

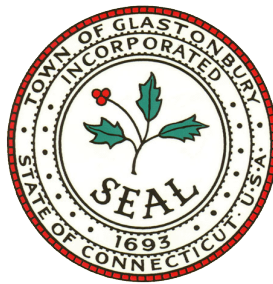
TOWN OF GLASTONBURY
ENGINEERING DIVISION
PW-2109

CONTRACT DOCUMENTS

FOR

RIVERFRONT COMMUNITY CENTER
PICKLEBALL COURTS

BID # GL-2023-17



ADVERTISED ON: AUGUST 1, 2022

BID DUE DATE: AUGUST 25, 2022

TOWN OF GLASTONBURY

INVITATION TO BID

<u>BID #</u>	<u>ITEM</u>	<u>DATE & TIME REQUIRED</u>
GL-2023-17	Riverfront Community Center Pickleball Courts	AUGUST 25, 2022 at 11:00 A.M.

The Town of Glastonbury will receive on-line Bids for the construction of a four (4) court post-tensioned concrete surface pickleball court facility and associated drainage infrastructure located at the Riverfront Community Center 300 Welles Street in Glastonbury.

Bidders wishing to submit a bid proposal for this solicitation are directed to respond online through a secure e-Procurement portal. Responses can be submitted at the following link: <https://app.negometrix.com/buyer/2832>, under the bid title "**GL-2023-17 - Riverfront Community Center Pickleball Courts**". All bids will be publicly opened and read aloud. **No late bids will be accepted.**

This Invitation to Bid, Instructions to Bidders, Drawings, Specifications and other Bidding Documents (as defined in the Instruction to Bidders) are available for viewing and downloading on the Town of Glastonbury website www.glastonburyct.gov or the State's website at www.das.state.ct.us at no cost.

Each Bid must be accompanied by a bid security in the form of a Bid Bond, certified in an amount not less than 10% of the base bid except as otherwise expressly provided in the Instruction to Bidders. The successful bidder will be required to provide performance and labor and material payment bonds in the full amount of the agreed contract price.

Bidders are further advised that this project is subject to the prevailing wage requirements of Connecticut General Statutes Section 31-53.

Bidders are also hereby alerted to the schedule requirements as outlined in Special Conditions Section 11.00.

The Town of Glastonbury is An Affirmative Action/Equal Opportunity Employer. Minority/Women's Business Enterprises are encouraged to bid.

The Town reserves the right to amend or withdraw this Invitation to Bid for any reason, to accept or reject any or all Bids, to waive any informalities or non-material deficiencies in any Bid, and to make such award (or make no award) of a contract in connection with this Invitation to Bid all as determined by the Town, in its discretion, to be in the best interest of the Town. A Bid may be rejected for irregularities of any kind, including without limitation, alteration of form, additions not called for, conditional proposals, and incomplete Bids. A Bid may also be rejected if, in the opinion of the Town, the Bid does not meet the standard of quality established by the Bidding Documents. Any or all Bids may be rejected if there is any reason to believe that collusion exists among two or more Bidders. The foregoing provisions are for illustrative purposes and shall in no way limit the right of the Town to reject any and all Bids, in whole or in part.

Mary F. Visone
Purchasing Agent

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1. Bidders submitting a response for this solicitation are directed to respond online through a secure e-Procurement portal. Bids can be submitted at the following link: <https://app.negometrix.com/buyer/2832> under the bid title "**GL-2023-17 - Riverfront Community Center Pickleball Courts**". Bidders will be required to create a profile before submitting their bid. Step-by-step instructions on how to register as a vendor are available at this website:

<https://help.negometrix.com/en/support/solutions/articles/9000177626-register-on-negometrix4>

Bidders will be required to upload their bid response in **one consolidated pdf document** in the following file located in the bid portal:

- Bid Response & Related Documents
2. Whenever it is deemed to be in the best interest of the Town, the Town Manager, Purchasing Agent or designated representative shall waive informalities in any and all bids. The right is reserved to reject any bid when such action is deemed to be in the best interest of the Town of Glastonbury.
 3. The award will be on the basis of bid total cost of the lowest qualified, responsible, and responsive bidder unless otherwise specified. The bid total cost shall be arrived at by the mathematical calculation of the unit price multiplied times the number of units specified for each line item, and the total sum of all line items in the bid. In the event that the Town finds computational errors in a respondent's bid proposal, the bid total cost shall be recalculated by the Town based on the unit prices contained in the bid proposal.
 4. Bids will be carefully evaluated as to conformance with stated specifications.
 5. Specifications must be submitted complete in every detail and, when requested, samples shall be provided. If a bid involves any exception from stated specifications, they must be clearly noted as exceptions, underlined, and attached to the bid.
 6. The Bid Documents contain the provisions required for the requested item. Information obtained from an officer, agent, or employee of the Town or any other person shall not affect the risks or obligations assumed by the Bidder or relieve him/her from fulfilling any of the conditions of the bid.
 7. Each Bidder is held responsible for the examination and/or to have acquainted themselves with any conditions at the job site which would affect their work before submitting a bid. Failure to meet this criteria shall not relieve the Bidder of the responsibility of completing the bid without extra cost to the Town of Glastonbury.
 8. Any bid may be withdrawn prior to the above-scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No Bidder may withdraw a bid within sixty (60) days after the actual date of the opening thereof. Should there be reasons why a bid cannot be awarded within the specified period, the time may be extended by mutual agreement between the Town and the Bidder.
 9. Each electronic bid submission must be accompanied by a COPY of the bid bond payable to the Town for ten percent (10%) of the total amount of the bid. Original bid bonds from all respondents must be mailed to the attention of the Purchasing Agent immediately (within 24 hours) following the virtual bid opening at the following address: Town of Glastonbury, PO Box 6523, Glastonbury, CT 06033-6523, Attn: Mary F. Visone, Purchasing Agent. The bid bond of the successful Bidder will be retained until the payment bond and performance bond have been executed and approved, after which it will be returned.

10. A 100% Performance and a 100% Payment bond are required of the successful bidder. This bond shall cover all aspects of the specification and shall be delivered to the Purchasing Agent prior to the issuance of a purchase order. The Performance and Payment Bond will be returned upon the delivery and acceptance of the bid items.
11. The Bidder agrees and warrants that in the submission of this sealed Bid, they will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religion, national origin, sex, or physical disability including, but not limited to blindness, unless it is shown by such Bidder that such disability prevents performance of that which must be done to successfully fulfill the terms of this sealed Bid or in any manner which is prohibited by the laws of the United States or the State of Connecticut: and further agrees to provide the Connecticut Human Relations Commission with such information requested by the Commission concerning the employment practices and procedures of the Bidder. An Affirmative Action Statement will be required by the successful Bidder.
12. Bidder agrees to comply with all of the latest Federal and State Safety Standards and Regulations and certifies that all work required in this bid will conform to and comply with said standards and regulations. Bidder further agrees to indemnify and hold harmless the Town for all damages assessed against the Town as a result of Bidder's failure to comply with said standards and/or regulations.
13. All correspondence regarding any purchase made by the Town of Glastonbury shall reference the Town's purchase order number. Each shipping container shall clearly indicate both Town purchase order number and item number.
14. Bidder is required to review the Town of Glastonbury Code of Ethics adopted July 8, 2003 and effective August 1, 2003 and revised October 29, 2013 and effective November 28, 2013. Bidder shall acknowledge that they have reviewed the document in the area provided on the bid/proposal response page (BP-1). The selected Bidder will also be required to complete and sign an Acknowledgement Form prior to award. The Code of Ethics and the Acknowledgement Form can be accessed at the Town of Glastonbury website at www.glastonburyct.gov. Upon entering the website scroll down to click on Bids & Proposals Icon which will bring you to the links for the Code of Ethics and the Acknowledgement Form.
15. **Non-Resident Contractors:** (if applicable)
Upon award the Town is required to report names of nonresident (out of state) Contractors to the State of Connecticut, Department of Revenue Services (DRS) to ensure that Employment Taxes and other applicable taxes are being paid by Contractors. **A single surety bond for 5% of the entire contract price is required to be filed with DRS by any unverified nonresident prime or general contractor (if awarded) where the contract price for the project is \$250,000 or more.** The contractor will be required to promptly furnish to the Town a copy of the **Form AU-968 - Certificate of Compliance** issued by the State of Connecticut, DRS. See State of Connecticut **Notice SN 2012 (2).**
16. Bidder shall include on a sheet(s) attached to its proposal a complete disclosure of all past and pending mediation, arbitration and litigation cases that the bidder or its principals (regardless of their place of employment) have been involved in for the most recent five years. Please include a statement of the issues in dispute and their resolution. Acceptability of Bidder based upon this disclosure shall lie solely with the Town.
17. Bidder or its principals, regardless of their place of employment, shall not have been convicted of, nor entered any plea of guilty, or nolo contendere, or otherwise have been found civilly liable or criminally responsible for any criminal offense or civil action. Bidder shall not be in violation of any State or local ethics standards or other offenses arising out of the submission of bids or proposals, or performance of work on public works projects or contracts.

18. **State Prevailing Wage Rates:**

Respondents shall comply with State Statutes concerning Employment and Labor Practices, if applicable, and Section 31-53 of the Connecticut General Statutes, as amended (Prevailing Wages). Wage Rate Determination for this project from the State of Connecticut is included in the Bid Documents. Certified payrolls for site labor shall be submitted weekly to the Town's Representative or his designee on the correct State of Connecticut form (see RFP). The Town reserves the right to, without prior notice, audit payroll checks given to workers on site in order to ascertain that wages and fringe benefits are being paid as required by the State of Connecticut. Please make special note of the State requirement to adjust wage and fringe benefit rates on each July 1st following the original published rates.

NOTE that respondent is to include in its proposal all costs required by such annual increases in the PREVAILING RATES. NO escalation clauses are to be included in the respondent's proposal and NO escalation clauses will be in the Contract Agreement. Respondent is to anticipate any future increases and include these costs in the proposal response.

Contractor's invoices will not be paid if certified payrolls are incomplete, incorrect or not received in a timely manner.

All Apprentices must be registered with the State of Connecticut and their number shall not exceed the number allowed by law. Otherwise, all workers must be paid at least the Journeyman rate listed including benefits.

OSHA SAFETY AND HEALTH CERTIFICATION

Effective July 1, 2009: Any Mechanic, Laborer, or Worker, who performs work in a classification listed on the prevailing wage rate schedule on any public works project covered under C.G.S. Section 31-53, both on site and on or in the public building, must have completed a federal OSHA Safety and Health course within the last 5 years.

19. Each bid shall also include a description of three similar (3) projects completed by the bidder with references to demonstrate successful experience with similar projects. Please provide project name, contact information and contract value.

20. **Compliance with Town Ordinance Prohibiting Natural Gas Waste & Oil Waste From Natural Gas Extraction Activities or Oil Extraction Activities:** If this bid is for the construction, repair or maintenance of Town owned and/or maintained roads or real property within the Town related to either (a) the purchase or acquisition of materials by the Town to be used to construct, repair or maintain any Town owned and/or maintained road or real property within the Town or (b) the performance of services for the Town to construct, repair or maintain any Town owned and/or maintained road or real property within the Town, the Bidder shall provide the following signed statement to the Town in its bid response, which shall be a certification under penalty of perjury by the Bidder:

"The undersigned Bidder, _____, hereby submits a bid for materials, equipment and/or services for the Town of Glastonbury. The bid is for bid documents titled "GL-2023-17 - Riverfront Community Center Pickleball Courts".

The undersigned Bidder hereby certifies under penalty of perjury that in connection with the bid and, if it is awarded the purchase order or contract by the Town, in connection with any purchase order or contract: (1) no materials containing natural gas waste or oil waste from natural gas extraction activities or oil extraction activities shall be provided to the Town or shall be used in providing any services to the Town by the undersigned Bidder or any contractor, sub-contractor or agent of the undersigned Bidder; (b) nor will the undersigned Bidder or any contractor,

subcontractor or agent of the undersigned Bidder apply any natural gas waste or oil waste from natural gas extraction activities or oil extraction activities to any publicly owned and/or maintained road or real property within the Town of Glastonbury in performing its obligations under the purchase order or contract.

The undersigned Bidder hereby agrees and acknowledges that this requirement shall be a term of the purchase order or contract, if it awarded the purchase order or contract by the Town, and any breach of this provision shall be a breach of the purchase order or contract.”

21. **Compliance with AMERICAN RESCUE PLAN ACT (ARPA) FUNDING PROGRAM REQUIREMENTS:** This bid is subject to federal requirements for ARPA Funding as outlined in Section 17 of the General Conditions. Related certifications included in Attachment E must be submitted as part of the bid response. The Bidder hereby agrees and acknowledges that the ARPA Requirements outlined in Section 17 of the General Conditions shall be a term of the purchase order or contract, if awarded the purchase order or contract by the Town, and any breach of these provisions shall be a breach of the purchase order or contract.

22. Any technical questions regarding this bid shall be made in writing (email acceptable) and directed to Daniel A. Pennington, P.E. Town Engineer / Manager of Physical Services, 2155 Main Street, PO Box 6523, Glastonbury, CT 06033; daniel.pennington@glastonbury-ct.gov. Telephone (860) 652-7736 between the hours of 8:00 a.m. – 4:30 p.m. For administrative questions concerning this bid/proposal, please contact Mary F. Visone, Purchasing Agent, by email to the Purchasing Department at purchasing@glastonbury-ct.gov. All questions, answers, and/or addenda, as applicable, will be posted on the Town’s website at www.glastonbury-ct.gov (Upon entering the website scroll down to click on Bids & Proposals Icon, then scroll down page to see the active bid table. You must click the Bid Title to view all bid details and document links). The request must be received at least five (5) business days prior to the advertised response deadline. **It is the respondent’s responsibility to check the website for addenda prior to submission of any bid/proposal.**

IMPORTANT:

- Failure to comply with general rules may result in disqualification of the Bidder.
- Municipal projects are exempt from Federal Excise Taxes, as well as, State of Connecticut Sales, Use and Service Taxes and should not be include in the Bidder’s proposal.

01.00 WORKMANSHIP, MATERIALS AND EMPLOYEES

01.01 Wherever in this contract the word “Engineer” is used, it shall be understood as referring to the Town Engineer/Manager of Physical Services of the Town of Glastonbury acting personally or through any assistants duly authorized.

01.02 The entire work described herein shall be completed in accordance with the plans and specifications to the full intent and meaning of the same. Unless otherwise specified, all materials incorporated in the permanent work shall be new, and both workmanship and material shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

01.03 The wording “furnish”, “install”, “construct”, “furnish and install”, or any similar terms, unless specifically noted to the contrary, shall include all labor, materials, water, tools, equipment, light, power, transportation, and any other services required for the completion of the work.

01.04 The Contractor shall at all times enforce strict discipline and good order among his employees, and shall seek to avoid employing on the work any unfit person or anyone not skilled in the work assigned to him.

02.00 SUPERINTENDENT

02.01 The Contractor shall keep on the work during its progress, in the absence of the Contractor, a competent Superintendent. The Superintendent shall be acceptable to the Engineer and shall fully represent the Contractor. All directions given to the Superintendent shall be binding as if given to the Contractor.

03.00 PRECONSTRUCTION MEETING

03.01 A Preconstruction Meeting will be held with the Engineer, Contractor, and any private utility company prior to commencing any work. The Engineer shall arrange the meeting based on a mutually convenient time.

04.00 PERMITS

04.01 Other than local permits, all permits, licenses, and fees required for the performance of the Contract work shall be secured and paid for by the Contractor.

05.00 PROPERTY ACCESS

05.01 The Contractor shall take all proper precautions to protect from injury or unnecessary interference, and provide proper means of access to abutting property where the existing access is cut off by the Contractor.

05.02 The Contractor shall take all proper precautions to protect persons from injury or unnecessary inconvenience and leave an unobstructed way along the public and private places for travelers, vehicles, and access to hydrants.

05.03 The Contractor shall make arrangements with the adjacent property owners for such trespass as he may reasonably anticipate in the performance of the work. All such arrangements shall be reported, in writing, to the Engineer.

06.00 PROTECTION OF THE PUBLIC AND OF WORK AND PROPERTY

06.01 The Contractor shall continuously maintain adequate protection of all work from damage, and shall take all reasonable precautions to protect the Town from injury or loss arising in

connection with the Contract. Such barriers including temporary construction fence as directed by the Engineer, shall not be measured for payment, but rather included in the general cost of the work. Temporary signage shall be measured for payment under the Construction Signs pay item.

06.02 The Contractor shall adequately protect adjacent private and public property as provided by law and the Contract Documents.

06.03 The Contractor shall make good any damage, injury, or loss of his work and to the property of the Town resulting from lack of reasonable protective precautions.

07.00 EXISTING IMPROVEMENTS

07.01 The Contractor shall conduct his work so as to minimize damage to existing improvements. Except where specifically stated otherwise in the specifications, drawings, or as directed by the Engineer, it will be the responsibility of the Contractor to restore to their original condition, as near as practical, all improvements on public or private property. This shall include:

- a. Property within and adjacent to the side of installation such as shrubs, walks, driveways, fences, etc.
- b. Utility mains, ducts, poles, and services. The Contractor is hereby notified that utilities, if/where shown on the plans, are at approximate locations. These locations are subject to possible errors in the source of information and errors in transcription. The Contractor shall make certain of the exact location of all mains, ducts, poles, and services prior to excavation.

08.00 SEPARATE CONTRACTS

08.01 The Engineer reserves the right to let other contracts in connection with this work. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate his work with theirs. Wherever work being done by the Town of Glastonbury forces or by other contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by the Engineer to secure the completion of the various portions of the work.

09.00 INSPECTION OF WORK

09.01 The Town shall provide sufficient personnel for the inspection of the work.

09.02 The Engineer shall at all times have access to the work whenever it is in preparation or progress, and the Contractor shall provide proper facilities for such access and for inspection.

09.03 If the specifications or the Engineer's instructions require any work to be specially tested or approved, the Contractor shall give the Engineer timely notice of its readiness for inspection and, if the inspection is by another authority other than the Engineer, of the date fixed for such inspection. Inspections by the Engineer shall be made promptly. If any work should be covered up without approval or consent of the Engineer, it must, if required by the Engineer, be uncovered for examination and properly restored at the Contractor's expense.

09.04 Re-inspection of any work may be ordered by the Engineer. If such work is found to be in accordance with the Contract Documents, the Town shall pay the cost of re-inspection and

replacement. If such work is not in accordance with the Contract Documents, the Contractor shall pay such cost.

10.00 RIGHT TO INCREASE OR DECREASE WORK

10.01 The Town shall have the right to increase or decrease the amount of work herein specified as may be required.

11.00 RIGHT OF ENGINEER TO STOP WORK FOR WEATHER CONDITIONS

11.01 Should the work, in the opinion of the Engineer, be in danger by reason of inclemency of weather, or could not be finished in time to prevent such danger, the Contractor shall cease operations upon order of the Engineer, and shall not resume them until ordered to do so by the Engineer when the weather conditions are favorable. The Contractor shall, upon such orders, discontinue work, remove all materials or appliances for or in use upon the work, and place the streets in proper condition for use by the public during the time the work is suspended as herein provided, without cost to the Town.

12.00 CONTRACTOR TO BE RESPONSIBLE FOR IMPERFECT WORK OR MATERIALS

12.01 Any faithful work or imperfect material that may be discovered before the acceptance and the payment of the work shall be corrected upon the order of the Engineer. The acceptance and payment of the work does not in any manner relieve the Contractor of his obligation to construct work in the proper manner and the use of materials herein specified.

13.00 TOWN MAY NOTIFY CONTRACTOR IF WORK IS NOT CARRIED ON SATISFACTORILY

13.01 If, in the opinion of the Engineer, the Contractor is not proceeding with the work at a sufficient rate of progress so as to finish in the time specified, or has abandoned said work, or is not complying with the terms and stipulations or the Contract and specifications, the Engineer may serve notice on the Contractor to adopt such methods as will ensure the completion of the work in the time specified.

13.02 If, within five days after the Engineer has notified the Contractor that his work is not being carried on satisfactorily as before mentioned, the Engineer shall have the right to annul the Contract and manage the work under the direction of the Engineer, or re-let, for the very best interest of the Town as a new contract, the work under said new Contract shall be considered the responsibility of the defaulting Contractor.

13.03 Additional costs incurred over and above the original Contract shall be borne by the Contractor.

14.00 DEDUCTIONS FOR UNCORRECTED WORK

14.01 If the Engineer deems it inexpedient to correct work that has been damaged or that was not done in accordance with the Contract, an equitable deduction from the Contract price shall be made therefor.

14.02 The Contractor shall promptly remove from the premises all materials condemned by the Engineer as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute his own work in accordance with the Contract and without expense to the Town, and shall bear the expense of making good all work by other contractors destroyed or damaged by such removal or replacement.

14.03 If the Contractor does not remove such condemned work and materials as promptly as possible after written notice, the Engineer may remove them and store the materials at the expense of the Contractor.

15.00 CLEANING UP

15.01 The Contractor must remove all debris of every description as the work progresses and leave the surroundings in a neat and orderly condition to the satisfaction of the Engineer.

15.02 Upon completion, and before acceptance and final payment, the Contractor shall remove from the site all equipment, forms, surplus material, rubbish and miscellaneous debris and leave the site in a neat and presentable condition.

16.00 ROYALTIES AND PATENTS

16.01 The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the Town of Glastonbury harmless from loss on account thereof, except that the Town of Glastonbury shall be responsible for all such loss when a particular manufacturer, product, or process is specified by the Town of Glastonbury.

17.00 AMERICAN RESCUE PLAN ACT (ARPA) REQUIREMENTS

17.01 **Federal Funding Requirements**

The Town intends to fund all, or part of the expenditures made under this solicitation with federal funds; Therefore, Awarded Contractors are required to fully comply with all requirements outlined in 2 CFR Part 200-Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, including but not limited to the following requirements of Appendix II to Part 200 - Contract Provisions for Non-Federal Entity Contracts Under Federal Awards.

17.02 **Appendix II Part 200 – Contract Provisions for Non-Federal Entity Contracts Under Federal Awards**

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

A. Contracts for more than the simplified acquisition threshold, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, **must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms**, and provide for such sanctions and penalties as appropriate. See *State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges, Facilities and Incidental Construction, Form 818 (Form 818), Section 1.05.14 and Section 1.08.10*, incorporated into this contract as described in Special Conditions Section 01.02. References to the "State", "Department", or "Commissioner" are understood to refer to the Town of Glastonbury.

B. All contracts in excess of \$10,000 **must address termination for cause and for convenience** by the non-Federal entity including the manner by which it will be effected and the basis for settlement. See *State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges, Facilities and Incidental Construction, Form 818 (Form 818), Section 1.05.14 and Section 1.08.10*, incorporated into this contract as

described in Special Conditions Section 01.02. References to the "State", "Department", or "Commissioner" are understood to refer to the Town of Glastonbury.

C. Equal Employment Opportunity. Except as otherwise provided under [41 CFR Part 60](#), all contracts that meet the definition of "federally assisted construction contract" in [41 CFR Part 60-1.3](#) must include the equal opportunity clause provided under [41 CFR 60-1.4\(b\)](#), in accordance with Executive Order 11246, "Equal Employment Opportunity" ([30 FR 12319, 12935, 3 CFR Part, 1964-1965](#) Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at [41 CFR part 60](#), "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

The Town is an Equal Opportunity Employer. As such, the Town and all Contractors and their subcontractors agree to prohibit discrimination based on race, color, religion, sex, sexual orientation, gender identity, or national origin, and comply with all applicable Federal civil rights laws and implementing regulations.

During the performance of this Contract, the Contractor shall at all times comply with the following requirements and shall include these requirements in each subcontract entered into as part thereof.

- 1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
- 2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- 3) The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
- 4) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

- 5) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- 6) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- 7) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- 8) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or supplier. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

The Contractor further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, that if the Contractor so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The Contractor agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The Contractor further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the Contractor agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which

the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

Each nonexempt prime contractor or subcontractor shall include the equal opportunity clause in each of its nonexempt subcontracts.

D. Davis-Bacon Act, as amended ([40 U.S.C. 3141-3148](#)). **Not Applicable**. When required by Federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act ([40 U.S.C. 3141-3144](#), and [3146-3148](#)) as supplemented by Department of Labor regulations ([29 CFR Part 5](#), "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act ([40 U.S.C. 3145](#)), as supplemented by Department of Labor regulations ([29 CFR Part 3](#), "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

E. Contract Work Hours and Safety Standards Act ([40 U.S.C. 3701-3708](#)). Where applicable, all contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with [40 U.S.C. 3702](#) and [3704](#), as supplemented by Department of Labor regulations ([29 CFR Part 5](#)). Under [40 U.S.C. 3702](#) of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of [40 U.S.C. 3704](#) are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

For any federally assisted contract, in excess of one hundred thousand dollars (\$100,000), that involves the employment of mechanics or laborers, the contractor, subcontractor, subrecipient shall comply with all of the requirements of the Contract work Hours and Safety Standards Act (40 U.S.C. 3702 and 3704), as supplemented by Department of Labor Regulations (29 CFR Part 5).

F. Rights to Inventions Made Under a Contract or Agreement. If the Federal award meets the definition of "funding agreement" under [37 CFR § 401.2 \(a\)](#) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient

or subrecipient must comply with the requirements of [37 CFR Part 401](#), "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

For any federally assisted contract, awarded to a small business firm or nonprofit organization as defined in 37 CFR 401.2 for the performance of experimental, developmental, or research work, the contractor, subcontractor, subrecipient agrees to all of the terms in 37 CFR 401.14(a) and (b) regarding Patent Rights and The Allocation of Principal Rights.

G. Clean Air Act ([42 U.S.C. 7401-7671q](#).) and the Federal Water Pollution Control Act ([33 U.S.C. 1251-1387](#)), as amended - Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act ([42 U.S.C. 7401-7671q](#)) and the Federal Water Pollution Control Act as amended ([33 U.S.C. 1251-1387](#)). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

For any federally assisted contract, or subgrant, in excess of one hundred and fifty thousand dollars (\$150,000), the contractor, subcontractor, subrecipient or subgrant recipient shall comply with all of the requirements of the Clean Air Act (42 U.S.C. 7401 -7671q.) and the Federal water Pollution Control Act as amended (33 U.S.C. 1251 – 1387).

H. Debarment and Suspension (Executive Orders 12549 and 12689) - A contract award (see [2 CFR 180.220](#)) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at [2 CFR 180](#) that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

This contract is a covered transaction for purposes of 2 C.F.R. Part 180, and 2 C.F.R. Part 3000. As such, the Contractor is required to verify that none of the Contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

The Contractor must comply with 2 C.F.R. Part 180, subpart C, and 2 C.F.R. Part 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

This certification is a material representation of fact relied upon by Town. If it is later determined that the Contractor did not comply with 2 C.F.R. Part 180, subpart C and 2 C.F.R. Part 3000, subpart C, in addition to remedies available to Town, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

The Contractor agrees to comply with the requirements of 2 C.F.R. Part 180, subpart C and 2 C.F.R. Part 3000, subpart C, while this offer is valid and throughout the period of any contract that may arise from this offer. The Contractor further agrees to include a provision requiring such compliance in its lower tier covered transactions.

I. Byrd Anti-Lobbying Amendment ([31 U.S.C. 1352](#)) - Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by [31 U.S.C. 1352](#). Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

For contracts in excess of \$100,000, Contractor shall file the certification required by 49 C.F.R. Part 20, "New Restrictions of Lobbying", as provided by the Town. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the Contractor who in turn will forward the certification(s) to the Town.

J. Procurement of recovered materials. See [§ 200.323](#). A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at [40 CFR part 247](#) that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 C.F.R. Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where **the purchase price of the item exceeds \$10,000** or the value of the quantity acquired by the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

In the performance of this Contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items until the product cannot be acquired:

1. Competitively within a timeframe providing for compliance with the contract performance schedule;
2. Meeting contract performance requirements; or
3. At a reasonable price.

The Contractor agrees to provide a preference for those products and services that conserve natural resources, protect the environment, and are energy efficient by complying with and facilitating compliance with Section 6002 of the Resource Conservation and

Recovery Act, as amended, 42 U.S.C. § 6962, and U.S. Environmental Protection Agency, "Comprehensive Procurement Guideline for Products Containing Recovered Materials," 40 C.F.R. Part 247. Information about this requirement, along with a list of EPA-designated items, is available at EPA's Comprehensive Procurement Guidelines web site: <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>

The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

K. Prohibition on certain telecommunications and video surveillance services or equipment. See [§ 200.216](#).

(a) Recipients and subrecipients are prohibited from obligating or expending loan or grant funds to:

(1) Procure or obtain;

(2) Extend or renew a contract to procure or obtain; or

(3) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in [Public Law 115-232](#), section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

(i) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

(ii) Telecommunications or video surveillance services provided by such entities or using such equipment.

(iii) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

(b) In implementing the prohibition under [Public Law 115-232](#), section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained.

(c) See [Public Law 115-232](#), section 889 for additional information.

(d) See also [§ 200.471](#) and [§ 200.322](#).

For any federally assisted contract, the contractor must certify to the Town that the contract (or any extension or renewal) does not contain covered telecommunications equipment. The Town is prohibited to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

L. Domestic preferences for procurements. See [§ 200.322](#).

(a) As appropriate and to the extent consistent with law, the non-Federal entity should, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award.

(b) For purposes of this section:

(1) "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

(2) "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

[[78 FR 78608](#), Dec. 26, 2013, as amended at [79 FR 75888](#), Dec. 19, 2014; [85 FR 49577](#), Aug. 13, 2020]

Contractor should, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award. The Contractor agrees to comply with this requirement and must include the requirements of this section in all subawards including all contracts and purchase orders for work or products under this award.

17.03 **Federal Compliance Requirements**

For any federally assisted construction contract, in excess of two thousand dollars (\$2,000), the contractor, subcontractor, and subrecipient shall comply with all of the requirements of the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). For a definition of "Construction" see 48 CFR 2.101.

01.00 NOTICE TO CONTRACTOR

01.01 **Intent of Contract:** The intent of the Contract is to prescribe a complete work or improvement that the Contractor undertakes to do, in full compliance with the specifications, plans, special provisions, proposal, and Contract. The Contractor shall perform all work in close conformity with the lines, grades, typical cross-sections, dimensions, and other data shown on the plans or as modified by written orders, including the furnishing of all materials, implements, machinery, equipment, tools, supplies, transportation, labor, and all other things necessary to the satisfactory prosecution and completion of the project.

Much time and effort has gone into this project in an effort to minimize impact on trees and adjacent properties. Extreme care shall be taken by the Contractor to honor commitments made by the Town. Prior to doing any work, the Contractor should meet with the Engineer to become familiar with the conditions encountered and commitments made.

01.02 The Contractor is hereby alerted to the fact that the State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges, Facilities and Incidental Construction, Form 818 (Form 818) latest edition including supplements thereto dated January 2022, are the governing specifications and are to be considered part of the Contract Documents. The Form 818 shall not be provided by the Town and any cost associated therewith shall be the responsibility of the Contractor. In case of any discrepancy between the Contract Drawings or Specifications and the Form 818, the matter shall immediately be submitted to the Engineer. The Engineer shall have sole authority in resolving any discrepancies.

01.03 **Contaminated Soil Area:** Adjacent to the project area depicted on the construction plans is an existing area of contaminated soil buried approximately 4 feet below existing grade which shall remain undisturbed at all times during Contractor operations for this project. Prior to the commencement of construction on this project, Town of Glastonbury personnel will field stake the limits of this area. Any disturbance within this area shall be repaired to its original state by the Contractor at no expense to the Town.

01.04 **Construction Access:** Contractor is required to utilize the existing stone dust walking path traversing to Naubuc Avenue for construction access and deliveries to the site. Contractor is responsible for repairs to the existing surface to its original state at no additional cost to the Town. Contractor is required to perform daily inspections pertaining to vehicle tracking of debris onto Naubuc Avenue and sweep and clean the roadway as required.

01.05 **Riverfront Community Events:** Contractor shall be aware of any events scheduled at this facility in the vicinity of project. The events calendar for this facility is located at <https://glastonburyct.myrec.com/info/calendar/default.aspx?FacilityID=14822&ArealD=0>. The Glastonbury Apple Harvest Festival, a regional event drawing thousands of people, is scheduled for October 14, 2022 thru October 16, 2022 from 7:00AM to 8:00PM each day. During this timeframe, if construction activity is not complete, the Contractor will be required to secure the site using 4' tall orange construction fence, clean up and organize the work area to remove stockpiled material or debris, and cease work on the project during this time period. Contractor is required to provide a safe, secure site at the end of each work day to prevent public intrusion during construction.

01.06 **Pickleball Court Concrete Surface:** Contractor shall be aware of the concrete slab grading tolerances of 0.83% to 1.0% end to end or side to side for this project. Additionally, the acrylic court surface manufacture requires that a surface variation not to exceed 1/8" inch in 10 ft. when measured in any direction with a straight edge and slope 1 inch in 10 ft., all in one plane. Contractor is responsible to adjust their means and methods to achieve

a uniform surface at the intended slopes per construction plans and surface manufacturers specifications.

01.07 **In-Place Field Density Testing:** The Town of Glastonbury will be retaining the services of a certified materials testing firm to perform In-place field density throughout the entire compacted base course prior to placement of the post-tensioned concrete slab. Thoroughly compacted base course shall produce a minimum of ninety-five (95) percent compaction and uniform base density when compared to the Modified Proctor Test, (AASHTO T180.). The in-place field density shall be determined in accordance with ASTM D1556, D2167, or ASTM D2922. If the specified density is not attained, the entire area shall be reworked and/or recompacted and two additional random tests made. This procedure shall be followed until the specified density is reached. Water may need to be applied to ensure optimum moisture content during compaction and to aid in achieving maximum compaction. Coordination is required by the Contractor to perform the required testing outlined above. Approval of the in-place field density testing of the base course is required by the Town of Glastonbury before proceeding.

01.08 **Concrete Compressive Strength Testing:** The Town of Glastonbury will be retaining the services of a materials testing firm to perform compressive strength lab testing of concrete sample cylinders. The number of test sample cylinders shall be determined by the Engineer. Contractor is required to coordinate with the Town for the procurement of the concrete sample cylinders required for testing.

01.09 **ALLOWABLE HOURS OF OPERATION (WORK PERIOD):** All work within this contract shall be performed Monday through Friday between the hours of 7:00AM and 5:00PM. Work on weekends or Holidays will only be with approval by the Engineer.

02.00 COMMUNICATIONS

02.01 All notices, demands, requests, instructions, approvals, proposals, and claims must be in writing.

02.02 Any notice to, or demand upon, the Contractor shall be sufficiently given if delivered at the office of the Contractor stated on the signature page of the Agreement (or at such other office as the Contractor may, from time to time, designate) in a sealed, postage-prepaid envelope or delivered with charges prepaid to any telegraph company for transmission, in each case addressed to such office.

02.03 All papers required to be delivered to the Town shall, unless otherwise specified in writing to the Contractor, be delivered to the Town Engineer/Manager of Physical Services, 2155 Main Street, Glastonbury, CT 06033, and any notice to, or demand upon, the Town shall be delivered at the above address in a sealed, postage-prepaid envelope or delivered with charges prepaid to any telegraph company for transmission, in each case addressed to such office or to such other representatives of the Town, or to such other address as the Town may subsequently specify in writing to the Contractor for such purpose.

02.04 Any such notice shall be deemed to have been given as of the time of actual delivery or, in case of mailing, when the same should have been received in due course of post or, in the case of telegrams, at the time of actual receipt, as the case may be.

03.00 PARTIAL USE OF IMPROVEMENTS

03.01 The Town may, at its election, give notice to the Contractor and place in use those sections of the work that have been completed, inspected and can be accepted as complying with the Contractor Documents and if, in its opinion, each such section is reasonably safe and fit for the use and accommodation for which it was intended, provided:

- a. The use of such sections of the work shall not materially impede the completion of the remainder of the work by the Contractor.
- b. The Contractor shall not be responsible for any damages or maintenance costs due directly to the use of such sections.
- c. The use of such sections shall in no way relieve the Contractor of his liability due to having used defective materials or to poor workmanship.
- d. The period of guarantee shall not begin until the date of the final acceptance of all work required under this Contract.

04.00 INSURANCE

04.01 The Bidder shall, at its own expense and cost, obtain and keep in force during the entire duration of the Project or Work the following insurance coverage covering the Bidder and all of its agents, employees and sub-contractors and other providers of services and shall name the **Town of Glastonbury and the State of Connecticut and their employees and agents as an Additional Insured** on a primary and non-contributory basis to the Bidders Commercial General Liability and Automobile Liability policies. **These requirements shall be clearly stated in the remarks section on the Bidders Certificate of Insurance.** Insurance shall be written with insurance carriers approved in the State of Connecticut and with a minimum Best's Rating of A-VIII. In addition, all carriers are subject to approval by the Town. Minimum Limits and requirements are stated below:

- a. Worker's Compensation Insurance:
 - Statutory Coverage
 - Employer's Liability
 - \$1,000,000 each accident/\$1,000,000 disease-policy limit/\$1,000,000 each employee
 - A Waiver of Subrogation shall be provided
- b. Commercial General Liability:
 - Including Premises and Operations, Products and Completed Operations, Personal and Advertising Injury, Contractual Liability and Independent Contractors
 - Limits of Liability for Bodily Injury and Property Damage
Each Occurrence: \$1,000,000
Aggregate: \$2,000,000
(The Aggregate Limit shall apply separately to each job.)
 - A Waiver of Subrogation shall be provided
- c. Automobile Insurance:
 - Including all owned, hired, borrowed, and non-owned vehicle
 - Limit of Liability for Bodily Injury and Property Damage
Per Accident: \$1,000,000
 - A Waiver of Subrogation shall be provided
- d. Umbrella of Excess Liability:

- State in the Remarks Section that coverage is follow form.
- Limit of Liability Each Occurrence \$1,000,000
Aggregate \$1,000,000

e. Owner's and Contractor's Protective Liability Insurance:

With respect to the Contractor's Project operations and also those of its subcontractors, the Contractor shall carry, for and on behalf of the State and the Town of Glastonbury, insurance which shall provide coverage of at least \$1,000,000 for each accident or occurrence resulting in damages from (1) bodily injury to or death of persons and/or (2) injury to or destruction of property. Subject to that limit per accident or occurrence, the policy shall provide an aggregate coverage of at least \$2,000,000 for all pertinent damages arising during the policy period.

04.02 The Bidder shall direct its Insurer to provide a Certificate of Insurance to the Town before any work is performed. The Contractor shall be responsible to notify the Town **60 days** in advance with written notice of cancellation or non-renewal. The Certificate shall evidence all required coverage. The Bidder shall provide the Town copies of any such insurance policies upon request.

04.03 **INDEMNIFICATION:** To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Town and the State of Connecticut and its consultants, agents, and employees from and against all claims, damages, losses and expenses, direct, indirect or consequential (including but not limited to fees and charges of engineers, attorneys and other professionals and court and arbitration costs) to the extent arising out of or resulting from the performance of the Contractor's work, provided that such claim, damage, loss or expense is caused in whole or in part by any negligent act or omission by the Contractor, or breach of its obligations herein or by any person or organization directly or indirectly employed or engaged by the Contractor to perform or furnish either of the services, or anyone for whose acts the Contractor may be liable.

05.00 WORK BY OTHERS

05.01 Private utilities, contractors, developers or other parties may be expected to be working within the Contract area during this Contract. It shall be the responsibility of the Contractor to coordinate his work with the work being done by others in order that the construction shall proceed in an efficient and logical manner. The Contractor shall have no claim or claims whatever against the Town, the Engineer, or other parties due to delays or other reasons caused by the work by others or his failure to coordinate such work.

06.00 CONTRACTOR'S WORK AND STORAGE AREA

06.01 The Contractor shall contact the Town to determine if any specific locations will be designated, or gain its approval prior to using any area for storage of equipment, materials and trailers during the period of this Contract. The Contractor shall confine his work/storage area to the limits as designated or approved and shall be responsible for the security of the work/storage area. Upon completion of the Contract, the Contractor shall remove all equipment and materials, except as otherwise specified, and restore the site to its original condition as approved by the Engineer and at no cost to the Town.

07.00 DISPOSAL AREA

07.01 The Tryon Street Bulky Waste Facility will be available to the Contractor, at no charge, for disposal of materials that are accepted at that facility. Prior to any disposal, the Contractor is required to register all vehicles being utilized for disposal and obtain a permit for each vehicle from the Sanitation Department. Waste disposal guidelines for the Bulky Waste facility are published on the Town web site at the addresses shown below. Each bidder shall have reviewed and understand these guidelines prior to submitting a bid for the project.

[Bulky Waste Facility | Glastonbury, CT \(glastonburyct.gov\)](http://glastonburyct.gov)

[WASTE DISPOSAL GUIDELINES \(glastonburyct.gov\)](http://glastonburyct.gov)

[Refuse Disposal Permits | Glastonbury, CT \(glastonburyct.gov\)](http://glastonburyct.gov)

[Holiday Schedule](#)

Acceptable materials generally include such materials as brush, stumps, demolition materials, and excess excavated earth materials. Unacceptable materials generally include such items as carpet, appliances, upholstered furniture; hazardous wastes such as pesticides, oil based paints and thinners; or other wastes as designated by the State Department of Energy and Environmental Protection. Demolition material cannot contain asbestos or other hazardous materials.

The Contractor shall obtain a disposal area for all other unsuitable or surplus materials at no cost to the Town.

08.00 DUST CONTROL

08.01 During the progress of the work, the Contractor shall conduct his operations and maintain the area of his activities so as to minimize the creation and dispersion of dust. If the Engineer decides that it is necessary to use water or calcium chloride for more effective dust control, the Contractor shall furnish and spread the material, as directed, without additional compensation.

09.00 MAINTENANCE / GUARANTEE PERIOD

09.01 The Contractor shall be held responsible to the Town for maintenance with respect to defects, settlements, etc. for a minimum period of one-year following the date of final acceptance of the project by the Town.

10.00 PROTECTION OF EXISTING UTILITIES

10.01 Prior to opening an excavation, effort shall be made to determine whether underground installations, (i.e., sewer, water, fuel, electric lines, etc.) will be encountered and, if so, where such underground installations are located. Before starting any excavation, the Contractor shall submit to the Engineer plans or details showing the proposed method the Contractor will use to support and protect all existing utilities during construction. The furnishing of such plans and details shall not serve to relieve the Contractor of any responsibility for the proper conduct of the work.

10.02 When the excavation approaches the estimated location of such an installation, the exact location shall be determined by careful probing or hand digging, and when it is uncovered, proper supports shall be provided for the existing installation. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation.

10.03 There will be no extra payment for submitting plans or details or for any work related to supporting and protecting all existing utilities during construction.

11.00 TIME FOR COMPLETION/NOTICE TO PROCEED

11.01 The work under this Contract shall commence on the date ordered by the Engineer in the Notice to Proceed. After the work has begun, it shall continue in an orderly fashion such that all contract work is substantially completed within 45 calendar days.

Within five (5) business days after the date of the Notice of Award, the Contractor must provide the appropriate bond and insurance certificates to the Town Purchasing Agent and must be issued a Notice to Proceed and Purchase Order for the Project prior to initiating any work.

11.02 When the Contract time is stated on a calendar-day basis, that time shall be the number of consecutive calendar days contained in the Contract period, excluding the time period from each December 1 through the following March 31 (the "winter shutdown period"). The time will be computed as herein provided on a consecutive-day basis, including all Saturdays, Sundays, holidays, and non-work days from April 1 through November 30 of each included year. Time will not be charged for days in the winter shutdown period. If the Engineer so approves, the Contractor may work on certain tasks of the Project during the winter shutdown period with no charge being made against the Contract time. **If work during winter shut down is approved by the Town, approval may be granted with the condition that work under the items Trafficperson (Municipal Police Officer) or Trafficperson (Uniformed Flagger) will not be measured for payment, at the discretion of the Town.**

12.00 LIQUIDATED DAMAGES

12.01 As actual damages for any delay in completion of the work that the Contractor is required to perform under this Contract are impossible to determine, the Contractor and the Sureties shall be liable for and shall pay to the Town the sum of \$500.00 as fixed, agreed and liquidated damages for each calendar day of delay from the above-stipulated completion, or completion as modified in writing by both parties, until such work is satisfactorily completed and accepted.

13.00 SCHEDULE OF DRAWINGS

13.01 The Contractor is hereby alerted that the plan set included as Attachment C entitled "Pickleball Courts located at Riverfront Community Center 300 Welles Street Glastonbury, Connecticut", including two (2) sheets prepared by the Town of Glastonbury Engineering Division and one (1) sheet prepared by GM2 is to be considered part of these specifications.

14.00 CHANGES IN THE WORK

14.01 The Town reserves the right to perform portions of the work in connection with these plans and specifications. The reduction in the work to be performed by the Contractor shall be made without invalidating the Contract. Whenever work is done by the Town contiguous to other work covered by this Contract, the Contractor shall provide reasonable opportunity for the execution of the work and shall properly coordinate his work with that of the Town.

15.00 LAYOUT OF WORK

15.01 The Contractor is responsible to provide stake-out of the work in accordance with the plans and specification under the item for "Construction Surveying". A bench mark will be installed near the project location for use by the contractor.

16.00 REMOVAL AND STORAGE OF MATERIALS AND STRUCTURES FOUND ON THE WORK

16.01 All salvable materials, including traffic signal equipment, topsoil, gravel, fill materials, etc. and structures, including drainage pipes, catch basins and manhole frames and covers, guide railing, etc. that are not to remain in place or that are not designated for use in the work, shall be carefully removed by the Contractor and delivered to the Town Highway Garage located at 2380 New London Turnpike. All salvable materials removed and stored shall remain the property of the Town. The Engineer shall determine the materials or structures to be salvaged.

17.00 PROSECUTION AND PROGRESS

17.01 **ADVANCE NOTICE:** The Contractor shall give the Engineer a seven-day advance written notice of construction activities that will alter traffic patterns that result in lane shifts, detours, temporary closures of lane(s), permanent closure of lane(s), or lane reductions. This advance notification will allow the Town to publish news releases and/or provide public radio announcements to inform the public of revised traffic patterns or possible traffic delays. Failure of the Contractor to provide such timely notice shall be considered a breach of Contract and will subject the Contractor to stop work orders until such time as the seven-day notice has been satisfied.

17.02 Limitations on work hours are described in the Prosecution and Progress Special Provision. The Contractor shall understand and strictly comply with these limitations. Work on weekends or during time periods other than those described above will not be permitted. No work will be allowed on designated Town Holidays unless permission is granted by the Town.

18.00 COMPLIANCE WITH ENVIRONMENTAL PERMITS

18.01 A Town of Glastonbury Inland Wetland Permit was required for this project and is included as Attachment B. By submitting a bid, the Contractor confirms that they have read and are familiar with all of the required conditions of this permit, that all costs associated with compliance with all conditions of the permits are included in their bid, and that they will conduct the work in a manner consistent with all permit requirements.

18.02 A Town Plan and Zoning Commission Flood Zone Special Permit was also required for this project. This permit requires no net fill in the Flood Zone of the Connecticut River as described on the construction plans and elsewhere in the bid documents. A copy of this permit is also included with Attachment B.

19.00 EXTRA WORK AND RETAINAGE

19.01 Extra and cost plus work shall be governed by Article 1.04.05 and Article 1.09.04 of the Form 818.

19.02 Article 1.09.06, Part A, Item 1 of the Form 818 is hereby modified as follows: Retainage shall be withheld in the amount of five (5) percent. Release of retainage shall be made upon final acceptance of the project by the Town.

20.00 SUBMITTALS AND MATERIALS TESTING

20.01 Contractor shall provide shop drawings, materials certificates, material samples, and other submittals for material testing in conformance with these specifications. A list of required submittals is located in Section 1.06- Control of Materials of these specifications.

20.02 Each submittal referenced above shall be accompanied by a statement from the contractor regarding his good faith efforts to comply with **General Conditions Section 17.03 J Procurement of recovered materials and General Conditions Section 17.03 L Domestic preferences for procurements.**

20.02 Certain testing will be performed by the Town of Glastonbury as described in the Special Conditions Section 1.07 and 1.08. Contractor is required to perform any additional testing requirements as outlined within the specifications except those specifically noted by the Town in the Special Conditions. Measurement and payment for the additional testing outlined within the specifications shall be considered included within the specific item.

TOWN OF GLASTONBURY			
BID / PROPOSAL		GL # 2023-17	
DATE ADVERTISED	AUGUST 1, 2022	DATE / TIME DUE	AUGUST 25, 2022 at 11:00 A.M.
NAME OF PROJECT	RIVERFRONT COMMUNITY CENTER PICKLEBALL COURTS		

IT IS THE RESPONSIBILITY OF THE BIDDER TO CHECK THE TOWN'S WEBSITE BEFORE SUBMITTING BID FOR ADDENDA POSTED PRIOR TO BID OPENING.

THE BIDDER ACKNOWLEDGES RECEIPT OF THE FOLLOWING ADDENDA. AS REQUIRED:

Addendum #1 _____ (initial/date) Addendum #2 _____ (initial/date) Addendum #3 _____ (initial/date)

OTHER ITEMS REQUIRED WITH SUBMISSION OF BID PROPOSAL:

The following bid checklist describes items required for inclusion with the above-referenced bid proposal package. It is provided for the convenience of the bidders and, therefore, should not be assumed to be a complete list.

- _____ 1. Included a copy of the Bid Bond as per Section 10 of the Information for Bidders. Original Bond to be mailed as specified herein.
- _____ 2. Included Disclosure of Past and Pending Mediation, Arbitration, and Litigation cases against the Bidder or its Principals as per Section 16 of the Information for Bidders.
- _____ 3. Included Qualifications Statement as per Section 19 of the Information for Bidders.
- _____ 4. Provided certification for Compliance with Town Ordinance Prohibiting Natural Gas Waste & Oil Waste From Natural Gas Extraction Activities or Oil Extraction Activities as per Section 20 of the Information for Bidders
- _____ 5. Checked Town web site for Addenda and acknowledged Addenda on page BP-1.
- _____ 6. Acknowledged Code of Ethics on page BP-4.
- _____ 7. Prepared ONE consolidated pdf file for on-line bid submission.
- _____ 8. Certificate of Debarment / Suspension (Attachment E1)
- _____ 9. Certification regarding lobbying by Contractor (Attachment E2)
- _____ 10. Certification regarding procurement of Recovered Materials (Attachment E3)
- _____ 11. Certification regarding prohibition on certain telecommunications and video surveillance services or equipment (Attachment E4)
- _____ 12. Certification regarding domestic purchase of goods products or materials (Attachment E5)

BIDDER NAME: _____

**RIVERFRONT COMMUNITY CENTER PICKLEBALL COURTS
 BID PROPOSAL**

BID #GL-2023-17

BIDDER NAME: _____

<u>LINE NO.</u>	<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>QTY</u>	<u>UNIT PRICE</u>	<u>EXT</u>
1	0201001 A	Clearing and Grubbing	LS	1		
2	0202000 A	Earth Excavation	LS	1		
3	0209001	Formation of Subgrade	SY	967		
4	0210019 A	Stone Infiltration Trench	LS	1		
5	0212300 A	Process Stone Base	CY	449		
6	0219003	Sedimentation Control Filter Fabric Fence System	LF	265		
7	0514311 A	Unbonded Post-Tensioned Concrete Slab	SF	8,704		
8	0703012	Modified Rip Rap	CY	2		
9	0707200 A	Biaxial Polypropylene Geogrid	SF	8,704		
10	0751711 A	6 Inch Polyvinyl Chloride Underdrain	LF	400		
11	0913043 A	8' Polyvinyl Chloride Chain Link Fence	LF	380		
12	0913331 A	Double Leaf Chain Link Fence Swing Gate	EA	1		
13	09133332 A	Single Leaf Chain Link Fence Swing Gate	EA	2		
14	0913606 A	8' Chain Link Fence Wind Screen	SF	1,616		
15	0921040 A	Stone Dust Surface	SF	747		
16	0944000 A	Furnish and Placing Topsoil	SY	278		
17	0950005 A	Turf Establishment	SY	278		
18	0950017 A	Turf Establishment-Wetland Wildflower Mix	SY	139		
19	0980020	Construction Surveying	LS	1		
20	1002010 A	Light Pole Base	EA	12		
21	1401001 A	Pickleball Court Surface Treatment	SF	8,704		
22	1401002 A	Pickleball Court Line Marking	EA	4		

**RIVERFRONT COMMUNITY CENTER PICKLEBALL COURTS
 BID PROPOSAL**

BID #GL-2023-17

BIDDER NAME: _____

<u>LINE NO.</u>	<u>ITEM NO.</u>		<u>ITEM DESCRIPTION</u>	<u>UNIT</u>	<u>QTY</u>	<u>UNIT PRICE</u>	<u>EXT</u>
23	1401003	A	Pickleball Net Post	EA	8		
24	1401004	A	Pickleball Net	EA	4		

TOTAL BID AMOUNT: \$ _____
 (Numeric)

WRITTEN TOTAL BID AMOUNT: _____

Note:

In the event that the Town finds computational errors in a respondent's bid proposal, the bid total cost shall be recalculated by the Town based on the **unit prices** contained in the bid proposal.

BIDDER NAME: _____

CODE OF ETHICS:

I/We have reviewed a copy of the Town of Glastonbury's Code of Ethics and agree to submit a Consultant Acknowledgement Form if I/We are selected. Yes _____ No _____*

*Bidder is advised that effective August 1, 2003, the Town of Glastonbury cannot consider any bid or proposal where the Bidder has not agreed to the above statement.

NON-COLLUSION AFFIDAVIT:

By submission of this bid, the Bidder certifies, and in the case of a joint bid each party thereto certifies as to their own organization that this bid has been arrived at independently without consultation, communication, or agreement as to any matter relating to this bid with any other Bidder or with any competitor.

Respectfully submitted:

Type or Print Name of Individual

Doing Business as (Trade Name)

Signature of Individual

Street Address

Title

City, State, Zip Code

Date

Telephone Number/Fax Number

E-Mail Address

SS# or TIN#

(Seal – If bid is by a Corporation)

Attest

SPECIAL PROVISIONS

INDEX TO SPECIAL PROVISIONS

This index has been prepared for the convenience of those using this contract with the sole express purpose of locating quickly the information contained herein; and no claims shall arise due to omissions, additions, deletions, etc., as this index shall not be considered part of the contract.

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NOTICE TO CONTRACTOR - PROTECTION AND COORDINATION OF EXISTING UTILITIES

Existing utilities shall be maintained during construction except as specifically stated herein and/or noted on the plans and as coordinated with the utilities. The Contractor shall verify the location of underground, structure mounted and overhead utilities. Construction work within the vicinity of utilities shall be performed in accordance with current safety regulations.

The Contractor shall notify "Call Before You Dig", telephone: 8-1-1 or 1-800-922-4455 for the location of public utility, in accordance with Section 16-345 of the Regulations of the Department of Utility Control.

Representatives of the various utility companies shall be provided access to the work, by the Contractor.

Contractors are cautioned that it is their responsibility to verify locations, conditions, and field dimensions of all existing features, as actual conditions may differ from the information shown on the plans or contained elsewhere in the specifications.

The Contractor shall notify the Engineer prior to the start of work and shall be responsible for all coordination with the Town. The Contractor shall allow the Engineer complete access to the work.

The Contractor shall be liable for all damages or claims received or sustained by any persons, corporations or property in consequence of damage to the existing utilities, their appurtenances, or other facilities caused directly or indirectly by the operations of the Contractor.

Any damage to any existing private and public utility, as a result of the Contractors operations, shall be repaired to the utility's and Engineer's satisfaction at no cost to the Town or the Utilities, including all materials, labor, etc., required to complete the repairs.

The Contractor's attention is directed to the requirements of Section 1.07.13 - "Contractor's Responsibilities for Adjacent Property and Services".

Prior to opening an excavation, effort shall be made to determine whether underground installations, i.e., water, sanitary, gas, electric ducts, communication ducts, etc., will be encountered and, if so, where such underground installations are located. When the excavation approaches the estimated location of such an installation, the exact location shall be determined by careful probing or hand digging, and when it is uncovered, proper supports shall be provided for the existing installation. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation, as noted above.

The Contractor shall coordinate all utility relocations with the respective utility company. The Contractor shall notify Connecticut Natural Gas two weeks in advance of the required gas valve box adjustments as shown on the plans.

NOTICE TO CONTRACTOR – UTILITY COMPANIES

It is understood that any references in the contract documents to Northeast Utilities, CL&P and/or Yankee Gas are meant to refer to Eversource.

It is understood that any references in the contract documents to AT&T is meant to refer to Frontier Communications.

SECTION 1.05 CONTROL OF WORK

Article 1.05.05 – Cooperation by Contractor

Add the following:

Agents of various public service agencies, municipal and State Departments, and private site contractors may be entering on the work site to remove existing utilities, to construct or place new facilities or to make alterations to existing facilities.

The Contractor shall perform the work in cooperation with the various agencies in a manner which causes the least interference with the operations of the aforementioned agencies and shall have no claim for delay which may be due to, or result from, said work of these agents.

Article 1.05.06 – Cooperation with Utilities

Add the following:

Written notice shall be given by the Contractor to all public service corporations or municipal and State Officials owning or having charge of publicly or privately owned utilities 30 days in advance of the commencement of operations that will affect the utilities. The Contractor shall, at the same time, file a copy of such notice with the Engineer.

The utility company representatives listed in Section 1.07 shall be contacted by the Contractor to coordinate the protection of their utilities on this project 30 days prior to the start of any work on this project involving their utilities.

The Contractor shall make his/her own investigation to assure that no damage to existing structures, drainage lines, traffic signal conduits, and other utilities will occur as a result of construction operations.

The Contractor shall notify "Call Before You Dig" at 1-800-922-4455, 72 hours prior to disturbing ground in any way.

SECTION 1.06 CONTROL OF MATERIALS

Article 1.06.01 - Source of Supply and Quality:

Add the following:

For the following items the contractor shall submit a complete description of the item, working drawings, catalog cuts and other descriptive literature which completely illustrates such items presented for formal approval. Such approval shall not change the requirements for a certified test report and materials certificate as may be called for. All shop drawings shall be submitted at one time, unless otherwise approved by the Engineer.

Each submittal referenced above shall be accompanied by a statement from the contractor regarding his good faith efforts to comply with **General Conditions Section 17.03 J Procurement of Recovered Materials and General Conditions Section 17.03 L Domestic Preferences for Procurements.**

1. Processed Stone Base
2. Stone Dust
3. Geogrid- Tensar BX-1100 or approved equal
4. Non-Woven Geotextile Fabric (Drainage)
5. Silt Fence
6. Concrete Mix Design
7. Post-Tension Tendon and Sheath
8. 10 Mil Polyethylene Sheeting
9. 2" Washed Crushed Stone (Stone Infiltration Trench)
10. ¾" Washed Crushed Stone (Underdrain)
11. 6" and 8" Perforated and Solid PVC Pipe and Fittings
12. 6" Riser Grates
13. 12" Drain Basin with Drop In Grate
14. Modified Rip Rap
15. 8' High Polyvinyl Chloride Chain Link Fence and Gates
16. 8' Chain Link Fence Wind Screen
17. Light Pole Base
18. 1" Polyvinyl Chloride Conduit
19. Pickleball Court Surface Treatment
20. Pickleball Court Line Marking
21. Pickleball Net Post
22. Pickleball Nets
23. Turf Establishment Seed Mix
24. Turf Establishment Wetland Wildflower Mix

SECTION 1.07 LEGAL RELATIONS AND RESPONSIBILITIES

Article 1.07.07 – Safety and Public Convenience

Add the following:

The Contractor shall provide the necessary access for emergency vehicles through the work zones to abutting properties at all times.

Sweeping and cleaning of surfaces beyond the limits of construction required for dust control or to clean up material caused by spillage or vehicular tracking during various phases of the work shall be considered as incidental to the work being performed under the Contract and there will be no additional compensation.

The Contractor shall notify all public safety agencies at least 48 hours prior to beginning any construction operation which will provide less than a 12 foot travel lane along any project roadway.

Article 1.07.13 - Contractor's Responsibility for Adjacent Property, Facilities and Services

Supplemented as follows:

The Contractor, in constructing or installing facilities alongside or near sewers, drains, water or gas pipes, electric or telephone conduits, poles, sidewalks, walls, vaults, or other structures shall sustain them securely in place. The Contractor shall coordinate with the officers and agents of the various utility companies and municipal departments to assure that the services of these structures are maintained. The Contractor shall also be responsible for the repair or replacement, at no additional cost to the Town, of any damage to such structures caused by construction operations. The Contractor is responsible to leave them in the same condition as they existed prior to commencement of the work. In case of damage to utilities, the Contractor shall promptly notify the utility owner and shall, if requested by the Engineer, furnish labor and equipment to work temporarily under the utility owner's direction. Pipes or other structures damaged by the operation of the Contractor may be repaired by the utility owner which suffers the loss. The cost of such repairs shall be borne by the Contractor, without compensation from the Town.

If during construction there is an existing utility and/or structure found to be in conflict with the proposed work under this Contract, the Contractor shall protect and maintain the services to the utilities and structures and shall notify the Engineer of the conflict. The Engineer will, as soon as possible, identify the utilities to be relocated or other such activities deemed suitable for resolution.

If live service connections are to be interrupted by excavations of any kind, the Contractor shall not break the service until new services are provided. Abandoned services shall be plugged off or otherwise made secure.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all of the work involved in protecting or repairing property as specified in this Section shall be included in the price paid for the various Contract items of work, and no additional compensation will be allowed.

Prior to opening an excavation, effort shall be made to determine whether underground installations, (i.e. sewer, water, fuel, electric lines, etc.) will be encountered and, if so, where such underground installations are located. When the excavation approaches the estimated location of such an installation, the exact location shall be determined by careful probing or hand digging, and when it's uncovered, proper supports shall be provided for the existing installation. Utility companies shall be contacted and advised of proposed work prior to the start of actual excavation.

UTILITY COMPANIES WITHIN THE PROJECT AREA

The following company and representative shall be contacted by the Contractor to coordinate the protection of their utilities on this project 30 days prior to the start of any work on this project involving their utilities:

Connecticut Natural Gas Corporation, Engineering Department
Mr. Jonathan Gould,
Gas Engineer
76 Meadow Street, 2nd Floor
East Hartford, CT 06108
(860) 727-3044
jgould@ctgcorp.com

Algonquin Gas Transmission Company dba Enbridge
Mr. Kenneth Ruel,
Area Supervisor
252 Shunpike Road
Cromwell, CT 06416
Phone: (860) 894-1600 EXT: 1608
kenneth.ruel@enbridge.com

Frontier Communications
Ms. Lynne DeLucia,
Manager – Engineering & Construction
1441 North Colony Road
Meriden, CT 06450-4101
Phone: 203-238-5000
Mobile: 860-967-4389
Lynne.m.delucia@ftr.com

CoxCom, Inc.
Ms. Denise Mazzoli,
Project Planner
170 Utopia Road
Manchester, CT 06042
Phone: (860) 432-5041
denise.mazzoli@cox.com

Eversource Energy - Electric Distribution
Mr. Thomas Woronik
Supervisor - Construction Engineering
22 East High Street
East Hampton, CT 06424
Phone: (860) 267-3891
thomas.woronik@eversource.com

Lighttower Fiber Networks dba Crown Castle Fiber
Mr. Eric Clark,
Manager Fiber Construction
1781 Highland Avenue, Suite 102
Cheshire, CT 06410
Phone: (203) 649-3904
Mobile: 860-863-8311
Eric.clark@crowncastle.com

Metropolitan District Commission-(MDC)
Water Distribution
Mr. Richard Norris
Utility Coordinator/Project Manager
555 Main Street
P.O. Box 800
Hartford, CT. 06142
Phone: (860) 278-7850 Extension 3450
rnorris@themdc.com

Connecticut Natural Gas Corporation
Inspections
John Bonville
76 Meadow Street, 1st Floor
East Hartford, CT 06108
Phone: (860) 982-3815

TOWN OF GLASTONBURY

Engineering Division
2155 Main Street
Glastonbury, CT. 06033

Daniel A. Pennington, P.E.
Director of Physical Services/Town Engineer
Phone: (860) 652-7736
Email: Daniel.pennington@glastonbury-ct.gov

Engineering Division
2155 Main Street
Glastonbury, CT. 06033

Stephen M. Braun, P.E.
Assistant Town Engineer
Phone: (860) 652-7743
Email: Stephen.braun@glastonbury-ct.gov

Glastonbury Police Department
2108 Main Street
Glastonbury, CT. 06033

Police Department Watch Commander
Phone: (860) 633-8301

Glastonbury Park & Recreation
2143 Main Street
Glastonbury, CT. 06033

Lisa Zerio
Director of Parks & Recreation
Phone: (860) 652-7687
Email: lisa.zerio@glastonbury-ct.gov

Glastonbury Tree Warden
2143 Main Street
Glastonbury, CT. 06033

Gregory Foran
Superintendent of Parks and Recreation/Tree
Warden
Phone: (860) 652-7686
Email: Gregory.foran@glastonbury-ct.gov

Glastonbury Highway Department
2380 New London Turnpike
Glastonbury, CT. 06033

Charles Mahan
Physical Services Operations Manager
Phone: (860) 652-7750
Email: charles.mahan@glastonbury-ct.gov

Glastonbury Sanitation Department
2149 Main Street
Glastonbury, CT. 06033

Michael J. Bisi
Superintendent of Sanitation
Phone: (860) 652-7774
Email: Mike.Bisi@glastonbury-ct.gov

ITEM # 0201001A CLEARING AND GRUBBING

Description:

The Contractor shall furnish all labor, materials, tools, and equipment necessary and shall do all work to prepare the site as indicated on the drawings and as herein specified. Work under this item shall also include installation of high visibility construction fence to secure the perimeter of the work area during construction as further described below.

Construction Methods:

Tree Removal: Removal of trees as indicated on the plans shall be performed by workman skilled in the area of tree removal under the supervision of a Connecticut Licensed Arborist. The Contractor shall mark all trees, shrubs, and plants to be removed in accordance with the plans and these specifications. The Engineer shall have 7 days to field review the markings and make any adjustments prior to the start of the clearing operation.

Trees and shrubs within the right-of-way or within any property owned by the Town of Glastonbury that are designated for removal must be posted as such by the Glastonbury Tree Warden (Mr. Greg Foran of the Parks and Recreation Department, 652-7686) for a period of 10 days prior to removal. **No trees or shrubs within the Town of Glastonbury right-of-way shall be cut or removed until such posting has been completed and subsequent approval given by the Tree Warden.**

In general, no trees, etc. in public streets and highways are to be cut or damaged in any way except as noted on the plans or described herein. Trees, bushes, and growing crops on other lands may be cut, removed, or trimmed only to the extent provided in the terms of the rights-of-way or access rights possessed by the Town, and also only within the limits and in the manner, if any, indicated by the Engineer or by the drawings or Special Conditions.

Tree Trimming: Trimming of trees with supervision by a Connecticut Licensed Arborist is included under this item as described on the plans and as required for clearance of construction equipment and pedestrians below the tree canopy. When the canopy of a tree must be elevated for clearance above the proposed improvements, trimming shall be done around the entire circumference of the tree unless otherwise directed in the field.

Tree Protection and Care of Property: The Contractor shall install high visibility construction fence at the drip line of the tree canopy as directed by the Engineer to protect existing trees that are not to be cut from damage during construction. The Engineer, at his sole discretion, may also direct the Contractor to enclose the trunks of trees adjacent to his work that are not to be cut with substantial wooden boxes of such height as may be necessary to protect them from injury from piled material, from equipment, from his operations, or otherwise due to his work. Excavating machinery and cranes shall be of suitable type and be operated with care to prevent injury to trees not to be cut, and particularly to overhanging branches and limbs.

Branches, limbs, and roots shall not be cut except by permission or at the direction of the Engineer. All cutting shall be smoothly and neatly done without splitting or crushing. In case of cutting or unavoidable injury to branches, limbs, and trunks of trees, the cut or injured portions shall be neatly trimmed and covered with an application of grafting wax or tree-healing paint, as directed.

Cultivated hedges, shrubs, and plant that might be injured by the Contractor's operations shall be protected by suitable means or shall be dug up and temporarily replanted and maintained. After the construction operations have been substantially completed, they shall be replanted in their original positions and cared for until growth is re-established. If cultivated hedges, shrubs, and plants are injured to such a degree as to affect their growth or diminish their beauty or usefulness, they shall be replaced by items of kind and quality at least equal to the kind and quality existing at the start of the work at the Contractor's expense.

On paved surfaces, the Contractor shall not use or operate tractors, bulldozers, or other power-operated equipment, the treads of wheels that are so shaped as to cut or otherwise injure such surfaces.

Clearing: From areas to be cleared, the Contractor shall cut or otherwise remove all trees, saplings, brush, vines, and other vegetable matter such as snags, sawdust, bark, etc., and refuse. The area to be cleared shall be confined to the width shown on the plans or as required for proper execution of the work. Vines, brush, and similar undergrowth shall be cut as close to the ground as practicable. Trees may be cut leaving a longer stump to facilitate their removal by power-operated equipment. No trees shall be cut or trimmed unless they are so indicated on the drawings.

Clearing shall also include removal and disposal of all items shown on the plans to be removed or required to be removed for proper execution of the work, and as directed by the Engineer, including, but not limited to, removal and disposal of existing concrete steps, retaining walls, drainage structures, fences, gates, and any and all other structures or materials not specifically listed in the Bid Proposal but required to be removed to accomplish the work.

Grubbing: Grubbing shall consist of the complete removal of all tree stumps and roots larger than two inches in diameter to a minimum depth of 12-inches below the subgrade surface. All excavations made below the finished surface by the removal of trees, stumps, etc. shall be filled with suitable material and thoroughly compacted in such a manner that its surface will conform to the surrounding surface.

Stump grinding shall be used for stump removal where the potential for damage to adjacent improvements or underground utilities exists due to the excavation of stumps, or as directed by the Engineer. The requirements for grubbing noted above shall also apply to stump grinding operations.

Disposal: All materials removed during trimming, tree removal, and clearing and grubbing operations shall be disposed of by the Contractor in a manner satisfactory to the Engineer.

Concrete Wall Removal: Concrete Walls identified on the plans are to be removed to the limits and depths shown on the plans and disposed of by the Contractor. Contractor is responsible to provide and install appropriate fill material to establish existing grade.

Construction Fence: 4' tall high visibility construction fence shall be installed around the limits of work area for public safety and to prevent intrusion of the public into the work area.

If work is still underway during the weekend of the Apple Harvest Festival, fence location shall be reviewed with Town staff and adjusted as required to properly accommodate the festival activities and equipment.

Method of Measurement:

The work described under this item will not be measured for payment but its cost shall be considered included in the lump sum bid price for Clearing and Grubbing.

Basis of Payment:

Except as provided otherwise in the Bid Proposal or Special Conditions, this work shall be paid for at the contract lump sum price for "Clearing and Grubbing" as listed in the Bid Proposal, which price shall include protection of existing trees and vegetation, installation of high visibility construction fence, tree removal, clearing and grubbing within the limits of the work, tree trimming under the supervision of a licensed arborist, stump grinding, removal and disposal of trees, roots, stumps, brush, and other objects, leveling of areas to accommodate the work, removal and disposal of concrete walls, including all labor, materials, tools, and equipment necessary thereto.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0201001A	CLEARING AND GRUBBING	L.S.

ITEM # 0202000A EARTH EXCAVATION

Description:

This item shall conform to Section 2.02 ROADWAY EXCAVATION, FORMATION OF EMBANKMENT AND DISPOSAL OF SURPLUS MATERIAL, of the Form 818 amended as follows:

Section 2.02.05 Basis of Payment shall be amended as follows:

Earth Excavation required for the installation of the proposed Pickleball Courts and Water Quality Basin shall be paid for at the contract lump sum for Earth Excavation as listed in the bid proposal.

All excavated materials shall be removed from the job site unless otherwise approved by the Engineer. No stockpiling of excavated materials within the flood zone will be permitted.

All other earth excavation including trench excavation required for completion of the project work is included under the various contract items as further described below and will not be measured for payment.

The contract price for earth excavation shall include all labor, equipment, materials, transportation, fuel, disposal, etc., for earth excavation, on site relocation of earth products and transportation and/or disposal of surplus earth materials. All surplus earth materials, including topsoil, shall be hauled off-site by the contractor and shall become property of the contractor. There shall be no separate payment for transportation or disposal of any surplus materials.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0202000A	EARTH EXCAVATION	L.S.

ITEM # 0210019A STONE INFILTRATION TRENCH

Description:

Work under this item shall consist of trench excavation and installation of a stone Infiltration trench including solid 6" PVC trench piping and risers, solid 6" and 8" PVC outlet piping, drain basin with drop in grate, PVC fittings, riser grates, aggregate, and geotextile in the locations and to the lines, grades, and dimensions indicated on the plans or as directed by the Engineer. Outlet piping for the stone filtration trench shall consist of PVC pipe laid in a trench and backfilled with clean backfill material.

Materials:

Pipe and Fittings: Shall be 6" and 8" solid Schedule 40 PVC conforming to the requirements of Article M.08.01.

Aggregates: The aggregates specified for filling the stone infiltration trench shall be washed 2" crushed stone that meets the requirements of Article M.01.02 Course Aggregates Table M.01.02-2 No. 3 gradation.

Geotextile: Shall be TC Mirafi 170N non-woven geotextile fabric as manufactured by Tencate Geosynthetics North America or approved equal that meets the requirements of GEOTEXTILE SUBSURFACE DRAINAGE CLASS A, of the Department of Transportation "Qualified Products List for Connecticut Department of Transportation Projects", latest edition.

Riser Grates: Shall be Nyloplast 0601DI 6 inch Drop In Grate Part # 7001-110-018 or approved equal.

Drain Basin with Drop In Grate: Shall be Nyloplast 12" diameter Drain Basin or approved equal. Drop In Grate shall be Nyloplast 1201DI or approved equal.

Construction Methods:

Trench excavation, backfill and dewatering for these items shall be in conformance with Section 2.86-Drainage Trench Excavation of the Form 818.

The dimensions of the trench shall be as indicated on the plans and details or as directed by the Engineer. Where the bottom of the trench is unstable or in rock, the trench shall be excavated 6 inches deeper and an additional 6 inches layer of granular fill or aggregate similar to that used to fill the trench shall be placed and compacted in the trench.

Geotextile fabric shall be installed along the bottom, ends and sides of the excavated trench prior to installation of aggregate leaving enough fabric to wrap the entire trench upon completion.

Trench aggregate shall be placed to a depth of 3 inches and tamped true to grade. The 6" solid PVC pipe and risers shall be placed and firmly bedded in the aggregate.

When the pipe used has a bell, the pipe shall be installed with the bell end upgrade with the spigot end entered fully into the adjacent bell. Riser pipes shall be installed plumb, level and temporarily supported prior to backfill with required aggregate.

6" PVC trench pipe shall be set level in the aggregate bedding along the bottom of the trench. Trench pipe riser sections and drain basin with drop in grate shall be set to an elevation 2" below top of stone elevation.

After the PVC pipe and risers have been installed as described above, the aggregate shall be placed carefully around, along and over the pipe to a height of 12 inches above the top of the pipe. The remainder of the trench shall be filled with additional aggregate and tamped in layers to the elevations shown on the plans or as directed by the Engineer. Riser grates should be installed when aggregate reaches the elevation of the grates.

Contractor shall excavate, install, and backfill the 6" and 8" solid PVC outlet piping in the locations and to the lines and grades depicted on the plans and details or as directed by the Engineer.

6" and 8" solid PVC outlet piping shall be backfilled with clean backfill material to the lines and grades depicted on the plans and details or as directed by the Engineer.

Method of Measurement:

This work will not be measured for payment since it is being paid for on a lump sum basis.

PVC Piping, including 8" PVC discharge pipe to the proposed water quality basin, will not be measured for payment. Rather this work shall be included in the contract lump sum price for "Stone Infiltration Trench".

Trench excavation, dewatering, backfilling and consolidation will not be measured for payment, but will be considered as included in the bid price per linear foot of Stone Infiltration Trench.

Basis of Payment:

This work will be paid for at the contract lump sum price for "Stone Infiltration Trench" complete in place, which price shall include 6" solid PVC trench piping and risers, 6" and 8" solid PVC outlet piping, 12" Nyloplast drain basin with drop in grate, elbows, tees, wyes, couplings, fitting, riser grates, trench excavation, dewatering, backfilling and consolidation, geotextile, aggregate, disposal of surplus material, all equipment, tools, labor and materials incidental thereto.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0210019A	STONE INFILTRATION TRENCH	L.S.

ITEM # 0212300A PROCESSED STONE BASE

This item shall conform to Section 3.04 PROCESSED AGGREGATE BASE, of the Form 818, amended as follows:

Materials:

The material for this item shall be **crushed trap rock** conforming to the requirements of Article M.05.01 Processed Aggregate Base and Pavement of the Form 818, except that coarse aggregate shall be broken stone, and fine aggregate shall be stone sand, screenings, or a combination thereof. Gravel or reclaimed miscellaneous aggregate shall not be used.

NOTE: Basis of payment for this item shall include fine grading prior to placement of the Post-Tensioned Concrete slab. No separate payment shall be provided for such work.

ITEM # 0514311A UNBONDED POST-TENSIONED CONCRETE SLAB

Description: Work under this item shall consist of the installation of an unbonded post-tensioned concrete slab by a qualified contractor in accordance with the construction plans and details and as directed by the Engineer. Work shall include the design of the selected post-tensioning system by a Connecticut licensed professional structural engineer, testing and reporting of the tendon elongation during stressing by a qualified testing agency, and all other related work as described in this specification and as required for conformance with the approved shop drawings and as necessary for a complete functioning post-tensioned concrete court system.

This Section Includes:

1. Concrete
2. Post-tensioning tendons and accessories, including pocket formers, bar chairs, slab bolsters, and nonprestressed reinforcement required for installing post-tensioning tendons, including the following:
 - a. Support bars.
 - b. Backup bars and hairpins at anchorages.
 - c. Hairpins at locations of horizontal curvature.
 - d. Supplemental reinforcement at blockouts.
3. Post-tensioning operations, including stressing, recording tendon elongations and gage pressures, and finishing tendons.

Materials:

1.1 CONCRETE

1. Form 818 Section 6.02 "Deformed Steel Bars" for nonprestressed steel reinforcement.
2. Form 818 Section M.03 "Class PCC04461" for concrete material requirements.

1.0 PRESTRESSING TENDONS

- A. ACI Publications: Comply with ACI 423.7 unless otherwise indicated.
- B. Prestressing Strand: ASTM A416/A416M, Grade 270, uncoated, seven-wire, low-relaxation, 0.5-inch diameter strand.
- C. Post-Tensioning Coating: Compound with friction-reducing, moisture-displacing, and corrosion-inhibiting properties; chemically stable and nonreactive with prestressing strand, nonprestressed reinforcement, sheathing material, and concrete.
 1. Minimum Coating Weight: 2.5lb for 0.5-inch diameter strand per 100 feet of strand.
 2. Completely fill annular space between strand and sheathing over entire tendon length with post-tensioning coating.
- D. Tendon Sheathing:
 1. Material: Polyethylene or polypropylene with a minimum density of 0.034 lb/cu. in.
 2. Minimum Thickness: 0.050 inch.
 3. Continuous over length of tendon to provide watertight encapsulation of prestressing strand.

- E. Anchorage and Coupler Assemblies: Assemblies of prestressing strand, wedges, and anchor or coupler complying with static and fatigue testing requirements and capable of developing 95 percent of actual breaking strength of strand.
 - 1. Manufacturers: Subject to compliance with requirements.
 - 2. Anchorage Bearing Stresses: Comply with ACI 423.7 for stresses at transfer load and service load.
 - 3. Fixed-End Anchorage Assemblies: Plant fabricated with wedges seated at a load of not less than 80 percent and not more than 85 percent of breaking strength of strand.
- F. Encapsulation System: Watertight encapsulation of prestressing strand consisting of the following:
 - 1. Encapsulation Caps: Attached to anchorages with a positive mechanical connection and completely filled with post-tensioning coating.
 - a. Encapsulation Caps for Fixed- and Stressing-End Anchorages: Designed to provide watertight encapsulation of wedge cavity. Sized to allow required extension of strand past the wedges.
 - 1) Attach encapsulation caps for fixed-end anchorages in fabricating plant.
 - b. Encapsulation Caps at Intermediate Anchorages: Open to allow passage of strand.
 - 2. Sleeves: Attached to anchorage with positive mechanical connection; overlapped a minimum of 4 inches with sheathing and completely filled with post-tensioning coating.

1.1 NONPRESTRESSED STEEL BARS

- A. Recycled Content of Steel Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 25 percent.
- B. Support Bars, Reinforcing Bars, and Hairpins:
 - 1. Steel: ASTM A615/A615M, Grade 60, deformed.
- C. Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening tendons and tendon support bars in place. Manufacture bar supports, according to CRSI's "Manual of Standard Practice," from steel wire, plastic, or precast concrete of greater compressive strength than concrete, and as follows:
 - 1. For uncoated bars, use all-plastic bar supports.

1.2 ACCESSORIES

- A. Pocket Formers: Capable of completely sealing wedge cavity; sized to provide the required cover over the anchorage and allow access for cutting strand tail.
- B. Anchorage Fasteners: Stainless steel nails, wires, and screws used to attach anchorages to formwork.
- C. Sheathing Repair Tape: Elastic, self-adhesive, moistureproof tape with minimum width of 2 inches, in contrasting color to tendon sheathing; nonreactive with sheathing, coating, or prestressing steel.
 - 1. Manufacturers: Subject to compliance with requirements.

- D. Metal Keyway: 24 gauge, hot dipped galvanized steel with tendon knockouts to match tendon spacing and 14 gauge HRPO steel stakes.
- E. Net Post Sleeves: Schedule 40 PVC piping with inside diameter sized to receive net post plus $\frac{1}{4}$ ".
- F. Vapor retarder: 2 Layers of 10 mil polyethelene sheeting.
- G. Polyfoam Wrap: 1 layer of 1" x 5" polyfoam wrap by Polylam or approved equal.

1.3 PATCHING MATERIAL

- A. One-component, polymer-modified, premixed patching material containing selected silica aggregates and portland cement, suitable for vertical and overhead applications. Do not use material containing chlorides or other chemicals known to be deleterious to prestressing steel or material that is reactive with prestressing steel, anchorage device material, or concrete.
 - 1. Manufacturers: Subject to compliance with requirements.

PART 2 - MANUFACTURERS

- A. Source Limitations: Obtain post-tensioning materials and equipment from single source.
 - 1. Stressing jacks not provided by post-tensioning supplier must be calibrated and approved for use on Project by post-tensioning supplier.

2.1 PERFORMANCE REQUIREMENTS

- A. Delegated Design: The plans show the dimensions of the slab and the applied post-tensioning force required. The Contractor shall choose a post-tensioning system capable of applying the loads noted on the plans and engage a qualified professional engineer, to design the post-tensioning system including any additional reinforcement required at the anchorage zones based on the chosen post-tensioning system.
- B. Design structure to withstand the loads indicated according to governing codes, within limits and under conditions indicated.
- C. Average Precompression:
 - 1. Minimum Average Slab Precompression: 125 psi .
 - 2. Maximum Average Slab Precompression: 150 psi .
- D. Comply with ACI 318 requirements unless more stringent requirements are indicated.
 - 1. Limits on stresses at transfer of prestress and under service load.
 - 2. Minimum bonded reinforcement.
 - 3. Concrete cover over reinforcement.
- E. Closure Strips: Locate closure strips at midspan and adjust tendon forces and profiles accordingly. Calculate moments in spans with closure strips assuming a continuous slab. Provide only nonprestressed reinforcement within closure strips. Design reinforcement in closure strip to carry ultimate moment at midspan.

Construction Methods:

3.0 FORMWORK

- A. Design formwork to support load redistribution that may occur during stressing operation. Ensure that formwork does not restrain elastic shortening, camber, or deflection resulting from application of prestressing force.
- B. Do not remove forms supporting post-tensioned elements until tendons have been fully stressed and elongations have been approved by Architect.

3.1 INSTALLATION OF NET POST AND CENTER STRAP FOUNDATIONS

- A. Establish net post and center strap anchor sleeve and foundation locations and install foundations prior to layout of post-tensioned tendons.

3.2 INSTALLATION OF NONPRESTRESSED STEEL REINFORCEMENT

- A. Coordinate placement of nonprestressed steel reinforcement with installation of post-tensioning tendons.

3.3 INSTALLATION OF TENDONS

- A. Install tendons according to installation drawings and procedures stated in PTI's "Field Procedures Manual for Unbonded Single Strand Tendons."
 - 1. Tolerances: Comply with tolerances in ACI 423.7 for beams and slabs.
- B. Tendon Supports: Provide continuous slab bolsters or bars supported on individual high chairs spaced at a maximum of 36 inches o.c. to ensure tendons remain in their designated positions during construction operations and concrete placement.
 - 1. Support tendons as required to provide profiles shown on installation drawings. Position supports at high and low points and at intervals not exceeding 48 inches. Ensure that tendon profiles between high and low points are smooth parabolic curves.
 - 2. Attach tendons to supporting chairs and reinforcement without damaging tendon sheathing.
 - 3. Support slab tendons independent of beam reinforcement.
- C. Maintain tendon profile within maximum allowable deviations from design profile as follows:
 - 1. 1/4 inch for member depth less than or equal to 8 inches.
 - 2. 3/8 inch for member depth greater than 8 inches and less than or equal to 24 inches.
 - 3. 1/2 inch for member depth greater than 24 inches.
- D. Maintain minimum radius of curvature of 480-strand diameters for lateral deviations to avoid openings, ducts, and embedded items. Maintain a minimum of 2 inches of separation between tendons at locations of curvature.
- E. Limit tendon bundles to five tendons. Do not twist or entwine tendons within a bundle. Maintain a minimum distance of 12 inches between center of adjacent bundles.

- F. If tendon locations conflict with nonprestressed reinforcement or embedded items, tendon placement governs. Obtain Architect's approval before relocating tendons or tendon anchorages that interfere with one another.
 - G. Deviations in horizontal spacing and location of slab tendons are permitted when required to avoid openings and inserts.
 - H. Installation of Anchorages:
 - 1. Place anchorages at locations shown on approved installation drawings.
 - 2. Do not switch fixed- and stressing-end anchorage locations.
 - 3. Attach pocket formers, intermediate anchorages, and stressing-end anchorages securely to bulkhead forms. Install stressing-end and intermediate anchorages perpendicular to tendon axis.
 - 4. Install tendons straight, without vertical or horizontal curvature, for a minimum of 12 inches behind stressing-end and intermediate anchorages.
 - 5. Embed intermediate anchorage devices at construction joints in first concrete placed at joint.
 - 6. Minimum splice length in reinforcing bars at anchorages is 24 inches. Stagger splices a minimum of 60 inches.
 - 7. Place fixed-end anchorages in formwork at locations shown on installation drawings. Support anchorages firmly to avoid movement during concrete placement.
 - 8. Remove loose encapsulation caps on fixed-end anchorages, refill with post-tensioning coating, and re-attach encapsulation caps to achieve a watertight enclosure.
 - I. Maintain minimum concrete cover as follows:
 - 1. From Exterior Edge of Concrete to Wedge Cavity: 2 inches .
 - 2. From Exterior Edge of Concrete to Wedge-Cavity Cap: 1 inch .
 - 3. Top, Bottom, and Edge Cover for Anchorages: 1 inch .
 - J. Maintain minimum clearance of 6 inches between tendons and openings.
 - K. Prior to concrete placement, mark tendon locations on formwork with spray paint.
 - L. Do not install sleeves within 36 inches of anchorages after tendon layout has been inspected.
 - M. Do not install conduit, pipe, or embeds requiring movement of tendons after tendon layout has been inspected.
 - N. Do not use couplers unless location has been approved by Architect.
- 3.4 SHEATHING INSPECTION AND REPAIR
- A. Inspect sheathing for damage after installing tendons. Repair damaged areas by restoring post-tensioning coating and repairing or replacing tendon sheathing.
 - 1. Ensure that sheathing is watertight and there are no air voids.
 - 2. Follow tape repair procedures in PTI's "Field Procedures Manual for Unbonded Single Strand Tendons."
 - B. Immediately remove and replace tendons that have damaged strand.

3.5 CONCRETE PLACEMENT

- A. Do not place concrete until placement of tendons and nonprestressed-steel reinforcement has been inspected by testing agency.
- B. Provide Architect and testing agency a minimum of 48 hours' notice before concrete placement.
- C. Ensure compaction of concrete around anchorages.
- D. Ensure that position of tendons and nonprestressed-steel reinforcement do not change during concrete placement. Reposition tendons and nonprestressed-steel reinforcement moved during concrete placement to original location.
- E. Ensure that method of concrete placement does not damage tendon sheathing. Do not support pump lines, chutes, or other concrete-placing equipment on tendons.

3.6 TENDON STRESSING

- A. Calibrate stressing jacks and gages at start of project and at least every six months thereafter. Keep copies of calibration certificates for each jack-and-gage pair on Project site that are available for inspection. Exercise care in handling stressing equipment to ensure that proper calibration is maintained.
- B. Stress tendons only under supervision of a qualified post-tensioning superintendent.
- C. Do not begin stressing operations until concrete compressive strength has reached 2000 psi as indicated by tests of field-cured cylinders.
- D. Complete stressing within 96 to 168 hours of concrete placement.
- E. If concrete has not reached required compressive strength within 24 to 36 hours, obtain Architect's approval to partially stress tendons and delay final stressing until concrete has reached required strength.
- F. If detensioning and restressing of tendon is required, discard wedges used in original stressing and provide new wedges.
- G. Mark and measure elongations according to PTI's "Field Procedures Manual for Unbonded Single Strand Tendons." Measure elongations to closest 1/8 inch.
- H. Submit stressing records within one day of completion of stressing. If discrepancies between measured and calculated elongations exceed plus or minus 7 percent, resolve these discrepancies to satisfaction of Architect.
- I. Prestressing will be considered acceptable if gage pressures shown on stressing record correspond to required stressing force and calculated and measured elongations agree within 7 percent.
- J. If measured elongations deviate from calculated elongations by more than 7 percent, perform additional testing, restressing, strengthening, or replacing of affected elements unless otherwise approved by Architect.
- K. Stressing Records: Testing agency to be retained by Contractor shall record the following information during stressing operations:

1. Name of Project.
2. Date of approved installation drawings used for installation and stressing.
3. Floor number and concrete placement area.
4. Date of stressing operation.
5. Weather conditions, including temperature and rainfall.
6. Name and signature of inspector.
7. Name of individual in charge of stressing operation.
8. Serial or identification numbers of jack and gage.
9. Date of jack-and-gage calibration certificates.
10. Gage pressure to achieve required stressing force according to supplied calibration chart.
11. Tendon identification mark.
12. Calculated tendon elongation.
13. Actual tendon elongation.
14. Actual gage pressure.

3.7 TENDON FINISHING

- A. Do not cut strand tails or cover anchorages until stressing records have been reviewed and approved by Architect.
- B. Cut strand tails as soon as possible after approval of elongations.
- C. Cut strand tail between 1/2 and 3/4 inch from wedges. Do not damage tendon or concrete during removal of strand tail. Acceptable methods of cutting strand tail include the following:
 1. Oxyacetylene flame.
 2. Abrasive wheel.
 3. Hydraulic shears.
 4. Plasma cutting.
- D. Install encapsulation caps and sleeves on intermediate anchorages within one day of stressing.
- E. Cut strand tails and install encapsulation caps on stressing-end anchorages within one day of Architect's acceptance of elongations.
- F. Patch stressing pockets within one day of cutting strand tail. Clean inside surface of stressing pocket to remove laitance or post-tensioning coating before installing patching material. Finish patching material flush with adjacent concrete.

3.8 FIELD QUALITY CONTROL

- A. Owner will engage a qualified testing agency to perform the following tests and inspections.
 1. Before concrete placement, testing agency will inspect the following for compliance with post-tensioning installation drawings and the Contract Documents:
 - a. Location and number of tendons.
 - b. Tendon profiles and cover.
 - c. Installation of backup bars, hairpins, and other nonprestressed reinforcement shown on post-tensioning installation drawings.
 - d. Installation of pocket formers and anchorage devices.
 - e. Repair of damaged sheathing.
 - f. Connections between sheathing and anchorage devices.
 2. Review of items identified above by the Owner's independent testing agency does not relieve the contractor of installing the post-tensioning system and non-prestressed

reinforcement in accordance with the contract documents and the post-tensioning manufacturer's requirements.

- B. Additional Testing by Contractor: Contractor shall engage a qualified testing agency to perform the following additional tests and inspections:
 - 1. Contractor's testing agency will record tendon elongations during stressing as described in Section 3.6K.
 - 2. Contractor's testing agency will immediately report deviations from the Contract Documents to the Owner.
- C. Prepare test and inspection reports.

3.9 PROTECTION

- A. Do not expose tendons to electric ground currents, welding sparks, or temperatures that would degrade components.
- B. Protect exposed components within one workday of their exposure during installation.
- C. Prevent water from entering tendons during installation and stressing.
- D. Provide weather protection to stressing-end anchorages if strand tails are not cut within 10 days of stressing the tendons.

3.10 REPAIRS

- A. Submit repair procedure to the Owner for evaluation and approval.
- B. Do not proceed with repairs requiring removal of concrete unless authorized in writing by the Owner.

3.11 COORDINATION

- A. Attachments and Penetrations:
 - 1. Drilled anchors, power-driven fasteners, and core drilling for sleeves or other penetrations are not allowed unless authorized in writing by the Owner.
 - 2. Form penetrations within 18 inches of an anchorage with ASTM A53/A53M, Schedule 40 steel pipe.
 - 3. Form net post and center strap anchor penetrations located more than 18 inches away from an anchorage with schedule 40 PVC pipe sleeves.

3.12 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
 - 1. Review procedures related to installation and stressing of post-tensioning tendons, including, but not limited to, the following:
 - a. Construction schedule and availability of materials, personnel, and equipment needed to make progress and avoid delays.
 - b. Storage of post-tensioning materials on-site.

- c. Structural load limitations.
- d. Coordination of post-tensioning installation drawings and nonprestressed reinforcing steel placing drawings.
- e. Horizontal and vertical tolerances on tendons and nonprestressed reinforcement placement.
- f. Marking and measuring of elongations.
- g. Submittal of stressing records and requirements for tendon finishing.
- h. Removal of formwork.

3.13 ACTION SUBMITTALS

A. Product Data: For the following:

1. Post-tensioning coating.
2. Tendon sheathing.
3. Anchorage devices.
4. Tendon couplers.
5. Metal keyway
6. Vapor retarder
7. Bar and tendon supports.
8. Pocket formers.
9. Sheathing repair tape.
10. Stressing-pocket patching material.
11. Encapsulation system.

B. Shop Drawings: Prepared by or under the supervision of a qualified Connecticut Licensed professional structural engineer, detailing tendon layout, installation procedures, and the following:

1. Installation drawings, including plans, elevations, sections, and details.
2. Numbers, arrangement, and designation of post-tensioning tendons.
3. Tendon profiles and method of tendon support, including chair heights and locations. Show tendon profiles at sufficient scale to clearly indicate all support points with their associated heights.
4. Details for horizontal curvature around openings and at anchorages.
5. Locations of anchorages and blockouts required for stressing.
6. Anchorage details, including bundled tendon flaring.
7. Tendon clearances around slab openings and penetrations.
8. Construction joint locations and pour sequence.
9. Details for corners and other locations where tendon layouts may conflict with one another or with nonprestressed reinforcing steel.
10. Locations of nonprestressed reinforcement required for installing post-tensioning tendons, including, but not limited to, the following:
 - a. Support bars.
 - b. Backup bars and hairpins at anchorages.
 - c. Hairpins at locations of horizontal curvature.
 - d. Supplemental reinforcement at blockouts.
11. Stressing procedures and jacking force to result in final effective forces used in determining number of tendons required.
12. Calculated elongations for each tendon.

C. Delegated Design Submittal: For post-tensioning system.

1. Include sealed design calculations prepared by a qualified Connecticut Licensed professional structural engineer indicating method of elongation calculation, including

values used for friction coefficients, anchorage seating loss, elastic shortening, creep, relaxation, and shrinkage.

3.14 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer manufacturer testing agency. Include resume of individual supervising installation and stressing of post-tensioning tendons.
- B. Evaluation Reports: For each type of anchorage device and coupler, from ICC-ES:
- C. Product Certificates: For each type of encapsulation system.
- D. Mill Test Reports: Certified mill test reports for prestressing strand used on Project, indicating that strand is low relaxation and including the following:
 - 1. Coil numbers or identification.
 - 2. Breaking load.
 - 3. Load at 1 percent extension.
 - 4. Elongation at failure.
 - 5. Modulus of elasticity.
 - 6. Diameter and net area of strand.
- E. Field quality-control reports.
- F. Procedures Statement: Procedures for cutting excess strand tail and patching stressing pocket.
- G. Stressing Jack Calibration: Calibration certificates for jacks and gages to be used on Project. Calibrate each jack-and-gage set as a pair.
- H. Stressing Records: Submit the same day as stressing operations.

3.15 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Fabricating plant certified by PTI according to procedures set forth in PTI's "Manual for Certification of Plants Producing Unbonded Single Strand Tendons."
- B. Installer Qualifications: A qualified installer whose full-time Project superintendent has successfully completed PTI's Level 1 - Field Fundamentals course or has equivalent verifiable experience and knowledge acceptable to the Owner.
 - 1. Superintendent to be trained by post-tensioning supplier in the operation of stressing equipment to be used on Project.
- C. Testing Agency Qualifications: Qualified according to ASTM E329 for testing indicated.
 - 1. Testing Agency Inspector: Personnel performing field inspections and measuring elongations to have successfully completed PTI's Level 1 - Field Fundamentals course or to have equivalent verifiable experience and knowledge acceptable to the Owner.

3.16 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle post-tensioning materials according to PTI's "Field Procedures Manual for Unbonded Single Strand Tendons."

Method of Measurement: This work will be measured for payment by the actual number of square feet of post tensioned concrete slab that has been post-tensioned and accepted, regardless of the number of tendons laid out.

Basis of Payment: Payment for this work will be made at the contract unit price per square foot for "Unbonded Post-Tensioned Concrete Slab", as shown on the plans, completed and accepted in place. The price shall include the cost of design and materials including concrete, non-prestressed reinforcement, post tensioning system, multiple phase stressing, vapor retarder, foundations and pvc piping for net post and center strap anchor sleeves, metal keyways, polyfoam wrap, transportation, tools, labor, equipment, testing and work incidental thereto. The design and preparation of working drawings and the services of the Supplier's Technical Representatives shall be included in the Contract unit price.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0514311A	UNBONDED POST-TENSIONED CONCRETE SLAB.	S.F.

ITEM # 0707002A BIAXIAL POLYPROPYLENE GEOGRID

Description:

Work under this item shall consist of furnishing and installing an integrally formed biaxial geogrid system to the subgrade as shown on the plans and in accordance with the Manufacturer's recommendations.

Materials:

Geogrid shall be Tensar BX1100 biaxial polypropylene geogrid system or approved equal.

Construction Methods:

Prior to installation of the geogrid system, the subgrade shall be prepared in accordance with the geotechnical report. The final soil subgrade should be proof-rolled with at least six systematic passes of a large vibratory roller. Soft areas observed during the proof-roll process should be replaced with compacted granular fill. Once the subgrade has been satisfactorily proof-rolled, the geogrid shall be installed in accordance with the manufacturer's requirements including lap width.

Method of Measurement:

This work will be measured for payment by the actual number of square feet of geogrid installed and accepted by the Engineer.

Basis of Payment:

This work will be paid at the Contract unit price per square foot for "Biaxial Polypropylene Geogrid" which price shall include furnishing all materials, equipment, tools, labor and incidentals necessary to complete the work.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0707002A	BIAXIAL POLYPROPYLENE GEOGRID	S.F.

ITEM # 0751711A 6 INCH POLYVINYL CHLORIDE UNDERDRAIN

Description:

Underdrains shall consist of pipe pervious to water, laid in a trench refilled with pervious material. They shall be of the dimensions and details as indicated on the plans. Outlets for underdrains shall consist of pipe laid in a trench and refilled with earth. The size and type of outlet pipe shall be the same as that of the underdrain to which it is connected, except that it shall not be pervious to water.

Materials:

Pipe: Shall be 6" perforated or solid schedule 40 PVC conforming to the requirements of Article M.08.01.

Aggregates: The aggregates specified for filling the trench shall be washed $\frac{3}{4}$ " stone that meets the requirements of Article M.01- Aggregates. The washed crushed stone shall meet the gradation requirements of Table M.01.02.02 for Size No. 67 of coarse aggregate.

Geotextile: Shall be TC Mirafi 170N non-woven geotextile fabric as manufactured by Tencate Geosynthetics North America or approved equal that meets the requirements of GEOTEXTILE SUBSURFACE DRAINAGE CLASS A, of the Department of Transportation "Qualified Products List for Connecticut Department of Transportation Projects", latest edition.

Construction Methods:

Trench excavation, backfill and dewatering for these items shall be in conformance with Section 2.86- Drainage Trench Excavation of the Form 818.

The dimensions of the trench shall be as indicated on the plans or as ordered. Where the bottom of the trench is unstable or in rock, the trench shall be excavated 6 inches deeper and an additional 6 inches layer of granular fill or aggregate similar to that used to fill the trench shall be placed and compacted in the trench.

Where the perforations are to be at the bottom of the pipe, the aggregate for filling the trench shall then be placed to a depth of 3 inches and tamped true to grade. The pipe shall be placed and firmly bedded on the aggregate. This aggregate shall be placed whether the pipe is encased with geotextile or not.

When the pipe used has a bell, the pipe shall be installed with the bell end upgrade with the spigot end entered fully into the adjacent bell.

After the pipe has been installed as described above, the aggregate shall be placed carefully around and over the pipe to a height of 12 inches above the top of the pipe. The remainder of the trench shall be filled with aggregate and tamped in layers as shown on the plans.

The entire length of each drain pipe shall be wrapped with geotextile and the seams lapped and welded or bonded. Where the seams of the geotextile are not welded or bonded, they shall be lapped to a minimum width equal to the diameter of the pipe for 6-inch pipe and larger and a minimum of 6 inches for smaller pipe.

In all cases where subbase material or gravel is to be placed over the underdrains, a layer of at least 6 inches of subbase material or gravel shall be placed over the underdrain immediately after its completion.

Where shown on the plans or directed by the Engineer, the Contractor shall connect underdrains or outlets to existing or proposed drainage systems or structures. This work shall be performed in a workmanlike manner satisfactory to the Engineer by installation of tees or wyes branches or by providing a hole in the main line underdrain.

Where the upgrade end of the underdrain does not enter a structure, it shall be capped or plugged as directed.

Method of Measurement:

This work will be measured for payment by the actual number of linear feet of underdrains and outlet for underdrain completed, accepted and measured in place.

Trench excavation, dewatering, backfilling and consolidation will not be measured for payment but will be considered as included in the bid price per linear foot of 6 inch Polyvinyl Chloride Underdrain.

Basis of Payment:

This work will be paid for at the contract unit price per linear foot for "6 Inch Polyvinyl Chloride Underdrain" as listed in the Bid Proposal complete in place, which price shall include pipe of the size specified, elbows, tees, wyes, couplings, fitting, trench excavation, dewatering, backfilling and consolidation, geotextile, aggregate, sand, tools, material and labor incidental thereto.

There will be no direct payment made for capping, plugging or connecting underdrains or outlets to existing or proposed drainage systems or structures, but the cost thereof shall be included in the cost of the underdrain.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0751711A	6 INCH POLYVINYL CHLORIDE UNDERDRAIN	L.F.

ITEM # 0913043A	8' POLYVINYL CHLORIDE CHAIN LINK FENCE
ITEM # 0913331A	DOUBLE LEAF CHAIN LINK FENCE SWING GATE
ITEM # 0913332A	SINGLE LEAF CHAIN LINK FENCE SWING GATE

Description: Work under this item includes the installation of 8' tall PVC-coated chain link fencing and accessories with 8' tall PVC-coated gates and related hardware to the lines and dimensions indicated on the construction plans and as directed by the Engineer. Work shall include all related excavation, backfill, footing installation, and all related work required for the fence installation. Fence color shall be Black.

Materials:

PRODUCT DATA:

For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for chain-link fences and gates.

1. Fence and gate posts, rails, and fittings.
2. Chain-link fabric, reinforcements, and attachments.
3. Gates and hardware.

Shop Drawings: Include plans, elevations, sections, details, and attachments to other work. Show accessories, hardware, gate operation, and operational clearances.

Samples for Initial Selection: For components with factory-applied color finishes.

Product Certificates: For each type of chain-link fence, and gate, from manufacturer.

Product Test Reports: For framing strength according to ASTM F 1043.

Warranty: Sample of special warranty.

Provide fences and gates as complete units produced by a single manufacturer, including necessary erection accessories, fittings, and fastenings.

Installation shall be performed by the manufacturer or by an experienced chain link fence installer approved by the manufacturer. Provide a rigid, plumb finished fence structure, with fabric tight and in tension.

Field Measurements: Verify layout information for chain-link fences and gates shown on Drawings in relation to property survey and existing structures. Verify dimensions by field measurements.

Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of chain-link fences and gates that fail in materials or workmanship within specified warranty period. Failures include, but are not limited to, the following:

- a. Faulty operation of gate operators and controls.
- b. Deterioration of metals, metal finishes, and other materials beyond normal weathering.

SETTING MATERIALS

Concrete: CDOT Form 818-2022, Article M.03.02; PCC03340 – 3,300 PSI.

Grout: CDOT Form 818-2022, Article M.03.05; Non-shrink, non-staining grout.

CHAIN-LINK FENCE FABRIC

General: Provide fabric in one-piece heights measured between top and bottom of outer edge of selvage knuckle or twist. Comply with CLFMI Product Manual and with requirements indicated below:

1. Fabric Height: As indicated on Drawings.
2. Steel Wire Fabric: Wire with a diameter of 0.148 inch (9 gauge) and a break load of 1290 lbf.
 - a. Mesh Size: 2 inches diamond mesh.
 - b. Polymer-Coated Fabric: PVC coated thermally fused and adhered to a primer that is thermally cured onto galvanized steel core wire, in conformance with ASTM F 668, Class 2b, 7 mil thickness thermally fused.

Color: Black, complying with ASTM F 934.
Selvage: Knuckled at both selvages.

FENCE FRAMING

Posts and Rails: Comply with ASTM F 1043 for framing, including rails, braces, and line; terminal; and corner posts. Provide members with minimum dimensions and wall thickness according to ASTM F 1043 or ASTM F 1083 based on the following:

1. Fence Height: As indicated on Drawings.
2. Heavy Industrial Strength: Material Group IA, round steel pipe, Schedule 40.
 - a. Line Post: As indicated on Drawings.
 - b. End, Corner and Pull Post: As indicated on Drawings.
3. Horizontal Framework Members: Intermediate top and bottom rails complying with ASTM F 1043.
 - a. Top Rail: As indicated on Drawings.
4. Brace Rails: Comply with ASTM F 1043.
5. Metallic Coating for Steel Framing:
 - a. Hot-dipped galvanized with a minimum average 1.8-oz./sq. ft. of coated surface area.
6. Polymer coating over metallic coating.
 - a. Color: Match chain-link fabric, complying with ASTM F 934.

SWING GATES

General: Comply with ASTM F 900 for gate posts and single and double swing gate types.

Gate Frames:

Fabricate chain link swinging gates in accordance with ASTM F900 using galvanized steel tubular members, 2" square, weighing 2.60 lb/ft. Weld all joints to form a rigid onepiece unit. Vinyl coated frames Thermally fused with 10 to 15 mils of PVC per ASTM 1043. For gates over 8' high or 15' wide, provide Minimum 1-1/2" square additional horizontal and vertical interior members to ensure proper strength.

Gate height to match adjoining fence. Color to match adjacent fence.

Chain Link Fabric:

PVC thermally fused to metallic coated steel wire. ASTM F 668, Class2b, in color, mesh and gauge to match fence. Install fabric with hook bolts and tension bars at all 4 sides. Attach to gate frame at not more than 15" on center.

Hardware: Hot dipped galvanized steel or malleable iron shapes to suit gate size. Field coat moveable parts (e.g. hinges, latch, keeper, and drop bar) with PVC touch up paint, provided by manufacturer, to match adjacent finishes

1. Hinges: Structurally capable of supporting gate leaf and allow opening and closing without binding. Non-lift-off type hinge design shall permit gate to swing 180 degrees as indicated on the drawings.
2. Latch: Forked type capable of retaining gate in closed position permitting operation from both sides of gate with provision for padlocking accessible from both sides of gate. Latch shall comply with ADA requirements and shall have a shape easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist to operate.

3. Keeper: Provide keeper for each gate leaf over 5' wide. Gate keeper shall consist of mechanical device for securing free end of gate when in full open position.

1. Double gates: Provide drop rod to hold inactive leaf. Provide gate stop pipe to engage center drop rod. Provide locking device and padlock for locking both gates leaves.

FITTINGS

General: Comply with ASTM F 626.

Post Caps: Formed steel, cast malleable iron, or aluminum alloy cap for tubular posts to provide weather tight closure. Provide dome caps for terminal posts. Provide loop caps for line posts to permit passage of top rail.

Rail and Brace Ends: For each gate, corner, pull, and end post.

Rail Fittings: Top Rail Sleeves: 6" sleeve allowing for expansion and contraction of top rail.

Tension and Brace Bands: Pressed steel.

Tension Bars: One piece lengths equal to 2 inches less than full height of fabric, with a minimum cross-section of 3/16" x 3/4". Provide tension bars where chain link fabric meets terminal posts.

Truss Rod Assemblies: Steel rods with minimum diameter of 5/16.

Tie Wires, Clips, and Fasteners: According to ASTM F 626.

Standard Round Wire Ties: For attaching chain-link fabric to posts, rails, and frames, complying with the following:

- a. 9 gauge (0.148") galvanized steel wire for attachment of fabric to line posts .Double wrap 13 gauge (0.092") for rails and braces. Hog ring ties of 12-1/2 gauge (0.0985") for attachment of fabric to tension wire.

Nuts and Bolts: Galvanized. Field-coat with PVC touch up paint.

Finish: Metallic Coating for Pressed Steel or Cast Iron: Not less than 1.2 oz. /sq. ft. zinc.

- a. Polymer coating over metallic coating.

Construction Methods:

Examine areas and conditions, with Installer present, for compliance with requirements for a verified survey of property lines and legal boundaries, site clearing, earthwork, pavement work, and other conditions affecting performance of the Work. Do not begin installation before final grading is completed unless otherwise permitted by the Engineer. Proceed with installation only after unsatisfactory conditions have been corrected.

Stake locations of fence lines, gates, and terminal posts. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments. Install chain-link fencing to comply with ASTM F 567 and more stringent requirements indicated.

Post Excavation: Drill or hand-excavate holes for posts to diameters and spacings indicated, in firm, undisturbed soil.

Post Setting: Set posts in concrete at indicated spacing into firm, undisturbed soil.

1. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting with concrete or mechanical devices.

2. Concrete Fill: Place concrete around posts to dimensions indicated and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.

3. Concealed Concrete: Top 2 inches below grade as indicated on Drawings to allow covering with surface material.

Terminal Posts: Locate terminal end, corner, and gate posts per ASTM F 567 and terminal pull posts at changes in horizontal or vertical alignment of 30 degrees or more as indicated on Drawings.

Line Posts: Space line posts uniformly at 10 feet o.c.

Post Bracing and Intermediate Rails: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Diagonally brace terminal posts to adjacent line posts with truss rods and turnbuckles. Install braces at end and gate posts and at both sides of corner and pull posts.

Locate horizontal braces at midheight of fabric 6' or higher, on fences with top rail and at two-third fabric height on fences without top rail. Install so posts are plumb when diagonal rod is under proper tension.

Tension Wire: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Pull wire taut, without sags. Fasten fabric to tension wire with 0.120-inch-diameter hog rings of same material and finish as fabric wire, spaced a maximum of 24 inches o.c. Install tension wire in locations indicated before stretching fabric. Provide horizontal tension wire at the following locations as indicated.

Top Rail: Install according to ASTM F 567, maintaining plumb position and alignment of fencing. Run rail continuously through line post caps, bending to radius for curved runs and terminating into rail end attached to posts or post caps fabricated to receive rail at terminal posts. Provide expansion couplings as recommended in writing by fencing manufacturer.

Intermediate and Bottom Rails: Install and secure to posts with fittings.

Chain-Link Fabric: Apply fabric to inside of enclosing framework. Leave 3 inches between finish grade or surface and bottom selvage unless otherwise indicated. Pull fabric taut and tie to posts, rails, and tension wires. Anchor to framework so fabric remains under tension after pulling force is released.

Tension or Stretcher Bars: Thread through fabric and secure to end, corner, pull, and gate posts with tension bands spaced not more than 15 inches o.c.

Tie Wires: Use wire of proper length to firmly secure fabric to line posts and rails. Attach wire at one end to chain-link fabric, wrap wire around post a minimum of 180 degrees, and attach other end to chain-link fabric per ASTM F 626. Bend ends of wire to minimize hazard to individuals and clothing.

Maximum Spacing: Tie fabric to line posts at 12 inches o.c. and to braces at 24 inches o.c.

Fasteners: Install nuts for tension bands and carriage bolts on the side of the fence opposite the fabric side.

GATE INSTALLATION

Install gates according to manufacturer's written instructions, level, plumb, and secure for full opening without interference. Attach fabric as for fencing. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.

Adjust gates to operate smoothly, easily, and quietly, free of binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.

Lubricate hardware and other moving parts.

Method of Measurement:

8' Polyvinyl Chloride Chain Link Fence will be measured by the actual number of linear feet of completed and accepted fence.

Double Leaf Chain Link Fence Swing Gate will be measured as a unit for each double leaf gate installed and accepted.

Single Leaf Chain Link Fence Swing Gate will be measured as a unit for each single leaf gate installed and accepted.

Basis of Payment:

Work completed under the item 8' Polyvinyl Chloride Chain Link Fence shall be measured and paid for at the contact unit price per linear foot of "8' Polyvinyl Chloride Chain Link Fence" as listed in the bid proposal, which price shall include all materials, equipment, tools, labor, and work incidental thereto.

Work completed under the item Double Leaf Chain Link Fence Swing Gate shall be measured and paid for at the contact unit price per each "Double Leaf Chain Link Fence Swing Gate" as listed in the bid proposal, which price shall include all materials, equipment, tools, labor, and work incidental thereto.

Work completed under the item Single Leaf Chain Link Fence Swing Gate shall be measured and paid for at the contact unit price per each "Single Leaf Chain Link Fence Swing Gate" as listed in the bid proposal, which price shall include all materials, equipment, tools, labor, and work incidental thereto.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0913043A	8' POLYVINYL CHLORIDE CHAIN LINK FENCE	L.F.
0913331A	DOUBLE LEAF CHAIN LINK FENCE SWING GATE	EA.
0913332A	SINGLE LEAF CHAIN LINK FENCE SWING GATE	EA.

ITEM # 0913606A 8' CHAIN LINK FENCE WIND SCREEN

Description:

The work under this item shall consist of furnishing and installing an 8' chain link fence wind screen attached to a portion of the outside perimeter of the pickleball court chain link fence to the dimensions and location as shown on the plans and as directed by the Engineer.

Materials:

8' Chain Link Fence Wind Screen: FenceScreen Commercial Block- 750 Series or approved equal

Material: Commercial grade, Closed Woven Polypropylene with no fillers. 2" Polypropylene webbing for edge reinforcement. Brass grommets at every 24", plus triple grommet corners.

Blockage: 95% Privacy and the highest level of UV inhibitors

UV: Moderate UV Inhibitors

GSM: 400- GSM

Life Expectance: 8-10 year outdoor

Color: Black

Construction Methods:

Contractor to install 8' Chain link Fence Wind Screen per the manufacture's installation specifications

Method of Measurement:

8' Chain Link Fence Wind Screen will be measured by the actual number of square feet of completed and accepted 8' Chain Link Fence Wind Screen.

Basis of Payment:

Work completed under this item shall be measured and paid for at the contact unit price per square foot of "8' Chain Link Fence Wind Screen" as listed in the bid proposal, which price shall include all materials, equipment, tools, labor, and work incidental thereto.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0913606A	8' CHAIN LINK FENCE WIND SCREEN	S.F.

ITEM # 0921040A STONE DUST SURFACE

Description:

The work under this item shall consist of furnishing, placing, shaping, and compacting a 2" thick layer of stone dust surface treatment placed on an 8" thick layer of processed stone base along the outside perimeter of the pickleball court and within the proposed stone dust surface area for future bench locations to the dimensions, lines, grades, and depth as shown on the plans and as directed by the Engineer.

Work related to excavation and installation of processed stone base shall be performed, measured and paid for as described under the project specifications for those items.

Materials:

Stone Dust: shall be native blue-grey crushed trap rock conforming to Form 818, Article M.01.03-Fine Aggregates, Table M.01.03-2 Gradation: "dust".

Processed Stone Base: The material for this item shall be **crushed trap rock** conforming to the requirements of Article M.05.01 Processed Aggregate Base and Pavement of the Form 818, except that coarse aggregate shall be broken stone, and fine aggregate shall be stone sand, screenings, or a combination thereof. Gravel or reclaimed miscellaneous aggregate shall not be used.

Construction Methods:

Contractor is required to excavate, remove and dispose of all material to the elevation of subgrade. Verify that the subgrade is true to line and grade, and compacted to the required density. Subgrade surface shall be smooth and free of irregularities, depressions, or unsuitable material.

Contractor is required to furnish and install 8" thick layer of processed stone base uniformly graded and compacted to the dimensions, lines, grades, and depth as shown on the plans and as directed by the Engineer.

Spread and compact 2" depth of stone dust to achieve the depth as detailed after final compaction. The material shall be wetted and rolled to a firm, even surface, level with the adjacent bituminous pavement.

Provide additional material, recompact, and sprinkle with water on subsequent days as necessary to thoroughly bond the surface.

Maintain proper drainage to prevent washouts and flooding throughout construction and warranty period of the project. Protect from damage and make repairs as required.

Method of Measurement:

Stone Dust Surface will be measured by the actual number of square feet of completed and accepted Stone Dust Surface.

Earth Excavation and Processed Stone Base will be measured and paid for under the appropriate related contract items.

Basis of Payment:

Work completed under this item shall be measured and paid for at the contact unit price per square foot of "Stone Dust Surface" as listed in the bid proposal, which price shall include furnishing and placing stone dust surface, all materials, equipment, tools, labor, and work incidental thereto.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0921040A	STONE DUST SURFACE	S.F.

ITEM # 0944000A FURNISHING AND PLACING TOPSOIL

Description:

This work shall consist of furnishing, placing, and shaping topsoil in areas shown on the plans where directed by the Engineer. The topsoil shall be placed to the depth stated in the Contract or specifications.

Material:

Topsoil shall conform to the requirements of Article M.13.01.1 of the Form 818.

Construction Methods:

Topsoil shall be placed in all other disturbed areas designated for turf establishment as shown on the plans.

The areas on which topsoil is to be placed shall be graded to a reasonably true surface and cleaned of all stones, brickbats, and other unsuitable materials. After areas have been brought to proper subgrade and approved by the Engineer or his agent, loam shall be spread to a depth as indicated in the Contract, or to a depth of no less than four inches, with due allowance made for settlement. All stones, roots, debris, sod, weeds, and other undesirable material shall be removed from the topsoil. After shaping and grading, all trucks and other equipment shall be excluded from the topsoiled area to prevent excessive compaction. The Contractor shall perform such work as required to provide a friable surface for seed germination and plant growth prior to seeding.

During hauling and spreading operations, the Contractor shall immediately remove any material dumped or spilled on the shoulders or pavement.

It shall be the Contractor's responsibility to restore to line, grade, and surface all eroded areas with approved material and to keep topsoiled areas in acceptable condition until the completion of the construction work.

Method of Measurement:

Furnishing and Placing Topsoil will be measured by the actual number of square feet of completed and accepted Furnishing and Placing Topsoil.

The limits of payment shall be to the slope limits as shown on the plans.

No payment shall be made outside of these limits unless the disturbance was directed or approved by the Engineer. No payment shall be made for areas disturbed for staging, storage of materials, or other area disturbed for the convenience of the Contractor.

Basis of Payment:

This work will be paid for at the contract unit price per square yard for "Furnishing and Placing Topsoil" as listed in the Bid Proposal which price shall include all materials, equipment, tools, labor, and work incidental thereto. This price shall include all stripping, stockpiling, screening, hauling, re-handling, raking, and other processing of topsoil from off-site or on-site sources and all materials, equipment, tools, and labor incidental thereto.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0944000A	FURNISHING AND PLACING OF TOPSOIL	S.Y.

ITEM # 0950005A TURF ESTABLISHMENT

ITEM # 0950017A TURF ESTABLISHMENT-WETLAND WILDFLOWER MIX

Description:

The work included in this item shall consist of providing an accepted uniform stand of established perennial turf grasses or wetland vegetation by furnishing and placing fertilizer, wetland wildflower mix, seed, and mulch on all areas to be treated as shown on the plans or where designated by the Engineer.

Materials:

The materials for this work shall conform to the requirements of Section M.13 of the Form 818, except as noted below.

Seed mix for residential lawn areas shall consist of 30% Crest Kentucky Bluegrass, 30% Baron Kentucky Bluegrass, 20% Victory II Chewings Fescue, and 20% Perennial Rye Grass.

Seed mix for other roadside areas designated for turf establishment shall consist of 70% Red Fescue, 20% Kentucky Blue Grass, and 10% Perennial Rye Grass.

Wetland Wildflower Mix for Water Quality Basin area shall be "New England Wildflower Mix" as listed within New England Wetland Plants, Inc.'s catalog or approved equal.

Material certificates shall be provided for all materials supplied under this item.

Construction Methods:

Construction Methods shall be those established as agronomically acceptable and feasible and which are approved by the Engineer.

1. Preparation of the Seedbed:

(a) Level areas, medians, interchanges and lawns: These areas shall be made friable and receptive for seeding by disking or by other approved methods to the satisfaction of the Engineer. In all cases the final prepared and seeded soil surface shall meet the lines and grades for such surface as shown in the plans, or as directed by the Engineer.

(b) Slope and Embankment Areas: These areas shall be made friable and receptive to seeding by approved methods which will not disrupt the line and grade of the slope surface. In no event will seeding be permitted on hard or crusted soil surface.

(c) All areas to be seeded shall be reasonably free from weeds taller than 3 inches. Removal of weed growth from the slope areas shall be by approved methods, including hand-mowing, which do not rut or scar the slope surface, or cause excessive disruption of the slope line or grade. Seeding on level areas shall not be permitted until substantially all weed growth is removed. Seeding on slope areas shall not be permitted without removal or cutting of weed growth except by written permission of the Engineer.

2. Seeding Season: The calendar dates for seeding shall be:

Spring—March 15 to June 15

Fall—August 15 to October 15

All disturbed soil areas shall be treated during the seeding seasons as follows:

(a) Areas at final grade: Seeding will be accomplished.

(b) "Out-of-season" seedings shall be performed in the same manner as "in-season" seedings. Since acceptable turf establishment is less likely, the Contractor shall be responsible for "in-season" reseeding until the turf stand conforms to this specification.

(c) During "out-of-season" periods unseeded areas shall be treated in accordance with Section 2.10, Water Pollution Control.

3. Seeding Methods:

The seed mixture shall be applied by any agronomically acceptable procedure. The rate of application shall be no less than 175 pounds per acre or according to manufacturer instructions. Fertilizer conforming to M.13.03 shall be initially applied at a rate of 320 pounds per acre during or preceding seeding. When wood fiber mulch is used, it shall be applied in a water slurry at a rate of 2,000 pounds per acre with or immediately after the application of seed, fertilizer and limestone.

When the grass seeding growth has attained a height of 6 inches, the areas of Turf Establishment designated herein shall be mowed to a height of 3 inches. Following mowing, all seeding grass areas (mowed and un-mowed) shall receive a uniform application of fertilizer hydraulically placed at the rate of 320 pounds per acre. Areas of Wetland Seeding shall not be mowed.

4. Compaction:

The Contractor shall keep all equipment and vehicular and pedestrian traffic off areas that have been seeded to prevent excessive compaction and damage to young plants. Where such compaction has occurred, the Contractor shall rework the soil to make a suitable seedbed; then re-seed and mulch such areas with the full amounts of the specified materials, at no extra expense to the Town.

5. Stand of Perennial Turf Grasses:

The Contractor shall provide and maintain a uniform stand of established turf grass or wetland vegetation having attained a height of 6 inches consisting of no less than 100 plants per square foot throughout the seeded areas until the entire project has been accepted.

6. Establishment:

The Contractor shall keep all seeded areas free from weeds and debris, such as stones, cables, baling wire, and he shall mow at his own expense, on a one-time-only basis, all turf established slopes of 4:1 or flatter and level turf established (seeded) areas to a height of 3 inches when the grass growth attains a height of 6 inches. Wetland Seeding areas shall not be mowed. Clean-up shall include, but not be limited to, the removal of all debris from the turf establishment and wetland seeding operations on the shoulders, pavement, and/or elsewhere on adjacent properties publicly and privately owned.

Method of Measurement:

This work will be measured for payment by the number of square yards of surface area of accepted established perennial turf grass or wetland wildflower mix as specified or by the number of square yards surface area of seeding actually covered and as specified.

Restoration of areas disturbed for staging, storage of materials, or other area disturbed for the convenience of the Contractor will not be measured for payment.

Basis of Payment:

This work will be paid for at the contract unit price per square yard for "Turf Establishment" or "Turf Establishment- Wetland Wildflower Mix" as listed in the Bid Proposal, which price shall include all materials, mowing, maintenance, equipment, tools, labor, and work incidental thereto. Partial payment of up to 60% may be made for work completed, but not accepted.

**RIVERFRONT COMMUNITY CENTER PICKLEBALL COURTS
SPECIAL PROVISIONS**

BID #GL-2023-17

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
0950005A	TURF ESTABLISHMENT	S.Y.
0950017A	TURF ESTABLISHMENT-WETLAND WILDFLOWER MIX	S.Y.

ITEM # 1002010A LIGHT POLE BASE

Description:

This item shall consist of furnishing and installing a light standard foundation (light pole base) of the type called for at the location and to the dimensions and details shown on the plans or as directed by the Engineer. Rock, in so far as it applies to "Rock in Foundation Excavation," shall be defined as rock in definite ledge formation, boulders, or portions of boulders, cement masonry structures, concrete structures or Portland cement concrete pavement which has a cross-sectional area that exceeds 50% of the cross-sectional area of the designed foundation hole.

Materials:

Light pole base shall be 30" x 30" x 60" square precast reinforced. Reinforcing shall be 8- #6 bar vertical with #4 ties at 12" O.C. Concrete shall be minimum 3,000 psi with ¾" maximum aggregate. Provide galvanized steel anchor bolts as required to match pole base bolt pattern.

The materials for the work shall be as specified in the following sections of the Form 818:

M.02.01 for Granular Fill

M.03 for Class PCC03340 Concrete

M.04.01 for HMA S0.375 Bituminous Concrete

M.06.01 for Bar Reinforcement

M.08.02-4 for Precast Concrete

M.15.09 for Electrical Conduit

M.15.15-7 for Ground Rods

Construction Methods:

The Light Pole Base shall be constructed in accordance with the pertinent provisions of Form 818 Section 6.01.03. The finished elevation of the top of the foundation shall be as shown on the plans. The final elevation of the top of the light standard foundation shall be 1 1/2 inches above finished grade or as directed by the Engineer. The top of the foundation shall be level in all respects.

Necessary electrical conduit, anchor bolts, ground rod sleeves and ground rods shall be placed in proper position and shall be held in place by means of a template. The concrete may be placed against the sides of the excavation, however, the exposed portion of the foundations shall be formed to the neat lines as shown on the plans. When in the judgment of the Engineer, unusual soil conditions prevent excavation to neat lines as shown on the plans, the complete foundation shall be formed.

After the forms have been completely removed, the entire excavation shall be backfilled in accordance with Form 818 Section 2.14. All conduits shall be capped with standard pipe caps before placing the concrete and shall remain capped until the cable is installed. Electrical conduit of the size indicated shall extend 2 feet outside the foundation. All portions of the foundations which will remain exposed to view shall be finished to the satisfaction of the Engineer. Forms shall not be removed until after the concrete has hardened properly and not less than 24 hours after the concrete has been placed. The Contractor shall allow sufficient time for the foundation to cure before placing any strain on the foundation. Steel poles shall not be installed until a minimum of seven days after the concrete has been placed and a minimum of ten days before making span wire attachments thereto. Mast arm assemblies shall not be installed until 10 days after the concrete has been placed.

Method of Measurement:

Light Pole Base shall be measured for payment by the number of units installed and accepted. This measurement shall include the electrical conduit sweeps which shall extend 2 feet outside of the foundation.

The rock-in-foundation excavation, if encountered, will be measured and paid for as extra work.

Basis of Payment:

This work will be paid for at the Contract unit price each for "Light Pole Base" of the type called for, which price shall include all materials, equipment, forms, excavation, disposal of surplus material, concrete, electrical conduit sweeps, conduit caps, ground rod, sleeves, bonding bushings, anchor bolts, backfill, topsoil, grading, seeding, fertilizing, mulching, riprap, restoration of bituminous concrete sidewalk and pavement surfaces.

When rock is encountered within the limits of excavation, its removal will be paid for as extra work.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
1002010A	LIGHT POLE BASE	EA.

ITEM # 1401001A	PICKLEBALL COURT SURFACE TREATMENT
ITEM # 1401002A	PICKLEBALL COURT LINE MARKING
ITEM # 1401003A	PICKLEBALL NET POST
ITEM # 1401004A	PICKLEBALL NET

Description:

Work under this item shall consist of furnishing and installing a Plexipave® acrylic latex court surface treatment system or approved equal on a new post-tensioned concrete surface, furnishing and placing of Plexicolor® court line markings, furnishing and placing of court net posts and nets in the locations and to the lines and grades indicated on the plans or as directed by the Engineer.

Quality Assurance:

1. **Installer Qualifications:** Contractor shall be an experienced Installer(s) who has/have successfully completed similar court installations to that indicated for this Project and is a certified installer for the specific court surfacing product indicated or approved. Contractor shall provide the Engineer with a list of five (5) similar projects completed within the past 5 years including project description, location, and owner contact information for review and approval by the Engineer.
2. **Warranty:** Installer shall provide, protect and install furnishings in a manner which does not void any manufacturer's warranties.
 - A. The finished pickleball surface shall have a written warranty covering the labor and materials from the contractor and the manufacturer respectively. The surfacing contractor shall provide the Engineer with an "Authorized Applicators Certificate" from the manufacturer before the start of construction on the entire project.
3. All manufacturers shall have a minimum of 5 years' experience in producing site amenities.
4. Manufacturers shall submit a list of at least 5 sites where their product is located.
5. All metals and woods specified shall conform to standards defined by societies and associations normally associated with technical requirements of materials and their performance standards.
6. All products shall be free of cracks, and any other defect at the time of delivery. All units are to be placed in a storage area, protected from damage prior to and during transit to the Owner's or Contractor's site within the limits of the project area until which time the Contractor is ready to install the units.
7. In the event any of the site improvements or any component are deemed defective and unacceptable, the product(s) shall be replaced at no additional cost to the Owner.
8. The Contractor shall be, at a minimum, be responsible for all quality assurance/quality control of horizontal and vertical alignments (direction and grading) and provide all necessary requirements.
9. The Plexipave® System material requirements are the standard specification to which other surfaces must conform. Any products to be approved as an equal to the specified product must conform to the materials and application requirements of this specification. Any binders, to be considered equal, must have written confirmation by the manufacturer that they have been produced specifically for the use in court surface construction. For products other the Plexipave System, the contractor shall submit sufficient data, drawings, samples and literature to demonstrate to the owners satisfaction that the proposed substitution is of equal quality and utility to that originally specified. Information must include a QUV test of at least 1000 hours illustrating the UV stability of the system. The color system shall have an ITF pace rating in Category 2. Under no circumstances will systems from multiple manufacturers be considered.

Delivery, Storage and Handling:

1. Protect furnishings against soilage and damage during storage and construction by use of padding or barriers as required to maintain furnishings in undamaged condition.
2. Review finishes and structures of furnishings prior to, during and after installation for blemishes, defects or inconsistencies that may be subject to rejection by the Engineer. Remove from the site unsatisfactory furnishings and replace at no additional cost to the Owner.

Materials:

Pickleball Court Surface and Line Marking:

Concrete Preparer: Shall comply with Specification 10.13 of California Products Corporation or approved equal.

California Ti-Coat: Shall comply with Specification 10.17 of California Products Corporation or approved equal.

Plexipave Court Patch Binder: Shall comply with Specification 10.14 of California Products Corporation or approved equal.

Acrylic Resurfacer: Shall comply with Specification 10.8 of California Products Corporation or approved equal.

Plexipave Color Base: Shall conform to Specification 10.5 of California Products Corporation or approved equal.

Plexichrome: Shall conform to Specification 10.1 of California Products Corporation or approved equal.

Plexicolor Textured Line Paint: Shall conform to Specification 10.4 of California Products Corporation or approved equal.

Water: The water used in all mixtures shall be fresh and potable.

Colors: Finish color of the Plexipave System and Line Marking shall be stock colors as selected by the Owner. Three separate court surfaces colors will be required with unique colors to be selected for the play area, kitchen area, and out of bounds area as directed by the Owner.

Center Straps:

Provide standard permanent center strap anchors of 100% synthetic nylon webbing, complete with all hardware. MacGregor MTC Strap or approved equal. Center strap anchor with concrete footing shall be installed according to the construction details.

Pickleball Nets:

Nets: Shall be a tournament quality pickleball net for each pickleball court of the appropriate length to match court width. Nets shall be compatible with pickleball net posts and center strap.

1. Headbands shall be quadruple-stitched heavy-duty two-ply polyester web; 34 oz. minimum
2. Cable: 3/16" steel cable vinyl-coated with 3,800 lb. test strength.
3. Net: 3.5mm braided black knotless nylon weather treated with Nyothene for ultra-violet moisture protection. Break strength over 300 lbs. Double rows of netting for the top 5 rows under the headband, along the entire length of the net.

4. Side and Bottom tapes of HD vinyl-coated nylon-locked stitched to body for durability.
5. Side pockets to be grommeted with dowels made of HD metal or fiberglass for even tension.
6. Net shall include a center strap anchor with concrete footing as shown in the construction details.

Pickleball Net Posts:

1. Contractor shall provide and install two (2) Edwards 3" Classic Round Pickleball net posts, or approved equal, for each of the pickleball courts.
2. Net posts must be installed in ground sleeves.
3. Net posts must be polyester powder coated. **Color: Black**

Construction Methods:

General:

1. Execution and installation shall meet or exceed the minimum requirements as depicted on the Contract Documents and must meet or exceed all installation requirements as outlined by the manufacturer.
2. The Contractor shall be, at a minimum, responsible for all quality assurance/quality control of horizontal and vertical alignments (direction and grading) and provide all necessary requirements.
3. Allow new asphalt to cure a minimum of 14 days.
4. Pressure clean the entire surface. Power blowers should be used to remove dust and debris. Pressure washing may be needed to remove stains. Pressure should be less than 2,500 lbs./in².

Pickleball Court Surface:

1. Surface Preparation:

- A. Concrete shall have a wood float or medium broom finish. **DO NOT PROVIDE STEEL-TROWEL FINISH. DO NOT ALLOW ANY CURING AGENTS OR HARDENERS TO BE USED.** Concrete must cure for a minimum of 28 days. Thoroughly remove all dirt, dust, mud, oil, and all foreign matter. Flood the surface, locate and mark all depressions greater than the thickness of a nickel.

2. Concrete Preparer:

- A. Concrete surface must be etched with Concrete Preparer solution. After drying, all latent material must be removed from the surface.

3. Depressions:

- A. After the surface has dried, fill marked depressions with Court Patch Binder according to specifications using the following mix:

100lbs. 60-80 mesh silica sand (dry)
3 gallons Plexipave Court Patch Binder
1 or 2 gallons Portland Cement, Type I (20lbs. min.)

4. Tack Coat:

- A. A tack coat is necessary under patches only and shall be mixed as follows:

Plexipave Court Patch Binder diluted 1 part Court Patch Binder to 2 parts water and allow to thoroughly dry prior to patching. After patching the surface shall not vary more than 1/8" in ten feet measured in any direction.

5. Primer Coat:

- A. Mix and apply California Ti-Coat epoxy primer according to Specification 10.17. Use only on uncoated surfaces.

NOTE: Plexibond may be used as an alternate for priming concrete courts. Consult manufacturer before mixing.

6. Acrylic Filler Coat:

- A. A coat of Acrylic Resurfacer shall be applied within 1 to 3 hours of application of Ti-Coat while tacky to fingertip touch.

Acrylic Resurfacer- 55 gallons
Sand (60-80 mesh)- 600-900 lbs.
Water- 20-40 gallons
Liquid Yield = 112 – 138 gallons

7. Plexipave Color Base and Plexichrome:

- A. Plexipave Acrylic textured coats shall be applied on the clean, dry underlying surface in 3 applications to obtain a total quantity of not less than .15 nor more than .23 gallons per sq. yd. of area, based on the material prior to dilution. No application shall be covered by a succeeding application until thoroughly dried.

- B. Dilution with Plexichrome and water to obtain proper application consistency will be as follows:

1. Plexipave Color Base	30 Gallons
2. Plexichrome	20 Gallons
3. Water (clean & potable)	20 Gallons

(NOTE: Other mix ratios may be used after consulting the manufacturer.)

The diluted material shall be homogenous. Segregation before and during application shall not be permitted. The finished surface shall have a uniform appearance and shall be free from ridges and tool marks.

8. Playing Lines:

- A. Four hours minimum after completion of the color resurfacing, 2" inch wide playing lines shall be accurately located, marked, and painted with Plexicolor Line Paint as specified and per the guidelines published by the U.S. Pickleball Association. For cleaner, sharper line markings, it is recommended that the masking tape be sealed with either Line Rite or undiluted Plexichrome Ultra Performance, prior to application of the Line Paint.

9. Limitations:

- A. No parts of the construction involving the Plexipave System shall be conducted during rainfall or when rainfall is imminent. The air temperature must be at least 50 degrees F and rising. Do not apply system when surface temperature is above 140 degrees F.

- B. Allow finished surface to cure a minimum of 24 hours before opening surface for use.

Pickleball Court Nets and Posts:

- A. Provide net and net posts to owner with manufacturer's warranty information.
- B. Net posts and net center strap anchor sleeves shall be installed in footing prior to installation of the post tension concrete tenons and prior to placement of the concrete slab.

Clean Up and Maintenance:

- A. Upon completion of all work, the Contractor shall remove all containers, surplus materials, and debris; the site will be left in a clean orderly manner acceptable to the Engineer and Owner.
- B. The Contractor shall provide the Owner written maintenance requirements and review those requirements with the Owner at the completion of the project.

Method of Measurement:

"Pickleball Court Surface Treatment" will be measured by the actual number of square feet of completed and accepted pickleball court surface treatment.

"Pickleball Court Line Marking" will be measured by the number of courts for each complete court where all required lining and marking has been completed and accepted.

"Pickleball Net Post" will be measured by the actual number of each completed and accepted pickleball net posts installed. Installation of the net post anchors with foundations will not be measured for payment, rather this work shall be included in the contract unit price for "Pickleball Net Post".

"Pickleball Net" will be measured by the actual number of each completed and accepted pickleball net installed. Installation of the center strap and center strap anchors with foundations will not be measured for payment, rather this work shall be included in the contract unit price for "Pickleball Net".

Basis of Payment:

"Pickleball Court Surface Treatment" will be paid for at the contract unit price per square feet of Pickleball Court Surface Treatment, complete in place and accepted, which price shall include all required surface preparation, tack coat, primer coat, furnishing and installing court surface treatment system, disposal of surplus material, all equipment, tools, labor and materials incidental thereto.

"Pickleball Court Line Marking" will be paid for at the contract unit price per each court of Pickleball Court Line Marking, complete in place and accepted, which price shall include all required surface preparation, disposal of surplus material, all equipment, tools, labor and materials incidental thereto.

"Pickleball Net Post" will be paid for at the contract unit price per each Pickleball Net Post installed, complete in place and accepted, which price shall include furnishing and installing net post anchor sleeves and foundations, furnishing and installing net posts, disposal of surplus material, all equipment, tools, labor and materials incidental thereto.

"Pickleball Net" will be paid for at the contract unit price per each Pickleball Net installed, complete in place and accepted, which price shall include furnishing and installing nets, center strap and center strap anchors with foundations, disposal of surplus material, all equipment, tools, labor and materials incidental thereto.

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
1401001A	PICKLEBALL COURT SURFACE TREATMENT	S.F.
1401002A	PICKLEBALL COURT LINE MARKING	EA.
1401003A	PICKLEBALL NET POST	EA.
1401004A	PICKLEBALL NET	EA.

**ATTACHMENT A:
PREVAILING WAGE RATES**

4d) Painters: Blast and Spray	40.22	23.40
4e) Painters: Tanks, Tower and Swing	39.22	23.40
4f) Elevated Tanks (60 feet and above)	46.22	23.40
5) Electrician (Trade License required: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	41.75	31.47+3% of gross wage
6) Ironworkers: Ornamental, Reinforcing, Structural, and Precast Concrete Erection	39.7	38.77 + a
7) Plumbers (Trade License required: (P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2) and Pipefitters (Including HVAC Work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4 G-1, G-2, G-8, G-9)	47.03	34.05
----LABORERS-----		
8) Group 1: Laborer (Unskilled), Common or General, acetylene burner, concrete specialist	32.0	24.40
9) Group 2: Chain saw operators, fence and guard rail erectors, pneumatic tool operators, powdermen	32.25	24.40
10) Group 3: Pipelayers	32.5	24.40
11) Group 4: Jackhammer/Pavement breaker (handheld); mason tenders (cement/concrete), catch basin builders, asphalt rakers, air track operators, block paver, curb setter and forklift operators	32.5	24.40
12) Group 5: Toxic waste removal (non-mechanical systems)	34.0	24.40
13) Group 6: Blasters	33.75	24.40

Group 7: Asbestos/lead removal, non-mechanical systems (does not include leaded joint pipe)	33.0	24.40
Group 8: Traffic control signalmen	18.0	24.40
Group 9: Hydraulic Drills	32.75	24.40
----LABORERS (TUNNEL CONSTRUCTION, FREE AIR). Shield Drive and Liner Plate Tunnels in Free Air.----		
13a) Miners, Motormen, Mucking Machine Operators, Nozzle Men, Grout Men, Shaft & Tunnel Steel & Rodmen, Shield & Erector, Arm Operator, Cable Tenders	34.23	24.40 + a
13b) Brakemen, Trackmen, Miners' Helpers and all other men	33.26	24.40 + a
----CLEANING, CONCRETE AND CAULKING TUNNEL----		
14) Concrete Workers, Form Movers, and Strippers	33.26	24.40 + a
15) Form Erectors	33.59	24.40 + a
----ROCK SHAFT LINING, CONCRETE, LINING OF SAME AND TUNNEL IN FREE AIR:----		
16) Brakemen, Trackmen, Tunnel Laborers, Shaft Laborers, Miners Helpers	33.26	24.40 + a
17) Laborers Topside, Cage Tenders, Bellman	33.15	24.40 + a
18) Miners	34.23	24.40 + a
----TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED AIR: ----		

18a) Blaster	40.72	24.40 + a
19) Brakemen, Trackmen, Groutman, Laborers, Outside Lock Tender, Gauge Tenders	40.52	24.40 + a
20) Change House Attendants, Powder Watchmen, Top on Iron Bolts	38.54	24.40 + a
21) Mucking Machine Operator, Grout Boss, Track Boss	41.31	24.40 + a
----TRUCK DRIVERS----(*see note below)		
Two Axle Trucks, Helpers	31.16	28.78 + a
Three Axle Trucks; Two Axle Ready Mix	31.27	28.78 + a
Three Axle Ready Mix	31.33	28.78 + a
Four Axle Trucks	31.39	28.78 + a
Four Axle Ready-Mix	31.44	28.78 + a
Heavy Duty Trailer (40 tons and over)	33.66	28.78 + a
Specialized earth moving equipment other than conventional type on-the road trucks and semi-trailer (including Euclids)	31.44	28.78 + a
Heavy Duty Trailer (up to 40 tons)	32.39	28.78 + a
Snorkle Truck	31.54	28.78 + a
----POWER EQUIPMENT OPERATORS----		

Group 1: Crane Handling or Erecting Structural Steel or Stone, Hoisting Engineer (2 drums or over). (Trade License Required)	50.27	26.80 + a
Group 1a: Front End Loader (7 cubic yards or over); Work Boat 26 ft. and over.	46.07	26.80 + a
Group 2: Cranes (100 ton rate capacity and over); Bauer Drill/Caisson. (Trade License Required)	49.91	26.80 + a
Group 2a: Cranes (under 100 ton rated capacity).	49.06	26.80 + a
Group 2b: Excavator over 2 cubic yards; Pile Driver (\$3.00 premium when operator controls hammer).	45.71	26.80 + a
Group 3: Excavator; Gradall; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar); Grader Operator; Bulldozer Fine Grade (slopes, shaping, laser or GPS, etc.). (Trade License Required)	44.86	26.80 + a
Group 4: Trenching Machines; Lighter Derrick; CMI Machine or Similar; Koehring Loader (Skooper).	44.42	26.80 + a
Group 5: Specialty Railroad Equipment; Asphalt Paver; Asphalt Spreader; Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24" mandrel)	43.73	26.80 + a
Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	43.73	26.80 + a
Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	43.38	26.80 + a
Group 7: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and under Mandrel)	42.99	26.80 + a

Group 8: Mechanic, Grease Truck Operator, Hydroblaster, Barrier Mover, Power Stone Spreader; Welder; Work Boat under 26 ft.; Transfer Machine.	42.54	26.80 + a
Group 9: Front End Loader (under 3 cubic yards), Skid Steer Loader regardless of attachments (Bobcat or Similar); Fork Lift, Power Chipper; Landscape Equipment (including hydroseeder), Vacuum Excavation Truck and Hydrovac Excavation Truck (27 HG pressure or greater).	42.04	26.80 + a
Group 10: Vibratory Hammer, Ice Machine, Diesel and Air Hammer, etc.	39.7	26.80 + a
Group 11: Conveyor, Earth Roller; Power Pavement Breaker (whiphammer), Robot Demolition Equipment.	39.7	26.80 + a
Group 12: Wellpoint Operator.	39.63	26.80 + a
Group 13: Compressor Battery Operator.	38.97	26.80 + a
Group 14: Elevator Operator; Tow Motor Operator (Solid Tire No Rough Terrain).	37.66	26.80 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	37.2	26.80 + a
Group 16: Maintenance Engineer.	36.46	26.80 + a
Group 17: Portable Asphalt Plant Operator; Portable Crusher Plant Operator; Portable Concrete Plant Operator., Portable Grout Plant Operator, Portable Water Filtration Plant Operator.	41.39	26.80 + a
Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (minimum for any job requiring CDL license).	38.61	26.80 + a

**NOTE: SEE BELOW

----LINE CONSTRUCTION----(Railroad Construction and Maintenance)----

20) Lineman, Cable Splicer, Technician	48.19	6.5% + 22.00
21) Heavy Equipment Operator	42.26	6.5% + 19.88
22) Equipment Operator, Tractor Trailer Driver, Material Men	40.96	6.5% + 19.21
23) Driver Groundmen	26.5	6.5% + 9.00
23a) Truck Driver	40.96	6.5% + 17.76

----LINE CONSTRUCTION----

24) Driver Groundmen	30.92	6.5% + 9.70
25) Groundmen	22.67	6.5% + 6.20
26) Heavy Equipment Operators	37.1	6.5% + 10.70
27) Linemen, Cable Splicers, Dynamite Men	41.22	6.5% + 12.20
28) Material Men, Tractor Trailer Drivers, Equipment Operators	35.04	6.5% + 10.45

Welders: Rate for craft to which welding is incidental.

**Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers.*

***Note: Hazardous waste premium \$3.00 per hour over classified rate*

- Crane with 150 ft. boom (including jib) - \$1.50 extra
- Crane with 200 ft. boom (including jib) - \$2.50 extra
- Crane with 250 ft. boom (including jib) - \$5.00 extra
- Crane with 300 ft. boom (including jib) - \$7.00 extra
- Crane with 400 ft. boom (including jib) - \$10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyman instructing and supervising the work of each apprentice in a specific trade.

--Connecticut General Statute Section 31-55a: Annual Adjustments to wage rates by contractors doing state work
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The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.

Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.

It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.

The annual adjustments will be posted on the Department of Labor's Web page:

www.ct.gov/dol. For those without internet access, please contact the division listed below.

The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.

All subsequent annual adjustments will be posted on our Web Site for contractor access.

Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

~~Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

As of: July 12, 2022

Important Information:

For use with Building, Heavy/Highway, and Residential

Welders: Rate for craft to which welding is incidental.

*Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers.

**Note: Hazardous waste premium \$3.00 per hour over classified rate.

ALL Cranes: When crane operator is operating equipment that requires a fully licensed crane operator to operate he receives an extra \$4.00 premium in addition to the hourly wage rate and benefit contributions:

- 1) Crane handling or erecting structural steel or stone; holsting engineer (2 drums or over)
- 2) Cranes (100 ton rate capacity and over) Bauer Drill/Caisson
- 3) Cranes (under 100 ton rated capacity)

Crane with boom including jib, 150 feet - \$1.50 extra.

Crane with boom including jib, 200 feet - \$2.50 extra.

Crane with boom including jib, 250 feet - \$5.00 extra.

Crane with boom including jib, 300 feet - \$7.00 extra.

Crane with boom including jib, 400 feet - \$10.00 extra.

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

- Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyman instructing and supervising the work of one apprentice in a specific trade.

Connecticut General Statute Section 31-55a: Annual Adjustments to wage rates by contractors doing state work

- The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.
- Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.
- The annual adjustments will be posted on the Department of Labor's Web page: www.ctdol.state.ct.us.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.
- All subsequent annual adjustments will be posted on our Web Site for contractor access.

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage.

- All Persons who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.
- All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)
- Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).


Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

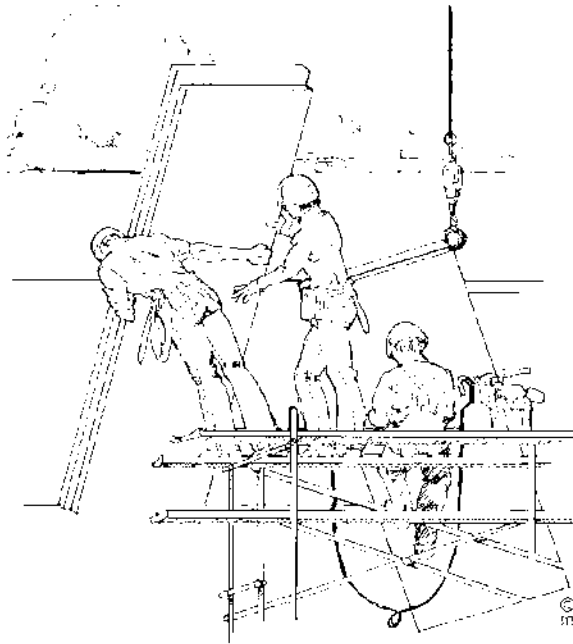
~NOTICE~

TO ALL CONTRACTING AGENCIES

Please be advised that Connecticut General Statutes Section 31-53, requires the contracting agency to certify to the Department of Labor, the total dollar amount of work to be done in connection with such public works project, regardless of whether such project consists of one or more contracts.

Please find the attached “Contracting Agency Certification Form” to be completed and returned to the Department of Labor, Wage and Workplace Standards Division, Public Contract Compliance Unit.

 Inquiries can be directed to (860)263-6543.



CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION
CONTRACT COMPLIANCE UNIT

CONTRACTING AGENCY CERTIFICATION FORM

I, _____, acting in my official capacity as _____,
authorized representative title

for _____, located at _____,
contracting agency address

do hereby certify that the total dollar amount of work to be done in connection with
_____, located at _____,
project name and number address

shall be \$_____, which includes all work, regardless of whether such project
consists of one or more contracts.

CONTRACTOR INFORMATION

Name: _____

Address: _____

Authorized Representative: _____

Approximate Starting Date: _____

Approximate Completion Date: _____

Signature

Date

Return To: Connecticut Department of Labor
Wage & Workplace Standards Division
Contract Compliance Unit
200 Folly Brook Blvd.
Wethersfield, CT 06109

Date Issued: _____

CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM
Construction Manager at Risk/General Contractor/Prime Contractor

I, _____ of _____
Officer, Owner, Authorized Rep. Company Name

do hereby certify that the _____
Company Name

Street

City

and all of its subcontractors will pay all workers on the

Project Name and Number

Street and City

the wages as listed in the schedule of prevailing rates required for such project (a copy of which is attached hereto).

Signed

Subscribed and sworn to before me this _____ day of _____, _____.

Notary Public

Return to:

Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

Rate Schedule Issued (Date): _____

Informational Bulletin

THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE

(applicable to public building contracts entered into *on or after July 1, 2007*, where the total cost of all work to be performed is at least \$100,000)

- (1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);
- (2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;
- (3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least \$100,000;
- (4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;
- (5) The internet website for the federal OSHA Training Institute is http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html;
- (6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;
- (7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;
- (8) Proof of completion may be demonstrated through either: (a) the presentation of a *bona fide* student course completion card issued by the federal OSHA Training Institute; *or* (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;
- (9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;

- (10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;
- (11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;
- (12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;
- (13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;
- (14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and
- (15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.
- (16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of <http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm>; or by telephone at (860)263-6790.

THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTIMATELY ARISE CONCERNING THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

November 29, 2006

Notice
To All Mason Contractors and Interested Parties
Regarding Construction Pursuant to Section 31-53 of the
Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute.

Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute.

The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- **Laborers (Group 4) Mason Tenders** - operates forklift solely to assist a mason to a maximum height of nine feet only.

- **Power Equipment Operator (Group 9)** - operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

[New] In accordance with Section 31-53b(a) of the C.G.S. each contractor shall provide a copy of the OSHA 10 Hour Construction Safety and Health Card for each employee, to be attached to the first certified payroll on the project.

In accordance with Connecticut General Statutes, 31-53 Certified Payrolls with a statement of compliance shall be submitted monthly to the contracting agency.											PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS										Connecticut Department of Labor Wage and Workplace Standards Division 200 Folly Brook Blvd. Wethersfield, CT 06109												
CONTRACTOR NAME AND ADDRESS:											SUBCONTRACTOR NAME & ADDRESS						WORKER'S COMPENSATION INSURANCE CARRIER																
PAYROLL NUMBER		Week-Ending Date		PROJECT NAME & ADDRESS							POLICY #																						
PERSON/WORKER, ADDRESS and SECTION		APPR RATE %	MALE/FEMALE AND RACE*	WORK CLASSIFICATION	DAY AND DATE						Total ST Hours	BASE HOURLY RATE	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS				GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY													
Trade License Type & Number - OSHA 10 Certification Number				S	M	T	W	TH	F	S	Total O/T Hours	TOTAL FRINGE BENEFIT PLAN CASH	1. \$	2. \$	3. \$	4. \$	5. \$	6. \$	FICA	FEDERAL WITH-HOLDING	STATE WITH-HOLDING	LIST OTHER	THIS PREVAILING RATE JOB	CHECK # AND NET PAY									
HOURS WORKED EACH DAY											Total O/T Hours	Base Rate	Cash Fringe	1. \$	2. \$	3. \$	4. \$	5. \$	6. \$														
												\$		1. \$	2. \$	3. \$	4. \$	5. \$	6. \$														
												\$		1. \$	2. \$	3. \$	4. \$	5. \$	6. \$														
												\$		1. \$	2. \$	3. \$	4. \$	5. \$	6. \$														
												\$		1. \$	2. \$	3. \$	4. \$	5. \$	6. \$														

12/9/2013 *IF REQUIRED
WWS-CPI

*SEE REVERSE SIDE

PAGE NUMBER ____ OF

***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker’s compensation, income taxes, etc.).

Please specify the type of benefits provided:

- 1) Medical or hospital care _____ 4) Disability _____
- 2) Pension or retirement _____ 5) Vacation, holiday _____
- 3) Life Insurance _____ 6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of _____,

I, _____ of _____, (hereafter known as Employer) in my capacity as _____ (title) do hereby certify and state:

Section A:

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:

- a) The records submitted are true and accurate;
- b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;
- c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);
- d) Each such person is covered by a worker’s compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;
- e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and
- f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

2. OSHA~The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such persons name first appears.

 (Signature) (Title) Submitted on (Date)

Sec. 31-53b. Construction safety and health course. New miner training program. Proof of completion required for mechanics, laborers and workers on public works projects. Enforcement. Regulations. Exceptions. (a) Each contract for a public works project entered into on or after July 1, 2009, by the state or any of its agents, or by any political subdivision of the state or any of its agents, described in subsection (g) of section 31-53, shall contain a provision requiring that each contractor furnish proof with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 48 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268.

(b) Any person required to complete a course or program under subsection (a) of this section who has not completed the course or program shall be subject to removal from the worksite if the person does not provide documentation of having completed such course or program by the fifteenth day after the date the person is found to be in noncompliance. The Labor Commissioner or said commissioner's designee shall enforce this section.

(c) Not later than January 1, 2009, the Labor Commissioner shall adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of subsections (a) and (b) of this section. Such regulations shall require that the ten-hour construction safety and health courses required under subsection (a) of this section be conducted in accordance with federal Occupational Safety and Health Administration Training Institute standards, or in accordance with Federal Mine Safety and Health Administration Standards or in accordance with 29 CFR 1910.268, as appropriate. The Labor Commissioner shall accept as sufficient proof of compliance with the provisions of subsection (a) or (b) of this section a student course completion card issued by the federal Occupational Safety and Health Administration Training Institute, or such other proof of compliance said commissioner deems appropriate, dated no earlier than five years before the commencement date of such public works project.

(d) This section shall not apply to employees of public service companies, as defined in section 16-1, or drivers of commercial motor vehicles driving the vehicle on the public works project and delivering or picking up cargo from public works projects provided they perform no labor relating to the project other than the loading and unloading of their cargo.

(P.A. 06-175, S. 1; P.A. 08-83, S. 1.)

History: P.A. 08-83 amended Subsec. (a) by making provisions applicable to public works project contracts entered into on or after July 1, 2009, replacing provision re total cost of work with reference to Sec. 31-53(g), requiring proof in certified payroll form that new mechanic, laborer or worker has completed a 10-hour or more construction safety course and adding provision re new miner training program, amended Subsec. (b) by substituting "person" for "employee" and adding "or program", amended Subsec. (c) by adding "or in accordance with Federal Mine Safety and Health Administration Standards" and setting new deadline of January 1, 2009, deleted former Subsec. (d) re "public building", added new Subsec. (d) re exemptions for public service company employees and delivery drivers who perform no labor other than delivery and made conforming and technical changes, effective January 1, 2009.

STATUTE 31-55a

- SPECIAL NOTICE -

To: All State and Political Subdivisions, Their Agents, and Contractors

Connecticut General Statute 31-55a - Annual adjustments to wage rates by contractors doing state work.

Each contractor that is awarded a contract on or after October 1, 2002, for (1) the construction of a state highway or bridge that falls under the provisions of section 31-54 of the general statutes, or (2) the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project that falls under the provisions of section 31-53 of the general statutes shall contact the Labor Commissioner on or before July first of each year, for the duration of such contract, to ascertain the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each mechanic, laborer or worker employed upon the work contracted to be done, and shall make any necessary adjustments to such prevailing rate of wages and such payment or contributions paid or payable on behalf of each such employee, effective each July first.

- The prevailing wage rates applicable to any contract or subcontract awarded on or after October 1, 2002 are subject to annual adjustments each July 1st for the duration of any project which was originally advertised for bids on or after October 1, 2002.
- Each contractor affected by the above requirement shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the **contractor's** responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's Web Site. The annual adjustments will be posted on the Department of Labor Web page: www.ctdol.state.ct.us. For those without internet access, please contact the division listed below.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project. All subsequent annual adjustments will be posted on our Web Site for contractor access.

Any questions should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Connecticut Department of Labor, 200 Folly Brook Blvd., Wethersfield, CT 06109 at (860)263-6790.

**ATTACHMENT B
ENVIRONMENTAL PERMITS**

July 6, 2021

MEMORANDUM

To: Lisa Zerio, Director of Parks & Recreation

From: Thomas Mocko, Environmental Planner

RE: Approved Wetlands Regulated Activity at 300 Welles Street

Dear Ms. Zerio:

Pursuant to Section 12 of Glastonbury's Inland Wetlands and Watercourses Regulations, you are hereby **approved to conduct your activities of constructing a pickleball court facility within the wetlands' uplands review area at 300 Welles Street, as represented by the plans date June 14, 2021** submitted to our office. This approval is contingent upon **your responsibility**:

1. **To publish this approval on the Town website or (one time) in a newspaper** that circulates in Glastonbury within 10 days of the date of this approval letter to you;
2. **to await a 15-day appeal period** (15 days from the date of website or newspaper publication) before beginning any work within the upland review area;
3. **to incorporate mitigation measures** that appear on the submitted site plan during construction; and
4. **to return to the CC/IWWA** with the details of any future plans to provide outdoor lighting of the courts for their review and approval.

Attached for your consideration and potential use is a draft public notice advertisement that needs to be published once by you in a newspaper that circulates in Glastonbury.

Please call (860) 652-7511 to advise us when the notice is to appear and in what newspaper, or if you have any questions.

Sincerely,



Tom Mocko
Environmental Planner

cc: Richard J. Johnson, Town Manager
Daniel Pennington, Town Engineer
Rebecca Augur, Director of Planning & Land Use Services

**PUBLIC NOTICE
TOWN OF GLASTONBURY, CT**

On July 6, 2021, the duly authorized agent of the Glastonbury Inland Wetlands & Watercourses Agency approved the construction of a pickleball court facility within the wetlands' uplands review area at 300 Welles Street (Riverfront Community Center).

Lisa Zerio, Director of Parks & Recreation



Town of Glastonbury

2155 MAIN STREET • P.O. BOX 6523 • GLASTONBURY, CONNECTICUT 06033-6523

TOWN PLAN AND
ZONING COMMISSION

SECTION 4.11 FLOOD ZONE SPECIAL PERMIT &
SECTION 12.9 MINOR CHANGE

APPLICANT/
OWNER: TOWN OF GLASTONBURY
POST OFFICE BOX 6523
GLASTONBURY, CT 06033

FOR: 300 WELLES STREET
PICKLEBALL COURTS

MOVED, that the Town Plan & Zoning Commission approve the application of the Town of Glastonbury for a Section 4.11 Flood Zone Special Permit and a Section 12.9 Minor Change regarding the installation of 4 pickleball courts, including a 64-foot x 136-foot bituminous concrete surface, associated grading & drainage improvements – 300 Welles Street – Flood Zone & Reserved Land, in accordance with the following plans:

“PLANS DEPICTING PICKLEBALL COURTS LOCATED AT RIVERFRONT COMMUNITY CENTER 300 WELLES STREET GLASTONBURY, CONNECTICUT SCALE: AS SHOWN DRAWN BY: S. TROY 5/7/2021 CHECKED BY: S.M.B. 5/14/2021 APPROVED BY: D.A.P. 6/14/2021 ISSUED FOR PERMITTING 6/14/2021”

And

1. In compliance with:
 - a. The conditions set forth by the Conservation Commission, in their recommendation for approval to the Town Plan and Zoning Commission, at their Regular Meeting of June 24, 2021.
 - b. The administratively-approved wetlands permit issued by the Environmental Planner on July 6, 2021.
2. All construction shall be performed in accordance with the following:
 - a. 2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control, as amended.
 - b. The Connecticut Stormwater Quality Manual, as amended
 - c. All stormwater discharge permits required by the Connecticut Department of Energy and Environmental Protection (DEEP) pursuant to CGS 22a-430 and 22a-430b
 - d. Section 19 of the Town of Glastonbury Building-Zone Regulations, as amended, the Town of Glastonbury Subdivision and Resubdivision Regulations, as amended, and any additional mitigation measures to protect and/or improve water quality as deemed necessary by the Town.

INSTR # 2022001148 VOL 3772P95 1179-1183 RECD 02/18/2022 02:40:08
 MICHELLE KRAMPITZ TOWN CLERK GLASTONBURY CT

MEMORANDUM

To: Town Plan & Zoning Commission

From: Thomas Mocko, Environmental Planner *TM*

Date: June 25, 2021

Re: **Proposed Pickleball Courts Installation at the Riverfront Community Center** located at **300 Welles Street** – a 64-foot by 136-foot paved play surface (to facilitate 4 individual playing courts) with enclosure fencing and stormwater runoff mitigation measures – Reserved Land and Flood Zone – Daniel A. Pennington, Town Engineer – Lisa Zerio, Director of Parks & Recreation

During its Regular Meeting of June 24, 2021, the Conservation Commission recommended to the Town Plan and Zoning Commission approval of a Flood Zone Special Permit for the Pickleball Courts Installation at the Riverfront Community Center, located at 300 Welles Street, as stated in the following motion:

MOVED, that the Conservation Commission recommends to the Town Plan & Zoning Commission approval of a Flood Zone Special Permit for the Proposed Pickleball Courts Installation at the Riverfront Community Center, located at 300 Welles Street.

TM:gfm

cc: Daniel A. Pennington, Town Engineer/Manager of Physical Services
Lisa Zerio, Director of Parks & Recreation
Peter R. Carey, Building Official

July 6, 2021

MEMORANDUM

To: Lisa Zerio, Director of Parks & Recreation

From: Thomas Mocko, Environmental Planner

RE: Approved Wetlands Regulated Activity at 300 Welles Street

Dear Ms. Zerio:

Pursuant to Section 12 of Glastonbury's Inland Wetlands and Watercourses Regulations, you are hereby **approved to conduct your activities of constructing a pickleball court facility within the wetlands' uplands review area at 300 Welles Street, as represented by the plans date June 14, 2021** submitted to our office. This approval is contingent upon **your responsibility**:

1. **To publish this approval on the Town website or (one time) in a newspaper** that circulates in Glastonbury within 10 days of the date of this approval letter to you;
2. **to await a 15-day appeal period** (15 days from the date of website or newspaper publication) before beginning any work within the upland review area;
3. **to incorporate mitigation measures** that appear on the submitted site plan during construction; and
4. **to return to the CC/IWWA** with the details of any future plans to provide outdoor lighting of the courts for their review and approval.

Attached for your consideration and potential use is a draft public notice advertisement that needs to be published once by you in a newspaper that circulates in Glastonbury.

Please call (860) 652-7511 to advise us when the notice is to appear and in what newspaper, or if you have any questions.

Sincerely,



Tom Mocko
Environmental Planner

cc: Richard J. Johnson, Town Manager
Daniel Pennington, Town Engineer
Rebecca Augur, Director of Planning & Land Use Services

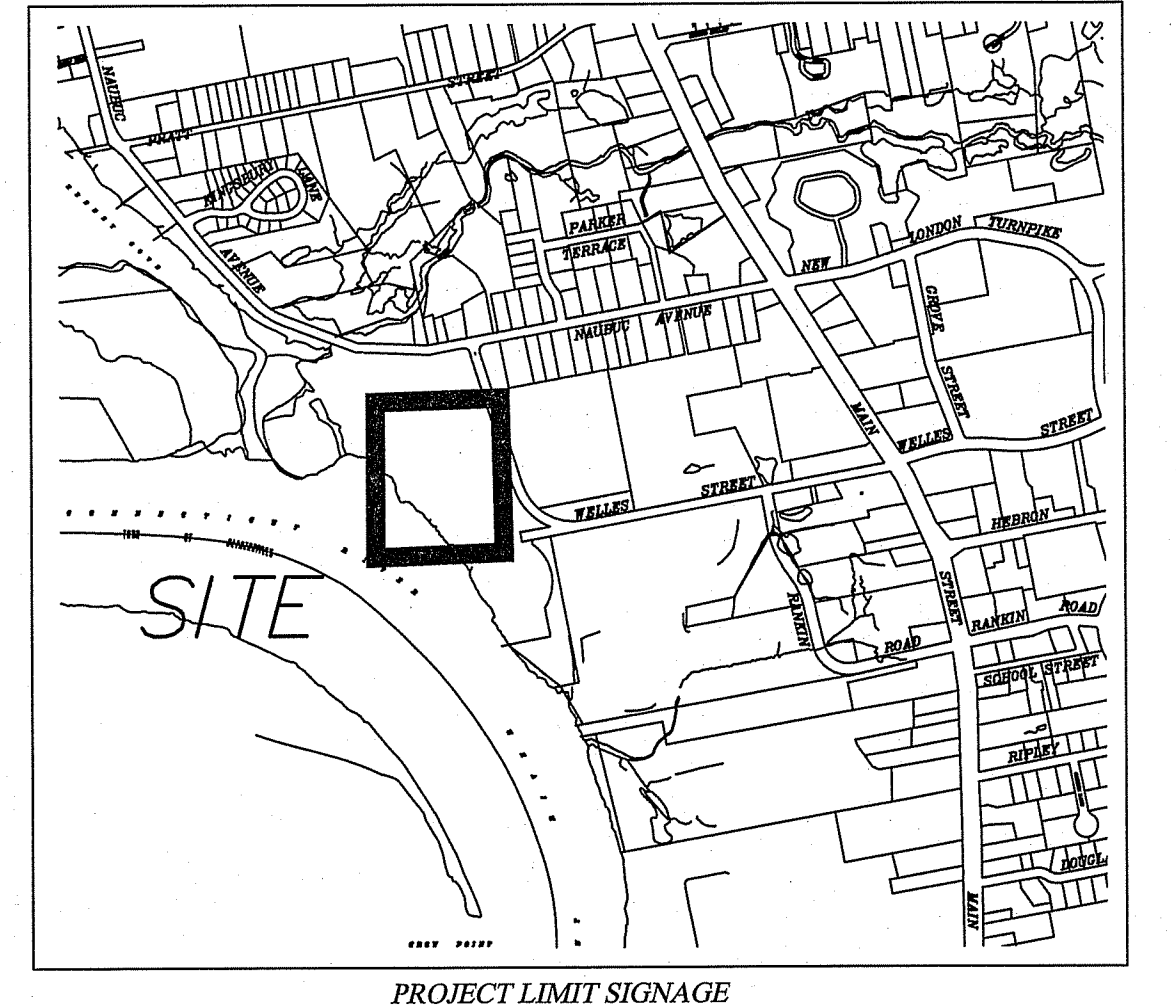
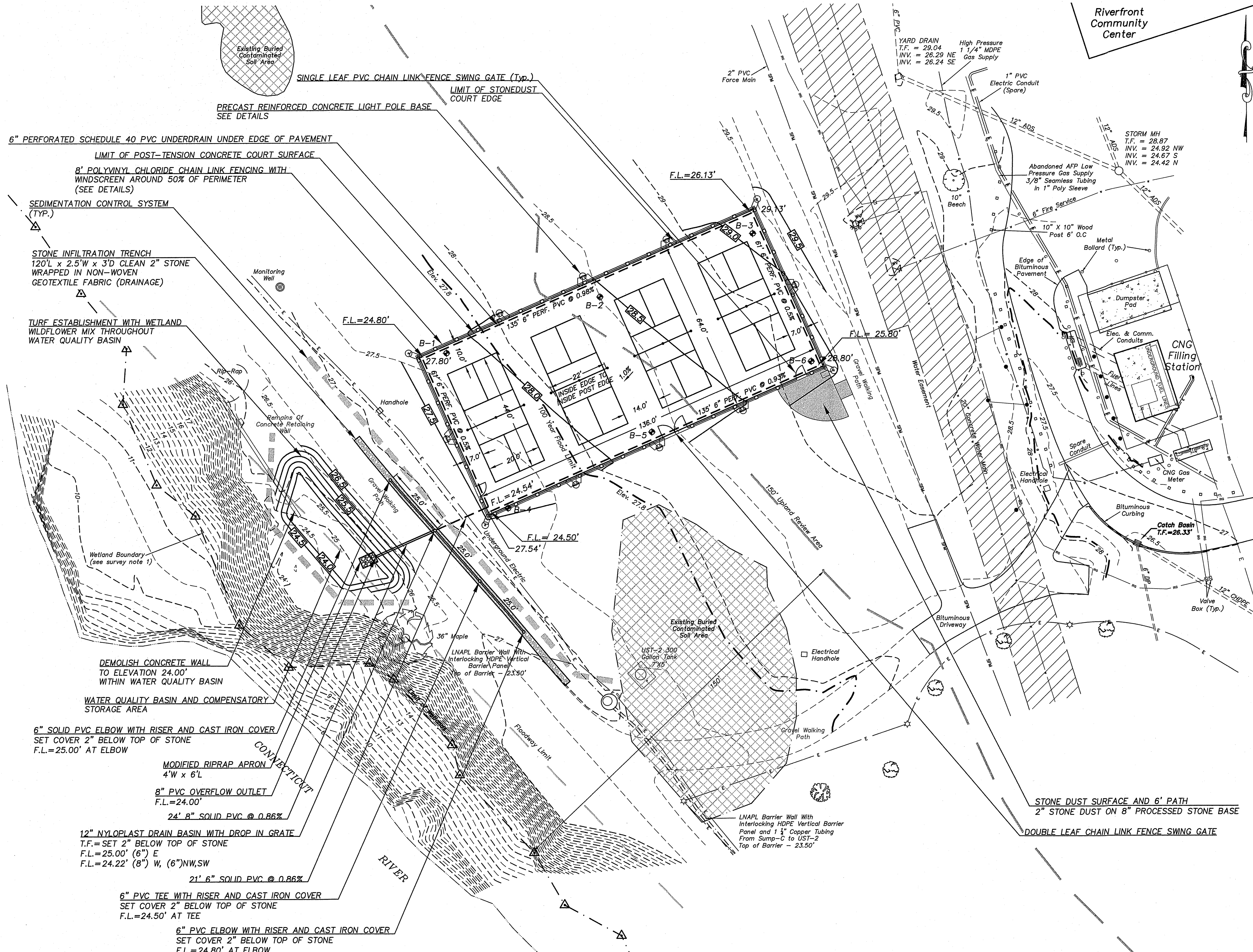
**PUBLIC NOTICE
TOWN OF GLASTONBURY, CT**

On July 6, 2021, the duly authorized agent of the Glastonbury Inland Wetlands & Watercourses Agency approved the construction of a pickleball court facility within the wetlands' uplands review area at 300 Welles Street (Riverfront Community Center).

Lisa Zerio, Director of Parks & Recreation

**ATTACHMENT C:
CONSTRUCTION PLANS**

FILE: H:\DWG\3000\Wetland\SWPW-2\19 PCC Pickleball Courts\Community Center Pickleball Courts - Design Plans PER 2021.dwg USER: Steven Troy DATE: 7/12/2022



PROJECT LIMIT SIGNAGE

PROJECT NARRATIVE:

THIS PROJECT INVOLVES THE CONSTRUCTION OF A 136' X 64' POST-TENSION CONCRETE PLAY SURFACE FOR PICKLEBALL WITH ASSOCIATED EXCAVATION AND STONE BASE MATERIAL CONSTRUCTION. DRAINAGE IMPROVEMENTS INCLUDE A PVC UNDERDRAIN SURROUNDING THE PLAY SURFACE, AND A STONE INFILTRATION TRENCH AND WATER QUALITY BASIN FOR WATER QUALITY IMPROVEMENT AS SHOWN ON THE ATTACHED PLANS. THE TOTAL AREA OF DISTURBANCE ASSOCIATED WITH THIS PROJECT IS APPROXIMATELY 0.5 ACRES.

A PORTION OF THE PROJECT IS BEING CONSTRUCTED WITHIN THE 100 YEAR FLOOD ZONE OF THE CT RIVER WHICH IS THAT PORTION BELOW ELEVATION 20' TO GRADING FOR THE ENTERED QUALITY BASIN HAS BEEN DESIGNED TO OFFSET THE FILL ASSOCIATED WITH THE BITUMINOUS PLAYING SURFACE. GRADING SHALL BE PERFORMED AS PER THE APPROVED PLAN AND AS REQUIRED TO ENSURE THAT NO NET FILL OR LOSS OF FLOOD STORAGE WITH THE FLOOD ZONE RESULTS FROM THE PROJECT.

PROJECT SPECIFIC SEDIMENTATION AND EROSION CONTROL PLAN

CONSTRUCTION ACTIVITIES OF CONCERN RELATIVE TO THE PROTECTION OF ADJACENT WETLANDS AND WATERCOURSES FROM SEDIMENTATION ARE AS FOLLOWS:

1. DEWATERING: OPEN TRENCH EXCAVATIONS WILL NEED TO BE DEWATERED AS NECESSARY FOR PROPER INSTALLATION OF THE PROPOSED PIPES. IN THESE AREAS, ALL WATER REMOVED FROM THE TRENCH SHALL BE ADEQUATELY TREATED PRIOR TO DISCHARGE USING MEASURES DESCRIBED IN SECTION 5-13 OF THE 2002 CT GUIDELINES FOR EROSION AND SEDIMENT CONTROL. THIS MAY INCLUDE A STONE SUMP AND STANDPIPE FOR PUMP INTAKE PROTECTION, AND A DIRT BAG OR PUMPING SETTLING BASIN FOR TREATMENT OF THE PUMPED WATER PRIOR TO DISCHARGE.
2. STOCKPILES: EXCAVATED MATERIAL SHALL NOT BE STOCKPILED ADJACENT TO STORM DRAIN INLETS, WETLANDS, OR WATERCOURSES. WHEN IT IS NECESSARY BASED ON THE PROPOSED METHODS OF CONSTRUCTION TO STAGE EXCAVATED MATERIAL FOR SHORT DURATIONS IN THE VICINITY OF STORM DRAIN INLETS, THESE INLETS SHALL BE PROPERLY PROTECTED AS DESCRIBED ON THE PLANS. CONSTRUCTION STOCKPILES OF MATERIAL WHEN NECESSARY, SHALL BE ONLY IN LOCATIONS APPROVED IN ADVANCE BY THE ENGINEER, AND SUCH STOCKPILES SHALL BE RINGED WITH A SEDIMENTATION CONTROL SYSTEM.
3. DISTURBED AREAS: LIMITS OF DISTURBANCE SHALL BE IN STRICT ACCORDANCE WITH THE APPROVED PLAN. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH THE FINAL SURFACE TREATMENT AS SOON AS POSSIBLE AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED. DISTURBED AREAS WITH STEEP OR LONG SLOPES AND OTHER AREAS WITH SIGNIFICANT POTENTIAL FOR CAUSING SEDIMENTATION SHALL BE PROTECTED WITH TEMPORARY STRAW MULCH, WOOD CHIPS, EROSION CONTROL MATTING, OR OTHER SUITABLE MATERIALS PRIOR TO SIGNIFICANT FORECASTED RAIN STORM EVENTS TO REDUCE EROSION POTENTIAL.
4. TRAVEL AREAS: THE EXISTING STONE ACCESS ROAD SURROUNDING THE PROJECT SITE SHALL BE USED FOR CONSTRUCTION ACCESS TO THE WORK AREA TO PREVENT SOIL FROM BEING TRACKED OUT INTO THE SURROUNDING PARKING LOT AND ROADWAYS.
5. SEVERE WEATHER CONTINGENCY PLAN: IN ADVANCE OF A SEVERE WEATHER EVENT, ALL EROSION CONTROLS DESCRIBED ABOVE AND ELSEWHERE ON THE PLANS SHALL BE INSPECTED AND ADJUSTED AS NECESSARY.

GENERAL SEDIMENTATION AND EROSION CONTROL REQUIREMENTS:

THESE GUIDELINES SHALL APPLY TO ALL WORK CONSISTING OF ANY AND ALL TEMPORARY AND/OR PERMANENT MEASURES TO CONTROL WATER POLLUTION AND SOIL EROSION AS MAY BE REQUIRED, DURING THE CONSTRUCTION OF THE PROJECT.

IN GENERAL, ALL ACTIVITIES SHALL PROCEED IN SUCH A MANNER SO AS NOT TO POLLUTE ANY WETLANDS, WATERCOURSE, WATERBODY, AND CONDUIT CARRYING WATER, ETC. THE DEPARTMENT OF PHYSICAL SERVICES SHALL LIMIT, INsofar AS POSSIBLE, THE SURFACE AREA OF EARTH MATERIALS EXPOSED BY CONSTRUCTION METHODS, AND IMMEDIATELY PROVIDE PERMANENT AND TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT WETLANDS, WATERCOURSES AND WATERBODIES, AND TO PREVENT, INsofar AS POSSIBLE, EROSION ON THE SITE.

CONSTRUCTION METHODS, IN GENERAL, SHALL BE IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" (2002) BY THE STATE OF CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION.

1. ALL CONTROL MEASURES SHALL BE INSTALLED AS NOTED ABOVE AND AS SHOWN ON THE PLANS.
2. ALL CONTROL MEASURES SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO COMMENCEMENT OF ANY WORK, INCLUDING PRE-CONSTRUCTION CLEARING AND GRUBBING.
3. ALL CONTROL MEASURES SHALL BE MAINTAINED AND UPGRADED AS REQUIRED TO ACHIEVE PROPER SEDIMENT CONTROL THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL DISTURBED AREAS HAVE BEEN THOROUGHLY STABILIZED.
4. NO CONTROL MEASURES SHALL BE REMOVED WITHOUT APPROVAL FROM THE ENGINEER.
5. ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED DURING THE CONSTRUCTION PERIOD IF DEEMED NECESSARY BY THE ENGINEER.
6. THE LIMITS OF CLEARING, GRADING AND DISTURBANCE, AS SHOWN ON THE PLANS(S), SHALL BE KEPT TO A MINIMUM WITHIN THE APPROVED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE THE LIMITS OF CLEARING SHALL REMAIN TOTALLY INTACT.
7. ANY CONTROL MEASURES RETAINING SEDIMENT OVER 1/2 THEIR HEIGHT SHALL HAVE THE SEDIMENT IMMEDIATELY REMOVED, AND ALL DAMAGED CONTROL MEASURES SHALL BE REMOVED AND REPLACED.
8. ALL NEW AND EXISTING CATCH BASINS LOCATED WITHIN THE PROJECT LIMITS SHALL BE PROTECTED WITH A SEDIMENTATION CONTROL SYSTEM IN GRASSED AREAS OR WITH A SEDIMENTATION CONTROL SACK IN PAVED AREAS UNTIL ALL DISTURBED AREAS HAVE BEEN THOROUGHLY STABILIZED.
9. SEDIMENT REMOVED FROM CONTROL MEASURES AND DRAINAGE FACILITIES SHALL BE DISPOSED OF IN A MANNER THAT IS CONSISTENT WITH STATE AND LOCAL REGULATIONS.
10. THE PLANTING SEASONS FOR THE SPECIFIED SEED MIXTURE SHALL BE AS DEFINED IN THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL UNLESS DIRECTED OTHERWISE BY THE TOWN ENVIRONMENTAL PLANNER. OUTSIDE OF THESE SPECIFIED DATES, AREAS WILL BE STABILIZED WITH HAYBALE CHECK DAMS, FILTER FABRIC, OR WOODCHIP MULCH AS REQUIRED TO CONTROL EROSION.

RESPONSIBLE PARTY:

THE CONTRACTOR SHALL PROVIDE A REPRESENTATIVE WHO IS RESPONSIBLE FOR IMPLEMENTING THE EROSION AND SEDIMENTATION CONTROL PLAN. THIS INCLUDES THE INSTALLATION AND MAINTENANCE OF ALL CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN.

MAINTENANCE PLAN FOR STORMWATER FACILITIES:

GENERAL: THE PROPOSED DRAINAGE SYSTEM TO BE INSTALLED AS PART OF THIS PROJECT WILL REQUIRE ROUTINE MAINTENANCE IN ORDER TO MAINTAIN PROPER FUNCTION OF WATER QUALITY IMPROVEMENT FEATURES. THESE FEATURES INCLUDE THE WATER QUALITY BASIN AND INFILTRATION TRENCH. THE TOWN OF GLASTONBURY HIGHWAY DEPARTMENT WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL COMPONENTS OF THE PROPOSED STORM DRAINAGE SYSTEM.

WATER QUALITY BASIN: WATER QUALITY BASIN WILL BE MOWED AS NECESSARY TO PREVENT WOODY VEGETATIVE GROWTH WHICH WOULD INHIBIT FUNCTION. BASIN WILL BE INSPECTED ANNUALLY FOR SIGNS OF SEDIMENT DEPOSITS OR EROSION AND CLEANED AS NECESSARY.

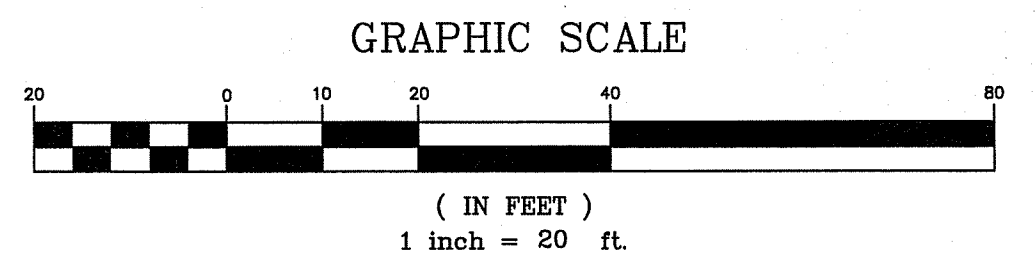
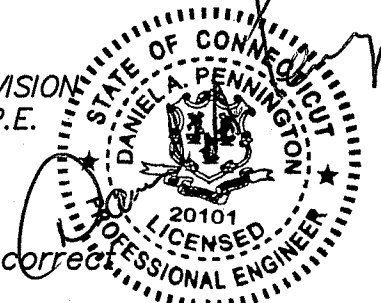
INFILTRATION TRENCH: SURFICIAL STONE OF INFILTRATION TRENCH SHALL BE KEPT FREE OF DEBRIS AND ORGANIC MATERIAL THAT WOULD INHIBIT THE FLOW OF SURFACE WATER INTO THE TRENCH. GRASS CLIPPING AND LEAF DEBRIS SHALL BE COLLECTED OR BLOWN OFF FROM THE SURFACE OF THE TRENCH DURING ROUTINE MOWING AND LEAF REMOVAL OPERATIONS TO MAINTAIN INFILTRATION POTENTIAL.

- SURVEY NOTES:**
1. LOCATION OF FEATURES AND CONTOUR DATA DEPICTED HEREON WITHIN THE GROUNDS OF THE RIVERFRONT COMMUNITY CENTER (ABOVE ELEVATION 24) WERE ACQUIRED BY FIELD SURVEY IN APRIL OF 2021, SUPPLEMENTED BY RECORD TOPOGRAPHIC INFORMATION ALONG THE CT RIVER BANK COMPILED FROM THE PLAN ENTITLED "ASBUILT TOPOGRAPHIC SURVEY PROPERTY OF THE TOWN OF GLASTONBURY LOCATED AT 282 AND 300 WELLES STREET" PREPARED AS PART OF THE RIVERFRONT PARK PHASE 2 PROJECT. WETLANDS DELINEATION DEPICTED HEREON WAS ALSO OBTAINED FROM THE AFORE-MENTIONED PLAN.
 2. REFERENCE FOR FLOOD WAY AND FLOOD ZONES IS MADE TO THE FLOOD INSURANCE RATE MAP ENTITLED: "NATIONAL FLOOD INSURANCE PROGRAM PANEL 0528F FIRM FLOOD INSURANCE RATE MAP HARTFORD COUNTY, CONNECTICUT (ALL JURISDICTIONS) PANEL 528 OF 875 MAP NUMBER 090300528F U.S. DEPARTMENT OF HOMELAND SECURITY EFFECTIVE DATE: SEPTEMBER 26, 2008 FEDERAL EMERGENCY MANAGEMENT AGENCY.
 3. HORIZONTAL CONTROL IS BASED ON THE CONNECTICUT GEODETIC SURVEY STATE PLANE COORDINATES, NORTH AMERICAN DATUM OF 1983 - (NAD83).
 4. ELEVATIONS AND VERTICAL CONTROL IS BASED ON THE NORTH AMERICAN VERTICAL DATUM 1988 - (NAVD88).
 5. THERE IS NO BOUNDARY/DETERMINATION OPINION.
 6. NO EASEMENTS PERTAINING TO THE SUBJECT PARCEL ARE DEPICTED HEREON.
 7. NOT ALL IMPROVEMENTS ARE DEPICTED HEREON.

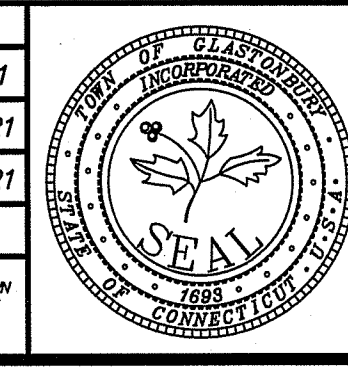
SHEETS 1-2 DESIGNED BY:
GLASTONBURY ENGINEERING DIVISION
PER: DANIEL A. PENNINGTON P.E.
LICENCE NO. 20101

Certified to be substantially correct

DANIEL A. PENNINGTON P.E. Reg. No. 20101

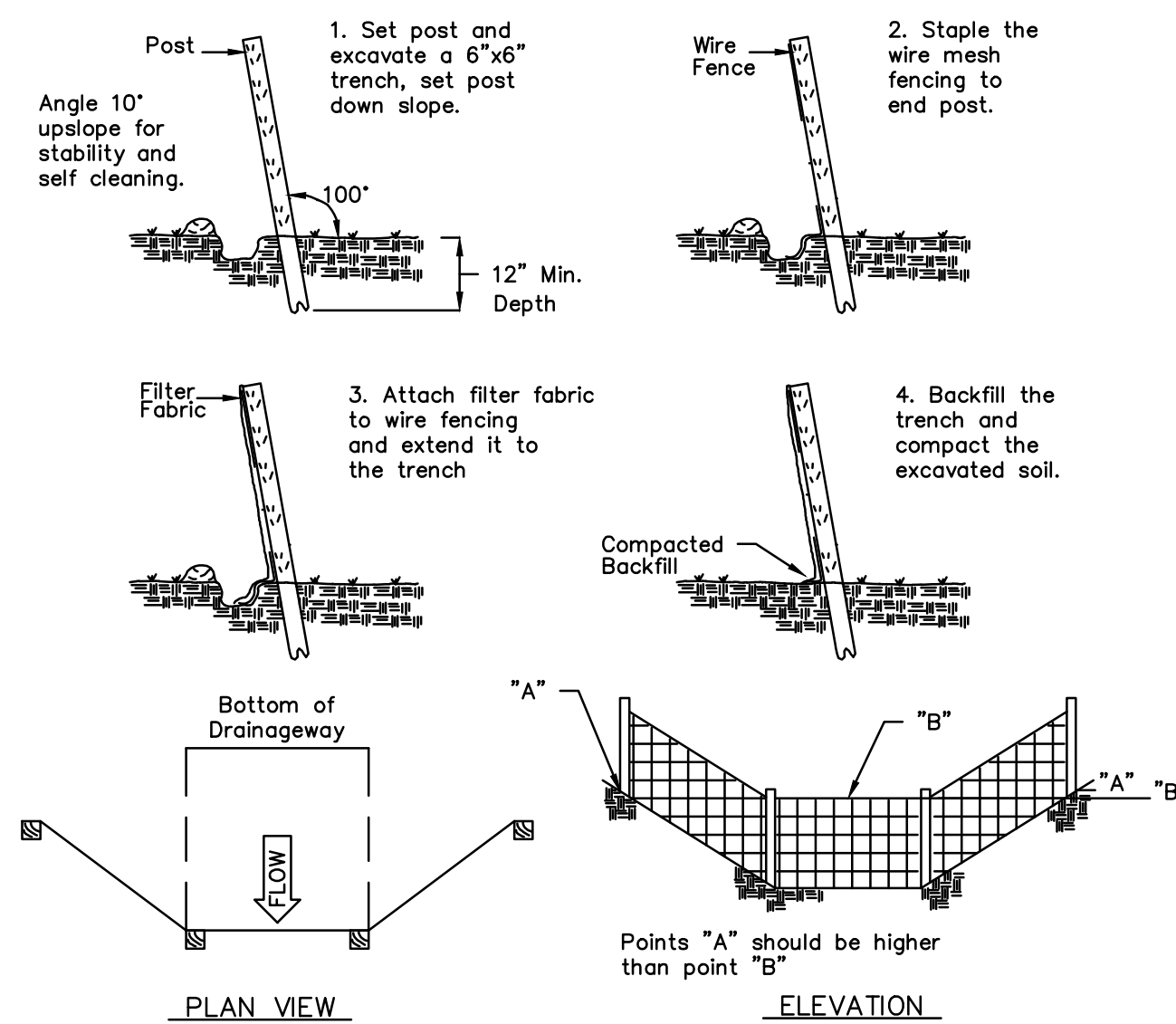
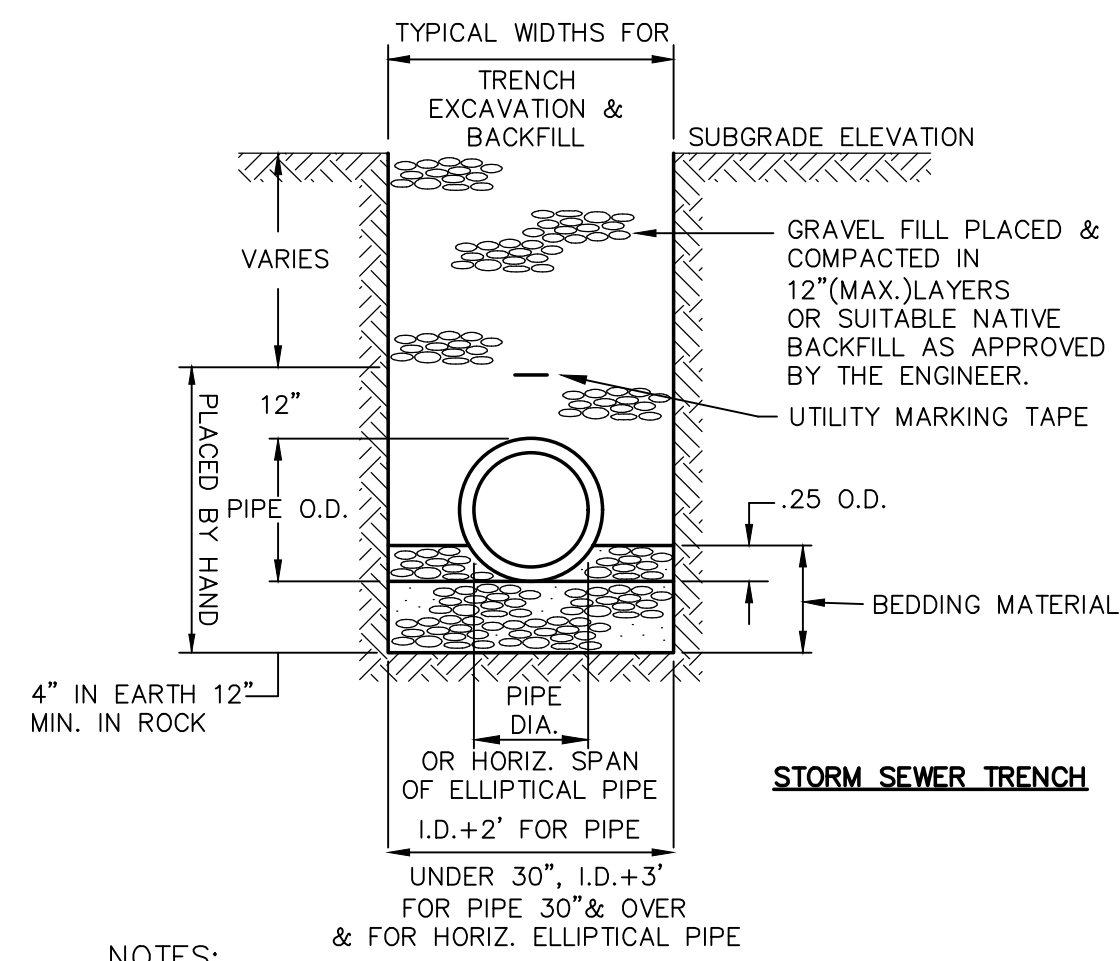
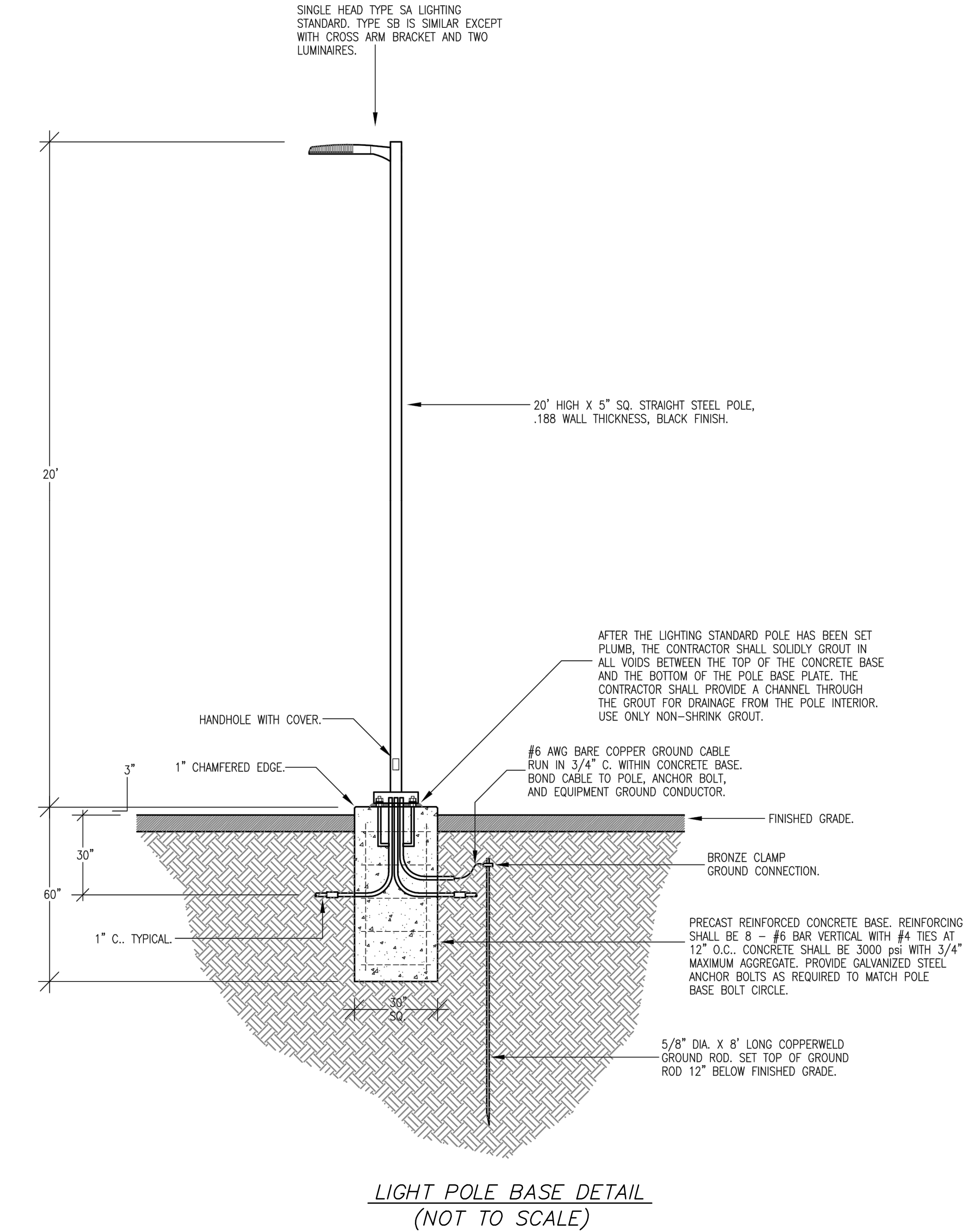
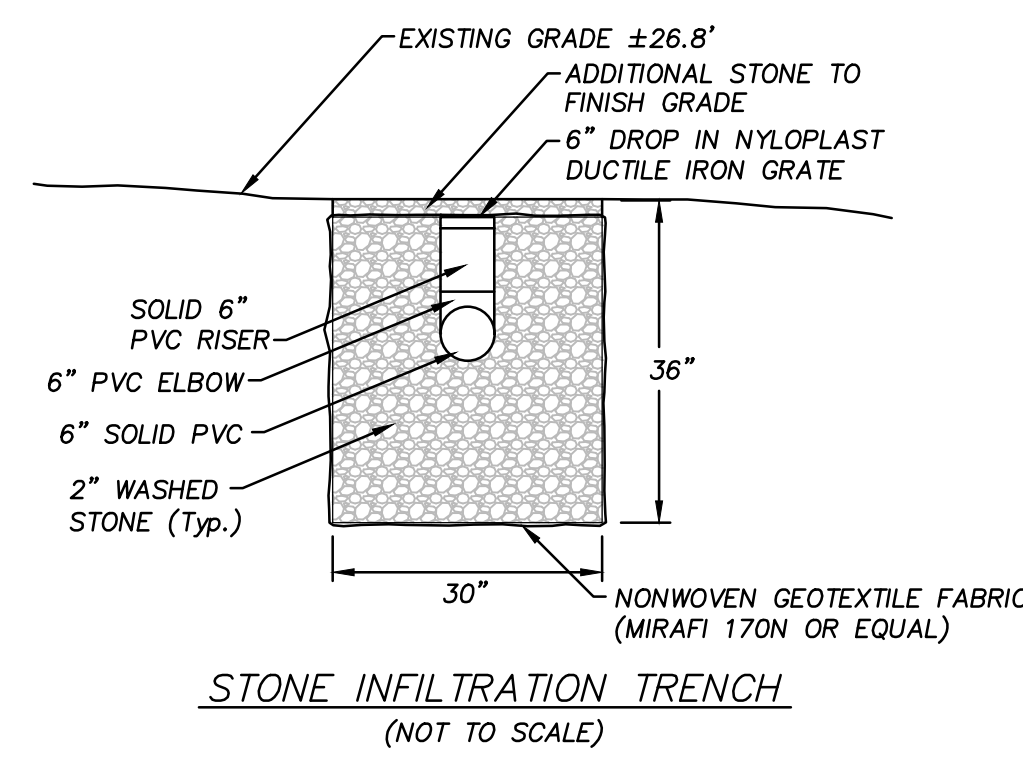
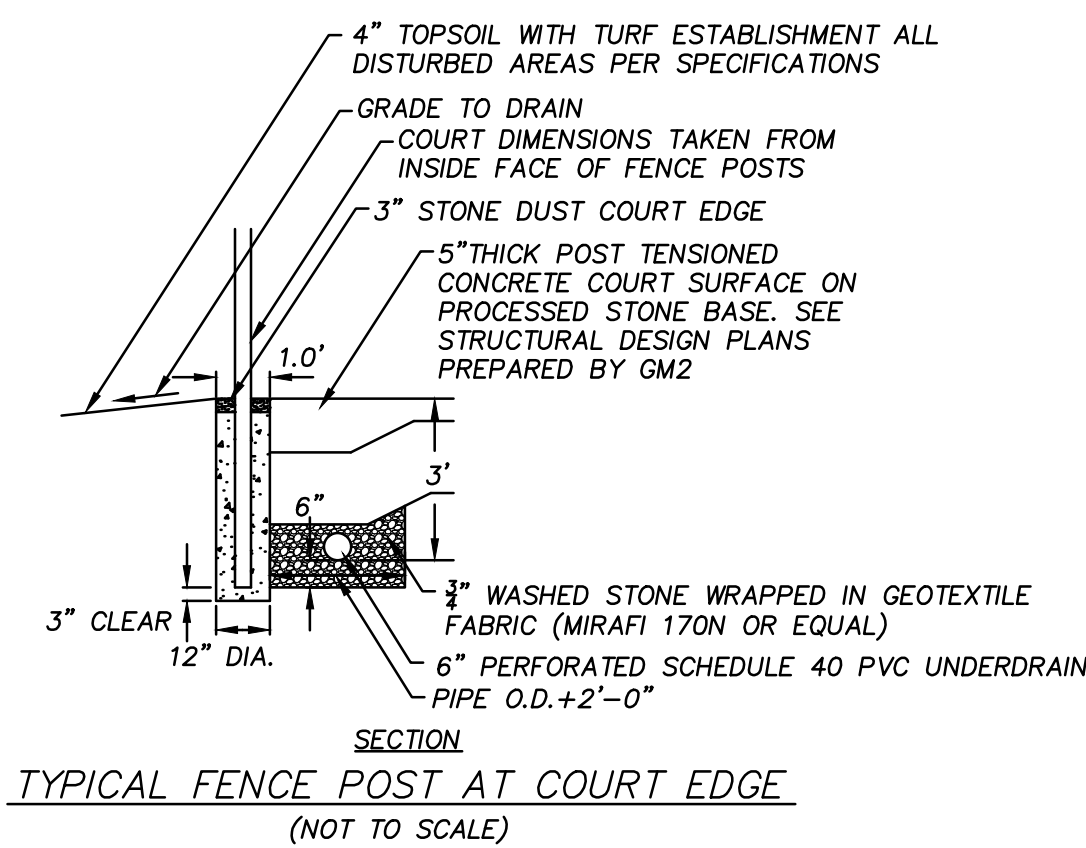
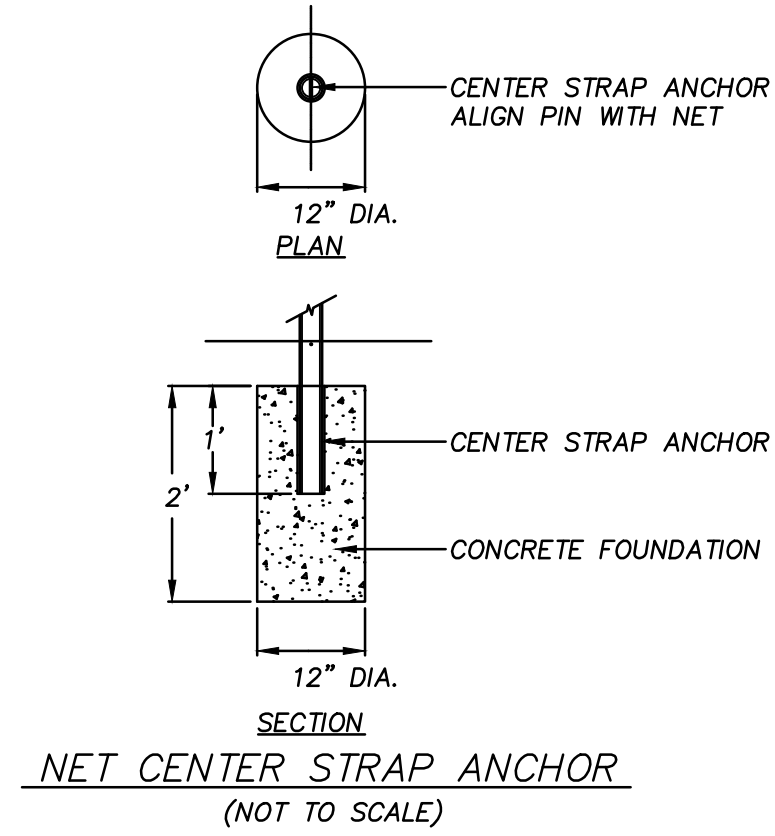
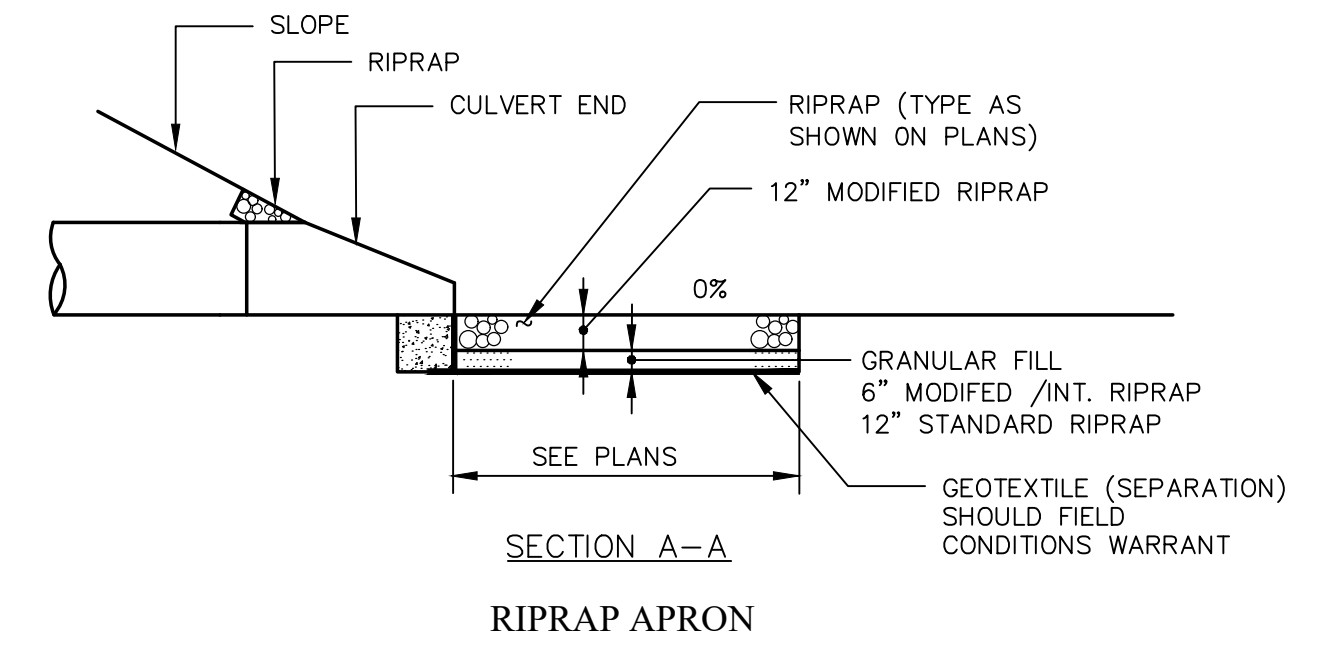
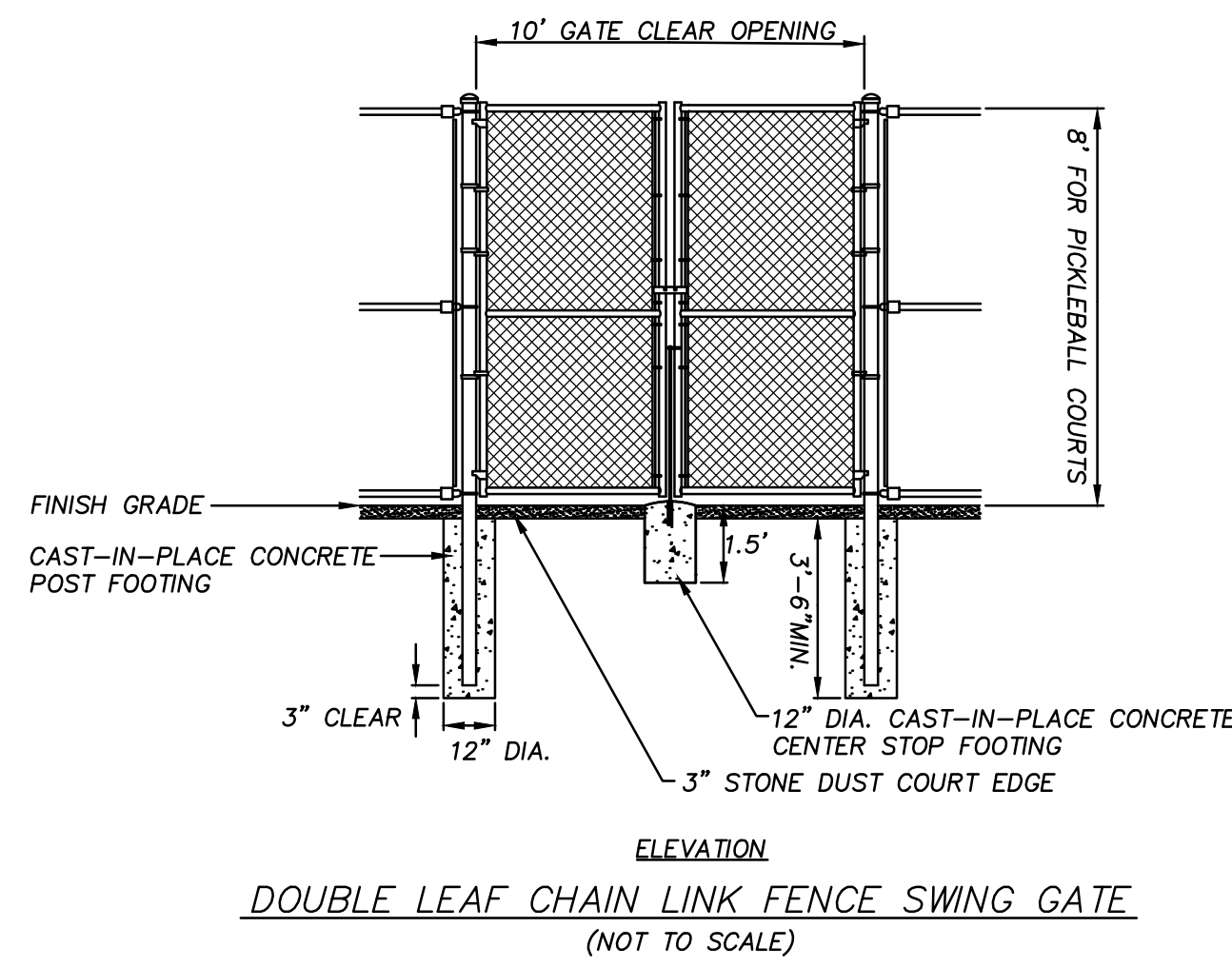
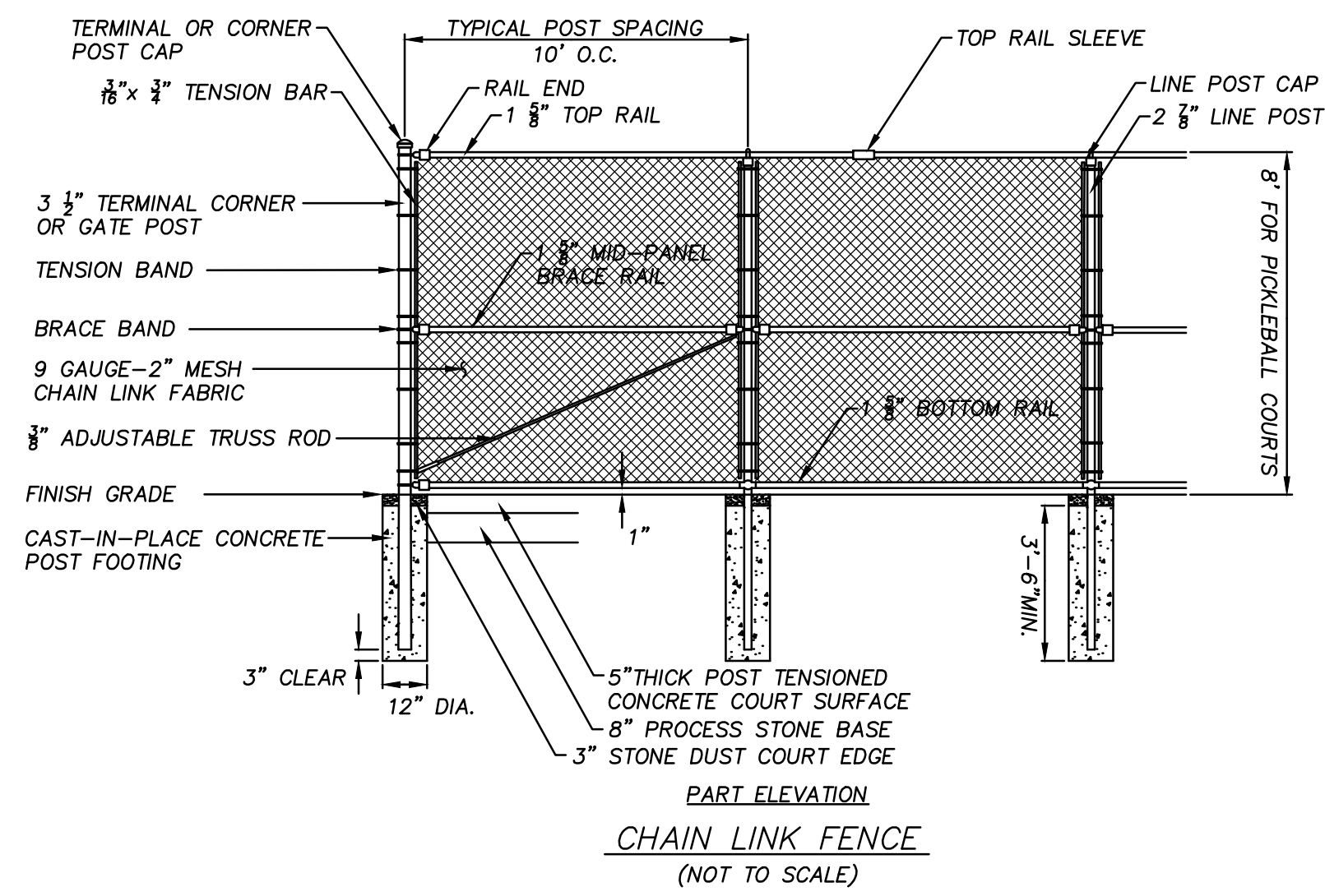
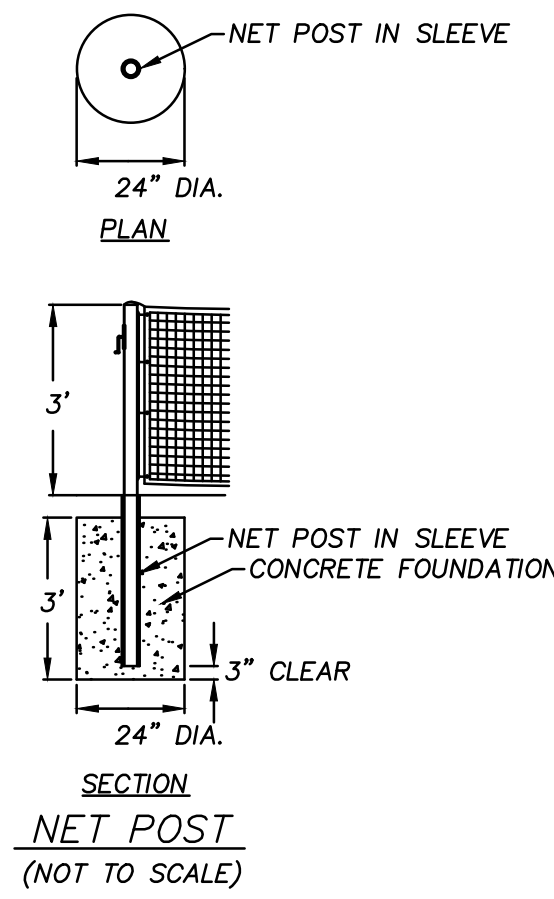


DRAWING ISSUE STATUS		SCALE: AS SHOWN	DATE:
		DRAWN BY: S.Troy	5/7/2021
		CHECKED BY: S.M.B.	6/14/2021
3.	REVISED FOR POST-TENSION CONCRETE	APPROVED BY: D.A.P.	6/14/2021
2.	ISSUED FOR CONSTRUCTION		
1.	ISSUED FOR PERMITTING		
NO.	DESCRIPTION		DATE



PLANS DEPICTING
PICKLEBALL COURTS
LOCATED AT
RIVERFRONT COMMUNITY CENTER
300 WELLES STREET
GLASTONBURY, CONNECTICUT

SHEET NO. **1** OF 3

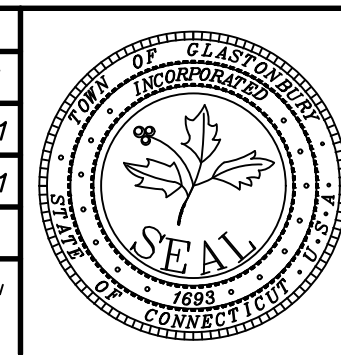


Source: U.S. Department of Agriculture, Soil Conservation Service, Storrs, Connecticut

SEDIMENTATION CONTROL FILTER FABRIC FENCE SYSTEM

- NOTES:
1. ALL STORM DRAIN INSTALLED WITHIN TOWN RIGHT-OF-WAY SHALL BE CONCRETE PIPE. ALL CONCRETE PIPE SHALL BE MINIMUM CLASS IV UNLESS OTHERWISE SPECIFIED.
 2. USE WATERTIGHT RUBBER GASKETS IN ALL PIPE JOINTS.
 3. PIPE BEDDING MATERIALS SHALL BE SAND OR SANDY SOIL, ALL OF WHICH PASSES 3/8" SIEVE AND <10% PASSING NO. 200 SIEVE.
 4. WHEN GROUND WATER IS ENCOUNTERED, 3/4" STONE SHALL BE SUBSTITUTED FOR PIPE BEDDING, AND BACKFILLED TO 12" ABOVE THE TOP OF PIPE.

DRAWING ISSUE STATUS		SCALE: AS SHOWN	DATE:
		DRAWN BY: S.Troy	5/7/2021
		CHECKED BY: S.M.B.	6/14/2021
3.	REVISED FOR POST-TENSION CONCRETE	6-30-2022	APPROVED BY: D.A.P. 6/14/2021
2.	ISSUED FOR CONSTRUCTION	7-28-2021	ST. FILE:
1.	ISSUED FOR PERMITTING	6/14/2021	
NO.	DESCRIPTION	DATE	



DETAILS DEPICTING PICKLEBALL COURTS LOCATED AT RIVERFRONT COMMUNITY CENTER 300 WELLES STREET GLASTONBURY, CONNECTICUT

FILE: X-4609 - Glastonbury - Pickle Ball Field Structural CAD/Consulting Center Pickleball Courts - GM2 Design Planning - SEER: Nita Bajracharya - DATE: 7/11/2022

REFERENCE CODE:

DESIGN, CONSTRUCTION, AND MAINTENANCE OF POST-TENSIONED CONCRETE COURTS PTI DCT10.5-20

AMERICAN CONCRETE INSTITUTE ACI-318 2014

DESIGN LOADS:

UNIFORM LIVE LOAD: 40 PSF

MATERIAL PROPERTIES:

CONCRETE:
 SLAB ON GRADE (PC04461): $F'_c=4400$ psi AT 28 DAYS
 REINFORCEMENT STEEL: $F_y=60$ ksi
 (ASTM A615, GRADE 60)
 NORMAL-WEIGHT AGGREGATE (ASTM C33)

PRESTRESSING STEEL:
 DIAMETER: $\phi=5/8$ " (12.7mm)
 CROSS-SECTIONAL AREA: $A_{STRAND}=0.153IN^2$ (98.7mm²)
 GRADE OF STEEL: (ASTM A416, GRADE 270)
 $F_y=270$ ksi

GENERAL NOTES:

- CONTRACTOR TO COORDINATE STRUCTURAL DRAWINGS WITH OTHER DISCIPLINES. CONTRACTOR SHALL BE RESPONSIBLE FOR INCORPORATING ALL REQUIREMENTS IN THE SHOP DRAWINGS AND WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON STRUCTURAL SLAB UNTIL IT HAS ACHIEVED 28 DAY CONCRETE COMPRESSIVE STRENGTH.
- DO NOT SCALE FROM DRAWINGS. USE DIMENSIONS AS NOTED ON THE DRAWINGS.
- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL INFORM ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH WORK.
- REVIEW OF SHOP DRAWINGS BY ENGINEER SHALL NOT RELIEVE THE CONTRACTOR FROM CONFORMING WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. ANY DEVIATION IN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE ENGINEER AT THE TIME OF SUBMISSION AND MUST BE APPROVED BY THE ENGINEER IN WRITING.
- CONTRACTOR SHALL REVIEW AND APPROVE SHOP DRAWINGS PRIOR TO SUBMISSION TO ENGINEER. SHOP DRAWINGS NOT STAMPED "REVIEWED" BY THE CONTRACTOR WILL BE RETURNED WITHOUT BEING REVIEWED.
- CONTRACTOR SHALL STORE ALL EQUIPMENT AND MATERIALS IN HIS FIELD YARD OR AT A SITE APPROVED BY THE TOWN OF GLASTONBURY.
- LOCATION OF EXISTING UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO START OF CONSTRUCTION.
- CONTRACTOR SHALL NOT DISRUPT THE OWNER'S OPERATIONS DURING CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE ADEQUATE SHORING TO SUPPORT AND MAINTAIN UTILITIES DURING CONSTRUCTION.
- CONTRACTOR SHALL PLACE ALL EQUIPMENT AND MATERIAL AS FAR AWAY AS POSSIBLE FROM THE EDGE OF TRAVEL AREAS SO AS NOT TO IMPEDE TRAFFIC OR CAUSE A SAFETY HAZARD.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR FABRICATION AND FIT OF HIS WORK.

FOUNDATION NOTES:

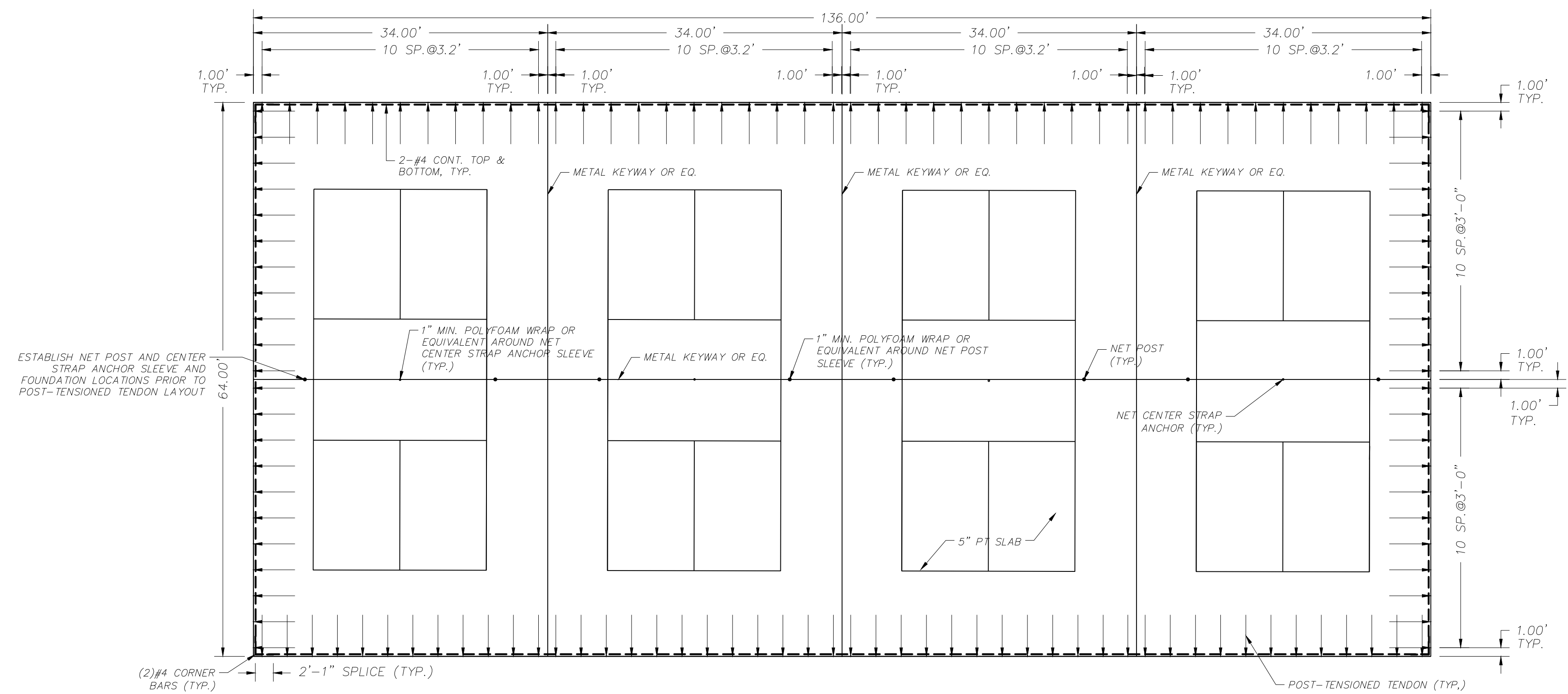
- OFF-SITE FILL SHALL MEET THE FOLLOWING MATERIAL PROPERTY REQUIREMENTS IN ACCORDANCE WITH THE GEOTECHNICAL REPORT DATED JUNE 7, 2022 AND CTDOT FORM 818:
 GRANULAR FILL: M.05.01
 PROCESSED STONE BASE: M.05.01
 CRUSHED STONE: M.01.01-No.67 STONE

CONCRETE NOTES:

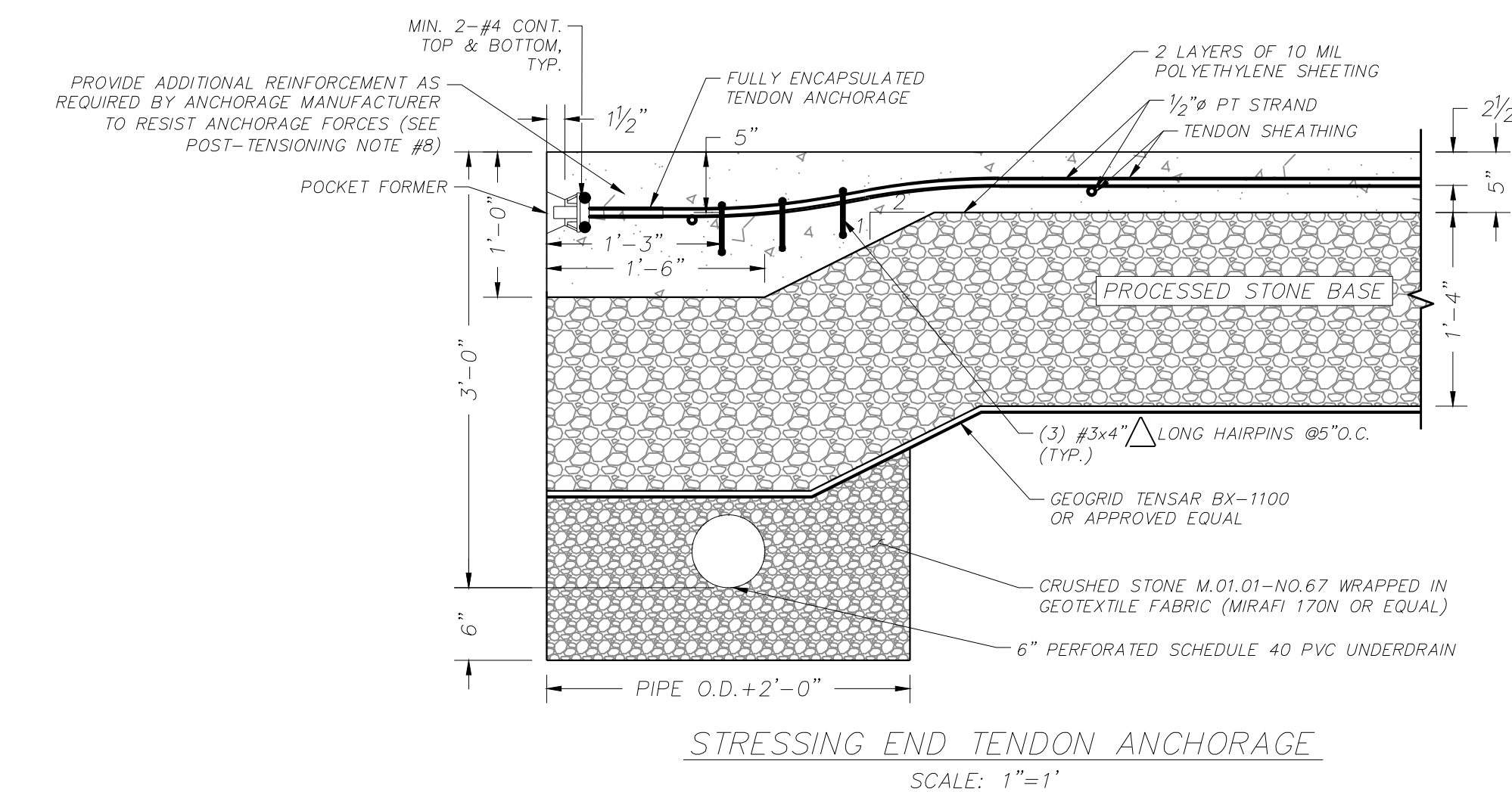
- ALL CONCRETE WORK SHALL CONFORM TO REQUIREMENTS OF CTDOT FORM 818.
- REINFORCING SHALL BE DETAILED IN ACCORDANCE WITH ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".
- ALL SPLICES IN REINFORCEMENT SHALL BE LAPPED 50 BAR DIAMETERS.
- CONCRETE COVER FOR REINFORCING BARS SHALL BE MINIMUM 1 1/2".
- CONSTRUCTION JOINTS OTHER THAN THOSE LOCATED AT METAL KEYWAY LOCATIONS ARE NOT ALLOWED.
- POST-TENSIONED CONCRETE SLAB SHALL HAVE A WOOD FLOAT OR MEDIUM BROOM FINISH. STEEL TROWEL FINISH IS NOT ALLOWED.
- NO CONCRETE CURING AGENTS OR HARDENERS SHALL BE USED ON POST-TENSIONED CONCRETE SLAB.
- VARIATION OF POST TENSIONED CONCRETE SLAB SURFACE SHALL NOT EXCEED 1/8" IN 10FT WHEN MEASURED IN ANY DIRECTION WITH A STRAIGHT EDGE AND A SLOPE 1" IN 10FT, ALL IN ONE PLANE.
- ALL CONCRETE FOR POST-TENSIONED SLAB SHALL BE PLACED ON THE SAME DAY.

POST TENSIONING NOTES:

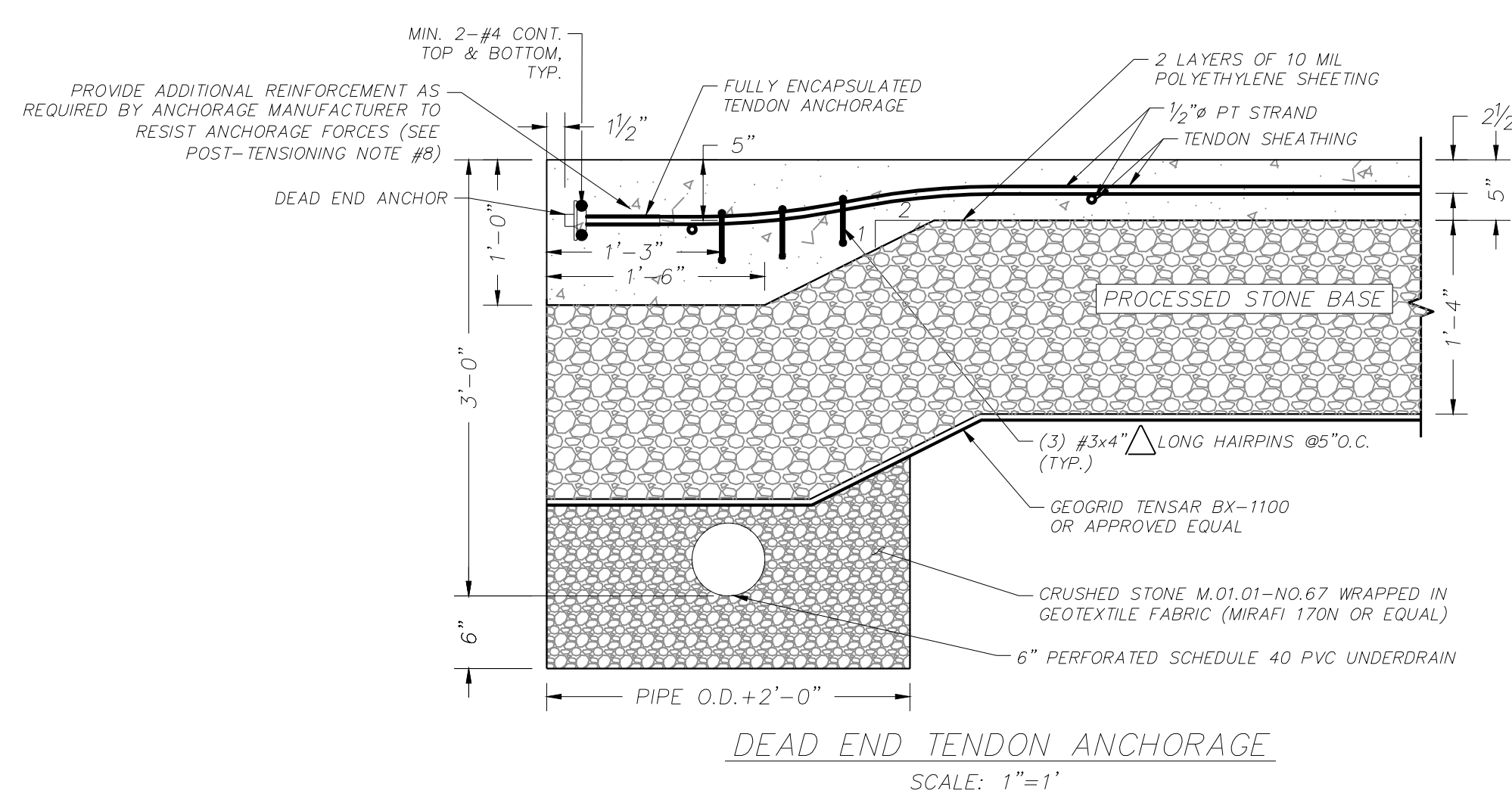
- POST-TENSIONED CONCRETE SHALL BE FABRICATED WITH THE FOLLOWING CONCRETE STRENGTHS:
 28 DAYS COMPRESSIVE STRENGTH: $F'_c=4400$ psi
 COMPRESSIVE STRENGTH AT TRANSFER: $F'_{ci}=2,000$ psi
- STRANDS FOR POST-TENSIONING SHALL BE 1/2" UNCOATED, SEVEN WIRE STRANDS CONFORMING TO ASTM A416, GRADE 270, LOW RELAXATION. FINAL TENDON ASSEMBLY SHALL CONFORM TO PTI M10.6, SPECIFICATION FOR UNBONDED SINGLE STRAND TENDONS USED FOR SLAB-ON-GROUND CONSTRUCTION.
- ALL REINFORCING STEEL, EXCEPT POST-TENSIONING STRAND, SHALL CONFORM TO ASTM A615, GRADE 60.
- SEE POST-TENSIONED CONCRETE SLAB LAYOUT FOR LOCATION OF SLAB PENETRATIONS.
- THE DRILLING OF HOLES OR THE USE OF POWER ACTUATED TOOLS ON POST-TENSIONED CONCRETE SHALL NOT BE PERMITTED.
- POCKET FORMER RECESS SHALL BE PROPERLY PATCHED WITH NON-SHRINK GROUT TO PROVIDE CORROSION PROTECTION TO THE POST-TENSIONING SYSTEM. GROUT SHALL BE SAME STRENGTH AS CONCRETE AT A MINIMUM.
- ANCHORAGE SYSTEM SHALL BE A FULLY ENCAPSULATED SYSTEM.
- ANCHORAGE REINFORCEMENT SHOWN SHALL BE PROVIDED AT A MINIMUM AND SHALL BE SUPPLEMENTED BY ANY ADDITIONAL ANCHORAGE REINFORCEMENT REQUIRED BY THE SELECTED ANCHORAGE SYSTEM MANUFACTURER.



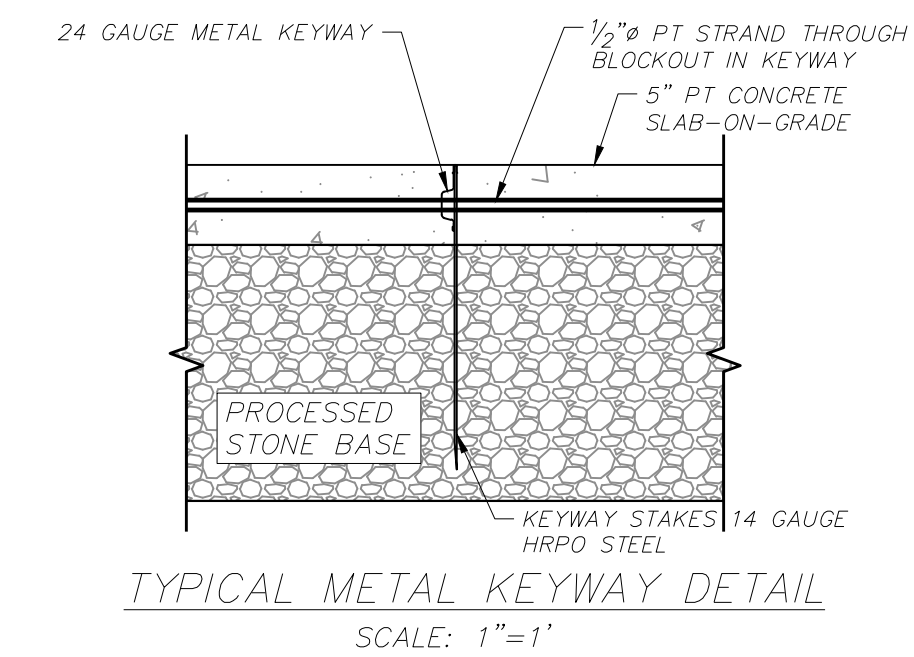
POST-TENSIONED CONCRETE SLAB LAYOUT
 SCALE: 1"=10'



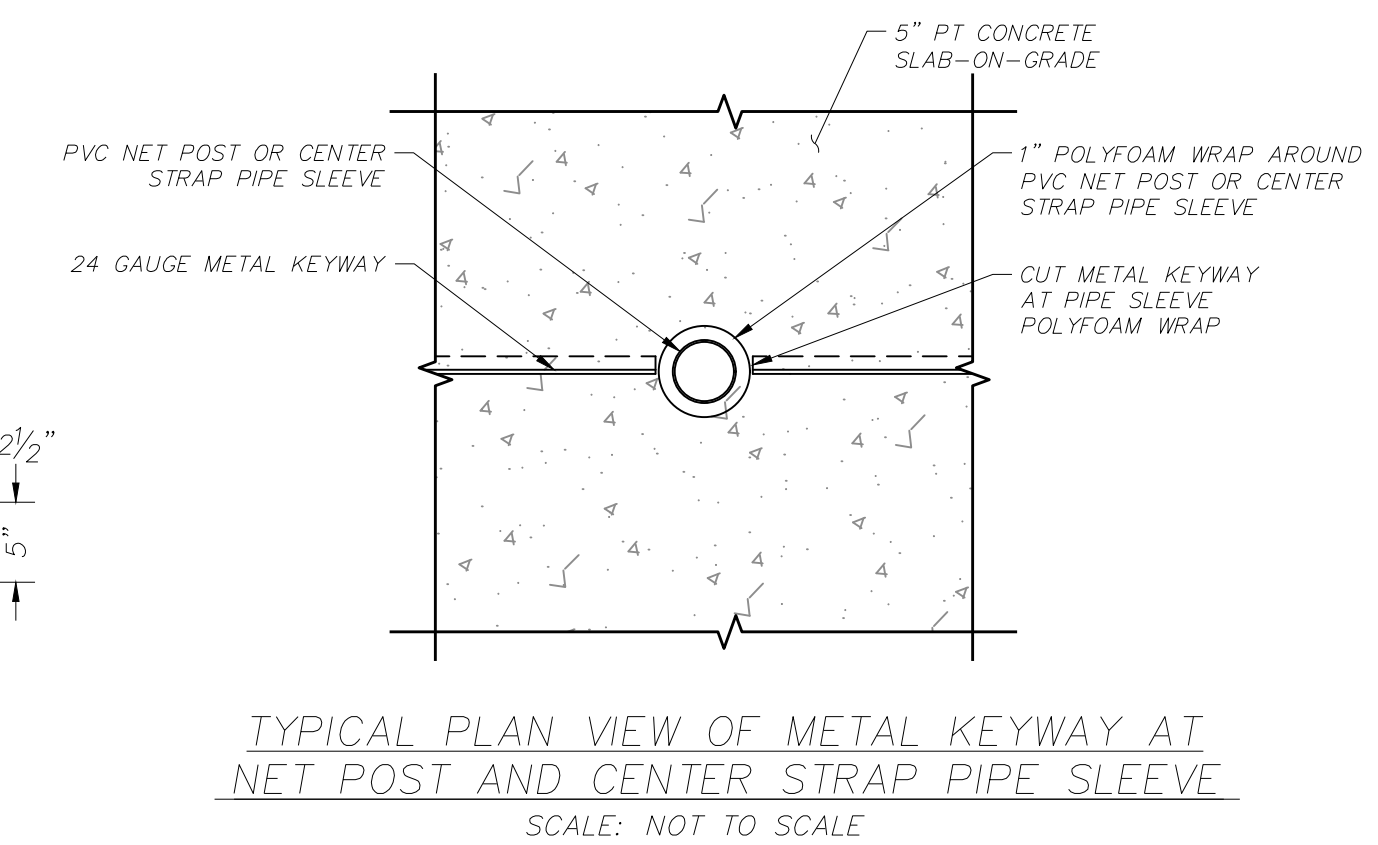
STRESSING END TENDON ANCHORAGE
 SCALE: 1"=1'



DEAD END TENDON ANCHORAGE
 SCALE: 1"=1'



TYPICAL METAL KEYWAY DETAIL
 SCALE: 1"=1'

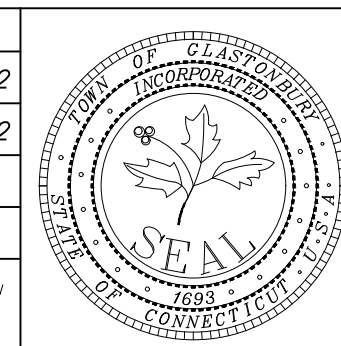


TYPICAL PLAN VIEW OF METAL KEYWAY AT NET POST AND CENTER STRAP PIPE SLEEVE
 SCALE: NOT TO SCALE



GM2
 GM2 ASSOCIATES, INC
 115 GLASTONBURY BLVD.
 GLASTONBURY, CT 06033

DRAWING ISSUE STATUS		SCALE: AS SHOWN	DATE:
		DRAWN BY: NB	6/02/2022
		CHECKED BY: UKD	6/08/2022
		APPROVED BY:	
		ST. FILE:	
NO.	DESCRIPTION	DATE	



**POST-TENSIONED CONCRETE SLAB
 DETAILS FOR PICKLEBALL COURTS
 LOCATED AT
 RIVERFRONT COMMUNITY CENTER
 300 WELLES STREET
 GLASTONBURY, CONNECTICUT**

**ATTACHMENT D:
GEOTECHNICAL REPORT**



**GEOTECHNICAL INVESTIGATION REPORT
RIVERFRONT COMMUNITY CENTER PICKLEBALL COURTS
GLASTONBURY, CONNECTICUT**

**June 7, 2022
GM2 Project No. 40892.00**



**Prepared by:
GM2 Associates, Inc.
Glastonbury, CT**

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4.0 EVALUATION AND RECOMMENDATIONS	3
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4.4 Subsurface Drainage	5
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4.5.3 Fill Material Types	6
4.5.4 Fill Placement and Compaction	6
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List of Appendices

- Appendix A:** Figures
 1-Project Locus
 2-Boring Location Plan
- Appendix B:** Test Boring Logs



GEOTECHNICAL INVESTIGATION REPORT RIVERFRONT COMMUNITY CENTER PICKLEBALL COURTS GLASTONBURY, CONNECTICUT

June 7, 2022
GM2 Project No. 40892.00

1.0 INTRODUCTION

This report presents the results of our geotechnical engineering services performed for the proposed pickleball courts located behind the Riverfront Community Center in Glastonbury, Connecticut. Our geotechnical engineering scope of services included advancing six test borings (B-1 through B-6). The borings terminated in the natural alluvial sand ranging at approximately 9 to 10 feet below the existing ground surface. A Site Locus and a Boring Location Plan are included in Appendix A as Figures 1 and 2, respectively. Logs of the test borings are included in Appendix B.

2.0 GENERAL INFORMATION

A summary of the existing site and the proposed project is presented below:

Item	Description
Location	Riverfront Community Center at 300 Welles Street in Glastonbury, Connecticut.
Site layout	Appendix A, Figure 2 - Boring Location Plan
Topography	The site is open and relatively level ranging from elevation (El) 29.5 to El 27.5 feet (NAVD 1983 Datum), sloping downward from east to west, respectively. Elevations are shown on Sheet No. 1 of the RFQ, titled “Plans Depicting Pickleball Courts Located at Riverfront Community Center”, dated July 7, 2021.
Proposed Courts	Four pickleball courts are proposed within a 64 foot-wide, 136 foot-long post tensioned concrete slab. No significant change in grade is required to construct the courts. Also planned is a water quality basin located 40 to 50 feet west of the courts. Surface water from the pickleball courts will be directed into a subsurface perimeter drain and directed to the water quality basin. The flow line inlet to the basin is El 24.0 feet.
Finish Elevation	The finish grade of the courts will slope from El 29.0 to El 27.5, generally following the existing ground surface.

Reference Documents	Request for Quotation (RFQ) – Structural Engineering Services for Post Tension Concrete Court Surface Design – Riverfront Community Center Pickleball Courts – 300 Welles Street. Quote-2022-15. Post Tensioning Institute (PTI) DC10.1-08 Design of Post-Tensioned Slabs-on-Ground Connecticut Department of Transportation (CTDOT) Standard Specifications for Roads, Bridges, Facilities and Incidental Construction - Form 818, 2020
----------------------------	--

3.0 SUBSURFACE EXPLORATIONS

3.1 Test Borings

Six test borings (B-1 through B-6) were drilled within the footprint of the proposed post-tension slab on May 20, 2022 as shown on Figure 2 - Boring Location Plan. The borings were located in the field by GM2. Borings B-1 through B-6 were advanced to depths ranging from 9 to 10 feet below the existing ground surface.

The test borings were completed by New England Boring Contractors (NEBC) of Glastonbury, CT. Dig Safe was notified by NEBC in order to locate and mark the location of public underground utilities in proximity to the boring locations.

The test borings were typically advanced using 4-inch diameter solid stem and 4-inch diameter hollow stem augers. Soil samples were obtained from the borings using the Standard Penetration Test (SPT) in general accordance with the procedures set forth in ASTM D1586 - *Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils*. Soil samples were obtained using 2-inch O.D., 1.375-inch I.D., split-spoon samplers, driven 24 inches into the ground with a 140-pound automatic hammer with a free fall of 30 inches. The number of blows required to drive the sampler from 6 to 18-inches of penetration provides the SPT blow count resistance, or N-value. Upon completion of each boring, the borehole was backfilled with auger cuttings.

3.2 Subsurface Profile

Based on the six borings, subsurface conditions can be generalized as follow:

Description	Approximate Depth to Bottom of Stratum (feet)	Material Encountered	Relative Density
Topsoil ⁽¹⁾	0.4 to 0.7	Loamy fine Sand and silt, dark brown	NA
Fill ⁽²⁾	3 to 5	Coarse to fine Sand, with gravel, little silt to silty fine Sand, little gravel, red-brown.	Medium dense to dense
Alluvium ⁽³⁾	>10	Silty fine Sand to medium to fine Sand, little silt, brown to red-brown to yellow-brown, interlayered.	Medium dense to dense

Notes:

- Buried or former topsoil was encountered below the fill in four of the six test borings.
- Typically the lower half of the fill layer contained crushed/broken stone, as observed in the auger cuttings, with noted difficult augering.
- A petroleum odor was noticed in a sample of the natural alluvial sand at 8 to 10 feet deep, near groundwater level in B-1.

Conditions encountered at the exploration locations are indicated on the boring logs. Stratification boundaries on the boring logs represent the approximate location of changes in soil types; in situ, the transition between materials may be gradual. Further soil description details can be found on the boring logs in Appendix B.

3.3 Groundwater Conditions

Explorations were observed during drilling and after completion for the presence and level of groundwater. While drilling at B-1 and B-3 groundwater was noted at 9 feet and 9.5 feet deep, due to wet soil samples. It is likely groundwater may range from about El 18.5 to El 20 feet from west to east, respectively. Moist samples were noted at the bottom of B-2, B-5 and B-6. The bottom of B-4, was noted to be dry.

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff, brook elevation, and other factors not evident at the time the borings were performed. Therefore, groundwater levels during construction or at other times in the life of the project may be higher or lower than the levels indicated on the boring logs. Groundwater level fluctuations should be considered when developing the design and construction plans for the project.

3.4 Summary of Soil Properties

General soil parameters were determined for the primary soil layers encountered in the test borings based on relative density, observation of the soil types and engineering judgment. Laboratory testing was not performed as part of the scope of services.

Soil Layer	Total Unit Weight (pcf)	Drained Internal Friction (degrees)	Elastic Modulus (ksi)	Liquid Limit (LL)	Plasticity Index (PI)	Percent Finer than No. 200 Sieve	Percent Fine Clay (< 2 microns)
Existing Fill	125	34	7	15	5	20	1
Alluvium	115	32	2	10	<5	15	<1

4.0 EVALUATION AND RECOMMENDATIONS

Based on the encountered subsurface conditions, the site is suitable for soil support of the new post-tensioned slab. The fill that overlies the site is granular, relatively dense, and appears to be free of organic matter. However, the fill is undocumented and can vary in density; it also contained a 1 to 2-foot, thick zone with crushed/broken stone typically in the lower portion of the fill layer. Secondly, a former topsoil layer was encountered directly below the fill in four of the borings. The buried topsoil can be described as loamy fine sand and silt but relatively compact as noted by the SPTs. Subsurface soils are not considered expansive, therefore no special requirements are necessary for moisture control.

Due to the relative density of the fill and the former topsoil layer it may be reasonable to leave both materials in place, however risk should be recognized. Settlement could occur if unforeseen loose zones or voids in the crushed/broken stone portion of the fill are present; or undetected organic matter in the buried topsoil decays. Although the risk of settlement does not appear to be high based on what was encountered in the borings, three options should be considered as follow:

Option No. 1: The proposed courts may be supported on an aggregate base layer over compacted granular fill placed on the alluvial soil after removal of the buried topsoil layer. The existing inorganic fill can be reused in compacted lifts. The advantage is lowest risk, but highest cost.

Option No. 2: To reduce construction costs, and accepting the potential risk of differential settlement, the courts could be supported on an aggregate base layer placed over suitably proof-rolled existing fill. The buried topsoil and overlying fill remain in place. The advantage is least cost, but highest risk.

Option No. 3: As a compromise, the courts can be supported on an aggregate base layer, underlain by a subbase layer with geogrid reinforcement. The subbase and geogrid will provide additional support and help bridge over potential local settlement zones. The buried topsoil and much of the overlying fill remain in place. The advantage is mid-range cost, with acceptable risk.

Considering the cost implications versus risk, we recommend implementing Option No.3 because in our opinion the subsurface conditions do not warrant complete removal, but need some remedial approach to reduce risk from uncertainty caused by the past site filling. Option No.3 should provide adequate support for the life of the structure.

We recommend GM2 be retained to evaluate the subgrade exposed after excavation to confirm it is suitable. To reduce the risk of settlement and provide more uniform support, the existing fill should be observed during proof-rolling and in shallow test pits during construction. Where unsuitable conditions are observed, the materials should be replaced with compacted Granular Fill.

4.1 Post Tensioned Slab - Soil Design Parameters

The following table presents the recommended minimum slab support section. A summary of the soil parameters used for the basis of our post tensioned slab analyses is shown below:

Description ¹	Value	
	Edge (Swell)	Center (Shrink)
Subgrade Bearing Material	Suitably Proof-Rolled Fill	
Subgrade Soil Modulus	250 psi/in	
Thorntwaite Moisture Index, I_m (Fig. 3.1)	80	
Unsaturated Diffusion Coefficient, α (Para 3.6.1)	5.6×10^{-3}	
Edge Moisture Variation Distance, e_m (Fig. 3.6) ²	5.3 ft.	9.0 ft.
Suction Compression Index, δ_h (Para 3.6.1)	0.0001	0.0001
Suction Change, ρF (Para 3.6.3)	1.5 psf	
Stress Change Factor, SCF (Table 3.2b)	40.2	-29.2
Differential Soil Movement, y_m (Equation 3-12)	0.00402 ft.	-0.00292 ft

Notes

- Reference Paragraphs, Figures, Tables, and Equations are in PTI DC10.1-08 Design of Post-Tensioned Slabs-on-Ground.
- Edge Moisture Variation Distance based on the larger value obtained from I_m Chart or α Chart (Fig. 3.6)

4.2 Recommended Options

The following table presents the recommended option cross sections and material thicknesses.

Item	Option No. 1	Option No.2	Option No.3
Subgrade Soil	Alluvial Sand	Existing Fill	Existing Fill
Re-Used On-Site Fill	24 to 36 in.	NA	NA

Geogrid	NA	NA	Tensar BX-1100, or approved equal
Subbase	NA	NA	4 in.
Granular Base	12 in.	12 in.	12 in.

For each option, the post tensioned slab should be underlain with a minimum 12-inch, thick layer of Granular Base. Option No. 1 re-uses the existing granular fill, after the buried topsoil layer is removed, to backfill the excavation over an alluvial sand subgrade up to the bottom of the Granular Base layer. Option No.3 requires an additional 4 inches of existing fill removal to place the Subbase and a biaxial polymeric geogrid. The Subbase and geogrid will improve the structural capacity of the slab section by distributing load and bridging over potential weaker subgrade areas, and thereby reducing differential settlement. The geogrid should be placed on top of the prepared and approved existing fill subgrade. The geotextile should be installed in accordance with the manufacturer’s specifications for lap width.

4.3 Settlement

Since there will be no new raise in grade to cause added loading, settlement caused by the new slab weight is expected to be insignificant over the encountered soils. However as discussed above, with the crushed/broken stone zone in the lower portion of the undocumented fill and the presence of a buried topsoil layer, it’s possible for localized unforeseen areas to settle as a result of loose zones, fines migration or organic material decay.

For Option No.1, the risk of settlement is essentially removed, since the unforeseen conditions are mitigated. For Option No. 2, although the magnitude of settlement is difficult to estimate, the risk of settlement is highest. For Option No. 3, considering proper subgrade preparation and the installation of a subbase and a geogrid, the amount of differential settlement should be tolerable.

4.4 Subsurface Drainage

Surface water from the new courts will need to be collected and conveyed to the water quality basin using subsurface perimeter drains. The inverts of the underdrains should be at least 3 feet below the finish grade, to the extent possible, to intercept water within the slab subbase and collect surface water. Based on the finish grade at the west end of the courts, the drain inverts may be less than 3 feet to permit an adequate slope to the water quality basin.

Underdrains should be backfilled with Crushed Stone to the ground surface. The underdrains should consist of minimum 4-inch diameter perforated or slotted corrugated PVC pipe bedded in Crushed Stone. We recommend the Crushed Stone be surrounded in a needle-punched, non-woven geotextile, such as Mirafi 160N, or approved equal, to reduce the potential of fines migrating from the adjoining fill into the drains.

4.5 General Construction Considerations

4.5.1 Temporary Excavations and Dewatering

Excavations should comply with applicable local, state, and federal safety regulations, including current OSHA Excavation and Trench Safety Standards. The Contractor shall select the means and methods for providing support of excavations in accordance with safety requirements, plans, and project specifications. The Contractor must evaluate soil conditions during excavations since variations in the soil can occur across the site. The contractor is ultimately responsible for excavation safety.

There is an underground electrical line located along the west side of the site, which may require monitoring during construction of the project. Excavation for the court subgrade as well as the underdrain system will likely encroach upon the zone of influence of the electrical line.

Construction dewatering is not anticipated other than preventing surface water from disturbing subgrades. In general dewatering is not anticipated for excavations less than about 8 feet deep.

4.5.2 Subgrade Preparation

Regardless of the option, we recommend the post-tensioned slab subgrade be sloped to follow the proposed finished slab grades. A sloped subgrade will facilitate migrating water from beneath the slab to flow toward the perimeter underdrain.

The final soil subgrade should be proof-rolled with at least six systematic passes of a large vibratory roller. Soft areas observed during the proof-roll process should be replaced with compacted Granular Fill. Once the subgrade has been satisfactorily proof-rolled, place materials in accordance with the applicable option section requirements.

4.5.3 Fill Material Types

Off-site fill should meet the following material property requirements:

Fill Type	CTDOT Reference	Acceptable Location for Placement
Granular Fill	M.02.01	Unsuitable subgrade soil areas
Subbase	M.02.02	Below the Granular Base for Option No.3
Granular Base	M.02.03	Directly below the slab for each Option Nos. 1, 2 and 3
Crushed Stone	M.01.01 – No. 67 Stone	Backfill of perimeter drains

4.5.4 Fill Placement and Compaction

Fill should be placed in horizontal lifts not to exceed 9 inches loose thickness, and should be compacted to 95 percent of the maximum dry density according to the Modified Proctor Test (ASTM D1557, Method C). Where confined, such as in trenches, the fill should be placed in horizontal lifts not to exceed 6 inches loose thickness and compacted to 95 percent of the maximum dry density using a manually operated compactor.

In-place nuclear density tests, in accordance with test method ASTM D6938 shall be performed within 48 hours after the placement of fill materials. If inclement weather occurs after testing, retest the affected fill layer prior to placement of overlying materials. We recommend performing at least four tests per lift of the overall court area.

5.0 CLOSING

We prepared this report for the exclusive use of the Town of Glastonbury, Connecticut and their designated agents for design and construction of the proposed Riverfront Community Center Pickleball Courts in Glastonbury, Connecticut. Recommendations in this report are based upon the information obtained from the subsurface investigation, and our understanding of the proposed construction. Changes to our recommendations may be warranted if the actual subsurface conditions vary from those anticipated, or if the proposed construction varies from our understanding, as discussed in this report. Isolated information is not to be reproduced, copied or transferred from this report without written consent from GM2 Associates, Inc.

Generally accepted soil mechanics and foundation engineering practices were used to develop our recommendations. We conducted our services in a manner consistent with a level of skill ordinarily exercised by members of the profession currently practicing under similar conditions.

This report does not reflect variations that may occur between boring locations across the site, or due to the modifying effects of weather. Furthermore, the scope of services for this project does not include either


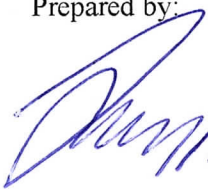
specifically or by implication any environmental or biological assessment of the site or identification or prevention of pollutants, hazardous material or conditions.

We recommend this report be made available to prospective construction bidders by incorporating it into the contract documents. Bidders should be informed that this report was prepared for design purposes only and may not contain sufficient information to prepare an accurate bid.

We appreciate the opportunity to be of service to you on this project. If you have questions regarding this report, or if we may provide additional services, please contact us.

Respectfully submitted,
GM2 Associates, Inc.

Prepared by:



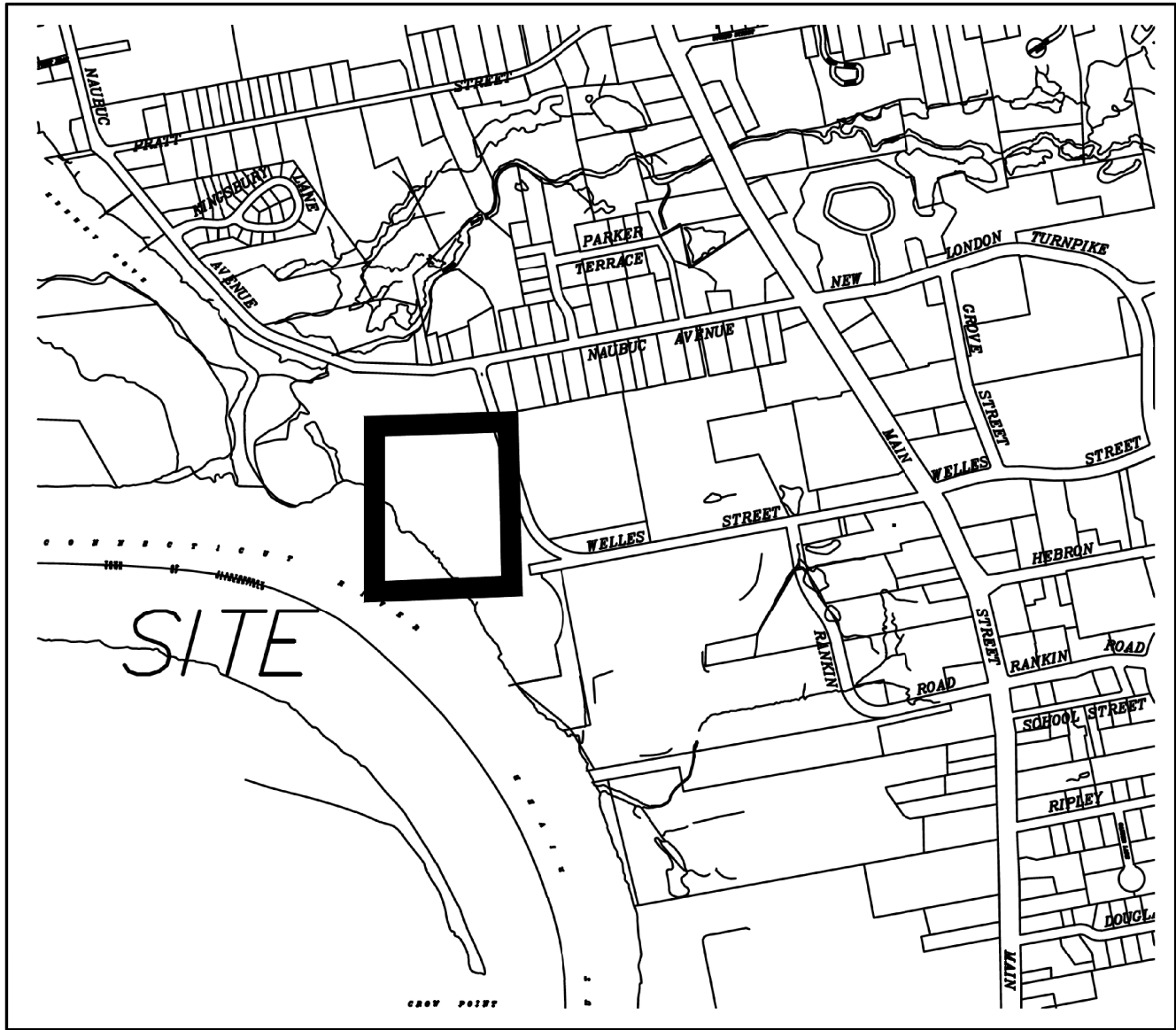
Lawrence J. Dwyer, P.E.
Lead Geotechnical Engineer

Reviewed by:



Jagdeesh Gopal, P.E.
Vice President

APPENDIX A
FIGURES



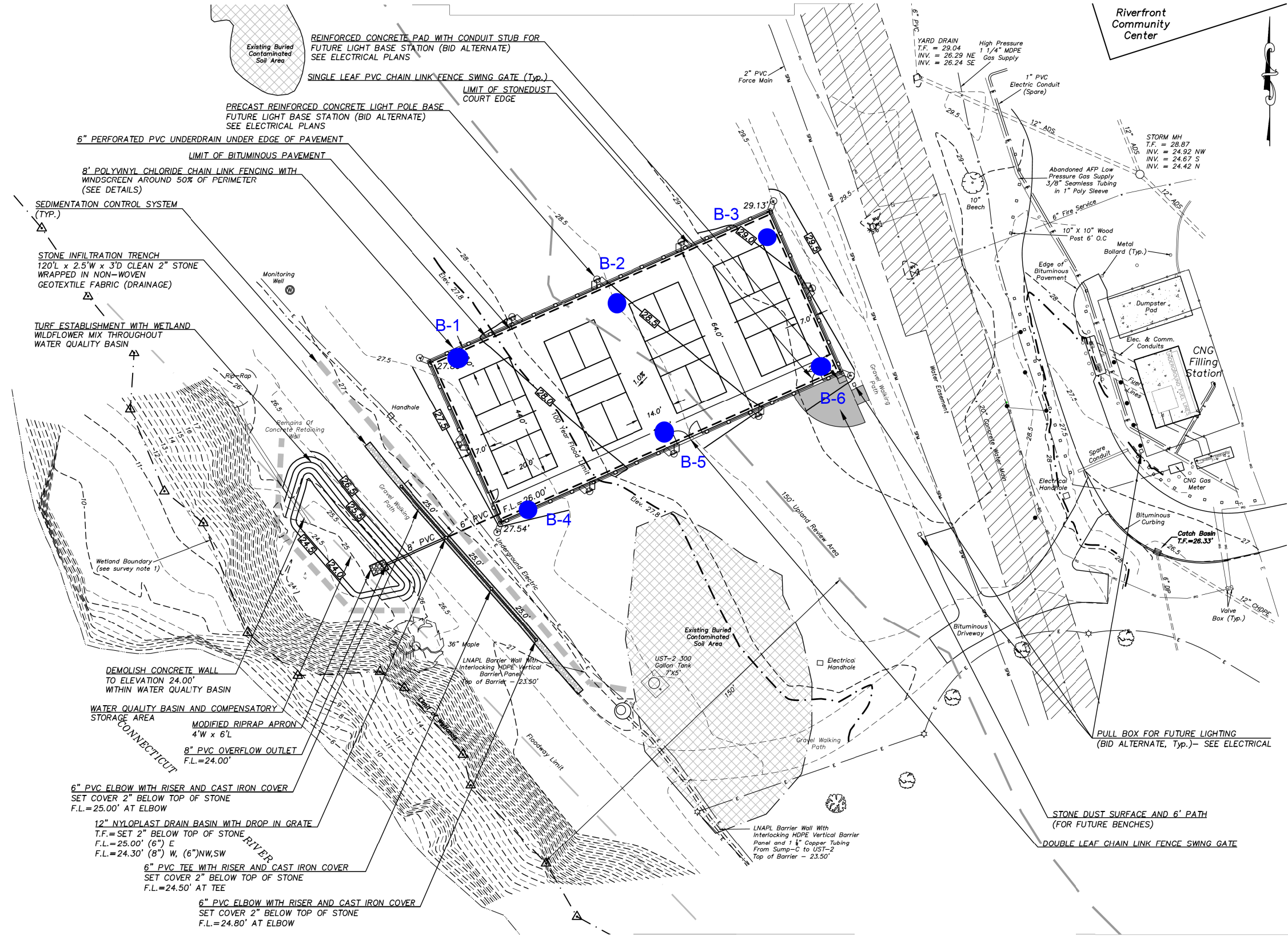
PROJECT SITE LOCATION


 GM2 Associates, Inc.
 197 Loudon Road, Suite 310
 Concord, NH 03301
 Tel: 603-856-7854
 Fax: 603-856-7855

300 WELLES STREET			
GLASTONBURY, CONNECTICUT			
FIG. 1			
PROJECT LOCUS			
DGN	STATE PROJECT NO.	SHEET NO.	SHEET TOTAL
LocusPlan	40892.00	1	2

SDR PROCESSED	NAME1	DATE	DATE	DATE	DATE
	NAME2	DATE	DATE	DATE	DATE
	NAME3	DATE	DATE	DATE	DATE
AS BUILT DETAILS					

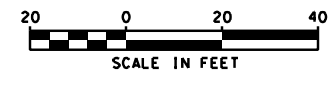
REVISIONS AFTER PROPOSAL	NUMBER	DATE	STATION	DESCRIPTION



- NOTES:**
- SKETCH WAS PREPARED FROM DRAWING SHT 1 - 'PLANS DEPICTING PICKLEBALL COURTS LOCATED AT RIVERFRONT COMMUNITY CENTER', DATED 7/28/2021, PREPARED BY THE TOWN OF GLASTONBURY, CT.
 - BORINGS WERE LOCATED BY TAPING FROM EXISTING SITE FEATURES.

LEGEND

● APPROXIMATE TEST BORING LOCATION



300 WELLES STREET			
GLASTONBURY, CT.			
FIG. 2			
BORING LOCATION PLAN			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
ExpLocPlan	40892.00	2	2

APPENDIX B
TEST BORING LOGS

BORING NUMBER B-1

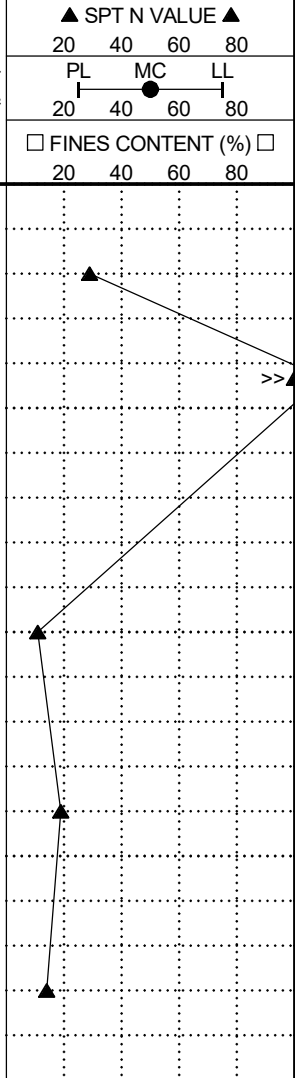
CLIENT Town of Glastonbury
PROJECT NUMBER 40892.00
DATE STARTED 5/20/22 **COMPLETED** 5/20/22
DRILLING CONTRACTOR New England Boring Contractors
DRILLING METHOD Hollow Stem Auger 4-Inch
LOGGED BY G. Jacobsen **CHECKED BY** L. Dwyer
NOTES _____

PROJECT NAME Riverfront Community Center Pickleball Courts
PROJECT LOCATION 300 Welles Street
GROUND ELEVATION 27.5 ft NGVD 1988 **MOLE SIZE** 4-Inch inches
GROUND WATER LEVELS:
AT TIME OF DRILLING ---
AT END OF DRILLING 9.00 ft / Elev 18.50 ft
AFTER DRILLING ---

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DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲		
								20	40	60
0.0		Dark brown, Loamy fine Sand and Silt (TOPSOIL)								
1.5		GRAVELLY SAND, reddish brown, fine to coarse grained, medium dense, little silt (FILL)	SS 1	75	4-8-21-30 (29)					
2.5		Similar to SS-1 with gray Crushed Stone. Augered hard from 2 to 4 ft. (FILL)	SS 2	50	50/4"					>>
5.0		SAND, reddish brown to yellowish brown, fine grained, medium dense, little silt (ALLUVIUM)	SS 3	75	4-5-6-8 (11)					
7.5		SILTY SAND, reddish brown, medium dense, with layers of fine sandy Silt. (ALLUVIUM)	SS 4	67	8-9-10-9 (19)					
9.0		SAND, reddish brown, fine to medium grained, wet, medium dense, trace silt, with layers of gray fine Sand, little silt. Petroleum odor at 9 ft. (ALLUVIUM)	SS 5	75	7-7-7-7 (14)					

Bottom of borehole at 10.0 feet.



CLIENT Town of Glastonbury
PROJECT NUMBER 40892.00
DATE STARTED 5/20/22 **COMPLETED** 5/20/22
DRILLING CONTRACTOR New England Boring Contractors
DRILLING METHOD Hollow Stem Auger 4-Inch
LOGGED BY G. Jacobsen **CHECKED BY** L. Dwyer
NOTES _____

PROJECT NAME Riverfront Community Center Pickleball Courts
PROJECT LOCATION 300 Welles Street
GROUND ELEVATION 28.5 ft NGVD 1988 **MOLE SIZE** 4-Inch inches
GROUND WATER LEVELS:
AT TIME OF DRILLING ---
AT END OF DRILLING 9.50 ft / Elev 19.00 ft
AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲				
								20	40	60	80	
0.0		Dark brown, Loamy Fine Sand and silt (TOPSOIL)										
	[Cross-hatched pattern]	GRAVELLY SAND, reddish brown, fine to coarse grained, dense, little silt (FILL)	SS 1	67	2-9-24-34 (33)							
2.5		Dense, Similar to SS1, with gray Crushed Stone. Augered hard from 3 to 4 ft. (FILL)	SS 2	58	21-24-28-50 (52)							
	[Dotted pattern]	Dark brown, Fine Sand and Silt with roots. (FORMER TOPSOIL)										
5.0		SAND, brown to yellowish brown, fine grained, medium dense, little silt (ALLUVIUM)	SS 3	67	8-9-11-12 (20)							
	[Vertical line pattern]	SAND, reddish brown to yellowish brown, fine grained, medium dense, little silt, laminated with fine sandy Silt. (ALLUVIUM)	SS 4	75	15-13-13-13 (26)							
7.5		Similar to SS-4, except moist. (ALLUVIUM)	SS 5	50	8-10-9-8 (19)							
10.0	[Downward arrow]	Bottom of borehole at 10.0 feet.										

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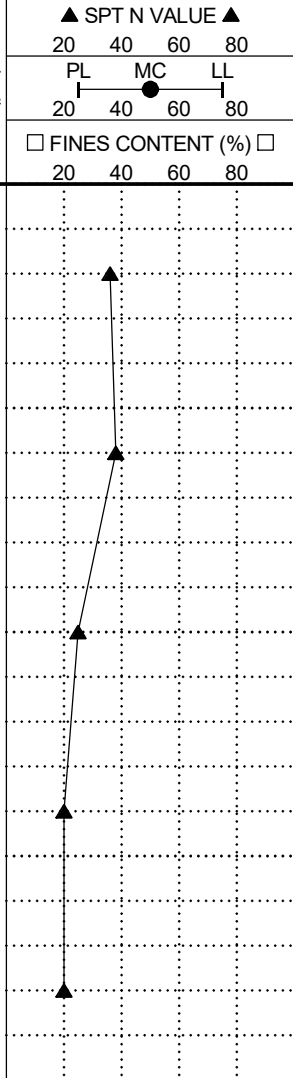
BORING NUMBER B-3

CLIENT Town of Glastonbury
PROJECT NUMBER 40892.00
DATE STARTED 5/20/22 **COMPLETED** 5/20/22
DRILLING CONTRACTOR New England Boring Contractors
DRILLING METHOD Hollow Stem Auger 4-Inch
LOGGED BY G. Jacobsen **CHECKED BY** L. Dwyer
NOTES _____

PROJECT NAME Riverfront Community Center Pickleball Courts
PROJECT LOCATION 300 Welles Street
GROUND ELEVATION 29.5 ft NGVD 1988 **MOLE SIZE** 4-Inch inches
GROUND WATER LEVELS:
AT TIME OF DRILLING ---
AT END OF DRILLING 9.5 ft / Elev 20.00 ft
AFTER DRILLING ---

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DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲		
								20	40	60
0.0		Dark brown, Loamy fine Sand and silt (TOPSOIL)								
0.0 - 2.5		GRAVELLY SAND, reddish brown, fine to medium grained, dense, little silt (FILL)	SS 1	83	5-13-23-38 (36)					
2.5 - 4.5		Dense, Similar to SS-1, with gray Crushed Stone. Augered hard from 1.5 to 3 ft. (FILL)	SS 2	50	18-19-19-15 (38)					
4.5 - 5.0		GRAVELLY SAND, reddish brown, fine to coarse grained, medium dense, little silt (FILL)								
5.0 - 7.5		Dark brown, Loamy Silt and fine Sand (FORMER TOPSOIL)	SS 3	67	12-15-10-8 (25)					
7.5 - 9.5		SAND, reddish brown and yellowish brown, fine grained, medium dense, little silt (ALLUVIUM)	SS 4	67	26-11-9-14 (20)					
9.5 - 10.0		SAND, reddish brown, fine grained, wet, medium dense, trace silt (ALLUVIUM)	SS 5	58	13-9-11-8 (20)					



Bottom of borehole at 10.0 feet.

BORING NUMBER B-4

PAGE 1 OF 1

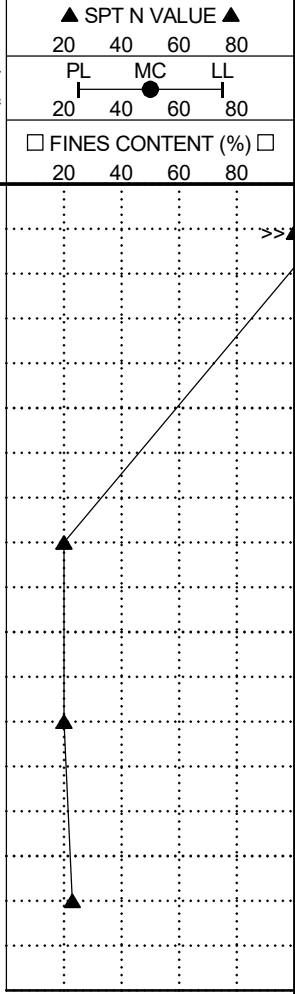
CLIENT Town of Glastonbury
PROJECT NUMBER 40892.00
DATE STARTED 5/20/22 **COMPLETED** 5/20/22
DRILLING CONTRACTOR New England Boring Contractors
DRILLING METHOD Hollow Stem Auger 4-Inch
LOGGED BY G. Jacobsen **CHECKED BY** L. Dwyer
NOTES _____

PROJECT NAME Riverfront Community Center Pickleball Courts
PROJECT LOCATION 300 Welles Street
GROUND ELEVATION 27.3 ft NGVD 1988 **MOLE SIZE** 4-Inch inches
GROUND WATER LEVELS:
AT TIME OF DRILLING ---
AT END OF DRILLING --- Not Encountered
AFTER DRILLING ---

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DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲				
								20	40	60	80	
0.0		Dark brown, Loamy fine Sand and silt (TOPSOIL)										
0.0 - 2.5		GRAVELLY SAND, light brown and gray, fine grained, dense, little silt, with Crushed Stone. Augered very hard from 1 to 3 ft. (FILL)	SS 1	100	3-13-20/1"							
2.5 - 5.0		SAND, light brown, fine grained, medium dense, little silt (ALLUVIUM)	SS 2	83	7-9-11-13 (20)							
5.0 - 7.5		SAND, light brown, fine grained, medium dense, little silt (ALLUVIUM)	SS 3	50	11-10-10-10 (20)							
7.5 - 9.0		SILTY SAND, brown, fine grained, medium dense (ALLUVIUM)	SS 4	50	8-12-11-11 (23)							

Bottom of borehole at 9.0 feet.

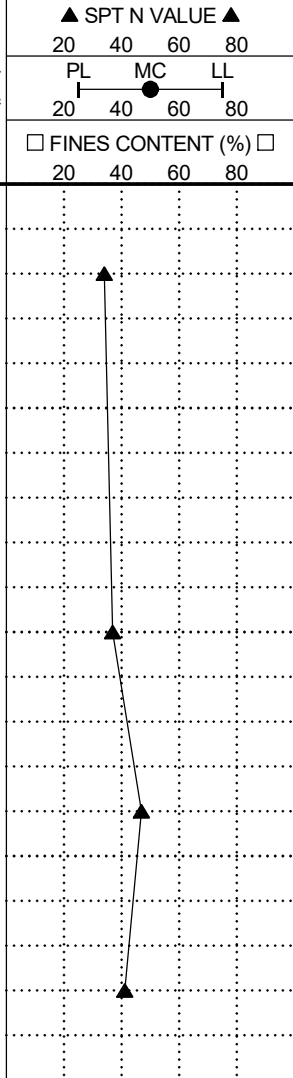


CLIENT Town of Glastonbury
PROJECT NUMBER 40892.00
DATE STARTED 5/20/22 **COMPLETED** 5/20/22
DRILLING CONTRACTOR New England Boring Contractors
DRILLING METHOD Hollow Stem Auger 4-Inch
LOGGED BY G. Jacobsen **CHECKED BY** L. Dwyer
NOTES _____

PROJECT NAME Riverfront Community Center Pickleball Courts
PROJECT LOCATION 300 Welles Street
GROUND ELEVATION 28.5 ft NGVD 1988 **MOLE SIZE** 4-Inch inches
GROUND WATER LEVELS:
AT TIME OF DRILLING ---
AT END OF DRILLING 9.50 ft / Elev 19.00 ft
AFTER DRILLING ---

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DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲				
								20	40	60	80	
0.0		Dark brown, Loamy fine Sand and silt (TOPSOIL)										
		SILTY SAND, reddish brown, fine grained, dense, with gravel (FILL)	SS 1	75	3-8-26-32 (34)							
2.5		Dense, Similar to SS2, with gray Crushed Stone. Augered hard from 2 to 4 ft. (FILL)	SS 2	83	22-50							
		Dark brown, Loamy Silt and fine Sand (FORMER TOPSOIL)										
5.0		SAND, yellowish brown, fine grained, dense, little silt (ALLUVIUM)	SS 3	83	9-18-19-20 (37)							
		SAND, yellowish brown, fine grained, dense, little silt (ALLUVIUM)	SS 4	75	14-21-26-29 (47)							
7.5		SAND, yellowish brown, fine grained, moist, dense, trace silt (ALLUVIUM)	SS 5	50	15-18-23-26 (41)							
10.0		Bottom of borehole at 10.0 feet.										



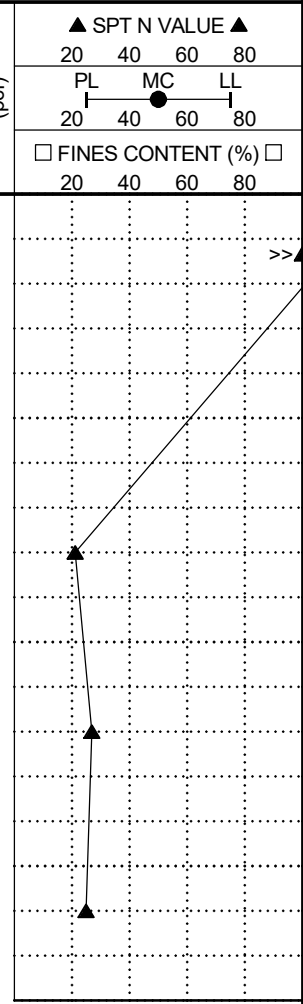
CLIENT Town of Glastonbury
PROJECT NUMBER 40892.00
DATE STARTED 5/20/22 **COMPLETED** 5/20/22
DRILLING CONTRACTOR New England Boring Contractors
DRILLING METHOD Hollow Stem Auger 4-Inch
LOGGED BY G. Jacobsen **CHECKED BY** L. Dwyer
NOTES _____

PROJECT NAME Riverfront Community Center Pickleball Courts
PROJECT LOCATION 300 Welles Street
GROUND ELEVATION 29.2 ft NGVD 1988 **MOLE SIZE** 4-Inch inches
GROUND WATER LEVELS:
AT TIME OF DRILLING ---
AT END OF DRILLING 9.0 ft / Elev 20.20 ft
AFTER DRILLING ---

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DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲		
								20	40	60
0.0		Dark brown, Loamy fine Sand. (TOPSOIL)								
0.0 - 2.5	[Cross-hatched pattern]	SILTY SAND, reddish brown, fine to medium grained, dense, little gravel (FILL) Similar to SS1 with gray Crushed Stone. Augered hard from 1 to 3 ft. (FILL)	SS 1	100	7-22-50/4"					PL MC LL 20 40 60 80
2.5 - 4.5	[Dotted pattern]	Dark brown, Loamy fine Sand and Silt. (FORMER TOPSOIL)	SS 2	75	19-12-9-10 (21)					
4.5 - 5.0	[Dotted pattern]	SAND, reddish brown, fine grained, medium dense, little silt (ALLUVIUM)	SS 3	75	11-15-12-11 (27)					
5.0 - 7.5	[Dotted pattern]	SAND, reddish brown, fine grained, medium dense, trace silt (ALLUVIUM)	SS 4	75	10-13-12-13 (25)					
7.5 - 9.0	[Dotted pattern]	SAND, brown, fine grained, moist, medium dense, trace silt (ALLUVIUM)								

Bottom of borehole at 9.0 feet.



**ATTACHMENT E:
REQUIRED ARPA CERTIFICATIONS**

ATTACHMENT E1
CERTIFICATE OF DEBARMENT / SUSPENSION

The **Contractor**, _____,
(Print business name of Contractor above)

certifies, by submission of this document, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any federal department or agency.

Where the Contractor is unable to certify to any of the statements in this certification, such Contractor must attach an explanation to this submittal.

The **Contractor**, _____,
(Print business name of Contractor above)

certifies or affirms the truthfulness and accuracy of the contents of the statements submitted on or with this certification.

Signature of Authorized Official

Print Name of Authorized Official

Print Title of Authorized Official

Date

THIS FORM MUST BE COMPLETED BY THE PRIME CONTRACTOR AND ANY SUB-TIER CONTRACTOR THAT WILL BE AFFILIATED WITH THE WORK LISTED ON THE ATTACHED DOCUMENTS.

ATTACHMENT E2

CERTIFICATION REGARDING LOBBYING BY CONTRACTOR

Pursuant to 40 CFR Part 20 (which is by this reference incorporated herein), the undersigned **Contractor** certifies, to the best of his or her knowledge and belief, that:

- A. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- B. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned must complete and submit Standard Form-LLL *Disclosure Form to Report Lobbying*, in accordance with its instructions.
- C. The undersigned must require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subcontractors must certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification must be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The **Contractor**, _____, (Print business name of Contractor above)

certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. A 3801, *et seq.*, apply to this certification and disclosure, if any.

Signature of Authorized Official

Print Name of Authorized Official

Print Title of Authorized Official

Date

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

ATTACHMENT E3

CERTIFICATION REGARDING PROCUREMENT OF RECOVERED MATERIALS

Pursuant to the procurement requirements of Section 6002 of the Environmental Protection Agency (EPA) at 40 C.F.R. Part 247 the **Contractor**, _____

(Print business name of Contractor above)

shall make maximum use of products containing recovered materials that are EPA-designated items until the product cannot be acquired:

- 4. Competitively within a timeframe providing for compliance with the contract performance schedule;
- 5. Meeting contract performance requirements; or
- 6. At a reasonable price.

The undersigned Contractor agrees to provide a preference for those products and services that conserve natural resources, protect the environment, and are energy efficient by complying with and facilitating compliance with Section 6002 of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. § 6962, and U.S. Environmental Protection Agency, "Comprehensive Procurement Guideline for Products Containing Recovered Materials," 40 C.F.R. Part 247.

The undersigned Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

Signature of Authorized Official

Print Name of Authorized Official

Print Title of Authorized Official

Date

ATTACHMENT E4
CERTIFICATION REGARDING PROHIBITION ON
CERTAIN TELECOMMUNICATIONS AND
VIDEO SURVEILLANCE SERVICES OR EQUIPMENT

Pursuant to Public Law 115-232, section 889, the undersigned Contractor,

(Print business name of Contractor above)

certifies, by submission of this document that the contract (or any extension or renewal) does not contain covered telecommunications equipment. The Town is prohibited to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

Signature of Authorized Official

Print Name of Authorized Official

Print Title of Authorized Official

Date

ATTACHMENT E5
CERTIFICATION REGARDING DOMESTIC PURCHASE
OF GOODS PRODUCTS OR MATERIALS

To the greatest extent practicable under this Federal award the **Contractor**,

(Print business name of Contractor above)

agrees to provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section will be included in all sub-awards including all contracts and purchase orders for work or products under this award. For purposes of this certification:

A. "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

B. "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

The undersigned Contractor agrees to comply with this requirement and must include the requirements in all subawards including all contracts and purchase orders for work or products under this award.

Signature of Authorized Official

Print Name of Authorized Official

Print Title of Authorized Official

Date