

SPECIFICATIONS & BID FORM
FOR

“POLICE DEPARTMENT FUEL TANK UPGRADES”

GROTON, CONNECTICUT

Contract # 24-19

BID OPENING

DATE: April 18, 2024

TIME: 2:00 P.M. PREVAILING TIME

PLACE: TOWN HALL ANNEX
134 GROTON LONG POINT ROAD
(OPPOSITE FITCH HIGH SCHOOL)
GROTON, CONNECTICUT 06340

TOWN COUNCIL

RACHAEL FRANCO, MAYOR

PORTIA BORDELON
DANIEL GAIEWSKI
BRUCE JONES
DAVID MCBRIDE

ROSCOE MERRITT
JULIETTE PARKER
ADAM J. PUCCINO, SR
JILL RUSK

TOWN MANAGER
JOHN BURT

DIRECTOR OF PUBLIC WORKS
GREG A. HANOVER, P.E.

PREPARED BY:
RZ Design Associates, Inc.
750 Old Main Street
Rocky Hill, CT 06067

BID DOCUMENT

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ADVERTISEMENT FOR BIDS
“POLICE DEPARTMENT FUEL TANK UPGRADES”

TOWN OF GROTON, CONNECTICUT
(Owner)

Sealed bids for " POLICE DEPARTMENT FUEL TANK UPGRADES " will be received by the Town of Groton at the Town Hall Annex, 134 Groton Long Point Road (across from R. E. Fitch High School) Groton, CT until 2:00 p.m., prevailing time, on April 18, 2024, and then at said office publicly opened and read aloud. Bids must be enclosed in a sealed envelope and designated as bid for “**POLICE DEPARTMENT FUEL TANK UPGRADES**”.

Any bid may be withdrawn prior to the above scheduled time for opening of bids. Any bid received after the time and date specified will be returned unopened.

All Contract Documents may be examined at the following:

TOWN HALL ANNEX – 134 GROTON LONG POINT ROAD, GROTON, CT
PUBLIC WORKS DEPARTMENT

This project consists of removal and installation of new underground fuel piping, tank piping sump, and vent piping. Site improvements include bituminous concrete pavements, concrete pads and lawn areas as required for tank and piping upgrades.

A non-mandatory pre-bid meeting will be held on-site on April 3, 2024 at 1:00 pm.

Contract documents, including Plans and Specifications, are available on the Town of Groton Website: www.groton-ct.gov.

The Town of Groton reserves the right to waive any formalities or to reject any or all bids.

Each bidder must deposit, with his bid, security in the form of bid bond or certified check subject to the conditions provided in the Information for Bidders.

No bidder may withdraw his bid within 60 days after the actual date of the opening thereof.

Greg A. Hanover, P.E.
Director of Public Works
Town of Groton, Connecticut

The Town of Groton is An Equal Opportunity/Affirmative Action Employer.

INFORMATION FOR BIDDERS

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1. Sealed Bids

Sealed bids for "POLICE DEPARTMENT FUEL TANK UPGRADES" will be received by the Town of Groton at the Town Hall Annex, 134 Groton Long Point Road, Groton, CT until 2:00 p.m. prevailing time on April 18, 2024 and then at said office publicly opened and read aloud. Bids must be enclosed in a sealed envelope and designated as bid for "POLICE DEPARTMENT FUEL TANK UPGRADES".

Any bid may be withdrawn prior to the above scheduled time for the opening of bids. Any bid received after the time and date specified will be returned unopened.

2. Method of Award

The Town of Groton intends to award the contract to the lowest responsible bidder. The Town reserves the right to reject any and all bids and to award each contract to the bidder who is most responsive to the interests of the Town.

If the lowest Base Bid submitted by a responsible bidder does not exceed the amount of funds, then estimated by the Owner as available to finance the contract, the contract shall be awarded on the Base Bid only. If such bid exceeds such amount, the Owner will reject all bids.

3. Bid Schedule

Bids must be made on these forms and returned intact. Bidders will state both in writing and in figures, in ink or typewritten, the proposed price for each separate item of the work called for in the bid schedule, by which prices will be compared. If any price is omitted, the blank shall be filled with the highest price named by any bidder for that item or the bid may be rejected. Alterations and erasures must be initialed by the signer.

4. Arithmetic Discrepancies

A. For the purpose of initial evaluation of bids, the following will be utilized in resolving arithmetic discrepancies found on the face of the bidding schedule as submitted by bidders:

1. Obviously misplaced decimal points will be corrected.
2. In case of discrepancy between unit price and extended price, the unit price will govern.
3. Apparent errors in extension of unit prices will be corrected.
4. Apparent errors in addition of lump sum and extended prices will be corrected.

- B. For the purpose of bid evaluation, the Town will proceed on the assumption that the bidder intends his bid to be evaluated on the basis of the unit prices, extensions, and totals arrived at by resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.

5. Bid Security

If the total amount of the bid submitted exceeds \$50,000, or if the bid contains any add alternates and the combination of the base bid plus all add alternates exceeds \$50,000, then the bid must be accompanied by a CERTIFIED CHECK or a BID BOND, signed by a responsible Surety, in the amount of 10% of the total amount of the tendered bid and made payable to the order of the Town of Groton. All bid checks or bonds, except those of the lower three (3) bidders will be returned within ten (10) days of the opening of bids. Those of the lower three (3) bidders will be retained by the Town of Groton until one of the lower three (3) bidders signs the contract or until all bids are rejected; however, in no case will the bid check or bond be retained for more than 60 days unless forfeited as hereinafter stipulated. No bidder may withdraw his bid within 60 days after the actual date of the opening thereof.

Should there be reasons why the CONTRACT cannot be awarded within the specified period, the time may be extended by mutual agreement between the OWNER and the BIDDER.

If the total amount of the bid (or base bid plus alternates) submitted is \$50,000 or less, then no bid security is required.

The Bid Bond and Surety's Letter of Intent must be provided by a Surety Company that meets all of the following qualifications as of the date of bid.

- A. Licensed to do business in the State of Connecticut
- B. Listed on the current U. S. Treasury "T" List
- C. Rate A- or better by A. M. Best

6. Qualifications of BIDDER

The OWNER may make such investigations as he deems necessary to determine the ability of the BIDDER to perform the work, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any bid if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the obligations of the CONTRACT and to complete the work contemplated therein. Conditional bids shall not be accepted. Any CONTRACTOR, who is in litigation or arbitration with the Town at the time of the bid opening, or prior to the execution of the

CONTRACT, may be considered an unacceptable BIDDER and may be disqualified.

7. Identity of SUB-CONTRACTORS

If any portion of the work is to be performed by persons or entities not considered to be part of the bidder's own forces, the successful bidder shall, upon notification of the award of a contract, furnish a written list of such other persons or entities and a description of the work to be performed by them. If requested by the Owner, the successful bidder shall be required to establish, to the satisfaction of the Owner, the reliability and responsibility of such Sub-Contractors.

8. Bonds

A. **Performance Bond**

If the total bid price for the project exceeds **\$50,000**, or if the bid contains any alternates and the combination of the base bid plus all Town accepted alternates exceeds \$50,000, then either of the following is required:

1. The Contractor shall furnish a bond covering faithful performance of the Contract. Surety shall be qualified to do business in the State of Connecticut, listed on the current U. S. Treasury "T" list, and rated "A-" or better by A. M. Best. The cost of the bond premium shall be included in the Contract Sum. The amount of the bond shall be equal to 100 percent of the Contract Sum.

OR

2. In lieu of a Performance Bond, a security in a form acceptable to the Town (for example, letter of credit or an assigned passbook) in the amount of 100% of the Contract may be substituted.

The Contractor shall deliver the required security to the Owner on the date the agreement is entered into.

The Contractor shall require the attorney-in-fact, who executes the required bond on behalf of the surety, to affix thereto a certified and current copy of the power-of-attorney.

In the case where add alternates are part of the bid, and where acceptance of any alternates would cause the Contract Sum to exceed the \$50,000 threshold, then the price of the alternate shall include the cost of the required bond or security.

B. Payment Bond

If the total bid price for the project exceeds **\$100,000**, or if the bid contains any alternates and the combination of the base bid plus all Town accepted alternates exceeds \$100,000, then either of the following is required:

1. The Contractor shall furnish a bond covering payment of obligations arising under the terms of the Contract. Surety shall be qualified to do business in the State of Connecticut, listed on the current U.S. Treasury "T" list, and rated "A-" or better by A.M. Best. The cost of the bond premium shall be included in the Contract Sum. The amount of the bond shall be equal to 100 percent of the Contract Sum.

OR

2. In lieu of a Payment Bond, a security in a form acceptable to the Town (for example, a letter of credit or an assigned passbook) in the amount of 100% of the Contract may be substituted.

The Contractor shall deliver the required security to the Owner on the date the Agreement is entered into.

The Contractor shall require the attorney-in-fact, who executes the required bond on behalf of the surety, to affix thereto a certified copy of the power-of-attorney.

In the case where add alternates are part of the bid, and where acceptance of any alternates would cause the Contract Sum to exceed the \$100,000 threshold, then the price of the alternate shall include the cost of the required bond or security.

If the total bid (or base bid plus alternates) for the project is \$100,000 or less, then in lieu of providing any security listed in Section 8.B, the Contractor can elect to substitute the following:

1. Provide certified lien waivers from each supplier and sub-contractor affirming that they have been paid for work and materials for which previous payment applications were issued by the Owner and payments received by the Contractor.

9. Non-Resident Contractor Guarantee Bonds

A Non-Resident Contractor is required to post a Guarantee Bond (form AU-766) or Cash Bond (form AU-72) with the State of Connecticut Department of Revenue Services (DRS) in the amount of 5% of the total contract price. This

Bond will secure payment for applicable taxes payable to the State related to this Project. The State will issue a Certificate of Compliance once an acceptable bond has been submitted by the Non-Resident Contractor. This Certificate of Compliance must be provided by the Contractor to the Town prior to the release of the first progress payment under the Contract, or the Town must remit 5% of the total contract value directly to the State. This 5% is in addition to the Project retainage.

Special Notice SN2012(2), published by the State of Connecticut Department of Revenue Services, details the procedures and requirements regarding the Guarantee Bond or Cash Bond. The Special Notice and bond forms can be obtained at the State of Connecticut Department of Revenue Services webpage, www.ct.gov/DRS.

10. Insurance

The Contractor must provide a CERTIFICATE OF INSURANCE as specified in the General and Supplementary Conditions.

11. Receipt of Bonds & Insurance Certificates Prior to Signing Contract

The Contractor to whom the contract shall be awarded must file the requisite BONDS and CERTIFICATE OF INSURANCE as specified and any other forms and documents required by the specifications prior to signing of the contract, and within 21 days from the date of receipt of notification of said award.

12. Obligation of Bidder

Bidders, if requested, must be able to present evidence satisfactory to the Director of Public Works that they have been regularly engaged in the business of constructing such work as they propose to execute, and that they are fully prepared with the necessary capital, materials, and equipment to conduct the work to be contracted for, and to begin it promptly when ordered.

Prior to submitting his bid, the bidder must inspect the site and thoroughly read all plans, specifications and bid and contract documents. The failure or omission of any bidder to examine any form, instrument or document and to thoroughly examine the site shall in no way relieve any bidder from any obligations in respect to his bid.

13. Damages for Failure to Enter into Contract

The party to whom the CONTRACT is awarded will be required to execute the CONTRACT within thirty (30) calendar days from the date when Notice of Award is delivered to the BIDDER. In case of failure of the BIDDER to execute the CONTRACT, the OWNER may at his option, consider the BIDDER in default, in which case the bid security accompanying the proposal shall become the property of the OWNER as liquidated damages and not as a penalty.

14. Execution of Contract and Notice to Proceed

The OWNER within twenty (20) days of receipt of acceptable PERFORMANCE BOND, PAYMENT BOND and CONTRACT signed by the party to whom the CONTRACT was awarded shall sign the CONTRACT and return to such party an executed duplicate of the CONTRACT. Should the OWNER not execute the CONTRACT within such period, the BIDDER may by written notice withdraw his signed CONTRACT. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

The Notice to Proceed shall be issued within ten (10) days of the execution of the CONTRACT by the OWNER. Should there be reasons why the Notice to Proceed cannot be issued within such period, the time may be extended by mutual agreement between the OWNER and the CONTRACTOR. If the Notice to Proceed has not been issued within the ten (10) day period or within the period mutually agreed upon, the CONTRACTOR may terminate the CONTRACT, whereupon it shall become null and void and all rights and obligations created thereunder shall be extinguished.

15. Time of Completion and Liquidated Damages

BIDDER must agree to commence work on or before a date to be specified in a written Notice to Proceed from the OWNER and to fully complete the project by August 1, 2024.

Bidder must agree also to pay as liquidated damages, the sum of \$200.00 for each consecutive calendar day thereafter as hereinafter provided in the GENERAL CONDITIONS.

It is hereby understood and mutually agreed, by and between the CONTRACTOR and the OWNER, that the date of beginning and the time for completion during the normal working hours as specified in the General Conditions of the work to be done hereunder are essential conditions of this CONTRACT; and it is further mutually understood and agreed that the work embraced in this CONTRACT shall be commenced on a date to be specified in the "Notice to Proceed".

The CONTRACTOR agrees that said work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the time for the completion of the work described herein is a reasonable time for the completion of same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

If the said CONTRACTOR shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extensions thereof granted by the OWNER, then the CONTRACTOR does hereby agree, as a part consideration for the awarding of this CONTRACT, to pay to the OWNER the amount specified in the Information for Bidders, not as a penalty but as liquidated damages for such breach of CONTRACT as hereinafter set forth, for each and every calendar day that the CONTRACTOR shall be in default after the time stipulated in the CONTRACT for completion of the work.

The said amount is fixed and agreed upon by and between the CONTRACTOR and the OWNER because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the OWNER would in such event sustain, and said amount is agreed to be the amount of damages which the OWNER would sustain and said amount shall be retained from time to time by the OWNER from current periodic estimates.

It is further agreed that time is of the essence of each and every portion of this CONTRACT and of the specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the CONTRACT an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this CONTRACT. The CONTRACTOR shall not be in default when the delay in completion of the work is due:

- A. To any preference, priority or allocation order duly issued by the State or Federal Government
- B. To unforeseeable cause beyond the control and without the fault or negligence of the CONTRACTOR, including, but not limited to, acts of God, or of the public enemy, acts of the OWNER, acts of another contractor in the performance of a contract with the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes and severe weather.

The CONTRACTOR shall, within ten (10) days from the beginning of any such delay, unless the OWNER shall grant a further period of time prior to the date of final settlement of the CONTRACT, notify the OWNER, in writing, of the causes of the delay. The Owner shall ascertain the facts and extent of the delay and notify the CONTRACTOR within a reasonable time of its decision in the matter.

16. Addenda and Interpretations

All questions about the meaning or intent of the Contract Documents are to be directed to the Owner. Interpretations or clarifications considered necessary by the Owner in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by the Owner as having received the Bidding Documents. Questions received less than seven days prior to the date for opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

Addenda will be issued to modify the Bidding Documents as deemed advisable by the Owner.

17. Substitution Clause

Wherever in the Plans and Specifications any item of equipment or material is designed by reference to a particular brand, manufacturer, or trade name, it is understood that an

approved equal product, acceptable to the OWNER, may be substituted by the BIDDER or the CONTRACTOR.

18. Retainage

The Town of Groton reserves the right to retain 5% of the final contract price for a period not to exceed six (6) months from the date of final acceptance of the project.

19. Laws and Regulations

The bidder's attention is directed to the fact that all applicable Federal and State law, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

20. List of Utilities in the Area

Attention is called to the fact that the following Utility Companies have facilities in the area:

- City of Groton – Water
- Eversource – Electric
- Frontier – Communications
- Comcast Cablevision Co. – Communications
- Thames Valley Communications, Inc. – Communications
- Eversource – Gas
- Town of Groton – Sewer

Information and data reflected in the Contract Documents with respect to Underground Facilities at or contiguous to the site is based upon information and data furnished to Owner by owners of such Underground Facilities or others, and Owner does not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions. The Contractor should acquaint himself with and adhere to the regulations of those utilities which are in the area of this Contract.

When requested by the Contractor, all underground utilities will be located and marked on the surface by the controlling utility company at no cost to him. Contractor will be responsible for notifying the Utility clearinghouse, "Call-Before-You-Dig" 48 hours prior to any excavation, to allow for the location of the existing utilities by controlling Utility Company.

21. Sales Tax

Under the terms of the regulations referring to CONTRACTORS and SUBCONTRACTORS, issued by the STATE TAX COMMISSION in administration of the STATE Sales and Use Tax, to which the BIDDER is referred, the CONTRACTOR may purchase materials or supplies to be consumed in the performance of this contract

without payment of tax and shall not include in his bid nor charge any use or sales tax thereon.

22. Site Investigation and Conditions Affecting the Work

Arrangements to visit the site may be made by calling the Public Works Department Engineering Division, (860) 448-4083, Monday through Friday, 8:30 a.m. to 3:30 p.m.

- A. The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to:
 - 1. Conditions bearing upon transportation, disposal, handling, and storage of materials;
 - 2. The availability of labor, water, electric power, and roads;
 - 3. Uncertainties of weather, river stages, tides, or similar physical conditions at the site;
 - 4. The conformation and conditions of the ground; and
 - 5. The character of equipment and facilities needed preliminary to and during work performance.

- B. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Town, as well from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Town.

- C. The Town assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Town. Nor does the Town assume responsibility for any understanding reached or representation made concerning conditions, which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this Contract.

- D. The Contract Documents contain the provisions required for the construction of the project. Information obtained from an officer, agent or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve him from fulfilling any of the conditions of the CONTRACT.

23. Permits

The Contractor must obtain all necessary construction and building permits; however, the fee for any permits issued by the Town of Groton shall be waived.

24. Work Area

Construction will be confined to the immediate work area only. Trespass on property other than Town property or easements acquired by the Town for the project will be by written permission of the property owner only.

25. Change Orders

Any deviations from, additions to, or deductions from either scope of work or contract price shall be submitted by the Contractor to the Town in the form of a contract change order. The Director of Public Works must approve this contract change order before said deviations, additions, or deductions shall be enacted.

Further, all changes in scope of work involving unit price items shall be governed by the unit price indicated by the Contractor on the Base Bid Form.

26. Wages

Bidder is directed to Paragraph 45 of the General Conditions for wage rate scales and legislation applicable to this contract.

27. Unbalanced Bids

An unbalanced bid is one in which the contractor's unit prices are:

- a. Significantly higher or lower than the Engineer's estimate.
- b. "Front loaded" so contractor receives a disproportionate payment for work done during the early stages of a project.
- c. Token bid prices (i.e. penny unit bids).

While it is often impossible to designate precisely the dividing line between a balanced bid and an unbalanced bid, contractors should be aware that the Department may regard the unbalancing of a bid as so extreme, undeniable, or detrimental to the interests of the Town that it may question the contractor about the apparent unbalancing of the bid proposal, and, if the contractor cannot provide a satisfactory explanation of the apparent unbalancing, and if the Department's assessment of the risk to the Town is unacceptable, reject the bid as nonresponsive.

28. OSHA Violations

In accordance with Connecticut General Statute Section 31-57b, no contract shall be awarded to a bidder if it is determined that the bidder (person or firm) has been cited for three (3) or more willful or serious violations of any occupational safety and health act or of any standard, order or regulation promulgated pursuant to such act during the three (3) year period preceding the date of bid opening.

29. Local Vendor Preference

The Town of Groton has adopted a policy of providing preference to selecting Local Vendors as outlined in this section. The term “Local Vendor” as used in this section shall mean, and be used interchangeably with, “Bidder” and “Contractor”.

A. *Definition:* The term “Local Vendor” shall mean a company, firm, LLC, partnership, sole proprietorship or similar business with its principal place of business located within the Town of Groton. A business shall not be considered a local vendor unless satisfactory evidence has been submitted with the bid that clearly establishes that it has a bona fide principal place of business, including branches or satellite offices, in the Town of Groton. Such documentation shall include evidence of ownership such as real estate and personal property bills, a lease agreement for the real estate from which the principal place of business operates, copies of deeds, or copies of paid real estate and personal property bills.

B. *Application:* To be considered, and be given preference as a local vendor, the bidder must complete and submit with their bid, a local vendor registration affidavit of eligibility (included hereinafter) together with copies of any of the documents listed above in paragraph A. A local vendor registration affidavit of eligibility submitted after bids are opened will not be considered.

C. *Implementation:* If the total bid amount, together with any add or deduct alternates the Town wishes to accept, submitted by a qualified responsive Local Vendor is not more than five percent (5%) higher than the lowest bid, then the Town has the right to award the contract to the local vendor provided he agrees to match the lowest bid.

In the instance of two or more Local Vendors being within the 5% threshold, then the qualified responsive local vendor with the lowest actual bid will be given the first opportunity to match the low bid.

For bids involving unit prices, and when the qualified responsive local vendor agrees to match the low total bid amount, he must also submit updated individual unit prices showing the total amount to meet the low bid. The Town of Groton reserves the right to approve or disapprove which unit prices are used to net the total bid amount.

D. *Notification:* When a local vendor meets the criteria for submitting a successful bid and has provided all of the required documentation, a letter signed by the Public Works Director will be sent to the local vendor. The letter will notify the local vendor that they have met all of the criteria of this provision and will formally request that

they respond in writing to the Town **within five (5) business days** that they are willing to match the lowest price bid. In the case of bids with unit prices, the local vendor must also include a revised list of unit prices. Once the local vendor has agreed to match the low bid and all other conditions of a successful bid have been met, the contract will be awarded to the local vendor.

- E. *Exemptions:* Any bid made under the following are exempt from this section:
- a. Projects utilizing any Federal or State of Connecticut funds or grants
 - b. Projects utilizing any special grant that stipulates the award must be made to the lowest qualified bidder

END OF SECTION

PROPOSAL
“POLICE DEPARTMENT FUEL TANK UPGRADES”

Proposal of _____ hereinafter called "BIDDER"

*a corporation of the State of

*a partnership, or

*an individual doing business as

To the Town of Groton, Connecticut

Gentlemen:

The undersigned hereby declares that no person or persons other than those named herein are interested in this proposal or in the Contract proposed to be taken; that it is made without any connection with any other person making any proposal for the same work, and is in all respects fair and without collusion or fraud; that no person acting for or employed by the Town of Groton is directly interested therein, or in the supplies or works to which it relates, or in any portion of the profits thereof; that it is understood that the Town, its agents and employees are not to be in any manner held responsible for the accuracy of, or bound by, the estimates or borings or plan of borings relative to the work and appearing on plans or in the foregoing notice; and that all such estimates, etc., are to be considered solely for the purpose of filling out and comparing the several proposals.

The undersigned further declares that he has carefully examined the Information For Bidders, Contract documents, including the Plans and Specifications, and has inspected the site and will contract to provide all necessary tools, apparatus and implements, freight, cartage, and expense, and to do all the work and furnish all the materials necessary in the manner and upon the conditions specified and upon the following terms at the prices specified on the following pages.

The undersigned agrees to furnish satisfactory bonds and insurance as required by Paragraph 1 of the General Conditions, Section 8, 9, 10 and 11 of the Information for Bidders and by the Supplementary Conditions Section 1, and to execute within 30 days after notice of the award, a formal contract with the Town of Groton for the fulfillment of this proposal, and it is agreed that in case of failure on the part of the undersigned to do so, the certified check or bid bond deposited herewith shall be forfeited to the Town of Groton as liquidated damages for such failure.

BIDDER hereby agrees to commence work under this contract on or before a date to be specified in written NOTICE TO PROCEED of the OWNER and to fully complete the project in strict compliance with the Contract Documents by August x, 2024. BIDDER further agrees to pay as liquidated damages, the sum of \$200.00 for each consecutive calendar day thereafter as hereinbefore provided in Paragraph 15 of the Information for Bidders.

BIDDER acknowledges receipt of the following addendum:

The undersigned further agrees, in case of a corporation or fictitious trade name, that an acceptable certificate will be filed showing the proper officer or person authorized to sign said contract.

Amounts are to be shown in both words and figures. In case of discrepancy, the amount shown in words will govern.

Any unit prices shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for.

Bidder understands that the Owner reserves the right to reject any or all bids and to waive any formalities in the bidding.

The bidder agrees that this bid shall be good and may not be withdrawn for a period of 60 calendar days after the scheduled closing time for receiving bids.

The bid Security attached in the sum of:

_____ dollars (\$_____)

is to become the property of the Owner in the event the Contract and Contract Bonds are not executed within the time above set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

**“POLICE DEPARTMENT FUEL TANK UPGRADES”
GROTON, CONNECTICUT**

NOTE: All prices must be written in ink or typewritten, in words and in figures for the entire proposal. In case of discrepancy, words will take precedence over numbers and unit prices will take precedence over extended prices.

THE TOTAL LUMP SUM BASE BID AS COMPUTED BY THE BIDDER, TO COMPLETE THE PROJECT AS SPECIFIED:

IN FIGURES: _____

IN WORDS: _____

The undersigned offers the following information as evidence of his qualifications to perform the work as bid upon according to all requirements of the Plans and Specifications.

1. Have been in business under present business name: _____years.
2. Ever failed to complete any work?
3. List the more important contracts recently completed by you, stating approximate cost for each, and the month and year completed.
 - a. Location_____
 - Project/Phone#_____
 - Engineer/Phone#_____
 - Completion Date_____
 - Amount of Contract_____
 - b. Location_____
 - Project/Phone#_____
 - Engineer/Phone#_____
 - Completion Date_____
 - Amount of Contract_____
 - c. Location_____
 - Project/Phone#_____
 - Engineer/Phone#_____
 - Completion Date_____
 - Amount of Contract_____
4. Bank Reference/Phone#_____

This firm consists of the following members:

Full Name

Residence

The officers are:

Full Name

Residence

President: _____

Treasurer: _____

Directors: _____

Respectfully Submitted:

SEAL: (If bid is by a Corporation)

(Firm Name)

By: _____
(Signature)

(Typed Name and Title)

(Business Address)

(Telephone)

(Fax)

(Email)

(ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION)

STATE OF _____

ss:

COUNTY OF _____

ON THIS _____ DAY OF _____, 20__, BEFORE ME PERSONALLY CAME AND APPEARED _____, TO ME KNOWN, WHO, BEING BY ME DULY SWORN, DID DEPOSE AND SAY THAT HE RESIDES AT _____, THAT HE IS THE _____ OF _____, THE CORPORATION DESCRIBED IN AND WHICH EXECUTED THE FOREGOING INSTRUMENT THAT HE KNOWS THE SEAL OF SAID CORPORATION - THAT ONE OF THE IMPRESSIONS AFFIXED TO SAID INSTRUMENT IS AN IMPRESSION OF SUCH SEAL - THAT IT WAS SO AFFIXED BY ORDER OF THE DIRECTORS OF SAID CORPORATION, AND THAT HE SIGNED HIS NAME THERETO BY LIKE ORDER.

(SEAL)

(NOTARY PUBLIC)

(ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP)

STATE OF _____

ss:

COUNTY OF _____

ON THIS _____ DAY OF _____, 20__, BEFORE ME PERSONALLY CAME AND APPEARED _____, TO ME KNOWN AND KNOWN TO ME TO BE ONE OF THE MEMBERS OF THE FIRM OF _____ DESCRIBED IN AND WHO EXECUTED THE SAME AS AND FOR THE ACT AND DEED OF SAID FIRM.

(SEAL)

(NOTARY PUBLIC)

(ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL)

STATE OF _____

ss:

COUNTY OF _____

ON THIS _____ DAY OF _____, 20__, BEFORE ME PERSONALLY CAME AND APPEARED _____ TO ME KNOWN AND KNOWN TO ME TO BE THE PERSON DESCRIBED IN AND WHO EXECUTED THE SAME.

(SEAL)

(NOTARY PUBLIC)

**TOWN OF GROTON
LOCAL VENDOR REGISTRATION
AFFIDAVIT OF ELIGIBILITY**

Legal Name of Business: _____

Business Type: Corporation LLC Partnership Sole Proprietorship Other

Physical Groton Address: _____

Mailing Address (if different): _____

City: _____ State: _____ Zip Code: _____

Owner/Principal Name: _____

Phone: _____ E-Mail: _____

Supporting Documentation Attached (check one):

- Copy of cancelled check for payment of real estate or personal property taxes
- Copy of long-term lease of the real estate from which the business is operated
- Copy of deed
- Other: _____

Under penalty of perjury, the undersigned states that the foregoing statements are true and correct.

Authorized Signature: _____ Date: _____

Printed Name: _____ Title: _____

Personally appeared, _____ owner/principal of

_____, signer and sealer of the foregoing instrument and acknowledged the truth of the foregoing before me on the ____ day of _____ in the year _____

Notary Public
My Commission expires: _____

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, _____

_____ as Principal, and _____

as Surety, are hereby held and firmly bound unto The Town of Groton as owner in the penal sum of _____ for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

Signed this _____ day of _____, 20__

The condition of the above obligation is such that whereas the Principal has submitted to The Town of Groton a certain bid, attached hereto and hereby made a part hereof to enter into a contract in writing for the

NOW, THEREFORE,

- A. If said Bid shall be rejected, or in the alternate,
- B. If said Bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto, properly completed in accordance with said Bid, and shall furnish a bond for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall provide the required evidence of insurance,

THEN, this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

ATTEST:

(Principal) Secretary

(SEAL)

Witness as to Principal

(Address - Zip Code)

ATTEST:

(Surety) Secretary

(SEAL)

Witness as to Surety

(Address - Zip Code)

_____(S)
Principal

By _____(S)
Attorney-in-Fact

(Address - Zip Code)

Surety

By _____(S)
Attorney-in-Fact

(Address - Zip Code)

**TOWN OF GROTON
CONTRACT # 24-19**

This Contract is entered into this ____ day of _____, 20__, between the TOWN OF GROTON, hereinafter called the TOWN and _____ hereinafter called the CONTRACTOR, whereby the CONTRACTOR agrees to complete the work on the project entitled "POLICE DEPARTMENT FUEL TANK UPGRADES" in accordance with the contract documents which consist of the Instructions to Bidders, the Proposal, General and Supplementary Conditions, plans and specifications and which are hereby made part of this Contract. The CONTRACTOR agrees to carry on the work with diligence and dispatch, and to furnish such equipment and labor as is consistent with good construction practice and furnish the completed project to the TOWN in a good and usable condition.

The TOWN agrees that it will pay the CONTRACTOR as specified in the Specifications and the Proposal, and upon satisfactory completion of the work, it will accept the project. After completion of the project, and acceptance by the TOWN the CONTRACTOR shall submit an itemized final estimate. No later than 31 days after acceptance of the final estimate by the TOWN, the TOWN shall pay 95% of the Contract price. No later than six (6) months after acceptance of the final estimate, the TOWN will pay the 5% retained, unless in that time the materials or workmanship in the project shall have been found to be defective.

The total payment will be

(\$_____).

Signed at Groton, Connecticut this ____ day of _____, 20__

For the CONTRACTOR

FOR TOWN OF GROTON

John Burt
Town Manager

Delia Morrison
Director of Finance

Greg A. Hanover, P.E.
Director of Public Works

PAYMENT BOND

Bond # _____

KNOW ALL MEN BY THESE PRESENTS:

That we _____
(Name of Contractor)

a _____ hereinafter called "Principal" and
(corporation, partnership or individual)

_____, of _____, State of _____,
(Surety) (City/Town)

hereinafter called "Surety" are held and firmly bound unto _____,
(Owner)

of _____, hereinafter called "Owner", in the penal sum of
(City/Town, State)

_____ Dollars
(\$ _____) in lawful money of the United States, for the payment of

which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered into a certain contract with the Owner, dated the _____ day of _____, 20____, a copy of which is hereto attached and made a part hereof for the construction of:

POLICE DEPARTMENT FUEL TANK UPGRADES

NOW, THEREFORE, if the Principal shall make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke consumed, repairs on machinery, equipment and tools, or insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

PROVIDED, FURTHER, that the provisions of Sec. 49-41a of the Connecticut General Statutes are incorporated herein and made a part hereof. Any provision of this bond contrary to such statutory provisions shall not be enforceable.

IN WITNESS, WHEREOF, this instrument is executed in three (3) counterparts, each one of which shall be deemed an original, this the ____ day of _____, 20__.

ATTEST:

_____		_____ (S)
(Principal) Secretary		Principal
(SEAL)		
_____	By	_____ (S)
Witness as to Principal		Attorney-in-Fact
_____		_____
(Address - Zip Code)		(Address - Zip Code)

ATTEST:

_____		_____
(Surety) Secretary		Surety
(SEAL)		
_____	By	_____ (S)
Witness as to Surety		Attorney-in-Fact
_____		_____
(Address - Zip Code)		(Address - Zip Code)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute bond.

PERFORMANCE BOND

Bond # _____

KNOW ALL MEN BY THESE PRESENTS:

That we _____
(Name of Contractor)

a _____ hereinafter called "Principal" and
(corporation, partnership or individual)

_____ of _____, State of _____,
(Surety) (City/Town)

hereinafter called the "Surety", are held and firmly bound unto _____
(Owner)

of _____, hereinafter called "Owner", in the
(City/Town, State)

penal sum of _____ Dollars

(\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered in a certain contract with the Owner, dated the _____ day of _____, 20____, a copy of which is hereto attached and made a part hereof for the construction of:

POLICE DEPARTMENT FUEL TANK UPGRADES

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the Surety, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for such value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in three (3) counterparts, each of which shall be deemed an original, this the _____ day of _____, 20__.

ATTEST:

_____ (Principal) Secretary		_____ Principal	(S)
(SEAL)		_____	
_____ Witness as to Principal	By	_____ Attorney-in-Fact	(S)
_____ (Address - Zip Code)		_____ (Address - Zip Code)	

ATTEST:

_____ (Surety) Secretary		_____ Surety	
(SEAL)			
_____ Witness as to Surety	By	_____ Attorney-in-Fact	(S)
_____ (Address - Zip Code)		_____ (Address - Zip Code)	

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute Bond.

GENERAL CONDITIONS

1. Insurance Requirements
2. Town Representation
3. Contractor Field Supervision
4. Engineering
5. Contract Drawings, Maps and Specifications
6. Utility Relocation
7. Test Pits
8. Explosives
9. Dust Control
10. Sanitary Facilities
11. Pre-Construction Meeting
12. Construction Meetings
13. Quantities
14. Differing Site Conditions
15. Reports
16. Eliminated Items
17. Work Stoppages
18. Traffic Control
19. Protection of Existing Vegetation, Structures, Equipment, Utilities & Improvements
20. Engineer
21. Progress Payments
22. General Guaranty
23. Daily Clean Up
24. Nondiscrimination
25. Roadway Closings
26. Extra Work
27. Samples
28. Quality of Equipment and Materials
29. Shop or Setting Drawings
30. Plans & Specifications at the Site
31. Materials, Services and Facilities
32. Contractor's Title to Materials
33. Inspection of Construction
34. Inspection and Testing of Materials
35. Contractor's Obligation
36. Weather Conditions
37. Provisions Required by Law Deemed Inserted
38. Right of the Owner to Terminate Contract
39. Acceptance of Final Payment Constitutes Release
40. Assignments
41. Codes, Regulations and Issue Date of Standard Specifications
42. Emergency Telephone Number
43. Other Contracts
44. The Owner's Duties and Rights

- 45. Wage Rates
- 46. Contract Bid Breakdown (Lump Sum)
- 47. Hours of Work
- 48. Waste Disposal

1. Insurance Requirements

The Contractor must carry insurance under which the Town is an ADDITIONAL INSURED. Such insurance must be by insurance companies licensed to write such insurance in Connecticut against the risks and for no less than the minimum amounts and duration's as set forth in the SUPPLEMENTARY CONDITIONS, Section 1.

2. Town Representation

The Town will be represented at all times by the Director of Public Works or an authorized representative of the Public Works Department. They shall have the responsibility and authority for the interpretation of the Contract, its specifications and drawings.

3. Contractor Field Supervision

The Contractor must have a competent Field Supervisor on the job during all working hours. His name, address and phone number shall be available to the Town for after-hour emergencies.

4. Engineering

All field engineering and inspection shall be provided by the Engineering Division of the Public Works Department and/or its consultant engineer. No field changes shall be allowed without specific notification of and approval by the Owner. Any changes will be recorded on prints and initialed by the Owner's representative.

5. Contract Drawings, Maps and Specifications

- A. Omissions from the drawings or specifications or the mis-description of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or mis-described details of the work but they shall be performed as if fully and correctly set forth and described in the drawings and specifications.
- B. The Contractor shall check all drawings furnished to him immediately upon their receipt and shall promptly notify the Owner of any discrepancies. Figures marked on drawings shall in general be followed in preference to scale measurements. The Contractor shall compare all drawings and verify the figures before laying out the work and will be responsible for any errors which might have been avoided thereby.
- C. Any discrepancies found between the Drawings and Specifications and site conditions or any errors or omissions in the Drawings or Specifications shall be immediately reported to DIRECTOR OF PUBLIC WORKS in writing, who shall promptly correct such error or omission in writing. Any work done by the

CONTRACTOR after their discovery of such discrepancies, errors or omissions without notifying the DIRECTOR OF PUBLIC WORKS shall be done at the CONTRACTOR'S risk.

D. Further instructions may be issued by the DIRECTOR OF PUBLIC WORKS during the progress of the work by means of Drawings or oral or written instruction to make more clear or specific the Drawings and Specifications or as may be necessary to explain or illustrate changes in the work to be done. The CONTRACTOR shall carry out the work in accordance with the additional Drawings and instructions.

6. Utility Relocation

All temporary utility relocations encountered shall be the responsibility of the Contractor and all labor and materials shall be included in his general expense. All permanent utility relocations listed on the drawings or as directed by the Town shall be paid for by the Town.

7. Test Pits

At locations shown on the plans or designated by the Owner, the Contractor shall excavate and expose existing utilities and other structures prior to start of construction. Elevations and locations and other pertinent data of the exposed utilities and other structures are to be recorded and forwarded to the Owner.

8. Explosives

Explosives shall not be used for rock excavation.

9. Dust Control

Calcium Chloride shall be used as directed. Maximum application shall be at a rate one pound per square yard. Water vehicles may also be used as deemed necessary.

The Contractor shall erect temporary dust curtains/walls so that no dust or debris shall enter the adjoining areas.

10. Sanitary Facilities

The Contractor shall provide temporary sanitary facilities for their employees. These facilities shall be cleaned regularly and, in all ways, comply with the State and Town Health Regulations.

11. Pre-Construction Meeting

The Owner will conduct a pre-construction meeting with the selected Contractor. The purpose of the meeting will be to answer any questions the Contractor may have about

scheduling, the scope of work, the methods of work to be applied, and/or other technical or contractual issues.

12. Construction Meetings

To enable orderly review during progress of the Work and to provide for systematic discussion of problems, the Owner will conduct project meetings throughout the construction period. Persons designated by the Contractor to attend and participate in the project meetings shall have all required authority to commit the Contractor to solutions agreed upon in the project meetings.

13. Quantities

The estimated quantities of work to be done and materials to be furnished under this Contract, are provided only for use in comparing bids and to indicate the approximate total amount of the Contract.

14. Differing Site Conditions

- A. The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Owner of:
 - 1. Subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or
 - 2. Unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and provided for in the Contract.
- B. The Owner shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this Contract, whether or not changes as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.
- C. No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required.
- D. No request by the Contractor for an equitable adjustment to the Contract for differing site conditions shall be allowed if made after final payment under this contract.

15. Reports

The Contractor and each of his subcontractors shall submit to the Town, such schedules of quantities and costs, progress reports, payrolls, estimates, delivery tickets and other data as the Town may request.

16. Eliminated Items

Should any items contained in the proposal be found unnecessary for the proper completion of the contracted work, or if due to over expenditure on other contract items; the Owner may eliminate certain items from the Contract. Such action shall in no way invalidate the Contract and no allowance will be made for such items in making final payment except for such work already completed or materials previously purchased for those items.

17. Work Stoppages

Should the Town be prevented or enjoined from proceeding with work either before or after the start of construction by reason of any litigation or other reason beyond the control of the Town, the Contractor shall not be entitled to or assert claim for damage by reason of said delay. However, time for completion of the work will be extended to such reasonable time as the Town may determine. Such time extension will be set forth in writing.

18. Traffic Control

The Contractor will furnish and pay for traffic control men to direct and control traffic in the immediate construction area. The Contractor will be responsible for maintenance of adequate barricades, signs, and warning systems to protect the job and the traveling public.

Use of uniformed police or traffic control personnel will in no way relieve the Contractor of his responsibility for traffic accidents caused by their failure to provide adequate barricades, signs and warning devices.

19. Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements

A. The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut.

B. The Contractor shall protect from damage all existing improvements and utilities

(1) at or near the work site and (2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly; the Owner may have the necessary work performed and charge the cost to the Contractor.

20. Engineer

The term "Engineer" shall mean the duly authorized representative of the Public Works Department.

21. Progress Payments

On the first of each month but not more than once each month, the Contractor may submit a Request for Payment for work done. The CONTRACTOR shall furnish the OWNER all reasonable facilities required for obtaining the necessary information relative to the progress and execution of the work. He must, if requested by the Owner, submit satisfactory evidence that he has paid in full for all labor, materials, and equipment included in the monthly estimate. The estimates shall be made on forms furnished by the Town and the Contractor shall certify that the estimate is correct and the work performed is in conformity with the plans and specifications.

Within fifteen (15) days from the date of approval of a Request for Payment by the OWNER, the TOWN shall:

- A. Pay the Request for Payment as approved less a five percent (5%) retainage.
- B. Approve such other amount as he shall decide is due the CONTRACTOR, informing the CONTRACTOR in writing of his reasons for approving the amended amount, or
- C. Withhold payment in whole or in part on an approved Request for Payment to the extent necessary to protect itself from loss on account of any of the following causes discovered subsequent to approval of Request for Payment by the OWNER provided they inform the CONTRACTOR in writing of their reasons for withholding payment in whole or in part:
 1. Defective work.
 2. Evidence indicating the probable filing of claims by other parties against the CONTRACTOR.
 3. Failure of the CONTRACTOR to make payments to SUBCONTRACTORS, material suppliers or labor.

4. Damage to another CONTRACTOR.

After completion of the project and acceptance by the Town, the Contractor shall submit an itemized final estimate. No later than six (6) months after acceptance of the final estimate, the Town shall pay the 5% retained, unless, within that time, the materials or workmanship in the project have been found defective. The Contractor agrees that the OWNER may expend the same in making such repairs or replacements of said work as the OWNER may deem expedient upon proper notification in writing to the Contractor.

22. General Guaranty

Neither the final certificate of payment nor any provision in the contract documents, nor partial or entire occupancy of the premises by the Owner, shall constitute an acceptance of work not done in accordance with the contract documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall remedy any defects in the work and pay for any damage to other work resulting therefrom. The Owner will give notice of observed defects with reasonable promptness.

23. Daily Clean-Up

Before the completion of each days work, the Contractor shall be responsible for cleaning up and removing or relocating all excavated material, debris, equipment and like and for temporary backfilling or filling excavations as necessary to insure the continuous flow of traffic in roadways where work is progressing including access to private property during non-working hours.

24. Nondiscrimination

Discrimination is prohibited under this contract.

No person in the United States shall, on the ground of race, color, national origin, or sex, be excluded from participation under any program or activity of a recipient government which government receives funds made available under Subtitle A of the State and Local Fiscal Assistance Act of 1972. Any prohibition against discrimination on the basis of age under the Age Discrimination Act of 1975 (hereinafter referred to as discrimination on the basis of age) or with respect to an otherwise qualified handicapped individual as provided in section 504 of the Rehabilitation Act of 1973, (hereinafter referred to as discrimination on the basis of handicapped status) or any prohibition against discrimination on the basis of religion, as well as any exemption from such prohibition as provided in the Civil Rights Act of 1964 or the Civil Rights Act of 1968 (hereinafter referred to as discrimination on the basis of religion) shall also apply to any such program or activity.

All of subpart E of "Regulations governing the Payment of Entitlements under Title I of the State and Local Fiscal Assistance Act of 1972" as Amended by the State and Local Fiscal Assistance Amendments of 1976 applies.

The Town of Groton does not discriminate against individuals with disabilities as provided in the Americans With Disabilities Act (ADA). The Town expects that the vendors and/or contractors with whom it does business will comply with the American With Disabilities Act to the extent required by law. If awarded a contract with the Town, the successful vendor/contractor will be required to sign a statement agreeing to comply with the provisions of ADA.

25. Roadway Closings

In certain cases where deemed necessary for protection of the public, the Groton Director of Public Works MAY officially close a road to vehicular traffic for a specified period of time. Prior to closing any roads in accordance with this paragraph, detours shall be established by the CONTRACTOR, approved by the OWNER, and suitable signs erected. Access to all homes and business shall be maintained at all times for area residents and emergency vehicles.

26. Extra Work

The Contractor shall be responsible for performing any extra work, as requested by the Owner, made necessary by changes in plan or required to fulfill the scope of the project. Such work shall be performed by the Contractor at the unit or lump sum price provided in the Contract.

27. Samples

All samples called for in the Specifications or required by the OWNER shall be furnished by the CONTRACTOR at his expense and shall be submitted to the OWNER for his approval. Samples shall be furnished so as not to delay fabrication, allowing the OWNER reasonable time for the consideration of the samples submitted. CONTRACTOR shall furnish such samples of materials, and workmanship shall be in accordance with approved samples.

28. Quality of Equipment and Materials

- A. Everything furnished and provided shall be new, and all materials and equipment shall be of the quality specified. All unspecified materials and equipment shall be equal in grade and quality to specified materials. The CONTRACTOR shall furnish satisfactory evidence as to the kind and quality of all materials.
- B. In order to establish standards of quality, the OWNER may have, in the detailed Specifications, referred to certain products by name and catalog number. This procedure is not to be construed as eliminating from competition other products of equal or better quality by other manufacturers where fully suitable in design.
- C. The CONTRACTOR shall abide by the OWNER'S judgment when proposed substitute materials or items of equipment are judged to be unacceptable and shall

furnish the specified materials or items of equipment in such cases. All proposals for substitutions shall be submitted in writing by the General CONTRACTOR and not by individual trades or material suppliers. The OWNER will approve or disapprove proposed substitutions in writing within a reasonable time. No substitute materials shall be used unless approved in writing.

29. Shop or Setting Drawings

The Contractor shall submit promptly to the Owner two copies of each shop or setting drawing prepared in accordance with the schedule predetermined as aforesaid. After examination of such drawings by the Owner and the return thereof, the Contractor shall make such corrections to the drawings as have been indicated and shall furnish the Owner with two corrected copies. If requested by the Owner, the Contractor must furnish additional copies. Regardless of corrections made in, or approval given to, such drawings by the Owner, the Contractor will nevertheless be responsible for the accuracy of such drawings and for their conformity to the Plans and Specifications, unless they notify the Owner in writing of any deviations at the time they furnish such drawings.

30. Plans and Specifications at the Site

The Contractor shall maintain at the Work Site, one copy of all Drawings, Specifications, Addenda, approved Shop Drawings, Change Orders and other modifications, Schedules, Instructions, etc. in good order and marked to record all changes made during construction. These shall be available at all times to the Owner or authorized representatives.

31. Materials, Services, and Facilities

It is understood that except as otherwise specifically stated in the contract documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, superintendence, temporary construction of every nature, and all other services and facilities of every nature whatsoever necessary to execute, complete, and deliver the work within the specified time.

32. Contractor's Title to Materials

No materials or supplies for the work shall be purchased by the Contractor or by any Subcontractor subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller. The Contractor warrants that they have good title to all materials and supplies used by them in the work, free from all liens, claims or encumbrances.

33. Inspection of Construction

- A. Definition. "Work" includes, but is not limited to materials, workmanship, and manufacture and fabrication of components.

- B. The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work called for by this contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the Town. All work is subject to inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.
- C. Town inspections and tests are for the sole benefit of the Town and do not:
 - 1. Relieve the Contractor of responsibility for providing adequate quality control measures;
 - 2. Relieve the Contractor of responsibility for damage to or loss of the material before acceptance;
 - 3. Constitute or imply acceptance;
- D. The presence or absence of a Town inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Owner's written authorization.

34. Inspection and Testing of Materials

- A. All materials and equipment used in the construction of the project shall be subject to adequate inspection and testing in accordance with accepted standards. The laboratory or inspection agency shall be selected by the Owner. The Owner will pay for all laboratory inspection service direct, and not as a part of the Contract.
- B. Materials of construction, particularly those upon which the strength and durability of the structure may depend, shall be subject to inspection and testing to establish conformance with specifications and suitability for uses intended.

35. Contractor's Obligations

The Contractor shall and will, in good workmanlike manner, do and perform all work and furnish all supplies and materials, machinery, equipment, facilities and means, except as herein otherwise specified, necessary or proper.

36. Weather Conditions

In the event of temporary suspension of work, or during the inclement weather, or whenever the Owner shall direct, the Contractor will, and will cause his Subcontractors to protect carefully his and their work and materials against damage or injury from the weather. If, in the opinion of the Owner, any work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or any of his Subcontractors

so to protect his work, such materials shall be removed and replaced at the expense of the Contractor.

37. Provisions Required By Law Deemed Inserted

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included herein, and if, through mistake or otherwise, any such provision is not inserted, or is not correctly inserted, then upon the application of either party the contract shall forthwith be physically amended to make such insertion or correction.

38. Right of the Owner to Terminate Contract

In the event that any of the provisions of this contract are violated by the Contractor, or by any of his subcontractors, the Owner may serve written notice upon the Contractor and the Surety of its intention to terminate the Contract, such notices to contain the reasons for such intention to terminate the contract, and unless within (10) days after the serving of such notice upon the Contractor, such violation or delay shall cease and satisfactory arrangement of correction to be made, the contract shall, upon the expiration of said ten (10) days, cease and terminate. In the event of any such termination, the Owner shall immediately serve notice thereof upon the Surety and the Contractor and the Surety shall have the right to take over and perform the contract; provided, however, that if the Surety does not commence performance thereof within ten (10) days from the date of the mailing to such Surety of notice of termination, the Owner may take over the work and prosecute the same to completion by contract or by force account for the account and at the expense of the Contractor and the Contractor and his Surety shall be liable to the Owner for any excess cost occasioned the Owner thereby; and in such event the Owner may take possession of and utilize in completing the work, such materials, appliances, and plant as may be on the site of the work and necessary therefore.

In the event of such termination, the OWNER may take possession of the work and of all materials, tools and equipment thereon and may finish the work by whatever method and means he may select. The CONTRACTOR shall consider it default whenever he shall:

- A. Declare bankruptcy, become insolvent, or assign his assets for the benefit of his creditors.
- B. Disregard or violate important provisions of the Contract Documents or OWNER'S instructions, or fail to prosecute the work according to the agreed Schedule of Completion including extensions thereof.
- C. Fail to provide a qualified superintendent, competent workmen or SUBCONTRACTORS, or proper materials, or fail to make prompt payment thereof.

If the right of the CONTRACTOR to proceed is so terminated, the OWNER may take possession of and utilize in completing the work such materials, appliances, supplies, plant and equipment as may be on the site of the work, and necessary therefor. Upon termination of the CONTRACT by the OWNER, no further payments shall be due the

CONTRACTOR until the work is completed. If the unpaid balance of the Contract Amount shall exceed the cost of completing the work including all overhead costs and damages resulting from delay, the excess shall be paid to the CONTRACTOR.

If the cost of completing the work shall exceed the unpaid balance, the CONTRACTOR and his sureties shall pay the difference to the OWNER.

39. Acceptance of Final Payment Constitutes Release

The acceptance by the Contractor of final payment shall be and shall operate as a release to the Owner of all claims and all liability to the Contractor for all things done or furnished in connection with his work and for every act and neglect of the Owner and others relating to or arising out of this work. No payment, however, final or otherwise, shall operate to release the Contractor or his sureties from any obligations under this contract or the Performance and Payment Bond.

40. Assignments

The Contractor shall not assign the whole or any part of this contract or any moneys due or to become due hereunder without written consent of the Owner. In case the Contractor, with the consent of the Owner, assigns all or any part of any moneys due or to become due under this contract, the instrument of assignment shall contain a clause substantial to the effect that it is agreed that the right of the assignee in and to any moneys due or to become due to the Contractor shall be subject to prior claims of all persons, firms and corporations of services rendered or materials supplied for the performance of the work called for in this contract.

41. Codes, Regulations and Issue Date of Standard Specifications

Where standard specifications, codes, regulations and similar publications of governmental agencies, technical societies, manufacturer's associations and regulatory groups or bureaus are referred to in these Specifications, the applicable portion thereof shall be of the same effect as if fully printed herein, and the work done in full accordance therewith. The edition current as of the date of issue of this Specification shall be used except where publication date is specifically stated.

42. Emergency Telephone Number

The CONTRACTOR is required to provide the OWNER with a telephone number, which can be used during emergencies, 24 hours per day, seven days per week, to reach the CONTRACTOR.

43. Other Contracts

The Town may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other contractors and with Town employees and shall carefully adapt scheduling and

performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the Owner. The Contractor shall not commit or permit any action that will interfere with the performance of work by any other contractor or by Town employees.

44. The Owner's Duties and Rights

- A. The OWNER will provide the lands shown on the Drawings upon which the work under the CONTRACT is to be performed and to be used for rights-of-way for access. Any delay in furnishing these lands by the OWNER shall be deemed proper cause for adjustment in the Contract Amount and in time of completion.
- B. The OWNER shall have the right to suspend the work or any portion thereof at any time provided that he gives the CONTRACTOR five (5) days written notice of suspension which shall set forth the date on which work is to be resumed. The CONTRACTOR shall resume the work upon written notice from the OWNER and within ten (10) days after the date set forth in the notice of suspension. If the OWNER does not give written notice to resume work within ten (10) days of the date fixed in the notice of suspension, the CONTRACTOR may abandon that portion of the work so suspended and shall be entitled to payment for all work done on the portions so abandoned, plus 15 percent of the value of the abandoned work to compensate for overhead, plant expense, and anticipated profit.
- C. The OWNER shall have the authority to suspend the work, wholly or in part, for such period or periods, as may be deemed necessary, due to unsuitable weather, or such other conditions as are considered unfavorable for prosecution of the work, or failure on the part of the CONTRACTOR to carry out the provisions of the CONTRACT or to supply materials meeting the requirements of the Specifications. The CONTRACTOR shall not suspend operations due to unsuitable weather without the OWNER'S permission.
- D. The OWNER shall have the right to correct any deficiencies, without prejudice to any other remedy he may have, upon failure of the CONTRACTOR to perform the work in accordance with the Contract Documents, including any requirements with respect to the Schedule of Completion, after five (5) days written notice to the CONTRACTOR. The cost of the work so performed by the OWNER shall be paid for by the CONTRACTOR.
- E. The OWNER shall have the authority to direct the CONTRACTOR not to correct work that has been damaged, or that was not performed in accordance with the Contract Documents. An equitable deduction from the Contract Amount shall be made to compensate the OWNER for the uncorrected work.
- F. The OWNER shall have the right to order changes in the work through additions, deletions or modifications without invalidating the CONTRACT.

G. The OWNER shall have the right to take possession of and use any completed or partially completed portions of the work, notwithstanding that the time for completing the entire work or such portions may not have expired; but such taking possession and use shall not be deemed an acceptance of any work not completed in accordance with the Contract Documents. If such prior use increases the cost of or delays the completion of uncompleted work or causes refinishing of completed work, the CONTRACTOR shall be entitled to such extra compensation, or extension of time or both, as the OWNER may determine.

45. Wage Rates

It has been estimated that the cost of this project is less than \$100,000.00, and under Section 31-53 of the State Statutes, as amended, State Prevailing Wage Rates do not apply. For this reason, State Wage Rates are not included.

However, should a Contractor's bid exceed the \$100,000.00 threshold, it shall be incumbent upon the Contractor to include the applicable prevailing wage rates in the submittal of the bid. In the case where add alternates are part of the bid, and where acceptance of any alternates would cause the contract sum to exceed the \$100,000 threshold, then the price of the alternate shall include the applicable prevailing wage rate for the entire project.

46. Contract Bid Breakdown (Lump Sum)

The Contractor shall furnish a breakdown of each lump sum bid within 10 days after date of award of contract. Partial payments will be based on this breakdown. The Contractor's breakdown will be reviewed by the OWNER to ensure that costs are proportioned properly between early and late pay items. Any unbalanced items or other discrepancies will be revised by the OWNER and the approved breakdown will be utilized as a basis for progress payment to the Contractor.

47. Hours of Work

Any work necessary to be performed after regular working hours, on Sundays or Legal Holidays, shall be performed without additional expense to the Owner.

48. Waste Disposal

The Contractor shall be responsible for the cost and legal disposal of all construction debris, municipal solid waste, stumps, and excess materials.

The Contractor shall legally dispose of any hazardous materials at approved sites at his own expense.

END OF SECTION

SUPPLEMENTARY CONDITIONS

1. Insurance Requirements
2. Worker's Compensation Provision
3. Indemnification
4. Enumeration of Contract Drawings, Specifications, Appendices and Addenda
5. Lock-Out Tag-Out Standard
6. Hazard Communication

1. Insurance Requirements

Contractor shall agree to maintain in full force at all times during the contract the following minimum coverages and shall name the Town of Groton as an Additional Insured on a primary and non-contributory basis to all policies except Workers Compensation. All policies shall also include a Waiver of Subrogation. Insurance shall be written with Carriers approved in the State of Connecticut and with a minimum AM Best’s Rating of “A-“ VIII. In addition, all Carriers are subject to approval by the Town of Groton.

General Liability		(Minimum Limits)
	Each Occurrence	\$1,000,000
	General Aggregate	\$3,000,000
	Products/Completed operations Aggregate	\$3,000,000
Pollution Liability	Each Claim	\$2, 000,000
	Aggregate	\$2, 000,000
Auto Liability	Combined Single Limit	
	Each Accident	\$1,000,000
Umbrella (Excess Liability)	Each Occurrence	\$1,000,000
	Aggregate	\$1,000,000
Workers Compensation	WC Statutory Limits	
Employers Liability	EL Each Accident	\$1,000,000
	EL Disease Each Employee	\$1,000,000
	EL Disease Policy Limit	\$1,000,000

If any policy is written on a “Claims Made” basis, the policy must be continually renewed for a minimum of three (3) years from the completion date of this contract. If the policy is replaced and/or the retroactive date is changed, then the expiring policy must be endorsed to extend the reporting period for claims for the policy in effect during the contract for three (3) years from completion date. Original, completed Certificates of Insurance must be presented to the Town of Groton Public Works prior to contract issuance. Contractor agrees to provide replacements/renewal certificates at least 60 days prior to the expiration of any policy. Should any of the above described policies be cancelled before the expiration date, written notice must be made to the Town thirty (30) days prior to cancellation.

2. Worker's Compensation Provision

Before entering into the contract for the project, the successful bidder must comply with all aspects of State Statute 31-286a, including providing the Town with a current statement from the State Treasurer that, to the best of his knowledge and belief as of the date of the statement, the Contractor or any of his Subcontractors was not liable to the State for any Worker's Compensation payments made pursuant to Section 31-355 of the General Statutes.

Contract documents will not be signed until the statement has been received by the Town from the State Treasurer.

3. Indemnification

The Contractor will indemnify and hold harmless the Owner (Town of Groton) and the Engineer and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the work, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom. The Contractor, subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable will be held responsible for any type of pollution and/or environmental impairment into or upon land, the atmosphere or any course or body of water that is above or below ground; and is caused in whole or in part by any negligent or willful or wanton act or omission of any of the above stated individuals or group of individuals. The Contractor, Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable will be held responsible for acts that are outside of the contract specifications and without the supervision or direction of the Town, its architects, and engineers. These same individuals or group of individuals will also be held responsible for the misuse or malfunction of any equipment rented, owned or leased by any of these individuals or groups of individuals that would create any type of pollution or environmental damage.

The owner assumes no responsibility or liability arising from loss or damage to Contractor's equipment, materials or supplies.

4. Enumeration of Contract Drawing, Specifications, Appendices and Addenda

The following are the contract drawings, specifications, appendices and addenda which form a part of this contract as set forth in paragraph 5 of the General Conditions.

Specifications

Specifications and Bid Form for "POLICE DEPARTMENT FUEL TANK UPGRADES"
Information for Bidders
Bid Proposal

General Conditions
Supplementary Conditions
Technical Specifications

Addenda

Number and Date

Plans

“POLICE DEPARTMENT FUEL TANK UPGRADES” prepared by “RZ Design Associates, Inc.,” sheet:
DWG #1 Partial Site Plan

5. Lock-Out Tag-Out Standard

The Town of Groton requires that any Contractor that maintains or is hired to work on any Town equipment, abide by the OSHA "Lock-Out Tag-Out" standard. The Contractor must provide his workers with locks, hasps and keys approved by OSHA for the proper locking and tagging out of equipment from its power source according to the OSHA standard. The Town of Groton is not responsible for providing the Contractor with the locks and hasps. The Contractor is responsible for complying with this standard and assuring that all of his employees comply with it while working on Town of Groton equipment. The Town requires that any Contractor's equipment brought on to Town property by the Contractor be properly locked or tagged out from its power source in accordance with the OSHA standard.

6. Hazard Communication

The Town of Groton requires that any vendor or Contractor using hazardous materials, or any material that would fall under the OSHA "Right to Know" standard, provide a list to the Town of Groton of those materials that will be used while on Town property, as well as the material safety data sheets for those products. Conversely, the Town of Groton shall inform the Contractor of where the "Employee Right to Know" station is in the area where they are working so that the Contractor's employees can be aware of any substances that they may encounter while working within the Town of Groton workplace.

END OF SECTION

TECHNICAL SPECIFICATIONS

<u>SECTION</u>	<u>TITLE</u>
01-11-00	Summary of Work
03-00-00	Concrete
23-11-13	Fuel Piping Systems
26-05-00	Electrical Basic Materials and Methods
31-12-16	Bituminous Concrete Paving
31-20-00	Earthwork
32-92-00	Landscape Work

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SECTION 01 11 00 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 WORK INCLUDED

The work included shall be as specified in this Project Manual and as indicated on the Drawings. In summary and without limiting the generality thereof, the work shall consist of the following:

- A. Removal and provision of underground fuel piping and replacement of tank piping sump.
- B. Removal and provision of vent piping.
- C. Removal and provision of site improvements including bituminous concrete pavements, concrete pads and lawn areas as required for tank and piping upgrades.
- D. Put fuel systems into full operation.

1.2 QUALITY ASSURANCES

Only the best of workmanship in accordance with present standards and generally accepted construction practices will be acceptable. Any work installed which the workmanship is judged by the Engineer to be below present standards or generally accepted construction practices shall be taken out and replaced with properly done work at the contractor's expense.

1.3 SITE CONDITIONS

The Drawings shall be taken in a sense as diagrammatic and are not intended to show every offset and fitting, nor every obstacle that may be encountered during the installation of the work. Where necessary, and after approval from the Engineer, the alignment of work and equipment shall be varied from that shown on Drawings.

Should there appear to be any discrepancy between the specifications, the Drawings, and field conditions the Contractor shall refer the matter to the Engineer for settlement.

1.4 SUBMITTALS

Furnish to the Engineer electronic product information, shop drawings, and catalogue cuts for all new equipment and as otherwise required in the Contract Documents.

1.5 ACCEPTABLE MANUFACTURERS

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- A. The systems design is based on the manufacturer of equipment and accessories as scheduled or otherwise specified within the contract documents.
- B. Equivalent equipment and accessories from the acceptable manufacturers listed within each section of this specification may be accepted if the proposed equipment and accessories meet or exceed the requirements of this specification and the capacity and other requirements shown on the drawings. Inclusion in the list of the manufacturers does not guarantee the listed manufacturer can furnish an acceptable product for this project. The Engineer is the sole arbiter of equivalence and acceptability.

1.6 SUBSTITUTIONS:

- A. Substitution request from Contractors may be submitted only after the award of Contract. Requests shall be in writing on Contractor's letterhead and shall include:
 - 1. Contractor's statement to the effect that proposed substitution will result in overall work equal to, or better than, the work originally intended.
 - 2. Contractor's detailed comparison of significant qualities between specified item and proposed substitution.
 - 3. Statement of effect on construction time, coordination with other affected work, and cost information or proposal.
- B. Substitution requests from contractors will only be considered if: (1) extensive revisions to Contract Documents are NOT required; (2) changes are in keeping with general intent of Contract Documents; (3) requests are submitted in a timely and proper manner, fully documented; and (4) one or more of following conditions is satisfied; all as judged by Engineer:
 - 1. Where request is directly related to the "or equal" clause or words of similar effect in Contract Documents.
 - 2. Where specified product, material or method can NOT be provided within Contract Time; but NOT as a result of Contractor's failure to pursue the work promptly to coordinate various activities properly.
 - 3. Where specified product, material or method can NOT be provided in manner which is compatible with other materials of the work and where Contractor certifies that proposed substitution is compatible.
 - 4. Where specified product, material or method can NOT be properly coordinated with other materials of the work and where Contractor certifies that proposed substitution can be properly coordinated.
 - 5. Where specified product, material or method can NOT be warranted as required and where Contractor certifies that proposed substitution can be so warranted.
 - 6. Where specified product, material or method can NOT be used without adversely affecting Owner's insurance coverage on completed work and where Contractor certifies that proposed substitution can be so used.
 - 7. Where specified product, material or method will encounter other substantial non-compliances which are NOT possible to otherwise overcome except by using proposed substitution.
 - 8. Where specified product, material or method can NOT receive required approval by governing authority and proposed substitution can be so approved.
 - 9. Where a substantial advantage is offered to the Owner; in terms of cost, time, energy conservation or other valuable considerations; after deducting offsetting responsibilities

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that this Contractor may be required to bear, including additional compensation to Engineer for any redesign or evaluation services, increased cost of other work by other contractors, and similar considerations.

- C. The burden is upon the Contractor, supplier and manufacturer to satisfy the Engineer that:
 - 1. The proposed substitute is equal to, or superior to, the item specified.
 - 2. The intent of the Contract Documents, including required performance, capacity, efficiency, quality, durability, safety, function, appearance, space clearances and delivery date, will be equaled or bettered.

- D. Changes in work of other trades, such as structural supports or additional electrical capacity, which are required as a result of the substitution, and the associated costs for such changes, shall be the complete responsibility of the Contractor proposing the substitution. There shall be NO additional expense to the Owner.

- 1.7 PLANS AND SPECIFICATIONS AT THE SITE: The Contractor shall maintain at the Work Site, one copy of all Drawings, Specifications, Addenda, approved Shop Drawings, Change Orders and other modifications, Schedules, Instructions, etc. in good order and marked to record all changes made during construction. These shall be available at all times to the Engineer or his authorized representatives.

- 1.8 CONSTRUCTION PHASE LOG: The Contractor shall maintain a written record of daily work progress. Included shall be work completed, problems encountered, date of Engineer's approval of shop drawings, change orders, submittals, etc., and a list of all visitors to Work Area.

- 1.9 ENGINEER'S APPROVAL: The Contractor shall notify the Engineer (in writing) when the Work is completed.

- 1.10 SCHEDULE OF VALUES: At the pre-construction meeting, the selected Contractor shall submit to the Owner a schedule of values that breaks down the costs associated with each major phase of work at each of the buildings.

- 1.11 SCHEDULE OF WORK: All work shall be scheduled during normal working hours unless special arrangements are made with the Owner. The Contractor shall coordinate all aspects of the work schedule with the Owner's representative to ensure minimum disruption of building use. The Contractor shall submit to the Owner for approval a proposed schedule of work on a weekly basis. If schedule is approved by the Owner, it shall be rigidly adhered to by the Contractor in the following week. The Engineer will be available to resolve technical issues arising in the negotiations of the weekly work schedule. The Contractor shall be responsible for maintaining adequate communication with the Owner and Engineer.

- 1.12 WORK AREA: Construction will be confined to the immediate work area only. Trespass on property other than the Owner's property or easements acquired by the Owner for the project will be by written permission of the property owner only.

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PART 2 - PRODUCTS

- 2.1 **NEW MATERIALS:** Unless otherwise specified, all equipment, accessories, and materials shall be new and undamaged. Where two or more units of the same class of new equipment are required, these units shall be products of the same manufacturer.
- 2.2 **LABELS:** All equipment shall bear a Manufacturer's label that shows manufacturer's name, equipment model and serial numbers and appropriate operating information such as flow rates, capacities, voltage, current, etc.. All equipment and material that is listed with UL shall bear a UL label.

PART 3 - EXECUTION

- 3.1 **EMERGENCY AND FIRE EGRESS:** Legal fire and emergency egress shall be maintained at all times. Contractor shall take all measures necessary to maintain safe egress from all areas of building.
- 3.2 **PERMITS:** The Contractor shall give all necessary notices, file all required plans, obtain and pay for all required permits, obtain all necessary approvals and obtain all required certificates and inspections from City, State and Federal government departments and utilities having jurisdiction over the work.
- 3.3 **DEMOLITION:** The Contractor shall remove from the job site and dispose of, in an approved manner, all material demolished under this Contract.
- A. All demolition work shall be done with care to protect against injury to life and existing construction to remain shall be protected to prevent damage. Any damage done to existing construction (which is to remain) shall be corrected and patched to match surrounding area.
 - B. All materials removed (unless hereinafter described as Salvage) as a part of demolition shall become the property of the Contractor and be removed from the job site.
 - C. Material to be reused shall be removed with utmost care to prevent damage of any kind. The Fair Value of any item to be reused which is damaged during removal or handling shall be charged to the Contractor.
 - D. All material to be reused shall be stored on site. Contractor shall coordinate with Owner as to location.
 - E. Masonry to be removed shall be cut clean and smooth, rough edges shall be ground to match surrounding. Damaged joints shall be repointed.
 - F. All mechanical utilities encountered in the demolition areas shall be capped or rerouted. Electrical lines, plumbing lines, heating and ventilating lines shall be capped or rerouted in

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accordance with the Mechanical & Electrical Drawings, Specifications and local codes. The Contractor shall coordinate with Owner and obtain approval prior to any interruption in the Owner's use of utilities.

- 3.4 **MANUFACTURER'S INSTRUCTIONS:** All material and equipment shall be installed in accordance with the Manufacturer's instructions or requirements for proper operation. If such instructions or requirements conflict with the Specifications and/or Contract Drawings, the Contractor shall obtain written instructions from the Engineer before violating the Manufacturer's requirements.
- 3.5 **EQUIPMENT CLEARANCES:** Whether or not shown in detail or dimensioned on the Drawings, no equipment shall be installed in such a manner that it cannot be serviced. Contractor shall make field measurements to ensure that furnished equipment shall fit in available space. If field measurements indicate that specified equipment does not fit the Contractor shall notify the Engineer in writing, so that appropriate changes can be made.
- 3.6 **COORDINATION OF WORK WITH OTHER TRADES:** Subcontractors shall schedule work with each other to avoid conflicts, delays, and changes that would affect the intended appearance and function of installed material. No piping, ducts, conduit, valves, boxes, or architectural material shall be installed until all clearances have been checked and work coordinated with other trades. Subcontractors will be responsible for taking their own field measurements.
- 3.7 **PRECONSTRUCTION MEETING:** The Owner and Engineer will conduct a preconstruction meeting with the selected Contractor. The purpose of the meeting will be to answer any questions the Contractor may have about scheduling, the scope of work, the methods of work to be applied, and/or other technical or contractual issues.
- 3.8 **MEETINGS:** To enable orderly review during progress of the Work and to provide for systematic discussion of problems the Engineers will conduct periodic project meetings throughout the construction period. Persons designated by the Contractor to attend and participate in the project meetings shall have all required authority to commit the Contractor to solutions agreed upon in the project meetings.
- 3.9 **TESTING:** Functional testing of all systems and equipment shall be required. Test shall be attended by representatives of the Contractor, equipped with instruments required to demonstrate proper functioning of each system. The Contractor shall demonstrate that all Equipment is installed and operating in accordance with manufacturer's specifications and instructions, local and state codes.
- 3.10 **SAFETY:** The Contractor is responsible for safety at the job site. The Contractor shall adhere to all OSHA job safety requirements and otherwise observe safe working procedures. The Contractor shall provide all of the necessary measures to ensure the safety of workers, School

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District personnel, students and the general public during the construction and during periods when the Contractor is not on site. Job site safety is the sole responsibility of the Contractor. The Contractor shall ensure no debris from demolition or construction remains at the close of each workday and that work area and areas adjacent to the work area are maintained in a safe and usable condition. Open excavations and other hazards shall be completely barricaded, lighted, and shall be manned 24 hours, if necessary, to ensure public safety.

3.11 PAINTING, PATCHING AND REPAIR: Contractor shall patch, paint and otherwise repair existing building structures and equipment where called out in other Sections of the Specification and/or Drawings. Areas damaged or altered as a result of any Work under this Contract shall also be repaired and painted using materials and methods of the same quality as existing conditions in order to obtain the same appearance and function of existing materials. Damaged, altered or new surfaces shall be painted with sealer, primer and finish coat to match existing color and texture. If required by the Engineer, painting shall be carried to existing wall or ceiling break.

3.12 PROTECTION OF WORK AND MATERIALS:

- A. Work shall include receiving, unloading, uncrating, storing, protecting, setting in place and completely connecting equipment and materials supplied. Work shall also include exercising special care in handling and protecting equipment and materials and shall include the cost of replacing any of the equipment or materials which are missing or damaged.
- B. Equipment and material stored on or off the job site shall be protected from the weather, vehicles, dirt and damage by workers or machinery. Insure that all absorbent materials are protected from moisture during storage.
- C. Contractor shall take all necessary measures to protect the property of the Owner from damage that might be caused as a result of the Work included under this Contract.

3.13 CLEANING:

- A. Contractor shall conduct cleaning and disposal operations to maintain a clean and safe Work area. Contractor shall comply with local ordinances and anti-pollution laws when conducting cleaning and disposal operations.
- B. The Contractor shall NOT burn or bury rubbish and waste materials on project site. The Contractor shall not dispose of volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
- C. The Contractor shall wet down dry discarded materials and rubbish to prevent blowing dust, provide on-site containers for collection of waste materials and rubbish, and at reasonable times during progress of work, remove waste materials and rubbish from site and legally dispose of at public or private dumping areas off the Owner's property.
- D. Interior building areas shall be cleaned when ready to receive finish painting and continue cleaning on an as-needed basis until building is ready for Substantial Completion and/or

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occupancy. Cleaning operations shall be scheduled so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces.

- E. Cleaning materials recommended by manufacturers shall be used to clean surfaces of equipment, etc.
 - F. Remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials from sight-exposed interior and exterior surfaces. This includes cleaning of the Work of all finishing trades where needed whether or not cleaning by such trades is included in their respective Section.
 - G. Leave pipe and duct spaces, plenums, furred spaces, and the like clean of debris and decayable materials.
 - H. In cleaning items with manufacturer's finish or items previously finished by a subcontractor, care shall be taken not to damage such manufacturer's or subcontractor's finish. In cleaning glass and finish surfaces, care shall be taken not to use detergents or other cleaning agents that may stain adjoining finish surfaces. Any damage to finishes caused by cleaning operations shall be repaired by the Contractor at his own expense.
- 3.14 WORKMANSHIP: All Work shall be performed in a first-class, neat, substantial and workmanlike manner, by workers with adequate experience and training to perform the work.

END OF SECTION

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SECTION 03 00 00 – CONCRETE

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The extent of concrete work is shown on the drawings.

1.2 REFERENCES

- A. ACI 301 – Specifications for Structural Concrete for Buildings.

1.3 QUALITY ASSURANCE

- A. Concrete Testing and Inspection Service: Employ, at Contractor's expense, a testing laboratory acceptable to the Engineer to perform material evaluation tests during placement of concrete.
- B. The Contract, or testing firm, shall take cylinders and perform slump, air content and compressive strength tests in accordance with ACI 301.

1.4 SUBMITTALS

- A. Product Data: Concrete design mixture.
- B. Shop Drawings: for fabrication, bending and placement of concrete reinforcement.

PART 2 - PRODUCTS

2.1 FORM MATERIALS

- A. Forms for Exposed Finish Concrete: Construct of plywood, meal, metal-framed plywood or other acceptable materials to provide continuous, straight, smooth exposed surfaces. Provide material with sufficient thickness to withstand pressure of newly placed concrete without bow or deflection.
- B. Forms for Unexposed Finish Concrete: Construct of plywood, lumber, metal or other acceptable material. Provide lumber dressed on at least 2 edges and one side for a tight fit.
- C. Cylindrical Columns and Supports: Form round-section members with paper or fiber tubes constructed of laminated plies, using water-resistant adhesive or wax-impregnated exterior for weather and moisture protection.
- D. Form Coatings: Provide commercial formulation form-coating compounds that will not bond with, stain nor adversely affect concrete surfaces, and will not impair subsequent treatments of concrete surfaces.

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2.2 REINFORCING MATERIALS

- A. Reinforcing Bars: ASTM A 615, Grade 60.
- B. Supports for Reinforcement: Provide supports including bolsters, chairs, spacers and other devices for spacing, supporting and fastening reinforcing bars in place.

2.3 CONCRETE MATERIALS

- A. Portland Cement: ASTM C 150, Type I.
- B. Fly Ash: ASTM C 618.
- C. Ground Granulated Blast Furnace Slag: ASTM C 989.
- D. Normal Weight Aggregates: ASTM C 33.
- E. Water: Potable.
- F. Air-Entraining Admixture: ASTM C 260.
- G. Water-Reducing Admixture: ASTM C 494, Type A and not containing more chloride ions than are present in municipal drinking water.

2.4 RELATED MATERIALS

- A. Moisture Retaining Cover: One of the following, complying with ASTM C 171: Waterproof paper; polyethylene film; polyethylene-coated burlap.
- B. Membrane-Forming Curing Compound: ASTM C 309, Type I.

2.5 PROPORTIONING AND DESIGN OF MIXES

- A. Prepare design mixes for each type and strength of concrete in accordance with ACI 301. Use an independent testing facility for preparing and reporting proposed mix design.
- B. Adjustment to Concrete Mixes: Mix design adjustments may be requested by the Contractor when characteristics of materials, job conditions, or other circumstances warrant.
- C. Use air-entraining admixture for all concrete exposed to freeze-thaw cycles. Add air-entraining admixture at manufacturer's prescribed rate.
- D. Slump limits: The concrete shall be proportioned and produced to have a slump of 4 inches or less if consolidation is to be by vibration, and 5 inches or less if consolidation is to be by methods other than vibration.

2.6 CONCRETE MIXING

- A. Ready-Mix Concrete: Comply with requirements of ASTM C 94 "Standard Specification for Ready-Mixed Concrete".

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PART 3 - EXECUTION

3.1 FORMS

- A. Design, erect, support, brace and maintain formwork to support vertical and lateral loads that might be applied until such loads can be supported by concrete structures. Construct formwork so concrete members and structures are of correct size, shape, alignment, elevation and position. The Contractor is solely responsible for the safe design and installation of formwork.
- B. Construct formwork to comply with ACI 347 “Recommended Practice for Concrete Formwork”.
- C. Fabricate formwork for easy removal without hammering or prying against concrete surfaces.
- D. Coat contact surfaces of forms with a form-coating compound before reinforcement is placed.

3.2 PLACING REINFORCEMENT

- A. Comply with Concrete Reinforcing Steel Institute’s recommended practice for “Placing Reinforcing Bars”, for details and methods of reinforcement placement and supports.
- B. Clean reinforcement of loose rust and mill scale, earth, ice and other materials which reduce or destroy bond with concrete.
- C. Accurately position, support and secure reinforcement against displacement by formwork, construction or concrete placement operations.

3.3 CONCRETE PLACEMENT

- A. Comply with ACI 304 “Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete”. Deposit concrete continuously or in layers of such thickness to prevent the formation of seams or planes of weakness.
- B. Consolidate placed concrete by mechanical vibrating equipment supplemented by hand-spading, rodding or tamping. Use equipment and procedures for consolidation of concrete in accordance with ACI recommended practices.
- C. Bring slab surfaces to correct level with straightedge and strike off. Use bull floats or darbies to smooth surface, free of humps or hollows. Do not disturb slab surfaces prior to beginning finishing operations.
- D. Protect concrete work from physical damage or reduced strength due to hot or cold weather in accordance with ACI 305 and 306.

3.4 FINISHES

- A. Light Broom Finish: Apply light broom finish to slabs after completion of float finishing. Lightly draw broom over concrete surface.

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3.5 CONCRETE CURING

- A. Protect freshly placed concrete from premature drying or excessive cold or hot temperatures.
- B. Start initial curing as soon as free water has disappeared from concrete surface after placing and finishing.
- C. Begin final curing procedures immediately following initial curing and before concrete has dried. Continue final curing for 7 days in accordance with ACI 301 procedures. Avoid rapid drying at the end of final curing period.
- D. Perform curing of concrete by moist curing.

3.6 REMOVAL OF FORMS

- A. Formwork not supporting weight of concrete may be removed after cumulatively curing at not less than 50 degrees for 24 hours, provided concrete is sufficiently hard to not be damaged by form removal operations and provided curing and protection operations are maintained.

3.7 REMEDIAL WORK

- A. Repair or replace deficient work as directed by the Engineer at no additional cost to the Owner.

END OF SECTION

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SECTION 23 11 13 - FUEL PIPING SYSTEMS

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Underground fuel piping and fittings.
- B. Aboveground fuel piping and fittings.
- C. Pipe Hangers and Supports

1.2 REFERENCES

- A. NFPA 30 – Flammable and Combustible Liquids Code
- B. PEI/RPI-100 – Recommended Practices for Installation of Underground Liquid Storage Systems.

1.3 SUBMITTALS

- A. Contractor shall submit catalog data including installation instructions.

PART 2 - PRODUCTS

2.1 UNDERGROUND FUEL PIPING

- A. The primary delivery piping system for suction or pressure applications shall be UL 971 listed and have double wall construction with inner stand-off ribs and outer containment jacket allowing for rapid migration of any leaks from the primary pipe into the secondary pipe and then to a designated accumulation point. Primary piping shall be supplied in flexible coils for pipe runs with no joints.
- B. The primary pipe shall be run within a high-density corrugated polyethylene access pipe, capable of withstanding an H-20 load when properly buried.
- C. Pipe fittings, entry boots and termination assemblies shall be as furnished by the pipe manufacturer for single source reliability.
- D. Primary Piping Construction
 - 1. Constructed throughout of fully bonded, premium polyvinylidene fluoride (PVDF).
 - 2. Piping shall be suitable for operation with all fuels as defined in UL971.
 - 3. Piping shall be rated for 125 psig (1" size) and 29" mercury vacuum.
- E. Equal to OPW "FlexWorks".

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2.2 ABOVEGROUND FUEL PIPING

- A. Steel pipe: ASTM A53, Schedule 40, black, plain end with ASTM B16.3 Class 150 malleable iron threaded fittings.
- B. Hangers and Supports:
 - 1. Hangers and supports shall conform to MSS-SP-58 and MSS-SP-69. Wire and/or strap hangers will not be acceptable.
 - 2. Hangers shall be light duty clevis type equal to Anvil #65. Alternate piping support systems such as Unit-strut, B-Line or Super-strut with integral pipe clamping and supporting hardware may be accepted.
 - 3. Hanger Rods: Mild steel threaded both ends, threaded one end, or continuous threaded.
 - 4. Prime coat and paint hangers and supports installed on the building exterior and in concealed spaces with rust inhibited primer and enamel.

PART 3 - EXECUTION

3.1 UNDERGROUND PIPING INSTALLATION

- A. Contractor shall be satisfactorily trained by the piping manufacturer. When the installing contractor is not certified, the pipe manufacturer shall provide on-site training and certification of the contractor's technicians in the proper assembly and installation procedures.
- B. The piping system shall be installed in strict accordance with the manufacturer's current installation instructions. The contractor is responsible for all necessary tools required for a complete testable piping installation.

3.2 ABOVEGROUND PIPING INSTALLATION

- A. Preparation
 - 1. Ream pipe ends and remove burrs. Bevel plain end ferrous pipe.
 - 2. Remove scale and dirt, on inside and outside, before assembly.
- B. Installation
 - 1. Route piping in orderly manner and maintain gradient.
 - 2. Group piping whenever practical at common elevations.
 - 3. Properly support piping to allow for expansion and contraction without stressing pipe, joints or connected equipment.
- C. Protect piping system from entry of foreign materials by temporary cover, completing sections of work, and isolating parts of completed systems.

3.3 TESTING

- A. Prior to putting fuel piping into service, contractor shall pressure test piping.

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- B. Contractor shall notify the authority having jurisdiction in advance of any pipe tests.
- C. Prior to pressure testing, the piping must be isolated from any equipment.
- D. An air pressure test must be performed on the piping to detect any leaks that may exist. Test pressure shall be in accordance with local and state codes.
- E. Underground Piping
 - 1. An air pressure test must be performed on the primary and secondary piping to detect any leaks that may exist. Test pressure shall be in accordance with Installation manual. All testing shall be in compliance with the pipe manufacturer's installation instructions.

END OF SECTION

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SECTION 26 05 00 – ELECTRICAL BASIC MATERIALS AND METHODS

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Unless otherwise indicated, provide Basic Material and Methods including raceway, wire and cable, pull and junction boxes, outlet boxes, wiring devices, and all incidental devices and accessories necessary for the complete installation of electrical systems indicated on the Drawings.

1.2 REFERENCES

- A. All materials, equipment, apparatus and work shall be in accordance with the latest edition of the National Electrical Code which has been adopted by the State of Connecticut, State and Local codes, and the requirements of the local utility companies.

1.3 EXAMINATION OF SITE

- A. Contractor must thoroughly examine the site and the Contract Documents. No claim for extra compensation will be recognized if difficulties are encountered which would have been revealed by examination of site conditions and all Contract Documents prior to executing Contract.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Conduit:

1. All conduit shall be UL labeled IMC.
2. IMC conduit shall be heavy IPS hot dipped galvanized or sherardized and the zinc shall cover the threads, be uniform in thickness, and be free of defects. The interior shall be treated for pulling of wire. Each piece of conduit shall be furnished in 10 foot lengths and threaded at each end with one threaded protector and one threaded coupling. Conduit minimum size shall be ¾". Conduit threaded in the field shall be coated with cold galvanizing spray. IMC shall conform to Federal Specification WWC-581, UL 1242 and Article 345 of the NEC.
3. Conduit and conduit fittings shall be manufactured by General Electric, Anaconda, Allied or approved equal.

B. Wire and Cable:

1. All wire and cable shall consist of 98% conductivity copper wire with 600 volt insulation manufactured in strict accordance with IEEE and the NEC. All wire and cable shall be UL Listed.
2. All wiring shall be installed in conduit and shall be type "TW Gasoline and Oil Resistant I" or "THWN Gasoline and Oil Resistant II".

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3. The use on non-metallic sheathed cable “NM” and the use of aluminum conductors will not be permitted.
4. Minimum size of conductor shall be #12.
5. Instrumentation cable shall be in accordance with equipment manufacturer’s requirements.
6. Wire and cable shall be manufactured by General Cable, Anaconda, General Electric or approved equal.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Installation of electrical materials shall be in accordance with the National Electrical Code.
- B. All work shall be run concealed wherever possible unless otherwise indicated on the Drawings and/or approved by Engineer.
- C. Securely support conduit from structures in a neat manner with runs parallel to lines of columns, walls and ceiling.
- D. Standard radius bends shall be used on all concealed conduit. Conduit fittings for use with rigid steel conduit shall be threaded type, cast malleable iron, and galvanized or cadmium plated. Locknuts for securing conduit into steel enclosures shall have sharp edge for digging through painted surfaces into the metal to insure electrical continuity. The ends of all conduits shall be reamed before assembly and bushings and locknuts provided where they connect to boxes. All conduit shall be run to avoid low pockets which might collect water.
- E. Metal portions of all non-current carrying metal parts of electrical equipment, shall be grounded as required by Article 250 of the NEC.
- F. Provide separate full-size grounding conductor in each conduit.
- G. All conduit shall be sealed in accordance with Articles 501 and 514 of the NEC.
- H. Install wire and cable in accordance with the NEC. Conductors shall be continuous with no splices or tabs except in approved splice boxes. Run conductors of the same circuit in the same conduit. Run conductors of different voltages in separate conduits.

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3.2 UNINSPECTED WORK

- A. Uninspected work shall not be covered up or enclosed until it has been inspected, tested, and approved by the Owner's representative and by the authorities with the appropriate jurisdiction.
- B. Should any work be covered or enclosed before it has been completely inspected, tested and approved, the Contractor shall uncover such work as requested. After the work has been completely inspected, tested, and approved, the Contractor shall provide all materials and labor necessary and make all repairs necessary to restore the work to its proper condition at no additional cost to the Owner

3.3 FIELD QUALITY CONTROL

- A. Test all new conductors for ground faults, shorts and continuity.

END OF SECTION

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SECTION 31 12 16 – BITUMINOUS CONCRETE PAVING

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The work of this Section includes, but is not limited to, the furnishing of all labor, materials and equipment required to provide bituminous concrete pavement in the locations shown, detailed and described in the Contract Documents.

1.2 REFERENCES

- A. State of Connecticut Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction – Form 817.

1.3 SUBMITTALS

- A. Product Data: for each type of the following manufactured products:
 - 1. Job-Mix Designs: Parking areas
 - 2. Pavement marking paint.

1.4 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks and other adjacent or occupied or used facilities during paving operations.
- B. Sequencing and scheduling: The finish surface course of bituminous concrete shall not be placed until construction operations are substantially complete.

PART 2 - PRODUCTS

2.1 GENERAL MATERIALS REQUIREMENTS

- A. Aggregates
 - 1. Coarse Aggregate: ASTM D 692, sound; angular crushed stone, crushed gravel, or cured, crush blast-furnace slag.
 - 2. Fine Aggregate: ASTM D 1073, sharp-edged natural sand or sand prepared from stone, gravel, cured blast-furnace slag or combinations thereof.
 - a. For hot-mix asphalt, limit natural sand to a maximum of 20 percent by weight of the total aggregate mass.
 - 3. Mineral Filler: ASTM D 242 rock or slag dust, hydraulic cement, or other inert material.
- B. Bituminous Concrete: Conform to the requirements of Section M.04 of CTDOT Form 817:
 - 1. Wearing Course: Class 2

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- 2. Binder Course: Class 1
- 3. Curbs: Class 3
- C. Tack Coat: Grade CSS-LH, catonic emulsified asphalt.
- D. Pavement Markings: Epoxy resin conforming to Section M.07.22 of CTDOT Form 817.

PART 3 - EXECUTION

3.1 PRE-INSTALLATION REQUIREMENTS

- A. Secure approval of the paving base by the Owner's Representative prior to commencing paving operations.

3.2 BITUMINOUS CONCRETE PAVING

- A. The line between existing pavement to remain and existing pavement to be removed shall be snapped with a chalk line and cut with a saw so as to leave a smooth straight vertical edge. Before bituminous concrete paving is placed, the kerfed edges shall be given a light tack coat of asphalt emulsion.
- B. The methods employed in performing the Work and all equipment, tools, machinery and other plant used in handling material and executing any part of the Work shall conform to all the requirements of Article 4.06.03 of CTDOT Form 817.

3.3 CLEANING

- A. Bottom course of bituminous concrete paving shall be cleaned of all debris and soil before surface course is placed.
- B. Cleaning shall be done with compressed air or by flushing with water under pressure. Cleaning shall be approved by the Owner's Representative prior to commencing paving operations.
- C. If water is used, the surface shall be allowed to dry before the surface coat of bituminous concrete is placed.

3.4 PROTECTION

- A. Protect paving after placement to prevent damage by staining or construction operations. Clean, repair, or replace paving damaged by construction operations to satisfaction of the Engineer.

END OF SECTION

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SECTION 31 20 00 - EARTHWORK

PART 1 - GENERAL

- A. The extent of earthwork is shown on the Drawings. Work under this section also includes, but is not limited to the following:
 - 1. Preparation of subgrade for lawns, slabs, and pavements.
 - 2. Backfill of excavations.

1.2 REFERENCES

- A. State of Connecticut Department of Transportation - Form 817.
- B. OSHA 2207 Construction Industry Standards, U.S. Department of Labor Occupation Safety and Health Administration,
- C. AASHTO - American Association of State Highway and Transportation Officials.

1.3 JOB CONDITIONS

A. EXISTING UTILITIES

Locate existing underground utilities in areas of work. If utilities are to remain in place, provide adequate means of protection during earthwork. Call "Call Before Your Dig" prior to beginning excavation.

- 1. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult utility owner immediately for directions. Cooperate with Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to satisfaction of utility owner.
- 2. Do not interrupt existing utilities serving facilities occupied and used by Owner or others, except when permitted in writing by Engineer and then only after acceptable temporary utility services have been provided.
- 3. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies for shut-off of services if lines are active.

B. PROTECTION OF PERSONS AND PROPERTY

Barricade open excavations occurring as part of this work and post with warning lights.

- 1. Operate warning lights as recommended by authorities having jurisdiction.
- 2. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.

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3. Use means necessary to prevent dust becoming a nuisance to the public, to neighbors and to other work being performed on or near the site.
4. Maintain access to adjacent areas at all times.

PART 2 - PRODUCTS

2.1 SAND (PIPE BEDDING)

- A. Natural river or bank sand, washed free of silt, clay, loam, friable, or soluble materials. Sand shall contain no more than 3% of material which will pass through a number 8 sieve and shall be so certified in writing by sand supplier.

2.2 GRAVEL

- A. Article M.02.03, Form 817.
- B. Gravel is to be used for filling under pavements and improvements that is required to achieve the rough grades indicated.
- C. Provide borrow material as required to meet project specifications.

2.3 GENERAL FILL

- A. Material used for general filling outside of limits of pavements, may be either approved material available from off-site, certified to conform to the following grain-size gradation:

<u>Square Mesh Sieve</u>	<u>% Passing (by Weight)</u>
3 1/2"	100
3/4"	75 - 100
#4	25 - 80
Less than 15% of the materials passing the #4 sieve shall pass a #200 sieve.	

- B. Fill shall be clean, free of clay and organic material and capable of satisfactory compaction. Determine the required quantities of borrow material base on grading requirements and quantity of topsoil stockpiled and approved for reuse. If sufficient approved on-site material is not available to meet grading requirements indicated, provide additional approved off-site material at no extra cost to Owner.

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PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine the areas and conditions under which excavating, filling, and grading are to be performed and notify the Engineer, in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in an acceptable manner.

3.2 EXCAVATION

- A. Excavation consists of removal and selective disposal of materials in performing the work of this project.
- B. The Contractor shall assume that all excavation will be earth.
- C. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of Engineer. Unauthorized excavation, as well as remedial work directed by Engineer, shall be at Contractor's expense.
 - 1. Elsewhere, backfill and compact unauthorized excavations as specified for authorized excavations of same classification, unless otherwise directed by Engineer.

D. STABILITY OF EXCAVATIONS

Slope sides of excavations in safe condition until completion of backfilling. Slope angles shall conform to OSHA 1926.

E. SHORING AND BRACING

Where OSHA requirements are not satisfied by slope of sides of excavations, provide materials for shoring and bracing, such as sheet piling, uprights, stringers and cross-braces, in good serviceable conditions.

- 1. Shoring and bracing shall comply with local codes, ordinances and OSHA Part 1926.
- 2. Maintain shoring and bracing in excavations regardless of time period excavations will be open. Carry down shoring and bracing as excavation progresses.

F. DEWATERING

Prevent surface water and subsurface or ground water from flowing into excavations and from flooding project site and surrounding area.

- 1. Do not allow water to accumulate in excavations. Remove water to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to stability of subgrades and foundations. Provide and maintain pumps, well points, sumps, suction and discharge lines, and other dewatering system components necessary to convey water away from excavations.

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2. Convey water removed from excavations and rainwater to collecting or run-off areas. Establish and maintain temporary drainage ditches and other diversions outside excavation limits for each structure. Do not use trench excavations as temporary drainage ditches.

G. MATERIAL STORAGE & DISPOSAL

Stockpile satisfactory excavated materials, until required for backfill or fill. Place, grade and shape stockpiles for proper drainage.

1. Locate and retain soil materials away from edge of excavations. Utilize soil erosion control measures.
2. Dispose of excess waste materials and unsuitable soil.

3.3 SUBGRADE PREPARATION

- A. Upon completion of mass site earthwork, prepare the subgrade by removing all soft or spongy material and backfilling with satisfactory material.
- B. Compact the subgrade uniformly to 95% Modified AASHTO Laboratory density (ASTM D-1557, Method C).
- C. Conform to applicable State of Connecticut requirements and in accordance with Form 817, Section 2.09.
- D. Subgrade must be approved prior to application of any base materials.

3.4 MATERIAL PLACEMENT/COMPACTION

- A. Placement. Lifts shall be as per schedule noted. Do not deposit fill in areas of standing water. Any pockets of sediment and foreign material are to be removed before filling continues.
 1. Minimum Compaction Schedule.

Compactor Static Weight/ Dynamic Force	Lift (inches)
10 Tons/20 Tons	15
5 Tons/10 Tons	12
2 Tons/ 4 Tons	8
1 Ton/2 Tons	6
500/lbs/1000 lbs	4

- B. Compaction. Each lift shall be compacted. Maintain optimum and proper moisture content to achieve required compaction.
- C. Fill to subgrade under structures, pavements, and footings shall be compacted to minimum 95% of modified AASHTO laboratory density (ASTM D-1557, Method C).

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D. Fill to subgrade under lawn shall be compacted to minimum 90% modified AASHTO laboratory density (ASTM D-1557, Method C).

E. MOISTURE CONTROL

Where subgrade or layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of subgrade, or layer of soil material, to prevent free water appearing on surface during or subsequent to compaction operations.

1. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified density.
2. Soil material that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing or pulverizing until moisture content is reduced to a satisfactory value.

3.5 GRADING

A. GENERAL

Uniformly grade areas within Contract limit lines, including adjacent transition areas. Smooth finished surface within specified tolerances, compact with uniform levels or slopes between points where elevations are shown, or between such points and existing grades.

B. GRADING OUTSIDE BUILDING LINES

Grade areas adjacent to building lines to drain away from structures and to prevent ponding.

1. Finish surfaces free from irregular surface changes, and as follows:

a. LAWN OR UNPAVED AREAS

Finish areas to receive topsoil to within not more than 0.10' above or below required subgrade elevations.

b. WALKS

Shape surface of areas under pavement to line, grade and cross-section, with finish surface not more than 0.10' above or below required subgrade elevation.

c. PAVEMENTS

Shape surface of areas under pavement to line, grade and cross-section, with finish surface not more than 1/2" above or below required subgrade elevation.

C. COMPACTION

After grading, compact subgrade surfaces to the depth and percentage of maximum density for each area classification.

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3.6 MAINTENANCE

A. PROTECTION OF GRADED AREAS

Protect newly graded areas from traffic erosion. Keep free of trash and debris.

1. Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.

B. RECONDITIONING COMPACTED AREAS

- C. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, re-shape, and compact to required density prior to further construction.

END OF SECTION

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SECTION 32 92 00 - LANDSCAPE WORK

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. The extent of landscape work is shown on the Drawings and consists of providing topsoil and grass seeding materials to achieve a permanent lawn on all areas disturbed as a result of this project which are not designated for paving.
 - 1. Subgrade Elevations: Excavation, filling and grading required to establish elevations shown on drawings are not specified in this section. Refer to Section 31 20 00 - Earthwork.

1.2 REFERENCE STANDARDS

- A. Materials and workmanship shall conform to applicable requirements of "State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction", Form 817 and amendments to date, to be referred to hereinafter as "Form 817".

1.3 QUALITY ASSURANCE

A. SOURCE QUALITY CONTROL

- 1. General
 - a. Ship landscape materials with certificates of inspection required by governing authorities. Comply with regulations applicable to landscape materials.
- 2. Analysis and Standards
 - a. Package standard products with manufacturer's certified analysis.
- 3. Topsoil
 - a. Before delivery of topsoil, furnish Engineer with written statement giving location of properties from which topsoil is to be obtained.

1.4 SUBMITTALS

A. CERTIFICATION

- 1. Submit certificates of inspection as required by governmental authorities, and manufacturer's or vendor's certified analysis for soil amendments and fertilizer materials. Submit other data substantiating that materials comply with specified requirements.
 - a. Submit seed vendor's certified statement for each grass seed mixture required stating botanical and common name, percentage by weight, and percentages of purity, germination, and weed seed for each grass seed specified.

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B. MAINTENANCE INSTRUCTIONS

1. Submit typewritten instructions recommending procedures to be established by Owner for maintenance of landscape work for one full year. Submit prior to expiration of required maintenance period(s).

1.5 DELIVERY, STORAGE AND HANDLING

A. PACKAGED MATERIALS

1. Deliver packaged materials in containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery, and while stored at site.

1.6 JOB CONDITIONS

- A.** Installer shall examine the subgrade, verify the elevations, observe the conditions under which work is to be performed, and notify the Engineer of unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.

- B.** Proceed with and complete landscape work as rapidly as portions of site become available, working within seasonal limitations for each kind of landscape work required.

C. UTILITIES

1. Determine location of underground utilities and perform work in a manner which will avoid possible damage. Hand excavate, as required. Maintain grade stakes set by others until removal is mutually agreed upon by parties concerned.

D. EXCAVATION

1. When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, obstructions, notify Engineer before planting.

E. PLANTING TIME

1. Plant or install materials during normal planting seasons for each type of landscape work required. Correlate planting with specified maintenance periods to provide maintenance until occupancy by Owner.

1.7 GUARANTEE

- A.** Guarantee lawns through specified maintenance period, and until final acceptance.

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PART 2 - PRODUCTS

2.1 TOPSOIL

- A. Topsoil is specified to be stockpiled for re-use in landscape work. If quantity of stockpiled topsoil is insufficient, provide additional topsoil as required to complete landscape work.
- B. Topsoil shall conform to the requirements of Article M. 13.01, Form 817.
 - 1. Obtain topsoil from local sources or from areas having similar soil characteristics to that found at the project site. Obtain topsoil only from naturally, well-drained sites where topsoil occurs in a depth of not less than 4"; do not obtain from bogs or marshes.

2.2 SOIL AMENDMENTS

- A. Lime shall conform to the requirements of Article M.13.02, Form 816.
- B. **COMMERCIAL FERTILIZER**
 - 1. Complete fertilizer of neutral character, with some elements derived from organic sources and containing the following percentages of available plant nutrients:
 - 2. For lawns, provide fertilizer with not less than 4% phosphoric acid and not less than 2% potassium, and percentage of nitrogen required to provide not less than 1 lb. of actual nitrogen per 1,000 sq. ft. of lawn area. Provide nitrogen in a form that will be available to lawn during initial period of growth.

2.3 GRASS MATERIALS

- A. Grass seed mixtures shall conform to Subarticle M.13.04, Form 817.

2.4 MISCELLANEOUS LANDSCAPE MATERIALS

- A. **MULCH HAY**
 - 1. Shall conform to Subarticle M.13.05.2, Form 817.
- B. **WATER**
 - 1. Shall conform to Subarticle M.13.07.12, Form 817.
- C. **SOD**
 - 1. If used, shall conform to Subarticle M.13.08, Form 817.

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2.5 PREPARATION OF PLANTING SOIL

- A. Before mixing, clean topsoil of roots, plants, sods, stones, clap lumps, and other extraneous materials harmful or toxic to plant growth.
- B. Mix specified soil amendments and fertilizers with topsoil at rates specified. Delay mixing of fertilizer if planting will not follow placing of planting soil within a few days.

PART 3 - EXECUTION

3.1 PREPARATION

A. PREPARATION FOR PLANTING LAWNS

- 1. Loosen subgrade of lawn areas to a minimum depth of 6". Remove stones over 1-1/2" in any dimension and sticks, root, rubbish and other extraneous matter. Limit preparation to areas which will be planted promptly after preparation.
 - a. Spread planting soil mixture to minimum depth required to meet lines, grades and elevations shown, after light rolling and natural settlement.
- 2. Grade lawn areas to smooth, even surface with loose, uniformly fine texture. Roll and rake and remove ridges and fill depressions, as required to meet finish grades. Limit fine grading to areas which can be planted immediately after grading.
- 3. Moisten prepared lawn areas before planting if soil is dry. Water thoroughly and allow surface moisture to dry before planting lawns. Do not create a muddy soil condition.
- 4. Restore lawn areas to specified condition if eroded or otherwise disturbed after fine grading and prior to planting.

- B. Dispose of subsoil removed from landscape excavations which is not to be used as backfill elsewhere on same site as directed by Owner. Do not mix with planting soil.

3.2 PLANTING

A. SEEDING NEW LAWNS

- 1. Do not use wet seed or seed which is moldy or otherwise damaged in transit or storage.
- 2. Sow seed using a spreader or seeding machine. Do not seed when wind velocity exceeds 5 mi. per hr. Distribute seed evenly over entire area by sowing equal quantity in 2 directions at right angles to each other.
- 3. Rake seed lightly into top 1/8" of soil, roll lightly, and water with fine spray.
- 4. Protect seeded slopes against erosion with erosion netting or other methods acceptable to the Engineer. Embed netting in loam.

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3.3 MAINTENANCE

- A. Begin maintenance immediately after planting.
- B. Maintain lawns for not less than the period stated below, and longer as required to establish an acceptable lawn.
 - 1. Seeded lawns, not less than 60 days after completion.
 - a. If seeded in fall and not given full 60 days of maintenance, or if not considered acceptable at that time, continue maintenance following spring until acceptable lawn is established.
 - 2. Sodded lawns, not less than 60 days after completion.
- C. Maintain lawns by watering, fertilizing, weeding, mowing, trimming, and other operations such as rolling regrading and replanting as required to establish a smooth, acceptable lawn, free of eroded or bare areas.

3.4 CLEANUP AND PROTECTION

- A. During landscape work, keep pavements clean and work area in an orderly condition.
- B. Protect landscape work and materials from damage due to landscape operations, operations by other contractors and trades and trespassers. Maintain protection during installation and maintenance periods. Treat, repair or replace damaged landscape work as directed.

3.5 INSPECTION AND ACCEPTANCE

- A. When landscape work is completed, including maintenance, Engineer will, upon request, make an inspection to determine acceptability.
 - 1. Landscape work maybe inspected for acceptance in parts agreeable to Engineer, provided work offered for inspection in complete, including maintenance, and that the area comprises one complete unit of area of substantial size.
- B. Where inspected landscape work does not comply with requirements, replace rejected work and continue specified maintenance until reinspected by Engineer and found to be acceptable. Remove rejected plants and materials promptly from project site.

END OF SECTION

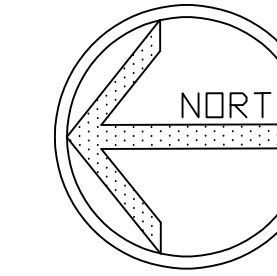
DISCLAIMER

SITE PLAN SHOWN IS BASED UPON VARIOUS ORIGINAL CONSTRUCTION DRAWINGS AND LIMITED FIELD MEASUREMENTS. RZ DESIGN ASSOCIATES DOES NOT GUARANTEE THE VALIDITY AND ACCURACY OF THE INFORMATION PROVIDED ON THIS SITE PLAN. CONTRACTOR SHALL VERIFY THIS INFORMATION IN THE FIELD AND SHALL REPORT ANY DISCREPANCIES TO ENGINEER.

PIPE SCHEDULE		
DESIGNATION	DESCRIPTION	SIZE
NEW UNDERGROUND FUEL OIL SUPPLY AND RETURN PIPE	OPW "FLEXWORKS" FLEXIBLE DOUBLE-WALL PRIMARY PIPE	3/4"
NEW UNDERGROUND DIESEL SUPPLY AND RETURN PIPE	OPW "FLEXWORKS" FLEXIBLE DOUBLE-WALL PRIMARY PIPE	3/4"
NEW RIGID FUEL OIL SUPPLY AND RETURN PIPE IN TANK SUMP	ASTM A53, SCHEDULE 40 BLACK STEEL, PAINTED WITH RUST INHIBITED ENAMEL	3/4"

LINETYPE LEGEND	
LINETYPE	DESCRIPTION
—FOS—	FUEL OIL SUPPLY PIPE
—FOR—	FUEL OIL RETURN PIPE
—V—	TANK VENT PIPE
—G—	TANK GAUGE CONDUIT
—L—	TANK LEAK DETECTION CONDUIT
—ALM—	HIGH LEVEL ALARM CONDUIT
—E—	ELECTRICAL CONDUIT
—TELE—	TELECOMMUNICATIONS CONDUIT
—CATV—	CABLE TELEVISION CONDUIT
—W—	DOMESTIC WATER PIPE
—F—	FIRE WATER PIPE
—S—	SANITARY SEWER PIPE
—ST—	STORM SEWER PIPE

- GENERAL DEMOLITION NOTES:**
- "CALL BEFORE YOU DIG" SHALL BE CONTACTED BY THE CONTRACTOR AND ALL UTILITIES SHALL BE MARKED PRIOR TO BEGINNING ANY EXCAVATION WORK.
 - CONTRACTOR SHALL SUBMIT FORM "DEEP-UST-NOT-002 NOTIFICATION OF SCHEDULED PERMANENT CLOSURE OF UNDERGROUND STORAGE TANKS" TO DEEP AT LEAST 30-DAYS PRIOR TO BEGINNING PERMANENT CLOSURE OF THE UNDERGROUND FUEL OIL PIPING SYSTEM.
 - CONTRACTOR SHALL TAKE ALL NECESSARY MEANS TO INSURE THAT THE FOUNDATION OF THE ADJACENT BUILDING WILL NOT BE UNDERMINED AND TO PROTECT EXISTING UNDERGROUND UTILITIES FROM DAMAGE. PROVIDE SHORING AND BRACING OF EXCAVATION AS REQUIRED.
 - CONTACT CT DEEP, OWNER AND ENGINEER IF CONTAMINATED SOIL IS ENCOUNTERED DURING EXCAVATION.
 - RESTORE ALL DISTURBED AREAS TO EXISTING GRADE, UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL UTILIZE AN INDEPENDENT THIRD-PARTY FIRM QUALIFIED TO COLLECT AND ANALYZE SOIL SAMPLES NECESSARY FOR CLOSURE OF THE EXISTING FUEL OIL PIPING SYSTEM. SAMPLES SHALL BE SENT TO AN INDEPENDENT CERTIFIED LABORATORY BY THE CONTRACTOR. SUBMIT SAMPLE RESULTS AND CLOSURE REPORT TO OWNER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE CONTRACTOR'S BID.
 - CONTRACTOR SHALL PROVIDE OFF-SITE DISPOSAL OF ALL MATERIALS THAT ARE REMOVED AS A RESULT OF THIS PROJECT.
 - ALL NEW PIPING SHALL MEET NFPA 30 AND NFPA 31 FOR TESTING AND INSTALLATION.
 - CONTRACTOR SHALL PROVIDE TEMPORARY FUEL TANK(S) AND PIPING TO ALLOW GENERATOR AND BOILERS / DOMESTIC WATER HEATER TO REMAIN IN OPERATION DURING CONSTRUCTION. CONTRACTOR SHALL TRANSFER FUEL TO THE TEMPORARY TANKS(S) FROM THE UNDERGROUND STORAGE TANKS AND SHALL RETURN REMAINING FUEL BACK TO THE UNDERGROUND STORAGE TANKS WHEN THEY ARE BACK IN SERVICE. OWNER WILL PROVIDE ADDITIONAL FUEL, IF NEEDED.



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SEAL

CONSULTANTS

SUBMISSION HISTORY

JOB INFO

TOWN OF GROTON

POLICE DEPARTMENT FUEL TANK UPGRADES

68 Groton Long Point Road
 Groton, CT 06340

DWG DATA

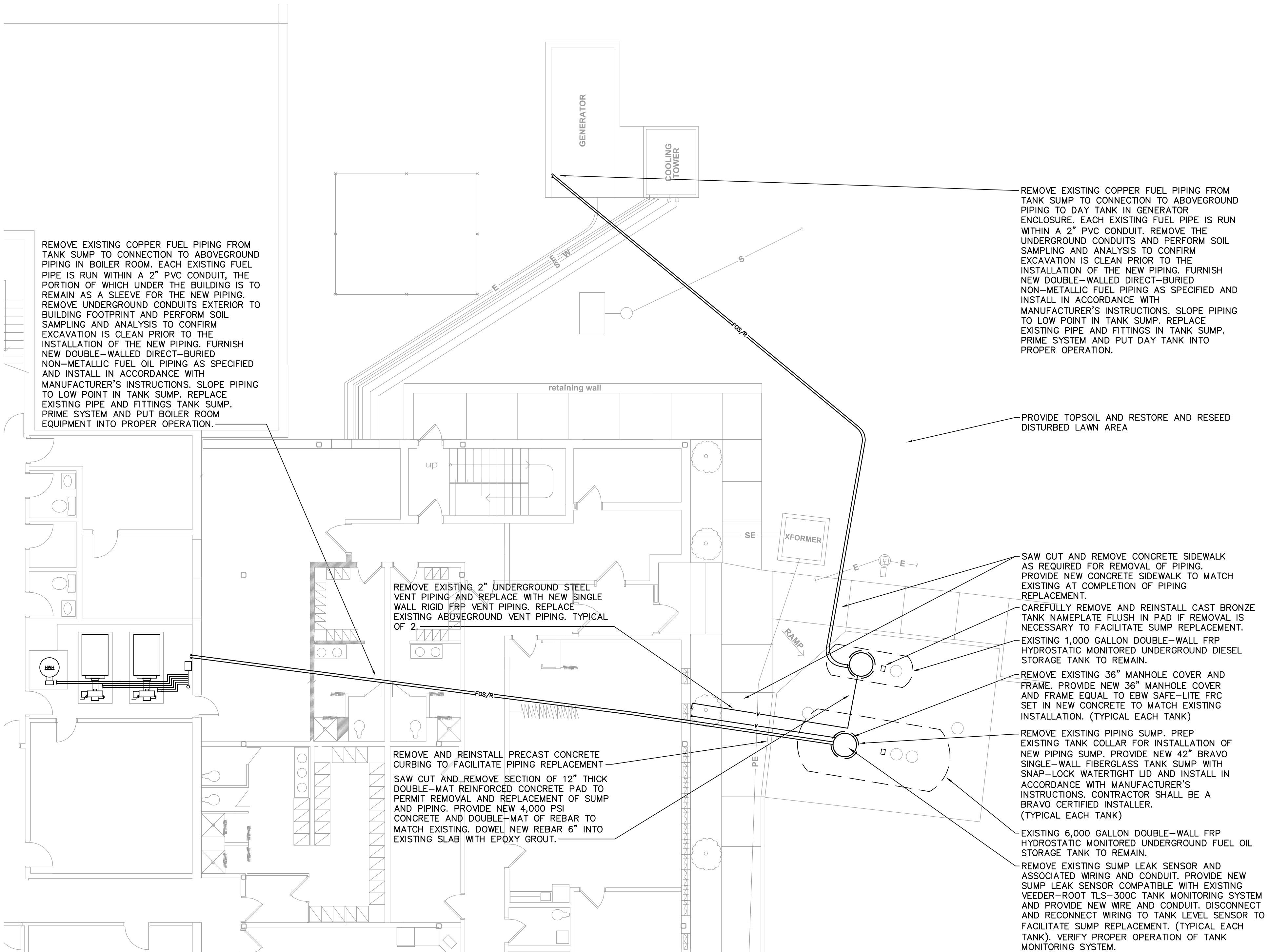
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 REVIEWED: KH
 SCALE: AS NOTED

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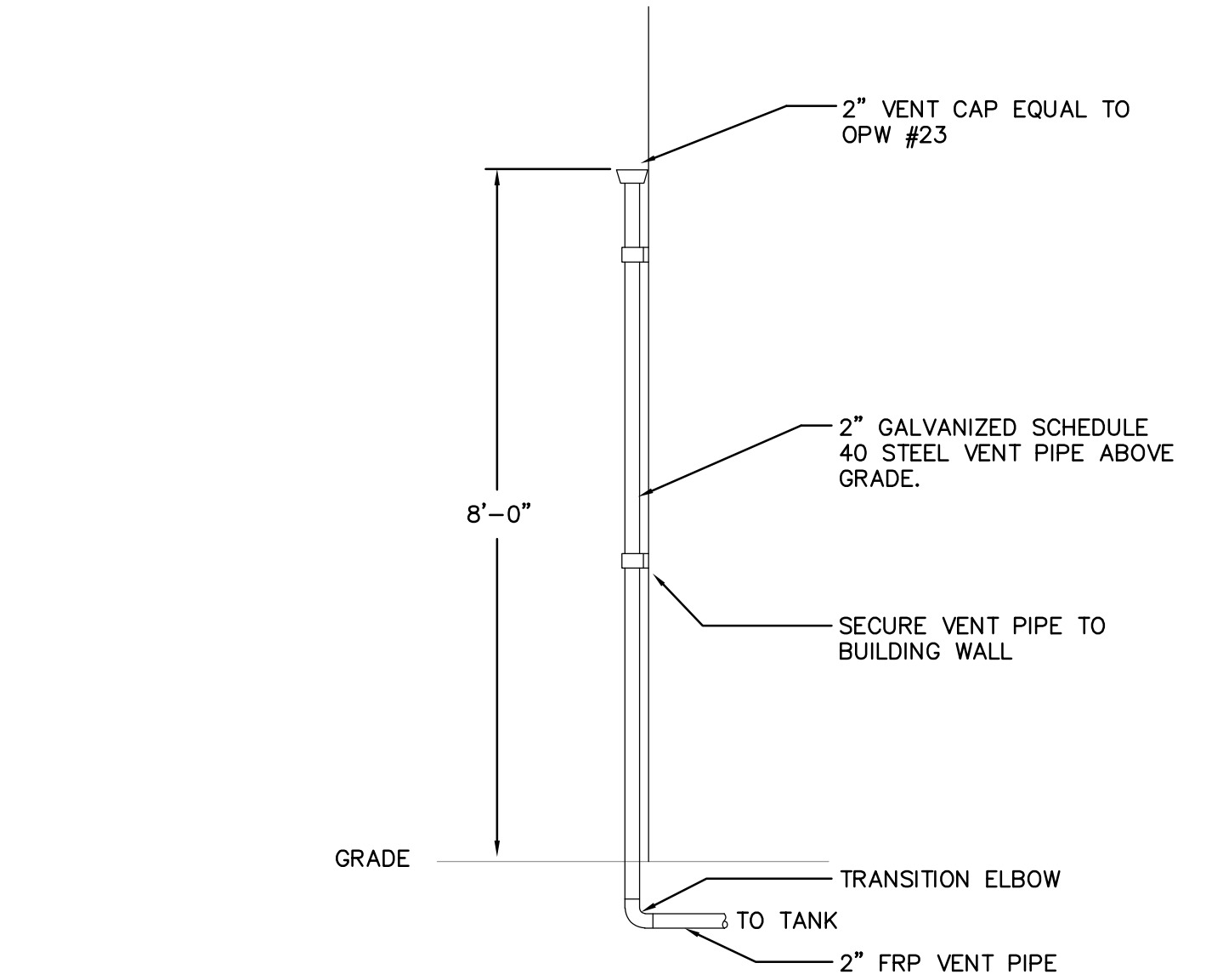
PARTIAL SITE PLAN

DWG #

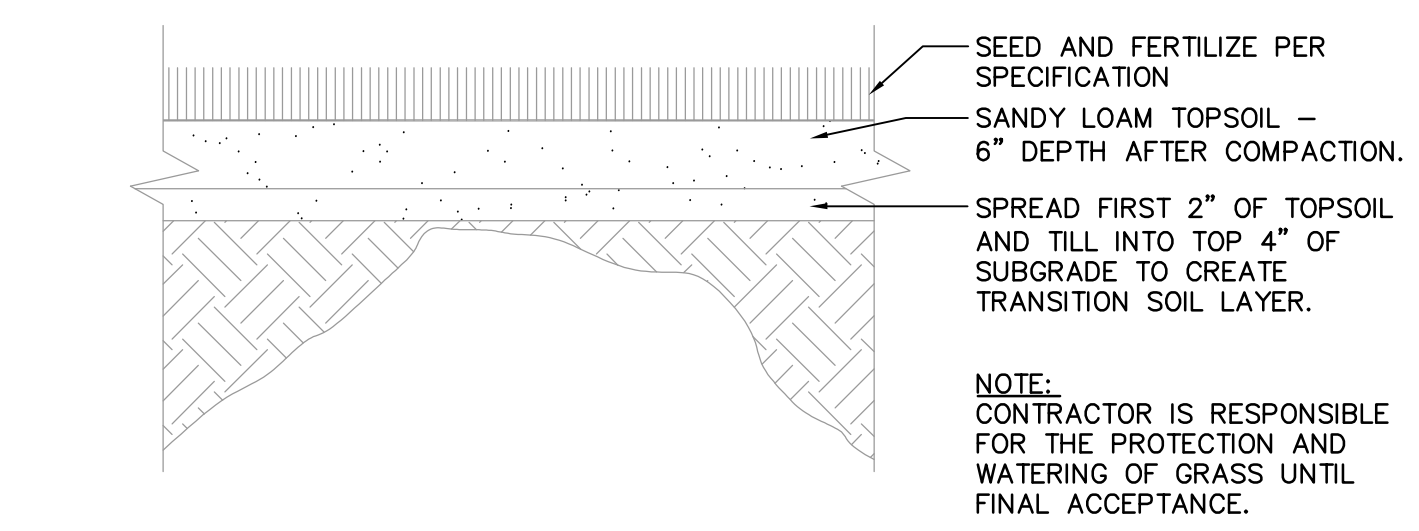
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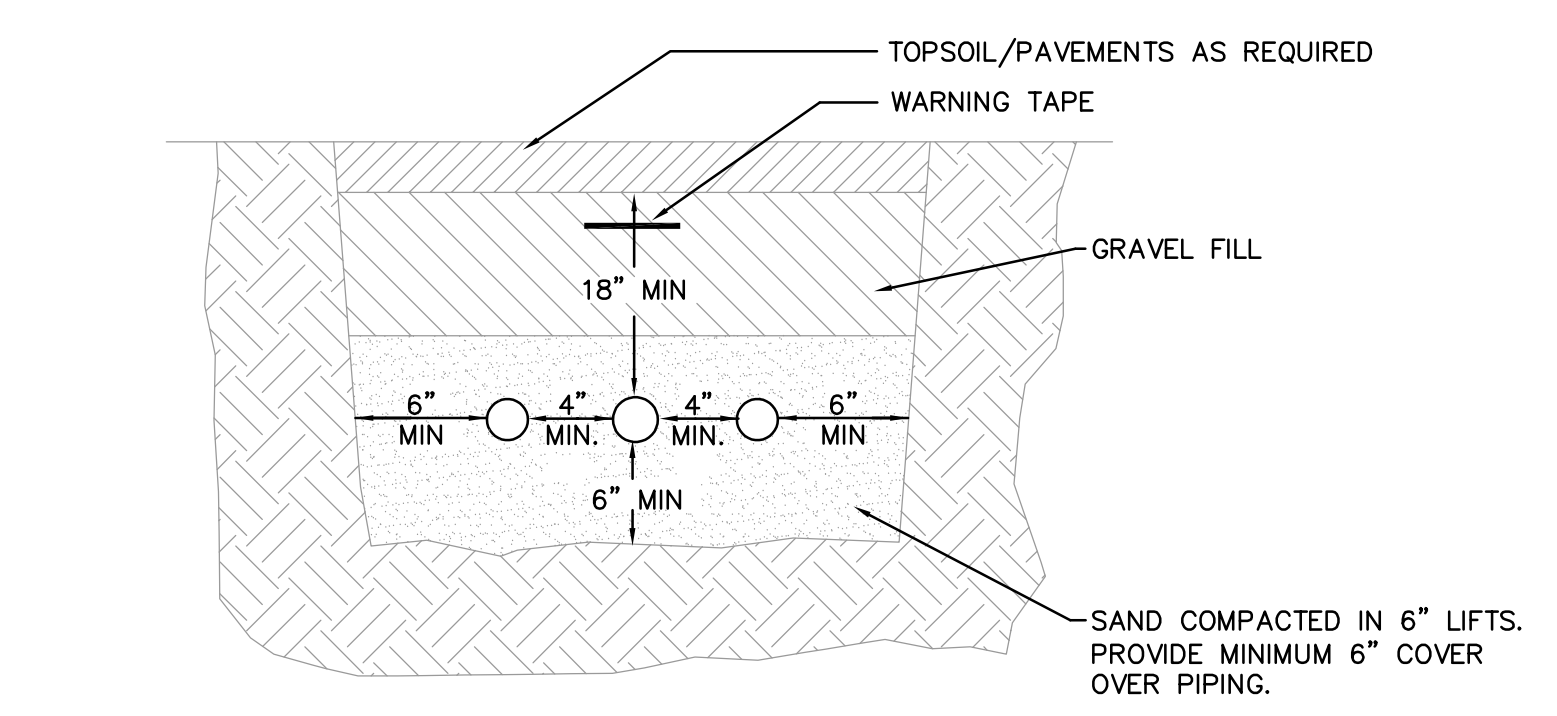
1 PARTIAL SITE PLAN
 SCALE: 1/8"=1'-0"



2 VENT DETAIL
 NOT TO SCALE



3 LAWN REPAIR DETAIL
 NOT TO SCALE



4 PIPE TRENCH DETAIL
 NOT TO SCALE