

# Technical Specifications

## Town of Berwick, Maine Former Prime Tanning Lots 4, 5 & 6

Building Abatement and Demolition

April 2016



Environmental  
Professional:



**CREDERE**  
ASSOCIATES, LLC

Credere Associates, LLC  
776 Main Street  
Westbrook, Maine 04092  
(207) 828-1272



Engineer:

**Weston & Sampson**

Weston & Sampson Engineers, Inc.  
100 International Drive  
Suite 152  
Portsmouth, NH 03801  
[www.westonandsampson.com](http://www.westonandsampson.com)  
Tel: 603-431-3917  
Fax: 603-433-4358

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**FORM OF GENERAL BID**

<b>PROJECT IDENTIFICATION:</b>	Prime Tanning Lots 4, 5, & 6 Building Abatement and Demolition
<b>THIS BID IS SUBMITTED TO:</b>	Town of Berwick, Maine (Owner) Attn: John Stoll, Town Planner 11 Sullivan St. Berwick, Maine 03901 planning@berwickmaine.org
<b>PRE-BID CONFERENCE:</b>	Monday, April 25, 2016, 1:00 PM EST Prime Tanning 20 Sullivan Street, Berwick, Maine (meet at parking area inside gate on School Street)
<b>QUESTIONS DUE:</b>	Monday, May 2, 2016, 4:00 PM EST (electronic submittal via email is preferable)
<b>RESPONSE TO QUESTIONS:</b>	Friday, May 6, 2016 (response will be distributed by email)
<b>BID DUE DATE:</b>	Friday, May 13, 2016, 2:00 PM EST (electronic submittal via email is preferable)
<b>NOTICE TO PROCEED:</b>	May 25, 2016
<b>CONTRACT COMPLETION DATE:</b>	September 30, 2016

The Town of Berwick, Maine, (Owner) is accepting Bids from qualified firms or individuals for the abatement and demolition of Lots 4, 5, and 6 of the former Prime Tanning facility in Berwick.

The following conditions apply to this Bid Form:

**BID CONDITIONS:**

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into a contract agreement with the Town of Berwick (Owner) to perform and furnish all Work as specified or indicated in these Contract Documents for the Bid Price indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents. The Contract Agreement to be used for the Project is included under Section 00200.
2. This Bid will remain subject to acceptance for thirty (30) days after Bid opening.
3. In submitting this Bid, Bidder represents that:
  - a. Bidder has examined and carefully studied the Contract Documents and the following Addenda, receipt of all of which is hereby acknowledged:

Addenda Number	Date
_____	_____
_____	_____
_____	_____

- b. Bidder has visited the Site, and become familiar with and is satisfied as to the locale, and all site conditions that may affect cost, progress, performance, or furnishing of the Work.
- c. Bidder is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, performance, and furnishing of the Work.
- d. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all such examinations, investigations, explorations, tests, studies and data concerning conditions at or contiguous to the Site or otherwise which may affect cost progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by Bidder and safety precautions and programs incident thereto. Bidder does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the times, price and other terms and conditions of the Contract Documents.
- e. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- f. Bidder has given Owner written notice of all conflicts, errors, ambiguities or discrepancies that Bidder has discovered in the Contract Documents and the written resolution thereof by Owner is acceptable to Bidder, and the Contract Documents are generally sufficient to

indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.

- g. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.
  - h. The contract start date is **May 25, 2016**. Bidder acknowledges that Bidder has capacity and capabilities to start work and complete the project scope by **September 30, 2016**.
4. **Contractor Qualification Requirements:** Bidder is required to meet the following minimum criteria and submit the following information attached to this Bid in order for Bid to be considered for this Contract.
- (a) Bidder certifies that it has completed three (3) similar projects involving building abatement, demolition, and Site restoration within the last six (6) years. Bidder to provide a project narrative of three (3) projects that demonstrate experience with these tasks; and is to include the following information: Name of Project, A Summary of the Work Completed, the Total Cost of the Work Completed by the Bidder, discussion of if the project was completed on a timely basis and for the original contract amount, as well as a reference for the project owner or owner representative (name, company, phone and e-mail).

BIDS THAT DO NOT MEET THESE ABOVE MINIMUM REQUIREMENTS WILL BE CONSIDERED NONRESPONSIVE.

- 5. The Contractor certifies that it shall not sublet, sell, transfer, assign, or dispose of any portion of the Contract or Contracts without written consent of the Owner. Any subcontracts, or transfer of Contract, shall not relieve the Contractor of liability under the Contract.
- 6. Each Bid must be accompanied by Bid security made payable to Owner in an amount of five (5) percent of Bidder's maximum Bid price and in the form of a certified or bank check or a Bid Bond according to Section 00410.
- 7. Contractor shall furnish performance and payment bonds in accordance with Sections 00610 and 00620, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents.
- 8. Following submission of Bid and prior to Award of Contract, the selected Bidder shall submit a detailed Scope and Sequence of Work, Project Schedule, proof of insurance, and Schedule of Values fully describing the proposed project sequencing, methods, and associated timing.

9. Bidder will complete the Base Work for the Proposed Base Bid Contract Price being the amount of each Item below. In addition, the sum of the Alternate Bid items may be considered by Owner as part of the Contract. In the case of a discrepancy, the unit cost entered for the unit in the Base Bid will govern. In the event of discrepancies, unit prices expressed in words shall govern over unit prices expressed in figures; and unit prices shall govern over extended totals.

BID ITEM #	DESCRIPTION (in words)	UNIT OF MEASURE	QUANTITY	UNIT PRICE (in figures)	TOTAL (in figures)
1	Complete the complete site and building abatement, demolition, and restoration of Lots 4, 5, and 6 as described in these Contract Documents, specifications, and plans, At _____ _____ _____ Dollars per Unit.	Unit	1		
2A	Removal and disposal of subgrade asbestos cement piping discovered during site work under Bid Item 1, At _____ _____ _____ Dollars per Unit.	Foot	40		
2B	Removal and disposal of Special Waste soil from the Site determined by the Engineer to be unsuitable to remain, At _____ _____ _____ Dollars per Unit.	Tons	150		

BID ITEM #	DESCRIPTION (in words)	UNIT OF MEASURE	QUANTITY	UNIT PRICE (in figures)	TOTAL (in figures)
2C	Provide additional gravel borrow fill at the direction of the Engineer if ABC material is insufficient in quantity, At _____ _____ _____ Dollars per Unit.	Cubic Yards	400		
2D	Advance 8 to 10-foot-deep exploratory test pits at the direction of the Engineer, and backfill and compact (does not include the 30 environmental test pits required under Bid Item 1), At _____ _____ _____ Dollars per Unit.	Each	15		
ALT-1	Complete the site and building abatement, demolition, and restoration of the area indicated as Bid Alt 1 as described in these contract documents, specifications, and plans, At _____ _____ _____ Dollars per Unit.	Unit	1		

**PLEASE SUBMIT A LIST OF LIKELY SUBCONTRACTORS AND THEIR ROLES WITH THIS BID, INCLUDING ANY LOCAL CONTRACTORS TO BE USED AND THEIR LOCATION OF BUSINESS**

10. Federal Bidding Requirements: The project is being funded through a U.S. Environmental Protection Agency (EPA) Brownfields Cleanup grant. Therefore, all work is subject to Federal contracting requirements including compliance with the Davis Bacon Act. The Federal contracting requirements and required wage rates are outlined in Specification 00900 - REQUIRED CONTRACT PROVISIONS FOR FEDERALLY ASSISTED PROJECTS.
11. Work Incidental to the Contract: The following work is required but is considered incidental to the Contract and shall not be compensated for:
  - a. Compliance with Required Federal Contract Provisions
  - b. Development of Scope and Sequence of Work, Project Schedule, and Schedule of Values
  - c. Bid, Performance, and Payment bonding
  - d. Project Meetings, Communications, Management, and Administration
  - e. Mobilization/Demobilization
  - f. Temporary Facilities (if needed)
  - g. Submittals
  - h. Thirty (30) environmental test pits after demolition
  - i. Clean Up
  - j. Project Closeout
12. The Contract will be awarded by the Owner **to the lowest responsive bidder and in the best interest of the Owner.**
13. Owner reserves the right to accept or reject any or all Bids if determined to be in the best interests of the Owner.
14. Owner will strongly consider local Bidders, and the Bidders use of local subcontractors as being in the interests of the Owner.
15. Communications concerning this Bid shall be addressed in writing to:

**CONTRACTOR CONTACT**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No. \_\_\_\_\_

Questions regarding the terms used in this Bid shall be directed in writing to the Owner.

John Stoll, Town Planner, [planning@berwickmaine.org](mailto:planning@berwickmaine.org)

SUBMITTED on \_\_\_\_\_, 20\_\_

State Contractor License No. \_\_\_\_\_

IF Bidder is:

An Individual

By \_\_\_\_\_ (SEAL)  
(Signature of Person Authorized to Sign)

Title: \_\_\_\_\_

Doing business as \_\_\_\_\_

Business address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone No. \_\_\_\_\_

A Partnership

By \_\_\_\_\_ (SEAL)  
(Firm Name)

General Partner: \_\_\_\_\_  
(Signature of Person Authorized to Sign)

Business address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone No. \_\_\_\_\_

A Corporation

By \_\_\_\_\_ (SEAL)  
(Corporation Name)

State of Incorporation: \_\_\_\_\_

By \_\_\_\_\_ (SEAL)  
(Signature of Person Authorized to Sign)

Title: \_\_\_\_\_

Attest \_\_\_\_\_  
(Secretary)

Business address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone No. \_\_\_\_\_

A Joint Venture

By \_\_\_\_\_ (SEAL)  
(Signature of Person Authorized to Sign)

Business Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone No. \_\_\_\_\_

By \_\_\_\_\_ (SEAL)  
(Signature of Person Authorized to Sign)

Business Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone No. \_\_\_\_\_

(Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

**SECTION 00200  
CONTRACT AGREEMENT**

**DRAFT AGREEMENT FOR CONSTRUCTION SERVICES  
BY AND BETWEEN THE  
TOWN OF BERWICK, MAINE  
AND  
CONTRACTOR**

THIS AGREEMENT is made this \_\_\_ day of \_\_\_\_\_, 2016, by and between the Town of Berwick, Maine located at 11 Sullivan Street, Berwick, ME 03901, hereinafter called the OWNER and \_\_\_\_\_, located at \_\_\_\_\_, hereinafter called the CONTRACTOR.

WITNESSETH, for the consideration hereinafter set forth, the parties hereto agree as follows:

**WITNESSETH**

**WHEREAS**, OWNER is desirous of retaining the CONTRACTOR for the purpose of providing services in furtherance of OWNER's responsibilities under its Cooperative Agreement with the U.S. Environmental Protection Agency; and

**WHEREAS**, the CONTRACTOR is prepared to render such specialized services on the terms of this Agreement;

**NOW, THEREFORE**, the parties for and in consideration of the mutual promises and covenants contained herein agree as follows:

**ARTICLE 1  
ENGAGEMENT OF THE CONTRACTOR**

1.1 THE OWNER hereby engages the CONTRACTOR, and the CONTRACTOR hereby accepts the engagement to perform certain services hereinafter described:

Whereas, the OWNER intends to undertake a project to provide Brownfields Environmental Site Cleanup of selected properties identified by the Town of Berwick in accordance with the Plans and Technical Specifications for Building Abatement and Demolition of Former Prime Tanning Lots 4, 5, & 6 dated April 2016 (the Contract Documents), which is herein referred to as the PROJECT.

**ARTICLE 2  
SCOPE OF SERVICES**

The CONTRACTOR shall, in a professional and proper manner, perform in accordance with the terms and conditions of this Agreement and in accordance with generally accepted construction principles and practices the services described in the Contract Documents, and the executed EPA Cooperative Agreement, which is attached hereto as **Exhibits A and B**, respectively.

### ARTICLE 3 COMPENSATION AND PAYMENT

OWNER will compensate CONTRACTOR on a Lump Sum basis as established in the attached "Schedule of Values" included as **Exhibit C** based on percentage of work performed by CONTRACTOR up to Lump Sum Amount established in Schedule of Values. Costs incurred by the CONTRACTOR for performance of this Agreement shall be allowable to the extent they are reasonable, allocable, and determined to be allowable in accordance with the provisions of this Agreement. The lump sum amount is to include all applicable salary related expenses, taxes, benefits, worker's compensation, as well as overhead and profit.

1. The following information or documentation must be submitted with each invoice:
  - a. Invoice date.
  - b. Name, street address and telephone number of firm.
  - c. Project name and CONTRACTOR Agreement number.
  - d. Description of services provided and itemized amounts.
2. Invoices shall include certified payrolls in accordance with the Contract Documents
3. Invoices shall also contain any other information as reasonably required by OWNER.
4. Payment by OWNER to the CONTRACTOR shall be made against a properly itemized invoice within seven (7) days after OWNER receipt of its payment from the EPA. **Receipt of payment from the EPA for the CONTRACTOR's services is a condition precedent to payment by OWNER to CONTRACTOR.**

### ARTICLE 4 CHANGES IN SERVICES

- A. OWNER reserves the right, without impairing this Agreement, to order changes or alterations in the services to be performed hereunder. If changes or alterations, ordered in writing by OWNER, affect the cost or progress of the services, adjustments shall be made in the time for performance or compensation owing to CONTRACTOR, as the case may be, as mutually agreed upon in writing, between OWNER and CONTRACTOR.
- B. Any additional service CONTRACTOR performs without a written authorization signed by OWNER will be at CONTRACTOR's sole cost and expense.

### ARTICLE 5 SCHEDULE AND TERMINATION

- A. CONTRACTOR shall comply with the time schedule as established in the Contract Documents. Time is of the essence of this Agreement.

- B. It is expressly agreed and understood that this Agreement may be terminated at any time by OWNER, with or without cause. If OWNER should elect to terminate this Agreement, then OWNER shall give the CONTRACTOR written notice stating such intent to terminate.
- C. If the stated reason given by OWNER for termination is for cause, and the CONTRACTOR fails to remedy the failure or breach within ten (10) days of the notice, then OWNER shall have the right to terminate this Agreement at the end of such notice period. In such event, CONTRACTOR's sole compensation shall be for fees earned to date of termination, less any amounts due OWNER as well as damages arising from the CONTRACTOR's breach.
- D. If OWNER terminates this Agreement for any reason other than for cause, then the CONTRACTOR's sole remedy in such case shall be the value of such services properly rendered up to the time of such termination plus a reasonable profit thereon, less any amounts previously received by the CONTRACTOR and any amounts then owing to OWNER for any reason. In no event shall CONTRACTOR be entitled to anticipated profits as a result of termination by OWNER. If OWNER should terminate this Agreement for cause and it is later determined that cause did not exist for such termination, the termination will be deemed as one occurring under this paragraph.

## **ARTICLE 6 INDEPENDENT CONTRACTOR**

- A. It is understood and agreed that CONTRACTOR shall perform the services hereunder as an independent contractor and not as an employee of OWNER. CONTRACTOR is responsible for the means and methods used in performing its services under this Agreement. Accordingly, CONTRACTOR, its employees and agents shall not be eligible for any employee benefits including, but not limited to Workers' compensation, insurance, pension, health or life insurance, short or long-term disability, accidental death or dismemberment, or other benefits offered by OWNER to its employees.
- B. OWNER will make no deductions from any of the payments due to CONTRACTOR hereunder for state or federal tax purposes, including but not limited to, social security, income tax withholding, disability, and other payroll tax requirements, except as necessary to comply with law or to protect OWNER's interests. CONTRACTOR agrees that it shall be personally responsible for any and all taxes and other payments due on payments received from OWNER hereunder.

## **ARTICLE 7 QUALITY OF SERVICES**

- A. CONTRACTOR shall perform its services in a diligent, prudent and workmanlike manner consistent with (i) generally accepted practices and standards for nationally recognized firms engaged in similar services, and (ii) in accordance with the terms and conditions of this Agreement and such standards, specifications and rules contained in the Prime Contract. In the event that the services of CONTRACTOR fail to conform to the foregoing requirements, without waiver of or prejudice to any other rights or remedies OWNER may have and without limitation of CONTRACTOR's representations hereunder, CONTRACTOR covenants and agrees to make good such deficiencies and any damage or loss caused by the deficient services at CONTRACTOR's expense and without cost to OWNER. Neither

acceptance of all or any part of the services by OWNER, nor any payment made by OWNER, shall relieve the CONTRACTOR of its responsibilities hereunder.

## **ARTICLE 8 INDEMNITY**

- A. To the fullest extent permitted by law, CONTRACTOR agrees to defend, indemnify and save harmless OWNER, and the directors, officers and employees of each of them (the "Indemnitees") against any and all losses, damages, compensations, claims, demands, suits, judgments, and expenses (including court costs and attorney's fees) including but not limited to those arising out of any illness, injury, disease or death or damage to property, that occurs or are alleged to have occurred as a result of the acts, errors or omissions of CONTRACTOR or its subcontractor(s) or the employees of either of them.

This indemnification obligation shall apply, without limitation, to all matters involving injured employees of CONTRACTOR or any lower tier supplier or subcontractor, regardless of any provisions of the applicable Workers Compensation laws, and in particular regardless of the exclusive remedy and/or employees immunity provisions of those laws, all of which are hereby expressly waived. The indemnification obligation contained in this section shall apply even if the injuries are caused in part by the negligence or other legal fault of a party indemnified hereunder.

- B. CONTRACTOR agrees to defend, indemnify and save harmless the Indemnitees from any and all claims, royalties, damages, and costs arising out of CONTRACTOR's or its subcontractor's services resulting from (a) any infringement, or alleged infringement of any patents or for the misuse of any patented article by CONTRACTOR, or its subcontractors, or (b) the infringement or alleged infringement of any patents caused by OWNER's use or operation of the results of the services performed hereunder following the completion thereof by CONTRACTOR or (c) the use or misuse by CONTRACTOR or its subcontractors of any confidential information or secret processes.
- C. The CONTRACTOR shall defend, indemnify and hold the Indemnitees harmless from any and all claims and liens for labor, services or material furnished by the CONTRACTOR or its employees, agents and subcontractors under this Agreement.
- D. The obligations expressed in this Article shall survive the termination or expiration of this Agreement.

## **ARTICLE 9 INSURANCE**

- A. CONTRACTOR shall purchase and maintain at its own expense, insurance covering worker's compensation and employer's liability, automobile liability (all owned and non-owned vehicles), commercial general liability on an "occurrence" rather than a "claims-made" basis and professional and/or pollution liability insurance. The minimum limits of liability shall be as follows, unless otherwise stated elsewhere in the contract documents:

Worker's Compensation: in accord with statutory requirements

Employer's Liability: \$500,000 per claim or in accord with statutory requirements  
(whichever is greater)

Automobile Liability: \$1,000,000 per occurrence combined single limit for bodily  
injury or property damage

Commercial General Liability: \$1,000,000 per occurrence combined single limit for  
bodily injury and property damage

Pollution Liability: \$2,000,000 per claim

- B. All of CONTRACTOR's insurance policies (except Worker's Compensation and Professional/Pollution Liability) shall be endorsed to name OWNER as additional insureds.

All CONTRACTOR insurance shall be primary insurance with respect to the additional insureds and will not participate with any other available insurance of OWNER. CONTRACTOR shall require all subcontractors and suppliers of any tier performing work at the Project or premises to have the same insurance as required of CONTRACTOR above (including additional insureds and waivers of subrogation) and shall provide evidence of it to OWNER upon request. Any insurance, limits of coverage, or the absence of them, shall not limit in any way CONTRACTOR's liabilities or obligations, or OWNER's rights or remedies, under this Agreement or at law.

- C. Immediately upon execution of this Agreement and before any services are begun, CONTRACTOR shall provide OWNER a certificate(s) of insurance on forms approved by OWNER indicating required CONTRACTOR insurance coverages, limits and endorsements. The certificate(s) shall contain language confirming the additional insured and waiver of subrogation requirements in Paragraph B. The certificate(s) shall contain a provision which shall provide for thirty days prior written notice by the insurer to OWNER before modification, cancellation or termination of such insurance. In addition, the certificate(s) of insurance must state the name of the Project and the Agreement Number from the first page of this Agreement.

The certificate(s) should be sent to:

John Stoll, Town Planner  
Town of Berwick  
11 Sullivan Street  
Berwick, ME 03901

## **ARTICLE 10 HEALTH, SAFETY AND ENVIRONMENTAL PROCEDURES**

- A. CONTRACTOR is responsible and shall take all necessary precautions for the safety of its employees and shall perform all its services in compliance with all applicable health, safety and environmental laws, ordinances, regulations and policies.

- B. The provisions of this Article are for the sole benefit of OWNER and shall not be used or construed to provide any rights to CONTRACTOR's employees, agents or any third parties.
- C. Neither OWNER nor CONTRACTOR have created or contributed to the creation or existence of any actual or potentially hazardous, radioactive, toxic or otherwise dangerous substance or condition at any site, and compensation under the Prime Contract is in no way commensurate with the potential liability that may be associated with a substance or site. Except to the extent that OWNER or CONTRACTOR expressly and in writing agrees to be legally responsible, or to the extent that liability is established as a result of litigation initiated by a third party, for presence, storage, treatment, disposal, or arrangement for disposal (collectively, "Disposal") of any substance or site (which substance and site shall be expressly identified), OWNER and CONTRACTOR agree to mutually release and waive all claims, costs, response costs, removal costs, liabilities, attorneys fees, and damages, including natural resource damages and consequential damages, against each other, their respective officers, directors and employees, subcontractors and their officers, directors and employees arising from or in any way connected with the Disposal of such substances. Except to the extent that OWNER or CONTRACTOR expressly and in writing agrees otherwise, in the event that OWNER or CONTRACTOR executes shipping papers or manifests for transportation of such substances, OWNER and CONTRACTOR does so only as agent or representative and not for purposes of arranging for disposal or as a generator of such substances.

## **ARTICLE 11 CLAIMS**

- A. CONTRACTOR shall give OWNER written notice within five (5) days after the happening of any event which CONTRACTOR believes may give rise to a claim by CONTRACTOR for an increase in the Agreement price or in the scheduled time for performance. Within fourteen (14) days after the happening of such event, CONTRACTOR shall supply OWNER with a statement supporting CONTRACTOR's claim, which statement shall include CONTRACTOR's detailed estimate of the change in Agreement price and scheduled time for performance occasioned thereby. OWNER shall not be liable for, and CONTRACTOR hereby waives, any claim or potential claim of CONTRACTOR of which CONTRACTOR knew or should have known and which was not reported by CONTRACTOR in accordance with the provisions of this Article. CONTRACTOR agrees to continue performance of its services during the time any claim of CONTRACTOR hereunder is pending. OWNER shall not be bound to any adjustments in the Agreement price or scheduled time for performance requested in CONTRACTOR's claim unless expressly agreed to by OWNER in writing.

## **ARTICLE 12 DISPUTE RESOLUTION**

- A. If any claim or dispute cannot be resolved directly by the parties, the dispute shall be submitted to mediation, before a mediator selected by the parties. If the parties do not agree on a mediator, the mediation shall be conducted by and under the applicable Rules of the American Arbitration Association's mediation rules, on the application of either party. The costs and expenses of the Mediator shall be shared equally by the parties.

- B. If the matter has not been resolved by mediation, either or both parties may elect to pursue resolution through litigation. In the event of any litigation, it is agreed and stipulated that the case shall be heard and decided by the court, without a jury, and the parties hereby waive all rights to trial by jury.
- C. The substantially prevailing party shall be entitled to recover its reasonable attorneys' fees, in an amount to be determined by the court or mediator, which may take into account the amount of the claims and counterclaims, the amounts recovered and claimed, and all such equitable factors the court or mediator considers reasonable under the circumstances in making its award of attorneys fees, plus prejudgment interest and costs incurred by the substantially prevailing party.

### **ARTICLE 13 SUBCONTRACTS**

- A. This Agreement is personal to CONTRACTOR, and CONTRACTOR shall not sublet performance of all or any portion of the services under this Agreement without notifying OWNER of the intended subletting and obtaining OWNER's prior approval in writing of the intended subcontractor. If requested by OWNER, CONTRACTOR shall furnish OWNER a copy of the proposed subcontract for OWNER's approval of the terms and conditions thereof and shall not execute such subcontract until OWNER has approved such terms. Failure of CONTRACTOR to comply with this Article may be deemed by OWNER to be a material breach of this Agreement.
- B. CONTRACTOR guarantees that any and all subcontractors of CONTRACTOR for performance of the services will comply fully with the terms of this Agreement applicable to the portion of the services performed by them.

### **ARTICLE 14 ASSIGNMENT**

- A. It is expressly understood and agreed that CONTRACTOR's responsibilities and obligations under this Agreement are non-delegable personal services. CONTRACTOR shall not sublet or assign the services, or any part thereof, without first obtaining written consent of OWNER. In addition, any assignment of monies due or sale of accounts against this Agreement without proper notification to and prior written acknowledgement from OWNER, as to the conditions of such an assignment or factoring, shall be grounds for termination. Any assignee must assume all obligations hereunder in writing to be valid as against OWNER. Nothing contained in this Agreement shall create any contractual or third-party beneficiary relationship between any parties other than OWNER and CONTRACTOR.
- B. In connection with the assignment of any monies to become due hereunder, OWNER reserves the right to require the below listed details. Failure to comply with these requirements prior to assigning monies due or entering a factoring agreement may result in extra costs incurred by OWNER. CONTRACTOR, therefore, agrees to indemnify OWNER against any and all costs and charges incurred due to CONTRACTOR's failure to pre-notify and provide the below listed information, as applicable:

1. A Letter of Rescission signed by both CONTRACTOR and its assignee or factoring institution issued to OWNER, to the effect that any existing agreement of assignment/factoring will not apply to any payments made against this Agreement. It is OWNER's preference for this option to be utilized.
2. Identification of assignee or factoring institution and "remit to" instructions. (If CONTRACTOR cannot issue a rescission letter and plans to assign monies or factor, Items 14.B.3 and 14.B.4 MUST also be provided.)
3. An agreement letter issued to OWNER and signed by both CONTRACTOR and the assignee or factoring institution containing affirmative statements from the assignee or factoring institution to the effect that OWNER retains all rights of setoff and backcharge; that lien claimants and/or trust account beneficiaries will have a priority claim over the assignee or factor; and that OWNER may pay directly the monies owed a valid lien claimant or trust account beneficiary and set it off against monies owing CONTRACTOR, its assignee and/or its factoring institution.
4. If Items 14.B.2 and 14.B.3 apply, every monthly invoice submitted by CONTRACTOR must be supported by Waiver of Lien forms properly completed and signed by each subcontractor and supplier retained by CONTRACTOR in connection with the services hereunder, serving as proof that they received payments from the most recent payment to CONTRACTOR by OWNER. The Waiver of Lien form must be acceptable to OWNER. Any invoice not supported by the required documentation will not be considered for payment.

## **ARTICLE 15 LAW AND REGULATIONS**

- A. CONTRACTOR, its employees and representatives, shall at all times comply with any applicable laws, ordinances, statutes, rules and regulations, federal, state, territorial, provincial, local, county and municipal laws, particularly those relating to wages, hours and working conditions. CONTRACTOR shall procure and pay for all permits and inspections required by any governmental authority for any part of the services and shall furnish any bonds, security or deposits required to permit performance of the services. CONTRACTOR agrees to defend, indemnify and hold OWNER harmless from and against any and all claims arising out of or in connection with any violation or infraction by CONTRACTOR of any law, order, citation, rule, regulation, standard, ordinance or statute, and from any fines or penalties imposed on account of violation thereof.
- B. CONTRACTOR shall not under any circumstances apply to or enter into negotiations with any governmental authority or agency for acceptance of variations from or revisions to safety or health, or air, water or noise pollution, laws or regulations relating to this Agreement or to the performance thereof, without OWNER' prior written approval.

## **ARTICLE 16 EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION**

- A. CONTRACTOR shall comply fully with the requirements of Executive Order Numbers 11246 as amended, 11625, 11701, and 11758 relating to employment practices. If

applicable, the provisions of 41 CFR 60-1.4, 60-250.4, and 60-741.4 are hereby incorporated by reference, and CONTRACTOR agrees to adhere to said regulations. In the performance of its services, CONTRACTOR shall not discriminate against any employee or applicant for employment because of race, creed, color, age, marital status, sex, or national origin.

- B. CONTRACTOR will take all affirmative action required by law to insure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, age, sex, or national origin, including but not limited to employment, upgrading, demotion, or transfer, recruitment advertisement, lay-off or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

## **ARTICLE 17 COOPERATION**

- A. In performing its services for OWNER, CONTRACTOR shall cooperate with OWNER personnel in providing full disclosure of information obtained in the performance of such services or during the term of this Agreement, and which relate to OWNER's business. CONTRACTOR shall not in any way disclose or list OWNER in any promotional materials or other documents without the express written consent of OWNER.
- B. CONTRACTOR shall cooperate fully with OWNER, other consultants, local government officials, and others as may be directed by OWNER. This shall include representation at meetings, discussions and hearings, as may be requested by OWNER, and furnishing plans and other data, as may be requested from the time to time from the CONTRACTOR to affect such cooperation.
- C. CONTRACTOR shall maintain all books, documents, design calculations, papers, and accounting records and shall make such materials available for inspection and copying, by OWNER, at its offices at all reasonable times during the period required for access to records under the Prime Contract.

## **ARTICLE 18 PROCUREMENT INTEGRITY**

- A. OWNER respects the integrity of the procurement process. It is OWNER's policy to comply with, and require that our subcontractors comply with, the letter and spirit of the law and the rules imposed by our clients in this regard.
- B. The Federal government has adopted broad and detailed sets of regulations governing standards of conduct for contractors. These regulations serve as a model for public clients most of whom have either adopted the Federal standards, follow them as a matter of practice, or follow them because their projects are federally funded. Furthermore, different government clients have established specific requirements as to how their employees must conduct themselves in their relationships with industry. Because of the extent and complexity of procurement regulations, the CONTRACTOR and its' employees need to ensure that they understand the requirements.
- C. By signing this Agreement, the CONTRACTOR represents and certifies that no bribes or gratuities (in the form of entertainment, gifts, kick backs or otherwise) were offered or given

by CONTRACTOR, or an agent or representative of CONTRACTOR, to an officer or employee of the OWNER with a view toward securing this Agreement or securing favorable treatment with respect to the awarding or amendment of this Agreement. If OWNER should acquire reasonable evidence that the foregoing representations are false, this Agreement will be subject to immediate termination for default, in addition to other remedies available to OWNER.

- D. To promote the highest ethical standards with respect to procurement integrity, it is OWNER's Policy to follow Federal law and rules with all public clients, particularly concerning the gathering and use of confidential information, even if state and local laws are silent concerning specific integrity issues.
- E. The Federal Procurement Integrity Act regulates the conduct of competing contractors during the procurement process. Contractors are prohibited from: (i) receiving a competitor's bid or proposal information or other confidential information prior to award of the contract to which such information relates; (ii) having undisclosed employment discussions with a government employee who is engaged personally and substantially in the procurement process; and, (iii) compensating a former government employee who served as a procurement official during a one year compensation ban. The phrase "bid or proposal information" means a competitor's prices, rates, estimates, or technical data. Confidential information includes the government's technical or price evaluations, rankings, or competitive range determinations; and any information marked as confidential, proprietary, or source selection. The prohibition on receiving this information extends to materials received from any unauthorized source including government personnel, disgruntled employees, or consultants. By signing this Agreement, the CONTRACTOR represents and certifies that, in its efforts to solicit and develop this Agreement, the CONTRACTOR and its agents and representatives have not committed any act which would be prohibited under the Federal Procurement Integrity Act, if that Act were applicable hereunder. If OWNER should acquire reasonable evidence that the foregoing representations are false, this Agreement will be subject to immediate termination for default, in addition to other remedies available to OWNER.

## **ARTICLE 19 CONFIDENTIALITY AND PUBLICITY**

- A. CONTRACTOR shall not disclose to third parties or use for any purpose other than performance of its services, any information provided to CONTRACTOR by OWNER in connection with the performance of this Agreement, or any information developed or obtained by CONTRACTOR in performance of this Agreement, without the written consent of OWNER, unless (1) the information is known by CONTRACTOR prior to obtaining same; (2) the information is, at the time of disclosure, then in the public domain; or (3) the information is obtained by or from a third party who did not receive same, directly or indirectly, from OWNER and has no obligation of confidentiality with respect thereto. CONTRACTOR shall impose the foregoing restrictions upon its employees and other representatives.
- B. CONTRACTOR and/or its subcontractors, suppliers or others with whom it contracts shall not issue any news releases, statements to news media, interviews, or articles for publication related to the Project without the written consent of OWNER.

## ARTICLE 20

### NOTICES

All notices required or permitted hereunder will be in writing and, if to OWNER, sufficient if delivered to the following addresses:

John Stoll, Town Planner  
Town of Berwick  
11 Sullivan Street  
Berwick, ME 03901  
Tel: (207) 698-1101 X 115  
Email: [planning@berwickmaine.org](mailto:planning@berwickmaine.org)

All notices to be delivered to the CONTRACTOR will be sufficient if delivered to the CONTRACTOR's Representative at the following address:

*(Insert (CONTRACTOR Contact Name and Address)).*

## ARTICLE 20

### MISCELLANEOUS

- A. CONTRACTOR represents and warrants that its signing of this Agreement and the performance of its services hereunder is not and will not be in violation of or conflict with any other contract, agreement, or understanding to which the CONTRACTOR is a party, nor in violation or conflict with any federal, state, or local laws.
- B. OWNER reserves the right to sublet any work to any other subcontractors. Nothing in this Agreement shall be construed as a restriction upon OWNER's freedom to enter into contracts with others for the performance of services required under the Prime Contract.
- C. All documents, information and other data to be furnished by CONTRACTOR to OWNER under this Agreement, whether finished or not, shall be delivered to and become the property of OWNER and, subject to the limitations of applicable law, may be used by OWNER without restriction.
- D. The parties have read this Agreement and agree to be bound by its terms, and further agree that it, together with the Exhibits included below, constitutes the complete and exclusive agreement between them and which supersedes all proposals, oral or written, and all other communications between them relating to the subject matter of this Agreement. This Agreement may not be amended orally, but only by an instrument in writing signed by the party against whom enforcement of such amendment is sought.
- E. No breach of any obligation nor waiver of any condition in this Agreement shall be deemed waived unless expressly waived in writing by the party who might otherwise assert such breach or condition. Waiver by a party of any breach or condition in one instance shall not invalidate this Agreement, nor shall it be considered to be a blanket or continuing waiver by such party nor a waiver by such party of any other breach or condition hereunder.

- F. If any provision of this Agreement is determined to be illegal or unenforceable for any reason, the same shall be severed from the Agreement and the remainder of the Agreement shall be given full force and effect.
- G. These parties agree that they and their respective successors and assigns shall be bound by this Agreement.

**IN WITNESS WHEREOF**, OWNER and the CONTRACTOR have caused this Agreement to be duly executed:

**CONTRACTOR:**  
**INSERT NAME**

**OWNER:**  
**TOWN OF BERWICK**

By: \_\_\_\_\_

By: \_\_\_\_\_

**NAME: INSERT NAME**

**NAME:**

Title: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT A**  
**CONTRACT DOCUMENTS**

**EXHIBIT B**  
**EPA COOPERATIVE AGREEMENT**

**EXHIBIT C**  
**SCHEDULE OF VALUES**

**SECTION 00410  
BID BOND**

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

\_\_\_\_\_  
BIDDER (*Name and Address*):

\_\_\_\_\_  
SURETY (*Name and Address of Principal Place of Business*):

\_\_\_\_\_  
OWNER (*Name and Address*):

**BID**

Bid Due Date:

Description (*Project Name and Include Location*):

**BOND**

Bond Number:

Date (*Not earlier than Bid due date*):

Penal sum \_\_\_\_\_ \$ \_\_\_\_\_  
(Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

**BIDDER**

**SURETY**

\_\_\_\_\_  
Bidder's Name and Corporate Seal (Seal)

\_\_\_\_\_  
Surety's Name and Corporate Seal (Seal)

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

By: \_\_\_\_\_  
Signature (Attach Power of Attorney)

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

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

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

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

*Note: Above addresses are to be used for giving any required notice. Provide execution by any additional parties, such as joint venturers, if necessary.*

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
  - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
  - 3.2 All Bids are rejected by Owner, or
  - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

**SECTION 00610**  
**PERFORMANCE BOND**

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*

**CONSTRUCTION CONTRACT**

Effective Date of the Agreement:

Amount:

Description *(name and location):*

**BOND**

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form:  None  See Paragraph 16

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Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

**CONTRACTOR AS PRINCIPAL**

**SURETY**

\_\_\_\_\_ *(seal)*

Contractor's Name and Corporate Seal

\_\_\_\_\_ *(seal)*

Surety's Name and Corporate Seal

**By:** \_\_\_\_\_  
Signature

**By:** \_\_\_\_\_  
Signature *(attach power of attorney)*

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

**Attest:** \_\_\_\_\_  
Signature

**Attest:** \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the

Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and

proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

**SECTION 00620**  
**PAYMENT BOND**

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*

**CONSTRUCTION CONTRACT**

Effective Date of the Agreement:

Amount:

Description *(name and location):*

**BOND**

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form:  None  See Paragraph 18

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Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

**CONTRACTOR AS PRINCIPAL**

**SURETY**

\_\_\_\_\_  
*(seal)*  
Contractor's Name and Corporate Seal

\_\_\_\_\_  
*(seal)*  
Surety's Name and Corporate Seal

**By:** \_\_\_\_\_  
Signature

**By:** \_\_\_\_\_  
Signature *(attach power of attorney)*

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

**Attest:** \_\_\_\_\_  
Signature

**Attest:** \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

*Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.*

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
  - 5.1 Claimants who do not have a direct contract with the Contractor,
    - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
    - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
  - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
  - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
  - 7.2 Pay or arrange for payment of any undisputed amounts.
  - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of

one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

#### 16. Definitions

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also

includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

## SECTION 00890

### PERMITS

#### PART 1 – GENERAL

##### 1.01 DESCRIPTION:

- A. This Section provides specific information and defines specific requirements of the Contractor regarding the preparation and acquisition of permits required to perform the work of this project. This Section also provides specific information and defines specific requirements of the Contractor regarding the termination of existing services. The permits and terminations required include, but are not limited to, those specifically described in this Section.
- B. The following items are addressed in this Section.
  - 1. Building Demolition Permits
  - 2. Berwick Fire Department
  - 3. Berwick Planning Department
  - 4. Central Maine Power Company
  - 5. FairPoint Communications
  - 6. Berwick Water Department
  - 7. Berwick Sewer District
  - 8. Maine Department of Environmental Protection (MEDEP) Permits:
    - a. Asbestos Project Notification
    - b. Asbestos Building Demolition Notification
    - c. Maine Construction General Permit (stormwater)
    - d. NRPA Permit by Rule - Work Adjacent to a Natural Resource

##### 1.02 RELATED WORK:

- A. Section 01110 – CONTROL OF WORK AND MATERIALS
- B. Section 01550 – SIGNAGE (TRAFFIC CONTROL)
- C. Section 01570 – ENVIRONMENTAL PROTECTION
- D. Section 02220 – BUILDING DEMOLITION

E. Section 02300 – EARTHWORK

1.03 GENERAL PERMIT AND TERMINATION REQUIREMENTS:

- A. The Contractor shall apply for, obtain, and pay for all permits and licenses required, including but not limited to the permits listed below. Contractor shall also be responsible for all fees and costs associated with decommissioning and termination of services.
- B. The Contractor shall procure and pay for all other permits, licenses, and approvals from Federal, State, and local authorities and such other agencies as may be necessary in connection with the work of this Contract.
- C. The Contractor shall perform the work in accordance with the Contract Documents, and any applicable Federal, State, and local requirements, permits, or order of conditions.
- D. The Contractor shall provide all required certificates to show that the work has been completed in conformity with the permits and shall submit such Certificates of Approval to the Engineer before final acceptance of the work.
- E. Terminate services in accordance with the requirements of the governing utility and as specified under Section 01110 – CONTROL OF WORK AND MATERIALS and Section 02220 – BUILDING DEMOLITION.
- F. Refer to the Contract Drawings showing the locations of water, sewer, drain, telephone, and electric utilities at the site. The Contractor shall note that the utility information shown may not reflect actual field conditions.

1.04 BUILDING DEMOLITION PERMIT:

- A. Demolition permitting is the responsibility of the Contractor. Demolition permitting for demolition of structures under this Contract will be obtained from the Town of Berwick Department of Code Enforcement/Building Division.
- B. Contact Joseph E. Rousselle: Telephone – (207) 698-1101 x122; Address - Town of Berwick Department of Code Enforcement –11 Sullivan Street, Berwick, Maine 03901.

1.05 BERWICK FIRE DEPARTMENT:

- A. The Contractor shall coordinate with the Berwick Fire Department on fire department related issues.
- B. Contact: Telephone - (207) 698 1174; Address – Berwick Fire Department, 10 School Street, Berwick, Maine 03901.

1.06 BERWICK PLANNING DEPARTMENT:

- A. For Town Planner contact John Stoll: Telephone – (207) 698-11011 x115, Address – Town of Berwick, Town Hall, 11 Sullivan Street, Berwick, Maine 03901.
- B. Storm drain connections from the building (such as roof leaders) shall be severed and capped as indicated on the Contract Drawings. Any unmarked drain pipes encountered during the project shall be cut and capped as required by the Engineer or Owner at no additional cost to Owner.

1.07 CENTRAL MAINE POWER COMPANY:

- A. Electric services are terminated by Central Maine Power Company. The service termination, utility disconnection, removal of existing electrical utilities, and provision of temporary electrical service must be coordinated with Central Maine Power Company, Telephone (800) 750-4000.

1.08 FAIRPOINT COMMUNICATIONS:

- A. Telephone services are terminated by FairPoint Communications. The service termination, utility disconnection, and removal of existing telephone utilities must be coordinated with FairPoint, Telephone: (866) 984-1515.

1.09 BERWICK WATER DEPARTMENT:

- A. For discontinuance of water service along with associated permitting and fee payment, contact Chris Weismann: Telephone - (207) 698-1231; Address – Berwick Water Department, 150 Rochester Street, Berwick, Maine 03901.

1.10 BERWICK SEWER DISTRICT:

- A. For discontinuance of sewer service along with associated permitting and fee payment, contact Berwick Sewer District: Telephone - (207) 384-2760.

1.11 MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION:

- A. Contractor shall determine the applicability of environmental permits required by the Maine Department of Environmental Protection and procure required permits. It has been determined that the following environmental permits are required for this Project and who issues the permit. The following list may not include all applicable environmental permits required for this project.

1. Maine Construction General Permit (MEDEP)

2. Natural Resources Protection Act, Permit by Rule, Category #2 - Work Adjacent to a Natural Resource (MEDEP)
3. Maine Shoreland Zoning Permit (Berwick Code Enforcement Office)
4. Asbestos Project Notification
5. Asbestos Building Demolition Notification

## PART 2 - PRODUCTS

Not Used

## PART 3 – EXECUTION

### 3.01 PERFORM WORK IN ACCORDANCE WITH REQUIREMENTS:

- A. The Contractor shall perform the work in accordance with the Contract Documents, including permits and any applicable municipal requirements.
- B. Prior to commencing any construction activities, the Contractor shall demonstrate to the Owner and the Engineer, through on-site inspection and submitting copies of permits or approvals, that it is in full compliance with the terms and conditions of all permits specified herein. The Contractor shall maintain full compliance with all permits throughout the performance of the work, and upon request, grant access to permitting authorities to inspect the site for the purpose of verifying such compliance.

END OF SECTION

P:\Berwick\Berwick Prime Cleanup Demo\Specifications\Div 0\00890-Permits.docx

## SECTION 00900

### REQUIRED CONTRACT PROVISIONS FOR FEDERALLY ASSISTED PROJECTS

#### PART 1 General

1.01 This project is being funded using federal Brownfields funds. As a result, all work must comply with the various contract provisions for federally funded projects including the U.S. Environmental Protection Agency (EPA) and the Davis-Bacon Act (DBA). **Attachment 00900A** contains Davis Bacon minimum wage rates to be used for this project. The Contractor shall also conform to the Terms and Conditions set forth as stated below.

#### 1.02 DAVIS BACON TERMS AND CONDITIONS

##### A. CONTRACT AND SUBCONTRACT PROVISIONS

###### (1) Minimum wages.

(i) All laborers, operators, and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the applicable wage determination of the Secretary of Labor (see **Attachment 00900A**), regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

(ii)(A) Any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the Contract shall be classified in conformance with the wage determination. The EPA Award Official shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Owner and Engineer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the Engineer to the EPA Award Official. The Award Official will transmit the report, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the award official or will notify the award official within the 30-day period that additional time is necessary.

(C) In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and the Owner do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the questions, including the views of all interested parties and the recommendation of the award official, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the Award Official within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this Contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the Contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(1) Withholding. The Owner, upon written request of the Award Official or an authorized representative of the Department of Labor, shall withhold or cause to withhold from the Contractor under this Contract or any other Federal contract with the same Prime Contractor, or any other federally-assisted Contract subject to Davis-Bacon prevailing wage requirements, which is held by the same Prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the Contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the Contract, EPA may, after written notice to the Contractor, or Owner take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

## **(2) Payrolls and basic records.**

(i) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The Contractor shall submit weekly for each week in which any Contract work is performed a copy of all payrolls to the Engineer who will maintain the records on behalf of EPA. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead, the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The Prime Contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full

social security number and current address of each covered worker, and shall provide them upon request to the Engineer for transmission to the EPA, if requested by EPA, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a Prime Contractor to require a subcontractor to provide addresses and social security numbers to the Prime Contractor for its own records, without weekly submission to the Owner.

(B) Each payroll submitted to the Owner shall be accompanied by a “Statement of Compliance,” signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the Contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR Part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR Part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the Contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the Contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the “Statement of Compliance” required by paragraph (2)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The Contractor or subcontractor shall make the records required under paragraph (2)(i) of this section available for inspection, copying, or transcription by authorized representatives of the EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, EPA may, after written notice to the Contractor, Owner, sponsor, or applicant, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

### **(3) Apprentices and Trainees**

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits,

trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

**(4) Compliance with Copeland Act requirements.**

The Contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this Contract.

**(5) Subcontracts.**

The Contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The Prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the Contract clauses in this term and condition.

**(6) Contract termination: debarment.**

A breach of the Contract clauses in 29 CFR 5.5 may be grounds for termination of the Contract, and for debarment as a Contractor and a subcontractor as provided in 29 CFR 5.12.

**(7) Compliance with Davis-Bacon and Related Act requirements.**

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this Contract.

**(8) Disputes concerning labor standards.**

Disputes arising out of the labor standards provisions of this Contract shall not be subject to the general disputes clause of this Contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors), the Owner and EPA, the U.S. Department of Labor, or the employees or their representatives.

**(9) Certification of eligibility.**

(i) By entering into this Contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this Contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

## B. CONTRACT PROVISIONS FOR CONTRACTS IN EXCESS OF \$100,000

### **(1) Overtime requirements.**

No Contractor or subcontractor contracting for any part of the Contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

### **(2) Violation; liability for unpaid wages; liquidated damages.**

In the event of any violation of the clause set forth in paragraph (1) of this section, the Contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

### **(3) Withholding for unpaid wages and liquidated damages.**

The Owner, upon written request of the Award Official or an authorized representative of the Department of Labor, shall withhold or cause to withhold from any moneys payable on account of work performed by the Contractor or subcontractor under any such Contract or any other Federal contract with the same Prime Contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same Prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

### **(4) Subcontracts.**

The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The Prime Contractor shall be

responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

END OF SECTION

Attachment 00900A: Davis Bacon Act Minimum Wage Rates

**ATTACHMENT 00900A**  
**DAVIS BACON MINIMUM WAGE RATES**

General Decision Number: ME160021 02/19/2016 ME21

Superseded General Decision Number: ME20150021

State: Maine

Construction Type: Heavy

County: York County in Maine.

HEAVY CONSTRUCTION PROJECTS including Water and Sewer Lines

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/08/2016
1	02/19/2016

\* ELEC0490-007 09/01/2015

	Rates	Fringes
ELECTRICIAN.....	\$ 28.00	18.69

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ENGI0004-016 04/01/2014

	Rates	Fringes
OPERATOR: Excavator (Excluding Water and Sewer Lines).....	\$ 20.75	10.84

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LABO0327-008 06/01/2013

	Rates	Fringes
LABORER: Concrete Worker (removing forms, demolition and removal of concrete, pouring and leveling of concrete).....	\$ 19.71	16.37

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SUME2011-016 03/16/2011

Rates	Fringes
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CARPENTER, Includes Form Work.....	\$ 18.42	6.89
CONCRETE FINISHER.....	\$ 17.29	2.51
IRONWORKER, Reinforcing.....	\$ 20.00	0.00
LABORER: Asphalt Raker.....	\$ 16.32	3.06
LABORER: Common or General, Including Pipelaying.....	\$ 14.49	3.91
LABORER: Landscape.....	\$ 15.00	0.58
LABORER: Flagger.....	\$ 12.00	0.00
LABORER: Wheelman.....	\$ 18.74	2.86
OPERATOR: Asphalt Paver.....	\$ 18.06	0.00
OPERATOR: Asphalt Roller.....	\$ 18.54	4.49
OPERATOR: Backhoe.....	\$ 22.22	6.48
OPERATOR: Bulldozer.....	\$ 19.12	5.19
OPERATOR: Crane.....	\$ 22.60	9.29
OPERATOR: Drill.....	\$ 17.67	0.71
OPERATOR: Loader.....	\$ 17.45	0.00
OPERATOR: Mechanic.....	\$ 24.35	6.66
OPERATOR: Roller.....	\$ 17.76	8.47
TRUCK DRIVER: Low Bed Truck.....	\$ 16.69	2.91
TRUCK DRIVER.....	\$ 14.41	2.86
WATER & SEWER LINES: Operator - Excavator.....	\$ 19.01	0.00

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010

08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material,

etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

## SECTION 01014

### SCOPE AND SEQUENCE OF WORK

#### PART 1 – GENERAL

##### 1.01 WORK INCLUDED

- A. As indicated in the Contract Drawings and Specifications, the scope of the proposed work includes the building demolition of the Former Prime Tanning facility, Lots 4, 5 and 6.

The Prime Tanning buildings located on lots 4, 5 and 6 consists of several connected structures and one standalone structure. The total area of the three lots is approximately 123,000 S.F. The building space is approximately 65,000 S.F. The buildings generally consist of a mix of asphalt, tar and rubber membrane roofing systems on wood deck, interior and exterior walls of wood frame and masonry block construction, exposed concrete floor slabs; wood, sheetrock, and plaster wall and ceiling systems, HVAC, plumbing and electrical systems. The scope of work includes disconnection, demolition and removal of the building superstructure to the floor slab grade and demolition of the concrete floor slab and associated foundations to a depth of two feet below the existing floor or sump grades.

The scope of work includes abatement, protection, maintenance, and any necessary post-demolition structural support of adjacent buildings. The scope of work also includes site clearance and clean-up, including removal and disposal of construction and demolition waste debris, along with miscellaneous trash and debris on the site, utility cutting/capping/abandonment, excavation of up to 30 test pits for environmental investigation, and site restoration in accordance with the Contract Documents.

Contractor shall assist Engineer with an environmental investigation by excavating up to thirty (30) environmental test pits within the limit of work. Test pits shall be dug to a depth of 8 feet to 10 feet at each location. Contractor shall excavate soil at a rate specified by the Engineer so that the Engineer can conduct a subsurface environmental assessment. Occupancy in the excavation will not be required by the Engineer, all sampling will be conducted above grade. Each excavation shall be backfilled and compacted. The surface shall be restored to the original condition. The environmental assessment shall be completed within two (2) weeks after completion of demolition activities.

- B. The adjacent attached buildings on lots 3 and 7 are to remain after building demolition. The scope of the demolition work shall include sealing open and exposed facades of remaining buildings, constructing adequate post-demolition structural support system (as needed) for the remaining walls and roofs, and protecting the adjacent attached structures for the duration of demolition activities.

- C. Contractor shall be aware that the Project property is located in a densely developed residential/commercial/industrial area. Protecting the health and safety of nearby bystanders and the physical condition of the surrounding properties is paramount. As such, the Contractor shall provide necessary site control/security measures, such as temporary construction fencing, warning signs, on-site traffic control, and restricted site access, to ensure that bystanders are protected from demolition activities throughout the Contract duration. Any occasional need for the Contractor to move fencing or signage to properly protect bystanders shall be considered incidental to the project.
- D. The Contractor shall be permitted to store and/or stage materials, equipment, vehicles, or other related items on Lots 4, 5 and 6 of the project.
- E. Contractor's operations at the site are restricted to the Contract Limit of Work shown and any additional constraints presented in these Specifications, except for work specified and indicated to occur beyond the Limit of Work (e.g. traffic control, access to the site, etc.).
- F. Contractor shall be aware of potentially salvageable materials contained within the facility. It shall be the Contractor's responsibility to determine the value of any salvageable materials and to market these materials. All demolition debris and salvageable materials shall become the property of the Contractor. No materials including salvageable materials shall remain onsite after the completion of the project, except for crushed asphalt, brick or concrete (ABC) that is used to grade the demolition area. Disposal and recycling records, weight slips and receipts for materials removed from the site shall be submitted to the ENGINEER as described in Specification Section 02220 - Building Demolition.

Potential salvageable material includes but is not limited to metal (including water and air piping throughout the facility), brick, concrete, and wood (building framing materials). Lead containing paint has been identified on numerous components of the site buildings.

## 1.02 RELATED WORK

- A. Section 01110 – CONTROL OF WORK AND MATERIALS

## PART 2 - PRODUCTS (NOT APPLICABLE)

## PART 3 - EXECUTION

### 3.01 GENERAL

- A. The Contractor shall perform demolition work such that no demolition debris, materials, or equipment shall enter any drain or sewer system including the 48" underground enclosed water way that traverses the site and outfalls into the Salmon

Falls River. Contractor shall ensure that adequate environmental protection measures are implemented and maintained in proper condition for the duration of the work. Contractor shall be responsible for the cleanup and/or restoration of any portions of the river impacted as a result of their activities at no additional cost to the Owner.

- B. The Construction Sequence Requirements shall be used by the Contractor to form a complete schedule for the project, which shall be coordinated with the Owner and Engineer. Prior to performing any work at the site, the Contractor shall submit a detailed plan to the Engineer for review. The plan shall describe the proposed sequence, methods, and timing of the work.
- C. Prior to the demolition of the Prime Tanning facility and grading to proposed grades, the Contractor shall install strawbales/silt fence or other approved erosion control services along the perimeter of the demolition limits or limit of work. Also, all drain catch basins within 200 feet of the limit of work shall have filter bags installed prior to demolition activities. These erosion control devices shall remain as specified on the contract drawings.

### 3.02 CONSTRUCTION SEQUENCING REQUIREMENTS

- A. Contractor shall provide an eight (8) foot high temporary chainlink fence, as indicated on Drawing C-2, along with appropriate warning signage, to restrict access to the demolition work area.
- B. Contractor shall schedule work so that it will cause minimum inconvenience and nuisance to abutting property owners, over the shortest possible time.
- C. Contractor shall provide required Project Submittals as required in these Project Specifications.
- D. ENGINEER, OWNER and CONTRACTOR shall attend a preconstruction meeting to discuss the project details, submittals, schedule and other project related issues.

END OF SECTION

## SECTION 01110

### CONTROL OF WORK AND MATERIALS

#### PART 1 – GENERAL

Not Used.

#### PART 2 – PRODUCTS

Not Used

#### PART 3 - EXECUTION

##### 3.01 HAULING, HANDLING AND STORAGE OF MATERIALS:

- A. The CONTRACTOR shall, at his own expense, handle and haul all materials furnished by him and shall remove any of his surplus materials at the completion of the work.
- B. The CONTRACTOR shall provide suitable and adequate storage for equipment and materials furnished by him that are liable to injury and shall be responsible for any loss of or damage to any equipment or materials by theft, breakage, or otherwise.
- C. All removed, demolished and/or excavated materials and equipment to be incorporated in the Work shall be placed so as not to injure any part of the Work, existing facilities, or adjacent structures and so that free access can be had at all times to all parts of the Work and to all public utility installations in the vicinity of the work. Materials and equipment shall be kept neatly piled and compactly stored in such location as will cause a minimum of inconvenience to public travel and adjoining OWNERS, tenants and occupants. Costs for managing stockpiles of materials is considered incidental to the contract.
- D. The CONTRACTOR shall be responsible for all damages to the work under construction during its progress and until final completion and acceptance even though partial payments have been made under the Contract.

##### 3.02 EASEMENTS:

- A. CONTRACTOR shall schedule work so that it will cause minimum inconvenience and nuisance to abutting property OWNERS, over the shortest possible time.
- B. Easements shall be kept clean; no rubbish or discarded construction materials shall be allowed to accumulate. Storage of demolition debris, materials, equipment, or

machinery on easements will not be allowed, unless otherwise specified in the Contract Documents.

- C. Restoration of fences, shrubs, trees and grass shall be completed promptly following completion of the work in an easement, to minimize disruption and inconvenience to property OWNERS.
- D. Unless specified in the Contract Documents, the use of easements for ease of access to and egress from other areas of the project will not be permitted.

3.03 OPEN EXCAVATIONS:

- A. All open excavations shall be adequately safeguarded by providing temporary barricades, caution signs, lights and other means to prevent accidents to persons, and damage to property. The CONTRACTOR shall, at his own expense, provide suitable and safe means for completely covering all open excavations and for accommodating travel when work is not in progress.
- B. The length of open trench will be controlled by the particular surrounding conditions but shall always be confined to the limits prescribed by the ENGINEER.
- C. If the excavation becomes a hazard, then special construction procedures shall be taken, such as limiting the length of trench and prohibiting stockpiling excavated material on the site.

3.04 CARE AND PROTECTION OF PROPERTY:

- A. The CONTRACTOR shall be responsible for the preservation of all public and private property, and shall use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the CONTRACTOR, such property shall be promptly restored by the CONTRACTOR, at his expense, to a condition similar or equal to that existing before the damage was done, to the satisfaction of the ENGINEER. Suitable materials and methods shall be used for such restoration. Restoration of existing property and structures shall be carried out as promptly as practicable and shall not be left until the end of the construction period.
- B. The CONTRACTOR shall not enter upon nor occupy with personnel, equipment or materials any property outside of the designated limit of work or areas indicated on the Contract Drawings, except with the written consent of the property OWNER or property OWNER's agent.
- C. The CONTRACTOR shall protect pedestrians along Sullivan Street during the demolition of the west face of the building located on Lot 4. During demolition, the

sidewalk shall be detoured or rerouted. Temporary barriers and signs shall be used during this event. Pedestrian protection shall be in accordance with MUTCD requirements for *Sidewalk Detour or Diversion*. CONTRACTOR shall submit a written plan detailing the pedestrian protection for this activity a minimum of two weeks prior to the start of demolition.

- D. For work performed outside the limit of work shown on the drawings, such as public street openings, existing paved and unpaved surfaces adjacent to the limit of work shall be properly maintained and kept constantly in repair by the CONTRACTOR. On paved surfaces, the CONTRACTOR shall not use or operate tractors, bulldozers, or other power-operated equipment with treads or wheels which are shaped so as to cut or otherwise damage such surfaces; any damage caused during the construction operations shall be immediately repaired at the CONTRACTOR's expense.
- E. All land and water resources within the project boundaries and outside the limits of permanent work performed under this Contract shall be preserved in their present condition or be restored to a condition by completion of construction at least equal to that which existed prior to work under this Contract.

3.05 PROTECTION AND RELOCATION OF EXISTING STRUCTURES AND UTILITIES:

- A. All existing buildings, utilities, pipes, poles, wires fences, curbing, property line markers and other structures which the ENGINEER decides must be preserved in place without being temporarily or permanently relocated, shall be carefully supported and protected from damage by the Contractor. Should such property be damaged, it shall be restored by the CONTRACTOR, at no additional cost to the OWNER.
- B. The location of existing underground services and utilities shown on the Contract Drawings are based on available records. Although these documents may indicate the approximate location of existing utilities in the vicinity of the work, it is not warranted that all existing utilities and services are shown, nor that indicated locations are correct. The CONTRACTOR shall coordinate all work involving utilities and shall verify the existing conditions of the areas in which the work is to be performed. In addition, the CONTRACTOR's attention is required to the fact that there are existing aboveground utilities, at and in the immediate vicinity of the work. The CONTRACTOR shall identify all aboveground services prior to commencement of the work, and exercise all necessary precautions to ensure worker and public safety, protection of the utilities not being demolished and compliance with the required utility standards and procedures.
- C. The CONTRACTOR shall confirm the location of all underground utility services (including existing water services, drain lines, sewers, gas and fuel lines, electrical lines, and communications). The CONTRACTOR shall be responsible for having the

utility companies locate their respective utilities at and in the vicinity of the site prior to excavating. To satisfy the requirements of Title 23 M.R.S.A. § 3360-A, "Protection of Underground Utilities", and the Maine State Dig Safe Rule, the CONTRACTOR shall, at least 72 hours, exclusive of Saturdays Sundays and holidays, prior to excavation in the proximity of telephone, gas, cable television, and electric utilities, notify the utilities concerned by calling "DIG SAFE" at telephone number: 1-888-344-7233.

- D. The CONTRACTOR shall thoroughly inspect each building interior for incoming utilities to supplement identification of utility services for disconnection.
- E. All existing site utilities shall be terminated as shown on the Contract Drawings, and as required and approved by the ENGINEER.
- F. Protection or temporary removal and replacement of existing utilities and structures as described in this Section shall be a part of the work under the Contract.
- G. Where possible, CONTRACTOR shall use areas within the limits of work or the area indicated on Sheet C-2 of the Contract Drawings for storing equipment, materials, and other construction-related activities.
- H. All property damaged by CONTRACTOR operations, outside the limits of work shall be restored to a condition at least equal to that in which it was found immediately before work was begun. Suitable materials and methods shall be used for such restoration.
- I. Restoration of existing property and structures, designated not to be demolished, shall be carried out as promptly as practicable and shall not be left until the end of the construction period.

### 3.06 MAINTENANCE OF FLOW:

- A. The CONTRACTOR shall at his own cost, provide for the flow of sewers and drains interrupted during the progress of the work, and shall immediately cart away and dispose of all offensive matter. The entire procedure of maintaining existing flow shall be fully discussed with the ENGINEER well in advance of the interruption of any flow.
- B. All existing drainage facilities including, but not limited to; brooks, streams, canals, channels, ditches, culverts, catch basins and drainage piping shall be adequately safeguarded so as not to impede drainage or to cause siltation of downstream areas in any manner whatsoever. If the CONTRACTOR damages or impairs any of the aforesaid drainage facilities, he shall repair the same within the same day.

- C. At the conclusion of the work, the CONTRACTOR shall remove all silt in drainage structures caused by his operations as described in Section 01740, CLEANING UP. Silt filter bags in catch basins shall be cleaned and reinstalled in the catch basins as required by ENGINEER or OWNER.
- D. The CONTRACTOR shall maintain flow and keep in operation the fire hydrants for fire suppression purposes.

3.07 REJECTED MATERIALS AND DEFECTIVE WORK:

- A. Materials furnished by the CONTRACTOR and condemned by the ENGINEER as unsuitable or not in conformity with the specifications shall forthwith be removed from the work site by the CONTRACTOR, and shall not be made use of elsewhere in the work.
- B. Any errors, defects or omissions in the execution of the work or in the materials furnished by the CONTRACTOR, even though they may have been passed or overlooked or have appeared after the completion of the work, discovered at any time before the final payment is made hereunder, shall be forthwith rectified and made good by and at the expense of the CONTRACTOR and in a manner satisfactory to the ENGINEER.
- C. The CONTRACTOR shall reimburse the OWNER for any expense, losses or damages incurred in consequence of any defect, error, omission or act of the CONTRACTOR or his employees, as determined by the ENGINEER, occurring previous to the final payment.

3.08 SANITARY REGULATIONS:

- A. Sanitary conveniences for the use of all persons employed on the work, properly screened from public observation, shall be provided in sufficient numbers in such manner and at such locations as may be approved. The contents shall be removed and disposed of in a satisfactory manner as the occasion requires. The CONTRACTOR shall rigorously prohibit the committing of nuisances within, on or about the work. Any employees found violating these provisions shall be discharged and not again employed on the work without the written consent of the ENGINEER. The sanitary conveniences specified above shall be the obligation and responsibility of the CONTRACTOR.
- B. CONTRACTOR shall use heavy-duty refuse containers with tight-fitting domed lids, with a spring-loaded flap, for disposal of all garbage and trash associated with food. Maintain these containers so there are no openings that allow access by rodents. Refuse containers shall be emptied daily to maintain site sanitation.

- C. CONTRACTOR shall not dispose of food, garbage, or trash associated with food in dumpsters or other containers being utilized for disposal of demolition debris.
- D. CONTRACTOR shall maintain the site and its perimeter area free of trash, garbage, weeds, debris, and unnecessary or deteriorated straw bales. Provide and enforce proper use of refuse containers to ensure that rodents and other pests are not harbored or attracted.
- E. CONTRACTOR shall designate a specific area at the site as a lunch and coffee break area to prevent random disposal of garbage and trash. Keep this area free of litter and garbage, and provide refuse containers. Keep refuse containers upright with their lids shut tight.

3.09 SAFETY AND HEALTH REGULATIONS:

This project is subject to the Safety and Health regulations of the U.S. Department of Labor set forth in 29 CFR, Part 1926, and to the Maine Department of Labor Workplace Safety Regulations. CONTRACTOR shall be familiar with the requirements of these regulations.

3.10 SITE INVESTIGATION:

The CONTRACTOR acknowledges that he has satisfied himself as to the conditions existing at the site of the work, the type of equipment required to perform this work, the quality and quantity of the materials furnished insofar as this information is reasonably ascertainable from an inspection of the site, as well as from information presented by the drawings and specifications made a part of this contract. Any failure of the CONTRACTOR to acquaint himself with available information will not relieve him from the responsibility for estimating properly the difficulty or cost of successfully performing the work. The OWNER assumes no responsibility for any conclusion or interpretation made by the CONTRACTOR on the basis of the information made available by the OWNER.

3.11 ELECTRIC SERVICE:

- A. The CONTRACTOR shall make all necessary applications and arrangements and pay for all fees and charges for electrical energy for power and light necessary for the proper completion of this contract during its entire progress. The CONTRACTOR shall provide and pay for all temporary wiring, switches, connections, and meters.
- B. There shall be sufficient electric lighting so that all work may be done in a workmanlike manner where there is not sufficient daylight.

3.12 HAZARDOUS WASTE:

Should the CONTRACTOR, while performing work under this contract, uncover hazardous materials not addressed in the Contract Documents, they shall immediately notify the ENGINEER.

END OF SECTION

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SECTION 01140

SPECIAL PROVISIONS

PART 1 - GENERAL

Not used

PART 2 - PRODUCTS

Not used

PART 3 - EXECUTION

3.01 Water for Demolition Purposes

- A. The CONTRACTOR may use an existing fire hydrant adjacent to the site as a temporary service for demolition activities only with prior approval by the Town of Berwick Water Department. CONTRACTOR shall, in coordination and approval with the Town of Berwick Water Department, open gate valves as necessary to verify that the service line is active and that it can be used for demolition purposes. The CONTRACTOR shall install a temporary metered water line with backflow preventer, onto the hydrant as required by the Berwick Water Department.
- B. Alternatively, the CONTRACTOR may arrange for water trucks to provide water for use during demolition activities.
- C. The CONTRACTOR is prohibited from using/withdrawing water from Salmon Falls River for use in demolition activities.

3.02 Occupying Private Property

The CONTRACTOR shall not enter upon nor occupy with men, equipment or materials any property outside of the limit of work, public highways or OWNER's easements, except with the written consent of the property OWNER or property OWNER's agent.

3.03 Existing Utility Locations - CONTRACTOR's Responsibility

- A. The location of existing underground services and utilities shown on the drawings is based on available records. It is not warranted that all existing utilities and services are shown, nor that shown locations are correct. The CONTRACTOR shall be responsible for having the utility companies locate their respective utilities on the ground prior to excavating.

- B. The CONTRACTOR shall coordinate all work involving utilities and shall satisfy himself as to the existing conditions of the areas in which he is to perform his work. He shall conduct and arrange his work so as not to impede or interfere with the work of other Contractors working in the same or adjacent areas.

#### 3.04 Coordination of Work

The General CONTRACTOR shall be responsible for coordinating his own work as well as that of any SUBCONTRACTORS. He shall be responsible for notification of the ENGINEER when each phase of work is expected to begin and the approximate completion date.

#### 3.05 Time for Completion of Contract

The time for completion of this contract is stipulated in the Form of General Bid. The Bidder shall base his bid on completing the proposed work by the completion date stipulated in the FORM OF GENERAL BID.

#### 3.06 Compliance with Permits

- A. The CONTRACTOR shall perform all work in conformance with requirements of the Permits, which appear in Section 00890 - PERMITS.

#### 3.07 Cutting, Fitting and Patching

- A. All holes or openings required to be made in new or existing work, particularly at pipe, conduit, or other penetrations not covered by escutcheons or plates shall be neatly patched. All such holes shall be made completely watertight as approved by the ENGINEER.
- B. Workmanship and materials of patching and repair work shall match the adjacent similar work and shall conform to the applicable sections of the specification. Patches and joints with existing work shall provide, as applicable in each case, visual, structural, and waterproofing continuity.

#### 3.08 Disconnections/Connections to Existing Water Systems

- A. The CONTRACTOR shall coordinate with the Town of Berwick Water Department for the shutdown of water utilities, and shall be responsible for de-watering the pipelines. No damages shall be claimed by the CONTRACTOR for delays in dewatering pipelines nor shall any damages be claimed because of water leaking through closed valves after dewatering is completed.
- B. If any failure occurs during disconnection to existing mains, service shall be restored in the shortest possible time, the CONTRACTOR working around the clock, if necessary. He shall cooperate with the OWNER in notifying the consumers or supplying emergency

water. If required by OWNER, the CONTRACTOR shall make disconnections to water mains during night hours, on Sunday or at other times of off-peak demand for water.

### 3.09 Protection of Water Resources

The CONTRACTOR's attention is required to the fact that the construction area is located near the Salmon Falls River and directly over the unnamed underground stream which is channelized under the site. The CONTRACTOR shall take extra precautions to ensure that no pollutants enter the groundwater table from the demolition area. The CONTRACTOR shall not store fuels or other hazardous materials or potential contaminants on the construction site. In the event of a spill, the CONTRACTOR shall immediately notify the ENGINEER.

### 3.10 CONTRACTOR's Representative

The CONTRACTOR shall designate a representative who will be available to respond to emergency calls by the OWNER at any time day and night and on weekends and holidays should such a situation arise.

### 3.11 Hours of Demolition/Abatement Activity

- A. The CONTRACTOR shall conduct all construction activity between 7:00 a.m. and 5:00 p.m., Monday through Friday. No construction work shall be allowed on Saturdays, Sundays or Holidays without written authorization from the OWNER.

### 3.12 Handling of Asbestos Cement Pipe

The CONTRACTOR may be required to remove asbestos-cement pipe on this project. There are special requirements for performing this work in accordance with OSHA and other federal and state standards. Please refer to specifications section number 02111 – ASBESTOS ABATEMENT FOR UNDERGROUND FACILITIES for requirements for performing this work.

END OF SECTION

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## SECTION 01270

### MEASUREMENT AND PAYMENT

#### 1. GENERAL

- A. The following sections describe the measurement and payment for the work to be done under the respective items listed in the FORM OF GENERAL BID.
- B. The lump sum price stated in the FORM OF GENERAL BID shall constitute full compensation as herein specified, for all of the work completed in accordance with the drawings and specifications. All other activities required in connection with performance of the work, including all work required under Division 1, GENERAL REQUIREMENTS, whether described in the contract documents or mandated by applicable codes, permits and laws, will not be separately paid for unless specifically provided for in the FORM OF GENERAL BID, but will be considered to be incidental to performance of the overall project.
- C. If changes are made in the design which was shown on the plans and specifications in the original contract and should such changes increase or decrease the quantity of work to be performed, an adjustment will be made therefore based on the Adjustment Classes described herein. No work shall be performed under the Adjustment Classes without written order of the Engineer.
- D. Requests for payment shall be according to ENGINEER approved schedule of values as a percentage of each item completed in the period reflected in the request.

#### 2. ITEM 1: WORK OF GENERAL CONTRACTOR

- A. The lump sum price for Item 1 shall constitute full compensation to provide building abandonment and demolition, complete, as described in and required by the Contract Documents including, but not limited to, equipment, materials, and labor for: temporary facilities; traffic control; environmental protection; asbestos abatement; removal and disposal of universal and regulated wastes; building demolition, removal, transportation, and disposal of building contents, components, containers, structures and appurtenances; removal and disposal of construction and demolition waste; cut/cap/abandonment of utilities; protection and support of structures to remain; installation of chain link fencing; crushing of clean asphalt, brick, and concrete material on-site; backfilling; site restoration with crushed material to final grade; and excavation of up to 30 test pits for environmental investigation.

3. ADJUSTMENT CLASS 2A – REMOVAL AND DISPOSAL OF BURIED PIPE CONTAINING ASBESTOS
  - A. In the event that buried pipe containing asbestos is discovered during demolition that is not part of the inventory presented in the Contract Documents, it shall become the Contractor's responsibility to stop that particular element of work and verify and obtain agreement with the Engineer that the work is in fact unidentified.
  - B. The quantity of buried pipe containing asbestos for removal and disposal to be paid for under this Adjustment Class shall be the number linear of feet of asbestos-containing pipe removed and disposed.
  - C. This Adjustment Class constitutes full compensation to provide removal and disposal of buried pipe containing asbestos, complete, as described in and required by the Contract Documents including, but not limited to; excavation, removal, demolition, disposal, and trench backfill. Any buried pipe containing asbestos shall be handled and disposed of in accordance with Specification Section 02111, ASBESTOS ABATEMENT FOR UNDERGROUND UTILITIES.
  
4. ADJUSTMENT CLASS 2B – REMOVAL AND DISPOSAL OF SPECIAL WASTE SOIL
  - A. In the event that special waste soils are discovered during demolition or during the site restoration and the soils cannot be utilized on the site as presented in the Contract Documents, it shall become the Contractor's responsibility to stop that particular element of work and verify and obtain agreement with the Engineer that the work is in fact unidentified.
  - B. The quantity of special waste soil for removal and disposal to be paid for under this Adjustment Class shall be by weight (per ton) of soil removed and disposed. Weight tickets from the approved disposal facility shall be utilized to verify quantity.
  - C. This Adjustment Class constitutes full compensation to provide removal and disposal of contaminated soil, complete, as described in and required by the Contract Documents including, but not limited to; excavation, removal, demolition, disposal, and backfill with ABC material. Any special waste soil shall be handled and disposed of in accordance with Specification Section 02300, EARTHWORK.
  
5. ADJUSTMENT CLASS 2C - GRAVEL BORROW
  - A. The quantity of gravel borrow to be considered under this Adjustment Class shall be the number of cubic yards placed in authorized excavations, measured in place after compaction. This Adjustment Class Gravel Borrow shall be used if there is insufficient ABC material for backfill to grade the site to the final grades shown on the plans. The Adjustment Class gravel borrow can only be used after the ABC material is depleted.

- B. Gravel borrow used to backfill unauthorized excavation shall not be measured for payment.
  - C. Gravel borrow indicated on the drawings, and used as backfill under the lump sum price shall not be measured for payment under this item.
  - D. The unit price for this Adjustment Class shall constitute full compensation for furnishing, placing, and compacting gravel borrow as specified.
6. ADJUSTMENT CLASS 2D - TEST PITS
- A. The quantity of test pits to be considered under this Adjustment Class shall be the exploratory test pits as ordered by the Engineer and not incidental to construction. Adjustment Class Test Pits shall be measured per each test pit encountered. Payment for test pits shall include backfill and compaction to original grade.
  - B. Test pits excavated for the environmental investigation as specified under the base bid shall not be measured for payment under this item.
  - C. Test pits not authorized by the Engineer shall not be measured for payment.
7. ALTERNATE ITEM 1 (ALT-1): DEMOLITION OF WW PRETREATMENT FACILITY
- A. The lump sum price for Alternate Item 1 shall constitute full compensation to provide demolition of the wastewater pretreatment facility, which includes the building abandonment and demolition, complete, as described in and required by the Contract Documents including, but not limited to, equipment, materials, and labor for: temporary facilities; traffic control; environmental protection; asbestos abatement; removal and disposal of universal and regulated wastes; building demolition, removal, transportation, and disposal of building contents, components, containers, structures and appurtenances; removal and disposal of construction and demolition waste; cut/cap/abandonment of utilities; crushing of clean asphalt, brick, and concrete material on-site; backfilling and site restoration with crushed material to final grade.

END OF SECTION

## SECTION 01330

### SUBMITTALS

#### PART 1 - GENERAL

##### 1.01 WORK INCLUDED:

- A. The Contractor shall provide the Engineer with submittals as required by the contract documents.

##### 1.02 RELATED WORK:

- A. Divisions 1 – 3 of these specifications that require submittals.

#### PART 2 - PRODUCTS

NOT USED

#### PART 3 - EXECUTION

##### 3.01 GENERAL:

- A. As required by the General Conditions, Contractor shall submit a schedule of shop and working drawing submittals.
- B. The Contractor shall submit the shop and working drawing submittals either electronically or hard copy.

##### 3.02 ELECTRONIC SUBMITTALS:

- A. In accordance with the accepted schedule, the Contractor shall submit promptly to the Engineer by email (jodonnell@crederellc.com) or on Compact Disc (mail to Crede Associates, LLC, 776 Main Street, Westbrook, Maine 04092, attention: Jonathan O'Donnell), one electronic copy in Portable Document Format (PDF) of shop or working drawings required as noted in the specifications, of equipment, structural details and materials fabricated especially for this Contract.
- B. Each electronic copy of the shop or working drawing shall be accompanied by the Engineer's standard shop drawing transmittal form, included as Exhibit 1 of this section (use only for electronic submittals), on which is a list of the drawings, descriptions and numbers and the names of the Owner, Project, Contractor and building, equipment or structure.

- C. The Contractor shall receive a shop drawing memorandum with the Engineer's approval or comments via email.

3.03 HARD COPY SUBMITTALS:

- A. In accordance with the accepted schedule, the Contractor shall submit promptly to the Engineer, by mail (mail to Crede Associates, LLC, 776 Main Street, Westbrook, Maine 04092, attention: Jonathan O'Donnell), six (6) copies each of shop or working drawings required as noted in the specifications, of equipment, structural details and materials fabricated especially for this Contract.
- B. Each shipment of drawings shall be accompanied by the Engineer's (if applicable) standard shop drawing transmittal form on which is a list of the drawings, descriptions and numbers and the names of the Owner, Project, Contractor and building, equipment or structure.

3.04 SHOP AND WORKING DRAWINGS:

- A. Shop and working drawings shall show the principal dimensions, weight, structural and operating features, space required, clearances, type and/or brand of finish of shop coat, grease fittings, etc., depending on the subject of the drawings. When it is customary to do so, when the dimensions are of particular importance, or when so specified, the drawings shall be certified by the manufacturer or fabricator as correct for this Contract.
- B. All shop and working drawings shall be submitted to the Engineer by and/or through the Contractor, who shall be responsible for obtaining shop and working drawings from his subcontractors and returning reviewed drawings to them. All shop and working drawings shall be prepared on standard size, 24-inch by 36-inch sheets, except those, which are made by changing existing standard shop or working drawings. All drawings shall be clearly marked with the names of the Owner, Project, Contractor and building, equipment or structure to which the drawing applies, and shall be suitably numbered. Each shipment of drawings shall be accompanied by the Engineer's (if applicable) standard shop drawing transmittal form on which is a list of the drawings, descriptions and numbers and the names mentioned above.
- C. Only drawings that have been prepared, checked and corrected by the fabricator should be submitted to the Contractor by his subcontractors and vendors. Prior to submitting drawings to the Engineer, the Contractor shall check thoroughly all such drawings to satisfy himself that the subject matter thereof conforms to the Contract Documents in all respects. Shop drawings shall be reviewed and marked with the date, checker's name and indication of the Contractor's approval, and only then shall be submitted to the Engineer. Shop drawings unsatisfactory to the Contractor shall be returned directly to their source for correction, without submittal to the Engineer. Shop drawings submitted to the Engineer without the Contractor's approval stamp and signature will be rejected. Any deviation from the Contract Documents indicated on

the shop drawings must be identified on the drawings and in a separate submittal to the Engineer.

- D. The Contractor shall be responsible for the prompt submittal and resubmittal, as necessary, of all shop and working drawings so that there will be no delay in the work due to the absence of such drawings.
- E. The Engineer will review the shop and working drawings as to their general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Corrections of comments made on the drawings during the review do not relieve the Contractor from compliance with requirements of the Contract Documents. The Contractor is responsible for: confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his work with that of all other trades; and performing his work in a safe and satisfactory manner. The review of the shop drawings is general and shall not relieve the Contractor of the responsibility for details of design, dimensions, code compliance, etc., necessary for interfacing with other components, proper fitting and construction of the work required by the Contract and for achieving the specified performance. The Engineer will review submittals two times: once upon original submission and a second time if the Engineer requires a revision or corrections. The Contractor shall reimburse the Owner amounts charged to the Owner by the Engineer for performing any review of a submittal for the third time or greater.
- F. With few exceptions, shop drawings will be reviewed and returned to the Contractor within 30 days of submittal.
- G. No material or equipment shall be purchased or fabricated especially for this Contract nor shall the Contractor proceed with any portion of the work, the design and details of which are dependent upon the design and details of equipment or other features for which review is required, until the required shop and working drawings have been submitted and reviewed by the Engineer as to their general conformance and compliance with the project and its Contract Documents. All materials and work involved in the construction shall then be as represented by said drawings.
- H. Two copies of the shop and working drawings and/or catalog cuts will be returned to the Contractor. The Contractor shall furnish additional copies of such drawings or catalog cuts when he needs more than two copies or when so requested.

### 3.05 SAMPLES:

- A. Samples specified in individual Sections include, but are not necessarily limited to, physical examples of the work such as sections of manufactured or fabricated work, small cuts or containers of materials, complete units of repetitively-used products, color/texture/pattern swatches and range sets, specimens for coordination of visual effect, graphic symbols, and units of work to be used by the Engineer or Owner for independent inspection and testing, as applicable to the work.

- B. The number of samples submitted shall be as specified. Submittal and processing of samples shall follow the procedures outlined for shop and working drawings unless the specifications call for a field submittal or mock-up.
- C. Acceptance of samples will be acknowledged via a copy of the transmittal noting status. When samples are not acceptable, prompt resubmittal will be required.

END OF SECTION

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EXHIBIT 1 TO SECTION 01330 SUBMITTALS  
SHOP DRAWING TRANSMITTAL FORM

Shop Drawing Transmittal		Weston & Sampson Engineers, Inc.					
<b>Instruction for Preparing Transmittal</b> No action will be taken on any item unless accompanied by this form. TRANSMITTAL NOS. to be consecutive (1, 2, 3, etc.). Each resubmittal of same item shall use same number with suffix letter (A, B, etc.). SPEC. SECT. NO: Only one spec. section no. to each transmittal. DESCRIPTION: Complete identification of document or group of documents. SOURCE: Originator of document(s) being submitted.		DRAWING NO: Identification of document(s). CONTRACT DRAWING REFERENCE: Contract drawing number(s) showing details of document(s). SPECIAL INSTRUCTIONS: Special cases and emergencies, changes in distribution and special handling requests, etc. should be entered here. SIGNATURE OF CONTRACTOR: Signature of individual who reviews and approves material prior to submittal to engineer.					
THIS SECTION TO BE COMPLETED BY CONTRACTOR							
TRANSM. NO.	SPEC. SECT. NO.	DATE	CONTRACTOR'S JOB NO.	W&S JOB NO.			
PROJECT NAME & CONTRACT NO. LOCATION							
Weston & Sampson Engineers, Inc. 100 International Drive, Suite 152 Portsmouth, NH 03801		F R O M					
THIS SECTION TO BE COMPLETED BY W&S							
ITEM NO.	DESCRIPTION	SOURCE	DRAWING NO. CATALOG NO. BROCHURE, ETC	NO. OF COPIES	CONTRACT DRAWING REF.	ACTION CODE	REVIEWED BY
1							
2							
3							
4							
THIS CERTIFIES THAT ALL ITEMS SUBMITTED HERewith HAVE BEEN CHECKED BY THE CONTRACTOR, ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, EXCEPT AS NOTED, AND ARE APPROVED BY THE CONTRACTOR FOR THIS PROJECT.						SIGNATURE & TITLE	
THIS SECTION TO BE COMPLETED BY W&S						Weston & Sampson Engineers, Inc.	
ACTION CODE: 1. NO EXCEPTIONS TAKEN 2. MAKE CORRECTIONS NOTED 3. AMEND AND RESUBMIT 4. REJECTED- SEE REMARKS 5. ACKNOWLEDGEMENT 6. SUBMITTAL NOT REQUIRED, RETURNED WITHOUT REVIEW 7. INSTALLATION SHALL PROCEED ONLY WHEN ACTION CODE IS 1 OR 2 8. ACTION CODED 3 SHALL BE RESUBMITTED WITH TIME LIMIT SET IN CONTRACT 9. REVIEW DOES NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY OF COMPLIANCE WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS							

## SECTION 01380

### HEALTH AND SAFETY PLAN

#### PART 1 – GENERAL

##### 1.01 DESCRIPTION:

- A. Prior to the start of work on the site, Contractor shall prepare and submit a site-specific Health and Safety Plan that includes consideration of all known and potential hazards at the site. Work may not proceed at the project site until the Contractor's health and safety plan has been received and reviewed by the Engineer.
- B. The Health and Safety Plan and related items of this Section address general demolition and construction activities required under this Contract.

##### 1.02 REFERENCES:

- A. OSHA 29 CFR 1910.120

##### 1.03 RELATED WORK:

- A. Section 02220 BUILDING DEMOLITION

#### PART 2 – PRODUCTS

##### 2.01 PREPARATION OF A SITE-SPECIFIC HEALTH AND SAFETY PLAN:

- A. Prior to the start of work on the site, CONTRACTOR shall prepare and submit an initial site-specific Health and Safety Plan which includes consideration of all known and potential hazards at the site. Work may not proceed at the project site until the CONTRACTOR's Health and Safety Plan has been received by the ENGINEER.
- B. CONTRACTOR shall be cognizant of the minimum health and safety plan standards set forth in 29 CFR 1910.120 and 29 CFR 1926. The Health and Safety Plan shall include, but not be limited to, the following minimum requirements:
  - 1. Identification of the CONTRACTOR's General Supervisor and Site Health and Safety Officer.
  - 2. Lines of Authority, Responsibility, and Communication Associated with Personnel Identified in Paragraph 1.02 B.1.

3. Copies of 10-hour OSHA construction worker safety training certificates, for all personnel that will be involved in the activities for which such training is required.
4. Identification and Analysis of the Hazards and Risks Associated with Each Task/Operation of the Project.
5. CONTRACTOR's Standard Operating Procedures, Including Personnel Training and Field Orientation Information.
6. Procedures for Determining Appropriate Levels of Protection and Equipment Selection.
7. Identification of Personal Protective Equipment to be Used During Each Task/Operation of the Project.
8. CONTRACTOR's Medical Surveillance Program.
9. Personal Hygiene Requirements and Guidelines for Project Personnel.
10. Zone Delineation of the Project site.
11. Site Security and Entry Control Procedures.
12. Contingency and Emergency Response Plans and Procedures.
13. List of Emergency Contacts (Including Names, Addresses, and Telephone Numbers).
14. Confined Space Entry Procedures.
15. Spill Containment Program - Develop and implement an Oil and Hazardous Materials Management and Spill Control Program to address inventory, storage, and on-site handling of oil and hazardous materials, and spill control and reporting procedures that will be implemented by the CONTRACTOR during construction. The OHM Program shall include complete descriptions of all methods, procedures, and Best Management Practices (BMP) proposed to insure compliance with appropriate environmental requirements of the Maine Department of Environmental Protection (DEP), the U.S. Environmental Protection Agency, and all others having jurisdiction.
16. Procedures for Minimizing Electrical Hazards and Risks Posed by Overhead Wires.

### PART 3 - EXECUTION

3.01 PERSONAL PROTECTIVE EQUIPMENT:

- A. The personal protective equipment required to provide the appropriate level of dermal and respiratory protection shall be determined based on the results of continuous air monitoring performed by the CONTRACTOR and the standards set forth in the CONTRACTOR's Health and Safety Plan. The ENGINEER may conduct duplicate air monitoring for quality control purposes. Modified Level D protection shall be the minimum requirement for all on-site personnel.

END OF SECTION

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## SECTION 01550

### SIGNAGE (TRAFFIC CONTROL)

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION:

This Section provides information and defines specific requirements of the CONTRACTOR to protect pedestrians along sidewalks during demolition activities, adequately control general and work site traffic to insure safe and reasonable access around and to the site area, and to furnish and install traffic control signs and other devices.

##### 1.02 RELATED WORK:

- A. Section 01014 – SCOPE AND SEQUENCE OF WORK
- B. Section 01330 – SUBMITTALS
- C. Section 01562 – DUST CONTROL
- D. Section 01570 – ENVIRONMENTAL PROTECTION
- E. Section 02220 – BUILDING DEMOLITION

##### 1.03 TRAFFIC CONTROL & PEDESTRIAN PROTECTION PLAN:

- A. The CONTRACTOR will follow the traffic control requirements contained herein, and any additional requirements requested by the Town.
- B. The CONTRACTOR shall be responsible for informing all individuals comprising his workforce at the site of access, circulation, and other relevant elements and requirements of the Plan. The Traffic Control & Pedestrian Protection plan shall be submitted to the ENGINEER a minimum of 2 weeks before the start of demolition activity.

##### 1.04 TRAFFIC & PEDESTRIAN ROUTING:

- A. The CONTRACTOR shall control the routing of his vehicles serving the site to the designated traffic route, as indicated on the Contract Drawings. The designated traffic and pedestrian routes shall, at a minimum, include the following:
  - 1. Prime Tanning Property: Site access shall be from School Street (refer to drawing sheet C-3). CONTRACTOR vehicle access shall be through the gate along School Street.

2. CONTRACTOR's shall follow all weight limit road postings. Any variance in the road use shall be made through the Berwick Town Planner.
  3. Wilson Street shall not be used by the CONTRACTOR or by any SUBCONTRACTORS.
  4. The sidewalk along Sullivan Street shall be closed to pedestrian traffic during demolition activities. CONTRACTOR shall propose sidewalk detour in submittal.
- B. Should variation in routing be necessary, such variation must be approved in advance and in writing, by the Town of Berwick, but travel on residential streets will be in all cases excluded.
- C. In addition to any placarding required by U.S. Department of Transportation regulations, CONTRACTOR's construction vehicles of three or more axles that are hauling material from the site shall be required to mount a 10<sup>3</sup>/<sub>4</sub>" x 10<sup>3</sup>/<sub>4</sub>" placard in a highly visible location on both sides of the vehicle. Placards shall be rigid styrene, tagboard, or vinyl with wording and design as provided by the ENGINEER. The purpose of this placarding is to identify the vehicle as associated with work under this Contract.

#### 1.05 WORKFORCE ACCESS AND PARKING:

- A. Workforce vehicular site access shall be via the designated truck routes for the project. No on street parking of the commercial vehicles of the CONTRACTOR or the private vehicles of the workforce beyond the site limits is permitted.

#### 1.06 TRAFFIC CONTROL DEVICES:

- A. The CONTRACTOR shall be responsible for furnishing, installing, and, for the duration of the Contract, maintaining pedestrian and traffic management control devices necessary to identify, establish, and manage the circulation patterns for project vehicles and equipment, general traffic, and pedestrians. These shall include those traffic control devices as necessary to afford adequate protection to the traveling public and to implement and carry out the requirements of this Section, the Contract Drawings, and the CONTRACTOR's Traffic Control Plan.

### PART 3 - EXECUTION

#### 3.01 INSTALLATION:

- A. Contractor shall erect traffic signs, and other traffic control devices as required by the Manual on Uniform Traffic Control Devices (MUTCD), this Section, the Contract Drawings, the CONTRACTOR's Traffic Control Plan, or as required by the ENGINEER, to provide traffic safety and convenience, and to protect the work area from traffic, pedestrians, and animals.

- B. When the work has been completed, unless otherwise required by the ENGINEER, all traffic devices used by the CONTRACTOR shall be removed.
- C. CONTRACTOR shall relocate barricades, signs and other devices as necessary as the work progresses.

END OF SECTION

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## SECTION 01562

### DUST CONTROL

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION:

- A. This Section specifies requirements for controlling dust generated during work of this Contract. Work activities requiring special attention to dust control include building demolition, stockpiling, crushing of debris, loading and removal of demolition debris from the site, and earthwork.
- B. The CONTRACTOR is responsible for control of dust at all times during work of this Contract, 24 hours per day, 7 days per week, including non-working hours, weekends, and holidays.

##### 1.02 RELATED WORK:

- A. Section 00890 - PERMITS
- B. Section 01550 – SIGNAGE (TRAFFIC CONTROL)
- C. Section 01570 – ENVIRONMENTAL PROTECTION
- D. Section 02220 – BUILDING DEMOLITION
- E. Section 02300 – EARTHWORK

##### 1.03 REGULATORY REQUIREMENTS:

- A. Work of this Contract shall be conducted in a manner that will not result in visible emissions of dust, PM<sub>10</sub> (particulate matter with an aerodynamic diameter less than or equal to 10 microns) emissions, or PM<sub>10</sub> concentrations exceeding the National Ambient Air Quality Standard of 150 µg/m<sup>3</sup> on 24-hour average basis.

##### 1.04 SUBMITTALS:

- A. CONTRACTOR shall submit a Dust Control Plan or include in the Demolition Plan that outlines in detail the measures that he will implement to comply with this Section, including suppression, wind screens and barriers, prevention, cleanup, and other measures. Plan shall be submitted to the ENGINEER within fifteen calendar days following the date of the Notice to Proceed.
- B. CONTRACTOR shall submit to the ENGINEER product literature and Material Safety Data Sheets for any dust suppression wetting agents and stabilizers that the Contractor proposes to use.

## PART 2 - PRODUCTS

### 2.01 DUST SUPPRESSION AGENTS:

- A. Dust suppression wetting agents shall be water soluble, non-toxic, non-reactive, non-volatile, and non foaming.
- B. Soil stabilizer shall be a sprayable organic or inorganic tackifier.

### 2.02 BARRIERS, SCREENS, AND COVERS:

- A. Wind screens shall be a durable fabric mesh of 50 percent porosity, attached to demolition site fence.
- B. Wind barriers shall be solid wood fences, solid durable fabric attached to temporary site fence, or other solid barriers intended to block the passage of wind.
- C. Covers for stockpiles shall be plastic tarps. Contaminated soil covers shall be 20-mil polyethylene sheeting or 10-mil nylon reinforced polyethylene sheeting. The stockpile shall be placed on 40 mil polyethylene sheeting.

### 2.03 WATER:

- A. Water shall not be brackish and shall be free from oil, acid, and injurious alkali or vegetable matter.

## PART 3 - EXECUTION

### 3.01 CONSTRUCTION SITE DUST CONTROL – GENERAL:

- A. Wet suppression shall be used to prevent visible emissions of dust. Several applications per day may be necessary to control dust depending upon meteorological conditions and work activity. The CONTRACTOR shall apply wet suppression on a routine basis as necessary or required by the ENGINEER, to control dust. At a minimum, wet suppression shall be applied to demolition debris, excavated material, aggregate piles, and exposed soils and dirt.
  - 1. Wet suppression consists of the application of water or a wetting agent in solution with water. Ensure wetting agent is not used on plantable soils.
  - 2. Wet suppression equipment shall consist of sprinkler pipelines, tanks, tank trucks, or other devices capable of providing regulated flow, uniform spray, and positive shut-off.
  - 3. Water may be sprinkler applied with equipment including a tank with gauge-equipped pressure pump and a nozzle-equipped spray bar.

4. Water shall be dispersed through the nozzle under a minimum pressure of 20 pounds per square inch, gauge pressure.
5. The CONTRACTOR shall provide the necessary means to retain on-site all water runoff generated by dust control and dispose of such water in accordance with the requirements of the appropriate regulatory agencies. The CONTRACTOR shall be responsible for providing water, a means of disposal, necessary permits, and all appurtenances required to control dust. Coordinate with the requirements of Section 01570 - ENVIRONMENTAL PROTECTION.

- B. The use of petroleum products for dust suppression is prohibited in this Contract.
- C. Provide wind screens and wind barriers in locations where they would be effective in minimizing wind erosion and spread of dust. Locations shall be submitted as part of the CONTRACTOR's Dust Control Plan. The CONTRACTOR shall keep wind screens and barriers in good repair for the life of the Contract.
- D. The CONTRACTOR is responsible for daily clean-up of paved areas affected by the work of this Contract. Dry power sweeping is prohibited.

### 3.02 PUBLIC ROADWAY DUST CONTROL:

- A. Vehicles leaving the demolition site shall have no mud and dirt on the vehicle body or wheels. Any foreign matter on the vehicle body or wheels shall be physically removed prior to vehicle's entering of a public roadway. CONTRACTOR shall not permit any truck to leave the site with exterior mud or dirt that has the potential to be deposited on public roadways.
- B. Haul truck cargo areas shall be securely and completely covered during material transport on public roadways.
- C. Vehicle mud and dirt carryout, material spills, and soil wash-out onto public roadways and walkways and other paved areas shall be cleaned up immediately.
- D. The CONTRACTOR is responsible for daily clean-up of public roadways and walkways affected by work of this Contract. Dry power sweeping is prohibited.

### 3.03 CONTROL OF EARTHWORK DUST:

- A. During batch drop operations (i.e., earthwork with front-end loader, clamshell bucket, or backhoe) the free drop height of excavated or aggregate material shall be reduced as much as practical to minimize the generation of dust.
- B. To prevent spills during transport, freeboard space shall be maintained between the material load and the top of the truck cargo bed rail.

### 3.04 CONTROL OF STOCKPILE DUST:

- A. The CONTRACTOR shall use the following methods to control dust and wind erosion of active and inactive stockpiles:
  - 1. Wet suppression without wetting agent during active stockpile load-in, load-out, and maintenance activities.
  - 2. Soil stabilizers applied to the surface of inactive stockpiles.
  - 3. Polyethylene tarps on stockpiles shall be placed both below and on top of stockpiles, and secured with sandbags or an equivalent method to prevent the cover from being dislodged by the wind. The CONTRACTOR shall repair or replace covers whenever damaged or dislodged, at no additional cost to the OWNER.
  - 4. The tarps shall be bermed 12" high at all edges to prevent any infiltration of storm water or exfiltration of leachate.
- B. The methods to be used shall be submitted to the ENGINEER as part of the Dust Control Plan.

### 3.05 DEMOLITION DUST CONTROL MEASURES:

- A. The CONTRACTOR shall use water sprinkling, temporary enclosures, and other suitable methods to limit dust and dirt rising and scattering in the air to the lowest practical level. Sufficient water shall be supplied for the building, demolition-related debris, and site compacting to meet Federal, State, and local air-quality regulations and to minimize dust during demolition.
- B. Closed chutes shall be used for the handling of debris. Dropping or throwing of debris is prohibited.
- C. Debris shall not be stockpiled. Debris shall be removed promptly from the site.
- D. During transport of debris, the truck cargo area shall be securely covered.

END OF SECTION

## SECTION 01570

### ENVIRONMENTAL PROTECTION

#### PART 1 – GENERAL

##### 1.01 DESCRIPTION:

- A. The work covered by this section of the specifications consists of furnishing all labor, materials, tools and equipment and performing all work required for the prevention of environmental pollution during and as a result of construction operations under this contract.
- B. The requirements set forth in this section of the specifications apply to cross-country areas, river and stream crossings, and construction in and adjacent to wetlands, unless otherwise specifically stated.
- C. All work under this Contract shall be in accordance with Federal, State and local regulations.
- D. Prior to commencement of work, the Contractor shall meet with representatives of the Engineer to develop mutual understandings relative to compliance of the environmental protection program.

##### 1.02 RELATED WORK:

- A. Section 00890, PERMITS
- B. Section 01330, SUBMITTALS
- C. Section 01562, DUST CONTROL
- D. Section 02300, EARTHWORK

##### 1.03 SUBMITTALS:

- A. The Contractor shall submit for approval details and literature fully describing environmental protection methods to be employed in carrying out construction activities within 100 feet of wetlands or across areas designated as wetlands.

#### PART 2 - PRODUCTS

##### 2.01 SILT FENCE:

- A. The silt fence shall consist of a 3-foot wide continuous length sediment control fabric, stitched to a 22-foot wide, continuous length support netting, and stapled to preweathered oak posts installed as shown on the drawings. The oak posts shall be

1½-inches by 1½-inches (Minimum Dimension) by 48 inches and shall be tapered. The support netting shall be industrial strength polypropylene. The bottom edge of the sediment control fabric shall be buried as shown on the drawings. The sediment control fabric shall conform to the following properties:

<b>Property</b>	<b>Value</b>	<b>Test Method</b>
1. Grab Strength (lbs.)	124	ASTM D-4632
2. Elongation (%)	15%	ASTM D-4632
3. Puncture Strength (lbs.)	65	ASTM D-4833
4. Burst Strength (psi)	300	ASTM D-3786
5. Trapezoid Tear (lbs.)	60	ASTM D-4533
6. Equivalent Opening Size (U.S. Sieve)	No. 30	ASTM D-4571
7. Permittivity (sec <sup>-1</sup> )	0.10	ASTM D-4491
8. Water Flow Rate (gal/min/sf.)	10	ASTM D-4491
9. UV Resistance (%)	70	ASTM D-4355

- B. The silt fence shall be Mirafi Envirofence manufactured by Mirafi, Inc. or approved equal.
- C. Erosion control on pavement shall consist of other approved device.

2.02 STRAW BALES:

- A. Straw bales shall consist of certified seed free stems of agricultural grain and cereal crops and shall be free of grasses and legumes. Standard bales shall be 14-inches high, 18- inches wide and 36- to 40-inches long tied with polypropylene twine and weigh within 5 percent of 7 lbs. per cubic ft.

2.03 STRAW WATTLES:

- A. Straw Wattles shall consist of a 100% biodegradable exterior jute or coir netting with 100% wheat straw interior filling as manufactured by Granite Environmental, Inc., Sebastian, Florida (Phone: 888-703-9889; website: [www.GraniteEnvironmental.com](http://www.GraniteEnvironmental.com)), or approved equal.
- B. The wattles will be placed in a shallow trench (2-3 inches deep) and staked in the ground using wooden stakes. The wooden stakes will be placed at a minimum depth of 24-inches into the ground.

PART 3- EXECUTION

3.01 NOTIFICATION AND STOPPAGE OF WORK:

- A. The Engineer will notify the Contractor in writing of any non-compliance with environmental regulations. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the

purpose. If the Contractor fails to act promptly, the Owner may order stoppage of all or part of the work through the Engineer until satisfactory corrective action has been taken. No claim for an extension of time or for excess costs or damage incurred by the Contractor as a result of time lost due to any stop work orders shall be made unless it was later determined that the Contractor was in compliance.

### 3.02 AREA OF CONSTRUCTION ACTIVITY:

- A. Insofar as possible, the Contractor shall confine his construction activities to those areas defined by the plans and specifications. All land resources within the project boundaries and outside the limits of permanent work performed under this contract shall be preserved in their present condition or be restored to a condition after completion of construction at least equal to that which existed prior to work under this contract.

### 3.03 PROTECTION OF WATER RESOURCES:

- A. The Contractor shall not pollute streams, lakes or reservoirs with fuels, oils, bitumens, calcium chloride, acids or other harmful materials. It is the Contractor's responsibility to comply with all applicable Federal, State, County and Municipal laws regarding pollution of rivers and streams.
- B. Special measures should be taken to insure against spillage of any pollutants into public waters.

### 3.04 PROTECTING AND MINIMIZING EXPOSED AREAS:

- A. The Contractor shall limit the area of land which is exposed and free from vegetation during construction. In areas where the period of exposure will be greater than two (2) months, temporary vegetation, mulching or other protective measures shall be provided as specified.
- B. The Contractor shall take account of the conditions of the soil where temporary cover crop will be used to insure that materials used for temporary vegetation are adaptive to the sediment control. Materials to be used for temporary vegetation shall be approved by the Engineer.

### 3.05 LOCATION OF STORAGE AREAS:

- A. The location of the Contractor's storage areas for equipment and/or materials shall be upon cleared portions of the job site or areas to be cleared as a part of this project, and shall require written approval of the Engineer. Plans showing storage facilities for equipment and materials shall be submitted for approval of the Engineer.
- B. No excavated materials or materials used in backfill operations shall be deposited within a minimum distance of one hundred (100) feet of any watercourse or any drainage facility. Adequate measures for erosion and sediment control such as the

placement of baled straw around the downstream perimeter of stockpiles shall be employed to protect any downstream areas from siltation.

- C. The Engineer may designate a particular area or areas where the Contractor may store materials used in his operations.

### 3.06 PROTECTION OF LANDSCAPE:

- A. The Contractor shall not deface, injure, or destroy trees or shrubs nor remove or cut them without written authority from the Owner. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorages unless specifically authorized by the Engineer. Excavating machinery and cranes shall be of suitable type and be operated with care to prevent injury to trees which are not to be removed, particularly overhanging branches and limbs. The Contractor shall, in any event, be responsible for any damage resulting from such use.
- B. Branches, limbs, and roots shall not be cut except by permission of the Engineer. All cutting shall be smoothly and neatly done without splitting or crushing. When there is unavoidable injury to branches, limbs and trunks of trees, the injured portions shall be neatly trimmed and covered with an application of grafting wax or tree healing paint as required.
- C. Where, in the opinion of the Engineer, trees may possibly be defaced, bruised, injured, or otherwise damaged by the Contractor's equipment or by his blasting or other operations, the Engineer may require the Contractor to adequately protect such trees by placing boards, planks, poles or fencing around them. Any trees or landscape feature scarred or damaged by the Contractor's equipment or operations shall be restored as nearly as possible to its original condition at the expense of the Contractor. The Engineer will decide what method of restoration shall be used, and whether damaged trees shall be treated and healed or removed and disposed.
- D. Cultivated hedges, shrubs, and plants which could be injured by the Contractor's operations shall be protected by suitable means or shall be dug up, balled and temporarily replanted and maintained. After construction operations have been substantially completed, they shall be replanted in their original positions and cared for until growth is re-established. If cultivated hedges, shrubs, and plants are injured to such a degree as to affect their growth or diminish their beauty or usefulness, they shall be replaced by items of a kind and quality at least equal to that existing at the start of the work.

### 3.07 CLEARING AND GRUBBING:

- A. The Contractor shall clear and grub only on the Owner's land or the Owner's easements, and only the area required for construction operations, as approved by the Engineer.

### 3.08 DISCHARGE OF DEWATERING OPERATIONS:

- A. Any water that is pumped and discharged from the trench and/or excavation as part of the Contractor's water handling shall be completed in accordance with the Soil and Groundwater Management Plan included in **Attachment 02300-A** of Specification **Section 02300**, EARTHWORK.

### 3.9 DUST CONTROL:

- A. During the progress of the work, the Contractor shall conduct his operations and maintain the area of his activities, including sweeping and sprinkling of streets as necessary, to minimize creation and dispersion of dust. If the Engineer decides it is necessary to use calcium chloride for more effective dust control, the Contractor shall furnish and spread the material, as required. Calcium chloride shall be as specified under Section 01562, DUST CONTROL.
- B. Calcium Chloride shall not be used for dust control within a drainage basin or in the vicinity of any source of potable water.

### 3.10 BALED HAY OR STRAW:

- A. To trap sediment and to prevent sediment from clogging drainage systems, straw bales or wattles shall be used where shown on the drawings. Care shall be taken to keep the bales from breaking apart. The bales should be securely staked to prevent overturning, flotation, or displacement. All deposited sediment shall be removed periodically. Hay bales shall not be placed within a waterway during construction of the pipeline crossing.

### 3.11 ERECTION AND MAINTENANCE OF SILT FENCE:

- A. Where indicated on the drawings or where required by the Engineer, the Contractor shall erect and maintain a temporary silt fence. In areas designated as wetlands, the Contractor shall line the limits of the construction easement with a silt fence. The silt fence shall be used specifically to contain sediment from runoff water and to minimize environmental damage caused by construction.

### 3.12 CATCH BASIN PROTECTION:

- A. Catch basin protection shall be used for every catch basin within 200 feet of the limit of work, shown on the plans or as required by the Engineer, to trap sediment and prevent it from clogging drainage systems and entering wetlands. Siltation fabric shall be securely installed under the catch basin grate. Care shall be taken to keep the siltation fabric from breaking apart or clogging. All deposited sediment shall be removed periodically and at times prior to predicted precipitation to allow free drainage flow. Prior to working in areas where catch basins are to be protected, each

catch basin sump shall be cleaned of all debris and protected. The contractor shall properly dispose of all debris at no additional cost to the Owner.

### 3.13 STRAW WATTLES:

- A. The wattles will be placed in a shallow trench (2-3 inches deep) and staked in the ground using wooden stakes. The wooden stakes will be placed at a minimum depth of 18-inches into the ground.

END OF SECTION

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## SECTION 01577

### PEST CONTROL (RODENT CONTROL)

#### PART 1 - GENERAL

##### 1.01 WORK INCLUDED:

- A. This section specifies requirements for pest control activities by the CONTRACTOR at all work and laydown (or staging) areas in connection with this Contract. The CONTRACTOR shall perform the work of this Section to ensure that rodents (rats and mice) and other pests do not infest or disperse from the site. The pest control work is to be performed prior to any demolition work and throughout the duration of the Contract.
- B. The CONTRACTOR shall develop and implement an integrated pest management approach. As part of that approach, the CONTRACTOR shall maintain a cooperative dialogue with appropriate agencies and management representatives of neighboring properties.
- C. The CONTRACTOR shall retain the services of a licensed pest exterminator to conduct an inspection of the work and laydown areas and report on the presence of rodents and other pests and take any necessary measures to eliminate existing pest populations prior to start of work. Upon completion of pest extermination work and prior to Town sign-off on a demolition permit (SECTION 00890 – PERMITS), the CONTRACTOR shall submit to the ENGINEER a work receipt from the licensed pest exterminator for review purposes only.

##### 1.02 RELATED WORK:

- A. Section 00890, PERMITS
- B. Section 01110, CONTROL OF WORK AND MATERIALS
- C. Section 02220, BUILDING DEMOLITION

##### 1.03 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF GENERAL SPECIFICATIONS, SUBMIT THE FOLLOWING:

- A. Within ten days after Notice to Proceed, submit to the ENGINEER a written description of pest control measures to be used and the areas to be included in the program. Such description shall present results of the inspection and shall indicate materials, quantities, methods, and time schedule associated with the proposed pest control procedures; it shall also present a written description of the sanitation procedures to be used. Pest control procedures shall be linked to the inspection results and CONTRACTOR's schedule for performing work at the site. The CONTRACTOR's Pest Control Plan shall have both the ENGINEER's and the OWNER's approvals prior to implementation.

- B. Provide the name and background of the licensed pest exterminator retained to provide any necessary pest eradication measures prior to start of work. Before proceeding with the Work, the CONTRACTOR shall submit to the ENGINEER documentation of qualifications as described in Paragraph 1.04 below.
- C. The CONTRACTOR shall submit to the ENGINEER a copy of the rodenticide manufacturer's EPA-approved pesticide label for all proposed rodenticides, including application directions.
- D. The CONTRACTOR shall submit to the ENGINEER weekly data sheets with identification of locations treated, amounts and types of rodenticide used, survey and inspection results, sanitation conditions, complaint calls investigated, and any problems that occurred.
- E. Submit copies of all permits and written correspondence related to permits and right-of-entry for pest control to the ENGINEER within 10 days of their issuance or receipt.

#### 1.04 QUALIFICATIONS:

- A. Pest control work shall be done by a company and employees with the following qualifications. If the CONTRACTOR does not have all of the following qualifications, he shall subcontract with a pest control company that possesses these necessary qualifications.
  - 1. The company and key personnel shall have experience with commercial and residential accounts and construction and demolition projects; have experience and technical training in vertebrate pest management and integrated pest management; have experience with various rodent control techniques, equipment, and strategies; have training and experience with insect control; and have knowledge of and experience with techniques to reduce non-target hazards.
  - 2. The supervisor shall be licensed and certified for general pest control and vertebrate pest control in the State of Maine. The supervisor shall have specified training and experience in vertebrate pest management, commercial rodent control, general pest control, and integrated pest management.
  - 3. Applicators shall be licensed in the State of Maine and certified in General Pest Control. Applicators shall have specific training and experience in commercial rodent control and integrated pest management.
  - 4. The supervisor and applicators shall have up-to-date knowledge of pest control techniques as obtainable through national or regional pest control associations and attendance at training seminars.
  - 5. The supervisor and applicators shall have experience and ability in record keeping and data management.

6. The supervisor and applicators shall have demonstrated communication skills (both oral and written) to ensure effective communication with residents and businesses.

1.05 COORDINATION AND PERMITS:

- A. Initiate necessary applications for rodent control within 25 calendar days after the date of the Notice to Proceed. Provide a maintenance program until demolition is completed and all equipment and materials are removed.
- B. Present proposed pest control activities to the ENGINEER. Provide updates and identification of any changes to pest control activities at weekly Project Progress Meetings throughout the duration of the Contract.
- C. Obtain appropriate permit(s) from Federal, State, or municipal agencies for pest control activities associated with this work. Obtain any right of entry permits required for the performance of this work.
- D. Perform all work in conformance with the requirements of these Specifications and the regulations of the U.S. Environmental Protection Agency and the State of Maine.

1.06 LIABILITY:

- A. Perform this work in such a manner that toxicants or other control tools do not pose a hazard to persons, domestic animals, or non-target wildlife. Maintain liability insurance for this work.

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. Furnish and use only rodenticide formulations registered with the U.S. Environmental Protection Agency (EPA) and the State of Maine, where appropriate and according to label directions.
- B. Furnish and use devices and supplies (e.g., traps and bait stations) to facilitate the management and effectiveness of the pest control program, where appropriate and according to label directions.

2.02 CONTAINERS:

Use metal or heavy-duty plastic refuse containers with tight-fitting lids for disposal of all garbage, or trash associated with food. These containers shall not have openings that allow access by rodents.

## PART 3 - EXECUTION

### 3.01 INSPECTION:

- A. Prior to baiting, inspect the demolition areas and accessible or observable bordering areas within 400 feet of the Limit of Work and record signs of rodent activity and sanitation deficiencies.
- B. Inspect demolition areas, accessible or observable bordering areas, and other areas as designated by the ENGINEER for rodent activity and sanitation deficiencies weekly throughout the duration of this Contract. Notify the ENGINEER within 24 hours whenever rodents or signs of rodent activity (burrows or droppings) are observed at the site.
- C. Plan and distribute baiting and control programs based on inspection data.

### 3.02 APPLICATION FOR RODENT CONTROL:

- A. Apply rodenticides in strict accordance with EPA-approved label directions and the Rules and Regulations of the State of Maine.
- B. Where appropriate, especially for surface placements of rodent baits, use properly secured and tamper-resistant bait stations consistent with EPA regulations. Individually number and properly identify all bait stations.
- C. Building Demolition Application: Rid the buildings and their perimeters of rodents before commencing on any other demolition work. Distribute bait and traps as appropriate on all floors. Conduct outside surface and subsurface baiting as described in Paragraphs 3.02 D. and 3.02 E. below to ensure control in all work areas and bordering areas.
- D. Surface Applications
  - 1. For suspected rodent burrows, determine the presence of activity prior to application of bait or tracking powder. Plug all burrows immediately after bait application. Check baited burrows frequently to ensure that the bait has not been pushed out and to determine when rodent activity has ceased.
  - 2. Initial Surface Baiting: Rid the work areas of rodents before demolition begins. Bait or use tracking powder at all observable rodent burrows. Install and secure bait stations at regular and appropriate intervals and locations. Document rodent activity (burrows, droppings, bait consumed, dead rodents) and replenish bait and shift bait placements as necessary to ensure complete control of rodent populations. Bait edge and bordering areas as necessary to ensure that rodents will not be dispersed by any work activities and that rodents will not infest work areas.

3. Maintenance Surface Baiting: Prior to commencing any demolition work, establish a maintenance baiting program in work areas and accessible bordering areas designated by the ENGINEER. Check bait placements weekly or more frequently if necessary to maintain control. Respond to changes in rodent populations and infestations that occur. Shift and distribute bait and bait stations as appropriate to ensure continued control.

E. Cleanup

1. Remove rodent carcasses and dispose of them daily consistent with the rodenticide label directions and applicable codes, laws, and regulations.
2. Upon completion of operations at the site, remove remaining bait and dispose of it according to the rodenticide label and applicable codes, laws, and regulations. Also remove any bait stations or traps, and any wires used for subsurface baiting.

3.03 SANITATION:

- A. Prior to commencing work at the site, and throughout the duration of this Contract, identify, and document potential harborage and food sources available to rodents on the work site and in the bordering areas within 400 feet of the Limit of Work. This includes any littering, improper or insufficient use of refuse containers, piles of debris, weed growth, and unnecessary or deteriorated hay/straw bales in construction areas. It also includes any bordering areas with sanitation conditions or structural deficiencies that violate State or municipal sanitary codes. Notify the ENGINEER of sanitation deficiencies when observed.
- B. Refer to Section 01110, Control of Work and Materials, for additional sanitation and site housekeeping requirements.

3.04 WORK AND LAYDOWN AREAS WITHIN THE CONTRACT AREA:

- A. Before mobilization begins, obtain written verification from the pest exterminator that pest populations have been effectively controlled in areas to be occupied.
- B. Following site clearing and before demolition, excavation, or construction, inspect work and laydown areas and remove all remaining trash and debris.
- C. Maintain work and laydown areas free of trash, garbage, weeds, and debris. Provide and enforce proper use of refuse containers to ensure that rodents and other pests are not harbored or attracted.
- D. Designate specific locations as lunch and coffee break areas to prevent random disposal of garbage and trash. Keep those areas free of litter and garbage, and provide refuse containers as described in 2.02 of this section. Keep refuse containers upright with their lids shut tight.

- E. Have all refuse containers emptied daily to maintain site sanitation.
- F. Notify the ENGINEER within 24 hours whenever rodents (rats or mice) or signs of rodent activity (burrows or droppings) are observed in work or laydown areas. Take appropriate action to locate and control the rodents.

### 3.05 LAYDOWN AREAS OUTSIDE THE CONTRACT AREA:

- A. Implement pest control at all laydown areas that are not areas of this Contract, but that are used by the CONTRACTOR in connection with this Contract. Undertake rodent control at least two weeks prior to use of the area and with time to ensure that the site is free of rodent populations (rats and mice) prior to site occupancy. Maintain the site free of rodents throughout the duration of its use.
- B. Clear laydown areas of trash, debris, and weeds prior to occupancy. Initiate those actions only after rodent populations have been effectively controlled.
- C. Maintain laydown areas free of trash, garbage, weeds, and debris. Provide and enforce proper use of refuse containers to ensure that rodents and other pests are not harbored or attracted.

### 3.06 COMPLAINT CALLS:

- A. During all work under this Contract, respond to pest-related complaints from the adjacent neighborhoods within 24 hours when required by the ENGINEER. Inspect the particular premises and adjacent areas for sanitation and structural deficiencies and also signs of historic and recent pest activity. Provide sanitation and structural maintenance information to the property owner or manager. Place bait, traps, or other pesticides as necessary to resolve the complaint when there is a relationship between the pest infestation and demolition activities, or when required by the ENGINEER.
- B. Maintain records of all complaints, including location, contact person, inspection results, and actions taken. Document the relatedness of the pest infestation to the demolition operations.

### 3.07 RECORD KEEPING:

- A. Use standardized data sheets to maintain accurate records of date, time, placement, type, and amount of rodenticides or other control tools (e.g. traps) applied. This includes surveys, inspections, baiting, trapping, changes in pest activity, sanitation conditions, and complaint calls. Submit data in a format acceptable to the ENGINEER and as required under Paragraph 1.03 D.

END OF SECTION

## SECTION 01740

### CLEANING UP

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION:

The Contractor must employ at all times during the progress of his work adequate cleanup measures and safety precautions to prevent injuries to persons or damage to property. The Contractor shall immediately, upon request by the Engineer provide adequate material, equipment and labor to cleanup and make safe any and all areas deemed necessary by the Engineer.

##### 1.02 RELATED WORK:

- A. Section 01110 CONTROL OF WORK AND MATERIALS
- B. Section 01140 SPECIAL PROVISIONS
- C. Section 01570 ENVIRONMENTAL PROTECTION

#### PART 2 - PRODUCTS

Not applicable

#### PART 3 - EXECUTION

##### 2.01 DAILY CLEANUP:

- A. The Contractor shall clean up, at least daily, all refuse, rubbish, scrap and surplus material, debris and unneeded construction equipment resulting from the construction operations and sweep the area. The site of the work and the adjacent areas affected thereby shall at all times present a neat, orderly and workmanlike appearance.
- B. Upon written notification by the Engineer, the Contractor shall within 24 hours clean up those areas, which in the Engineer's opinion are in violation of this section and the above referenced sections of the specifications.
- C. If in the opinion of the Engineer, the referenced areas are not satisfactorily cleaned up, all other work on the project shall stop until the cleanup is satisfactory.

##### 2.02 MATERIAL OR DEBRIS IN DRAINAGE FACILITIES:

Where material or debris has washed or flowed into or has been placed in existing watercourses, ditches, gutters, drains, pipes, structures, such material or debris shall be

entirely removed and satisfactorily disposed of during progress of the work, and the ditches, channels, drains, pipes, structures, and work shall, upon completion of the work, be left in a clean and neat condition.

#### 2.03 REMOVAL OF TEMPORARY BUILDINGS, STRUCTURES AND EQUIPMENT:

On or before completion of the work, the Contractor shall, unless otherwise specifically required or permitted in writing, tear down and remove all temporary buildings and structures built by him; shall remove all temporary works, tools and machinery or other construction equipment furnished by him; shall remove all rubbish from any grounds which he has occupied; shall remove silt fences and hay bales used for trapping sediment; and shall leave the roads and all parts of the property and adjacent property affected by his operations in a neat and satisfactory condition.

#### 2.04 RESTORATION OF DAMAGED PROPERTY:

The Contractor shall restore or replace, when and as required, any property damaged by his work, equipment or employees, to a condition at least equal to that existing immediately prior to the beginning of operations. To this end the Contractor shall do as required all necessary highway or driveway, walk and landscaping work. Materials, equipment, and methods for such restoration shall be as approved by the Engineer.

#### 2.05 FINAL CLEANUP:

Before acceptance by the Owner, the Contractor shall perform a final cleanup to bring the construction site to its original or specified condition. This cleanup shall include removing all trash and debris off of the premises. Before acceptance, the Engineer shall approve the condition of the site.

END OF SECTION

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SECTION 01770

PROJECT CLOSEOUT

PART 1 - GENERAL

1.01 WORK INCLUDED:

- A. This Section covers administrative and procedural requirements for closing out the project, including, but not limited to:
  - 1. Project as-built documents
  - 2. Checkout and Certification
  - 3. Final Cleaning
  - 4. Closeout Procedures
  - 5. Final Completion
  - 6. Correction/Warranty Period
- B. Closeout checklist to be completed by the ENGINEER.

1.02 RELATED SECTIONS:

- A. General Requirements in their entirety.
- B. Division 2 through Division 3.

1.03 AS-BUILT DOCUMENTS:

- A. CONTRACTOR shall maintain on site, separate from the documents used for construction, one set of the documents listed below, and as construction progresses, shall legibly record on these documents all changes made during construction.
  - 1. Contract Drawings.
  - 2. Specifications.
  - 3. Addenda.
  - 4. Change Orders and other Modifications to the Contract.
  - 5. Reviewed shop drawings, product data, and samples.

6. Written interpretations and clarifications.
  7. Field Orders.
  8. Field test reports properly verified.
- B. The completed set of as-built documents shall be submitted to the ENGINEER with the final Application for Payment. The final as-built survey plan shall be provided on a stamped 24" x 36" plan stamped by a professional engineer or licensed land surveyor. CONTRACTOR shall also submit the as-built plan in a CAD file. The CAD file of the existing design shall be provided to the Contractor to use in creating as-built plan. The as-built plan shall at a minimum show the following items:
1. Spot elevations within the limit of work
  2. All below grade utility cut/caps locations
  3. Elevation and extent of marker layer in Lot 6
  4. New permanent fence locations
  5. Extent of ABC/new gravel areas
  6. Locations of any discovered below grade structures or utilities not shown on design drawings
  7. Edges of remaining buildings where demolition stopped

#### 1.04 CHECKOUT AND CERTIFICATIONS:

- A. Prior to checkout and certifications the following tasks shall be completed:
1. Construction shall be complete. For this purpose, completion of construction is defined as follows:
    - a. The CONTRACTOR has completed construction and erection of the work in conformance with the Contract Drawings and Specifications.
  2. All shop drawings shall have final approval.
  3. All shop tests shall be complete and approved test results submitted to the ENGINEER.

1.05 FINAL CLEANING:

- A. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion.
  - 1. Clean the site, including landscape development areas of rubbish, litter and other foreign substances. Sweep paved areas broom clean; remove stains, spills and other foreign deposits. Rake grounds that are neither paved or planted, to smooth, even textured surfaces.
  - 2. Remove waste and surplus materials, rubbish, fencing equipment, temporary utilities and construction facilities from the site, unless otherwise required by the ENGINEER.
  - 3. Comply with requirements of Section 01740 CLEANING UP.

1.06 CLOSEOUT PROCEDURES:

- A. Accompany ENGINEER and OWNER on inspection to verify conformance with the Contract Documents. Prepare a punch list of work items that have been determined by inspection to not conform with Contract Documents. Punch list items shall include work items that are missing, incomplete, damaged, incorrect items, or improperly installed or constructed. The CONTRACTOR shall correct the punch list deficiencies by re-work, modifications, or replacement, as appropriate, until the items conform to the Contract Documents. The initial punch list shall be produced by the CONTRACTOR, with copies to the ENGINEER and OWNER. When the CONTRACTOR has reduced the number of deficient items to a reasonable level, the ENGINEER will develop a definitive punch list for the use of the CONTRACTOR.
- B. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

1.07 FINAL COMPLETION:

- A. Prior to final completion, the following tasks shall be completed:
  - 1. All items in the punch list shall be completed.
  - 2. All Contract closeout documentation shall be submitted to and accepted by the ENGINEER.

1.08 CORRECTION/WARRANTY PERIOD:

- A. During the warranty period as specified in the contract, the CONTRACTOR shall correct all deficiencies in materials.

- B. During the warranty period, the CONTRACTOR shall perform all corrective work on warranty deficiencies.
- C. Corrective work will be identified by the ENGINEER or OWNER, as appropriate. The CONTRACTOR will be notified of the item(s) requiring corrective work.
- D. The CONTRACTOR shall begin work on all corrective work within ten days of being notified of the deficiency by the ENGINEER and shall then work continuously until the deficiency is corrected. Upon completion of the corrective work, the CONTRACTOR shall submit a letter report to the ENGINEER describing the deficiency and the corrective action that was taken.
- E. The CONTRACTOR shall coordinate all corrective work with the ENGINEER and/or the OWNER.

END OF SECTION

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## SECTION 02058

### CONTROLLED DENSITY FILL (CDF)

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION:

- A. Controlled Density Fill is to be used in abandoned sewer or drain pipes 12 inches or greater in diameter.

##### 1.02 RELATED WORK:

- A. Section 00890, PERMITS
- B. Section 01110, CONTROL OF WORK AND MATERIALS
- C. Section 01270, MEASUREMENT AND PAYMENT
- D. Section 01330, SUBMITTALS
- E. Section 02222, ABANDONMENT OF SEWERS AND DRAINS
- F. Section 02300, EARTHWORK

##### 1.03 REFERENCES:

Massachusetts Department of Transportation (MassDOT) Standard Specifications for Highways and Bridges - Subsection M4.08.0, CONTROLLED DENSITY FILL.

##### 1.04 SUBMITTALS:

Proposed Mix Designs for the type(s) of Controlled Density Fill shall be submitted for review and approval from the Contractor's Ready Mix provider in accordance with Section 01330.

#### PART 2 - PRODUCTS

##### 2.01 MATERIALS:

Materials employed in the Controlled Density Fill shall meet the requirements as described in MassDOT Standard Specifications Subsection M4.08.0 or other approved mix design.

## 2.02 TYPE OF CONTROLLED DENSITY FILL:

Controlled Density Fill for this project shall be (Type 1 - Very Flowable (Non-excavatable), Type 1E - Very Flowable (Excavatable), Type 2 - Flowable (Non-excavatable) or Type 2E - Flowable (Excavatable).

## PART 3 - EXECUTION

### 3.01 GENERAL:

- A. Controlled Density Fill shall be batched at a ready mix plant and is to be used at a high or very high slump of approximately 10- to 12-inches. It shall be flowable, require no vibration and after it has been placed for Type 1E and 2E, be excavatable by hand tools and/or small machines.
- B. Controlled Density Fill shall be placed so as to not disturb adjacent structures, utilities or the sidewalls of trenches.

END OF SECTION

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## SECTION 02071

### GEOTEXTILE FABRICS

#### PART 1 - GENERAL

##### 1.01 WORK INCLUDED:

This Section covers furnishing of all labor, materials, and equipment necessary to install specified geotextile fabrics in locations shown on the drawings and as required by the Engineer.

##### 1.02 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF GENERAL SPECIFICATIONS, SUBMIT THE FOLLOWING:

Six (6) sets of shop drawings or working drawings and material specifications shall be submitted to the Engineer for review for each type of geotextile fabric furnished. General installation practices and installation schedule shall be included.

#### PART 2 - PRODUCTS

##### 2.01 NONWOVEN GEOTEXTILE SEPARATOR/MARKER LAYER FABRIC:

- A. The marker layer geotextile fabric shall be composed of continuous-filament fibers bonded together to form a sheet. The fabric shall have minimum averages for weight of 6.0 oz/sy and tensile strength of 160 lbs and possess the characteristics of US Filter product US 165NW.
- B. The marker layer fabric shall be Tencate Mirafi 160N as manufactured by Tencate Geosynthetics, Pendergrass, GA; US 165NW, as manufactured by US Fabrics, Cincinnati, OH, or approved equal.

#### PART 3 - EXECUTION

##### 3.01 INSTALLATION:

###### A. GENERAL:

Installation of geotextile fabrics shall be strictly in accordance with manufacturer's instructions and specific layout plans and details reviewed by the Engineer.

###### B. NONWOVEN GEOTEXTILE SEPARATOR/MARKER LAYER FABRIC:

- 1. The marker layer fabric shall be installed as shown on the drawings prior to placement of the clean fill and loam soils at locations shown on the drawings or

designated by the Engineer. The marker layer fabric in place shall cover the entire extent of exposed soils in the Lot 6 restoration area. Each width of drainage fabric shall be overlapped in accordance with manufacturer's recommendations, but not less than 2 feet.

3.02 FINAL INSPECTION AND ACCEPTANCE:

- A. The Contractor shall notify the Owner or Engineer prior to burying the marker layer so that they may inspect the installation of the fabric. Any work found to be unsatisfactory shall be corrected at the Contractor's expense.
- B. The Contractor shall survey the elevation and extent of the marker layer fabric prior to bury. The asbuilt survey shall be provided to the engineer on a 24" x 36" plan to scale, stamped by a professional surveyor or engineer.

END OF SECTION

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**SECTION 02101  
ASBESTOS ABATEMENT**

**PART 1. GENERAL**

**1.01 SUMMARY**

- A. This Section includes furnishing labor, materials, equipment; including all supplies necessary to complete the proper removal and disposal of asbestos containing materials (ACM) as identified in this Specification, and complying with all applicable federal, state, and local regulations.

**1.02 REGULATORY COMPLIANCE AND SAFETY**

- A. The Contractor shall be responsible for adherence and compliance with all Maine DEP, U.S. EPA, OSHA, Maine DOT, and U.S. DOT regulations regarding removal, transport and disposal of materials/items identified in this Specification or identified during execution of the Contract.
- B. Contractor and workers shall have all appropriate and required licensing and certifications in accordance with federal, state, and local requirements, including, but not limited to, Maine DEP Chapter 425: Asbestos Management Regulations. Contractor to provide certificates of completion of required training and associated refresher courses and documentation of certification/licensing under Maine DEP Chapter 425: Asbestos Management Regulations for all applicable workers.

**1.03 CONTRACTOR RESPONSIBILITIES/SUBMITTALS**

- A. Contractor is responsible to assure proper handling, removal, and disposal of all Asbestos Containing Materials removed during this project.
- B. Contractor shall provide handling, removal, and disposal of all Asbestos Containing Materials with qualified and licensed personnel in accordance with all applicable regulations to include, but not limited to, OSHA, U.S. EPA, Maine DEP, Maine DOT, and U.S. DOT.
- C. Contractor acts as “Owner or Operator (O/O)” of the asbestos abatement activities as defined in Maine DEP Chapter 425, and assumes all responsibilities including, but not limited to, notifications, abatement designs, waste handling and disposal, documents to be retained on-site, required records, retention of records, and work practice requirements.
- D. Contractor shall have a certified Asbestos Abatement Project Supervisor on-site at all times when personnel are in regulated areas, with the authority to correct problems as encountered and terminate activity, as needed, to prevent a release of asbestos. Contractor’s onsite Supervisor shall be fluent in spoken and written English and shall be fluent in the spoken language of any and all non-fluent English speaking workers working under that Supervisor at the time.

- E. Contractor to provide certificates of completion of required training and associated refresher courses and documentation of certification/licensing under Maine DEP Chapter 425: Asbestos Management Regulations for all asbestos professionals employed at the Site.
- F. The Contractor shall properly control and contain all ACM work areas using poly barriers, wet techniques, three-chambered wet decontamination units, and high efficiency particulate air (HEPA) filtered vacuums.
- G. The Contractor shall inspect and repair work area containment systems daily, and make any additional repairs or modifications as requested by the Environmental Professional.
- H. The Contractor shall provide all required water for wet-technique dust-suppression, cleaning, and decontamination.
- I. The Contractor shall fine clean the regulated area by using wet wiping and HEPA vacuuming methods to the satisfaction of an independent Asbestos Air Monitor, provided by the Owner.
- J. Independent Asbestos Air Monitor to perform visual inspection and clearance sampling in accordance with Maine DEP Chapter 425: Asbestos Management Regulations shall be performed by the Owner's Environmental Professional.
- K. Contractor to provide continuous paper negative pressure measurement records, and signed Special/Hazardous Waste manifests and certificates of disposal following waste material offsite disposal.
- L. Contractor shall not seek Maine DEP Variance to Work Practices from any aspect of this Specification without pre-approval of the Environmental Professional.

#### **1.04 SCHEDULE OF ASBESTOS CONTAINING MATERIALS**

- A. Surveys and inventory of asbestos containing materials have been previously conducted in accordance with the National Emission Standard for Hazardous Air Pollutants. Approximate quantities of ACM identified for the building and included within this scope include are described below. Approximate locations of ACM at the Site are shown on a figure included in this Specification as **Attachment 02101A**.

<b>Asbestos Containing Materials and Approximate Quantities Scheduled for Removal</b>		
<b>Material</b>	<b>Location</b>	<b>Approximate Quantity</b>
Transite panel siding	Exterior, Side off Roof AJ	640 Square Feet (SF)
Asphalt Shingle Siding, Black/Green	Exterior, Side off Roof AY	785 SF
Asphalt Shingle Siding, Black	Exterior, Side off Roof AQ	640 SF
Asphalt roofing under rubber membrane	Roofs Z, AP, & AQ	4,800 SF
Roof Edge Flashing, Black and Black/Silver	Roofs Z, AB, AC, AD, AE, AF, AG, AH, AI, AK, AM, AP, AW, AT, & AQ	3,700 Linear Feet (LF)
Gray asphalt shingle siding	Interior, Wall, Carpentry Shop	100 SF
Transite	Interior, Walls and Ceiling, Carpentry Shop	680 SF
Pipe Insulation	Interior, Stuffing Ops, Through Hallway	40 LF and waste on floor
Hot Water Tank Insulation	2 tanks in Water Tank Room	1,750 SF
Transite	Interior, Wall on way to Water Tank Room from Hallway	10 SF
<b>Bid Item ALT 1: Asbestos Containing Materials and Approximate Quantities Scheduled for Removal in the Wastewater Pretreatment Plant to be Abated as part of Bid Item ALT 1</b>		
Roofing, Asphalt Shingle, Black	Roof AV	925 SF
Tank Flashing, Black	Roof AV	400 SF

1. It is the responsibility of the Contractor to verify types and amounts of asbestos containing materials that are present in and around the Site building, conduct any additional site characterization/testing, and to remove and dispose all asbestos containing materials present. Contractor shall not receive additional payment for quantities varying from those described above or elsewhere in these Contract Documents where these materials could be openly inspected and field verified without destructive measures at the time of pre-bid inspections.
2. Materials not included above that cannot be inspected or field verified without destructive measures (i.e. non-verifiable) are expected to be limited to less than 10% the cumulative area, length, and/or volume of materials listed above. The removal and disposal of any discovered ACM not listed above, up to 10% the cumulative area, length, and/or volume of materials listed above, is included in this Specification. Environmental Professional to provide any necessary sampling and analysis of any identified suspected ACM.

## **1.05 QUALITY ASSURANCE**

### **A. Asbestos Materials Worker Qualifications:**

1. Engage only experienced, trained, and certified personnel who have completed required training and certification for asbestos work, in accordance with Maine DEP Chapter 425: Asbestos Management Regulations.

## **1.06 PROJECT CONDITIONS**

- A. Field Measurements and Quantities: Where asbestos containing materials are indicated or scheduled to be removed, handled, or disposed of; the Contractor shall verify dimensions and quantities by field measurements.

## **1.07 COORDINATION**

- A. The Contractor shall coordinate all aspects of the work with the Environmental Professional to include phasing, hours of work, and scheduling.

## **PART 2. PRODUCTS**

### **2.01 GENERAL**

- A. All materials used in the execution of asbestos removal, handling, and disposal shall be provided by the Contractor. Products such as personal protective equipment, containment, removal materials and equipment, and material containers shall be provided by the Contractor in accordance with all applicable regulations.

## **PART 3. EXECUTION**

### **3.01 ASBESTOS REMOVALS AND DISPOSAL**

- A. Prior to any building demolition, all asbestos containing materials identified at the Site are scheduled for removal and shall be removed and disposed from the building in accordance with Maine DEP Chapter 425: Asbestos Management Regulations.
- B. It is anticipated that potential exposures may result during asbestos removal above the PEL for asbestos established by the U.S. Occupational Safety & Health Administration (OSHA) under 29 CFR 1926.1101.

### **3.02 COMPLIANCE**

- A. All work to be completed in accordance with Maine DEP Chapter 425 Asbestos Management Regulations and other applicable industry standards.
- B. The Contractor shall use Maine DEP certified asbestos workers and supervisors within any asbestos control area.
- C. All air monitoring and clearance inspections will be conducted by an independent Maine DEP certified asbestos Air Monitor, to be provided by the Owner. Contractor shall give the Environmental Professional at least 48 hours notice of the time a clearance is expected to be needed.

### **3.03 ASBESTOS AIR MONITORING PLAN**

- A. Personal Exposure Monitoring

1. The Contractor will conduct personal exposure monitoring for employees at risk to asbestos levels greater than the PEL. All monitoring shall be conducted for the duration of the abatement or for 8 hours and shall be performed in accordance with OSHA regulations. Monitoring results shall be posted as required by OSHA. At least 25% of the crew or a minimum of two abatement workers shall be evaluated during each shift or during a change in the work activity. Results shall be compared to PEL levels established by 29 CFR 1926.1101 and the corresponding protection factor afforded by the respirators being used. The exposure data shall be used to evaluate the effectiveness of the engineering, respiratory, administrative, and personal protection equipment (PPE) controls as well as general work practices.
2. The Contractor shall review respiratory protection upgrade and downgrade decisions based on the air monitoring data.
3. In addition, this data shall provide historical information for future work within the facility. Initial personal monitoring results shall be posted within 24 hours of the collection date when practical and as required by OSHA.
4. At least 10% of the samples collected are to be randomly selected and re-analyzed.

### **3.04 ASBESTOS COMPLIANCE APPROACH**

#### **A. Regulating the Work Area**

1. The Contractor shall establish a regulated work area at the access points to the abatement area. This shall be done by establishing a physical boundary consisting of poly barriers, red warning tape, rope, etc., for all work. Supplemental barriers such as interior doors shall be closed to prevent access.
2. Signs conforming to OSHA regulations shall be posted at all points of access along the barrier.

#### **B. Engineering Controls**

1. Since dust generation is likely during the abatement, air filtering devices (AFD) equipped with HEPA filters shall be required. They will be installed in the dirty room and vented to the exterior of the building. All work is to be performed under environmentally controlled conditions including 2 layer 6-mil. poly. critical barriers and  $> 0.02''$  w.c. negative pressure, and one containment area air change every 15 minutes. Contractor will provide continuous measurement of the containment pressure differential with recording mechanism, and continuous measurement records will be submitted to the Environmental Professional upon request. Failure to maintain negative pressure in the work zone will result in an immediate stop order.
2. Additional wetting shall be used to control anticipated dust generation. All cleaning shall be done using wet / HEPA vacuuming methods. Dry blowing of surfaces shall not be permitted. Where dust generation is observed, the Contractor shall re-

position the AFD's exhausts, and install intake hoses as needed to maintain air-flow throughout the containment.

C. Housekeeping / Hygiene

1. No eating, smoking, drinking, chewing (gum or tobacco), or applying cosmetics (lip balm, etc.) shall be permitted within the regulated work areas.
2. All workers and all subcontractors required to be within the regulated work area shall don personal protective equipment outside the regulated area.
3. When leaving the regulated area, all workers shall remove the Tyvek suits within the dirty room attached air lock. Tyvek suits shall be placed in plastic disposal bags.
4. All workers shall properly decontaminate in the shower of the decontamination unit.
5. All workers shall then remove respiratory protection after showering and re-don street clothes in the clean room of the decontamination unit.
6. All workers shall decontaminate the respirators and filter cartridges for future use or dispose of the cartridges, as feasible.

D. Disposal

1. The Contractor shall temporarily dispose of all asbestos waste in dumpsters and/or cans provided as approved by the Maine DEP.
2. The Contractor shall dispose of all asbestos waste at an approved disposal facility. The Contractor shall provide the Environmental Professional with all Bill-of-Lading/Waste Manifests and disposal documentation. Disposal costs shall be at the expense of the Contractor.

E. Record Keeping, Training, Medical Monitoring

1. All workers (with the potential for asbestos exposure during the removal and disposal) shall have attended a Worker or Project Supervisor Course within the past year (initial refresher) the content consistent with the requirements of OSHA 1926.1101 and Maine DEP regulations.
2. All workers shall voluntarily receive asbestos medicals although the scope of work (i.e.: less than 30 days per year above the PEL for each worker) may not require this.
3. All workers shall also receive initial or annual medical monitoring consistent with the requirements of OSHA 1910.134 and 1926.1101.

4. Copies of the above records including air-monitoring results shall remain on-site for inspection. Copies shall be submitted to the Owner as required and maintained in accordance with Maine DEP and OSHA requirements.

### **3.05 HOUSEKEEPING AND SITE MAINTENANCE**

#### **A. Daily Cleanup:**

1. The Contractor shall clean up, at least daily, all refuse, rubbish, scrap and surplus material, debris and unneeded equipment resulting from the work. The site and the adjacent areas affected thereby shall at all times present a neat, orderly and workmanlike appearance.
2. If in the opinion of the Environmental Professional the referenced areas are not satisfactorily cleaned up, all other work on the project shall stop until the cleanup is satisfactory.

### **3.06 REFERENCES**

#### **A. Code of Federal Regulations (CFR) Publications:**

- |                  |  |
|------------------|--|
| 29 CFR 1910.1001 | Industry Standard for Asbestos   |
| 29 CFR 1926.1101 | Construction Standard for Asbestos   |
| 29 CFR 1910.134  | Industry Standard for Respiratory Protection   |
| 29 CFR 1910.1200 | Hazard Communication   |
| 29 CFR 1910.20   | Access to Employee Exposure and Medical Records  |
| 40 CFR 61        | Federal Register Vol. 49, April 5, 1984 Subparts M National Emission Standards or Asbestos as amended November 20, 1990. |
| 40 CFR 300.150   | Worker Health and Safety   |
| 29 CFR 1910.120  | Hazardous Waste Operations and Emergency Response  |
| 40 CFR 763       | Federal Register Vol. 52, October 30, 1987. Asbestos-containing materials in schools; final rule and notice.             |

#### **B. American National Standard Institute (ANSI) Publications:**

- |         |   |
|---------|---|
| Z9.2-79 | Fundamentals Governing the Design and Operation of Local Exhaust Systems. |
| Z87.1   | Occupational and Educational Eye and Face Protection.                     |

Z88.2 Practices for Respiratory Protection

C. United States Environmental Protection Agency (EPA):

Guidance for Controlling Asbestos Containing Materials in Buildings (EPA 560/5-85-024) June 1985.

A Guide to Respiratory Protection for the Asbestos Abatement Industry (EPA-560-OPTS-86-001) September 1986.

Asbestos Waste Management Guidance (EPA/530-SW-85-007) May 1985.

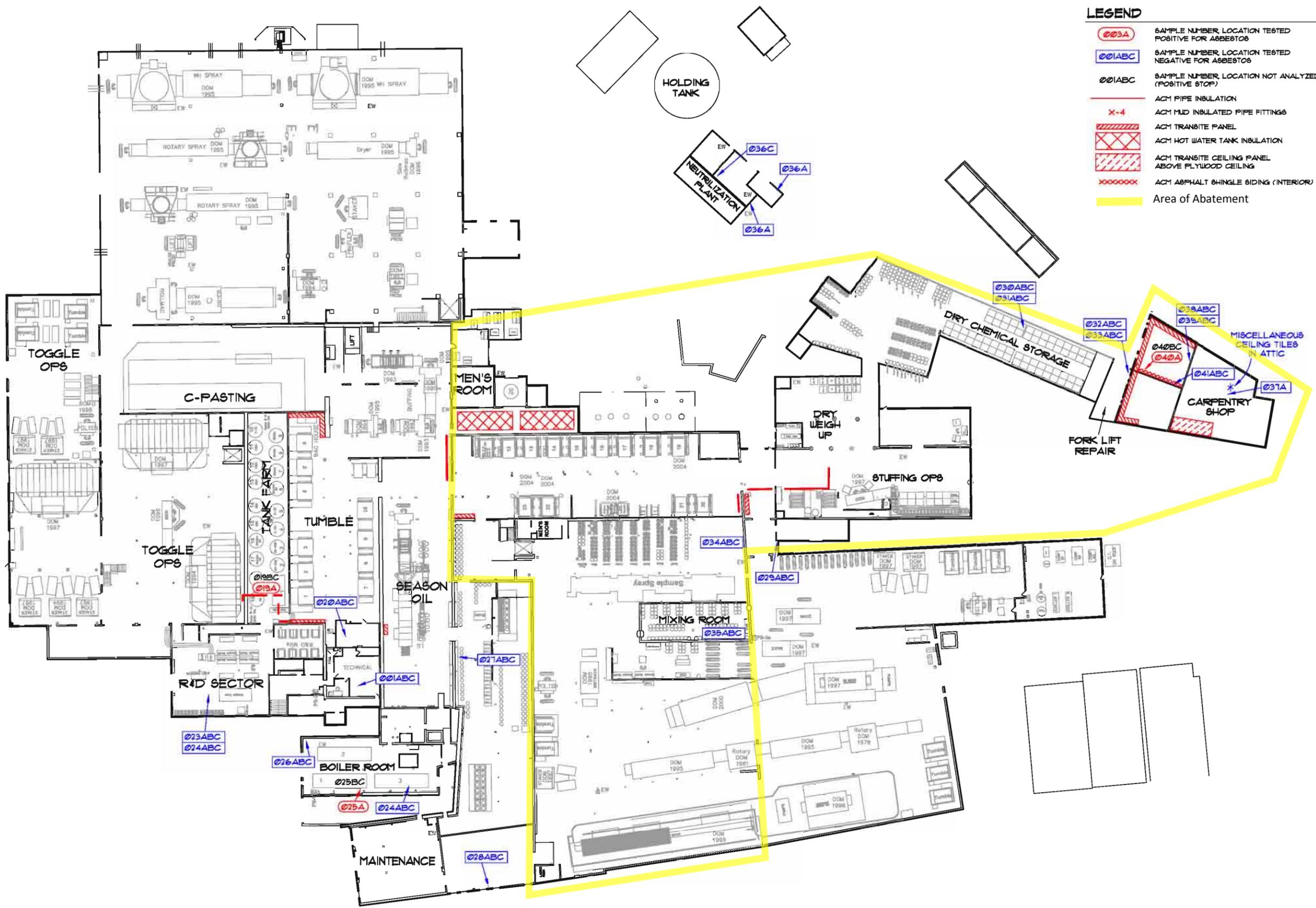
**END OF SECTION**

**ATTACHMENT 02101A**  
**ASBESTOS LOCATION FIGURES**



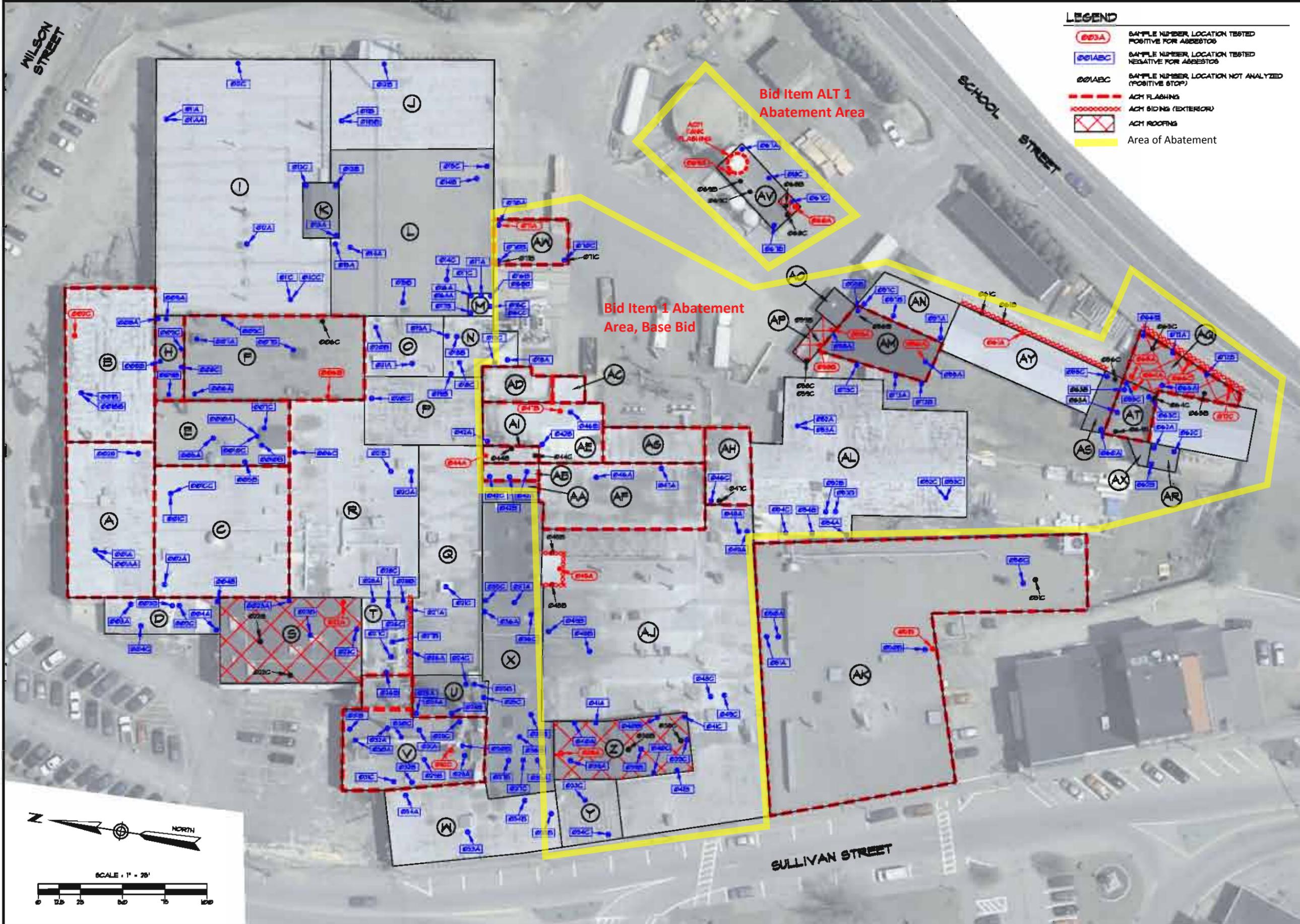
**LEGEND**

<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">003A</span>	SAMPLE NUMBER, LOCATION TESTED POSITIVE FOR ASBESTOS
<span style="border: 1px solid blue; border-radius: 50%; padding: 2px;">001ABC</span>	SAMPLE NUMBER, LOCATION TESTED NEGATIVE FOR ASBESTOS
<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">001ABC</span>	SAMPLE NUMBER, LOCATION NOT ANALYZED (POSITIVE STOP)
<span style="border-bottom: 1px solid red; width: 20px; display: inline-block;"></span>	ACM PIPE INSULATION
<span style="border-bottom: 1px dashed red; width: 20px; display: inline-block;"></span>	ACM MUD INSULATED PIPE FITTINGS
<span style="border: 1px solid red; width: 20px; height: 10px; display: inline-block;"></span>	ACM TRANSITE PANEL
<span style="border: 1px solid red; width: 20px; height: 10px; display: inline-block;"></span>	ACM HOT WATER TANK INSULATION
<span style="border: 1px solid red; width: 20px; height: 10px; display: inline-block;"></span>	ACM TRANSITE CEILING PANEL ABOVE PLYWOOD CEILING
<span style="border-bottom: 1px dashed red; width: 20px; display: inline-block;"></span>	ACM ASPHALT SHINGLE SIDING (INTERIOR)
<span style="background-color: yellow; width: 20px; height: 10px; display: inline-block;"></span>	Area of Abatement



<b>ASBESTOS IDENTIFICATION SURVEY FIRST FLOOR (INTERIOR)</b>	<b>PRIME TANNING BERWICK PLANT</b>	<b>SUMMIT ENVIRONMENTAL</b>	640 MAIN ST. LEWISTON, MAINE 04240 Tel: (207) 755-6009 Fax: (207) 755-6028	PROJECT: 12071755-6009 12071755-6028
SHEET TITLE:	PROJECT:	640 MAIN ST. LEWISTON, MAINE 04240	Tel: (207) 755-6009 Fax: (207) 755-6028	PROJECT: 12071755-6009 12071755-6028
SCALE: 1" = 25'	DRAWN BY: KRF	BERWICK MAINE	MAINE D. E. F.	DATE: AUGUST 2010
DATE: AUGUST 2010	APPR BY: DK	BERWICK MAINE	MAINE D. E. F.	DATE: AUGUST 2010
NO.	REVISION	NO.	REVISION	DATE
PROJ. 10-3206	SHEET NUMBER	1	1	1

10-3206FLR INT.dwg



**LEGEND**

- 003A SAMPLE NUMBER, LOCATION TESTED POSITIVE FOR ASBESTOS
- 001ABC SAMPLE NUMBER, LOCATION TESTED NEGATIVE FOR ASBESTOS
- 001ABC SAMPLE NUMBER, LOCATION NOT ANALYZED (POSITIVE STOP)
- ACH FLASHING
- ACH SIDING (EXTERIOR)
- XXXXXX ACH ROOFING
- Area of Abatement

<p>PROJECT: PRIME TANNING BERWICK PLANT</p> <p>CLIENT: MAINE D. E. F.</p> <p>ADDRESS: BERWICK MAINE</p>	<p>SHEET TITLE: ASBESTOS IDENTIFICATION SURVEY EXTERIOR PLAN</p> <p>SCALE: 1" = 25'</p> <p>DATE: AUGUST 2010</p> <p>DRAWN BY: KRF</p> <p>APPR. BY: DK</p>	<p>TEL: (207) 759-6009</p> <p>FAX: (207) 759-6128</p> <p>640 MAIN ST. LEWISTON, MAINE 04240</p> <p><b>SUMMIT</b> ENVIRONMENTAL</p>
<p>PROJ. #10-3206</p> <p>SHEET NUMBER</p> <p style="text-align: center; font-size: 2em;"><b>3</b></p>		<p>NO.</p> <p>REVISION</p> <p>DATE</p>

10-306PLR BKT. 013

## SECTION 02111

### ASBESTOS ABATEMENT FOR UNDERGROUND UTILITIES

#### PART 1 - GENERAL

##### 1.01 GENERAL:

- A. This Section specifies requirements for the cutting, capping, removal, and disposal of asbestos-containing material (ACM) and up to 6-inches of soil around the ACM, if encountered during trenching and excavation operations associated with the cutting, capping, removal, and disposal of underground utilities and/or demolition of subgrade structures.
- B. Work included in this section includes, but is not limited to, the removal and disposal of the following ACMs: asbestos cement (AC) pipe, asbestos cement pipe duct, asbestos insulated electrical cable, and asbestos insulated steam pipe.
- C. All ACM that is removed during construction and up to 6-inches of soil around the ACM is the responsibility of the Contractor, for removal, transportation and proper disposal. Contractor shall provide qualified personnel to oversee the removal, transportation, and proper disposal in accordance with all applicable regulations.
- D. All work described in this Section shall be conducted by a licensed Asbestos Abatement Contractor in accordance with these Specifications, Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), Department of Transportation (DOT), National Institute of Occupational Safety and Health (NIOSH), Maine Department of Environmental Protection (MEDEP) Chapter 425 *Asbestos Management Regulations*, and other applicable Federal, State and local regulations. Wherever there is a conflict or overlap of the above references, the most stringent provisions apply.
- E. Definitions:
  - “Asbestos Containing Material(s) (ACM)” – Any insulation, pipe, duct, and other conduit and/or materials containing greater than 1% asbestos by volume or potentially contaminated on their surface with asbestos fibers.
  - “Friable” – material can be crushed, pulverized, or reduced to powder, when dry, by hand pressure.

“Non-friable” – material that cannot be crushed or pulverized under hand pressure. Pipe that has been below the groundwater level or is in otherwise saturated soils will generally be nonfriable because it has been saturated/wet.

1.02 QUALIFICATIONS:

- A. The Contractor shall use MEDEP certified asbestos workers who are experienced, trained, and licensed personnel that have completed the required training and certification for asbestos removal work.

1.03 SUBMITTALS:

- A. The Contractor shall submit to the Engineer the following listed items at least 14 days before work is to proceed. No ACM utility removal work activities shall commence until the Engineer reviews these items, unless otherwise waived.

Submittal No. 1

Plan of Action and Standard Operating Procedure: Submit a detailed plan of the procedures proposed for use in complying with all applicable regulations and the requirements of this Specification. The plan must be developed by a Maine Department of Environmental Protection certified Asbestos Designer and Air Monitor.

Submittal No. 2

Name, location, and copies of applicable licenses for primary and secondary landfill for disposal of asbestos-containing or asbestos-contaminated waste.

Submittal No. 3

Within 30 days of receipt of asbestos waste at the approved landfill, the Contractor shall submit to the Engineer the original copy of the Special/Hazardous Waste manifests acknowledging disposal of all associated waste material from the Contract showing delivery date, quantity, and appropriate signature of Contractor, transporter, and landfill’s authorized representative.

1.04 GENERAL APPLICABILITY OF CODES, REGULATIONS AND STANDARDS:

- A. All applicable Federal, State and municipal codes, regulations, and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies are bound herewith. All regulations by governing agencies in their most recent version are applicable. Provisions contained in this Specification that are more stringent than applicable codes, regulations and standards shall govern for this Project.

## PART 2 - PRODUCTS

### 2.01 MATERIALS, TOOLS, AND EQUIPMENT:

- A. Wetting Materials: For wetting before disturbance of asbestos-containing materials use either amended water or a removal encapsulant. The material must be odorless, non-flammable, non-toxic, non-irritating, and non-carcinogenic. It shall be applied as a mist using a low-pressure sprayer recommended by the manufacturer.
1. Amended Water: Provide water to which a surfactant has been added. Use a mixture of surfactant and water which results in wetting of the asbestos containing material and retardation of fiber release during disturbance of the material equal to or greater than that provided by the use of one ounce of a surfactant consisting of 50% polyoxyethylene ester and 50% polyoxyethylene ether mixed with five gallons of water.
  2. Removal Encapsulant: Provide a penetrating type encapsulant designed specifically for removal of asbestos containing material. Use a material which results in wetting of the asbestos-containing material and retardation of fiber release during disturbance of the material equal to or greater than that provided by water amended with one ounce of a surfactant consisting of 50% polyoxyethylene ester and 50% polyoxyethylene ether mixed with five gallons of water.
- B. Encapsulant: A material that surrounds or embeds asbestos fibers in an adhesive matrix, to prevent release of fibers.
1. Bridging Encapsulant: An encapsulant that forms a discrete layer on the surface of an in situ asbestos matrix.
  2. Penetrating Encapsulant: An encapsulant that is absorbed by the in situ asbestos matrix without leaving a discrete surface layer.
  3. Removal Encapsulant: A penetrating encapsulant specifically designed for removal of asbestos-containing materials rather than for in situ encapsulation.
- C. Polyethylene Sheet: Provide flame resistant polyethylene film that conforms to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-resistant Textiles and Films. Provide largest size possible to minimize seams, 6.0 mils thick as required, frosted or black as indicated.
- D. Duct Tape: Provide duct tape in 2" or 3" widths as indicated, with an adhesive, which is formulated to aggressively stick to sheet polyethylene, is waterproof, and will adhere to other materials.

- E. Spray Cement: Provide spray adhesive in aerosol cans that is specifically formulated to stick tenaciously to sheet polyethylene.
- F. Waste Containers: Provide 6 mil thick leak-tight polyethylene bags labeled as follows:

DANGER  
CONTAINS ASBESTOS FIBERS  
AVOID CREATING DUST  
CANCER AND LUNG DISEASE HAZARD

- G. If the waste material contains sharp edges or may otherwise puncture polyethylene bags, provide properly labeled drums or other closed containers for storage, transportation, and disposal.
- H. Warning Signs and Labels: Shall comply with 29 CFR 1926.59(k), and all other federal, state, or local codes and regulations.
- I. Brushes: All brushes shall have nylon bristles. Wire brushes are excluded from use due to their potential to shred asbestos fibers into small fibers.

### PART 3 – EXECUTION

#### 3.01 GENERAL

- A. An Asbestos Abatement Contractor is responsible to assure proper handling, removal, and disposal of all ACM removed during utility cutting/capping/abandonment and subgrade demolition activities. Contractor shall have a certified Asbestos Abatement Project Supervisor on-site at all times when personnel are in regulated areas, with the authority to correct problems as encountered and terminate activity as needed to prevent a release of asbestos.
- B. Nonfriable ACM and asbestos-contaminated waste (e.g. soil up 6-inches around the pipe) shall be handled, transported, and disposed of in a way that prevents it from becoming friable and releasing asbestos fibers. AC pipe cannot be abraded, shattered, crumbled, pulverized, sanded, chipped, or ground.
- C. Nonfriable ACM and asbestos-contaminated waste may not be used as fill; it shall be disposed of at a landfill that is state-approved to accept asbestos waste. Landfills may require special packaging and labeling in order to accept the AC pipe and asbestos-contaminated waste.
- D. ACM and asbestos-contaminated waste shall never be handled unless it is wet. Dry pipe shall be wet down with a suitable wetting material prior to handling it.

- E. The Contractor shall determine the location of existing utilities from the Contract Drawings, field investigations, electronic utility detectors, coordination with applicable utility companies, DIGSAFE, and test pits. Test pits for the purpose of locating underground AC pipe or ACM in advance of demolition work shall be excavated and backfilled by the Contractor at the direction of the Engineer. Test pits shall be backfilled immediately after their purpose has been satisfied and the surface restored and maintained in a manner satisfactory to the Engineer.
- F. The Asbestos Abatement Contractor shall establish a regulated work area around underground ACM and asbestos-contaminated wastes. This will include establishing a physical boundary consisting of poly barriers, red tape, rope, etc., for all work.
- G. Asbestos Abatement Contractor shall maintain good housekeeping/hygiene procedures in and around the regulated work area. At a minimum this shall include no eating, smoking, drinking, chewing (gum or tobacco), or applying cosmetics (lip balm, etc.) and following proper decontamination protocol for all personnel and equipment in accordance with all applicable regulations.

### 3.02 AC PIPE REMOVAL DURING EXCAVATION:

- A. This section is provided for cutting, capping, removal, and disposal of ACM utility conduit and ducts, AC pipe and asbestos-contaminated waste in utility abandonment/excavation areas, that may be encountered.
- B. Removal, cutting, and capping of Non-Friable Asbestos Materials:
  - 1. Carefully excavate, by hand, a sufficient area around the pipe to perform the work, at a minimum, 6-inches around the pipe shall be excavated, handled and disposed as asbestos-contaminated waste. Any asbestos debris that is present or generated by these activities will be promptly wetted and placed into 6-mil asbestos waste bags before continuing with the work.
  - 2. Once excavation is complete, place one layer of 6-mil polyethylene sheeting on sidewalls and bottom of trench under the AC pipe to be cut and removed.
  - 3. Thoroughly encapsulate AC pipe and asbestos-contaminated waste with an acceptable penetrating encapsulant per manufacturer guidelines.
  - 4. Remove AC pipe as follows:

Adequately wet the ACM. Cut material required to be removed in order to cut/cap/abandon the pipe, into manageable sections using HEPA-filtered saw. The Contractor will take all necessary precautions to avoid any breakage of AC

pipe. Cut ends of pipe will be immediately encapsulated. Cut sections of pipe will be removed from the trench and immediately wrapped and sealed in two layers of 6-mil asbestos waste bags. Packaged waste will then be placed into acceptable waste transportation vehicle. Whenever possible, the Contractor will limit cutting of asbestos cement materials and dismantle materials in intact sections. The pipe shall remain adequately wet at all times. Capping of AC drain or sewer piping shall be done in accordance with Section 02222 – Abandonment of Sewers and Drains.

5. If examination of the conditions warrants full containment of the area, as required by MEDEP Asbestos Management Regulations – Chapter 425, Asbestos Abatement Contractor shall construct a double layer 6-mil polyethylene sheeting barrier to isolate the area and install the proper amount of 2000 cfm negative air machines to establish and maintain at least 0.02 inches of water column negative air pressure.

### 3.03 AC PIPE LEFT IN PLACE

- A. Ends of AC pipe to be left in the excavation shall be encapsulated and capped as described in this Section and Section 02222. AC pipe is not to be crushed and left in place. Any crushed pieces and all impacted soils must be removed and properly disposed.

### 3.04 ACM DISPOSAL PROCEDURES

- A. The Contractor shall package, label, and remove all ACM and asbestos-contaminated waste as specified herein. Packaging shall be accomplished in a manner that minimizes waste volume, but insures waste containers shall not tear or break. Transportation and disposal of the containerized waste at an approved landfill shall be the responsibility of the Contractor.
- B. The Contractor shall dispose of all asbestos waste in dumpsters and/or cans provided as approved by the MEDEP.
- C. Waste Labeling:
  1. Warning labels, having waterproof print and permanent adhesive in compliance with OSHA, EPA and Department of Transportation requirements shall be affixed to or printed on the sides of all waste bags or transfer containers. Warning labels shall be conspicuous and legible.
  2. In compliance with NESHAPS, 40 CFR, Part 61.150, all waste containers or bags shall be labeled with the following generator information:

- a. Name of waste generator.
- b. Location where waste was generated.

END OF SECTION

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## **SECTION 02112**

### **REMOVAL AND DISPOSAL OF UNIVERSAL AND OTHER REGULATED WASTES**

#### **PART 1. PART 1 - GENERAL**

##### **1.01 DESCRIPTION OF WORK**

- A. This Section includes furnishing labor, materials, equipment, incidentals, and supplies necessary to perform the removal and disposal of all materials included within this scope, including Universal wastes, containerized (drums and smaller, bags) petroleum and chemical wastes, and electrical transformers and to comply with all applicable federal, state, and local regulations in accordance with these Specifications.

##### **1.02 REGULATORY COMPLIANCE AND SAFETY**

- A. The Contractor shall be responsible for adherence and compliance with all Maine DEP, U.S. EPA, OSHA, Maine DOT, and U.S. DOT regulations regarding removal, transport and disposal of materials/items identified in this Specification or identified during execution of the Contract, including but not limited to Maine DEP Chapter 691 - Rules for Underground Oil Storage Facilities, Maine Hazardous Waste Management Regulations - Chapters 850 through 857, 49 CFR 100-199 - Transportation of Hazardous Materials, 40 CFR 256 – Guidelines for Development and Implementation of State Solid Waste Management Plans, 40 CFR 761 PCBs Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions, 40 CFR 82, Subpart F - Recycling and Emissions Reductions, and 40 CFR 264 – Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal facilities.
- B. Workers shall have 40 hour OSHA 1910.120 training, 3 days of supervised field experience and a current 8-hour refresher. Medical surveillance documentation and fit testing for respirators is also required.
- C. The Contractor shall prepare and implement a Spill Control and Response that includes the identification of the person responsible for coordinating response to spill events; spill notification contact numbers and notification procedures; and response and cleanup procedures. The plan shall identify all transportation subcontractors and disposal facilities to be used. A copy of the Spill Control and Response Plan shall be provided to Environmental Professional for review and approval prior to implementing work.
- D. Determination and implementation of personal protective equipment (PPE) is the responsibility of the Contractor. PPE requirements shall be established in the Health and Safety Plan.

- E. Note, the electrical power to the building will be permanently disconnected and “made safe” by others prior to the Contractor’s work beginning. Temporary power and water will be provided by others.

**1.03 CONTRACTOR RESPONSIBILITIES/SUBMITTALS**

- A. Contractor is responsible to ensure proper handling, removal, storage, and disposal of all hazardous materials, petroleum products, universal wastes, and PCB with qualified and licensed personnel in accordance with all applicable regulations to include but not limited to OSHA, U.S. EPA, Maine DEP, Maine DOT, and U.S. DOT.
- B. Contractor shall provide evidence that all personnel working with waste materials satisfy the latest requirements of OSHA regulation 29 CFR 1910.120.
- C. Contractor shall prepare and submit a Health and Safety Plan for the project. Contractor to provide the name of Contractor Site Health and Safety Officer.
- D. Contractor to provide certificates of completion of OSHA 40 hour HAZWOPER training and associated 8 hour refresher courses.
- E. Contractor to provide certification documentation for tank professionals overseeing the removal/closure of ASTs and USTs.
- F. Contractor to provide Health and Safety Plan to Environmental Professional prior to commencing work.
- G. Contractor to provide Spill Control and Response Plan to Environmental Professional prior to commencing work.
- H. The Contractor shall report all hazardous waste and hazardous matter discharges to the Environmental Professional and all required and appropriate state, federal, and local agencies.
- I. Contractor shall be responsible for obtaining Resource Conservation and Recovery Act (RCRA) temporary identification number for RCRA regulated waste that is removed from the Site. To obtain a RCRA Identification number, Contractor will complete and submit the Notification of RCRA Subtitle C Activity to the Maine DEP.
- J. The Contractor shall properly consolidate, package, containerize, and label all wastes in accordance with Maine DEP, Maine DOT, and U.S. DOT requirements before shipping. Before hazardous waste or other wastes are transported off-site, it must be properly described, classed, packaged, marked and labeled, manifested, and be in proper condition.
- K. All waste characterization sampling and analysis is the responsibility of the Contractor, and must be conducted according to the Site-Specific Quality

Assurance Project Plan (SSQAPP) for the Site included in **Attachment 02112A**, including use of the specified laboratories.

- L. The Contractor will not treat hazardous waste unless licensed to do so. The Contractor will not treat waste onsite.
- M. Regulated waste may not be stored in any container which is rusted, bulging, or leaking. The Contractor shall keep waste containers closed.
- N. The Contractor shall ship each container within 90 days of the accumulation start date, using proper waste manifest forms and appropriate licensed waste transporters to a licensed, authorized facility.
- O. The Contractor is responsible for preparing, maintaining, and providing to the Environmental Professional and Owner all required and appropriate documents resulting from the project, including but not limited to, waste identification forms, manifests, weight tickets, bills-of-lading, cleaning records, disposal receipts, etc.

## 1.04 WASTE MATERIAL SUMMARY

The waste materials requiring removal and disposal that are included in this scope are described below.

Location	Universal Waste	Quantity Inventoried
Lot 4	Fluorescent lights	200
	Freon water cooler	1
	Lead-acid emergency lights	4
Lot 5	Fluorescent lights	22
Lot 6	Fluorescent lights	48
	Air conditioning unit	3
	Lead-acid emergency lights	4
	5 Gallon bucket, asphalt paint	5
	Freon water cooler	1
	1 Gallon paint cans	3
	Miscellaneous batteries	2
	Pallet of aluminum coating	1
	5 Gallon bucket, fire retardant	4
	Waste lights	100
	3 Gallon buckets, mastic	5
	Security lights	2
Room under roof Z*	Fluorescent light units	13
	Bucket of tar	1
	Bucket of alumination 301	1
Roof AJ*	Bucket of graffiti removal gel	1
	Fluorescent lights	2
Roof AJ*	Bucket of tar	1
	Fluorescent lights	2

- - See Figure contained in **Attachment 02101A** for roof designations

**PART 2. PRODUCTS - NOT SPECIFIED**

**PART 3. EXECUTION**

**3.01 INTERIOR UNIVERSAL AND REGULATED WASTE**

- A. The Contractor shall inspect all light fixture ballasts prior to disposal. Those with original manufacturer's labeling that indicates that the ballast contains "no PCBs" may be disposed as solid waste. PCB-containing ballasts or ballasts with no labeling must be handled, stored, and disposed of in accordance with 40 CFR 761.
- B. All fluorescent light bulbs shall be removed and packaged for handling and proper disposal by the Contractor. Any broken fluorescent bulbs present in the Site building are scheduled for removal and disposal, and are the responsibility of the Contractor.
- C. Any electrical or other oil containing equipment shall be tested for PCBs in accordance with 40 CFR 761 prior to disposal. Any sampling and analysis of electrical or other oil containing equipment is the responsibility of the Contractor. Any electrical or other oil containing equipment or container that is found to be regulated by 40 CFR 761 based on the testing shall be handled, transported, and disposed of in accordance with all applicable regulations to include but not limited to OSHA, USEPA, MEDEP, MEDOT, and U.S. DOT, and specifically 40 CFR 761.

**3.02 EXTERIOR TRANSFORMERS**

- A. Any electrical or other oil containing equipment shall be tested for PCBs in accordance with 40 CFR 761 prior to disposal. Any sampling and analysis of electrical or other oil containing equipment is the responsibility of the Contractor. Any electrical or other oil containing equipment or container that is found to be regulated by 40 CFR 761 based on the testing shall be handled, transported, and disposed of in accordance with all applicable regulations to include but not limited to OSHA, USEPA, MEDEP, MEDOT, and U.S. DOT, and specifically 40 CFR 761.

**3.03 CLEANING AND DECONTAMINATION**

- A. Any areas with broken fluorescent lights or releases of petroleum or universal or other regulated wastes shall be cleaned and decontaminated by the Contractor to the satisfaction of the Environmental Professional. This work is considered incidental to the Contract.

**3.04 WASTE HANDLING AND DISPOSAL**

- A. Waste handling costs are the responsibility of the Contractor as applicable for the consolidation, containerization, characterization, removal, and disposal of materials identified in this Specification.

- B. The Contractor shall perform necessary consolidation, containerization, packaging, over packing, on-site/off-site storing/handling, transport, disposal, permitting and record keeping associated with all waste disposal from the Site according to all applicable laws and regulations including but not limited to Maine Hazardous Waste Management Regulations - Chapters 850 through 857, 40 CFR 261 – Identification and Listing of Hazardous Waste, 49 CFR 100-199 - Transportation of Hazardous Materials, 40 CFR 256 – Guidelines for Development and Implementation of State Solid Waste Management Plans, 40 CFR 761 PCBs Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions, 40 CFR 82, Subpart F - Recycling and Emissions Reductions, and 40 CFR 264 – Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal facilities.
- C. Waste disposal characterization necessary for the proper disposal of waste materials is the responsibility of the Contractor, and must be conducted according to the Site-Specific Quality Assurance Project Plan (SSQAPP) for the Site included in **Attachment 02112A**, including use of the specified laboratories.
- D. The Contractor shall properly consolidate, package, containerize, and label all wastes in accordance with Maine DOT and U.S. DOT requirements before shipping. Before waste is transported off-site, it must be properly described, classed, packaged, marked and labeled, manifested, and be in proper condition.
- E. The Contractor will not treat hazardous waste unless licensed to do so. The Contractor will not treat waste onsite.
- F. The Contractor shall store incompatible waste separately in containers which are free of rust, dents, bulges, leaks or other damage, and compatible with the waste stored in them. Waste may not be stored in any container which is rusted, bulging, or leaking. The Contractor shall keep hazardous waste containers properly labeled, closed, and secured.
- G. The Contractor shall store all waste on a firm working surface, impervious to leaks, and provide secondary containment sufficient to contain all leaks. Each location where hazardous waste is stored must provide a containment and collection system designed to collect all waste that may spill from the stored containers. The containment must be designed to hold 20% of all the waste in storage, or 110% of the largest container in storage, whichever is the greater amount. Storage areas shall include access aisles to containers for inspection & remediation. Hazardous waste storage areas must be kept secure (for example, behind a locked door or fence) to prevent entry to the area by unknowing and/or unauthorized people. The Contractor shall post a sign reading “Danger-Unauthorized Personnel Keep Out” at all access points to storage area.
- H. The Contractor shall inspect containers of waste stored onsite daily and keep a log of the inspection. Each location where waste is stored must be inspected daily. The inspections must be noted in a log, containing the inspector’s name or initials,

the date and time of inspection, and the results of the inspection. The inspector should verify that no containers of waste are rusting, bulging, or leaking and that there is sufficient aisle space between containers to allow for inspection and remediation. These logs must be kept onsite at all times.

- I. The Contractor shall obtain a temporary Hazardous Waste generator identification number for the waste generator, the Town of Berwick.
- J. The Contractor shall ship each container within 90 days of the accumulation start date, using proper hazardous waste manifest forms and licensed hazardous waste transporters to a licensed, authorized facility.
- K. The Contractor shall report all hazardous waste and hazardous matter discharges to the Environmental Professional and all required and appropriate state, federal, and local agencies.
- L. The Contractor is responsible for preparing, maintaining, and providing to the Environmental Professional and Owner all required and appropriate documents resulting from the project, including but not limited to, waste identification forms, manifests, weight tickets, bills-of-lading, cleaning records, disposal receipts, etc.

**END OF SECTION**

**ATTACHMENT 02112A**

**SSQAPP**

# 1. TITLE AND APPROVAL PAGE

## SITE-SPECIFIC QUALITY ASSURANCE PROJECT PLAN (SSQAPP) ADDENDUM TO GENERIC QAPP RFA #14069

### Property:

Prime Tanning Facility  
20 Sullivan Street, Berwick, Maine  
EPA Brownfields Cleanup Grant # BF - 00A00037 - 0

### Prepared By:

Crede Associates, LLC  
776 Main Street, Westbrook, Maine 04092  
(207) 828-1272

February 26, 2016

Below is a listing of the names, titles, signatures, and signature dates of officials approving this Site Specific Quality Assurance Project Plan (SSQAPP) Addendum:

**FRANK**

Digitally signed by FRANK  
GARDNER  
DN: c=US, o=U.S. Government,  
ou=USEPA, ou=Staff, cn=FRANK  
GARDNER,  
dnQualifier=0000004413  
Date: 2016.03.03.07:26:03 -0500'

**GARDNER**

3/3/2016

Frank Gardner  
EPA Brownfields Project Officer

Date



03/03/2016

Bryan Hogan  
EPA Quality Assurance Officer

Date



3/2/2016

Benjamin Guidi  
Maine DEP Project Manager

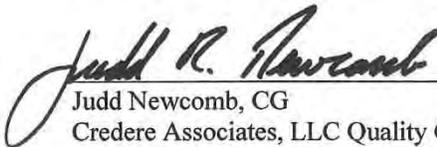
Date



3/2/2016

John Stoll  
Town of Berwick, Town Planner, Grantee

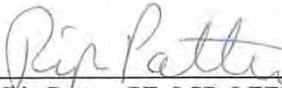
Date



3/2/2016

Judd Newcomb, CG  
Crede Associates, LLC Quality Control Officer

Date



3/2/2016

Rip Patten, PE, LSP, LEED-AP  
Crede Associates, LLC Program Manager

Date

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## FIGURES

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<b>Figure 1</b> .....	Site Location Plan
<b>Figure 2</b> .....	Detailed Site Plan
<b>Figure 3</b> .....	Project Organization Flow Chart

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## TABLES

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<b>Table 1</b> .....	Sample Reference Table
<b>Table 2</b> .....	Standard Operating Procedure (SOP) Reference Table

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## APPENDICES

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<b>Appendix A</b> .....	Analytical Sensitivity and Project Criteria Tables
<b>Appendix B</b> .....	Current Project Schedule



## 2. INTRODUCTION

Credero Associates, LLC (Credero) was retained by the Town of Berwick, Maine (Berwick), to prepare this Site-Specific Quality Assurance Project Plan (SSQAPP). Berwick is using three U.S. Environmental Protection Agency (EPA) Brownfield Cleanup Grants (BF - 00A00037 - 0) to facilitate cleanup activities at the former Prime Tanning Facility located at 20 Sullivan Street in the Town of Berwick, Maine (the Site). *These grants are only for three (parcels 4, 5, and 6) of the seven parcels that make up the Prime Tanning facility; however, this SSQAPP has been prepared for all seven parcels in anticipation of possible use of EPA funds for future work on the other parcels.*

This SSQAPP Addendum is intended to address certain sampling that will occur as part of characterization prior to and during cleanup activities; specifically, sampling of hazardous building materials, and sampling of subgrade soil vapor.

This SSQAPP presents the following information:

- The problem definition including a site description and summary of background information for the Site
- Project description and timeline
- A preliminary conceptual site model (CSM)
- The cleanup objectives and proposed sampling design, techniques, and rationale
- Site-specific field sampling and analytical methodology
- Regulatory standards applicable to the Site for each proposed sampling media

This SSQAPP was prepared to be used in concert with Credero's Generic Quality Assurance Project Plan (QAPP) referenced under EPA Quality Assurance Tracking: Request for Assistance (RFA) #14069, revision dated April 15, 2014, which was prepared for all of Credero's EPA Brownfields work in Maine. The quality assurance and quality control (QA/QC) procedures outlined in Credero's Generic QAPP will be followed for this investigation program including sample collection, handling, and analysis of samples; chain-of-custody; and data management, documentation, validation and usability assessment. Sampling as outlined in this SSQAPP will not occur until receipt of approval from EPA and the Maine Department of Environmental Protection (DEP).

**Figure 1** shows the general location of the Site in Berwick, Maine; **Figure 2** presents pertinent Site features; and **Figure 3** is Credero's Project Organization Flow Chart for the Prime Tanning project team.



### 3. PROBLEM DEFINITION

#### 3.1 SITE DESCRIPTION

The Site is located at the center of downtown Berwick, Maine, at 20 Sullivan Street at the intersections of School Street (Route 9), Sullivan Street, and Wilson Street. The 8-acre Prime Tanning complex is currently owned by the Town of Berwick, and is identified as tax map U-4, lot 146, but had recently been subdivided into 7 contiguous lots (see Figure 2) covered mostly by one mill building which was constructed over many years with numerous additions. Additionally, there are several smaller out buildings on the property. The Site is located within a mixed residential and commercial area of Berwick.

The Site building is currently unheated. Previous heat was provided via fuel oil fired steam boilers. Fuel oil was stored in aboveground storage tanks (ASTs), which were removed during closure of the facility.

Water service is provided publicly by municipal Berwick Water Department. Electrical service is provided by Central Maine Power.

Wastewater is not currently generated at the Site. Historically, process wastewater was discharged to Prime Tanning's pretreatment plant prior to being discharged to the municipal wastewater system. The pretreatment plant operated from the 1970s to the facility closure in 2008. The pretreatment plant is located on an adjacent parcel (Lot 147) owned by the Town of Berwick. The pretreatment plant discharged to the adjacent wastewater pump station (Lot 148), which is also not part of the Site. Prior to the 1970s, discharges were likely directly to the channelized stream that runs beneath the Site building, which discharges to the Salmon Falls River.

#### 3.2 SITE HISTORY

Manufacturing operations began on the Site as early as 1877 and the Site was occupied thereafter by a tannery, wool pulling works facility, a sash and door manufacturer, a reed manufacturer, a carriage manufacturer, an oil company, a laundry facility, a shoe factory, and a lumber company. Tannery operations occurred at the Site from approximately 1930 until 2008 when the mill closed and the Prime owners filed for bankruptcy protection. In 2014, the Town of Berwick acquired the Prime Tanning property because of 5 years of owed back property taxes.

#### 3.3 PRIOR INVESTIGATIONS

The follow are summaries of prior environmental reports completed for the Site. Some investigations were completed for the Site as well as adjoining parcels to the north and northwest. Only information pertaining to the Site is summarized below.

##### **Secondary Sourced Hazardous Waste Documents, 1985-1997**

The following summary of older pertinent environmental information regarding the Site was summarized from Ransom Environmental Consultant, Inc.'s (Ransom's) June 14, 2010, Environmental Site Assessment (ESA) for the Site:



On June 21, 1985, Maine DEP inspected the Site for hazardous waste and associated violations. Improper storage area sizes, labeling, training plans, and contingency plans were identified as violations. A shut-off gate valve was installed for closure whenever chemicals or hazardous materials were handled at the facility; however, as a result of improper use, releases continued to occur to the Salmon Falls River. As a result of identified violations and continued discharges to the Salmon Falls River, a 1988 Administrative Consent Agreement and Enforcement Order required the installation of corrosion resistant tanks, restricting the unloading area at the facility, the completion of employee training, and sealing a floor drain. Prime Tanning agreed to prepare a contingency plan for the Site to address the new requirements and avoid future violations. However, a subsequent inspection on November 18, 1994, identified omissions from the contingency plan, improper spill containment, and improper labeling of hazardous waste as violations.

Additionally, Summit Environmental Consultants, Inc. (Summit) prepared closure documentation for removal of a 5,000-gallon mineral spirits of non-halogenated solvent waste storage tank from the Neutralization Plant that was used between 1986 and 1997.

#### **Phase I ESA, ENSR Corp. (ENSR), October 2007**

ENSR prepared a Phase I ESA for the Site on behalf of Meriturn Partners, and identified the following recognized environmental conditions (RECs) for the Site:

- Former tannery operations that likely included the use and disposal of oils, solvents, chromium solutions, and wastewater; as well as the potential burial of waste hide (leather) scraps.
- Potential use and disposal of petroleum or dry-cleaning chemicals associated with a former oil company and laundry facility.
- Potential release of petroleum from six underground storage tanks (USTs, 4 fuel oil, 1 diesel, 1 gasoline) removed from the Site with little or no documentation about conditions or closure
- Historical industrial use of the Blue Sort building that included processing of hides
- Likely industrial and sanitary discharge from the Site to the Salmon Falls River prior to connection to the municipal sewer in 1970

#### **Secondary Sourced Hazardous Waste Documents and RCRA Closure, 2008-2010**

The following summary of older pertinent environmental information regarding the Site was summarized from Ransom's June 14, 2010, ESA for the Site:

On September 10, 2008, Prime Tanning notified Maine DEP of their intention to close out their Large-Quantity Generator status in conjunction with closure of the Berwick, Maine, facility. The facility formerly generated D001 ignitable wastes derived from mineral spirits and D007 chromium wastes. The letter documented 33 spills of hazardous and non-hazardous materials to



the Site between 1983 and 2008, and the locations of hazardous waste storage and accumulation areas.

Tewhey Associates prepared a Hazardous Waste Closure Plan that outlined steps for closure of the Berwick facility in November 2008 in accordance with Maine DEP Chapter 851, Section 11. Per the plan, Maine DEP RAGs were to be used as cleanup goals during Site closure certification. Remedial actions included cleaning the internal floor trench system, assessment and remediation of the hazardous waste storage and satellite accumulation areas, testing and remediation of the dye/dry weigh up rooms, shutdown and remediation of the wastewater treatment plant (located off-Site), locating and properly disposing of leather residue, completing an inventory, proper documentation, and shipment of remaining chemicals and chemical waste, and conducting a historical assessment and interviews.

Maine DEP provided conditional approval of the plan on November 20, 2008, particularly highlighting the need to remove all leather waste from the Site. To address DEP's conditions, subsequent plan addendums indicated, per interviews, waste material was not intentionally disposed onsite but were temporarily stored south of Wilson Street with a gravel fill cover (Addendum No. 1); and test pitting was proposed for additional investigation (Addendum No. 2).

Tewhey Associates prepared a Test Pit Program at Prime Tanning Berwick letter report date February 16, 2009. The report indicated leather scraps were identified in test pits excavated along Wilson Street. Based on these results and the need for removal of the observed leather wastes Addendum No. 3 recommended further delineation of leather wastes.

A Follow-up Test Pit Program letter report dated April 8, 2009, indicated an approximately 6-inch layer of dark-brown to black leather waste at a depth of 2.5 feet below ground surface (bgs) underlain by clay was identified on the northern portion of the Site along Wilson Street. Leather waste was estimated to be approximately 200 cubic yards in an area of 800 square yards. Removal of the overlying 2.5 feet of sand, removal and offsite disposal of the leather waste, and backfilling with sand and additional fill as necessary was recommended.

On April 22-23, 2009, approximately 400 tons of leather debris was removed from the parking lot north of the main facility. After this removal action, the RCRA Closure Certification was submitted to Maine DEP in May 2009. The report documented chemicals formerly used at the Site, disposal of hazardous and universal wastes, remediation and cleaning of the floor drain system, cleaning the treatment plant pipelines, emptying ASTs, disposal of leather scraps, and consolidating machinery and unused chemicals to the Prime Tanning's Hartland, Maine, facility. As of June 2010, Maine DEP indicated closure activities appeared to have met closure requirements.

### **Phase I ESA, Ransom, June 14, 2010**

Ransom prepared a Phase I ESA for Southern Maine Regional Planning Commission (SMRPC) on behalf of Prime Tanning Co. Inc. and identified the following RECs and other environmental concerns for the Site:



- Former tannery operations including documented use and release of oils and hazardous materials at the Site including observed oil and chemical staining throughout the facility
- Former use of portions of the Site by an oil company and laundry facility, and potential use, storage and disposal of petroleum or dry-cleaning chemicals
- Historical generation, storage, and releases of hazardous materials at the Site that may have impacted soil, soil vapor, and/or groundwater
- The lack of information available about conditions or closure of diesel or fuel oil USTs, and potential release of petroleum from these former USTs
- Documented buried leather debris (hides) identified on the Site and the unknown construction history of the Site buildings indicate hides, leather scraps, construction/demolition debris, or other solid waste may have been buried at the Site
- Use, storage and potential releases of oil and/or hazardous materials associated with historical occupation by a shoe factory and lumber company
- Unknowns associated with the former garage in the northwest portion of the Site
- Historical uses of adjacent and upgradient properties including industrial uses may have impacted environmental conditions at the Site
- Potential release to soil and groundwater as evidence by oil and chemical staining throughout the tannery facility

Additionally, the following non-scope items were identified in the Phase I ESA:

- Suspect asbestos containing building materials (ACM), polychlorinated biphenyl (PCB)-containing building materials, and lead-based paint (LBP) observed in/on the Site buildings

#### **PCB Caulk Screen, Summit, August 26, 2010**

Summit collected ten (10) samples of caulking associated with exterior wall and window systems and submitted them for PCB analysis. No PCBs were detected above the laboratory reporting limits in the ten caulking samples.

#### **Asbestos Identification Survey, Summit, September 1, 2010**

Summit collected samples of suspect ACM throughout the Site buildings. Asbestos was identified in the following:

- Pipe insulation and mudded fittings
- 9 inch by 9 inch green floor tile and associated mastic
- Refractory mud in boilers
- Brown and gray asphalt sidings on interior walls
- Various roofing materials on 20 different roof areas



- Various asphalt sidings on exterior walls
- Mastic and expansion joint on exterior piping
- Window caulking

### **Phase II ESA, St. Germain-Collins (SGC), October 15, 2010**

Based on previous Phase I ESA findings and conclusions, SGC identified six Areas of Concern (AOC) for the Site, as follows:

- AOC 1 – Tannery South
- AOC 2 – Tannery Central
- AOC 3 – Tannery North
- AOC 4 – Lot 133 (offsite parking lot)
- AOC 5 – Lot 95 (offsite former residential lot)
- AOC 6 – Lot 130 (offsite warehouse)

Contaminants of concern for the investigation were petroleum hydrocarbons, solvents, metals, polycyclic aromatic hydrocarbons (PAHs), and PCBs. SGC collected soil vapor, soil, and ground water samples for analysis. Based on results SGC concluded the following:

- Vapor intrusion is a concern based on the detection of 1,3-butadiene, tetrachloroethylene (PCE) and chloroform exceeding the residential and commercial soil gas targets (SGTs) in AOC 1 and AOC 2.
- Soil across the Site contained leather, brick, wood and metal debris.
- PAHs were detected in AOCs 1, 3, 4, and 6; however, results were considered representative of the urban environment.
- Lead results exceeded the residential and commercial RAGs in AOCs 1, 3, and 4.
- Methyl tert-butyl ether (MTBE), vinyl chloride and naphthalene were detected in groundwater in AOCs 1, 2, and 3 exceeding the Maximum Exposure Guidelines (MEGs). These compounds were not found in soil gas samples collected from the Site; therefore, were not considered to have an exposure pathway.
- Due to Site limitations, soil and groundwater was not assessed in areas beneath the Site buildings.

### **Maine DEP VRAP No-Action Assurance Letter, December 3, 2010**

Maine DEP issued a No Action Assurance Letter on December 3, 2010, under their Voluntary Response Action Program (VRAP). This letter releases the VRAP applicants and future owner from certain environmental liabilities under the following conditions:



- Preparation of a Soil Management Plan (SMP) for Maine DEP approval prior to Site excavation or foundation removal in AOCs 1, 2, 3, or 6 (AOC locations are provided in the 2010 Phase II ESA report).
- Notification of Maine DEP prior to Site excavation or foundation removal on AOCs 1, 2, 3, or 6, and oversight of such work by a qualified environmental professional. If contaminated soil is identified, the Maine DEP must be notified and additional soil characterization and/or remedial actions may be required.
- If contaminated soil is to be left in place and not covered with a new foundation, a cover system consisting of a cover/marker layer and at least 12 inches of clean fill, or a Maine DEP-approved impervious layer, must be installed.
- If a new building is constructed, a vapor management system to prevent the potential migration of petroleum and VOC vapors into the structure must be developed and stamped by a Maine Professional Engineer, and approved by the Maine DEP.
- If existing buildings are to remain in place, indoor air quality sampling must be conducted and results must comply with current appropriate regulatory guidelines/standards for the proposed reuse of the building. If indoor air samples do not meet these guidelines, a remedial plan must be submitted to the Maine DEP for review and approval.
- If building demolition/renovation activities are to be conducted onsite, potentially hazardous building construction materials (e.g., asbestos) must be handled and disposed of appropriately.
- Additional investigation is required to determine if PCE vapors are migrating off-Site. If the Site is being considered for residential use, additional investigation and remediation may be required.
- Groundwater extraction shall be prohibited without the written permission of the Maine DEP. It is understood that public water will be supplied to the property if future redevelopment requires potable water.
- Upon completion of the redevelopment and any associated remediation, a Declaration of Environmental Covenants consistent with the final Certificate of Completion or No Further Action letter, that is acceptable to the Maine DEP, must be prepared and recorded at the York County Registry of Deeds.

### **Preliminary Feasibility Study, Summit, January 6, 2011**

Based on previous Phase I and Phase II ESA findings and conclusions and the past uses of areas of the Site, Summit identified areas beneath the building slabs with varying levels of potential for soil contamination based. Summit then evaluated two remedial alternatives for contaminated soil at the Site after potential removal of buildings and building slabs and foundations at the Site. These options included

- Option 1: Cover Entire Site and Option 2: Cover Areas with a Higher Potential for Soil Contamination. Summit estimated Option 1: Cover Entire Site to cost, which included



covering the entire Site with a marker layer over the exposed soil surface, and placement/compaction of a 12-inch soil cover, which they estimated to cost \$312,000.

- Option 2: Cover Areas with a Higher Potential for Soil Contamination, which included covering those areas of Site which they identified with “medium to high” potential for subsurface contamination, as described above. This option was estimated to cost \$228,000.

### **Supplemental Site Investigation, SGC, January 18, 2011**

Based on previous Phase II ESA findings, SGC performed additional investigation to clarify the extent of PCE in soil vapor that was identified on the southern end of the Site. The results indicated PCE and/or trichloroethylene (TCE) exceeded residential and/or commercial SGTs in 5 locations across the southern half of the Site, and these and/or other VOCs were detected in soil gas below applicable SGTs at all locations sampled on the Site. SGC concluded a PCE source area appeared to be beneath the main tannery complex. SGC recommended additional characterization of VOCs in soil gas.

### **Phase I ESA and Phase I ESA Update, SGC, May 25, 2012, and August 9, 2013, respectively**

SGC completed a Phase I ESA on May 25, 2012 on behalf of Verrill Dana. The report was updated after a period of 180 days on August 9, 2013. The Phase I ESAs identified the following RECs:

- The presence of heavy chemical and oil staining in the main tannery building, in proximity to trench drains whose connection to the sewer system could not be confirmed
- The long history of the Site as a tannery, involving the storage, use, and possible release of petroleum products and hazardous substances
- The detection of soil, groundwater, and soil vapor contamination on the Site
- Government spill reports documenting petroleum and chemical releases



## 4. PROJECT DESCRIPTION & TIMELINE

### 4.1 REDEVELOPMENT SCENARIO

The current redevelopment plans for the Site involves the redevelopment of some portions of the buildings and demolition of others. The proposed redevelopment includes the following:

- Lot 1 (69,041 total ft<sup>2</sup>) 31,000 square feet (ft<sup>2</sup>) light industrial (reuse of existing building)  
8,000 ft<sup>2</sup> office (reuse of existing building)
- Lot 2 (90,491 total ft<sup>2</sup>) 42,500 ft<sup>2</sup> light industrial (reuse of existing building)
- Lot 3 (33,503 total ft<sup>2</sup>) 79,000 ft<sup>2</sup> 3-story mixed use retail and residential (new construction)
- Lot 4 (69,630 total ft<sup>2</sup>) 69,000 ft<sup>2</sup> “Main Street” and parking area (new construction)
- Lot 5 (18,708 total ft<sup>2</sup>) 8,500 ft<sup>2</sup> convenience retail (new construction)
- Lot 6 (39,011 total ft<sup>2</sup>) 39,000 ft<sup>2</sup> greenspace and trail (new construction)
- Lot 7 (21,654 total ft<sup>2</sup>) 52,000 ft<sup>2</sup> 3-story mixed retail and residential (reuse and new construction)

### 4.2 PROPOSED PROJECT TIMELINE

This project is expected to be completed in multiple phases over one or more years. A current project schedule covering all aspects of this project, including this SSQAPP, is included as **Attachment B**. This is a dynamic schedule and tasks may be performed later based on document regulatory review time, contractor availability, and development schedule.



## 5. CONCEPTUAL SITE MODEL

A Conceptual Site Model (CSM) was developed using the findings of the previous investigations and will be updated in subsequent reports as new information becomes available. This CSM includes a description of the physical setting of the Site, Contaminants of Concern (COCs), nature and extent of contamination, exposure pathways, and potential human and environmental receptors.

### 5.1 SITE DESCRIPTION

A detailed Site description consisting of Site use, Site location as depicted on **Figure 1**, and Site utilities is included in **Section 1.2**.

### 5.2 SITE HISTORY

A description of Site history as it relates to current environmental conditions at the Site is included in **Section 1.3**.

### 5.3 PHYSICAL SETTING

#### **Topography**

According to the United States Geological Survey (USGS) Topographic Map of the Somersworth Quadrangle, Maine, topography at the Site is generally gently sloping to the southwest towards the Salmon Falls River. An excerpt from this map is included as **Figure 1**.

#### **Geological Characteristics**

##### *Surficial Geology*

According to the Maine Geological Survey (MGS) Surficial Geology map of the Somersworth Quadrangle, Maine, the Site is mapped as glacial till consisting of silt, clay, sand and gravel of variable composition. Soil borings from previous investigations indicate that surficial geology is layered sand, silty sand, and clay deposits. Artificial fill including leather scraps, metal, glass, and rubble were also identified on the Site.

##### *Bedrock Geology*

According to the MGS Bedrock Geology of the Somersworth Quadrangle, Maine, map, bedrock beneath the Site consists of Silurian feldspathic quartz-biotite granofels, calc-silicate granofels and subordinate quartz-biotite schist of the Berwick Formation. During drilling of soil borings and excavation of test pits across the Site, refusal indicating possible bedrock was encountered at 4 to 12 feet, although some locations went to up to 20 feet bgs without refusal.

#### **Hydrology**

Surface water at the Site drains to municipal storm drains that discharge to the Salmon Falls River (approximately 200 feet to the south) or to a channelized stream that runs across the Site



and discharges to the Salmon Falls River. The Salmon Falls River flows to the southeast and discharges to Piscataqua River and then to the Atlantic Ocean.

Previous investigation identified depths to groundwater across the Site ranging from approximately 3 to 6 feet bgs. Groundwater at the Site flows south towards the Salmon Falls River.

### **Changing Climate Concerns**

Based on the National Oceanic and Atmospheric Administration (NOAA) interactive map of Sea Level Rise and Coastal Flooding Impacts (<http://coast.noaa.gov/slr/viewer/>), sea level rise of up to 6 feet and associated increased coastal flooding is not expected to impact the Site.

The Site is located within 250-feet of the Salmon Falls River. According to FEMA Flood Zone Map 2301440006B, the southern tip of the Site is located within Zone AE, where base flood elevations have been determined during inundation by a 100 year flood; however, the majority of the Site is within zone X, which have been determined to be outside the 500 year flood plain. Greater storm frequency and intensity in a changing climate may result in more frequent high water levels and more frequent flooding of the southern portion of the Site. Increased frequency of extreme weather events may also impact exterior portions of the Site, and may results in increased erosion of improperly stabilized surface soil.

Based on the nature of the contaminants at the Site, a changing groundwater level may impact exposure to certain contaminants at the Site due to the changing distance between the water table and Site foundations.

Based on the nature of the proposed reuse of the Site, changing temperature, wildfires, changing dates of ground thaw/freezing, changing ecological zone, and saltwater intrusion table are not likely to effect the Site.

## **5.4 SOURCE AREAS & CURRENT COCS**

### **Source Areas**

Specific sources areas have not been identified at the Site to date; however, surface soil impacts appear ubiquitous across the Site. Buried leather waste and hides have previously been documented to contain COCs and are known to be present in the subsurface, and and partial remediation of leather waste has occurred in the northern portion of the Site. SGC speculated a VOC source area may be present beneath the main tannery building.

The Site buildings are also a source area for hazardous building materials.



## COCs

Based on the identified source areas and previous environmental investigations, the following are COCs for the Site:

- PAHs including benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, and/or indeno(1,2,3-cd)pyrene) exceeding applicable residential and commercial RAGs
- Lead exceeding applicable residential and/or commercial RAGs
- Chromium associated with subsurface tannery/leather waste
- PCE and TCE soil gas concentrations exceeding residential and/or commercial SGTs and other VOCs in soil gas
- MTBE, vinyl chloride, chromium, and naphthalene in groundwater
- Asbestos in Site building components
- Lead in lead-paint coated surfaces
- PCBs in certain untested building materials (e.g., paints and light ballasts)
- Mercury and/or PCBs in certain universal wastes

## **5.5 NATURE AND EXTENT OF CONTAMINATION**

PAHs and lead in surface and accessible soil were identified throughout the Site, and surface soil in all areas of the Site are conservatively considered to contain these COCs above applicable residential and/or commercial RAGs.

VOCs, SVOCs, PAHs, dioxin, and metals are associated with buried hides and other solid wastes including wood chips, urban fill, ash/coal ash, railroad ties, and leather tannery scraps in numerous areas of the Site. Hides have previously been remediated from the northern parking lot portion of the tannery facility, but were also documented on other areas. The lateral extent on other areas of the Site, including beneath the Site building, is not fully known and is considered a data gap, but will be delineated prior to remediation.

Chromium and naphthalene in groundwater were identified above applicable standards in the northern portion of the Site. MTBE was identified above applicable standards in groundwater in two locations across the southern and central portion of the Site. Vinyl chloride was identified above applicable standards in groundwater at GW-108 on the central portion of the Site. Based on limited groundwater data and limitations associated with Site building locations, the extent of these impacts and possible sources have not been well assessed. Based on the lack of continuity of detections of these compounds across the Site, the COCs are likely localized to near the wells. This was not assessed further as the Site is serviced by public potable water. Potential source areas beneath the Site building are a data gap, and will be further characterized prior to remediation.



PCE, TCE, 1,3-butadiene, and chloroform were identified in soil vapor on the Site at concentrations exceeding applicable residential and/or commercial SGTs across the southern half of the Site. Other VOCs were detected in soil gas below applicable SGTs at all locations previously sampled on the Site. The extent and source of VOCs in soil gas has not been fully characterized; however, SGC speculated the source appeared to be beneath the main tannery building. Potential source areas beneath the Site building are a data gap, and will be characterized prior to remediation. Since groundwater does not appear to be impacted by these compounds, the source is presumed to be contained to soil; however, in a changing climate a rising water table may come into contact with contaminated soil, thereby mobilizing the compounds to groundwater and possibly increasing indoor air concentrations.

ACM were identified throughout the Site building, including pipe insulation, cement board, tank insulation, floor tiles and associated mastic, mudded boiler insulation, asphalt siding on interior and exterior walls, a lab table, and most roof areas of the Site buildings.

The quantity of universal/hazardous or other regulated wastes in the Site building has not been fully characterized and will be further characterized prior to remediation.

## 5.6 EXPOSURE PATHWAYS AND POTENTIAL RECEPTORS

Exposure pathways describe how a human or environmental receptor comes into contact with contaminants that may be present at the Site. Potential migration pathways through groundwater, surface water, air, soils, sediments, and biota were considered for each COC and each source. A migration pathway is considered an exposure pathway if there is a mechanism of contaminant release from primary or secondary sources, a transport medium, and a point of potential contact with receptors. Both current and potential future releases and migration pathways to receptors are considered. Exposure pathways presented in the CSM include the following:

- |                    |   |
|--------------------|---|
| Inhalation:        | This pathway is primarily associated with soil or groundwater contamination within 30 (petroleum volatiles) to 100 (non-petroleum volatiles) feet of an occupied structure or preferential pathway. This pathway is applicable when receptors may inhale impacted media in the form of contaminated vapor. This pathway is also applicable when contaminated soil and/or groundwater are exposed via an excavation. |
| Dermal Absorption: | Exposure via dermal absorption occurs when receptors are exposed to chemical concentrations present in soil, groundwater, surface water, or hazardous building materials through direct contact with the skin.  |
| Active Ingestion:  | The active ingestion pathway represents exposure which may occur through the active ingestion of contaminant concentrations via a drinking water supply well, through agricultural products, or through direct consumption of soil (e.g., typically by children or improper hygiene/health and safety of soil workers).   |



**Incidental Uptake:** This pathway is applicable when receptors may incidentally inhale or ingest impacted media in the form of contaminated dust, soil, chips, or airborne asbestos fibers.

Potential Receptors are categorized by duration of exposure and intensity of use at the Site. The receptor categories described in the CSM include the following:

**Resident:** The residential receptor is defined by high durational exposure and high intensity usage which may occur through gardening, digging, and recreational sports. This group includes the occupants of a residential property or a residential neighborhood, or a daycare.

**Commercial Workers:** Commercial receptors are those that are present at the Site for long durations but with low intensity exposure such as indoor office workers.

**Excavation or Construction Worker:** Excavation or construction workers are present at the Site for short durations though intensity of use is high, such as during non-routine activities including construction or utility work. Examples include utility and construction contractors and landscapers.

**Recreational or Park User:** Park users are characterized by low duration, i.e. less than two hours per day, and low intensity usage such as that which would occur during activities such as walking, shopping, and bird watching. For this project, this receptor class would apply to visitors to the Site and patrons of the restaurants, hotel, or other future commercial businesses at the Site.

## 5.7 CONCEPTUAL SITE MODEL SUMMARY

The COCs associated with contaminated soil and fill materials have the potential to impact future excavation/construction workers during the redevelopment, and future residents, park users, and commercial workers after redevelopment if the soil is not remediated appropriately. The potential exposure pathways to impacted soil are dermal absorption through contact with impacted media, active ingestion through consumption of impacted media (typically by children or soil workers), and incidental uptake of airborne soil particles that have migrated due to soil disturbance and wind erosion.

The COCs associated with contaminated groundwater have the potential to impact future excavation/construction workers during the redevelopment. The potential exposure pathways to impacted groundwater would be dermal absorption through contact with impacted media or inhalation of vapors from volatile COCs.

Volatile COCs in soil vapor on the Site could impact future residents, park users, and commercial workers after redevelopment via intrusions of vapor into indoor spaces and inhalation of volatile COCs.

If hazardous building materials (HBM, i.e., asbestos, lead paint, PCBs) are not properly addressed during redevelopment, primary impacted media would include indoor air, and interior



and exterior surfaces. The COCs associated with these items have the potential to impact future residents, park users, commercial workers, and construction workers. The potential exposure pathways to HBM are dermal absorption through contact with impacted media, active ingestion through consumption of impacted media (typically by children or soil workers), and incidental uptake of residual airborne particles or dust.



## 6. SAMPLING DESIGN

### 6.1 OBJECTIVES

This sample design outlines activities associated with the first phase of cleanup, which includes supplemental characterization of building materials, sub-slab vapor contamination, the abatement of hazardous building materials, removal of buildings, and characterization of soil beneath the current Site buildings. Sampling outlined here has been designed to fulfill the following objectives:

- Target potential subsurface source areas of contamination beneath the existing Site buildings and pre-characterize these areas for future offsite disposal
- Confirm the extent of hazardous building materials in the Site building and abate or manage these materials in accordance with applicable laws and regulations

The following tasks are proposed to address these objectives:

- Sub-slab soil gas screening prior to building removal
- Supplemental characterization of building materials, including sampling of potential asbestos, sampling of potential PCB-containing building materials, screening for lead in paint, and an inventory of universal or other regulated building component wastes.
- Abatement of asbestos by removal
- Removal and proper disposal of universal and other regulated wastes
- Removal of the Site buildings on Lots 4, 5, and 6, which may contain LBP or PCBs, to facilitate access to contamination beneath the buildings
- After removal of Site buildings, perform a ground penetrating radar (GPR) survey of the Site
- Excavate test pits and screen soil in areas beneath the current building, including areas of interest identified during subgrade soil vapor screening and the GPR survey
- Collect laboratory samples to characterize soils in areas identified as potential source areas for VOC contamination.

Each sampling task required for these cleanup activities is described in the following sections. **Table 1** includes the number and type of samples that are proposed to be collected, cross-referenced with the appropriate standard operating procedure (SOP). **Table 2** is an SOP reference table detailing the version of each SOP that will be used during the field sampling program.

Please note that laboratory samples will only be collected in accordance with the below sampling design for areas with EPA funding (Lots 4, 5, and 6). Laboratory sampling for the remaining lots (1, 2, 3, and 7) will not be conducted until EPA funding or other funding becomes available, but will be in accordance with the below sampling design.



## 6.2 SUB-SLAB SOIL VAPOR SCREENING

To obtain relative data beneath the building slabs that have previously been unassessed, 28 sub-slab soil gas points (SGPs) (CA-SG-1 through CA-SG-28) will be installed to identify hotspots and potential sub-slab source areas. Sub-slab screening data will be used in combination with post-demolition sub-slab observation and GPR results to assess the best locations for test pit excavation. Approximate locations of screening points will be laid out in a grid pattern and are depicted on **Figure 2**; however, locations will be biased in the field toward areas of suspected contamination (i.e., evidence of releases, historical fixtures, etc.).

## 6.3 ASBESTOS SAMPLING

An asbestos survey of the Site building has previously been completed by others. Credere will perform limited additional characterization of ACM in the Site building to ensure the previous survey is complete, confirm locations and quantities of ACM, and characterize any previously untested suspect materials. Sample results will be used to properly manage ACM during redevelopment of the Site. Credere anticipates up to 35 different suspect ACM samples (CA-PACM-1 through CA-PACM-35) will be collected in triplicate (i.e., 105 total samples). This sampling will be performed in accordance with Maine DEP Chapter 425 - Asbestos Management Rules. The number of samples actually collected will be dependent on the number and volume of suspect materials that are encountered.

After the abatement is complete, air clearance samples are required to confirm the efficacy of the abatement work according to Maine DEP Chapter 425 - Asbestos Management Rules. A minimum of 2 samples (CA-AC-1 [containment designation] through CA-AC-2 [containment designation]) per containment area will be collected.

## 6.4 LEAD-PAINT SCREENING

Painted surfaces throughout the Site buildings will be screened for lead in paint using an X-ray fluorescence (XRF) meter. The number of screening points will be dependent on the number of different types/colors of painted surfaces encountered in/on the Site building.

## 6.5 PCB-CONTAINING BUILDING MATERIAL SAMPLING

Previous PCB sampling focused only on caulking on the Site buildings. To supplement this previous characterization of the potential presence of PCB-containing building materials, the Site building will be inspected and additional suspect materials will be inventoried and considered for sampling. Materials that typically contain PCBs include caulk/sealants, paint, and mastics/adhesives that were manufactured between approximately 1930 and 1980 and are most commonly in areas that endure high wear, weather, high heat, or moisture. Example typical materials and locations that PCBs are encountered include, but are not limited to:

- exterior caulks and sealants around doors and window or within expansion joints (samples previously collected)
- paints in high heat or moisture areas such as boiler rooms, equipment rooms, locker rooms, bathrooms, or basements



- paints in high traffic or wear areas such as hallways or building entrances
- mastics beneath floor tiles

Up to 16 samples (CA-PCB-1 through CA-PCB-16) of materials, most likely to contain PCBs will be collected for analysis; however, the number of samples actually collected will be dependent on the number and volume of suspect materials that are encountered. Samples will be collected to assess if any hazards are present associated with PCBs in building materials and if the building materials are regulated as PCB bulk product waste as defined by 40 CFR 761.3, or as regulated Special Waste. If based on the initial results, additional assessment of PCB-containing building materials are needed, approval for additional samples will be proposed and approved under a separate SSQAPP amendment. Data will be used to properly manage building materials that may contain PCBs during restoration or demolition of the Site building.

## **6.6 UNIVERSAL/HAZARDOUS WASTE INVENTORY**

Materials that once removed from use meet the definition of universal/hazardous waste according to the Maine DEP Chapter 850 – Identification of Hazardous Wastes include, but are not limited to, fluorescent lighting, fire alarms, thermostats (containing mercury), and lead-acid batteries. These types of materials at the Site will be inventoried. Inventory results will be used to properly manage universal and/or hazardous wastes prior to demolition of the Site building.

## **6.7 WASTE CHARACTERIZATION SAMPLING**

Universal waste and other regulated building components or contents, and building material waste that are generated during the cleanup may require waste characterization sampling prior to offsite disposal. As necessary, samples will be collected and submitted for laboratory analysis prior to removal from the Site. Some universal waste or other regulated building components or contents may be adequately labeled and identifiable and may not warrant sampling in such instances.

## **6.8 GROUND PENETRATION RADAR SURVEY**

After removal of the Site building, Credere will contract with DigSmart of Maine (DigSmart) to perform a geophysical survey to include ground penetrating radar (GPR) and possible metal detection at the Site to locate subsurface anomalies and potential source areas for further investigation.

## **6.9 TEST PITTING & SOIL SAMPLING**

After the removal of the Site buildings and building foundation slabs, review of sub-slab screening data, and completion of the GPR survey, Credere will submit existing data, field observations, and figures to Maine DEP and EPA for consultation in determining appropriate test pitting number and locations. Test pits will be advanced to further refine suspect source areas and improve understanding of subsurface conditions that have not previously been explored due to the presence of the Site buildings.



Based on discussions with Maine DEP and EPA, locations of interest for test pitting and field observations will be areas of staining, petroleum or solvent odors, buried tannery solid waste, subsurface anomalies, or other areas as determined during consultation with Maine DEP and EPA.

During test pitting, if potential VOC source areas are identified (Based on field screening and observations), laboratory samples will be collected and analyzed for VOCs.

Specific test pit locations and number of samples will be provided in an SSQAPP Amendment after collection of required data and consultation with Maine DEP and EPA.



## 7. SAMPLING AND ANALYTICAL METHOD REQUIREMENTS

The proposed sampling activities will be conducted according to **Table 1**. Field activities will be conducted in accordance with the SOPs included in Credere's Generic Maine QAPP RFA #14069, which are referenced on **Table 2**.

### 7.1 SUB-SLAB SOIL VAPOR SCREENING

Temporary SGPs will be installed through the foundation slab in the Site building. A hole will be drilled through the concrete floor slab using a 3/8-inch drill bit and rotary hammer drill. Immediately upon breaking through the slab, tubing will be placed in the hole with modeling clay used to temporarily seal the hole at the surface. The hole will be screened using a ppbRAE 2000 PID, or equivalent, for at least 5 minutes and the maximum observed concentration as well as concentration every 30 seconds will be recorded. Sub-slab conditions and slab thickness will be observed. Immediately after observations, the hole will be filled with hydraulic bentonite clay. No laboratory analysis is proposed at this time. If sampling takes more than one day, the last five samples from the day before will be rescreened before beginning new locations.

### 7.2 ASBESTOS SAMPLING

Any sampling of suspect ACM at the Site will be conducted by a Maine Certified Asbestos Inspector and in accordance with Maine DEP Chapter 425 - Asbestos Management Rules. At least three discrete bulk samples will be collected from each type of homogenous suspect ACM. Minor destructive sampling may be required; however, will be conducted in areas infrequently accessed such as the equipment storage room or boiler room, areas obscured from view such as behind doors, or inside closets, and in a manner as not to compromise the building envelope. Samples will be analyzed by EMSL Analytical, Inc. (EMSL) of South Portland, Maine, using Polarized Light Microscopy (PLM) according to EPA Method 600/R-93/116.

Asbestos clearance air samples will be collected by Credere's Air Monitor according to Maine DEP Chapter 425 - Asbestos Management Rules. Air filter samples will be analyzed by EMSL using Phase Contrast Microscopy (PCM) according to National Institute of Occupational Safety and Health (NIOSH) Method 7400.

### 7.3 LEAD-PAINT SCREENING

Painted surfaces will be screened for the presence of lead using an XRF. Each accessible color and type of paint throughout the Site building will be screened and documented. Paints with screening concentrations of lead exceeding 1.0 milligram per square centimeter ( $\text{mg}/\text{cm}^2$ ) will be considered LBP; however, paints with any concentration of lead will be considered lead-containing paint (LCP).

### 7.4 PCB-CONTAINING BUILDING MATERIAL SAMPLING

The building will be surveyed to locate the materials that are most likely to contain concentrations of PCBs exceeding the PCB bulk waste criteria. Samples will be collected using dedicated disposable tools and placed in laboratory provided glassware. Samples will be



analyzed for PCBs by Absolute Resource Associates (ARA) of Portsmouth, New Hampshire, using EPA Method 8082A and Soxhlet extraction method 3540C.

## **7.5 UNIVERSAL/HAZARDOUS WASTE INVENTORY**

Materials as described in **Section 6.6** will be manually counted.

## **7.6 WASTE CHARACTERIZATION SAMPLING**

### **Universal and Other Regulated Wastes**

As required, universal and other regulated wastes identified within the Site building during the cleanup may be sampled for waste disposal characterization analysis. The specific analyses required by RCRA or by the disposal facility acceptance requirements will vary, therefore some or all of the following EPA Publication SW-846 analyses may need to be performed to characterize various unlabeled wastes: extractable petroleum hydrocarbons (EPH), VOCs, semi-volatile organic compounds (SVOCs), PCBs, RCRA 8 metals, pesticides, herbicides, ignitability, corrosivity, and reactivity. Alternately, some of these materials may be adequately labeled and identifiable, and may not warrant sampling in such instances. TCLP analysis will only be completed at the request of the accepting facility.

### **Building Material Waste**

Building materials from the Site that are scheduled for off-site disposal as part of the cleanup will be sampled for waste disposal characterization analysis. Consistent with known Site conditions and applicable disposal facility requirements, disposal characterization will include analysis of the waste stream for total lead and/or PCBs. TCLP analysis will only be completed at the request of the accepting facility.

The building material waste stream will be sampled in accordance with ASTM E1908-10. It is anticipated that at least one (1) composite sample will be collected per 250 tons of waste to be disposed.

## **7.7 GROUND PENETRATING RADAR SURVEY**

DigSmart will perform their GPR survey by transecting the Site in a continuous grid, along approximate North-South axis followed by East-West axis. Subsurface anomalies will be reported to Credere in real time, Credere will document the location of the anomalies, if any.

## **7.8 TEST PITTING & SOIL SAMPLING**

Soil will be removed from the test pits by an excavator and stockpiled adjacent to the test pit on polyethylene sheeting to prevent surface contamination of the adjoining area. Test pits will be excavated until native soil is encountered unless the maximum extent of the excavator is encountered first. The sidewalls of the test pit will be logged in the field by a Credere geologist.

Soil will be collected for field screening in continuous 2-foot intervals, and will be screened for VOCs using a PID. Staining, odors, and evidence of fill materials will be noted.



Based on field screening results, VOC laboratory samples will be collected directly from a freshly scooped excavator bucket using a dedicated soil syringe immediately after exposure to the atmosphere to prevent loss of volatiles and degradation. These samples will be submitted to ARA and analyzed for VOCs.

After sampling, soil will be returned to the excavation in the approximate order it was removed. Soil will be compacted with the excavator bucket in 1-foot lifts. The surface will be finished such that no hazards are protruding from the ground (e.g., sheets of metals, large metal scraps).



## 8. REGULATORY STANDARDS

Sample results will be compared to the applicable state and/or federal standards/guidelines described below. **Appendix A** includes Analytical Sensitivity and Project Criteria Tables for the Site, which compares regulatory standards for each contaminant to the analytical limits of the laboratory method used.

### 8.1 SUB-SLAB SOIL VAPOR SCREENING RESULTS

PID screening results will be used on a relative basis to identify the areas of greatest contamination. Results will be used as one of several data sources for the selection of test pit locations after the removal of the building and foundation slab.

### 8.2 ASBESTOS ANALYTICAL RESULTS

Laboratory analytical results for asbestos bulk samples will be compared to the limit of 1.0% by weight as specified in Maine DEP Chapter 425 - Asbestos Management Regulations.

Laboratory analytical results for asbestos air samples will be compared to the limit of a total fiber count of less than or equal to 0.010 fibers per cubic centimeter (f/cc) of air (as analyzed by PCM) as specified in Maine DEP Chapter 425 - Asbestos Management Regulations.

### 8.3 LEAD-PAINT SCREENING RESULTS

Any detection of lead requires management during renovation in accordance with OSHA Lead in Construction Standard (29 CFR 1926.62) and proper waste characterization and disposal in accordance with State of Maine Solid Waste Management Regulations (06-096 CMR 400 et seq.) and Hazardous Waste Management Rules (06-096 CMR 850 et seq.).

### 8.4 PCB-CONTAINING BUILDING MATERIAL SAMPLING

PCB sample results will be compared to the 40 CFR 761.3 definition of PCB bulk product waste (50 milligrams per kilogram [mg/kg]). Materials that have been analyzed to contain total PCBs at a concentration of equal to or greater than 1 mg/kg but less than 50 mg/kg are not regulated by the Toxic Substance Control Act (TSCA) for disposal as long as they remain in use. However, if these materials are removed from use, such as through demolition or renovation, they must be disposed of at a facility that is licensed to accept this waste. Building materials which have been analyzed to contain total PCBs at a concentration of less than 1 mg/kg are unrestricted for future use and/or disposal.

### 8.5 SOIL SAMPLING

Laboratory results for soil samples will be compared to the February 5, 2016, Maine DEP Remedial Action Guidelines (RAGs) for Sites Contaminated with Hazardous Substances to assess if soil requires offsite disposal. To characterize metals as hazardous or non-hazardous, metals results will be compared to the exceeding the "20 times" rule comparing 20 times the TCLP limit to the total bulk concentration. If results exceed the 20 times rule, TCLP analysis



will be authorized and TCLP results will be compared to the limits per EPA Method 1311 and US EPA D Codes for characteristically hazardous wastes.

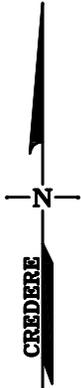
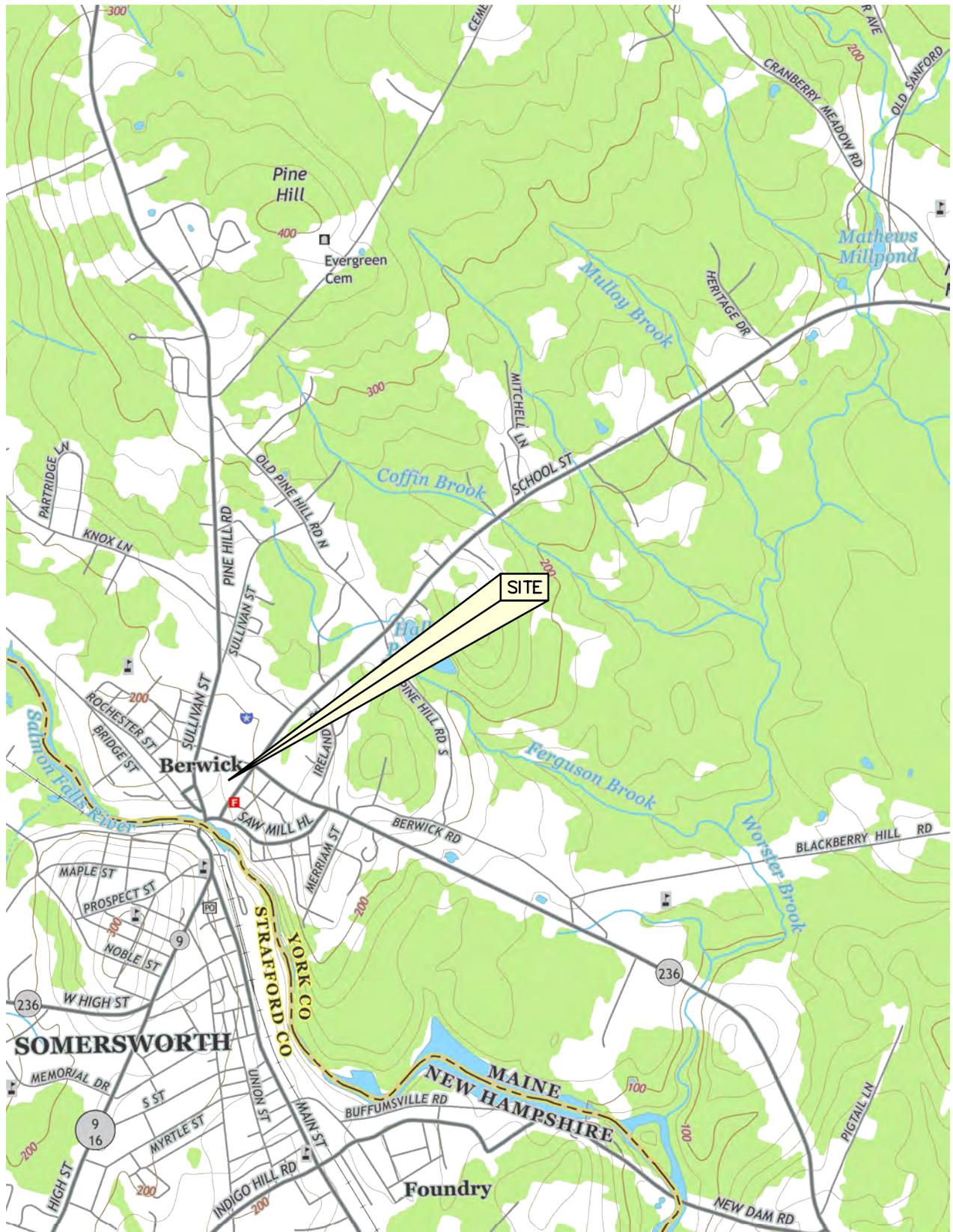
## **8.6 WASTE CHARACTERIZATION SAMPLING**

Laboratory results for waste disposal characterization samples will be compared to the TCLP limits per EPA Method 1311 and US EPA D Codes for characteristically hazardous wastes or using the “20 times” rule comparing 20 times the TCLP limit to the total bulk concentration and compared to disposal facility requirements for an appropriate disposal facility.



## FIGURES





USGS QUADRANGLE INFORMATION: SOMERSWORTH MAINE 7.5 MINUTE SERIES 2015

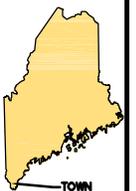
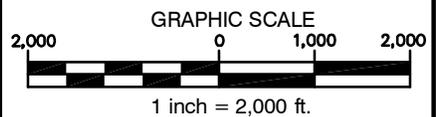
DRAWN BY: MTG	DATE: 12/01/15
CHECKED BY: JBO	PROJECT: 15001312

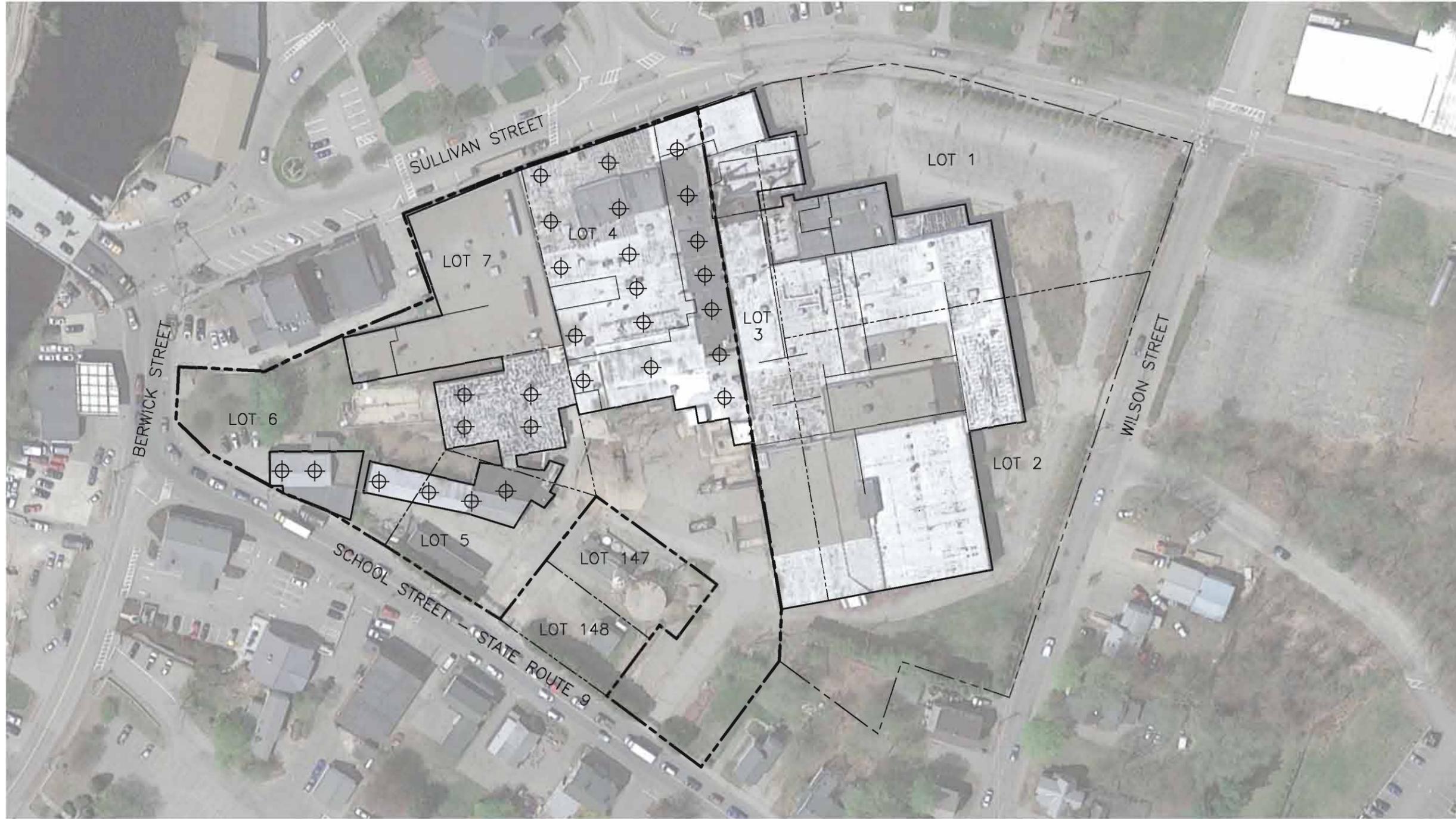
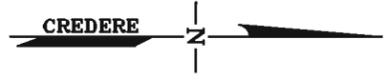
### FIGURE 1 - SITE LOCATION PLAN



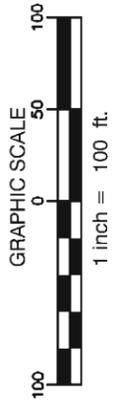
CREDERE ASSOCIATES, LLC  
 776 MAIN STREET  
 WESTBROOK, MAINE 04092  
 TEL: 207.828.1272  
 FAX: 207.887.1051  
 WWW.CREDERELLC.COM

PRIME TANNING FACILITY  
 20 SULLIVAN STREET  
 BERWICK, MAINE





**FIGURE 2**  
**DETAILED SITE PLAN**



**PRIME TANNING COMPANY**  
**35 SULLIVAN STREET**  
**BERWICK, MAINE**

**NOTES**

1. EXISTING FEATURES SHOWN ON THIS PLAN ARE APPROXIMATE AND BASED ON A COMBINATION OF AERIAL IMAGERY DOWNLOADED FROM GOOGLE EARTH, TOWN OF BERWICK TAX MAP, AND OTHER FIGURES FROM PREVIOUSLY PUBLISHED HISTORICAL REPORTS BY OTHERS.
2. PARCEL BOUNDARIES ARE APPROXIMATE AND BASED ON THE OCTOBER 8, 2014, DRAWING ENTITLED "FINAL PLAN - TANNERY ROW" FILED AT THE YORK COUNTRY REGISTRY OF DEEDS.

**LEGEND**

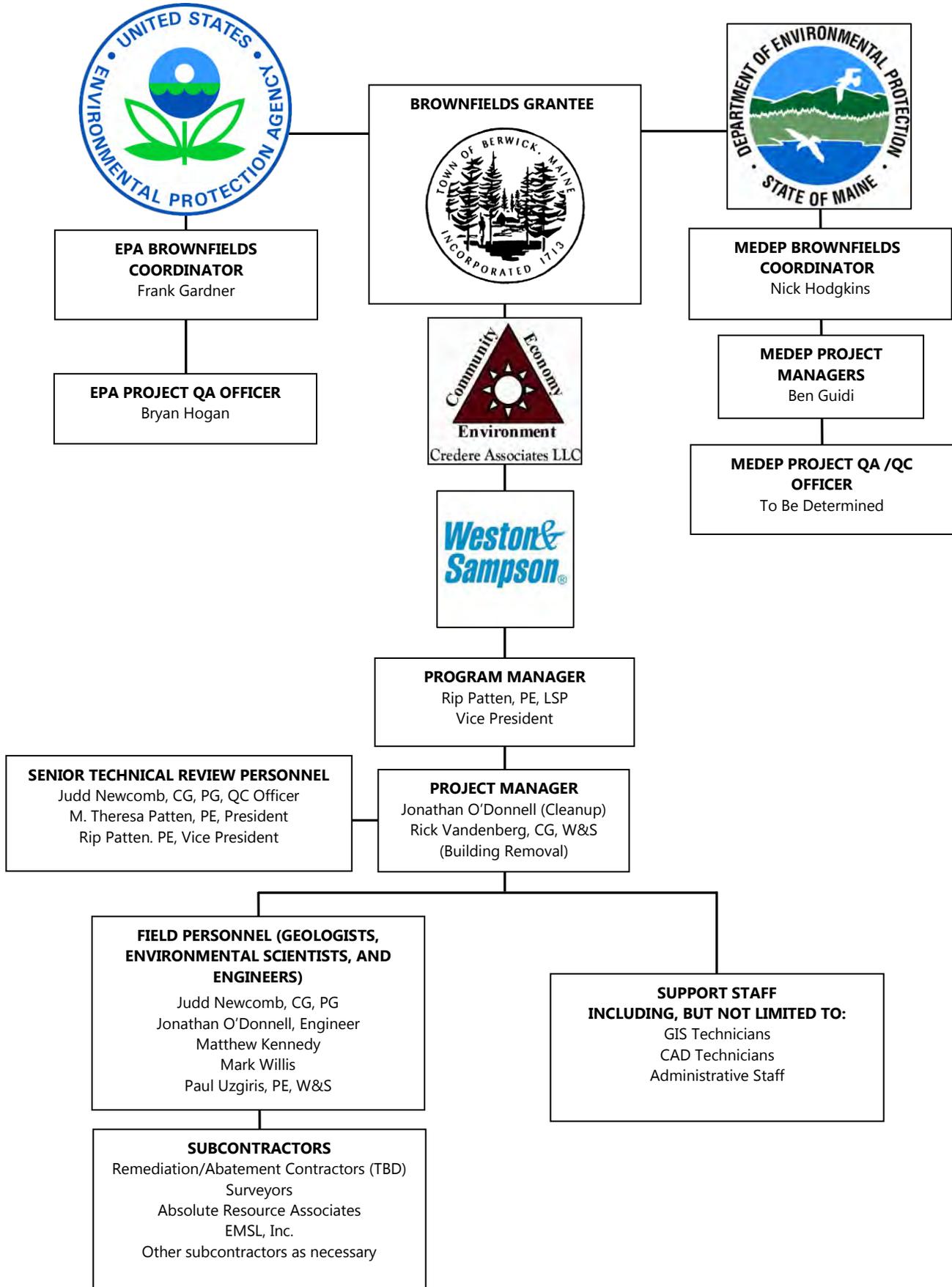
- SITE BOUNDARY
- PARCEL BOUNDARY
- BUILDING FOOTPRINT
- INTERIOR BUILDINGS WALL
- PROPOSED SUB-SLAB SOIL VAPOR SCREENING LOCATIONS TO BE LABELED IN THE FIELD CA-SG-1 THROUGH CA-SG-28

**DRAWN BY: MTG**      **DATE: 12/01/15**  
**CHECKED BY: JBO**      **PROJECT: 15001312**

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**Figure 3 – Project Organization Flow Chart**



## TABLES



**Table 1: Sample Reference Table  
Prime Tanning Facility  
20 Sullivan Street  
Berwick, Maine**

Media to be Collected	Proposed Sample IDs	Sample Type	Sample Rationale	Sample Depth (feet bgs)	Field Analysis/ Observations	# of Samples for Analysis	QA/QC Samples	Analytical Method	Sample Container Information & Preservative (per location)*	Laboratory To be Used
<b>Sub-Slab Soil Vapor</b>	CA-SG-1 through CA-SG-28	Sub-Slab Soil Gas	To provide data for further characterization (GPR and test pitting) after the Site building is removed.	NA	Visual PID (ppb)	28 (field screening only)	None Anticipated	Field screened for VOCs using a ppbRAE Plus PID	None	None
<b>Lead Paint</b>	LBP-1 LBP-2 etc.	Lead Paint Screening	XRF Screening of paint on the Site buildings for lead content .	NA	Visual XRF	estimated 80	None Anticipated	Field Screened using X-Ray Fluorescence (XRF) Meter	None	None
<b>Asbestos Containing Materials</b>	CA-PACM-1(A-C) through CA-PACM-35(A-C)	Bulk materials	Three samples will be collected from each suspected asbestos-containing material	NA	Visual	estimated 105	Triplicate Sampling	Polarized Light Microscopy (PLM) EPA 600/R-93/116	Plastic zipper bags	EMSL, South Portland, Maine
	CA-AC-1 CA-AC-2	Air sample on filter media	Air clearance sampling will be conducted prior to releasing the asbestos work area			Min. 2 per work area	1 field blank	Phase Contrast Microscopy (PCM) NIOSH 7400	Filter in dedicated cassette	
<b>PCB Building Materials</b>	CA-PCB-1 through CA-PCB-16	Bulk Product	Additional characterization samples as required of bulk product building materials	NA	Visual	16	Minimum 1 duplicate per material type	PCBs - EPA 8082A with Soxhlet 3540C	4 oz. amber glass (chilled to 4°C)	Absolute Resource Associates, Portsmouth, NH
<b>Universal and Other Regulated Wastes</b>	CA-UW -1	Miscellaneous universal or other regulated waste materials as needed	Sampling for waste characterization	NA	Visual	1 per waste stream, as needed per Section 7.4 of the text	None Anticipated	RCRA 8 Metals - EPA 6010C/7471B VOCs - EPA 8260C SVOCs - EPA 8270D TPH - XXXXX PCBs - EPA 8082A Herbicides - EPA 8151A Pesticides - EPA 8081 Flashpoint/Ignitability - EPA 1030 pH - SW-846 7.2 Sulfide/Cyanide Reactivity - EPA 9045C, 7.3.4.2, 7.3.3.2 TCLP Lead (EPA 1311)	Various, including: 40 mL VOAs, Methanol Preserved 40 mL VOAs, HCl Preserved 4- 4 oz. glass (chilled to 4°C) 8 oz. HDPE	
<b>Building Material Waste</b>	CA-(waste type)-WC - 1	Characterizing waste materials for off-Site disposal	Sampling for waste characterization	NA	Visual	1 per waste stream or 250 tons of bulk material	None Anticipated	Lead - EPA 6010C/7471B PCBs - EPA 8082A TCLP Lead (EPA 1311)	4- 4 oz. glass (chilled to 4°C)	
<b>Soil</b>	CA-TP-1 (depth) etc.	Test Pit Soil Sample	Assess possible VOC source areas. <b>(Will be summarized in SSQAPP Amendment prior to collection.)</b>	TBD	Visual	TBD based on field screening results.	TBD	VOCs - EPA 8260C	40 mL VOAs, Methanol Preserved	

**Notes:**

Gray shading - indicates samples are contingent upon prior analytical results or conditions encountered in the field.

<sup>1</sup> Additional sample IDs may be necessary dependent on field conditions.

\* - Additional details regarding analytical method, sample preservation, sample volume, and hold times can be found in Appendix D of Credere's Generic Maine QAPP.

TBD - To be determined in the field

NA - not applicable

RCRA 8 Metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver).

bgs - below ground surface

PID - photoionization detector

VOC - volatile organic compound

PCB - polychlorinated biphenyl

PCM - Phase Contrast Microscopy

TCLP - Toxicity characteristic leaching procedure

SVOC - semi-volatile organic compound

**Table 2: Standard Operating Procedure (SOP) Reference Table  
Prime Tanning Facility  
20 Sullivan Street  
Berwick, Maine**

Field SOPs		
Field SOPs		
SOP	SOP Description	Date
ASTM E1908-10	Standard Guide for Sample Selection of Debris Waste from a Building Renovation or Lead Abatement Project for Toxicity Characteristic Leaching Procedure Testing for Leachable Lead	2010
Crederre-003	SOP for Test Pit Sampling	October 2006
Crederre-004	SOP for Log Book Entries	October 2006
DR#011	Field Screening of Soil Sampling Using Photoionization and Flame-Ionization Detectors. Rev. 2 3/16/09	March 16, 2009
DR#024	Safety Protocol For the Use of The Innov-X Portable X-Ray Fluorescence Metals Analyzer. Rev. 1 6/9/06	June 9, 2006
DR#025	Protocol For Collecting Data Using an Innov-X Field Portable X-Ray Fluorescence Spectrometer For Certain Metals In Solid Media. Rev. 1 2/20/09	February 20, 2009
DR#026	Protocol For Collecting Soil Gas Samples. Rev. 00 2/20/09	February 20, 2009
DR#027	Protocol For Collecting Sub Slab Soil Gas Samples. Rev. 00 3/12/09	March 12, 2009
EPA SOP No. 2011 for Chip, Wipe, and Sweep Sampling	PCB Bulk Characterization Sampling and Wipe Verification Sampling	November 16, 1994
EPASOP#2009	Drum Sampling	November 16, 1994
EPASOP#2015	Air Sampling for Asbestos	November 17, 1994
MEDEP Chapter 425	Sampling of Asbestos	April 3, 2011
RMW-DR-006	Protocol for Collecting Soil Samples	April 3, 2009
RMW-DR-010	Protocol for Collecting Samples from Containers	March 11, 2009
RMW-DR-012	Chain of Custody Protocol	April 3, 2009
RMW-DR-017	Equipment Decontamination Protocol	March 23, 2009
Laboratory SOPs		
SOP	SOP Description	Date
EMSL: PLM SOP	Polarized Light Microscopy	November 12, 2010
EMSL NIOSH 7400 SOP	Asbestos and Other Fibers by PCM	October 21, 2011
RL-3	Preparation & Analysis of Organo-Chlorine Pesticides in Soil and Water Samples by Method 8081B	January 2013
RL-4	Analysis of Polychlorinated Biphenyls in Soil and Water Extracts by EPA 8082	January 2013
RL-5	Trace Metals by ICP EPA 200.7/6010C	January 2013
RL-6	Mercury Analysis by Cold Vapor Methods 245.1, 7470A/7471B	January 2013
RL-8	TCLP SW 846 Method 1311	January 2013
RL-9	Analysis of VOCs in Water and Solid Samples by EPA Method 8260B	April 2014
RL-10	Cyanide by EPA Methods 4500CN-E,C and EPA 9014	January 2013
RL-12	Preparation and analysis of PAHs, Base/Neutrals, and Acids by EPA Method 8270D	August 2011
RL-17	pH by Method SM 4500 H+B and SW-846 9045C	January 2013
RL-18	Sulfide by Method SM 4500-S2D+F	January 2013
RL-19	Ignitability/Flashpoint	August 2011
RL-23	Chlorinated Herbicides by GC Using Methylation Derivatization	August 2010
RL-25	Extractable Petroleum Hydrocarbons - MADEP 2004-1.1	August 2011

## **APPENDIX A**

### **Analytical Sensitivity and Project Criteria Tables**

As of the date of this SSQAPP Addendum, the current state and/or federal standards have been reviewed for accuracy.



<b>Asbestos in Solids by PLM by EPA Method 600/R</b>		
<b>Analyte</b>	<b>Laboratory Practical Quantitation Limit</b>	<b>Regulatory Guideline<sup>1</sup></b>
Asbestos	0.20%	1%

Notes:

<sup>1</sup> - Maine Department of Environmental Protection (MEDEP) Chapter 425: Asbestos Management Regulations, April 3, 2011

PQL from EMSL of Cinnamonsin, New Jersey

<b>Asbestos in Air via Filter Media by PCM by NIOSH Method 7400</b>		
<b>Analyte</b>	<b>Laboratory Practical Quantitation Limit<sup>1</sup></b>	<b>Regulatory Standard<sup>2</sup></b>
Asbestos	7.0 fibers/mm <sup>2</sup> on filter	0.01 fibers/cc air

Notes:

PQL from EMSL of Cinnamonsin, New Jersey

<sup>1</sup> - Sample volume will be adjusted to give 100 to 1300 fibers/mm<sup>2</sup> where possible then the quantitative result is calculated versus the sample volume for regulatory comparison.

<sup>2</sup> - Maine Department of Environmental Protection (MEDEP) Chapter 425: Asbestos Management Regulations, April 3, 2011

**PCBs in Building Materials by EPA Method 8082A**

Analyte	Laboratory Practical Quantitation Limit	Remediation Waste Cleanup Goals 40 CFR 761.61		Regulatory Standard (40 CFR 761.3)
		High Occupancy	Low Occupancy	
PCB-1016	0.2	1 (Total)	25 (Total)	50 (Total)
PCB-1221	0.2			
PCB-1232	0.2			
PCB-1242	0.2			
PCB-1248	0.2			
PCB-1254	0.2			
PCB-1260	0.2			

Notes:

All values in mg/kg

PQLs from Absolute Resource Associates of  
Portsmouth, New Hampshire

**VOCs in Soil by EPA Method 8260C**

Analyte	Laboratory Practical Quantitation Limit	Regulatory Guideline <sup>1</sup>				
		Leaching to Groundwater	Residential	Park User	Commercial Worker	Excavation Construction Worker
1,1,1,2-tetrachloroethane	0.1	0.2	550	910	1,800	9,300
1,1,1-trichloroethane	0.1	520	10,000	10,000	10,000	10,000
1,1,2,2-tetrachloroethane	0.1	0.026	71	120	240	2,200
1,1,2-trichloroethane	0.1	0.10	250	410	830	5,400
1,1-dichloroethane	0.1	1	2,500	4,200	8,400	10,000
1,1-dichloroethene	0.1	2.5	8,500	10,000	10,000	10,000
1,1-dichloropropene	0.1	NE	NE	NE	NE	NE
1,2,3-trichlorobenzene	0.1	NE	1,700	2,800	10,000	420
1,2,3-trichloropropane	0.1	NE	0.005*	NE	NE	NE
1,2,4-trichlorobenzene	0.1	8.6	490	820	1,600	430
1,2,4-trimethylbenzene	0.1	NE	62*	NE	NE	NE
1,2-dibromo-3-chloropropane (DBCP)	0.1	NE	3.2	5.4	47	51
1,2-dibromoethane (EDB)	0.1	NE	7.1	12	24	180
1,2-dichlorobenzene	0.1	11	5,100	8,500	10,000	10,000
1,2-dichloroethane	0.1	0.036	160	260	520	3,700
1,2-dichloropropane	0.1	NE	390	650	1,300	5,500
1,3,5-trimethylbenzene	0.1	NE	780*	NE	NE	NE
1,3-dichlorobenzene	0.1	0.075	34	57	340	6,200
1,3-dichloropropane	0.1	NE	3,400	5,700	10,000	10,000
1,4-dichlorobenzene	0.1	4.3	2,600	4,400	8,800	10,000
1,4-dioxane	2	NE	110	180	290	3,300
2,2-dichloropropane	0.1	NE	NE	NE	NE	NE
2-butanone (MEK)	0.3	NE	10,000	10,000	10,000	10,000
2-chlorotoluene	0.1	NE	1,600*	NE	NE	NE
2-hexanone	0.5	NE	210*	NE	NE	NE
4-chlorotoluene	0.1	NE	1,600*	NE	NE	NE
4-isopropyltoluene	0.1	NE	2100*	NE	NE	NE
4-methyl-2-pentanone (MIBK)	0.4	NE	10,000	10,000	10,000	10,000
acetone	2	10,000	10,000	10,000	10,000	10,000
benzene	0.1	0.51	85	140	850	150
bromobenzene	0.1	NE	300*	NE	NE	NE
bromochloromethane	0.1	NE	160*	NE	NE	NE
bromodichloromethane	0.1	NE	230	380	770	6,200
bromoform	0.1	NE	1,400	2,300	3,600	10,000
bromomethane	0.2	NE	240	400	2,400	930
carbon disulfide	0.1	NE	10,000	10,000	10,000	10,000
carbon tetrachloride	0.1	0.55	200	340	680	2,800
chlorobenzene	0.1	1.1	3,400	5,700	10,000	10,000
chloroethane	0.1	NE	1,700	2,800	10,000	10,000
chloroform	0.1	NE	460	760	1,500	10,000
chloromethane	0.1	NE	10,000	10,000	10,000	10,000
cis-1,2-dichloroethene	0.1	0.14	340	570	3,400	6,200
cis-1,3-dichloropropene	0.1	NE	NE	NE	NE	NE
dibromochloromethane	0.1	NE	170	280	560	4,300
dibromomethane	0.1	NE	25*	NE	NE	NE

**VOCs in Soil by EPA Method 8260C**

Analyte	Laboratory Practical Quantitation Limit	Regulatory Guideline <sup>1</sup>				
		Leaching to Groundwater	Residential	Park User	Commercial Worker	Excavation Construction Worker
dichlorodifluoromethane	0.1	NE	10,000	10,000	10,000	10,000
diethyl ether	0.1	NE	16,000*	NE	NE	NE
ethylbenzene	0.1	0.81	1,300	2,200	4,300	10,000
hexachlorobutadiene	0.1	NE	130	220	370	240
isopropylbenzene	0.1	NE	2,100*	NE	NE	NE
m&p-xylenes	0.1	26	10,000	10,000	10,000	10,000
methyl t-butyl ether (MTBE)	0.1	0.19	5,100	8,500	10,000	10,000
methylene chloride	0.1	NE	1,000	1,700	10,000	10,000
naphthalene	0.1	1.7	2,500	4,200	10,000	10,000
n-butylbenzene	0.1	NE	3,900*	NE	NE	NE
n-propylbenzene	0.1	NE	3,400*	NE	NE	NE
o-xylene	0.1	26	10,000	10,000	10,000	10,000
sec-butylbenzene	0.1	NE	7,800*	NE	NE	NE
styrene	0.1	NE	10,000	10,000	10,000	10,000
tert-butylbenzene	0.1	NE	7,800*	NE	NE	NE
tetrachloroethene	0.1	2.7	1,000	1,700	10,000	10,000
tetrahydrofuran (THF)	0.5	NE	18,000*	NE	NE	NE
toluene	0.1	8.1	10,000	10,000	10,000	10,000
trans-1,2-dichloroethene	0.1	2.4	3,400	5,700	10,000	10,000
trans-1,3-dichloropropene	0.1	NE	NE	NE	NE	NE
trichloroethene	0.1	0.23	85	140	850	140
trichlorofluoromethane	0.1	NE	10,000	10,000	10,000	10,000
vinyl chloride	0.1	0.013	0.48	0.49	66	600

Notes:

All values are in mg/kg.

Hampshire

1 - Maine Department of Environmental Protection (MEDEP)

Remedial Action Guidelines (RAGs) for Sites Contaminated with

Hazardous Substances, February 5, 2016. unless marked with an \*.

NE = Regulatory guideline not established

\* - United States Environmental Protection Agency Regions 3, 6, and 9. (accessed 4/12/12). Regional Screening Levels for Chemical Contaminants at Superfund Sites.

[http://www.epa.gov/reg3hwmd/risk/human/rb-concentration\\_table/index.htm](http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm)

**VOCs for Waste Characterization by EPA Method 8260C**

Analyte	Soil Laboratory Practical Quantitation Limit (mg/kg)	Groundwater Laboratory Practical Quantitation Limit (µg/L)	Regulatory Criteria
1,1,1,2-tetrachloroethane	0.1	2	Will be compared to disposal facility acceptance criteria
1,1,1-trichloroethane	0.1	2	
1,1,2,2-tetrachloroethane	0.1	2	
1,1,2-trichloroethane	0.1	2	
1,1-dichloroethane	0.1	2	
1,1-dichloroethene	0.1	1	
1,1-dichloropropene	0.1	2	
1,2,3-trichlorobenzene	0.1	2	
1,2,3-trichloropropane	0.1	2	
1,2,4-trichlorobenzene	0.1	2	
1,2,4-trimethylbenzene	0.1	2	
1,2-dibromo-3-chloropropane (DBCP)	0.1	2	
1,2-dibromoethane (EDB)	0.1	2	
1,2-dichlorobenzene	0.1	2	
1,2-dichloroethane	0.1	2	
1,2-dichloropropane	0.1	2	
1,3,5-trimethylbenzene	0.1	2	
1,3-dichlorobenzene	0.1	2	
1,3-dichloropropane	0.1	2	
1,4-dichlorobenzene	0.1	2	
1,4-dioxane	2	50	
2,2-dichloropropane	0.1	2	
2-butanone (MEK)	0.3	10	
2-chlorotoluene	0.1	2	
2-hexanone	0.5	10	
4-chlorotoluene	0.1	2	
4-isopropyltoluene	0.1	2	
4-methyl-2-pentanone (MIBK)	0.4	10	
acetone	2	50	
benzene	0.1	2	
bromobenzene	0.1	2	
bromochloromethane	0.1	2	
bromodichloromethane	0.1	1	
bromoform	0.1	2	
bromomethane	0.2	2	
carbon disulfide	0.1	2	
carbon tetrachloride	0.1	2	
chlorobenzene	0.1	2	
chloroethane	0.1	2	
chloroform	0.1	2	
chloromethane	0.1	2	
cis-1,2-dichloroethene	0.1	2	
cis-1,3-dichloropropene	0.1	2	
dibromochloromethane	0.1	2	
dibromomethane	0.1	2	

## VOCs for Waste Characterization by EPA Method 8260C

Analyte	Soil Laboratory Practical Quantitation Limit (mg/kg)	Groundwater Laboratory Practical Quantitation Limit (µg/L)	Regulatory Criteria
dichlorodifluoromethane	0.1	2	Will be compared to disposal facility acceptance criteria
diethyl ether	0.1	5	
ethylbenzene	0.1	2	
hexachlorobutadiene	0.1	1	
isopropylbenzene	0.1	2	
m&p-xylenes	0.1	2	
methyl t-butyl ether (MTBE)	0.1	2	
methylene chloride	0.1	5	
naphthalene	0.1	5	
n-butylbenzene	0.1	2	
n-propylbenzene	0.1	2	
o-xylene	0.1	2	
sec-butylbenzene	0.1	2	
styrene	0.1	2	
tert-butylbenzene	0.1	2	
tetrachloroethene	0.1	2	
tetrahydrofuran (THF)	0.5	10	
toluene	0.1	2	
trans-1,2-dichloroethene	0.1	2	
trans-1,3-dichloropropene	0.1	2	
trichloroethene	0.1	2	
trichlorofluoromethane	0.1	2	
vinyl chloride	0.1	2	

Notes:

U.S. Air Force, New Hampshire

## SVOCs for Waste Characterization by EPA Method 8270D

Analyte	Soil Laboratory Practical Quantitation Limit (mg/kg)	Groundwater Laboratory Practical Quantitation Limit (µg/L)	Regulatory Criteria
1,2,4-trichlorobenzene	0.5	5	Will be compared to disposal facility acceptance criteria
1,2-dichlorobenzene	0.2	2	
1,3-dichlorobenzene	0.2	2	
1,4-dichlorobenzene	0.2	2	
1,4-dioxane	2	50	
2,4,5-trichlorophenol	0.2	2	
2,4,6-trichlorophenol	0.2	2	
2,4-dichlorophenol	0.5	5	
2,4-dimethylphenol	0.2	2	
2,4-dinitrophenol	5	50	
2,4-dinitrotoluene	0.2	2	
2,6-dinitrotoluene	0.2	2	
2-chloronaphthalene	0.5	5	
2-chlorophenol	0.5	5	
2-methylnaphthalene	0.05	1	
2-methylphenol	0.2	2	
2-nitroaniline	0.2	2	
2-nitrophenol	0.2	2	
3,3-dichlorobenzidine	3	30	
3-nitroaniline	0.2	2	
4,6-dinitro-2-methylphenol	2	20	
4-bromophenyl phenyl ether	0.2	2	
4-chloro-3-methylphenol	0.2	2	
4-chloroaniline	0.2	2	
4-chlorophenyl phenyl ether	0.5	5	
4-methylphenol	0.2	2	
4-nitroaniline	0.5	5	
4-nitrophenol	2	10	
acenaphthene	0.05	1	
acenaphthylene	0.05	1	
aniline	0.2	2	
anthracene	0.05	1	
azobenzene	0.2	2	
benzidine	3	30	
benzo(a)anthracene	0.05	0.50	
benzo(a)pyrene	0.05	0.20	
benzo(b)fluoranthene	0.05	0.50	
benzo(g,h,i)perylene	0.05	1	
benzo(k)fluoranthene	0.05	1	
benzoic acid	5	50	
benzyl alcohol	0.2	2	
bis(2-chloroethoxy)methane	0.2	5	
bis(2-chloroethyl)ether	0.2	2	
bis(2-chloroisopropyl) ether	0.2	2	
bis(2-ethylhexyl)phthalate	0.5	5	
butyl benzyl phthalate	0.5	5	
carbazole	0.2	2	
chrysene	0.05	1	
dibenzo(a,h)anthracene	0.05	1	
dibenzofuran	0.05	1	
diethyl phthalate	0.5	5	
dimethylphthalate	0.5	5	
di-n-butylphthalate	0.5	5	

## SVOCs for Waste Characterization by EPA Method 8270D

Analyte	Soil Laboratory Practical Quantitation Limit (mg/kg)	Groundwater Laboratory Practical Quantitation Limit (µg/L)	Regulatory Criteria
di-n-octyl phthalate	0.5	2	
fluoranthene	0.05	1	
fluorene	0.05	1	
hexachlorobenzene	0.2	2	
hexachlorobutadiene	0.2	2	
hexachlorocyclopentadiene	1	10	
hexachloroethane	0.2	2	
indeno(1,2,3-cd)pyrene	0.05	0.50	
isophorone	0.5	5	
naphthalene	0.05	1	
nitrobenzene	0.2	2	
N-nitrosodimethylamine	0.2	2	
N-nitroso-di-N-propylamine	0.2	2	
N-nitrosodiphenylamine	0.2	2	
pentachlorophenol	1	10	
phenanthrene	0.05	1	
phenol	0.2	2	
pyrene	0.05	1	

Notes:

PQLs from Absolute Resource Associates of Portsmouth, New Hampshire

### TPH for Waste Characterization by EPA Method 8100

<b>Analyte</b>	<b>Soil Laboratory Practical Quantitation Limit (mg/kg)</b>	<b>Regulatory Criteria</b>
Total Petroleum Hydrocarbons	200	Will be compared to disposal facility acceptance criteria

Notes:

PQLs from Absolute Resource Associates of Portsmouth, New Hampshire

**PCBs for Waste Characterization by EPA Method 8082A**

<b>Aroclor</b>	<b>Soil Laboratory Practical Quantitation Limit (mg/kg)</b>	<b>Groundwater Laboratory Practical Quantitation Limit (µg/L)</b>	<b>Regulatory Criteria</b>
Aroclor 1016	0.2	0.3	Will be compared to disposal facility acceptance criteria
Aroclor 1221	0.2	0.3	
Aroclor 1232	0.2	0.3	
Aroclor 1242	0.2	0.3	
Aroclor 1248	0.2	0.3	
Aroclor 1254	0.2	0.3	
Aroclor 1260	0.2	0.3	

Notes:

PQLs from Absolute Resource Associates of Portsmouth, New Hampshire

**RCRA 8 Metals for Waste Characterization by  
EPA Method 6010C**

<b>Analyte</b>	<b>Soil Laboratory Practical Quantitation Limit (mg/kg)</b>	<b>Groundwater Laboratory Practical Quantitation Limit (µg/L)</b>	<b>Regulatory Criteria</b>
Arsenic	0.5	8	Will be compared to disposal facility acceptance criteria
Barium	2	50	
Cadmium	0.2	4	
Chromium	2	50	
Lead	0.5	8	
Selenium	2	50	
Silver	0.4	7	

Notes:

PQLs from Absolute Resource Associates of Portsmouth, New Hampshire

<b>Mercury for Waste Characterization by EPA Methods 7470A (aqueous) and 7471B (solid)</b>			
<b>Analyte</b>	<b>Soil Laboratory Practical Quantitation Limit (mg/kg)</b>	<b>Groundwater Laboratory Practical Quantitation Limit (µg/L)</b>	<b>Regulatory Criteria</b>
Mercury (elemental)	0.02	0.2	Will be compared to disposal facility acceptance criteria
Mercury (chloride)		0.2	

Notes:

PQLs from Absolute Resource Associates of Portsmouth, New Hampshire

### Pesticides for Waste Characterization by 8081B

Analyte	Soil Laboratory Practical Quantitation Limit (mg/kg)	Groundwater Laboratory Practical Quantitation Limit (µg/L)	Regulatory Criteria
DDD	0.04	0.05	Will be compared to disposal facility acceptance criteria
DDE	0.04	0.05	
DDT	0.04	0.05	
Aldrin	0.04	0.05	
alpha-BHC	0.04	0.05	
Chlordane	0.04	0.05	
beta-BHC	0.04	0.05	
Dieldrin	0.04	0.05	
Endosulfan	0.04	0.05	
Endrin	0.04	0.05	
Endrin	0.04	0.05	
gamma-BHC (Lindane)	0.04	0.05	
Heptachlor	0.04	0.05	
Heptachlor Epoxide	0.04	0.05	
Methoxychlor	0.04	0.05	
Toxaphene	0.2	0.4	

Notes:

PQLs from Absolute Resource Associates of Portsmouth, New Hampshire

### Herbicides for Waste Characterization by EPA Method 8151A

Analyte	Soil Laboratory Practical Quantitation Limit (mg/kg)	Groundwater Laboratory Practical Quantitation Limit (µg/L)	Regulatory Criteria
2,4,5-T	0.042	1.20	Will be compared to disposal facility acceptance criteria
2,4-D	0.042	1.20	
2,4-DB	0.042	1.20	
p-Nitrophenol	0.34	10 <sup>^</sup>	
Dalapon	2 <sup>^</sup>	1.20	
Dicamba	0.042	2.50	
Dichlorprop	0.084	1.20	
Dinoseb	0.042	2.50	
MCPA	0.084	380*	
MCPP	13*	380*	
Pentachlorophenol	13*	10 <sup>^</sup>	
Silvex (2,4,5-TP)	1 <sup>^</sup>	1.20	

Notes:

PQLs from Pheonix Labs of Manchester, CT (via ARA)

**Reactive Sulfides for Waste Characterization by Method  
SM 4500-S<sup>2-</sup>D+F**

<b>Analyte</b>	<b>Soil Laboratory Practical Quantitation Limit (mg/kg)</b>	<b>Groundwater Laboratory Practical Quantitation Limit (µg/L)</b>	<b>Regulatory Guideline</b>
Reactive sulfides	0.4	0.04	Will be compared to disposal facility acceptance criteria

Notes:

PQLs from Absolute Resource Associates of Portsmouth, New Hampshire

**Reactive Cyanides for Water Waste Characterization by Methods  
4500CN-E,C and EPA Method 9014**

<b>Analyte</b>	<b>Laboratory Practical Quantitation Limit</b>	<b>Regulatory Guideline</b>
Reactive cyanides	0.02	Will be compared to disposal facility acceptance criteria

Notes:

All values are in µg/L

PQLs from Absolute Resource Associates of Portsmouth, New Hampshire

**Reactive Cyanides for Soil Waste Characterization by Methods  
4500CN-E,C and EPA Method 9012B**

<b>Analyte</b>	<b>Laboratory Practical Quantitation Limit</b>	<b>Regulatory Guideline</b>
Reactive cyanides	0.48	Will be compared to disposal facility acceptance criteria

Notes:

All values are in mg/L

PQLs from Phoenix Environmental Laboratories of Manchester, CT (subbed through Absolute Resource Associates of Portsmouth, New Hampshire)

**pH in Water by Method SM 4500 H+B and SW-846 9045C**

<b>Analyte</b>	<b>Laboratory Practical Quantitation Limit</b>	<b>Regulatory Guideline</b>
pH	NA	Disposal facility acceptance criteria

Notes:

All values are in pH units

PQLs from Absolute Resource Associates of Portsmouth, New Hampshire

**TCLP Analysis by EPA Method 1311 and Total Constituent Analysis in Solids**

EPA HW No. 1	Contaminant	Laboratory Practical Quantitation Limit for TCLP Analysis (mg/L)	TCLP Regulatory Limit (mg/L)	Laboratory Practical Quantitation Limit for Total Constituent Analysis (mg/kg)	Regulatory Limit for Total Constituent Analysis (Equal to 20 times TCLP Limit) (mg/kg)	Method for Total Constituent Analysis
D004	Arsenic	< 0.08	5.0	< 0.5	100	EPA 6010
D005	Barium	< 0.5	100	< 2.5	2000	EPA 6010
D006	Cadmium	< 0.04	1.0	< 0.2	20	EPA 6010
D007	Chromium	< 0.5	5.0	< 2.5	100	EPA 6010
D008	Lead	< 0.08	5.0	< 0.5	100	EPA 6010
D009	Mercury	< 0.2	0.2	< 4	4	EPA 7470A/7471B
D010	Selenium	< 0.5	1.0	< 2.5	20	EPA 6010
D011	Silver	< 0.07	5.0	< 0.35	100	EPA 6010
D012	Endrin	< 0.008	0.02	< 0.16	0.4	EPA 8081
D013	Lindane	< 0.008	0.4	< 0.16	8	EPA 8081
D014	Methoxychlor	< 0.008	10	< 0.16	200	EPA 8081
D015	Toxaphene	< 0.008	0.5	< 0.16	10	EPA 8081
D016	2,4-D	< 10	10	< 200	200	EPA 8151
D017	2,4,5-TP (Silvex)	< 1.0	1.0	< 20	20	EPA 8151
D018	Benzene	< 0.2	0.5	< 4	10	EPA 8260
D019	Carbon tetrachloride	< 0.2	0.5	< 4	10	EPA 8260
D020	Chlordane	< 0.03	0.03	< 0.6	0.6	EPA 8081
D021	Chlorobenzene	< 0.2	100	< 4	2000	EPA 8260
D022	Chloroform	< 0.2	6.0	< 4	120	EPA 8260
D023	o-Cresol	< 0.5	200	< 10	4000	EPA 8270
D024	m-Cresol	< 0.5	200	< 10	4000	EPA 8270
D025	p-Cresol	< 0.5	200	< 10	4000	EPA 8270
D026	Cresol	< 0.5	200	< 10	4000	EPA 8270
D027	1,4-Dichlorobenzene	< 0.2	7.5	< 4	150	EPA 8260
D028	1,2-Dichloroethane	< 0.2	0.5	< 4	10	EPA 8260
D029	1,1-Dichloroethylene	< 0.2	0.7	< 4	14	EPA 8260
D030	2,4-Dinitrotoluene	< 0.1	0.13	< 2	2.6	EPA 8270
D031	Heptachlor (and its epoxide)	< 0.008	0.008	< 0.16	0.16	EPA 8081
D032	Hexachlorobenzene	< 0.1	0.13	< 2	2.6	EPA 8270
D033	Hexachlorobutadiene	< 0.5	0.5	< 10	10	EPA 8270
D034	Hexachloroethane	< 0.5	3.0	< 10	60	EPA 8270
D035	Methyl ethyl ketone	< 2	200	< 40	4000	EPA 8260
D036	Nitrobenzene	< 0.5	2.0	< 10	40	EPA 8270
D037	Pentachlorophenol	< 0.5	100	< 10	2000	EPA 8270
D038	Pyridine	< 0.5	5.0	< 10	100	EPA 8270
D039	Tetrachloroethylene		0.7	< 4	14	EPA 8260
D040	Trichloroethylene	< 0.2	0.5	< 4	10	EPA 8260
D041	2,4,5-Trichlorophenol	< 0.5	400	< 10	8000	EPA 8270
D042	2,4,6-Trichlorophenol	< 0.5	2.0	< 10	40	EPA 8270
D043	Vinyl chloride	< 0.2	0.2	< 4	4	EPA 8260

**APPENDIX B**  
**Draft Project Schedule**





## SECTION 02220

### BUILDING DEMOLITION

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION:

- A. This Section specifies the demolition of the former Prime Tanning Facility located in Berwick, Maine at the location shown on Drawing C-2: Building Demolition/Utility Abandonment Plan. This demolition work is located within the Contract Limits of Work as shown on Drawing C-2 and as specified in Section 01014, SCOPE AND SEQUENCE OF WORK. The extent of building and site demolition work includes the removal and proper disposal of building and site structures and components, as specified herein. The CONTRACTOR shall verify the construction and condition information of the building as well as the information presented in these Contract Documents, by site inspection, and shall provide all resources to perform the building demolition work.
- B. Extent of Physical Building Demolition (structures on lots 3 (partial), 4, 5 & 6).
1. As part of Building Demolition, the CONTRACTOR shall remove the building superstructures in their entirety, inclusive of all structural and building components, including floor coverings above floor slab grade. A section of the building on Lot 3 as shown on sheet C-2 shall be removed to common walls to of surrounding structures.
  2. The CONTRACTOR shall remove the building floor slabs and below grade foundation structures to a depth of 2 feet below top of floor slab grade.
  3. CONTRACTOR shall protect adjacent buildings to remain, including foundations or common walls shared with the building to be demolished. CONTRACTOR shall repair any damage to these buildings/structures resulting from demolition activities at no additional cost to the Owner. Foundations supporting structures to remain shall not be removed or damaged even if these foundations are located in Lots 4, 5 or 6. The common walls of the structures located in lot 4 shall remain in-place. Openings in these walls (doorways, areas of no walls, hallway entrances, etc.) shall be sealed after demolition. Openings shall be sealed with 2x4 framing and marine grade plywood or other approved materials. Plywood and exposed framing shall be primed and painted with exterior grade paint. The paint color shall match the color of the existing walls or color shall be as approved by OWNER or ENGINEER.
  4. All aboveground utilities and equipment within the building footprints and within the limits of lots 4, 5 & 6 shall be demolished and removed from the site as property of the CONTRACTOR. Utility services to the building shall be disconnected/terminated/abandoned in accordance with Drawing C-2: Building

Demolition/Utility Abandonment Plan. Any live utility feeds to the building must be terminated in accordance with the utility owner.

5. As part of Building Demolition, the CONTRACTOR shall remove and dispose of properly any furnishings, fixtures, equipment, mechanical aspects, and any and all other structural and non-structural improvements and aspects. CONTRACTOR should assume that furnishings of value that may have been observed by him during the pre-bid site inspection will become his property and shall be removed and properly disposed of by the CONTRACTOR, unless specifically identified to the contrary in these Contract Documents or as required by the ENGINEER. All demolition debris materials, shall be removed, recycled, reused or disposed of at appropriate disposal facilities, as appropriate.
  6. CONTRACTOR shall crush clean asphalt, brick, and concrete (ABC) demolition debris on-site for use as select backfill material for demolished building foundation excavations. ABC debris shall be crushed to 3-inch minus for this purpose. Surplus crushed material shall be placed and compacted to finish grades. Final grading within the demolition footprint and associated disturbed areas shall be such that the new grades slope towards existing catch basins as shown on sheet C-4. Contractor shall grade around the existing catch basins such that surface run-off is directed towards these structures.
  7. Any fill materials under slabs, but above surrounding grade within a building's or structure's footprint, shall be removed to the extent necessary to level the footprint area to the ground lines immediately outside the footprint. Such above ground fill shall be kept on site and spread or stockpiled as directed by the ENGINEER.
  8. The CONTRACTOR shall demolish and remove all additional structural or non-structural portions of the building and site as is required for complete removal of the building and site structures from the site as described above. This shall include all stairs, porches, platforms, ancillary buildings, build-outs, concrete piers and other improvements associated with the buildings and other structures, even though they may be located or extend beyond the building's or structure's general footprint.
  9. In areas where demolition work is performed, protect, support, secure, and maintain both underground and aboveground utility systems that are to remain.
  10. Asphalt shall be saw cut to the limit shown on C-2. All asphalt and other materials (concrete pads, curbs, pipes, foundations) within this limit and within 2 feet of the surface shall be removed and crushed for on-site reuse as ABC material.
- C. Site Demolition: The surrounding grounds outside of the buildings in Lots 4, 5 and 6 shall be cleared of existing features. This includes everything but surface soil. All components shall be removed to a minimum to 2 feet below grade. Components include but not limited to: bollards, fencing, guard rails, concrete slabs, concrete sumps curbing,

and concrete/asphalt paving to limits shown. Sewers and drain utilities shall remain in place and be protected, unless noted on plans.

#### 1.02 REGULATORY REQUIREMENTS:

- A. Conform to applicable codes and requirements for demolition of structures, safety of adjacent structures, dust control, service utilities, and discovered hazards.
- B. Dispose or recycle all demolition debris in accordance with all applicable regulations.

#### 1.03 DESCRIPTION OF BUILDINGS AND SITE

The following are general descriptions of the buildings and the site grounds to be demolished. The description is not complete and is provided only for the assistance of the CONTRACTOR. Details regarding the structures size and construction are not guaranteed to be correct and the CONTRACTOR shall not be able to make a claim based on their correctness. The CONTRACTOR shall visually inspect for verification, quantification, and completeness of the building's structural and non-structural systems to be demolished and removed, as well as the building's contents for removal and disposal.

- 1. Structures to be demolished consist of the following:
  - a. Lot 4 – 29,800 square feet of building consisting of the following building components:
    - i. Asphalt membrane roof systems on wood roof sheathing
    - ii. Metal and wood truss roof framing
    - iii. Interior concrete block walls
    - iv. HVAC, plumbing, floor drains and floor trench drains, and electrical systems
    - v. Concrete block and/or brick exterior and interior walls
    - vi. Concrete floors
  - b. Lot 5 – 6,080 square feet of wooden frame building including an outlying three sided building. Building components include:
    - i. Asphalt and/or metal roof systems on wood roof sheathing
    - ii. Wood truss roof framing
    - iii. Interior wood framed walls
    - iv. HVAC, plumbing, floor drains, and electrical systems
    - v. Wood framed exterior walls and concrete block and/or brick foundations
    - vi. Clapboard and/or vinyl exterior siding
    - vii. Concrete floors
    - viii. The three sided building consists of concrete block walls, an asphalt roof, and concrete floor
  - c. Lot 6 – 18,610 square feet of wooden frame building with concrete/brick foundations. Building components include:
    - i. Asphalt and/or metal roof systems on wood roof sheathing

- ii. Wood truss roof framing
- iii. Interior wood framed walls
- iv. HVAC, plumbing, floor drains, and electrical systems
- v. Wood framed exterior walls and exterior walls and/or brick foundations
- vi. Clapboard and/or vinyl siding exterior siding
- vii. Concrete floors

d. Alternate 1 – Wastewater Pretreatment Area. Building components include:

- i. Asphalt roof systems on wood roof sheathing
- ii. Wood truss roof framing
- iii. Interior wood framed walls
- iv. HVAC, plumbing, WW pumps, floor drains, and electrical systems
- v. Wood framed exterior walls and exterior walls and concrete foundation and floor
- vi. Metal lime silo
- vii. 36' diameter concrete tank (20' high)

2. Demolition of the areas outside of the buildings includes, but limited, to the following structures: asphalt and concrete pavements, bollards, concrete pads, guard rails, cubing, miscellaneous poles and pipes, refuse, and miscellaneous debris. Stormwater structures shall be protected and not disturbed. Sewer manholes shall be protected unless noted on the plans. All debris and structures shall be removed to 2 feet below existing grades.

1.04 RELATED WORK:

- A. Due to the nature of the work described in this Section, the CONTRACTOR shall examine the Contract Documents thoroughly for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to, those listed below.
- B. Section 01014 – SCOPE AND SEQUENCE OF WORK
- C. Section 00890 - PERMITS
- D. Section 01330 – SUBMITTALS
- E. Section 01380 – HEALTH AND SAFETY PLAN
- E. Section 01550 – SIGNAGE (TRAFFIC CONTROL)
- F. Section 01562 – DUST CONTROL
- G. Section 01570 – ENVIRONMENTAL PROTECTION
- H. Section 02300 – EARTHWORK

## 1.05 SUBMITTALS:

- A. Permits and Certificates: Submit permits and certificates to the Engineer prior to start of demolition work; coordinate with the requirements of Section 00890 - PERMITS. Items to be submitted include but are not limited to the following:
1. Permits and notices authorizing building demolition.
  2. Permits and notices authorizing work located adjacent to regulated environmental features.
  3. Certificates of severance of utility services.
- B. Demolition Plan: Prior to the start of demolition work, and no later than 30 calendar days after the date of the Notice to Proceed, submit a comprehensive Demolition Plan, stamped and signed by a Professional Engineer registered in the State of Maine, for the ENGINEER's review and approval prior to demolition work. The Demolition Plan shall be coordinated with, and as appropriate include reference to, the various plans and submittals required by these Specifications.

At a minimum, the CONTRACTOR's Demolition Plan shall specifically include and address the following.

1. A schedule that details the sequence of demolition both for the sequence of work within a building and for the overall sequence for the buildings being demolished under this Contract.
2. Methods, equipment and operations. Include information such as catchment system protection details and procedures, equipment types and placement, name and address of all demolition debris transporters, and protection controls, including protection to traffic, passersby, and abutting parcels.
3. Demolition of the building on Lot 4 shall require structured disconnection from the Lot 3 and 7 buildings and support of the remaining Lot 3 and 7 structures as necessary to maintain their structural integrity. CONTRACTOR shall submit a building disconnection and support plan stamped by a licensed professional structural engineer, describing the means and methods for disconnection and support of Lot 3 and 7 buildings for review and approval by the ENGINEER.
4. Coordination for shut-off, capping, and continuation of utility services as required.
5. A site plan indicating CONTRACTOR's intended plan and identifying location for various aspects such as temporary demolition staging and stockpiling areas, debris storage areas, dumpster locations, truck loading areas, equipment and material storage, temporary sanitary facilities, employee parking and similar information.

6. CONTRACTOR shall identify and make arrangements with all off-site reuse, recycling, and disposal facilities to be used. The CONTRACTOR shall not remove any materials from the site until his Demolition Plan has been approved by the ENGINEER. The CONTRACTOR shall not remove any demolition material to any off-site facility or location not listed in his approved Demolition Plan. If, following approval of the Demolition Plan, the CONTRACTOR desires or identifies a need to use any facility not included in the Plan, he must submit all the information as required by this paragraph, and receive approval for same, prior to such use. The Demolition Plan shall, at a minimum, contain the following:

- Recycling/Disposal facility name(s).
- Recycling/Disposal facility address(es).
- Name and title of contact person for each disposal facility to be used.
- Telephone number of contact person for each recycling/disposal facility to be used.
- For each recycling/disposal facility to be used, copies of licenses or permits to operate and confirmation that they are permitted to accept demolition materials to be taken to that facility.
- Lists matching each facility with the materials it will accept for this project, and specifying whether the facility is a recycling, treatment, storage, or disposal facility.
- Confirmation from the facility(ies) that they will accept the type and quantities demolition materials.
- Description of CONTRACTOR's procedures to manage and track materials and example of CONTRACTOR's material tracking log.

C. Shop Drawings: Submit shop drawings, stamped and signed by a Professional Engineer registered in the State of Maine, for the ENGINEER's review and approval at least four weeks prior to the associated demolition work. Each submittal shall include the reference to the Specification Section(s) and relative paragraph(s) being addressed in the submittal. At a minimum, shop drawings shall be submitted for the following and shall address the aspects identified.

1. Temporary structural supports as required during demolition, including but not limited to, scaffolding, bulk heads for buildings severed by the property line, and any other protective structures. Particular attention shall be given to fall hazards.
2. Competent person to supervise the erection and dismantling temporary structural supports.
3. Methods of temporary protection for the poles, overhead wires, and pole-mounted transformers on site, when, and if, applicable. These shop drawing submittals shall include a copy of the written approval from the electrical utility company and other

affected overhead utility authorities, for the proposed protection of their overhead utility system. This protection system must clearly show that this utility service is adequately protected, and that worker and public safety is ensured in providing utility protection and performing the work of this Section.

4. Methods, equipment and materials being used for any support of excavation for the protection of utilities and adjacent structures.
- D. Disposal Receipts: Prior to submission of a periodic invoice for payment for Work including materials disposal, and within 21 days of transportation from the site, the CONTRACTOR shall document actual disposal of the waste at the designated landfill by completing an associated Disposal Certificate and submitting the original to the ENGINEER together with all associated disposal receipts from the solid waste facility or the recycling site. Such certificates and receipts shall bear the printed name of the facility operator and shall specify the date of delivery; the quantity and type of material delivered, and shall be signed by an on-site representative of the facility operator. Payment may be withheld at the discretion of the ENGINEER for the disposal of materials for which there are no signed disposal receipts.

#### 1.06 JOB SITE CONDITIONS:

- A. The CONTRACTOR shall become thoroughly familiar with the site and of existing utilities and their connections, and within 15 calendar days of the Notice to Proceed for this demolition Contract, note all conditions that may influence the work of this Section.

#### 1.07 PROTECTION AND CONTROLS:

- A. The CONTRACTOR shall keep in service existing utilities that are not being discontinued by the work of this Contract and shall protect them against damage during demolition operations. Do not interrupt existing utilities servicing occupied or used facilities, except when authorized in writing by authorities having jurisdiction. Perform all work in compliance with 29 CFR 1910.333 and 29 CFR 1926.955. Coordinate with the requirements of Section 01110 – CONTROL OF WORK AND MATERIALS.
- B. CONTRACTOR shall arrange and pay for disconnecting, removing, capping, surveying and plugging utility services. Utility services disconnected at underground mains shall be repaired in accordance with the requirements of the affected utility company. Place markers to indicate location of disconnected services and indicate such locations on the Subsurface Location Survey required in this Section. Coordinate with the requirements of Section 00890 - PERMITS.
- C. The CONTRACTOR shall actively relocate construction fencing as necessary and appropriate to correspond to ongoing demolition operations.
- D. CONTRACTOR shall perform his operations in such a manner, as specified in the Contract Documents, as to prevent movement or settlement of adjacent structures, or movement, settlement, or collapse of adjacent services and sidewalks. Cease operations

and notify the ENGINEER immediately if safety of adjacent structures or services appear to be endangered. Do not resume operations until safety is restored. CONTRACTOR shall be solely responsible and liable for any such movement, settlement, damage, or injury due to his operations. Promptly repair damage at no cost to the OWNER. Coordinate with the requirements of Section 01110 - CONTROL OF WORK AND MATERIALS.

- E. Fall protection shall be provided whenever the work is at heights greater than six feet, and or where holes and openings exceed six feet in depth. CONTRACTOR shall provide barriers at floor openings and demolished stairways and vertical shafts, and maintain same at all times that a potential fall hazard to workers may exist. The design and use of personal fall arrest and restraint systems, and training of personnel shall comply with ANSI standards. Safety harnesses shall be required for all fall arrest systems. Safe access shall be maintained at all times by the use of scaffold ladders, stair towers, or other acceptable means. Platform planks shall be used in lieu of the commonly used single plank during erection and dismantling.
- F. Comply with governing regulations pertaining to environmental protection. Coordinate with the requirements of Section 01570 - ENVIRONMENTAL PROTECTION.
- G. Conduct demolition operations to prevent migration of dust, dirt, and debris to adjacent structures and water resources. Use water sprinkling, temporary enclosures, and other suitable methods to limit dust and dirt rising and scattering into the air. All trucks must be covered when transporting debris from the work site. All vehicles leaving the job site must be cleaned to avoid distribution of dust and dirt to the surrounding areas. Coordinate with the requirements of Section 01562 - DUST CONTROL.

## PART 2 – PRODUCTS

Not Used

## PART 3 - EXECUTION

### 3.01 DEMOLITION:

- A. Demolition shall be by mechanical methods unless otherwise approved. No blasting shall be permitted without prior approval from the ENGINEER.
- B. Remove and properly dispose off-site of above-ground, at grade and below-ground building structures, as specified in Part 1.

### 3.02 DEMOLITION MATERIAL HANDLING AND REMOVAL:

- A. The demolition debris generated by the demolition activities shall be sorted, and to the extent practical, shall be recycled. The CONTRACTOR shall dispose of as much of the steel, surplus concrete, and rubble as possible at a facility that will recycle such material. General demolition debris that is not recycled shall be disposed of at appropriate

designated licensed solid waste disposal facilities.

- B. All material removed from the site shall be transported from the site by licensed haulers, via designated truck routes, using appropriate vehicles, containment, and documentation. No material shall leave the site without an associated tracking document; the form of such tracking documents shall be acceptable to the ENGINEER. Where the means of tracking does not have a preprinted unique alphanumeric identifier, CONTRACTOR shall assign and record a tracking number for the document prior to transport of the material from the site.
- C. CONTRACTOR shall maintain a Material Tracking Log that documents and tracks all material removed from the site. For each load of material removed from the site under any Section of these Specifications, whether transported to a recycle, reuse, or disposal facility, the CONTRACTOR shall record at a minimum the following information: a) nature and description of material; b) associated Division 2 Specification Section under which the material was removed; c) business name of licensed hauler; d) vehicle identifier; e) weight or quantity of material in hauler's load; f) type of tracking document and associated document's unique alphanumeric identifier for bill of lading, manifest, or other record being used to track hauler's load; g) date of transport from the site; h) date of arrival at the receiving facility; and i) unique number or identifier of associated receiving facility weight slip or receipt.
1. The Material Tracking Log shall be updated no less than daily, and shall be available to the ENGINEER for review at all times during normal work hours.
  2. A copy of the complete Material Tracking Log shall be submitted to the ENGINEER prior to Final Completion.
- D. Clean asphalt, concrete, and brick rubble can be crushed on-site for use as a backfill (select backfill) material for building foundations and for final site restoration grading, in accordance with the following requirements:
- The only materials crushed are asphalt pavement, brick or concrete (ABC) rubble that are not contaminated, or coated or impregnated with any substance. Painted concrete/brick is OK to crush and reuse.
  - Good management practices are used and no public nuisance is created.
  - All rubble is from the site where the rubble is being crushed. (i.e., rubble cannot be brought in from other locations and crushed).
  - The rubble is processed so the maximum length of the largest dimension of any piece of rubble is less than three inches.
  - If the rubble contains rebar (metal reinforcing), all rebar is removed and is recycled or disposed in an approved solid waste management facility;
  - The rubble should be crushed and reused within a reasonable time.

END OF SECTION

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## SECTION 02221

### ABANDONMENT OF EXISTING WATER MAINS

#### PART 1 - GENERAL

##### 1.01 WORK INCLUDED:

- A. This Section covers the abandonment of existing water mains, complete.
- B. The Contractor shall abandon water mains as indicated on the drawings.

##### 1.02 RELATED WORK:

- A. Section 01330, SUBMITTALS
- B. Section 02111, ASBESTOS ABATEMENT FOR UNDERGROUND UTILITIES
- C. Section 02300, EARTHWORK
- D. Section 03302, FIELD CONCRETE

##### 1.03 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF GENERAL SPECIFICATIONS, SUBMIT THE FOLLOWING:

The Contractor shall submit its plan for abandoning existing pipe, showing equipment, methods and materials. The plan shall be submitted to and reviewed by the Engineer before construction.

#### PART 2 - PRODUCTS (NOT APPLICABLE)

#### PART 3 - EXECUTION

##### 3.01 ABANDONMENT OF EXISTING WATER MAINS:

- A. All water mains to be abandoned shall be capped at the open ends of the pipes. Refer to Section 02111 for special handling requirements for asbestos cement pipe.
- B. Sections of water mains that are not removed shall have open ends plugged with concrete or brick and mortar to prevent the entrance of soil into the pipe after backfilling.
- C. Any water main to be abandoned shall be cut at its connection to a live main and physically disconnected. A watertight ductile iron cap with concrete backing shall be installed on the live main. If a gate valve or corporation stop exists at the connection, it shall be closed.
- D. Valve boxes shall be removed from all valves and curb stops which are on the abandoned main.

- E. Hydrants, including hydrant barrels to be abandoned shall be removed completely and delivered to the Owner's storage area. Open pipe ends remaining shall be plugged with concrete or brick and mortar to prevent the entrance of soil into the pipe after backfilling.

END OF SECTION

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## SECTION 02222

### ABANDONMENT OF SEWERS AND DRAINS

#### PART 1 - GENERAL

##### 1.01 WORK INCLUDED:

- A. This Section covers the abandonment of sewers and drains through various means including furnishing, handling and installation of all mechanical, concrete and masonry plugs; removal and disposal of manholes, and filling existing pipes with controlled density fill, specified herein.
- B. The Contractor shall furnish all materials, tools, labor, and equipment to abandon existing sewers, combined sewers, and drains.

##### 1.02 RELATED WORK:

- A. Section 01330, SUBMITTALS
- B. Section 02058, CONTROLLED DENSITY FILL
- C. Section 03302, FIELD CONCRETE

##### 1.03 REFERENCES:

The following standards form a part of this specification, as referenced:

American Society for Testing and Materials (ASTM)

ASTM C32      Specifications for Sewer and Manhole Brick (Made from Clay or shale).

##### 1.04 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF GENERAL SPECIFICATIONS, SUBMIT THE FOLLOWING:

The Contractor shall submit six sets of its plan for abandoning existing pipe, showing equipment, methods and materials. The plan shall be submitted to and reviewed by the Engineer before construction.

#### PART 2 - PRODUCTS

##### 2.01 PLUGS:

- A. Plugs installed at the open ends of the pipe to be abandoned shall be mechanical sewer plug, 12-inch thick 3,000-psi cement concrete, or 8-inch thick brick masonry as

specified on Plans. The pipes to be abandoned include sewer, combined sewer, and drains as specified herein and as shown on the Drawings.

- B. Mechanical pipe plugs shall have nylon body with expandable rubber gasket. Plugs shall be fit into place by use of hand tightening wing nuts. Plugs shall have no corrodible metal parts except for stainless steel or brass. Plugs shall have a bypass plug to use to test for surcharge of water on plugged side of pipe.
- C. Precast cement concrete plugs that are used shall meet the requirements for 3,000 psi concrete and shall be free of cracks and spalls. Brick masonry plugs shall be made of brick meeting the requirements of ASTM C32, for grade SS, hard brick.
- D. Mortar shall be composed of portland cement, hydrated lime, and sand, and the volume of sand shall not exceed three times the sum of the volumes of cement and lime. The proportions of cement and lime shall be as required and may vary from 1:1/4 for dense hard-burned brick to 1:3/4 for softer brick. In general, mortar for grade SS brick shall be mixed in the volume proportions of 1:1/2:4-1/2; portland cement to hydrated lime to sand. The cement concrete plug shall be covered with non-shrink grout to prevent leakage at the plug.

#### 2.02 PIPE FILL:

- A. Fill used for the abandonment of sewers, combined sewers, and drains as shown on the drawings shall consist of clean fill, or controlled density fill meeting the requirements included in Section 02058 Controlled Density Fill.
- B. Any variance from the specified material shown on the plans or as specified herein for the abandonment of the pipeline shall be subject to the written approval of the Engineer.

### PART 3 - EXECUTION

#### 3.01 INSTALLATION

##### A. PLUGS:

1. Existing sewers or drains shall be plugged with 3,000 psi concrete or with brick masonry, as required by the Engineer. For non-circular pipes, the largest interior cross sectional dimension shall govern in determining size of abandonment.
2. Plugs shall be of adequate strength to withstand the full soil and groundwater pressure but not less than 5 psi.
3. Open ends of sewer and drain services less than 12 inches in diameter shall be plugged with the appropriate brick and mortar plugs or concrete plug as required by the Engineer. Such plug shall be made watertight with an application around the plug of an approved watertight compound.

4. Masonry plugs shall be at least 8-inches thick and concrete plugs shall be at least 12-inches thick. Pipes entering a manhole or catch basin that are to be abandoned shall have a plug installed that is flush with the interior wall of the structure.

B. PIPE FILL:

1. Existing sewers or drains to be abandoned that are 12-inches and larger shall be filled with clean fill, or controlled density fill, and plugged.
2. Existing sewers or drains smaller than 12-inches shall be plugged and abandoned but need not be filled with clean fill or any other material unless otherwise specified by the Engineer.
3. The method of filling the abandoned pipeline shall fill a minimum of 95 percent of the total annular volume of the pipe.

3.02 REMOVAL AND DISPOSAL OF MANHOLES

A. REMOVAL OF MANHOLES

1. Frames and covers will be removed and delivered to the place designated by the Owner.
2. After filling the pipes to be abandoned that are entering the manhole as specified above, the Contractor shall remove the cone section of a precast manhole or the top four feet of brick in a brick manhole.
3. The Contractor shall place and compact clean fill or crushed ABC material in the base of the manhole.
4. The ground or paved surface shall be restored in accordance with the drawings.

END OF SECTION

SECTION 02300

EARTHWORK

PART 1 - GENERAL

1.01 WORK INCLUDED:

- A. The Contractor shall make excavations of normal depth in earth for purposes of foundation demolition and shall backfill and compact such excavations to the extent necessary, shall furnish the necessary material, and shall make miscellaneous earth excavations and do miscellaneous grading.
- B. All earthwork involving removal of foundation and structures during demolition, and any other work involving exposed site soil shall be conducted in accordance with the Soil and Groundwater Management Plan included in **Attachment 02300-A**.
- C. CONTRACTOR shall provide assistance, allow access and allow the ENGINEER to evaluate the soils during any excavation activity during the project. This is in addition to the 30 environmental test pits to be provided by the CONTRACTOR as described on the plans and in Specification **Section 01014** - Scope and Sequence of Work

1.02 RELATED WORK:

- A. Section 00890, PERMITS
- B. Section 01110, CONTROL OF WORK AND MATERIALS
- C. Section 01570, ENVIRONMENTAL PROTECTION
- D. Section 02058, CONTROLLED DENSITY FILL
- E. Section 02071, GEOTEXTILE FABRICS
- F. Section 02920, LOAMING AND SEEDING

1.03 REFERENCES:

American Society for Testing and Materials (ASTM)

- |      |      |   |
|------|------|---|
| ASTM | C131 | Test Method for Resistance to Degradation of Small Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine. |
| ASTM | C136 | Method for Sieve Analysis of Fine and Coarse Aggregates   |
| ASTM | C330 | Specification for Lightweight Aggregate for Structural Concrete.  |

ASTM	D1556	Test Method for Density of Soil in Place by the Sand Cone Method.
ASTM	D1557	Test Methods for Moisture-density Relations of Soils and Soil Aggregate Mixtures Using Ten-pound (10 Lb.) Hammer and Eighteen-inch (18") Drop.
ASTM	D2922	Test Methods for Density of Soil and Soil-aggregate in Place by Nuclear Methods (Shallow Depth).

State of Maine Department of Transportation (MEDOT) Standard Specifications

1.04 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF GENERAL SPECIFICATIONS, SUBMIT THE FOLLOWING:

Samples of all materials proposed for the project shall be submitted to the Engineer for review. Size of the samples shall be as approved by the Engineer.

1.05 PROTECTION OF EXISTING PROPERTY:

- A. The work shall be executed in such manner as to prevent any damage to facilities at the site and adjacent property and existing improvements, such as but not limited to streets, curbs, paving, service utility lines, structures, monuments, bench marks, observation wells, and other public or private property. Protect existing improvements from damage caused by settlement, lateral movements, undermining, washout and other hazards created by earthwork operations.
- B. In case of any damage or injury caused in the performance of the work, the Contractor shall, at its own expense, make good such damage or injury to the satisfaction of, and without cost to, the Owner. Existing roads, sidewalks, and curbs damaged during the project work shall be repaired or replaced to at least the condition that existed at the start of operations. The Contractor shall replace, at his own cost, existing benchmarks, observation wells, monuments, and other reference points which are disturbed or destroyed.
- C. Buried drainage structures and pipes, observation wells and piezometers, including those which project less than eighteen inches (18") above grade, which are subject to damage from construction equipment shall be clearly marked to indicate the hazard. Markers shall indicate limits of danger areas, by means which will be clearly visible to operators of trucks and other construction equipment, and shall be maintained at all times until completion of project.

1.06 DRAINAGE:

- A. The Contractor shall provide, at its own expense, adequate drainage facilities to complete all work items in an acceptable manner. Drainage shall be done in a manner so that runoff will not adversely affect construction procedures nor cause excessive

disturbance of underlying natural ground or abutting properties.

1.07 FROST PROTECTION AND SNOW REMOVAL:

- A. The Contractor shall, at its own expense, keep earthwork operations clear and free of accumulations of snow as required to carry out the work.
- B. The Contractor shall protect the subgrade beneath new structures and pipes from frost penetration when freezing temperatures are expected.

1.08 HANDLING OF SITE SOILS AND GROUNDWATER

- A. Site soils and groundwater are contaminated with elevated levels of polycyclic aromatic hydrocarbons (PAHs), arsenic, lead and/or volatile organic compounds (VOCs). All handling, transport and disposal of Site soils and groundwater is to be performed in accordance with the Soil and Groundwater Management Plan included as **Attachment 02300-A**.
- B. No soil is to be removed from the Site without the written approval of the Environmental Professional.

PART 2 - PRODUCTS

2.01 GENERAL

The CONTRACTOR shall reuse clean crushed asphalt, brick and concrete (ABC) generated during the demolition of the Prime Tanning Facility as backfill (select backfill) for excavations, filling demolished building foundations and general site grading in lots 4, 5 and 6.

2.02 MATERIAL:

A. GRAVEL BORROW:

Gravel Borrow shall satisfy the requirements listed in MEDOT Specification Section M703.20.

B. CRUSHED STONE:

Crushed stone shall satisfy the requirements listed in MEDOT Specification Section M703.31.

C. GRANULAR FILL:

Granular fill for Lot 6 restoration shall satisfy the requirements listed in MEDOT Specification Section M703.05.

D. PEASTONE:

Peastone shall be smooth, hard, naturally occurring, rounded stone meeting the following gradation requirements:

Passing 5/8 inch square sieve opening	-	100%
Passing No. 8 sieve opening	-	0%

E. Asphalt, Brick and Concrete (ABC):

ABC material shall be produced from demolition debris (asphalt, brick and concrete). Demolition debris shall be crushed on site and shall be nearly free of metal, paper, refuse and other debris. The finished product shall be 3" minus in size and the intent of the gradation of the crushed ABC material is to match requirements of Select Backfill, listed below.

F. BACKFILL MATERIALS:

1. Class B Backfill:

Class B backfill shall be granular, well graded friable soil; free of rubbish, ice, snow, tree stumps, roots, clay and organic matter; with 30 percent or less passing the No. 200 sieve; no stone greater than two-third (2/3) loose lift thickness, or six inches, whichever is smaller.

2. Select Backfill:

Select backfill shall be granular, well graded friable soil, free of rubbish, ice, snow, tree stumps, roots, clay and organic matter, and other deleterious or organic material; graded within the following limits:

<u>Sieve Size</u>	<u>Percent Finer by Weight</u>
3"	100
No. 10	30-95
No. 40	10-70
No. 200	0-10

F. PROCESSED GRAVEL:

1. Processed gravel shall consist of inert material that is hard, durable stone and coarse sand, free from loam and clay, surface coatings and deleterious materials. The coarse aggregate shall have a percentage of wear, by the Los Angeles Abrasion Test, of not more than 50.

2. The gradation shall meet the following requirements:

<u>Sieve Designation</u>	<u>Percentage Passing</u>
3 in.	100
1 1/2 in.	70-100
1/4 in.	50-85
No. 4	30-60
No. 200	0-10

3. The approved source of bank-run gravel material shall be processed by mechanical means. The equipment for producing crushed gravel shall be of adequate size with sufficient adjustments to produce the desired materials. The processed material shall be stockpiled in such a manner to minimize segregation of particle sizes. All processed gravel shall come from approved stockpiles.

### PART 3 – EXECUTION

#### 3.01 DISTURBANCE OF EXCAVATED AND FILLED AREAS DURING CONSTRUCTION:

- A. Contractor shall take the necessary steps to avoid disturbance of subgrade during excavation and filling operations, including restricting the use of certain types of construction equipment and their movement over sensitive or unstable materials, dewatering and other acceptable control measures.

#### 3.02 EXCAVATION:

##### A. GENERAL:

1. The Contractor shall perform all work of any nature and description required to accomplish the work as shown on the Drawings and as specified.
2. Excavations, unless otherwise required by the Engineer, shall be carried only to the depths and limits shown on the Drawings. If unauthorized excavation is carried out below required subgrade and/or beyond minimum lateral limits shown on Drawings, it shall be backfilled with gravel borrow and compacted at the Contractor's expense as specified below, except as otherwise indicated. Excavations shall be kept in dry and good conditions at all times, and all voids shall be filled to the satisfaction of the Engineer.
3. In all excavation areas, the Contractor shall strip the surficial topsoil layer and underlying subsoil layer separate from underlying soils. In paved areas, the Contractor shall first cut pavement as specified in paragraph 3.02 B.1 of this specification, strip pavement and pavement subbase separately from underlying soils. All excavated materials shall be stockpiled separately from each other within the limits of work.

4. The Contractor shall follow a construction procedure, which permits visual identification of stable natural ground. Where groundwater is encountered, the size of the open excavation shall be limited to that which can be handled by the Contractor's chosen method of dewatering and which will allow visual observation of the bottom and backfill in the dry.
5. The Contractor shall excavate unsuitable materials to stable natural ground where encountered at proposed excavation subgrade, as directed by the Engineer. Unsuitable material includes topsoil, loam, peat, other organic materials, snow, ice, and trash. Unless specified elsewhere or otherwise directed by the Engineer, areas where unsuitable materials have been excavated to stable ground shall be backfilled with compacted special bedding materials or crushed stone wrapped all around in non-woven filter fabric.

B. TRENCHES:

1. Prior to excavation, trenches in pavement shall have the traveled way surface cut in a straight line by a concrete saw or equivalent method, to the full depth of pavement. Excavation shall only be between these cuts. Excavation support shall be provided as required to avoid undermining of pavement. Cutting operations shall not be done by ripping equipment.
2. Pipe trenches shall be made as narrow as practicable and shall not be widened by scraping or loosening materials from the sides. Every effort shall be made to keep the sides of the trenches firm and undisturbed until backfilling has been completed.

C. EXCAVATION NEAR EXISTING STRUCTURES:

1. Attention is directed to the fact that there are pipes, manholes, drains, and other utilities in certain locations. An attempt has been made to locate all utilities on the drawings, but the completeness or accuracy of the given information is not guaranteed.
2. As the excavation approaches pipes, conduits, or other underground structures, digging by machinery shall be discontinued and excavation shall be done by means of hand tools, as required. Such manual excavation, when incidental to normal excavation, shall be included in the work to be done under items involving normal excavation.
3. Where determination of the exact location of a pipe or other underground structure is necessary for properly performing the work, the Contractor shall excavate test pits to determine the locations.

3.03 BACKFILL PLACEMENT AND COMPACTION:

A. GENERAL:

1. Prior to backfilling, the Contractor shall compact the exposed natural subgrade to the densities as specified herein.
2. After approval of subgrade by the Engineer, the Contractor shall backfill areas to required contours and elevations with specified materials.
3. The Contractor shall place and compact materials to the specified density in continuous horizontal layers with a maximum lift of no greater than 12 inches. The degree of compaction shall be based on maximum dry density as determined by ASTM Test D1557, Method C. The minimum degree of compaction for fill placed shall be 95% of maximum density.
4. The Engineer reserves the right to test backfill for conformance to the specifications and Contractor shall assist as required to obtain the information. Compaction testing will be performed by the Engineer or by an inspection laboratory designated by the Engineer, engaged and paid for by the Owner. If test results indicate work does not conform to specification requirements, the Contractor shall remove or correct the defective Work by recompacting where appropriate or replacing as necessary and approved by the Engineer, to bring the work into compliance, at no additional cost to the Owner. All backfilled materials under structures and buildings shall be field tested for compliance with the requirements of this specification.
5. Where horizontal layers meet a rising slope, the Contractor shall key each layer by benching into the slope.
6. If the material removed from the excavation is suitable for backfill with the exception that it contains stones larger than permitted, the Contractor has the option to remove the oversized stones and use the material for backfill or to provide replacement backfill at no additional cost to the Owner.
7. The Contractor shall remove loam and topsoil, loose vegetation, stumps, large roots, etc., from areas upon which embankments will be built or areas where material will be placed for grading. The subgrade shall be shaped as indicated on the Drawings and shall be prepared by forking, furrowing, or plowing so that the first layer of the fill material placed on the subgrade will be well bonded to the subgrade.

B. TRENCHES:

1. Bedding as detailed and specified shall be furnished and installed beneath the pipeline prior to placement of the pipeline. A minimum bedding thickness shall be maintained between the pipe and undisturbed material, as shown on the Drawings.

2. As soon as practicable after pipes have been laid, backfilling shall be started.
3. Unless otherwise indicated on the Drawings, select backfill shall be placed by hand shovel in 6-inch thick lifts up to a minimum level of 12-inches above the top of pipe. This area of backfill is considered the zone around the pipe and shall be thoroughly compacted before the remainder of the trench is backfilled. Compaction of each lift in the zone around the pipe shall be done by use of power-driven tampers weighing at least 20 pounds or by vibratory compactors. Care shall be taken that material close to the bank, as well as in all other portions of the trench, is thoroughly compacted to densities required.
4. Class B backfill shall be placed from the top of the select backfill to the specified material at grade (loam, pavement subbase, etc.). Fill compaction shall meet the density requirements of this specification.
5. If the materials above the trench bottom are unsuitable for backfill, the Contractor shall furnish and place backfill materials meeting the requirements for trench backfill, as shown on the drawings or specified herein. ABC material may be used in place of existing backfill material.
6. Should the Engineer order crushed stone for utility supports or for other purposes, the Contractor shall furnish and install the crushed stone as required.
7. In shoulders of streets and road, the top 12-inch layer of trench backfill shall consist of processed gravel for sub-base, satisfying the requirements listed in MEDOT standard specification M.703.11.

#### C. BACKFILLING ADJACENT TO STRUCTURES:

1. The Contractor shall not place backfill against or on structures until they have attained sufficient strength to support the loads to which they will be subjected. Excavated material approved by the Engineer may be used in backfilling around structures. Backfill material shall be thoroughly compacted to meet the requirements of this specification.
2. Contractor shall use extra care when compacting adjacent to pipes and drainage structures. Backfill and compaction shall proceed along sides of drainage structures so that the difference in top of fill level on any side of the structure shall not exceed two feet (2') at any stage of construction.
3. Where backfill is to be placed on only one side of a structural wall, only hand-operated roller or plate compactors shall be used within a lateral distance of five feet (5') of the wall for walls less than fifteen feet (15') high and within ten feet (10') of the wall for walls more than fifteen feet (15') high.

#### 3.04 DISPOSAL OF SURPLUS MATERIALS:

- A. No excavated material shall be removed from the site of the work or disposed of by the Contractor unless approved in writing by the Engineer. Excess ABC material shall be property of the Contractor and shall be disposed offsite.
- B. Surplus excavated materials, which are acceptable to the Engineer, shall be used to backfill normal excavations in rock or to replace other materials unacceptable for use as backfill. Upon written approval of the Engineer, surplus excavated materials shall be neatly deposited and graded so as to make or widen fills, flatten side slopes, or fill depressions; or shall be neatly deposited for other purposes as indicated by the Owner, within its jurisdictional limits; all at no additional cost to the Owner.
- C. Surplus excavated material not needed as specified above shall be hauled away and disposed of by the Contractor at no additional cost to the Owner, at appropriate locations, and in accordance with arrangements made by him. Disposal of all rubble shall be in accordance with all applicable local, state and federal regulations.
- D. Surplus excavated material deemed by the Engineer to be unsuitable for reuse onsite shall be properly disposed in accordance with the Soil and Groundwater Management Plan included in **Attachment 02300-A**.

END OF SECTION

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ATTACHMENT 02300A  
SOIL AND GROUNDWATER MANAGEMENT PLAN



January 28, 2016

John Stoll  
Town Planner  
Town of Berwick  
11 Sullivan St.  
Berwick, Maine 03901

RE: **Soil and Groundwater Management Plan  
Prime Tanning Facility, Lots 4, 5, and 6  
20 Sullivan Street, Berwick, Maine**

Dear Mr. Stoll:

The following document describes methods and procedures to be used during the redevelopment of Lots 4, 5, and 6 of the Prime Tanning property located at 20 Sullivan Street in Berwick, Maine (the Site). The activities and practices described below are necessary to fulfill the applicable regulatory requirements and to manage potential risk to human and environmental receptors associated with contaminated soil. Included in this Soil and Groundwater Management Plan (SGMP) are:

- A description of soil conditions and associated regulatory applicability
- A listing of proper health and safety work practices and protective equipment for use during Site work activities
- A description of onsite soil management procedures including soil handling, stockpiling, and dust control for use during Site work activities
- A description of the onsite soil reuse procedures including the soil engineered barrier system (**Figure 1**)
- A summary of the methods to be used for the proper transport and disposal of excess soil that may be generated during redevelopment
- A description of groundwater management procedures including general dewatering of excavations and groundwater collection/treatment/disposal either on-site or at an off-site treatment facility

## 1. INTRODUCTION & APPLICABILITY

The 7.7-acre Prime Tanning facility is located at 20 Sullivan Street at the intersections of School Street (Route 9), Sullivan Street, and Wilson Street in the center of downtown Berwick, Maine. It is located within a mixed residential and commercial area of Berwick. The Prime Tanning facility

is currently owned by the Town of Berwick and is identified as tax map U-4, lot 146, but was subdivided in 2014 into 7 contiguous lots (Lots 1 through 7, see **Figure 2**). The parcels covered by this SGMP only include Lots 4, 5, and 6 and comprise 2.9 acres.

The current redevelopment plans for the Site involves the redevelopment of some portions of the buildings and demolition of others.

Various manufacturing operations occurred at the Site from 1877 to 1930 including a tannery, wool pulling works facility, a sash and door manufacturer, a reed manufacturer, a carriage manufacturer, an oil company, a laundry facility, a shoe factory, and a lumber company. Tannery operations occurred at the Site from approximately 1930 until 2008 when the mill closed and the Prime Tanning owners filed for bankruptcy protection. In 2014, the Town of Berwick acquired the Prime Tanning property for owed back property taxes. Environmental conditions that have been identified at the Site include the following:

- Surficial and accessible soil across the Site containing concentrations of polycyclic aromatic hydrocarbons (PAHs) and lead exceeding applicable residential and/or commercial Maine Department of Environmental Protection (DEP) Remedial Action Guidelines for Sites Contaminated with Hazardous Substances (RAGs).
- Buried solid waste fill materials identified across the Site including leather tannery scraps, wood chips, urban fill, ash/coal ash, and railroad ties. Contaminants associated with the fill materials include semi-volatile organic compounds (SVOCs) and metals.
- Methyl tert-butyl ether (MTBE), vinyl chloride, chromium, and naphthalene identified in groundwater on the Site exceeding applicable Maine Center for Disease Control (CDC) Maximum Exposure Guidelines (MEGs) for Drinking Water.

Based on the proposed reuse of the Site, results were compared to the Maine DEP RAGs for the residential use scenario, which are the lowest values of the applicable RAGs. Soil and groundwater concentrations may not be reduced to below the RAGs; however, residual concentrations remaining at the Site will be protected from human contact by a means of exposure prevention.

## 2. GENERAL HEALTH AND SAFETY PLAN

The following serves as guidelines for health and safety procedures to be employed during general construction activities at the Site. These guidelines should be supplemented by a Site-specific health and safety plan to be prepared by the contractor.

The primary route for exposure to impacted materials at the Site is dermal absorption via direct contact with impacted media. Secondary routes include inhalation of vapor, incidental uptake of dust that may be impacted and active ingestion through improper hygiene. As such, the utilization of basic personal protective equipment (PPE) will minimize the potential for exposure while conducting construction activities at the Site.



## **Training**

All personnel who will be directly handling or otherwise may be exposed to impacted groundwater and/or soil shall have 40-hour Occupational Safety & Health Administration (OSHA) CFR 1910.120 training, 3 days of supervised field experience, and current 8-hour OSHA refresher training.

## **Personal Protective Equipment**

Based on the hazard evaluation, Level D PPE has been initially designated for all personnel who will be directly handling or otherwise may be exposed to impacted groundwater and/or soil at the Site. The contractor's Health and Safety Officer may upgrade PPE to Level C or higher if additional hazards are identified during Site work.

Specific Level D PPE to be used at the Site includes the following:

- Steel toe work boots with latex over boots as required
- Safety glasses with side shields
- Work gloves
- Nitrile inner gloves
- Hard hat
- Coveralls (optional)

## **Work Zone Monitoring**

Due to the potential for impacts to ambient air during construction, the work zone should be monitored periodically using a photoionization detector (PID), particularly when petroleum impacted soil and/or groundwater is exposed or disturbed. Ambient air should not exceed 10 parts per million by volume (ppm<sub>v</sub>) sustained for a 15 minute period.

Additionally, the property boundaries should be monitored for ambient dust levels to ensure fugitive dust is not migrating from the Site onto adjoining or nearby properties. As a general rule of thumb, visible ambient dust should be controlled using wet suppressant methods and any stockpiles should be covered during down time. Access should be limited to applicable personnel during periods when impacted soil is exposed at the surface.

## **General Operating Procedures**

In addition to the above basic health and safety guidelines, the following procedures should be followed during activities conducted at the Site that create the potential for exposure to impacted soil and/or groundwater:

- Work involving excavation or management of impacted soil and/or groundwater conducted at the Site shall be directed by a qualified environmental professional.
- The Site shall be surveyed and cleared by DigSafe.



- All equipment used during excavation activities shall be properly cleaned and decontaminated.
- Any indication of conditions more hazardous than those anticipated, or the observation of circumstances that would render the above basic health and safety procedures inappropriate, shall result in the evacuation of the work area and a reassessment of health and safety procedures by a qualified environmental professional.

### 3. SOIL MANAGEMENT

The following section will provide procedures for the excavation, re-use, storage, and disposal of excess soil generated during construction activities at the Site. These activities assume USTs are not present at the Site; however, if excavation in the area of the anomalies indicates a UST is present, the UST will require removal and closure by a Maine Certified Geologist in accordance with Maine DEP Chapter 691: Rules for Underground Storage Facilities.

Impacted soil that will remain at the Site, including materials planned for reuse and undisturbed *in situ* impacted soil, will be covered to minimize the direct contact hazard for future Site users.

#### **Onsite Reuse of Soil**

All areas of the Site should be covered according to the below specifications:

- All features and subsurface infrastructure will be installed and the grading of impacted materials shall be completed consistent with the design requirements for the Site.
- Any excess impacted soil that cannot be re-used at the Site will be removed in accordance with **Offsite Soil Disposal Section** of this SGMP.
- The engineered barrier system will cover the entire Site and will consist of the following in each of the areas:
  - Landscaped Areas: A permeable geotextile fabric or similar material, such as snow fence, will be placed as a marker layer directly over the impacted soil to indicate the distinction between the clean fill cover and the underlying impacted soil to remain at the Site. A minimum of 12 inches of clean fill will be placed as cover material over the marker layer. Alternatively, 2 feet of clean fill and no marker layer can be installed. The source of fill will be documented to be a local native source or will be documented to be clean through analytical testing. The covered areas will be loamed, seeded, mulched, or otherwise permanently stabilized to prevent erosion and damage to the soil cover. If the marker layer must be compromised to facilitate landscape installation, a replacement marker layer shall be installed prior to the placement of any new non-impacted material.
  - Asphalt and Concrete Areas: Areas planned for impermeable construction (e.g., asphalt parking lots, concrete walkways, and the Site building foundation) will be installed directly over the impacted soil. A separate marker layer will not be necessary below impermeable surfaces since these materials will serve as the



marker layer. The geotextile marker layer will extend from landscaped areas to the exterior limit of these impermeable areas.

- Each covered area will be graded so that the stormwater runoff is directed to an appropriate area.
- Additional sub-base materials may be necessary beyond the minimum cover requirements discussed herein to maintain the structural integrity of the proposed Site features.

An engineered barrier system schematic is included as **Figure 1**. A detailed existing conditions site plan is included as **Figure 2**.

### **Soil Stockpiling and Storage**

Soil removal will be limited to excess soil generated during construction that cannot be relocated onsite and petroleum saturated soil.

Impacted soil excavated from the Site may be temporarily stored or removed following waste disposal characterization and acceptance at an appropriate receiving facility. Soil stockpiled at the Site should be placed atop 20-mil polyethylene sheeting to prevent contamination of surrounding cover materials, and securely covered by 10-mil or 20-mil polyethylene sheeting. Berms shall be constructed around the edges of the stockpiles, the base shall be sloped to create leachate collection points, and storm water runoff will be diverted away from any soil stockpile or storage area when feasible.

Soil to be removed from the Site may be more conveniently live loaded into trucks for offsite disposal at an appropriate facility or temporarily stored within secure, water resistant, DOT-approved bulk containers. All stockpiled or containerized soil will be stored within a secure area of the Site and properly labeled to minimize potential contact. In addition, all soil stockpiled or otherwise stored at the Site will be inspected daily for tears, holes, or other failures in the polyethylene sheeting or storage container.

### *Dust Control*

Dust control requirements will be a contractual responsibility of the contractor for the Site and will be documented by the qualified environmental professional during remediation activities. Dust control measures shall be employed by the contractor during excavation and grading, and to control dust around stockpiles, haul roads, and any other exposed soils.

- At a minimum, wet suppression shall be used to provide temporary control of dust. Wet suppression will be applied on a routine basis and/or as directed by the qualified environmental professional to adequately control dust. Depending upon weather conditions and work activity, several wet suppression applications per day, and/or the use of granular calcium chloride or similar commercially manufactured dust control agents, may be necessary to adequately control dust. Aside from routine wet suppression, alternate dust control measures are subject to approval by the qualified environmental professional.
- Water runoff generated by dust control will be retained and disposed in accordance with the requirements of the appropriate regulatory agencies.



- Vehicles leaving the Site shall have no mud or dirt on the vehicle body or wheels. Any foreign matter on the vehicle body or wheels will be physically removed prior to vehicles entering a public roadway or adjoining mill driveways. Vehicles will not be permitted to leave the Site with exterior mud or dirt that has the potential to be deposited on public roadways.

### **Offsite Soil Disposal**

Petroleum saturated soil, or excess impacted soil that cannot be reused will be transported and disposed offsite in accordance with applicable federal and state regulations. Written notification to the Maine DEP is required prior to removal of soil from the Site. The following subsections provide appropriate procedures for the characterization and offsite disposal of special waste soil.

#### *Waste Characterization Sampling*

Waste characterization sampling will be required in order to meet facility acceptance requirements. As such, the contractor will collect representative samples from the special waste soil for analysis by an independent, Maine-certified laboratory. At a minimum, and in accordance with disposal facility requirements, laboratory criteria will include, but may not be limited to, the following analyses:

- Total petroleum hydrocarbons (TPH)
- Volatile organic compounds (VOC)
- Semi-volatile organic compounds (SVOC)
- Polychlorinated biphenyls (PCB)
- RCRA 8 Metals
- Pesticides
- Herbicides
- pH
- Ignitibility, conductivity, and reactivity (sulfide and cyanide)
- Additional toxicity characteristics leaching procedure (TCLP) analysis, where necessary

Following the results of the above analyses, an appropriate disposal or recycling method will be selected and a soil disposal acceptance package will be prepared and submitted to the facility.

#### *Soil Transport and Recycling/Disposal*

Prior to shipment, a waste profile will be submitted by the contractor to the selected facility to obtain facility acceptance. Following facility acceptance, impacted soil will be removed from the Site for proper recycling or disposal. Impacted soil loading and transport activities will be overseen by the qualified environmental professional. Equipment used for the transport of impacted soil will be properly licensed in accordance with applicable state and federal regulations. Haul truck cargo areas shall be securely and completely covered during material transport on public roadways.



Each shipment of impacted soil will be accompanied by appropriate transport documentation, such as a hazardous waste manifest or bill of lading. An official record of each shipment of impacted soil from the Site, including tonnage, will be presented to the qualified environmental professional following delivery to the receiving facility.

#### **4. GROUNDWATER MANAGEMENT**

Impacted groundwater was identified at the Site during previous assessment activities. As part of Site redevelopment, any excess groundwater generated during excavation activities for utilities, foundations, and other subsurface structures will be collected and managed in accordance with this section.

##### **General Dewatering of Excavations**

- Surface water will be prevented from flowing into excavations at the Site and trench excavations will not be used as temporary drainage ditches.
- Pumps, well points, sumps, hoses, filters, and all other dewatering system components will be provided and maintained as necessary to convey water away from excavations.
- The suspended solids content in the water shall be minimized during dewatering activities by lining the excavation collection area with crushed stone and placing the pump intake in a perforated bucket.
- Water removed from excavations shall be conveyed to an onsite frac tank.
- Silt laden or untreated water shall not be discharged directly to the storm, sanitary or combined sewer without first receiving appropriate approvals and meeting appropriate state and local pretreatment requirements.

##### **Collection and Disposal at an Off-Site Treatment Facility**

Groundwater that requires removal during redevelopment will be collected, tested, and disposed of at an off-site treatment facility. The methods for storage, testing, and disposal are described below:

- Water removed from excavations shall be stored in a frac tank to allow settling of solids and testing prior to discharge. The frac tank inlet shall be placed at the opposite end from the tank outlet.
- If needed for additional detention or storage volume, additional tanks shall be placed in series for secondary settlement.
- The contractor shall obtain all local, state, and federal approvals necessary for the discharge of the water to the off-site treatment facility.
- Prior to discharge of the initial tank load, the contractor shall collect water samples for laboratory analysis in accordance with the applicable requirements of the off-site treatment



facility. Test results will be provided to the Environmental Professional and to the off-site treatment facility personnel.

- Once sampled, no water or other materials shall be added to the frac tank.
- All additional frac tank loads shall be tested in accordance with the off-site treatment facility's requirements prior to discharge.
- Bag filters will be installed on the discharge piping and water will meet the off-site treatment facility's discharge limitations prior to discharge. Groundwater determined to have contaminant levels exceeding the off-site facility's limits shall be treated prior to discharge.
- Water shall be transferred from each tank by suspending the intake line immediately below the water level to minimize disturbance of sediment at the bottom of the tank.
- The contractor will cease discharge immediately upon discovery through testing or other means that discharge is not in compliance with the requirements of local, state, or federal regulations or permits.
- Following the discharge of water from the frac tank(s), any accumulated sediment or other solid materials will be managed in accordance with **Section 3** of this SGMP.

### **Incidental Groundwater**

Groundwater may percolate up to the ground surface during the installation of piles and/or during the compaction of soils. This groundwater may be allowed to infiltrate back into the subsurface environment, however it must be prevented from entering the stormwater system.

If there are any questions, please contact the undersigned.

Sincerely,  
**Credere Associates, LLC**



Jonathan O'Donnell  
Credere Associates, LLC  
Project Manager



Rip Patten, PE, LSP, LEED-AP  
Credere Associates, LLC  
Vice President

Attachments: Figure 1 – Engineered Barrier System Schematic  
Figure 2 – Detailed Site Plan



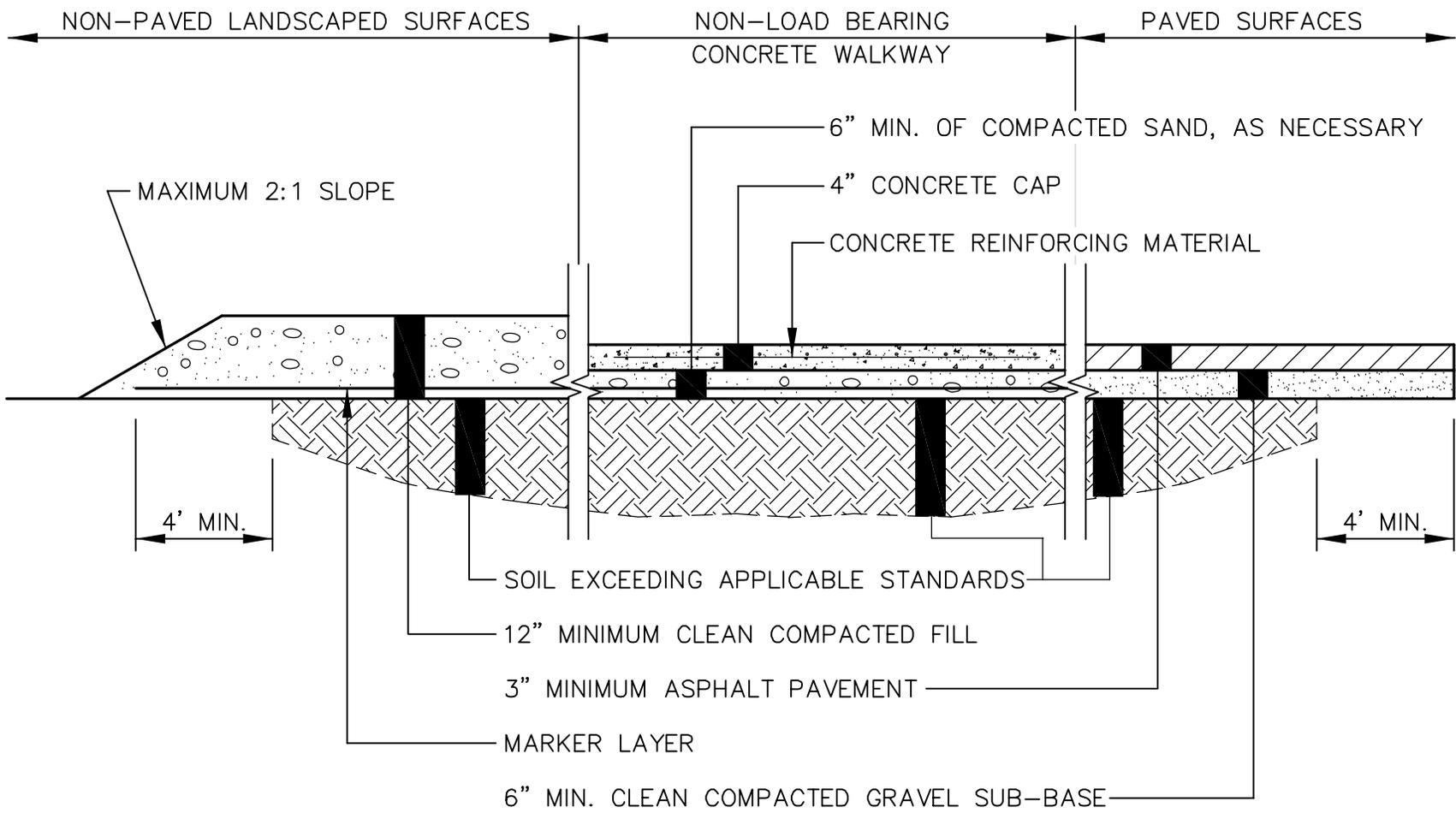
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DRAWN BY: WTE  
CHECKED BY: RIP  
DATE: 2/15/2013  
PROJECT: 12001156

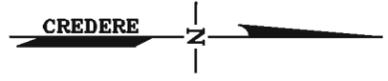
SOIL COVERING SCHEMATIC



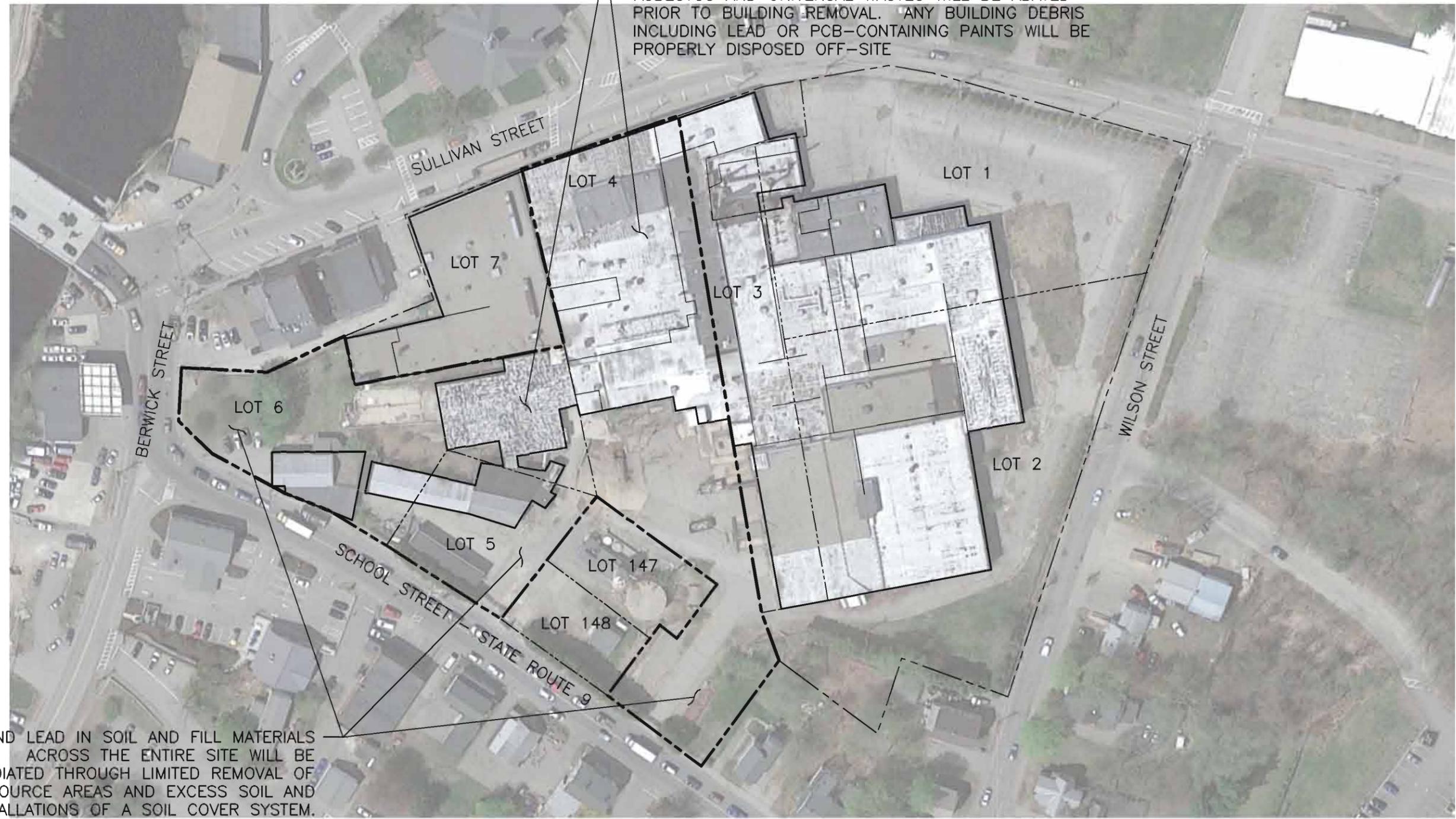
NOTE

THE QUANTITIES IDENTIFIED ARE MINIMUM REQUIREMENTS FOR COVERING OF THE IDENTIFIED CONTAMINATED SOILS. ADDITIONAL SUB-BASE MATERIALS MAY BE REQUIRED IN AREAS PROPOSED FOR ASPHALT PAVING AND/OR CONCRETE SIDEWALKS AS NECESSARY AND IF APPLICABLE, TO MAINTAIN STRUCTURAL INTEGRITY OF THESE MATERIALS.

SKETCH NO:  
Figure 1  
SCALE:  
N.T.S.



BUILDING PORTIONS WILL BE REMOVED TO ACCESS CONTAMINATION BENEATH THE BUILDING FOOTPRINT. ASBESTOS AND UNIVERSAL WASTES WILL BE ABATED PRIOR TO BUILDING REMOVAL. ANY BUILDING DEBRIS INCLUDING LEAD OR PCB-CONTAINING PAINTS WILL BE PROPERLY DISPOSED OFF-SITE



PAHS AND LEAD IN SOIL AND FILL MATERIALS ACROSS THE ENTIRE SITE WILL BE REMEDIATED THROUGH LIMITED REMOVAL OF VOC SOURCE AREAS AND EXCESS SOIL AND THE INSTALLATIONS OF A SOIL COVER SYSTEM.

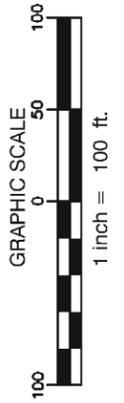


FIGURE 2  
DETAILED SITE PLAN

PRIME TANNING COMPANY  
35 SULLIVAN STREET  
BERWICK, MAINE

**NOTES**

- EXISTING FEATURES SHOWN ON THIS PLAN ARE APPROXIMATE AND BASED ON A COMBINATION OF AERIAL IMAGERY DOWNLOADED FROM GOOGLE EARTH, TOWN OF BERWICK TAX MAP, AND OTHER FIGURES FROM PREVIOUSLY PUBLISHED HISTORICAL REPORTS BY OTHERS.
- PARCEL BOUNDARIES ARE APPROXIMATE AND BASED ON THE OCTOBER 8, 2014, DRAWING ENTITLED "FINAL PLAN - TANNERY ROW" FILED AT THE YORK COUNTRY REGISTRY OF DEEDS.

**LEGEND**

- SITE BOUNDARY
- PARCEL BOUNDARY
- BUILDING FOOTPRINT
- INTERIOR BUILDINGS WALL

DRAWN BY: MTG  
CHECKED BY: JBO  
DATE: 12/11/15  
PROJECT: 15001312

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SECTION 02820  
CHAIN LINK FENCE

PART 1 - GENERAL

1.01 WORK INCLUDED:

- A. The Contractor shall provide all labor, materials and appurtenances necessary for the installation of a complete chain link fence system and shall meet or exceed the standards of the Chain Link Fence Manufacturer's Institute, New York, NY except as otherwise indicated on the Drawings and as herein specified.
- B. The manufacturer shall supply a complete hot dipped galvanized chain link fence system of the height, fabric type, fabric gauge, framework strength, and galvanized coating specifications contained herein.

1.02 RELATED WORK:

- A. Section 01330, SUBMITTALS
- B. Section 03302, FIELD CONCRETE

1.03 REFERENCES:

- A. The following standards form a part of this specification as referenced.

American Society for Testing and Materials (ASTM)

ASTM	A53	Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless
ASTM	A121	Zinc-Coated (Galvanized) Steel Barbed Wire
ASTM	A392	Zinc Coated Steel Chain Link Fence Fabric
ASTM	A123	Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM	A153	Zinc Coating (Hot-Dip) on Iron and Steel Hardware
ASTM	F567	Installation of Chain Link Fence
ASTM	F626	Fence Fittings

Federal Specifications (FS)

FS RR-F-191            Fencing Wire and Post, Metal (and Gates, Chain-Link Fabric, and Accessories)

1.04    SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF GENERAL SPECIFICATIONS, SUBMIT THE FOLLOWING:

- A.    Six sets of manufacturers literature of the materials specified herein shall be submitted to the Engineer for review.
- B.    Six sets of shop drawings of the fence shall be submitted to the Engineer for review.

1.05    WARRANTY:

- A.    Prior to installation, the fence contractor shall provide the fence manufacturer's notarized certification that all galvanized components are fully warranted by the manufacturer for 10 years against rust and corrosion.

PART 2 - PRODUCTS-GALVANIZED

2.01    STEEL FRAMEWORK (GENERAL):

- A.    All posts, gate frames, braces and horizontal rails shall be Type I round post, hot dipped galvanized with a minimum average coating of 1.8 oz/ft<sup>2</sup>, meeting ASTM F 1083 for Standard Weight Galvanized Pipe and shall be of the sizes and weights given below or other approved equivalent sections of steel having a minimum tensile strength of 50,000 pounds per square inch and a minimum yield strength of 25,000 pounds per square inch.
- B.    Minimum cross-section dimensions for line posts of specified shape shall be: either 2-3/8-inch (2.375-inch) outside diameter steel pipe weighing not less than 3.65 pounds per linear foot; or 2.25 by 1.95 by 9/64-inch steel H section weighing not less than 4.10 pounds per linear foot.
- C.    Minimum cross-section dimensions for end, corner, and pull posts of specified shape shall be: 2-7/8-in. (2.875-in.) outside diameter steel pipe weighing not less than 5.79 pounds per linear foot; 2-1/2 by 2-1/2-inch square tubes weighing not less than 5.70 pounds per linear foot; or 3-1/2 by 3-1/2-inch rolled-formed sections weighing not less than 8.14 pounds per linear foot.
- D.    All tubular and pipe posts shall be capped to prevent precipitation from entering the post, unless a barbed wire extension arm assembly acts as a cap.
- E.    Posts, other fence framework, accessories, fittings, and miscellaneous items shall be galvanized. Galvanized finish shall have not less than the following weight of zinc per square foot:
  - 1.    Pipe: 1.8 oz, complying with ASTM A53.

2. H-sections and square tubing: 2.0 oz, complying with ASTM A123.
  3. Hardware and accessories: Comply with Table I of ASTM A153.
- F. For top railings and top, middle and bottom braces between terminal posts and adjacent line posts, the minimum cross-section dimensions shall be 1.58-inch outside diameter steel pipe weighing not less than 2.27 pounds per linear foot.
  - G. Diagonal truss braces between terminal and adjacent line posts and for gauge framework shall not be less than either 3/8-inch diameter steel rod or double No. 9 AWG steel wire stranded together.
  - H. Fittings shall be galvanized press steel, malleable or cast steel as specified in ASTM F626 and Federal Specification RR-F-191.
  - I. Where posts do not have provisions for weaving fence fabric to posts, tension or stretcher bars for attaching fabric to terminal posts such as end, corner, gauge and pull posts, shall be flat bar with nominal dimensions no less than 3/16- by 3/4-inch for use with fence fabric having mesh larger than 1-inch, of a length equal to full height of the fence fabric, and used with bar bands, bolts and nuts. Bar bands shall be no thinner than No. 11 gauge coated sheet steel. Bolt diameters shall be not less than 3/8-inch for use with bar bands.
  - J. Ties for fastening fence fabric to line posts and rails shall be not less than No. 9 coated AWG steel wire.

#### 2.02 CHAIN LINK FENCE FABRIC - GALVANIZED:

- A. The fabric shall be hot dipped galvanized after weaving with a minimum zinc coating weight per ASTM A392 and specified as Class II - the weight of the zinc coating shall not be less than 2.0 oz/ft<sup>2</sup> of uncoated wire surface.
- B. Wire size: The finished wire size shall be 6 gauge.
- C. Height and Mesh Size: The fabric height shall be as shown on drawings with a mesh size of 2- inches.
- D. Selvage: Top edge and bottom edge of the fabric shall be twisted.
- E. The tension wires shall either be No. 7 gauge steel-core wire. Also, a 7-strand galvanized steel 1/2-inch guy wire may be supplied.

#### 2.03 SWING GATES -GALVANIZED:

- A. Gate leaf frames shall be amply braced and trussed for rigidity. Truss rods shall be adjustable. Gate leaf framework shall be pipe or other approved suitable cross-section of the size recommended by the fencing manufacturer for the size of gate leaf, but shall be no smaller than 1-7/8-inch (1.875-inch) outside diameter steel pipe weighing not less

than 2.72 pounds per linear foot. If bolted or riveted corner fittings are not used, the gate frame shall have the corrosion-resistant finish applied after welding.

- B. Gate hinges shall be 180 degree, heavy pattern, of adequate strength for the gate size, with large bearing surfaces for clamping or bolting in position, and with hinge action such that the gates may be opened and closed easily.
- C. Gates shall be provided with accessible, suitable latches and provisions for padlocking.
- D. Double leaf gates shall have center bolts and center stops. Unless indicated otherwise on the drawings, the gates shall have automatic backstops to hold the leaves in open position.
- E. For gate openings, up to and including 12-feet, with double leaf gates, minimum cross-section dimensions for the gate posts of specified shape shall be the same as specified above for end posts.
- F. For gate openings larger than 12 feet, the minimum outside diameter for the gate posts shall be 6-5/8-inches, weighing not less than 18.97 pounds per linear foot.

#### 2.04. CANTILEVER SLIDE GATES - GALVANIZED:

- A. Gate frames shall be made of 2-inch square aluminum tubing, alloy 6063-T6, weighing 0.94 pounds per linear foot and shall be welded at all corners so as to form a rigid one-piece unit. Fabric shall be securely stretched and held on all four sides in the 2-inch square tubing by use of hook bolts and tension rods. Fabric filler shall match fence.
- B. Gate leaf sizes from 6'-0" to 10'-0" shall have a cantilever overhang of 6'-6" and gate leaf sizes from 11'-0" to 14'-0" shall have a cantilever overhang of 7'-6". All cantilever overhang frames shall have 3/8-inch galvanized steel brace rods.
- C. The enclosed track shall be a combined track and rail aluminum extrusion having a total weight of 3.72 pounds per foot and designed to withstand a reaction load of 2,000 pounds.
- D. Two swivel type zinc die cast trucks having four sealed lubricant ball-bearing wheels, 2-inches in diameter by 9/16-inch in width, with two side rolling wheels to insure alignment of truck in track shall be provided for each gate leaf. Trucks shall be held to post brackets by 7/8-inch diameter ball bolts with 1/2-inch shank. Truck assembly shall be designed to take the same reaction load as the track.
- E. All gate hangers, latches, brackets, guide assemblies and stops shall be galvanized after fabrication. A positive latch shall be provided with accessible suitable latches and provisions for padlocking.

- F. Guide wheel assemblies shall be provided for each supporting post. Each assembly shall consist of two rubber wheels 4-inches in diameter, attached to the post so that the bottom horizontal member will roll between the wheels. The wheels shall be adjusted so as to maintain proper gate alignment and to keep the gate frame plumb.
- G. Gates shall be installed on 4-inch OD Schedule 40 galvanized posts weighing 9.1 pounds per foot. Three posts are to be used for single slide gate.
- H. Concrete for post foundation bases shall be 3000 psi concrete as specified under Section 03302, FIELD CONCRETE.
- I. Grout for posts set in solid rock shall consist of one part Portland cement and three parts clean, sharp, well graded sand with just enough water for proper workability. The grout shall be thoroughly worked into the hole so as to leave no voids, and shall be crowned to shed water from the post.

### PART 3 - EXECUTION

#### 3.01 ERECTION:

- A. The fence and gates shall be erected by skilled mechanics in accordance with the recommendations of the manufacturer and these specifications. These specifications shall take precedence over the recommendations of the manufacturer if any discrepancy exists between them.
- B. Maximum post spacing shall be 10-feet. Post spacing shall be uniform and posts shall be plumb. All end, corner, pull and gate posts must be set in concrete. Line posts may be secured by driven blades.
- C. Concrete post foundations in earth shall be concrete cylinders with a minimum diameter of 12-inches, crowned at grade to shed water, and shall extend not less than 3-feet into the ground. Posts shall be set in the full depth of the foundations except for 3-inches of concrete under the posts. If foundation holes are excavated in unsuitable material, the Engineer shall be notified for determination of suitable construction precautions.
- D. If solid rock is encountered without an overburden of soil, poles shall be set into the rock a minimum depth of 12-inches for line posts and 18-inches for terminal posts, such as end, corner, gate and pull posts, and grouted into solid rock with the post hole diameter a minimum of one inch larger than that of the post.
- E. Where solid rock is covered by an overburden of soil or loose rock, the posts shall be set into the rock as specified above. The total pole setting depth shall not exceed the depths required for setting in earth.
- F. Any change in direction of fence line of 30 degrees or more shall be considered as a corner. Pull posts shall be used at all abrupt changes in grade. Maximum area of unbraced fence shall not exceed 1,500 square feet.

- G. Terminal posts such as end, corner, gate and pull posts shall be braced to the adjacent post(s) with horizontal rail braces used as compression members and diagonal truss braces with truss tighteners for tension members, with the lower ends at the terminal post in each panel of fence framework as indicated in detail on drawings.
- H. The top railing shall pass through intermediate or line post tops, form a continuous brace with all splices made by approved couplings, and shall be fastened to terminal posts.
- I. Fabric shall be stretched taut, with the bottom edge following the finished grade, and shall be a continuous mesh between terminal posts. Each span of fabric shall be attached independently at terminal posts. Where terminal posts do not have provisions for weaving fabric to posts, stretcher bars shall be placed through the end weave of the fabric and secured to the post with bar bands spaced not more than 15-inches apart on the post.
- J. Fabric shall be attached with ties to line posts at intervals of not more than 14-inches (and to the top railing and braces at intervals not exceeding 24-inches).
- J. The bottom tension wire shall be interlaced in the weave of the fabric, pulled taut and fastened to terminal posts.
- K. The top and bottom tension wire shall be fastened to the fabric, using hog rings every 12-inches, pulled taut and fastened to terminal posts. The tension wires shall be installed 6-inches from the top and bottom of the fabric.

END OF SECTION

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## SECTION 02821

### TEMPORARY CHAIN LINK FENCE

#### PART 1 - GENERAL

##### 1.01 WORK INCLUDED:

- A. The Contractor shall provide all labor, materials and appurtenances necessary for the installation, maintenance and dismantling of 8-foot temporary fencing with fabric/wind screen.
- B. The Contractor shall be responsible for securing the site from trespassers. Existing fencing exists on portions of the site as shown on the Contract Drawings; it will be at the discretion of the Contractor to determine whether the existing fence is suitable for site safety and security. The Contractor shall install temporary fencing across lengths of damaged/unsuitable fencing to secure the site and prevent trespassers.

##### 1.02 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF GENERAL SPECIFICATIONS, SUBMIT THE FOLLOWING:

- A. Six sets of manufacturers literature of the materials specified herein shall be submitted to the Engineer for review.
- B. Six sets of shop drawings of the temporary chain link fence and gates shall be submitted to the Engineers for review.
  - 1. Shop drawings shall indicate layout of temporary fencing, location and size of gates, existing pavement and roads, and other site specific conditions. Prepare drawing after site observation and verification of existing conditions.

#### PART 2 - PRODUCTS-GALVANIZED

##### 2.01 TEMPORARY CHAIN LINK FENCING

- A. Unless otherwise indicated, type of 8-foot temporary chain link fencing shall be Contractor's option. Following types are acceptable:
  - 1. New materials or previously used salvaged chain link fencing in good condition.
  - 2. Posts: Galvanized steel pipe of diameter to provide rigidity. Post shall be suitable for setting in concrete footings, driving into ground, anchoring with base plates, or inserting in precast concrete blocks.
  - 3. Fabric: Woven galvanized steel wire mesh. Provide in continuous lengths to be wire tied to fence posts or prefabricated into modular pipe-framed fence panels.

4. Height: 8-foot high temporary fencing with mesh fabric where shown on Contract Drawings.
  5. Mesh Fabric/Wind Screens: Mesh fabric, such as a wind screen/privacy screen, for dust control and to shield demolition activities from adjacent properties. The mesh fabric shall be a durable fabric mesh of 50% porosity and shall be weather resistant. The mesh fabric shall fasten securely to the 8-foot temporary fence and gates. The mesh fabric shall be dark green in color or otherwise approved by the Owner.
- B. Gates: Provide gates of the quantity and size indicated on the Contract Drawings or required for functional access to Site.
1. Fabricate of same material as used for fencing.
  2. Vehicle gates:
    - a. Minimum width: 20 feet to allow access for emergency vehicles.
    - b. Capable of manual operation by one person.

## PART 3 - EXECUTION

### 3.01 INSTALLATION

- A. The fence and gates shall be erected by skilled mechanics in accordance with the recommendations of the manufacturer and these specifications. These specifications shall take precedence over the recommendations of the manufacturer if any discrepancy exists between them.
- B. Posts
1. Maximum post spacing shall be 10-feet. Post spacing shall be uniform and posts shall be plumb.
  2. Drive posts, set in holes and backfill, or anchor in precast concrete blocks.
  3. For soft and unstable ground conditions, cast concrete plug around post.
  4. Posts over pavement: Use steel post plates or precast concrete blocks.
  5. Gate posts: Use bracing or concrete footings to provide rigidity for accommodating size of gate.
  6. Temporary terminal posts shall be securely connected to existing fence posts to prevent site access/trespassing.

- C. Securely attach wire fabric to posts. Maximum area of unbraced fence fabric shall not exceed 1,500 square feet.
- D. Install with required hardware.
- E. Fabric shall be stretched taut, with the bottom edge following the existing grade, and shall be a continuous mesh between terminal posts. Each span of fabric shall be attached independently at terminal posts. Where terminal posts do not have provisions for weaving fabric to posts, stretcher bars shall be placed through the end weave of the fabric and secured to the post with bar bands spaced not more than 15-inches apart on the post. Temporary terminal posts shall be secured to existing fence posts to prevent Site access/trespassing.
- F. Fabric shall be attached with ties to line posts at intervals of not more than 14-inches (and to the top railing and braces at intervals not exceeding 24-inches).
- G. The bottom tension wire shall be interlaced in the weave of the fabric, pulled taut and fastened to terminal posts.

### 3.02 MAINTENANCE AND REMOVAL

- A. Maintain fencing in good condition. If damaged, immediately repair.
- B. Remove temporary fencing upon completion of Work or when no longer required for security or control. Backfill holes and compact. Holes in pavement shall be surfaced to match existing paving. Repair damage caused by installation of temporary fencing.

END OF SECTION

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## SECTION 02920

### LOAMING AND SEEDING

#### PART 1 - GENERAL

##### 1.01 WORK INCLUDED:

This section covers all labor, materials, and equipment necessary to do all loaming, seeding and related work as indicated on the drawings and as herein specified. All lawns disturbed by the Contractor's operations shall be repaired as herein specified.

##### 1.02 RELATED WORK:

- A. Section 02071, GEOTEXTILE FABRICS
- B. Section 02300, EARTHWORKS

##### 1.03 QUALITY ASSURANCE:

- A. For a particular source of loam, the Engineer may require the Contractor to send approximately 10 pounds of loam to an approved testing laboratory and have the following tests conducted:
  - 1. Organic concentration
  - 2. pH
  - 3. Nitrogen concentration
  - 4. Phosphorous concentration
  - 5. Potash concentration
- B. These tests shall be at the Contractor's expense. Test results, with soil conditioning and fertilizing recommendations, shall be forwarded to the Engineer.

##### 1.04 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF GENERAL SPECIFICATIONS, SUBMIT THE FOLLOWING:

- A. Six sets of information detailing the seed mixes, fertilizers, mulch material, slope protection material (if required) and origin of loam shall be submitted to the Engineer for review.
- B. Three sets of test results shall be submitted to the Engineer for review.

## PART 2 - PRODUCTS

### 2.01 MATERIALS:

#### A. LOAM:

1. Loam shall be a natural, fertile, friable soil, typical of productive soils in the vicinity, obtained from naturally well-drained areas, neither excessively acid nor alkaline, and containing no substances harmful to grass growth. Loam shall not be delivered to the site in frozen or muddy condition and shall be reasonably free of stumps, roots, heavy or stiff clay, stones larger than 1-inch in diameter, lumps, coarse sand, noxious weeds, sticks, brush or other litter.
2. The loam shall contain not less than 4 percent nor more than 20 percent organic matter as determined by the loss of weight by ignition of oven-dried samples. Test samples shall be oven-dried to a constant weight at a temperature of 230 degrees F.

#### B. LIME:

Lime shall be standard commercial ground limestone containing at least 50 percent total oxides (calcium oxide and magnesium oxide), and 50 percent of the material must pass through a No. 100 mesh sieve with 98 percent passing a No. 2 mesh sieve.

#### C. FERTILIZER:

Fertilizer shall be commercial fertilizer, 10-10-10 fertilizer mixture containing at least 40 percent of organic nitrogen. It shall be delivered to the site in the original sealed containers, each showing the manufacturer's guaranteed analysis. Fertilizer shall be stored so that when used it will be dry and free flowing. No fertilizer shall be used which has not been marketed in accordance with State and Federal Laws, relating to fertilizers.

#### D. MULCH:

1. Materials to be used in mulching shall conform to the following requirements:
2. Straw Mulch - Straw Mulch shall consist of stalks or stems of grain after threshing.
3. Wood Fibre Mulch - Wood Fibre Mulch shall consist of wood fibre produced from clean, whole uncooked wood, formed into resilient bundles having a high degree of internal friction and shall be dry when delivered to the project.

E. SEED:

1. Seed shall be of an approved mixture, the previous year's crop, clean, high in germinating value, a perennial variety, and low in weed seed. Seed shall be obtained from a reliable seed company and shall be accompanied by certificates relative to mixture purity and germinating value. **The lawn seed mix shall be used in the Lot 6 Restoration.**
2. Grass seed for lawn areas shall conform to the following requirements:

	Proportion by Weight	Germination Purity	Purity Minimum
Chewing's Fescue	30%	70%	97%
Kentucky 31 Fescue	30%	90%	98%
Kentucky Blue Grass	20%	80%	85%
Domestic Rye Grass	20%	90%	98%

Grass seed for cross-country areas, slopes and other areas not normally mowed shall conform to the following requirements:

	Proportion by Weight	Germination Minimum	Purity Minimum
Creeping Red Fescue	50%	85%	95%
Kentucky 31	30%	85%	95%
Domestic Rye	10%	90%	98%
Red Top	5%	85%	92%
Ladino Clover	5%	85%	96%

PART 3 - EXECUTION

3.01 SURFACE PREPARATION:

- A. After approval of rough grading, loam shall be placed on areas affected by the Contractor's operations. Loam shall be at least 4-inches compacted thickness.
- B. Lime shall be applied to bring the pH to 6.5 or, without a soil test, at the rate of 2-3 tons of lime per acre.
- C. Fertilizer shall be applied according to the soil test, or without a soil test, at the rate of 1000 pounds per acre.
- D. Loam shall be worked a minimum of 3-inches deep, thoroughly incorporating the lime and fertilizer into the soil. The loam shall then be raked until the surface is finely

pulverized and smooth and compacted with rollers, weighing not over 100 pounds per linear foot of tread, to an even surface conforming to the prescribed lines and grades. Minimum depth shall be 6-inches after completion.

### 3.02 SEEDING:

- A. Seeding shall be done when weather conditions are approved as suitable, in the periods between April 1 and May 30 or August 15 to October 1, unless otherwise approved.
- B. If there is a delay in seeding, during which weeds grow or soil is washed out, the Contractor shall remove the weeds or replace the soil before sowing the seed, without additional compensation. Immediately before seeding is begun, the soil shall be lightly raked.
- C. Seed shall be sown at the approved rate, on a calm day by machine.
- D. One half the seed shall be sown in one direction and the other half at right angles. Seed shall be raked lightly into the soil to a depth of 1/4-inch and rolled with a roller weighing not more than 100 pounds per linear foot of tread.
- E. The surface shall be kept moist by a fine spray until the grass shows uniform germination over the entire area. Wherever poor germination occurs in areas larger than 3 sq. ft., the Contractor shall reseed, roll, and water as necessary to obtain proper germination.
- F. The Contractor shall water, weed, cut and otherwise maintain and protect seeded areas as necessary to produce a dense, healthy growth of perennial lawn grass.
- G. If there is insufficient time in the planting season to complete the fertilizing and seeding, permanent seeding may be left until the following planting season, at the option of the Contractor or as required by the Engineer. In that event, a temporary cover crop shall be sown. This cover crop shall be cut and watered as necessary until the beginning of the following planting season, at which time it shall be plowed or harrowed into the soil, the area shall be fertilized and the permanent seed crop shall be sown as specified.

### 3.03 PLACING MULCH:

- A. Straw Mulch shall be loosely spread to a uniform depth over all areas designated on the plans, at the rate of 4-1/2 tons per acre, or as otherwise required.
- B. Straw Mulch may be applied by mechanical apparatus, if in the judgment of the Engineer the apparatus spreads the mulch uniformly and forms a suitable mat to control slope erosion. The apparatus shall be capable of spreading at least 80 percent of the hay or straw in lengths of 6-inches or more, otherwise it shall be spread by hand without additional compensation.

- C. Wood Fibre Mulch shall be uniformly spread over certain selected seeded areas at the minimum rate of 1,400 pounds per acre unless otherwise required. It shall be placed by spraying from an approved spraying machine having pressure sufficient to cover the entire area in one operation.

#### 3.04 SEEDING AND MULCHING BY SPRAY MACHINE:

- A. The application of lime, fertilizer, grass seed and mulch may be accomplished in one operation by the use of an approved spraying machine. The materials shall be mixed with water in the machine and kept in an agitated state in order that the materials may be uniformly suspended in the water. The spraying equipment shall be so designed that when the solution is sprayed over an area, the resulting deposits of lime, fertilizer, grass seed and mulch shall be equal to the specified quantities.
- B. A certified statement shall be furnished, prior to start of work, to the Engineer by the Contractor as to the number of pounds of limestone, fertilizer, grass seed and mulch per 100 gallons of water.
- C. This statement should also specify the number of square yards of seeding that can be covered with the solution specified above. If the results of the spray operation are unsatisfactory, the Contractor will be required to abandon this method and to apply the lime, fertilizer, grass seed and mulch by other methods.

#### 3.05 INSPECTION AND ACCEPTANCE:

At the beginning of the planting season following that in which the permanent grass crop is sown, the seeded areas will be inspected. Any section not showing dense, vigorous growth at that time shall be promptly reseeded by the Contractor at his own expense. The seeded areas shall be watered, weeded, cut and otherwise maintained by the Contractor until the end of that planting season, when they will be accepted if the sections show dense, vigorous growth.

END OF SECTION

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SECTION 03302  
FIELD CONCRETE

PART 1 - GENERAL

1.01 WORK INCLUDED:

- A. This Section covers concrete and all related items necessary to place and finish the concrete work.
- B. Concrete thrust, and anchor blocks, to be provided at all water main bends, tees, caps and wyes.

1.02 RELATED WORK:

- A. Section 02221 - ABANDONMENT OF EXISTING WATER MAINS
- B. Section 02222 - ABANDONMENT OF SEWERS AND DRAINS
- C. Section 02300 - EARTHWORK

1.03 REFERENCES:

- A. The following standards form a part of this specification:

American Concrete Institute (ACI)

- ACI 304 Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete.
- ACI 305 Recommended Practice for Hot Weather Concreting
- ACI 306 Recommended Practice for Cold Weather Concreting
- ACI SP-66 ACI Detailing Manual
- ACI 318 Building Code Requirements for Reinforced Concrete

American Society for Testing and Materials (ASTM)

- ASTM A615 Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
- ASTM C33 Concrete Aggregates
- ASTM C94 Ready-Mixed Concrete

ASTM C143 Test for Slump of Portland Cement Concrete

ASTM C150 Portland Cement

ASTM C260 Air Entraining Admixtures for Concrete

ASTM C494 Chemical Admixtures for Concrete

1.04 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF GENERAL SPECIFICATIONS, SUBMIT THE FOLLOWING:

Six copies of the statement of materials constituting the design of mixes for each size aggregate as required by ASTM C94 shall be submitted to the ENGINEER within one week following award of the Contract.

PART 2 - PRODUCTS

2.01 CONCRETE:

- A. All concrete, reinforced or non-reinforced shall have a minimum 28 day compressive strength of 3000 psi unless otherwise noted on the design drawings. A minimum of 5.5 sacks of cement per cubic yard and a maximum water cement ratio of 6.9 gallons per sack shall be used.
- B. Concrete shall conform to ASTM C94. The CONTRACTOR shall be responsible for the design of the concrete mixtures. Slump shall be a maximum of 4-inches and a minimum of 2-inches, determined in accordance with ASTM C143.
- C. Admixtures shall be as specified in subsection 2.04. No additional admixtures shall be used unless approved by the ENGINEER.
- D. No additional water, except for the amount indicated by the design mix shall be added to the concrete without the prior permission of the ENGINEER.

2.02 CEMENT:

The cement shall be an approved brand of American manufactured Portland Cement, Type II conforming to the applicable requirements of ASTM C150.

2.03 AGGREGATES

- A. Except as otherwise noted, aggregate shall conform to the requirements of ASTM C33.
- B. Maximum size aggregate shall be 3/4-inch.

#### 2.04 ADMIXTURES:

- A. All concrete (unless otherwise directed) shall contain an air entraining agent. Air entrained concrete shall have air content by volume of 4 to 8 percent for 3/4-inch aggregate.
- B. Air entraining agent shall be in accordance with ASTM C260 and shall be Darex AEA, as manufactured by W.R. Grace & Company; Placewel (air entraining Type), as manufactured by Johns Manville; Sika AER as manufactured by Sika Chemical Company; or an approved equal product.
- C. Water reducing agent shall be WRDA, as manufactured by W.R. Grace & Company; Placewel (non-air entraining Type), as manufactured by Johns Manville; Sika Plastiment as manufactured by Sika Chemical Company; or an approved equal product.
- D. Water reducing agent-retarder shall be "Daratard," as manufactured by W.R. Grace & Company; Sika Plastiment as manufactured by Sika Chemical Company; or an approved equal product.

#### 2.05 WATER:

- A. Water for concrete shall be potable, free of deleterious amounts of oil, acid, alkali, organic matter and other deleterious substances.

### PART 3 - EXECUTION

#### 3.01 PREPARATION:

- A. Before placing concrete, forms and the space to be occupied by the concrete shall be thoroughly cleaned, and reinforcing steel and embedded metal shall be free from dirt, oil, mill scale, loose rust, paint or the material which would tend to reduce the bond.
- B. Earth, concrete, masonry, or other water permeable material against which concrete is to be placed shall be thoroughly saturated with water immediately before concrete is placed.
- C. No concrete shall be placed until the consolidation of the ground and the arrangement and details of forms and reinforcing have been inspected and approved by the ENGINEER.

#### 3.02 THRUST AND ANCHOR BLOCKS:

- A. Concrete for thrust and anchor blocks shall be placed against undisturbed earth, and wooden side forms shall be used to provide satisfactory lines and dimensions. Felt roofing paper shall be placed to protect joints. No concrete shall be placed so as to cover joints, bolts or nuts, or to interfere with the removal of the joints.

### 3.03 CONCRETE PLACING DURING COLD WEATHER:

- A. Concrete shall not be placed on frozen ground, and no frozen material or material containing ice shall be used. Materials for concrete shall be heated when temperature is below 40°F, or is expected to fall to below 40°F, within 73 hours, and the concrete after placing shall be protected by covering, heat, or both.
- B. All details of CONTRACTOR's handling and protecting of concrete during freezing weather shall be subject to the approval and direction of the ENGINEER. All procedures shall be in accordance with provisions of ACI 306.

### 3.04 CONCRETE PLACING DURING HOT WEATHER:

- A. Concrete just placed shall be protected from the direct rays of the sun and the forms and reinforcement just prior to placing, shall be sprinkled with cold water. The CONTRACTOR shall make every effort to minimize delays, which will result in excessive mixing of the concrete after arrival on the job.
- B. During periods of excessively hot weather (90°F or above), ingredients in the concrete shall be cooled insofar as possible and cold mixing water shall be used to maintain the temperature of the concrete at permissible levels all in accordance with the provisions of ACI 305. Any concrete with a temperature above 90°F, when ready for placement, will not be acceptable, and will be rejected.

### 3.05 FIELD QUALITY CONTROL:

- A. Concrete inspection and testing shall be performed by the ENGINEER or by an inspection laboratory, designated by the ENGINEER, engaged and paid for by the OWNER. Testing equipment shall be supplied by the laboratory, and the preparation of samples and all testing shall be performed by the laboratory personnel. Full assistance and cooperation, concrete for samples, and such auxiliary personnel and equipment as needed shall be provided by the CONTRACTOR.
- B. At least 4 standard compression test cylinders shall be made and tested and 1 slump test from each day's placement of concrete. A minimum of four compression test cylinders shall be made and tested for each 100 cubic yards of each type and design strength of concrete placed. One cylinder shall be tested at 7 days, and two at 28 days. The fourth cylinder from each set shall be kept until the 28 day test report on the second and third cylinders in the same set has been received. If the average compressive strength of the two 28 day cylinders do not achieve the required level, the ENGINEER may elect to test the fourth cylinder immediately or test it after 56 days. If job experience indicates additional cylinder tests or other tests are required for proper control or determination of concrete quality, such tests shall be made.
- C. The ENGINEER shall have the right to reject concrete represented by low strength tests. Rejected concrete shall be promptly removed and replaced with concrete

conforming to the specification. The decision of the ENGINEER as to whether substandard concrete is to be accepted or rejected shall be final.

END OF SECTION

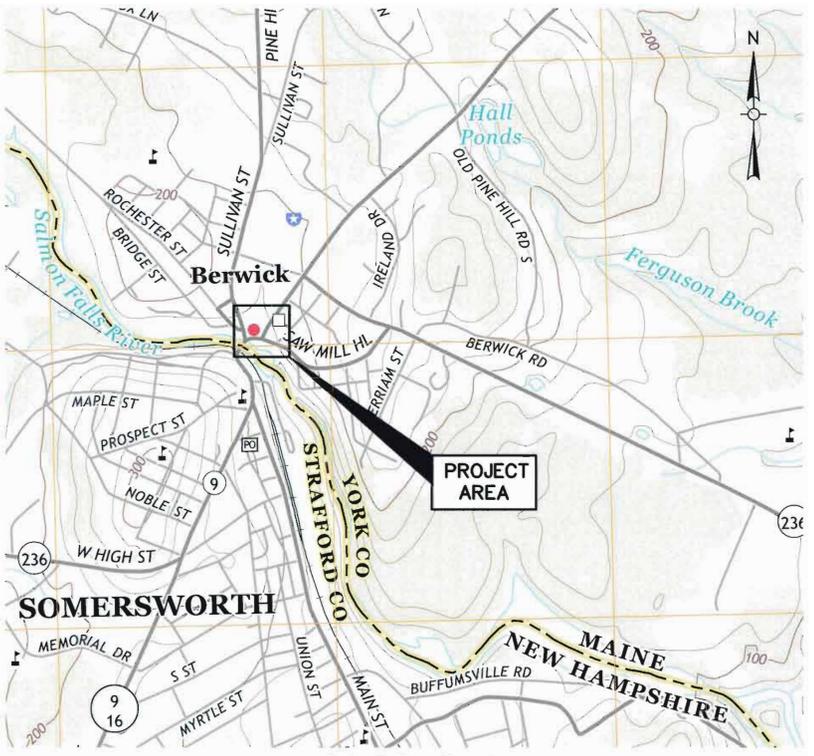
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# TOWN OF BERWICK, MAINE FORMER PRIME TANNING SITE LOTS 4, 5 & 6

## BUILDING ABATEMENT AND DEMOLITION

APRIL 2016

EPA GRANT # BF-00A00037  
WESTON & SAMPSON JOB NO. 2150752



LOCATION PLAN  
N.T.S.



**DRAWING INDEX**

- G-1 ABBREVIATIONS, NOTES AND LEGEND
- C-1 EXISTING SITE CONDITIONS
- C-2 BUILDING DEMOLITION / UTILITY ABANDONMENT PLAN
- C-3 TRAFFIC MANAGEMENT & EROSION/SEDIMENT CONTROL PLAN
- C-4 SITE RESTORATION PLAN
- C-5 DETAIL SHEET



Credere Associates, LLC  
776 Main Street  
Westbrook, ME 04092



Weston & Sampson Engineers, Inc.  
100 International Drive, Suite 152  
Portsmouth, NH 03801





SANITARY SEWER MANHOLE TABLE

MANHOLE#	RIM	INVERTS	(A)	(B)	(C)	(D)
S1	176.97	168.1	171.9	168.2	168.0	
S2	176.70	168.2	168.0	167.9	169.9	
S3	177.90	167.2	167.1			
S4	179.02	171.9	172.0	174.7		
S5	179.72	166.5	166.5			
S6	188.10	179.2	181.4	181.3		
S7	181.84	166.0	166.0			
S8	178.31	FILLED WITH WATER				
S9	178.49	FILLED WITH WATER				
S10	179.57	FILLED WITH WATER				
S11	179.31	FILLED WITH WATER				
S12	179.15	FILLED WITH WATER				
S13	179.60	FILLED WITH WATER				
S14	183.54	176.2	176.3			
S15	188.01	174.6	174.7	174.6	174.7	
S16	183.99	173.7	176.2	173.6		
S17	182.70	173.2	173.2			
S18	178.10	170.3	170.3			
S19	177.34	168.6	168.2	167.8		
S20	176.67					
S21		171.1				
S22		BURIED				

DRAINAGE STRUCTURE TABLE

STRUCTURE#	RIM	INVERTS	(A)	(B)	(C)	SUMP
D1	176.32	173.7				171.9
D2	176.24	172.8				169.7
D3	176.83	171.2	171.2	172.2		A&B=BOX
D4	176.70	171.2	171.2			A&B=BOX
D5	176.55	173.4	173.6			172.0
D6	177.56	173.2	172.9			171.4
D7	181.13	175.1				173.1
D8	182.23	180.5				180.4
D9	181.98	178.5	178.5			178.5
D10	181.70	180.0				179.8
D11	181.79	NO PIPE	VISIBLE (SILTED)			
D12	182.45	178.6	179.0			178.3
D13	182.74	178.7	178.2			177.7
D14	181.98	177.6				178.8
D15	185.36	179.6	179.6	181.3		177.8
D16	182.11	176.9	178.1	178.4		180.9 SPILLWAY
D17	182.11	178.1	178.1			
D18	180.96	178.0	178.0			
D19	180.62	176.2	178.2			
D20	180.29	174.8	174.8			
D21	181.90	174.7	174.7			
D22	182.30	NO PIPE	VISIBLE (SILTED)			
D23	179.22	177.9				177.7
D24	179.09	NO PIPE	VISIBLE (SILTED)			
D25	181.62	176.7	176.9			174.4
D26	191.45	185.4				183.4

- LOCUS PARCEL INFORMATION - OWNER: TOWN OF BERWICK TAKEN FOR NON-PAYMENT OF TAXES TAX MAP U-4, LOTS 146-1 THROUGH 146-7
- WATER UTILITY LOCATIONS SHOWN WERE OBTAINED ON 2007 AND DECEMBER 1-11, 2015, FROM CIVIL CONSULTANTS OF SOUTH BERWICK, TITLED EXISTING CONDITIONS PLAN - PRIME TANNING SITE TANNERY ROW SUBDIVISION, 20 SULLIVAN STREET, BERWICK, YORK COUNTY, MAINE.
- FIELD MEASUREMENTS WERE PERFORMED WITH A COMBINATION OF PRECISE G.P.S. EQUIPMENT AND AN ELECTRONIC TOTAL STATION. ELEVATIONS ARE DERIVED BY GPS METHODS AND HAVE AN APPROXIMATE ACCURACY OF 0.1'.
- BOUNDARY LINES ARE TAKEN FROM A PLAN PREPARED BY CIVIL CONSULTANTS, DATED OCTOBER 2, 2014, TITLED: "FINAL PLAN - TANNERY ROW, SUBDIVISION OF LAND OF PRIME TANNING CO., INC., 20 SULLIVAN STREET, BERWICK, YORK COUNTY, MAINE", RECORDED AT THE YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 372, PAGE 14; SEE ALSO PLAN BOOK 372, PAGE 13.
- DRAIN LINES AS SHOWN ARE BASED ON STRUCTURES OBSERVED AT GROUND LEVEL AND APPARENT PIPE CONNECTIONS AS OBSERVED AT THE STRUCTURES. WHERE NO SURFACE STRUCTURES WERE AVAILABLE, PIPE ROUTING WAS TAKEN FROM DESIGN PLANS OBTAINED FROM PRIME TANNING IN 2007.
- WATER LINE LOCATIONS AS SHOWN ARE BASED ON STRUCTURES OBSERVED AT GROUND LEVEL AND PIPE CONNECTIONS AS SHOWN ON PLANS MADE AVAILABLE BY THE BERWICK WATER DISTRICT AND DESIGN PLANS OBTAINED FROM PRIME TANNING IN 2007.
- SEWER LINE LOCATIONS AS SHOWN ARE BASED ON STRUCTURES OBSERVED AT GROUND LEVEL AND PIPE CONNECTIONS AS SHOWN ON PLANS MADE AVAILABLE BY THE BERWICK SEWER DISTRICT. BURIED MANHOLE LOCATIONS AND FORCE MAIN LOCATIONS ARE BASED ON INFORMATION FROM THE BERWICK SEWER DISTRICT.
- PROPANE GAS LINE LOCATIONS ARE BASED ON SURFACE VISIBLE CONNECTION POINTS.
- ELECTRIC LINE LOCATIONS ARE BASED ON SURFACE VISIBLE STRUCTURES. IT APPEARS THAT TRANSFORMERS WERE REMOVED WHEN THE SITE WAS DECOMMISSIONED. NO EVIDENCE OF PRIMARY ELECTRIC FEEDS TO THE SITE WERE OBSERVED. THE ELECTRIC UTILITY PROVIDER MUST BE CONTACTED TO DETERMINE LOCATIONS OF UNDERGROUND ELECTRIC LINES ENTERING THE SITE (IF ANY EXIST) PRIOR TO EXCAVATION.
- THE UTILITIES AS SHOWN MAY NOT REPRESENT ALL OF THE UTILITIES PRESENT ON THIS SITE. CONTRACTORS WILL CONTACT DIGSAFE TO VERIFY THE LOCATIONS OF BURIED UTILITIES.
- BEARINGS, DISTANCES AND COORDINATES AS SHOWN HEREON ARE GRID QUANTITIES BASED ON THE MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD 83. COORDINATES WERE DERIVED FROM PRECISE G.P.S. MEASUREMENTS TIED TO N.G.S. STATIONS BOSTON WAAS 1 CORS ARP, BARTLETT CORS ARP, AND BRUNSWICK 2 (NAD83 CORS98 EPOCH 2002.0000) USING THE NGS OPUS WEBSITE. TO CONVERT PLAN DISTANCES TO "GROUND DISTANCES" MULTIPLY BY A SCALE FACTOR OF 0.99998867.
- ELEVATIONS ARE BASED ON THE SAME GPS SURVEY AND NAVD88. SEE BENCH MARKS HEREON.
- DEMOLITION SHALL ONLY OCCUR ON LOTS 4, 5, & 6, WHICH ARE SHOWN SHADED. CONTRACTOR MAY USE LOTS 1, 2 & 3 FOR STAGING OF MATERIALS AND EQUIPMENT. DEMOLITION OF THE PRETREATMENT PLANT WILL OCCUR AS AN ALTERNATE BID IF APPROVED AS AN ITEM.

LEGEND:

- LOTS 3 (PARTIAL), 4, 5, 6 & BID ALT-1
- DRAIN
- WATER
- SEWER
- OVERHEAD WIRE

**Weston & Sampson**  
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No.	Date	Dr. By	Ch. By	App. By	Description
A					P
P					R
O					O
V					V
E					E
D					D

4/11/16  
DATE

REGISTERED PROFESSIONAL ENGINEER

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TOWN OF BERWICK, MAINE  
 FORMER PRIME TANNING SITE  
 BUILDING ABATEMENT AND DEMOLITION  
**EXISTING SITE CONDITIONS**  
**LOTS 4, 5, & 6**

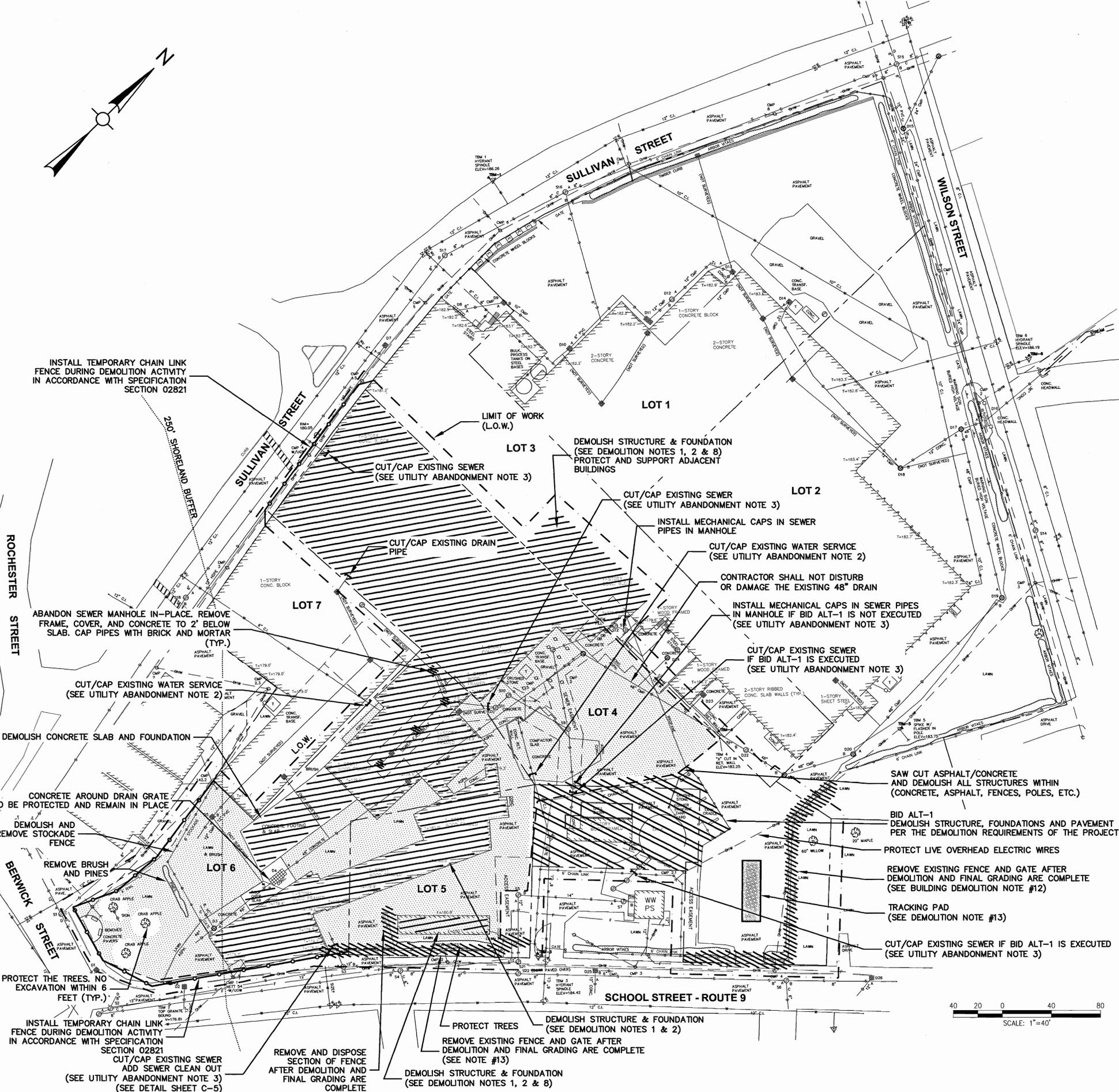
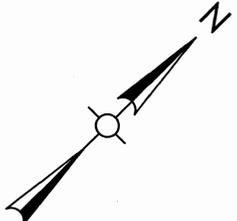
SCALE: 1"=40'

CONTRACT: 2150752

APP. BY: BJM  
 CHK. BY: MER  
 TLD: TLD  
 CMP: CMP

**C-1**

SHEET 3 OF 7



**BUILDING DEMOLITION NOTES:**

- CONTRACTOR SHALL DEMOLISH ABOVE AND BELOW GRADE STRUCTURES ON LOTS 4, 5 AND 6 IN ACCORDANCE WITH SECTION 02220-BUILDING DEMOLITION, AND AS INDICATED BY THE CONTRACT DRAWINGS. CONTRACTOR SHALL PROTECT ADJACENT BUILDINGS TO REMAIN, INCLUDING ANY FOUNDATIONS SHARED WITH THE BUILDINGS TO BE DEMOLISHED, AND SHALL REPAIR ANY DAMAGE TO ADJACENT BUILDINGS RESULTING FROM DEMOLITION ACTIVITIES AT NO ADDITIONAL EXPENSE TO THE OWNER.
- WITHIN THE LIMIT OF LOTS 4, 5 AND 6, ALL ABOVE GRADE STRUCTURES ARE TO BE REMOVED IN THEIR ENTIRETY AND PROPERLY DISPOSED. CONTRACTOR SHALL ALSO DEMOLISH AND REMOVE ALL IMPROVEMENTS AND APPURTENANCES ASSOCIATED WITH THE STRUCTURES (E.G., PLATFORMS, STAIRS, PORCHES, BUILD-OUTS, ETC.).
- EXCEPT AS REQUIRED TO PERFORM SPECIFIC WORK ACTIVITIES RELATED TO UTILITY DISCONNECTION/ABANDONMENT, CONTRACTOR SHALL CONFINE HIS OPERATIONS, INCLUDING ALL STOCKPILING, STORAGE AND STAGING OF DEMOLITION DEBRIS MATERIAL AND EQUIPMENT, TO AREAS WITHIN THE LIMIT OF WORK.
- THE CONTRACTOR SHALL COORDINATE WITH BERWICK WATER DEPARTMENT TO OBTAIN AND PAY FOR WATER SERVICE FOR DEMOLITION ACTIVITIES. IF USED, THE CONTRACTOR SHALL INSTALL A TEMPORARY METERED WATER LINE WITH BACKFLOW PREVENTER AND SHALL PROVIDE PROTECTION FOR THE HYDRANT. ALTERNATIVELY, PROVIDE WATER TRUCKS FOR DUST CONTROL.
- IF NEEDED, CONTRACTOR SHALL COORDINATE WITH CENTRAL MAINE POWER COMPANY FOR TEMPORARY ELECTRICAL SERVICE FOR DEMOLITION ACTIVITIES.
- WHERE APPLICABLE, BACKFILL DEMOLISHED BUILDING EXCAVATIONS AND APPLY EROSION/SEDIMENTATION CONTROLS AS NEEDED TO DISTURBED AREAS.
- CONTRACTOR SHALL PROVIDE HAYBALES AND SILT FENCING OR OTHER EROSION CONTROLS AS INDICATED ON THE DRAWING AND DETAILS. SEE DRAWING C-3 AND C-4 FOR LOCATIONS AND DETAILS.
- BELOW GRADE STRUCTURES (INCLUDING FOUNDATIONS) SHALL BE REMOVED TO A DEPTH OF 2-FOOT BELOW TOP OF PROPOSED SITE RESTORATION GRADES (REFER TO SHEET C-4), WITH THE EXCEPTION OF THOSE LOCATIONS INDICATED ON THE DRAWING AND AS DESCRIBED IN NOTE 9. ALL BUILDING FLOOR SLABS WITHIN THE DEMOLITION LIMITS SHALL BE REMOVED IN THEIR ENTIRETY.
- DEMOLITION OF THE BUILDING ON LOT 4 SHALL REQUIRE STRUCTURED DISCONNECTION FROM THE LOT 3 AND 7 BUILDINGS AND SUPPORT OF THE REMAINING LOT 3 AND 7 STRUCTURES AS NECESSARY TO MAINTAIN THEIR STRUCTURAL INTEGRITY. CONTRACTOR SHALL SUBMIT A BUILDING DISCONNECTION AND SUPPORT PLAN STAMPED BY A LICENSED PROFESSIONAL STRUCTURAL ENGINEER, DESCRIBING THE MEANS AND METHODS FOR DISCONNECTION AND SUPPORT OF LOT 3 AND 7 BUILDINGS, FOR REVIEW AND APPROVAL BY THE ENGINEER.
- CONTRACTOR SHALL MAINTAIN ACCESS ROUTES FOR EMERGENCY SERVICES VEHICLES. ANY CONSTRUCTION DEBRIS OUTSIDE THE LIMIT OF WORK OR OUTSIDE OF CONTRACTOR STAGING AREA SHALL BE CLEANED UP IMMEDIATELY.
- THERE IS AN EXISTING 48" UNDERGROUND CULVERT THAT CONVEYS A NATURAL STREAM THROUGH THE PROPERTY. ALL STORMWATER DRAINAGE STRUCTURES OUTFALL INTO THIS CULVERT. CONTRACTOR SHALL PROTECT CULVERT AND PREVENT DEBRIS AND SEDIMENT FROM ENTERING THIS CULVERT AND CONNECTED CATCH BASINS. ALL STORMWATER DRAINAGE STRUCTURES SHALL BE PROTECTED AND SHALL REMAIN IN-PLACE. DAMAGE TO DRAIN STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST.
- EXISTING PERIMETER FENCING SHALL BE PROTECTED AND SHALL REMAIN IN-PLACE. CONTRACTOR MAY REMOVE AND REPLACE FENCE FOR CONVENIENCE OR TO PREVENT DAMAGE. FENCE THAT IS DAMAGED SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST. SEVERAL SECTIONS OF EXISTING FENCE AS SHOWN, SHALL BE REMOVED/DEMOLISHED AFTER DEMOLITION AND SITE RESTORATION.
- TRACKING PAD SHALL BE PLACED IN A LOCATION WHERE CONSTRUCTION VEHICLES SHALL DRIVE OVER IT UPON EXITING THE SITE. THE PAD SHALL BE APPROXIMATELY 50'X15'X10" OF CRUSHED 3" STONE OVER A LAYER 12OZ/SY NON WOVEN GEOTEXTILE. REMOVE PAD UPON COMPLETION OF CONSTRUCTION.

**UTILITY ABANDONMENT NOTES:**

- CONTRACTOR SHALL COORDINATE WITH CENTRAL MAINE POWER CO. FOR DISCONNECTION AND REMOVAL OF ELECTRICAL UTILITY. ALL ELECTRICAL LINES SHALL BE DISCONNECTED AT THE NEAREST UTILITY POLE OFF OF LOTS 4, 5 & 6. CONTRACTOR SHALL PROVIDE UTILITY DISCONNECT CERTIFICATE PRIOR TO START OF DEMOLITION.
- CONTRACTOR SHALL NOTE THAT THE WATER UTILITIES INDICATED HAVE NOT BEEN FIELD VERIFIED FOR LOCATION OR EXISTENCE OF LIVE SERVICE. CONTRACTOR SHALL TAKE APPROPRIATE MEASURES (SUCH AS TEST PITTING AND TAPPING OF PIPES) TO DETERMINE WATER UTILITY LOCATIONS AND VERIFY WHETHER SERVICE IS LIVE. CONTRACTOR SHALL COORDINATE WITH BERWICK WATER DEPARTMENT (CONTACT CHRIS WEISMANN AT 207-698-1231) FOR WATER SERVICE INVESTIGATION AND DISCONNECTION. CONTRACTOR SHALL DISCONNECT ALL WATER UTILITY SERVICES TO THE BUILDING, WITH THE EXCEPTION OF WATER PIPES THAT SERVICE ADJACENT BUILDINGS. PIPING TO THE BUILDING AS NOTED ON PLANS SHALL BE ABANDONED AND PLUGGED IN ACCORDANCE WITH SPECIFICATION SECTION 02221-ABANDONMENT OF EXISTING WATER MAINS.
- CONTRACTOR SHALL DISCONNECT SEWER UTILITY SERVICE TO THE BUILDING AT LOCATIONS SHOWN, IN ACCORDANCE WITH SPECIFICATION SECTION 02222-ABANDONMENT OF SEWERS AND DRAINS. CONTRACTOR SHALL INSTALL MECHANICAL PLUGS IN THE OPEN ENDS OF SEWER PIPE. PLUGGED SEWER PIPE SHALL BE ABANDONED IN PLACE. ALL CUTTING AND CAPPING OF SEWER SERVICE PIPING AT THE SITE SHALL BE INSPECTED BY THE BERWICK SEWER DISTRICT (CONTACT 207-384-2760). THE CONTRACTOR SHALL SCHEDULE THE INSPECTION THROUGH THE OFFICE OF THE SEWER DISTRICT.
- CONTRACTOR SHALL COORDINATE WITH FAIRPOINT COMMUNICATIONS FOR DISCONNECTION AND REMOVAL OF TELEPHONE UTILITY.
- FOR BUILDING SEWER, DRAIN, OR WATER SERVICE CONNECTIONS UNCOVERED DURING DEMOLITION THAT ARE NOT SHOWN HEREIN, CONTRACTOR SHALL CONDUCT DYE TESTING, TEST PITTING OR OTHER APPROPRIATE MEANS TO DETERMINE THE LOCATION OF SEWER/DRAIN/WATER PIPING FOR THE PURPOSES OF ABANDONMENT. CONTRACTOR SHALL ABANDON SUCH PIPES PER THE REQUIREMENTS OF THE SPECIFICATIONS AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL PROVIDE SILT PROTECTION FOR CATCH BASINS AS SPECIFIED IN SECTION 01570-ENVIRONMENTAL PROTECTION AND AS SHOWN ON SHEET C-4 AND C-5.
- IF ASBESTOS CEMENT PIPE IS ENCOUNTERED AND IS DAMAGED/BROKEN DURING FOUNDATION DEMOLITION ACTIVITIES, IT SHALL BE ABATED PER SPECIFICATION SECTION 02111 - ASBESTOS ABATEMENT FOR UNDERGROUND UTILITIES. UNDAUNAGED ASBESTOS CEMENT PIPE UNCOVERED DURING DEMOLITION SHALL BE PLUGGED AND ABANDONED IN PLACE IN ACCORDANCE WITH SPECIFICATION SECTION-02222.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF ALL FEES ASSOCIATED WITH ALL UTILITY INVESTIGATIONS, DISCONNECTIONS, CUTTING/CAPPING, DECOMMISSIONING, AND/OR ABANDONMENT NECESSARY TO COMPLETE THE WORK OF THIS PROJECT.
- STORM DRAIN CONNECTIONS FROM THE BUILDINGS (SUCH AS ROOF LEADERS), IF ANY, SHALL BE SEVERED AND CAPPED. DRAINS SHALL BE CAPPED A MINIMUM OF 2 FEET BELOW GRADE. ALL BELOW GRADE CUT/CAP LOCATIONS SHALL BE SURVEYED.

**Weston & Sampson**  
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 (603) 431-9897 (603) 431-9897  
 www.westonsampson.com

No.	Date	Dr. By	Ch. By	App. By	Description
					P O V E D
					4/1/16
					DATE

REGISTERED PROFESSIONAL ENGINEER

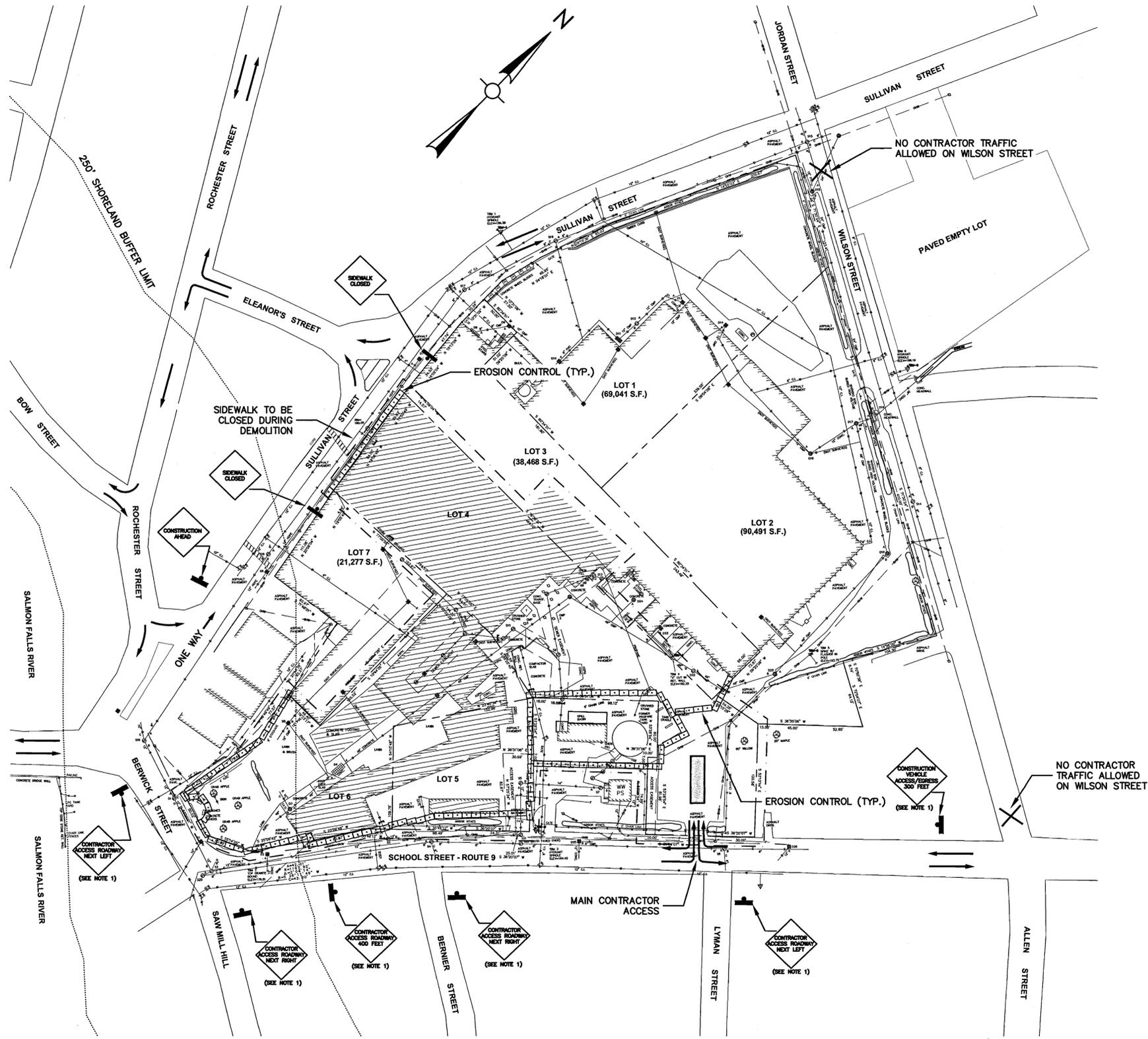
**TOWN OF BERWICK, MAINE**  
 FORMER PRIME TANKING SITE  
 BUILDING ABATEMENT AND DEMOLITION  
**BUILDING DEMOLITION / UTILITY ABANDONMENT PLAN**  
**LOTS 4, 5 & 6**

SCALE: 1"=40'

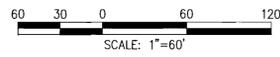
CONTRACT: 2150752

FILE NO. C-2

SHEET 4 OF 7



**TRAFFIC MANAGEMENT & EROSION / SEDIMENT CONTROL PLAN**



**GENERAL EROSION CONTROL NOTES:**

1. EROSION CONTROL SHALL BE INSTALLED AT A MINIMUM AT LOCATIONS SHOWN ON PLANS. IN AREAS WHERE EROSION CONTROL/SILT FENCE AND STRAW BALES ARE TO BE INSTALLED ON PAVEMENT (ASPHALT OR CONCRETE), CONTRACTOR SHALL USE ONE OF THE FOLLOWING CONTROLS:
  - A. SINGLE ROW OF STRAW BALES (END TO END) WRAPPED WITH A NON-WOVEN FABRIC. FABRIC SHALL BE SECURED WITH PLASTIC TIES. THE STRAW BALES SHALL BE WRAPPED/SECURED TO FORM A SINGLE EROSION CONTROL UNIT.
  - B. AN EROSION CONTROL STRAW WATTLE, CONTRACTOR SHALL PROVIDE METHOD TO TEMPORARILY SECURE WATTLE TO PAVEMENT WITHOUT DAMAGE TO PAVEMENT AS APPROVED BY THE ENGINEER.
2. CONTRACTOR SHALL INSTALL EROSION AND SEDIMENT CONTROL OF FILTER BAGS AND STRAW BALES AROUND EACH CATCH BASIN WITHIN THE LIMIT OF WORK. FILTER BAGS SHALL BE INSTALLED IN CATCH BASINS WITHIN 200 FEET FROM OUTSIDE THE LIMIT OF WORK.
3. EROSION CONTROL INSTALLED AROUND AREAS GRADED WITH ABC MATERIAL OR GRAVEL SHALL BE REMOVED AFTER FINAL GRADING AND COMPACTING. EROSION CONTROL INSTALLED AROUND THE LOADED, SEEDED AND MULCHED AREA IN LOT 6 SHALL BE REMOVED AFTER VEGETATION IS ESTABLISHED AND APPROVAL OF ENGINEER. CATCH BASIN PROTECTION SHALL BE INSPECTED AND CLEANED WEEKLY AND AFTER EACH PRECIPITATION EVENT. CATCH BASIN PROTECTION SHALL BE REMOVED ONLY AFTER APPROVAL OF ENGINEER.

**TRAFFIC MANAGEMENT NOTES:**

1. CONTRACTOR SHALL ASSUME THE INSTALLATION OF A MINIMUM OF 9 (NINE) SIGNS AS SHOWN ON THIS DRAWING. THE ACTUAL LOCATIONS OF THE SIGN MAY VARY FROM WHAT IS SHOWN. LOCATIONS OF SIGNS SHALL BE APPROVED BY THE ENGINEER.
2. ALL CONSTRUCTION SIGNAGE SHALL BE PER MUTCD STANDARDS.
3. ALL MATERIAL HAULING VEHICLES SHALL BE COMPLETELY TARPED PRIOR TO LEAVING THE SITE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ACCESS ROUTES. ANY SITE RELATED DEBRIS OR UNCLEAN PAVEMENT SHALL BE CLEANED UP IMMEDIATELY.
5. STREETS WITHIN 200' OF A CONSTRUCTION ACCESS SHALL BE SWEEPED DAILY DURING ACTIVE DEBRIS HAULING.
6. IF ANY STREETS ARE TO BE CLOSED (PARTIALLY OR FULLY), CONTRACTOR SHALL PREPARE A TRAFFIC MANAGEMENT PLAN. THE PLAN SHALL AT A MINIMUM CONTAIN THE FOLLOWING:
  - A. PLAN SHOWING CLOSED AND ALTERNATE ROUTES.
  - B. TRAFFIC FLAGGERS
  - C. DATES/TIME OF CLOSURE
 PLAN SHALL BE SUBMITTED TO ENGINEER/TOWN FOR APPROVAL A MINIMUM OF 7-DAYS PRIOR TO CLOSURE.

**PEDESTRIAN PROTECTION:**

1. THE SIDEWALK ADJACENT TO THE WEST END OF THE BUILDING ON LOT 4 ALONG SULLIVAN STREET SHALL BE CLOSED TO PEDESTRIAN TRAFFIC DURING DEMOLITION OF THAT BUILDING. THE CONTRACTOR SHALL SUBMIT A PEDESTRIAN PROTECTION PLAN THAT PROVIDES:
  - A. ALTERNATE ROUTE FOR PEDESTRIANS
  - B. SIGN LOCATIONS
  - C. TEMPORARY CROSS WALK (IF NEEDED)
 PLANS SHALL BE SUBMITTED TO ENGINEER/TOWN FOR APPROVAL.

**LEGEND:**

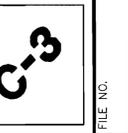
- TEMPORARY SIGNAGE
- TRAFFIC FLOW PATTERN
- STRAW BALES, WATTLE OR OTHER APPROVED EROSION CONTROL DEVICE

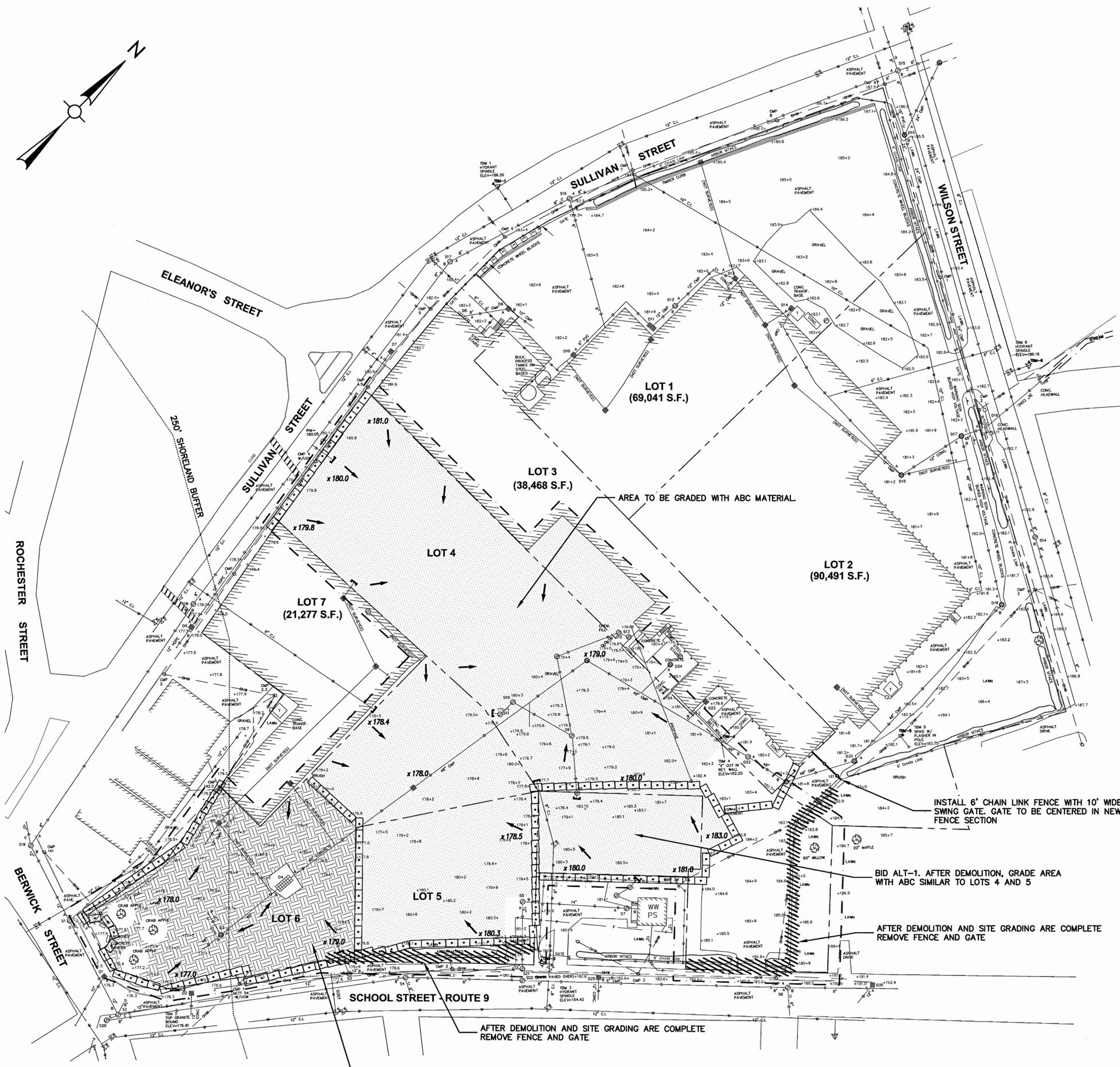
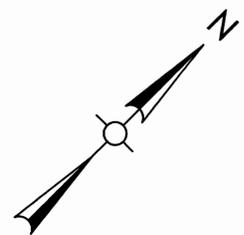
No.	Date	Dr. By	Ch. By	App. By	Description
					A P P R O V E D
					4/11/16 DATE



TOWN OF BERWICK, MAINE FORMER PRIME TANNING BUILDING ABATEMENT AND DEMOLITION	CONTRACT: - 2150752	DR. BY: TLD	CHK. BY: BJM	APP. BY: CMP
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TRAFFIC MANAGEMENT & EROSION / SEDIMENT CONTROL PLAN	SCALE: - AS SHOWN	FILE NO. -
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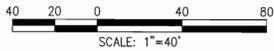
**GENERAL SITE RESTORATION NOTES:**

- CONTRACTOR SHALL REPAIR ANY DAMAGE TO ADJACENT BUILDINGS RESULTING FROM DEMOLITION ACTIVITIES AT NO ADDITIONAL EXPENSE TO THE OWNER.
- CONTRACTOR SHALL CRUSH ASPHALT, BRICK, AND CONCRETE (ABC) DEMOLITION DEBRIS ON-SITE FOR USE AS BACKFILL MATERIAL FOR DEMOLISHED BUILDING FOUNDATION EXCAVATIONS. ABC DEBRIS SHALL BE CRUSHED TO THE LIMITS FOR SELECT BACKFILL (3-INCH MINUS) FOR THIS PURPOSE IN ACCORDANCE WITH SPECIFICATION SECTION 02220 - BUILDING DEMOLITION. ABC CRUSHED MATERIAL OR CLEAN CRUSHED GRAVEL SHALL BE PLACED AND COMPACTED (MINIMUM 95% OF MAXIMUM DENSITY) TO THE FINISH GRADES INDICATED ON THE DRAWING.
- CONTRACTOR SHALL INSTALL STRAW BALES OR SILT FENCE (OR APPROVED EROSION CONTROL DEVICES) ALONG THE PERIMETER OF THE LIMIT OF WORK PRIOR TO COMMENCEMENT DEMOLITION ACTIVITIES. REFER TO SHEET C-5 FOR DETAILS OF STRAW BALES, WATTLES, AND SILT FENCE.
- CONTRACTOR SHALL GRADE THE DEMOLISHED BUILDING FOOTPRINT AND ASSOCIATED DISTURBED AREAS TOWARDS THE STORMWATER CATCH BASINS. SURFACE WATER FLOW DIRECTION ARROWS AND SPOT ELEVATIONS SHOWN ON THE DRAWING ARE PROVIDED FOR GUIDANCE PURPOSES IN ACHIEVING THE FINAL SLOPE GRADE.
- ALL STORMWATER CATCH BASINS (GRATES) SHALL BE PROTECTED AND REMAIN IN PLACE.
- CONTRACTOR SHALL BE REQUIRED TO ASSIST THE ENGINEER WITH THE ENVIRONMENTAL SITE ASSESSMENT AFTER COMPLETION OF RESTORATION ACTIVITIES. CONTRACTOR SHALL EXCAVATE UP TO 30 TEST PITS AT LOCATIONS WITHIN THE LIMIT OF WORK. TEST PITS LOCATIONS TO BE SPECIFIED BY ENGINEER. TEST PITS SHALL BE EXCAVATED 8 TO 10 FEET DEEP. ALL ASSESSMENT WORK SHALL BE DONE ABOVE GRADE. WORK TO BE COMPLETE WITHIN 2 WEEKS AFTER COMPLETION OF DEMOLITION. AFTER EACH TEST PIT IS COMPLETE AND BACKFILLED, SURFACE SHALL BE RESTORED TO EXISTING CONDITIONS.
- CONTRACTOR SHALL CREATE AS-BUILT SURVEY AND INCLUDE AT A MINIMUM: SURFACE SPOT ELEVATIONS, UTILITY CUT/CAP LOCATIONS, TEST PIT LOCATIONS, ELEVATION AND EXTENT OF MARKER LAYER IN LOT 6, NEW FENCING AND LOCATIONS WHERE EXISTING FENCE WAS REMOVED, ABC FILL LIMITS, AND SEWER CLEANOUTS. AS-BUILT PLAN SHALL BE STAMPED BY A PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR.

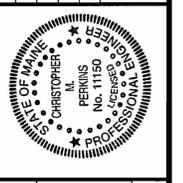
**LEGEND:**

- EXISTING BUILDING
- SPOT ELEVATION (SEE NOTE 4)
- 6-FOOT CHAINLINK FENCE
- STRAW BALE OR APPROVED EROSION CONTROL
- EXTENT OF AREA TO BE GRADED WITH CRUSHED ABC MATERIAL OR SELECT BACKFILL
- LOT 6 RESTORATION - EXTENT OF AREA TO HAVE MARKER LAYER, LOAM AND SEED (SEE DETAIL ON SHEET C-5)
- SURFACE WATER FLOW DIRECTION. CONTRACTOR TO SLOPE FINAL GRADES TOWARDS EXISTING CATCH BASINS AND AWAY FROM EXISTING BUILDINGS

RESTORE THIS AREA (SEE LOT 6 RESTORATION DETAIL)



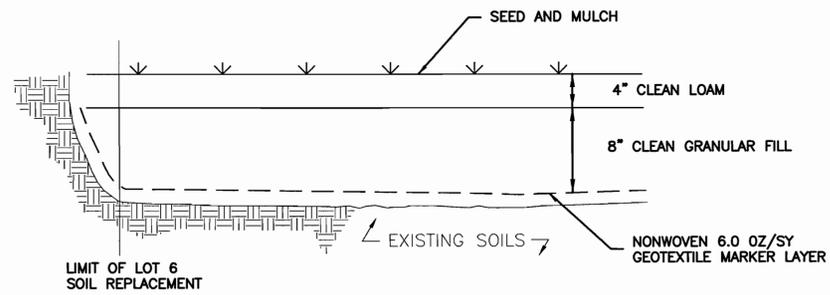
No.	Date	Dr. By	Ck. By	App. By	Description				
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									4/11/16
									DATE



TOWN OF BERWICK, MAINE  
 FORMER PRIME TANNING SITE  
 BUILDING ABATEMENT AND DEMOLITION  
**SITE RESTORATION PLAN**  
**LOTS 4, 5 & 6**

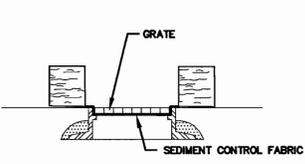
CONTRACT: AS SHOWN  
 JOB NO.: 2150752  
 TLD  
 DR. BY: MER  
 DSN. BY: B.M.  
 APP. BY: C.M.P.

FILE NO. 1

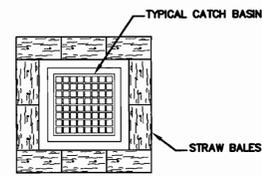


- NOTES:**
1. THE UPPER 12" OF SOIL SHALL BE REMOVED FROM LOT 6 IN THE AREA SHOWN ON THE PLAN.
  2. SOILS REMOVED FROM LOT 6 SHALL BE THOROUGHLY MIXED WITH CRUSHED ABC MATERIAL AND USED TO GRADE LOTS 4 AND 5, BUT NONE OF THE REMOVED SOILS SHALL BE USED IN THE UPPER 4" OF LOTS 4, 5 AND 6.
  3. EXISTING LOT 6 SOILS SHALL NOT BE REMOVED FROM THE PROJECT WITHOUT PERMISSION FROM THE OWNER OR ENGINEER.
  4. THE LOAM AND GRANULAR FILL USED IN LOT 6 RESTORATION SHALL BE CLEAN AND FROM OFF-SITE APPROVED SOURCES.
  5. THE GEOTEXTILE MARKER LAYER SHALL BE SURVEYED IN-PLACE. THE AS-BUILT SURVEY SHALL BE PROVIDED ON A 24"x36" PLAN STAMPED BY A PROFESSIONAL SURVEYOR OR ENGINEER.
  6. ALL LOT 6 RESTORATION AREA SHALL BE SEEDED AND MULCHED. ANY EXISTING LAWN AREA THAT IS DISTURBED BY THE CONTRACTOR OUTSIDE OF THE RESTORATION LIMITS SHALL BE LOAMED, SEEDED AND MULCHED.
  7. EROSION CONTROLS SHALL BE REMOVED BY CONTRACTOR AFTER VEGETATION IS FULLY ESTABLISHED.

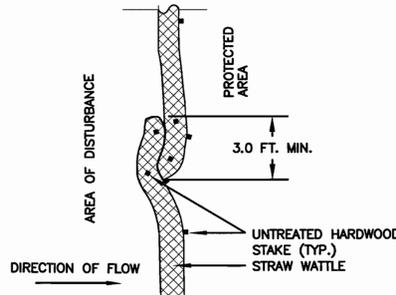
**LOT 6 RESTORATION**  
N.T.S.



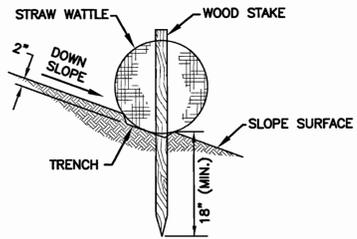
**CATCH BASIN PROTECTION**  
**DETAIL - SECTION**  
N.T.S.



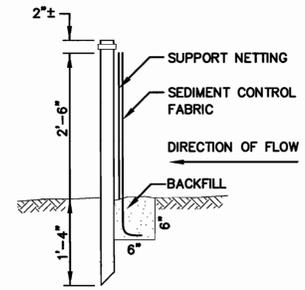
**CATCH BASIN PROTECTION**  
**DETAIL - PLAN**  
N.T.S.



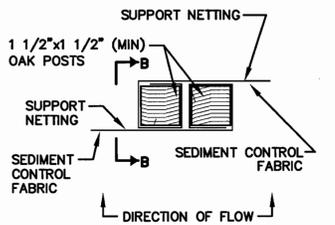
**PLAN VIEW - JOIN DETAIL**  
N.T.S.



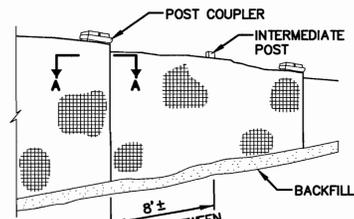
**STAKE DETAIL (ON BARE SOIL)**  
N.T.S.



**SECTION B-B**

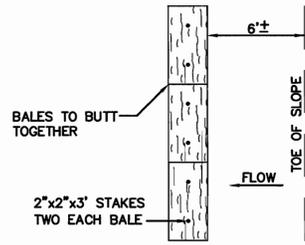


**SECTION A-A**



**ELEVATION**

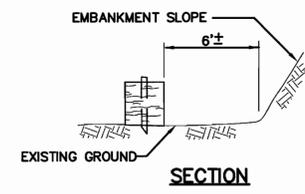
**SILT FENCE DETAIL**  
N.T.S.



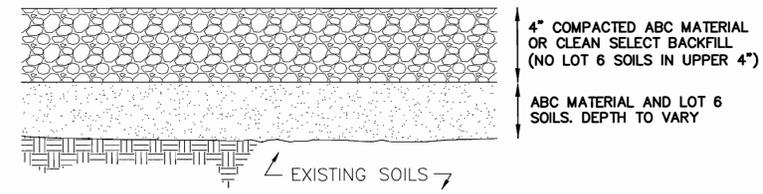
**PLAN**

**NOTE:**  
TO BE USED IN LOCATIONS WHERE THE EXISTING GROUND SLOPES AWAY FROM THE TOE OF SLOPE

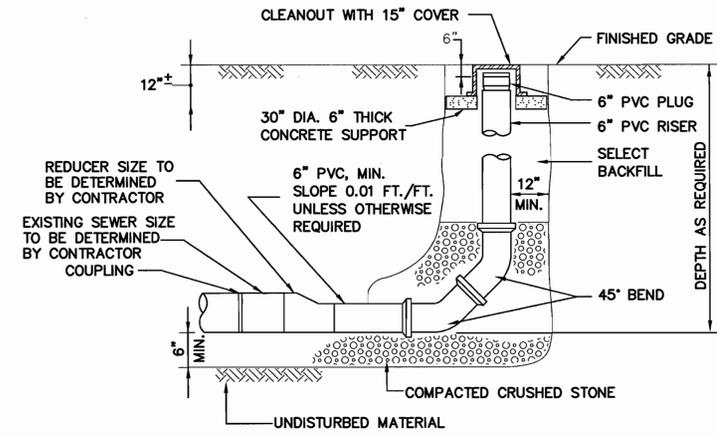
**STRAW BALES DETAIL**  
N.T.S.



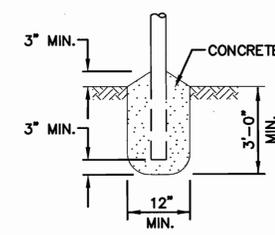
**SECTION**



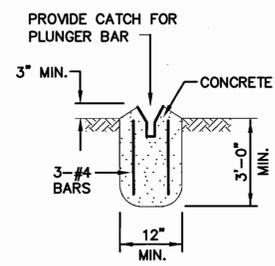
**LOT 4, 5 & 6 (PARTIAL) BACKFILL PROFILE**  
N.T.S.



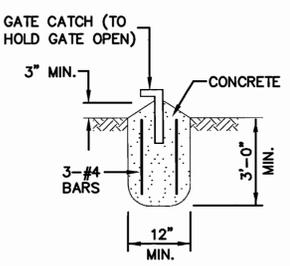
**CLEANOUT DETAIL**  
N.T.S.



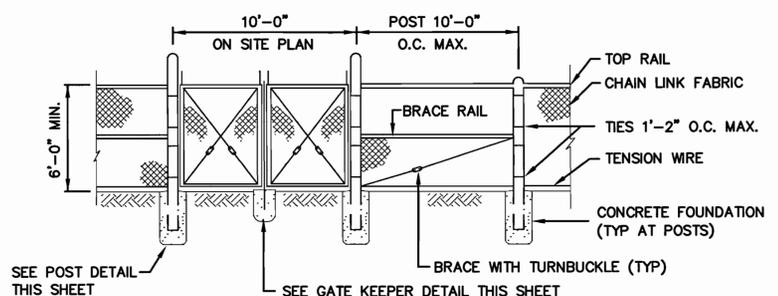
**POST DETAIL**  
N.T.S.



**GATE KEEPER DETAIL**  
N.T.S.



**GATE CATCH DETAIL**  
N.T.S.

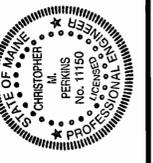


**TYPICAL CHAIN LINK FENCE AND GATE DETAIL**  
N.T.S.

- NOTES:**
1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2-3" DEEP X 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
  2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD OVERLAP A MINIMUM OF 3 FEET.
  3. SECURE THE WATTLE WITH STAKES EVERY 3-4' AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2-3" OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO SLOPE FACE.
  4. PROVIDE A 3 FT. MINIMUM OVERLAP AT ENDS OF TUBES TO JOIN IN A CONTINUOUS BARRIER AND MINIMIZE UNIMPEDED FLOW. STAKE JOINING TUBES SNUGLY AGAINST EACH OTHER TO PREVENT UNFILTERED FLOW BETWEEN THEM. SECURE ENDS OF TUBES WITH STAKES SPACED 18 IN. APART THROUGH TOPS OF TUBES.

**STRAW WATTLE DETAIL**  
N.T.S.

No.	Date	Dr. By	Ch. By	App. By	Description
					V E D
					5/1/16
					DATE



TOWN OF BERWICK, MAINE	FORMER PRIME TANNING SITE	CONTRACT:	SCALE:	AS SHOWN	CAUD NO.:	FILE NO.:	JOB NO.:	2150752	DR. BY:	TLD	CHK. BY:	BJM	APP. BY:	CMP
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**DETAIL SHEET**  
BUILDING ABATEMENT AND DEMOLITION

