selectman and the Finance Director, have the seal of the Town affixed, which signing and sealing may be by facsimile as provided by statute, be certified by and payable at a bank or trust company incorporated under the laws of this or any other state, or of the United States, be approved as to their legality by bond counsel, and may be consolidated with the issuance of other Town bond anticipation notes. The Committee shall determine the date, maturity, interest rates, form and manner of sale, including negotiated sale, and other details of said notes consistent with the provisions of this resolution and the General Statutes and shall have all powers and authority as set forth above in connection with the issuance of bonds and especially with respect to compliance with the requirements of the Internal Revenue Code of 1986, as amended, and regulations thereunder in order to obtain and maintain issuance of the notes in tax exempt form.

Section 23. Upon the sale and issuance of the bonds authorized by this resolution, the proceeds thereof, including any premium received upon the sale thereof, accrued interest received at delivery and interest earned on the temporary investment of such proceeds, shall be applied forthwith to the payment of the principal and interest of all notes issued in anticipation thereof or shall be deposited in trust for such purposes with a bank or trust company, or shall be applied or rebated as may be required under the provision of law. The remainder of the proceeds, if any, after the payment of said notes and of the expense of issuing said notes and bonds shall be applied to further finance the appropriation enacted herein.

Section 24. In each fiscal year in which the principal or any installment of interest shall fall due upon any of the bonds or notes herein authorized there shall be included in the appropriation for such fiscal year a sum equivalent to the amount of such principal and interest so falling due, and to the extent that provision is not made for the payment thereof from other revenues, the amount thereof shall be included in the taxes assessed upon the Grand List for such fiscal year and shall not be subject to any limitations of expenditures or taxes that may be imposed by any other Town ordinance or resolution.

Section 25. Pursuant to Section 1.150-2 (as amended) of the federal income tax regulations the Town hereby expresses its official intent to reimburse expenditures paid from the General Fund, or any capital fund for the Project with the proceeds of the bonds or notes to be issued under the provisions hereof. The allocation of such reimbursement

bond proceeds to an expenditure shall be made in accordance with the time limitations and other requirements of such regulations. The Finance Director is authorized to pay Project expenses in accordance herewith pending the issuance of the reimbursement bonds or notes.

Section 26. The Town of Westport, or other proper authority of the Town, is authorized to take all necessary action to apply to the State of Connecticut, and accept from the State or other parties, grants, gifts and contributions in aid of further financing the Project. Once the appropriation becomes effective, the First Selectman, or other appropriate official of the town, is hereby authorized to spend a sum not to exceed the aforesaid appropriation for the Project and is specifically authorized to make, execute and deliver any contracts or other documents necessary or convenient to complete the Project and the financing thereof.

Section 27. The Committee is hereby authorized to take all action necessary and proper for the sale, issuance and delivery of the bonds (and notes) in accordance with the provisions of the Town Charter, the Connecticut General Statutes, and the laws of the United States.

(6)

**RESOLVED:** That upon the recommendation of the Board of Finance and a request by the Director of Public Works, the sum of \$278,000.00 along with bond and note authorization, to the Municipal Improvement Fund Account for the Replacement of Heavy Equipment and Specialized Vehicles is hereby appropriated.

#### **BOND RESOLUTION**

**RESOLVED:** That upon the recommendation of the Board of Finance, the Town of Westport, Connecticut (the "Town") hereby appropriates the sum of Two Hundred Seventy-Eight Thousand and 00/100 Dollars (\$278,000) to fund costs associated with the replacement of: i) one F550 plow truck and attached Kubota mini-excavator; ii) half of the Parsell Public Works Center, truck bay doors and the waste oil storage shelter; and iii) the Transfer Station doors, including related administrative, financing and other soft costs (the "Project").

Section 28. As recommended by the Board of Finance and for the purpose of financing Two Hundred Seventy-Eight Thousand and 00/100 Dollars (\$278,000) of the foregoing appropriation, the Town shall borrow a sum not to exceed Two Hundred Seventy-Eight Thousand and 00/100 Dollars (\$278,000) and issue general obligation bonds for such indebtedness under its corporate name and seal and upon the full faith and credit of the Town in an amount not to exceed said sum for the purpose of financing the appropriation for the Project.

Section 29. The First Selectman, Selectmen and Finance Director are hereby appointed a committee (the "Committee") with full power and authority to cause said bonds to be sold, issued and delivered; to determine their form, including provision for redemption prior to maturity; to determine the aggregate principal amount thereof within the amount hereby authorized and the denominations and maturities thereof; to fix the time of issue of each series thereof and the rate or rates of interest thereon as herein provided; to designate the bank or trust company to certify the issuance thereof and to act as transfer agent, paying agent and as registrar for the bonds, and to designate bond counsel. The

Committee shall have all appropriate powers under the Connecticut General Statutes including Chapter 748 (Registered Public Obligations Act) to issue the bonds and, further, shall have full power and authority to do all that is required under the Internal Revenue Code of 1986, as amended, and other applicable laws and regulations of the United States and the state of Connecticut, to provide for issuance of the bonds in tax exempt form, including the execution of tax compliance and other agreements for the benefit of bondholders, and to meet all requirements which are or may become necessary in and subsequent to the issuance and delivery of the bonds in order that the interest on the bonds be and remain exempt from federal income taxes, including, without limitation, to covenant and agree to restriction on investment yield of bond proceeds, rebate of arbitrage earnings, expenditure of proceeds within required time limitations and the filing of information reports as and when required and to execute Continuing Disclosure Agreements for the benefit of holders of bonds and notes.

Section 30. The Bonds may be designated "Capital Equipment Bonds of the Town of Westport," series of the year of their issuance and may be issued in one or more series, and may be consolidated as part of the same issue with other bonds of the Town; shall be in serial form maturing in not more than twenty (20) annual installments of principal, the first installment to mature not later than three (3) years from the date of issue and the last installment to mature not later than twenty (20) therefrom, or as otherwise provided by statute. The bonds may be sold at not less than par and accrued interest at public sale upon invitation for bids to the responsible bidder submitting the bid resulting in the lowest true interest cost to the Town, provided that nothing herein shall prevent the Town from rejecting all bids submitted in response to any one invitation for bids and the right to so reject all bids is hereby reserved, and further provided that the Committee may sell the bonds, or notes, on a negotiated basis, as provided by statute. Interest on the bonds shall be payable semiannually or annually. The bonds shall be signed on behalf of the Town by the First Selectman and the Finance Director, and shall bear the seal of the Town. The signing, sealing and certification of said bonds may be by facsimile as provided by statute. The Finance Director shall maintain a record of bonds issued pursuant to this resolution and of the face amount thereof outstanding from time to time, and shall certify to the destruction of said bonds after they have been paid and cancelled, and such certification shall be kept on file with the Town Clerk.

Section 31. The Committee is further authorized to make temporary borrowings as permitted by the General Statutes and to issue a temporary note or notes of the Town in anticipation of the receipt of proceeds from the sale of the bonds to be issued pursuant to this resolution. Such notes shall be issued and renewed at such times and with such maturities, requirements and limitations as provided by statute. Notes evidencing such borrowings shall be signed by the First Selectman and the Finance Director, have the seal of the Town affixed, which signing and sealing may be by facsimile as provided by statute, be certified by and payable at a bank or trust company incorporated under the laws of this or any other state, or of the United States, be approved as to their legality by bond counsel, and may be consolidated with the issuance of other Town bond anticipation notes. The Committee shall determine the date, maturity, interest rates, form and manner of sale, including negotiated sale, and other details of said notes consistent with the provisions of this resolution and the General Statutes and shall have all powers and authority as set forth above in connection with the issuance of bonds and especially with respect to compliance with the requirements of the Internal Revenue Code of 1986, as amended, and regulations thereunder in order to obtain and maintain issuance of the notes in tax exempt form.

Section 32. Upon the sale and issuance of the bonds authorized by this resolution, the proceeds thereof, including any premium received upon the sale thereof, accrued interest received at delivery and interest earned on the temporary investment of such proceeds, shall be applied forthwith to the payment of the principal and interest of all notes issued in anticipation thereof or shall be deposited in trust for such purposes with a bank or trust company, or shall be applied or rebated as may be required under the provision of law. The remainder of the proceeds, if any, after the payment of said notes and of the expense

of issuing said notes and bonds shall be applied to further finance the appropriation enacted herein.

Section 33. In each fiscal year in which the principal or any installment of interest shall fall due upon any of the bonds or notes herein authorized there shall be included in the appropriation for such fiscal year a sum equivalent to the amount of such principal and interest so falling due, and to the extent that provision is not made for the payment thereof from other revenues, the amount thereof shall be included in the taxes assessed upon the Grand List for such fiscal year and shall not be subject to any limitations of expenditures or taxes that may be imposed by any other Town ordinance or resolution.

Section 34. Pursuant to Section 1.150-2 (as amended) of the federal income tax regulations the Town hereby expresses its official intent to reimburse expenditures paid from the General Fund, or any capital fund for the Project with the proceeds of the bonds or notes to be issued under the provisions hereof. The allocation of such reimbursement bond proceeds to an expenditure shall be made in accordance with the time limitations and other requirements of such regulations. The Finance Director is authorized to pay Project expenses in accordance herewith pending the issuance of the reimbursement bonds or notes.

Section 35. The Town of Westport, or other proper authority of the Town, is authorized to take all necessary action to apply to the State of Connecticut, and accept from the State or other parties, grants, gifts and contributions in aid of further financing the Project. Once the appropriation becomes effective, the First Selectman, or other appropriate official of the town, is hereby authorized to spend a sum not to exceed the aforesaid appropriation for the Project and is specifically authorized to make, execute and deliver any contracts or other documents necessary or convenient to complete the Project and the financing thereof.

Section 36. The Committee is hereby authorized to take all action necessary and proper for the sale, issuance and delivery of the bonds (and notes) in accordance with the provisions of the Town Charter, the Connecticut General Statutes, and the laws of the United States.

(7)

**RESOLVED:** That upon the request of at least two RTM members, the following sense of the meeting resolution is hereby adopted.

#### TOWN OF WESTPORT

#### RESOLUTION OF THE REPRESENTATIVE TOWN MEETING ASSERTING THAT RACISM IS A PUBLIC HEALTH CRISIS AFFECTING THE TOWN OF WESTPORT AND ALL OF CONNECTICUT

WHEREAS, racism is a social system with multiple dimensions: individual racism that is interpersonal and/or internalized or systemic racism that is institutional or structural, and is a system of structuring opportunity and assigning value based on the social interpretation of how one looks; and

WHEREAS race is a social construct with no biological basis; and WHEREAS racism unfairly disadvantages specific individuals and communities, while unfairly giving advantages to other individuals and communities, and saps the strength of the whole society through the waste of human resources, and

WHEREAS racism is a root cause of poverty and constricts economic mobility; and

WHEREAS racism causes persistent discrimination and disparate outcomes in many areas of life, including housing, education, employment, and criminal justice, and is itself a social determinant of health; and

WHEREAS racism and segregation have exacerbated a health divide resulting in people of color in Connecticut bearing a disproportionate burden of illness and mortality including COVID-19 infection and death, heart disease, diabetes, and infant mortality; and

WHEREAS Black, Native American, Asian and Latino residents are more likely to experience poor health outcomes as a consequence of inequities in economic stability, education, physical environment, food, and access to health care and these inequities are, themselves, a result of racism; and

WHEREAS more than 100 studies have linked racism to worse health outcomes; and

WHEREAS the collective prosperity and wellbeing of Westport depends upon equitable access to opportunity for every resident regardless of the color of their skin: and

WHEREAS in August 2005, recognizing the need to achieve and celebrate a more welcoming, multicultural community, the Town of Westport established the TEAM Westport Committee to advise Town officials; and

NOW, THEREFORE, BE IT RESOLVED, that the Town of Westport asserts that racism is a public health crisis affecting Westport and all of Connecticut;

BE IT FURTHER RESOLVED that the Town of Westport will work to progress as an equity and justice-oriented organization, by continuing to identify specific activities to enhance diversity and to ensure antiracism principles across our leadership, staffing and contracting;

BE IT FURTHER RESOLVED that the Town of Westport will promote equity through all policies approved by the Town of Westport and enhance educational efforts aimed at understanding, addressing and dismantling racism and how it affects the delivery of human and social services, economic development and public safety;

BE IT FURTHER RESOLVED that the Town of Westport will improve the quality of the data Westport collects and the analysis of that data—it is not enough to assume that an initiative is producing its intended outcome, qualitative and quantitative data should be used to assess inequities in impact and continuously improve;

BE IT FURTHER RESOLVED that the Town of Westport will continue to advocate locally for relevant policies that improve health in communities of color, and support local, state, regional, and federal initiatives that advance efforts to dismantle systemic racism;

BE IT FURTHER RESOLVED that the Town of Westport will further work to solidify alliances and partnerships with other organizations that are confronting racism and encourage other local, state, regional, and national entities to recognize racism as a public health crisis;

BE IT FURTHER RESOLVED that the Town of Westport will support community efforts to amplify issues of racism and engage actively and authentically with communities of color wherever they live; and

BE IT FURTHER RESOLVED that the Town of Westport will identify clear goals and objectives, including periodic reports to the Representative Town Meeting, to assess progress and capitalize on opportunities to further advance racial equity.



**WESTPORT CONNECTICUT**  
**PARKS AND RECREATION DEPARTMENT**  
LONGSHORE CLUB PARK  
260 SOUTH COMPO ROAD, WESTPORT, CT 06880  
(203) 341-5090

BACK UP MATERIAL  
RTM ITEM # 1

August 17, 2020

The Honorable James S. Marpe  
First Selectman  
Town Hall  
110 Myrtle Avenue  
Westport, CT 06880

Dear Mr. Marpe:  
The Parks and Recreation Department respectfully requests to be placed on the Board of Finance Agenda for an appropriation of \$310,000 along with bond and note authorization to the Municipal Improvement Fund.

This request is to replace the field lights at the Greens Farms field.

Respectfully,

A handwritten signature in black ink, appearing to read "Jennifer A. Fava".

Jennifer A. Fava  
Director of Parks and Recreation

cc: Gary Conrad.

Approved for submission  
To Board of Finance (8/17/20)

A handwritten signature in black ink, appearing to read "James S. Marpe".  
James S. Marpe  
First Selectman



## WESTPORT CONNECTICUT

### PARKS AND RECREATION DEPARTMENT

LONGSHORE CLUB PARK

260 SOUTH COMPO ROAD, WESTPORT, CT 06880

(203) 341-5090

MEMO TO: Board of Finance

MEMO FROM: Jennifer Fava, Director 

DATE: August 17, 2020

RE: **Appropriation Request for Replacement of Lights at Greens Farms Softball/Baseball Field**

The sports field lights on the Greens Farms softball/baseball field are in need of replacement. This replacement has been on the Capital Five-Year Plan for some time and is listed for completion in FY19/20.

The current field lights are no longer sufficient as they do not meet current standards, nor do they provide the proper footcandles needed for safe illumination and light distribution of the playing area, especially for softball and baseball for which the field is designed and used.

The Department is requesting to replace the current lights with a MUSCO Lighting TLC for LED system. This system will now utilize LED, which will provide a cost savings, and the technology minimizes light spillage that can be disruptive to the surrounding area. This system comes with a 25-year product assurance and warranty program that eliminates 100% of maintenance costs for 25 years, including labor, materials, monitoring and guaranteed light levels. A brochure on this system is attached. In addition to the physical lighting system, this project (and pricing) includes MUSCO's Control Link system that allows for remote access, advanced scheduling and monitoring with 24/7 customer support. There is no additional charge for Control Link during the 25-year warranty period.

The Town's Purchasing Procedure and Policy, allows for the use of Cooperative Purchasing as indicated in section 3 of the policy:

#### 3. Waivers and Exceptions to Bid/RFP Process

(iii.) When purchasing pursuant to a public bidding process conducted by another government agency (including without limitation goods or services selected under State of Connecticut contracted pricing) or through contracts publicly bid by a consortium.

In accordance with this policy, Sourcewell is the Cooperative Purchasing entity through which this project is being conducted. "Sourcewell's analysts streamline the procurement process by developing RFPs and IFBs for national, competitive solicitations that meet or exceed local requirements (from the Sourcewell website)," providing us with a competitively bid project.

Therefore, the Parks and Recreation Department requests an appropriation along with bond and note authorization to the Municipal Improvement Fund in the amount of \$310,000.

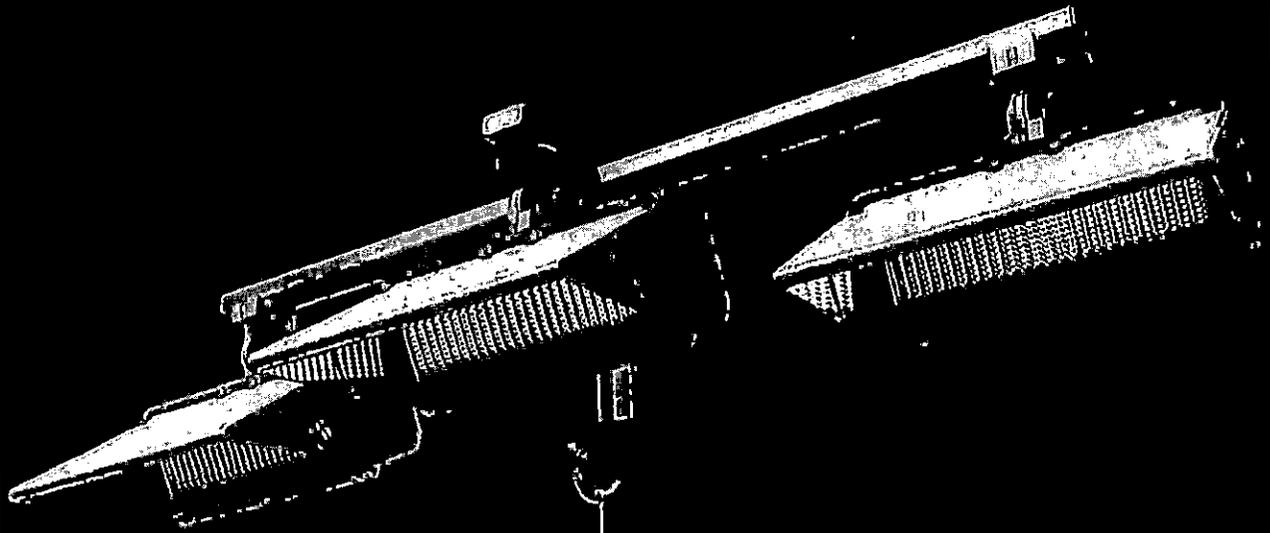
attachments

cc: Gary Conrad

Introducing

# TLC<sup>®</sup> for LED

Total Light Control<sup>™</sup>



**MUSCO**  
*Lighting*

We Make It Happen

# TLC<sup>®</sup> for LED<sup>®</sup>

## Total Light Control™

Continuing the commitment to excellence...  
Keeping good lighting affordable...  
Guaranteed for 25 years, from foundation to poletop.

Light-Emitting Diode (LED) is a new tool but the issues for sports lighting are the same. For nearly a decade, the Musco Team has been testing the LED light source and applying it on projects where it was the best choice. While LED saved energy, for a typical recreational facility the hours of operation weren't great enough to offset the higher cost.

We've researched LED's distinctive challenges and advantages and applied our knowledge of light control to the unique characteristics of the diode, assuring the quality of lighting for which Musco is known.

We've paired our expertise in controlling light with the advancing output of LED to the point where we're confident it's a cost-effective option to consider for recreational facilities. With our patented BallTracker™ technology, in-flight balls "pop" against night skies so that tracking the ball is easier than ever before.

The result is a system that makes Musco's great lighting even better.

### *Better for players...*

who want to perform their best and be able to track the entire flight of the ball.

### *Better for neighbors...*

who don't want glare in or around their homes or lights left on when not in use.

### *Better for the night sky...*

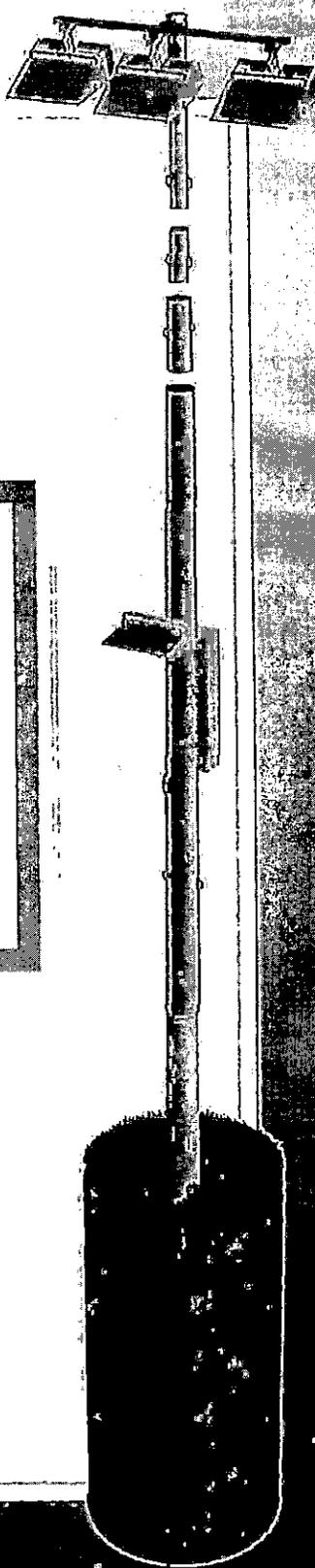
with bright, uniform light directed onto the field and not spilling above it.

### *Better for your budget...*

an affordable system that's built to last and control operating costs.

***And...you can mark maintenance off your list for 25 years!***

The Musco Team looks at the combination of issues to achieve the best solution to meet your needs—from structures, to quality of on-field light, to off-site impact, to energy and costs.



# Control

from foundation to poletop...

from the light source to the field,  
preserving the night sky...

assuring the results you expect,  
day 1... year 1... and for 25 years.

# Still Light-Structure System™...

5 Easy Pieces™ complete from foundation to poletop.

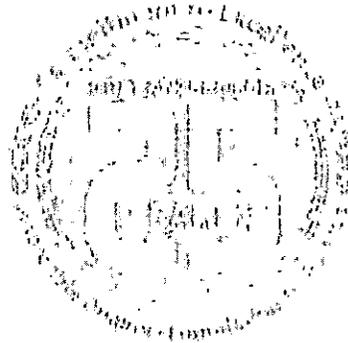
Our Light-Structure System™ has delivered long-term performance for thousands of customers around the world.

Lights, structures, and electrical components are engineered to work together. This assures the designed lighting gets in place and stays there over the life of the system, while also maintaining and protecting the operating environment so the components continue to function.

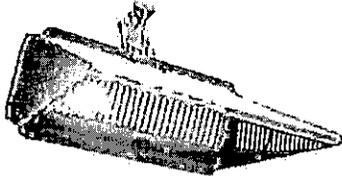
We've included features like easy to reach remote drivers, integrated grounding, and surge protection to ensure the longevity of the LED's sensitive electronic components.

The Light-Structure System™ adapts to support both LED and metal halide light sources.

**25 years of proven performance**



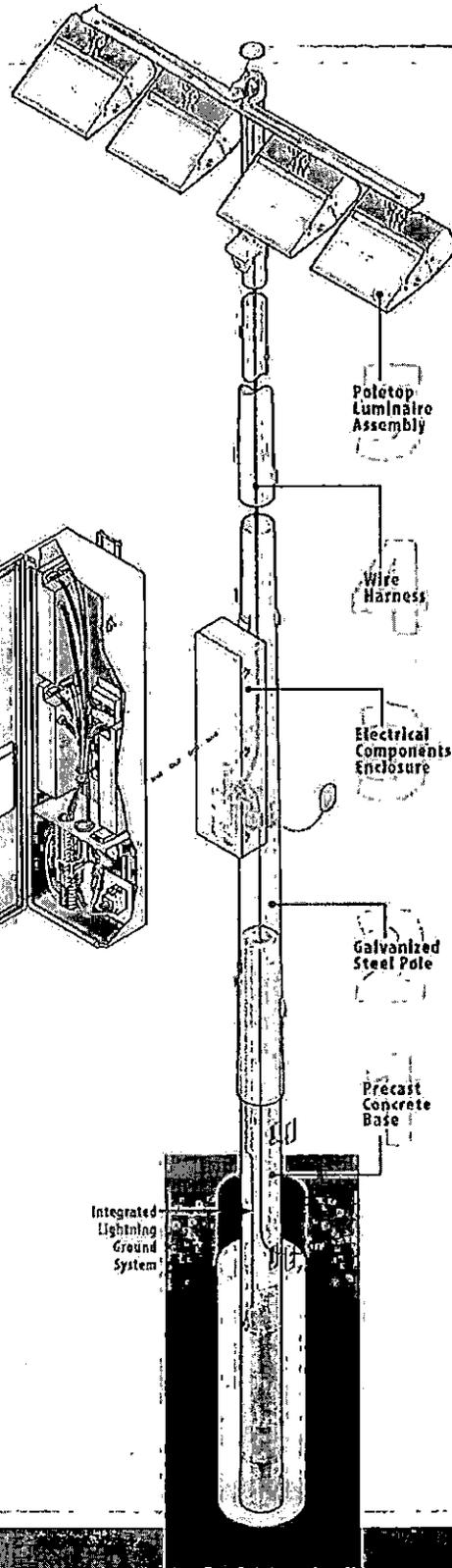
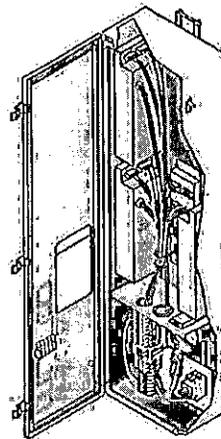
**Control**  
from the foundation to the poletop.



**TLC for LED**  
Total Light Control™



**Other Light Source Option**  
**Green Generation Lighting**  
Metal Halide  
10 year warranty



*Lighting is a key element in the design of any building or site. The right lighting can enhance the appearance and functionality of a space, while the wrong lighting can detract from it. The TLC for LED system is designed to provide the best lighting solution for your needs. It features adjustable light fixtures that can be directed to illuminate specific areas, and a variety of light sources to choose from. The system is also easy to install and maintain, making it a great choice for any building or site.*

*For more information, contact us at 1-800-451-1234 or visit our website at www.tlcforled.com.*

# Musco can light a ballfield better than ever.

We create controlled light, not floodlights.

An LED floodlight is a serious step backward when it comes to the quality of light on your field. It may flood light into the neighborhood, into the night sky, and into the eyes of players.

## New Tool

LED brings many benefits and new opportunities, but it's a tool, not a solution. Controlling the LED's intense, "rifle shot" of light is challenging. But with Total Light Control—TLC for LED®, we're able to achieve things never before possible—from pinpoint precision, to instant on/off, to varying light levels for different needs and sports presentation theatrics.

## Same Issues

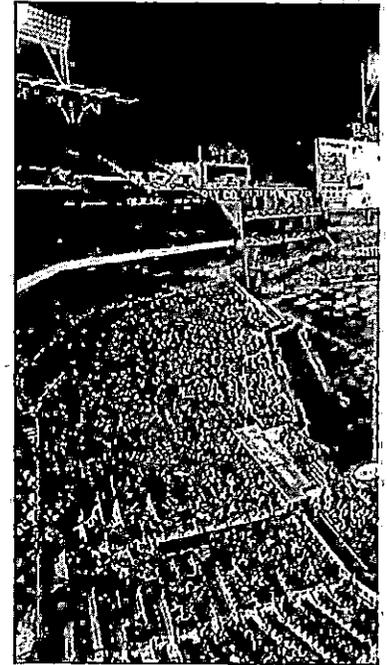
The key issues in sports lighting haven't changed: generating light, projecting it onto the target, keeping it out of the neighborhood and night sky, and creating an operating environment that allows it to last in real world conditions. Musco is able to carve out the area to be lighted and dramatically cut off any impact on the surrounding area. We use more of the light produced by the fixture, lose less light, and don't abuse the neighborhood. Our patented BallTracker™ light management technology puts vertical light precisely where it is needed. BallTracker minimizes impact on the night sky while lighting the underside of aerial balls, making night-time tracking easier than ever before.

When you walk onto a Musco-lighted field,  
it just looks better.

*"When you stand at home plate and look out to center field,  
there's no glare, but the field is totally bright and you see  
how the white of the ball pops, it looks amazing."*

—Tyson Kimm  
Vice President of Perfect Game USA,  
a major tenant at LakePoint Sports Community

Control  
from the light source to the field.



San Diego Padres Petco Park - San Diego, California, USA



LakePoint Sports Community - Emerson, Georgia, USA

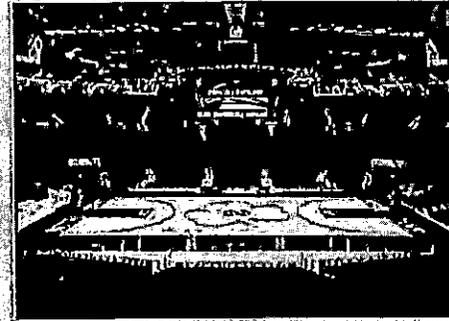
...for players, fans, and TV cameras.



Theatrics and special effects enhance fan and TV experience.



Pinpoint control from 100 feet away highlights the target area while preserving surrounding darkness.



Sensational event lighting with dimming saves energy for high-usage, multi-use venues.



With patented Ball Tracker™ technology, players enjoy quality lighting, no glare, and better ability to track the center of the ball.

© 2010 Philips Lighting North America Corporation  
University of North Carolina - Research Triangle Park, USA

# The neighbors will love it.

Musco cares as much about preserving darkness as it does about creating light.

Emitting light is easy. But LED fixtures that can't effectively control the light being emitted brings the unintended consequences of abusive glare for players and neighbors, and wasteful spill into the night sky.

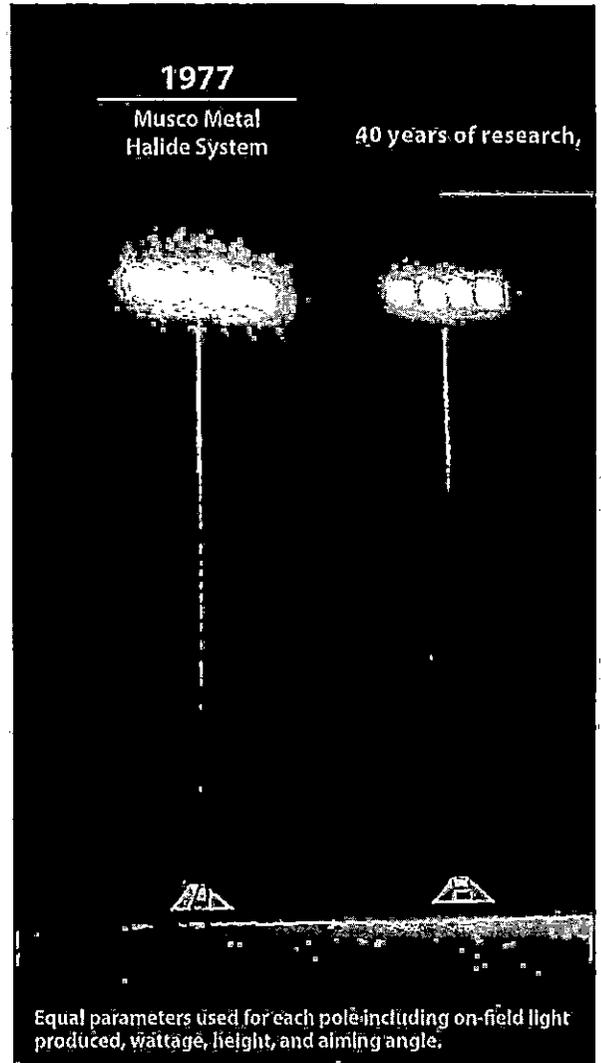
With Musco's Total Light Control—TLC for LED®, we've taken LED to a level of performance and precision never before seen in sports lighting. It means no disruptive glare into nearby homes and the preservation of dark skies above.

And it opens up new opportunities for where fields can be located within a community, and for existing fields that, until now, weren't able to install lights because of community push back.

*Control*  
preserving the night sky.

*"Glyndon Park is in a naturally wooded residential area. We didn't want to illuminate the homes of neighbors in the area. I initially wasn't supportive of putting in traditional lights. The product Musco has developed allows us to light this field, yet light nothing else around it."*

— Cathy Salgado,  
Parks and Recreation Director, Vienna, VA



Glyndon Park Little League, Vienna, Virginia

Increasing efficiency and decreasing environmental impact.

**Today**

Musco LED System

**Today**

Other Luminaire Manufacturer LED



Light Energy: Use, Lose, Abuse

Luminaire

Use

Lose/Abuse

on field

to sky

What often is



Other LED Manufacturer

What can be



Musco TLC for LED

# And, your field is always ready to play.

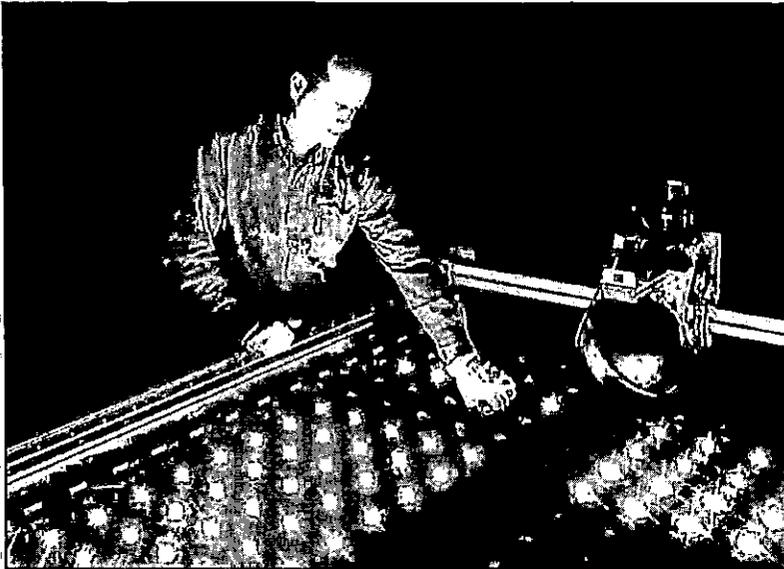
Here's a look at what the Musco Team has done in the last year as a partner in service to customers like you...

- Turned lights on and off remotely for more than 5.5 million games and events.
- Conducted routine inspections and maintenance at over 11,000 fields.
- Taken more than 350,000 calls, answering questions and helping with scheduling.
- Carried out group lamp replacements on more than 30,000 metal halide fixtures.
- Traveled enough miles servicing fields to circle the equator 24 times.

And here's what our customers enjoy for 25 years...

**Peace of mind for 9,125 days** knowing that if a problem arises, we'll be there, and a budget with virtually **zero dollars spent on maintenance**, **increased staff productivity** resulting from not having to worry about managing your lights, plus **restful nights**, free from midnight calls from unhappy neighbors about lights left on.

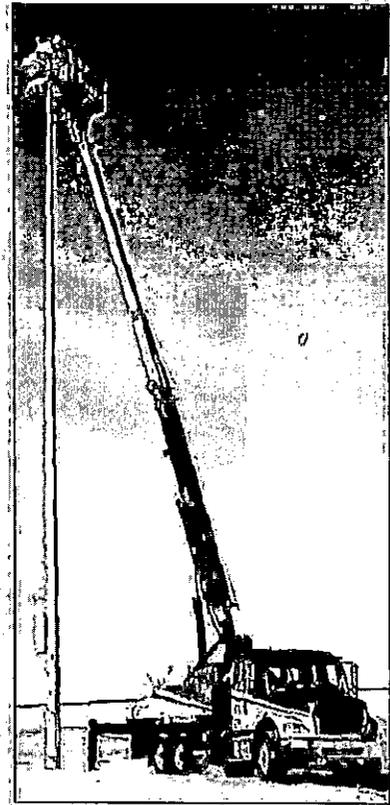
**Control** assuring the results you expect.



We do the R&D to create it. We customize and apply solutions to your facility.

*"Musco called to let us know there was an issue before we knew we had a problem."*

— Stephen Cooke, CPRP/CYSA  
Greenville County Recreation Athletics Manager, Taylors, SC



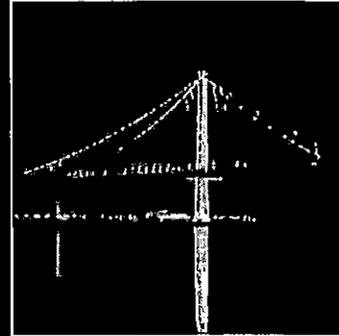
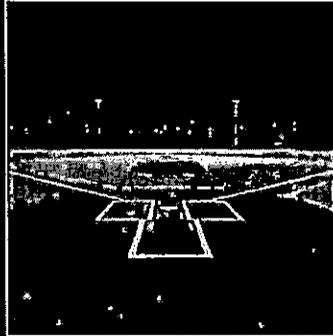
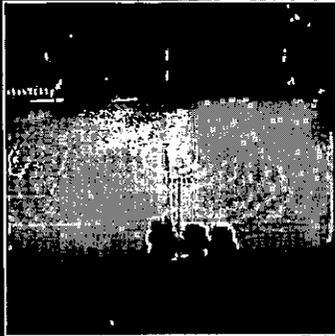
We're on the road to support it for 25 years.



We provide 24-7 Control-Link support to monitor and operate your facility.

From metal halide to LED,  
Musco's Light-Structure System™ performs  
in real world conditions **for 25 years, guaranteed.**  
**We Make It Happen.**





## Control

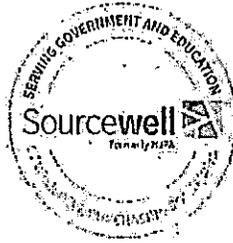
from foundation to poletop...

from the light source to the field,  
preserving the night sky...

assuring the results you expect,  
day 1... year 1... and for 25 years.



**We Make It Happen**



**RFP #071619**  
**REQUEST FOR PROPOSALS**  
**for**

**Sports Lighting with Related Supplies and Services**  
**Proposal Due Date: July 16, 2019, 4:30 p.m., Central Time**

Sourcewell, a State of Minnesota local government agency and service cooperative, is requesting proposals for Sports Lighting with Related Supplies and Services to result in a national contracting solution for use by its members. Sourcewell members include thousands of governmental, higher education, K-12 education, not-for-profit, tribal government, and other public agencies located in the United States and Canada. A full copy of the Request for Proposals can be found on the Sourcewell Procurement Portal [<https://portal.sourcewell-mn.gov>]. Only proposals submitted through the Sourcewell Procurement Portal will be considered. Proposals are due no later than July 16, 2019, at 4:30 p.m. Central Time, and late proposals will not be considered.

**Solicitation Schedule**

Public Notice of RFP Published:	May 30, 2019
Pre-proposal Conference:	June 26, 2019, 10:00 a.m., Central Time
Question Submission Deadline:	July 10, 2019, 4:30 p.m., Central Time
Proposal Due Date:	July 16, 4:30 p.m., Central Time Late responses will not be considered.
Opening:	July 16, 6:30 p.m., Central Time **

\*\*SEE RFP SUB-SECTION V. G. "OPENING"

## I. ABOUT SOURCEWELL AND MEMBERS

### A. SOURCEWELL

Sourcewell is a State of Minnesota local government agency and service cooperative created under the laws of the State of Minnesota (Minnesota Statutes Section 123A.21) that facilitates a competitive public solicitation and contract award process for the benefit of its 50,000+ members across the United States and Canada. Sourcewell's solicitation process complies with Minnesota law and policies, and results in cooperative contracting solutions from which Sourcewell's members procure equipment, products, and services.

Cooperative contracting provides members and vendors increased administrative efficiencies and the power of combined purchasing volume that result in overall cost savings. At times, Sourcewell also partners with other purchasing cooperatives to combine the purchasing volume of their membership into a single solicitation and contract expanding the reach of contracted vendors potential pool of end users.

Sourcewell uses a website-based platform, the Sourcewell Procurement Portal, through which all proposals to this RFP must be submitted.

### B. MEMBERS AND USE OF RESULTING CONTRACTS

Membership in Sourcewell is open to government and non-profit entities across the United States and Canada, such as municipal, state/province, K-12 and higher education, tribal government, and other public entities. Access to contracted equipment, products, or services by Members is typically through a purchase order issued directly to the applicable vendor. A Member may request additional terms or conditions related to a purchase. Use of Sourcewell contracts is voluntary and Members retain the right to obtain similar equipment, products, or services from other sources.

To meet Members' needs, public notice of this RFP has been broadly published, including notification to each state-level procurement departments for possible re-posting. As required by certain states, an Appendix of Members is included in this RFP and can be found in the Sourcewell Procurement Portal. Affidavits of Publication will be available at the conclusion of the solicitation process.

*For Canadian entities:* This RFP is intended to include municipalities and publicly-funded academic institutions, school boards, health authorities, and social services (MASH sectors); including members of the Rural Municipalities of Alberta (RMA), and their represented Associations: Saskatchewan Association of Rural Municipalities (SARM), Saskatchewan Urban Municipalities Association (SUMA), and Association of Manitoba Municipalities (AMM).

## II. EQUIPMENT, PRODUCTS, AND SERVICES

### A. SOLUTIONS-BASED SOLICITATION

This RFP and contract award process is a solutions-based solicitation; meaning that Sourcewell is seeking equipment, products, or services that meet the general requirements of the scope of this RFP and that are commonly desired or are required by law or industry standards.

### B. REQUESTED EQUIPMENT, PRODUCTS, OR SERVICES

It is expected that Proposers offer a wide array of equipment, products, or services at lower prices and with better value than what they would ordinarily offer to a single government entity, a school district, or a regional cooperative.

Sourcewell is seeking proposals for Sports Lighting with Related Supplies and Services. Sourcewell seeks solutions that include, but are not to be limited to:

- Indoor and outdoor, fixed or portable, sports related lighting solutions.
- Technology integration, software, design, project management, installation services, and maintenance related to and in connection with the purchase of equipment and products described above.
- A complementary offering of transportation and infrastructure lighting solutions related to and in connection with the equipment and products described above.

The Proposer's primary offerings must be indoor and outdoor sports lighting equipment and products.

This solicitation does not include those equipment, products, or services covered under categories included in contracts currently maintained by Sourcewell:

#### 1. Electric Energy Power Generation (RFP #120617)

This solicitation should NOT be construed to include "service-only" solutions. Proposers may include related equipment, accessories, and services to the extent that these solutions are complementary to the equipment, products, or service(s) being proposed.

Generally, the solutions for Sourcewell Members are turn-key solutions, providing a combination of equipment, products and services, delivery, and installation to a properly operating status. However, equipment or products only solutions may be appropriate for situations where Sourcewell Members possess the ability, either in-house or through local third-party contractors, to properly install and bring to operation those equipment/products being proposed.

Sourcewell prefers vendors that provide a sole source of responsibility for the products and services provided under a resulting contract. If Proposer requires the use of dealers, resellers, or subcontractors to provide the products or services, the Proposal should address how the products or services will be provided to Members and describe the network of dealers, resellers, and/or subcontractors that will be available to serve Sourcewell Members under a resulting contract.

Sourcewell desires the broadest possible selection of products/equipment and services being proposed over the largest possible geographic area and to the largest possible cross-section of Sourcewell current and potential Members.

#### C. REQUIREMENTS

It is expected that Proposers have knowledge of all applicable industry standards, laws, and regulations and possess an ability to market and distribute the equipment, products, or services to Members.

1. Safety Requirements: All items proposed must comply with current applicable safety or regulatory standards or codes.
2. Deviation from Industry Standard: Deviations from industry standards must be identified with an explanation of how the equipment, products, and services will provide equivalent function, coverage, performance, and/or related services.
3. New Equipment and Products: Proposed equipment and products must be for new, current model; however, Proposer may offer certain close-out equipment or products if it is specifically noted in the Pricing proposal.
4. Delivered and operational: Unless clearly noted in the Proposal, equipment and products must be delivered to the Member as operational.
5. Warranty: All equipment, products, supplies, and services must be covered by a warranty that is the industry standard or better.

#### D. ANTICIPATED CONTRACT TERM

Sourcewell anticipates that the term of any resulting contract(s) will be four (4) years. An extension may be offered based on the best interests of Sourcewell and its members.

#### E. ESTIMATED CONTRACT VALUE AND USAGE

Based on past volume of similar contracts, the estimated annual value of all transactions from contracts resulting from this RFP are anticipated to be USD \$75 Million; therefore, proposers are expected to propose volume pricing. Sourcewell anticipates considerable activity under the contract(s) awarded from this RFP; however, sales and sales volume from any resulting contract are not guaranteed.

## F. MARKETING PLAN

Proposer's sales force will be the primary source of communication with Members. The Proposer's Marketing Plan should demonstrate Proposer's ability to deploy a sales force or dealer network to Members, as well as Proposer's sales and service capabilities. It is expected that Proposer will promote and market any contract award.

## G. ADDITIONAL CONSIDERATIONS

1. Contracts will be awarded to Proposers able to best meet the need of Members. Proposers should submit their complete line of equipment, products, or services that are applicable to the scope of this RFP.
2. Proposers should include all relevant information in its proposal. Sourcewell cannot consider information that is not provided in the Proposal. Sourcewell reserves the right to verify Proposer's information and may request clarification from a Proposer, including samples of the proposed equipment or products.
3. Depending upon the responses received in a given category, Sourcewell may need to organize responses into subcategories in order to provide the broadest coverage of the requested equipment, products, or services to Members. Awards may be based on a subcategory.
4. A Proposer's documented negative past performance with Sourcewell or its Members occurring under a previously awarded Sourcewell contract may be considered in the evaluation of a proposal.

## III. PRICING

### A. REQUIREMENTS

All proposed pricing must be:

1. Either Line-Item Pricing or Percentage Discount from Catalog Pricing, or a combination of these:
  - a. Line-item Pricing is pricing based on each individual product or services. Each line must indicate the Vendor's published "List Price," as well as the "Contract Price."
  - b. Percentage Discount from Catalog or Category is based on a percentage discount from a catalog or list price, defined as a published Manufacturer's Suggested Retail Price (MSRP) for the products or services. Individualized percentage discounts can be applied to any number of defined product groupings. Proposers will be responsible for providing and maintaining current published MSRP with Sourcewell, and this pricing must be included in its proposal and provided throughout the term of any Contract resulting from this RFP.
2. The Proposer's ceiling price. (Ceiling price means that the proposed pricing will be considered as the highest price for which equipment, products, or services may be billed)

to a Member). However, it is permissible for vendors to sell at a price that is lower than the contracted price;

3. Stated in U.S., and Canadian dollars for Proposers intending to sell in Canada (as applicable); and
4. Clearly understood, complete, and fully describe the total cost of acquisition (e.g., the cost of the proposed equipment, products, and services delivered and operational for its intended purpose in the Member's location).

Proposers should clearly identify any costs that are NOT included in the proposed product or service pricing. This may include items such as installation, set up, mandatory training, or initial inspection. Include identification of any parties that impose such costs and their relationship to the Proposer. Additionally, Proposers should clearly describe any unique distribution and/or delivery methods or options offered in the Proposal.

#### **B. ADMINISTRATIVE FEES**

Proposers are expected to pay to Sourcewell an administrative fee in exchange for Sourcewell facilitating the resulting contracts. The administrative fee is normally calculated as a percentage of the total sales to Members for all contracted equipment, products, or services made during a calendar quarter, and is typically one percent (1%) to two percent (2%). In some categories, a flat fee may be an acceptable alternative.

#### **IV. CONTRACT**

Proposers awarded a contract will be required to execute a contract with Sourcewell. Only those modifications the Proposer indicates in its proposal will be available for discussion. Much of the language in the Contract reflects Minnesota legal requirements and cannot be altered. Numerous and/or onerous exceptions that contradict Minnesota law may result in a proposal being disqualified from further review and evaluation.

To request a modification to the Contract terms, conditions, or specifications, a Proposer must complete and submit an Exceptions to Terms, Conditions, or Specifications Form, with all requested modifications, through the Sourcewell Procurement Portal at the time of submitting the Proposer's response.

#### **V. RFP PROCESS**

##### **A. PRE-PROPOSAL CONFERENCE**

Sourcewell will hold an optional, non-mandatory pre-proposal conference via webcast on the date and time noted on page one of this RFP and on the Sourcewell Procurement Portal. The purpose of this conference is to allow potential Proposers to ask questions regarding this RFP and Sourcewell's competitive contracting process. Information about the webcast will be sent

to all entities that requested a copy of this RFP through the Sourcewell Procurement Portal. Pre-proposal conference attendance is optional.

#### **B. QUESTIONS REGARDING THIS RFP AND ORAL COMMUNICATION**

Questions regarding this RFP must be submitted through the Sourcewell Procurement Portal. The deadline for submission of questions is found in the Solicitation Schedule and on the Sourcewell Procurement Portal. Answers to questions will be issued through an addendum to this RFP. Repetitive questions will be summarized into a single answer and identifying information will be removed from the submitted questions.

All questions, whether specific to a Proposer or generally related to the RFP, must be submitted using this process. Do not contact individual Sourcewell staff to ask questions or request information as this may disqualify the Proposer from responding to this RFP. Sourcewell will not respond to questions submitted after the deadline.

#### **C. ADDENDA**

Sourcewell may modify this RFP at any time prior to the proposal due date by issuing an addendum. Addenda issued by Sourcewell become a part of the RFP and will be delivered to potential Proposers through the Sourcewell Procurement Portal. Sourcewell accepts no liability in connection with the delivery of any addenda.

Before a proposal will be accepted through the Sourcewell Procurement Portal, all addenda, if any, must be acknowledged by the Proposer by checking the box for each addendum. It is the responsibility of the Proposer to check for any addenda that may have been issued up to the time for solicitation closing.

If an addendum is issued after a Proposer submitted its proposal, the Sourcewell Procurement Portal will WITHDRAW the submission and change the Proposer's proposal status to INCOMPLETE. The Proposer can view this status change in the "MY BIDS" section of the Sourcewell Procurement Portal Vendor Account. The Proposer is solely responsible to:

- i) make any required adjustments to its proposal;
- ii) acknowledge the addenda; and
- iii) Ensure the re-submitted proposal is RECEIVED through the Sourcewell Procurement Portal no later than the closing time and date shown in the Solicitation Schedule.

#### **D. PROPOSAL SUBMISSION**

Proposer's complete proposal must be submitted through the Sourcewell Procurement Portal no later than the date and time specified in the Solicitation Schedule. Any other form of proposal submission, whether electronic, paper, or otherwise, will not be considered by Sourcewell. Only complete proposals that are timely submitted through the Sourcewell

Procurement Portal will be considered. Late proposals will not be considered. It is the Proposer's sole responsibility to ensure that the proposal is received on time.

All proposals must be received through the Sourcewell Procurement Portal no later than the Proposal Due Date and time noted in the Solicitation Schedule above. It is recommended that Proposers allow sufficient time to upload the proposal and to resolve any issues that may arise. The closing time and date is determined by the Sourcewell Procurement Portal web clock.

In the event of problems with the Sourcewell Procurement Portal, follow the instructions for technical support posted in the portal. It may take up to twenty-four (24) hours to respond to certain issues.

Upon successful submission of a proposal, the Portal will automatically generate a confirmation email to the Proposer. If the Proposer does not receive a confirmation email, contact Sourcewell's support provider at [support@bidsandtenders.ca](mailto:support@bidsandtenders.ca).

To ensure receipt of the latest information and updates via email regarding this solicitation, or if the Proposer has obtained this solicitation document from a third party, the onus is on the Proposer to create a Sourcewell Procurement Portal Vendor Account and register for this solicitation opportunity.

All proposals must be acknowledged digitally by an authorized representative of the Proposer attesting that the information contained in the proposal is true and accurate. By submitting a proposal, Proposer warrants that the information provided is true, correct, and reliable for purposes of evaluation for potential contract award. The submission of inaccurate, misleading, or false information is grounds for disqualification from a contract award and may subject the Proposer to remedies available by law.

#### E. GENERAL PROPOSAL REQUIREMENTS

Proposals must be:

- o In substantial compliance with the requirements of this RFP or it will be considered nonresponsive and be rejected.
- o Complete. A proposal will be rejected if it is conditional or incomplete.
- o Submitted in English.
- o Valid and irrevocable for ninety (90) days following the Proposal Due Date.

Any and all costs incurred in responding to this RFP will be borne by the Proposer.

#### F. PROPOSAL WITHDRAWAL

Prior to the proposal deadline, a Proposer may withdraw its proposal.

#### G. OPENING

The Opening of Proposals will be conducted electronically through the Sourcewell Procurement Portal. A list of all Proposers will be made publicly available in the Sourcewell Procurement Portal after the Proposal Due Date, but no later than the Opening time listed in the Solicitation Schedule.

To view the list of Proposers, verify that the Sourcewell Procurement Portal opportunities list search is set to "All" or "Closed." The solicitation status will automatically change to "Closed" after the Proposal Due Date and Time.

### VI. EVALUATION AND AWARD

#### A. EVALUATION

It is the intent of Sourcewell to award one or more contracts to responsive and responsible Proposer(s) offering the best overall quality, selection of equipment, products, and services, and price that meet the commonly requested specifications of Sourcewell and its Members. The award(s) will be limited to the number of offerors that Sourcewell determines is necessary to meet the needs of Sourcewell members. Factors to be considered in determining the number of contracts to be awarded in any category may include the following:

- The number of and geographic location of:
  - Proposers necessary to offer a comprehensive selection of equipment, products, or services for Members' use.
  - A Proposer's sales and service network to assure availability of product supply and coverage to meet Members' anticipated needs.
- Total evaluation scores.
- The attributes of Proposers, and their equipment, products, or services, to assist Members achieve environmental and social requirements, preferences, and goals. Information submitted as part of a proposal should be as specific as possible when responding to the RFP. Do not assume Sourcewell's knowledge about a specific vendor or product.

#### B. AWARD(S)

Award(s) will be made to the Proposer(s) whose proposal conforms to all conditions and requirements of the RFP, and consistent with the award criteria defined in this RFP.

Sourcewell may request written clarification of a proposal at any time during the evaluation process.

Proposal evaluation will be based on the following scoring criteria and the Sourcewell Evaluator Scoring Guide (available in the Sourcewell Procurement Portal):

Conformance to RFP Requirements	50
Financial Viability and Marketplace Success	75
Ability to Sell and Deliver Service	100
Marketing Plan	50
Value Added Attributes	75
Warranty	50
Depth and Breadth of Offered Equipment, Products, or Services	200
Pricing	400
<b>TOTAL POINTS</b>	<b>1000</b>

**C. PROTESTS OF AWARDS**

Any protest made under this RFP by a Proposer must be in writing, addressed to Sourcewell's Executive Director, and delivered to the Sourcewell office located at 202 12th Street NE, P.O. Box 219, Staples, MN 56479. The protest must be received no later than ten (10) calendar days following Sourcewell's notice of contract award(s) or non-award and must be time stamped by Sourcewell no later than 4:30 p.m., Central Time.

A protest must include the following items:

- The name, address, and telephone number of the protester;
- The original signature of the protester or its representative;
- Identification of the solicitation by RFP number;
- A precise statement of the relevant facts;
- Identification of the issues to be resolved;
- Identification of the legal or factual basis;
- Any additional supporting documentation; and
- Protest bond in the amount of \$20,000.

Protests that do not address these elements will not be reviewed.

**D. RIGHTS RESERVED**

This RFP does not commit Sourcewell to award any contract and a proposal may be rejected if it is nonresponsive, conditional, incomplete, conflicting, or misleading. Proposals that contain false statements or do not support an attribute or condition stated by the Proposer may be rejected.

Sourcewell reserves the right to:

- Modify or cancel this RFP at any time;
- Reject any and all proposals received;
- Reject proposals that do not comply with the provisions of this RFP;
- Select, for contracts or for discussion, a proposal other than that with the lowest cost;

- Waive or modify any informalities, irregularities, or inconsistencies in the proposals received;
- Discuss any aspect of the proposal with any Proposer and negotiate with more than one Proposer;
- Award a contract if only one responsive proposal is received if it is in the best interest of Members; and
- Award a contract to one or more Proposers if it is in the best interest of Members.

#### E. DISPOSITION OF PROPOSALS

All materials submitted in response to this RFP will become property of Sourcewell and will become public record in accordance with Minnesota Statutes Section 13.591, after negotiations are complete. Sourcewell determines that negotiations are complete upon execution of the resulting contract. If the Proposer submits information in response to this RFP that it believes to be trade secret materials, as defined by the Minnesota Government Data Practices Act, Minnesota Statutes Section 13.37, the Proposer must:

- Clearly mark all trade secret materials in its proposal at the time the proposal is submitted;
- Include a statement with its proposal justifying the trade secret designation for each item; and
- Defend any action seeking release of the materials it believes to be trade secret, and indemnify and hold harmless Sourcewell, its agents and employees, from any judgments or damages awarded against Sourcewell in favor of the party requesting the materials, and any and all costs connected with that defense. This indemnification survives Sourcewell's award of a contract. In submitting a proposal to this RFP, the Proposer agrees that this indemnification survives as long as the trade secret materials are in possession of Sourcewell.

Sourcewell will not consider the prices submitted by the Proposer to be proprietary or trade secret materials. Financial information provided by a Proposer is not considered trade secret under the statutory definition.



### Proposal Opening Record

Date of opening: July 16, 2019

Sourcewell posted Request for Proposal #071619, for the procurement of Sports Lighting with Related Supplies and Services, on the Sourcewell Procurement Portal [[portal.sourcewell-mn.gov](http://portal.sourcewell-mn.gov)] on Thursday, May 30, 2019, and the solicitation remained in an open status within the portal until July 16, 2019, at 4:30 pm CT. The RFP required that all proposals be submitted through the Sourcewell Procurement Portal no later than 4:30 pm CT on July 16, 2019, the date and time specified in the Solicitation Schedule.

The undersigned certify that all responses received on Request for Proposal #071619 were submitted through the Sourcewell Procurement Portal, and that each Proposer's response material was digitally sealed upon submission and remained inaccessible until the due date and time specified in the Solicitation Schedule.

Responses were received from the following:

CHM Industries, Inc. – submitted 7-16-19 at 1:44:12 PM

Eaton Industrial Corporation – submitted 7-16-19 at 12:58:11 PM

Midgard Enterprises, LLC – submitted 7-16-19 at 11:15:28 AM

Musco Sports Lighting, LLC – submitted 7-12-19 at 1:23:35 PM

Pronghorn Solutions Group – submitted 7-16-19 at 3:25:27 PM

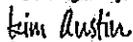
Qualite Sports Lighting, LLC – submitted 7-16-19 at 11:09:39 AM

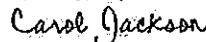
Rebounces, LLC – submitted 7-16-19 at 2:09:04 PM

Schreder Lighting, LLC – submitted 7-16-19 at 10:00:09 AM

WLS Lighting – submitted 7-16-19 at 12:28:38 PM

The Proposals were opened electronically, and a list of all Proposers was made publicly available in the Sourcewell Procurement Portal, on July 16, 2019, at 4:32:00 PM. All responsive proposals were then submitted for review by the Sourcewell Evaluation Committee.

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Kim Austin, Procurement Lead Analyst

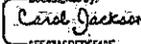
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Carol Jackson, Procurement Analyst

## Proposal Evaluation Sports Lighting with Related Supplies and Services



Possible Points	CHM Industries, Inc.	Eaton Industrial Corporation	Midgard Enterprises, LLC	Musso Sports Lighting, LLC	Pronzhom Solutions Group	Qualite Sports Lighting, LLC	Reboounces LLC	Schreder Lighting LLC	WIS Lighting
Conformance to Terms/ Conditions to Include Documentation	50	45	44	45	48	43	43	44	45
Pricing	400	331	333	294	325	285	279	294	290
Financial, Industry and Marketplace Successes	75	61	67	57	67	59	63	51	58
Bidder's Ability to Self-Service Contract Nationality	100	79	78	68	90	74	74	65	82
Bidder's Marketing Plan	50	39	41	37	45	41	42	34	38
Value Added Attributes	75	68	66	58	66	61	64	59	59
Warranty Covered and Information	50	44	42	40	46	44	47	37	43
Selection and Variety of Products and Services Offered	200	172	178	148	181	164	168	135	172
<b>Total Points</b>	<b>1,000</b>	<b>839</b>	<b>849</b>	<b>748</b>	<b>868</b>	<b>768</b>	<b>782</b>	<b>718</b>	<b>787</b>
Rank Order	3	2	1	4	1	5	6	9	8

Decided by:  
  
 Kim Austin, CPPB, Sourcewell

Decided by:  
  
 Carol Jackson, Sourcewell

Decided by:  
  
 Brandon Town, CPSM, CPSD, Sourcewell

Decided by:  
  
 Michael Muñoz, Sourcewell



**COMMENT AND REVIEW**  
to the  
**REQUEST FOR PROPOSAL (RFP) #071619**  
Entitled

**Sports Lighting with Related Supplies and Services**

The following advertisement was placed May 30, 2019 in Utah's *The Salt Lake Tribune*, in *USA Today*, in South Carolina's *The State*, and on the Sourcewell website [www.sourcewell-mn.gov](http://www.sourcewell-mn.gov), Sourcewell Procurement Portal <https://proportal.sourcewell-mn.gov>, Biddingo, Merx, The New York State Contract Reporter [www.nyscr.ny.gov](http://www.nyscr.ny.gov), PublicPurchase.com, and May 31, 2019 in Oregon's *Daily Journal of Commerce*:

*Sourcewell, a State of Minnesota local government agency and service cooperative, is requesting proposals for Sports Lighting with Related Supplies and Services to result in a national contracting solution for use by its members. Sourcewell members include thousands of governmental, higher education, K-12 education, not-for-profit, tribal government, and other public agencies located in the United States and Canada. A full copy of the Request for Proposals can be found on the Sourcewell Procurement Portal [https://proportal.sourcewell-mn.gov]. Only proposals submitted through the Sourcewell Procurement Portal will be considered. Proposals are due no later than July 16, 2019, at 4:30 p.m. Central Time, and late proposals will not be considered.*

The solicitation process was conducted through the Sourcewell Procurement Portal. The following parties expressed interest in the solicitation by registering for this opportunity within the portal:

8830622 CANADA INC.	Midgard Enterprises, LLC
AC Lighting & Electrical Supplies	Musco Sports Lighting, LLC
Allumia LLC	NGU Sports Lighting, LLC
Bright Investment Group LLC	Ogni Inc
CHM Industries, Inc.	PLANLED INC
Cooperative Services, LLC	Precor Inc.
Dynamic Energy Services Inc.	Premier Sports Lighting, LLC
EATON INDUSTRIAL CORPORATION	Procellis Technology Inc.
ELECTRA SALES LTD	Pronghorn Solutions Group
Facility Solutions Group	Qualite Sports Lighting, LLC.
Fitness Gear Inc	Rebounces LLC
FLAGHOUSE INC	Riggs Recreation Equipment, Inc.
Goto Agencies LTD	Saskatoon Construction Association
Greenstar Products, Inc.	Schreder Lighting LLC
GreenTech Conservation Inc.	Sentry Electric Inc.
GreenTech Conservation Inc.	Sitler Supplies Inc
Inergy Solutions LLC	Southern Lighting Source
Interkal LLC	Total Quality Logistics
International ID Solutions	Unique Lighting & Control Corp.
Irvine Valley Electric LLC	WESCO Distribution Canada LP

McNeilus Financial, Inc.

WLS Lighting

All Proposals remained sealed within the Sourcewell Procurement Portal until the scheduled due date and time. Proposals were electronically opened, and the list of all Proposers was made publicly available on the Sourcewell Procurement Portal, on July 16, 2019, at 4:32 pm CT. Proposals were received from the following:

CHM Industries, Inc.  
 Eaton Industrial Corporation dba Cooper Lighting/Ephesus Sports Lighting  
 Midgard Enterprises, LLC  
 Musco Sports Lighting, LLC  
 Pronghorn Solutions Group  
 Qualite Sports Lighting, LLC  
 Rebounces, LLC  
 Schreder Lighting, LLC  
 WLS Lighting

Proposals were reviewed by the Proposal Evaluation Committee:

Kim Austin, CPPB, Sourcewell Procurement Lead Analyst  
 Carol Jackson, Sourcewell Procurement Analyst III  
 Brandon Town, CPSM, CPSD, Sourcewell Procurement Analyst III  
 Michael Munoz, Sourcewell Procurement Analyst III

The findings of the Proposal Evaluation Committee are summarized as follows:

The Proposal Evaluation Committee used the Sourcewell RFP evaluation criteria and determined that all proposal responses met Level-One and Level-Two Responsiveness and were evaluated.

CHM Industries, Inc. offers a complete lighting solution, including tower mounting arms, electrical systems, wired and wireless controls system, LED luminaire installation and calibration. Their luminaires offer full internal glare control on each LED, and critical components are commercially available off-the-shelf for ease of installation and servicing. They have a vast network of lighting agencies across the United States to serve Sourcewell Members. Their offering provides Members competitive pricing with delivery included and CHM Industries, Inc. is a registered Woman Owned-Small Business.

Eaton Industrial Corporation dba Cooper Lighting/Ephesus Sports Lighting provides Members within the United States and Canada with state of the art indoor and outdoor sports lighting fixture options, as well as project services covering both new structures and retrofitting of existing structures. They offer post installation project management service contracts that cover system level health monitoring and light level verification. Cooper Lighting provides a strong standard warranty with an optional extended warranty. They offer Members a solid discount off MSRP.

Musco Sports Lighting, LLC provides custom designed, Indoor and outdoor lighting systems. Musco's product offering includes Green Generation Lighting which is more efficient than traditional lighting equipment and

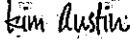
supports sustainable environmental practices. With a sales and service force spanning across the United States and Canada, a significant discount off standard price list, aggressive warranty periods of 10 to 25 years; as well as in-house financing options, Musco Sports Lighting will be able to effectively support and service Sourcwell Member needs.

For these reasons, the Sourcwell Proposal Review Committee recommends award of Sourcwell Contract #071619 to:

CHM Industries, Inc.  
Eaton Industrial Corporation dba Cooper Lighting/Ephesus Sports Lighting  
Musco Sports Lighting, LLC

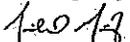
071619-CHM  
071619-CPL  
071619-MSL

The preceding recommendations were approved on August 27, 2019.

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Kim Austin, CPPB, Sourcwell Procurement Lead Analyst

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Carol Jackson, Sourcwell Procurement Analyst III

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Brandon Town, CPSM, CPSD Sourcwell Procurement Analyst III

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Michael Munoz, Sourcwell Procurement Analyst III

**Quote**

July 17, 2020

Westport Softball  
Westport, Connecticut  
Ref: 143730

**Sourcewell**

Master Project: 199030, Contract Number: 071619-MSL, Expiration: 08/27/2023  
Category: Sports lighting with related supplies and services  
All purchase orders should note the following:  
Sourcewell purchase – contract number: 071619-MSL

**Quotation Price – Materials Delivered to Job Site and Installation**

Softball ..... \$283,784.00

*Sales tax is not included.*

*Pricing furnished is effective for 60 days unless otherwise noted and is considered confidential.*

**Light-Structure System with Total Light Control – TLC for LED™ technology**

**Guaranteed Lighting Performance**

- Guaranteed light levels of 50FC infield and 30FC outfield
- BallTracker™ technology – targeted light, optimizing visibility of the ball in play with no glare in the players typical line-of-sight.

**System Description**

- (6) Pre-cast concrete bases with integrated lightning grounding
- (6) Galvanized steel poles
- Factory wired and tested remote electrical component enclosures
- Pole length, factory assembled wire harnesses
- (6) Factory wired poletop luminaire assemblies
- (28) Factory aimed and assembled luminaires, including BallTracker™ luminaires
- (1) Sports pole mounted OSQ luminaire

**Control Systems and Services**

- Control-Link® system with contractors for remote on/off control and performance monitoring with 24/7 customer support
- Multi-Watt™ dimming control with high-med-low preset levels

**Operation and Warranty Services**

- Product assurance and warranty program that covers materials and onsite labor, eliminating 100% of your maintenance costs for 25 years
- Support from Musco's Lighting Services Team – over 170 Team members dedicated to operating and maintaining your lighting system – plus a network of 1800+ contractors



## Quote

### Payment Terms

Musco's Credit Department will provide payment terms.

Email or fax a copy of the Purchase Order to Musco Sports Lighting, LLC:

Musco Sports Lighting, LLC  
Attn: Amanda Hudnut  
Fax: 800-374-6402  
Email: musco.contracts@musco.com

All purchase orders should note the following:  
Sourcewell purchase – contract number: 071619-MSL

### Delivery Timing

6-8 weeks for delivery of materials to the job site from the time of order, submittal approval, and confirmation of order details including voltage, phase, and pole locations.

### Notes

Quote is based on:

- Includes performance bonding and excludes prevailing wage
- Shipment of entire project together to one location
- 208 Volt, 3 Phase electrical system requirement
- Structural code and wind speed = 2015 IBC, 130 mi/h, Importance Factor II
- Owner is responsible for getting electrical power to the site, coordination with the utility, and any power company fees
- Includes supply and installation of Musco system including underground wiring and conduit, service entrance panel board, and controls by a licensed contractor
- Standard soil conditions – rock, bottomless, wet or unsuitable soil may require additional engineering, special installation methods and additional cost

Thank you for considering Musco for your lighting needs. Please contact me with any questions or if you need additional details.

Mike Mahoney  
Senior Sales Representative  
Musco Sports Lighting, LLC  
Phone: 860-453-4325  
E-mail: Mike.Mahoney@Musco.com



## Scope of Work

### Customer Responsibilities:

1. Complete access to the site for construction using standard 2-wheel drive rubber tire equipment.
2. Locate existing underground utilities not covered by your local utilities. (i.e. water lines, electrical lines, irrigation systems). Musco or Subcontractor will not be responsible for repairs to unmarked utilities.
3. Locate and mark home plate per Musco supplied layout.
4. Pay for extra costs associated with foundation excavation in non-standard soils (rock, caliche, high water table, collapsing holes, etc). Standard soils are defined as soils that can be excavated using standard earth auguring equipment.
5. Pay any necessary power company fees and requirements.
6. Waive permitting fees.
7. Provide area off site for disposal of spoils from foundation excavation.
8. Provide on site storage area for existing wood poles, lights, electrical boxes, and electrical gear.
9. Provide area on site for dumpsters.
10. Remove fencing sections and player's bench near A2 location for complete site access prior to delivery.

### Musco Responsibilities:

1. Provide all components to complete a Light Structure System.
2. Provide layout of pole locations and aiming diagram.
3. Provide Project Management as required.
4. Provide stamped foundation designs based on 2500 psf soils.
5. Assist our installing subcontractor and ensure our responsibilities are satisfied.

### Musco Subcontractor Responsibilities

#### General:

1. Provide labor, equipment, and materials to off load equipment at jobsite per scheduled delivery.
2. Provide storage containers for material. (including electrical components enclosures), as needed.
3. Provide necessary waste disposal and daily clean up.
4. Provide security to protect Musco products from theft, vandalism or damage during the installation.
5. Obtain any required permitting.
6. Confirm the existing underground utilities and irrigation have been located and are clearly marked in order to avoid damage from construction equipment. Repair any such damage during construction.
7. Keep all heavy equipment off playing fields when possible. Repair damage to grounds which exceeds that which would be expected. Indentations caused by heavy equipment traveling over dry ground would be an example of expected damage. Ruts and sod damage caused by equipment traveling over wet grounds would be an example of damage requiring repair.
8. Provide startup and aiming as required to provide complete and operating sports lighting system.
9. Installation to commence upon delivery and proceed without interruption until complete. Musco to be immediately notified of any breaks in schedule or delays.



## Scope of Work

### Site Work:

1. Removal and transport of the existing lighting poles, luminaires, and electrical component enclosures, and move to owner designated on site location.
2. Leave existing power feed in place for connection to new pole locations.
3. Restore electrical trenches up to grade. (Owner is responsible for top soil and seeding).

### Foundations, Poles, and Luminaires:

1. Mark and confirm pole locations per the aiming diagram provided. If there are any issues, immediately notify your Musco Project Manager.
2. Provide labor, materials, and equipment to install 6 LSS foundations as specified on Layout and per the stamped foundation drawings, if applicable.
3. Remove spoils to owner designated location off jobsite.
4. Provide labor, materials, and equipment to assemble Musco TLC-LED luminaires, electrical component enclosures, poles, and pole harnesses.
5. Provide labor, equipment, and materials to erect 6 dressed LSS Poles and aim utilizing the pole alignment beam.

### Electrical:

1. Provide labor, materials, and equipment to upgrade (208V 3Ø) electrical service panels as required.
2. Provide labor, materials, and equipment to reuse existing electrical conduit and wiring as permitted.

### Control System:

1. Provide labor, equipment, and materials to install 1 Musco Control and Monitoring cabinet and terminate all necessary wiring.
2. Provide a dedicated 120 V 20 A controls circuit or a step-down transformer for 120 V control circuit if not available.
3. Provide a dedicated 20 A breaker connected to all available phases for powerline communication.
4. Check all zones to make sure they work in both auto and manual mode.
5. Commission Control-Link® by contacting Control Link Central™ at 877-347-3319.

## Scope of Work

### CODE OF CONDUCT

In order to maintain a high-quality jobsite and installation, Subcontractor represents to Musco that it has the supervision necessary to, and shall train, manage, supervise, monitor, and inspect the activities of its employees for the purpose of enforcing compliance with these safety requirements. Subcontractor acknowledges that Musco does not undertake any duty toward Subcontractor's employees to train, manage, supervise, monitor, and inspect their work activities for the purpose of enforcing compliance with these safety requirements, but Subcontractor agrees to abide by any reasonable recommendations made by Musco or Musco representatives with respect to safety.

Subcontractor agrees that it is or will be familiar with and shall abide by the safety rules and regulations of Musco and the Owner, including, but not limited to the Occupational Safety and Health Act of 1970 (OSHA), all rules and regulations established pursuant thereto, and all amendments and supplements thereto.

Subcontractor further agrees to require all its employees, subcontractors, and suppliers to comply with these requirements. Subcontractor shall also observe and comply with all laws with respect to environmental protection applicable to the Project.

Subcontractor shall require all its subcontractors, employees, visitors, suppliers, and agents under its direction to comply with the following:

#### 1. GENERAL JOBSITE SAFETY AND CLEANLINESS.

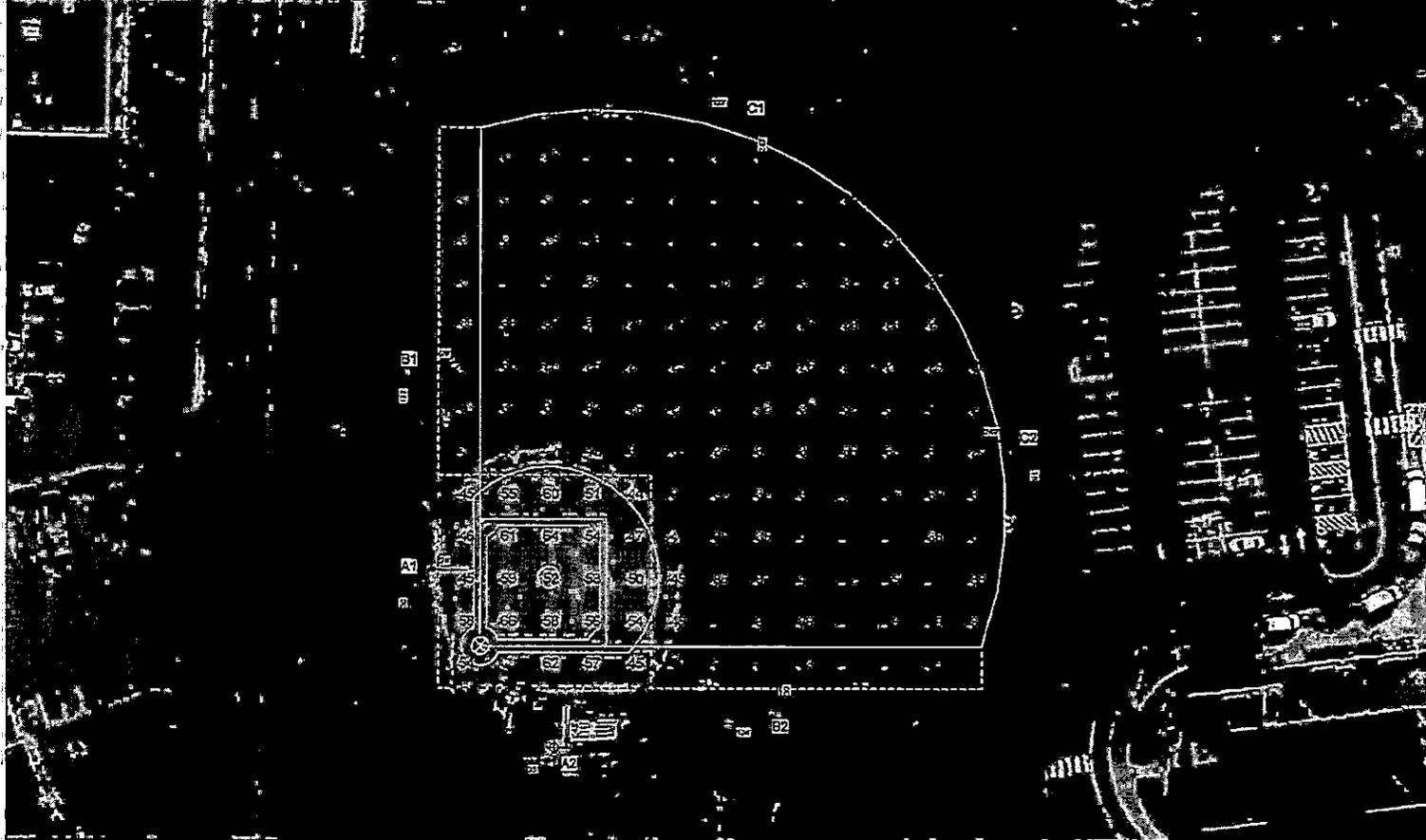
- a. Subcontractor's employees and agents shall be required to wear appropriate personal protective equipment including, but not limited to, safety glasses with side shields, work shoes, fall protection devices, and hard hats.
- b. Where a walking or working surface has an unprotected side or edge which is six feet or more above a lower level, Subcontractor shall use guardrail systems, safety net systems, or personal fall arrest systems.
- c. Jobsite shall be kept free of debris including, but not limited to, cardboard and packing materials which can become windborne.
- d. Construction equipment shall be parked during non-use in an orderly fashion so as not to create inconvenience to others using the jobsite.
- e. Subcontractor shall provide for and ensure the use of safety equipment for the Project in accordance with Musco's and Owner's safety requirements, to the extent these may be stricter than federal, state, or local standards, or generally recognized industry applicable standards.
- f. Subcontractor shall provide the Musco project manager with an "Emergency List" showing Subcontractor's designated medical doctor, hospital, insurance company, and any other health service providers, such list to be updated within 24 hours of any change in the information provided.



## Scope of Work

- g. Within eight (8) hours from the time of an accident (or such shorter period as laws may require), Subcontractor shall advise Musco of any accident resulting in injury to any person or damage to any equipment or facility. Upon request, Subcontractor shall promptly furnish Musco with a written report of any such accident as well as a copy of all insurance and worker's compensation claims involving the Project.
  - h. Subcontractor shall maintain and inspect all construction equipment, including cranes and other lifting equipment, prior to each use. Subcontractor warrants that all equipment operators shall be qualified for each piece of construction equipment they intend to operate. Documentation of specific training is the responsibility of the Subcontractor.
  - i. Jobsite shall be policed daily for compliance to the above conditions.
  - j. Subcontractor's employees and agents are prohibited from using drugs and alcohol on the Project property or being under the influence of alcohol or drugs while performing work on the Project. Anyone observed participating in or observed under the influence will be removed from the Project immediately and prohibited from returning, with no exceptions.
2. CONFORMANCE TO STANDARD MUSCO INSTALLATION GUIDELINES.
- a. Review and understand installation instructions are provided with every product installation.
  - b. Education of installation personnel to allow for highest efficiency and lowest possibility of failure.
  - c. Verify that components have been assembled per Musco installation instructions.
  - d. Verify plumb of concrete foundations prior to standing of poles.
3. PROVIDING A QUALITY INSTALLATION TEAM.
- a. Subcontractor's work directly reflects the quality of the installation and may indirectly relate to the quality of the product upon which Musco's reputation is built.
  - b. Provide and maintain quality installation equipment. Records of maintenance and/or calibration shall be provided upon request.
  - c. Personnel shall be knowledgeable in operation of equipment as well as installation of Musco product.
  - d. All personnel provided by Subcontractor shall understand the relationship developed by and between Subcontractor and Musco, also by and between Musco and the customer, and act accordingly.

EQUIPMENT LIST FOR AREAS SHOWN									
QTY	LOCATION	SIZE	WATTAGE						
1	A2	60"	15.3	15.3	15.3	15.3	15.3	15.3	15.3
2	B1-G2	60"	15.3	15.3	15.3	15.3	15.3	15.3	15.3
3	C1-C2	60"	15.3	15.3	15.3	15.3	15.3	15.3	15.3
4									
TOTAL									



SCALE IN FEET 1:150  
 ENGINEERED DESIGN By: M.Sullivan - File #1437300 - 15-Jul-20

Pole location(s) (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z) are relative to D.M. reference points (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z)

### Westport Softball

Westport, CT

Name:	Softball
Size:	245/225/235 - basepath 60'
Spacing:	100' x 20.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY			
MAINTAINED HORIZONTAL FOOTCANDLES		In field: Outfield	
Guaranteed Average:	50	30	
Scan Average:	54.3	32.7	
Maximum:	68	47	
Minimum:	44	20	
Avg / Min:	1.23	1.64	
Guaranteed Max / Min:	2.3	2.3	
Max / Min:	1.53	2.35	
UG (adjustment):	1.25	1.43	
CU:	0.71	1.1	
Wash-off Point:	25	15	
LUMINAIRE INFORMATION			
Color / CR:	5000K / 75 CRI / 8000K / 70 CRI		
Luminaire Output:	160,000 / 136,000 / 52,000 / 16,599 lumens		
No. of luminaires:	29		
Total Load:	30.21 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>120,000	>120,000	>120,000
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-8T-575	>120,000	>120,000	>120,000
CREE C50			

Reported per TM-21-11-500 luminaire datasheet for details.

**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 6.5% dirt depreciation factor.

**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

**Electrical System Requirements:** Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

**Installation Requirements:** Results assume a 3% nominal voltage at the side of the driver and structures located within a feet (m) of design locations.



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### ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN							
QTY	LOCATION	SIZE	HEIGHT	MANUFACTURER	QTY	TRK	DATA
1	A1	60"	15.5'	TLC-BI-575	1	1	0
			20'	TLC-LED-1200	2	2	0
1	A2	60"	15.5'	TLC-BI-575	1	1	0
			20'	TLC-LED-1200	2	2	0
2	B1-B2	60"	15.5'	TLC-BI-575	2	2	0
			20'	TLC-LED-1200	4	4	0
2	C1-C2	60"	15.5'	TLC-BI-575	2	2	0
			20'	TLC-LED-1200	4	4	0
TOTALS					29	29	0

**Westport Softball**  
Westport, CT

Name: Walloway  
 Site: 245/275/235' - basepath 60'  
 Spacing: 10.0' x 10.0'  
 Height: 3.0' above grade

ILLUMINATION SUMMARY			
MAINTAINED HORIZONTAL FOOT-CANDLES			
Entire Grid			
Scan Average:	15.29		
Maximum:	11		
Minimum:	0		
Avg / Min:	15.29		
Max / Min:	5625		
UG (adj. cont. pos):	2.13		
CU:	0.00		
No. of Fixtures:	29		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI / 5700K - 70 CRI		
Luminaire Output:	160,000 / 136,000 / 12,000 / 16,500 lumens		
No. of Luminaires:	29		
Total Load:	30.21 KW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1500	>120,000	>120,000	>120,000
TLC-LED-1200	>120,000	>120,000	>120,000
TLC-BI-575	>120,000	>120,000	>120,000
CREE OSO3			

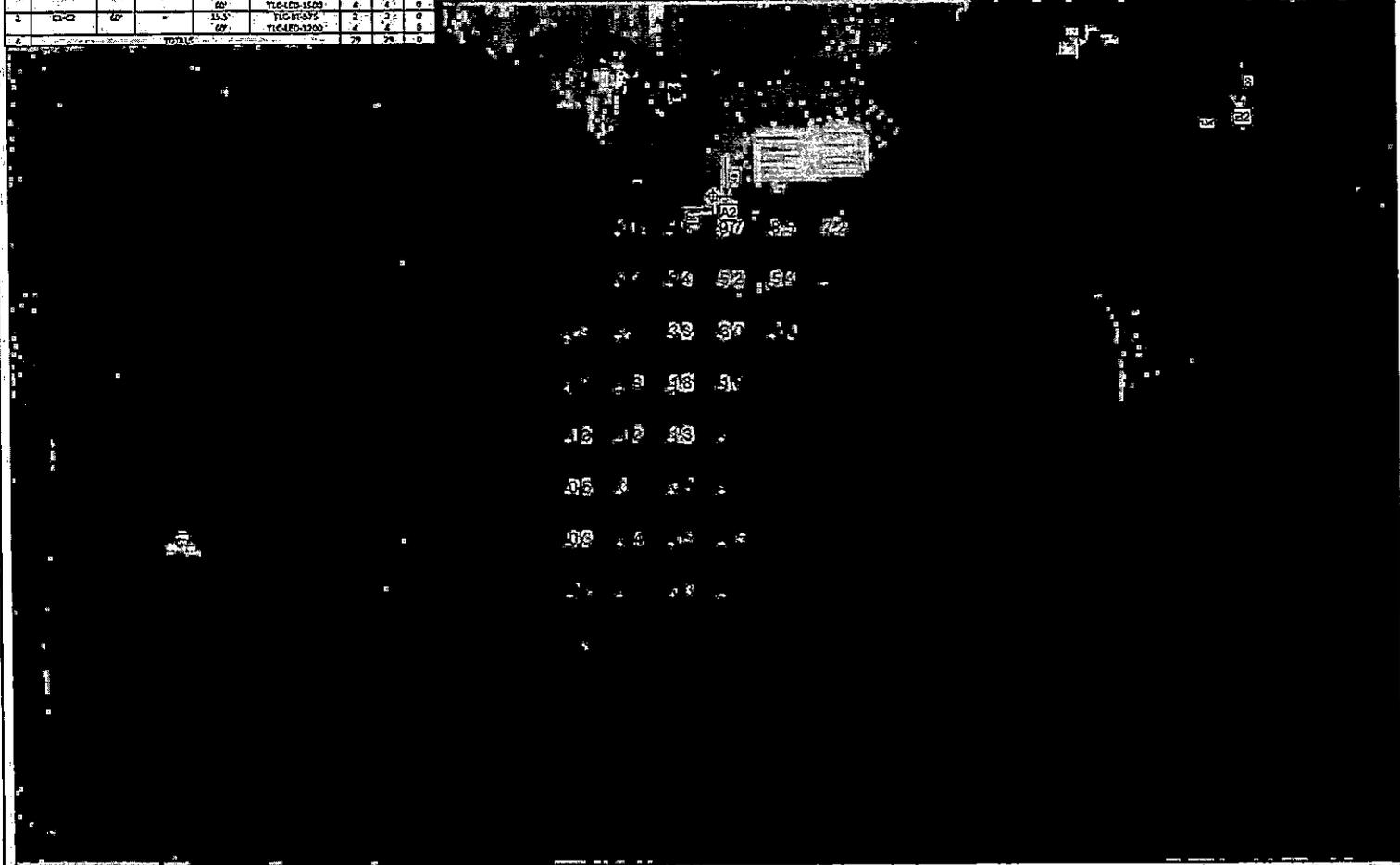
Reported per IESNA-22-12. See luminaire datasheet for details.

**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-C-45.

**Electrical System Requirements:** Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

**Irradiation Requirements:** Results assume a 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



SCALE IN FEET 1:20

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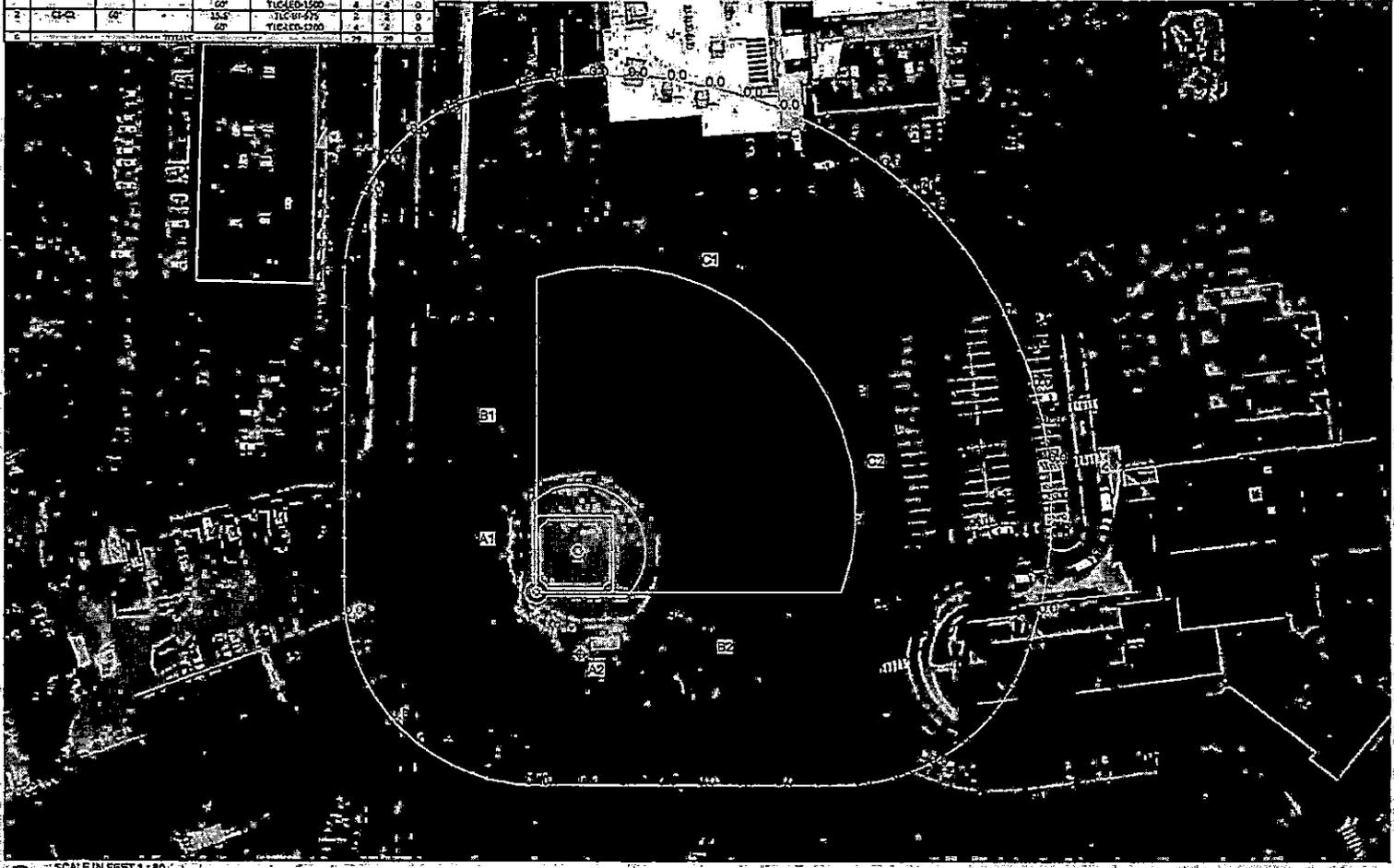
Fixt. locations Dimensions are relative to 0.0 reference point



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**ILLUMINATION SUMMARY**

EQUIPMENT LIST FOR AREA(S) SHOWN									
NO.	LOCATION	SIZE	WATTAGE						
1	A1	60"	15.5	15.5	15.5	15.5	15.5	15.5	15.5
1	A2	60"	15.5	15.5	15.5	15.5	15.5	15.5	15.5
2	B1-B2	60"	15.5	15.5	15.5	15.5	15.5	15.5	15.5
2	C1-C2	60"	15.5	15.5	15.5	15.5	15.5	15.5	15.5



SCALE IN FEET 1:80  
 ENGINEERED DESIGN By: M.Sullivan • File #1437300 • 15-Jul-20

Pole location(s) shown are relative to 0.0 reference points.

### Westport Softball, Westport, CT

Field Name: Softball Spd  
 Seating: 30.0'  
 Height: 3.0' above grade

#### ILLUMINATION SUMMARY

HORIZONTAL FOOTCANDLES			
Endo Grid			
Scan Average:	0.65 fc		
Maximum:	0.69		
Minimum:	0.00		
No. of Points:	62		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI / 5700K - 70 CRI		
Luminaire Output:	166,000 / 136,000 / 52,000 / 16,599 lumens		
No. of Luminaires:	29		
Total Load:	30.21 kW		
Luminaire Data			
Luminaire Type	180 lum	180 lum	170 lum
TLC-ED-1520	\$120,000	\$120,000	\$120,000
TLC-ED-1700	\$120,000	\$120,000	\$120,000
TLC-ED-575	\$120,000	\$120,000	\$120,000
CRF-DSO			

Reported per TM-21-11. See luminaire datasheet for details.

**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document.

**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

**Electrical System Requirements:** Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

**Installation Requirements:** Results assume a 3% nominal voltage on line side of the driver and structures located within 5 feet (1.5m) of design locations.



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#### ILLUMINATION SUMMARY



**Westport Softball**  
Westport, CT

**INCLUDES:**  
• Softball

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume 80% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

**EQUIPMENT LIST FOR AREAS SHOWN**

QTY	LOCATION	SIZE	Color (ALY/200)	Maximum Height	Luminaire	WATTAGE
1	A1	60"	-	13.5'	TLC-SP-375	1
1	A2	60"	-	13.5'	TLC-SP-375	2
1	A3	30"	-	13.5'	TLC-SP-375	1
1	A4	60"	-	13.5'	TLC-SP-375	2
2	B1-B2	60"	-	13.5'	TLC-SP-375	1
2	C1-C2	60"	-	13.5'	TLC-SP-375	2
2	D1-D2	60"	-	13.5'	TLC-SP-375	2
TO TALL						29

**SINGLE PHASE VOLTAGE PER AMPERAGE DRAW CHART**

Ballast Specifications:  $\frac{1}{2}$  Line Amperage Per Luminaire

Single Phase Voltage	208	220	240	277	347	380	480
TLC-SP-1200	4.5	5.1	7.4	6.4	5.1	4.7	3.7
TLC-SP-1200	7.0	5.0	6.2	5.2	4.3	4.0	3.0
TLC-SP-375	1.4	1.2	2.3	2.2	2.2	1.8	1.2
One 0/10	-	-	-	-	2.4	-	0.3



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**EQUIPMENT LAYOUT**

SCALE IN FEET 1:60

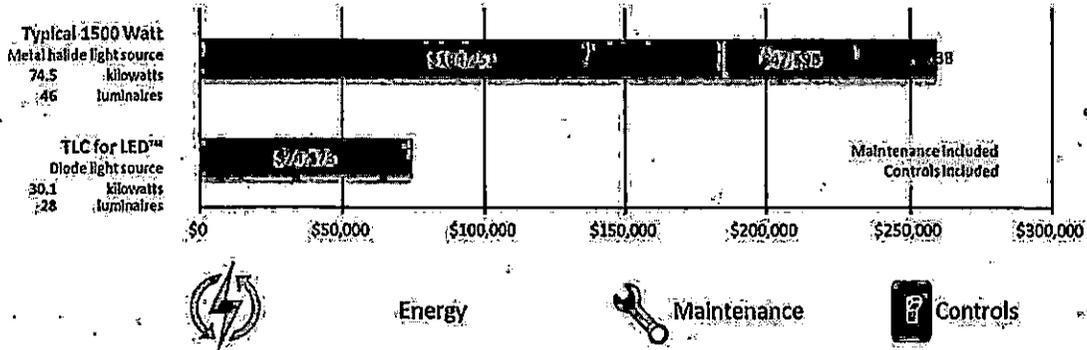
ENGINEERED DESIGN By: M. Sullivan • File #1437300 • 15-Jul-20

Note: Locations of circled symbols are relative to 0,0 reference point.

# 25-Year Cost of Ownership Comparison

## Westport Greens Farms

Prepared For:  
**City of Westport**  
 August 13, 2020



How is this possible? Musco's 40 years of developing systems, light control, and application expertise puts more available lumens per watt on the field. Our services team provides all on/off operation, monitoring, and maintenance.

**For your budget. ... for the environment**



Musco LED

25-Year Ownership Savings

**\$185,111**



CO2 reduction

**329 tons\*\***

\*\* Equivalent to taking 70 cars off the road for one year.

Assumptions	Softball 50/30'
Annual operating hours:	430
Energy:	
Energy cost per kilowatt hour:	\$0.23
Demand charge per kilowatt hour:	\$0.00
Maintenance:	
Group relamp - cost per luminaire:	\$266
Spot maintenance over 25 years:	\$3,750
Controls:	
Labor - turning lights on & off:	\$0.00
Lights on extra time without controls:	15%

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## MEMO

TO: Jennifer Fava, Director of Parks and Recreation  
FROM: Stephen Edwards  
Date: 8/16/2020  
RE: Greens Farms Field Light Replacement

When not used by routine school functions, the Greens Farms Elementary School athletic field is used primarily by adult men's softball but is also used by little league, youth football, and men's flag football. The existing metal halide lights were installed 20 years ago and in an average year, the lights are used on 142 nights for approximately 430 hours. While adequate 20 years ago, the existing lighting system fails to provide uniform, safe lighting levels across the playing surface. Light measurements conducted in December 2014 indicated that the average light level in foot-candles (fc) on the infield was 30 fc and the average in the outfield was 10 fc. Current Little League lighting standards require 50 fc in the infield and 30 fc in the outfield. Adult slow pitch softball has slightly less stringent lighting requirements but the current outfield lighting levels are below their guidelines.

The replacement of the 20-yr old field lights at the Greens Farms Elementary School has been anticipated and projected on the capital forecast for several years. The original cost projection was \$290,000.00. Since the town does not routinely purchase field lighting systems, we sought a larger purchasing consortium that would provide greater purchasing power and oversight. Sourcewell Cooperative Purchasing serves more than 50,000 government, education and non-profit organizations through the solicitation of hundreds of cooperative contracts over the past forty years. Specifically they serve 816 municipal entities in Connecticut including the Board of Education during construction of the Bedford Middle School and the Westport Housing Authority during their recent construction projects.

A review of Sourcewell's recent bids indicated that they had posted a Request for Proposal #071619 on May 30, 2019 for the procurement of Sports Lighting with Related Supplies and Services. A total of 40 inquiries were made to the solicitation and 9 responses had been received when the bids were opened on July 16, 2019. All proposals were then submitted for review by the Sourcewell Evaluation Committee. The selection committee graded all the proposals on a possible 1000 point basis and Musco Sports Lighting, LLC received the highest score at 868 points.

Musco Sports Lighting, LLC. is one of the leaders in the field of sports lighting. They provide custom designed, indoor and outdoor lighting systems. Musco's product offering includes Green Generation Lighting which is more efficient than traditional lighting equipment and supports sustainable environmental practices. Musco has a sales and service force that spans across the United States and Canada and provides an aggressive warranty program that covers materials and onsite labor, eliminating 100% of maintenance cost for 25 years. Musco's Total Light Control (TLC) for their LED lighting system, is capable of concentrating the light on the

playing surface while eliminating the migration of light into adjoining neighborhoods. Their patented glare control technology preserves darkness around the field.

Musco lighting systems can be seen locally at the following fields:

- Springwood Park Tennis Courts; Norwalk
- Darien High School; Darien
- Ridgefield Little League; Ridgefield
- Rodgers Park Tennis Courts; Danbury
- Foote Field, Softball; Milford
- Eisenhower Park, Pickleball Courts; Milford
- Greenwich Skating Club; Greenwich
- Bunnell HS Football field; Stratford
- Brookfield HS; Brookfield
- Choate Rosemary Hall, Wallingford

Musco Sports Lighting was the selected contractor in 2012 when the Board of Education installed stadium lights at Staples High School football field. This installation provides the Control-Link and the TLC technology.

Based on the specific geometry of the Greens Farms Field, Musco provided a site specific design to meet the lighting requirements for nighttime field use by little league, adult softball, or youth or adult football. The specified lighting performance guarantees an infield light level of 50 FC and an outfield light level of 30 FC. BallTracker technology providing targeted light, optimizing visibility of the ball in play with no glare was specified. A Control-Link system for remote on/off control and performance monitoring with 24/7 customer support as well as Multi-Watt dimming control with high-med-low preset levels was included in the proposal.

This design and the resulting bid price was submitted to Sourcewell and the town for review. Sourcewell reviewed the quotation relative to the initial solicitation and resulting Contract No. 071619-MSL and deemed the quotation appropriate for the specified work scope. The bid price for the specified work is \$283,784.00. The quote is inclusive of all the anticipated work, however, it does not include unknowns such as unsuitable soils when the new poles are installed nor does it address any problems with the existing electric service line from the street to the existing service panel. For this reason, I would suggest seeking an additional 10% funding to cover any possible contingency. Therefore, I would suggest a funding request of \$310,000.

For your reference I have included copies of the following documents:

- Sourcewell Request For Proposals
- Sourcewell Proposal Opening Record and Proposal Evaluation
- Sourcewell Comment and Review
- Musco Sports Lighting, LLC. Proposal
- Musco 25 yr Life Cycle Cost

**Edwards, Stephen**

---

**From:** Mike Mahoney <mike.mahoney@musco.com>  
**Sent:** Tuesday, August 18, 2020 5:06 PM  
**To:** Fava, Jennifer; Edwards, Stephen  
**Cc:** Amanda Hudnut  
**Subject:** RE: Westport Greens Farms Field Lights - Sourcewell  
**Attachments:** Westport Sourcewell08182020\_0001.pdf

**CAUTION:** This email originated from outside of the Town of Westport's email system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

All,

As a starting point, I've highlighted the applicable portions of the Sourcewell document. Following is a breakdown of the system cost:

250' radius = \$148,599  
Greens Farms is approximately 12% larger, add \$17,832  
Wind speed in Westport is 130 MPH, Sourcewell is based on 115 MPH, add \$24,965.  
Delivery to CT, vs. Minnesota, add \$4,500  
\$195,896

Balance of \$87,888 for bonding, unloading, demo, electrical service work, conduit, wire, trenching, install foundations, erect poles, add parking lot fixture, supply and install new weather proof panel, re-feed irrigation system, provide 120v GFCI outlet, commission system etc...

Thanks,  
Mike

**From:** Mike Mahoney  
**Sent:** Tuesday, August 18, 2020 4:05 PM  
**To:** Fava, Jennifer <jfava@westportct.gov>; Edwards, Stephen <SEDDWARDS@westportct.gov>  
**Cc:** Amanda Hudnut <amanda.hudnut@musco.com>  
**Subject:** RE: Westport Greens Farms Field Lights - Sourcewell

All,

I know this still doesn't address your question, because there is the additional labor component. That is based on RS Means, and I'll get the supporting documentation for it as well.

Thanks,  
Mike

**From:** Fava, Jennifer <jfava@westportct.gov>  
**Sent:** Tuesday, August 18, 2020 3:59 PM  
**To:** 'Kelly Pearson' <Kelly.Pearson@sourcewell-mn.gov>; Edwards, Stephen <SEDDWARDS@westportct.gov>  
**Cc:** Mike Mahoney <mike.mahoney@musco.com>; Amanda Hudnut <amanda.hudnut@musco.com>  
**Subject:** RE: Westport Greens Farms Field Lights - Sourcewell

**Sourcewell**  
**RFP #071619 Sports Lighting with Related Supplies and Services**

Manufacturer: Musco Sports Lighting, LLC

Address: 100 1<sup>st</sup> Ave West

City, State, Zip Code: Oskaloosa, IA 52577

Contact: Amanda Hudnut

Phone: 800-825-6030

Fax: 641-672-1996

Email: musco.contracts@musco.com

Federal ID# 42-1511754

**Pricing:**

All prices are stated in USD. Project pricing in CAD is available upon request.

All prices include delivery within the State of Minnesota to the job site and are for lighting system materials only.

Additional freight cost may be incurred outside of the State of Minnesota.

Terms: Net 30 days upon delivery.

Light-Structure System™ with Total Light Control – TLC for LED™ technology includes poles, precast concrete bases, LED fixtures, luminaire assemblies, electrical component enclosure and wire harnesses.

Light-Structure System™ with Total Light Control – TLC for LED™ technology pricing includes a 25-year product assurance & warranty program and Control-Link® Control & Monitoring package.

**Football Utilizing LED luminaires – Light-Structure System™**

Football					
Field Size	Pole Setback	Average Maintained Light Level	Price for Light-Structure TLC-LED Materials	Average Maintained Light Level	Price for Light-Structure TLC-LED Materials
360' x 160'	50'	30 fc	\$148,529	50 fc	\$234,808
360' x 160'	80'	30 fc	\$188,224	50 fc	\$258,673
360' x 160'	100'	30 fc	\$206,429	50 fc	\$279,036
360' x 160'	120'	30 fc	\$213,719	50 fc	\$292,570

**Soccer Utilizing LED luminaires – Light-Structure System™**

Soccer					
Field Size	Pole Setback	Average Maintained Light Level	Price for Light-Structure TLC-LED Materials	Average Maintained Light Level	Price for Light-Structure TLC-LED Materials
330' x 193'	30'	30 fc	\$144,470	50 fc	\$212,303
360' x 210'	30'	30 fc	\$145,649	50 fc	\$224,939
360' x 225'	30'	30 fc	\$178,429	50 fc	\$256,069



**Sourcewell**  
**RFP #071619 Sports Lighting with Related Supplies and Services**

**Baseball/Softball Utilizing LED luminaires – Light-Structure System™**

<b>Baseball/Softball</b>					
Field Type	Field Size	Average Maintained Light Level	Price for Light-Structure TLC-LED Materials	Average Maintained Light Level	Price for Light-Structure TLC-LED Materials
		(In/Out)		(In/Out)	
60' Base Path	200'	30/20 fc	\$100,459	50/30 fc	\$121,186
60' Base Path	225'	30/20 fc	\$121,041	50/30 fc	\$134,513
60' Base Path	250'	30/20 fc	\$126,948	50/30 fc	\$148,599
60' Base Path	300'	30/20 fc	\$166,438	50/30 fc	\$199,805
60' Base Path	325'	30/20 fc	\$166,732	50/30 fc	\$207,679
90' Base Path	300'	50/30 fc	\$237,589	70/50 fc	\$298,782
90' Base Path	300/325/300'	50/30 fc	\$249,454	70/50 fc	\$331,866
90' Base Path	350'	50/30 fc	\$259,470	70/50 fc	\$367,681
90' Base Path	320/360/320'	50/30 fc	\$252,935	70/50 fc	\$371,283
90' Base Path	330/400/330'	50/30 fc	\$326,464	70/50 fc	\$449,254

**Tennis Utilizing LED luminaires – Light-Structure System™**

<b>Tennis</b>		
# Courts	Average Maintained Light Level	Price for Light-Structure TLC-LED Materials
2	50 fc	\$69,743
3	50 fc	\$81,855
4	50 fc	\$88,430
6	50 fc	\$154,316

**Basketball Outdoor Utilizing LED luminaires – Light-Structure System™**

<b>Basketball - Outdoor</b>		
# Courts	Average Maintained Light Level	Price for Light-Structure TLC-LED Materials
1	50 fc	\$49,616

**Parking Lot Utilizing LED luminaires**

<b>Parking Lot - 10 year parts and labor warranty</b>			
Parking Lot Area	Light Level	Price for LED Materials	Price per Square foot (to be used for alternate size areas)
320' x 200'	1 fc	\$39,122	\$0.61/per sq ft



## Sourcewell

### RFP #071619 Sports Lighting with Related Supplies and Services

#### Green Generation Lighting® - Metal Halide Technology

Purchase of a Light-Structure System™ with Green Generation Lighting® metal halide technology or SportsCluster® System with Green Generation Lighting® metal halide technology will be reduced by 15% on all field pricing packages on the bid pricing form. This pricing list should not be considered complete and exhaustive due to the nature of each project being unique, design-build situation.

Example: 360' x 160' Football @ 30 ft. (50' pole setback)

\$148,529 X 15% = \$22,279

\$148,529 - \$22,279

Metal Halide Technology Pricing = \$126,250

Includes precast concrete bases, galvanized steel poles, electrical components enclosures, wire harnesses, luminaire assemblies and the Control-Link® system (does not include poles with SportsCluster®). Installation is NOT included in pricing.

Green Generation Lighting® Product Assurance & Warranty Program: Musco will provide all materials and labor to maintain operation of the Light-Structure System with Green Generation Lighting® metal halide technology or SportsCluster System with Green Generation Lighting® metal halide technology to original design criteria for 10 years. Musco products and services are guaranteed to perform for the customer as detailed in the "Musco Constant 10™" document.

- A. During the term of this contract, technical upgrades to these products may periodically become available and will be offered to the owner. Bidder reserves the right to supply upgraded technology provided it maintains on-field lighting performance and enhances benefit.
- B. The pricing is based on using Musco's typical 5700 Kelvin/75 CRI LED fixtures. Other Kelvin & CRI LED fixture combinations are available and may add additional cost.
- C. ~~The pricing is based on using 480v, other voltage options are available and may add additional cost.~~
- D. During the term of this contract if the Building Codes/Wind Speeds change, Bidder reserves the right to adjust pricing accordingly. ~~Quote for bid based on structural code and wind speed of IBC 2012, 115 mph, Exposure C. A change in building code and wind speed will have a direct effect on the bid price based on percentage increase. Alternate price for increasing building code in 10 mph increments (based from 115 mph): State in a value of % over base pricing for each field: 10% per every 10 mph increment.~~
- E. Pricing is based on using Musco's Control-Link® Control & Monitoring package. Musco's Show-Light™ Entertainment package is available and will increase the equipment cost by 5%.
- F. Pricing is based on using Musco's Control-Link® Control & Monitoring package. Musco's Show-Light™ Entertainment package is available and will increase the equipment cost by 12%. Musco is not responsible for obtaining right or any cost associated with music licenses.
- G. ~~The pricing can also include equipment installation, labor and materials for the complete installation, including foundations, pole erection, trenching, backfill, conduit, wire, electrical distribution and service cabinet(s) and site restoration shall utilize the current RS Means pricing coefficient and must also include the appropriate City Cost Index.~~



**Sourcewell**

**RFP #071619 Sports Lighting with Related Supplies and Services**

- H. Manufacturers do not have to list electrical sub-contractors; however the owner has the right to reject through the submittal process, sub-contractors not licensed with the local jurisdiction.
- I. ~~Sales tax, labor, and unloading of equipment is not included as part of the materials only quote.~~
- J. Quote based on shipment of entire project together to one location. Delivery time of order, submittal approval, and confirmation of order details include voltage and phase and pole location is approximately 4-6 weeks (standard shipping).
- K. Confirmation of pole locations required prior to production, due to the built-in custom light control per luminaire.
- L. This price list should not be considered complete and exhaustive due to the nature of each project being a unique, custom design-build situation.

**End of Bid**



**MUSCO**



## WESTPORT, CONNECTICUT

### FLOOD & EROSION CONTROL BOARD

TOWN HALL, 110 MYRTLE AVENUE  
WESTPORT, CONNECTICUT 06880  
(203) 341-1120

BACK UP MATERIAL  
RTM ITEM # 2

September 3, 2020

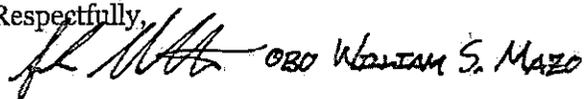
Keith Wilberg, PE, LS  
Town Engineer  
110 Myrtle Ave  
Westport, CT 06880

**Cavalry Road Bridge (Bridge No. 04963) over the Saugatuck River / Application IWW-WPL #11047-20;** Application of WMC Consulting Engineers, on behalf of the Town of Westport, for the replacement of Cavalry Road Bridge over Saugatuck River approximately 0.66 miles west of Weston Road. The Bridge is located in both Westport and Weston. The project lies within the Waterway Protection Line (WPL) of the Saugatuck River.

Please be advised that at its September 2, 2020 meeting, the Westport Flood & Erosion Control Board resolved to APPROVE the above referenced application. Details of the meeting are recorded in the attached meeting minutes.

Please contact the Engineering Department should you have any questions regarding this matter.

Respectfully,



William S. Mazo, Chairman  
Westport Flood & Erosion Control Board.

WSM/asm

Cc: First Selectman, Town Attorney, Public Works Director, Planning & Zoning Director, Conservation Director, Chair of RTM Environmental Committee, Chair of RTM Public Works Committee, Applicants



## **WESTPORT, CONNECTICUT**

**DEPARTMENT OF PUBLIC WORKS**  
TOWN HALL, 110 MYRTLE AVENUE  
WESTPORT, CONNECTICUT 06880  
(203) 341 1120 www.westportct.gov

### **LEGAL NOTICE OF DECISION**

Notice is hereby given that the Westport Flood & Erosion Control Board took the following actions at an electronic meeting held on September 2, 2020:

#### **I. PUBLIC HEARING**

1. **Cavalry Road Bridge (Bridge No. 04963) over the Saugatuck River / Application IWW-WPL #11047-20; APPROVED.** Application of WMC Consulting Engineers, on behalf of the Town of Westport, for the replacement of Cavalry Road Bridge over Saugatuck River approximately 0.66 miles west of Weston Road. The Bridge is located in both Westport and Weston. The project lies within the Waterway Protection Line (WPL) of the Saugatuck River.
2. **Bayberry Lane Extension Bridge (Bridge No. 04969) over the Aspetuck River / Application IWW-WPL/E #11049-20; APPROVED.** Application of Keith S. Wilberg, PE, LS, on behalf of the Town of Westport, for the replacement of the Bayberry Lane Extension Bridge over the Aspetuck River. The project lies within the Waterway Protection Line (WPL) of the Aspetuck River.
3. **4 Hockanum Road / Application IWW-WPL/E #11055-20; APPROVED.** Application of Robert Pryor, PE, LS, of LANDTECH, on behalf of the owners Andrew and Michelle Ludel, for construction of a new garage and additional site improvements to mitigate flooding. The project lies within the Waterway Protection Line (WPL) of Willow Brook.
4. **6 Manitou Court / Application WPL #11051-20; APPROVED.** Application of LANDTECH / Andy Soumelidis, PE, on behalf of the owner, 6 Manitou Court LLC, to elevate and renovate an existing single family residence, while also constructing a new single family with related site appurtenances. The site lies within the Waterway Protection Line (WPL) of the Saugatuck River.
5. **128 Bayberry Lane / Application IWW-WPL/E #11007-20; CONTINUED.** Referral of a proposed "open space" subdivision consisting of 9 residential lots, two of which to be retained by the Belta family, from the Conservation Commission pursuant to Section 6.5 (f) of the Regulations for the Protection and Preservation of Wetlands and Watercourses, Westport, Connecticut, entitled "Discharge and Runoff."

Applications, plans, and decisions may be inquired into by contacting the Public Works Office at (203) 341-1120, Monday through Friday, from 8:30 am to 4:30 pm.

William S. Mazo, Chair  
Flood & Erosion Control Board



# WESTPORT, CONNECTICUT

## FLOOD AND EROSION CONTROL BOARD

TOWN HALL, 110 MYRTLE AVENUE

WESTPORT, CONNECTICUT 06880

(203) 341-1120

### MINUTES

Flood & Erosion Control Board Meeting of September 2, 2020

Present for the Board: William S. Mazo (Chairman)  
John Toi  
Aimee Monroy Smith

Present for Department of Public Works: Amrik Matharu, Engineer II  
Edward Gill, Engineer II

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William S. Mazo, Chair, opened the meeting at 7:30 pm.

1. **Cavalry Road Bridge (Bridge No. 04963) over the Saugatuck River / Application IWW-WPL #11047-20; Application of WMC Consulting Engineers, on behalf of the Town of Westport, for the replacement of Cavalry Road Bridge over Saugatuck River approximately 0.66 miles west of Weston Road. The Bridge is located in both Westport and Weston. The project lies within the Waterway Protection Line (WPL) of the Saugatuck River.**

The project was presented by Town Engineer Keith Wilberg, PE, LS, and Keegan Elder, PE, of WMC Consulting Engineers, on behalf of the Town of Westport.

There were questions from the Board regarding disruptions associated with moving the gas and water services, and whether the bridge would need to come back to the Flood and Erosion Control Board.

Per the Chair's request, Amrik Matharu summarized the Engineering Department's review of the project, stating that the proposed activity complies with Town of Westport requirements. In short, he would recommend approval.

The Chair asked if there were any comments or questions from the Public. There were none.

It was agreed that the following Standard Conditions of Approval were deemed necessary: 1, 2, and 12. (Refer to the appended sheet).

DECISION: Proposed Project Approved, 3(Y)-0(N).

2. **Bayberry Lane Extension Bridge (Bridge No. 04969) over the Aspetuck River / Application IWW-WPL/E #11049-20; Application of Keith S. Wilberg, PE, LS, on behalf of the Town of Westport, for the replacement of the Bayberry Lane Extension Bridge over the Aspetuck River. The project lies within the Waterway Protection Line (WPL) of the Aspetuck River.**

The project was presented by Town Engineer Keith Wilberg, PE, LS, and both Ajit Gokhale, PE, and Michael Kelley, PE, of AI Engineers, Inc., on behalf of the Town of Westport.

There were questions from the Board regarding minimizing disruption to utilities.

Per the Chair's request, Amrik Matharu summarized the Engineering Department's review of the project, stating that the proposed activity complies with Town of Westport requirements. In short, he would recommend approval.

The Chair asked if there were any comments or questions from the Public. There were none.

It was agreed that the following Standard Conditions of Approval were deemed necessary: 1, 2, and 12. (Refer to the appended sheet).

DECISION: Proposed Project Approved, 3(Y)-0(N).

3. **4 Hockanum Road / Application IWW-WPL/E #11055-20; Application of Robert Pryor, PE, LS, of LANDTECH, on behalf of the owners Andrew and Michelle Ludel, for construction of a new garage and additional site improvements to mitigate flooding. The project lies within the Waterway Protection Line (WPL) of Willow Brook.**

The project was presented by Robert Pryor, PE, LS, of LANDTECH, on behalf of on behalf of the owners, Andrew and Michelle Ludel.

There were questions from the Board regarding the impact of the proposed fill within the area of Willow Brook, and whether there was any work proposed on the septic system.

Per the Chair's request, Amrik Matharu summarized the Engineering Department's review of the project, stating that the proposed activity complies with Town of Westport requirements. In short, he would recommend approval.

The Chair asked if there were any comments or questions from the Public. There were none.

It was agreed that the aforementioned Special Condition of Approval and following Standard Conditions of Approval were deemed necessary: 1, 2, 10, 11, and 12. (Refer to the appended sheet).

DECISION: Proposed Project Approved, 3(Y)-0(N).

4. **6 Manitou Court / Application WPL #11051-20; Application of LANDTECH / Andy Soumelidis, PE, on behalf of the owner, 6 Manitou Court LLC, to elevate and renovate an existing single family residence, while also constructing a new single family with related site appurtenances. The site lies within the Waterway Protection Line (WPL) of the Saugatuck River.**

The project was presented by Andy Soumelidis, PE, of LANDTECH, on behalf of on behalf of the owner, 6 Manitou Court LLC.

There were questions from the Board regarding whether there were erosion problems behind the wall, water quality issues, the amount of time the lower house will be elevated, whether any work will be done from the water side, and whether the dock is part of the application.

Per the Chair's request, Amrik Matharu summarized the Engineering Department's review of the project, stating that the proposed activity complies with Town of Westport requirements. In short, he would recommend approval along with the following Special Conditions:

1. *Please provide a temporary grading plan for the western construction entrance leading as part of obtaining a Planning & Zoning Permit.*
2. *The applicant shall obtain certification from a structural engineer that the walls, piers, stairs and breakaway components within Flood Zone VE are constructed to VE Zone Standards as part of obtaining a Zoning Certificate of Compliance.*
3. *A site monitor shall be required to ensure compliance with sediment & erosion control plans. As such, the monitor shall provide weekly reports to the Conservation Department.*

The Chair asked if there were any comments or questions from the Public. There were none.

It was agreed that the aforementioned Special Condition of Approval and following Standard Conditions of Approval were deemed necessary: 1, 2, 3, 5, 6, 8, 9, 10, 11, and 12. (Refer to the appended sheet).

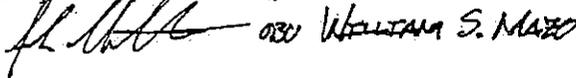
DECISION: Proposed Project Approved, 3(Y)-0(N).

5. **128 Bayberry Lane / Application IWW-WPL/E #11007-20; Referral of a proposed "open space" subdivision consisting of 9 residential lots, two of which to be retained by the Belta family, from the Conservation Commission pursuant to Section 6.5 (f) of the Regulations for the Protection and Preservation of Wetlands and Watercourses, Westport, Connecticut, entitled "Discharge and Runoff."**

The project was continued until the next regularly scheduled meeting.

The meeting was adjourned at 8:31 pm.

Respectfully submitted,



William S. Mazo, Chair  
Flood & Erosion Control Board

WSM/asm

Cc: First Selectman, Town Attorney, Public Works Director, Planning & Zoning Director, Conservation Director, Chair of RTM Environmental Committee, Chair of RTM Public Works Committee, Applicants, minutes@westportct.gov

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**STANDARD CONDITIONS OF APPROVAL:**

1. Applicant shall provide adequate sedimentation and erosion control devices for the proposed activity from the time that construction begins until such time that established ground cover has grown in. More specifically, the toe of filled slopes shall be protected by silt fencing and hay bales or other approved measures, and the face of all exposed slopes shall be protected with hay matting or other approved measures until such time that the slopes have stabilized. Tree protection and/or dewatering measures for the site shall be employed as specified on the approved plans OR as needed by specific field conditions.
2. Proposed site grading, as well as development in general, shall not alter drainage patterns to the detriment of adjoining or downstream properties.
3. All drainage facilities shall be designed to comply with the Town of Westport Engineering Department Storm Water Drainage Design Standards as amended to date (current revision date, 11/01/2015).
4. Applicants shall excavate test pits and conduct percolation tests at the proposed location of any storm water leaching facilities such as drywells, galleries, and stone pits. The test pits shall be witnessed and approved by the Engineering Department prior to installation of the proposed detention system.
5. The area under the proposed deck shall be excavated to a minimum depth of 6" and filled with ¾" crushed stone, or use an alternative drainage methodology as approved by the Town Engineer.
6. All construction shall conform to the requirements of the Federal Emergency Management Agency (FEMA) and the National Flood Insurance Program (NFIP), as outlined in publication ASCE/SEI 24-14, "Flood Resistant Design and Construction," as amended to date.
7. All enclosed spaces below the Base Flood Elevation shall be constructed in conformance with FEMA Technical Bulletin 1-08, "Openings in Foundation Walls and Walls of Enclosures."
8. All final plans, details, and calculations shall be reviewed and approved by the Town Engineer.
9. All proposed work within the regulated area shall be subject to final approval by both the Town Engineer and the Conservation Director.
10. All plantings within the regulated area shall be as approved by the Westport Conservation Commission. No significant fill shall be placed within the WPLO setback other than that incidental to the plantings.
11. If the scope of this project increases or changes in any significant way, all additional or modified proposed work shall be approved by the Flood & Erosion Control Board and the Conservation Commission **prior to its commencement**, not after its completion.
12. It shall be the responsibility of the applicant to obtain and secure any additional necessary assent, permit, or license as required by law or regulation, including but not strictly limited to other Town of Westport, State of Connecticut, or United States Federal agencies.



**WESTPORT, CONNECTICUT  
CONSERVATION COMMISSION**

TOWN HALL - 110 MYRTLE AVENUE  
WESTPORT, CONNECTICUT 06880  
(203) 341-1170 • FAX (203) 341-1088

**TOWN OF WESTPORT  
INLAND WETLANDS AND WATERCOURSES AND  
WATERWAY PROTECTION PERMIT**

No. IWW, WPL 11047-20

Effective Date: September 9, 2020

This PERMIT authorizes Keith Wilberg, Town Engineer, APPLICANT, and Town of Westport OWNERS to conduct the following **REGULATED ACTIVITY**: To replace an existing bridge which conveys Cavalry Road over the West Branch of the Saugatuck River in approximate place and kind. The work is within the waterway itself as well as the upland review area from wetlands, and within the WPLO from the West Branch of the Saugatuck River., Westport, Connecticut; in conformance with the laws of the State of Connecticut, and the Town of Westport.

This PERMIT is issued upon application of the PERMITTEE in accordance with the Regulations for the Protection and Preservation of Wetlands and Watercourses of Westport and the Waterway Protection Line Ordinance, and the **CONDITIONS OF APPROVAL** listed in the Resolution adopted at the Conservation Commission's meeting convened on the above-referenced date.

Acceptance and application of this license is both an implied and expressed agreement by the holder and his agents to comply with and adhere to all terms and conditions of this permit.

No change or revision of this permit may occur without the prior written authorization of the Conservation Director, said authorization to be issued only upon submission of a written request describing the proposed deviation and supporting reason. **Similarly, this permit is non-transferable. Requests for such transfers are to be submitted in writing to the Conservation Director describing the proposed transfer, the reason for such transfer, and an acknowledgment that nothing regarding the transfer shall in any way shift or limit the liability of any other person unless and until the transfer is authorized in writing by the Conservation Director.**

In issuing this PERMIT, the Conservation Commission has relied upon the applicant's assurances, and makes no warranties, either expressed or implied, and assumes no liability with regard to the structural integrity of the design of any structures, or to the engineering feasibility of efficacy of such design.

In event that the Permit Holder becomes aware that there may be a noncompliance with any provision of the approval, the Permit Holder shall immediately inform the Conservation Director, and shall take all reasonable steps to ensure that any noncompliance is avoided, or, if unavoidable, minimized to the greatest extent possible, with such notification not excusing the noncompliance.

The holder of the PERMIT, and his agents and representatives, acknowledges that the issuance of the PERMIT does not in any way relieve or excuse said PERMITTEE of the obligation to obtain any other approvals required by applicable local, state, and federal law.

**FAILURE TO CONFORM TO THE TERMS AND CONDITIONS OF THIS CERTIFICATE  
WILL SUBJECT THE CERTIFICATE HOLDER, TO ENFORCEMENT ACTIONS,  
INCLUDING PENALTIES AS PROVIDED BY LAW.**

Westport Conservation Commission

  
\_\_\_\_\_  
Anna Rycenga  
Chairperson

**Findings**  
**Application # IWW, WPL -11047-20**  
**Cavalry Road Bridge**  
**Bridge over West Branch of the Saugatuck River (BRG. #04964)**  
**Hearing September 9, 2020**

- 1. Receipt Date:** September 9, 2020
- 2. Application Classification:** Plenary
- 3. Application Request:**

Applicant is requesting to the Town of Westport to replace an existing bridge which conveys Cavalry Road over the West Branch of the Saugatuck River in approximate place and kind. The work is within the waterway itself as well as the upland review area from wetlands, and within the WPLO from the West Branch of the Saugatuck River.
- 4. IWW and WPLO Regulated Areas:**

IWW setbacks determined for this property include 20' non-disturbance buffer for the proposed site work and work within wetland boundaries.  
The Waterway Protection Line Ordinance (WPLO) dictates that the WPL boundary be located 15' from the 25-year floodplain. The work for bridge is proposed within the WPLO.
- 5. Plans reviewed:**
  - a) "Replacement of Cavalry Road Bridge (No. 04964) Over Saugatuck River", Prepared for Town of Weston, Scale: As-Noted, dated April 27, 2020, prepared by WMC Consulting Engineers, 6 sheets PMT-01 to PMT-06
  - b) "Preliminary Fisheries Review -- DOT Project 157-TBD" From DEEP-Fisheries Division to Office of Environmental Planning, DOT, Dated July 18, 2017.
  - c) "Flood Management Certification Local Bridge Program Project No. 0157-0058 Reconstruction of Bridge No. 04964, Cavalry Road over West Branch of Saugatuck River Town of Weston" From CT DOT to Chris Spaulding, First Selectman, Town of Weston, Dated July 15, 2020.
  - d) "Wetland/Watercourse Delineation Report, Cavalry Road Bridge, Weston, CT" Soils report by Davison Environmental, Dated May 14, 2018
  - e) "Water Pollution Control Special Provision" dated July 1, 2020.
  - f) "Hydraulic Design Report Reconstruction of Cavalry Road Bridge over West Branch of Saugatuck River (Bridge No. 04964) Towns of Weston and Westport" prepared by EcoDesign LLC, Dated November 2019 and last revised April 2020.
- 6. Background Information:**
  - The pre-existing bridge is situated on the Westport-Weston town line. The bridge spans the West Branch of the Saugatuck River and was reportedly completed in 1957.
  - The existing bridge shows signs of structural deficiencies with cracks in the superstructure, leaks and evidence of scour.
  - The bridge location is approximately 150 ft. north of the intersection of Cavalry Road and Crooked Mile.
  - The average daily traffic at the bridge is estimated to be 622 vehicles per day with minor truck traffic.
  - It is located in the West Branch Saugatuck River watershed. The river flows from west to east across the project site. The confluence with the main reach of the

Saugatuck River is approximately 3,600 ft. to the southeast. A FEMA flood zone is associated with this property as shown on the plans.

- The site is within the Aquifer Protection Overlay Zone.
- This site does **not** exist within the Coastal Areas Management Zone.
- Wetland/Watercourse Delineation Report by Davison Environmental:
- **No wetland soils** identified within the work area, "There is an abrupt transition from the riverbank to the adjacent upland. No alluvial or floodplain soils are present."
- The non-wetland soils were identified as Udorthents and Hinckley series soils
- Flood & Erosion Control Board reviewed this application pursuant to the WPLO on September 2, 2020
- The Town of Weston, CT Conservation Commission reviewed and approved the project on February 27, 2020.

#### **Conformance to Section 6 of the Inland Wetlands and Watercourses Regulations**

##### **7. 6.1 GENERAL STANDARDS**

- a) disturbance and pollution are minimized;
- b) minimize height, width, length of structures are limited to the minimum; dimension to accomplish the intended function;
- c) loss of fish, other beneficial organisms, wildlife and vegetation are prevented;
- d) potable fresh water supplies are protected from dangers of drought, overdraft, pollution, misuse and mismanagement;
- e) maintain conservation, economic, recreational and aesthetic qualities;
- f) consider historical sites

#### **Discussion:**

The existing bridge structure consists of two spans with a central pier for support. The bridge shows structural issues including cracks and drainage issues. The proposed bridge is designed to address various deficiencies as identified in the proposal and will consist of one 72 ft. span compared to the existing two 28.5 ft. span. The Commission finds that the this design proposal is less environmentally intrusive than the existing bridge, which has the central support restricting normal bankfull width of the flow of water. Removal of the restrictions from this structure and widening the span beyond the streambank is a benefit to establishing natural flow patterns and flow rates through this portion of the river. The Commission finds that the proposed bridge also allows for the passage of floodwaters that was restricted for the 100-year design flow.

The DEEP Fisheries Division established several conditions to ensure the protection of fish and habitat. They require the installation of a turbidity control curtain, where the curtain should reduce the risk of sediment movement from the work site. The work is limited to June 1 to September 30 timeframe to reduce possible impacts to organisms life cycles. The addition of boulders within the channel, upstream and downstream, create variation of water flows and produce potential habitat areas and places of refuge.

The majority of the work for the bridge will be conducted from the existing roadway. Temporary cofferdams are proposed to contain most of the northern abutment and central span support work. A double row of silt fencing will be installed around the work site. Minimal vegetation will be disturbed in areas adjacent to the roadway for access and a proposed vegetated swale will manage stormwater runoff from the existing roadway.

Only an area of 337 sq. ft. is proposed for permanent impacts as part of this proposal and 1,281 sq. ft. of area will have temporary impacts during site construction activities. Soil stockpile areas will be within the right-of-way roadway approaches. An area has been identified to handle the dewatering discharge from the excavations.

## 8. 6.2 WATER QUALITY

- a) flushing rates, freshwater sources, existing basin characteristics and channel contours will not be adversely altered;
- b) water stagnation will neither be contributed nor caused;
- c) water pollution will not affect fauna, flora, physical or chemical nature of a regulated area, or the propagation and habitats of fish and wildlife, will not result;
- d) pollution of groundwater or a significant aquifer will not result (*groundwater recharge area or Aquifer Protection Overlay Zone*);
- e) all applicable state and local health codes shall be met;
- f) water quality will be maintained or improved in accordance with the standards set by federal, state, and local authority including section 25-54(e) of the Connecticut General Statutes
- g) prevents pollution of surface water

### Discussion:

The "Handling Water Notes" on the "Water Handling Plan" indicates the contractor shall follow the sequence for construction of the bridge. A dewatering basin is provided along the northwestern embankment. The Commission finds that this a critical portion of the construction activity. The Commission finds that applicant shall provide a site monitor to conduct weekly sediment and erosion control inspections and provide those reports to the Conservation Office. The "Water Pollution Control Special Provision" was submitted with the application and states the contractor shall provide "...a plan showing erosion and sedimentation controls above and beyond those called for in the plans and specifications..." The Commission finds that the applicant, the general contractor, site monitor, and Conservation Staff shall meet onsite at the start of the project to review Sediment and Erosion controls and discuss the need for extra measures.

The Commission finds that the restoration of the vegetative buffer adjacent to the watercourse after bridge installation shall be done. Vegetation restoration adjacent to the work area will help to safeguard natural resources by providing additional stormwater runoff filtration prior to discharge into the river. The reduction of water velocities from stormwater runoff allows vegetation to absorb some non-point pollutants such as oils, fertilizers, or herbicides that may otherwise discharge into the watercourse. To this point, the proposed vegetated swale on the northwestern abutment could be duplicated for the other abutments.

## 9. 6.3 EROSION AND SEDIMENT

- a) temporary erosion control measures shall be utilized during construction and for the stabilization period following construction;
- b) permanent erosion control measures shall be utilized using nonstructural alternatives whenever possible and structural alternatives when avoidable;
- c) existing circulation patterns, water velocity, or exposure to storm and flood conditions shall not be adversely altered;
- d) formation of deposits harmful to aquatic life and or wetlands habitat will not occur;
- e) applicable state, federal and local guidelines shall be met.

### Discussion:

Specific erosion control methods are described in the application including silt fencing, temporary cofferdams, dewatering basin, and turbidity curtains. All erosion and sediment structures should be inspected and maintained on a regular basis. The Commission finds that the applicant shall assign a site monitor to conduct weekly sediment and erosion control inspections and provide those reports to the Conservation Office. The Commission finds that the applicant, the general contractor, site monitor, and Conservation Staff meet onsite at the start of the project to review Sediment and Erosion controls and discuss the need for extra measures. A dewatering location is shown on the

site plan but may need to be relocated in the field to reduce the likelihood of water re-entering the temporary cofferdam locations. Additionally, a separate stockpiling area for the excavated stream substrate soil should be designated for reuse if needed. The Commission finds that the soil stabilization of any disturbed soils should take place as soon as possible.

#### **10. 6.4 NATURAL HABITAT STANDARDS**

- a) critical habitats areas,
- b) the existing biological productivity of any Wetland and Watercourse shall be maintained or improved;
- c) breeding, nesting and or feeding habitats of wildlife will not be significantly altered;
- d) movements and lifestyles of fish and wildlife (plant and aquatic life) will not be significantly affected;
- e) periods of seasonal fish runs and bird migrations shall not be impeded;
- f) conservation or open space easements will be deeded whenever appropriate to protect these natural habitats.

##### **Discussion:**

The Commission finds that the area and amount of disturbance adjacent to the watercourse is limited, it is not anticipated to affect habitat. The proposed plan limits the amount of work within the wetlands and watercourse areas including temporary and permanent disturbance. The contractor will be directed to conduct activities from within the travel-way as much as possible in order to complete tasks.

The Commission finds that any unconfined work within the river is restricted to June 1 to September 30 timeframe. All areas should be restored to pre-construction conditions upon completion. This should assure that plant and aquatic life will not be significantly affected long term. The CT DEEP recommends the use of a turbidity curtain to protect downstream fish habitat. Additionally, the CT DEEP requires restoration efforts within the river channel to restore habitat affected by the bridge construction.

#### **11. 6.5 DISCHARGE AND RUNOFF**

- a) the potential for flood damage on adjacent or adjoining properties will not be increased;
- b) the velocity or volume of flood waters both into and out of Wetlands and Watercourses will not be adversely altered;
- c) the capacity of any wetland or watercourse to transmit or absorb flood waters will not be significantly reduced;
- d) flooding upstream or downstream of the location site will not be significantly increased;
- e) the activity is acceptable to the Flood & Erosion Control Board and or the Town Engineer of the municipality of Westport

##### **Discussion:**

The Flood and Erosion Board approved this project at their meeting on September 2, 2020.

The Commission finds that the hydraulic analysis for the existing structure shows ~0.9 ft. of upstream backwater for the 100-year Design Discharge. The analysis for proposed replacement shows 0.0 ft. of upstream backwater for the 100-year Design Discharge. The Commission finds that this proposal will not cause adverse impacts to the capacity of

any wetland or watercourse to transmit or absorb floodwaters, will not increase flooding and will not adversely affect the velocity of floodwaters into and out of the wetlands.

#### 12. 6.6 RECREATIONAL AND PUBLIC USES

- a) access to and use of public recreational and open space facilities, both existing and planned, will not be prevented;
- b) navigable channels and or small craft navigation will not be obstructed;
- c) open space, recreational or other easements will be deeded whenever appropriate to protect these existing or potential recreational or public uses;
- d) wetlands and watercourses held in public trust will not be adversely affected.

#### Discussion:

The Commission finds that the bridge currently provides public use for a secondary thoroughfare in town and neighbors to the north, the Town of Weston. The proposed development will not affect public use beyond the detours required while under construction. The recreational use is minimal.

#### 13. CRITERIA TO BE CONSIDERED BY THE COMMISSION

In carrying out the purposes and policies of the IWW regulations for the Town of Westport Section 5.0 and Sections 22a-36 to 22a-45(a,) inclusive, of the Connecticut General Statutes, including matters relating to regulating, permitting and enforcing of the provisions thereof, the Commission shall take into consideration all relevant facts and circumstances, including, but not limited to:

- a) The environmental impact of the proposed regulated activity on wetlands or watercourses;
- b) The applicant's purpose for, and any feasible and prudent alternatives to, the proposed regulated activity which alternatives would cause less or no environmental impact to wetlands or watercourses;
- c) The relationship between the **short-term** and **long-term impacts** of the proposed regulated activity on wetland or watercourses and the maintenance and enhancement of long-term productivity of such wetlands or watercourses.
- d) Irreversible and irretrievable loss of wetland or watercourse resources which would be caused by the proposed regulated activity, including the extent to which such activity **would foreclose a future ability to protect**, enhance or restore such resource and any mitigation measures which may be considered as a condition of issuing a permit for such activity
- e) The character and degree of injury to, or interference with, **safety, health** or reasonable use of property which is caused or threatened by the proposed regulated activity
- f) Impacts of the proposed regulated activity on wetlands or watercourses outside the area for which the activity is proposed and **future activities** associated with, or reasonably related to, the proposed regulated activity **which are made inevitable** by the proposed regulated activity and which may have an impact on wetlands or watercourses. ; and
- g) The degree to which the proposed activity is consistent with all applicable goals and policies set forth in Section 1.3 and 1.4 of these Regulations and Section 22a-36 of the Connecticut General Statutes, as amended.

#### 14. Waterway Protection Line Ordinance

*Section 148-9 of the Waterway Protection Line Ordinance states that the applicant shall submit information to the Conservation Commission showing that such activity will not cause water pollution, erosion and/or environmentally related hazards to life and property and will not have an adverse impact on the preservation of the natural resources and ecosystem of the waterway, including but not limited to impact on ground and surface water, aquifers, plant and aquatic life, nutrient exchange and supply, thermal energy flow,*

*natural pollution filtration and decomposition, habitat diversity, viability and productivity and the natural rates and processes of erosion and sedimentation.*

The Waterway Protection Line boundary exists 15' from the 25-year flood line onsite. The Flood & Erosion Control Board has approved this application on September 2, 2020 with standard conditions.

The Commission supports the Town's efforts to upgrade deteriorating infrastructure for the safety of its citizens. The Commission finds that the new bridge's design and placement increases the amount of floodwaters able to pass for a 100-year storm, which in turn, reduces the amount of water backed up during major storm events. As stated in the "Hydraulic Design Report", the southerly approach will continue to flood during the 100-year storm event, but now will be passable during a 25-year storm event. The southerly approach currently is not passable. The Commission finds that this effort will reduce the frequency of flooding of the roadway. Any erosion of soils and pollutants entering the watercourse should be minimized provided the erosion controls are properly installed and maintained throughout construction. The Commission finds that the long-term slope stabilization will occur by the addition of more plantings along the abutments and will benefit resources by limiting erosion and provide biofiltration of pollutants from any runoff. The Commission finds that this will not significantly impact resources as they are protected under the Waterway Protection Line Ordinance.

Conservation Commission  
TOWN OF WESTPORT

Conditions of Approval  
Application # IWW, WPL -11047-20  
Cavalry Road Bridge  
Bridge over West Branch of the Saugatuck River (BRG. #04964)  
Date of Resolution: September 9, 2020

**Project Description:** Applicant is requesting to the Town of Westport to replace an existing bridge which conveys Cavalry Road over the West Branch of the Saugatuck River in approximate place and kind. The work is within the waterway itself as well as the upland review area from wetlands, and within the WPLO from the West Branch of the Saugatuck River.

**Owner of Record:** Town of Westport  
**Applicant:** Keith Wilberg, Town Engineer

In accordance with Section 6 of the *Regulations for the Protection and Preservation of Wetlands and Watercourses of Westport* and Section 30-93 of the *Waterway Protection Line Ordinance* and on the basis of the evidence of record, the Conservation Commission resolves to **APPROVE** Application #IWW,WPL-11047-20 with the following conditions:

1. Completion of the regulated activity shall be within FIVE (5) years following the date of approval. Any application to renew a permit shall be granted upon request of the permit holder unless the Commission finds there has been a substantial change in circumstances which requires a new permit application or an enforcement action has been undertaken with regard to the regulated activity for which the permit was issued provided no permit may be valid for more than TEN (10) years.
2. Permits are not transferable without the prior written consent of the Conservation Commission.
3. It is the responsibility of the applicant to obtain any other assent, permit or license required by law or regulation of the Government of the United States, State of Connecticut, or of any political subdivision thereof.
4. If an activity also requires zoning or subdivision approval, special permit or special exception under section 8.3(g), 8-3c, or 8-26 of the Connecticut General Statutes, no work pursuant to the wetland permit shall commence until such approval is obtained.
5. If an approval or permit is granted by another Agency and contains conditions affecting wetlands and/or watercourses, the applicant must resubmit the application for further consideration by the Commission for a decision before work on the activity is to take place.
6. The Conservation Department shall be notified at least **forty-eight (48)** hours in advance of the initiation of the regulated activity for inspection of the erosion and sediment controls.
7. All activities for the prevention of erosion, such as silt fences and hay bales shall be under the direct supervision of the site contractor who shall employ the best management practices to control storm water discharges and to prevent erosion and sedimentation to otherwise prevent pollution, impairment, or destruction of wetlands or watercourses. Erosion controls are to be inspected by the applicant or agent weekly and after rains and all deficiencies must be remediated with twenty-four hours of finding them.
8. The applicant shall take all necessary steps to control storm water discharges to prevent erosion and sedimentation, and to otherwise prevent pollution of wetlands and watercourse.
9. Organic Landscaping practices are recommended as described by the Northeast Organic Farming Association.
10. All plants proposed in regulated areas must be non-invasive and native to North America.
11. Trees to remain are to be protected with tree protection fencing prior to construction commencement.
12. The bottom of all storm water retention structures shall be placed no less than 1 foot above seasonal high groundwater elevation.
13. The applicant shall immediately inform the Conservation Department of problems involving sedimentation, erosion, downstream siltation or any unexpected adverse impacts, which development in the course or are caused by the work.

14. Any material, man-made or natural which is in any way disturbed and/or utilized during the work shall not be deposited in any wetlands or watercourse unless authorized by this permit.
15. A final inspection and submittal of an "as built" survey is required prior to the issuance of a Certificate of Compliance.
16. All on-site dumpsters shall be covered at the end of each workday and or when not in use.

#### SPECIAL CONDITIONS OF APPROVAL

17. Conformance to the plans entitled:
  - a) "Replacement of Cavalry Road Bridge (No. 04964) Over Saugatuck River", Prepared for Town of Weston, Scale: As-Noted, dated April 27, 2020, prepared by WMC Consulting Engineers, 6 sheets PMT-01 to PMT-06
  - b) "Preliminary Fisheries Review – DOT Project 157-TBD" From DEEP-Fisheries Division to Office of Environmental Planning, DOT, Dated July 18, 2017.
  - c) "Flood Management Certification Local Bridge Program Project No. 0157-0058 Reconstruction of Bridge No. 04964, Cavalry Road over West Branch of Saugatuck River Town of Weston" From CT DOT to Chris Spaulding, First Selectman, Town of Weston, Dated July 15, 2020.
  - d) "Wetland/Watercourse Delineation Report, Cavalry Road Bridge, Weston, CT" Soils report by Davison Environmental, Dated May 14, 2018
  - e) "Water Pollution Control Special Provision" dated July 1, 2020.
  - f) "Hydraulic Design Report Reconstruction of Cavalry Road Bridge over West Branch of Saugatuck River (Bridge No. 04964) Towns of Weston and Westport" prepared by EcoDesign LLC, Dated November 2019 and last revised April 2020.
18. Conformance to conditions of the Flood & Erosion Control Board approval of September 2, 2020.
19. A site monitor shall be retained for the duration of this project's construction and completion. Said monitor shall ensure compliance with the sediment and erosion control plans. Said monitor shall conduct weekly inspections and after storm events greater than 1 inch with written reports submitted to the Conservation Department on a weekly basis.
20. The applicant, the general contractor, site monitor, and Conservation Staff shall meet onsite at the start of the project to review Sediment and Erosion controls and discuss the need for extra measures. Conservation Department to be contacted 48 hours prior to construction commencement.
21. Provide a planting plan, prior to startup of onsite construction, to Conservation Department Staff for the disturbed areas around bridge abutments to ensure slope stabilization and biofiltration.
22. All planting within 20' from the wetland area shall be done by hand. Mulching within this area shall be done with organic leaf mulch. Plantings must be installed prior to the issuance of a CCC.
23. Submittal of the CT DEEP Fisheries Division final sign-off for stream restoration activities is required prior to the issuance of a CCC.

**This is a conditional approval. Each and every condition is an integral part of the Commission decision. Should any of the conditions, on appeal from this decision, be found to be void or of no legal effect, then this conditional approval is likewise void. The applicant may refile another application for review.**

**This approval may be revoked or suspended if the applicant exceeds the conditions or limitations of this approval, or has secured this application through inaccurate information.**

**Motion: Carey      Second: Lobdell**

**Ayes: Carey, Lobdell, Rycenga, Davis, Corroon, Bancroft, Cowherd**

**Nayes: 0      Abstentions:0      Vote: 7:0:0**



## WESTPORT, CONNECTICUT

JAMES S. MARPE  
First Selectman

August 20, 2020

Danielle Dobin, Chair  
Planning & Zoning Commission  
Town of Westport  
110 Myrtle Avenue  
Westport, CT 06880

Re: 8-24 Report Request  
Replacement of the Cavalry Road Bridge (Bridge No. 04964)  
over the West Branch of the Saugatuck River

Dear Ms. Dobin:

In accordance with C.G.S. Section 8-24, Municipal Improvements, I am requesting a report from the Planning & Zoning Commission regarding the proposed replacement of the Cavalry Road Bridge over the West Branch of the Saugatuck River. The work is further described in the attached materials.

Thank you for your consideration.

Very truly yours,



James S. Marpe  
First Selectman

Attachments

cc: Mary Young, Director, Planning & Zoning  
Eileen Lavigne Flug, Esq., Assistant Town Attorney

**MUNICIPAL IMPROVEMENT APPLICATION CGS §8-24**  
WESTPORT PLANNING and ZONING COMMISSION

**CAM SITE PLAN**

*(Check if project is located within Coastal Boundary-see GIS map)*

**Submission Date:** \_\_\_\_\_

1. Property Address N/A. Cavalry Rd Bridge (Br. No. 04964), SE corner of lot for 71 Cavalry Rd.  
*(As listed in the Assessor's records or N/A if not applicable)*
2. Property ID# (9 Digits) N/A. Bridge straddles into Weston. Zone District: AA
3. This property is connected to:  Septic or  Sewer
4. Does this project involve demolition of a building 50+ yrs old or more?  
 No  If Yes = Visit HDC Rm 108, 203-341-1184.
5. Applicant's Name Keith Wilberg, Town Engineer, Westport DPW Daytime Tel # 203-341-1128
6. Zoning Board of Appeals Case # (if any) None.
7. Existing Uses of Property: Roadway Right-of-Way; Roadway Bridge.
8. Describe Proposed Project or Attach a Project Narrative: The project is proposing to remove the existing bridge, which is in disrepair, and to replace it with a new bridge in approximate place and kind. Refer to the attached project description. Note that the bridge straddles into the Town of Weston, and this is a joint project with Weston.
9. This property  Is  Is Not within 500 feet of an adjoining municipality.
10. List your Estimated time needed for your presentation at hearing: 20 minutes.

I hereby certify that the above information is correct and that I have submitted herewith all of the pertinent documentation required by the zoning application.

Keith S. Wilberg 08/20/2020  
Applicant's Signature (If different than owner)

[Signature] 8/20/2020  
Owner's Signature (Must be signed<sup>1</sup>)

<sup>1</sup> If the applicant is unable to obtain the signature of the First Selectman, a letter of authorization signed by the property owner may be submitted instead.



## **WESTPORT, CONNECTICUT**

### **DEPARTMENT OF PUBLIC WORKS**

TOWN HALL, 110 MYRTLE AVENUE  
WESTPORT, CONNECTICUT 06880  
(203) 341 1120 www.westportct.gov

**Date:** 08/20/2020

**Project:** Planning & Zoning CGS 8-24 Application  
Cavalry Road Bridge Replacement (CT DOT Bridge No. 04964)

**Site Location:** Cavalry Road Right-of-Way  
Between 71 Cavalry Road and 21 Crooked Mile Road, Westport  
Bridge straddles Westport/Weston town boundary  
Between 72 West Branch Road and 21 Cavalry Road, Weston

### **Property Use Description:**

The site is within the right-of-way of Cavalry Road, straddling the Westport/Weston Town Boundary, and located between 71 Cavalry Road and 21 Crooked Mile Road in Westport, and between 72 West Branch Road and 21 Cavalry Road in Weston.

The existing use of the site is for the roadway bridge on Cavalry Road that spans the West Branch of the Saugatuck River.

The proposed project will be removing the existing bridge, and constructing a new bridge in approximate place and kind.

The proposed use of the site will be for the new roadway bridge on Cavalry Road spanning the West Branch of the Saugatuck River.

# INLAND WETLAND APPLICATION

CAVALRY ROAD BRIDGE  
OVER  
SAUGATUCK RIVER



TOWN OF WESTPORT

**Table of Contents**

- 1. Application**
- 2. Schedule C – Wetland/Watercourses**
- 3. Schedule D – Waterway Protection Lines**
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- 5. Maps**
- 6. Property Owners**
- 7. Aquifer Protection Areas**
- 8. Fisheries Letter**
- 9. FMC Approval**
- 10. Natural Diversity Data Base Map**
- 11. Wetlands / Watercourses Delineation Report**
- 12. Geotechnical Report**
- 13. Hydraulics Report Excerpts**
- 14. Water Pollution Control Special Provision**
- 15. Permit Plans**

# **1. Application**



**SUBMIT TO:**  
Westport Conservation Department  
Town Hall – Room 205  
110 Myrtle Avenue  
Westport, CT 06880  
Phone: 203-341-1170  
Fax: 203-341-1088

**FOR OFFICE USE ONLY**

File#: \_\_\_\_\_  
Date Filed: \_\_\_\_\_  
Class: \_\_\_\_\_  
Fee: \$ \_\_\_\_\_  
Date Rec'd: \_\_\_\_\_  
 Cash  Check # \_\_\_\_\_  
Final Inspection Y / N  
As-Built Required Y / N

**APPLICATION  
WESTPORT CONSERVATION DEPARTMENT**

PROJECT LOCATION: Cavalry Road Bridge(BRG.#04964) over Saugatuck River (.66 miles west of Weston Road)

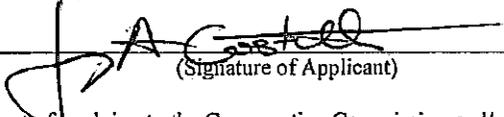
ASSESSOR'S MAP # \_\_\_\_\_ TAX LOT # \_\_\_\_\_ ZONING DISTRICT B16

APPLICANT OR AGENT	NAME	OWNER
<u>WMC Consulting Engineers</u>	<u>Town of Westport</u>	<u>Town of Westport</u>
<u>87 Holmes Rd</u>	<u>ADDRESS</u>	<u>110 Myrtle Ave</u>
<u>Newington, CT 06111</u>		<u>Westport, CT 06880</u>
<u>(860) 667-9624</u>	<u>(H) PHONE (H)</u>	<u>(203) 341-1000</u>
	<u>(W) PHONE (W)</u>	
<u>jcostello@wmcengineers.com</u>	<u>E-MAIL</u>	<u>pratkiewich@westportct.gov</u>

EXISTING CONDITIONS (Describe existing property and structures): Replacement of Cavalry Road Bridge  
over Saugatuck River (BRG.#04964).

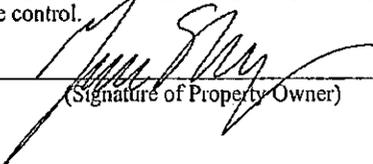
PROJECT DESCRIPTION/PURPOSE (Describe the proposed activity): Replacement of Cavalry Road Bridge  
over Saugatuck River (BRG.#04964). The Bridge is located in both Westport and Weston.

I hereby depose and say that all statements contained herein and all exhibits attached hereto are true and binding to the best of my knowledge:

  
(Signature of Applicant)

01/06/2020  
(Date)

The act of applying to the Conservation Commission and/or Department implies consent to the proposed activity, and grants permission to the Conservation Commission/Department and its agents to inspect the property herein described for the purpose of resource inventory, impact analysis, and compliance investigation at any time beginning on the date of the application filing, and extending through the pendency of any permit issued, or in the event of permit denial, for the purpose of compliance control.

  
(Signature of Property Owner)

January 2, 2020  
(Date)

**FOR DEPARTMENT USE ONLY**

**1. DEPARTMENT FINDINGS:**

After preliminary review by department staff, the following areas, resources and levels of environmental licensure have been identified:

- Wetland(s) / Watercourse(s), section: \_\_\_\_\_  
 Non-regulated Activity       Permit Required       FEE \$ \_\_\_\_\_
- Wetland / Watercourse Setback(s), section: \_\_\_\_\_  
 Non-regulated Activity       Permit Required       FEE \$ \_\_\_\_\_
- Waterway Protection Line(s), section: \_\_\_\_\_  
 Non-regulated Activity       Permit Required       FEE \$ \_\_\_\_\_
- Staff Site Inspection for Determination of Wetland Boundary  
 Administrative Review       Conservation Commission Review       FEE \$ \_\_\_\_\_
- Sediment & Erosion Control Inspection Fee  
 FEE \$ \_\_\_\_\_

**CONSERVATION CERTIFICATE OF COMPLIANCE FEE \$ \_\_\_\_\_**  
**STATE FEE \$ \_\_\_\_\_**  
**NOTICE FEE \$ \_\_\_\_\_**  
**TOTAL FEE DUE \$ \_\_\_\_\_**

The application has been classified as requiring the following ruling:

- DECLARATORY       SUMMARY       PLENARY

Public Hearing of the application by the Conservation Commission:  is not required.  
 is scheduled for \_\_\_\_\_.

Westport/Weston Health District Approval: \_\_\_\_\_ Public Sewer: Yes / No

Engineering Dept. review required: Yes/No      Date Approved \_\_\_\_\_

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**2. REQUEST FOR ADDITIONAL INFORMATION:**

Please submit the information referenced in the attached schedule(s) by 4:00 p.m. on the \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_.

Schedule(s):  A       B       C       D       E       F       G

Other: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**3. RESTRICTION, CONDITIONS AND LIMITATIONS:**

This review is valid for a period of six (6) months from the date of review, shown below, and is subject to the following data/plan(s)/stipulation(s): \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Reviewed by: \_\_\_\_\_ (Conservation Department Staff Signature)      \_\_\_\_\_ (Date)

## **2. Schedule C – Wetland/Watercourses**

# TOWN OF WESTPORT

---

## SCHEDULE C—WETLANDS / WATERCOURSES

APP # \_\_\_\_\_

Due by 4:00 p.m. on \_\_\_\_\_

1. Pursuant to Section 9.6.2 relating to Soil Sample Data – the applicant/agent is to submit copy of a report by a “soil scientist” duly qualified in accordance with standards set by the U.S. Civil Service Commission, showing soil sample data, soil classifications, and a surveyed delineation of wetland soils as flagged by the scientist, including flag numbers (as requested by agency).
2. Pursuant to Section 9.6.3 relating to Biological Evaluations – the applicant/agent is to submit a list and evaluation of the plant and animal life that may be found within, depend upon, or use the wetlands and watercourses (as requested by agency).
3. Describe the anticipated impacts to wetlands and watercourses that may occur as the result of that portion of your proposal that may be located in wetlands, watercourses or their setbacks.

Install temporary cofferdams around the existing pier and abutment as shown in the permit plans (sheet 6). Remove the existing pier, abutment and wingwalls. Install new integral abutments and wingwalls, complete embankment grading and remove all temporary cofferdams.

4. Describe the mitigation that is being proposed as part of your application in order to minimize disturbance and pollution of wetlands and watercourses, maintain or improve water quality, and prevent destruction of or enhance the natural habitats and functions of the wetlands and watercourses.

Disturbance is minimized by reducing the limits of temporary cofferdams and confining impacts to only what is absolutely necessary for the replacement of the existing bridge.

5. List the alternatives to the proposed application that were considered and the reason for their abandonment.

Alternative 2 – Steel Beams with Concrete Deck. Cons to this alternative are:

- 1) Not as cost-effective
- 2) Slightly longer construction duration (9 months) due to the cast-in-place deck slab.

Alternative 3 – Prestressed Beams – Pretensioned Type NEBT - 39. Cons to this alternative are:

- 1) Not as cost-effective
- 2) Least hydraulically efficient alternative (lowest low chord).
- 3) Slightly longer construction duration (9 months) due to the cast-in-place deck slab.

### **3. Schedule D – Waterway Protection Lines**

# TOWN OF WESTPORT

---

SCHEDULE D—WATERWAY PROTECTION LINES

APP# \_\_\_\_\_

Due by 4:00 p.m. on \_\_\_\_\_.

1. Explain/submit information showing why/how the proposed activity as located within Waterway Protection Lines will not cause flooding, drainage, erosion and/or related conditions hazardous to life and property and will not have an adverse impact upon the flood-carrying and water-storage capacity of the town's waterways, including but not limited to the impact upon flood heights, hydrological energy flow, maintenance of essential and natural patterns of water circulation, drainage and basin configuration and maintenance of fresh- and saltwater exchange through the placement of culverts, tide gates or other drainage flood-control structures. (*Sec. 148-8 of the Waterway Protection Line Ordinance*)

The proposed bridge will reduce flooding and increase the hydraulic capacity. See Hydraulic report

2. Explain/submit information showing why/how the proposed activity as located within the Waterway Protection Lines will not cause water pollution, erosion and/or environmentally related hazards to life and property and will not have an adverse impact on the preservation of the natural resources and ecosystems of the waterway, including but not limited to impact on ground or surface water, aquifers, plant and aquatic life, nutrient exchange and supply, thermal energy flow, natural pollution filtration and decomposition, habitat diversity, viability and productivity and natural rates and processes or erosion and sedimentation. (*Sec. 148-9 of the Waterway Protection Line Ordinance*)

The attached permit plans identify E&S and Turbidity Control measures that the Contractor is requi

3. Other:

## **4. Project Description**

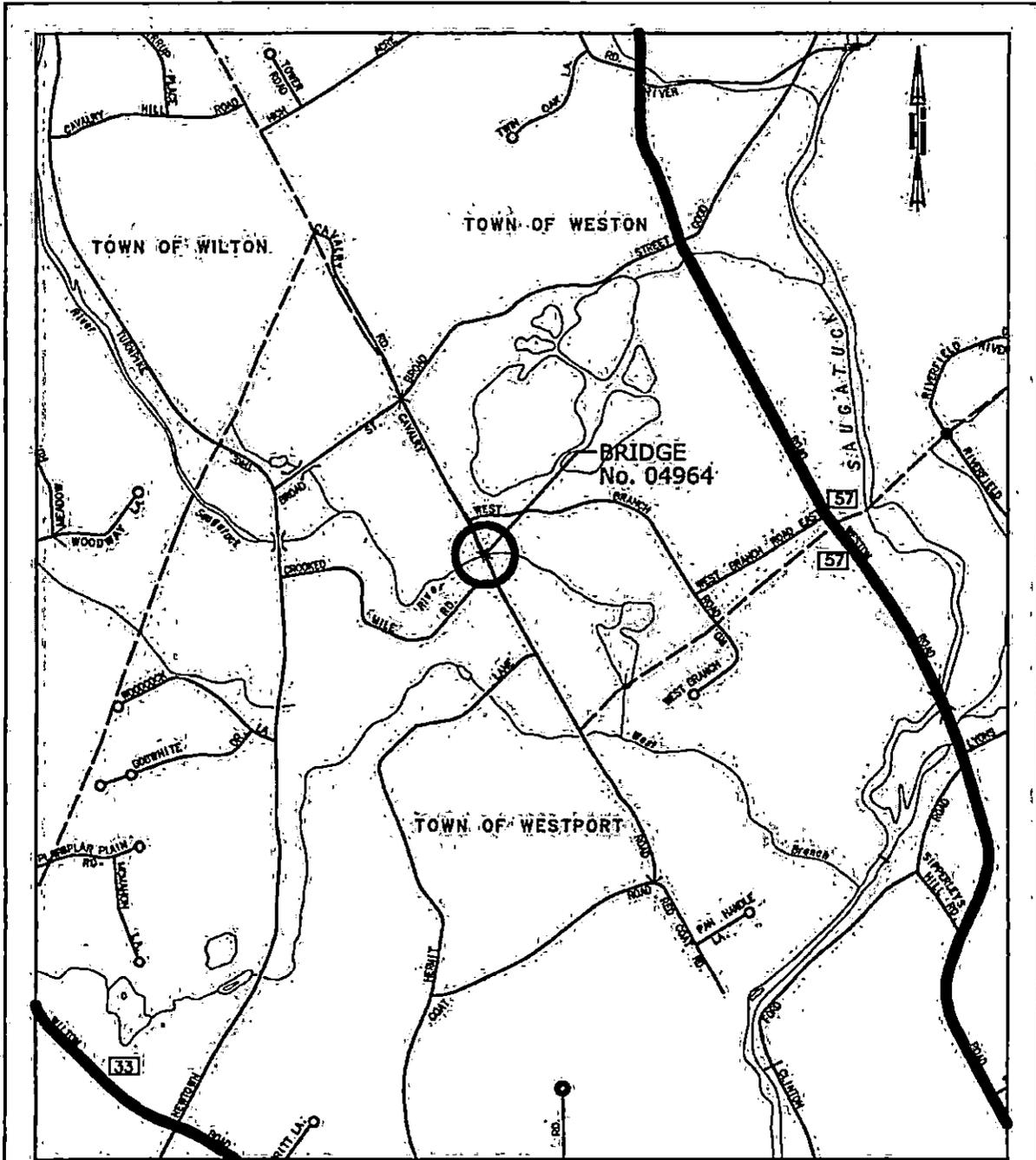
## **PROJECT DESCRIPTION:**

Bridge No. 04964 supports Cavalry Road over the West Branch Saugatuck River and construction was reportedly completed in July 1957. The bridge is located in the southern end of Weston, sitting on the Weston-Westport town line (which runs down the center line of the road/bridge) just north of Crooked Mile Road, about 1 mile north of Route 15 (Merritt Parkway) and 1,500 feet east of Newtown Turnpike. The project is located within 500 feet of another municipality. Cavalry Road generally runs in a north-south direction and in the area of the bridge, is classified as an urban local road serving mostly sparse to moderate residential development. The 2016 Average Daily Traffic on Cavalry Road at the bridge estimated to be 622 vehicles per day with only minor truck traffic.

The existing bridge is a two-span structure consisting of two equal clear spans of 28.5' (abutment face to pier face), a total length of 63 feet, bearing to bearing length of 61.5 and a total clear span between abutments of 60 feet, including the 3 foot wide pier. According the 1956 record drawings, the superstructure consists of eight (8) eighteen (18) inch deep prestressed concrete deck units; the 6 inner units being 36" wide and the two fascia units 40" wide. The substructure is composed of reinforced concrete abutments and a center pier, all of which are supported on soil. Running generally west to east, the main channel of the river runs under the north span while the area under the south span is graded relatively flat about 5' above the main channel. The curb-to-curb width is 22-feet with no shoulders, which is 2 feet wider than the reported approach roadway width, and the total width out-to-out is 25.5 feet. There is a 4" gas main attached to the fascia of the west (upstream) curb/rail base and Aquarion Water Company documents indicate an existing 24" C.I. water main under the streambed just east (downstream) of the existing bridge, as well as a new 8" water main to be installed in 2017.

The proposed replacement bridge crossing will have a single span 72-foot clear opening perpendicular to the direction of flow. The new structure will consist of Precast Concrete NEXT Beams, supported on integral abutments with micropiles founded on bedrock. The width of the proposed structure will be increased, from the existing approximately 25.5 feet, to accommodate two 10-foot lanes and 2-foot shoulders. The total width (out-to-out) of the proposed structure, with open rail parapets, will be approximately 28 feet. The profile of the roadway will be elevated through the crossing area however the low point in the roadway will remain unchanged. Anticipated project sequences can be found in Permit Plans (Sheet 6).

## **5. Maps**



SCALE IN. FEET



STATE PROJECT NO.: 157-85

CITY/TOWN:  
WESTON/WESTPORT

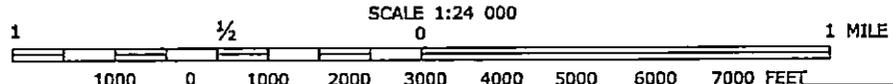
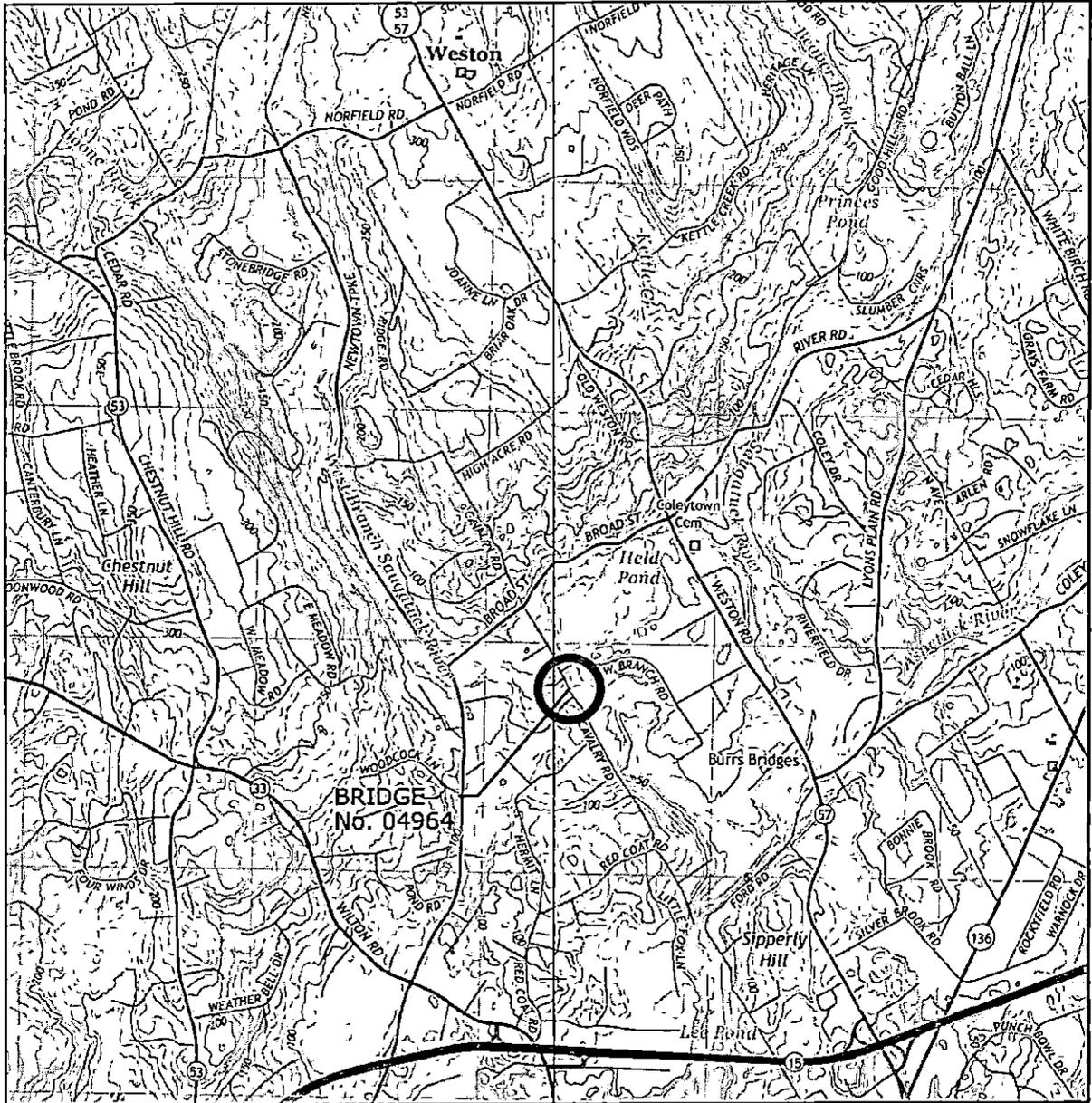


STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION

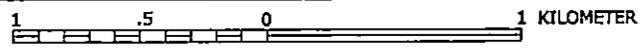


FEDERAL LOCAL BRIDGE PROGRAM  
Reconstruction of Bridge No. 04964  
Cavalry Road over WB Saugatuck River

DATE: MAY 2018



QUADRANGLE NO.  
**107-108**



**NORWALK N. & WESTPORT CT 2015**

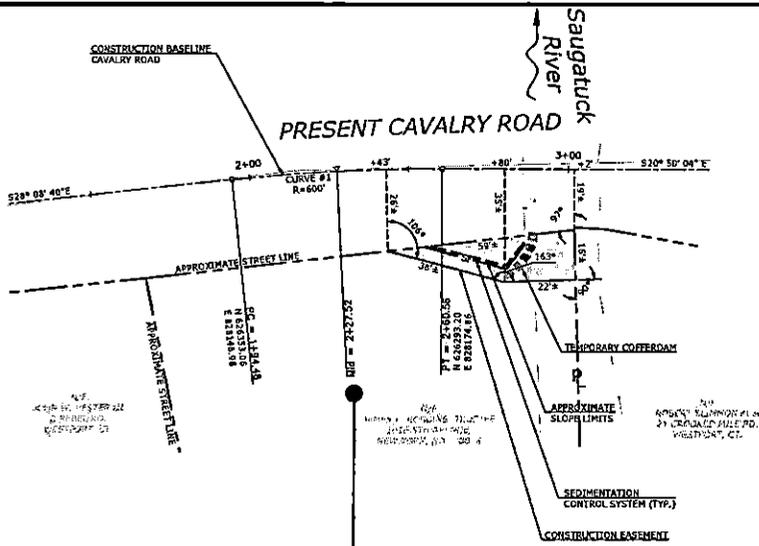
STATE PROJECT NO.: 157-85  
COUNTY: FAIRFIELD  
CITY/TOWN: WESTON/WESTPORT

APPLICATION BY:  
**STATE OF CONNECTICUT**  
DEPARTMENT OF TRANSPORTATION

**FEDERAL LOCAL BRIDGE PROGRAM**  
Reconstruction of Bridge No. 04964  
Cavalry Road over WB Saugatuck River

DATE: MAY 2018

## **6. Property Owners**



**NOTES:**

1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300B-1 THROUGH 20-300B-20 OF THE REGULATIONS OF CONNECTICUT'S DEPT. OF CONSUMER PROTECTION "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1994. PROPERTY BOUNDARY DATA BASED ON A DEPENDENT RESURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS 0.
2. THE FEATURES DEPICTED HEREON ARE THE RESULT OF THE GENERAL LOCATION SURVEY FOR THE PROJECT, OR AS MAY BE REFERENCED HEREON.
3. THE PROPERTY AND STREET LINES DEPICTED HAVE BEEN COMPILED FROM VARIOUS SOURCES AND ARE NOT TO BE CONSTRUED AS NECESSARILY BEING OBTAINED AS THE RESULT OF A FIELD SURVEY, NOR DO THEY REPRESENT A PROPERTY/BOUNDARY OPINION.
4. THIS SURVEY IS NOT VALID WITHOUT A LIVE SIGNATURE AND EMBOSSED SEAL.
5. THE CONSTRUCTION EASEMENT DEPICTED HEREON WILL BE FORMALY EXTINGUISHED BY AN AFFIDAVIT WHICH WILL BE FILED IN THE PUBLIC LAND RECORDS.

**SURVEY NOTES:**

HORIZONTAL DATUM: NAD83  
 HORIZONTAL ACCURACY: CLASS A-2  
 VERTICAL DATUM IS: NAVD83  
 VERTICAL ACCURACY: CLASS T-2

DRAWN BY	SAM	DATE	12/12/16
CHECKED BY	KOC	DATE	
REVISED BY		DATE	
REVISED BY		DATE	

DATE	REVISION	REV. BY

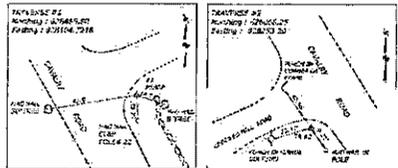
**JAMES P. ROBBINS, TRUSTEE**

CONSTRUCTION EASEMENT FOR THE PURPOSE OF CONSTRUCTION OF BRIDGE NO. 04964 CAVALRY ROAD OVER SAUGATUCK RIVER ACQUIRED. TO EXCAVATE RIVER CHANNEL, REMOVE, USE OR RETAIN EXCAVATED MATERIAL ACQUIRED. TO INCLUDE TEMPORARY CONSTRUCTION ACCESS, TEMPORARY SITUATION CONTROL SYSTEM, TEMPORARY COFFERDAMS, TEMPORARY STORAGE OF MATERIALS, TEMPORARY UTILITY LOCATION AND PLACEMENT OF EQUIPMENT. EASEMENT TAKEN UNDER THIS PARAGRAPH WILL BE RESTORED BY GRADING OR SEEDING ANY DISTURBED AREAS. SAID EASEMENT WILL BE EXTINGUISHED UPON COMPLETION OF THE PROJECT, UNLESS SOONER EXTINGUISHED BY THE STATE.  
 EASEMENT AREA = 576± S.F.

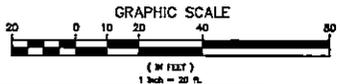
CURVE DATA	
CURVE # 1	
PT N	828102.56
PT E	828323.59
L	66.07
Δ	06°18'36"
R	600.00
T	33.67

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

TOWN NO. 157  
 PROJECT NO. 157-R5  
 SERIAL NO. 2  
 SHEET 1 OF 1



**SURVEY TIES**  
 SCALE: NTS



**RIGHT OF WAY SURVEY**  
 TOWN OF WESTON  
 MAP SHOWING EASEMENT ACQUIRED FROM  
**JAMES P. ROBBINS, TRUSTEE**  
 BY  
 THE STATE OF CONNECTICUT  
 DEPARTMENT OF TRANSPORTATION  
 REPLACEMENT OF BRIDGE NO. 04964  
 CAVALRY ROAD BRIDGE OVER SAUGATUCK RIVER  
 SCALE: 1"=20'  
 MARI D. BOLTE, P.E. DECEMBER, 2019  
 CHIEF ENGINEER - BUREAU OF ENGINEERING AND CONSTRUCTION

## **7. Aquifer Protection Areas**

# AQUIFER PROTECTION AREAS

Weston, CT

August 26, 2019

-  Level A APA (Final Adopted)
-  Level A APA (Final)
-  Level B APA (Preliminary)
-  Town Boundary

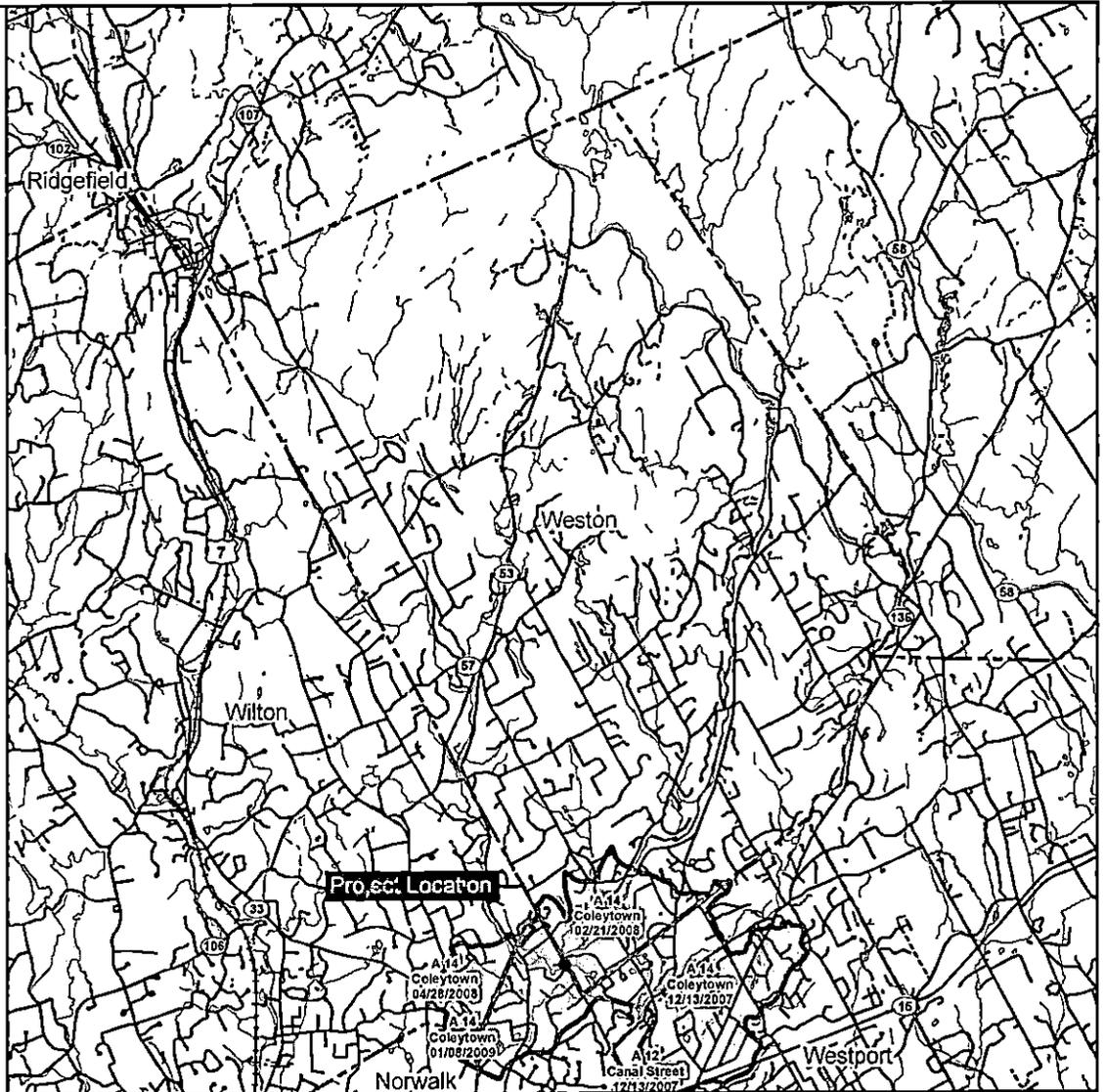
**NOTE:** The Aquifer Protection Areas were delineated through Connecticut's Level A and Level B Mapping Processes. Aquifer Protection Areas are delineated for active public water supply wells in stratified drift that serve more than 1000 people, in accordance with Sections 22a-354c and 22a-354z of the Connecticut General Statutes. Level B Mapping delineates a preliminary aquifer protection area, providing an estimate of the land area from which the well draws its water. Level A Mapping delineates the final Aquifer Protection Area, which becomes the regulatory boundary for land use controls designed to protect the well from contamination. As Level A Mapping is completed for each well field and approved by DEEP, it replaces the Level B Mapping. Final Adopted Level A Areas are those where towns have land use regulations for them. Massachusetts and Rhode Island Wellhead Protection Areas may be shown for informational purposes.

**QUESTIONS:**

Bureau of Water Protection and Land Reuse  
 Planning and Standards Division  
 Phone: (860) 424-3020  
[www.ct.gov/deep/aquiferprotection](http://www.ct.gov/deep/aquiferprotection)



STATE OF CONNECTICUT  
 DEPARTMENT OF  
 ENERGY & ENVIRONMENTAL PROTECTION  
 79 Elm Street  
 Hartford, CT 06106-5127



## **8. Fisheries Letter**



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**TO:** Michael Salter, Office of Environmental Planning, DOT

**FROM:** Bruce Williams, DEEP - Fisheries Division

**DATE:** July 18, 2017

**SUBJECT:** Preliminary Fisheries Review – DOT Project 157-TBD

---

**Type of Permit:**

- 1. **DOT Culvert/Bridge Projects Project#: 157-TDB Bridge#: 04964**
- 2. **Diversion**
- 3. **PGP/Inland Wetland**
- 4. **Water Quality Certification**

**Applicant:** Connecticut Department of Transportation

**State P.E. Project #:**

**Town:** Westport/Weston

**Waters:** West Branch Saugatuck River

**Sub Regional Basin #:** 7203

**Project Scope:** The existing Cavalry Road Bridge is scour critical and structurally deficient with severe leaks and cracks in the superstructure. The proposed rehabilitation includes a full bridge replacement. To alleviate scour potential DOT has proposed changing the design from the existing double span to a single span precast concrete deck supported by cast-in-place abutments and wingwalls. Enclosed are my preliminary comments.

**Fisheries Resources:** The Fisheries Division annually stocks a combined total of approximately 800 adult Brown Trout, Brook Trout, and Rainbow Trout in the West Branch Saugatuck River. In addition to stocked trout, the Fisheries Division has documented the presence of wild Brown Trout. Other documented fish species include American Eel, Cutlips Minnow, Creek Chub, Common Shiner, Golden Shiner, Blacknose Dace, Longnose Dace, Tessellated Darter, Bluegill, Pumpkinseed, Green Sunfish, Redbreast Sunfish, Brown Bullhead, Chain Pickerel, and White Sucker.

**Comments/Recommendations:**

1. Existing onsite conditions do not restrict fish passage, but the proposed single span bridge is preferable for fish passage and flood control to the existing double span.
2. To protect downstream fish habitat, turbidity control curtains should be maintained during construction and sedimentation controls should be maintained at the toe of the slope of all

disturbed areas until the project is completed and all disturbed areas are restored with native vegetation.

3. When the existing two-span bridge is replaced with a single span, the center pier should be cut and removed no less than one foot below grade.
4. To compensate for habitat loss, a cluster of three boulder should be placed mid-channel directly upstream and downstream of the bridge.
5. If riprap is used, efforts should be made to minimize the amount of area covered and all riprap should be covered with natural streambed material.
6. As a best management practice, any “unconfined” instream work should be restricted to the period from June 1 to September 30, inclusive. A June 1 through September 30 timeframe can be utilized as an effective mitigation measure for construction related disturbances due to the following reasons: (1) timeframe will serve to protect the spawning, egg incubation, and fry development of resident fishes, (2) timeframe does not interfere with seasonal migratory behaviors, and (3) timeframe coincides with historic low rainfall levels in Connecticut a period in which instream construction activities such as dewatering, excavation, trenching, and cofferdam placement are most effective.

CC. Steve Gephard

## **9. FMC Approval**



**STATE OF CONNECTICUT**  
DEPARTMENT OF TRANSPORTATION



2800 BERLIN TURNPIKE, P.O. BOX 317546  
NEWINGTON, CONNECTICUT 06131-7546

July 15, 2020

Mr. Chris Spaulding  
First Selectman  
Town of Weston  
Weston Town Hall  
PO Box 1007  
56 Norfield Road  
Weston, CT 06883

Dear Mr. Spaulding:

**Subject:** Flood Management Certification  
Local Bridge Program Project No. 0157-0085  
Reconstruction of Bridge No. 04964  
Cavalry Road over West Branch of Saugatuck River  
Town of Weston

In accordance with the Memorandum of Understanding between the Connecticut Department of Transportation (Department) and the Connecticut Department of Energy and Environmental Protection (DEEP) regarding flood management certifications for municipal projects, the Department has completed the review of the flood management certification prepared and submitted for the Town of Weston for the subject project, which states that the proposed activity is consistent with all applicable standards and criteria established in Section 25-68d(b) of the Connecticut General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

The project consists of the replacement of Bridge No. 04964, Cavalry Road over West Branch of Saugatuck River in Weston, as shown on the project plans, dated January 23, 2020, and as documented in the Final Hydraulic Design Report and Floodway Report, both Dated January 17, 2020. A portion of the project is located within the 100-year flood zone of the West Branch of the Saugatuck River.

The certification is complete and approved, subject to the following Standard and Special Conditions:

Standard Conditions:

1. Time of Year Restriction on In-water Construction
  - a. Between September 30 and May 31 the municipality shall not place fill, excavate material, or conduct any other construction activity in any watercourse unless such

activity is confined by a cofferdam or other device which isolates such activity from the watercourse, unless the DEEP Inland Fisheries Division has given written authorization otherwise.

- b. The municipality shall not place fill, excavate material, or conduct any other activity in any watercourse stocked with fish by the commissioner or any other person, or in any tributary to such watercourse, from 12:01 a.m. on the Monday preceding the third Saturday in April through 12:00 midnight on the Sunday preceding the fourth Saturday in April.
- c. The municipality shall not place fill, excavate material or conduct any other construction activity in or adjacent to any watercourse, which activity may adversely affect anadromous fish, during the time period when anadromous fish are known or reasonably believed to be migrating in the watercourse.

## 2. Pollution Prevention/Best Management Practices

The municipality shall not cause or allow the authorized activity, including any construction associated therewith, to result in pollution or other environmental damage and shall employ best management practices to prevent such damage. The municipality shall, in addition to employing any other best management practices necessary to prevent such damage, do the following:

### a. Controlling Erosion

The municipality shall install and maintain in optimal condition erosion and sedimentation controls to prevent erosion and discharge of material into any waters of the state, including wetlands, as a result of the authorized activity or any construction associated therewith. Such controls shall be installed and maintained in conformity with the *Connecticut Guidelines for Soil Erosion and Sediment Control*, as revised, published by the Connecticut Council on Soil and Water Conservation pursuant to Section 22a-328 of the Connecticut General Statutes.

### b. Proper Disposal of Material

All material and solid waste generated during any construction associated with such activity shall be disposed of in accordance with applicable federal, state and local law.

3. Storage of equipment/material within the flood plain should be avoided but, if absolutely necessary, the municipality will require the contractor to remove equipment and materials from the 100-year flood plain during periods when flood warnings have been issued or are anticipated by a responsible federal, state or local agency. It shall be the contractor's responsibility to be knowledgeable of such warnings when flooding is anticipated.
4. Work shall not be conducted in or adjacent to watercourses and reservoirs used as public drinking water supply sources without coordination with the water supply utility and Department of Public Health.
5. All temporary structures, cofferdams, and fill shall not impede the movement of flood flows and shall be removed at the completion of their use. The design of such temporary

structures, cofferdams and fill shall be based on the DOT Drainage Manual, where applicable. Sheet piling that is cut one foot below existing grade shall be considered removed.

6. All fill shall be clean material, free of stumps, rubbish, hazardous, and toxic material.
7. Once work is initiated, it shall proceed rapidly and steadily until completed and stabilized in order to minimize use of temporary structures and to minimize soil erosion.

Special Conditions:

1. When conducting boulder cluster placement, channel grading, and placing natural streambed material please contact the following DEEP personnel ten days before the start of work, Matt Goclowski at 860-424-3926, [matthew.goclowski@ct.gov](mailto:matthew.goclowski@ct.gov) or Steve Gephard at 860-447-4316 or [steve.gephard@ct.gov](mailto:steve.gephard@ct.gov)

A copy of the completed certification forms are enclosed for your records. No revisions or alterations to the approved plans are allowed without obtaining written approval from the Department of such alterations.

This letter and certification forms must be attached to any subsequent permit applications for the municipal project that are submitted to the DEEP or the U.S. Army Corps of Engineers.

If there are any questions, please contact Mr. Michael E. Hogan, Transportation Principal Engineer, of the Hydraulics and Drainage Section, at [michael.hogan@ct.gov](mailto:michael.hogan@ct.gov).

Very truly yours,



Theodore H. Nezames, P.E.  
2020.07.16 09:26:45-04'00'

Theodore H. Nezames  
Engineering Administrator  
Bureau of Engineering and Construction

Enclosure

Cc: Mr. Jeff Caiola, DEEP



**Statewide Flood Management Certification for  
Federally and State Funded Municipal Projects**

**Attachment A: DOT**

**A-1: Engineering Certification**

Name of Subject Facility and DOT Project Number:

**Replacement of Bridge No. 04964  
Cavalry Road over West Branch Saugatuck River, Weston/Westport, CT  
State Project No. 157-85**

Name of floodplain and watercourse:

**West Branch Saugatuck River**

I hereby certify, in reliance on the Municipal Official Certification, the Town Engineer / Consultant-Professional Certification, the DOT Hydraulics and Drainage Section and the DOT Environmental Planning reviews, that the above referenced project qualifies for the DEP Commissioner's approval pursuant to Section 25-68d of the General Statutes, and that the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

Signature:  \_\_\_\_\_

Theodore H. Nezames, P.E.  
2020.07.16 09:27:18-04'00'

\_\_\_\_\_ Date

Print/Type:           Theodore H. Nezames            
                  Transportation Engineering Administrator  
                  Bureau of Engineering and Construction

**Statewide Flood Management Certification for  
Federally and State Funded Municipal Projects**

**Attachment A: DOT**

**DOT Project No. 157-85**

**A-2: Hydraulics and Drainage Section Review**

Based on my review and reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

Signature: Michael E. Hogan Digitally signed by Michael E. Hogan  
Date: 2020.07.14 09:31:17-04'00'

\_\_\_\_\_ Date

Print/Type: Michael E. Hogan  
Transportation Principal Engineer  
Hydraulics and Drainage Section

**A-3: Environmental Planning Review**

Based on my review and reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the proposed activity described in this application is consistent with all applicable standards found in the 2004 Connecticut Stormwater Manual, 2002 Erosion and Sedimentation Control Guidelines (as amended) and that there has been proper coordination with the Inland Fisheries Division and the Natural Diversity Database.

Signature: Andrew Davis Digitally signed by Andrew Davis  
Date: 2020.07.14 08:29:09 -04'00'

\_\_\_\_\_ Date

Print/Type: Andrew H. Davis  
Transportation Supervising Planner  
Office of Environmental Planning

Statewide Flood Management Certification for  
Federally and State Funded Municipal Projects

Attachment B: Municipality

**B-1: Municipal Official Certification**

Name of Applicant / Municipality: Town of Weston

DOT Project No.: 157-85

Description of Proposed Project: Replacement of Bridge No. 04964

1. The recipient of federal and/or state funding will be:

Name: Chris Spaulding, First Selectman

Mailing Address: 56 Norfield Road

City/Town: Weston

State: CT Zip Code: 06883

Phone: (203) 222-2656

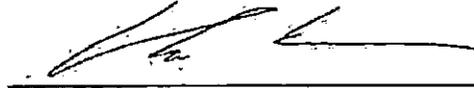
ext.

Fax: (203) 222-8871

Based on my review and reasonable investigation, including my inquiry of those individuals responsible for preparing the information, the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

I understand that a false statement made in the submitted information may, pursuant to Section 22a-6 of the General Statutes, be punishable as a criminal offense under Section 53a-157b of the General Statutes, and may also be punishable under Section 22a-438 of the General Statutes.

Signature: \_\_\_\_\_



4-28-20

Date

Print/Type: \_\_\_\_\_

Chris Spaulding  
First Selectman

Statewide Flood Management Certification for  
Federally and State Funded Municipal Projects

Attachment B: Municipality

**B-2: Town Engineer / Consultant - Professional Certification**

DOT Project No.: 157-85

Description of Proposed Project: Replacement of Bridge No. 04964

Plan Dated and Revised Through: April 2020

Hydrologic and Hydraulic Study Dated: April 2020

I hereby certify that the prepared information and the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

I understand that a false statement made in the submitted information may, pursuant to Section 22a-6 of the General Statutes, be punishable as a criminal offense under Section 53a-157b of the General Statutes, and may also be punishable under Section 22a-438 of the General Statutes.

Signature:

Jay A. Costello

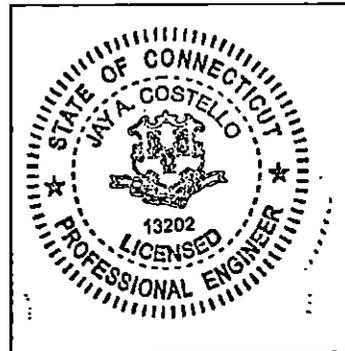
04/27/2020  
Date

Print/Type:

Jay A. Costello, P.E.

Professional Engineer

P.E. Number: 13202



Affix P.E. Stamp Here

## **10. Natural Diversity Data Base Map**

# Natural Diversity Data Base Areas

WESTON, CT

June 2016

 State and Federal Listed Species  
& Significant Natural Communities

 Town Boundary

NOTE: This map shows general locations of State and Federal Listed Species and Significant Natural Communities. Information on listed species is collected and compiled by the Natural Diversity Data Base (NDDB) from a number of data sources. Exact locations of species have been buffered to produce the general locations. Exact locations of species and communities occur somewhere in the shaded areas, not necessarily in the center. A new mapping format is being employed that more accurately models important riparian and aquatic areas and eliminates the need for the upstream/downstream searches required in previous versions.

This map is intended for use as a preliminary screening tool for conducting a Natural Diversity Data Base Review Request. To use the map, locate the project boundaries and any additional affected areas. If the project is within a shaded area there may be a potential conflict with a listed species. For more information, complete a Request for Natural Diversity Data Base State Listed Species Review form (DEP-APP-007), and submit it to the NDDB along with the required maps and information. More detailed instructions are provided with the request form on our website.

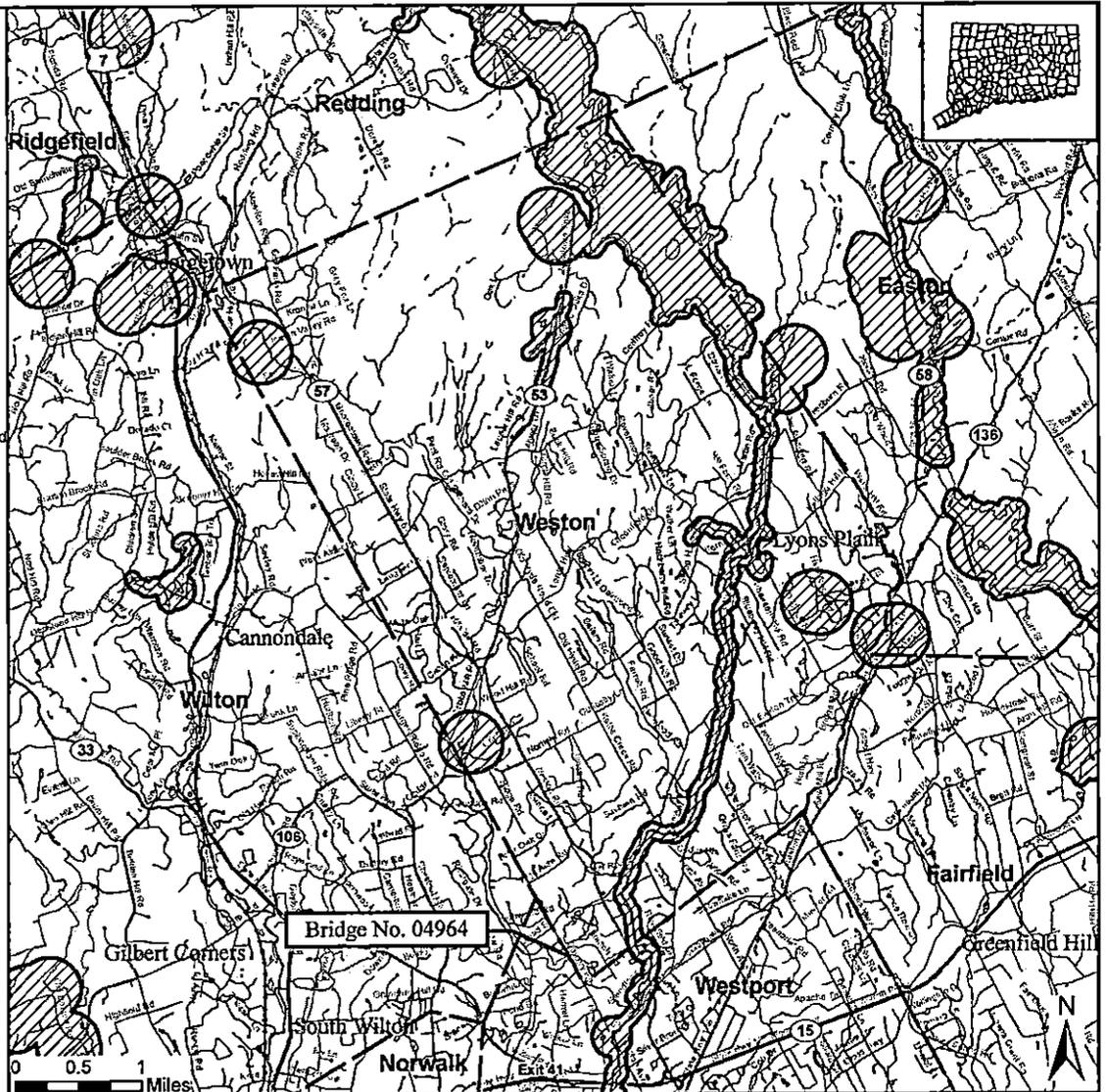
[www.ct.gov/deep/nddbrequest](http://www.ct.gov/deep/nddbrequest)

Use the CTECO Interactive Map Viewers at [www.cteco.uconn.edu](http://www.cteco.uconn.edu) to more precisely search for and locate a site and to view aerial imagery with NDDB Areas.

QUESTIONS: Department of Energy and Environmental Protection (DEEP)  
79 Elm St., Hartford CT 06106  
Phone (860) 424-3011



Connecticut Department of  
Energy & Environmental Protection  
Bureau of Natural Resources  
Wildlife Division



## **11. Wetlands / Watercourses Delineation Report**



10 Maple Street  
Chester, CT 06412  
860-803-0938  
www.davisonenvironmental.com

Biodiversity Studies • Wetland Delineation & Assessment • Habitat Management • GIS Mapping • Permitting • Forestry

### WETLANDS / WATERCOURSES DELINEATION REPORT

Date of Work: 5/14/2018

Client:  
Kimberly Clarke

Project Location: Calvary Rd Bridge, Weston, CT

Eolas Environmental, LLC  
Southbury, CT 06488

#### IDENTIFICATION OF WETLANDS AND WATERCOURSES RESOURCES

Wetlands and watercourses present on property? Yes  No

Wetlands:

Inland Wetlands   
Tidal Wetlands

Watercourses:

Perennial Streams   
Intermittent Watercourses

Identification Method:

Auger and Spade   
Backhoe Pits

Numbering Sequences:

1-8  
9-13  
14-19  
20-26

Wetland Plant Communities Present:

Forest   
Sapling/Shrub   
Wet Meadow   
Marsh   
Upland/Streamside

#### Definitions and methodology for identification of state & federal regulated wetlands & watercourses

State wetlands were delineated according to the requirements of the CT Inland Wetlands and Watercourses Act (P.A. 155). Public Act 155 defines wetlands as areas of poorly drained, very poorly drained, floodplain, and alluvial soils, as delineated by a soil scientist. Watercourses are defined as bogs, swamps, or marshes, as well as lakes, ponds, rivers, streams, etc., whether natural or man-made, permanent or intermittent.

Federal wetlands were delineated in accordance with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0, January 2012). According to this method, three parameters must be satisfied for an area to be mapped as a wetland. These are wetland soils, hydrophytic vegetation, and wetland hydrology.

WETLAND SOIL TYPES

No wetland soils are present in the work area. There is an abrupt transition from the riverbank to the adjacent uplands. No alluvial or floodplain soils are present.

NON-WETLAND SOILS

The non-wetland soils were not examined in detail, except as was necessary to determine the wetland boundary. Non-wetland soils consist of Hinckley as well as Udorthents. The Hinckley series consists of very deep, excessively drained soils formed in water-sorted material (outwash). They are nearly level to very steep soils on terraces, outwash plains, deltas, kames, and eskers. The soils in this series are shallow to sand and gravel (12 to 30 inches).

Udorthents is a miscellaneous land type used to denote moderately well to excessively drained earthen material which has been so disturbed by cutting, filling, or grading that the original soil profile can no longer be discerned.

NOTES:

The wetlands and watercourses were delineated within the vicinity of the proposed bridge replacement. The limits of Connecticut and federal wetlands are identical at this site and consist of the ordinary high-water mark of the West Branch Saugatuck River. No bordering wetlands are present.

The ordinary high water mark was determined using typical indicators, including the presence of scoured leaf litter and matted vegetation, wrack deposits; and an observable water line on the riverbank.

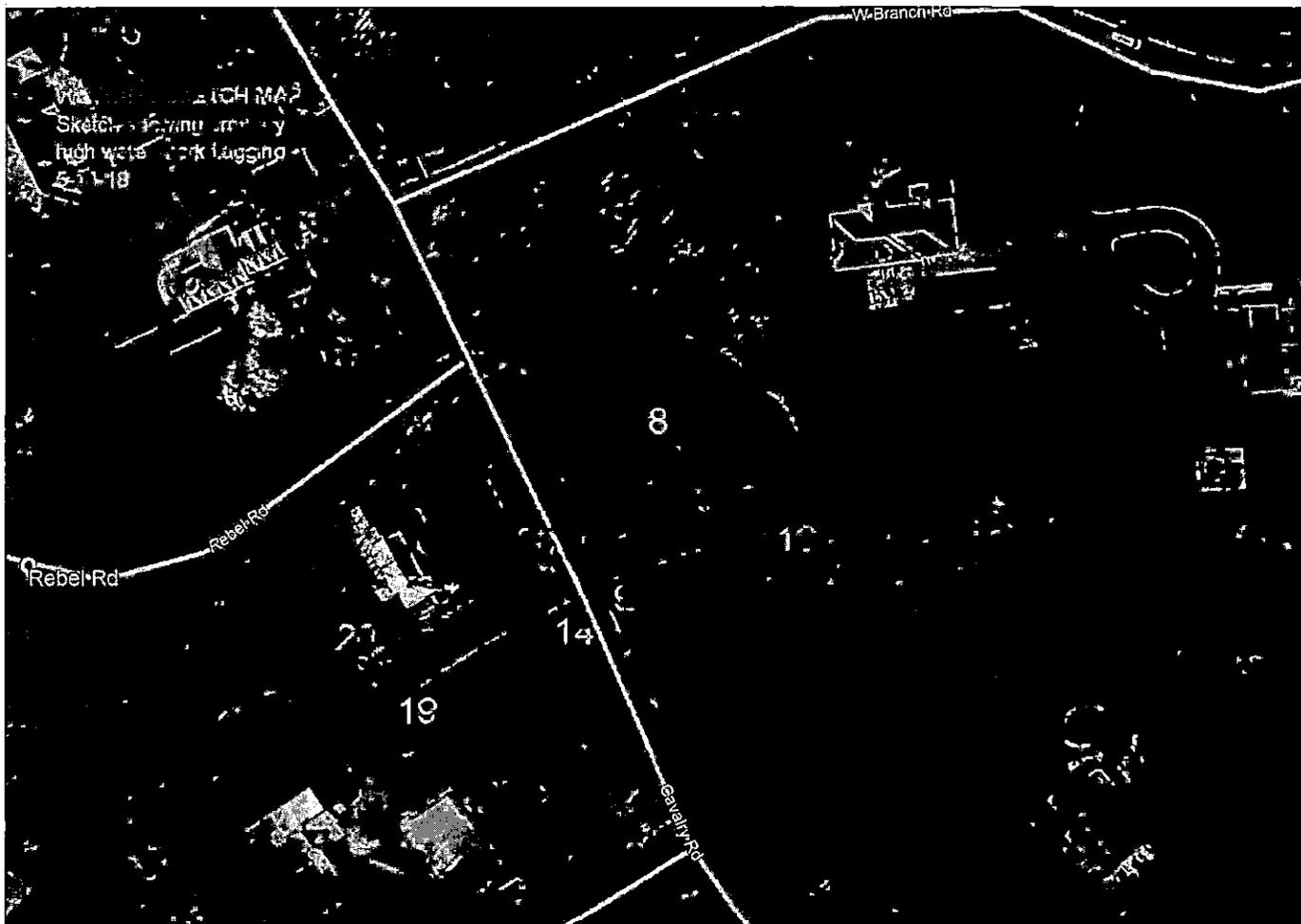
A sketch map denoting the flagging sequences utilized in the field along with site photographs, are attached.



Eric Davison  
*Certified Professional Wetland Scientist*  
*Registered Soil Scientist*

Attachment: (1) wetland sketch map  
(2) Site photographs

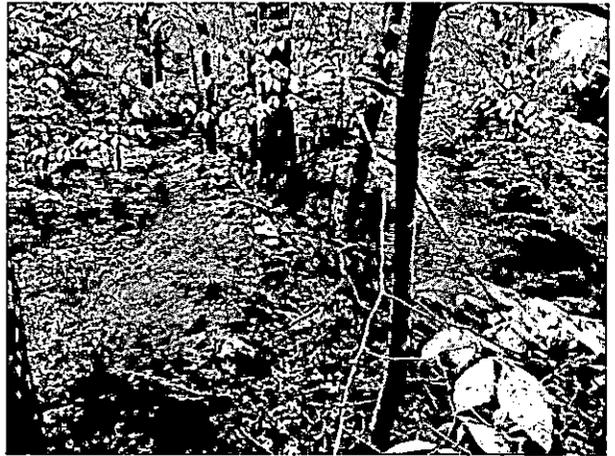
DELINEATION SKETCH MAP



SITE PHOTOGRAPHS



*East Side OF Bridge*



*West Side of Bridge*



## **12. Geotechnical Report**

# **GEOTECHNICAL ENGINEERING REPORT**

---

## **Replacement of Cavalry Road Bridge (04964) Over the West Branch of Saugatuck River**

Town of Weston, Connecticut  
October 17, 2018

**Prepared for:**

Wengell, McDonnell & Costello Consulting Engineers  
87 Holmes Road, Newington, Connecticut, 0611

**Prepared by:**

**Dulles Geotechnical and Materials Testing Services, Inc. (DGMTS)**  
14155 Sullyfield Circle, Suite H, Chantilly, Virginia 20151



A Certified SWam and MBE/DBE Firm

---

Safety

Reliability

Innovation

Collaboration

Integrity

Replacement of Cavalry Road Bridge (04964) Over the West Branch of Saugatuck River  
Project No: 18024  
October 17, 2018

**October 17, 2018**

Wengell, McDonnell & Costello Consulting Engineers  
Attn: Mr. Keegan Elder  
Address: 87 Holmes Road, Newington, Connecticut, 0611

**Reference:** Geotechnical Engineering Report  
Replacement of Cavalry Road Bridge (04964) Over the West Branch of Saugatuck River  
Town of Weston, Connecticut  
Project No: 18024

Dear Mr. Keegan Elder:

Dulles Geotechnical and Materials Testing Services, Inc. (DGMTS) is pleased to submit this Geotechnical Engineering Report (GER) for Replacement of Cavalry Road Bridge (04964) Over the West Branch of Saugatuck River project. This report presents the findings of the field exploration, laboratory and field testing programs, and provides our geotechnical recommendations related to this project.

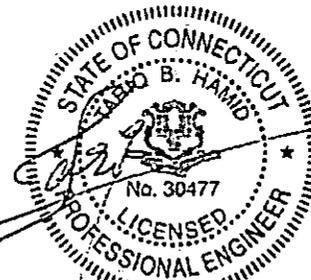
We appreciate the opportunity of providing our services for this project. Please contact the undersigned if you have any questions regarding this report.

Sincerely,

Dulles Geotechnical and Materials Testing Services, Inc. (DGMTS)  
A Certified SWam and MBE/DBE Firm



Zichang Zhang, EIT  
Project Engineer



Tariq Bin Hamid, Ph.D. PE  
Senior Principal

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**Appendix A: Figures**

**Appendix B: Subsurface Investigation**

**Appendix C: Laboratory Tests**

**Appendix D: Seismic Report**

**Appendix E: Engineering Analysis**

## 1. Project Overview

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This report presents the results of DGMTS' geotechnical study for the proposed Replacement of Cavalry Road Bridge (04964) Over the West Branch of Saugatuck River project. The scope of work for this geotechnical study included:

- Perform site visit to assess the existing site conditions;
- Preparation of boring layout plan for the project development
- Provide oversight and on-site inspection during boring operations;
- Bring all soil samples to DGMTS laboratory for review and testing;
- Prepare final boring logs;
- Prepare and submit a geotechnical report for the subject project detailing the subsurface conditions at the site and recommendations for design, including the types of foundation that will be suitable at the site.

## 2. Project Description

---

The project site is located just north of intersection of Cavalry Road and Crooked Mile Road in the Town of Weston, Connecticut. A site location map is presented as Figure A-1 in Appendix A. The project location is between Rebel Road and Crooked Mile Road with intersection to Cavalry Road, as shown in Figure 2-1. The Cavalry Road is a two-lane road with one lane in each direction. The existing Cavalry Road Bridge over the West Branch of Saugatuck River is a two-span bridge. The elevation of Cavalry Road within the project vicinity ranges between elevation (EL) 68 feet and (EL) 68.5 feet.

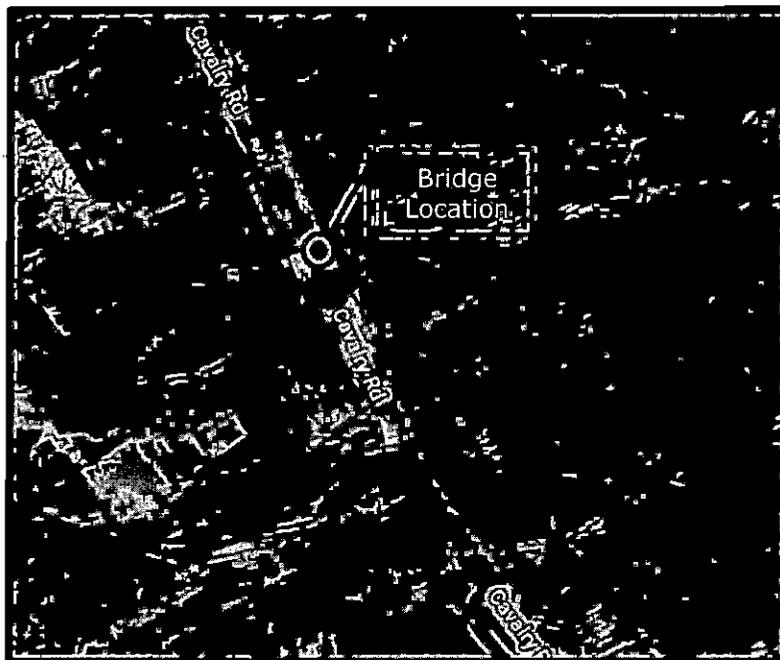


Figure 2-1: Site Location

The proposed bridge is single span with a clear span length of about 72 feet and total width of about 32.0 feet from out to out. The bottom elevation of the abutment will be at about elevation (EL) 58.0'. The bridge alternative plan is shown below in Figure 2-2.

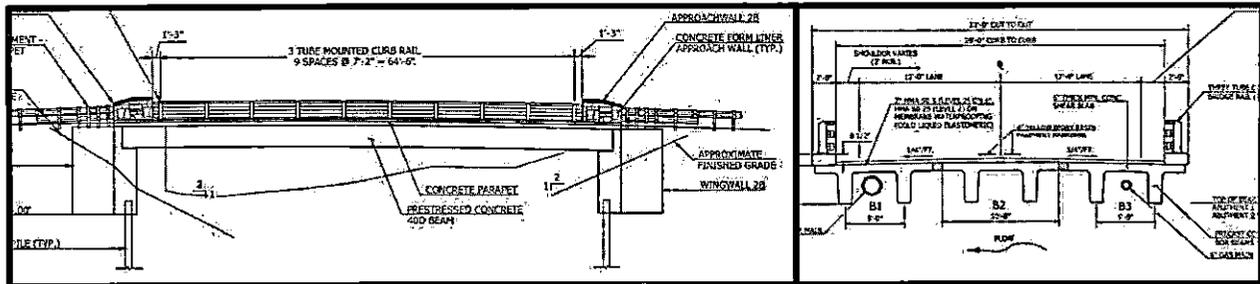


Figure 2-2: Proposed Bridge

### 3. Geotechnical Subsurface Exploration

Geotechnical subsurface exploration program consisted of drilling of four soil test boring. The subsurface exploration was conducted between May 21, 2018 and May 24, 2018.

Test boring was staked by DGMTS representative in the field. Boring location plan (Figure B-1) is attached in Appendix B. Test boring was drilled using Hollow Stem Auger (HSA) rig mounted on a truck. The soil boring was drilled by Associated Borings Co. Inc. Samples were obtained using standard split spoon sampler. A representative of DGMTS was present during the drilling. DGMTS representative brought the soil samples to DGMTS laboratory.

Selected soil samples were assigned for laboratory testing for soil classification purposes. The laboratory testing program was comprised of determining the moisture content, grain size distribution, and Atterberg limits of selected soil samples. The testing was conducted to analyze the suitability of on-site soils as foundation materials and in earthwork. Testing was generally performed according to American Society for Testing and Materials (ASTM) standards.

Test boring logs and the laboratory test results are presented in Appendices B and C, respectively, of this report. Test Boring Logs presented in Appendix B, provide details related to the subsurface conditions encountered in the borings. The stratification lines shown on the test boring log represents approximate transitions between material types. In situ, strata changes could occur gradually or at slightly different levels. Also, the boring depicts conditions at particular location and at the particular time indicated. Some conditions, particularly groundwater conditions could vary from the conditions encountered at the particular boring location.

#### 3.1 Site Geology

The proposed Replacement of Cavalry Road Bridge (04964) Over the West Branch of Saugatuck River site lies within the Norwalk North quadrangle and lies within the Western Highlands of Connecticut. The Norwalk North quadrangle is underlain by metamorphosed sedimentary, volcanic, and igneous rocks intruded by synkinematic granitic rocks. However, rock was not encountered in any of the borings drilled at the site during our subsurface investigation and this is consistent with the fact that maximum local relief of about 250 ft occurs in the northern part of the Norwalk North quadrangle. Elevations on the site is  $\pm 68$  feet (MSL) at the Cavalry Road Bridge Over the West Branch of Saugatuck River. Surficial geology maps describe the overburden soils poorly sorted, poorly stratified deposits generally composed of glacial

debris ranging from silt-size particles to boulders. A site geology map is presented as Figure A-2 in Appendix A of this report.

### 3.1.1 Subsurface Conditions at the Project Site

In general, the subsurface materials encountered in test borings completed at the project site are presented in the Table 3.1.1-1:

**Table 3.1.1-1: Summary of Subsurface Materials**

Stratum	North Abutment		South Abutment	Pier <sup>1</sup>
	Soil Boring			
	B-4	B-5	B-2	B-1
	Existing Ground Elevation (feet)			
	68.5	68.6	67.8	61.6
Asphalt	7 inches	7 inches	8 inches	—
Existing Fill	(EL 67.9 to 58.5) Brown-gray c-f SAND, some c-f gravel, little silt with Cobbles and Boulder SPT ranges from 63 bpf to >100 bpf	(EL 68.0 to 58.6) Dark gray c-f SAND, some c-f gravel with Cobbles and Boulder SPT: 32 bpf	(EL 67.1 to 57.8) Brown c-f SAND and c-f gravel with Cobbles and Boulder SPT ranges from 42 bpf to 66 bpf	(EL 61.6 to EL 53.6) Gray-brown, c-f SAND and c-f gravel with Cobbles and Boulders
	Gravel and Sand	(EL 58.5 to 28.5) Gray-brown c-f GRAVEL, some c-f sand, little silt with Cobbles and Boulder SPT ranges from 29 bpf to >100 bpf	(EL 58.6 to 28.6) Gray-brown c-f SAND and c-f gravel, little silt with Cobbles and Boulders SPT ranges from 19 bpf to >100 bpf	(EL 57.8 to 37.8) Gray-brown c-f SAND, some c-f gravel, little silt with cobbles and Boulder SPT ranges from 22 bpf to 36 bpf
(EL 28.5 to 12.5) Gray-brown c-f SAND and c-f gravel with Cobbles and Boulders SPT >100 bpf		(EL 28.6 to 8.6) Gray-brown, c-f SAND and c-f gravel with Cobbles and Boulders Boulder SPT ranges from 46 bpf to >100 bpf End of Boring at 60 feet	(EL 37.8 to 12.8) Gray-brown c-f SAND, some c-f gravel, little silt SPT ranges from 15 bpf to 73 bpf	(EL 31.6 to 13.6) Gray-brown, c-f SAND, little m-f gravel, little silt SPT ranges from 47 bpf to 60 bpf
(EL 12.5 to 7.5) Cored Cobbles and Boulders to 61 feet SPT >100 bpf End of Boring at 61 feet			(EL 12.8 to 7.8) Gray-brown c-f SAND and c-f gravel with Cobbles and Boulders SPT >100 bpf End of Boring at 60 feet	(EL 13.6 to 12.6) Gray-brown c-f SAND and c-f gravel with Cobbles and Boulders End of Boring at 49 feet

1. Potential pier for an alternate two span bridge.

### 3.2 Groundwater Conditions

Groundwater was encountered in test boring drilled at the site. The groundwater levels observed in the test boring are shown on the individual logs in Appendix B and presented in Table 3.2-1.

**Table 3.2-1: Summary of Groundwater**

Test Boring No.	Existing Ground Surface Elevation (feet)	Depth from Existing Ground Surface to Groundwater Level (feet)	Groundwater Elevation (feet)
B-1	61.6	2.0	59.6
B-2	67.8	12.0	55.8
B-4	68.5	12.0	56.5
B-5	68.6	12.0	56.5

The groundwater at site varies between 2.0 feet to 12.0 feet below the existing ground surface at about elevation (EL) 59.6 feet to (EL) 55.8 feet.

The groundwater information presented in this report represent the conditions found on the date the borings were drilled. It should be noted that our groundwater observations are short-term; groundwater depths and subsurface soil moisture contents will vary with the water level in the river and environmental variations such as frequency and magnitude of rainfall and the time of year when construction is in progress.

### 3.3 Laboratory Test Results

Laboratory tests on selected soil samples were performed to determine their engineering properties. For this project, we performed moisture content (ASTM D2216), Atterberg limits (ASTM D4318), sieve analysis (ASTM D422). A summary of laboratory test results is presented in Table 3.3-1 and individual test results are presented in Appendix C of this report.

**Table 3.3-1: Summary Laboratory Test Result**

Test Boring No.	Depth (feet)	Sample Type	Moisture Content (%)	Liquid Limit (LL)	Plasticity Index (PI)	% Passing #10	% Passing # 200	USCS Classification
B-1	20-22	SPT	7.3	--	NP	45	12.2	Silty SAND with gravel (SM)
B-2	20-22	SPT	9.3	--	NP	41	10.1	Well graded SAND with Silt and Gravel (SW-SM)
B-4	10-12	SPT	5.1	--	NP	41	11.2	Well graded GRAVEL with sand & silt (GW-GM)

SPT = Standard Penetration Rate; NP= Non-Plastic

### 3.4 Seismic Consideration

Based on the subsurface conditions encountered at the site, the values provided in Table 3.4-1 are recommended for seismic design.

**Table 3.4-1: Seismic Site Class Parameters**

Seismic Site Class	D
Peak Ground Acceleration Coefficient	0.079 g
Spectral response acceleration at short periods, $S_s$	0.155 g
Spectral response acceleration at 1-second period, $S_1$	0.036 g
Site coefficient, $F_a$	1.6
Site coefficient, $F_v$	2.4
$A_s = F_{PGA} \times PGA$	0.127 g
$S_{DS} = F_a \times S_s$	0.248 g
$S_{D1} = F_v \times S_1$	0.087 g

The seismic values presented above in Table 3.4-1 were calculated using USGS Earthquake Hazards Program (access on October 2, 2018). Design maps detailed report is presented in Appendix D of this report.

## 4. Geotechnical Engineering Recommendations

The recommendations regarding, soil design parameters, lateral earth pressure coefficients, liquefaction, scour, Micropiles, and temporary excavation are presented herein are based on our current understanding of the project design requirements.

### 4.1 Soil Design Parameters and Lateral Earth Pressure

The following geotechnical design parameters may be used for the design.

**Table 4.1-1: Summary of Soil Properties and Lateral Earth Pressure**

Geotechnical Design Parameters	Existing Fill (c-f SAND, some gravel, cobbles, boulders)	c-f SAND, little gravel, cobbles	m-f GRAVEL, some c-f sand, trace silt
Dry Unit Weight, $\gamma$ , pcf	100	110	125
Saturated Unit Weight, $\gamma$ , pcf	105	120	130
Internal Friction Angle, $\phi$ , degree	25	32	34

Geotechnical Design Parameters	Existing Fill (c-f SAND, some gravel, cobbles, boulders)	c-f SAND, little gravel, cobbles	m-f GRAVEL, some c-f sand, trace silt
Sliding Resistance Factor ( $\mu$ )	-	0.62	0.67
Bearing Capacity Resistance Factor	-	0.45	0.45
Concrete/Soil Coefficient of Friction*	-	0.40	0.42
Coefficient of Active Earth Pressure ( $K_a$ )	0.41	0.31	0.28
Coefficient of Passive Earth pressure ( $K_p$ )	2.46	3.25	3.54
Coefficient of at Rest Earth pressure ( $K_o$ )	0.58	0.47	0.44
Equivalent Fluid Pressure ( $K_a$ ) <sup>&amp;</sup>	43H	37H	37H
Equivalent Fluid Pressure ( $K_a$ ) <sup>@</sup>	259D	391D	460D
Equivalent Fluid Pressure ( $K_a$ ) <sup>&amp;</sup>	61H	56H	57H

$\mu = \tan(\phi)$ ;  $K_a = 1 - \sin(\phi) / 1 + \sin(\phi)$ ,  $K_p = 1 + \sin(\phi) / 1 - \sin(\phi)$ ; \*  $K_o = 1 - \sin(\phi)$ ; \*  $= \tan(0.67 \times \phi)$   
<sup>&</sup> EFP =  $\gamma \times LEP$ , H = height of the wall, <sup>@</sup> EFP =  $\gamma \times LEP$ , D = depth of foundation embedment.

The lateral earth pressures shown in Table 4.1-1 are applicable only to cases where a subdrainage system is installed. Hydrostatic pressures are not included in the lateral earth pressures assuming the use of relatively granular or free draining backfill, and subdrainage (weepholes) at the base of wall below grade.

Where applicable, the design should consider surcharge loads using a rectangular earth pressure distribution. The surcharge pressure ordinate should be obtained by multiplying the surface surcharge pressure (q) by the lateral earth pressure coefficient in Table 4.1-1 for the respective backfill condition. Earth pressure recommendations consider a horizontal ground surface behind and in front of the wall. We should be contacted to provide alternative design parameters if sloping ground surface conditions are anticipated. In addition to static earth pressures, the structural designer should consider dynamic earth pressures due to seismic loading, as applicable.

## 4.2 Liquefaction

Liquefaction involves the sudden loss in strength of a saturated, cohesionless soil caused by the build-up of pore water pressure during cyclic loading, such as produced by an earthquake. For liquefaction to occur, liquefaction susceptible soils (loose to medium dense cohesionless soils) should be saturated and there should be strong shaking, such as caused by an earthquake. Further, a peak ground acceleration of 0.1g is generally considered a shaking threshold that is needed to produce liquefaction. Based on the peak ground acceleration value, laboratory test results, and groundwater level, it is our professional opinion that this site has no liquefaction potential.

### 4.3 Scour Analysis

Estimated scour depths during the 200 and 500-year flood event provided by WMC Consulting Engineers are presented below in Table 4.3-1.

**Table 4.3-1: Summary of Scour Analysis**

Location	Test Boring Nos.	Bottom of Integral Abutment Elevation (feet)	200-year Scour Elevation (feet)	500-year Scour Elevation (feet)
North Abutment	B-4 and B-5	58.0	61.0	60.5
South Abutment	B-2	58.0	59.0	57.9

### 4.4 Structural Loading

The structural loads were provided to us by WMC Consulting Engineers and are presented below.

- Strength - I = 180 kips/pile
- Service - I = 140 kips/pile

### 4.5 Abutment Foundation - Micropiles

Micropiles geotechnical and structural capacities are calculated based on AASHTO LRFD, Section 10.9. A nominal grout-to-ground bond ( $\alpha_b$ ) strength of 35 psi (Type B- Pressure Grouted) was used for Glacial Till. Table 4.5-1 presents the factored geotechnical resistance and bond length for Micropiles. Resistance factors provided in Tables 10.5.5.2.5-1 and 10.5.5.2.5-2 in AASHTO LRFD were used to calculate the factored geotechnical and structural resistances, with the calculation presented in Appendix E.

**Table 4.5-1: Summary of Micropile Factored Resistance and Bond Length – Strength Limit**

Micropile Diameter (in)	Bond Length (ft)	Reinforcing Bar Diameter (in)	Recommended Micropile Factored Resistance (kips)
7.0	35	2.25 (#18)	190
9.675	25	2.25 (#18)	184

The factored geotechnical resistance as presented in Table 4.5-1 above is also recommended for the service limit state with a resistance factor of 1.0. The factored geotechnical resistance as presented in Table 4.5-1 can also be used as the factored axial compressive structural resistance. For the extreme limit state, the factored resistance will be equal to the nominal resistance, since the resistance factor is equal to 1.0. The calculated extreme limit state resistance for the proposed micropiles sections are summarized in the Table 4.5-2.

**Table 4.5-2: Summary of Micropile Factored Resistance and Bond Length – Strength Limit**

Micropile Diameter (in)	Bond Length (ft)	Reinforcing Bar Diameter (in)	Recommended Micropile Factored Resistance (kips)
7.0	35	2.25 (#18)	345
9.675	25	2.25 (#18)	335

Minimum micropile tip elevations are presented below in 4.5-3.

**Table 4.5-3: Estimated Highest Micropile Tip Elevation**

Estimated Highest Micropile Tip Elevation (ft)	
7.0 Inch Diameter	9.675 Inch Diameter
13.0	23.0

A minimum of one test pile at each abutment location should be loaded to twice the design load not less than three days after completion of grouting. Installation of production micropiles should not begin until the data from the load tests have been evaluated by the geotechnical engineer. Adjustment to the pile lengths, pile capacity, bond length, grouting procedures, etc. may result from this load test program.

The capacity of these piles will depend upon the depth of penetration, size of piles and other factors. Plans prepared for the micropile installation scheme should be submitted to our office for review. The final design and installation of the micropiles should be provided by a specialty contractor with at least five years' experience in this application. The final design should be verified and approved based on the micropile load test results.

It is noted that cobbles and boulders were encountered; therefore, some difficulties may be expected during the drilling operation at isolated locations. Pre-drilling or offsetting of some of the micropiles is also expected. The contractor should be made aware of these conditions and include provisions in their bid to deal with them.

Grouting of micropiles should be completed the same day they are drilled and no micropile should be grouted to intermediate depths. The contractor should be equipped to handle obstructions, which may be encountered during installation of the drilled micropiles.

#### **4.6 Temporary Excavation, Shoring, and Dewatering**

Considering the groundwater level (EL 60 feet), it is anticipated that the excavation for the abutment will be below the groundwater level. This will require temporary shoring and dewatering. The dewatering may consist of both an aggressive system of individual sumps and pumps during excavation or a braced sheetpile wall cofferdam. The shoring should be designed for hydrostatic water pressure outside and dewatered conditions inside the shoring. The sheetpiles should be embedded an adequate depth below the bottom of the excavation to minimize the flow below the sheetpiles. The depth of penetration should be designed to provide a minimum factor of safety 1.5. A seal slab can be placed at the bottom of the

excavation and the amount of water entering the excavation can be pumped out from a sump. The actual design of the shoring system will be the responsibility of the contractor.

## **5. Limitations**

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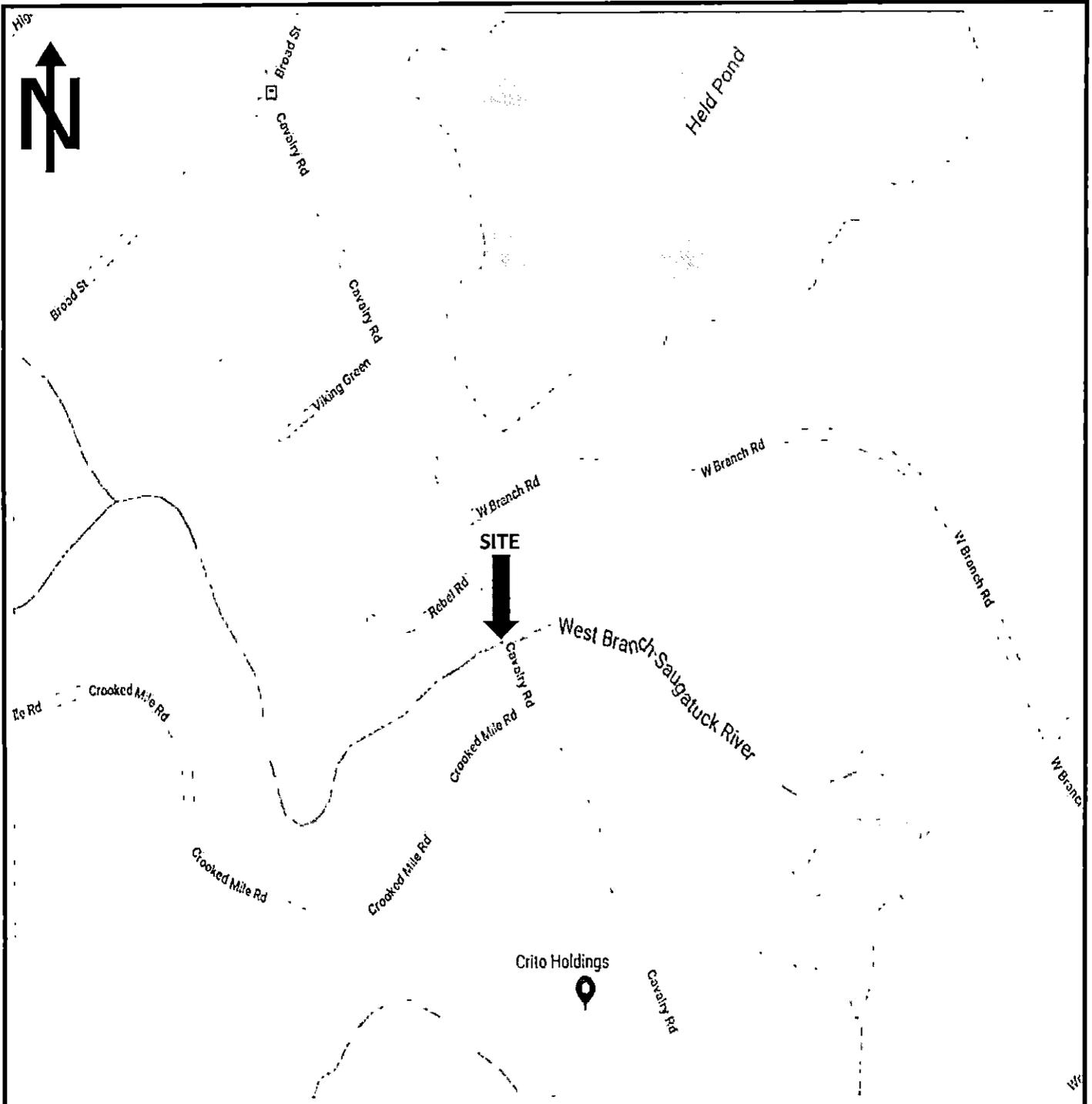
Our professional services were performed consistent with the generally accepted geotechnical engineering principles and practices employed in the site area at the time the report was prepared.

Analyses, conclusions and recommendations presented in this report are based on site conditions as they existed at the time we performed our subsurface exploration. We assumed that subsurface soil conditions encountered at the location of exploratory test borings are generally representative of subsurface conditions across the project site. Actual subsurface conditions at locations between and beyond the exploratory test borings may differ. If subsurface conditions encountered during construction are different than those described in this report, we should be notified so that we can review and modify our recommendations as needed. We recommend that this report in its entirety be made available to contractors for informational purposes only.

## Appendix A: Figures

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Figure No. A-1: Site Location Map  
Figure No. A-2: Site Geology Map

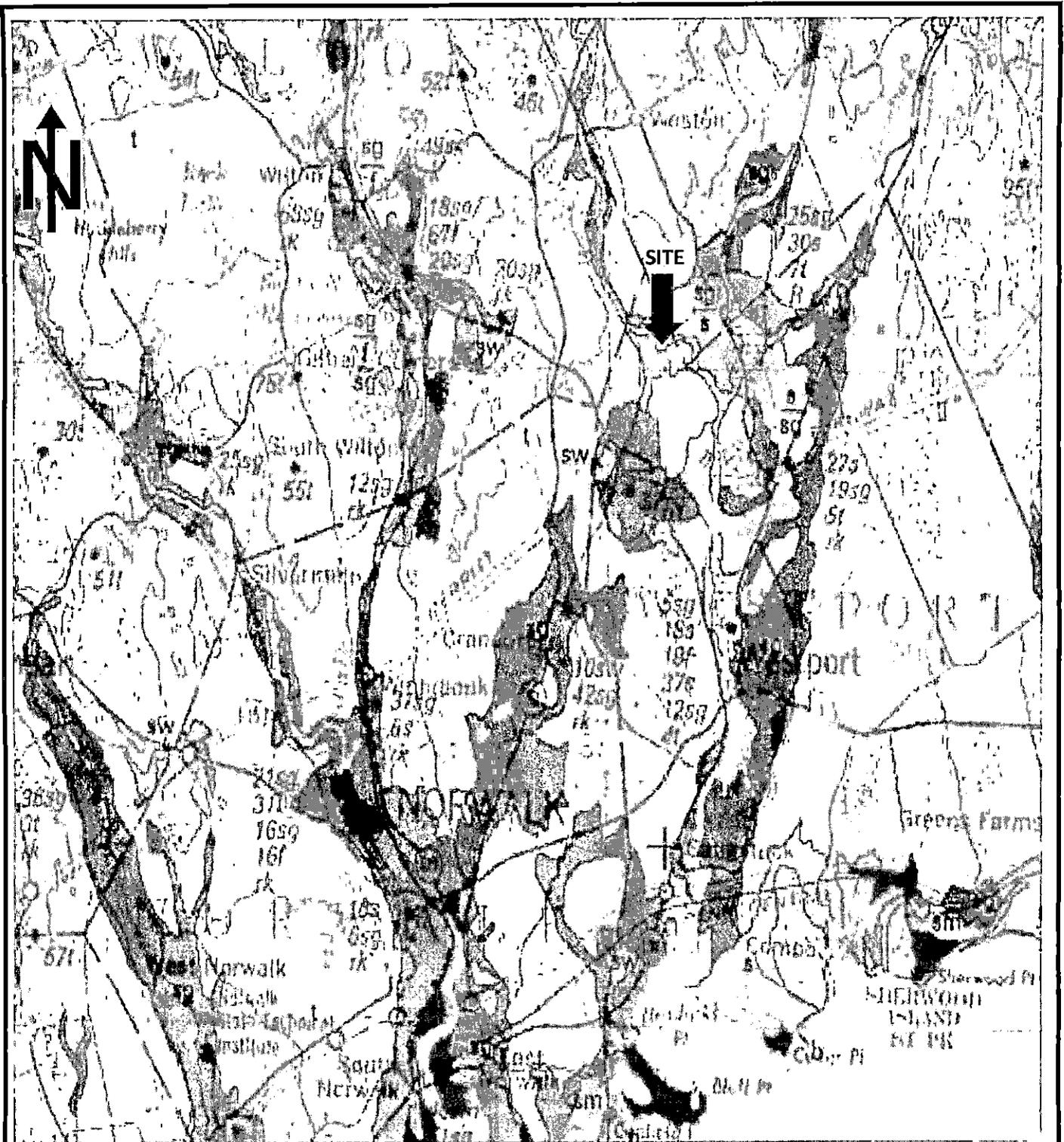


Google maps coordinates: (41.1023781515379, -73.39462691670056)

 **Dulles Geotechnical & Materials Testing Services, Inc.**  
 14115 Sullyfield Circle, Suite H, Chantilly, VA 20151  
 Phone: 703-999-3207; www.dullesgeotechnical.com

**TITLE:** SITE LOCATION MAP  
**PROJECT:** REPLACEMENT OF CAVALRY ROAD BRIDGE OVER THE WEST BRANCH OF THE SAUGATUCK RIVER - WESTON, CONNECTICUT

<b>Date:</b> 10-15-2018	<b>Drawn By:</b> BP	<b>Checked By:</b> TH	<b>Scale:</b> -	<b>Figure No.:</b> A-1
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14115 Sullyfield Circle, Suite H, Chantilly, VA 20151  
Phone: 703-999-3207; www.dullesgeotechnical.com

**TITLE:** SITE GEOLOGY MAP

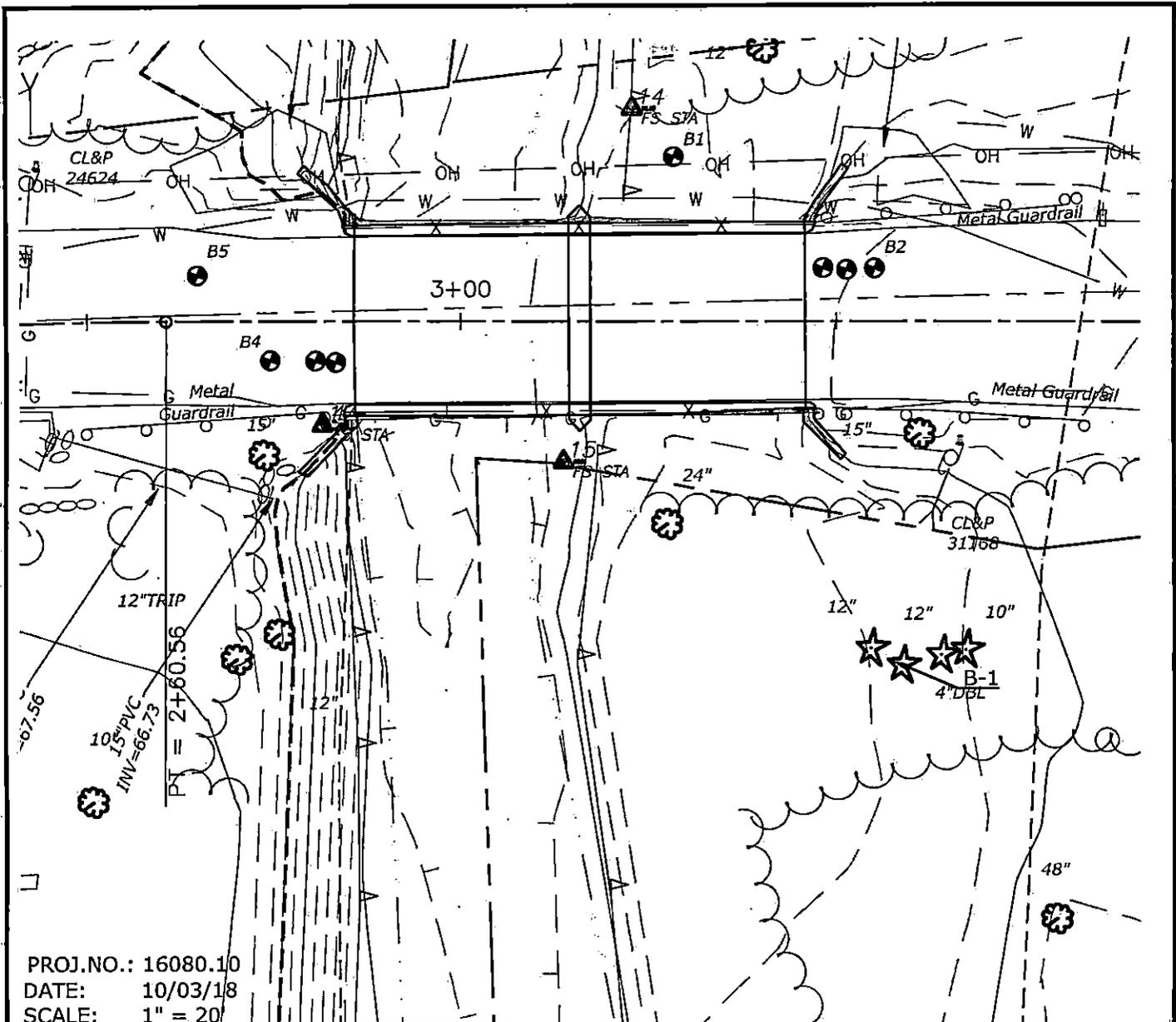
**PROJECT:** REPLACEMENT OF CAVALRY ROAD  
BRIDGE OVER THE WEST BRANCH OF THE  
SAUGATUCK RIVER - WESTON, CONNECTICUT

<b>Date:</b> 10-15-2018	<b>Drawn By:</b> BP	<b>Checked By:</b> TH	<b>Scale:</b> -	<b>Figure No.:</b> A-2
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## **Appendix B: Subsurface Investigation**

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Figure B-1: Boring Location Plan (1 Page)  
Soil Test Boring Log (8 page)



PROJ.NO.: 16080.10  
 DATE: 10/03/18  
 SCALE: 1" = 20'

BORINGS			
BORING	ELEVATION	NORTHING	EASTING
B-1	61.56	626238.42	828220.30
B-2	67.84	626208.02	828216.53
B-4	68.46	626278.23	828175.24
B-5	68.56	626291.56	828182.06



• WENGELL, McDONNELL & COSTELLO •  
 87 HOLMES ROAD  
 NEWINGTON, CT 06111  
 (860) 667-9624

**FIGURE B-1: BORING LOCATION PLAN**  
 REPLACEMENT OF CAVALRY ROAD BRIDGE OVER THE WEST  
 BRANCH OF SAUGATUCK RIVER  
 PREPARED FOR:  
 TOWN OF WESTON



**Dulles Geotechnical & Materials Testing Services, Inc.**

**TEST BORING LOG**

**Project Name:** Replacement of Cavalry Road Bridge over the West Branch of Sugatuck River

<b>Location:</b> Weston, CT	<b>Route No.:</b> -	<b>Bridge No.:</b> 04964
<b>Driller:</b> Jaime Lloret	<b>Type:</b> 3.25" HSA	<b>Hole No.:</b> B-1
<b>Inspector:</b> Zichang	<b>Hammer Wt.:</b> 140 lb	<b>Stat./Offset:</b> -
<b>Engineer:</b> -	<b>Hammer Fall:</b> 30"	<b>Northing:</b> 626238.42
<b>Start Date:</b> 5/25/2018	<b>Sampler Type:</b> Split Spoon 2"	<b>Easting:</b> 828220.30
<b>Finish Date:</b> 5/25/2018	<b>Core Barrel Type:</b> NV2	<b>Surface Elevation:</b> 61.56

**Groundwater Observations:** At 2' After 0 hrs At After

Depth (ft.)	SAMPLES					Generalized Strata Description	Material Description	Elevation (ft.)				
	Sample Type/No.	Blows on Sampler per 6 inches							Pen.	Rec. (in)	RQD %	
0							FILL	Gray-brown c-f SAND and c-f gravel with Cobbles and Boulders	56.56			
5												
10	S-1	5	9	19	30	24	8		51.56			
15								GRAVEL AND SAND	Dark gray c-f SAND, some c-f gravel with Cobbles and Boulders	46.56		
20	S-2	30	30	30	28	24	3					41.56
25												36.56
30	S-3	25	28	19	21	24	13		31.56			
35									26.56			
40												

Sample Type: S = Split Spoon C = Core UP = Undisturbed Piston V = Vane Shear Test  
 Proportion Used: Trace = 1-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Continue on page 2

Total Penetration in  
 Soil: 0' to 40'      Rock: 0'  
 Soil Samples:      No. of  
 S1-S3              Core Runs: 0

NOTES:

Sheet  
1 of 2

 <b>Dulles Geotechnical &amp; Materials Testing Services, Inc.</b>		<b>TEST BORING LOG</b> <b>Project Name:</b> Replacement of Cavalry Road Bridge over the West Branch of Sugatuck River											
<b>Location:</b> Weston, CT		<b>Route No.:</b> -			<b>Bridge No.:</b> 04964								
<b>Driller:</b> Jaime Lloret		<b>Type:</b> 3.25" HSA			<b>Hole No.:</b> B-1								
<b>Inspector:</b> Zichang		<b>Hammer Wt.:</b> 140 lb			<b>Stat./Offset:</b> -								
<b>Engineer:</b> -		<b>Hammer Fall:</b> 30"			<b>Northing:</b> 626238.42								
<b>Start Date:</b> 5/25/2018		<b>Sampler Type:</b> Split Spoon 2"			<b>Easting:</b> 828220.30								
<b>Finish Date:</b> 5/25/2018		<b>Core Barrel Type:</b>			<b>Surface Elevation:</b> 61.56								
<b>Groundwater Observations:</b>		At 2' After 0 hrs			At After								
Depth (ft.)	SAMPLES					Generalized Strata Description	Material Description	Elevation (ft.)					
	Sample Type/No.	Blows on Sampler per 6 inches							Pen.	Rec.(in)	RQD %		
40	S-4	24	22	28	35	24	4						
45									GRAVEL AND SAND	Gray-brown c-f SAND and c-f gravel, little silt		16.56	
50										Gray-brown c-f SAND and c-f gravel with Cobbles and Boulders		11.56	
55										End of Boring @ 49 feet			
60													
65													
70													
75													
80													
Sample Type: S = Split Spoon C = Core UP = Undisturbed Piston V = Vane Shear Test Proportion Used: Trace = 1-10%, Little = 10-20%, Some = 20-35%, And = 35-50%													
<b>Total Penetration in</b> Soil: 40-49'      Rock: 0 Soil Samples: S4      No. of Core Runs: 0						<b>NOTES:</b>				<b>Sheet</b> 2 of 2			



**Dulles Geotechnical & Materials Testing Services, Inc.**

**TEST BORING LOG**

**Project Name:** Replacement of Cavalry Road Bridge over the West Branch of Sugatuck River

<b>Location:</b> Weston, CT	<b>Route No.:</b> -	<b>Bridge No.:</b> 04964
<b>Driller:</b> Jaime Lloret	<b>Type:</b> 3.25" HSA	<b>Hole No.:</b> B-2
<b>Inspector:</b> Zichang	<b>Hammer Wt.:</b> 140 lb	<b>Stat./Offset:</b> -
<b>Engineer:</b> -	<b>Hammer Fall:</b> 30"	<b>Northing:</b> 626208.02
<b>Start Date:</b> 5/22/2018	<b>Sampler Type:</b> Split Spoon 2"	<b>Easting:</b> 828216.53
<b>Finish Date:</b> 5/23/2018	<b>Core Barrel Type:</b>	<b>Surface Elevation:</b> 67.84

**Groundwater Observations:** At 12' After 0 hrs

Depth (ft.)	SAMPLES					Generalized Strata Description	Material Description	Elevation (ft.)
	Sample Type/No.	Blows on Sampler per 6 inches						
0						ASPHALT	8" Bituminous Concrete	
5	S-1	25	32	34	30	24	3	
								62.84
						FILL	Brown c-f SAND, c-f gravel with Cobbles and Boulders	
	S-2	12	16	26	50/4"	22	10	
10								57.84
	S-3	9	13	9	17	24	8	
								52.84
								47.84
20	S-4	19	17	13	28	24	6	
								42.84
25	S-5	5	19	17	26	24	4	
								37.84
30	S-6	22	14	11	15	24	14	
								32.84
35	S-7	9	9	13	11	24	16	
40								

Sample Type: S = Split Spoon C = Core UP = Undisturbed Piston V = Vane Shear Test  
 Proportion Used: Trace = 1-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Continue on page 2

Total Penetration in  
 Soil: 0' to 40'      Rock: 0'  
 Soil Samples:      No. of  
 S1-S7              Core Runs: 0

NOTES:

Sheet  
1 of 2



**Dulles Geotechnical & Materials Testing Services, Inc.**

**TEST BORING LOG**

**Project Name:** Replacement of Cavalry Road Bridge over the West Branch of Sugatuck River

<b>Location:</b> Weston, CT	<b>Route No.:</b> -	<b>Bridge No.:</b> 04964
<b>Driller:</b> Jaime Lloret	<b>Type:</b> 3.25" HSA	<b>Hole No.:</b> B-2
<b>Inspector:</b> Zichang	<b>Hammer Wt.:</b> 140 lb	<b>Stat./Offset:</b> -
<b>Engineer:</b> -	<b>Hammer Fall:</b> 30"	<b>Northing:</b> 626208.02
<b>Start Date:</b> 5/22/2018	<b>Sampler Type:</b> Split Spoon 2"	<b>Easting:</b> 828216.53
<b>Finish Date:</b> 5/23/2018	<b>Core Barrel Type:</b> NV2	<b>Surface Elevation:</b> 67.84

**Groundwater Observations:** At 12' After 0 hrs At After

Depth (ft.)	SAMPLES					Generalized Strata Description	Material Description	Elevation (ft.)	
	Sample Type/No.	Blows on Sampler per 6 inches							Pen. (in.)
40	S-8	3	5	10	13	24	15		
45	S-9	24	23	23	22	24	11		22.84
50	S-10	17	23	50	47	24	7	GRAVEL AND SAND	17.84
55	S-11	48 50/2"				8	0		12.84
60								End of Boring @ 60 feet	7.84
65									
70									
75									
80									

Sample Type: S = Split Spoon C = Core UP = Undisturbed Piston V = Vane Shear Test  
 Proportion Used: Trace = 1-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Total Penetration in Soil: 40' to 60' Soil Samples: S8 - S11	NOTES: 1) Used Roller Cone to advance to 60'	Sheet 2 of 2
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**Dulles Geotechnical & Materials Testing Services, Inc.**

**TEST BORING LOG**

**Project Name:** Replacement of Cavalry Road Bridge over the West Branch of Sugatuck River

<b>Location:</b> Weston, CT	<b>Route No.:</b> -	<b>Bridge No.:</b> 04964
<b>Driller:</b> Jaime Lloret	<b>Type:</b> 3.25" HSA	<b>Hole No.:</b> B-4
<b>Inspector:</b> Zichang	<b>Hammer Wt.:</b> 140 lb	<b>Stat./Offset:</b> -
<b>Engineer:</b> -	<b>Hammer Fall:</b> 30"	<b>Northing:</b> 626278.23
<b>Start Date:</b> 5/21/2018	<b>Sampler Type:</b> Split Spoon 2"	<b>Easting:</b> 828175.24
<b>Finish Date:</b> 5/22/2018	<b>Core Barrel Type:</b>	<b>Surface Elevation:</b> 68.46
<b>Groundwater Observations:</b>	At 12' After 0 hrs	At After

Depth (ft.)	SAMPLES					Generalized Strata Description	Material Description	Elevation (ft.)
	Sample Type/No.	Blows on Sampler per 6 inches						
0						ASPHALT	7" Bituminous Concrete	
5	S-1	24	33	30	45	24	6	
	S-2	9	49	50/3"		15	3	
10								
	S-3	23	18	16	13	24	3	
15								
	S-4	24	28	27	22	24	11	
20								
	S-5	50/0" X X X				0	0	
25								
	S-6	5	22	33	27	24	8	
30								
	S-7	35	20	17	26	24	7	
35								
	S-8	11	14	15	16	24	9	
40								

Sample Type: S = Split Spoon C = Core UP = Undisturbed Piston V = Vane Shear Test  
 Proportion Used: Trace = 1-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Continue on page 2

Total Penetration in  
 Soil: 0' to 40' Rock: 0  
 Soil Samples: S1 - No. of  
 S8 Core Runs: 0

NOTES:



**Dulles Geotechnical & Materials Testing Services, Inc.**

**TEST BORING LOG**

**Project Name:** Replacement of Cavalry Road Bridge over the West Branch of Sugatuck River

<b>Location:</b> Weston, CT	<b>Route No.:</b> -	<b>Bridge No.:</b> 04964
<b>Driller:</b> Jaime Lloret	<b>Type:</b> 3.25" HSA	<b>Hole No.:</b> B-4
<b>Inspector:</b> Zichang	<b>Hammer Wt.:</b> 140 lb	<b>Stat./Offset:</b> -
<b>Engineer:</b> -	<b>Hammer Fall:</b> 30"	<b>Northing:</b> 626278.23
<b>Start Date:</b> 5/21/2018	<b>Sampler Type:</b> Split Spoon 2"	<b>Easting:</b> 828175.24
<b>Finish Date:</b> 5/22/2018	<b>Core Barrel Type:</b>	<b>Surface Elevation:</b> 68.46

**Groundwater Observations:** At 12' After 0 hrs At After

Depth (ft.)	SAMPLES					Generalized Strata Description	Material Description	Elevation (ft.)
	Sample Type/No.	Blows on Sampler per 6. inches	Pen.	Rec. (in)	RQD %			
40	S-9	12 8 13 12	24	3		GRAVEL AND SAND	(very difficult drilling below 40 feet)	
45	S-10	15 50/4" x x	10	5			Gray-brown c-f SAND and c-f gravel with Cobbles and Boulders	23.46
50	S-11	50/4" x x x	4	3				18.46
55	S-12	50/2" x x x	2	2				13.46
60							Cored Cobbles and Boulders to 61 feet. Continues with Augers	8.46
65							End of Boring @ 61 feet	
70								
75								
80								

Sample Type: S = Split Spoon C = Core UP = Undisturbed Piston V = Vane Shear Test  
 Proportion Used: Trace = 1-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

<b>Total Penetration in Soil:</b> 40' to 61' <b>Soil Samples:</b> S8 - No. of S12 core runs:	<b>Rock:</b> <b>NOTES:</b> ATTEMPTED TO CONTINUE BORING BUT WAS UNABLE TO DRILL THROUGH BOULDERS. AUGERS WERE TERMINATED AT 57 FEET.	<b>Sheet</b> 2 of 2
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**Dulles Geotechnical & Materials Testing Services, Inc.**

**TEST BORING LOG**

**Project Name:** Replacement of Cavalry Road Bridge over the West Branch of Sugatuck River

<b>Location:</b> Weston, CT	<b>Route No.:</b> -	<b>Bridge No.:</b> 04964
<b>Driller:</b> Jaime Lloret	<b>Type:</b> 3.25" HSA	<b>Hole No.:</b> B-5
<b>Inspector:</b> Zichang	<b>Hammer Wt.:</b> 140 lb	<b>Stat./Offset:</b> -
<b>Engineer:</b> -	<b>Hammer Fall:</b> 30"	<b>Northing:</b> 626291.56
<b>Start Date:</b> 5/24/2018	<b>Sampler Type:</b> Split Spoon 2"	<b>Easting:</b> 828182.06
<b>Finish Date:</b> 5/24/2018	<b>Core Barrel Type:</b>	<b>Surface Elevation:</b> 68.56

**Groundwater Observations:** At 12' After 0 hrs At After

Depth (ft.)	SAMPLES					Generalized Strata Description	Material Description	Elevation (ft.)
	Sample Type/No.	Blows on Sampler per 6 inches						
0						ASPHALT	7" Bituminous Concrete	
5	S-1	13	16	16	10	24	5	63.56
10	S-2	23	38	50/5" X		17	8	58.56
15	S-3	49	28	31	46	24	13	53.56
20	S-4	36	18	33	47	24	6	48.56
25	S-5	9	22	20	17	24	7	43.56
30	S-6	14	24	36	23	24	9	38.56
35	S-7	4	9	10	16	24	8	33.56
40								

Sample Type: S = Split Spoon C = Core UP = Undisturbed Piston V = Vane Shear Test  
 Proportion Used: Trace = 1-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Continue on page 2

Total Penetration in  
 Soil: 0' to 40'      Rock: 0  
 Soil Samples:      No. of  
 S1 - S7              Core Runs: 0

NOTES:

Sheet 1 of 2



**Dulles Geotechnical & Materials Testing Services, Inc.**

**TEST BORING LOG**

**Project Name:** Replacement of Cavalry Road Bridge over the West Branch of Sugatuck River

<b>Location:</b> Weston, CT	<b>Route No.:</b> 1-440	<b>Bridge No.:</b> 04964
<b>Driller:</b> Jaime Lloret	<b>Type:</b> 3.25" HSA	<b>Hole No.:</b> B-5
<b>Inspector:</b> Zichang	<b>Hammer Wt.:</b> 140 lb	<b>Stat./Offset:</b> -
<b>Engineer:</b> -	<b>Hammer Fall:</b> 30"	<b>Northing:</b> 626291.56
<b>Start Date:</b> 5/24/2018	<b>Sampler Type:</b> Split Spoon 2"	<b>Easting:</b> 626291.56
<b>Finish Date:</b> 5/24/2018	<b>Core Barrel Type:</b> NV2	<b>Surface Elevation:</b> 68.56

**Groundwater Observations:** At 12' After 0 hrs At After

Depth (ft.)	SAMPLES					Generalized Strata Description	Material Description	Elevation (ft.)
	Sample Type/No.	Blows on Sampler per 6 inches	Pen.	Rec. (in)	RQD %			
40	S-8	28 24 22 25	24	18		Gravel AND SAND Gray-brown, c-f SAND and c-f gravel, little silt with Cobbles and Boulders (very difficult drilling)	23.56 18.56 13.56 8.56	
45	S-9	50/1" X X X	24	1				
50	S-10	50/1" X X X	24	1				
55	S-11	50/3" X X X	24	1				
60						End of Boring @ 60 feet		
65								
70								
75								
80								

Sample Type: S = Split Spoon C = Core UP = Undisturbed Piston V = Vane Shear Test  
 Proportion Used: Trace = 1-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Total Penetration in Soil: 40' to 60'      Rock: Soil Samples: S8 -    No. of S11                      Core Runs:	NOTES: Used Roller Cone to advance to 60'	Sheet 2 of 2
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## **Appendix C: Laboratory Tests**

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Laboratory Test Results Summary (1 Page)  
Liquid Limit, Plastic Limit, and Sieve Analysis (6 pages)



## DULLES GEOTECHNICAL AND MATERIALS TESTING SERVICES, INC.

14119 Sullyfield Circle, Suite H, Chantilly, Virginia 20151

Phone: 703-999-3207

### Laboratory Test Results Summary

Project Name	Cavalry Road Bridge	Project Location	Weston, CT
Project No.	18024	Date	6/11/2018

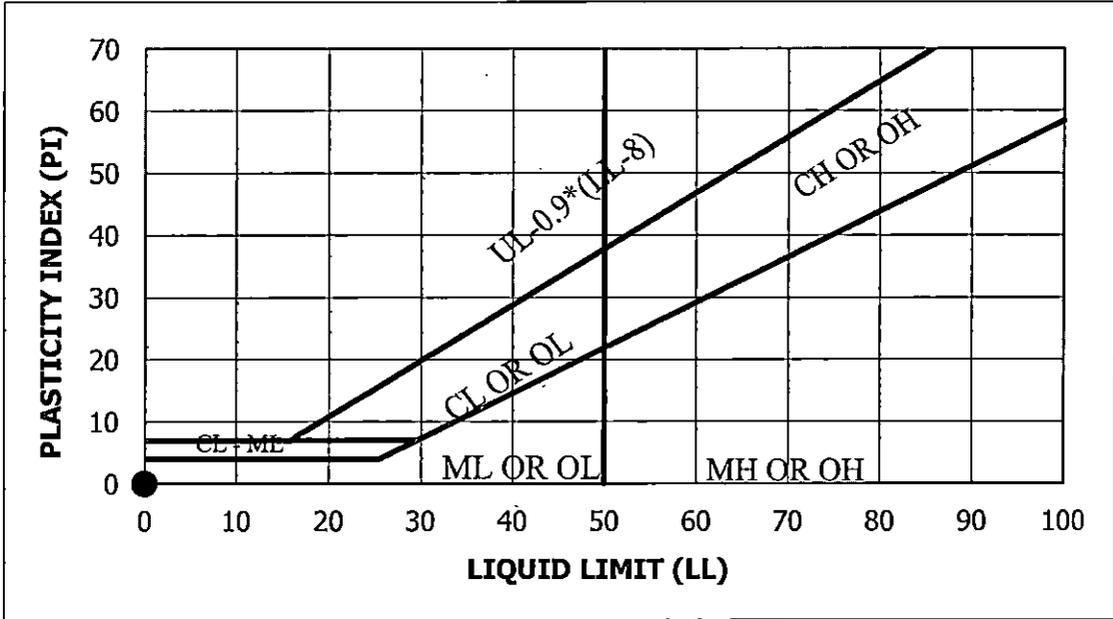
Boing No.	Depth (feet)	Sample Type	Moisture Content (%)	Liquid Limit	Plasticity Index	% Passing #10	% Passing #200	Unified Soil Classification with Group Symbol	Soil Description based on Burmister Method
B-1	20-22	SPT	7.3	NP	---	45	12.2	Silty SAND with gravel (SM)	Dark gray c-f SAND, some c-f gravel, little silt
B-2	20-22	SPT	9.3	NP	---	41	10.1	Well graded SAND with Silt and Gravel (SW-SM)	Gray-brown c-f SAND, some c-f gravel, little silt
B-4	10-12	SPT	5.1	NP	---	41	11.2	Well graded GRAVEL with sand & silt (GW-GM)	Dark gray c-f GRAVEL and c-f sand, little silt

Notes: (1) Soil tests were performed as per applicable ASTM standards.

(2) NP = non-plastic

**DULLES GEOTECHNICAL AND MATERIALS TESTING SERVICES, INC.**  
 14155 Sullyfield Circle, Suite H, Chantilly, VA 20151 Phone: 703-999-3207

LIQUID AND PLASTIC LIMIT - ASTM D4318					
Project No.	18024	Project Name	Cavalry Road Bridge, Weston, CT		
Boring No.	B-1	Sample No.	SPT-2	Depth (ft)	20.0-22.0
Date	5/31/2018	Client	WMC-CT		



Material Description (Burmister Method)	LL	PL	PI	% Passing		USCS	w (%)
				#4	#200		
Dark gray c-f SAND some c-f gravel, little silt	NP	NP	---	56.3	12.2	SM	7.3
Color	Dark gray		AASHTO Classification		A-1-a		

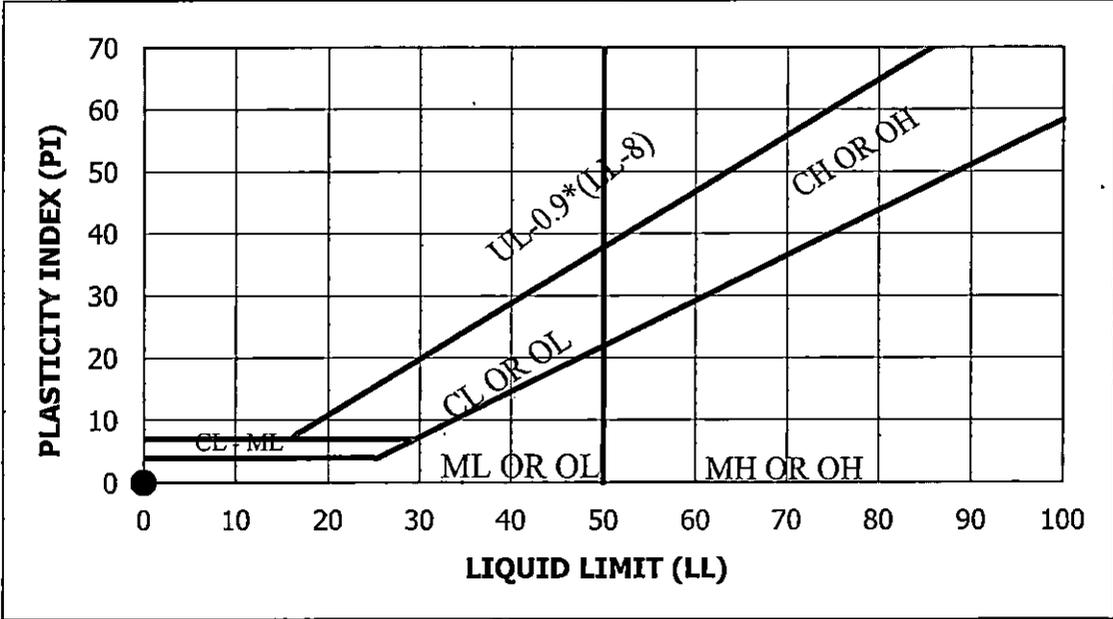
Test Method: AASHTO T-89 & T-90  
 Soil Classification by ASTM D2487 and AASHTO M 145

Tested by PM Fakoor Reviewed by [Signature]



**DULLES GEOTECHNICAL AND MATERIALS TESTING SERVICES, INC.**  
 14155 Sullyfield Circle, Suite H, Chantilly, VA 20151 Phone: 703-999-3207

LIQUID AND PLASTIC LIMIT - ASTM D4318					
Project No.	18024	Project Name	Cavalry Road Bridge, Weston, CT		
Boring No.	B-2	Sample No.	SPT-4	Depth (ft)	20.0-22.0
Date	5/31/2018	Client	WMC-CT		



Material Description (Burmister Method)	LL	PL	PI	% Passing		USCS	w (%)
				#4	#200		
Gray-brown c-f SAND, some c-f gravel, little silt	NP	NP	---	54.1	10.1	SW-SM	9.3
Color	Gray-brown		AASHTO Classification			A-1-a	

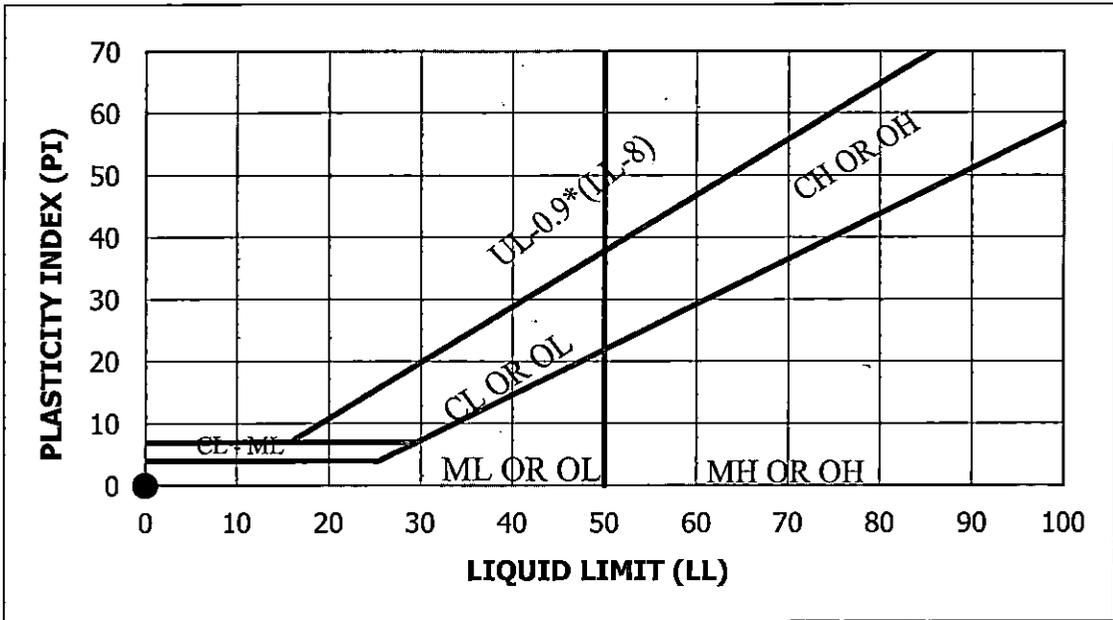
Test Method: AASHTO T-89 & T-90  
 Soil Classification by ASTM D2487 and AASHTO M 145

Tested by PM Fakoor Reviewed by 



**DULLES GEOTECHNICAL AND MATERIALS TESTING SERVICES, INC.**  
 14155 Sullyfield Circle, Suite H, Chantilly, VA 20151 Phone: 703-999-3207

LIQUID AND PLASTIC LIMIT - ASTM D4318					
Project No.	18024	Project Name	Cavalry Road Bridge, Weston, CT		
Boring No.	B-4	Sample No.	SPT-3	Depth (ft)	10.0-12.0
Date	5/31/2018	Client	WMC-CT		



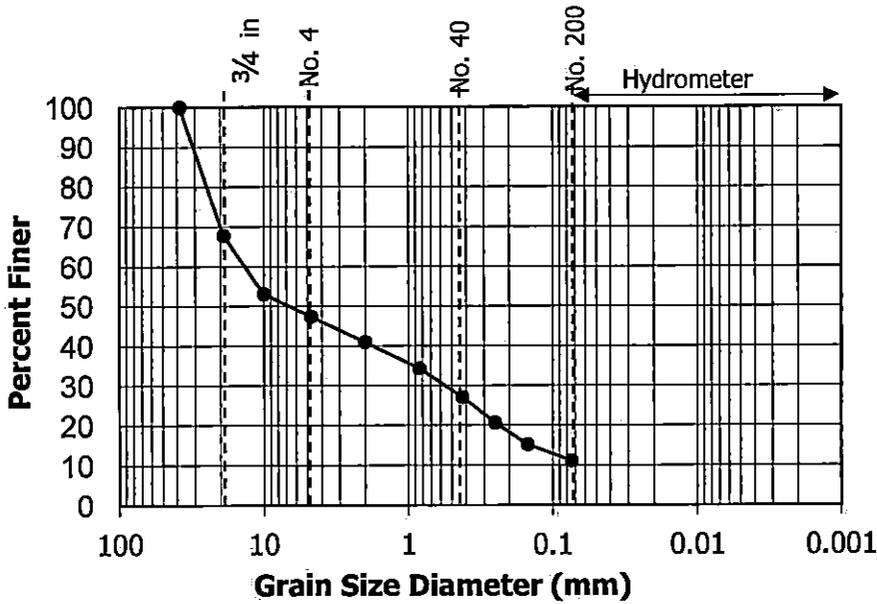
Material Description (Burmister Method)	LL	PL	PI	% Passing		USCS	w (%)
				#4	#200		
'Dark gray c-f GRAVEL and c-f sand, little silt	NP	NP	---	47.4	11.2	GW-GM	5.1
Color	Dark gray		AASHTO Classification			A-1-a	

Test Method: AASHTO T-89 & T-90  
 Soil Classification by ASTM D2487 and AASHTO M 145

Tested by PM Fakoor

Reviewed by 

<b>GRAIN SIZE ANALYSIS - AST D222</b>					
<b>Project No.</b>	18024	<b>Project Name</b>	Cavalry Road Bridge, Weston, CT		
<b>Boring No.</b>	B-4	<b>Sample No.</b>	SPT-3	<b>Depth (ft)</b>	10.0-12.0
<b>Date</b>	5/31/2018	<b>Client</b>	WMC-CT		



SIEVE	% Passing
1 1/2 "	100
3/4"	68
3/8"	53
#4	47
#10	41
#20	34
#40	27
#60	21
#100	15
#200	11
Pan	---

*Soil Description Based on Burmister Method*

<b>'Dark gray c-f GRAVEL and c-f sand, little silt</b>
--

Tested by: PM Fakoor

Reviewed by: \_\_\_\_\_

## **Appendix D: Seismic Report**

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USGS Design Map Detailed Report (8 pages)

 **Design Maps Detailed Report**

2009 AASHTO Guide Specifications for LRFD Seismic Bridge Design (41.10238°N, 73.39463°W)

Site Class D – “Stiff Soil”

**Article 3.4.1 — Design Spectra Based on General Procedure**

Note: Maps in the 2009 AASHTO Specifications are provided by AASHTO for Site Class B.  
Adjustments for other Site Classes are made, as needed, in Article 3.4.2.3.

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From **Figure 3.4.1-2** <sup>[1]</sup> PGA = 0.079 g

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From **Figure 3.4.1-3** <sup>[2]</sup>  $S_s = 0.155$  g

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From **Figure 3.4.1-4** <sup>[3]</sup>  $S_1 = 0.036$  g

---

### Article 3.4.2.1 — Site Class Definitions

The authority having jurisdiction (not the USGS), site-specific geotechnical data, and/or the default has classified the site as Site Class D, based on the site soil properties in accordance with Article 3.4.2.

Table 3.4.2.1-1 Site Class Definitions

SITE CLASS	SOIL PROFILE NAME	Soil shear wave velocity, $\bar{v}_s$ (ft/s)	Standard penetration resistance, $\bar{N}$	Soil undrained shear strength, $\bar{s}_u$ (psf)
A	Hard rock	$\bar{v}_s > 5,000$	N/A	N/A
B	Rock	$2,500 < \bar{v}_s \leq 5,000$	N/A	N/A
C	Very dense soil and soft rock	$1,200 < \bar{v}_s \leq 2,500$	$\bar{N} > 50$	$> 2,000$ psf
D	Stiff soil profile	$600 \leq \bar{v}_s < 1,200$	$15 \leq \bar{N} \leq 50$	1,000 to 2,000 psf
E	Stiff soil profile	$\bar{v}_s < 600$	$\bar{N} < 15$	$< 1,000$ psf
E	—	Any profile with more than 10 ft of soil having the characteristics: <ol style="list-style-type: none"> <li>1. Plasticity index <math>PI &gt; 20</math>,</li> <li>2. Moisture content <math>w \geq 40\%</math>, and</li> <li>3. Undrained shear strength <math>\bar{s}_u &lt; 500</math> psf</li> </ol>		
F	—	Any profile containing soils having one or more of the following characteristics: <ol style="list-style-type: none"> <li>1. Soils vulnerable to potential failure or collapse under seismic loading such as liquefiable soils, quick and highly sensitive clays, collapsible weakly cemented soils.</li> <li>2. Peats and/or highly organic clays (<math>H &gt; 10</math> feet of peat and/or highly organic clay where <math>H</math> = thickness of soil)</li> <li>3. Very high plasticity clays (<math>H &gt; 25</math> feet with plasticity Index <math>PI &gt; 75</math>)</li> <li>4. Very thick soft/medium stiff clays (<math>H &gt; 120</math> feet)</li> </ol>		

For SI: 1ft/s = 0.3048 m/s 1lb/ft<sup>2</sup> = 0.0479 kN/m<sup>2</sup>

## Article 3.4.2.3 — Site Coefficients

Table 3.4.2.3-1 (for  $F_{pga}$ )—Values of  $F_{pga}$  as a Function of Site Class and Mapped Peak Ground Acceleration Coefficient

Site Class	Mapped Peak Ground Acceleration				
	PGA ≤ 0.10	PGA = 0.20	PGA = 0.30	PGA = 0.40	PGA ≥ 0.50
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.2	1.2	1.1	1.0	1.0
D	1.6	1.4	1.2	1.1	1.0
E	2.5	1.7	1.2	0.9	0.9
F	See AASHTO Article 3.4.3				

Note: Use straight-line interpolation for intermediate values of PGA

For Site Class = D and PGA = 0.079 g,  $F_{pga} = 1.600$

Table 3.4.2.3-1 (for  $F_s$ )—Values of  $F_s$  as a Function of Site Class and Mapped Short-Period Spectral Acceleration Coefficient

Site Class	Spectral Response Acceleration Parameter at Short Periods				
	$S_s \leq 0.25$	$S_s = 0.50$	$S_s = 0.75$	$S_s = 1.00$	$S_s \geq 1.25$
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.2	1.2	1.1	1.0	1.0
D	1.6	1.4	1.2	1.1	1.0
E	2.5	1.7	1.2	0.9	0.9
F	See AASHTO Article 3.4.3				

Note: Use straight-line interpolation for intermediate values of  $S_s$

---

**For Site Class = D and  $S_s = 0.155$  g,  $F_a = 1.600$**

Table 3.4.2.3-2—Values of  $F_v$  as a Function of Site Class and Mapped 1-sec Period Spectral Acceleration Coefficient

Site Class	Mapped Spectral Response Acceleration Coefficient at 1-sec Periods				
	$S_1 \leq 0.10$	$S_1 = 0.20$	$S_1 = 0.30$	$S_1 = 0.40$	$S_1 \geq 0.50$
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.7	1.6	1.5	1.4	1.3
D	2.4	2.0	1.8	1.6	1.5
E	3.5	3.2	2.8	2.4	2.4
F	See AASHTO Article 3.4.3				

Note: Use straight-line interpolation for intermediate values of  $S_1$

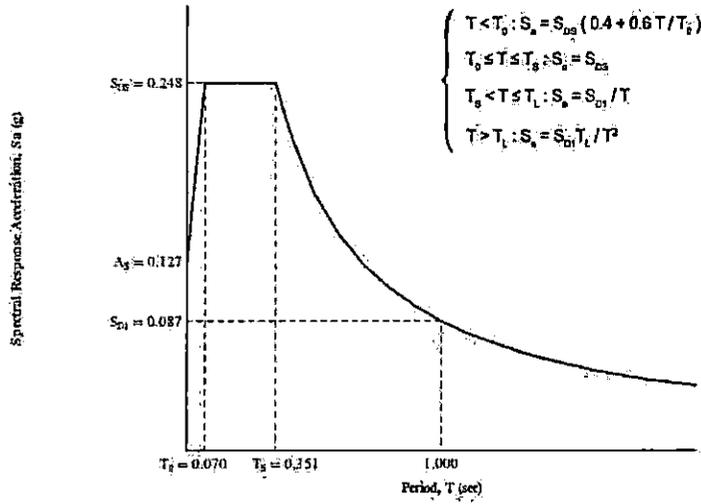
For Site Class = D and  $S_1 = 0.036$  g,  $F_v = 2.400$

Equation (3.4.1-1):  $A_s = F_{PGA} PGA = 1.600 \times 0.079 = 0.127$  g

Equation (3.4.1-2):  $S_{DS} = F_a S_s = 1.600 \times 0.155 = 0.248$  g

Equation (3.4.1-3):  $S_{D1} = F_v S_1 = 2.400 \times 0.036 = 0.087$  g

Figure 3.4.1-1: Design Response Spectrum



## Article 3.5 - Selection of Seismic Design Category (SDC)

Table 3.5-1—Partitions for Seismic Design Categories A, B, C, and D

VALUE OF $S_{D1}$	SDC
$S_{D1} < 0.15g$	A
$0.15g \leq S_{D1} < 0.30g$	B
$0.30g \leq S_{D1} < 0.50g$	C
$0.50g \leq S_{D1}$	D

For  $S_{D1} = 0.087g$ , Seismic Design Category = A

Seismic Design Category  $\cong$  "the design category in accordance with Table 3.5-1" = A

---

## References

1. *Figure 3.4.1-2*: <https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/AASHTO-2009-Figure-3.4.1-2.pdf>
2. *Figure 3.4.1-3*: <https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/AASHTO-2009-Figure-3.4.1-3.pdf>
3. *Figure 3.4.1-4*: <https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/AASHTO-2009-Figure-3.4.1-4.pdf>

## **Appendix E: Engineering Analysis**

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Factored Resistance of Micropile (1 page)



**Dulles Geotechnical and Materials  
Testing Services, Inc. (DGMTS)**

14115 Sullyfield Circle, Suite H, Chantilly, VA 20151 Phone: 703-999-3207

Project: Replacement of Cavalry Road Bridge (04964) Over the West Branch of Saugatuck River		Project Engineer: BP	
Project No.: 18034	Reviewer: TH	Date:	10/8/2018

**FACTORED GEOTECHNICAL RESISTANCE OF MICROPILE**

*(Based on AASHTO LRFD , Section 10.9)*

INPUT		
Casing Outside Diameter (inch)	7	9.625
Casing Wall Thickness (inch)	0.5	0.472
Reduction in outside diameter due to corrosion (inch)	0.125	0.125
Casing Yield Strength (psi), $F_{y \text{ casing}}$	80000	80000
Reinforcing Bar Dia (inch) (#18)	2.25	2.25
Reinforcing Bar Yield Strength (psi), $F_{y \text{ bar}}$	750000	750000
Grout Compressive Strength (psi)	5000	5000
Grout Diameter (inches), below casing	7.5	10.125
$\alpha_{\text{bond}}$ nominal strength (psi) (Type B)	35	35
Bond Length (feet)	35	25
Resistance Factor	0.55	0.55
OUTPUT		
Casing Outside Diameter (effective) (inch)	6.75	9.375
Pile Casing Inside Diameter (inch)	6	8.681
Pile Casing Steel Area (sq. in.)	7.51	9.84
Reinforcing Bar Area (sq. in.)	3.976	3.976
Grout Area (sq. in.)	24.30	55.21
Use minimum of $F_{y \text{ (bar)}}$ or $F_{y \text{ (casing)}}$	80000	80000
Structural Capacity Cased Length		
Factored Tension Resistance (tons), $R_{TC}$	368	442
Factored Compression Resistance (tons), $R_{CC}$	326	427
Structural Capacity Uncased Length		
Grout Area (sq. in.), below casing	40	77
Factored Tension Resistance (tons), $R_{TU}$	127	127
Factored Compression Resistance (tons), $R_{CU}$	156	205
Geotechnical Capacity		
$R_s = \text{Resistance Factor} * \pi * d_{\text{bonded}} * \alpha_{\text{bonded}} * L_{\text{bonded}}$		
$R_s$ factored geotechnical resistance (tons)	95	92

## **13. Hydraulics Report Excerpts**

FEDERAL/LOCAL BRIDGE REHABILITATION PROGRAM  
STATE PROJECT NO. 157-85



**HYDRAULIC DESIGN REPORT**

**RECONSTRUCTION OF CAVALRY ROAD BRIDGE  
over WEST BRANCH OF SAUGATUCK RIVER  
(BRIDGE NO. 04964)**

**TOWNS OF WESTON AND WESTPORT, CT**

Submitted: November 2019, Rev. APRIL 2020

Prepared For: WMC CONSULTING ENGINEERS

PREPARED BY:

Thomas J. Bulzak, P.E., L.S.

CHECKED BY:

Jay A. Costello 04/27/2020  
Jay A. Costello, P.E. - WMC Consulting Engineers Date:

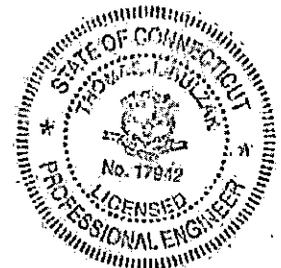
CTDOT APPROVED HYDRAULIC ENGINEER:

Bulzak

04/27/2020

Thomas J. Bulzak, P.E., L.S.

Date:



**EcoDesign, LLC**

**2 Gatewood, Avon, CT 06001**

**(860) 677-4555**

**EXECUTIVE SUMMARY**

**1. LOCATION:**

Structure No.:	<b>04964</b>	Project No.:	<b>157-85</b>
Towns:	<b>Weston &amp; Westport</b>	Stations:	<b>1+00 - 4+30</b>
Highway:	<b>Cavalry Road</b>		
Stream:	<b>West Branch Saugatuck River</b>		

**2. EXISTING STRUCTURE:**

Superstructure Type:	<b>Two Span 56.3-foot Clear - Precast Concrete Deck Units</b>
Substructure Type:	<b>Concrete Gravity Wall Abutments and a Solid Stem Pier</b>
NBIS Item 113:	<b>3</b>

**3. PROPOSED STRUCTURE:**

Superstructure Type:	<b>72-foot Clear Span - Prestressed Concrete 40D NEXT Beams</b>
Substructure Type:	<b>Abutments &amp; U-type Wing-walls</b>
Foundation Type:	<b>Integral Abutments on Micro Piles</b>
NBIS Item 113:	<b>5 - Foundation Designed to Resist Predicted Scour</b>

**4. ROADWAY:**

Classification:	<b>Rural Local Street</b>	System:	<b>Off</b>
ADT:	<b>622</b>	Date:	<b>2016</b>
Detour Length:	<b>3.0 miles</b>		

**5. CHANNEL RATING:**

NBIS Item 61:	Current BRI:	Recommended Rating:
	<b>5 (coded incorrectly)</b>	<b>8</b>

**6. HYDROLOGY: Recommended Design Discharges:**

Method: **Rounded Up USGS StreamStats Adjusted Based on Comparative Gage Data (#01212100) Analysis**

Watershed Area:	<b>11.2 Sq. Mi.</b>	2-year	<b>550 cfs</b>
Design Discharge:	<b>100-Year</b>	5-year	<b>900 cfs</b>
Structure Classification:	<b>Large</b>	<u>10-year</u>	<u><b>1,250 cfs</b></u>
Temporary Discharge	<b>2-year</b>	25-year	<b>1,600 cfs</b>
		50-year	<b>1,900 cfs</b>
		<u>100-year</u>	<u><b>2,200 cfs</b></u>
		200-year	<b>2,800 cfs</b>
		500-year	<b>3,400 cfs</b>

**7. HYDRAULICS:**

Model Used:	<b>HEC-RAS 5.0.7</b>	NBIS Item 71	Rating
Hydraulic Control:	<b>Subcritical</b>	Current BRI:	<b>9 (coded incorrectly)</b>
Design Discharge:	<b>100-year</b>	Recommended	<b>6</b>

## **EXECUTIVE SUMMARY (Cont.)**

### **CONCLUSIONS AND RECOMMENDATIONS:**

The existing, two-span, 56.3-foot effective clear opening of Bridge No. 04964 is hydraulically inadequate. The crossing does not meet the bridge underclearance or the freeboard criteria at the low point in the roadway profile. The hydraulic analyses indicate that the existing structure causes approximately 0.9 feet of upstream backwater for the 100-year Design Discharge. For the Design Discharge the existing crossing operates in open flow and weir flow with approximately 16% of flow overtopping the low point in the road with maximum flow depth of approximately 1.4 feet.

The proposed replacement bridge crossing will have a single span 72-foot clear opening perpendicular to the direction of flow. The width of the proposed structure will be increased, from the existing approximately 25.5 feet, to accommodate two 10-foot lanes and 2-foot shoulders. The total width (out-to-out) of the proposed structure, with open rail parapets, will be approximately 28 feet. The profile of the roadway will be elevated through the crossing area however the low point in the roadway will remain unchanged.

The performed hydraulic analyses indicate that the proposed replacement structure will cause approximately 0.0 feet of upstream backwater for the 100-year Design Discharge. This proposed structure will operate in open flow and weir flow with approximately 11% of flow overtopping the low point in the road with maximum flow depth of approximately 1.2 feet. The proposed bridge superstructure will have a minimum of 0.5 feet of underclearance.

The southerly approach roadway will continue to be overtopped during the 100-year Design Discharge. The proposed bridge opening will modestly improve the roadway flooding conditions by making the low point of Cavalry Road passable during the 25-year (1,600 cfs) event versus the 10-year event (1,250 cfs) for the existing crossing.

Since the proposed crossing does not satisfy the underclearance and freeboard criteria the project will require CTDOT Drainage Manual Design Criteria Waiver.

Cavalry Road will be posted as being subject to flooding and will be barricaded by the Towns of Weston and Westport when overtopped.

## **HYDRAULIC DATA**

### **1. LOCATION:**

A. Town:	<b>Weston &amp; Westport</b>	State Project No.(s):	<b>157-85</b>
B. Highway:	<b>Cavalry Road</b>	Station(s):	<b>1+00 - 4+30</b>
C. Location Relative to Highway Landmark:	<b>100' North of Crooked Mile Road</b>		
D. Stream:	<b>West Branch Saugatuck River</b>		
E. Location Relative to Stream Landmark:	<b>200' Upstream of Confluence with Unnamed Tributary</b>		

### **2. DESIGN FLOOD:**

A. Hydrologic Procedure Used for Design		<b>Gage (#01212100) Adjusted USGS StreamStats Eq.</b>
B. Hydrologic Procedure Used by FEMA		<b>Connecticut Water Resources Bulletin No. 36 Regression Eq.</b>
C. Drainage Area		<b>11.2 sq. mi.</b>
D. CTDOT Drainage Manual Structure Classification		<b>Large</b>
E. Design Storm Frequency		<b>100-year</b>
F. Required Underclearance/Freeboard at Design Discharge		<b>2 foot</b>
G. Design Discharge		
i.	<b>CTDOT Design</b>	<b><u>2,200 cfs</u></b>
ii.	<b>FEMA</b>	<b>2,500 cfs</b>
iii.	<b>SCEL</b>	<b>N/A</b>

### **3. HYDRAULIC ANALYSIS PROCEDURE:**

A. Model Used		<b>HEC-RAS, Version 5.0.7</b>
B. Flow Regime		<b>Subcritical</b>
C. Boundary Conditions		
i.	<b>Downstream</b>	<b>Normal Depth based on FEMA Profiles</b>
ii.	<b>Upstream</b>	<b>Critical Depth</b>
D. Other Methods		<b>N/A</b>

### **4. HYDRAULIC CONTROL:**

A. Type of Control		<b>Critical Depth - Tailwater Shallow Weir approx. 535' Downstream</b>
B. Location Relative to Proposed Construction		<b>Downstream Reach</b>

### **5. COEFFICIENTS OF ROUGHNESS:**

A. Downstream	<b>Channel</b>	<b>0.040-0.060</b>	<b>Overbank</b>	<b>0.080-0.10</b>
B. At Crossing	<b>Channel</b>	<b>0.040</b>	<b>Conduit</b>	<b>N/A</b>
C. Upstream	<b>Channel</b>	<b>0.040-0.060</b>	<b>Overbank</b>	<b>0.080-0.10</b>

**6. EXISTING STRUCTURE, EVALUATION FOR THE DESIGN DISCHARGE:**

A. Type:	<b>Two Span 59.3-foot Clear - Precast Concrete Deck Units, Concrete Gravity Wall Abutments and a Solid Stem Pier</b>		
B. Gross Waterway Opening	ft <sup>2</sup>	<b>310.8</b>	
C. Effective Waterway Opening	ft <sup>2</sup>	<b>218.2</b>	[Energy/Weir Flow]
D. Effective Width of Waterway Opening	ft	<b>56.3</b>	59.3' - 3.0' (pier)
E. Depth of Waterway Opening	ft	<b>6.0</b>	
F. Low Chord Elevation	ft	<b>65.8</b>	[Low Low Chord]
G. Minimum Roadway Elevation	ft	<b>64.6</b>	Bridge Upstream Face
H. W.S.E. at Bridge Approach Section	ft	<b>65.4</b>	
I. Underclearance at Design Discharge	ft	<b>+0.4</b>	Bridge Approach Section
J. Freeboard at Design Discharge	ft	<b>-0.8</b>	Bridge Approach Section
K. Mean Velocity Through Structure	ft/s	<b>9.60</b>	

**7. PROPOSED STRUCTURE, EVALUATION FOR THE DESIGN DISCHARGE:**

A. Type:	<b>72-foot Clear Span - Prestressed Concrete 40D NEXT Beams founded on Integral Abutments on Micro Piles</b>		
B. Gross Waterway Opening	ft <sup>2</sup>	<b>405.2</b>	
C. Effective Waterway Opening	ft <sup>2</sup>	<b>256.1</b>	[Energy/Weir Flow]
D. Overall Width of Waterway Opening	ft	<b>72.0</b>	
E. Depth of Waterway Opening	ft	<b>6.0</b>	
F. Low Chord Elevation	ft	<b>65.8</b>	[Low Low Chord]
G. Minimum Roadway Elevation	ft	<b>64.6</b>	Bridge Upstream Face
H. W.S.E. at Approach Section	ft	<b>65.3</b>	
I. Maximum Regulatory Elevation	ft	<b>66.3</b>	+1.0 over Natural W.S.E.
J. Other Controlling W.S.E.	ft	<b>64.6</b>	Road Low Point Elev.
K. Difference in W.S.E.			
1. Proposed vs. Existing	ft	<b>-0.1</b>	
2. Proposed vs. Natural	ft	<b>0.0</b>	
L. Underclearance at Design Discharge	ft	<b>+0.5</b>	Bridge Approach Section
M. Freeboard at Design Discharge	ft	<b>-0.7</b>	Bridge Approach Section
N. Mean Velocity Through Structure	ft/s	<b>8.7</b>	

**8. REMARKS:**

A. Navigational Requirements:	<b>None</b>	
B. Tidal Conditions:	<b>None</b>	
C. Record Floods:	<b>1927, 1938, 1955, 1978, 1979, 2007 and 2011</b>	
D. Average Daily Flow	[Q <sub>AD</sub> = 1.87 (D.A.) <sup>0.98</sup> ]	<b>20 cfs</b>
E. Average Spring Flow	[Q <sub>AS</sub> = 3.62 (D.A.) <sup>0.988</sup> ]	<b>40 cfs</b>
F. Flood Hazard Zone:	<b>AE</b>	
G. Vertical Datum:	<b>NAVD 1988</b>	

## **14. Water Pollution Control Special Provision**

**ITEM # 0210820A – WATER POLLUTION CONTROL (ESTIMATED COST PLUS)**

**Description:**

This work shall consist of measures to control water pollution and soil erosion through the use of berms, dikes, dams, sediment basins, erosion control matting, gravel, mulches, grasses, slope drains, ditches, channels, riprap, grading to control surface runoff and other erosion control devices or methods.

If the Contractor proposes changes in construction or scheduling which would affect the designed pollution controls, plans for revised pollution controls shall be submitted for the Engineer's approval before the start of construction.

The Contractor shall submit a plan showing erosion and sedimentation controls above and beyond those called for in the plans and specifications, necessitated by its proposed sequence of operations and construction activities. The construction shall not proceed until the erosion and sedimentation control plans have been approved by the Engineer. The Engineer may order additional control measures if the measures mentioned above prove insufficient.

The construction effort for this project requires work to be performed adjacent to, and directly over, the brook or river. As such, precautions must be taken by the contractor to insure that the stream area environment is not unnecessarily disturbed or is not contaminated with sediment, chemicals or other pollutants as a result of the contractor's operations or work. In addition to complying with the contract documents (plans & specifications), it is expected that the contractor will take all necessary precautions to protect the stream environment from his work operations, and that all work shall comply completely in all aspects to Section 1.10 of the Standard Specifications, and the requirements and attachments of local, State & Federal permits, as well as the requirements set forth in the Connecticut Department of Transportation document "Best Management Practices", which is a part of the Connecticut Department of Transportation publication "On-Site Mitigation for Construction Activities". Special provisions and additional pay items have been included in the contract documents to address these issues and the contractor is advised to review any special provisions.

The contractor will be expected to comply with the requirements of all permit and contract documents, including the stage construction and E&S control measures outlined therein. However, to insure understanding and compliance, the contractor will be expected to submit a written water pollution control plan, including individual plans or sections for removal of superstructure, construction operations & staging, E&S control, dewatering, disposal of excess material, stockpiling, etc.

***In addition, the Contractor is reminded that review and approval authority is granted to the Town of Weston, the Town of Westport, and the State of Connecticut for all construction operations and related water pollution control procedures.***

## **Materials:**

The materials shall consist of items meeting the pertinent articles of the Standard Specifications and approved by the Engineer, or other items approved by the Engineer, such as:

- a.) Soil tackifiers, erosion control matting, burlap, and plastic sheets. All materials shall be clean and free from noxious weeds, contaminants, and debris deleterious to plant growth. Erosion control matting shall be as specified in M.13.
- b.) Slope drains or ditches may be constructed of pipe, rubble, riprap, sod, burlap, plastic sheets, Portland cement concrete, bituminous concrete, or other material approved by the Engineer.
- c.) Seeding shall be as specified in 9.50 and M.13.

Water pollution prevention, including prevention and control of soil erosion and sedimentation is of primary importance. The minimum procedures required for construction operations, erosion and sediment (E&S) control and handling water shall be followed by the Contractor as outlined in the plans and specifications. Minimum requirements for the environmental portions of the water pollution control plan are presented as follows.

**Erosion & Sediment Control Plan:** The erosion & sedimentation (E&S) plan will essentially follow the contractor's proposed sequence of construction and as shown on the handling of water plans. The Contractor will be expected to follow the proposed handling water plans, install erosion & sedimentation controls in accordance with the approved E&S plan and maintain sediment and erosion controls such that they are effective at all times. To ensure understanding, confirm procedures and staging, and confirm compliance, prior to construction the Contractor will be required to prepare and submit (in writing) a Plan of Operations and an Erosion & Sediment (E&S) Control Plan to the Engineer, the Town of Weston Conservation Commission, and the Town of Westport Conservation Department for review and approval. If the E&S plan does not substantially follow and comply with the contract drawings, the contractor shall be required to revise his plan or obtain a modification from the Town of Weston and the Town of Westport. No construction activities shall commence until the Plan is approved by the Engineer, the Town of Weston Conservation Commission, and the Town of Westport Conservation Department. The Contractor will be required to comply with the approved Plan at all times. Any material or equipment placed or discharged to a wetland or watercourse, not in accordance with the contract documents or approved E&S plan, will be considered a wetlands violation and such material or equipment shall be removed immediately; the Contractor will then be required to restore the impacted wetland or watercourse as specified by the Town's Conservation Commission/Department.

Sedimentation and Erosion Controls will be installed by the contractor prior to the various stages of construction according to the approved plan, and these E&S controls will be modified and maintained as needed and directed by the Engineer as construction proceeds to ensure protection of the wetland resources. Standard sedimentation and erosion control practices will be as outlined in the "Connecticut Guidelines for Sedimentation and Erosion Control" (2002), as amended, and included in the construction contract documents. This will include temporary measures, which are shown on Erosion and Sediment Control Details, such as silt fence and hay bales. The certified E&S Plan will consist of the approved construction plans and the following outline:

**Sediment Control** – Prior to initiating any work in an area, silt fence or hay bales must be installed to encompass the limits of all work areas, as well as at the toe of all fill or cut slopes, in order to intercept sediment flow from work areas or from disturbed excavation or fill areas toward stream or wetland environments. Silt fence or hay bales shall remain in place until turf is sufficiently established to provide effective stabilization of disturbed area.

**Turbidity Control Curtains** – Prior to initiating any work over or in the stream area, turbidity curtains shall be installed in lengths and locations as may be directed by the Engineer, the Town of Weston Conservation Commission, or the Town of Westport Conservation Department, in order to intercept floating debris or sediment from downstream areas. Turbidity control curtains shall remain in place until all work in or above stream areas is complete.

**Turf establishment** – Turf establishment shall be performed on all disturbed areas immediately upon completion of each stage or sub-stage, or as otherwise directed by the Engineer. All turf establishment shall be repaired, supplemented and/or maintained by the contractor throughout the construction process and until the growth of long lived grasses is sufficiently established to provide effective stabilization of disturbed area.

**Check Dams** – Where roadway reconstruction causes significant areas or lengths of soil, gravel or process aggregate to be exposed, especially in areas of steep grades, check dams of stone, silt fence, hay bales or other approved type shall be installed at intervals (depending on grade, runoff volume and material) as required to slow velocities or re-direct flow such that erosion is minimized.

**Catch Basins** – Where catch basins are not installed in conjunction with a bituminous pavement course, or are installed in any location or sequence such that sediment is flowing into the catch basins, then effective temporary measures shall be taken at these catch basins to prevent silt laden water from entering these basins. These measures shall include, but not be limited to such measures as surrounding catch basins with silt fence or hay bales, inserting geotextile fabric under the frame, redirecting water to a silt fence, hay bale or stone check dams before it reaches the catch basins. All measures must be approved by the Engineer prior to installation and may be modified by the Engineer if measures are deemed to be inadequate or inappropriate.

**Maintenance of E&S Measures** – In his E&S plan, the contractor shall designate an employee as the responsible person for installation, inspection and maintenance of E&S measures, and this person shall work directly with the Town designated site inspector and

Town's environmental planner. All E&S control measures shall be maintained in accordance with contract documents and this E&S plan. As a minimum, measures shall be inspected and maintained by the contractor on a daily basis, as well as after storm events of ½ inch or more. On Friday afternoons, all measures shall be inspected and repaired as needed to ensure that they are in good working order for the upcoming weekend. First thing on Monday mornings, all measure shall be inspected to ensure that they are in good working order after the weekend.

**Dewatering Plan:** The contractor shall be required to control all water pumped in order to control water levels and dewater during trench and structural excavation operations. Turbid water generated by the Contractor through dewatering operations or other activities shall be effectively treated prior to discharge to a wetland or watercourse in order to avoid sedimentation of these systems. The contractor shall discharge *all* pump water to a riprap pump discharge pad, sedimentation basin, "silt bag", or a combination thereof, surrounded by silt fence or hay bales. Approximate locations are shown on the stage construction drawings and these locations may be modified upon approval of the engineer. In no case, however, shall such pump discharge pads be located within a wetland or watercourse, but they shall be set back from the stream as far as possible, and yet be reasonably convenient to the construction operations. To slow the discharge and increase cleansing, where ever possible, discharge pads shall be located in areas that will discharge through undisturbed underbrush and ground cover. Additional rows of silt fence, stone check dams or hay bale check dams shall be added as needed between discharge pads and the stream area to assist in cleansing discharge flow.

Based upon pump discharge volume and velocity, the dimensions of the pump discharge pads may be increased at the direction of the Engineer or the Town's environmental planner in order to mitigate any erosion or sedimentation caused by the pump discharge water. As needed, and as directed by the Engineer or environmental planner, all pump discharge pads will also be maintained by the Contractor to insure that dewatering activities do not discharge turbid waters to a wetland or watercourse.

To insure understanding & compliance, the Contractor shall also describe dewatering operations in his submitted E&S plan, including how he/she will perform all dewatering operations for all excavations and stages and how he/she will carry out the requirements of the contract drawings. Such operations shall, at the minimum, be in accordance with approved permits and the contract documents including the attached Staging Details Sheets and the Erosion and Sedimentation Control Detail Sheet.

**Disposal of Excess Material:** The Contractor will be required to submit, in writing, an excess material disposal plan to the Engineer, the Town of Weston Conservation Commission, and the Town of Westport Conservation Department. This plan shall include the disposal location, written evidence that he has permission from the land owner to dispose of this material, and a written statement from the owner that the disposal of this material on his property does not violate any local zoning or wetland regulations. The disposal of excess material shall be in accordance with all applicable federal, state and municipal laws and requirements and no excess material shall be disposed of until such plan is approved the Engineer, the Town of Weston Conservation Commission, and the Town of Westport Conservation Department.

**Stockpile of Material on Site:** The contractor shall be limited to stockpiling materials only in on-site locations that will be within the existing roadway or within slope and disturbance limits of the proposed work as shown on the contract drawings. All materials stockpiled on-site, must be surrounded by silt fence or other measures to prevent siltation of surrounding land or stream areas, as well as adequately protected from the weather as appropriate, including rain, wind and snow. The contractor shall repair, supplement or correct these protective measures as directed by the Engineer.

### **Construction Methods:**

The Engineer has the authority to control the surface area of earth material exposed by construction operations and to direct the Contractor to immediately provide permanent or temporary pollution control measures to prevent contamination of adjacent streams, watercourses, lakes, ponds, or other areas of water impoundment. Every effort shall be made by the Contractor to prevent erosion on the Site and abutting properties.

All slopes shall be stabilized by mulching, seeding, or otherwise protected as the work progresses to comply with the intent of this specification.

All seeding shall include mulch or other protective covering approved by the Engineer.

When hay is used as a mulch with seeding, it shall be a minimum of 2 inches deep and held down with a tackifier.

When wood fiber mulch is used, it shall be applied in a water slurry at a rate of 2000 lb/ac with or immediately after the application of seed, fertilizer, and limestone.

All damaged slopes shall be repaired as soon as possible. The Engineer shall limit the surface area of earth material exposed if the Contractor fails to sufficiently protect the slopes to prevent pollution.

The Contractor shall, at all times, have on hand the necessary materials and equipment to provide for early slope stabilization and corrective measures to damaged slopes.

Temporary channels, ditches, and outfalls shall be protected prior to directing water into them to prevent erosion.

The erosion control features installed by the Contractor shall be maintained by the Contractor, and such installations shall be removed if ordered by the Engineer. Maintenance of erosion control measures by the Contractor shall include the clean out of accumulated sediment.

The Contractor shall operate all equipment and perform all construction operations so as to minimize pollution. The Contractor shall cease any of its operations which will increase pollution during rain storms.

The Contractor shall give the Engineer sufficient notice of impending shutdowns to enable the Engineer and Contractor to examine the Project and to implement erosion and pollution control work.

**Detailed Water Pollution Control Plan:** In addition to the significant concerns regarding pollution and/or sedimentation of the stream environment in which this project is located, the available construction working space for this project site is limited. Therefore, the sequencing and staging of operations and equipment is critical in order to maintain traffic, maximize the existing available space, and minimize sedimentation and/or pollution due to construction operations and water discharge. Prior to the commencement of any site work, the contractor shall submit for review and approval, a formal **Water Pollution Control Plan** that includes distinct and separate sections for E&S control, staging of construction operations, superstructure removal, dewatering, disposal of excess material and stockpiling of material on-site. Plans shall generally follow any plans or descriptions presented in the contract documents (plans and specifications), and shall be specific to the construction operation of each stage or phase of the work. Authority and jurisdiction for review and approval of this plan shall include the State of Connecticut, the Town of Weston, and the Town of Westport.

The Water Pollution Control Plan shall generally include, but not be limited to the following.

- **Construction Sequencing & Phasing Plan** (drawings & written description) that describes procedures and steps for maintaining traffic while sequencing all construction operations during all phases or stages of construction.
- **Erosion & Sedimentation Control Plan** including construction stage specific (utilities, structure and roadway) drawings and descriptions for controlling run-off and sedimentation, including proposed silt fence, check dams, catch basin protection, discharge pads, stockpile areas, etc. E&S plans shall incorporate all erosion and sediment requirements of the contract documents (plans and specifications) and the approved permits (including conditions and supporting information).
- **Dewatering Plan** that includes all procedures for handling discharge of excavation water including site plan showing location of all dewatering control structures, including cofferdams, pump intakes and discharges, portable filter boxes, portable sedimentation systems, silt control barriers, and discharge basins. Details of all dewatering devices including earth berms, cofferdams, sediment basins, etc. for dewatering and control of water from excavated areas should be provided, as well as pump and discharge capacity data. Construction phasing or sequencing of all operation should also be considered when preparing the plan; a separate plan should be submitted for each phase as required to reflect changes in control measures during different phases.
- **Procedures for Removal of Existing Superstructure** and protection of the stream and wetland areas during this process. Vehicles or equipment in the stream area is prohibited. Temporary scaffolding or ladders will be allowed in the stream area, but only for and during installation of protective measures.

The Water Pollution Control Plan shall also include and directly address each of the following:

- **Location for stockpiling** materials within the project area, including erosion & sedimentation protection controls for each area.
- **Location of Field Office** (include on E&S or construction phasing mapping).
- **Disposal of Excess Materials** – Means of disposal of concrete, earth, rock and other construction debris. These materials should not be discharged to a watercourse, placed in an area where they may wash into the watercourse or disposed of in the watershed. Location, property owner agreement and property owner compliance certification regarding zoning and wetlands regulations for all excavated material disposal sites.
- **Scrap Steel** - Location of an approved disposal site for scrap steel.
- **Emergency Spill Procedures** (Subcontractor/materials on site/refueling procedures/emergency phone numbers/etc.). Spills of fuel or any other hazardous materials shall be reported immediately by the Contractor to the Connecticut DEP Oil and Chemicals Spills Unit. The phone numbers of any contact agencies should be included in the proposed plan & prominently posted at the project site. Response plans for any accidental pollution of the watercourse and/or surrounding soil, and breakdown of water pollution and erosion and sedimentation control measures. Provisions for the quick retrieval of any machinery, equipment, debris or material which accidentally falls into the watercourse.
- **Equipment List** to be utilized including Model, Capacity, Year and Serial Number.
- **Working Drawings & back-up computations** for items such as Handling Water, cofferdams, sheet piling, Removal of Superstructure and Sedimentation & Erosion Control.
- **Debris** - Methods for preventing materials such as paint removal, bridge removal or other construction debris, dust, and blasting materials from falling into the watercourse. Discharge of these materials to the watercourse or disposal within the watershed is strictly prohibited. Vehicles or equipment in the stream area is prohibited. Temporary scaffolding or ladders will be allowed in the stream area, but only for and during installation of protective measures.
- **On-Site Vehicles** – Vehicles or equipment in the stream area is prohibited. Methods and locations of refueling, servicing, and storage of vehicles and machinery. In past bridge reconstructions, the Connecticut Department of Public Health has required that refueling and maintenance is done at least 200 feet from the watercourse and that machinery and vehicles be stored at least 100 feet from the watercourse when not in use. Securing of adequate storage and maintenance areas should be done prior to preparation of the plan and bidding.

Servicing and refueling of vehicles and machinery should be done in a manner, which prevents the spillage of oil, gasoline, or other hazardous liquid onto the ground surface or into the watercourse. An impervious containment area is recommended for this purpose.

- **Storage of oil, paint, and other hazardous materials** - These materials should be removed from the site during non-working hours and stored in an indoor locked area.

- **Contact persons** - Name, address, and telephone number(s) of the Contractor contact person for the duration of the project.

### **Method of Measurement:**

Measurement for payment of work and materials involved with the construction, application, and installation of water pollution controls will be as provided for under the applicable Contract items.

Temporary slope protection will be measured for payment by the number of square yards of slope protected in accordance with this specification and as directed by the Engineer. When no applicable contract item appears in the proposal for any additional measures installed but not shown on the plans, such work and materials shall be measured for payment as provided for under Article 1.09.04 – Extra and Cost-Plus Work. All extra work performed on an agreed price basis shall be incorporated on construction orders and paid on an item by item basis. All work performed under this item on a cost-plus basis will be paid under this item. No construction order will be needed to pay for this work.

The sum of money shown on the estimate and in the itemized proposal as “Estimated Cost Plus” for this work will be considered the price bid even though payment will be made only for actual work performed. The estimated cost plus figure is not to be altered in any manner by the bidder. Should the bidder alter the amount shown, the altered figures will be disregarded and the original price will be used to determine the total amount bid for the Contract.

The preparation, submittal and revision of the various plans required under this special provision, as well as attendance and presentation at permitting agencies, shall not be measured separately for payment, but shall be included in the overall work of other contract pay items.

### **Basis of Payment:**

Work will be paid for under the applicable Contract items or as provided for under 1.09.04 – Extra and Cost-Plus Work. No payment will be made for the clean out of accumulated sediment for either permanent or temporary erosion control measures.

Temporary pollution control measures that are made necessary by the Contractor’s negligence, carelessness, failure to install permanent controls as a part of the work as scheduled and are ordered by the Engineer, or are made necessary by the Contractor’s failure to perform the sequence and scheduling of work as part of the schedule as given in the Preconstruction Conference or as later amended and approved, will be ordered by the Engineer to be accomplished and performed by the Contractor at its own expense.

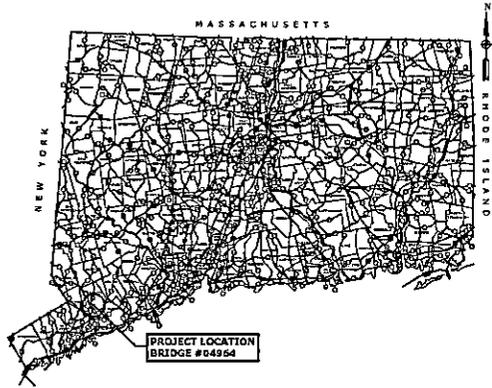
On areas off the right-of-way that are selected by the Contractor and which include but are not necessarily limited to borrow pits (other than commercially operated sources), Contractor’s haul roads, disposal areas, storage, maintenance, batching areas, etc., temporary control work shall be the responsibility of the Contractor and shall be performed by the Contractor at its own expense

in a manner approved by the Engineer. No direct payment will be made for this work; the cost is to be included in other items of the Contract. Temporary control work on the aforesaid areas which are specifically designated for contractual operations by the State shall be paid for under the provisions of the specification.

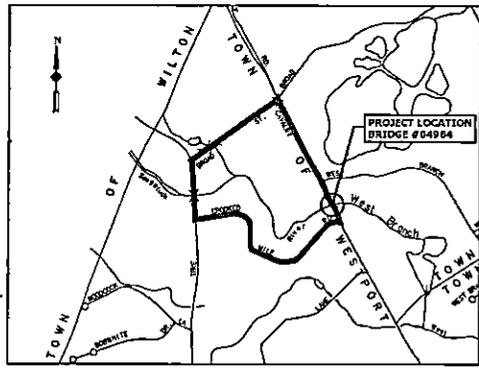
No additional payment shall be made for the preparation and implementation of the various plans addressed by this special provision, but this work shall be included in the related work items or in the general cost of the work, including preparation, submittal and revision of the overall plan for Water Pollution Control procedures, as well as meeting attendance and presentation to permitting agencies if required.

<u>Pay Item</u>	<u>Pay Unit</u>
Water Pollution Control	Est. +

## **15. Permit Plans**



## ENVIRONMENTAL PERMIT PLANS STATE PROJECT NO. 157-85 REPLACEMENT OF BRIDGE NO. 04964 IN THE TOWN OF WESTON



**LOCATION PLAN**  
SCALE: 1" = 500'

**GENERAL NOTES:**

1. THESE PLANS ARE INTENDED ONLY FOR ENVIRONMENTAL PERMITTING PURPOSES. THESE PLANS SHALL NOT BE USED FOR ANY OTHER PURPOSES. THE DESIGNER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPLICABLE CONTRACT DOCUMENTS.
2. THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT PROVISIONS TO DEEP AND UPRIDE FOR CHANGES TO THE DESIGN THAT WILL AFFECT REGULATED AREAS.
3. FOR A DESCRIPTION OF THE WATERCOURSES, WETLANDS AND WETLAND BODIES SEE RELEVANT SECTIONS OF THE PERMIT APPLICATION.
4. HORIZONTAL DATUM BASED ON NADES TO AN ACCURACY OF CLASS A-2. VERTICAL DATUM IS BASED ON MVD 85 TO AN ACCURACY OF CLASS 75.
5. ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S STANDARD SPECIFICATION FOR BRIDGES, RAILROADS AND STRUCTURAL CONSTRUCTION, FORM 101, SECTION 4.12 AND WILL ALSO FOLLOW THE REQUIRED BEST MANAGEMENT PRACTICES (BMPs) AND SOURCE CONTROL MEASURES AS REQUIRED BY THE STATE OF CONNECTICUT AND THE FEDERAL CLEAN WATER ACT AND THE FEDERAL CLEAN WATER ACT AND THE FEDERAL CLEAN WATER ACT AND THE FEDERAL CLEAN WATER ACT.
6. THE WETLANDS WERE PLACED IN THE FIELD BY SOILS ENVIRONMENTAL, LLC MAY 14TH, 2018, AND LOCATED BY HARTWELL LONCH & ASSOCIATES, LLC.

LIST OF DRAWINGS	
DRAWING NO.	DRAWING TITLE
PER-01	TITLE SHEET
PER-02	GENERAL SITE PLAN
PER-03	WETLAND/WATERCOURSE IMPACT PLAN
PER-04	EROSION CONTROL IMPACT PLAN
PER-05	TRUCK/STORAGE AND STRUCTURE PLAN
PER-06	STAGNANT WATER MODELING PLAN

### LOCAL PERMIT PLANS PLAN DATE: APRIL 27, 2020

THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF WMC CONSULTING ENGINEERS. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED IN THE TITLE SHEET. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF WMC CONSULTING ENGINEERS.

DESIGNER	J.A.C.
DRAWN	B.A.
CHECKED	B.A.M.
DATE	4/27/2020

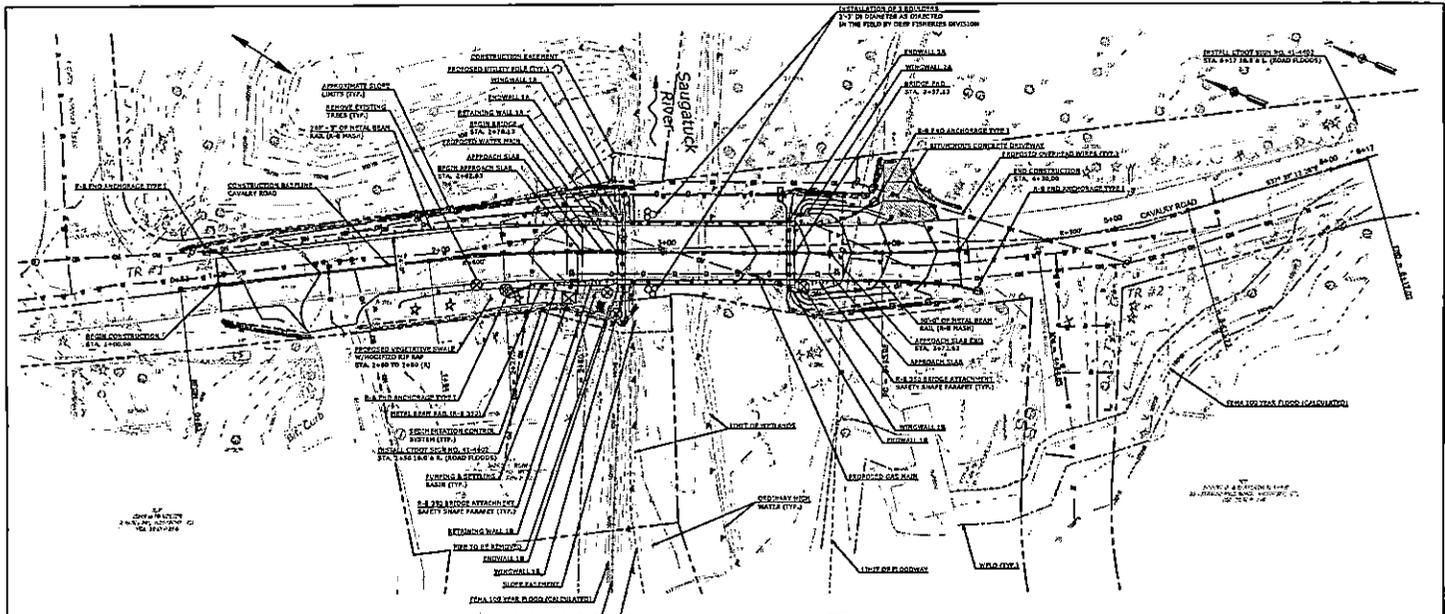
S.F.D. SUBMITTAL

**WMC**  
CONSULTING ENGINEERS  
• WENDELL JAGGERSHIRE & COMPANY, LLC •  
81 CHILMARK ROAD  
NORWICH, CT 06250  
(860) 842-1000

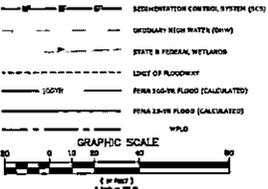
PREPARED FOR  
TOWN OF WESTON  
56 NORFIELD ROAD  
WESTON, CT 06883

REPLACEMENT OF CAVALRY ROAD  
BRIDGE (NO. 04964) OVER SAUGATUCK RIVER  
TITLE SHEET

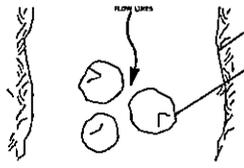
D - CAVALRY ROAD - S.F.A. - 14000.00 -	SHEET 12 OF 12
SITE PROJECT FILE NAME NUMBER REV. OF	DATE



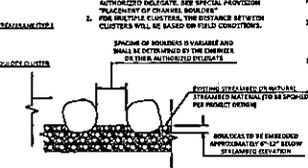
**LEGEND**



**GENERAL SITE PLAN**  
SCALE: 1" = 20' 0"



**PLACEMENT OF CHANNEL BOULDERS**  
PLAN VIEW



**PLACEMENT OF CHANNEL BOULDERS**  
SECTION VIEW

- NOTE:**
- THE BOULDERS APPROXIMATELY 3 FT. HIG. CENTER LINE SHALL BE PLACED IN CLUSTERS AS SHOWN IN THE FIELD BY THE ENGINEER ON THEIR AUTHORIZED INSTRUMENTS. SEE SPECIAL PROVISIONS "PLACEMENT OF CHANNEL BOULDERS".
  - FOR MULTIPLE CLUSTERS, THE SPACING BETWEEN CLUSTERS SHALL BE BASED ON FIELD CONDITIONS.
- SPACING OF BOULDERS IS VARIABLE AND SHALL BE DETERMINED BY THE ENGINEER OR THEIR AUTHORIZED DELEGATE.

**FISHERIES NOTES:**

- TO COMPENSATE FOR HABITAT LOSS, A CLUSTER OF THREE BOULDER SHOULD BE PLACED IN THE LOCATION AS SHOWN ON THE PLANS, DIRECTLY UPSTREAM AND DOWNSTREAM OF THE BRIDGE.
- TO IMPROVE DOWNSTREAM FISH HABITAT, SUBSIDY CONTROL CURTAINS SHOULD BE MAINTAINED'S DURING CONSTRUCTION AND RECONSTRUCTION. CURTAINS SHOULD BE MAINTAINED AT THE TOP OF THE SLOPE OF ALL DISTURBED AREAS UNTIL THE PROJECT IS COMPLETED AND ALL DISTURBED AREAS ARE RESTORED WITH NATIVE VEGETATION.
- WHEN THE EXISTING TWO-SPAN BRIDGE IS REPLACED WITH A SINGLE SPAN, THE CENTER PIERS SHOULD BE CUT AND REMOVED NO LESS THAN ONE FOOT BELOW GRADE.

**LOCAL PERMIT PLANS**

PLAN DATE: APRIL 27, 2020

THIS DIMENSIONAL INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATION BY THE ENGINEER AND IS NOT MEANT TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DATE	4/27/2020
DESIGNER	J.A.C.
ENGINEER	S.A.
CHECKER	S.A.M.
DATE	4/27/2020

**S.F.D. SUBMITTAL**



PREPARED FOR  
TOWN OF WESTON  
56 NORFIELD ROAD  
WESTON, CT 06893

REPLACEMENT OF CAIVLEY ROAD  
BRIDGE (NO. 04964) OVER SAUGATUCK RIVER  
GENERAL SITE PLAN

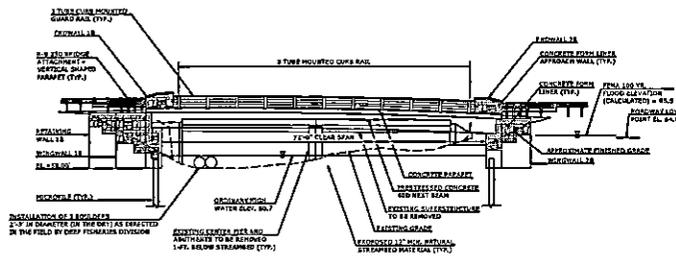
DATE	4/27/2020	REV	01	SHEET	101-21
DATE	4/27/2020	REV	02	SHEET	101-21





**OPENNESS RATIO (OR):**  
OR = OPEN AREA / BRIDGE LENGTH  
OR = 405.2 A.F. / 28 L.F. = 14.5 PP. (1.6%)  
14.5 PP. > 10.0 PP. (1.0%) IN RECOMMENDED MINIMUM

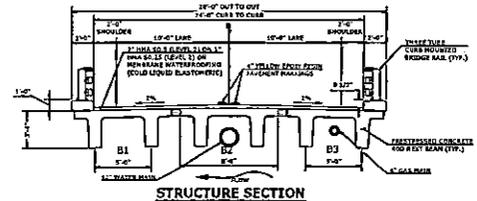
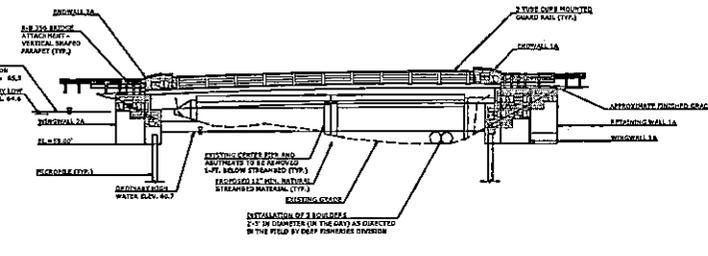
**BANKFULL WIDTH (BFW):**  
BFW = 39 FT. EXISTING UPSTREAM (OHW)  
11.0 BFW = 47 FT.  
47 FT. < 52 FT. PROPOSED BRIDGE SPAN



HYDRAULIC DATA	
BRIDGE AREA	10.7 SQ. FEET
DESIGN FLOW VELOCITY	1.00 FPS
DESIGN FLOW DISCHARGE	2,100 C.F.S.
AVERAGE DAILY FLOW ELEVATION DOWNSTREAM	88.3 F.T. (OBSERVED)
UPSTREAM DESIGN WATER SURFACE ELEVATION	88.3 F.T.
DOWNSTREAM DESIGN WATER ELEVATION	84.8 F.T.
MAXIMUM SCOUR ELEVATION	84.7 F.T.
EFFICIENCY	100%
SPREADER	2.100 C.F.S.
WREST CASE SCALE	SOUTH NORTH SHFT

**NATIVE STREAMBED MATERIAL NOTES:**

1. NATIVE STREAMBED MATERIAL EXISTING UNDER THE BRIDGE SPAN SHALL BE STOCKPILED AND TO BE REPLACED WITHIN THE BRIDGE TO THE DEPTH SHOWN ON THE PLANS, AS DIRECTED BY THE ENGINEER, AND IN ACCORDANCE WITH THE FARMY GOOD PRACTICES.
2. THE STOCKPILE SHALL BE LOCATED OUTSIDE THE WETLAND LIMITS AND PROTECTED WITH SECURITY/CONTROL SYSTEM.



**LOCAL PERMIT PLANS**

PLAN DATE: JANUARY 27, 2020

THE INFORMATION, INCLUDING DIMENSIONS AND MATERIALS, OF THESE PLANS IS BASED ON UNLIMITED INVESTIGATIONS BY THE ENGINEER AND IS NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER'S LIABILITY IS LIMITED TO THE PROFESSIONAL SERVICES PROVIDED BY HIMSELF.

NO.	DATE	DESCRIPTION	BY	DATE
1	4/12/2020	ISSUED FOR PERMIT	WMC	

**S.F.D. SUBMITTAL**

**WMC**  
CONSULTING ENGINEERS  
WENDELL MADONNELL, A. COSTELLO, P.E.  
67 BRIDGE ROAD  
WESTON, CT 06893  
(860) 871-1000

PREPARED FOR  
TOWN OF WESTON  
55 HORNFIELD ROAD  
WESTON, CT 06893

REPLACEMENT OF CAVALRY ROAD  
BRIDGE (NO. 04954) OVER SAUGATUCK RIVER  
ELEVATION AND SECTION PLAN

NO.	DATE	DESCRIPTION	BY	DATE
1	4/12/2020	ISSUED FOR PERMIT	WMC	





## WESTPORT, CONNECTICUT

### FLOOD & EROSION CONTROL BOARD

TOWN HALL, 110 MYRTLE AVENUE  
WESTPORT, CONNECTICUT 06880  
(203) 341-1120

BACK UP MATERIAL  
RTM ITEM # 3

September 3, 2020

Keith Wilberg, PE, LS  
Town Engineer  
110 Myrtle Ave  
Westport, CT 06880

**Bayberry Lane Extension Bridge (Bridge No. 04969) over the Aspetuck River / Application IWW-WPL/E #11049-20;** Application of Keith S. Wilberg, PE, LS, on behalf of the Town of Westport, for the replacement of the Bayberry Lane Extension Bridge over the Aspetuck River. The project lies within the Waterway Protection Line (WPL) of the Aspetuck River.

Please be advised that at its September 2, 2020 meeting, the Westport Flood & Erosion Control Board resolved to APPROVE the above referenced application. Details of the meeting are recorded in the attached meeting minutes.

Please contact the Engineering Department should you have any questions regarding this matter.

Respectfully,

William S. Mazo, Chairman  
Westport Flood & Erosion Control Board.

WSM/asm

Cc: First Selectman, Town Attorney, Public Works Director, Planning & Zoning Director, Conservation Director, Chair of RTM Environmental Committee, Chair of RTM Public Works Committee, Applicants



## WESTPORT, CONNECTICUT

DEPARTMENT OF PUBLIC WORKS  
TOWN HALL, 110 MYRTLE AVENUE  
WESTPORT, CONNECTICUT 06880  
(203) 341 1120 www.westportct.gov

### LEGAL NOTICE OF DECISION

Notice is hereby given that the Westport Flood & Erosion Control Board took the following actions at an electronic meeting held on September 2, 2020:

#### I. PUBLIC HEARING

1. **Cavalry Road Bridge (Bridge No. 04963) over the Saugatuck River / Application IWW-WPL #11047-20; APPROVED.** Application of WMC Consulting Engineers, on behalf of the Town of Westport, for the replacement of Cavalry Road Bridge over Saugatuck River approximately 0.66 miles west of Weston Road. The Bridge is located in both Westport and Weston. The project lies within the Waterway Protection Line (WPL) of the Saugatuck River.
2. **Bayberry Lane Extension Bridge (Bridge No. 04969) over the Aspetuck River / Application IWW-WPL/E #11049-20; APPROVED.** Application of Keith S. Wilberg, PE, LS, on behalf of the Town of Westport, for the replacement of the Bayberry Lane Extension Bridge over the Aspetuck River. The project lies within the Waterway Protection Line (WPL) of the Aspetuck River.
3. **4 Hockanum Road / Application IWW-WPL/E #11055-20; APPROVED.** Application of Robert Pryor, PE, LS, of LANDTECH, on behalf of the owners Andrew and Michelle Ludel, for construction of a new garage and additional site improvements to mitigate flooding. The project lies within the Waterway Protection Line (WPL) of Willow Brook.
4. **6 Manitou Court / Application WPL #11051-20; APPROVED.** Application of LANDTECH / Andy Soumelidis, PE, on behalf of the owner, 6 Manitou Court LLC, to elevate and renovate an existing single family residence, while also constructing a new single family with related site appurtenances. The site lies within the Waterway Protection Line (WPL) of the Saugatuck River.
5. **128 Bayberry Lane / Application IWW-WPL/E #11007-20; CONTINUED.** Referral of a proposed "open space" subdivision consisting of 9 residential lots, two of which to be retained by the Belta family, from the Conservation Commission pursuant to Section 6.5 (f) of the Regulations for the Protection and Preservation of Wetlands and Watercourses, Westport, Connecticut, entitled "Discharge and Runoff."

Applications, plans, and decisions may be inquired into by contacting the Public Works Office at (203) 341-1120, Monday through Friday, from 8:30 am to 4:30 pm.

William S. Mazo, Chair  
Flood & Erosion Control Board



## WESTPORT, CONNECTICUT

### FLOOD AND EROSION CONTROL BOARD

TOWN HALL, 110 MYRTLE AVENUE  
WESTPORT, CONNECTICUT 06880  
(203) 341-1120

### MINUTES

Flood & Erosion Control Board Meeting of September 2, 2020

Present for the Board: William S. Mazo (Chairman)  
John Toi  
Aimee Monroy Smith

Present for Department of Public Works: Amrik Matharu, Engineer II  
Edward Gill, Engineer II

---

William S. Mazo, Chair, opened the meeting at 7:30 pm.

- 1. Cavalry Road Bridge (Bridge No. 04963) over the Saugatuck River / Application IWW-WPL #11047-20; Application of WMC Consulting Engineers, on behalf of the Town of Westport, for the replacement of Cavalry Road Bridge over Saugatuck River approximately 0.66 miles west of Weston Road. The Bridge is located in both Westport and Weston. The project lies within the Waterway Protection Line (WPL) of the Saugatuck River.**

The project was presented by Town Engineer Keith Wilberg, PE, LS, and Keegan Elder, PE, of WMC Consulting Engineers, on behalf of the Town of Westport:

There were questions from the Board regarding disruptions associated with moving the gas and water services, and whether the bridge would need to come back to the Flood and Erosion Control Board.

Per the Chair's request, Amrik Matharu summarized the Engineering Department's review of the project, stating that the proposed activity complies with Town of Westport requirements. In short, he would recommend approval.

The Chair asked if there were any comments or questions from the Public. There were none.

It was agreed that the following Standard Conditions of Approval were deemed necessary: 1, 2, and 12. (Refer to the appended sheet).

DECISION: Proposed Project Approved, 3(Y)-0(N).

2. **Bayberry Lane Extension Bridge (Bridge No. 04969) over the Aspetuck River / Application IWW-WPL/E #11049-20; Application of Keith S. Wilberg, PE, LS, on behalf of the Town of Westport, for the replacement of the Bayberry Lane Extension Bridge over the Aspetuck River. The project lies within the Waterway Protection Line (WPL) of the Aspetuck River.**

The project was presented by Town Engineer Keith Wilberg, PE, LS, and both Ajit Gokhale, PE, and Michael Kelley, PE, of AI Engineers, Inc., on behalf of the Town of Westport.

There were questions from the Board regarding minimizing disruption to utilities.

Per the Chair's request, Amrik Matharu summarized the Engineering Department's review of the project, stating that the proposed activity complies with Town of Westport requirements. In short, he would recommend approval.

The Chair asked if there were any comments or questions from the Public. There were none.

It was agreed that the following Standard Conditions of Approval were deemed necessary: 1, 2, and 12. (Refer to the appended sheet).

DECISION: Proposed Project Approved, 3(Y)-0(N).

3. **4 Hockanum Road / Application IWW-WPL/E #11055-20; Application of Robert Pryor, PE, LS, of LANDTECH, on behalf of the owners Andrew and Michelle Ludel, for construction of a new garage and additional site improvements to mitigate flooding. The project lies within the Waterway Protection Line (WPL) of Willow Brook.**

The project was presented by Robert Pryor, PE, LS, of LANDTECH, on behalf of on behalf of the owners, Andrew and Michelle Ludel.

There were questions from the Board regarding the impact of the proposed fill within the area of Willow Brook, and whether there was any work proposed on the septic system.

Per the Chair's request, Amrik Matharu summarized the Engineering Department's review of the project, stating that the proposed activity complies with Town of Westport requirements. In short, he would recommend approval.

The Chair asked if there were any comments or questions from the Public. There were none.

It was agreed that the aforementioned Special Condition of Approval and following Standard Conditions of Approval were deemed necessary: 1, 2, 10, 11, and 12. (Refer to the appended sheet).

DECISION: Proposed Project Approved, 3(Y)-0(N).

4. **6 Manitou Court / Application WPL #11051-20; Application of LANDTECH / Andy Soumelidis, PE, on behalf of the owner, 6 Manitou Court LLC, to elevate and renovate an existing single family residence, while also constructing a new single family with related site appurtenances. The site lies within the Waterway Protection Line (WPL) of the Saugatuck River.**

The project was presented by Andy Soumelidis, PE, of LANDTECH, on behalf of on behalf of the owner, 6 Manitou Court LLC.

There were questions from the Board regarding whether there were erosion problems behind the wall, water quality issues, the amount of time the lower house will be elevated, whether any work will be done from the water side, and whether the dock is part of the application.

Per the Chair's request, Amrik Matharu summarized the Engineering Department's review of the project, stating that the proposed activity complies with Town of Westport requirements. In short, he would recommend approval along with the following Special Conditions:

1. *Please provide a temporary grading plan for the western construction entrance leading as part of obtaining a Planning & Zoning Permit.*
2. *The applicant shall obtain certification from a structural engineer that the walls, piers, stairs and breakaway components within Flood Zone VE are constructed to VE Zone Standards as part of obtaining a Zoning Certificate of Compliance.*
3. *A site monitor shall be required to ensure compliance with sediment & erosion control plans. As such, the monitor shall provide weekly reports to the Conservation Department.*

The Chair asked if there were any comments or questions from the Public. There were none.

It was agreed that the aforementioned Special Condition of Approval and following Standard Conditions of Approval were deemed necessary: 1, 2, 3, 5, 6, 8, 9, 10, 11, and 12. (Refer to the appended sheet).

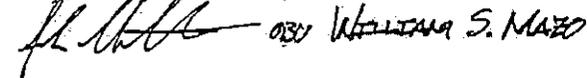
DECISION: Proposed Project Approved, 3(Y)-0(N).

5. **128 Bayberry Lane / Application IWW-WPL/E #11007-20; Referral of a proposed "open space" subdivision consisting of 9 residential lots, two of which to be retained by the Belta family, from the Conservation Commission pursuant to Section 6.5 (f) of the Regulations for the Protection and Preservation of Wetlands and Watercourses, Westport, Connecticut, entitled "Discharge and Runoff."**

The project was continued until the next regularly scheduled meeting.

The meeting was adjourned at 8:31 pm.

Respectfully submitted,



William S. Mazo, Chair  
Flood & Erosion Control Board

WSM/asm

Cc: First Selectman, Town Attorney, Public Works Director, Planning & Zoning Director, Conservation Director, Chair of RTM Environmental Committee, Chair of RTM Public Works Committee, Applicants, minutes@westportct.gov

G:\Engineering\TOWN\FECB\Minutes\fecb-minutes-20200902.docx

**STANDARD CONDITIONS OF APPROVAL:**

1. Applicant shall provide adequate sedimentation and erosion control devices for the proposed activity from the time that construction begins until such time that established ground cover has grown in. More specifically, the toe of filled slopes shall be protected by silt fencing and hay bales or other approved measures, and the face of all exposed slopes shall be protected with hay matting or other approved measures until such time that the slopes have stabilized. Tree protection and/or dewatering measures for the site shall be employed as specified on the approved plans OR as needed by specific field conditions.
2. Proposed site grading, as well as development in general, shall not alter drainage patterns to the detriment of adjoining or downstream properties.
3. All drainage facilities shall be designed to comply with the Town of Westport Engineering Department Storm Water Drainage Design Standards as amended to date (current revision date, 11/01/2015).
4. Applicants shall excavate test pits and conduct percolation tests at the proposed location of any storm water leaching facilities such as drywells, galleries, and stone pits. The test pits shall be witnessed and approved by the Engineering Department prior to installation of the proposed detention system.
5. The area under the proposed deck shall be excavated to a minimum depth of 6" and filled with ¾" crushed stone, or use an alternative drainage methodology as approved by the Town Engineer.
6. All construction shall conform to the requirements of the Federal Emergency Management Agency (FEMA) and the National Flood Insurance Program (NFIP), as outlined in publication ASCE/SEI 24-14, "Flood Resistant Design and Construction," as amended to date.
7. All enclosed spaces below the Base Flood Elevation shall be constructed in conformance with FEMA Technical Bulletin 1-08, "Openings in Foundation Walls and Walls of Enclosures."
8. All final plans, details, and calculations shall be reviewed and approved by the Town Engineer.
9. All proposed work within the regulated area shall be subject to final approval by both the Town Engineer and the Conservation Director.
10. All plantings within the regulated area shall be as approved by the Westport Conservation Commission. No significant fill shall be placed within the WPLO setback other than that incidental to the plantings.
11. If the scope of this project increases or changes in any significant way, all additional or modified proposed work shall be approved by the Flood & Erosion Control Board and the Conservation Commission **prior to its commencement**, not after its completion.
12. It shall be the responsibility of the applicant to obtain and secure any additional necessary assent, permit, or license as required by law or regulation, including but not strictly limited to other Town of Westport, State of Connecticut, or United States Federal agencies.



WESTPORT CONNECTICUT  
CONSERVATION COMMISSION  
110 MYRTLE AVENUE  
WESTPORT, CT 06880  
(203) 341-1170

**LEGAL NOTICE AND AGENDA  
WESTPORT CONSERVATION COMMISSION  
PUBLIC HEARING  
SEPTEMBER 23, 2020**

Notice is hereby given of a meeting of the Westport Conservation Commission pursuant to the Connecticut Inland Wetlands and Watercourses Act, and the Regulations for the Protection and Preservation of Inland Wetlands and Watercourses of the Town of Westport (IWW Regulations) and the Waterway Protection Line Ordinance to be held on **Wednesday, September 23, 2020 at 7:00 p.m. via Zoom.**

Pursuant to the Governor's Executive Order No. 7B, there will be no physical location for this meeting. This meeting will be held electronically and live-streamed on [www.westportct.gov](http://www.westportct.gov) and shown on Optimum Government Access Channel 79 and Frontier Channel 6020. Comments to be read during the public comment period may be emailed to [conservationcomments@westportct.gov](mailto:conservationcomments@westportct.gov). We will use our best efforts to read public comments if they are received during the public comment period and if they state your full name and address. Comments will be limited to 3 minutes. The meeting notice will be available at [www.westportct.gov](http://www.westportct.gov) posted on the Meeting List & Calendar page. Meeting materials will be available at <https://www.westportct.gov/government/departments-a-z/conservation-department>

Comments on Public Hearing items that do not meet these requirements will be placed in the public file but will not be read aloud during the meeting. Comments not pertaining to Public Hearing items will not be read aloud during the meeting.

If you would like to give your Public Hearing comments by participating in real time in the meeting, please send an email by noon on September 23, 2020, to [svoris@westportct.gov](mailto:svoris@westportct.gov), stating your name and address and the Public Hearing agenda item to which your comments will relate, and meeting participation details will be emailed to you to enable you to participate in real time in the Public Hearing.

The Commission shall meet to take such action under the purview of the Town's IWW Regulations and the Waterway Protection Line Ordinance as the meeting may determine with regard to the following:

**Work Session: 7:00 p.m.** (The work session is not a public hearing. The public is invited to attend but may not speak.)

1. Approval of September 4, 2020 field trip minutes.
2. Approval of September 9, 2020 meeting minutes.
3. **6 Arrowhead Road:** Request for administrative approval for a garage addition over existing driveway within the 50-foot upland review area setback.
4. **15 Roosevelt Road:** Request for bond release being held for sediment and erosion controls and plantings as required by Permit #WPL-10626-18
5. **79 Newtown Turnpike:** Request for release of remaining bond funds being held for plantings as a condition of Permit #IWW, WPL/E-9964-15
6. **9 Stony Point Rd.:** Request by Barr Associates on behalf of Edward and Susan Reilly to legalize an existing boat dock installed between 1985 and 1990.
7. October meeting schedule

**Public Hearing: 7:15 p.m.** The following applications will be "received" by the Conservation Commission subject to determination of completion. If applications are determined to be complete the Commission will proceed by opening the hearing. (At this time interested parties may be heard after being recognized by

the Chairman. Written communication may be received for all applications until the public hearing is closed.)

1. **13 Boxwood Lane:** Application #IWW/M-11050-20 by Douglas & Patricia Brill to amend wetland boundary map #G14.
2. **Bayberry Lane Extension Bridge (Bridge No. 04969) over Aspetuck River:** Application #IWW, WPL-11049-20 by Keith Wilberg, Town Engineer on behalf of the Town of Westport to remove the existing two lane bridge over the Aspetuck River and replace it with a new bridge in approximate place and kind. Work is within the upland review area setbacks and the WPLO area of the Aspetuck River.
3. **4 Hockanum Road:** Application #IWW, WPL-11055-20 by Robert Pryor of LandTech on behalf of Andrew & Michelle Ludel to construct a new garage, relocate the driveway, proposed basement hatch and associated site grading/restoration to alleviate existing flooding conditions. Proposed work is within the upland review area and the WPLO area of Willow Brook.
4. **6 Manitou Court: Continued Application:** Application #WPL-11051-20 by Andy Soumelidis of LandTech on behalf of 6 Manitou Court LLC to elevate and renovate the single family residence along the river and construct an enclosed breezeway connecting to a new addition with an in-ground pool upgradient and outside the WPLO area of the Saugatuck River. The driveway will remain in the same general location. The second single family residence will be demolished. The project will also include a new septic system, filling, grading, terracing retaining walls and drainage improvements. The dock is to remain with seawall repairs and rebuilding of the existing deck. Proposed work is within the WPLO area of the Saugatuck River.

The Commission may not open new business on the agenda after 10:00 p.m. at the discretion of the Chairman. This includes applications scheduled for public hearings. Items shall be continued or rescheduled to a later date as necessary.

Anna Rycenga  
Chairman  
Conservation Commission

CC: Town Clerk; First Selectman; Town Attorney; Director of Planning & Zoning; RTM Moderator;  
Chair RTM Environment Committee

It is the policy of the Town of Westport that all Town-sponsored public meetings and events are accessible to people with disabilities. If you need assistance in participating in a meeting or event due to a disability as defined under the Americans with Disabilities Act, please contact Westport's ADA Coordinator at 203-341-1043 or [eflug@westportct.gov](mailto:eflug@westportct.gov) at least three (3) business days prior to the scheduled meeting or event to request an accommodation.



## WESTPORT, CONNECTICUT

JAMES S. MARPE  
*First Selectman*

August 20, 2020

Danielle Dobin, Chair  
Planning & Zoning Commission  
Town of Westport  
110 Myrtle Avenue  
Westport, CT 06880

Re: 8-24 Report Request  
Replacement of the Bayberry Lane Bridge (Bridge No. 04969)  
over the Aspetuck River

Dear Ms. Dobin:

In accordance with C.G.S. Section 8-24, Municipal Improvements, I am requesting a report from the Planning & Zoning Commission regarding the proposed replacement of the Bayberry Lane Bridge over the Aspetuck River. The work is further described in the attached materials.

Thank you for your consideration.

Very truly yours,

A handwritten signature in black ink, appearing to read "James S. Marpe", is written over a horizontal line.

James S. Marpe  
First Selectman

Attachments

cc: Mary Young, Director, Planning & Zoning  
Eileen Lavigne Flug, Esq., Assistant Town Attorney

**MUNICIPAL IMPROVEMENT APPLICATION CGS §8-24**  
WESTPORT PLANNING and ZONING COMMISSION

---

**CAM SITE PLAN**

*(Check if project is located within Coastal Boundary-see GIS map)*

**Submission Date:** \_\_\_\_\_

1. Property Address N/A. Bayberry Ln Bridge (Br. No. 04969); at 304 & 307 Bayberry Ln.  
*(As listed in the Assessor's records or N/A if not applicable)*
  2. Property ID# (9 Digits) N/A. Zone District: AAA
  3. This property is connected to:  Septic or  Sewer
  4. Does this project involve demolition of a building 50+ yrs old or more?  
 No  If Yes = Visit HDC Rm 108, 203-341-1184.
  5. Applicant's Name Keith Wilberg, Town Engineer, Westport DPW Daytime Tel # 203-341-1128
  6. Zoning Board of Appeals Case # (if any) None.
  7. Existing Uses of Property: Roadway Right-of-Way; Roadway Bridge.
  8. Describe Proposed Project or Attach a Project Narrative: The project is proposing to remove the existing bridge, which is in disrepair, and to replace it with a new bridge in approximte place and kind. Refer to the attached project description.
- 
9. This property  Is  Is Not within 500 feet of an adjoining municipality.
  10. List your Estimated time needed for your presentation at hearing: 20 minutes.

I hereby certify that the above information is correct and that I have submitted herewith all of the pertinent documentation required by the zoning application.

Keith D. Wilberg 08/20/2020  
Applicant's Signature ( If different than owner )

[Signature] 8/20/2020  
Owner's Signature ( Must be signed<sup>1</sup> )

<sup>1</sup> If the applicant is unable to obtain the signature of the First Selectman, a letter of authorization signed by the property owner may be submitted instead.



## **WESTPORT, CONNECTICUT**

### **DEPARTMENT OF PUBLIC WORKS**

TOWN HALL, 110 MYRTLE AVENUE  
WESTPORT, CONNECTICUT 06880  
(203) 341 1120 www.westportct.gov

**Date:** 08/20/2020

**Project:** Planning & Zoning CGS 8-24 Application  
Bayberry Lane Bridge Replacement (CT DOT Bridge No. 04969)

**Site Location:** Bayberry Lane Right-of-Way  
Between 303 and 307 Bayberry Lane, west side of road  
Between 304 and 308 Bayberry Lane, east side of road

#### **Property Use Description:**

The site is within the right-of-way of Bayberry Lane, and located between 303 and 307 Bayberry Lane on the west side, and between 304 and 308 Bayberry Lane on the east side.

The existing use of the site is for the roadway bridge on Bayberry Lane that spans the Aspetuck River.

The proposed project will be removing the existing bridge, and constructing a new bridge in approximate place and kind.

The proposed use of the site will be for the new roadway bridge on Bayberry Lane spanning the Aspetuck River.



**SUBMIT TO:**  
 Westport Conservation Department  
 Town Hall – Room 205  
 110 Myrtle Avenue  
 Westport, CT 06880  
 Phone: 203-341-1170  
 Fax: 203-341-1088

<b>FOR OFFICE USE ONLY</b>	
File#:	_____
Date Filed:	_____
Class:	_____
Fee: \$:	_____
Date Rec'd:	_____
<input type="checkbox"/> Cash <input type="checkbox"/> Check #:	_____
Final Inspection:	Y / N
As-Built Required:	Y / N

**APPLICATION  
 WESTPORT CONSERVATION DEPARTMENT**

PROJECT LOCATION: Bayberry Lane Extension Bridge (Bridge No. 04969) over the Aspetuck River  
 ASSESSOR'S MAP # E18 TAX LOT # Bet. 001 & 026 ZONING DISTRICT AA

<u>APPLICANT OR AGENT</u>	<u>NAME</u>	<u>OWNER</u>
<u>Keith S. Wilberg, Town Engineer</u>	<u>Town of Westport</u>	
<u>Town of Westport Dept. of Public Works</u>	<u>ADDRESS:</u>	<u>The Honorable Jim Marpe, First Selectman</u>
<u>110 Myrtle Ave, Rm 210, Westport, CT 06880</u>		<u>110 Myrtle Ave, Westport, CT 06880</u>
	<u>(H) PHONE (H)</u>	
<u>(203) 341-1128</u>	<u>(W) PHONE (W)</u>	<u>(203) 341-1111</u>
<u>kwilberg@westportct.gov</u>	<u>E-MAIL</u>	

EXISTING CONDITIONS (Describe existing property and structures): Existing two lane roadway crossing bridge over Aspetuck River. The surrounding area is a residential area, zoned for 1 acres lots.

PROJECT DESCRIPTION/PURPOSE (Describe the proposed activity): The project proposes to remove the existing two lane bridge over the Aspetuck River, and replace it with a new bridge in approximate place and kind.

I hereby depose and say that all statements contained herein and all exhibits attached hereto are true and binding to the best of my knowledge:

Keith S. Wilberg (Signature of Applicant)      08/11/2020 (Date)

The act of applying to the Conservation Commission and/or Department implies consent to the proposed activity, and grants permission to the Conservation Commission/Department and its agents to inspect the property herein described for the purpose of resource inventory, impact analysis, and compliance investigation at any time beginning on the date of the application filing, and extending through the pendency of any permit issued, or in the event of permit denial, for the purpose of compliance control.

[Signature] (Signature of Property Owner)      8/11/2020 (Date)

**FOR DEPARTMENT USE ONLY**

**1. DEPARTMENT FINDINGS:**

After preliminary review by department staff, the following areas, resources and levels of environmental licensure have been identified:

- Wetland(s) / Watercourse(s), section: \_\_\_\_\_  
 Non-regulated Activity       Permit Required       FEE \$ \_\_\_\_\_
- Wetland / Watercourse Setback(s), section: \_\_\_\_\_  
 Non-regulated Activity       Permit Required       FEE \$ \_\_\_\_\_
- Waterway Protection Line(s), section: \_\_\_\_\_  
 Non-regulated Activity       Permit Required       FEE \$ \_\_\_\_\_
- Staff Site Inspection for Determination of Wetland Boundary  
 Administrative Review       Conservation Commission Review       FEE \$ \_\_\_\_\_
- Sediment & Erosion Control Inspection Fee  
 FEES \_\_\_\_\_

**CONSERVATION CERTIFICATE OF COMPLIANCE FEE \$ \_\_\_\_\_**

**STATE FEE \$ \_\_\_\_\_**

**NOTICE FEE \$ \_\_\_\_\_**

**TOTAL FEE DUE \$ \_\_\_\_\_**

The application has been classified as requiring the following ruling:

- DECLARATORY       SUMMARY       PLENARY

Public Hearing of the application by the Conservation Commission:  is not required,  is scheduled for \_\_\_\_\_

Westport/Weston Health District Approval: \_\_\_\_\_ Public Sewer: Yes / No

Engineering Dept. review required: Yes/No      Date Approved \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**2. REQUEST FOR ADDITIONAL INFORMATION:**

Please submit the information referenced in the attached schedule(s) by 4:00 p.m. on the \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_.

Schedule(s):  A       B       C       D       E       F       G

Other: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**3. RESTRICTION, CONDITIONS AND LIMITATIONS:**

This review is valid for a period of six (6) months from the date of review, shown below, and is subject to the following data/plan(s)/stipulation(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Reviewed by: \_\_\_\_\_ (Conservation Department Staff Signature)      \_\_\_\_\_ (Date)

# TOWN OF WESTPORT

## SCHEDULE C—WETLANDS / WATERCOURSES

APP # \_\_\_\_\_

Due by 4:00 p.m. on \_\_\_\_\_

1. Pursuant to Section 9.6.2 relating to Soil Sample Data – the applicant/agent is to submit copy of a report by a “soil scientist” duly qualified in accordance with standards set by the U.S. Civil Service Commission, showing soil sample data, soil classifications, and a surveyed delineation of wetland soils as flagged by the scientist, including flag numbers (as requested by agency).
2. Pursuant to Section 9.6.3 relating to Biological Evaluations – the applicant/agent is to submit a list and evaluation of the plant and animal life that may be found within, depend upon, or use the wetlands and watercourses (as requested by agency).
3. Describe the anticipated impacts to wetlands and watercourses that may occur as the result of that portion of your proposal that may be located in wetlands, watercourses or their setbacks.

Refer to Environmental Permit Plans for detail description and characterization of anticipated impacts.

PERMANENT WETLAND IMPACTS:	525 S.F (0.012 AC.)
PERMANENT WATERCORSE IMPACTS:	0 S.F (0 AC.)
TEMPORARY WETLAND IMPACTS:	0 S.F (0.000 AC.)
TEMPORARY WATERCOURSE IMPACTS:	695 S.F (0.016 AC.)
TOTAL IMPACTS:	1,220 S.F (0.028 AC.)

4. Describe the mitigation that is being proposed as part of your application in order to minimize disturbance and pollution of wetlands and watercourses, maintain or improve water quality, and prevent destruction of or enhance the natural habitats and functions of the wetlands and watercourses.

The proposed structure spans more than 1.2 times the bank full flow channel width and provides new riparian shelves along the southerly and northerly abutments.  
The proposed project will maintain the existing natural geometry and material of the stream channel. No riprap in the channel installation is proposed as part of the project. The modified riprap, dressed with the natural material, will be installed under the widened span of the proposed bridge outside of the watercourse limits to stabilize the newly created shelves.  
The ConnDEEP Inland Fisheries Division review comments were fully incorporated into the project.

5. List the alternatives to the proposed application that were considered and the reason for their abandonment.

Several clear span bridge configurations (38-foot through 48-foot) were investigated. No spans longer than 48 feet were considered for this project because of the superstructure depth restrictions and constraints imposed by the topography of site.  
A 45-foot clear span was selected as the least impactful to the site, and the shortest span that would satisfy the regulatory requirements and the US ACOE General Permit criteria of 1.2 times the bank full flow width while allowing accommodation of the utilities within its superstructure.  
The area of the crossing will continue to be overtopped during the 100-year Design Discharge. The proposed bridge opening will modestly improve the roadway flooding conditions by making the low point of Bayberry Lane Extension passable during the 10-year (1,700 cfs) event.

# TOWN OF WESTPORT

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SCHEDULE D—WATERWAY PROTECTION LINES

APP# \_\_\_\_\_

Due by 4:00 p.m. on \_\_\_\_\_.

1. Explain/submit information showing why/how the proposed activity as located within Waterway Protection Lines will not cause flooding, drainage, erosion and/or related conditions hazardous to life and property and will not have an adverse impact upon the flood-carrying and water-storage capacity of the town's waterways, including but not limited to the impact upon flood heights, hydrological energy flow, maintenance of essential and natural patterns of water circulation, drainage and basin configuration and maintenance of fresh- and saltwater exchange through the placement of culverts, tide gates or other drainage flood-control structures. (*Sec.148-8 of the Waterway Protection Line Ordinance*)

Refer to the detail Hydraulic Design Report and the Environmental Permit Plans prepared for the Replacement of Bridge No. 04969.

The existing 19.4' effective clear opening of Bridge No. 04969 is hydraulically inadequate. The crossing does not meet the bridge underclearance or the freeboard criteria.

The proposed bridge opening of 45' will reduce flooding conditions at the site without adversely impacting the flood-carrying and water-storage capacity of the watercourse. The area of the crossing will continue to be overtopped during the 100-year Design Discharge. The proposed bridge opening will modestly improve the roadway flooding conditions by making the low point of Bayberry Lane Extension passable during the 10-year (1,700 cfs) event, with approximately 0.3 feet of freeboard, versus the 5-year event (1,260 cfs) for the existing crossing configuration.

2. Explain/submit information showing why/how the proposed activity as located within the Waterway Protection Lines will not cause water pollution, erosion and/or environmentally related hazards to life and property and will not have an adverse impact on the preservation of the natural resources and ecosystems of the waterway, including but not limited to impact on ground or surface water, aquifers, plant and aquatic life, nutrient exchange and supply, thermal energy flow, natural pollution filtration and decomposition, habitat diversity, viability and productivity and natural rates and processes or erosion and sedimentation. (*Sec. 148-9 of the Waterway Protection Line Ordinance*)

Refer to the detail Hydraulic Design Report and the Environmental Permit Plans prepared for the Replacement of Bridge No. 04969.

The project will be carried out with the proper Erosion and Sedimentation Controls which will be installed and maintained throughout the duration of the project so as not to adversely impact the natural resources at the site and increase turbidity levels in the watercourse. Best management practices will be adhered to throughout construction, including the typical restriction of unconfined in-stream activities to June 1 to September 30, inclusive.

3. Other:

Refer to the detail Hydraulic Design Report, Environmental Permit Plans, and the WATERWAY PROTECTION LINE Plans (attached) prepared for the Replacement of Bridge No. 04969.

# SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.

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Wetland Delineations   Ecological Studies   Site Assessments   Project Planning   Soil Testing

February 13, 2019

ATTN: Ariel Martinez  
Martinez Couch & Associates, LLC  
1084 Cromwell Avenue, Suite 2-A  
Rocky Hill, CT 06067

**Re: Wetland Description Report  
Bayberry Lane Bridge (no. 04969) over Aspetuck River,  
Westport, CT  
SS&ES Job No. 2019-2-CT-WES**

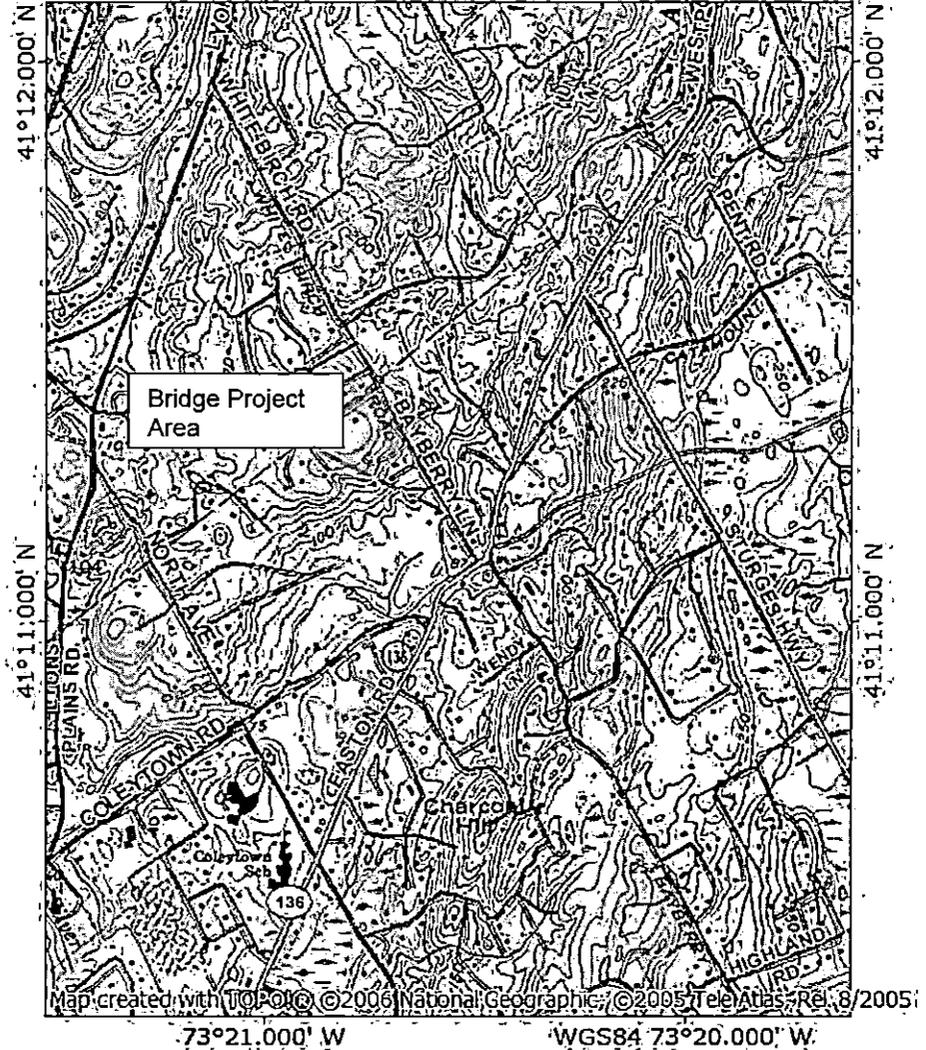
Dear Mr. Martinez:

In accordance with your request, Jennifer Beno, Biologist/Wetland Scientist, with Soil Science and Environmental Services, Inc. (SSES) inspected the wetlands within the proposed Bayberry Lane Bridge over Aspetuck River project area on January 9, 2019. The purpose of the inspection was to observe the existing conditions (vegetation and wildlife) and primary functions of the wetlands within the project area. The wetlands were delineated by SSES on the same day. The Wetlands Delineation Report was provided as a separate document and is dated January 28, 2019. We reviewed resource maps available on the Town of Westport and CT Environmental Conditions Online websites for the project area.

## **General Site Description**

The project area is located within a residentially developed area in the northeastern portion of Westport (Figure 1). It is bordered by single family residential development with associated mowed lawn and paved parking areas and garages as well as wooded upland and the Newman-Poses Preserve area. The wooded upland areas are dominated by sugar maple, beech, ash, black birch, red cedar, white pine, mountain laurel, burning bush, Japanese barberry, Japanese honeysuckle, witch-hazel, multiflora rose, spicebush, Japanese honeysuckle, poison ivy, and bittersweet. Regulated wetlands were delineated to the northeast and southwest of the bridge project area.

TOPO! map printed on 01/10/19 from "Untitled.tpo"  
73°21.000' W. WGS84 73°20.000' W



MN 1  
13°  
01/10/19

SOIL SCIENCE and  
ENVIRONMENTAL  
SERVICES, INC.

U.S.G.S. Topography Map  
Bayberry Lane Bridge (No. 04969) over  
Aspetuck River,  
Westport, CT

Date 1/10/19  
Figure No. 1

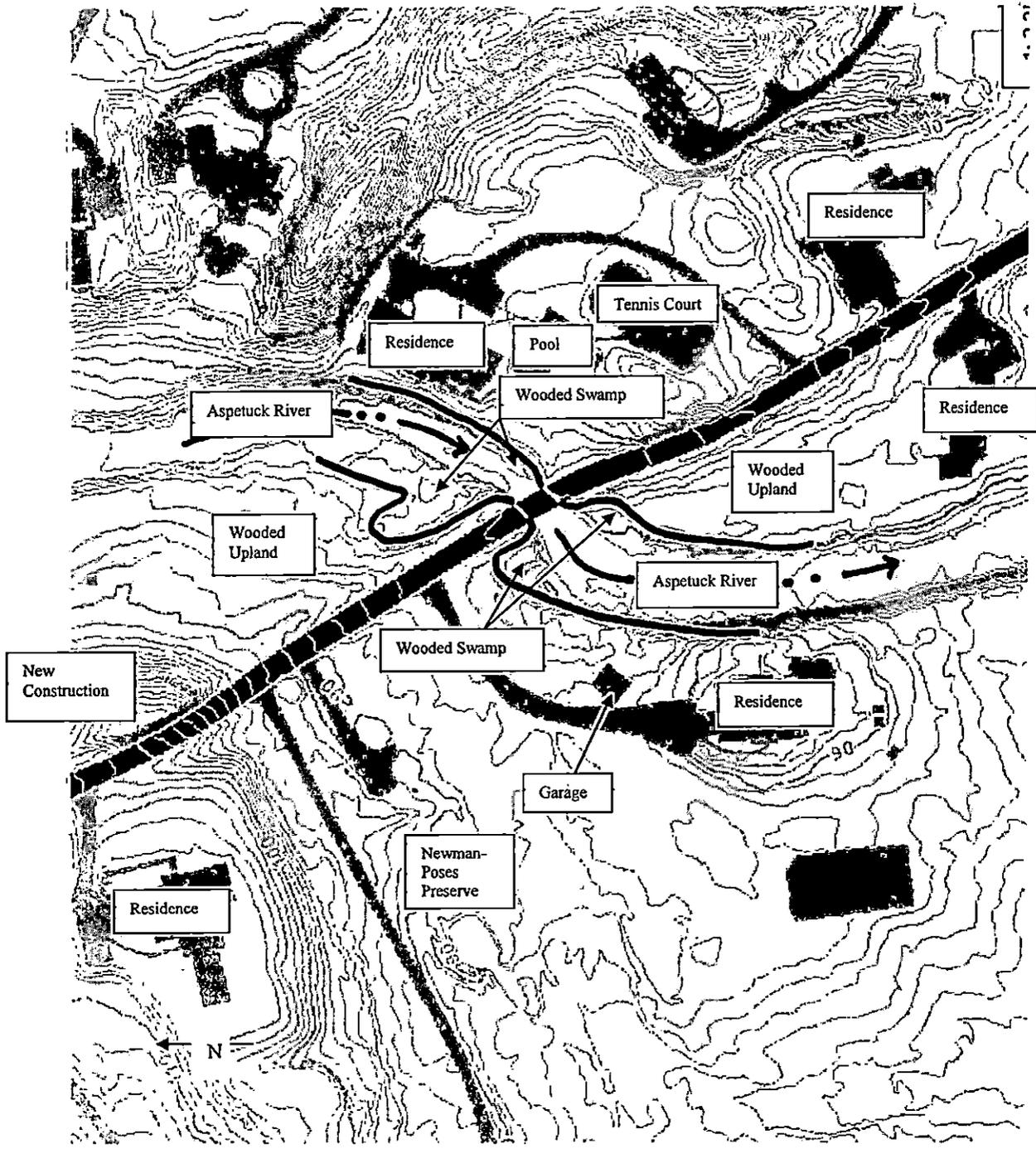


Figure 2 – Existing Conditions

## **Regulated Wetlands Description**

On January 9, 2019, SSES delineated the CT and Federal wetland boundaries along the Aspetuck River to the northeast and southwest of the Bayberry Lane bridge project area (Figure 2). See Wetlands Delineation Report dated January 28, 2019 for additional information pertaining to the wetland delineation.

### **Northeast Wetland Area**

The regulated wetland area to the northeast of the bridge is dominated by a wooded swamp community. The southern bank of the Aspetuck River within this portion of the project area consists of a very narrow wetland bordered by steep fill containing rocks, earthen material, brick and concrete. A residential house is in close proximity to the Aspetuck River and wetland corridor in this area. The northern bank of the Aspetuck River within this portion of the project area consists of a wider floodplain dominated by a deciduous wooded swamp community. The wooded swamp community provides dense tree canopy cover and moderately dense to dense shrub and herbaceous understory growth. The dominant vegetation observed within the Northeast Wetland Area during the inspection includes black birch, ash, hemlock, red maple, ironwood, multiflora rose, raspberry, spicebush, burning bush, witch-hazel, Japanese knotweed, garlic mustard, meadow garlic, Japanese honeysuckle, false nettle, and skunk cabbage.

### **Southwest Wetland Area**

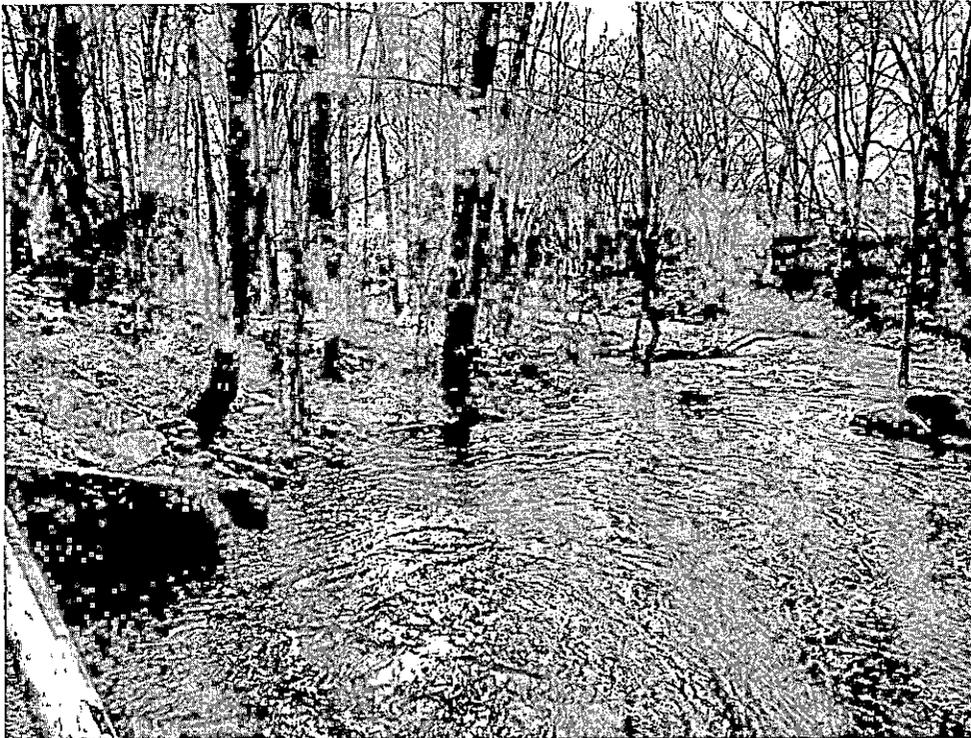
A narrow regulated wetland also exists to the southwest of the bridge project area. This regulated floodplain area is dominated by a wooded swamp community. Fill, stonewalls, and a residence are in close proximity to the northern and western sides of the wetland and watercourse corridor within this portion of the project area. The wooded swamp community provides dense tree canopy cover and moderately dense to dense shrub and herbaceous understory growth. The dominant vegetation observed within the Southwest Wetland Area during the inspection includes elm, red maple, ash, sycamore, burning bush, Japanese barberry, winterberry, multiflora rose, spicebush, ironwood, meadow garlic, garlic mustard, goldenrod, sedges, grasses, skunk cabbage, false nettle, manna grass, and sensitive fern.



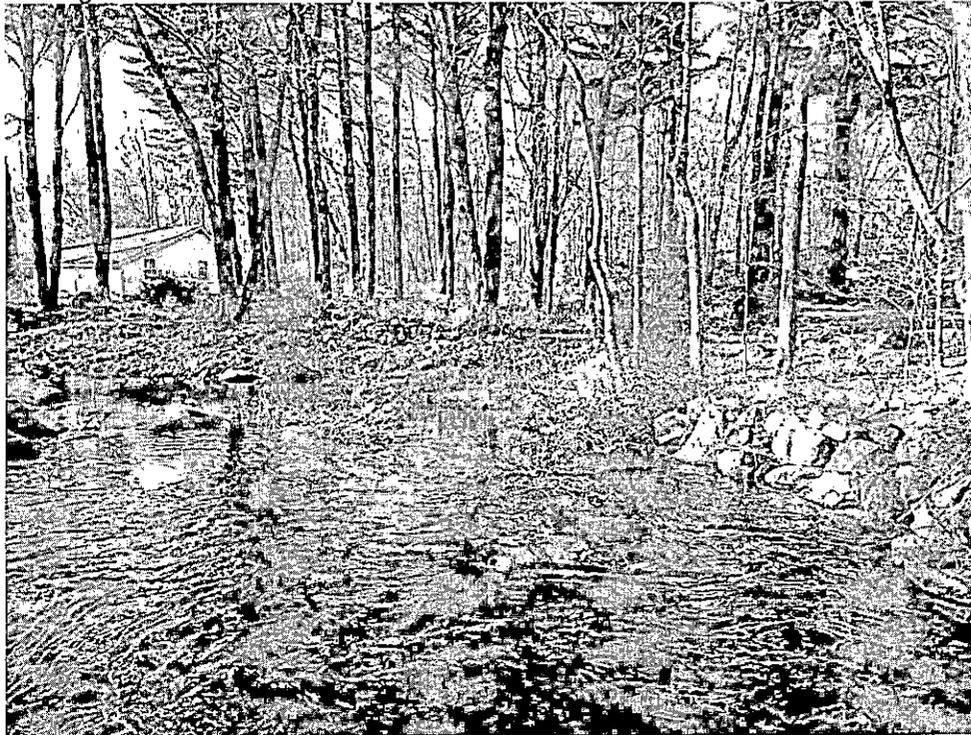
Looking at southern bank of Aspetuck River to the northeast of bridge project area (1/9/19).



Looking at northern bank of Aspetuck River to the northeast of bridge project area (1/9/19).



Looking at southern bank of Aspetuck River to the southwest of bridge project area (1/9/19).



Looking at northern bank of Aspetuck River to the southwest of bridge project area (1/9/19).

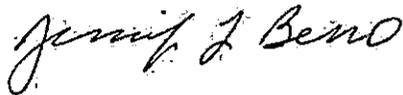
## **Wetland Functional Quality**

A Highway Methodology form was completed for the wetlands identified along the Aspetuck River within the Bayberry Lane bridge study area (see Appendix I). Numerous functions are provided by the wooded floodplain wetlands. The principal functions provided by the wetlands within the project area include groundwater discharge, finfish/shellfish habitat, sediment retention, and wildlife habitat.

## **Wildlife**

Wildlife observed utilizing the project area during the January 9, 2019 inspection includes deer (scat), chickadee, woodpecker, and freshwater clams within the river. These species are common in suburban areas of CT. Large machinery was being utilized for residential construction north of the bridge project area during our inspection which likely prevented us from observing other wildlife within the project area. In addition to the site inspection, SSES reviewed the December 2018 CT Department of Energy and Environmental Protection (DEEP) Natural Diversity Data Base (NDDB) division map available on-line for the project area and immediate vicinity. According to the map, no Federal and/or State listed Endangered or Threatened species or Species of Special Concern are known to exist within or near the project area. See Appendix II for map.

Respectfully submitted,  
SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.



Jennifer L. Beno  
Biologist/Wetland Scientist

## **Appendix I: Highway Methodology Data Forms and Supporting Documents**

Bayberry Lane Bridge over Aspetuck River, Westport, CT

**Table: WETLAND FUNCTION-VALUE EVALUATION FORM**

Floodplain Wetland, Bayberry Lane bridge (04969) over Aspetuck River project area, Westport, CT

Total area of wetland \_\_\_\_\_ Human made? No Is wetland part of a wildlife corridor? Yes Or a "habitat island"? No  
 Adjacent land use: wooded upland; road; residences Distance to nearest roadway or development +/- 0' (road fill)  
 Dominant wetland systems present PFOIE Contiguous undeveloped buffer zone present No  
 Is the wetland a separate hydraulic system? No If not, where does the wetland lie in the drainage basin? Mid to Low  
 How many tributaries contribute to the wetland? 1 Wildlife & vegetation diversity/abundance (see included lists)

Wetland I.D. Westport, CT  
 Lat. ±41.76381°N Long. ±-73.39940°W  
 Prepared by JLR Date 1/28/19  
 Wetland Impact:  
 Type: fill Area +/- sqft  
 Waterway Impact: +/- sqft  
 Evaluation based on:  
 Office Y Field Y  
 Corps manual wetland delineation  
 Completed? Y X N \_\_\_\_\_

Function/Value	Occurrence		Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
	Y	N			
Groundwater Recharge/Discharge	X		1, 2, 7, 11, 12, 13, 15	X	Groundwater is Class GA/ Surface water is Class A; seepage observed in the wetland.
Floodflow Alteration	X		5, 9, 10, 13, 18		Wetland is a narrow floodplain associated with Aspetuck River; signs (stone walls, Rocks, bricks, fill) of previous filling up to the wetland boundary.
Fish and Shellfish Habitat	X		1, 2, 3, 4, 6, 7, 8, 10, 14, 15, 17	X	Watercourse likely supports finfish. None observed. Reported trout stream.
Sediment/Toxicant Retention	X		4, 6, 8, 9, 10, 16	X	Sediment possibly contributed to this wetland from the adjacent road. Wetland is narrow at project location.
Nutrient Removal	X		3, 4, 7, 8, 9, 10		Floodplain wetland is narrow.
Production Export	X		4, 5, 6, 10		Perennial watercourse; narrow wetland with moderately dense vegetation growth.
Sediment/Shoreline Stabilization	X		3, 6, 7, 8, 9, 14		No significant erosion observed along banks; bordering wetland is narrow; evidence of sand deposits on wetland surface.
Wildlife Habitat	X		2, 6, 7, 8, 11, 15, 17	X	Residential development near project area; nests observed in trees and shrubs; see included vegetation and wildlife list.
Recreation		X	none		Private property; no public access.
Educational Scientific Value		X	none		Private property; no public access.
Uniqueness/Heritage		X	5, 14, 18, 27		Wetland provides several wetland functions; part of a large wetland/watercourse corridor; no public access.
Visual Quality/Aesthetics		X	none		Watercourse is contrasting; otherwise appears similar to adjacent upland areas.
ES Endangered Species Habitat					None observed. See attached map.
Other					

\* REFER TO BACK UP LIST OF CONSIDERATIONS (ATTACHED)

## Dominant Wetland Vegetation Inventory (January 9, 2019)

Project Area -

Bayberry Lane Bridge (No. 04969) over Aspetuck River, Westport, CT

Scientific Name	Common Name	Indicator Status
<b>Trees</b>		
<i>Acer rubrum</i>	red maple	FAC
<i>Betula lenta</i>	black birch	FACU
<i>Fraxinus pennsylvanica</i>	ash	FACW
<i>Platanus occidentalis</i>	sycamore	FACW
<i>Tsuga canadensis</i>	hemlock	FACU
<i>Ulmus rubra</i>	elm	FAC
<b>Saplings/Shrubs</b>		
<i>Berberis thunbergii</i>	Japanese barberry	FACU
<i>Carpinus caroliniana</i>	ironwood	FAC
<i>Euonymus atropurpureus</i>	burning bush	FACU
<i>Hamamelis virginiana</i>	witch-hazel	FACU
<i>Ilex verticillata</i>	winterberry	FACW
<i>Lindera benzoin</i>	spicebush	FACW
<i>Rosa multiflora</i>	multiflora rose	FACU
<i>Rubus idaeus</i>	raspberry	FACU
<b>Herbaceous</b>		
<i>Alliaria petiolata</i>	garlic mustard	FACU
<i>Allium canadense</i>	meadow garlic	FAC
<i>Boehmeria cylindrical</i>	false nettle	OBL
<i>Carex sp.</i>	sedges	-----
<i>Glyceria striata</i>	manna grass	OBL
<i>Lonicera japonica</i>	Japanese honeysuckle	FACU
<i>Onoclea sensibilis</i>	sensitive fern	FACW
<i>Polygonum cuspidatum</i>	Japanese knotweed	FACU
<i>Solidago sp.</i>	goldenrod	-----
<i>Symplocarpus foetidus</i>	skunk cabbage	OBL
<b>Vines</b>		
<i>Celastrus orbiculatus</i>	bittersweet	UPL

**Indicator Status:** Taken from the "National List of Plant Species that Occur in Wetlands:1988 National Summary," Fish and Wildlife Service, U.S. Department of the Interior

- OBL:** obligate wetland; occur almost always under natural conditions in wetlands
- FACW:** facultative wetland; usually occur in wetlands , but occasionally found in non-wetlands
- FAC:** equally likely to occur in wetlands or non-wetlands
- UPL:** occur almost always under natural conditions in non-wetlands
- +**: more frequently found in specified condition
- :** less frequently found in specified condition

Inspection was conducted during non-growing season conditions. This species list is not all inclusive.

*Bayberry Lane Bridge over Aspetuck River, Westport, CT*

**Dominant Wildlife Inventory (January 9, 2019)  
Bayberry Lane Bridge (No. 04969) over Aspetuck River, Westport, CT**

<i>Odocoileus virginianus</i>	white-tailed deer
<i>Parus atricapillus</i>	black-capped chickadee
<i>Picoides pubescens</i>	downy woodpecker
Freshwater clams	

Species were observed utilizing the study area during the inspection.

## Appendix A

# Wetland evaluation supporting documentation and reproducible forms.

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Below is an example list of considerations that was used for a New Hampshire highway project. Considerations are flexible, based on best professional judgement and interdisciplinary team consensus. This example provides a comprehensive base, however, and may only need slight modifications for use in other projects.



**GROUNDWATER RECHARGE/DISCHARGE**— This function considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It refers to the fundamental interaction between wetlands and aquifers, regard- less of the size or importance of either.

### CONSIDERATIONS/QUALIFIERS

1. Public or private wells occur downstream of the wetland.
2. Potential exists for public or private wells downstream of the wetland.
3. Wetland is underlain by stratified drift.
4. Gravel or sandy soils present in or adjacent to the wetland.
5. Fragipan does not occur in the wetland.
6. Fragipan, impervious soils, or bedrock, does occur in the wetland.
7. Wetland is associated with a perennial or intermittent watercourse.
8. Signs of groundwater recharge are present or piezometer data demonstrates recharge.
9. Wetland is associated with a watercourse, but lacks a defined outlet or contains a constricted outlet.
10. Wetland contains only an outlet.
11. Groundwater quality of stratified drift aquifer within or downstream of wetland meets drinking water standards.
12. Quality of water associated with the wetland is high.
13. Signs of groundwater discharge are present (e.g. springs).
14. Water temperature suggests it is a discharge site.
15. Wetland shows signs of variable water levels.
16. Gravel or sandy soils present in or adjacent to wetland.
17. Piezometer data demonstrates discharge.
18. Other.



**FLOODFLOW ALTERATION (Storage & Desynchronization)**— This function considers the effectiveness of the wetland in reducing flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It adds to the stability of the wetland ecological system or its buffering characteristics and provides social or economic value relative to erosion and/or flood prone areas.

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**CONSIDERATIONS/QUALIFIERS**

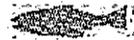
1. Area of this wetland is large relative to its watershed.
2. Wetland occurs in the upper portions of its watershed.
3. Effective flood storage is small or non-existent upslope of or above the wetland.
4. Wetland watershed contains a high degree of impervious surfaces.
5. Wetland contains hydric soils which are able to absorb and detain water.
6. Wetland exists in a relatively flat area that has flood storage potential.
7. Wetland has an intermittent outlet, ponded water, or signs are present of variable water level.
8. During flood events, this wetland can retain higher volumes of water than under normal or average rainfall conditions.
9. Wetland receives and retains overland or sheet flow runoff from surrounding uplands.
10. In the event of a large storm, this wetland may receive and detain excessive flood water from a nearby watercourse.
11. Valuable properties, structures or resources are located in or near the floodplain downstream from the wetland.
12. The watershed has a history of economic loss due to flooding.
13. This wetland is associated with one or more watercourses.
14. This wetland watercourse is sinuous or diffuse.
15. This wetland outlet is constricted.
16. Channel flow velocity is affected by this wetland.
17. Land uses downstream are protected by this wetland.
18. This wetland contains a high density of vegetation.
19. Other.

**FISH AND SHELLFISH HABITAT** --- This function considers the effectiveness of seasonal or permanent watercourses associated with the wetland in question for fish and shellfish habitat.

**CONSIDERATIONS/QUALIFIERS**

1. Forest land dominant in the watershed above this wetland.
2. Abundance of cover objects present.
- STOP HERE IF THIS WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE
3. Size of this wetland is able to support large fish/shellfish populations.
4. Wetland is part of a larger, contiguous watercourse.
5. Wetland has sufficient size and depth in open water areas so as not to freeze solid and retains some open water during winter.
6. Stream width (bank to bank) is more than 50 feet.
7. Quality of the watercourse associated with this wetland is able to support healthy fish/shellfish populations.
8. Streamside vegetation provides shade for the watercourse.
9. Spawning areas are present (submerged vegetation or gravel beds).
10. Food is available to fish/shellfish populations within this wetland.
11. Barrier(s) to anadromous fish (such as dams, including beaver dams, water falls, road crossing, etc.) are absent from the stream reach associated with this wetland.
12. Evidence of fish is present.
13. Wetland is stocked with fish.
14. The watercourse is persistent.
15. Man-made streams are absent.
16. Water velocities are not too excessive for fish usage.
17. Defined stream channel is present.
18. Other.

**SEDIMENT/TOXICANT/PATHOGEN RETENTION** --- This function reduces or prevents degradation of water quality. It relates to the effectiveness of the wetland as a trap for sediments, toxicants, or pathogens in runoff water from surrounding uplands, or upstream erod-



ing wetland areas:

**CONSIDERATIONS/QUALIFIERS**

1. Potential sources of excess sediment are in the watershed above the wetland.
  2. Potential or known sources of toxicants are in the watershed above the wetland.
  3. Opportunity for sediment trapping by slow moving water or deepwater habitat are present in this wetland.
  4. Mineral, fine grained, or organic soils are present.
  5. Long duration water retention time is present in this wetland.
  6. Public or private water sources occur downstream.
  7. The wetland edge is broad and intermittently aerobic.
  8. The wetland is known to have existed for more than 50 years.
  9. Drainage ditches have not been constructed in the wetland.
- STOP HERE IF WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE.**
10. Wetland is associated with an intermittent or perennial stream, or a lake.
  11. Channelized flows have visible velocity decreases in the wetland.
  12. Effective floodwater storage in wetland is occurring. Areas of impounded open water are present.
  13. No indicators of erosive forces are present. No high water velocities are present.
  14. Diffuse water flows are present in the wetland.
  15. Wetland has a high degree of water and vegetation interspersion.
  16. Dense vegetation provides opportunity for sediment trapping and/or signs of sediment accumulation is present by dense vegetation.
  17. Other.



**NUTRIENT REMOVAL/RETENTION/TRANSFORMATION** — This function considers the effectiveness of the wetland as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands; and the ability of the wetland to process these nutrients into other forms or trophic levels. One aspect of this function is to prevent ill effects of nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers or estuaries.

**CONSIDERATIONS/QUALIFIERS**

1. Wetland is large relative to the size of its watershed.
  2. Deep water or open water habitat exists.
  3. Overall potential for sediment trapping exists in the wetland.
  4. Potential sources of excess nutrients present in the watershed above the wetland.
  5. Wetland saturated for most of the season. Pooled water is present in the wetland.
  6. Deep organic/sediment deposits are present.
  7. Slowly drained mineral, fine grained, or organic soils, are present.
  8. Dense vegetation is present.
  9. Emergent vegetation and/or dense woody stems are dominant.
  10. Aquatic diversity/abundance sufficient to utilize nutrients.
  11. Opportunity for nutrient attenuation exists.
  12. Vegetation diversity/abundance sufficient to utilize nutrients.
- STOP HERE IF WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE.**
13. Waterflow through this wetland is diffuse.
  14. Water retention/detention time in this wetland is increased by constricted outlet or thick vegetation.
  15. Water moves slowly through this wetland.
  16. Other.



**PRODUCTION EXPORT (Nutrient)** — This function evaluates the effectiveness of the wetland to produce food or usable products for man or other living organisms.

**CONSIDERATIONS/QUALIFIERS**

1. Wildlife food sources grow within this wetland.
2. Detritus development is present within this wetland.
3. Economically or commercially used products found in this wetland.

Bayberry Lane Bridge over Aspetuck River, Westport, CT

4. Evidence of wildlife use found within this wetland.
5. Higher trophic level consumers are utilizing this wetland.
6. Fish or shellfish develop or occur in this wetland.
7. High vegetation density is present.
8. Wetland exhibits high degree of plant community structure/species diversity.
9. High aquatic diversity/abundance is present.
10. Nutrients exported in wetland watercourses (prominent outlet present).
11. "Flushing" of relatively large amounts of organic plant material occurs from this wetland.
12. Wetland contains flowering plants which are used by nectar-gathering insects.
13. Indications of export are present.
14. High production levels occurring however, no visible signs of export (assumes export is attenuated).
15. Other

**SEDIMENT/ShORELINE STABILIZATION**— This function considers the effectiveness of a wetland to stabilize stream banks and shorelines against erosion.



**CONSIDERATIONS/QUALIFIERS**

1. Indications of erosion, siltation present.
2. Topographical gradient is present in wetland.
3. Potential sediment sources are present up-slope.
4. No distinct shoreline or bank is evident between the waterbody and the wetland or upland.
5. A distinct step between the open waterbody or stream and the adjacent land exists (i.e. sharp bank) with dense roots throughout.
6. Wide wetland (>10') bordering watercourse, lake, or pond.
7. High flow velocities in the wetland.
8. Potential sediment sources present upstream.
9. The watershed is of sufficient size to produce channelized flow.
10. Open water fetch is present.
11. Boating activity is present.
12. Dense vegetation is bordering watercourse, lake, or pond.
13. High percentage of energy absorbing emergents and/or shrubs bordering watercourse, lake or pond.
14. Vegetation comprised of large trees and shrubs which withstand major flood events or erosive incidents and stabilize the shoreline on a large scale (feet).
15. Vegetation comprised of dense resilient herbaceous layer which stabilizes sediments and the shoreline on a small scale (inches) during minor flood events or potentially erosive events.
16. Other

**WILDLIFE HABITAT**— This function considers the effectiveness of the wetland to provide habitat for various types and populations of animals typically associated with wetlands and the wetland edge. Both resident and/or migrating species must be considered. Species lists of observed and potential animals should be included in the wetland assessment report.



**CONSIDERATIONS/QUALIFIERS**

1. Wetland is not degraded by human activity.
2. Water quality of the watercourse, pond, or lake associated with this wetland meets or exceeds Class A or B standards.
3. Wetland is not fragmented by development.
4. Upland surrounding this wetland is undeveloped.
5. More than 40% of this wetland edge is bordered by upland wildlife habitat (e.g. brushland, wood land, active farmland, or idle land) at least 500 feet in width.
6. Wetland contiguous with other wetland systems connected by watercourse or lake.
7. Wildlife overland access to other wetlands is present.
8. Wildlife food sources are within this wetland or are nearby.

Bayberry Lane Bridge over Aspetuck River, Westport, CT

9. Wetland exhibits a high degree of interspersion of vegetation classes and/or open water.
10. Two or more islands or inclusions of upland within the wetland are present.
11. Dominant wetland class includes deep or shallow marsh or wooded swamp.
12. More than three acres of shallow permanent open water (less than 6.6 feet deep), including streams in or adjacent to wetland are present.
13. Density of the wetland vegetation is high.
14. Wetland exhibits a high degree of plant species diversity.
15. Wetland exhibits a high degree of diversity in plant community structure (e.g. tree/shrub/vine/grasses/mosses/etc.)
16. Plant/animal indicator species present.
17. Animal signs observed (tracks, signs, nesting areas, etc.)
18. Seasonal uses vary for wildlife, and wetland appears to support varied population diversity/abundance during different seasons.
19. Wetland contains or has potential to contain a high population of insects.
20. Wetland contains or has potential to contain large amphibian populations.
21. Wetland has a high avian utilization or its potential.
22. Indications of less disturbance-tolerant species present.
23. Signs of wildlife habitat enhancement present (birdhouses, nesting boxes, food sources, etc.)
24. Other



**RECREATION (Consumptive and Non-Consumptive)** — This value considers the suitability of the wetland and associated watercourses to provide recreational opportunities, such as hiking, canoeing, boating, fishing, hunting and other active or passive recreational activities. Consumptive opportunities consume or diminish the plants, animals, or other resources that are intrinsic to the wetland. Non-consumptive opportunities do not consume or diminish these resources of the wetland.

**CONSIDERATIONS/QUALIFIERS:**

1. Wetland is part of a recreation area, park, forest, or refuge.
2. Fishing is available within or from the wetland.
3. Hunting is permitted in the wetland.
4. Hiking occurs or has potential to occur within the wetland.
5. Wetland is a valuable wildlife habitat.
6. The watercourse, pond, or lake, associated with the wetland is unpolluted.
7. High visual/aesthetic quality of this potential recreation site.
8. Access to water is available at this potential recreation site for boating, canoeing, or fishing.
9. The watercourse associated with this wetland is wide and deep enough to accommodate canoeing and/or non-powered boating.
10. Off-road public parking available at the potential recreation site.
11. Accessibility and travel ease is present at this site.
12. The wetland is within a short drive or safe walk from highly populated public and private means.
13. Other



**EDUCATIONAL/SCIENTIFIC VALUE** — This value considers the suitability of the wetland as a site for an "outdoor classroom" or as a location for scientific study or research.

**CONSIDERATIONS/QUALIFIERS**

1. Wetland contains or is known to contain threatened, rare, or endangered species.
2. Little or no disturbance is occurring in this wetland.
3. Potential educational site contains a diversity of wetland classes which are accessible, or potentially accessible.
4. Potential educational site is undisturbed and natural.
5. Wetland is considered to be a valuable wildlife habitat.

Bayberry Lane Bridge over Aspetuck River, Westport, CT

6. Wetland is located within a nature preserve or wildlife management area.
7. Signs of wildlife habitat enhancement present (bird houses, nesting boxes, food sources, etc.).
8. Off-road parking at potential educational site suitable for school bus access in or near wetland.
9. Potential educational site is within safe walking distance or a short drive to schools.
10. Potential educational site within safe walking distance to other plant communities.
11. Direct access to perennial stream at potential educational site available.
12. Direct access to pond or lake at potential educational site available.
13. No known safety hazards within the potential educational site.
14. Public access to the potential educational site is controlled.
15. Handicap accessibility is available.
16. Site is currently used for educational or scientific purposes.
17. Other

**UNIQUENESS/HERITAGE** — This value considers the effectiveness of the wetland or its associated waterbodies to provide certain special values. These may include archaeological sites, critical habitat for endangered species, its overall health and appearance, its role in the ecological system of the area, its relative importance as a typical wetland class for this geographic location. These functions are clearly valuable wetland attributes relative to aspects of public health, recreation, and habitat diversity.



**CONSIDERATIONS/QUALIFIERS**

1. Upland surrounding wetland primarily urban.
2. Upland surrounding wetland developing rapidly.
3. More than 3 acres of shallow permanent open water occur in wetlands (less than 6.6 feet deep) including streams.
4. Three or more wetland classes present.
5. Deep and/or shallow marsh, or wooded swamp dominates.
6. High degree of interspersion of vegetation and/or open water occurring in this wetland.
7. Well-vegetated stream corridor (15 feet on each side of the stream) occurs in this wetland.
8. Potential educational site is within a short drive or a knife walk from schools.
9. Off-road parking at potential educational site is suitable for school buses.
10. No known safety hazards exist within this potential educational site.
11. Direct access to perennial stream or lake at potential educational site.
12. Two or more wetland classes visible from primary viewing locations.
13. Low-growing wetlands (marshes, scrub-shrub, bogs, open water) visible from primary viewing locations.
14. Half an acre of open water or 200 feet of stream is visible from the primary viewing locations.
15. Large area of wetland is dominated by flowering plants, or plants which turn vibrant colors in different seasons.
16. General appearance of the wetland visible from primary viewing locations is unpolluted and/or undisturbed.
17. Overall view of the wetland is available from the surrounding upland.
18. Quality of the water associated with the wetland is high.
19. Opportunities for wildlife observations are available.
20. Historical buildings occur within the wetland.
21. Presence of pond or pond site and remains of a dam occur within the wetland.
22. Wetland within 50 yards of the nearest perennial watercourse.
23. Visible stone or earthen foundations, berms, dams, standing structures or associated features occur within the wetland.
24. Wetland contains critical habitat for a state or federally listed threatened or endangered species.
25. Wetland is known to be a study site for scientific research.
26. Wetland is a natural landmark or recognized by the state natural heritage inventory authority as an exemplary natural community.
27. Wetland has local significance because it serves several functional values.

28. Wetland has local significance because it has biological, geological, or other features which are locally rare or unique.
29. Wetland is known to contain an important archaeological site.
30. Wetland is hydrologically connected to a state or federally designated scenic river.
31. Wetland is located in an area experiencing a high wetland loss rate.
32. Other



**VISUAL QUALITY/AESTHETICS** — This value considers the visual and aesthetic quality or usefulness of the wetland.

**CONSIDERATIONS/QUALIFIERS**

1. Multiple wetland classes visible from primary viewing locations.
2. Emergent marsh and/or open water visible from primary viewing locations.
3. Diversity of vegetation species visible from primary viewing locations.
4. Wetland dominated by flowering plants, or plants which turn vibrant colors in different seasons.
5. Land use surrounding the wetland is undeveloped as seen from primary viewing locations.
6. Visible surrounding land use form contrasts with wetland.
7. Wetland views absent of trash, debris, and signs of disturbance.
8. Wetland is considered to be a valuable wildlife habitat.
9. Wetland is easily accessed.
10. Low noise level at primary viewing locations.
11. Unpleasant odors absent at primary viewing locations.
12. Relatively unobstructed sight line exists through wetland.
13. Other

**ES**

**ENDANGERED SPECIES HABITAT** — This value considers the suitability of the wetland to support threatened or endangered species.

**CONSIDERATIONS/QUALIFIERS**

1. Wetland contains or is known to contain threatened or endangered species.
2. Wetland contains critical habitat for a state or federally listed threatened or endangered species.
3. Other

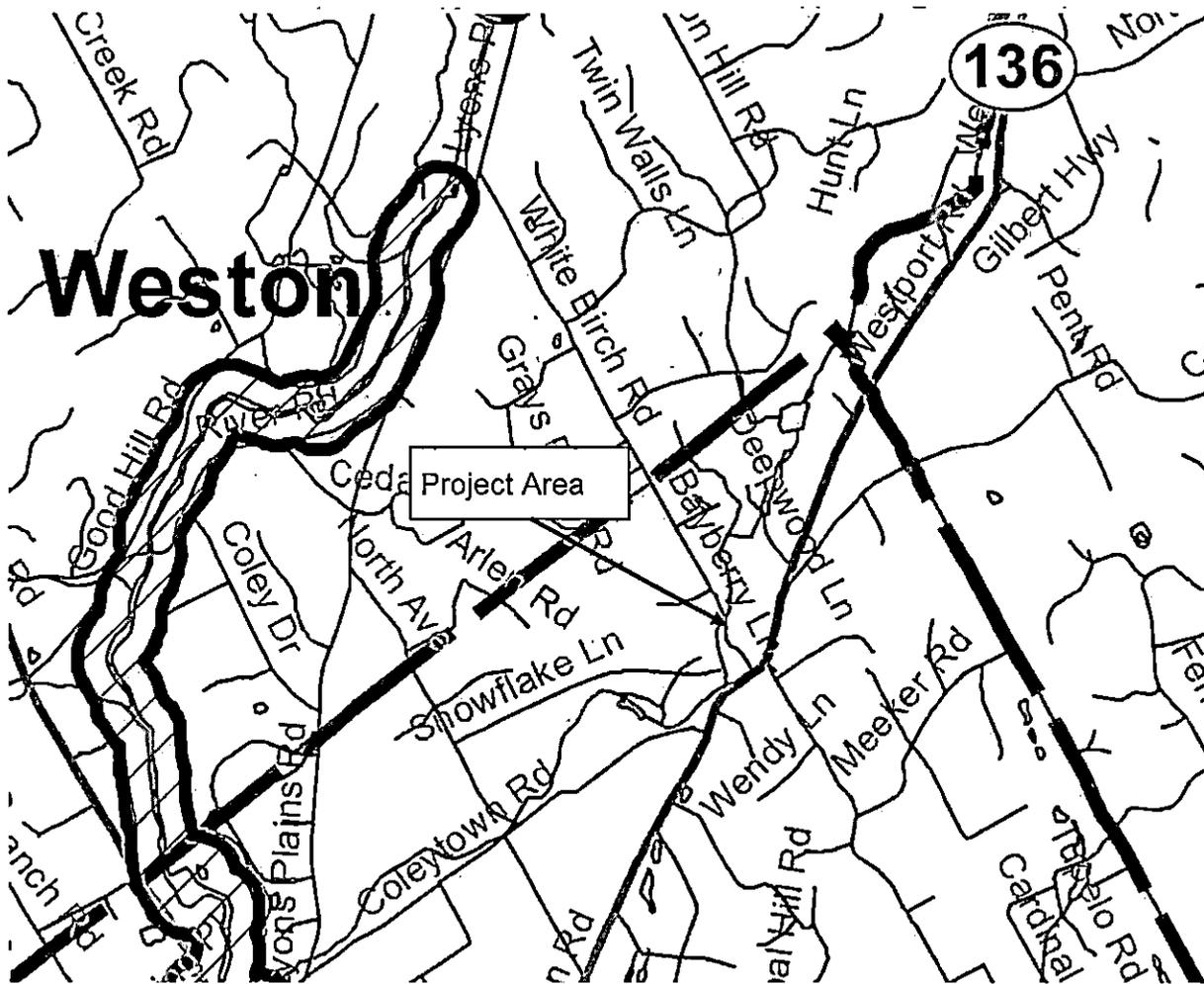
Although the above example refers to freshwater wetlands, it can also be adapted for marine ecosystems. Below is an example of an adaptation for the fish and shellfish function provided by the National Marine Fisheries Service.

**FISH AND SHELLFISH HABITAT** — This function considers the effectiveness of wetlands, embayments, tidal flats, vegetated shallows, and other environments in supporting marine resources such as fish, shellfish, marine mammals, and sea turtles.

**CONSIDERATIONS/QUALIFIERS (Marine)**

1. Special aquatic sites (tidal marsh, mud flats, eelgrass beds) are present?
  2. Suitable spawning habitat is present at the site or in the area.
  3. Commercially or recreationally important species are present or suitable habitat exists.
  4. The wetland/waterway supports prey for higher trophic level marine organisms.
  5. The waterway provides migratory habitat for anadromous fish.
  6. Other
2. In March 1995 a rapid wildlife habitat assessment method was completed by a University of Massachusetts research team, with funding and oversight provided by the New England Transportation Consortium. The method is called WRThings (wetland-habitat indicators for non-game species). It produces a list of potential wetland-dependent mammals, reptiles, and amphibian species that may be present in the wetland. The output is based on observable habitat characteristics documented on the field data form. This method may be used to generate the wildlife species list recommended as backup information to the wetland evaluation form, and to augment the considerations. Use of this method should first be coordinated with the Corps project manager. A computer program is also available to expedite this process.

**Appendix II: Natural Diversity Data Base**



Portion of State of CT DEEP Natural Diversity Data Base Map, Westport, CT  
 Dated December 2018  
 Map indicates no known populations of Endangered, Threatened or Special Concern  
 Species or significant natural communities in the study area.

# Natural Diversity Data Base Areas

## WESTPORT, CT

June 2020

-  State and Federal Listed Species
-  Critical Habitat
-  Town Boundary

NOTE: This map shows general locations of State and Federal Listed Species and Critical Habitats. Information on listed species is collected and compiled by the Natural Diversity Data Base (NDDB) from a variety of data sources. Exact locations of species have been buffered to produce the generalized locations.

This map is intended for use as a preliminary screening tool for conducting a Natural Diversity Data Base Review Request. To use the map, locate the project boundaries and any additional affected areas. If the project is within a hatched area there may be a potential conflict with a listed species. For more information, complete a Request for Natural Diversity Data Base State Listed Species Review form (DEP-APP-007), and submit it to the NDDB along with the required maps and information. More detailed instructions are provided with the request form on our website.

[www.ct.gov/deep/nddbrequest](http://www.ct.gov/deep/nddbrequest)

Use the CTECO Interactive Map Viewers at <http://cteco.uconn.edu> to more precisely search for and locate a site and to view aerial imagery with NDDB Areas.

QUESTIONS: Department of Energy and Environmental Protection (DEEP)  
79 Elm St, Hartford, CT 06106  
email: [deep.nddbrequest@ct.gov](mailto:deep.nddbrequest@ct.gov)  
Phone: (860) 424-3011



Connecticut Department of Energy & Environmental Protection  
Bureau of Natural Resources  
Wildlife Division



Replacement of Bridge No. 04969  
Bayberry Lane Ext. over Aspetuck River, Westport, CT  
State Project No. 158-216  
Town of Westport Conservation Application  
August 2020

**The ConnDEEP review of the Natural Diversity Data Base information (June 2020 edition) and the relevant conservation strategies documentation to be provided by the CTDOT Bridge Liaison Engineer.**



**TO:** Alexander Finch, Office of Environmental Planning, DOT

**FROM:** Bruce Williams, DEEP - Fisheries Division

**DATE:** March 1, 2018

**SUBJECT:** Preliminary Fisheries Review – Replacement of Bayberry Lane #2 Bridge over the Aspetuck River

**Type of Permit:**

- 1. DOT Culvert/Bridge Projects
- 2. Diversion
- 3. PGP/Inland Wetland
- 4. Water Quality Certification

**Project#:** 158-TBD

**Bridge#:** 04969

**Applicant:** Connecticut Department of Transportation

**State P.E. Project #:**

**Town:** Westport

**Waters:** Aspetuck River

**Sub Regional Basin #:** 7202

**Project Scope:** The superstructure of the existing single span bridge structurally deficient and the abutments have been undermined by scour. The proposed scope of the project is to replace the entire bridge with a clear-span superstructure founded on new abutments. The project also includes approximately 100 feet of roadway reconstruction, new guiderail systems, and scour protection. Enclosed are my preliminary comments.

**Fisheries Resources:** The Fisheries Division has targeted the Aspetuck River for diadromous (migratory) fish restoration. All dams downstream of the project site are now passable to migratory fish. Alewives, Blueback Herring, American Eel, Sea Lamprey, and sea-run Brown Trout now have free passage upstream through the project area up to the first impassable dam approximately 400 feet upstream of Bayberry Lane. These fish use the river not only as a migratory corridor, but also as spawning and juvenile habitat.

The Fisheries Division annually stocks a combined total of approximately 455 adult Brown Trout and Brook Trout in the Aspetuck River between Lyons Plain Road and the Aspetuck Reservoir. The Bayberry Lane Bridge is one of ten designated stocking locations in this area. In addition to stocked trout, the Fisheries Division has also documented the presence of wild Brown Trout and wild Brook Trout in this section river. Other documented fish species include Blacknose Dace, Common Shiner, Creek Chub, Cutlips Minnow, Green Sunfish, Largemouth

Bass, Longnose Dace, Redbreast Sunfish, Rock Bass, Tessellated Darter, and White Sucker.

**Comments/Recommendations:**

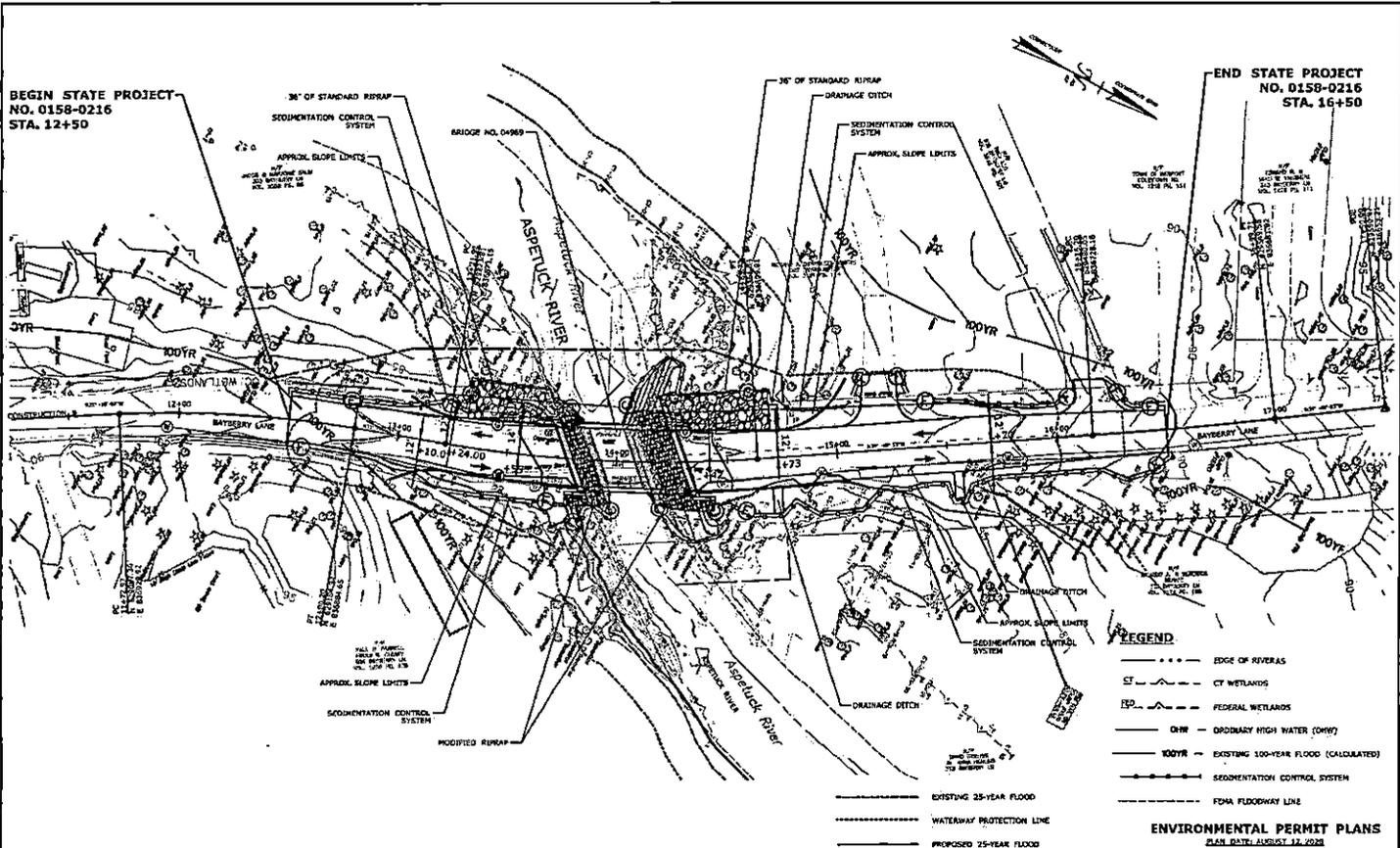
1. Existing onsite conditions provide for unrestricted fish passage and a streambed of natural materials. The final design of this project must maintain such conditions.
2. To protect downstream fish habitat, it is critical that proper erosion and sedimentation controls be installed and maintained throughout the duration of this project. Care should be exercised so as not to increase turbidity levels and all disturbed area will need to be stabilized and restored with native vegetation after completion of the project.
3. Due to the presence of diadromous fish, any "unconfined" instream work should be restricted to the period July 1 through September 30.
4. If riprap is required for scour protection, all efforts should be made to minimize the amount of area covered by riprap and all riprap should be covered with natural streambed material or rounded stone.

CC. S. Gephard



BEGIN STATE PROJECT  
NO. 0158-0216  
STA. 12+50

END STATE PROJECT  
NO. 0158-0216  
STA. 16+50



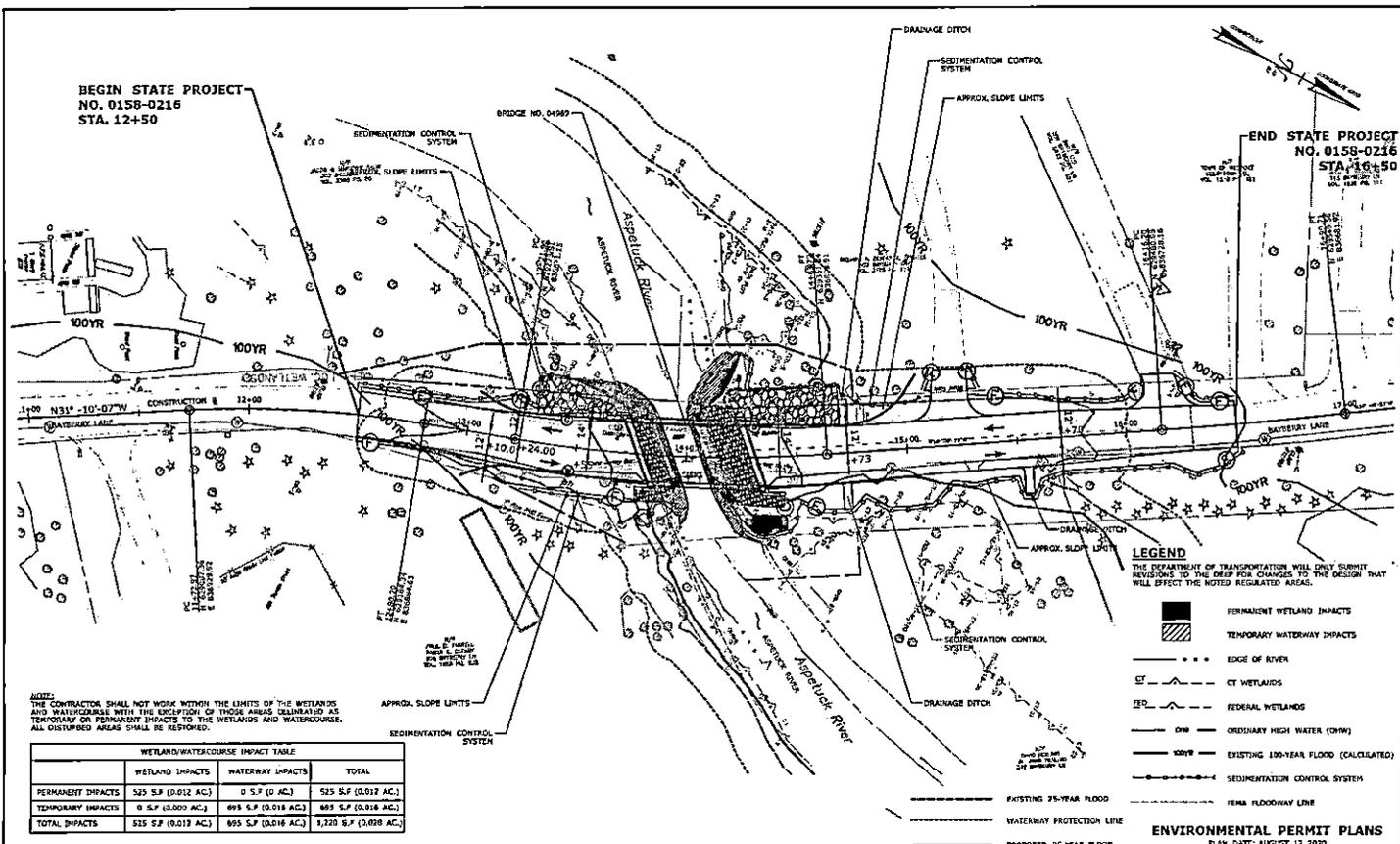
- LEGEND**
- EDGE OF RIVERAS
  - CF WETLANDS
  - FEDERAL WETLANDS
  - OHW - ORDINARY HIGH WATER (OHW)
  - 100YR - EXISTING 100-YEAR FLOOD (CALCULATED)
  - SEDIMENTATION CONTROL SYSTEM
  - FEMA FLOODWAY LINE
  - EXISTING 25-YEAR FLOOD
  - WATERWAY PROTECTION LINE
  - PROPOSED 25-YEAR FLOOD

**ENVIRONMENTAL PERMIT PLANS**  
PLAN DATE: AUGUST 17, 2021

TOWN OF WESTPORT PROJECT NO. 0158-0216 SCALE: 1" = 20' DATE: AUGUST 17, 2021		WESTPORT PROJECT NO. 0158-0216 PMT-02 GENERAL SITE PLAN	
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BEGIN STATE PROJECT  
NO. 0158-0216  
STA. 12+50

END STATE PROJECT  
NO. 0158-0216  
STA. 16+50



- LEGEND**  
THE DEPARTMENT OF TRANSPORTATION WILL ONLY SUBMIT REVISIONS TO THE DEEP FOR CHANGES TO THE DESIGN THAT WILL AFFECT THE NOTED REGULATED AREAS.
- PERMANENT WETLAND IMPACTS
  - TEMPORARY WETLAND IMPACTS
  - EDGE OF RIVER
  - CT WETLANDS
  - FEDERAL WETLANDS
  - OHW - ORDINARY HIGH WATER (OHW)
  - 100YR - EXISTING 100-YEAR FLOOD (CALCULATED)
  - SEDIMENTATION CONTROL SYSTEM
  - FEMA FLOODWAY LINE
  - EXISTING 25-YEAR FLOOD
  - WATERWAY PROTECTION LINE
  - PROPOSED 25-YEAR FLOOD

**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.

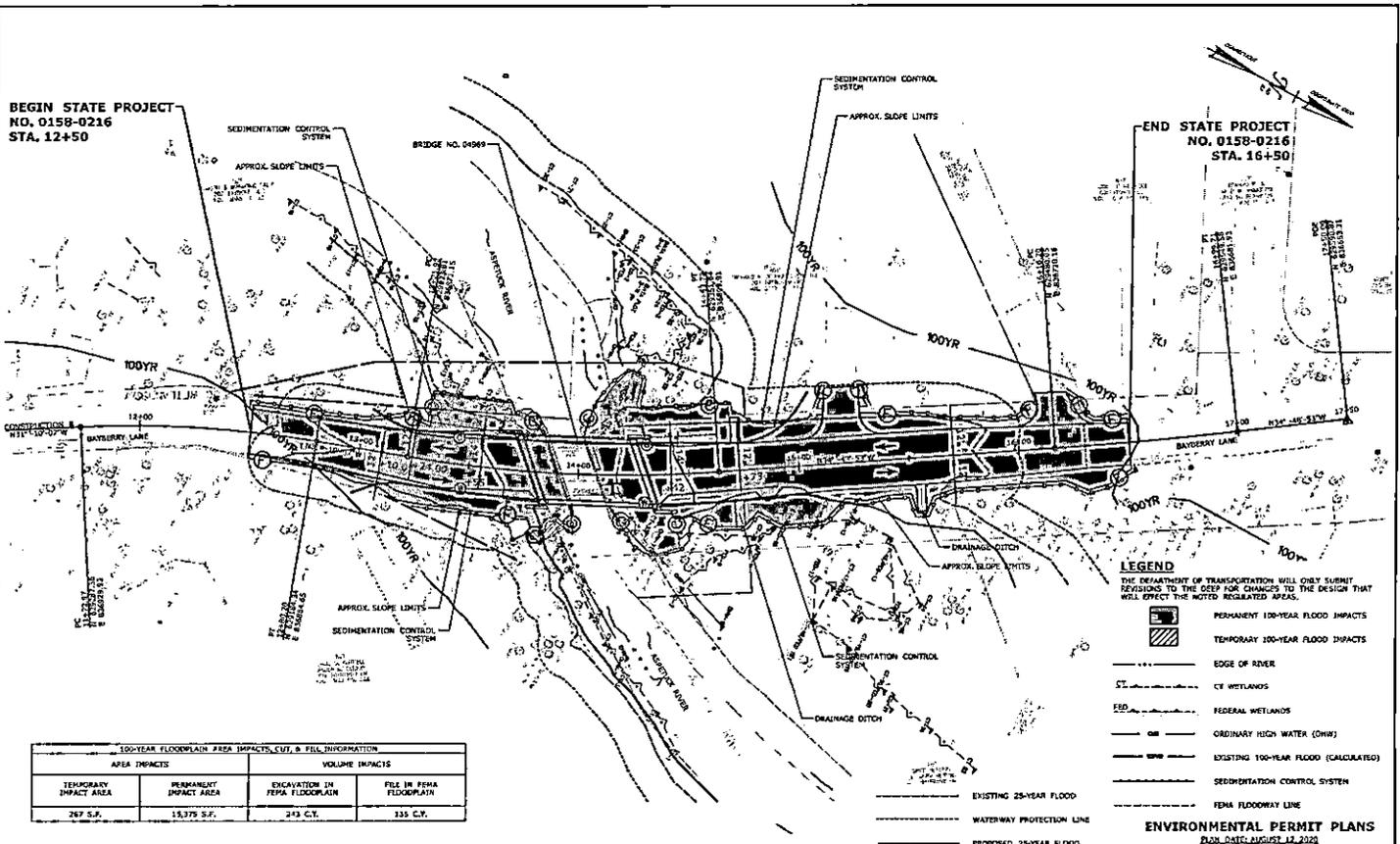
**WETLAND/WATERCOURSE IMPACT TABLE**

	WETLAND IMPACTS	WATERWAY IMPACTS	TOTAL
PERMANENT IMPACTS	525 S.F. (0.012 AC.)	0 S.F. (0 AC.)	525 S.F. (0.012 AC.)
TEMPORARY IMPACTS	0 S.F. (0.000 AC.)	695 S.F. (0.016 AC.)	695 S.F. (0.016 AC.)
<b>TOTAL IMPACTS</b>	<b>525 S.F. (0.012 AC.)</b>	<b>695 S.F. (0.016 AC.)</b>	<b>1,220 S.F. (0.028 AC.)</b>

**ENVIRONMENTAL PERMIT PLANS**  
PLAN DATE: AUGUST 17, 2020


BEGIN STATE PROJECT  
NO. 0158-0216  
STA. 12+50

END STATE PROJECT  
NO. 0158-0216  
STA. 16+50



**LEGEND**

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

- PERMANENT 100-YEAR FLOOD IMPACTS
- TEMPORARY 100-YEAR FLOOD IMPACTS
- EDGE OF RIVER
- FEDERAL WETLANDS
- FEDERAL WETLANDS
- ORDINARY HIGH WATER (OHW)
- EXISTING 100-YEAR FLOOD (CALCULATED)
- SEDIMENTATION CONTROL SYSTEM
- FEMA FLOODWAY LINE

EXISTING 25-YEAR FLOOD  
WATERWAY PROTECTION LINE  
PROPOSED 25-YEAR FLOOD

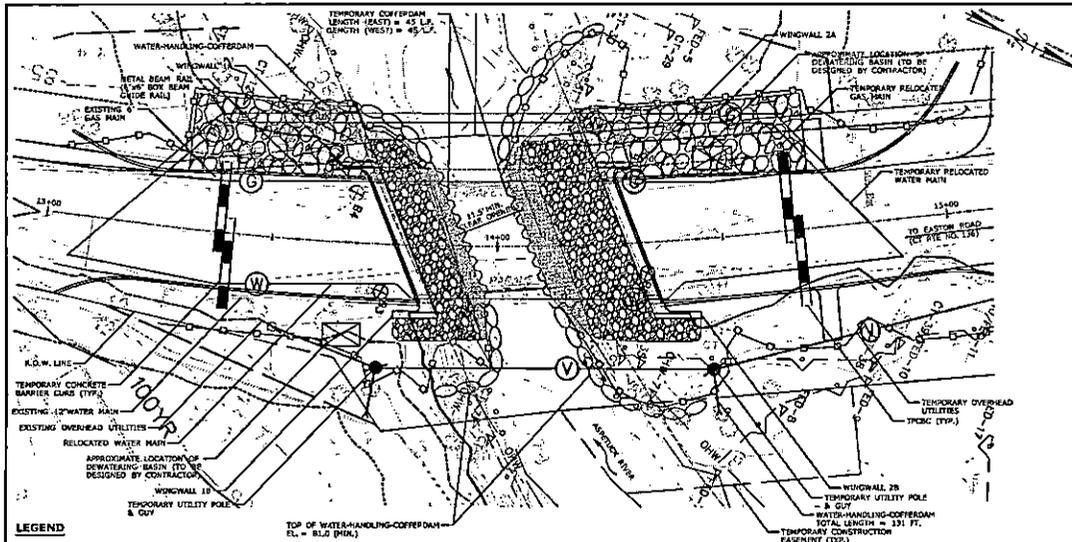
100-YEAR FLOODPLAIN AREA IMPACTS, LEV. & FILL INFORMATION

AREA IMPACTS		VOLUME IMPACTS	
TEMPORARY IMPACT AREA	PERMANENT IMPACT AREA	EXCAVATION IN FEMA FLOODPLAIN	FILL IN FEMA FLOODPLAIN
787 S.F.	15,375 S.F.	243 C.Y.	335 C.Y.

ENVIRONMENTAL PERMIT PLANS  
DATE: AUGUST 12, 2022

<p>PROJECT TITLE: TOWN OF WESTPORT</p>		<p>PROJECT TITLE: WESTPORT</p>	
<p>PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 04969 BAYBERRY LANE #2 OVER ASPETUCK RIVER</p>		<p>PROJECT TITLE: 100-YEAR FLOOD IMPACT PLAN</p>	
<p>SCALE: 1"=20'</p>		<p>DATE: AUGUST 12, 2022</p>	





- SUGGESTED CONSTRUCTION SEQUENCE:**
1. MOBILEIZE AND INSTALL CONSTRUCTION SIGNS.
  2. INSTALL SEDIMENTATION AND EROSION CONTROL MEASURES.
  3. PERFORM NECESSARY CLEARING AND GRUBBING.
  4. PLACE THICK AND IMPERMEABLE DETOUR.
  5. TEMPORARY SUPPORT AND RELOCATE UTILITIES.
  6. INSTALL COBWEB SHIELD (MIN. ELEV.=80.5) UNDER THE BRIDGE AND REMOVE THE EXISTING SUPERSTRUCTURE.
  7. INSTALL TEMPORARY COFFERDAM AND DENWATER.
  8. REMOVE BOTH EXISTING ABUTMENTS.
  9. INSTALL TEST PILES AS SHOWN ON THE PLANS.
  10. INSTALL H-PILE FOUNDATION.
  11. CONSTRUCT PROPOSED ABUTMENTS AND WINGWALLS.
  12. CONSTRUCT EMBANKMENT GRADING AND INSTALL MODIFIED RUPRAP TOP DRESSED WITH NATURAL STREAMBED MATERIAL.
  13. REMOVE TEMPORARY COFFERDAM.
  14. INSTALL PRESTRESSED CONCRETE DECK UNITS AND CONSTRUCT DECK SLAB & BRIDGE PARAPET.
  15. CONSTRUCT BAGWALL WITH APPROACH SLABS SEATS.
  16. CONSTRUCT APPROACH SLABS.
  17. INSTALL IRON ON MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC) ON DECK SLAB.
  18. INSTALL BRIDGE RAIL.
  19. RECONSTRUCT ROADWAY TACK EODY PAVE, INSTALL GUIDE RAIL END DETOUR AND OPEN THE BRIDGE TO TRAFFIC.
  20. FINALESE GRADING AND TOP SOIL/PUTY ESTABLISHMENT.
  21. THE SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE REMOVED AFTER IMPACTED AREAS ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED.

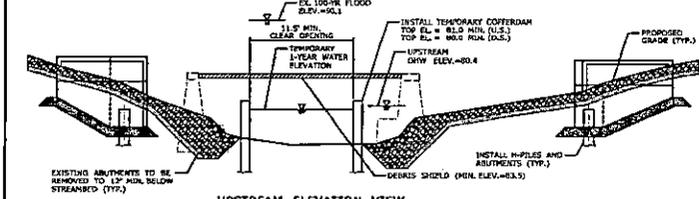
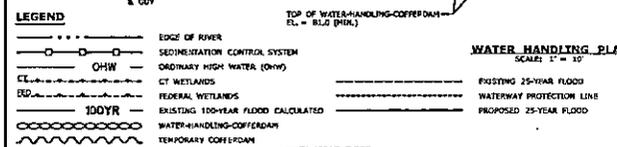
**TEMPORARY HYDRAULICS DATA SUMMARY**

AVERAGE DAILY FLOW (CFS)	35
AVERAGE SPRING FLOW (CFS)	75
2-YEAR FREQUENCY DISCHARGE (CFS)	840
TEMPORARY DESIGN DISCHARGE (CFS)	225
TEMPORARY DESIGN FREQUENCY (YEARS)	1
TEMPORARY WATER SURFACE ELEVATION - UPSTREAM (FT)	80.0
TEMPORARY WATER SURFACE ELEVATION - DOWNSTREAM (FT)	79.0

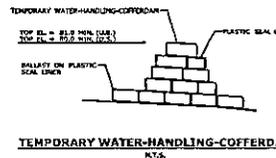
- WATER HANDLING NOTES:**
1. ANY UNCOMPLETED IN-STREAM WORK SHOULD BE RESTRICTED TO THE PERIOD JULY 1ST THROUGH SEPTEMBER 30TH.
  2. THE CONTRACTOR SHALL MAINTAIN FLOW BETWEEN THE TEMPORARY WATER-HANDLING-COFFERDAMS AS SHOWN DURING CONSTRUCTION OF THE NEW STRUCTURE.
  3. EQUIPMENT SHALL NOT BE PERMITTED IN THE STREAMBED WITHOUT APPROVAL FROM THE ENGINEER.
  4. A DENWATERING BASIN SHALL BE ESTABLISHED OUTSIDE OF THE WETLAND LIMITS. THE LOCATION OF THE DENWATERING BASIN IS APPROXIMATE. THE EXACT POSITION MAY VARY BASED ON THE BERMING DESIGN SUBMISSION AND APPROVED BY THE ENGINEER. THIS WORK SHALL BE PAID FOR UNDER THE ITEM "BERMING DATE".
  5. TEMPORARY WATER HANDLING COFFERDAMS SHALL BE DESIGNED BY THE CONTRACTOR TO SAFELY CONVEY WATER THROUGH THE CONSTRUCTION AREA AND BE ABLE TO SUPPORT THE CONSTRUCTION ACTIVITY AND SHALL CONFORM TO PERMITS. THIS WORK WILL BE PAID FOR UNDER THE ITEM "WATER HANDLING".
  6. TEMPORARY COFFERDAMS SHALL BE DESIGNED BY THE CONTRACTOR TO SUPPORT THE CONSTRUCTION ACTIVITY AND EXCAVATION TO REMOVE THE EXISTING ABUTMENTS AND REINFORCEMENTS AND SHALL CONFORM TO PERMITS. THIS WORK WILL BE PAID FOR UNDER THE ITEM "COFFERDAM AND DENWATERING".

- NATIVE STREAMBED MATERIAL NOTES:**
1. NATIVE STREAMBED MATERIAL EXCAVATED DURING THE BRIDGE REPLACEMENT SHALL BE STOCKPILED AND THEN REPLACED WITHIN THE BRIDGE TO THE DEPTH SHOWN ON THE PLANS AS DIRECTED BY THE ENGINEER, AND IN ACCORDANCE WITH THE PERMIT DOCUMENTS.
  2. THE STOCKPILE SHALL BE LOCATED OUTSIDE THE WETLAND LIMITS AND WITHIN THE EROSION/CONSTRUCTION EASEMENTS AND PROTECTED WITH SEDIMENTATION CONTROL SYSTEMS.

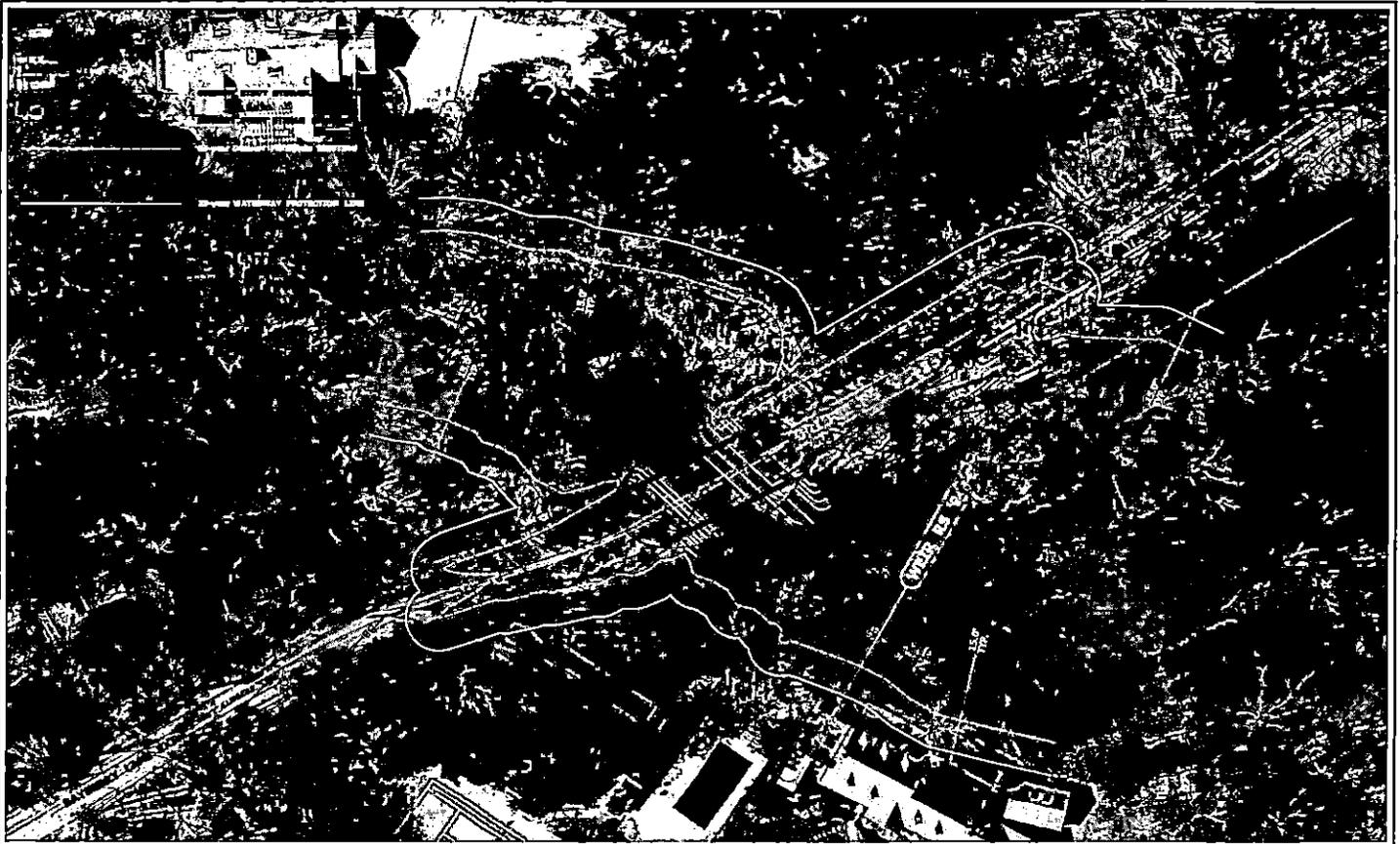
**ENVIRONMENTAL PERMIT PLANS**  
PLAN DATE: AUGUST 12, 2022



**TEMPORARY RELOCATED WATER MAIN -**  
THE TOWN'S CONTRACTOR IN COORDINATION WITH THE ACQUADAM WATER COMPANY ENGINEER SHALL INSTALL THE TEMPORARY BYPASS WATER LINE WITH THE EXTENSION OF INSERTION VALVES AND TAPPING SIZES AND VALVES, WHICH WILL BE PERFORMED BY AN AMCS SPECIALTY CONTRACTOR.



<p>PROJECT NO. 04969</p> <p>DATE: 08/12/22</p> <p>SCALE: AS NOTED</p>	<p>PROJECT: R. GREER</p> <p>DESIGNER: A. GORRALL</p> <p>SCALE: AS NOTED</p>	<p>TOWN OF WESTPORT</p>	<p>PROJECT TITLE: REPLACEMENT OF BRIDGE NO. 04969 BAYBERRY LANE #2 OVER ASPETUCK RIVER</p>	<p>CLIENT: WESTPORT</p>	<p>PROJECT NO. 8159-0218</p> <p>DATE: 08/12/22</p> <p>PROJECT: WATER HANDLING PLAN</p>
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DATE DRAWN BY CHECKED BY APPROVED BY SCALE 1"=200'		<b>WESTPORT</b> WATERWAY PROTECTION LINE 25-year DESIGN FLOW	<b>WESTPORT</b> WPL-25y Pgs. 23y
<b>PROPOSED BRIDGE</b> OVER ASPETUCK RIVER AT WESTPORT SCALE 1"=200'			<b>ECO-DESIGN, LLC</b> for <b>AS ENGINEERS, INC.</b> WESTPORT, N.J.
<b>TITLE</b> <b>Y.S.R.</b> SCALE IN FEET SCALE 1"=200'		<b>BAYBERRY LANE EXT.</b> <b>OVER ASPETUCK RIVER</b> <b>BRIDGE No. 04808</b>	





**WESTPORT, CONNECTICUT  
CONSERVATION COMMISSION**

TOWN HALL - 110 MYRTLE AVENUE  
WESTPORT, CONNECTICUT 06880

(203) 341-1170 • FAX (203) 341-1088

BACK UP MATERIAL  
RTM ITEM # 3

**TOWN OF WESTPORT  
INLAND WETLANDS AND WATERCOURSES AND  
WATERWAY PROTECTION PERMIT**

No. IWW, WPL 11049-20

Effective Date: September 23, 2020

This PERMIT authorizes Keith Wilberg, Town Engineer, APPLICANT, and Town of Westport OWNERS to conduct the following REGULATED ACTIVITY: To replace an existing bridge, which conveys Bayberry Lane Extension over the Aspetuck River in approximate place and kind. The project is within the watercourse, the wetlands, the upland review area from wetlands, and within the WPLO area of the Aspetuck River, Westport, Connecticut; in conformance with the laws of the State of Connecticut, and the Town of Westport.

This PERMIT is issued upon application of the PERMITTEE in accordance with the Regulations for the Protection and Preservation of Wetlands and Watercourses of Westport and the Waterway Protection Line Ordinance, and the CONDITIONS OF APPROVAL listed in the Resolution adopted at the Conservation Commission's meeting convened on the above-referenced date.

Acceptance and application of this license is both an implied and expressed agreement by the holder and his agents to comply with and adhere to all terms and conditions of this permit.

No change or revision of this permit may occur without the prior written authorization of the Conservation Director, said authorization to be issued only upon submission of a written request describing the proposed deviation and supporting reason. Similarly, this permit is non-transferable. Requests for such transfers are to be submitted in writing to the Conservation Director describing the proposed transfer, the reason for such transfer, and an acknowledgment that nothing regarding the transfer shall in any way shift or limit the liability of any other person unless and until the transfer is authorized in writing by the Conservation Director.

In issuing this PERMIT, the Conservation Commission has relied upon the applicant's assurances, and makes no warranties, either expressed or implied, and assumes no liability with regard to the structural integrity of the design of any structures, or to the engineering feasibility or efficacy of such design.

In event that the Permit Holder becomes aware that there may be a noncompliance with any provision of the approval, the Permit Holder shall immediately inform the Conservation Director, and shall take all reasonable steps to ensure that any noncompliance is avoided, or, if unavoidable, minimized to the greatest extent possible, with such notification not excusing the noncompliance.

The holder of the PERMIT, and his agents and representatives, acknowledges that the issuance of the PERMIT does not in any way relieve or excuse said PERMITTEE of the obligation to obtain any other approvals required by applicable local, state, and federal law.

**FAILURE TO CONFORM TO THE TERMS AND CONDITIONS OF THIS CERTIFICATE  
WILL SUBJECT THE CERTIFICATE HOLDER, TO ENFORCEMENT ACTIONS,  
INCLUDING PENALTIES AS PROVIDED BY LAW.**

Westport Conservation Commission

  
\_\_\_\_\_  
Anna Rycenga  
Chairperson

**Findings**  
**Application # IWW, WPL -11049-20**  
**Bayberry Lane Extension Bridge**  
**Bridge over Aspetuck River (BRG. #04969)**  
**Hearing September 23, 2020**

1. **Receipt Date:** September 9, 2020
2. **Application Classification:** Plenary
3. **Application Request:**

The Town of Westport is requesting to replace an existing bridge, which conveys Bayberry Lane Extension over the Aspetuck River in approximate place and kind. The project is within the watercourse, the wetlands, the upland review area from wetlands, and within the WPLO area of the Aspetuck River.
4. **IWW and WPLO Regulated Areas:**

IWW setbacks determined for this property include 20' non-disturbance buffer for the proposed site work and work within wetland boundaries.  
The Waterway Protection Line Ordinance (WPLO) dictates that the WPL boundary be located 15' from the 25-year floodplain. The bridge work is proposed within the WPLO.
5. **Plans reviewed:**
  - a) "Replacement of Bridge No. 04969 Bayberry Lane #2 Over Aspetuck River", Prepared for Town of Westport, Scale: As-Noted, dated August 11, 2020, prepared by AI Engineers, Inc., 8 sheets PMT-01 to WPL-25y
  - b) "Preliminary Fisheries Review – Replacement of Bayberry Lane #2 Bridge over the Aspetuck River" From DEEP-Fisheries Division to Office of Environmental Planning, DOT, Dated March 1, 2018
  - c) "Wetland Description Report, Bayberry Lane Bridge (no. 0469) over Aspetuck River Westport, CT" Soils report by Soil Science and Environmental Services, Inc., Dated February 13, 2019
  - d) Wetland/Watercourse Delineation Report by Soil Science and Environmental Services, Inc., Dated January 28, 2019:
  - e) "Hydraulic Design Report Replacement of Bayberry Lane Extension Bridge over Aspetuck River (Bridge No. 04969) Town of Westport, CT" prepared by EcoDesign LLC, Dated November 2019 and last revised August 2020, 270 pgs.
6. **Background Information:**
  - The pre-existing bridge spans the Aspetuck River and was reportedly completed in 1957. The existing bridge consists of seven steel beams topped with a reinforced concrete deck with asphalt road surface. The span length is approximately 23 feet.
  - The existing bridge shows signs of structural deficiencies and evidence of scour around the abutments.
  - The bridge location is approximately 650 ft. north of the intersection of Bayberry Lane Extension and Easton Road (Rt. 136)
  - The average daily traffic at the bridge is estimated to be 636 vehicles per day.
  - It is located in the Aspetuck River watershed. The river flows from east to west across the project site. The confluence with the main reach of the Saugatuck River is approximately 7,680 ft. to the west. A FEMA flood zone is associated with this property as shown on the plans.
  - The site is **not** within the Aquifer Protection Overlay Zone.

- This site does **not** exist within the Coastal Areas Management Zone.
- Wetland/Watercourse Delineation Report by Soil Science and Environmental Services, Inc., Dated January 28, 2019:
- Wetland soils identified include: **Walpole sandy loam** (13); **Rippowam fine sandy loam** (103), and **Fluvaquents-Udfluvents** (109) within the work area. The Walpole soil is a poorly drained soil formed in glacial outwash. The Rippowam and Fluvaquents soils are formed in alluvial sediments deposited by the river.
- The non-wetland soils were identified as Udorthents, Agawam, and Ninigret and Tisbury series soils.
- Flood & Erosion Control Board reviewed this application pursuant to the WPLO on September 2, 2020

**7. Previous Permits/Applications filed:**

#AA-WPL/E 9520-13: emergency bridge repairs.

**Conformance to Section 6 of the Inland Wetlands and Watercourses Regulations**

**8. 6.1 GENERAL STANDARDS**

- a) disturbance and pollution are minimized;
- b) minimize height, width, length of structures are limited to the minimum; dimension to accomplish the intended function;
- c) loss of fish, other beneficial organisms, wildlife and vegetation are prevented;
- d) potable fresh water supplies are protected from dangers of drought, overdraft, pollution, misuse and mismanagement;
- e) maintain conservation, economic, recreational and aesthetic qualities;
- f) consider historical sites

**Discussion:**

The existing bridge structure consists of a single span. The bridge shows structural issues including deterioration of steel beams and scour around the abutments. The proposed bridge is designed to increase the span to 45' compared to the existing 23 ft. span. The Commission finds that the design to widen the span beyond the streambank is a benefit to establishing natural flow patterns and flow rates through this portion of the river. The proposed bridge reduces the upstream backwater of floodwaters for a 100-year storm event.

The Commission finds that the DEEP Fisheries Division established several conditions to ensure the protection of fish and habitat. The contractors should maintain proper sediment and erosion controls throughout the project to reduce the risk of sediment movement and turbidity that would affect downstream fish habitat. The unconfined in-stream work is limited to July 1 to September 30 timeframe to reduce possible impacts to diadromous fish. The project shall minimize the amount of riprap needed for scour protection and areas of riprap shall be covered with natural streambed material or rounded stone.

The majority of the work for the bridge will be conducted from the existing roadway. Temporary cofferdams are proposed to contain most of the abutment work. A row of silt fencing will be installed around the work site. An area for a dewatering basin is identified on the upstream northeast roadside edge. The Commission finds that the dewatering area shall be relocated to the downstream, southern side of the bridge to reduce the amount of water entering the worksite and allowing for an area beyond the steep slopes to manage runoff.

The Commission finds that a wetland area consisting of 525 sq. ft. is proposed to have permanent impacts as part of this proposal and 695 sq. ft. of waterway area will have temporary impacts during site construction activities. A total of 1,220 sq. ft. of anticipated impacts. Soil stockpile areas shall be within the right-of-way roadway approaches.

**9. 6.2 WATER QUALITY**

- a) flushing rates, freshwater sources, existing basin characteristics and channel contours will not be adversely altered;
- b) water stagnation will neither be contributed nor caused;
- c) water pollution will not affect fauna, flora, physical or chemical nature of a regulated area, or the propagation and habitats of fish and wildlife, will not result;
- d) pollution of groundwater or a significant aquifer will not result (*groundwater recharge area or Aquifer Protection Overlay Zone*);
- e) all applicable state and local health codes shall be met;
- f) water quality will be maintained or improved in accordance with the standards set by federal, state, and local authority including section 25-54(e) of the Connecticut General Statutes
- g) prevents pollution of surface water

**Discussion:**

A dewatering basin is provided along the northeastern embankment. The Commission finds that this is a critical portion of the construction activity. The Commission finds that a dewatering basin shall be relocated to the downstream, southern side of the bridge to reduce the amount of water entering the worksite and allow for an area beyond the steep slopes to manage runoff. The Commission finds that a site monitor shall be assigned to conduct weekly sediment and erosion control inspections and provide those reports to the Conservation Office.

Seven trees are highlighted for removal on the downstream, southern side of the bridge. Rip-rap scour protection is proposed along the slope for stabilization. The Commission finds that the application shall restore the vegetative buffer adjacent to the watercourse after bridge installation. Vegetation restoration adjacent to the work area will help to safeguard natural resources by providing additional stormwater runoff filtration prior to discharge into the river. The reduction of water velocities from stormwater runoff allows vegetation to absorb some non-point pollutants such as oils, road sands and salts, fertilizers, or herbicides that may otherwise discharge into the watercourse.

Three leak-offs for stormwater are found in the roadway to the north of the bridge, as indicated on the plans. The Commission finds that the contractor shall improve the condition of these leak-offs to reduce erosion from runoff and consider plantings to aid in biofiltration treatment of stormwater.

**10. 6.3 EROSION AND SEDIMENT**

- a) temporary erosion control measures shall be utilized during construction and for the stabilization period following construction;
- b) permanent erosion control measures shall be utilized using nonstructural alternatives whenever possible and structural alternatives when avoidable;
- c) existing circulation patterns, water velocity, or exposure to storm and flood conditions shall not be adversely altered;
- d) formation of deposits harmful to aquatic life and or wetlands habitat will not occur;
- e) applicable state, federal and local guidelines shall be met.

**Discussion:**

Specific erosion control methods are described in the application including silt fencing, temporary cofferdams, and dewatering basin. All erosion and sediment structures should be inspected and maintained on a regular basis. The Commission finds that the applicant shall assign a site monitor to conduct weekly sediment and erosion control inspections and provide those reports to the Conservation Office. The Commission finds that the applicant, the general contractor, site monitor, and Conservation Staff shall meet onsite at the start of the project to review Sediment and Erosion controls and discuss the need for extra measures.

The Commission finds that the dewatering area shall be relocated to the downstream, southern side of the bridge to reduce the amount of water entering the worksite and allowing for an area beyond the steep slopes to manage runoff. Conservation Staff previously approved emergency repairs to the bridge abutment under permit # AA-WPL/E-9520-13 which was carried out in July of 2013. During that time, a suitable dewatering area was identified on the southern embankment of the downstream side of the bridge. The Commission finds that this should be an adequate location once again for a dewatering activities.

#### **11. 6.4 NATURAL HABITAT STANDARDS**

- a) critical habitats areas,
- b) the existing biological productivity of any Wetland and Watercourse shall be maintained or improved;
- c) breeding, nesting and or feeding habitats of wildlife will not be significantly altered;
- d) movements and lifestyles of fish and wildlife (plant and aquatic life) will not be significantly affected;
- e) periods of seasonal fish runs and bird migrations shall not be impeded;
- f) conservation or open space easements will be deeded whenever appropriate to protect these natural habitats.

#### **Discussion:**

As the area and amount of disturbance adjacent to the watercourse is limited, it is not anticipated to affect habitat. The proposed plan limits the amount of work within the wetlands and watercourse areas including temporary and permanent disturbance. The contractor will be directed to conduct activities from within the travel-way as much as possible in order to complete tasks.

Any unconfined work within the river is restricted to July 1 to September 30 timeframe to protect fish life cycles. All areas should be restored to pre-construction conditions upon completion. The Commission finds that this should assure that plant and aquatic life will not be significantly affected long term.

As stated in the "Preliminary Fisheries Review – Replacement of Bayberry Lane #2 Bridge over the Aspetuck River" From DEEP-Fisheries Division" letter, this reach of the Aspetuck River is stocked annually with trout, and they have targeted this area for restoration for the passage of diadromous fish. The Commission finds that the proposed work should not impact fish habitat and migration if conditions are met.

#### **12. 6.5 DISCHARGE AND RUNOFF**

- a) the potential for flood damage on adjacent or adjoining properties will not be increased;
- b) the velocity or volume of flood waters both into and out of Wetlands and Watercourses will not be adversely altered;
- c) the capacity of any wetland or watercourse to transmit or absorb flood waters will not be significantly reduced;
- d) flooding upstream or downstream of the location site will not be significantly increased;
- e) the activity is acceptable to the Flood & Erosion Control Board and or the Town Engineer of the municipality of Westport

#### **Discussion:**

The Flood and Erosion Board approved this project at their meeting on September 2, 2020.

Bayberry Lane will continue to be overtopped during a 100-year storm event. The hydraulic analysis for the existing structure shows ~0.6 ft. of upstream backwater for the 100-year Design Discharge. The analysis for proposed replacement shows ~0.1 ft. of upstream

backwater for the 100-year Design Discharge. The Commission finds that this proposal will reduce the current backwater related to the bridge and will slightly improve flooding conditions near the bridge. The Commission finds that the proposed bridge should minimize impacts to the capacity of any wetland or watercourse to transmit or absorb flood waters, will not increase flooding and will not adversely affect the velocity of flood waters into and out of the wetlands.

### 13. 6.6 RECREATIONAL AND PUBLIC USES

- a) access to and use of public recreational and open space facilities, both existing and planned, will not be prevented;
- b) navigable channels and or small craft navigation will not be obstructed;
- c) open space, recreational or other easements will be deeded whenever appropriate to protect these existing or potential recreational or public uses;
- d) wetlands and watercourses held in public trust will not be adversely affected.

#### Discussion:

The Commission finds that bridge currently provides public use for a secondary thoroughfare in town and for our neighbors to the north entering from Weston. The proposed development will not affect public use beyond the detours required while under construction. The recreational use is minimal. This stretch of the Aspetuck River lies within a CT DEEP-designated Trout Management Area. Protection of the trout habitat against excess turbidity and sediment, and alteration of natural stream bottom is important. The Commission finds that the plan designs and timing of construction appear to take this into account.

### 14. CRITERIA TO BE CONSIDERED BY THE COMMISSION

In carrying out the purposes and policies of the IWW regulations for the Town of Westport Section 5.0 and Sections 22a-36 to 22a-45(a,) inclusive, of the Connecticut General Statutes, including matters relating to regulating, permitting and enforcing of the provisions thereof, the Commission shall take into consideration all relevant facts and circumstances, including, but not limited to:

- (a) The environmental impact of the proposed regulated activity on wetlands or watercourses;
- (b) The applicant's purpose for, and any feasible and prudent alternatives to, the proposed regulated activity which alternatives would cause less or no environmental impact to wetlands or watercourses;
- (c) The relationship between the **short-term** and **long-term impacts** of the proposed regulated activity on wetland or watercourses and the maintenance and enhancement of long-term productivity of such wetlands or watercourses.
- (d) Irreversible and irretrievable loss of wetland or watercourse resources which would be caused by the proposed regulated activity, including the extent to which such activity **would foreclose a future ability to protect**, enhance or restore such resource and any mitigation measures which may be considered as a condition of issuing a permit for such activity
- (e) The character and degree of injury to, or interference with, safety, health or reasonable use of property which is caused or threatened by the proposed regulated activity
- (f) Impacts of the proposed regulated activity on wetlands or watercourses outside the area for which the activity is proposed and **future activities** associated with, or reasonably related to, the proposed regulated activity **which are made inevitable** by the proposed regulated activity and which may have an impact on wetlands or watercourses. ; and
- (g) The degree to which the proposed activity is consistent with all applicable goals and policies set forth in Section 1.3 and 1.4 of these Regulations and Section 22a-36 of the Connecticut General Statutes, as amended.

### 15. Waterway Protection Line Ordinance

*Section 148-9 of the Waterway Protection Line Ordinance states that the applicant shall submit information to the Conservation Commission showing that such activity will not cause water pollution, erosion and/or environmentally related hazards to life and property and will not have an adverse impact on the preservation of the natural resources and ecosystem of the waterway, including but not limited to impact on ground and surface water, aquifers, plant and aquatic life, nutrient exchange and supply, thermal energy flow, natural pollution filtration and decomposition, habitat diversity, viability and productivity and the natural rates and processes of erosion and sedimentation.*

The Waterway Protection Line boundary exists 15' from the 25-year flood line onsite. The Flood & Erosion Control Board has approved this application on September 2, 2020 with standard conditions.

The Commission finds that they support the Town's efforts to upgrade deteriorating infrastructure for the safety of its citizens. The new bridge's design and placement increases the amount of floodwaters able to pass for a 100-year storm, which in turn, reduces the amount of water that can be backed up. As stated in the "Hydraulic Design Report", the bridge should be passable during a 10-year storm event where it currently is not passable. Additionally, this work is proposed to address structural deficiencies in the bridge and to reduce risk for the public use. The Commission finds that this will not significantly impact resources as they are protected under the Waterway Protection Line Ordinance.

**Conservation Commission  
TOWN OF WESTPORT**

**Conditions of Approval  
Application # IWW, WPL -11049-20  
Bayberry Lane Extension Bridge  
Bridge over Aspetuck River (BRG. #04969)  
Date of Resolution: September 23, 2020**

**Project Description:** The Town of Westport is requesting to replace an existing bridge, which conveys Bayberry Lane Extension over the Aspetuck River in approximate place and kind. The project is within the watercourse, the wetlands, the upland review area from wetlands, and within the WPLO area of the Aspetuck River.

**Owner of Record:** Town of Westport  
**Applicant:** Keith Wilberg, Town Engineer

In accordance with Section 6 of the *Regulations for the Protection and Preservation of Wetlands and Watercourses of Westport* and Section 30-93 of the *Waterway Protection Line Ordinance* and on the basis of the evidence of record, the Conservation Commission resolves to **APPROVE** Application #IWW,WPL-11049-20 with the following conditions:

**STANDARD CONDITIONS OF APPROVAL**

1. Completion of the regulated activity shall be within FIVE (5) years following the date of approval. Any application to renew a permit shall be granted upon request of the permit holder unless the Commission finds there has been a substantial change in circumstances which requires a new permit application or an enforcement action has been undertaken with regard to the regulated activity for which the permit was issued provided no permit may be valid for more than TEN (10) years.
2. Permits are not transferable without the prior written consent of the Conservation Commission.
3. It is the responsibility of the applicant to obtain any other assent, permit or license required by law or regulation of the Government of the United States, State of Connecticut, or of any political subdivision thereof.
4. If an activity also requires zoning or subdivision approval, special permit or special exception under section 8.3(g), 8-3c, or 8-26 of the Connecticut General Statutes, no work pursuant to the wetland permit shall commence until such approval is obtained.
5. If an approval or permit is granted by another Agency and contains conditions affecting wetlands and/or watercourses; the applicant must resubmit the application for further consideration by the Commission for a decision before work on the activity is to take place.
6. The Conservation Department shall be notified at least **forty-eight (48)** hours in advance of the initiation of the regulated activity for inspection of the erosion and sediment controls.
7. All activities for the prevention of erosion, such as silt fences and hay bales shall be under the direct supervision of the site contractor who shall employ the best management practices to control storm water discharges and to prevent erosion and sedimentation to otherwise prevent pollution, impairment, or destruction of wetlands or watercourses. Erosion controls are to be inspected by the applicant or agent weekly and after rains and all deficiencies must be remediated with twenty-four hours of finding them.
8. The applicant shall take all necessary steps to control storm water discharges to prevent erosion and sedimentation, and to otherwise prevent pollution of wetlands and watercourse.
9. Organic Landscaping practices are recommended as described by the Northeast Organic Farming Association.
10. All plants proposed in regulated areas must be non-invasive and native to North America.
11. Trees to remain are to be protected with tree protection fencing prior to construction commencement.

12. The bottom of all storm water retention structures shall be placed no less than 1 foot above seasonal high groundwater elevation.
13. The applicant shall immediately inform the Conservation Department of problems involving sedimentation, erosion, downstream siltation or any unexpected adverse impacts, which development in the course or are caused by the work.
14. Any material, man-made or natural which is in any way disturbed and/or utilized during the work shall not be deposited in any wetlands or watercourse unless authorized by this permit.
15. A final inspection and submittal of an "as built" survey is required prior to the issuance of a Certificate of Compliance.
16. All on-site dumpsters shall be covered at the end of each workday and or when not in use.

#### **SPECIAL CONDITIONS OF APPROVAL**

17. Conformance to the plans entitled:
  - a) "Replacement of Bridge No. 04969 Bayberry Lane #2 Over Aspetuck River", Prepared for Town of Westport, Scale: As-Noted, dated August 11, 2020, prepared by AI Engineers, Inc., 8 sheets PMT-01 to WPL-25y
  - b) "Preliminary Fisheries Review – Replacement of Bayberry Lane #2 Bridge over the Aspetuck River" From DEEP-Fisheries Division to Office of Environmental Planning, DOT, Dated March 1, 2018
  - c) "Wetland Description Report, Bayberry Lane Bridge (no. 0469) over Aspetuck River Westport, CT" Soils report by Soil Science and Environmental Services, Inc., Dated February 13, 2019
  - d) Wetland/Watercourse Delineation Report by Soil Science and Environmental Services, Inc., Dated January 28, 2019:
  - e) "Hydraulic Design Report Replacement of Bayberry Lane Extension Bridge over Aspetuck River (Bridge No. 04969) Town of Westport, CT" prepared by EcoDesign LLC, Dated November 2019 and last revised August 2020, 270 pgs.
18. Conformance to conditions of the Flood & Erosion Control Board approval of September 2, 2020.
19. A site monitor shall be retained for the duration of this project's construction and completion. Said monitor shall ensure compliance with the sediment and erosion control plans. Said monitor shall conduct weekly inspections and after storm events greater than 1 inch with written reports submitted to the Conservation Department on a weekly basis.
20. The applicant, the general contractor, site monitor, and Conservation Staff shall meet onsite at the start of the project to review Sediment and Erosion controls and discuss the need for extra measures such as a turbidity curtain.
21. The location for dewatering activity shall be moved to the south side of the bridge as directed by Conservation staff and site monitor.
22. A planting plan shall be provided to the Conservation Department Staff for the disturbed areas around the bridge abutments to ensure slope stabilization and biofiltration prior to startup of onsite construction
23. All planting within 20 ft. from the wetland area shall be done by hand. Mulching within this area shall be done with organic leaf mulch. Plantings must be installed prior to the issuance of a CCC.
24. All In-stream work should be restricted to the period between July 1 and September 30. Submittal of the CT DEEP Fisheries Division final sign-off for stream restoration activities is required prior to the issuance of a CCC.

**This is a conditional approval. Each and every condition is an integral part of the Commission decision. Should any of the conditions, on appeal from this decision, be found to be void or of no legal effect, then this conditional approval is likewise void. The applicant may refile another application for review.**

**This approval may be revoked or suspended if the applicant exceeds the conditions or limitations of this approval, or has secured this application through Inaccurate information.**

**Motion: Lobdell**

**Second: Corroon**

**Ayes: Lobdell, Corroon, Rycenga, Davis, Carey, Cowherd**

**Nayes: 0 Abstentions: 0 Vote: 6:0:0**



## WESTPORT, CONNECTICUT

DEPARTMENT OF PUBLIC WORKS  
TOWN HALL, 110 MYRTLE AVE.  
WESTPORT, CONNECTICUT 06880  
(203) 341 1120

BACK UP MATERIAL  
RTM ITEM # 4

August 17, 2020

Mr. James S. Marpe  
First Selectman  
Town Hall  
Westport, CT 06880

Re: Request for Appropriation along with bond and note authorization to the Municipal Improvement Fund. Power Redundancy and IT Security Upgrades at Town Hall and Parks and Recreation

Dear Mr. Marpe,

This office herein requests an appropriation along with bond and note authorization to the Municipal Improvement Fund in the amount of \$150,000 for installation of an Uninterruptible Power Supply, (UPS), and Secondary Transfer Switch, along with Access Controls to various IT resource areas at our Parks & Rec offices.

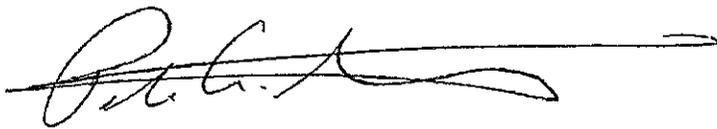
The IT Audit that was performed on the Westport IT systems in fall of 2018 identified general IT vulnerabilities. Upon review of the document and further investigation of our IT infrastructure it was identified that the current UPS systems that protect Town Hall's critical servers do not provide adequate backup power duration for unplanned power system failures. The issue became very apparent in January 2019 when Town Hall experienced an unplanned Server shutdown due to a simultaneous power outage and failure of our main Transfer Switch. Some of the currently installed UPS units provided as little as 10 minutes of backup power, which was inadequate time for a technician to respond to Town Hall. In addition, the IT Department identified several locations in both Town Hall and the Parks and Recreation building where there is no controlled access to critical IT equipment. This situation leaves the various equipment areas vulnerable to exploitation or sabotage. We have since addressed the issue at Town Hall. Finally in the most recent event, Tropical Storm Isaias, we experienced a power surge at Town Hall that the surge protection afforded by the individual UPS units could not handle. The result was damage to some equipment and damage to several servers that prevented critical file access and needed to be immediately

addressed in order for Town Hall to function properly, especially on the eve of a primary election.

The proposed project will solve these problems by installing a secure, scalable, and centralized UPS that will provide up to 2 hours of backup power to the network equipment in Town Hall along with power surge protection. In addition the project provides a redundant secondary transfer switch that serves the Server electrical panel and isolates it from the main Town Hall power system. The security issues will be solved by installation of fob-only access control units to the equipment areas. These access controls will be added to and controlled through our Security Solutions access network.

This project is not in the Capital Forecast as the vulnerabilities were only recently revealed. Nevertheless, it is a critical need to ensure the continuous service of our IT Infrastructure. Attached is a summary of probable costs for the project along with the required Capital Project Request form.

Respectfully,

A handwritten signature in black ink, appearing to read "Peter A. Ratkiewich", with a long horizontal flourish extending to the right.

Peter A. Ratkiewich, P.E  
Director of Public Works

cc: Gary Conrad, Finance Director  
G:\Pw\_of\PAR\APPRQST\TownHall\_IT\_Power\_CON2

JUSTIFICATION FOR A CAPITAL PROJECT

**DEPARTMENT INFORMATION**

DEPT NAME: Department of Public Works/Department of Information Technology Date: 8/17/20

**PROJECT NAME AND DESCRIPTION**  
 Power Redundancy and IT Security Upgrades at Westport Town Hall and Parks and Rec – This project seeks to provide power backup redundancy to IT assets and to access controls on all IT hardware locations

IS IT LISTED IN THE 5-YR CAPITAL FORECAST? YES  NO   
 If no, why not? IT Department and DPW have become aware of this problem as a result of reviewing the IT audit, as well as experiencing an unplanned shutdown of mission critical servers due to a simultaneous power outage and a failure of our transfer switch in January  
 If yes, answer the following two questions:  
 Which FY was the project first proposed?  
 Which FY was the project first planned?

COST BASED ON BIDS:	\$135,825.00	COST IN CAPITAL FORECAST:	
CONTINGENCY (10%):	\$ 13,682.50		
	\$149,407.50	←TOTAL	REQUEST→ \$150,000

**SOURCE OF FUNDS:**

CAPITAL BOND <input checked="" type="checkbox"/>	GEN'L FUND <input type="checkbox"/>
CNR <input type="checkbox"/>	GRANT <input type="checkbox"/>
STATE <input type="checkbox"/>	OTHER <input type="checkbox"/>

OTHER, DESCRIBE: Alternatively could be funded from CNR fund

PAYBACK PERIOD: N/A

PROJECTED START DATE: November 2020 EST. COMPLETION DATE: February 2021  
 ESTIMATED USEFUL LIFE: 15 years

Is this project part of a larger capital project? No

Has an RFP been issued? YES  NO  Bid #19-957T came in on 4/12/19  
 Have bids been received? YES  NO  Number of bids received: Five (5)  
 Was the lowest bid the winner? YES  NO  If not, why? \_\_\_\_\_

Who will benefit from the project? This project will address identified vulnerabilities in our IT infrastructure so it serves the entire Town

[Empty box]

Is it a replacement? YES  NO  This is a new initiative

If yes, describe condition of what is to be replaced: \_\_\_\_\_

Pictures attached? YES  NO

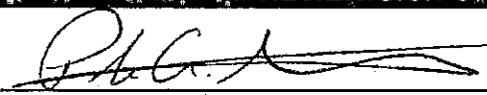
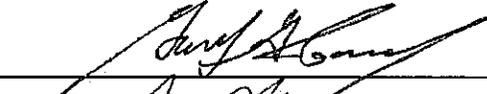
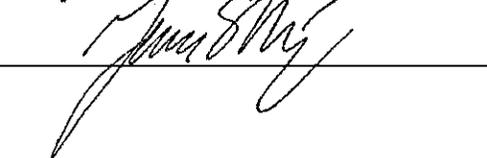
What other approvals/reviews are necessary to begin this project? RTM, BOS, Building Permit

**FINANCE**

*This section to be completed by the Finance Director.*

EFFECT ON TOWN FINANCES, INCLUDING DEBT SERVICE:  
IF APPROVED:  
IF NOT APPROVED:

**REVIEW/SIGN-OFF**

DEPARTMENT HEAD		DATE: 8-17-2020
FINANCE DIRECTOR		DATE: 8/17/2020
FIRST SELECTMAN		DATE: 8/18/2020

Power Redundancy and IT Security Upgrades		Bid #19-957T Results
item	Description	
1	30 KVA UPS - Eaton 9355 with additional battery backup	
2	Power Distribution Panels	
3	Feeder conduit and conductors	
4	Non-Automatic Transfer Switch	
5	Portable Generator Receptacle	
6	Enclosure NEMA 4x	
7	Rigging	
8	IG Receptacles and Branch circuits	
9	A/C Circuit modifications	
	<b>Power Subtotal</b>	\$ 129,950.00 ← Bid Result 4/12/19 Banton Construction
	* Estimate based on HP Engineering Opinion of Probable Cost	
10	Parks & Rec Access Controls on Network Room	\$ 5,875.00 ← hard quote Security Solutions
	<b>Security Subtotal</b>	\$ 5,875.00
	<b>Project Subtotal</b>	\$ 135,825.00
	** Estimate based on Security Solutions quote	
	10% contingency	\$ 13,582.50 ← 10% contingency
	<b>Grand Total</b>	\$ 149,407.50
	Request	\$ 150,000.00

Peter A. Ratkiewich, P.E.  
 Director of Public Works  
 203 341 1120



## WESTPORT, CONNECTICUT

DEPARTMENT OF PUBLIC WORKS  
TOWN HALL, 110 MYRTLE AVE.  
WESTPORT, CONNECTICUT 06880  
(203) 341 1120

BACK UP MATERIAL  
RTM ITEM # 5

August 17, 2020

Mr. James S. Marpe  
First Selectman  
Town Hall  
Westport, CT 06880

Re: Request for Appropriation of \$71,500.00\* along with bond and note authorization to the Municipal Improvement Fund Account for funding design of replacement of underground fuel tanks, fuel system, and heating oil tanks at the Parsell Public Works Center at 300 Sherwood Island Connector

Dear Mr. Marpe,

This office herein requests an appropriation of \$71,500.00\* along with bond and note authorization to the Municipal Improvement Fund Account for funding the design of a replacement of the underground tanks, fuel system and heating oil tank at the Parsell Public Works Center. The new system will consist of above ground tanks to reduce our environmental liability. The existing tanks are now due to be replaced according to DEEP regulations and they are current on the capital forecast. This is the first stage of the overall design and construction, which is listed in the forecast at a funding level of \$400,000.

\*The figure of \$71,500 will be updated on August 27, 2020 when we will receive bids on this design RFP from qualified firms.

We anticipate the design process to be completed in the winter of 2020/2021. We will request funds for construction once we have an Opinion of Probable Cost from the selected consultant. We anticipate that the eventual construction will cost approximately \$350,000. This figure will be revised once the final design is determined.

Respectfully,

A handwritten signature in black ink, appearing to read "Peter A. Ratkiewich", written over a horizontal line.

Peter A. Ratkiewich, P.E.  
Director of Public Works

cc: Gary Conrad, Finance Director  
G:\Pw\_off\PAR\APPRQST\ParsellPWC\_FuelTanks

JUSTIFICATION FOR A CAPITAL PROJECT

**DEPARTMENT INFORMATION**

DEPT NAME: Public Works – Highway Division Date: 8/17/2020

**PROJECT NAME AND DESCRIPTION**  
 Engineering services for the evaluation, design and inspections of rebuilding the Public Works Fueling Station and replacing oil heating tank at the Parsell Public Works Center

IS IT LISTED IN THE 5-YR CAPITAL FORECAST? YES  NO   
 If no, why not?  
 If yes, answer the following two questions:  
 Which FY was the project first proposed? 2015  
 Which FY was the project first planned? 2010

APPROXIMATE COST: \$65,000 (est. for design only) COST IN CAPITAL FORECAST: (\$400,000) design and construction  
 CONTINGENCY (10%): \$6,500 REQUEST → \$71,500\* (to be updated on 8/27/20)  
 ←TOTAL

**SOURCE OF FUNDS:**

CAPITAL BOND <input checked="" type="checkbox"/>	GEN'L FUND <input type="checkbox"/>
CNR <input type="checkbox"/>	GRANT <input type="checkbox"/>
STATE <input type="checkbox"/>	OTHER <input type="checkbox"/>

OTHER, DESCRIBE:  
 PAYBACK PERIOD:

PROJECTED START DATE: November 2020 EST. COMPLETION DATE: February 2021  
 ESTIMATED USEFUL LIFE: 20 years

Is this project part of a larger capital project? Yes, this is the design portion of the complete replacement project

Has an RFP been issued? YES  NO  RFP 21-999T; bids due 8/27/2020  
 Have bids been received? YES  NO  Number of bids received: Due 8/27/2020  
 Was the lowest bid the winner? YES  NO  If not, why? TBD – lowest responsible bidder

Who will benefit from the project? The fueling station serves all of the DPW vehicles and must be reliable and up to current code. We are proposing to remove the underground tanks and make them all above ground to reduce liability

[Empty box]

Is it a replacement?                      YES    NO  
      

The current tanks and station are due for replacement. The new station will be above ground in accordance with our efforts

If yes, describe condition of what is to be replaced: to reduce liability by removing all underground tanks.

Pictures attached?                      YES    NO  
      

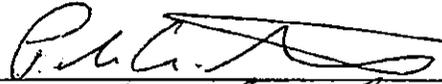
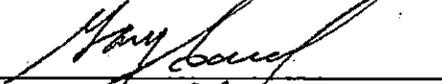
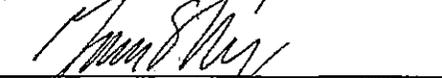
What other approvals/reviews are necessary to begin this project?  
RTM, BOS, DEEP

**FINANCE**

*This section to be completed by the Finance Director.*

EFFECT ON TOWN FINANCES, INCLUDING DEBT SERVICE:  
IF APPROVED:  
IF NOT APPROVED:

**REVIEW/SIGN-OFF**

DEPARTMENT HEAD		DATE: 8/17/2020
FINANCE DIRECTOR		DATE: 8/18/2020
FIRST SELECTMAN		DATE: 8/17/2020

**RTM Finance and Public Works Committee Joint Meeting  
September 29, 2020**

**Finance Committee Members Present** (six of nine): Jeff Wieser, Chair; Jessica Bram, Seth Braunstein; Rick Jaffe; Stephen Shackelford; Cathy Talmadge

**Public Works Committee Members Present:** Jay Keenan, Chair; Andrew Colabella; Peter Gold; Jack Klinge; Richard Lowenstein; Louis Mall; Matthew Mandell; Chris Tait; Cathy Talmadge

**Other Town Officials Present:** Pete Ratkiewich, Public Works Department (DPW) Director; Velma Heller, RTM Moderator; Karen Kramer, RTM; Kristin Schneeman, RTM.

The RTM Finance and Public Works Committees met jointly to consider the following:

**“Upon the request of the Director of Public Works and as approved by the Board of Finance to recommend approval of an appropriation of \$71,500, along with bond and note authorization, to the Municipal Improvement Fund Account 30503310500318 to design the replacement of underground fuel tanks, fuel system, and heating oil tanks at Parsell Public Works Center at 300 Sherwood Island Connector.”**

The new system will consist of above ground tanks, which will reduce our environmental liability. The existing tanks are due for replacement because of age and liability issues, but also according to Department of Energy and Environmental Protection (DEEP) regulations.

The existing, underground, fuel tanks are estimated at 25-27 years old. The current fuel system, though functional, is out of date. And the current heating oil tank is also in need of replacement. To date, Public Works has replaced about 70% of the town’s formerly underground tanks.

The new tanks are to be double wall tanks, which will reduce the town’s liability. Risk of contamination will also be reduced because above ground tanks can be inspected, whereas underground tank problems are detected when they appear.

The requested “design” funding of \$71,500 consists of the \$65,000 expected cost, plus a 10% contingency. The \$65,000 design cost is from the low bidder, and is in line with previous cost estimates. DPW is comfortable with the low bidder, an engineering firm with extensive experience both on previous town projects, and with fuel system projects in particular.

The requested design funds represent the first stage of the overall design and construction, which is listed in the capital forecast at a total expected cost of \$400,000. The current estimate for the remaining construction phase is \$350,000. The expected total cost, \$71,500 for design plus \$350,000 for construction, or \$421,500, is close to the forecast of \$400,000, which was made approximately five years ago. Public Works expects the design work to be completed during the winter 20/21, and will request funds for construction, i.e., the actual replacement, once they have

an Opinion of Probable Cost from their selected consultant. Construction is expected to be undertaken and completed in 2021.

**Action: Motions in favor** of supporting the requested funding were made and seconded for Public Works (Cathy Talmadge / Peter Gold) and Finance (Cathy Talmadge / Seth Braunstein).

**Both motions passed unanimously:**

- Public Works: 9-0, and
- Finance: 6-0

Respectfully submitted,

Rick Jaffe  
Finance Committee and RTM District 1

**WESTPORT, CONNECTICUT**

DEPARTMENT OF PUBLIC WORKS  
TOWN HALL, 110 MYRTLE AVE.  
WESTPORT, CONNECTICUT 06880  
(203) 341 1120

BACK UP MATERIAL  
RTM ITEM # 6

August 17, 2020

James S. Marpe  
First Selectman  
Town Hall  
Westport, CT 06880

**Re: Request for Appropriation – Capital Equipment Replacement**

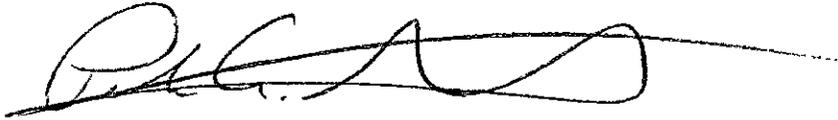
Dear Mr. Marpe:

The Public Works Department currently maintains a fleet of heavy equipment and specialized vehicles that are critical to our operations. In accordance with our 5-year capital forecast, we would like to make the following requests:

1. Replacement of truck #38 – F550 Plow truck and vehicle #44 – Kubota mini-excavator. These two pieces of equipment are used together throughout the year for trenching, stream and culvert cleaning, and general excavation work. The total in the capital forecast is \$180,000. Our actual request is **\$178,000**.
2. Replacement of half of the Parsell Public Works Center, truck bay doors and replacement of the waste oil storage shelter. The waste oil enclosure currently does not meet Spill Prevention standards and must be replaced with an enclosure that will contain oil in the event of a spill. The truck bay doors are the first half of a two-part project to install truck bay doors on the freightliner bays. We currently use plastic tarpaulins to keep the birds and weather out and it is frankly ineffective. The birds are a constant problem in that they roost inside the garages and soil the trucks. It costs additional man-hours to clean the bird excrement off the trucks and it is damaging to the paint jobs. In addition to eliminating this problem, the closed doors will also keep the trucks in a ready state during the winter as the elements will be kept outside, thus keeping the diesel engines slightly warmer. The total in the capital forecast for this request is \$75,000. Our actual request is **\$60,000**.
3. Replacement of the Transfer Station doors. This is a project to replace the 40 year old doors on the transfer station bays that are currently non-functional. Having working doors will allow us to control where people can access the dumping area and will provide a safer environment for the residents, as we will be able to close off certain bays when a compactor is down for maintenance, repair or de-clogging. In addition it will allow us to secure the building at night or during closures. The total in the capital forecast for this request is \$75,000. Our actual request is for **\$40,000**.

Lumped together the total capital request for these three items is \$278,000. We respectfully request an appropriation from the Municipal Improvement fund along with bond and note authorization for a total of \$278,000.00

Respectfully,

A handwritten signature in black ink, appearing to read "Peter A. Ratkiewich", with a long horizontal line extending to the right.

Peter A. Ratkiewich, P.E.  
Director of Public Works

JUSTIFICATION FOR A EQUIPMENT/VEHICLE

**DEPARTMENT INFORMATION**

DEPT NAME: **Public Works - Highway** Date: **8/17/2020**

EQUIPMENT OR VEHICLE NAME AND DESCRIPTION  
 Vehicle #38 - Ford F550 w/Rack body, Lift gate, plow, and sander  
 Vehicle #44 - Kubota Mini Excavator

IS IT LISTED IN THE 5-YR CAPITAL FORECAST? YES  NO   
 If no, why not?

APPROXIMATE COST:	Truck #38 - \$105,000 MiniExc - \$ 73,000 total \$178,000	COST IN CAPITAL FORECAST:	\$180,000
Source of funds:	TBD - per Finance Director		

ESTIMATED USEFUL LIFE: **15 years**

Has an RFP been issued?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	budget pricing per Sourcewell, (Kubota) and State bid, ((truck); Westchester is Local Kubota Vendor; Gengras supplies at State bid price and is superior for maintenance.
Have bids been received?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	Number of bids received: _____ Prices per Sourcewell and State Bid
Was the lowest bid the winner?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	If not, why? _____ Prices per Sourcewell and State Bid

How will the equipment/vehicle be used?  
 The truck is used for plowing and sanding in the winter, and combined with the Excavator for in-house trenching, stream cleaning, and miscellaneous excavation work during the non-winter months

Is it a replacement? YES  NO   
 If yes, describe condition of what is to be replaced: **truck - heavily used for both plowing and hauling; Excavator-well past end of useful life**  
 Pictures attached? YES  NO

**FINANCE**

*This section to be completed by the Finance Director.*

**EFFECT ON TOWN FINANCES, INCLUDING DEBT SERVICE:**

IF APPROVED:

IF NOT APPROVED:

**REVIEW/SIGN-OFF**

DEPARTMENT HEAD



DATE: 8/17/2020

FINANCE DIRECTOR



DATE: 8/18/2020

FIRST SELECTMAN



DATE: 8/17/2020





**TOWN OF WESTPORT**  
**Finance Department**  
 Town Hall, Room 313/314, 110 Myrtle Ave  
 Westport, CT 06880  
 Telephone 203-341-1000

# Purchase Order

Fiscal Year 2020 Page 1 of 1

THIS NUMBER MUST APPEAR ON ALL INVOICES, PACKAGES AND SHIPPING PAPERS.	
Purchase Order #	<b>20203394-00</b>

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**CONFIRMING ORDER - DO NOT DUPLICATE**

HIGHWAY DEPARTMENT  
 TOWN OF WESTPORT  
 300 SHERWOOD ISLAND CONNECTOR  
 WESTPORT, CT 06880

Delivery must be made within doors of specified destination.

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TRI-STATE EQUIP REBUILDING, INC  
 50 BALA RIDGE RD  
 OXFORD CT 06478

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EQUIPMENT MAINTENANCE DEPT  
 TOWN OF WESTPORT  
 300 SHERWOOD ISLAND CONNECTOR  
 WESTPORT, CT 06880

TAX EXEMPT IRS ID NO. 06-6002128

Vendor Phone Number		Vendor Fax Number		Requisition Number		Delivery Reference	
203-267-6845		203-267-4643		3670			
Date Ordered	Vendor Number	Date Required	Freight Method/Terms			Department/Location	
03/19/2020	6014					ENGINEERING	
Item#	Description/Part No.			Qty	UOM	Unit Price	Extended Price
1	4.0 CU. YARD SALT DOGG MATERIAL SPREADER MODEL #1400500SSH AS QUOTED 2/13/2020 #18831 FOR TRUCK #60 10103321 - 543000			1.0	EACH	\$6,977.50	\$6,977.50
							\$6,977.50

Complete  Partial

**PO Total \$6,977.50**

REC'D BY \_\_\_\_\_ DATE \_\_\_\_\_

\_\_\_\_\_  
 AUTHORIZED DEPT. SIGNATURE (FOR PAYMENT)

**RECEIVING COPY**

By *Amy A. [Signature]*  
 Authorized Signature





**FINANCE**

*This section to be completed by the Finance Director.*

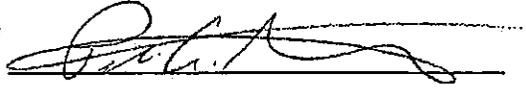
**EFFECT ON TOWN FINANCES, INCLUDING DEBT SERVICE:**

**IF APPROVED:**

**IF NOT APPROVED:**

**REVIEW/SIGN-OFF**

**DEPARTMENT HEAD**



**DATE:** 8/17/2020

**FINANCE DIRECTOR**

\_\_\_\_\_

**DATE:**

**FIRST SELECTMAN**



**DATE:** 8/17/2020

# PROPOSAL

## CRAWFORD DOOR OF STRATFORD, INC.

200 Stagg Street  
Stratford, CT 06615  
Phone (203) 378-4805 378-6880  
Fax (203) 386-9629

PROPOSAL SUBMITTED TO Town of Westport	PHONE Scott 203-341-5085	DATE 7/23/20
STREET 300 Sherwood island Connector	JOB NAME Garage Sectional Overhead Doors	
CITY, STATE Westport, Ct	JOB LOCATION Garage Sectional Overhead Doors	

Furnish and install into your prepared opening the following: SECTIONAL OVERHEAD DOORS

Three (3) 12'0" x 12'0" steel sectional overhead doors steel insulated solid color charcoal  
Motor operated inside side locks 12" standard lift track torsion springs 2" bracket mount  
To wood strut top sections weather stops.

Three (3) Commercial Electric Operators Trolley Drawbar model MT5011U 115/1 12ft rails  
Constant pressure to close.

TOWN TO PREPARE OPENINGS AND MOVE ELECTRICAL INCLUDING LIGHTS.

FOR THE SUM OF.....\$7685.00 TAX EXEMPT

SIGN COPY AND RETURN TO ORDER

All Electrical wiring including control wiring and mounting of Electrical components is by others

**E MAIL ADDRESS: [crawforddoorct@aol.com](mailto:crawforddoorct@aol.com)**

### CERTIFIED WOMEN BUSINESS ENTERPRISE

We propose hereby to furnish material and labor – complete in accordance with above specifications, for the sum of:  
SEVEN THOUSAND SIX HUNDRED EIGHTY-FIVE 00/100

Dollars \$7685.00

Payment to be made as follows: NET 30 DAYS

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practice costs will be executed only upon written orders, and will become alteration or deviation from above specifications involving extra

Signature LENORE ESPOSITO

an extra charge over and above estimate. All agreements contingent upon strikes, accidents of delays beyond our control. Owner to carry fire, tornado, and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance.

Note: This proposal may be withdrawn by us if not accepted within 30 days.

Acceptance of Proposal – The above specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Signature \_\_\_\_\_

Date of Acceptance: \_\_\_\_\_

Signature \_\_\_\_\_

# PROPOSAL

## CRAWFORD DOOR OF STRATFORD, INC.

200 Stagg Street  
Stratford, CT 06615  
Phone (203) 378-4805 378-6880  
Fax (203) 386-9629

PROPOSAL SUBMITTED TO Town of Westport	PHONE Scott 203-341-5085	DATE 7/23/20
STREET 300 Sherwood Island Connector	JOB NAME Transportation Dept.	
CITY, STATE Westport, Ct	JOB LOCATION	

Furnish and install into your prepared opening the following:

One 12'0" x 11'5" Steel Rolling Door with total height at 13'6" Insulated Powder coat Gray Face mount on the inside to steel. Motor operated 1/2 hp 115/1 with Timer and constant Pressure to close on push button.

FOR THE SUM OF.....\$10,495.00 TAX INCLUDED

SIGN COPY AND RETURN TO ORDER.

All Electrical wiring including control wiring and mounting of Electrical components is by others

**E MAIL ADDRESS: [crawforddoorct@aol.com](mailto:crawforddoorct@aol.com)**

### CERTIFIED WOMEN BUSINESS ENTERPRISE

We propose hereby to furnish material and labor – complete in accordance with above specifications, for the sum of:  
TEN THOUSAND FOUR HUNDRED NINETY-FIVE 00/100

Dollars \$10,495.00

Payment to be made as follows: TERMS 30 DAYS

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practice costs will be executed only upon written orders, and will become alteration or deviation from above specifications involving extra

Signature LENORE ESPOSITO

an extra charge over and above estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado, and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance.

Note: This proposal may be withdrawn by us if not accepted within 30 days.

Acceptance of Proposal – The above specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Signature \_\_\_\_\_

Date of Acceptance: \_\_\_\_\_

Signature \_\_\_\_\_

**ELECK & SALVATO**  
**ELECTRIC, INC.**  
FOUR FITCH STREET  
EAST NORWALK, CT 06855  
PHONE (203) 838-1900 FAX (203) 854-0470

**#2232**

**PROPOSAL**

Town of Westport Building Maintenance  
Attn: Scott Sullivan  
Public Works  
300 Sherwood Island Connector  
Westport Ct. 06880

7/29/2020

RE: Electrical Modifications for New Garage Doors at Transfer station, and Truck Shed  
300 Sherwood Island Connector

Eleck & Salvato Electric, Inc. is pleased to present you with our recommended Budgets to furnish labor, material, and equipment to install new conduits wiring, devices and disconnects as needed, for the installation of new garage doors in the transfer station and the truck shed per on site review.

**Transfer station doors ..... \$13,200.00**

Replace existing 600volt 30amp 3 phase disconnects, and load side conduits to supply power and wire new door control stations for the 3 doors on the east side of building.

Notes:

- Existing feeders to be reused.
- All conduits to be heavy wall steel galvanized
- Single door station at each door

**Truck Shed ..... \$11,700.00**

Relocate lighting and outlets to allow for new equipment, and install new power and pushbutton stations for new overhead doors

Notes:

- All conduit shed 40 pvc
- Westport DPW to provide new surface at door columns for device mounting

**General Notes:**

- All work figured for normal work hours.
- All work figured as one project
- No engineered drawings included
- All work outside of this scope to be performed as a separate job or on a time and material bases
- Permit fees Not included.
- Taxes not included

We propose hereby to furnish material and labor - complete in accordance with the above specifications for the sum of:

**Recommended Budget if performed as one job**

**Twenty-Four Thousand Nine Hundred Dollars ..... (\$24,900.00)**

Payment to be made as follows:

**% work performed monthly, remaining balance upon completion**

All material is guaranteed to be as specified. All work to be completed in a professional manner. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents, or delays beyond our control. Owner to carry fire, totnado, and other necessary insurance. Our workers are fully covered by Worker's Compensation Insurance.

Authorized Signature: \_\_\_\_\_

Kevin C Dugan President, Eleck and Salvato Electric inc,

Date: \_\_\_\_\_

29 July 2020

Note: This proposal may be withdrawn by us if not accepted within 30 days.

Acceptance of Proposal - The above prices, specifications, and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Authorized Signature: \_\_\_\_\_

Date of Acceptance: \_\_\_\_\_



# Associated Fiberglass Enterprises

Quote 373-071720

DATE: 7/17/2020

Customer Town of Westport CT  
 ADDRESS \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 PROJECT \_\_\_\_\_

POC Scott Sullivan  
 FAX \_\_\_\_\_  
 PHONE \_\_\_\_\_  
 email ssullivan@westportct.gov

DESCRIPTION	Length	Width	Height	QTY	UNIT PRICE	EXTENDED
SHELTER MODEL 96120	8'-0"	10'-0"	7'-0"	1	\$17,325.92	\$17,325.92
<ul style="list-style-type: none"> <li>* Fiberglass reinforced polyester skin with 1 inch Isocyanurate foam insulating core</li> <li>* White UV protective polyester gelcoat</li> <li>* Stainless steel piano hinge with crash stop and foam gasket on 36" x 80" double doors</li> <li>* Stainless steel lockset on main door, barrel bolts on passive door</li> <li>* Fiberglass awning above doorway</li> <li>* Equipment mounting board</li> <li>* 125 amp main lug 8 circuit panel in a NEMA 3R plastic enclosure</li> <li>* Pre-wired using 12 ga. wiring in U.L. listed non metallic flexible conduit</li> <li>* Two duplex outlets ( 15a, 120v )</li> <li>* Interior vapor proof lamp assembly</li> <li>* Corrosion resistant fan ( 8" 698 cfm ) with screened fiberglass hood</li> <li>* Fixed aluminum ventilation louver</li> <li>* 1500w Heater with dedicated outlet</li> <li>* External weatherproof switch for light and fan</li> <li>* Internal mounting flange 3" x 1/4"</li> <li>* Galvanized lifting eyes</li> </ul>						
<b>TOTAL</b>						<b>\$17,325.92</b>
Estimated freight to Westport CT						<b>\$4,100.00</b>
						<b>\$17,483.41</b>

Quote good for 60 days  
 Expected delivery: 6 to 8 weeks after signed order and drawings  
 Sales tax not included  
 Terms: net 30 days upon approved credit

Acceptance of Quotation \_\_\_\_\_

Company \_\_\_\_\_

By: \_\_\_\_\_

Date: \_\_\_\_\_

Associated Fiberglass Enterprises  
 2411 Weaver St.  
 Haltom City Texas 76117  
 office 817-838-6786 fax 817-838-6789

JUSTIFICATION FOR A EQUIPMENT/VEHICLE

**DEPARTMENT INFORMATION**

DEPT NAME: **Public Works – Solid Waste** Date: **8/17/2020**

**EQUIPMENT OR VEHICLE NAME AND DESCRIPTION**  
 Overhead Doors for 3 front bays for resident drop off area:  
 Doors and Motors - \$23,840; Electrical \$13,200; Total - \$37,000  
 Cont.- \$ 3,000  
 Request - \$40,000

IS IT LISTED IN THE 5-YR CAPITAL FORECAST? YES  NO   
 If no, why not?

APPROXIMATE COST: \$40,000 COST IN CAPITAL FORECAST: \$75,000  
 Source of funds: TBD- per Finance Director

ESTIMATED USEFUL LIFE: 15 years

Has an RFP been issued? YES  NO  Crawford Door sole respondent; E&S is on-call electrical contractor for Transfer Station.  
 Have bids been received? YES  NO  Number of bids received: see above  
 Was the lowest bid the winner? YES  NO  If not, why?

**How will the equipment/vehicle be used?**  
 The doors will be used for flow control. The existing doors are non-functional and have been for years. Having working doors will allow us to control where and how Solid Waste is deposited when one or the other compactor is down for maintenance, repair, or de-clogging. They will also allow us to secure the building at night or during closures

Is it a replacement? YES  NO   
 If yes, describe condition of what is to be replaced: non-functional  
 Pictures attached? YES  NO

**FINANCE**

*This section to be completed by the Finance Director.*

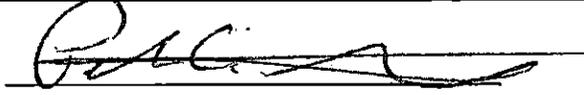
**EFFECT ON TOWN FINANCES, INCLUDING DEBT SERVICE:**

IF APPROVED:

IF NOT APPROVED:

**REVIEW/SIGN-OFF**

DEPARTMENT HEAD



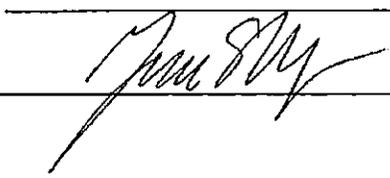
DATE: 8/17/2020

FINANCE DIRECTOR

\_\_\_\_\_

DATE:

FIRST SELECTMAN



DATE: 8/17/2020

# PROPOSAL

## CRAWFORD DOOR OF STRATFORD, INC.

200 Stagg Street  
Stratford, CT 06615  
Phone (203) 378-4805 378-6880  
Fax (203) 386-9629

PROPOSAL SUBMITTED TO Town of Westport	PHONE Scott 203-341-5085	DATE 7/23/20
STREET 300 Sherwood island Connector	JOB NAME Garage	
CITY, STATE Westport, Ct.	JOB LOCATION	

Furnish and install into your prepared opening the following: ROLLING DOOR CURTAINS AND MOTORS

One 16'0" x 12'0" 1) 22'0" X 12'0" 1) 10'0" X 12'0" Complete steel rolling door Curtain Only 22ga  
3" slats—non-insulated  
With windlocks gray finish, including bottom bar with bottom astragal.  
Remove old curtains and haul.

FOR THE SUM OF.....\$15,065.00 TAX EXEMPT

ELECTRIC OPERATORS: Replace three (3) Gearhead electric operators ½ hp 460/3  
With one up-down-stop button per unit.

FOR THE SUM OF.....\$8775.00 TAX EXEMPT

All Electrical wiring including control wiring and mounting of Electrical components is by others

**E MAIL ADDRESS: [crawforddoorct@aol.com](mailto:crawforddoorct@aol.com)**

**CERTIFIED WOMEN BUSINESS ENTERPRISE**

We propose hereby to furnish material and labor – complete in accordance with above specifications, for the sum of:  
**SEE ABOVE**

Dollars \_\_\_\_\_

Payment to be made as follows: NET 30 DAYS

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practice costs will be executed only upon written orders, and will become alteration or deviation from above specifications involving extra

LENORE ESPOSITO  
Signature \_\_\_\_\_

an extra charge over and above estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado, and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance.

Note: This proposal may be withdrawn by us if not accepted within 30 days.

**Acceptance of Proposal** – The above specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Signature \_\_\_\_\_

Date of Acceptance: \_\_\_\_\_

Signature \_\_\_\_\_

**ELECK & SALVATO**  
**ELECTRIC, INC.**  
FOUR FITCH STREET  
EAST NORWALK, CT 06855  
PHONE (203) 838-1900 FAX (203) 854-0470

**#2232**

**PROPOSAL**

Town of Westport Building Maintenance  
Attn: Scott Sullivan  
Public Works  
300 Sherwood Island Connector  
Westport Ct. 06880

7/29/2020

RE: Electrical Modifications for New Garage Doors at Transfer station, and Truck Shed  
300 Sherwood Island Connector

Eleck & Salvato Electric, Inc. is pleased to present you with our recommended Budgets to furnish labor, material, and equipment to install new conduits wiring, devices and disconnects as needed, for the installation of new garage doors in the transfer station and the truck shed per on site review.

**Transfer station doors ..... \$13,200.00**

Replace existing 600volt 30amp 3 phase disconnects, and load side conduits to supply power and wire new door control stations for the 3 doors on the east side of building.

Notes:

- Existing feeders to be reused
- All conduits to be heavy wall steel galvanized
- Single door station at each door

**Truck Shed ..... \$11,700.00**

Relocate lighting and outlets to allow for new equipment, and install new power and pushbutton stations for new overhead doors

Notes:

- All conduit shed 40 pvc
- Westport DPW to provide new surface at door columns for device mounting

July 29, 2020

**General Notes:**

- All work figured for normal work hours.
- All work figured as one project
- No engineered drawings included
- All work outside of this scope to be performed as a separate job or on a time and material bases
- Permit fees Not included.
- Taxes not included

We propose hereby to furnish material and labor - complete in accordance with the above specifications for the sum of:

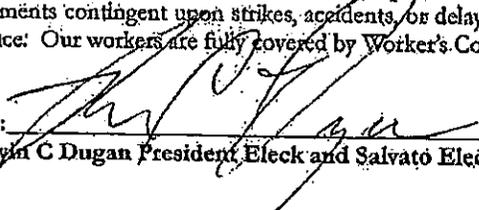
**Recommended Budget if performed as one job**

**Twenty-Four Thousand Nine Hundred Dollars ..... (\$24,900.00)**

Payment to be made as follows:

**% work performed monthly, remaining balance upon completion**

All material is guaranteed to be as specified. All work to be completed in a professional manner. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents, or delays beyond our control. Owner to carry fire, tornado, and other necessary insurance. Our workers are fully covered by Worker's Compensation Insurance.

Authorized Signature:  Date: 29 July 2020  
Kevin C Dugan President, Eleck and Salvato Electric inc.

Note: This proposal may be withdrawn by us if not accepted within 30 days.

Acceptance of Proposal - The above prices, specifications, and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Authorized Signature: \_\_\_\_\_ Date of Acceptance: \_\_\_\_\_

TOWN OF WESTPORT

RESOLUTION OF THE REPRESENTATIVE TOWN MEETING ASSERTING THAT RACISM IS A  
PUBLIC HEALTH CRISIS AFFECTING THE TOWN OF WESTPORT AND ALL OF  
CONNECTICUT

WHEREAS, racism is a social system with multiple dimensions: individual racism that is interpersonal and/or internalized or systemic racism that is institutional or structural, and is a system of structuring opportunity and assigning value based on the social interpretation of how one looks; and

WHEREAS race is a social construct with no biological basis; and

WHEREAS racism unfairly disadvantages specific individuals and communities, while unfairly giving advantages to other individuals and communities, and saps the strength of the whole society through the waste of human resources, and

WHEREAS racism is a root cause of poverty and constricts economic mobility; and

WHEREAS racism causes persistent discrimination and disparate outcomes in many areas of life, including housing, education, employment, and criminal justice, and is itself a social determinant of health; and

WHEREAS racism and segregation have exacerbated a health divide resulting in people of color in Connecticut bearing a disproportionate burden of illness and mortality including COVID-19 infection and death, heart disease, diabetes, and infant mortality; and

WHEREAS Black, Native American, Asian and Latino residents are more likely to experience poor health outcomes as a consequence of inequities in economic stability, education, physical environment, food, and access to health care and these inequities are, themselves, a result of racism; and

WHEREAS more than 100 studies have linked racism to worse health outcomes; and

WHEREAS the collective prosperity and wellbeing of Westport depends upon equitable access to opportunity for every resident regardless of the color of their skin: and

WHEREAS in August 2005, recognizing the need to achieve and celebrate a more welcoming, multicultural community, the Town of Westport established the TEAM Westport Committee to advise Town officials; and

NOW, THEREFORE, BE IT RESOLVED, that the Town of Westport asserts that racism is a public health crisis affecting Westport and all of Connecticut;

BE IT FURTHER RESOLVED that the Town of Westport will work to progress as an equity and justice-oriented organization, by continuing to identify specific activities to enhance diversity and to ensure antiracism principles across our leadership, staffing and contracting;

BE IT FURTHER RESOLVED that the Town of Westport will promote equity through all policies approved by the Town of Westport and enhance educational efforts aimed at understanding, addressing and dismantling racism and how it affects the delivery of human and social services, economic development and public safety;

BE IT FURTHER RESOLVED that the Town of Westport will improve the quality of the data Westport collects and the analysis of that data—it is not enough to assume that an initiative is producing its intended outcome, qualitative and quantitative data should be used to assess inequities in impact and continuously improve;

BE IT FURTHER RESOLVED that the Town of Westport will continue to advocate locally for relevant policies that improve health in communities of color, and support local, state, regional, and federal initiatives that advance efforts to dismantle systemic racism;

BE IT FURTHER RESOLVED that the Town of Westport will further work to solidify alliances and partnerships with other organizations that are confronting racism and encourage other local, state, regional, and national entities to recognize racism as a public health crisis;

BE IT FURTHER RESOLVED that the Town of Westport will support community efforts to amplify issues of racism and engage actively and authentically with communities of color wherever they live; and

BE IT FURTHER RESOLVED that the Town of Westport will identify clear goals and objectives, including periodic reports to the Representative Town Meeting, to assess progress and capitalize on opportunities to further advance racial equity.